



Red Hat Virtualization 4.4

REST API Guide

Using the Red Hat Virtualization REST Application Programming Interface

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Red Hat Virtualization Documentation Team

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Abstract

This guide describes the Red Hat Virtualization Manager Representational State Transfer Application Programming Interface. This guide is generated from documentation comments in the ovirt-engine-api-model code, and is currently partially complete. Updated versions of this documentation will be published as new content becomes available.

Table of Contents

PART I. INTRODUCTION	50
CHAPTER 1. REPRESENTATIONAL STATE TRANSFER	51
1.1. API PREREQUISITES	51
PART II. AUTHENTICATION AND SECURITY	52
CHAPTER 2. TLS/SSL CERTIFICATION	53
2.1. OBTAINING THE CA CERTIFICATE	53
2.2. IMPORTING A CERTIFICATE TO A CLIENT	55
CHAPTER 3. AUTHENTICATION	56
3.1. OAUTH AUTHENTICATION	56
3.2. BASIC AUTHENTICATION	57
3.3. AUTHENTICATION SESSIONS	58
3.3.1. Requesting an Authenticated Session	58
PART III. COMMON CONCEPTS	60
CHAPTER 4. TYPES	61
CHAPTER 5. IDENTIFIED TYPES	62
CHAPTER 6. OBJECTS	63
CHAPTER 7. COLLECTIONS	64
CHAPTER 8. REPRESENTATIONS	65
8.1. XML REPRESENTATION	65
8.2. JSON REPRESENTATION	65
CHAPTER 9. SERVICES	67
CHAPTER 10. SEARCHING	70
10.1. MAXIMUM RESULTS PARAMETER	70
10.2. CASE SENSITIVITY	70
10.3. SEARCH SYNTAX	70
10.4. WILDCARDS	71
10.5. PAGINATION	71
CHAPTER 11. FOLLOWING LINKS	73
CHAPTER 12. PERMISSIONS	76
CHAPTER 13. HANDLING ERRORS	77
PART IV. QUICK START EXAMPLES	78
CHAPTER 14. ACCESS API ENTRY POINT	79
CHAPTER 15. LIST DATA CENTERS	81
CHAPTER 16. LIST HOST CLUSTERS	83
CHAPTER 17. LIST LOGICAL NETWORKS	84
CHAPTER 18. LIST HOSTS	85

CHAPTER 19. CREATE NFS DATA STORAGE	86
CHAPTER 20. CREATE NFS ISO STORAGE	88
CHAPTER 21. ATTACH STORAGE DOMAINS TO DATA CENTER	90
CHAPTER 22. CREATE VIRTUAL MACHINE	92
CHAPTER 23. CREATE A VIRTUAL MACHINE NIC	94
CHAPTER 24. CREATE VIRTUAL MACHINE DISK	95
CHAPTER 25. ATTACH ISO IMAGE TO VIRTUAL MACHINE	97
CHAPTER 26. START THE VIRTUAL MACHINE	99
CHAPTER 27. REQUESTS	100
CHAPTER 28. SERVICES	132
28.1. AFFINITYGROUP	132
28.1.1. get GET	132
28.1.1.1. follow	132
28.1.2. remove DELETE	132
28.1.3. update PUT	133
28.2. AFFINITYGROUPHOST	133
28.2.1. remove DELETE	133
28.3. AFFINITYGROUPHOSTLABEL	133
28.3.1. remove DELETE	134
28.4. AFFINITYGROUPHOSTLABELS	134
28.4.1. add POST	134
28.4.2. list GET	134
28.4.2.1. follow	135
28.4.2.2. max	135
28.5. AFFINITYGROUPHOSTS	135
28.5.1. add POST	135
28.5.2. list GET	136
28.5.2.1. follow	136
28.5.2.2. max	136
28.6. AFFINITYGROUPVPM	136
28.6.1. remove DELETE	136
28.7. AFFINITYGROUPVPM LABEL	137
28.7.1. remove DELETE	137
28.8. AFFINITYGROUPVPM LABELS	137
28.8.1. add POST	137
28.8.2. list GET	138
28.8.2.1. follow	138
28.8.2.2. max	138
28.9. AFFINITYGROUPVMS	138
28.9.1. add POST	138
28.9.2. list GET	139
28.9.2.1. follow	139
28.9.2.2. max	139
28.10. AFFINITYGROUPS	139
28.10.1. add POST	140
28.10.2. list GET	140
28.10.2.1. follow	141

28.10.2.2. max	141
28.11. AFFINITYLABEL	141
28.11.1. get GET	141
28.11.1.1. follow	141
28.11.2. remove DELETE	141
28.11.3. update PUT	142
28.12. AFFINITYLABELHOST	142
28.12.1. get GET	142
28.12.1.1. follow	142
28.12.2. remove DELETE	142
28.13. AFFINITYLABELHOSTS	142
28.13.1. add POST	143
28.13.2. list GET	143
28.13.2.1. follow	143
28.14. AFFINITYLABELVM	143
28.14.1. get GET	144
28.14.1.1. follow	144
28.14.2. remove DELETE	144
28.15. AFFINITYLABELVMS	144
28.15.1. add POST	144
28.15.2. list GET	145
28.15.2.1. follow	145
28.16. AFFINITYLABELS	145
28.16.1. add POST	145
28.16.2. list GET	145
28.16.2.1. follow	146
28.16.2.2. max	146
28.17. AREA	146
28.18. ASSIGNEDAFFINITYLABEL	146
28.18.1. get GET	147
28.18.1.1. follow	147
28.18.2. remove DELETE	147
28.19. ASSIGNEDAFFINITYLABELS	147
28.19.1. add POST	147
28.19.2. list GET	148
28.19.2.1. follow	148
28.20. ASSIGNEDCPUPROFILE	148
28.20.1. get GET	148
28.20.1.1. follow	148
28.20.2. remove DELETE	148
28.21. ASSIGNEDCPUPROFILES	149
28.21.1. add POST	149
28.21.2. list GET	149
28.21.2.1. follow	149
28.21.2.2. max	149
28.22. ASSIGNEDDISKPROFILE	150
28.22.1. get GET	150
28.22.1.1. follow	150
28.22.2. remove DELETE	150
28.23. ASSIGNEDDISKPROFILES	150
28.23.1. add POST	151
28.23.2. list GET	151
28.23.2.1. follow	151

28.23.2.2. max	151
28.24. ASSIGNEDPERMISSIONS	151
28.24.1. add POST	151
28.24.2. list GET	152
28.24.2.1. follow	153
28.25. ASSIGNEDROLES	153
28.25.1. list GET	153
28.25.1.1. follow	154
28.25.1.2. max	154
28.26. ASSIGNEDTAG	154
28.26.1. get GET	154
28.26.1.1. follow	155
28.26.2. remove DELETE	155
28.27. ASSIGNEDTAGS	155
28.27.1. add POST	155
28.27.2. list GET	156
28.27.2.1. follow	156
28.27.2.2. max	156
28.28. ASSIGNEDVNICPROFILE	156
28.28.1. get GET	157
28.28.1.1. follow	157
28.28.2. remove DELETE	157
28.29. ASSIGNEDVNICPROFILES	157
28.29.1. add POST	157
28.29.2. list GET	158
28.29.2.1. follow	158
28.29.2.2. max	158
28.30. ATTACHEDSTORAGEDOMAIN	158
28.30.1. activate POST	158
28.30.2. deactivate POST	159
28.30.2.1. force	159
28.30.3. get GET	160
28.30.3.1. follow	160
28.30.4. remove DELETE	160
28.31. ATTACHEDSTORAGEDOMAINDISK	160
28.31.1. copy POST	161
28.31.2. export POST	161
28.31.3. get GET	162
28.31.3.1. follow	162
28.31.4. move POST	162
28.31.5. register POST	162
28.31.6. remove DELETE	163
28.31.7. sparsify POST	163
28.31.8. update PUT	163
28.32. ATTACHEDSTORAGEDOMAINDISKS	163
28.32.1. add POST	163
28.32.1.1. unregistered	164
28.32.2. list GET	164
28.32.2.1. disks	165
28.32.2.2. follow	165
28.32.2.3. max	165
28.33. ATTACHEDSTORAGEDOMAINS	165
28.33.1. add POST	165

28.33.2. list GET	165
28.33.2.1. follow	166
28.33.2.2. max	166
28.34. BALANCE	166
28.34.1. get GET	166
28.34.1.1. follow	166
28.34.2. remove DELETE	167
28.35. BALANCES	167
28.35.1. add POST	167
28.35.2. list GET	167
28.35.2.1. follow	168
28.35.2.2. max	168
28.36. BOOKMARK	168
28.36.1. get GET	168
28.36.1.1. follow	169
28.36.2. remove DELETE	169
28.36.3. update PUT	169
28.37. BOOKMARKS	169
28.37.1. add POST	170
28.37.2. list GET	170
28.37.2.1. follow	171
28.37.2.2. max	171
28.38. CLUSTER	171
28.38.1. get GET	171
28.38.1.1. follow	173
28.38.2. refreshglusterhealstatus POST	173
28.38.3. remove DELETE	173
28.38.4. resetemulatedmachine POST	173
28.38.5. syncallnetworks POST	174
28.38.6. update PUT	174
28.38.7. upgrade POST	175
28.38.7.1. correlation_id	175
28.39. CLUSTERENABLEDFEATURE	175
28.39.1. get GET	176
28.39.1.1. follow	176
28.39.2. remove DELETE	176
28.40. CLUSTERENABLEDFEATURES	176
28.40.1. add POST	177
28.40.2. list GET	177
28.40.2.1. follow	178
28.41. CLUSTEREXTERNALPROVIDERS	178
28.41.1. list GET	178
28.41.1.1. follow	178
28.42. CLUSTERFEATURE	178
28.42.1. get GET	179
28.42.1.1. follow	179
28.43. CLUSTERFEATURES	179
28.43.1. list GET	179
28.43.1.1. follow	180
28.44. CLUSTERLEVEL	180
28.44.1. get GET	180
28.44.1.1. follow	181
28.45. CLUSTERLEVELS	181

28.45.1. list GET	181
28.45.1.1. follow	182
28.46. CLUSTERNETWORK	182
28.46.1. get GET	182
28.46.1.1. follow	182
28.46.2. remove DELETE	182
28.46.3. update PUT	182
28.47. CLUSTERNETWORKS	183
28.47.1. add POST	183
28.47.2. list GET	183
28.47.2.1. follow	184
28.47.2.2. max	184
28.48. CLUSTERS	184
28.48.1. add POST	184
28.48.2. list GET	185
28.48.2.1. case_sensitive	185
28.48.2.2. follow	185
28.48.2.3. max	186
28.49. COPYABLE	186
28.49.1. copy POST	186
28.50. CPUPROFILE	186
28.50.1. get GET	186
28.50.1.1. follow	186
28.50.2. remove DELETE	187
28.50.3. update PUT	187
28.51. CPUPROFILES	187
28.51.1. add POST	187
28.51.2. list GET	187
28.51.2.1. follow	188
28.51.2.2. max	188
28.52. DATACENTER	188
28.52.1. cleanfinishedtasks POST	188
28.52.2. get GET	189
28.52.2.1. follow	190
28.52.3. remove DELETE	190
28.52.3.1. force	190
28.52.4. setmaster POST	190
28.52.5. update PUT	191
28.53. DATACENTERNETWORK	191
28.53.1. get GET	192
28.53.1.1. follow	192
28.53.2. remove DELETE	192
28.53.3. update PUT	192
28.54. DATACENTERNETWORKS	192
28.54.1. add POST	193
28.54.2. list GET	193
28.54.2.1. follow	193
28.54.2.2. max	193
28.55. DATACENTERS	194
28.55.1. add POST	194
28.55.2. list GET	194
28.55.2.1. case_sensitive	196
28.55.2.2. follow	196

28.55.2.3. max	196
28.56. DISK	196
28.56.1. convert POST	197
28.56.1.1. follow	197
28.56.2. copy POST	197
28.56.2.1. disk_profile	198
28.56.2.2. quota	198
28.56.2.3. storage_domain	199
28.56.3. export POST	199
28.56.4. get GET	199
28.56.4.1. all_content	199
28.56.4.2. follow	200
28.56.5. move POST	200
28.56.5.1. disk_profile	201
28.56.5.2. quota	201
28.56.6. reduce POST	201
28.56.7. refreshlun POST	201
28.56.8. remove DELETE	202
28.56.9. sparsify POST	202
28.56.10. update PUT	202
28.57. DISKATTACHMENT	203
28.57.1. get GET	203
28.57.1.1. follow	204
28.57.2. remove DELETE	204
28.57.2.1. detach_only	204
28.57.3. update PUT	204
28.58. DISKATTACHMENTS	205
28.58.1. add POST	205
28.58.2. list GET	206
28.58.2.1. follow	206
28.59. DISKPROFILE	206
28.59.1. get GET	207
28.59.1.1. follow	207
28.59.2. remove DELETE	207
28.59.3. update PUT	207
28.60. DISKPROFILES	207
28.60.1. add POST	208
28.60.2. list GET	208
28.60.2.1. follow	208
28.60.2.2. max	208
28.61. DISKSNAPSHOT	208
28.61.1. get GET	209
28.61.1.1. follow	209
28.61.2. remove DELETE	209
28.62. DISKSNAPSHOTS	209
28.62.1. list GET	209
28.62.1.1. follow	210
28.62.1.2. include_active	210
28.62.1.3. include_template	210
28.62.1.4. max	210
28.63. DISKS	210
28.63.1. add POST	210
28.63.2. list GET	213

28.63.2.1. case_sensitive	213
28.63.2.2. follow	214
28.63.2.3. max	214
28.64. DOMAIN	214
28.64.1. get GET	214
28.64.1.1. follow	214
28.65. DOMAINGROUP	215
28.65.1. get GET	215
28.65.1.1. follow	215
28.66. DOMAINGROUPS	215
28.66.1. list GET	215
28.66.1.1. case_sensitive	216
28.66.1.2. follow	216
28.66.1.3. max	216
28.67. DOMAINUSER	216
28.67.1. get GET	216
28.67.1.1. follow	217
28.68. DOMAINUSERGROUPS	217
28.68.1. list GET	217
28.68.1.1. follow	217
28.69. DOMAINUSERS	217
28.69.1. list GET	218
28.69.1.1. case_sensitive	218
28.69.1.2. follow	219
28.69.1.3. max	219
28.70. DOMAINS	219
28.70.1. list GET	219
28.70.1.1. follow	220
28.70.1.2. max	220
28.71. ENGINEKATELLOERRATA	220
28.71.1. list GET	220
28.71.1.1. follow	221
28.71.1.2. max	221
28.72. EVENT	221
28.72.1. get GET	221
28.72.1.1. follow	222
28.72.2. remove DELETE	222
28.73. EVENTSUBSCRIPTION	222
28.73.1. get GET	222
28.73.2. remove DELETE	223
28.74. EVENTSUBSCRIPTIONS	223
28.74.1. add POST	223
28.74.2. list GET	224
28.74.2.1. follow	225
28.74.2.2. max	225
28.75. EVENTS	225
28.75.1. add POST	225
28.75.2. list GET	226
28.75.2.1. case_sensitive	227
28.75.2.2. follow	227
28.75.2.3. from	228
28.75.2.4. max	228
28.75.2.5. search	228

28.75.3. undelete POST	229
28.76. EXTERNALCOMPUTERESOURCE	229
28.76.1. get GET	229
28.76.1.1. follow	230
28.77. EXTERNALCOMPUTERESOURCES	230
28.77.1. list GET	230
28.77.1.1. follow	231
28.77.1.2. max	231
28.78. EXTERNALDISCOVEREDHOST	231
28.78.1. get GET	231
28.78.1.1. follow	232
28.79. EXTERNALDISCOVEREDHOSTS	232
28.79.1. list GET	232
28.79.1.1. follow	233
28.79.1.2. max	233
28.80. EXTERNALHOST	233
28.80.1. get GET	233
28.80.1.1. follow	234
28.81. EXTERNALHOSTGROUP	234
28.81.1. get GET	234
28.81.1.1. follow	235
28.82. EXTERNALHOSTGROUPS	235
28.82.1. list GET	235
28.82.1.1. follow	236
28.82.1.2. max	236
28.83. EXTERNALHOSTPROVIDER	236
28.83.1. get GET	236
28.83.1.1. follow	237
28.83.2. importcertificates POST	237
28.83.3. remove DELETE	237
28.83.4. testconnectivity POST	237
28.83.5. update PUT	238
28.84. EXTERNALHOSTPROVIDERS	238
28.84.1. add POST	238
28.84.2. list GET	238
28.84.2.1. follow	239
28.84.2.2. max	239
28.85. EXTERNALHOSTS	239
28.85.1. list GET	239
28.85.1.1. follow	240
28.85.1.2. max	240
28.86. EXTERNALNETWORKPROVIDERCONFIGURATION	240
28.86.1. get GET	240
28.86.1.1. follow	240
28.87. EXTERNALNETWORKPROVIDERCONFIGURATIONS	240
28.87.1. list GET	240
28.87.1.1. follow	241
28.88. EXTERNALPROVIDER	241
28.88.1. importcertificates POST	241
28.88.2. testconnectivity POST	241
28.89. EXTERNALPROVIDERCERTIFICATE	242
28.89.1. get GET	242
28.89.1.1. follow	242

28.90. EXTERNALPROVIDERCERTIFICATES	242
28.90.1. list GET	243
28.90.1.1. follow	243
28.90.1.2. max	243
28.91. EXTERNALTEMPLATEIMPORTS	243
28.91.1. add POST	244
28.92. EXTERNALVMIMPORTS	244
28.92.1. add POST	244
28.93. FENCEAGENT	245
28.93.1. get GET	245
28.93.1.1. follow	246
28.93.2. remove DELETE	246
28.93.3. update PUT	246
28.94. FENCEAGENTS	246
28.94.1. add POST	247
28.94.2. list GET	248
28.94.2.1. follow	248
28.94.2.2. max	249
28.95. FILE	249
28.95.1. get GET	249
28.95.1.1. follow	249
28.96. FILES	249
28.96.1. list GET	249
28.96.1.1. case_sensitive	250
28.96.1.2. follow	250
28.96.1.3. max	250
28.97. FILTER	250
28.97.1. get GET	251
28.97.1.1. follow	251
28.97.2. remove DELETE	251
28.98. FILTERS	251
28.98.1. add POST	251
28.98.2. list GET	252
28.98.2.1. follow	252
28.98.2.2. max	252
28.99. FOLLOW	252
28.100. GLUSTERBRICK	252
28.100.1. get GET	253
28.100.1.1. follow	254
28.100.2. remove DELETE	254
28.100.3. replace POST	254
28.101. GLUSTERBRICKS	255
28.101.1. activate POST	255
28.101.2. add POST	256
28.101.3. list GET	256
28.101.3.1. follow	257
28.101.3.2. max	257
28.101.4. migrate POST	257
28.101.5. remove DELETE	258
28.101.6. stopmigrate POST	259
28.101.6.1. bricks	259
28.102. GLUSTERHOOK	259
28.102.1. disable POST	260

28.102.2. enable POST	260
28.102.3. get GET	260
28.102.3.1. follow	260
28.102.4. remove DELETE	260
28.102.5. resolve POST	261
28.103. GLUSTERHOOKS	261
28.103.1. list GET	261
28.103.1.1. follow	262
28.103.1.2. max	262
28.104. GLUSTERVOLUME	262
28.104.1. get GET	263
28.104.1.1. follow	264
28.104.2. getprofilestatistics POST	264
28.104.3. rebalance POST	264
28.104.3.1. fix_layout	264
28.104.3.2. force	265
28.104.4. remove DELETE	265
28.104.5. resetalloptions POST	265
28.104.6. resetoption POST	265
28.104.7. setoption POST	266
28.104.8. start POST	266
28.104.8.1. force	267
28.104.9. startprofile POST	267
28.104.10. stop POST	267
28.104.11. stopprofile POST	267
28.104.12. stoprebalance POST	268
28.105. GLUSTERVOLUMES	268
28.105.1. add POST	268
28.105.2. list GET	269
28.105.2.1. case_sensitive	270
28.105.2.2. follow	270
28.105.2.3. max	270
28.106. GROUP	270
28.106.1. get GET	270
28.106.1.1. follow	271
28.106.2. remove DELETE	271
28.107. GROUPS	271
28.107.1. add POST	272
28.107.2. list GET	272
28.107.2.1. case_sensitive	273
28.107.2.2. follow	273
28.107.2.3. max	273
28.108. HOST	273
28.108.1. activate POST	274
28.108.2. approve POST	275
28.108.2.1. activate	275
28.108.2.2. reboot	275
28.108.3. commitnetconfig POST	275
28.108.4. copyhostnetworks POST	276
28.108.5. deactivate POST	277
28.108.5.1. stop_gluster_service	277
28.108.6. discoveriscsi POST	277
28.108.7. enrollcertificate POST	278

28.108.8. fence POST	278
28.108.9. forceselectspm POST	279
28.108.10. get GET	279
28.108.10.1. all_content	280
28.108.10.2. follow	280
28.108.11. install POST	280
28.108.11.1. activate	282
28.108.11.2. deploy_hosted_engine	282
28.108.11.3. reboot	282
28.108.11.4. undeploy_hosted_engine	282
28.108.12. iscsidiscover POST	282
28.108.12.1. iscsi_targets	283
28.108.13. iscsilogin POST	283
28.108.14. refresh POST	283
28.108.15. remove DELETE	284
28.108.16. setupnetworks POST	284
28.108.16.1. commit_on_success	288
28.108.17. syncallnetworks POST	288
28.108.18. unregisteredstoragedomainsdiscover POST	289
28.108.19. update PUT	289
28.108.20. upgrade POST	290
28.108.20.1. reboot	290
28.108.20.2. timeout	290
28.108.21. upgradecheck POST	290
28.109. HOSTCPUUNITS	291
28.109.1. list GET	291
28.109.1.1. follow	291
28.110. HOSTDEVICE	291
28.110.1. get GET	291
28.110.1.1. follow	292
28.111. HOSTDEVICES	292
28.111.1. list GET	292
28.111.1.1. follow	292
28.111.1.2. max	293
28.112. HOSTHOOK	293
28.112.1. get GET	293
28.112.1.1. follow	293
28.113. HOSTHOOKS	293
28.113.1. list GET	293
28.113.1.1. follow	294
28.113.1.2. max	294
28.114. HOSTNIC	294
28.114.1. get GET	294
28.114.1.1. all_content	294
28.114.1.2. follow	295
28.114.2. updatevirtualfunctionsconfiguration POST	295
28.115. HOSTNICS	295
28.115.1. list GET	295
28.115.1.1. all_content	296
28.115.1.2. follow	296
28.115.1.3. max	296
28.116. HOSTNUMANODE	296
28.116.1. get GET	297

28.116.1.1. follow	297
28.117. HOSTNUMANODES	297
28.117.1. list GET	297
28.117.1.1. follow	297
28.117.1.2. max	297
28.118. HOSTSTORAGE	297
28.118.1. list GET	298
28.118.1.1. follow	298
28.118.1.2. report_status	298
28.119. HOSTS	299
28.119.1. add POST	299
28.119.1.1. activate	301
28.119.1.2. deploy_hosted_engine	301
28.119.1.3. reboot	301
28.119.1.4. undeploy_hosted_engine	301
28.119.2. list GET	301
28.119.2.1. all_content	302
28.119.2.2. case_sensitive	303
28.119.2.3. check_vms_in_affinity_closure	303
28.119.2.4. follow	303
28.119.2.5. max	303
28.119.2.6. migration_target_of	303
28.120. ICON	303
28.120.1. get GET	304
28.120.1.1. follow	304
28.121. ICONS	304
28.121.1. list GET	304
28.121.1.1. follow	305
28.121.1.2. max	305
28.122. IMAGE	305
28.122.1. get GET	305
28.122.1.1. follow	306
28.122.2. import POST	306
28.123. IMAGETRANSFER	306
28.123.1. cancel POST	308
28.123.2. extend POST	308
28.123.3. finalize POST	308
28.123.4. get GET	308
28.123.4.1. follow	309
28.123.5. pause POST	309
28.123.6. resume POST	309
28.124. IMAGETRANSFERS	309
28.124.1. add POST	309
28.124.2. list GET	310
28.124.2.1. follow	311
28.125. IMAGES	311
28.125.1. list GET	311
28.125.1.1. follow	311
28.125.1.2. max	311
28.126. INSTANCETYPE	311
28.126.1. get GET	312
28.126.1.1. follow	312
28.126.2. remove DELETE	312

28.126.3. update PUT	312
28.127. INSTANCETYPEGRAPHICSCONSOLE	313
28.127.1. get GET	313
28.127.1.1. follow	314
28.127.2. remove DELETE	314
28.128. INSTANCETYPEGRAPHICSCONSOLES	314
28.128.1. add POST	314
28.128.2. list GET	314
28.128.2.1. follow	315
28.128.2.2. max	315
28.129. INSTANCETYPENIC	315
28.129.1. get GET	315
28.129.1.1. follow	315
28.129.2. remove DELETE	315
28.129.3. update PUT	316
28.130. INSTANCETYPENICS	316
28.130.1. add POST	316
28.130.2. list GET	316
28.130.2.1. follow	317
28.130.2.2. max	317
28.131. INSTANCETYPEWATCHDOG	317
28.131.1. get GET	317
28.131.1.1. follow	317
28.131.2. remove DELETE	318
28.131.3. update PUT	318
28.132. INSTANCETYPEWATCHDOGS	318
28.132.1. add POST	318
28.132.2. list GET	318
28.132.2.1. follow	319
28.132.2.2. max	319
28.133. INSTANCETYPES	319
28.133.1. add POST	319
28.133.2. list GET	321
28.133.2.1. case_sensitive	321
28.133.2.2. follow	321
28.133.2.3. max	321
28.134. ISCSIBOND	322
28.134.1. get GET	322
28.134.1.1. follow	322
28.134.2. remove DELETE	322
28.134.3. update PUT	322
28.135. ISCSIBONDS	323
28.135.1. add POST	323
28.135.2. list GET	324
28.135.2.1. follow	324
28.135.2.2. max	324
28.136. JOB	324
28.136.1. clear POST	325
28.136.2. end POST	325
28.136.2.1. succeeded	325
28.136.3. get GET	326
28.136.3.1. follow	326
28.137. JOBS	326

28.137.1. add POST	326
28.137.2. list GET	327
28.137.2.1. case_sensitive	328
28.137.2.2. follow	328
28.137.2.3. max	328
28.138. KATELLOERRATA	328
28.138.1. list GET	329
28.138.1.1. follow	329
28.138.1.2. max	329
28.139. KATELLOERRATUM	330
28.139.1. get GET	330
28.139.1.1. follow	330
28.140. LINKLAYERDISCOVERYPROTOCOL	331
28.140.1. list GET	331
28.140.1.1. elements	331
28.140.1.2. follow	331
28.141. MACPOOL	332
28.141.1. get GET	332
28.141.1.1. follow	332
28.141.2. remove DELETE	332
28.141.3. update PUT	332
28.142. MACPOOLS	333
28.142.1. add POST	333
28.142.2. list GET	334
28.142.2.1. follow	334
28.142.2.2. max	334
28.143. MEASURABLE	334
28.144. MOVEABLE	335
28.144.1. move POST	335
28.145. NETWORK	335
28.145.1. get GET	335
28.145.1.1. follow	336
28.145.2. remove DELETE	336
28.145.3. update PUT	336
28.146. NETWORKATTACHMENT	337
28.146.1. get GET	338
28.146.1.1. follow	338
28.146.2. remove DELETE	338
28.146.3. update PUT	338
28.147. NETWORKATTACHMENTS	338
28.147.1. add POST	339
28.147.2. list GET	339
28.147.2.1. follow	339
28.147.2.2. max	339
28.148. NETWORKFILTER	339
28.148.1. get GET	340
28.148.1.1. follow	340
28.149. NETWORKFILTERS	340
28.149.1. list GET	341
28.149.1.1. follow	342
28.150. NETWORKLABEL	342
28.150.1. get GET	342
28.150.1.1. follow	342

28.150.2. remove DELETE	342
28.151. NETWORKLABELS	343
28.151.1. add POST	343
28.151.2. list GET	343
28.151.2.1. follow	344
28.151.2.2. max	344
28.152. NETWORKS	344
28.152.1. add POST	344
28.152.2. list GET	345
28.152.2.1. case_sensitive	346
28.152.2.2. follow	346
28.152.2.3. max	346
28.153. NICNETWORKFILTERPARAMETER	346
28.153.1. get GET	347
28.153.1.1. follow	347
28.153.2. remove DELETE	347
28.153.3. update PUT	347
28.154. NICNETWORKFILTERPARAMETERS	348
28.154.1. add POST	348
28.154.2. list GET	348
28.154.2.1. follow	349
28.155. OPENSTACKIMAGE	349
28.155.1. get GET	349
28.155.1.1. follow	349
28.155.2. import POST	349
28.156. OPENSTACKIMAGEPROVIDER	350
28.156.1. get GET	350
28.156.1.1. follow	351
28.156.2. importcertificates POST	351
28.156.3. remove DELETE	351
28.156.4. testconnectivity POST	351
28.156.5. update PUT	352
28.157. OPENSTACKIMAGEPROVIDERS	352
28.157.1. add POST	352
28.157.2. list GET	352
28.157.2.1. follow	353
28.157.2.2. max	353
28.158. OPENSTACKIMAGES	353
28.158.1. list GET	353
28.158.1.1. follow	353
28.158.1.2. max	354
28.159. OPENSTACKNETWORK	354
28.159.1. get GET	354
28.159.1.1. follow	354
28.159.2. import POST	354
28.159.2.1. data_center	354
28.160. OPENSTACKNETWORKPROVIDER	355
28.160.1. get GET	355
28.160.1.1. follow	355
28.160.2. importcertificates POST	355
28.160.3. remove DELETE	356
28.160.4. testconnectivity POST	356
28.160.5. update PUT	356

28.161. OPENSTACKNETWORKPROVIDERS	357
28.161.1. add POST	357
28.161.2. list GET	357
28.161.2.1. follow	358
28.161.2.2. max	358
28.162. OPENSTACKNETWORKS	358
28.162.1. list GET	358
28.162.1.1. follow	358
28.162.1.2. max	359
28.163. OPENSTACKSUBNET	359
28.163.1. get GET	359
28.163.1.1. follow	359
28.163.2. remove DELETE	359
28.164. OPENSTACKSUBNETS	359
28.164.1. add POST	360
28.164.2. list GET	360
28.164.2.1. follow	360
28.164.2.2. max	360
28.165. OPENSTACKVOLUMEAUTHENTICATIONKEY	360
28.165.1. get GET	361
28.165.1.1. follow	361
28.165.2. remove DELETE	361
28.165.3. update PUT	361
28.166. OPENSTACKVOLUMEAUTHENTICATIONKEYS	361
28.166.1. add POST	362
28.166.2. list GET	362
28.166.2.1. follow	362
28.166.2.2. max	362
28.167. OPENSTACKVOLUMEPROVIDER	363
28.167.1. get GET	363
28.167.1.1. follow	363
28.167.2. importcertificates POST	363
28.167.3. remove DELETE	363
28.167.3.1. force	364
28.167.4. testconnectivity POST	364
28.167.5. update PUT	364
28.168. OPENSTACKVOLUMEPROVIDERS	364
28.168.1. add POST	365
28.168.2. list GET	365
28.168.2.1. follow	366
28.168.2.2. max	366
28.169. OPENSTACKVOLUMETYPE	366
28.169.1. get GET	366
28.169.1.1. follow	366
28.170. OPENSTACKVOLUMETYPES	366
28.170.1. list GET	367
28.170.1.1. follow	367
28.170.1.2. max	367
28.171. OPERATINGSYSTEM	367
28.171.1. get GET	367
28.171.1.1. follow	368
28.172. OPERATINGSYSTEMS	368
28.172.1. list GET	368

28.172.1.1. follow	368
28.172.1.2. max	368
28.173. PERMISSION	368
28.173.1. get GET	369
28.173.1.1. follow	369
28.173.2. remove DELETE	369
28.174. PERMIT	369
28.174.1. get GET	369
28.174.1.1. follow	370
28.174.2. remove DELETE	370
28.175. PERMITS	370
28.175.1. add POST	371
28.175.2. list GET	371
28.175.2.1. follow	372
28.175.2.2. max	372
28.176. QOS	372
28.176.1. get GET	372
28.176.1.1. follow	373
28.176.2. remove DELETE	373
28.176.3. update PUT	373
28.177. QOSS	374
28.177.1. add POST	374
28.177.2. list GET	374
28.177.2.1. follow	375
28.177.2.2. max	375
28.178. QUOTA	375
28.178.1. get GET	375
28.178.1.1. follow	376
28.178.2. remove DELETE	376
28.178.3. update PUT	376
28.179. QUOTACLUSTERLIMIT	377
28.179.1. get GET	377
28.179.1.1. follow	377
28.179.2. remove DELETE	377
28.180. QUOTACLUSTERLIMITS	378
28.180.1. add POST	378
28.180.2. list GET	378
28.180.2.1. follow	378
28.180.2.2. max	378
28.181. QUOTASTORAGELIMIT	379
28.181.1. get GET	379
28.181.1.1. follow	379
28.181.2. remove DELETE	379
28.182. QUOTASTORAGELIMITS	379
28.182.1. add POST	380
28.182.2. list GET	380
28.182.2.1. follow	380
28.182.2.2. max	381
28.183. QUOTAS	381
28.183.1. add POST	381
28.183.2. list GET	381
28.183.2.1. follow	382
28.183.2.2. max	382

28.184. ROLE	382
28.184.1. get GET	382
28.184.1.1. follow	383
28.184.2. remove DELETE	383
28.184.3. update PUT	383
28.185. ROLES	384
28.185.1. add POST	384
28.185.2. list GET	384
28.185.2.1. follow	385
28.185.2.2. max	385
28.186. SCHEDULINGPOLICIES	385
28.186.1. add POST	385
28.186.2. list GET	386
28.186.2.1. follow	386
28.186.2.2. max	386
28.187. SCHEDULINGPOLICY	386
28.187.1. get GET	387
28.187.1.1. follow	387
28.187.2. remove DELETE	387
28.187.3. update PUT	387
28.188. SCHEDULINGPOLICYUNIT	387
28.188.1. get GET	388
28.188.1.1. follow	388
28.188.2. remove DELETE	388
28.189. SCHEDULINGPOLICYUNITS	388
28.189.1. list GET	388
28.189.1.1. follow	389
28.189.1.2. max	389
28.190. SNAPSHOT	389
28.190.1. get GET	389
28.190.1.1. follow	389
28.190.2. remove DELETE	390
28.190.2.1. all_content	390
28.190.3. restore POST	390
28.190.3.1. disks	391
28.191. SNAPSHOTCDROM	391
28.191.1. get GET	391
28.191.1.1. follow	391
28.192. SNAPSHOTCDROMS	392
28.192.1. list GET	392
28.192.1.1. follow	392
28.192.1.2. max	392
28.193. SNAPSHOTDISK	392
28.193.1. get GET	392
28.193.1.1. follow	393
28.194. SNAPSHOTDISKS	393
28.194.1. list GET	393
28.194.1.1. follow	393
28.194.1.2. max	393
28.195. SNAPSHOTNIC	393
28.195.1. get GET	394
28.195.1.1. follow	394
28.196. SNAPSHOTNICS	394

28.196.1. list GET	394
28.196.1.1. follow	394
28.196.1.2. max	395
28.197. SNAPSHOTS	395
28.197.1. add POST	395
28.197.2. list GET	396
28.197.2.1. all_content	396
28.197.2.2. follow	397
28.197.2.3. max	397
28.198. SSHPUBLICKEY	397
28.198.1. get GET	397
28.198.1.1. follow	397
28.198.2. remove DELETE	397
28.198.3. update PUT	398
28.199. SSHPUBLICKEYS	398
28.199.1. add POST	398
28.199.2. list GET	398
28.199.2.1. follow	399
28.199.2.2. max	399
28.200. STATISTIC	399
28.200.1. get GET	400
28.200.1.1. follow	400
28.201. STATISTICS	400
28.201.1. list GET	400
28.201.1.1. follow	401
28.201.1.2. max	401
28.202. STEP	401
28.202.1. end POST	402
28.202.1.1. succeeded	402
28.202.2. get GET	402
28.202.2.1. follow	403
28.203. STEPS	403
28.203.1. add POST	403
28.203.2. list GET	404
28.203.2.1. follow	405
28.203.2.2. max	405
28.204. STORAGE	405
28.204.1. get GET	405
28.204.1.1. follow	405
28.204.1.2. report_status	405
28.205. STORAGEDOMAIN	406
28.205.1. get GET	407
28.205.1.1. follow	407
28.205.2. isattached POST	407
28.205.3. reduceluns POST	408
28.205.4. refreshluns POST	408
28.205.5. remove DELETE	409
28.205.5.1. destroy	410
28.205.5.2. host	410
28.205.6. update PUT	410
28.205.7. updateovfstore POST	411
28.206. STORAGEDOMAINCONTENTDISK	411
28.206.1. get GET	411

28.206.1.1. follow	412
28.207. STORAGEDOMAINCONTENTDISKS	412
28.207.1. list GET	412
28.207.1.1. case_sensitive	412
28.207.1.2. follow	412
28.207.1.3. max	412
28.208. STORAGEDOMAINDISK	413
28.208.1. copy POST	413
28.208.2. export POST	414
28.208.3. get GET	414
28.208.3.1. follow	414
28.208.4. move POST	414
28.208.5. reduce POST	415
28.208.6. remove DELETE	415
28.208.7. sparsify POST	415
28.208.8. update PUT	415
28.209. STORAGEDOMAINDISKS	416
28.209.1. add POST	416
28.209.1.1. unregistered	416
28.209.2. list GET	417
28.209.2.1. follow	417
28.209.2.2. max	418
28.209.2.3. unregistered	418
28.210. STORAGEDOMAINSERVERCONNECTION	418
28.210.1. get GET	418
28.210.1.1. follow	418
28.210.2. remove DELETE	418
28.211. STORAGEDOMAINSERVERCONNECTIONS	419
28.211.1. add POST	419
28.211.2. list GET	419
28.211.2.1. follow	419
28.211.2.2. max	420
28.212. STORAGEDOMAINTEMPLATE	420
28.212.1. get GET	420
28.212.1.1. follow	420
28.212.2. import POST	420
28.212.2.1. clone	421
28.212.3. register POST	421
28.212.3.1. allow_partial_import	422
28.212.3.2. registration_configuration	422
28.212.3.3. vnic_profile_mappings	422
28.212.4. remove DELETE	422
28.213. STORAGEDOMAINTEMPLATES	423
28.213.1. list GET	423
28.213.1.1. follow	423
28.213.1.2. max	423
28.213.1.3. unregistered	423
28.214. STORAGEDOMAINVM	424
28.214.1. get GET	424
28.214.1.1. follow	424
28.214.2. import POST	424
28.214.2.1. clone	426
28.214.2.2. collapse_snapshots	426

28.214.3. register POST	426
28.214.3.1. allow_partial_import	427
28.214.3.2. reassign_bad_macs	427
28.214.3.3. registration_configuration	427
28.214.3.4. vnic_profile_mappings	427
28.214.4. remove DELETE	428
28.215. STORAGEDOMAINVMDISKATTACHMENT	428
28.215.1. get GET	428
28.215.1.1. follow	429
28.216. STORAGEDOMAINVMDISKATTACHMENTS	429
28.216.1. list GET	429
28.216.1.1. follow	429
28.217. STORAGEDOMAINVMS	429
28.217.1. list GET	430
28.217.1.1. follow	430
28.217.1.2. max	430
28.217.1.3. unregistered	430
28.218. STORAGEDOMAINS	431
28.218.1. add POST	431
28.218.2. list GET	432
28.218.2.1. case_sensitive	433
28.218.2.2. follow	433
28.218.2.3. max	433
28.219. STORAGESERVERCONNECTION	433
28.219.1. get GET	433
28.219.1.1. follow	434
28.219.2. remove DELETE	434
28.219.2.1. host	434
28.219.3. update PUT	434
28.219.3.1. force	435
28.220. STORAGESERVERCONNECTIONEXTENSION	435
28.220.1. get GET	435
28.220.1.1. follow	436
28.220.2. remove DELETE	436
28.220.3. update PUT	436
28.221. STORAGESERVERCONNECTIONEXTENSIONS	437
28.221.1. add POST	437
28.221.2. list GET	437
28.221.2.1. follow	438
28.221.2.2. max	438
28.222. STORAGESERVERCONNECTIONS	438
28.222.1. add POST	438
28.222.2. list GET	439
28.222.2.1. follow	439
28.222.2.2. max	439
28.223. SYSTEM	439
28.223.1. get GET	439
28.223.1.1. follow	441
28.223.2. reloadconfigurations POST	441
28.224. SYSTEMOPTION	441
28.224.1. get GET	441
28.224.1.1. version	443
28.225. SYSTEMOPTIONS	443

28.226. SYSTEMPERMISSIONS	443
28.226.1. add POST	444
28.226.2. list GET	445
28.226.2.1. follow	445
28.227. TAG	445
28.227.1. get GET	446
28.227.1.1. follow	446
28.227.2. remove DELETE	446
28.227.3. update PUT	446
28.228. TAGS	447
28.228.1. add POST	447
28.228.2. list GET	448
28.228.2.1. follow	449
28.228.2.2. max	449
28.229. TEMPLATE	449
28.229.1. export POST	449
28.229.1.1. exclusive	450
28.229.2. get GET	450
28.229.2.1. follow	450
28.229.3. remove DELETE	451
28.229.4. update PUT	451
28.230. TEMPLATECDROM	452
28.230.1. get GET	452
28.230.1.1. cdrom	452
28.230.1.2. follow	452
28.231. TEMPLATECDROMS	453
28.231.1. list GET	453
28.231.1.1. follow	453
28.231.1.2. max	453
28.232. TEMPLATEDISK	453
28.232.1. copy POST	454
28.232.2. export POST	454
28.232.3. get GET	454
28.232.3.1. follow	454
28.232.4. remove DELETE	454
28.233. TEMPLATEDISKATTACHMENT	455
28.233.1. get GET	455
28.233.1.1. follow	455
28.233.2. remove DELETE	455
28.234. TEMPLATEDISKATTACHMENTS	456
28.234.1. list GET	456
28.234.1.1. follow	456
28.235. TEMPLATEDISKS	456
28.235.1. list GET	456
28.235.1.1. follow	457
28.235.1.2. max	457
28.236. TEMPLATEGRAPHICSCONSOLE	457
28.236.1. get GET	457
28.236.1.1. follow	457
28.236.2. remove DELETE	458
28.237. TEMPLATEGRAPHICSCONSOLES	458
28.237.1. add POST	458
28.237.2. list GET	458

28.237.2.1. follow	459
28.237.2.2. max	459
28.238. TEMPLATEMEDIATEDDEVICE	459
28.238.1. get GET	459
28.238.1.1. follow	459
28.238.2. remove DELETE	459
28.238.3. update PUT	460
28.238.3.1. devices	460
28.239. TEMPLATEMEDIATEDDEVICES	461
28.239.1. add POST	461
28.239.2. list GET	461
28.239.2.1. follow	461
28.239.2.2. max	461
28.240. TEMPLATENIC	462
28.240.1. get GET	462
28.240.1.1. follow	462
28.240.2. remove DELETE	462
28.240.3. update PUT	462
28.241. TEMPLATENICS	463
28.241.1. add POST	463
28.241.2. list GET	463
28.241.2.1. follow	463
28.241.2.2. max	464
28.242. TEMPLATEWATCHDOG	464
28.242.1. get GET	464
28.242.1.1. follow	464
28.242.2. remove DELETE	464
28.242.3. update PUT	464
28.243. TEMPLATEWATCHDOGS	465
28.243.1. add POST	465
28.243.2. list GET	465
28.243.2.1. follow	465
28.243.2.2. max	466
28.244. TEMPLATES	466
28.244.1. add POST	466
28.244.1.1. clone_permissions	468
28.244.1.2. seal	469
28.244.2. list GET	469
28.244.2.1. case_sensitive	469
28.244.2.2. follow	469
28.244.2.3. max	470
28.245. UNMANAGEDNETWORK	470
28.245.1. get GET	470
28.245.1.1. follow	470
28.245.2. remove DELETE	470
28.246. UNMANAGEDNETWORKS	470
28.246.1. list GET	471
28.246.1.1. follow	471
28.246.1.2. max	471
28.247. USER	471
28.247.1. get GET	471
28.247.1.1. follow	472
28.247.2. remove DELETE	472

28.247.3. update PUT	473
28.248. USEROPTION	473
28.248.1. get GET	473
28.248.2. remove DELETE	474
28.249. USEROPTIONS	474
28.249.1. add POST	474
28.249.2. list GET	475
28.250. USERS	475
28.250.1. add POST	475
28.250.2. list GET	476
28.250.2.1. case_sensitive	477
28.250.2.2. follow	477
28.250.2.3. max	477
28.251. VIRTUALFUNCTIONALLOWEDNETWORK	477
28.251.1. get GET	477
28.251.1.1. follow	478
28.251.2. remove DELETE	478
28.252. VIRTUALFUNCTIONALLOWEDNETWORKS	478
28.252.1. add POST	478
28.252.2. list GET	478
28.252.2.1. follow	479
28.252.2.2. max	479
28.253. VM	479
28.253.1. autopincpuandnumanodes POST	480
28.253.1.1. optimize_cpu_settings	481
28.253.2. cancelmigration POST	481
28.253.3. clone POST	481
28.253.3.1. discard_snapshots	482
28.253.4. commitsnapshot POST	482
28.253.5. detach POST	482
28.253.6. export POST	483
28.253.7. freezefilesystems POST	484
28.253.8. get GET	484
28.253.8.1. all_content	485
28.253.8.2. follow	485
28.253.8.3. next_run	485
28.253.8.4. ovf_as_ova	486
28.253.9. logon POST	486
28.253.10. maintenance POST	486
28.253.11. migrate POST	487
28.253.11.1. cluster	488
28.253.11.2. force	488
28.253.11.3. host	488
28.253.11.4. migrate_vms_in_affinity_closure	488
28.253.12. previewsnapshot POST	488
28.253.12.1. disks	489
28.253.12.2. lease	489
28.253.13. reboot POST	489
28.253.14. remove DELETE	490
28.253.14.1. force	491
28.253.15. reordermacaddresses POST	491
28.253.16. reset POST	491
28.253.17. screenshot POST	491

28.253.18. shutdown POST	491
28.253.18.1. reason	492
28.253.19. start POST	492
28.253.19.1. pause	493
28.253.19.2. use_cloud_init	493
28.253.19.3. use_ignition	493
28.253.19.4. use_initialization	494
28.253.19.5. use_sysprep	494
28.253.19.6. vm	494
28.253.19.7. volatile	494
28.253.20. stop POST	494
28.253.20.1. reason	495
28.253.21. suspend POST	495
28.253.22. thawfilesystems POST	495
28.253.23. ticket POST	496
28.253.24. undosnapshot POST	497
28.253.25. update PUT	497
28.253.25.1. next_run	497
28.254. VMAPPLICATION	497
28.254.1. get GET	498
28.254.1.1. application	498
28.254.1.2. follow	498
28.255. VMAPPLICATIONS	498
28.255.1. list GET	499
28.255.1.1. applications	499
28.255.1.2. follow	499
28.255.1.3. max	500
28.256. VMBACKUP	500
28.256.1. finalize POST	500
28.256.2. get GET	500
28.256.2.1. backup	500
28.256.2.2. follow	501
28.257. VMBACKUPDISK	501
28.257.1. get GET	501
28.257.1.1. follow	501
28.258. VMBACKUPDISKS	501
28.258.1. list GET	501
28.258.1.1. follow	502
28.258.1.2. max	502
28.259. VMBACKUPS	502
28.259.1. add POST	502
28.259.1.1. require_consistency	503
28.259.1.2. use_active	503
28.259.2. list GET	504
28.259.2.1. backups	504
28.259.2.2. follow	504
28.259.2.3. max	504
28.260. VMCDROM	505
28.260.1. get GET	505
28.260.1.1. current	505
28.260.1.2. follow	506
28.260.2. update PUT	506
28.260.2.1. current	507

28.261. VMCDROMS	507
28.261.1. add POST	507
28.261.2. list GET	507
28.261.2.1. follow	508
28.261.2.2. max	508
28.262. VMCHECKPOINT	508
28.262.1. get GET	508
28.262.1.1. checkpoint	508
28.262.1.2. follow	509
28.262.2. remove DELETE	509
28.263. VMCHECKPOINTDISK	509
28.263.1. get GET	509
28.263.1.1. follow	509
28.264. VMCHECKPOINTDISKS	509
28.264.1. list GET	510
28.264.1.1. follow	510
28.264.1.2. max	510
28.265. VMCHECKPOINTS	510
28.265.1. list GET	510
28.265.1.1. checkpoints	511
28.265.1.2. follow	511
28.265.1.3. max	511
28.266. VMDISK	511
28.266.1. activate POST	512
28.266.2. deactivate POST	512
28.266.3. export POST	512
28.266.4. get GET	512
28.266.4.1. follow	513
28.266.5. move POST	513
28.266.6. reduce POST	513
28.266.7. remove DELETE	513
28.266.8. update PUT	514
28.267. VMDISKS	514
28.267.1. add POST	514
28.267.2. list GET	514
28.267.2.1. follow	515
28.267.2.2. max	515
28.268. VMGRAPHICSCONSOLE	515
28.268.1. get GET	515
28.268.1.1. current	516
28.268.1.2. follow	516
28.268.2. proxyticket POST	516
28.268.3. remoteviewerconnectionfile POST	516
28.268.3.1. remote_viewer_connection_file	518
28.268.4. remove DELETE	518
28.268.5. ticket POST	518
28.269. VMGRAPHICSCONSOLES	519
28.269.1. add POST	519
28.269.2. list GET	519
28.269.2.1. current	520
28.269.2.2. follow	520
28.269.2.3. max	520
28.270. VMHOSTDEVICE	520

28.270.1. get GET	521
28.270.1.1. follow	521
28.270.2. remove DELETE	521
28.271. VMHOSTDEVICES	522
28.271.1. add POST	522
28.271.2. list GET	523
28.271.2.1. follow	523
28.271.2.2. max	523
28.272. VMMEDIEDDEVICE	523
28.272.1. get GET	523
28.272.1.1. follow	524
28.272.2. remove DELETE	524
28.272.3. update PUT	524
28.272.3.1. device	525
28.273. VMMEDIEDDEVICES	525
28.273.1. add POST	525
28.273.2. list GET	525
28.273.2.1. follow	526
28.273.2.2. max	526
28.274. VMNIC	526
28.274.1. activate POST	526
28.274.2. deactivate POST	526
28.274.3. get GET	527
28.274.3.1. follow	527
28.274.4. remove DELETE	527
28.274.5. update PUT	528
28.275. VMNICS	528
28.275.1. add POST	528
28.275.2. list GET	529
28.275.2.1. follow	530
28.275.2.2. max	530
28.276. VMNUMANODE	530
28.276.1. get GET	530
28.276.1.1. follow	530
28.276.2. remove DELETE	531
28.276.3. update PUT	531
28.277. VMNUMANODES	532
28.277.1. add POST	532
28.277.2. list GET	532
28.277.2.1. follow	533
28.277.2.2. max	533
28.278. VMPOOL	533
28.278.1. allocatevm POST	533
28.278.2. get GET	534
28.278.2.1. follow	534
28.278.3. remove DELETE	534
28.278.4. update PUT	535
28.278.4.1. seal	535
28.279. VMPOOLS	536
28.279.1. add POST	536
28.279.1.1. seal	536
28.279.2. list GET	537
28.279.2.1. case_sensitive	538

28.279.2.2. follow	538
28.279.2.3. max	538
28.280. VMREPORTEDDEVICE	538
28.280.1. get GET	538
28.280.1.1. follow	538
28.281. VMREPORTEDDEVICES	539
28.281.1. list GET	539
28.281.1.1. follow	539
28.281.1.2. max	539
28.282. VMSESSION	539
28.282.1. get GET	539
28.282.1.1. follow	540
28.283. VMSESSIONS	540
28.283.1. list GET	540
28.283.1.1. follow	541
28.283.1.2. max	541
28.284. VMWATCHDOG	541
28.284.1. get GET	541
28.284.1.1. follow	541
28.284.1.2. watchdog	541
28.284.2. remove DELETE	542
28.284.3. update PUT	542
28.284.3.1. watchdog	543
28.285. VMWATCHDOGS	543
28.285.1. add POST	543
28.285.1.1. watchdog	544
28.285.2. list GET	544
28.285.2.1. follow	544
28.285.2.2. max	544
28.285.2.3. watchdogs	544
28.286. VMS	545
28.286.1. add POST	545
28.286.1.1. auto_pinning_policy	548
28.286.1.2. clone	548
28.286.1.3. clone_permissions	549
28.286.1.4. filter	549
28.286.1.5. seal	550
28.286.2. list GET	550
28.286.2.1. all_content	551
28.286.2.2. case_sensitive	551
28.286.2.3. follow	551
28.286.2.4. ovf_as_ova	551
28.287. VNICPROFILE	552
28.287.1. get GET	552
28.287.1.1. follow	552
28.287.2. remove DELETE	552
28.287.3. update PUT	552
28.288. VNICPROFILES	553
28.288.1. add POST	553
28.288.2. list GET	554
28.288.2.1. follow	554
28.288.2.2. max	555
28.289. WEIGHT	555

28.289.1. get GET	555
28.289.1.1. follow	555
28.289.2. remove DELETE	555
28.290. WEIGHTS	555
28.290.1. add POST	556
28.290.2. list GET	556
28.290.2.1. follow	556
28.290.2.2. max	556
CHAPTER 29. TYPES	557
29.1. ACCESSPROTOCOL ENUM	557
29.2. ACTION STRUCT	557
29.3. AFFINITYGROUP STRUCT	562
29.3.1. broken	563
29.3.2. enforcing	563
29.3.3. positive	563
29.4. AFFINITYLABEL STRUCT	564
29.4.1. has_implicit_affinity_group	564
29.4.2. read_only	564
29.5. AFFINITYRULE STRUCT	565
29.5.1. enabled	565
29.5.2. enforcing	565
29.5.3. positive	565
29.6. AGENT STRUCT	565
29.6.1. host	566
29.7. AGENTCONFIGURATION STRUCT	566
29.7.1. network_mappings	567
29.8. API STRUCT	567
29.8.1. authenticated_user	568
29.8.2. effective_user	569
29.9. APISUMMARY STRUCT	569
29.10. APISUMMARYITEM STRUCT	569
29.11. APPLICATION STRUCT	569
29.12. ARCHITECTURE ENUM	570
29.12.1. s390x	570
29.13. AUTHORIZEDKEY STRUCT	571
29.14. AUTONUMASTATUS ENUM	571
29.15. AUTOPINNINGPOLICY ENUM	571
29.15.1. adjust	572
29.15.2. disabled	572
29.15.3. existing	572
29.16. BACKUP STRUCT	572
29.16.1. to_checkpoint_id	573
29.17. BACKUPPHASE ENUM	573
29.17.1. initializing	574
29.18. BALANCE STRUCT	574
29.19. BIOS STRUCT	574
29.20. BIOSTYPE ENUM	575
29.20.1. cluster_default	575
29.20.2. i440fx_sea_bios	575
29.21. BLOCKSTATISTIC STRUCT	575
29.22. BONDING STRUCT	575
29.22.1. ad_partner_mac	576

29.22.2. options	576
29.22.3. slaves	576
29.22.4. active_slave	576
29.23. BOOKMARK STRUCT	577
29.24. BOOT STRUCT	577
29.24.1. devices	577
29.25. BOOTDEVICE ENUM	577
29.25.1. cdrom	578
29.25.2. network	578
29.26. BOOTMENU STRUCT	578
29.27. BOOTPROTOCOL ENUM	578
29.27.1. autoconf	578
29.27.2. dhcp	579
29.27.3. poly_dhcp_autoconf	579
29.28. BRICKPROFILEDETAIL STRUCT	579
29.29. CDROM STRUCT	579
29.29.1. vms	580
29.30. CERTIFICATE STRUCT	580
29.31. CHECKPOINT STRUCT	580
29.32. CHECKPOINTSTATE ENUM	581
29.32.1. created	581
29.33. CLOUDINIT STRUCT	581
29.34. CLOUDINITNETWORKPROTOCOL ENUM	582
29.34.1. eni	582
29.34.2. openstack_metadata	582
29.35. CLUSTER STRUCT	583
29.35.1. bios_type	587
29.35.2. custom_scheduling_policy_properties	587
29.35.3. fencing_policy	588
29.35.4. fips_mode	588
29.35.5. gluster_tuned_profile	588
29.35.6. log_max_memory_used_threshold	588
29.35.7. log_max_memory_used_threshold_type	588
29.35.8. maintenance_reason_required	589
29.35.9. migration	589
29.35.10. optional_reason	589
29.35.11. required_rng_sources	589
29.35.12. upgrade_correlation_id	589
29.35.13. version	589
29.35.14. vnc_encryption	590
29.35.15. external_network_providers	591
29.35.16. scheduling_policy	591
29.36. CLUSTERFEATURE STRUCT	591
29.37. CLUSTERLEVEL STRUCT	592
29.38. CLUSTERUPGRADEACTION ENUM	592
29.38.1. finish	593
29.38.2. start	593
29.38.3. update_progress	593
29.39. CONFIGURATION STRUCT	593
29.39.1. data	593
29.40. CONFIGURATIONTYPE ENUM	595
29.40.1. ova	595
29.40.2. ovf	595

29.41. CONSOLE STRUCT	595
29.42. CORE STRUCT	596
29.43. CPU STRUCT	596
29.44. CPUMODE ENUM	596
29.45. CPUPINNINGPOLICY ENUM	597
29.45.1. dedicated	597
29.45.2. isolate_threads	597
29.45.3. manual	597
29.45.4. none	598
29.45.5. resize_and_pin_numa	598
29.46. CPUPROFILE STRUCT	598
29.47. CPUTOPOLOGY STRUCT	598
29.48. CPUTUNE STRUCT	599
29.49. CPUTYPE STRUCT	599
29.50. CREATIONSTATUS ENUM	599
29.51. CUSTOMPROPERTY STRUCT	599
29.52. DATACENTER STRUCT	600
29.52.1. version	600
29.53. DATACENTERSTATUS ENUM	601
29.54. DEVICE STRUCT	602
29.54.1. vms	602
29.55. DISK STRUCT	603
29.55.1. active	604
29.55.2. actual_size	604
29.55.3. bootable	605
29.55.4. external_disk	605
29.55.5. initial_size	605
29.55.6. interface	605
29.55.7. provisioned_size	605
29.55.8. qcow_version	606
29.55.9. read_only	606
29.55.10. sgio	606
29.55.11. shareable	606
29.55.12. total_size	606
29.55.13. wipe_after_delete	607
29.55.14. statistics	607
29.55.15. storage_domains	608
29.55.16. vms	608
29.56. DISKATTACHMENT STRUCT	608
29.56.1. active	609
29.56.2. logical_name	609
29.56.3. read_only	609
29.56.4. uses_scsi_reservation	610
29.57. DISKBACKUP ENUM	610
29.58. DISKBACKUPMODE ENUM	610
29.58.1. full	610
29.58.2. incremental	611
29.59. DISKCONTENTTYPE ENUM	611
29.60. DISKFORMAT ENUM	611
29.61. DISKINTERFACE ENUM	612
29.61.1. ide	612
29.61.2. virtio	612
29.61.3. virtio_scsi	612

29.62. DISKPROFILE STRUCT	612
29.63. DISKSNAPSHOT STRUCT	613
29.63.1. active	615
29.63.2. actual_size	615
29.63.3. bootable	615
29.63.4. external_disk	615
29.63.5. initial_size	615
29.63.6. interface	616
29.63.7. provisioned_size	616
29.63.8. qcow_version	616
29.63.9. read_only	616
29.63.10. sgio	616
29.63.11. shareable	616
29.63.12. total_size	617
29.63.13. wipe_after_delete	617
29.63.14. statistics	618
29.63.15. storage_domains	618
29.63.16. vms	618
29.64. DISKSTATUS ENUM	619
29.64.1. locked	619
29.65. DISKSTORAGETYPE ENUM	619
29.66. DISKTYPE ENUM	619
29.67. DISPLAY STRUCT	619
29.67.1. allow_override	620
29.67.2. certificate	621
29.67.3. copy_paste_enabled	621
29.67.4. disconnect_action	621
29.67.5. disconnect_action_delay	621
29.67.6. file_transfer_enabled	621
29.67.7. keyboard_layout	621
29.67.8. monitors	621
29.67.9. proxy	622
29.67.10. secure_port	622
29.67.11. single_qxl_pci	622
29.67.12. smartcard_enabled	622
29.68. DISPLAYTYPE ENUM	622
29.68.1. spice	622
29.68.2. vnc	622
29.69. DNS STRUCT	622
29.70. DNSRESOLVERCONFIGURATION STRUCT	623
29.70.1. name_servers	623
29.71. DOMAIN STRUCT	623
29.71.1. users	624
29.72. DYNAMICCPU STRUCT	624
29.73. ENTITYEXTERNALSTATUS ENUM	624
29.73.1. error	624
29.73.2. failure	624
29.74. ENTITYPROFILEDETAIL STRUCT	624
29.75. ERRORHANDLING STRUCT	625
29.76. EVENT STRUCT	625
29.76.1. correlation_id	626
29.76.2. flood_rate	626
29.76.3. index	626

29.76.4. log_on_host	626
29.76.5. cluster	627
29.76.6. data_center	627
29.76.7. host	627
29.76.8. storage_domain	627
29.76.9. template	627
29.76.10. user	627
29.76.11. vm	627
29.77. EVENTSUBSCRIPTION STRUCT	627
29.77.1. address	628
29.77.2. event	628
29.77.3. notification_method	628
29.77.4. user	628
29.78. EXTERNALCOMPUTERESOURCE STRUCT	628
29.79. EXTERNALDISCOVEREDHOST STRUCT	629
29.80. EXTERNALHOST STRUCT	630
29.81. EXTERNALHOSTGROUP STRUCT	630
29.82. EXTERNALHOSTPROVIDER STRUCT	631
29.82.1. requires_authentication	632
29.82.2. compute_resources	632
29.82.3. discovered_hosts	632
29.82.4. host_groups	632
29.83. EXTERNALNETWORKPROVIDERCONFIGURATION STRUCT	632
29.84. EXTERNALPROVIDER STRUCT	633
29.84.1. requires_authentication	634
29.85. EXTERNALSTATUS ENUM	634
29.85.1. error	634
29.85.2. failure	634
29.85.3. info	634
29.85.4. ok	634
29.85.5. warning	634
29.86. EXTERNALSYSTEMTYPE ENUM	635
29.87. EXTERNALTEMPLATEIMPORT STRUCT	635
29.87.1. clone	635
29.87.2. url	635
29.87.3. cpu_profile	636
29.87.4. quota	636
29.87.5. template	636
29.88. EXTERNALVMIMPORT STRUCT	636
29.88.1. sparse	637
29.88.2. url	637
29.88.3. cpu_profile	637
29.88.4. drivers_iso	637
29.88.5. host	638
29.88.6. quota	638
29.88.7. vm	638
29.89. EXTERNALVMPROVIDERTYPE ENUM	638
29.90. FAULT STRUCT	638
29.91. FENCETYPE ENUM	638
29.92. FENCINGPOLICY STRUCT	639
29.92.1. skip_if_connectivity_broken	639
29.92.2. skip_if_gluster_bricks_up	639
29.92.3. skip_if_gluster_quorum_not_met	639

29.92.4. skip_if_sd_active	640
29.93. FILE STRUCT	640
29.94. FILTER STRUCT	640
29.95. FIPSMODE ENUM	641
29.95.1. disabled	641
29.95.2. enabled	641
29.95.3. undefined	641
29.96. FIREWALLTYPE ENUM	641
29.96.1. firewalld	642
29.96.2. iptables	642
29.97. FLOPPY STRUCT	642
29.97.1. vms	643
29.98. FOPSTATISTIC STRUCT	643
29.99. GLUSTERBRICK STRUCT	643
29.99.1. vms	644
29.100. GLUSTERBRICKADVANCEDDETAILS STRUCT	644
29.100.1. vms	645
29.101. GLUSTERBRICKMEMORYINFO STRUCT	645
29.102. GLUSTERBRICKSTATUS ENUM	645
29.103. GLUSTERCLIENT STRUCT	646
29.104. GLUSTERHOOK STRUCT	646
29.105. GLUSTERHOOKSTATUS ENUM	647
29.106. GLUSTERMEMORYPOOL STRUCT	647
29.107. GLUSTERSERVERHOOK STRUCT	648
29.108. GLUSTERSTATE ENUM	648
29.109. GLUSTERVOLUME STRUCT	649
29.110. GLUSTERVOLUMEPROFILEDETAILS STRUCT	650
29.111. GLUSTERVOLUMESTATUS ENUM	650
29.112. GLUSTERVOLUMETYPE ENUM	650
29.112.1. disperse	651
29.112.2. distribute	651
29.112.3. distributed_disperse	651
29.112.4. distributed_replicate	651
29.112.5. distributed_stripe	652
29.112.6. distributed_stripped_replicate	652
29.112.7. replicate	652
29.112.8. stripe	652
29.112.9. striped_replicate	652
29.113. GRACEPERIOD STRUCT	652
29.114. GRAPHICSCONSOLE STRUCT	653
29.115. GRAPHICSTYPE ENUM	653
29.115.1. spice	654
29.115.2. vnc	654
29.116. GROUP STRUCT	654
29.116.1. roles	655
29.117. GUESTOPERATINGSYSTEM STRUCT	655
29.118. HARDWAREINFORMATION STRUCT	656
29.119. HIGHAVAILABILITY STRUCT	657
29.119.1. enabled	657
29.119.2. priority	657
29.120. HOOK STRUCT	658
29.121. HOOKCONTENTTYPE ENUM	658
29.122. HOOKSTAGE ENUM	659

29.123. HOOKSTATUS ENUM	659
29.124. HOST STRUCT	659
29.124.1. external_status	661
29.124.2. hosted_engine	662
29.124.3. kdump_status	662
29.124.4. ksm	662
29.124.5. libvirt_version	662
29.124.6. network_operation_in_progress	662
29.124.7. override_iptables	662
29.124.8. protocol	662
29.124.9. se_linux	663
29.124.10. spm	663
29.124.11. status_detail	663
29.124.12. transparent_huge_pages	663
29.124.13. version	663
29.124.14. cpu_units	665
29.124.15. external_network_provider_configurations	665
29.124.16. katello_errata	665
29.124.17. statistics	666
29.125. HOSTCPUUNIT STRUCT	667
29.126. HOSTDEVICE STRUCT	668
29.126.1. driver	669
29.127. HOSTDEVICEPASSTHROUGH STRUCT	669
29.128. HOSTNIC STRUCT	669
29.128.1. ad_aggregator_id	672
29.128.2. bridged	672
29.128.3. network	672
29.128.4. statistics	672
29.129. HOSTNICVIRTUALFUNCTIONSCONFIGURATION STRUCT	673
29.129.1. max_number_of_virtual_functions	673
29.129.2. number_of_virtual_functions	673
29.130. HOSTPROTOCOL ENUM	673
29.131. HOSTSTATUS ENUM	674
29.131.1. error	675
29.131.2. initializing	675
29.131.3. install_failed	675
29.131.4. installing_os	675
29.131.5. maintenance	675
29.131.6. non_operational	675
29.131.7. non_responsive	675
29.131.8. pending_approval	675
29.131.9. preparing_for_maintenance	676
29.132. HOSTSTORAGE STRUCT	676
29.132.1. driver_options	677
29.132.2. driver_sensitive_options	678
29.132.3. nfs_retrans	679
29.132.4. nfs_timeo	679
29.133. HOSTTYPE ENUM	679
29.133.1. ovirt_node	679
29.133.2. rhev_h	680
29.134. HOSTEDENGINE STRUCT	680
29.135. ICON STRUCT	680
29.135.1. media_type	680

29.136. IDENTIFIED STRUCT	681
29.137. IMAGE STRUCT	681
29.138. IMAGEFILETYPE ENUM	682
29.138.1. iso	682
29.139. IMAGETRANSFER STRUCT	682
29.139.1. direction	683
29.139.2. format	683
29.139.3. inactivity_timeout	683
29.139.4. phase	683
29.139.5. proxy_url	683
29.139.6. shallow	684
29.139.7. transfer_url	684
29.139.8. backup	685
29.139.9. host	685
29.139.10. image	685
29.140. IMAGETRANSFERDIRECTION ENUM	685
29.141. IMAGETRANSFERPHASE ENUM	686
29.141.1. cancelled	687
29.141.2. finalizing_success	687
29.141.3. finished_failure	687
29.141.4. finished_success	687
29.141.5. initializing	687
29.141.6. paused_system	687
29.141.7. resuming	687
29.141.8. unknown	687
29.142. IMAGETRANSFERTIMEOUTPOLICY ENUM	687
29.142.1. cancel	688
29.142.2. legacy	688
29.142.3. pause	688
29.143. INHERITABLEBOOLEAN ENUM	688
29.144. INITIALIZATION STRUCT	688
29.144.1. cloud_init	690
29.144.2. cloud_init_network_protocol	690
29.145. INSTANCETYPE STRUCT	690
29.145.1. auto_pinning_policy	694
29.145.2. cpu	694
29.145.3. cpu_pinning_policy	695
29.145.4. custom_compatibility_version	695
29.145.5. high_availability	695
29.145.6. initialization	695
29.145.7. large_icon	696
29.145.8. lease	696
29.145.9. memory	696
29.145.10. migration	697
29.145.11. migration_downtime	697
29.145.12. origin	697
29.145.13. placement_policy	697
29.145.14. small_icon	698
29.145.15. sso	698
29.145.16. tpm_enabled	698
29.146. IO STRUCT	699
29.147. IP STRUCT	699
29.147.1. address	699

29.147.2. netmask	700
29.147.3. version	700
29.148. IPADDRESSASSIGNMENT STRUCT	700
29.149. IPVERSION ENUM	700
29.150. ISCSIBOND STRUCT	701
29.151. ISCSIDetails STRUCT	701
29.152. JOB STRUCT	702
29.152.1. external	703
29.153. JOBSTATUS ENUM	703
29.153.1. aborted	703
29.153.2. finished	704
29.153.3. started	704
29.153.4. unknown	704
29.154. KATELLOERRATUM STRUCT	704
29.154.1. severity	704
29.154.2. type	705
29.155. KDUMPSTATUS ENUM	705
29.156. KERNEL STRUCT	705
29.157. KSM STRUCT	705
29.158. LINKLAYERDISCOVERYPROTOCOLELEMENT STRUCT	705
29.158.1. oui	707
29.158.2. subtype	707
29.159. LOGMAXMEMORYUSEDTHRESHOLDTYPE ENUM	707
29.159.1. absolute_value_in_mb	707
29.159.2. percentage	707
29.160. LOGSEVERITY ENUM	707
29.160.1. alert	708
29.160.2. error	708
29.160.3. normal	708
29.160.4. warning	708
29.161. LOGICALUNIT STRUCT	708
29.161.1. discard_max_size	709
29.161.2. discard_zeroes_data	709
29.162. LUNSTATUS ENUM	709
29.163. MDEVTYPE STRUCT	710
29.164. MAC STRUCT	710
29.165. MACPOOL STRUCT	710
29.165.1. allow_duplicates	711
29.165.2. default_pool	711
29.165.3. ranges	711
29.166. MEMORYOVERCOMMIT STRUCT	711
29.167. MEMORYPOLICY STRUCT	712
29.167.1. guaranteed	712
29.167.2. max	712
29.168. MESSAGEBROKERTYPE ENUM	712
29.169. METHOD STRUCT	713
29.170. MIGRATEONERROR ENUM	713
29.171. MIGRATIONBANDWIDTH STRUCT	713
29.171.1. custom_value	714
29.172. MIGRATIONBANDWIDTHASSIGNMENTMETHOD ENUM	714
29.172.1. auto	714
29.173. MIGRATIONOPTIONS STRUCT	714
29.173.1. custom_parallel_migrations	714

29.174. MIGRATIONPOLICY STRUCT	715
29.175. NETWORK STRUCT	715
29.175.1. dns_resolver_configuration	717
29.175.2. port_isolation	717
29.175.3. required	717
29.175.4. status	717
29.175.5. usages	717
29.175.6. vdsname	717
29.175.7. cluster	718
29.175.8. external_provider	718
29.175.9. external_provider_physical_network	718
29.176. NETWORKATTACHMENT STRUCT	718
29.176.1. dns_resolver_configuration	721
29.176.2. properties	721
29.177. NETWORKCONFIGURATION STRUCT	722
29.178. NETWORKFILTER STRUCT	723
29.178.1. version	724
29.179. NETWORKFILTERPARAMETER STRUCT	724
29.180. NETWORKLABEL STRUCT	724
29.181. NETWORKPLUGINTYPE ENUM	725
29.181.1. open_vswitch	725
29.182. NETWORKSTATUS ENUM	725
29.183. NETWORKUSAGE ENUM	726
29.183.1. default_route	726
29.183.2. management	726
29.184. NFSPROFILEDETAIL STRUCT	726
29.185. NFSVERSION ENUM	727
29.185.1. v4_0	727
29.185.2. v4_2	727
29.186. NIC STRUCT	727
29.186.1. network	729
29.186.2. vms	729
29.187. NICCONFIGURATION STRUCT	729
29.188. NICINTERFACE ENUM	730
29.189. NICSTATUS ENUM	730
29.190. NOTIFIABLEEVENT ENUM	730
29.190.1. gluster_volume_rebalance_not_found_from_cli	742
29.190.2. host_untrusted	742
29.190.3. remove_gluster_volume_bricks_not_found_from_cli	742
29.191. NOTIFICATIONMETHOD ENUM	742
29.191.1. smtp	743
29.191.2. snmp	743
29.192. NUMANODE STRUCT	743
29.192.1. statistics	744
29.193. NUMANODEPIN STRUCT	745
29.193.1. host_numa_node	745
29.193.2. pinned	745
29.194. NUMATUNEMODE ENUM	745
29.195. OPENSTACKIMAGE STRUCT	746
29.196. OPENSTACKIMAGEPROVIDER STRUCT	746
29.196.1. requires_authentication	747
29.196.2. tenant_name	747
29.197. OPENSTACKNETWORK STRUCT	747

29.198. OPENSTACKNETWORKPROVIDER STRUCT	748
29.198.1. agent_configuration	749
29.198.2. auto_sync	749
29.198.3. external_plugin_type	749
29.198.4. plugin_type	750
29.198.5. read_only	750
29.198.6. requires_authentication	750
29.198.7. tenant_name	750
29.198.8. unmanaged	750
29.199. OPENSTACKNETWORKPROVIDERTYPE ENUM	751
29.199.1. external	751
29.199.2. neutron	751
29.200. OPENSTACKPROVIDER STRUCT	751
29.200.1. requires_authentication	752
29.200.2. tenant_name	752
29.201. OPENSTACKSUBNET STRUCT	752
29.201.1. ip_version	753
29.202. OPENSTACKVOLUMEPROVIDER STRUCT	753
29.202.1. requires_authentication	754
29.202.2. tenant_name	754
29.203. OPENSTACKVOLUMETYPE STRUCT	754
29.204. OPENSTACKVOLUMEAUTHENTICATIONKEY STRUCT	755
29.205. OPENSTACKVOLUMEAUTHENTICATIONKEYUSAGETYPE ENUM	755
29.206. OPERATINGSYSTEM STRUCT	756
29.206.1. boot	756
29.206.2. cmdline	756
29.206.3. custom_kernel_cmdline	757
29.206.4. initrd	757
29.206.5. kernel	757
29.206.6. reported_kernel_cmdline	757
29.206.7. type	757
29.207. OPERATINGSYSTEMINFO STRUCT	758
29.207.1. large_icon	758
29.207.2. small_icon	758
29.208. OPTION STRUCT	758
29.209. OSTYPE ENUM	759
29.210. PACKAGE STRUCT	760
29.211. PARALLELMIGRATIONSPOLICY ENUM	760
29.211.1. auto	761
29.211.2. custom	761
29.212. PAYLOAD STRUCT	761
29.213. PAYLOADENCODING ENUM	761
29.214. PERMISSION STRUCT	761
29.215. PERMIT STRUCT	762
29.216. PMPROXY STRUCT	763
29.217. PMPROXYTYPE ENUM	763
29.218. POLICYUNITTYPE ENUM	763
29.219. PORTMIRRORING STRUCT	764
29.220. POWERMANAGEMENT STRUCT	764
29.220.1. agents	764
29.220.2. automatic_pm_enabled	765
29.220.3. kdump_detection	765
29.220.4. type	765

29.221. POWERMANAGEMENTSTATUS ENUM	765
29.222. PRODUCT STRUCT	765
29.223. PRODUCTINFO STRUCT	765
29.223.1. vendor	766
29.224. PROFILEDETAIL STRUCT	766
29.225. PROPERTY STRUCT	767
29.226. PROXYTICKET STRUCT	767
29.227. QCOWVERSION ENUM	767
29.227.1. qcow2_v3	767
29.228. QOS STRUCT	768
29.228.1. cpu_limit	769
29.228.2. inbound_average	769
29.228.3. inbound_burst	769
29.228.4. inbound_peak	769
29.228.5. max_iops	770
29.228.6. max_read_iops	770
29.228.7. max_read_throughput	770
29.228.8. max_throughput	770
29.228.9. max_write_iops	770
29.228.10. max_write_throughput	770
29.228.11. outbound_average	770
29.228.12. outbound_average_linkshare	770
29.228.13. outbound_average_realtime	771
29.228.14. outbound_average_upperlimit	771
29.228.15. outbound_burst	771
29.228.16. outbound_peak	771
29.229. QOSTYPE ENUM	771
29.230. QUOTA STRUCT	772
29.231. QUOTAACLUSTERLIMIT STRUCT	773
29.232. QUOTAMODETYPE ENUM	774
29.233. QUOTASTORAGELIMIT STRUCT	774
29.234. RANGE STRUCT	775
29.235. RATE STRUCT	775
29.236. REGISTRATIONAFFINITYGROUPMAPPING STRUCT	775
29.236.1. from	776
29.237. REGISTRATIONAFFINITYLABELMAPPING STRUCT	776
29.237.1. from	776
29.238. REGISTRATIONCLUSTERMAPPING STRUCT	776
29.238.1. from	777
29.238.2. to	777
29.239. REGISTRATIONCONFIGURATION STRUCT	777
29.240. REGISTRATIONDOMAINMAPPING STRUCT	780
29.240.1. from	781
29.241. REGISTRATIONLUNMAPPING STRUCT	781
29.241.1. from	782
29.242. REGISTRATIONROLEMAPPING STRUCT	782
29.242.1. from	782
29.243. REGISTRATIONVNICPROFILEMAPPING STRUCT	783
29.243.1. from	784
29.243.2. to	784
29.244. REPORTEDCONFIGURATION STRUCT	784
29.245. REPORTEDDEVICE STRUCT	785
29.246. REPORTEDDEVICETYPE ENUM	785

29.247. RESOLUTIONTYPE ENUM	786
29.248. RNGDEVICE STRUCT	786
29.249. RNGSOURCE ENUM	786
29.249.1. urandom	786
29.250. ROLE STRUCT	786
29.250.1. mutable	787
29.251. ROLETYPE ENUM	787
29.252. SCHEDULINGPOLICY STRUCT	787
29.253. SCHEDULINGPOLICYUNIT STRUCT	788
29.254. SCSIGENERICIO ENUM	789
29.255. SELINUX STRUCT	789
29.256. SELINUXMODE ENUM	789
29.257. SERIALNUMBER STRUCT	789
29.258. SERIALNUMBERPOLICY ENUM	790
29.258.1. host	790
29.259. SESSION STRUCT	790
29.259.1. console_user	791
29.259.2. ip	791
29.259.3. protocol	791
29.259.4. user	791
29.260. SKIPIFCONNECTIVITYBROKEN STRUCT	791
29.260.1. enabled	792
29.260.2. threshold	792
29.261. SKIPIFSDACTIVE STRUCT	792
29.261.1. enabled	792
29.262. SNAPSHOT STRUCT	792
29.262.1. auto_pinning_policy	796
29.262.2. cpu	796
29.262.3. cpu_pinning_policy	797
29.262.4. custom_compatibility_version	797
29.262.5. high_availability	797
29.262.6. initialization	797
29.262.7. large_icon	798
29.262.8. lease	798
29.262.9. memory	798
29.262.10. migration	799
29.262.11. migration_downtime	799
29.262.12. next_run_configuration_exists	799
29.262.13. numa_tune_mode	799
29.262.14. origin	799
29.262.15. persist_memorystate	800
29.262.16. placement_policy	800
29.262.17. small_icon	800
29.262.18. sso	800
29.262.19. stop_reason	801
29.262.20. tpm_enabled	801
29.262.21. affinity_labels	802
29.262.22. katello_errata	802
29.262.23. original_template	803
29.262.24. statistics	803
29.263. SNAPSHOTSTATUS ENUM	803
29.263.1. locked	804
29.264. SNAPSHOTTYPE ENUM	804

29.264.1. preview	804
29.264.2. stateless	804
29.265. SPECIALOBJECTS STRUCT	804
29.266. SPM STRUCT	804
29.267. SPMSTATUS ENUM	805
29.268. SSH STRUCT	805
29.268.1. fingerprint	806
29.268.2. public_key	806
29.269. SSHAUTHENTICATIONMETHOD ENUM	806
29.270. SSHPUBLICKEY STRUCT	806
29.271. SSO STRUCT	806
29.272. SSOMETHOD ENUM	807
29.273. STATISTIC STRUCT	807
29.274. STATISTICKIND ENUM	809
29.275. STATISTICUNIT ENUM	809
29.276. STEP STRUCT	809
29.276.1. external	810
29.277. STEPENUM ENUM	810
29.277.1. executing	811
29.277.2. finalizing	811
29.277.3. rebalancing_volume	811
29.277.4. removing_bricks	811
29.277.5. unknown	811
29.277.6. validating	811
29.278. STEPSTATUS ENUM	811
29.278.1. aborted	812
29.278.2. finished	812
29.278.3. started	812
29.278.4. unknown	812
29.279. STORAGECONNECTION STRUCT	812
29.280. STORAGECONNECTIONEXTENSION STRUCT	813
29.281. STORAGEDOMAIN STRUCT	814
29.281.1. backup	816
29.281.2. block_size	816
29.281.3. discard_after_delete	816
29.281.4. supports_discard	816
29.281.5. supports_discard_zeroes_data	817
29.281.6. wipe_after_delete	817
29.281.7. data_center	818
29.282. STORAGEDOMAINLEASE STRUCT	818
29.283. STORAGEDOMAINSTATUS ENUM	818
29.284. STORAGEDOMAINTYPE ENUM	818
29.284.1. data	819
29.284.2. export	819
29.284.3. image	819
29.284.4. iso	819
29.284.5. managed_block_storage	819
29.284.6. volume	819
29.285. STORAGEFORMAT ENUM	820
29.285.1. v1	820
29.285.2. v2	820
29.285.3. v3	820
29.285.4. v5	821

29.286. STORAGETYPE ENUM	821
29.286.1. cinder	821
29.286.2. glance	821
29.286.3. glusterfs	821
29.286.4. managed_block_storage	821
29.287. SWITCHTYPE ENUM	822
29.288. SYSTEMOPTION STRUCT	822
29.289. SYSTEMOPTIONVALUE STRUCT	822
29.290. TAG STRUCT	822
29.291. TEMPLATE STRUCT	823
29.291.1. auto_pinning_policy	826
29.291.2. cpu	826
29.291.3. cpu_pinning_policy	827
29.291.4. custom_compatibility_version	827
29.291.5. high_availability	827
29.291.6. initialization	827
29.291.7. large_icon	828
29.291.8. lease	828
29.291.9. memory	828
29.291.10. migration	829
29.291.11. migration_downtime	829
29.291.12. origin	829
29.291.13. placement_policy	829
29.291.14. small_icon	830
29.291.15. sso	830
29.291.16. tpm_enabled	830
29.292. TEMPLATESTATUS ENUM	831
29.293. TEMPLATEVERSION STRUCT	831
29.293.1. version_number	832
29.294. TICKET STRUCT	832
29.295. TIMEZONE STRUCT	832
29.295.1. utc_offset	832
29.296. TPMSUPPORT ENUM	832
29.297. TRANSPARENTHUGEPAGES STRUCT	833
29.298. TRANSPORTTYPE ENUM	833
29.299. UNMANAGEDNETWORK STRUCT	833
29.300. USB STRUCT	834
29.301. USBTYPE ENUM	834
29.301.1. legacy	834
29.301.2. native	834
29.302. USER STRUCT	834
29.302.1. namespace	835
29.302.2. principal	835
29.302.3. user_name	835
29.302.4. user_options	836
29.303. USEROPTION STRUCT	836
29.303.1. content	837
29.304. VALUE STRUCT	837
29.305. VALUETYPE ENUM	837
29.306. VCPUPIN STRUCT	837
29.307. VENDOR STRUCT	838
29.308. VERSION STRUCT	838
29.309. VGPUPLACEMENT ENUM	838

29.309.1. consolidated	839
29.309.2. separated	839
29.310. VIRTIO SCSI STRUCT	839
29.311. VIRTUALNUMANODE STRUCT	839
29.311.1. statistics	840
29.312. VLAN STRUCT	841
29.313. VM STRUCT	841
29.313.1. auto_pinning_policy	845
29.313.2. cpu	845
29.313.3. cpu_pinning_policy	846
29.313.4. custom_compatibility_version	846
29.313.5. high_availability	846
29.313.6. initialization	846
29.313.7. large_icon	846
29.313.8. lease	847
29.313.9. memory	847
29.313.10. migration	847
29.313.11. migration_downtime	848
29.313.12. next_run_configuration_exists	848
29.313.13. numa_tune_mode	848
29.313.14. origin	848
29.313.15. placement_policy	848
29.313.16. small_icon	849
29.313.17. sso	849
29.313.18. stop_reason	849
29.313.19. tpm_enabled	849
29.313.20. affinity_labels	851
29.313.21. katello_errata	851
29.313.22. original_template	852
29.313.23. statistics	852
29.314. VMAFFINITY ENUM	852
29.315. VMBASE STRUCT	852
29.315.1. auto_pinning_policy	855
29.315.2. cpu	855
29.315.3. cpu_pinning_policy	856
29.315.4. custom_compatibility_version	856
29.315.5. high_availability	856
29.315.6. initialization	856
29.315.7. large_icon	856
29.315.8. lease	857
29.315.9. memory	857
29.315.10. migration	857
29.315.11. migration_downtime	858
29.315.12. origin	858
29.315.13. placement_policy	858
29.315.14. small_icon	859
29.315.15. sso	859
29.315.16. tpm_enabled	859
29.316. VMDEVICETYPE ENUM	859
29.317. VMMEDATEDDEVICE STRUCT	860
29.317.1. vms	860
29.318. VMPLACEMENTPOLICY STRUCT	860
29.319. VMPOOL STRUCT	861

29.319.1. auto_storage_select	862
29.319.2. display	862
29.319.3. prestarted_vms	862
29.319.4. stateful	862
29.319.5. tpm_enabled	862
29.319.6. instance_type	863
29.319.7. vm	863
29.320. VMPOOLTYPE ENUM	863
29.320.1. automatic	863
29.320.2. manual	864
29.321. VMSTATUS ENUM	864
29.321.1. paused	865
29.321.2. powering_up	865
29.321.3. restoring_state	865
29.321.4. saving_state	865
29.321.5. suspended	865
29.321.6. unknown	865
29.321.7. up	865
29.321.8. wait_for_launch	866
29.322. VMSTORAGEERRORRESUMEBEHAVIOUR ENUM	866
29.322.1. auto_resume	866
29.322.2. kill	866
29.322.3. leave_paused	866
29.323. VMSUMMARY STRUCT	866
29.324. VMTYPE ENUM	867
29.324.1. desktop	867
29.324.2. high_performance	867
29.324.3. server	868
29.325. VNICPASSTHROUGH STRUCT	868
29.326. VNICPASSTHROUGHMODE ENUM	868
29.327. VNICPROFILE STRUCT	869
29.327.1. migratable	869
29.327.2. pass_through	869
29.327.3. port_mirroring	869
29.327.4. network_filter	870
29.327.5. qos	870
29.328. VNICPROFILEMAPPING STRUCT	870
29.328.1. source_network_name	871
29.328.2. source_network_profile_name	871
29.328.3. target_vnic_profile	872
29.329. VOLUMEGROUP STRUCT	872
29.330. WATCHDOG STRUCT	872
29.330.1. model	873
29.330.2. vms	873
29.331. WATCHDOGACTION ENUM	873
29.331.1. none	874
29.332. WATCHDOGMODEL ENUM	874
29.332.1. diag288	874
29.332.2. i6300esb	874
29.333. WEIGHT STRUCT	874
APPENDIX A. PRIMITIVE TYPES	876

CHAPTER 30. STRING PRIMITIVE	877
CHAPTER 31. BOOLEAN PRIMITIVE	878
CHAPTER 32. INTEGER PRIMITIVE	879
CHAPTER 33. DECIMAL PRIMITIVE	880
CHAPTER 34. DATE PRIMITIVE	881
APPENDIX B. CHANGES IN VERSION 4 OF THE API	882
CHAPTER 35. CHANGES IN API VERSION 4.0 (SUCCEEDING VERSION 3.6)	883
35.1. REMOVED YAML SUPPORT	883
35.2. RENAMED COMPLEX TYPES	883
35.3. REPLACED THE STATUS TYPE WITH ENUM TYPES	884
35.4. REMOVE THE NIC NETWORK AND PORT_MIRRORING PROPERTIES	885
35.5. REMOVE THE NIC ACTIVE PROPERTY	886
35.6. REMOVE THE DISK TYPE PROPERTY	886
35.7. REMOVE THE DISK SIZE PROPERTY	886
35.8. REMOVED SUPPORT FOR PINNING A VM TO A SINGLE HOST	886
35.9. REMOVED THE CAPABILITIES.PERMITS ELEMENT	886
35.10. REMOVED THE STORAGE_MANAGER ELEMENT	887
35.11. REMOVED THE DATA CENTER STORAGE_TYPE ELEMENT	887
35.12. REMOVE THE TIMEZONE ELEMENT	887
35.13. REMOVED THE GUEST_INFO ELEMENT	888
35.14. REPLACED CPU ID ATTRIBUTE WITH TYPE ELEMENT	888
35.15. USE ELEMENTS INSTEAD OF ATTRIBUTES IN CPU TOPOLOGY	889
35.16. USE ELEMENTS INSTEAD OF ATTRIBUTES IN VCPU PIN	889
35.17. USE ELEMENTS INSTEAD OF ATTRIBUTES IN VCPU PIN	890
35.18. USE ELEMENTS INSTEAD OF ATTRIBUTES IN MEMORY OVERCOMMIT	890
35.19. USE ELEMENTS INSTEAD OF ATTRIBUTES IN CONSOLE	890
35.20. USE ELEMENTS INSTEAD OF ATTRIBUTES IN VIRTIO SCSI	890
35.21. USE ELEMENT INSTEAD OF ATTRIBUTE FOR POWER MANAGEMENT AGENT TYPE	891
35.22. USE ELEMENTS INSTEAD OF ATTRIBUTES IN POWER MANAGEMENT AGENT OPTIONS	891
35.23. USE ELEMENTS INSTEAD OF ATTRIBUTES IN IP ADDRESS:	891
35.24. USE ELEMENTS INSTEAD OF ATTRIBUTES IN MAC ADDRESS:	892
35.25. USE ELEMENTS INSTEAD OF ATTRIBUTES IN BOOT DEVICE:	892
35.26. USE ELEMENT INSTEAD OF ATTRIBUTE FOR OPERATING SYSTEM TYPE	892
35.27. REMOVED THE FORCE PARAMETER FROM THE REQUEST TO RETRIEVE A HOST	893
35.28. REMOVED DEPRECATED HOST POWER MANAGEMENT CONFIGURATION	893
35.29. USE MULTIPLE BOOT.DEVICES.DEVICE INSTEAD OF MULTIPLE BOOT	893
35.30. REMOVED THE DISKS.CLONE AND DISKS.DETACH_ONLY ELEMENTS	894
35.31. RENAME ELEMENT VMPOOL TO VM_POOL	895
35.32. USE LOGICAL_UNITS INSTEAD OF MULTIPLE LOGICAL_UNIT	895
35.33. REMOVED THE SNAPSHOTS.COLLAPSE_SNAPSHOTS ELEMENT	896
35.34. RENAMED STORAGE AND HOST_STORAGE ELEMENTS	896
35.35. REMOVED THE PERMISSIONS.CLONE ELEMENT	897
35.36. RENAMED THE RANDOM NUMBER GENERATOR SOURCE ELEMENTS	898
35.37. REMOVED THE INTERMEDIATE TAG.PARENT ELEMENT	899
35.38. REMOVE SCHEDULING BUILT-IN NAMES AND THRESHOLDS	899
35.39. REMOVED THE BRICKS.REPLICA_COUNT AND BRICKS.STRIPE_COUNT ELEMENTS	900
35.40. RENAMED THE STATISTICS TYPE PROPERTY TO KIND	901
35.41. USE MULTIPLE VCPU_PINS.VCPU_PIN INSTEAD OF MULTIPLE VCPU_PIN	901
35.42. USE FORCE PARAMETER TO FORCE REMOVE A DATA CENTER	902

35.43. USE FORCE PARAMETER TO FORCE REMOVE A HOST	902
35.44. USE PARAMETERS FOR FORCE REMOVE STORAGE DOMAIN	902
35.45. USE HOST PARAMETER TO REMOVE STORAGE SERVER CONNECTION	903
35.46. USE FORCE AND STORAGE_DOMAIN PARAMETERS TO REMOVE TEMPLATE DISKS	903
35.47. DO NOT REMOVE DISKS VIA THE VM DISK API	904
35.48. USE FORCE QUERY PARAMETER TO FORCE REMOVE A VIRTUAL MACHINE	904
35.49. USE POST INSTEAD OF DELETE TO REMOVE MULTIPLE BRICKS	904
35.50. REMOVED THE SCHEDULING_POLICY.POLICY ELEMENT	905
35.51. ADDED SNAPSHOT.SNAPSHOT_TYPE	905
35.52. REMOVED MOVE ACTION FROM VM	905
35.53. MOVED REPORTED_CONFIGURATIONS.IN_SYNC TO NETWORK_ATTACHMENT	905
35.54. REPLACED CAPABILITIES WITH CLUSTERLEVELS	906
35.55. REPLACED DISKS WITH DISKATTACHMENTS	907
35.56. USE ISCSI_TARGETS ELEMENT TO DISCOVER UNREGISTERED STORAGE	908
 CHAPTER 36. CHANGES IN ENGINE VERSION 4.5	 910
36.1. OPENSTACK VOLUME (CINDER) INTEGRATION REPLACED BY MANAGED BLOCK STORAGE.	910
 APPENDIX C. LEGAL NOTICE	 911

PART I. INTRODUCTION

The Red Hat Virtualization Manager provides a **Representational State Transfer (REST) API**. The API provides software developers and system administrators with control over their Red Hat Virtualization environment outside of the standard web interface. The API is useful for developers and administrators to integrate the functionality of a Red Hat Virtualization environment with custom scripts or external applications that access the API via the standard Hypertext Transfer Protocol (HTTP).

The benefits of the API are:

- Broad client support - Any programming language, framework, or system with support for HTTP protocol can use the API.
- Self descriptive - Client applications require minimal knowledge of the virtualization infrastructure, as many details are discovered at runtime.
- Resource-based model - The resource-based REST model provides a natural way to manage a virtualization platform.

This provides developers and administrators with the ability to:

- Integrate with enterprise IT systems.
- Integrate with third-party virtualization software.
- Perform automated maintenance or error-checking tasks.
- Automate repetitive tasks in a Red Hat Virtualization environment with scripts.

This documentation acts as a reference for the Red Hat Virtualization API. It aims to provide developers and administrators with instructions and examples to help harness the functionality of their Red Hat Virtualization environment through the API, either directly or using the provided SDKs.

CHAPTER 1. REPRESENTATIONAL STATE TRANSFER

Representational State Transfer (REST) is a design architecture that focuses on resources for a specific service and their representations. A resource representation is a key abstraction of information that corresponds to one specific managed element on a server. A client sends a request to a server element located at a Uniform Resource Identifier (URI) and performs operations with standard HTTP methods, such as **GET**, **POST**, **PUT**, and **DELETE**. This provides a stateless communication between the client and server where each request acts independently of any other request, and contains all the information necessary to complete the request.

1.1. API PREREQUISITES

Prerequisites for using the Red Hat Virtualization API:

- A networked installation of Red Hat Virtualization Manager, which includes the API.
- A client or programming library that initiates and receives HTTP requests from the API server, for example:
 - The [oVirt Python SDK](#).
 - The [oVirt Java SDK](#).
 - The [cURL](#) command line tool.
 - [RESTClient](#), a debugger for RESTful web services.
- Knowledge of Hypertext Transfer Protocol (HTTP), the protocol used for REST API interactions. See [RFC 2616: HTTP/1.1](#).
- Knowledge of Extensible Markup Language (XML) or JavaScript Object Notation (JSON), which the API uses to construct resource representations. See W3C [Extensible Markup Language \(XML\) 1.0](#) and [ECMA-404: JSON data interchange syntax](#).

PART II. AUTHENTICATION AND SECURITY

CHAPTER 2. TLS/SSL CERTIFICATION

The Red Hat Virtualization API requires Hypertext Transfer Protocol Secure (HTTPS) footnote:[See [RFC 2818: HTTP Over TLS](#) for secure interaction with client software, such as the SDK and CLI components. This involves obtaining the [CA certificate](#) used by the server and importing it into the certificate store of your client.

2.1. OBTAINING THE CA CERTIFICATE

You can obtain the CA certificate from the Red Hat Virtualization Manager and transfer it to the client machine using one of these methods:

Method 1

The preferred method for obtaining the CA certificate is to use the **openssl s_client** command line tool to perform a real TLS handshake with the server, and then extract the certificates that it presents.

1. Run the **openssl s_client** command as in the following example:

```
$ openssl s_client \
-connect myengine.example.com:443 \
-showcerts \
< /dev/null
```

Example output

```
CONNECTED(00000003)
depth=1 C = US, O = Example Inc., CN = myengine.example.com.23416
verify error:num=19:self signed certificate in certificate chain
---
Certificate chain
 0 s:/C=US/O=Example Inc./CN=myengine.example.com
  i:/C=US/O=Example Inc./CN=myengine.example.com.23416
-----BEGIN CERTIFICATE-----
MIIEaTCCA1GgAwIBAgICEAQwDQYJKoZIhvcNAQEFBQAwSTELMAkGA1UEBhMCVVMx
FTATBgNVBAoTDEV4YW1wbGUgSW5jLjEjMCEGA1UEAxMaZW5naW50bW5INDEuZXhhbXBs
SVIJJe7e5FTEtHJGTAeWWM6dGbsFhip5VXM0gfqg=
-----END CERTIFICATE-----
 1 s:/C=US/O=Example Inc./CN=myengine.example.com.23416
  i:/C=US/O=Example Inc./CN=myengine.example.com.23416
-----BEGIN CERTIFICATE-----
MIIDxjCCAq6gAwIBAgICEAAwDQYJKoZIhvcNAQEFBQAwSTELMAkGA1UEBhMCVVMx
FTATBgNVBAoTDEV4YW1wbGUgSW5jLjEjMCEGA1UEAxMaZW5naW50bW5INDEuZXhhbXBs
Pkyg1rQHR6ebGQ==
-----END CERTIFICATE-----
```

The text between the **-----BEGIN CERTIFICATE-----** and **-----END CERTIFICATE-----** lines shows the certificates presented by the server.

The first certificate is the certificate of the server itself. The second certificate is the certificate of the CA.

2. Copy the CA certificate, including the **-----BEGIN CERTIFICATE-----** and **-----END CERTIFICATE-----** lines, to the **ca.crt** file as in the following example:

```
-----BEGIN CERTIFICATE-----
MIIDxjCCAq6gAwIBAgICEAAwDQYJKoZIhvcNAQEFBQAwSTELMAkGA1UEBhMCVVMx
FTATBgNVBAoTDEV4YW1wbGUgSW5jLjEjMCEGA1UEAxMaZW5naW50eXh0bXBs
Pkyg1rQHR6ebGQ==
-----END CERTIFICATE-----
```



IMPORTANT

This is the most reliable method to obtain the CA certificate used by the server. The rest of the methods described here will work in most cases, but they will not obtain the correct CA certificate if the certificate has been manually replaced by the server administrator.

Method 2

If you cannot use **openssl s_client** to obtain the certificate, you can use a command line tool, for example **curl** or **wget**, to download the CA certificate from the Red Hat Virtualization Manager. **curl** and **wget** are available on multiple platforms.

- If using **curl**:

```
$ curl \
--output ca.crt \
'http://myengine.example.com/ovirt-engine/services/pki-resource?resource=ca-
certificate&format=X509-PEM-CA'
```

- If using **wget**:

```
$ wget \
--output-document ca.crt \
'http://myengine.example.com/ovirt-engine/services/pki-resource?resource=ca-
certificate&format=X509-PEM-CA'
```

Method 3

Use a web browser to navigate to the certificate located at `https://myengine.example.com/ovirt-engine/services/pki-resource?resource=ca-certificate&format=X509-PEM-CA``.

Depending on the chosen browser, the certificate is downloaded or imported into the browser's keystore:

- If the browser downloads the certificate, save the file as **ca.crt**.
- If the browser imports the certificate, export it using the browser's certificate management options and save it as **ca.crt**.

Method 4

Log in to the Red Hat Virtualization Manager, export the certificate from the truststore, and copy it to your client machine.

1. Log in to the Red Hat Virtualization Manager machine as **root**.
2. Export the certificate from the truststore using the Java **keytool** management utility:

```
# keytool \  
-keystore /etc/pki/ovirt-engine/.truststore \  
-storepass mypass \  
-exportcert \  
-alias cacert \  
-rfc \  
-file ca.crt
```

This creates a certificate file called **ca.crt**.

3. Copy the certificate to the client machine using the **scp** command:

```
$ scp ca.crt myuser@myclient.example.com:/home/myuser/.
```

Each of these methods results in a certificate file named **ca.crt** on your client machine. You must then import this file into the certificate store of the client.

2.2. IMPORTING A CERTIFICATE TO A CLIENT

Importing a certificate to a client relies on how the client stores and interprets certificates. See your client documentation for more information on importing a certificate.

CHAPTER 3. AUTHENTICATION

Any user with a Red Hat Virtualization Manager account has access to the API. All requests must be authenticated using either **OAuth** or basic authentication, as described below.

3.1. OAUTH AUTHENTICATION

Since version 4.0 of Red Hat Virtualization the preferred authentication mechanism is [OAuth 2.0](#), as described in [RFC 6749](#).

OAuth is a sophisticated protocol, with several mechanisms for obtaining authorization and access tokens. For use with the Red Hat Virtualization API, the only supported one is the *Resource Owner Password Credentials Grant*, as described in [RFC 6749](#).

You must first obtain a *token*, sending the user name and password to the Red Hat Virtualization Manager single sign-on service:

```
POST /ovirt-engine/sso/oauth/token HTTP/1.1
Host: myengine.example.com
Content-Type: application/x-www-form-urlencoded
Accept: application/json
```

The request body must contain the **grant_type**, **scope**, **username**, and **password** parameters:

Table 3.1. OAuth token request parameters

Name	Value
grant_type	password
scope	ovirt-app-api
username	admin@internal
password	mypassword

These parameters must be [URL-encoded](#). For example, the @ character in the user name needs to be encoded as **%40**. The resulting request body will be something like this:

```
grant_type=password&scope=ovirt-app-api&username=admin%40internal&password=mypassword
```



IMPORTANT

The **scope** parameter is described as optional in the **OAuth** RFC, but when using it with the Red Hat Virtualization API it is mandatory, and its value must be **ovirt-app-api**.

If the user name and password are valid, the Red Hat Virtualization Manager single sign-on service will respond with a JSON document similar to this one:

```
{
  "access_token": "fqBR1ftzh8wBCviLxJcYuV5oSDI=",
```

```

    "token_type": "bearer",
    "scope": "...",
    ...
  }

```

For API authentication purposes, the only relevant name/value pair is the **access_token**. Do not manipulate this in any way; use it exactly as provided by the SSO service.

Once the token has been obtained, it can be used to perform requests to the API by including it in the HTTP **Authorization** header, and using the **Bearer** scheme. For example, to get the list of virtual machines, send a request like this:

```

GET /ovirt-engine/api/vms HTTP/1.1
Host: myengine.example.com
Accept: application/xml
Authorization: Bearer fqBR1ftzh8wBCviLxJcYuV5oSDI=

```

The token can be used multiple times, for multiple requests, but it will eventually expire. When it expires, the server will reject the request with the 401 HTTP response code:

```

HTTP/1.1 401 Unauthorized

```

When this happens, a new token is needed, as the Red Hat Virtualization Manager single sign-on service does not currently support refreshing tokens. A new token can be requested using the same method described above.

3.2. BASIC AUTHENTICATION



IMPORTANT

Basic authentication is supported only for backwards compatibility; it is deprecated since version 4.0 of Red Hat Virtualization, and will be removed in the future.

Each request uses HTTP Basic Authentication ^[1] to encode the credentials. If a request does not include an appropriate **Authorization** header, the server sends a **401 Authorization Required** response:

```

HEAD /ovirt-engine/api HTTP/1.1
Host: myengine.example.com

HTTP/1.1 401 Authorization Required

```

Requests are issued with an **Authorization** header for the specified realm. Encode an appropriate Red Hat Virtualization Manager domain and user in the supplied credentials with the **username@domain:password** convention.

The following table shows the process for encoding credentials in [Base64](#).

Table 3.2. Encoding credentials for API access

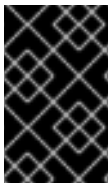
Item	Value
User name	admin

Item	Value
Domain	internal
Password	mypassword
Unencoded credentials	admin@internal:mypassword
Base64 encoded credentials	YWRtaW5AaW50ZXJuYWw6bXlwYXNzd29yZA==

Provide the Base64-encoded credentials as shown:

```
HEAD /ovirt-engine/api HTTP/1.1
Host: myengine.example.com
Authorization: Basic YWRtaW5AaW50ZXJuYWw6bXlwYXNzd29yZA==

HTTP/1.1 200 OK
```



IMPORTANT

Basic authentication involves potentially sensitive information, such as passwords, sent as plain text. The API requires Hypertext Transfer Protocol Secure (HTTPS) for transport-level encryption of plain-text requests.



IMPORTANT

Some Base64 libraries break the result into multiple lines and terminate each line with a newline character. This breaks the header and causes a faulty request. The **Authorization** header requires the encoded credentials on a single line within the header.

3.3. AUTHENTICATION SESSIONS

The API also provides authentication session support. Send an initial request with authentication details, then send all subsequent requests using a session cookie to authenticate.

3.3.1. Requesting an Authenticated Session

1. Send a request with the **Authorization** and **Prefer: persistent-auth** headers:

```
HEAD /ovirt-engine/api HTTP/1.1
Host: myengine.example.com
Authorization: Basic YWRtaW5AaW50ZXJuYWw6bXlwYXNzd29yZA==
Prefer: persistent-auth

HTTP/1.1 200 OK
...
```

This returns a response with the following header:

Set-Cookie: JSESSIONID=5dQja5ubr4yvl2MM2z+LZxrK; Path=/ovirt-engine/api; Secure

Take note of the **JSESSIONID=** value. In this example the value is **5dQja5ubr4yvl2MM2z+LZxrK**.

2. Send all subsequent requests with the **Prefer: persistent-auth** and **Cookie** headers with the **JSESSIONID=** value. The **Authorization** header is no longer needed when using an authenticated session.

```
HEAD /ovirt-engine/api HTTP/1.1
Host: myengine.example.com
Prefer: persistent-auth
Cookie: JSESSIONID=5dQja5ubr4yvl2MM2z+LZxrK
```

```
HTTP/1.1 200 OK
...
```

3. When the session is no longer required, perform a request to the sever without the **Prefer: persistent-auth** header.

```
HEAD /ovirt-engine/api HTTP/1.1
Host: myengine.example.com
Authorization: Basic YWRtaW5AaW50ZXJuYWw6bXlwYXNzd29yZA==
```

```
HTTP/1.1 200 OK
...
```

[1] Basic Authentication is described in [RFC 2617: HTTP Authentication: Basic and Digest Access Authentication](#)

PART III. COMMON CONCEPTS

CHAPTER 4. TYPES

The API uses the *type* concept to describe the different kinds of objects accepted and returned.

There are three relevant kinds of types:

Primitive types

Describe simple kinds of objects, like [strings](#) or [integers](#).

Enumerated types

Describe lists of valid values like [VmStatus](#) or [DiskFormat](#).

Structured types

Describe structured objects, with multiple attributes and links, like [Vm](#) or [Disk](#).

CHAPTER 5. IDENTIFIED TYPES

Many of the types used by the API represent *identified* objects, objects that have a unique identifier and exist independently of other objects. The types used to describe those objects extend the [Identified](#) type, which contains the following set of common attributes:

Attribute	Type	Description
id	String	Each object in the virtualization infrastructure contains an id , which acts as a unique identifier.
href	String	The canonical location of the object as an absolute path.
name	String	A user-supplied human readable name for the object. The name name is unique across all objects of the same type.
description	String	A free-form user-supplied human readable description of the object.



IMPORTANT

Currently for most types of objects the **id** attribute is actually a randomly generated [UUID](#), but this is an implementation detail, and users should not rely on that, as it may change in the future. Instead users should assume that these identifiers are just strings.

CHAPTER 6. OBJECTS

Objects are the individual instances of the types supported by the API. For example, the virtual machine with identifier **123** is an object of the [Vm](#) type.

CHAPTER 7. COLLECTIONS

A collection is a set of objects of the same type.

CHAPTER 8. REPRESENTATIONS

The state of objects needs to be represented when it is transferred between the client and the server. The API supports XML and JSON as the representation of the state of objects, both for input and output.

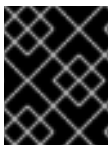
8.1. XML REPRESENTATION

The XML representation of an object consists of an XML element corresponding to the type of the object, XML attributes for the **id** and **href** attributes, and nested XML elements for the rest of the attributes. For example, the XML representation for a virtual machine appears as follows:

```
<vm id="123" href="/ovirt-engine/api/vms/123">
  <name>myvm</name>
  <description>My VM</description>
  <memory>1073741824</memory>
  ...
</vm>
```

The XML representation of a collection of objects consists of an XML element, named after the type of the objects, in plural. This contains the representations of the objects of the collection. For example, the XML representation for a collection of virtual machines appears as follows:

```
<vms>
  <vm id="123" href="/ovirt-engine/api/vms/123">
    <name>yourvm</name>
    <description>Your VM</description>
    <memory>1073741824</memory>
    ...
  </vm>
  <vm id="456" href="/ovirt-engine/api/vms/456">
    <name>myname</name>
    <description>My description</description>
    <memory>2147483648</memory>
    ...
  </vm>
  ...
</vms>
```



IMPORTANT

In the XML representation of objects the **id** and **href** attributes are the only ones that are represented as XML attributes, the rest are represented as nested XML elements.

8.2. JSON REPRESENTATION

The JSON representation of an object consists of a JSON document containing a name/value pair for each attribute (including **id** and **href**). For example, the JSON representation of a virtual machine appears as follows:

```
{
  "id": "123",
  "href": "/ovirt-engine/api/vms/123",
```

```
"name": "myvm",  
"description": "My VM",  
"memory": 1073741824,  
...  
}
```

The JSON representation of a collection of objects consists of a JSON document containing a name/value pair (named after the type of the objects, in singular) which in turn contains an array with the representations of the objects of the collection. For example, the JSON representation for a collection of virtual machines appears as follows:

```
{  
  "vm": [  
    {  
      "id": "123",  
      "href": "/ovirt-engine/api/vms/123",  
      "name": "myvm",  
      "description": "My VM",  
      "memory": 1073741824,  
      ...  
    },  
    {  
      "id": "456",  
      "href": "/ovirt-engine/api/vms/456",  
      "name": "yourvm",  
      "description": "Your VM",  
      "memory": 2147483648,  
      ...  
    },  
  ]  
}
```

CHAPTER 9. SERVICES

Services are the parts of the server responsible for retrieving, adding updating, removing and executing actions on the objects supported by the API.

There are two relevant kinds of services:

Services that manage a collection of objects

These services are responsible for listing existing objects and adding new objects. For example, the [Vms](#) service is responsible for managing the collection of virtual machines available in the system.

Services that manage a specific object

These services are responsible for retrieving, updating, deleting and executing actions in specific objects. For example, the [Vm](#) service is responsible for managing a specific virtual machine.

Each service is accessible via a particular *path* within the server. For example, the service that manages the collection of virtual machines available in the system is available in the via the path **/vms**, and the service that manages the virtual machine **123** is available via the path **/vms/123**.

All kinds of services have a set of *methods* that represent the operations that they can perform. The services that manage collections of objects usually have the **list** and **add** methods. The services that manage specific objects usually have the **get**, **update** and **remove** methods. In addition, services may also have *action* methods, that represent less common operations. For example, the [Vm](#) service has a **start** method that is used to start a virtual machine.

For the more usual methods there is a direct mapping between the name of the method and the name of the HTTP method:

Method name	HTTP method
add	POST
get	GET
list	GET
update	PUT
remove	DELETE

The path used in the HTTP request is the path of the service, with the **/ovirt-engine/api** prefix.

For example, the request to **list** the virtual machines should be like this, using the HTTP **GET** method and the path **/vms**:

```
GET /ovirt-engine/api/vms
```

For action methods the HTTP method is always **POST**, and the name of the method is added as a suffix to the path. For example, the request to start virtual machine **123** should look like this, using the HTTP **POST** method and the path **/vms/123/start**:

```
POST /ovirt-engine/api/vms/123/start
```

Each method has a set of parameters.

Parameters are classified into two categories:

Main parameter

The main parameter corresponds the object or collection that is retrieved, added or updated. This only applies to the **add**, **get**, **list** and **update** methods, and there will be exactly one such main parameter per method.

Secondary parameters

The rest of the parameters.

For example, the operation that adds a virtual machine (see [here](#)) has three parameters: **vm**, **clone** and **clone_permissions**. The main parameter is **vm**, as it describes the object that is added. The **clone** and **clone_permissions** parameters are secondary parameters.

The main parameter, when used for input, must be included in the body of the HTTP request. For example, when adding a virtual machine, the **vm** parameter, of type [Vm](#) must be included in the request body. So the complete request to add a virtual machine, including all the HTTP details, must look like this:

```
POST /ovirt-engine/api/vms HTTP/1.1
Host: myengine.example.com
Authorization: Bearer fqBR1ftzh8wBCviLxJcYuV5oSDI=
Content-Type: application/xml
Accept: application/xml

<vm>
  <name>myvm</name>
  <description>My VM</description>
  <cluster>
    <name>Default</name>
  </cluster>
  <template>
    <name>Blank</name>
  </template>
</vm>
```

When used for output, the main parameters are included in the response body. For example, when adding a virtual machine, the **vm** parameter will be included in the response body. So the complete response body will look like this:

```
HTTP/1.1 201 Created
Content-Type: application/xml

<vm href="/ovirt-engine/api/vms/123" id="123">
  <name>myvm</name>
  <description>My VM</description>
  ...
</vm>
```

Secondary parameters are only allowed for input (except for action methods, which are described later), and they must be included as query parameters. For example, when adding a virtual machine with the **clone** parameter set to **true**, the complete request must look like this:


```
POST /ovirt-engine/api/vms?clone=true HTTP/1.1
Host: myengine.example.com
Authorization: Bearer fqBR1ftzh8wBCviLxJcYuV5oSDI=
Content-Type: application/xml
Accept: application/xml
```

```
<vm>
  <name>myvm</name>
  <description>My VM</description>
  <cluster>
    <name>Default</name>
  </cluster>
  <template>
    <name>Blank</name>
  </template>
</vm>
```

Action methods only have secondary parameters. They can be used for input and output, and they should be included in the request body, wrapped with an **action** element. For example, the action method used to start a virtual machine (see [here](#)) has a **vm** parameter to describe how the virtual machine should be started, and a **use_cloud_init** parameter to specify if [cloud-init](#) should be used to configure the guest operating system. So the complete request to start virtual machine **123** using *cloud-init* will look like this when using XML:

```
POST /ovirt-engine/api/vms/123/start HTTP/1.1
Host: myengine.example.com
Authorization: Bearer fqBR1ftzh8wBCviLxJcYuV5oSDI=
Content-Type: application/xml
Accept: application/xml
```

```
<action>
  <use_cloud_init>true</use_cloud_init>
  <vm>
    <initialization>
      <nic_configurations>
        <nic_configuration>
          <name>eth0</name>
          <on_boot>true</on_boot>
          <boot_protocol>static</boot_protocol>
          <ip>
            <address>192.168.0.100</address>
            <netmask>255.255.255.0</netmask>
            <gateway>192.168.0.1</netmask>
          </ip>
        </nic_configuration>
      </nic_configurations>
      <dns_servers>192.168.0.1</dns_servers>
    </initialization>
  </vm>
</action>
```

CHAPTER 10. SEARCHING

The **list** method of some services has a **search** parameter that can be used to specify search criteria. When used, the server will only return objects within the collection that satisfy those criteria. For example, the following request will return only the virtual machine named **myvm**:

```
GET /ovirt-engine/api/vms?search=name%3Dmyvm
```

10.1. MAXIMUM RESULTS PARAMETER

Use the **max** parameter to limit the number of objects returned. For example, the following request will only return one virtual machine, regardless of how many are available in the system:

```
GET /ovirt-engine/api/vms?max=1
```

A search request without the **max** parameter will return all the objects. Specifying the **max** parameter is recommended to reduce the impact of requests in the overall performance of the system.

10.2. CASE SENSITIVITY

By default queries are not case sensitive. For example, the following request will return the virtual machines named **myvm**, **MyVM** and **MYVM**:

```
GET /ovirt-engine/api/vms?search=name%3Dmyvm
```

The optional **case_sensitive** boolean parameter can be used to change this behaviour. For example, to get exactly the virtual machine named **myhost**, and not **MyHost** or **MYHOST**, send a request like this:

```
GET /ovirt-engine/api/vms?search=name%3D=myvm&case_sensitive=true
```

10.3. SEARCH SYNTAX

The **search** parameters use the same syntax as the Red Hat Virtualization query language:

```
(criteria) [sortby (element) asc|desc]
```

The **sortby** clause is optional and only needed when ordering results.

Example search queries:

Collection	Criteria	Result
hosts	vms.status=up	Returns a list of all hosts running virtual machines that are up .
vms	domain=example.com	Returns a list of all virtual machines running on the specified domain.
vms	users.name=mary	Returns a list of all virtual machines belonging to users with the user name mary .

Collection	Criteria	Result
events	severity > normal sortby time	Returns a list of all events with severity higher than normal and sorted by the the value of their time attribute.
events	severity > normal sortby time desc	Returns a list of all events with severity higher than normal and sorted by the the value of their time attribute in descending order.

The value of the **search** parameter must be [URL-encoded](#) to translate reserved characters, such as operators and spaces. For example, the equal sign should be encoded as **%3D**:

```
GET /ovirt-engine/api/vms?search=name%3Dmyvm
```

10.4. WILDCARDS

The asterisk can be used as part of a value, to indicate that any string matches, including the empty string. For example, the following request will return all the virtual machines with names beginning with **myvm**, such as **myvm**, **myvm2**, **myvma** or **myvm-webserver**:

```
GET /ovirt-engine/api/vms?search=name%3Dmyvm*
```

10.5. PAGINATION

Some Red Hat Virtualization environments contain large collections of objects. Retrieving all of them with one request isn't practical, and hurts performance. To allow retrieving them page by page the **search** parameter supports an optional **page** clause. This, combined with the **max** parameter, is the basis for paging. For example, to get the first page of virtual machines, with a page size of 10 virtual machines, send request like this:

```
GET /ovirt-engine/api/vms?search=page%201&max=10
```



NOTE

The search parameter is URL-encoded, the actual value of the **search** parameter, before encoding, is **page 1**, so this is actually requesting the first page.

Increase the **page** value to retrieve the next page:

```
GET /ovirt-engine/api/vms?search=page%202&max=10
```

The **page** clause can be used in conjunction with other clauses inside the **search** parameter. For example, the following request will return the second page of virtual machines, but sorting by name:

```
GET /ovirt-engine/api/vms?search=sortby%20name%20page%202&max=10
```



IMPORTANT

The API is stateless; it is not possible to retain a state between different requests since all requests are independent from each other. As a result, if a status change occurs between your requests, then the page results may be inconsistent.

For example, if you request a specific page from a list of virtual machines, and virtual machines are created or removed before you request the next page, then your results may be missing some of them, or contain duplicates.

CHAPTER 11. FOLLOWING LINKS

The API returns references to related objects as *links*. For example, when a virtual machine is retrieved it contains links to its disk attachments and network interface cards:

```
<vm id="123" href="/ovirt-engine/api/vms/123">
...
<link rel="diskattachments" href="/ovirt-engine/api/vms/123/diskattachments"/>
<link rel="nics" href="/ovirt-engine/api/vms/123/nics"/>
...
</vm>
```

The complete description of those *linked* objects can be retrieved by sending separate requests:

```
GET /ovirt-engine/api/vms/123/diskattachments
GET /ovirt-engine/api/vms/123/nics
```

However, in some situations it is more convenient for the application using the API to retrieve the linked information in the same request. This is useful, for example, when the additional network round trips introduce an unacceptable overhead, or when the multiple requests complicate the code of the application in an unacceptable way. For those use cases the API provides a **follow** parameter that allows the application to retrieve the linked information using only one request.

The value of the **follow** parameter is a list of strings, separated by commas. Each of those strings is the *path* of the linked object. For example, to retrieve the disk attachments and the NICs in the example above the request should be like this:

```
GET /ovirt-engine/api/vms/123?follow=disk_attachments,nics
```

That will return an response like this:

```
<vm id="123" href="/ovirt-engine/api/vms/123">
...
<disk_attachments>
<disk_attachment id="456" href="/ovirt-engine/api/vms/123/diskattachments/456">
  <active>true</active>
  <bootable>true</bootable>
  <interface>virtio_scsi</interface>
  <pass_discard>false</pass_discard>
  <read_only>false</read_only>
  <uses_scsi_reservation>false</uses_scsi_reservation>
  <disk id="789" href="/ovirt-engine/api/disks/789"/>
</disk_attachment>
...
</disk_attachments>
<nics>
<nic id="234" href="/ovirt-engine/api/vms/123/nics/234">
  <name>eth0</name>
  <interface>virtio</interface>
  <linked>true</linked>
  <mac>
    <address>00:1a:4a:16:01:00</address>
  </mac>
  <plugged>true</plugged>
```

```

    </nic>
    ...
  </nics>
  ...
</vm>

```

The path to the linked object can be a single word, as in the previous example, or it can be a sequence of words, separated by dots, to request nested data. For example, the previous example used **disk_attachments** in order to retrieve the complete description of the disk attachments, but each disk attachment contains a link to the disk, which wasn't *followed*. In order to also follow the links to the disks, the following request can be used:

```
GET /ovirt-engine/api/vms/123?follow=disk_attachments.disk
```

That will result in the following response:

```

<vm id="123" href="/ovirt-engine/api/vms/123">
  <disk_attachments>
    <disk_attachment id="456" href="/ovirt-engine/api/vms/123/diskattachments/456">
      <active>true</active>
      <bootable>true</bootable>
      <interface>virtio_scsi</interface>
      <pass_discard>false</pass_discard>
      <read_only>false</read_only>
      <uses_scsi_reservation>false</uses_scsi_reservation>
      <disk id="789" href="/ovirt-engine/api/disks/789">
        <name>mydisk</name>
        <description>My disk</description>
        <actual_size>0</actual_size>
        <format>raw</format>
        <sparse>true</sparse>
        <status>ok</status>
        <storage_type>image</storage_type>
        <total_size>0</total_size>
        ...
      </disk>
    </disk_attachment>
    ...
  </disk_attachments>
  ...
</vm>

```

The path can be made as deep as needed. For example, to also get the statistics of the disks:

```
GET /ovirt-engine/api/vms/123?follow=disk_attachments.disk.statistics
```

Multiple path elements and multiple paths can be combined. For example, to get the disk attachments and the network interface cards, both with their statistics:

```
GET /ovirt-engine/api/vms/123?follow=disk_attachments.disk.statistics,nics.statistics
```



IMPORTANT

Almost all the operations that retrieve objects support the **follow** parameter, but make sure to explicitly check the reference documentation, as some operations may not support it, or may provide advice on how to use it to get the best performance.



IMPORTANT

Using the **follow** parameter moves the overhead from the client side to the server side. When you request additional data, the server must fetch and merge it with the basic data. That consumes CPU and memory in the server side, and will in most cases require additional database queries. That may adversely affect the performance of the server, especially in large scale environments. Make sure to test your application in a realistic environment, and use the **follow** parameter only when justified.

CHAPTER 12. PERMISSIONS

Many of the services that manage a single object provide a reference to a **permissions** service that manages the permissions assigned to that object. Each permission contains links to the user or group, the role and the object. For example, the permissions assigned to a specific virtual machine can be retrieved sending a request like this:

```
GET /ovirt-engine/api/vms/123/permissions
```

The response body will look like this:

```
<permissions>
  <permission id="456" href="/ovirt-engine/api/vms/123/permissions/456">
    <user id="789" href="/ovirt-engine/api/users/789"/>
    <role id="abc" href="/ovirt-engine/api/roles/abc"/>
    <vm id="123" href="/ovirt-engine/api/vms/123"/>
  </permission>
  ...
</permissions>
```

A permission is added to an object sending a **POST** request with a permission representation to this service. Each new permission requires a role and a user.

CHAPTER 13. HANDLING ERRORS

Some errors require further explanation beyond a standard HTTP status code. For example, the API reports an unsuccessful object state update or action with a **fault** in the response body. The fault contains the **reason** and **detail** attributes. For example, when the server receives a request to create a virtual machine without the mandatory **name** attribute it will respond with the following HTTP response line:

```
HTTP/1.1 400 Bad Request
```

And the following response body:

```
<fault>  
  <reason>Incomplete parameters</reason>  
  <detail>Vm [name] required for add</detail>  
</fault>
```

PART IV. QUICK START EXAMPLES

The examples in this section show you how to use the REST API to set up a basic Red Hat Virtualization environment and to create a virtual machine. In addition to the standard prerequisites, these examples require the following:

- A networked and configured Red Hat Virtualization installation.
- An ISO file containing the virtual machine operating system you want to install. This chapter uses [CentOS 7](#) for the installation ISO example.

The API examples use [curl](#) to demonstrate API requests with a client application. You can use any application that sends HTTP requests.



IMPORTANT

The HTTP request headers in this example omit the **Host** and **Authorization** headers. However, these fields are mandatory and require data specific to your installation of Red Hat Virtualization.

The **curl** examples use **admin@internal** for the user name, **mypassword** for the password, **/etc/pki/ovirt-engine/ca.pem** for the certificate location, and **myengine.example.com** for the host name. You must replace them with the correct values for your environment.

Red Hat Virtualization generates a unique identifier for the **id** attribute for each resource. Identifier codes in this example will differ from the identifier codes in your Red Hat Virtualization environment.

In many examples, some attributes of the results returned by the API have been omitted, for brevity. See, for example, the [Cluster](#) reference for a complete list of attributes.

CHAPTER 14. ACCESS API ENTRY POINT

The following request retrieves a representation of the main entry point for version 4 of the API:

```
GET /ovirt-engine/api HTTP/1.1
Version: 4
Accept: application/xml
```

The same request, but using the **/v4** URL prefix instead of the **Version** header:

```
GET /ovirt-engine/api/v4 HTTP/1.1
Accept: application/xml
```

The same request, using the **curl** command:

```
curl \
--cacert '/etc/pki/ovirt-engine/ca.pem' \
--request GET \
--header 'Version: 4' \
--header 'Accept: application/xml' \
--user 'admin@internal:mypassword' \
https://myengine.example.com/ovirt-engine/api
```

The result is an object of type [Api](#):

```
<api>
  <link href="/ovirt-engine/api/clusters" rel="clusters"/>
  <link href="/ovirt-engine/api/datacenters" rel="datacenters"/>
  ...
  <product_info>
    <name>oVirt Engine</name>
    <vendor>ovirt.org</vendor>
    <version>
      <build>0</build>
      <full_version>4.0.0-0.0.el7</full_version>
      <major>4</major>
      <minor>0</minor>
      <revision>0</revision>
    </version>
  </product_info>
  <special_objects>
    <blank_template href="..." id="..." />
    <root_tag href="..." id="..." />
  </special_objects>
  <summary>
    <hosts>
      <active>23</active>
      <total>30</total>
    </hosts>
    <storage_domains>
      <active>5</active>
      <total>6</total>
    </storage_domains>
    <users>
```

```

    <active>12</active>
    <total>102</total>
  </users>
  <vms>
    <active>253</active>
    <total>545</total>
  </vms>
</summary>
<time>2016-10-06T15:38:18.548+02:00</time>
</api>

```

IMPORTANT

When neither the header nor the URL prefix are used, the server will automatically select a version. The default is version **4**. You can change the default version using the **ENGINE_API_DEFAULT_VERSION** configuration parameter:

```

# echo "ENGINE_API_DEFAULT_VERSION=3" > \
/etc/ovirt-engine/engine.conf.d/99-set-default-version.conf
# systemctl restart ovirt-engine

```

Changing this parameter affects all users of the API that do not specify the version explicitly.

The entry point provides a user with links to the collections in a virtualization environment. The **rel** attribute of each collection link provides a reference point for each link. The next step in this example examines the data center collection, which is available through the **datacenters** link.

The entry point also contains other data such as [product_info](#), [special_objects](#) and [summary](#). This data is covered in chapters outside this example.

CHAPTER 15. LIST DATA CENTERS

Red Hat Virtualization creates a **Default** data center on installation. This example uses the **Default** data center as the basis for the virtual environment.

The following request retrieves a representation of the data centers:

```
GET /ovirt-engine/api/datacenters HTTP/1.1
Accept: application/xml
```

The same request, using the **curl** command:

```
# curl \
--cacert '/etc/pki/ovirt-engine/ca.pem' \
--request GET \
--header 'Version: 4' \
--header 'Accept: application/xml' \
--user 'admin@internal:mypassword' \
https://myengine.example.com/ovirt-engine/api/datacenters
```

The result will be a list of objects of type [DataCenter](#):

```
<data_centers>
<data_center href="/ovirt-engine/api/datacenters/001" id="001">
  <name>Default</name>
  <description>The default Data Center</description>
  <link href="/ovirt-engine/api/datacenters/001/clusters" rel="clusters"/>
  <link href="/ovirt-engine/api/datacenters/001/storagedomains" rel="storagedomains"/>
  ...
  <local>false</local>
  <quota_mode>disabled</quota_mode>
  <status>up</status>
  <supported_versions>
    <version>
      <major>4</major>
      <minor>0</minor>
    </version>
  </supported_versions>
  <version>
    <major>4</major>
    <minor>0</minor>
  </version>
</data_center>
...
</data_centers>
```

Note the **id** of your **Default** data center. It identifies this data center in relation to other resources of your virtual environment.

The data center also contains a link to the [service](#) that manages the storage domains attached to the data center:

```
<link href="/ovirt-engine/api/datacenters/001/storagedomains" rel="storagedomains"/>
```

That service is used to attach storage domains from the main **storagedomains** collection, which this example covers later.

CHAPTER 16. LIST HOST CLUSTERS

Red Hat Virtualization creates a **Default** hosts cluster on installation. This example uses the **Default** cluster to group resources in your Red Hat Virtualization environment.

The following request retrieves a representation of the cluster collection:

```
GET /ovirt-engine/api/clusters HTTP/1.1
Accept: application/xml
```

The same request, using the **curl** command:

```
curl \
--cacert '/etc/pki/ovirt-engine/ca.pem' \
--request GET \
--header 'Version: 4' \
--header 'Accept: application/xml' \
--user 'admin@internal:mypassword' \
https://myengine.example.com/ovirt-engine/api/clusters
```

The result will be a list of objects of type [Cluster](#):

```
<clusters>
  <cluster href="/ovirt-engine/api/clusters/002" id="002">
    <name>Default</name>
    <description>The default server cluster</description>
    <link href="/ovirt-engine/api/clusters/002/networks" rel="networks"/>
    <link href="/ovirt-engine/api/clusters/002" rel="permissions"/>
    ...
    <cpu>
      <architecture>x86_64</architecture>
      <type>Intel Nehalem Family</type>
    </cpu>
    <version>
      <major>4</major>
      <minor>0</minor>
    </version>
    <data_center href="/ovirt-engine/api/datacenters/001" id="001"/>
  </cluster>
  ...
</clusters>
```

Note the **id** of your **Default** host cluster. It identifies this host cluster in relation to other resources of your virtual environment.

The **Default** cluster is associated with the **Default** data center through a relationship using the **id** and **href** attributes of the **data_center** link:

```
<data_center href="/ovirt-engine/api/datacenters/001" id="001"/>
```

The **networks** link is a reference to the [service](#) that manages the networks associated to this cluster. The next section examines the networks collection in more detail.

CHAPTER 17. LIST LOGICAL NETWORKS

Red Hat Virtualization creates a default **ovirtmgmt** network on installation. This network acts as the management network for Red Hat Virtualization Manager to access hosts.

This network is associated with the **Default** cluster and is a member of the **Default** data center. This example uses the **ovirtmgmt** network to connect the virtual machines.

The following request retrieves the list of logical networks:

```
GET /ovirt-engine/api/networks HTTP/1.1
Accept: application/xml
```

The same request, using the **curl** command:

```
# curl \
--cacert '/etc/pki/ovirt-engine/ca.pem' \
--request GET \
--header 'Version: 4' \
--header 'Accept: application/xml' \
--user 'admin@internal:mypassword' \
https://myengine.example.com/ovirt-engine/api/networks
```

The result will be a list of objects of type [Network](#):

```
<networks>
  <network href="/ovirt-engine/api/networks/003" id="003">
    <name>ovirtmgmt</name>
    <description>Management Network</description>
    <link href="/ovirt-engine/api/networks/003/permissions" rel="permissions"/>
    <link href="/ovirt-engine/api/networks/003/vnicprofiles" rel="vnicprofiles"/>
    <link href="/ovirt-engine/api/networks/003/networklabels" rel="networklabels"/>
    <mtu>0</mtu>
    <stp>false</stp>
    <usages>
      <usage>vm</usage>
    </usages>
    <data_center href="/ovirt-engine/api/datacenters/001" id="001"/>
  </network>
  ...
</networks>
```

The **ovirtmgmt** network is attached to the **Default** data center through a relationship using the data center's **id**.

The **ovirtmgmt** network is also attached to the **Default** cluster through a relationship in the cluster's network sub-collection.

CHAPTER 18. LIST HOSTS

This example retrieves the list of hosts and shows a host named **myhost** registered with the virtualization environment:

```
GET /ovirt-engine/api/hosts HTTP/1.1
Accept: application/xml
```

The same request, using the **curl** command:

```
# curl \
--cacert '/etc/pki/ovirt-engine/ca.pem' \
--request GET \
--header 'Version: 4' \
--header 'Accept: application/xml' \
--user 'admin@internal:mypassword' \
https://myengine.example.com/ovirt-engine/api/hosts
```

The result will be a list of objects of type [Host](#):

```
<hosts>
<host href="/ovirt-engine/api/hosts/004" id="004">
  <name>myhost</name>
  <link href="/ovirt-engine/api/hosts/004/nics" rel="nics"/>
  ...
  <address>node40.example.com</address>
  <cpu>
    <name>Intel Core Processor (Haswell, no TSX)</name>
    <speed>3600</speed>
    <topology>
      <cores>1</cores>
      <sockets>2</sockets>
      <threads>1</threads>
    </topology>
  </cpu>
  <memory>8371830784</memory>
  <os>
    <type>RHEL</type>
    <version>
      <full_version>7 - 2.1511.el7.centos.2.10</full_version>
      <major>7</major>
    </version>
  </os>
  <port>54321</port>
  <status>up</status>
  <cluster href="/ovirt-engine/api/clusters/002" id="002"/>
</host>
...
</hosts>
```

Note the **id** of your host. It identifies this host in relation to other resources of your virtual environment.

This host is a member of the **Default** cluster and accessing the **nics** sub-collection shows this host has a connection to the **ovirtmgmt** network.

CHAPTER 19. CREATE NFS DATA STORAGE

An NFS data storage domain is an exported NFS share attached to a data center and provides storage for virtualized guest images. Creation of a new storage domain requires a **POST** request, with the storage domain representation included, sent to the URL of the storage domain collection.

You can enable the wipe after delete option by default on the storage domain. To configure this specify **wipe_after_delete** in the POST request. This option can be edited after the domain is created, but doing so will not change the wipe after delete property of disks that already exist.

The request should be like this:

```
POST /ovirt-engine/api/storagedomains HTTP/1.1
Accept: application/xml
Content-type: application/xml
```

And the request body should be like this:

```
<storage_domain>
  <name>mydata</name>
  <type>data</type>
  <description>My data</description>
  <storage>
    <type>nfs</type>
    <address>mynfs.example.com</address>
    <path>/exports/mydata</path>
  </storage>
  <host>
    <name>myhost</name>
  </host>
</storage_domain>
```

The same request, using the **curl** command:

```
# curl \
--cacert '/etc/pki/ovirt-engine/ca.pem' \
--user 'admin@internal:mypassword' \
--request POST \
--header 'Version: 4' \
--header 'Content-Type: application/xml' \
--header 'Accept: application/xml' \
--data '
<storage_domain>
  <name>mydata</name>
  <description>My data</description>
  <type>data</type>
  <storage>
    <type>nfs</type>
    <address>mynfs.example.com</address>
    <path>/exports/mydata</path>
  </storage>
  <host>
    <name>myhost</name>
  </host>
'
```

```

</storage_domain>
'\
https://myengine.example.com/ovirt-engine/api/storagedomains

```

The server uses host **myhost** to create a NFS data storage domain called **mydata** with an export path of **mynfs.example.com:/exports/mydata**. The API also returns the following representation of the newly created storage domain resource (of type [StorageDomain](#)):

```

<storage_domain href="/ovirt-engine/api/storagedomains/005" id="005">
  <name>mydata</name>
  <description>My data</description>
  <available>42949672960</available>
  <committed>0</committed>
  <master>false</master>
  <status>unattached</status>
  <storage>
    <address>mynfs.example.com</address>
    <path>/exports/mydata</path>
    <type>nfs</type>
  </storage>
  <storage_format>v3</storage_format>
  <type>data</type>
  <used>9663676416</used>
</storage_domain>

```

CHAPTER 20. CREATE NFS ISO STORAGE

An NFS ISO storage domain is a mounted NFS share attached to a data center and provides storage for DVD/CD-ROM ISO and virtual floppy disk (VFD) image files. Creation of a new storage domain requires a **POST** request, with the storage domain representation included, sent to the URL of the storage domain collection:

The request should be like this:

```
POST /ovirt-engine/api/storagedomains HTTP/1.1
Accept: application/xml
Content-type: application/xml
```

And the request body should be like this:

```
<storage_domain>
  <name>myisos</name>
  <description>My ISOs</description>
  <type>iso</type>
  <storage>
    <type>nfs</type>
    <address>mynfs.example.com</address>
    <path>/exports/myisos</path>
  </storage>
  <host>
    <name>myhost</name>
  </host>
</storage_domain>
```

The same request, using the **curl** command:

```
# curl \
--cacert '/etc/pki/ovirt-engine/ca.pem' \
--user 'admin@internal:mypassword' \
--request POST \
--header 'Version: 4' \
--header 'Content-Type: application/xml' \
--header 'Accept: application/xml' \
--data '
<storage_domain>
  <name>myisos</name>
  <description>My ISOs</description>
  <type>iso</type>
  <storage>
    <type>nfs</type>
    <address>mynfs.example.com</address>
    <path>/exports/myisos</path>
  </storage>
  <host>
    <name>myhost</name>
  </host>
</storage_domain>
' \
https://myengine.example.com/ovirt-engine/api/storagedomains
```

The server uses host **myhost** to create a NFS ISO storage domain called **myisos** with an export path of **my nfs.example.com:/exports/myisos**. The API also returns the following representation of the newly created storage domain resource (of type [StorageDomain](#)):

```
<storage_domain href="/ovirt-engine/api/storagedomains/006" id="006">
  <name>myiso</name>
  <description>My ISOs</description>
  <available>42949672960</available>
  <committed>0</committed>
  <master>false</master>
  <status>unattached</status>
  <storage>
    <address>my nfs.example.com</address>
    <path>/exports/myisos</path>
    <type>nfs</type>
  </storage>
  <storage_format>v1</storage_format>
  <type>iso</type>
  <used>9663676416</used>
</storage_domain>
```

CHAPTER 21. ATTACH STORAGE DOMAINS TO DATA CENTER

The following example attaches the **mydata** and **myisos** storage domains to the **Default** data center.

To attach the **mydata** storage domain, send a request like this:

```
POST /ovirt-engine/api/datacenters/001/storagedomains HTTP/1.1
Accept: application/xml
Content-type: application/xml
```

With a request body like this:

```
<storage_domain>
  <name>mydata</name>
</storage_domain>
```

The same request, using the **curl** command:

```
# curl \
--cacert '/etc/pki/ovirt-engine/ca.pem' \
--user 'admin@internal:mypassword' \
--request POST \
--header 'Version: 4' \
--header 'Content-Type: application/xml' \
--header 'Accept: application/xml' \
--data '
<storage_domain>
  <name>mydata</name>
</storage_domain>
' \
https://myengine.example.com/ovirt-engine/api/datacenters/001/storagedomains
```

To attach the **myisos** storage domain, send a request like this:

```
POST /ovirt-engine/api/datacenters/001/storagedomains HTTP/1.1
Accept: application/xml
Content-type: application/xml
```

With a request body like this:

```
<storage_domain>
  <name>myisos</name>
</storage_domain>
```

The same request, using the **curl** command:

```
# curl \
--cacert '/etc/pki/ovirt-engine/ca.pem' \
--user 'admin@internal:mypassword' \
--request POST \
--header 'Version: 4' \
--header 'Content-Type: application/xml' \
--header 'Accept: application/xml' \
```

```
--data '  
<storage_domain>  
  <name>myisos</name>  
</storage_domain>  
' \  
https://myengine.example.com/ovirt-engine/api/datacenters/001/storagedomains
```

CHAPTER 22. CREATE VIRTUAL MACHINE

The following example creates a virtual machine called **myvm** on the **Default** cluster using the virtualization environment's **Blank** template as a basis. The request also defines the virtual machine's memory as 512 MiB and sets the boot device to a virtual hard disk.

The request should be contain an object of type [Vm](#) describing the virtual machine to create:

```
POST /ovirt-engine/api/vms HTTP/1.1
Accept: application/xml
Content-type: application/xml
```

And the request body should be like this:

```
<vm>
  <name>myvm</name>
  <description>My VM</description>
  <cluster>
    <name>Default</name>
  </cluster>
  <template>
    <name>Blank</name>
  </template>
  <memory>536870912</memory>
  <os>
    <boot>
      <devices>
        <device>hd</device>
      </devices>
    </boot>
  </os>
</vm>
```

The same request, using the **curl** command:

```
# curl \
--cacert '/etc/pki/ovirt-engine/ca.pem' \
--user 'admin@internal:mypassword' \
--request POST \
--header 'Version: 4' \
--header 'Content-Type: application/xml' \
--header 'Accept: application/xml' \
--data '
<vm>
  <name>myvm</name>
  <description>My VM</description>
  <cluster>
    <name>Default</name>
  </cluster>
  <template>
    <name>Blank</name>
  </template>
  <memory>536870912</memory>
  <os>
    <boot>
```



```

    <devices>
      <device>hd</device>
    </devices>
  </boot>
</os>
</vm>
'\
https://myengine.example.com/ovirt-engine/api/vms

```

The response body will be an object of the `Vm` type:

```

<vm href="/ovirt-engine/api/vms/007" id="007">
  <name>myvm</name>
  <link href="/ovirt-engine/api/vms/007/diskattachments" rel="diskattachments"/>
  <link href="/ovirt-engine/api/vms/007/nics" rel="nics"/>
  ...
  <cpu>
    <architecture>x86_64</architecture>
    <topology>
      <cores>1</cores>
      <sockets>1</sockets>
      <threads>1</threads>
    </topology>
  </cpu>
  <memory>1073741824</memory>
  <os>
    <boot>
      <devices>
        <device>hd</device>
      </devices>
    </boot>
    <type>other</type>
  </os>
  <type>desktop</type>
  <cluster href="/ovirt-engine/api/clusters/002" id="002"/>
  <status>down</status>
  <original_template href="/ovirt-engine/api/templates/000" id="00"/>
  <template href="/ovirt-engine/api/templates/000" id="000"/>
</vm>

```

CHAPTER 23. CREATE A VIRTUAL MACHINE NIC

The following example creates a virtual network interface to connect the example virtual machine to the **ovirtmgmt** network.

The request should be like this:

```
POST /ovirt-engine/api/vms/007/nics HTTP/1.1
Content-Type: application/xml
Accept: application/xml
```

The request body should contain an object of type [Nic](#) describing the NIC to be created:

```
<nic>
  <name>mynic</name>
  <description>My network interface card</description>
</nic>
```

The same request, using the **curl** command:

```
# curl \
--cacert '/etc/pki/ovirt-engine/ca.pem' \
--user 'admin@internal:mypassword' \
--request POST \
--header 'Version: 4' \
--header 'Content-Type: application/xml' \
--header 'Accept: application/xml' \
--data '
<nic>
  <name>mynic</name>
  <description>My network interface card</description>
</nic>
' \
https://myengine.example.com/ovirt-engine/api/vms/007/nics
```

CHAPTER 24. CREATE VIRTUAL MACHINE DISK

The following example creates an 8 GiB *copy-on-write* disk for the example virtual machine.

The request should be like this:

```
POST /ovirt-engine/api/vms/007/diskattachments HTTP/1.1
Content-Type: application/xml
Accept: application/xml
```

The request body should be an object of type [DiskAttachment](#) describing the disk and how it will be attached to the virtual machine:

```
<disk_attachment>
  <bootable>false</bootable>
  <interface>virtio</interface>
  <active>true</active>
  <disk>
    <description>My disk</description>
    <format>cow</format>
    <name>mydisk</name>
    <provisioned_size>8589934592</provisioned_size>
    <storage_domains>
      <storage_domain>
        <name>mydata</name>
      </storage_domain>
    </storage_domains>
  </disk>
</disk_attachment>
```

The same request, using the **curl** command:

```
# curl \
--cacert '/etc/pki/ovirt-engine/ca.pem' \
--user 'admin@internal:mypassword' \
--request POST \
--header 'Version: 4' \
--header 'Content-Type: application/xml' \
--header 'Accept: application/xml' \
--data '
<disk_attachment>
  <bootable>false</bootable>
  <interface>virtio</interface>
  <active>true</active>
  <disk>
    <description>My disk</description>
    <format>cow</format>
    <name>mydisk</name>
    <provisioned_size>8589934592</provisioned_size>
    <storage_domains>
      <storage_domain>
        <name>mydata</name>
      </storage_domain>
    </storage_domains>
  </disk>
```

```
</disk_attachment>
```

```
'\'
```

```
https://myengine.example.com/ovirt-engine/api/vms/007/diskattachments
```

The **storage_domains** attribute tells the API to store the disk on the **mydata** storage domain.

CHAPTER 25. ATTACH ISO IMAGE TO VIRTUAL MACHINE

The boot media for the following virtual machine example requires a CD-ROM or DVD ISO image for an operating system installation. This example uses a CentOS 7 image.

ISO images must be available in the **myisos** ISO domain for the virtual machines to use. You can use [ImageTransfer](#) to create an image transfer and [ImageTransfers](#) to upload the ISO image.

Once the ISO image is uploaded, an API can be used to request the list of files from the ISO storage domain:

```
GET /ovirt-engine/api/storagedomains/006/files HTTP/1.1
Accept: application/xml
```

The same request, using the **curl** command:

```
# curl \
--cacert '/etc/pki/ovirt-engine/ca.pem' \
--user 'admin@internal:mypassword' \
--request GET \
--header 'Version: 4' \
--header 'Accept: application/xml' \
https://myengine.example.com/ovirt-engine/api/storagedomains/006/files
```

The server returns the following list of objects of type [File](#), one for each available ISO (or floppy) image:

```
<files>
  <file href="..." id="CentOS-7-x86_64-Minimal.iso">
    <name>CentOS-7-x86_64-Minimal.iso</name>
  </file>
  ...
</files>
```

An API user attaches the **CentOS-7-x86_64-Minimal.iso** to the example virtual machine. Attaching an ISO image is equivalent to using the *Change CD* button in the administration or user portal applications.

The request should be like this:

```
PUT /ovirt-engine/api/vms/007/cdroms/00000000-0000-0000-0000-000000000000 HTTP/1.1
Accept: application/xml
Content-type: application/xml
```

The request body should be an object of type [Cdrom](#) containing an inner **file** attribute to indicate the identifier of the ISO (or floppy) image:

```
<cdrom>
  <file id="CentOS-7-x86_64-Minimal.iso"/>
</cdrom>
```

The same request, using the **curl** command:

```
# curl \
--cacert '/etc/pki/ovirt-engine/ca.pem' \
--user 'admin@internal:mypassword' \
```

```
--request PUT \  
--header 'Version: 4' \  
--header 'Content-Type: application/xml' \  
--header 'Accept: application/xml' \  
--data '  
<cdrom>  
  <file id="CentOS-7-x86_64-Minimal.iso"/>  
</cdrom>  
' \  
https://myengine.example.com/ovirt-engine/api/vms/007/cdroms/000000000-0000-0000-0000-  
000000000000
```

For more details see the documentation of the [service](#) that manages virtual machine CD-ROMS.

CHAPTER 26. START THE VIRTUAL MACHINE

The virtual environment is complete and the virtual machine contains all necessary components to function. This example starts the virtual machine using the `start` method.

The request should be like this:

```
POST /ovirt-engine/api/vms/007/start HTTP/1.1
Accept: application/xml
Content-type: application/xml
```

The request body should be like this:

```
<action>
  <vm>
    <os>
      <boot>
        <devices>
          <device>cdrom</device>
        </devices>
      </boot>
    </os>
  </vm>
</action>
```

The same request, using the **curl** command:

```
# curl \
--cacert '/etc/pki/ovirt-engine/ca.pem' \
--user 'admin@internal:mypassword' \
--request POST \
--header 'Version: 4' \
--header 'Content-Type: application/xml' \
--header 'Accept: application/xml' \
--data '
<action>
  <vm>
    <os>
      <boot>
        <devices>
          <device>cdrom</device>
        </devices>
      </boot>
    </os>
  </vm>
</action>
' \
https://myengine.example.com/ovirt-engine/api/vms/007/start
```

The additional request body sets the virtual machine's boot device to CD-ROM for this boot only. This enables the virtual machine to install the operating system from the attached ISO image. The boot device reverts back to disk for all future boots.

CHAPTER 27. REQUESTS

This section enumerates all the requests that are available in the API.

- [POST /affinitylabels](#)
- [GET /affinitylabels](#)
- [GET /affinitylabels/{label:id}](#)
- [PUT /affinitylabels/{label:id}](#)
- [DELETE /affinitylabels/{label:id}](#)
- [POST /affinitylabels/{label:id}/hosts](#)
- [GET /affinitylabels/{label:id}/hosts](#)
- [DELETE /affinitylabels/{label:id}/hosts/{host:id}](#)
- [GET /affinitylabels/{label:id}/hosts/{host:id}](#)
- [POST /affinitylabels/{label:id}/vms](#)
- [GET /affinitylabels/{label:id}/vms](#)
- [DELETE /affinitylabels/{label:id}/vms/{vm:id}](#)
- [GET /affinitylabels/{label:id}/vms/{vm:id}](#)
- [POST /bookmarks](#)
- [GET /bookmarks](#)
- [GET /bookmarks/{bookmark:id}](#)
- [PUT /bookmarks/{bookmark:id}](#)
- [DELETE /bookmarks/{bookmark:id}](#)
- [GET /clusterlevels](#)
- [GET /clusterlevels/{level:id}](#)
- [GET /clusterlevels/{level:id}/clusterfeatures](#)
- [GET /clusterlevels/{level:id}/clusterfeatures/{feature:id}](#)
- [POST /clusters](#)
- [GET /clusters](#)
- [GET /clusters/{cluster:id}](#)
- [PUT /clusters/{cluster:id}](#)
- [DELETE /clusters/{cluster:id}](#)

- [POST /clusters/{cluster:id}/affinitygroups](#)
- [GET /clusters/{cluster:id}/affinitygroups](#)
- [GET /clusters/{cluster:id}/affinitygroups/{group:id}](#)
- [PUT /clusters/{cluster:id}/affinitygroups/{group:id}](#)
- [DELETE /clusters/{cluster:id}/affinitygroups/{group:id}](#)
- [POST /clusters/{cluster:id}/affinitygroups/{group:id}/hostlabels](#)
- [GET /clusters/{cluster:id}/affinitygroups/{group:id}/hostlabels](#)
- [DELETE /clusters/{cluster:id}/affinitygroups/{group:id}/hostlabels/{label:id}](#)
- [POST /clusters/{cluster:id}/affinitygroups/{group:id}/hosts](#)
- [GET /clusters/{cluster:id}/affinitygroups/{group:id}/hosts](#)
- [DELETE /clusters/{cluster:id}/affinitygroups/{group:id}/hosts/{host:idorname}](#)
- [POST /clusters/{cluster:id}/affinitygroups/{group:id}/vmlabels](#)
- [GET /clusters/{cluster:id}/affinitygroups/{group:id}/vmlabels](#)
- [DELETE /clusters/{cluster:id}/affinitygroups/{group:id}/vmlabels/{label:id}](#)
- [POST /clusters/{cluster:id}/affinitygroups/{group:id}/vms](#)
- [GET /clusters/{cluster:id}/affinitygroups/{group:id}/vms](#)
- [DELETE /clusters/{cluster:id}/affinitygroups/{group:id}/vms/{vm:id}](#)
- [POST /clusters/{cluster:id}/cpuprofiles](#)
- [GET /clusters/{cluster:id}/cpuprofiles](#)
- [GET /clusters/{cluster:id}/cpuprofiles/{profile:id}](#)
- [DELETE /clusters/{cluster:id}/cpuprofiles/{profile:id}](#)
- [GET /clusters/{cluster:id}/enabledfeatures](#)
- [POST /clusters/{cluster:id}/enabledfeatures](#)
- [GET /clusters/{cluster:id}/enabledfeatures/{feature:id}](#)
- [DELETE /clusters/{cluster:id}/enabledfeatures/{feature:id}](#)
- [GET /clusters/{cluster:id}/externalnetworkproviders](#)
- [GET /clusters/{cluster:id}/glusterhooks](#)
- [GET /clusters/{cluster:id}/glusterhooks/{hook:id}](#)
- [DELETE /clusters/{cluster:id}/glusterhooks/{hook:id}](#)

- [POST /clusters/{cluster:id}/glusterhooks/{hook:id}/disable](#)
- [POST /clusters/{cluster:id}/glusterhooks/{hook:id}/enable](#)
- [POST /clusters/{cluster:id}/glusterhooks/{hook:id}/resolve](#)
- [POST /clusters/{cluster:id}/glustervolumes](#)
- [GET /clusters/{cluster:id}/glustervolumes](#)
- [GET /clusters/{cluster:id}/glustervolumes/{volume:id}](#)
- [DELETE /clusters/{cluster:id}/glustervolumes/{volume:id}](#)
- [POST /clusters/{cluster:id}/glustervolumes/{volume:id}/getprofilestatistics](#)
- [POST /clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks](#)
- [GET /clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks](#)
- [DELETE /clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks](#)
- [POST /clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks/activate](#)
- [POST /clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks/migrate](#)
- [POST /clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks/stopmigrate](#)
- [GET /clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks/{brick:id}](#)
- [DELETE /clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks/{brick:id}](#)
- [POST /clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks/{brick:id}/replace](#)
- [GET /clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks/{brick:id}/statistics](#)
- [GET /clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks/{brick:id}/statistics/{statistic:id}](#)
- [POST /clusters/{cluster:id}/glustervolumes/{volume:id}/rebalance](#)
- [POST /clusters/{cluster:id}/glustervolumes/{volume:id}/resetalloptions](#)
- [POST /clusters/{cluster:id}/glustervolumes/{volume:id}/resetoption](#)
- [POST /clusters/{cluster:id}/glustervolumes/{volume:id}/setoption](#)
- [POST /clusters/{cluster:id}/glustervolumes/{volume:id}/start](#)
- [POST /clusters/{cluster:id}/glustervolumes/{volume:id}/startprofile](#)
- [GET /clusters/{cluster:id}/glustervolumes/{volume:id}/statistics](#)
- [GET /clusters/{cluster:id}/glustervolumes/{volume:id}/statistics/{statistic:id}](#)
- [POST /clusters/{cluster:id}/glustervolumes/{volume:id}/stop](#)
- [POST /clusters/{cluster:id}/glustervolumes/{volume:id}/stopprofile](#)

- [POST /clusters/{cluster:id}/glustervolumes/{volume:id}/stoprebalance](#)
- [GET /clusters/{cluster:id}/networkfilters](#)
- [GET /clusters/{cluster:id}/networkfilters/{networkfilter:id}](#)
- [POST /clusters/{cluster:id}/networks](#)
- [GET /clusters/{cluster:id}/networks](#)
- [GET /clusters/{cluster:id}/networks/{network:id}](#)
- [DELETE /clusters/{cluster:id}/networks/{network:id}](#)
- [PUT /clusters/{cluster:id}/networks/{network:id}](#)
- [POST /clusters/{cluster:id}/permissions](#)
- [GET /clusters/{cluster:id}/permissions](#)
- [GET /clusters/{cluster:id}/permissions/{permission:id}](#)
- [DELETE /clusters/{cluster:id}/permissions/{permission:id}](#)
- [POST /clusters/{cluster:id}/refreshglusterhealstatus](#)
- [POST /clusters/{cluster:id}/resetemulatedmachine](#)
- [POST /clusters/{cluster:id}/syncallnetworks](#)
- [POST /clusters/{cluster:id}/upgrade](#)
- [POST /cpuprofiles](#)
- [GET /cpuprofiles](#)
- [GET /cpuprofiles/{profile:id}](#)
- [PUT /cpuprofiles/{profile:id}](#)
- [DELETE /cpuprofiles/{profile:id}](#)
- [POST /cpuprofiles/{profile:id}/permissions](#)
- [GET /cpuprofiles/{profile:id}/permissions](#)
- [GET /cpuprofiles/{profile:id}/permissions/{permission:id}](#)
- [DELETE /cpuprofiles/{profile:id}/permissions/{permission:id}](#)
- [POST /datacenters](#)
- [GET /datacenters](#)
- [GET /datacenters/{datacenter:id}](#)
- [PUT /datacenters/{datacenter:id}](#)

- [DELETE /datacenters/{datacenter:id}](#)
- [POST /datacenters/{datacenter:id}/cleanfinishedtasks](#)
- [POST /datacenters/{datacenter:id}/clusters](#)
- [GET /datacenters/{datacenter:id}/clusters](#)
- [GET /datacenters/{datacenter:id}/clusters/{cluster:id}](#)
- [PUT /datacenters/{datacenter:id}/clusters/{cluster:id}](#)
- [DELETE /datacenters/{datacenter:id}/clusters/{cluster:id}](#)
- [POST /datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups](#)
- [GET /datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups](#)
- [GET /datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups/{group:id}](#)
- [PUT /datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups/{group:id}](#)
- [DELETE /datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups/{group:id}](#)
- [POST /datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups/{group:id}/hostlabels](#)
- [GET /datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups/{group:id}/hostlabels](#)
- [DELETE /datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups/{group:id}/hostlabels/{label:id}](#)
- [POST /datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups/{group:id}/hosts](#)
- [GET /datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups/{group:id}/hosts](#)
- [DELETE /datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups/{group:id}/hosts/{host:idorname}](#)
- [POST /datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups/{group:id}/vmlabels](#)
- [GET /datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups/{group:id}/vmlabels](#)
- [DELETE /datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups/{group:id}/vmlabels/{label:id}](#)
- [POST /datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups/{group:id}/vms](#)
- [GET /datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups/{group:id}/vms](#)
- [DELETE /datacenters/{datacenter:id}/clusters/{cluster:id}/affinitygroups/{group:id}/vms/{vm:id}](#)
- [POST /datacenters/{datacenter:id}/clusters/{cluster:id}/cpuprofiles](#)
- [GET /datacenters/{datacenter:id}/clusters/{cluster:id}/cpuprofiles](#)
- [GET /datacenters/{datacenter:id}/clusters/{cluster:id}/cpuprofiles/{profile:id}](#)

- DELETE /datacenters/{datacenter:id}/clusters/{cluster:id}/cpuprofiles/{profile:id}
- GET /datacenters/{datacenter:id}/clusters/{cluster:id}/enabledfeatures
- POST /datacenters/{datacenter:id}/clusters/{cluster:id}/enabledfeatures
- GET /datacenters/{datacenter:id}/clusters/{cluster:id}/enabledfeatures/{feature:id}
- DELETE /datacenters/{datacenter:id}/clusters/{cluster:id}/enabledfeatures/{feature:id}
- GET /datacenters/{datacenter:id}/clusters/{cluster:id}/externalnetworkproviders
- GET /datacenters/{datacenter:id}/clusters/{cluster:id}/glusterhooks
- GET /datacenters/{datacenter:id}/clusters/{cluster:id}/glusterhooks/{hook:id}
- DELETE /datacenters/{datacenter:id}/clusters/{cluster:id}/glusterhooks/{hook:id}
- POST /datacenters/{datacenter:id}/clusters/{cluster:id}/glusterhooks/{hook:id}/disable
- POST /datacenters/{datacenter:id}/clusters/{cluster:id}/glusterhooks/{hook:id}/enable
- POST /datacenters/{datacenter:id}/clusters/{cluster:id}/glusterhooks/{hook:id}/resolve
- POST /datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes
- GET /datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes
- GET /datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}
- DELETE /datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}
- POST
/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/getprofilestatistics
- POST
/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks
- GET
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- DELETE
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- POST
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- POST
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- POST
/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks/stop
- GET
/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/glusterbricks/{bric
- DELETE
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- [POST](#)
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- [GET](#)
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- [GET](#)
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- [POST](#)
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- [POST](#)
[/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/resetalloptions](#)
- [POST](#)
[/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/resetoption](#)
- [POST](#)
[/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/setoption](#)
- [POST](#) [/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/start](#)
- [POST](#)
[/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/startprofile](#)
- [GET](#) [/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/statistics](#)
- [GET](#)
[/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/statistics/{statistic:id}](#)
- [POST](#) [/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/stop](#)
- [POST](#)
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- [POST](#)
[/datacenters/{datacenter:id}/clusters/{cluster:id}/glustervolumes/{volume:id}/stoprebalance](#)
- [GET](#) [/datacenters/{datacenter:id}/clusters/{cluster:id}/networkfilters](#)
- [GET](#) [/datacenters/{datacenter:id}/clusters/{cluster:id}/networkfilters/{networkfilter:id}](#)
- [POST](#) [/datacenters/{datacenter:id}/clusters/{cluster:id}/networks](#)
- [GET](#) [/datacenters/{datacenter:id}/clusters/{cluster:id}/networks](#)
- [GET](#) [/datacenters/{datacenter:id}/clusters/{cluster:id}/networks/{network:id}](#)
- [DELETE](#) [/datacenters/{datacenter:id}/clusters/{cluster:id}/networks/{network:id}](#)
- [PUT](#) [/datacenters/{datacenter:id}/clusters/{cluster:id}/networks/{network:id}](#)
- [POST](#) [/datacenters/{datacenter:id}/clusters/{cluster:id}/permissions](#)
- [GET](#) [/datacenters/{datacenter:id}/clusters/{cluster:id}/permissions](#)
- [GET](#) [/datacenters/{datacenter:id}/clusters/{cluster:id}/permissions/{permission:id}](#)

- DELETE /datacenters/{datacenter:id}/clusters/{cluster:id}/permissions/{permission:id}
- POST /datacenters/{datacenter:id}/clusters/{cluster:id}/refreshglusterhealstatus
- POST /datacenters/{datacenter:id}/clusters/{cluster:id}/resetemulatedmachine
- POST /datacenters/{datacenter:id}/clusters/{cluster:id}/syncallnetworks
- POST /datacenters/{datacenter:id}/clusters/{cluster:id}/upgrade
- POST /datacenters/{datacenter:id}/iscsibonds
- GET /datacenters/{datacenter:id}/iscsibonds
- GET /datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}
- PUT /datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}
- DELETE /datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}
- POST /datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/networks
- GET /datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/networks
- GET /datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/networks/{network:id}
- PUT /datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/networks/{network:id}
- DELETE /datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/networks/{network:id}
- POST
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- GET
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- GET
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- DELETE
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- POST
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- GET
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- GET
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- DELETE
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- POST
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- GET
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- GET
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- DELETE
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- POST
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- GET
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- DELETE
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- POST /datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/storageserverconnections
- GET /datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/storageserverconnections
- GET
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- PUT
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- DELETE
/datacenters/{datacenter:id}/iscsibonds/{iscsibond:id}/storageserverconnections/{storageconne
- POST /datacenters/{datacenter:id}/networks
- GET /datacenters/{datacenter:id}/networks
- GET /datacenters/{datacenter:id}/networks/{network:id}
- DELETE /datacenters/{datacenter:id}/networks/{network:id}
- PUT /datacenters/{datacenter:id}/networks/{network:id}
- POST /datacenters/{datacenter:id}/permissions
- GET /datacenters/{datacenter:id}/permissions
- GET /datacenters/{datacenter:id}/permissions/{permission:id}
- DELETE /datacenters/{datacenter:id}/permissions/{permission:id}
- POST /datacenters/{datacenter:id}/qoss
- GET /datacenters/{datacenter:id}/qoss
- GET /datacenters/{datacenter:id}/qoss/{qos:id}

- [PUT /datacenters/{datacenter:id}/qoss/{qos:id}](#)
- [DELETE /datacenters/{datacenter:id}/qoss/{qos:id}](#)
- [POST /datacenters/{datacenter:id}/quotas](#)
- [GET /datacenters/{datacenter:id}/quotas](#)
- [GET /datacenters/{datacenter:id}/quotas/{quota:id}](#)
- [PUT /datacenters/{datacenter:id}/quotas/{quota:id}](#)
- [DELETE /datacenters/{datacenter:id}/quotas/{quota:id}](#)
- [POST /datacenters/{datacenter:id}/quotas/{quota:id}/permissions](#)
- [GET /datacenters/{datacenter:id}/quotas/{quota:id}/permissions](#)
- [GET /datacenters/{datacenter:id}/quotas/{quota:id}/permissions/{permission:id}](#)
- [DELETE /datacenters/{datacenter:id}/quotas/{quota:id}/permissions/{permission:id}](#)
- [POST /datacenters/{datacenter:id}/quotas/{quota:id}/quotaclusterlimits](#)
- [GET /datacenters/{datacenter:id}/quotas/{quota:id}/quotaclusterlimits](#)
- [GET /datacenters/{datacenter:id}/quotas/{quota:id}/quotaclusterlimits/{limit:id}](#)
- [DELETE /datacenters/{datacenter:id}/quotas/{quota:id}/quotaclusterlimits/{limit:id}](#)
- [POST /datacenters/{datacenter:id}/quotas/{quota:id}/quotastoragelimits](#)
- [GET /datacenters/{datacenter:id}/quotas/{quota:id}/quotastoragelimits](#)
- [GET /datacenters/{datacenter:id}/quotas/{quota:id}/quotastoragelimits/{limit:id}](#)
- [DELETE /datacenters/{datacenter:id}/quotas/{quota:id}/quotastoragelimits/{limit:id}](#)
- [POST /datacenters/{datacenter:id}/setmaster](#)
- [POST /datacenters/{datacenter:id}/storagedomains](#)
- [GET /datacenters/{datacenter:id}/storagedomains](#)
- [GET /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}](#)
- [DELETE /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}](#)
- [POST /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/activate](#)
- [POST /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/deactivate](#)
- [POST /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks](#)
- [GET /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks](#)
- [PUT /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks/{disk:id}](#)

- [GET /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks/{disk:id}](#)
- [DELETE /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks/{disk:id}](#)
- [POST /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks/{disk:id}/copy](#)
- [POST /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks/{disk:id}/export](#)
- [POST /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks/{disk:id}/move](#)
- [POST /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks/{disk:id}/permissions](#)
- [GET /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks/{disk:id}/permissions](#)
- [GET /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks/{disk:id}/permissions/{permission:id}](#)
- [DELETE /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks/{disk:id}/permissions/{permission:id}](#)
- [POST /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks/{disk:id}/register](#)
- [POST /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks/{disk:id}/sparsify](#)
- [GET /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks/{disk:id}/statistics](#)
- [GET /datacenters/{datacenter:id}/storagedomains/{storagedomain:id}/disks/{disk:id}/statistics/{statistic:id}](#)
- [POST /diskprofiles](#)
- [GET /diskprofiles](#)
- [GET /diskprofiles/{diskprofile:id}](#)
- [PUT /diskprofiles/{diskprofile:id}](#)
- [DELETE /diskprofiles/{diskprofile:id}](#)
- [POST /diskprofiles/{diskprofile:id}/permissions](#)
- [GET /diskprofiles/{diskprofile:id}/permissions](#)
- [GET /diskprofiles/{diskprofile:id}/permissions/{permission:id}](#)
- [DELETE /diskprofiles/{diskprofile:id}/permissions/{permission:id}](#)
- [POST /disks](#)
- [GET /disks](#)
- [PUT /disks/{disk:id}](#)

- [GET /disks/{disk:id}](#)
- [DELETE /disks/{disk:id}](#)
- [POST /disks/{disk:id}/convert](#)
- [POST /disks/{disk:id}/copy](#)
- [GET /disks/{disk:id}/disksnapshots](#)
- [GET /disks/{disk:id}/disksnapshots/{snapshot:id}](#)
- [DELETE /disks/{disk:id}/disksnapshots/{snapshot:id}](#)
- [POST /disks/{disk:id}/export](#)
- [POST /disks/{disk:id}/move](#)
- [POST /disks/{disk:id}/permissions](#)
- [GET /disks/{disk:id}/permissions](#)
- [GET /disks/{disk:id}/permissions/{permission:id}](#)
- [DELETE /disks/{disk:id}/permissions/{permission:id}](#)
- [POST /disks/{disk:id}/reduce](#)
- [POST /disks/{disk:id}/refreshlun](#)
- [POST /disks/{disk:id}/sparsify](#)
- [GET /disks/{disk:id}/statistics](#)
- [GET /disks/{disk:id}/statistics/{statistic:id}](#)
- [GET /domains](#)
- [GET /domains/{domain:id}](#)
- [GET /domains/{domain:id}/groups](#)
- [GET /domains/{domain:id}/groups/{group:id}](#)
- [GET /domains/{domain:id}/users](#)
- [GET /domains/{domain:id}/users/{user:id}](#)
- [POST /events](#)
- [GET /events](#)
- [POST /events/undelete](#)
- [GET /events/{event:id}](#)
- [DELETE /events/{event:id}](#)

- [POST /externalhostproviders](#)
- [GET /externalhostproviders](#)
- [GET /externalhostproviders/{provider:id}](#)
- [PUT /externalhostproviders/{provider:id}](#)
- [DELETE /externalhostproviders/{provider:id}](#)
- [GET /externalhostproviders/{provider:id}/certificates](#)
- [GET /externalhostproviders/{provider:id}/certificates/{certificate:id}](#)
- [GET /externalhostproviders/{provider:id}/computeresources](#)
- [GET /externalhostproviders/{provider:id}/computeresources/{resource:id}](#)
- [GET /externalhostproviders/{provider:id}/discoveredhosts](#)
- [GET /externalhostproviders/{provider:id}/discoveredhosts/{host:id}](#)
- [GET /externalhostproviders/{provider:id}/hostgroups](#)
- [GET /externalhostproviders/{provider:id}/hostgroups/{group:id}](#)
- [GET /externalhostproviders/{provider:id}/hosts](#)
- [GET /externalhostproviders/{provider:id}/hosts/{host:id}](#)
- [POST /externalhostproviders/{provider:id}/importcertificates](#)
- [POST /externalhostproviders/{provider:id}/testconnectivity](#)
- [POST /externaltemplateimports](#)
- [POST /externalvmimports](#)
- [POST /groups](#)
- [GET /groups](#)
- [GET /groups/{group:id}](#)
- [DELETE /groups/{group:id}](#)
- [POST /groups/{group:id}/permissions](#)
- [GET /groups/{group:id}/permissions](#)
- [GET /groups/{group:id}/permissions/{permission:id}](#)
- [DELETE /groups/{group:id}/permissions/{permission:id}](#)
- [GET /groups/{group:id}/roles](#)
- [GET /groups/{group:id}/roles/{role:id}](#)

- DELETE /groups/{group:id}/roles/{role:id}
- PUT /groups/{group:id}/roles/{role:id}
- POST /groups/{group:id}/roles/{role:id}/permits
- GET /groups/{group:id}/roles/{role:id}/permits
- GET /groups/{group:id}/roles/{role:id}/permits/{permit:id}
- DELETE /groups/{group:id}/roles/{role:id}/permits/{permit:id}
- POST /groups/{group:id}/tags
- GET /groups/{group:id}/tags
- GET /groups/{group:id}/tags/{tag:id}
- DELETE /groups/{group:id}/tags/{tag:id}
- POST /hosts
- GET /hosts
- GET /hosts/{host:id}
- PUT /hosts/{host:id}
- DELETE /hosts/{host:id}
- POST /hosts/{host:id}/activate
- POST /hosts/{host:id}/affinitylabels
- GET /hosts/{host:id}/affinitylabels
- GET /hosts/{host:id}/affinitylabels/{label:id}
- DELETE /hosts/{host:id}/affinitylabels/{label:id}
- POST /hosts/{host:id}/approve
- POST /hosts/{host:id}/commitnetconfig
- POST /hosts/{host:id}/copyhostnetworks
- GET /hosts/{host:id}/cpuunits
- POST /hosts/{host:id}/deactivate
- GET /hosts/{host:id}/devices
- GET /hosts/{host:id}/devices/{device:id}
- POST /hosts/{host:id}/discoveriscsi
- POST /hosts/{host:id}/enrollcertificate

- [GET /hosts/{host:id}/externalnetworkproviderconfigurations](#)
- [GET /hosts/{host:id}/externalnetworkproviderconfigurations/{configuration:id}](#)
- [POST /hosts/{host:id}/fence](#)
- [POST /hosts/{host:id}/fenceagents](#)
- [GET /hosts/{host:id}/fenceagents](#)
- [GET /hosts/{host:id}/fenceagents/{agent:id}](#)
- [PUT /hosts/{host:id}/fenceagents/{agent:id}](#)
- [DELETE /hosts/{host:id}/fenceagents/{agent:id}](#)
- [POST /hosts/{host:id}/forceselectspm](#)
- [GET /hosts/{host:id}/hooks](#)
- [GET /hosts/{host:id}/hooks/{hook:id}](#)
- [POST /hosts/{host:id}/install](#)
- [POST /hosts/{host:id}/iscsidiscover](#)
- [POST /hosts/{host:id}/iscsilogin](#)
- [GET /hosts/{host:id}/katelloerrata](#)
- [GET /hosts/{host:id}/katelloerrata/{katelloerratum:id}](#)
- [POST /hosts/{host:id}/networkattachments](#)
- [GET /hosts/{host:id}/networkattachments](#)
- [GET /hosts/{host:id}/networkattachments/{attachment:id}](#)
- [PUT /hosts/{host:id}/networkattachments/{attachment:id}](#)
- [DELETE /hosts/{host:id}/networkattachments/{attachment:id}](#)
- [GET /hosts/{host:id}/nics](#)
- [GET /hosts/{host:id}/nics/{nic:id}](#)
- [GET /hosts/{host:id}/nics/{nic:id}/linklayerdiscoveryprotocolelements](#)
- [POST /hosts/{host:id}/nics/{nic:id}/networkattachments](#)
- [GET /hosts/{host:id}/nics/{nic:id}/networkattachments](#)
- [GET /hosts/{host:id}/nics/{nic:id}/networkattachments/{attachment:id}](#)
- [PUT /hosts/{host:id}/nics/{nic:id}/networkattachments/{attachment:id}](#)
- [DELETE /hosts/{host:id}/nics/{nic:id}/networkattachments/{attachment:id}](#)

- [POST /hosts/{host:id}/nics/{nic:id}/networklabels](#)
- [GET /hosts/{host:id}/nics/{nic:id}/networklabels](#)
- [GET /hosts/{host:id}/nics/{nic:id}/networklabels/{label:id}](#)
- [DELETE /hosts/{host:id}/nics/{nic:id}/networklabels/{label:id}](#)
- [GET /hosts/{host:id}/nics/{nic:id}/statistics](#)
- [GET /hosts/{host:id}/nics/{nic:id}/statistics/{statistic:id}](#)
- [POST /hosts/{host:id}/nics/{nic:id}/updatevirtualfunctionsconfiguration](#)
- [POST /hosts/{host:id}/nics/{nic:id}/virtualfunctionallowedlabels](#)
- [GET /hosts/{host:id}/nics/{nic:id}/virtualfunctionallowedlabels](#)
- [GET /hosts/{host:id}/nics/{nic:id}/virtualfunctionallowedlabels/{label:id}](#)
- [DELETE /hosts/{host:id}/nics/{nic:id}/virtualfunctionallowedlabels/{label:id}](#)
- [POST /hosts/{host:id}/nics/{nic:id}/virtualfunctionallowednetworks](#)
- [GET /hosts/{host:id}/nics/{nic:id}/virtualfunctionallowednetworks](#)
- [GET /hosts/{host:id}/nics/{nic:id}/virtualfunctionallowednetworks/{network:id}](#)
- [DELETE /hosts/{host:id}/nics/{nic:id}/virtualfunctionallowednetworks/{network:id}](#)
- [GET /hosts/{host:id}/numanodes](#)
- [GET /hosts/{host:id}/numanodes/{node:id}](#)
- [GET /hosts/{host:id}/numanodes/{node:id}/statistics](#)
- [GET /hosts/{host:id}/numanodes/{node:id}/statistics/{statistic:id}](#)
- [POST /hosts/{host:id}/permissions](#)
- [GET /hosts/{host:id}/permissions](#)
- [GET /hosts/{host:id}/permissions/{permission:id}](#)
- [DELETE /hosts/{host:id}/permissions/{permission:id}](#)
- [POST /hosts/{host:id}/refresh](#)
- [POST /hosts/{host:id}/setupnetworks](#)
- [GET /hosts/{host:id}/statistics](#)
- [GET /hosts/{host:id}/statistics/{statistic:id}](#)
- [GET /hosts/{host:id}/storage](#)
- [GET /hosts/{host:id}/storage/{storage:id}](#)

- [POST /hosts/{host:id}/storageconnectionextensions](#)
- [GET /hosts/{host:id}/storageconnectionextensions](#)
- [GET /hosts/{host:id}/storageconnectionextensions/{storageconnectionextension:id}](#)
- [PUT /hosts/{host:id}/storageconnectionextensions/{storageconnectionextension:id}](#)
- [DELETE /hosts/{host:id}/storageconnectionextensions/{storageconnectionextension:id}](#)
- [POST /hosts/{host:id}/syncallnetworks](#)
- [POST /hosts/{host:id}/tags](#)
- [GET /hosts/{host:id}/tags](#)
- [GET /hosts/{host:id}/tags/{tag:id}](#)
- [DELETE /hosts/{host:id}/tags/{tag:id}](#)
- [GET /hosts/{host:id}/unmanagednetworks](#)
- [GET /hosts/{host:id}/unmanagednetworks/{unmanagednetwork:id}](#)
- [DELETE /hosts/{host:id}/unmanagednetworks/{unmanagednetwork:id}](#)
- [POST /hosts/{host:id}/unregisteredstoragedomainsdiscover](#)
- [POST /hosts/{host:id}/upgrade](#)
- [POST /hosts/{host:id}/upgradecheck](#)
- [GET /icons](#)
- [GET /icons/{icon:id}](#)
- [POST /imagetransfers](#)
- [GET /imagetransfers](#)
- [GET /imagetransfers/{imagetransfer:id}](#)
- [POST /imagetransfers/{imagetransfer:id}/cancel](#)
- [POST /imagetransfers/{imagetransfer:id}/extend](#)
- [POST /imagetransfers/{imagetransfer:id}/finalize](#)
- [POST /imagetransfers/{imagetransfer:id}/pause](#)
- [POST /imagetransfers/{imagetransfer:id}/resume](#)
- [POST /instancetypes](#)
- [GET /instancetypes](#)
- [GET /instancetypes/{instancetype:id}](#)

- [PUT /instancetypes/{instancetype:id}](#)
- [DELETE /instancetypes/{instancetype:id}](#)
- [POST /instancetypes/{instancetype:id}/graphicsconsoles](#)
- [GET /instancetypes/{instancetype:id}/graphicsconsoles](#)
- [GET /instancetypes/{instancetype:id}/graphicsconsoles/{console:id}](#)
- [DELETE /instancetypes/{instancetype:id}/graphicsconsoles/{console:id}](#)
- [POST /instancetypes/{instancetype:id}/nics](#)
- [GET /instancetypes/{instancetype:id}/nics](#)
- [GET /instancetypes/{instancetype:id}/nics/{nic:id}](#)
- [PUT /instancetypes/{instancetype:id}/nics/{nic:id}](#)
- [DELETE /instancetypes/{instancetype:id}/nics/{nic:id}](#)
- [POST /instancetypes/{instancetype:id}/watchdogs](#)
- [GET /instancetypes/{instancetype:id}/watchdogs](#)
- [GET /instancetypes/{instancetype:id}/watchdogs/{watchdog:id}](#)
- [PUT /instancetypes/{instancetype:id}/watchdogs/{watchdog:id}](#)
- [DELETE /instancetypes/{instancetype:id}/watchdogs/{watchdog:id}](#)
- [POST /jobs](#)
- [GET /jobs](#)
- [GET /jobs/{job:id}](#)
- [POST /jobs/{job:id}/clear](#)
- [POST /jobs/{job:id}/end](#)
- [POST /jobs/{job:id}/steps](#)
- [GET /jobs/{job:id}/steps](#)
- [GET /jobs/{job:id}/steps/{step:id}](#)
- [POST /jobs/{job:id}/steps/{step:id}/end](#)
- [GET /jobs/{job:id}/steps/{step:id}/statistics](#)
- [GET /jobs/{job:id}/steps/{step:id}/statistics/{statistic:id}](#)
- [GET /katelloerrata](#)
- [GET /katelloerrata/{katelloerratum:id}](#)

- [POST /macpools](#)
- [GET /macpools](#)
- [GET /macpools/{macpool:id}](#)
- [PUT /macpools/{macpool:id}](#)
- [DELETE /macpools/{macpool:id}](#)
- [POST /macpools/{macpool:id}/permissions](#)
- [GET /macpools/{macpool:id}/permissions](#)
- [GET /macpools/{macpool:id}/permissions/{permission:id}](#)
- [DELETE /macpools/{macpool:id}/permissions/{permission:id}](#)
- [GET /networkfilters](#)
- [GET /networkfilters/{networkfilter:id}](#)
- [POST /networks](#)
- [GET /networks](#)
- [GET /networks/{network:id}](#)
- [PUT /networks/{network:id}](#)
- [DELETE /networks/{network:id}](#)
- [POST /networks/{network:id}/networklabels](#)
- [GET /networks/{network:id}/networklabels](#)
- [GET /networks/{network:id}/networklabels/{label:id}](#)
- [DELETE /networks/{network:id}/networklabels/{label:id}](#)
- [POST /networks/{network:id}/permissions](#)
- [GET /networks/{network:id}/permissions](#)
- [GET /networks/{network:id}/permissions/{permission:id}](#)
- [DELETE /networks/{network:id}/permissions/{permission:id}](#)
- [POST /networks/{network:id}/vnicprofiles](#)
- [GET /networks/{network:id}/vnicprofiles](#)
- [GET /networks/{network:id}/vnicprofiles/{profile:id}](#)
- [DELETE /networks/{network:id}/vnicprofiles/{profile:id}](#)
- [POST /networks/{network:id}/vnicprofiles/{profile:id}/permissions](#)

- GET /networks/{network:id}/vnicprofiles/{profile:id}/permissions
- GET /networks/{network:id}/vnicprofiles/{profile:id}/permissions/{permission:id}
- DELETE /networks/{network:id}/vnicprofiles/{profile:id}/permissions/{permission:id}
- POST /openstackimageproviders
- GET /openstackimageproviders
- GET /openstackimageproviders/{provider:id}
- PUT /openstackimageproviders/{provider:id}
- DELETE /openstackimageproviders/{provider:id}
- GET /openstackimageproviders/{provider:id}/certificates
- GET /openstackimageproviders/{provider:id}/certificates/{certificate:id}
- GET /openstackimageproviders/{provider:id}/images
- GET /openstackimageproviders/{provider:id}/images/{image:id}
- POST /openstackimageproviders/{provider:id}/images/{image:id}/import
- POST /openstackimageproviders/{provider:id}/importcertificates
- POST /openstackimageproviders/{provider:id}/testconnectivity
- POST /openstacknetworkproviders
- GET /openstacknetworkproviders
- GET /openstacknetworkproviders/{provider:id}
- PUT /openstacknetworkproviders/{provider:id}
- DELETE /openstacknetworkproviders/{provider:id}
- GET /openstacknetworkproviders/{provider:id}/certificates
- GET /openstacknetworkproviders/{provider:id}/certificates/{certificate:id}
- POST /openstacknetworkproviders/{provider:id}/importcertificates
- GET /openstacknetworkproviders/{provider:id}/networks
- GET /openstacknetworkproviders/{provider:id}/networks/{network:id}
- POST /openstacknetworkproviders/{provider:id}/networks/{network:id}/import
- POST /openstacknetworkproviders/{provider:id}/networks/{network:id}/subnets
- GET /openstacknetworkproviders/{provider:id}/networks/{network:id}/subnets
- GET /openstacknetworkproviders/{provider:id}/networks/{network:id}/subnets/{subnet:id}

- [DELETE /openstacknetworkproviders/{provider:id}/networks/{network:id}/subnets/{subnet:id}](#)
- [POST /openstacknetworkproviders/{provider:id}/testconnectivity](#)
- [POST /openstackvolumeproviders](#)
- [GET /openstackvolumeproviders](#)
- [GET /openstackvolumeproviders/{provider:id}](#)
- [PUT /openstackvolumeproviders/{provider:id}](#)
- [DELETE /openstackvolumeproviders/{provider:id}](#)
- [POST /openstackvolumeproviders/{provider:id}/authenticationkeys](#)
- [GET /openstackvolumeproviders/{provider:id}/authenticationkeys](#)
- [GET /openstackvolumeproviders/{provider:id}/authenticationkeys/{key:id}](#)
- [PUT /openstackvolumeproviders/{provider:id}/authenticationkeys/{key:id}](#)
- [DELETE /openstackvolumeproviders/{provider:id}/authenticationkeys/{key:id}](#)
- [GET /openstackvolumeproviders/{provider:id}/certificates](#)
- [GET /openstackvolumeproviders/{provider:id}/certificates/{certificate:id}](#)
- [POST /openstackvolumeproviders/{provider:id}/importcertificates](#)
- [POST /openstackvolumeproviders/{provider:id}/testconnectivity](#)
- [GET /openstackvolumeproviders/{provider:id}/volumetypes](#)
- [GET /openstackvolumeproviders/{provider:id}/volumetypes/{type:id}](#)
- [GET /operatingsystems](#)
- [GET /operatingsystems/{operatingsystem:id}](#)
- [GET /options/{option:id}](#)
- [POST /permissions](#)
- [GET /permissions](#)
- [GET /permissions/{permission:id}](#)
- [DELETE /permissions/{permission:id}](#)
- [POST /roles](#)
- [GET /roles](#)
- [GET /roles/{role:id}](#)
- [DELETE /roles/{role:id}](#)

- [PUT /roles/{role:id}](#)
- [POST /roles/{role:id}/permits](#)
- [GET /roles/{role:id}/permits](#)
- [GET /roles/{role:id}/permits/{permit:id}](#)
- [DELETE /roles/{role:id}/permits/{permit:id}](#)
- [POST /schedulingpolicies](#)
- [GET /schedulingpolicies](#)
- [GET /schedulingpolicies/{policy:id}](#)
- [PUT /schedulingpolicies/{policy:id}](#)
- [DELETE /schedulingpolicies/{policy:id}](#)
- [POST /schedulingpolicies/{policy:id}/balances](#)
- [GET /schedulingpolicies/{policy:id}/balances](#)
- [GET /schedulingpolicies/{policy:id}/balances/{balance:id}](#)
- [DELETE /schedulingpolicies/{policy:id}/balances/{balance:id}](#)
- [POST /schedulingpolicies/{policy:id}/filters](#)
- [GET /schedulingpolicies/{policy:id}/filters](#)
- [GET /schedulingpolicies/{policy:id}/filters/{filter:id}](#)
- [DELETE /schedulingpolicies/{policy:id}/filters/{filter:id}](#)
- [POST /schedulingpolicies/{policy:id}/weights](#)
- [GET /schedulingpolicies/{policy:id}/weights](#)
- [GET /schedulingpolicies/{policy:id}/weights/{weight:id}](#)
- [DELETE /schedulingpolicies/{policy:id}/weights/{weight:id}](#)
- [GET /schedulingpolicyunits](#)
- [GET /schedulingpolicyunits/{unit:id}](#)
- [DELETE /schedulingpolicyunits/{unit:id}](#)
- [POST /storageconnections](#)
- [GET /storageconnections](#)
- [GET /storageconnections/{storageconnection:id}](#)
- [PUT /storageconnections/{storageconnection:id}](#)

- [DELETE /storageconnections/{storageconnection:id}](#)
- [POST /storagedomains](#)
- [GET /storagedomains](#)
- [GET /storagedomains/{storagedomain:id}](#)
- [PUT /storagedomains/{storagedomain:id}](#)
- [DELETE /storagedomains/{storagedomain:id}](#)
- [POST /storagedomains/{storagedomain:id}/diskprofiles](#)
- [GET /storagedomains/{storagedomain:id}/diskprofiles](#)
- [GET /storagedomains/{storagedomain:id}/diskprofiles/{profile:id}](#)
- [DELETE /storagedomains/{storagedomain:id}/diskprofiles/{profile:id}](#)
- [POST /storagedomains/{storagedomain:id}/disks](#)
- [GET /storagedomains/{storagedomain:id}/disks](#)
- [PUT /storagedomains/{storagedomain:id}/disks/{disk:id}](#)
- [GET /storagedomains/{storagedomain:id}/disks/{disk:id}](#)
- [DELETE /storagedomains/{storagedomain:id}/disks/{disk:id}](#)
- [POST /storagedomains/{storagedomain:id}/disks/{disk:id}/copy](#)
- [POST /storagedomains/{storagedomain:id}/disks/{disk:id}/export](#)
- [POST /storagedomains/{storagedomain:id}/disks/{disk:id}/move](#)
- [POST /storagedomains/{storagedomain:id}/disks/{disk:id}/permissions](#)
- [GET /storagedomains/{storagedomain:id}/disks/{disk:id}/permissions](#)
- [GET /storagedomains/{storagedomain:id}/disks/{disk:id}/permissions/{permission:id}](#)
- [DELETE /storagedomains/{storagedomain:id}/disks/{disk:id}/permissions/{permission:id}](#)
- [POST /storagedomains/{storagedomain:id}/disks/{disk:id}/reduce](#)
- [POST /storagedomains/{storagedomain:id}/disks/{disk:id}/sparsify](#)
- [GET /storagedomains/{storagedomain:id}/disks/{disk:id}/statistics](#)
- [GET /storagedomains/{storagedomain:id}/disks/{disk:id}/statistics/{statistic:id}](#)
- [GET /storagedomains/{storagedomain:id}/disksnapshots](#)
- [GET /storagedomains/{storagedomain:id}/disksnapshots/{snapshot:id}](#)
- [DELETE /storagedomains/{storagedomain:id}/disksnapshots/{snapshot:id}](#)

- [GET /storagedomains/{storagedomain:id}/files](#)
- [GET /storagedomains/{storagedomain:id}/files/{file:id}](#)
- [GET /storagedomains/{storagedomain:id}/images](#)
- [GET /storagedomains/{storagedomain:id}/images/{image:id}](#)
- [POST /storagedomains/{storagedomain:id}/images/{image:id}/import](#)
- [POST /storagedomains/{storagedomain:id}/isattached](#)
- [POST /storagedomains/{storagedomain:id}/permissions](#)
- [GET /storagedomains/{storagedomain:id}/permissions](#)
- [GET /storagedomains/{storagedomain:id}/permissions/{permission:id}](#)
- [DELETE /storagedomains/{storagedomain:id}/permissions/{permission:id}](#)
- [POST /storagedomains/{storagedomain:id}/reduceluns](#)
- [POST /storagedomains/{storagedomain:id}/refreshluns](#)
- [POST /storagedomains/{storagedomain:id}/storageconnections](#)
- [GET /storagedomains/{storagedomain:id}/storageconnections](#)
- [GET /storagedomains/{storagedomain:id}/storageconnections/{connection:id}](#)
- [DELETE /storagedomains/{storagedomain:id}/storageconnections/{connection:id}](#)
- [GET /storagedomains/{storagedomain:id}/templates](#)
- [GET /storagedomains/{storagedomain:id}/templates/{template:id}](#)
- [DELETE /storagedomains/{storagedomain:id}/templates/{template:id}](#)
- [GET /storagedomains/{storagedomain:id}/templates/{template:id}/disks](#)
- [GET /storagedomains/{storagedomain:id}/templates/{template:id}/disks/{disk:id}](#)
- [POST /storagedomains/{storagedomain:id}/templates/{template:id}/import](#)
- [POST /storagedomains/{storagedomain:id}/templates/{template:id}/register](#)
- [POST /storagedomains/{storagedomain:id}/updateovfstore](#)
- [GET /storagedomains/{storagedomain:id}/vms](#)
- [GET /storagedomains/{storagedomain:id}/vms/{vm:id}](#)
- [DELETE /storagedomains/{storagedomain:id}/vms/{vm:id}](#)
- [GET /storagedomains/{storagedomain:id}/vms/{vm:id}/diskattachments](#)
- [GET /storagedomains/{storagedomain:id}/vms/{vm:id}/diskattachments/{attachment:id}](#)

- [GET /storagedomains/{storagedomain:id}/vms/{vm:id}/disks](#)
- [GET /storagedomains/{storagedomain:id}/vms/{vm:id}/disks/{disk:id}](#)
- [POST /storagedomains/{storagedomain:id}/vms/{vm:id}/import](#)
- [POST /storagedomains/{storagedomain:id}/vms/{vm:id}/register](#)
- [POST /tags](#)
- [GET /tags](#)
- [GET /tags/{tag:id}](#)
- [PUT /tags/{tag:id}](#)
- [DELETE /tags/{tag:id}](#)
- [POST /templates](#)
- [GET /templates](#)
- [GET /templates/{template:id}](#)
- [PUT /templates/{template:id}](#)
- [DELETE /templates/{template:id}](#)
- [GET /templates/{template:id}/cdroms](#)
- [GET /templates/{template:id}/cdroms/{cdrom:id}](#)
- [GET /templates/{template:id}/diskattachments](#)
- [GET /templates/{template:id}/diskattachments/{attachment:id}](#)
- [DELETE /templates/{template:id}/diskattachments/{attachment:id}](#)
- [POST /templates/{template:id}/export](#)
- [POST /templates/{template:id}/graphicsconsoles](#)
- [GET /templates/{template:id}/graphicsconsoles](#)
- [GET /templates/{template:id}/graphicsconsoles/{console:id}](#)
- [DELETE /templates/{template:id}/graphicsconsoles/{console:id}](#)
- [POST /templates/{template:id}/mediateddevices](#)
- [GET /templates/{template:id}/mediateddevices](#)
- [GET /templates/{template:id}/mediateddevices/{device:id}](#)
- [PUT /templates/{template:id}/mediateddevices/{device:id}](#)
- [DELETE /templates/{template:id}/mediateddevices/{device:id}](#)

- [POST /templates/{template:id}/nics](#)
- [GET /templates/{template:id}/nics](#)
- [GET /templates/{template:id}/nics/{nic:id}](#)
- [PUT /templates/{template:id}/nics/{nic:id}](#)
- [DELETE /templates/{template:id}/nics/{nic:id}](#)
- [POST /templates/{template:id}/permissions](#)
- [GET /templates/{template:id}/permissions](#)
- [GET /templates/{template:id}/permissions/{permission:id}](#)
- [DELETE /templates/{template:id}/permissions/{permission:id}](#)
- [POST /templates/{template:id}/tags](#)
- [GET /templates/{template:id}/tags](#)
- [GET /templates/{template:id}/tags/{tag:id}](#)
- [DELETE /templates/{template:id}/tags/{tag:id}](#)
- [POST /templates/{template:id}/watchdogs](#)
- [GET /templates/{template:id}/watchdogs](#)
- [GET /templates/{template:id}/watchdogs/{watchdog:id}](#)
- [PUT /templates/{template:id}/watchdogs/{watchdog:id}](#)
- [DELETE /templates/{template:id}/watchdogs/{watchdog:id}](#)
- [POST /users](#)
- [GET /users](#)
- [GET /users/{user:id}](#)
- [PUT /users/{user:id}](#)
- [DELETE /users/{user:id}](#)
- [POST /users/{user:id}/eventsubscriptions](#)
- [GET /users/{user:id}/eventsubscriptions](#)
- [GET /users/{user:id}/eventsubscriptions/{eventsubscription:id}](#)
- [DELETE /users/{user:id}/eventsubscriptions/{eventsubscription:id}](#)
- [GET /users/{user:id}/groups](#)
- [POST /users/{user:id}/options](#)

- [GET /users/{user:id}/options](#)
- [GET /users/{user:id}/options/{option:id}](#)
- [DELETE /users/{user:id}/options/{option:id}](#)
- [POST /users/{user:id}/permissions](#)
- [GET /users/{user:id}/permissions](#)
- [GET /users/{user:id}/permissions/{permission:id}](#)
- [DELETE /users/{user:id}/permissions/{permission:id}](#)
- [GET /users/{user:id}/roles](#)
- [GET /users/{user:id}/roles/{role:id}](#)
- [DELETE /users/{user:id}/roles/{role:id}](#)
- [PUT /users/{user:id}/roles/{role:id}](#)
- [POST /users/{user:id}/roles/{role:id}/permits](#)
- [GET /users/{user:id}/roles/{role:id}/permits](#)
- [GET /users/{user:id}/roles/{role:id}/permits/{permit:id}](#)
- [DELETE /users/{user:id}/roles/{role:id}/permits/{permit:id}](#)
- [POST /users/{user:id}/sshpublickeys](#)
- [GET /users/{user:id}/sshpublickeys](#)
- [GET /users/{user:id}/sshpublickeys/{key:id}](#)
- [PUT /users/{user:id}/sshpublickeys/{key:id}](#)
- [DELETE /users/{user:id}/sshpublickeys/{key:id}](#)
- [POST /users/{user:id}/tags](#)
- [GET /users/{user:id}/tags](#)
- [GET /users/{user:id}/tags/{tag:id}](#)
- [DELETE /users/{user:id}/tags/{tag:id}](#)
- [POST /vmpools](#)
- [GET /vmpools](#)
- [GET /vmpools/{pool:id}](#)
- [PUT /vmpools/{pool:id}](#)
- [DELETE /vmpools/{pool:id}](#)

- [POST /vmpools/{pool:id}/allocatevm](#)
- [POST /vmpools/{pool:id}/permissions](#)
- [GET /vmpools/{pool:id}/permissions](#)
- [GET /vmpools/{pool:id}/permissions/{permission:id}](#)
- [DELETE /vmpools/{pool:id}/permissions/{permission:id}](#)
- [POST /vms](#)
- [GET /vms](#)
- [GET /vms/{vm:id}](#)
- [PUT /vms/{vm:id}](#)
- [DELETE /vms/{vm:id}](#)
- [POST /vms/{vm:id}/affinitylabels](#)
- [GET /vms/{vm:id}/affinitylabels](#)
- [GET /vms/{vm:id}/affinitylabels/{label:id}](#)
- [DELETE /vms/{vm:id}/affinitylabels/{label:id}](#)
- [GET /vms/{vm:id}/applications](#)
- [GET /vms/{vm:id}/applications/{application:id}](#)
- [POST /vms/{vm:id}/autopincpuandnumanodes](#)
- [POST /vms/{vm:id}/backups](#)
- [GET /vms/{vm:id}/backups](#)
- [GET /vms/{vm:id}/backups/{backup:id}](#)
- [GET /vms/{vm:id}/backups/{backup:id}/disks](#)
- [GET /vms/{vm:id}/backups/{backup:id}/disks/{disk:id}](#)
- [POST /vms/{vm:id}/backups/{backup:id}/finalize](#)
- [POST /vms/{vm:id}/cancelmigration](#)
- [POST /vms/{vm:id}/cdroms](#)
- [GET /vms/{vm:id}/cdroms](#)
- [GET /vms/{vm:id}/cdroms/{cdrom:id}](#)
- [PUT /vms/{vm:id}/cdroms/{cdrom:id}](#)
- [GET /vms/{vm:id}/checkpoints](#)

- [GET /vms/{vm:id}/checkpoints/{checkpoint:id}](#)
- [DELETE /vms/{vm:id}/checkpoints/{checkpoint:id}](#)
- [GET /vms/{vm:id}/checkpoints/{checkpoint:id}/disks](#)
- [GET /vms/{vm:id}/checkpoints/{checkpoint:id}/disks/{disk:id}](#)
- [POST /vms/{vm:id}/clone](#)
- [POST /vms/{vm:id}/commitsnapshot](#)
- [POST /vms/{vm:id}/detach](#)
- [POST /vms/{vm:id}/diskattachments](#)
- [GET /vms/{vm:id}/diskattachments](#)
- [GET /vms/{vm:id}/diskattachments/{attachment:id}](#)
- [DELETE /vms/{vm:id}/diskattachments/{attachment:id}](#)
- [PUT /vms/{vm:id}/diskattachments/{attachment:id}](#)
- [POST /vms/{vm:id}/export](#)
- [POST /vms/{vm:id}/freezefilesystems](#)
- [POST /vms/{vm:id}/graphicsconsoles](#)
- [GET /vms/{vm:id}/graphicsconsoles](#)
- [GET /vms/{vm:id}/graphicsconsoles/{console:id}](#)
- [DELETE /vms/{vm:id}/graphicsconsoles/{console:id}](#)
- [POST /vms/{vm:id}/graphicsconsoles/{console:id}/proxyticket](#)
- [POST /vms/{vm:id}/graphicsconsoles/{console:id}/remoteviewerconnectionfile](#)
- [POST /vms/{vm:id}/graphicsconsoles/{console:id}/ticket](#)
- [POST /vms/{vm:id}/hostdevices](#)
- [GET /vms/{vm:id}/hostdevices](#)
- [GET /vms/{vm:id}/hostdevices/{device:id}](#)
- [DELETE /vms/{vm:id}/hostdevices/{device:id}](#)
- [GET /vms/{vm:id}/katelloerrata](#)
- [GET /vms/{vm:id}/katelloerrata/{katelloerratum:id}](#)
- [POST /vms/{vm:id}/logon](#)
- [POST /vms/{vm:id}/maintenance](#)

- [POST /vms/{vm:id}/mediateddevices](#)
- [GET /vms/{vm:id}/mediateddevices](#)
- [GET /vms/{vm:id}/mediateddevices/{device:id}](#)
- [PUT /vms/{vm:id}/mediateddevices/{device:id}](#)
- [DELETE /vms/{vm:id}/mediateddevices/{device:id}](#)
- [POST /vms/{vm:id}/migrate](#)
- [POST /vms/{vm:id}/nics](#)
- [GET /vms/{vm:id}/nics](#)
- [GET /vms/{vm:id}/nics/{nic:id}](#)
- [PUT /vms/{vm:id}/nics/{nic:id}](#)
- [DELETE /vms/{vm:id}/nics/{nic:id}](#)
- [POST /vms/{vm:id}/nics/{nic:id}/activate](#)
- [POST /vms/{vm:id}/nics/{nic:id}/deactivate](#)
- [GET /vms/{vm:id}/nics/{nic:id}/networkfilterparameters](#)
- [POST /vms/{vm:id}/nics/{nic:id}/networkfilterparameters](#)
- [GET /vms/{vm:id}/nics/{nic:id}/networkfilterparameters/{parameter:id}](#)
- [PUT /vms/{vm:id}/nics/{nic:id}/networkfilterparameters/{parameter:id}](#)
- [DELETE /vms/{vm:id}/nics/{nic:id}/networkfilterparameters/{parameter:id}](#)
- [GET /vms/{vm:id}/nics/{nic:id}/reporteddevices](#)
- [GET /vms/{vm:id}/nics/{nic:id}/reporteddevices/{reporteddevice:id}](#)
- [GET /vms/{vm:id}/nics/{nic:id}/statistics](#)
- [GET /vms/{vm:id}/nics/{nic:id}/statistics/{statistic:id}](#)
- [POST /vms/{vm:id}/numanodes](#)
- [GET /vms/{vm:id}/numanodes](#)
- [GET /vms/{vm:id}/numanodes/{node:id}](#)
- [PUT /vms/{vm:id}/numanodes/{node:id}](#)
- [DELETE /vms/{vm:id}/numanodes/{node:id}](#)
- [POST /vms/{vm:id}/permissions](#)
- [GET /vms/{vm:id}/permissions](#)

- [GET /vms/{vm:id}/permissions/{permission:id}](#)
- [DELETE /vms/{vm:id}/permissions/{permission:id}](#)
- [POST /vms/{vm:id}/previewsnapshot](#)
- [POST /vms/{vm:id}/reboot](#)
- [POST /vms/{vm:id}/reordermacaddresses](#)
- [GET /vms/{vm:id}/reporteddevices](#)
- [GET /vms/{vm:id}/reporteddevices/{reporteddevice:id}](#)
- [POST /vms/{vm:id}/reset](#)
- [POST /vms/{vm:id}/screenshot](#)
- [GET /vms/{vm:id}/sessions](#)
- [GET /vms/{vm:id}/sessions/{session:id}](#)
- [POST /vms/{vm:id}/shutdown](#)
- [POST /vms/{vm:id}/snapshots](#)
- [GET /vms/{vm:id}/snapshots](#)
- [GET /vms/{vm:id}/snapshots/{snapshot:id}](#)
- [DELETE /vms/{vm:id}/snapshots/{snapshot:id}](#)
- [GET /vms/{vm:id}/snapshots/{snapshot:id}/cdroms](#)
- [GET /vms/{vm:id}/snapshots/{snapshot:id}/cdroms/{cdrom:id}](#)
- [GET /vms/{vm:id}/snapshots/{snapshot:id}/disks](#)
- [GET /vms/{vm:id}/snapshots/{snapshot:id}/disks/{disk:id}](#)
- [GET /vms/{vm:id}/snapshots/{snapshot:id}/nics](#)
- [GET /vms/{vm:id}/snapshots/{snapshot:id}/nics/{nic:id}](#)
- [POST /vms/{vm:id}/snapshots/{snapshot:id}/restore](#)
- [POST /vms/{vm:id}/start](#)
- [GET /vms/{vm:id}/statistics](#)
- [GET /vms/{vm:id}/statistics/{statistic:id}](#)
- [POST /vms/{vm:id}/stop](#)
- [POST /vms/{vm:id}/suspend](#)
- [POST /vms/{vm:id}/tags](#)

- [GET /vms/{vm:id}/tags](#)
- [GET /vms/{vm:id}/tags/{tag:id}](#)
- [DELETE /vms/{vm:id}/tags/{tag:id}](#)
- [POST /vms/{vm:id}/thawfilesystems](#)
- [POST /vms/{vm:id}/ticket](#)
- [POST /vms/{vm:id}/undosnapshot](#)
- [POST /vms/{vm:id}/watchdogs](#)
- [GET /vms/{vm:id}/watchdogs](#)
- [GET /vms/{vm:id}/watchdogs/{watchdog:id}](#)
- [PUT /vms/{vm:id}/watchdogs/{watchdog:id}](#)
- [DELETE /vms/{vm:id}/watchdogs/{watchdog:id}](#)
- [POST /vnicprofiles](#)
- [GET /vnicprofiles](#)
- [GET /vnicprofiles/{profile:id}](#)
- [PUT /vnicprofiles/{profile:id}](#)
- [DELETE /vnicprofiles/{profile:id}](#)
- [POST /vnicprofiles/{profile:id}/permissions](#)
- [GET /vnicprofiles/{profile:id}/permissions](#)
- [GET /vnicprofiles/{profile:id}/permissions/{permission:id}](#)
- [DELETE /vnicprofiles/{profile:id}/permissions/{permission:id}](#)

CHAPTER 28. SERVICES

This section enumerates all the services that are available in the API.

28.1. AFFINITYGROUP

This service manages a single affinity group.

Table 28.1. Methods summary

Name	Summary
get	Retrieve the affinity group details.
remove	Remove the affinity group.
update	Update the affinity group.

28.1.1. get GET

Retrieve the affinity group details.

```
<affinity_group id="00000000-0000-0000-0000-000000000000">
  <name>AF_GROUP_001</name>
  <cluster id="00000000-0000-0000-0000-000000000000"/>
  <positive>true</positive>
  <enforcing>true</enforcing>
</affinity_group>
```

Table 28.2. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
group	AffinityGroup	Out	The affinity group.

28.1.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.1.2. remove DELETE

Remove the affinity group.

```
DELETE /ovirt-engine/api/clusters/000-000/affinitygroups/123-456
```

Table 28.3. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the removal should be performed asynchronously.

28.1.3. update PUT

Update the affinity group.

Table 28.4. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
group	AffinityGroup	In/Out	The affinity group.

28.2. AFFINITYGROUPHOST

This service manages a single host to affinity group assignment.

Table 28.5. Methods summary

Name	Summary
remove	Remove host from the affinity group.

28.2.1. remove DELETE

Remove host from the affinity group.

Table 28.6. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the removal should be performed asynchronously.

28.3. AFFINITYGROUPHOSTLABEL

This service manages a single host label assigned to an affinity group.

Table 28.7. Methods summary

Name	Summary
remove	Remove this label from the affinity group.

28.3.1. remove DELETE

Remove this label from the affinity group.

Table 28.8. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the removal should be performed asynchronously.

28.4. AFFINITYGROUPHOSTLABELS

This service manages a collection of all host labels assigned to an affinity group.

Table 28.9. Methods summary

Name	Summary
add	Adds a host label to the affinity group.
list	List all host labels assigned to this affinity group.

28.4.1. add POST

Adds a host label to the affinity group.

For example, to add the label **789** to the affinity group **456** of cluster **123**, send a request like this:

```
POST /ovirt-engine/api/clusters/123/affinitygroups/456/hostlabels
```

With the following body:

```
<affinity_label id="789"/>
```

Table 28.10. Parameters summary

Name	Type	Direction	Summary
label	AffinityLabel	In/Out	The AffinityLabel object to add to the affinity group.

28.4.2. list GET

List all host labels assigned to this affinity group.

The order of the returned labels isn't guaranteed.

Table 28.11. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
labels	AffinityLabel []	Out	Host labels assigned to the affinity group.
max	Integer	In	Sets the maximum number of host labels to return.

28.4.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.4.2.2. max

Sets the maximum number of host labels to return. If not specified, all the labels are returned.

28.5. AFFINITYGROUPHOSTS

This service manages a collection of all hosts assigned to an affinity group.

Table 28.12. Methods summary

Name	Summary
add	Adds a host to the affinity group.
list	List all hosts assigned to this affinity group.

28.5.1. add POST

Adds a host to the affinity group.

For example, to add the host **789** to the affinity group **456** of cluster **123**, send a request like this:

```
POST /ovirt-engine/api/clusters/123/affinitygroups/456/hosts
```

With the following body:

```
<host id="789"/>
```

Table 28.13. Parameters summary

Name	Type	Direction	Summary
host	Host	In/Out	The host to be added to the affinity group.

28.5.2. list GET

List all hosts assigned to this affinity group.

The order of the returned hosts isn't guaranteed.

Table 28.14. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
hosts	Host[]	Out	The list of hosts assigned to this affinity group.
max	Integer	In	Sets the maximum number of hosts to return.

28.5.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.5.2.2. max

Sets the maximum number of hosts to return. If not specified, all the hosts are returned.

28.6. AFFINITYGROUPVM

This service manages a single virtual machine to affinity group assignment.

Table 28.15. Methods summary

Name	Summary
remove	Remove this virtual machine from the affinity group.

28.6.1. remove DELETE

Remove this virtual machine from the affinity group.

Table 28.16. Parameters summary

Name	Type	Direction	Summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the removal should be performed asynchronously.

28.7. AFFINITYGROUPVMLABEL

This service manages a single virtual machine label assigned to an affinity group.

Table 28.17. Methods summary

Name	Summary
remove	Remove this label from the affinity group.

28.7.1. remove DELETE

Remove this label from the affinity group.

Table 28.18. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the removal should be performed asynchronously.

28.8. AFFINITYGROUPVMLABELS

This service manages a collection of all virtual machine labels assigned to an affinity group.

Table 28.19. Methods summary

Name	Summary
add	Adds a virtual machine label to the affinity group.
list	List all virtual machine labels assigned to this affinity group.

28.8.1. add POST

Adds a virtual machine label to the affinity group.

For example, to add the label **789** to the affinity group **456** of cluster **123**, send a request like this:

```
POST /ovirt-engine/api/clusters/123/affinitygroups/456/vmlabels
```

With the following body:

```
<affinity_label id="789"/>
```

Table 28.20. Parameters summary

Name	Type	Direction	Summary
label	AffinityLabel	In/Out	The AffinityLabel object to add to the affinity group.

28.8.2. list GET

List all virtual machine labels assigned to this affinity group.

The order of the returned labels isn't guaranteed.

Table 28.21. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
labels	AffinityLabel []	Out	Virtual machine labels assigned to the affinity group.
max	Integer	In	Sets the maximum number of virtual machine labels to return.

28.8.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.8.2.2. max

Sets the maximum number of virtual machine labels to return. If not specified, all the labels are returned.

28.9. AFFINITYGROUPVMS

This service manages a collection of all the virtual machines assigned to an affinity group.

Table 28.22. Methods summary

Name	Summary
add	Adds a virtual machine to the affinity group.
list	List all virtual machines assigned to this affinity group.

28.9.1. add POST

Adds a virtual machine to the affinity group.

For example, to add the virtual machine **789** to the affinity group **456** of cluster **123**, send a request like this:

```
POST /ovirt-engine/api/clusters/123/affinitygroups/456/vms
```

With the following body:

```
<vm id="789"/>
```

Table 28.23. Parameters summary

Name	Type	Direction	Summary
vm	Vm	In/Out	

28.9.2. list GET

List all virtual machines assigned to this affinity group.

The order of the returned virtual machines isn't guaranteed.

Table 28.24. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of virtual machines to return.
vms	Vm[]	Out	

28.9.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.9.2.2. max

Sets the maximum number of virtual machines to return. If not specified, all the virtual machines are returned.

28.10. AFFINITYGROUPS

The affinity groups service manages virtual machine relationships and dependencies.

Table 28.25. Methods summary

Name	Summary
add	Create a new affinity group.
list	List existing affinity groups.

28.10.1. add POST

Create a new affinity group.

Post a request like in the example below to create a new affinity group:

```
POST /ovirt-engine/api/clusters/000-000/affinitygroups
```

And use the following example in its body:

```
<affinity_group>
  <name>AF_GROUP_001</name>
  <hosts_rule>
    <enforcing>true</enforcing>
    <positive>true</positive>
  </hosts_rule>
  <vms_rule>
    <enabled>false</enabled>
  </vms_rule>
</affinity_group>
```

Table 28.26. Parameters summary

Name	Type	Direction	Summary
group	AffinityGroup	In/Out	The affinity group object to create.

28.10.2. list GET

List existing affinity groups.

The order of the affinity groups results isn't guaranteed.

Table 28.27. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
groups	AffinityGroup[]	Out	The list of existing affinity groups.

Name	Type	Direction	Summary
max	Integer	In	Sets the maximum number of affinity groups to return.

28.10.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.10.2.2. max

Sets the maximum number of affinity groups to return. If not specified all the affinity groups are returned.

28.11. AFFINITYLABEL

The details of a single affinity label.

Table 28.28. Methods summary

Name	Summary
get	Retrieves the details of a label.
remove	Removes a label from the system and clears all assignments of the removed label.
update	Updates a label.

28.11.1. get GET

Retrieves the details of a label.

Table 28.29. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
label	AffinityLabel	Out	

28.11.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.11.2. remove DELETE

Removes a label from the system and clears all assignments of the removed label.

28.11.3. update PUT

Updates a label. This call will update all metadata, such as the name or description.

Table 28.30. Parameters summary

Name	Type	Direction	Summary
label	AffinityLabel	In/Out	

28.12. AFFINITYLABELHOST

This service represents a host that has a specific label when accessed through the affinitylabels/hosts subcollection.

Table 28.31. Methods summary

Name	Summary
get	Retrieves details about a host that has this label assigned.
remove	Remove a label from a host.

28.12.1. get GET

Retrieves details about a host that has this label assigned.

Table 28.32. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
host	Host	Out	

28.12.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.12.2. remove DELETE

Remove a label from a host.

28.13. AFFINITYLABELHOSTS

This service represents list of hosts that have a specific label when accessed through the `affinitylabels/hosts` subcollection.

Table 28.33. Methods summary

Name	Summary
add	Add a label to a host.
list	List all hosts with the label.

28.13.1. add POST

Add a label to a host.

Table 28.34. Parameters summary

Name	Type	Direction	Summary
host	Host	In/Out	

28.13.2. list GET

List all hosts with the label.

The order of the returned hosts isn't guaranteed.

Table 28.35. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
hosts	Host[]	Out	

28.13.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.14. AFFINITYLABELVM

This service represents a vm that has a specific label when accessed through the `affinitylabels/vms` subcollection.

Table 28.36. Methods summary

Name	Summary
get	Retrieves details about a vm that has this label assigned.
remove	Remove a label from a vm.

28.14.1. get GET

Retrieves details about a vm that has this label assigned.

Table 28.37. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
vm	Vm	Out	

28.14.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.14.2. remove DELETE

Remove a label from a vm.

28.15. AFFINITYLABELVMS

This service represents list of vms that have a specific label when accessed through the affinitylabels/vms subcollection.

Table 28.38. Methods summary

Name	Summary
add	Add a label to a vm.
list	List all virtual machines with the label.

28.15.1. add POST

Add a label to a vm.

Table 28.39. Parameters summary

Name	Type	Direction	Summary
vm	Vm	In/Out	

28.15.2. list GET

List all virtual machines with the label.

The order of the returned virtual machines isn't guaranteed.

Table 28.40. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
vms	Vm[]	Out	

28.15.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.16. AFFINITYLABELS

Manages the affinity labels available in the system.

Table 28.41. Methods summary

Name	Summary
add	Creates a new label.
list	Lists all labels present in the system.

28.16.1. add POST

Creates a new label. The label is automatically attached to all entities mentioned in the vms or hosts lists.

Table 28.42. Parameters summary

Name	Type	Direction	Summary
label	AffinityLabel	In/Out	

28.16.2. list GET

Lists all labels present in the system.

The order of the returned labels isn't guaranteed.

Table 28.43. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
labels	AffinityLabel []	Out	
max	Integer	In	Sets the maximum number of labels to return.

28.16.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.16.2.2. max

Sets the maximum number of labels to return. If not specified all the labels are returned.

28.17. AREA

This annotation is intended to specify what oVirt area is the annotated concept related to. Currently the following areas are in use, and they are closely related to the oVirt teams, but not necessarily the same:

- Infrastructure
- Network
- SLA
- Storage
- Virtualization

A concept may be associated to more than one area, or to no area.

The value of this annotation is intended for reporting only, and it doesn't affect at all the generated code or the validity of the model

28.18. ASSIGNEDAFFINITYLABEL

This service represents one label to entity assignment when accessed using the entities/affinitylabels subcollection.

Table 28.44. Methods summary

Name	Summary
get	Retrieves details about the attached label.

Name	Summary
remove	Removes the label from an entity.

28.18.1. get GET

Retrieves details about the attached label.

Table 28.45. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
label	AffinityLabel	Out	

28.18.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.18.2. remove DELETE

Removes the label from an entity. Does not touch the label itself.

28.19. ASSIGNEDAFFINITYLABELS

This service is used to list and manipulate affinity labels that are assigned to supported entities when accessed using entities/affinitylabels.

Table 28.46. Methods summary

Name	Summary
add	Attaches a label to an entity.
list	Lists all labels that are attached to an entity.

28.19.1. add POST

Attaches a label to an entity.

Table 28.47. Parameters summary

Name	Type	Direction	Summary
label	AffinityLabel	In/Out	

28.19.2. list GET

Lists all labels that are attached to an entity.

The order of the returned entities isn't guaranteed.

Table 28.48. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
label	AffinityLabel []	Out	

28.19.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.20. ASSIGNEDCPUPROFILE

Table 28.49. Methods summary

Name	Summary
get	
remove	

28.20.1. get GET

Table 28.50. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
profile	CpuProfile	Out	

28.20.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.20.2. remove DELETE

Table 28.51. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.21. ASSIGNEDCPUFILES

Table 28.52. Methods summary

Name	Summary
add	Add a new cpu profile for the cluster.
list	List the CPU profiles assigned to the cluster.

28.21.1. add POST

Add a new cpu profile for the cluster.

Table 28.53. Parameters summary

Name	Type	Direction	Summary
profile	CpuProfile	In/Out	

28.21.2. list GET

List the CPU profiles assigned to the cluster.

The order of the returned CPU profiles isn't guaranteed.

Table 28.54. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of profiles to return.
profiles	CpuProfile[]	Out	

28.21.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.21.2.2. max

Sets the maximum number of profiles to return. If not specified all the profiles are returned.

28.22. ASSIGNEDDISKPROFILE

Table 28.55. Methods summary

Name	Summary
get	
remove	

28.22.1. get GET

Table 28.56. Parameters summary

Name	Type	Direction	Summary
disk_profile	DiskProfile	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.22.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.22.2. remove DELETE

Table 28.57. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.23. ASSIGNEDDISKPROFILES

Table 28.58. Methods summary

Name	Summary
add	Add a new disk profile for the storage domain.
list	Returns the list of disk profiles assigned to the storage domain.

28.23.1. add POST

Add a new disk profile for the storage domain.

Table 28.59. Parameters summary

Name	Type	Direction	Summary
profile	DiskProfile	In/Out	

28.23.2. list GET

Returns the list of disk profiles assigned to the storage domain.

The order of the returned disk profiles isn't guaranteed.

Table 28.60. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of profiles to return.
profiles	DiskProfile[]	Out	

28.23.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.23.2.2. max

Sets the maximum number of profiles to return. If not specified all the profiles are returned.

28.24. ASSIGNEDPERMISSIONS

Represents a permission sub-collection, scoped by user, group or some entity type.

Table 28.61. Methods summary

Name	Summary
add	Assign a new permission to a user or group for specific entity.
list	List all the permissions of the specific entity.

28.24.1. add POST

Assign a new permission to a user or group for specific entity.

For example, to assign the **UserVmManager** role to the virtual machine with id **123** to the user with id **456** send a request like this:

```
POST /ovirt-engine/api/vms/123/permissions
```

With a request body like this:

```
<permission>
  <role>
    <name>UserVmManager</name>
  </role>
  <user id="456"/>
</permission>
```

To assign the **SuperUser** role to the system to the user with id **456** send a request like this:

```
POST /ovirt-engine/api/permissions
```

With a request body like this:

```
<permission>
  <role>
    <name>SuperUser</name>
  </role>
  <user id="456"/>
</permission>
```

If you want to assign permission to the group instead of the user please replace the **user** element with the **group** element with proper **id** of the group. For example to assign the **UserRole** role to the cluster with id **123** to the group with id **789** send a request like this:

```
POST /ovirt-engine/api/clusters/123/permissions
```

With a request body like this:

```
<permission>
  <role>
    <name>UserRole</name>
  </role>
  <group id="789"/>
</permission>
```

Table 28.62. Parameters summary

Name	Type	Direction	Summary
permission	Permission	In/Out	The permission.

28.24.2. list GET

List all the permissions of the specific entity.

For example to list all the permissions of the cluster with id **123** send a request like this:

```
GET /ovirt-engine/api/clusters/123/permissions
```

```
<permissions>
  <permission id="456">
    <cluster id="123"/>
    <role id="789"/>
    <user id="451"/>
  </permission>
  <permission id="654">
    <cluster id="123"/>
    <role id="789"/>
    <group id="127"/>
  </permission>
</permissions>
```

The order of the returned permissions isn't guaranteed.

Table 28.63. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
permissions	Permission[]	Out	The list of permissions.

28.24.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.25. ASSIGNEDROLES

Represents a roles sub-collection, for example scoped by user.

Table 28.64. Methods summary

Name	Summary
list	Returns the roles assigned to the permission.

28.25.1. list GET

Returns the roles assigned to the permission.

The order of the returned roles isn't guaranteed.

Table 28.65. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of roles to return.
roles	Role[]	Out	

28.25.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.25.1.2. max

Sets the maximum number of roles to return. If not specified all the roles are returned.

28.26. ASSIGNEDTAG

A service to manage assignment of specific tag to specific entities in system.

Table 28.66. Methods summary

Name	Summary
get	Gets the information about the assigned tag.
remove	Unassign tag from specific entity in the system.

28.26.1. get GET

Gets the information about the assigned tag.

For example to retrieve the information about the tag with the id **456** which is assigned to virtual machine with id **123** send a request like this:

```
GET /ovirt-engine/api/vms/123/tags/456
```

```
<tag href="/ovirt-engine/api/tags/456" id="456">
  <name>root</name>
  <description>root</description>
  <vm href="/ovirt-engine/api/vms/123" id="123"/>
</tag>
```

Table 28.67. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
tag	Tag	Out	The assigned tag.

28.26.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.26.2. remove DELETE

Unassign tag from specific entity in the system.

For example to unassign the tag with id **456** from virtual machine with id **123** send a request like this:

```
DELETE /ovirt-engine/api/vms/123/tags/456
```

Table 28.68. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.27. ASSIGNEDTAGS

A service to manage collection of assignment of tags to specific entities in system.

Table 28.69. Methods summary

Name	Summary
add	Assign tag to specific entity in the system.
list	List all tags assigned to the specific entity.

28.27.1. add POST

Assign tag to specific entity in the system.

For example to assign tag **mytag** to virtual machine with the id **123** send a request like this:

```
POST /ovirt-engine/api/vms/123/tags
```

With a request body like this:

```
<tag>
  <name>mytag</name>
</tag>
```

Table 28.70. Parameters summary

Name	Type	Direction	Summary
tag	Tag	In/Out	The assigned tag.

28.27.2. list GET

List all tags assigned to the specific entity.

For example to list all the tags of the virtual machine with id **123** send a request like this:

```
GET /ovirt-engine/api/vms/123/tags
```

```
<tags>
  <tag href="/ovirt-engine/api/tags/222" id="222">
    <name>mytag</name>
    <description>mytag</description>
    <vm href="/ovirt-engine/api/vms/123" id="123"/>
  </tag>
</tags>
```

The order of the returned tags isn't guaranteed.

Table 28.71. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of tags to return.
tags	Tag[]	Out	The list of assigned tags.

28.27.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.27.2.2. max

Sets the maximum number of tags to return. If not specified all the tags are returned.

28.28. ASSIGNEDVNICPROFILE

Table 28.72. Methods summary

Name	Summary
get	
remove	

28.28.1. get GET

Table 28.73. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
profile	VnicProfile	Out	

28.28.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.28.2. remove DELETE

Table 28.74. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.29. ASSIGNEDVNICPROFILES

Table 28.75. Methods summary

Name	Summary
add	Add a new virtual network interface card profile for the network.
list	Returns the list of VNIC profiles assigned to the network.

28.29.1. add POST

Add a new virtual network interface card profile for the network.

Table 28.76. Parameters summary

Name	Type	Direction	Summary
profile	VnicProfile	In/Out	

28.29.2. list GET

Returns the list of VNIC profiles assigned to the network.

The order of the returned VNIC profiles isn't guaranteed.

Table 28.77. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of profiles to return.
profiles	VnicProfile[]	Out	

28.29.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.29.2.2. max

Sets the maximum number of profiles to return. If not specified all the profiles are returned.

28.30. ATTACHEDSTORAGEDOMAIN

Table 28.78. Methods summary

Name	Summary
activate	This operation activates an attached storage domain.
deactivate	This operation deactivates an attached storage domain.
get	
remove	

28.30.1. activate POST

This operation activates an attached storage domain. Once the storage domain is activated it is ready for use with the data center.

POST /ovirt-engine/api/datacenters/123/storagedomains/456/activate

The activate action does not take any action specific parameters, so the request body should contain an empty **action**:

<action/>

Table 28.79. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the activation should be performed asynchronously.

28.30.2. deactivate POST

This operation deactivates an attached storage domain. Once the storage domain is deactivated it will not be used with the data center. For example, to deactivate storage domain **456**, send the following request:

POST /ovirt-engine/api/datacenters/123/storagedomains/456/deactivate

With a request body like this:

<action/>

If the **force** parameter is **true** then the operation will succeed, even if the OVF update which takes place before the deactivation of the storage domain failed. If the **force** parameter is **false** and the OVF update failed, the deactivation of the storage domain will also fail.

Table 28.80. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the deactivation should be performed asynchronously.
force	Boolean	In	Indicates if the operation should succeed and the storage domain should be moved to a deactivated state, even if the OVF update for the storage domain failed.

28.30.2.1. force

Indicates if the operation should succeed and the storage domain should be moved to a deactivated state, even if the OVF update for the storage domain failed. For example, to deactivate storage domain **456** using force flag, send the following request:

POST /ovirt-engine/api/datacenters/123/storagedomains/456/deactivate

With a request body like this:

```
<action>
  <force>true</force>
</action>
```

This parameter is optional, and the default value is **false**.

28.30.3. get GET

Table 28.81. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
storage_domain	StorageDomain	Out	

28.30.3.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.30.4. remove DELETE

Table 28.82. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.31. ATTACHEDSTORAGEDOMAINDISK

Manages a single disk available in a storage domain attached to a data center.



IMPORTANT

Since version 4.2 of the engine this service is intended only to list disks available in the storage domain, and to register unregistered disks. All the other operations, like copying a disk, moving a disk, etc, have been deprecated and will be removed in the future. To perform those operations use the [service that manages all the disks of the system](#) or the [service that manages a specific disk](#).

Table 28.83. Methods summary

Name	Summary
copy	Copies a disk to the specified storage domain.
export	Exports a disk to an export storage domain.
get	Retrieves the description of the disk.
move	Moves a disk to another storage domain.
register	Registers an unregistered disk.
remove	Removes a disk.
sparsify	Sparsify the disk.
update	Updates the disk.

28.31.1. copy POST

Copies a disk to the specified storage domain.



IMPORTANT

Since version 4.2 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. To copy a disk use the [copy](#) operation of the service that manages that disk.

Table 28.84. Parameters summary

Name	Type	Direction	Summary
disk	Disk	In	Description of the resulting disk.
storage_domain	StorageDomain	In	The storage domain where the new disk will be created.

28.31.2. export POST

Exports a disk to an export storage domain.



IMPORTANT

Since version 4.2 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. To export a disk use the [export](#) operation of the service that manages that disk.

Table 28.85. Parameters summary

Name	Type	Direction	Summary
storage_domain	StorageDomain	In	The export storage domain where the disk should be exported to.

28.31.3. get GET

Retrieves the description of the disk.

Table 28.86. Parameters summary

Name	Type	Direction	Summary
disk	Disk	Out	The description of the disk.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.31.3.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.31.4. move POST

Moves a disk to another storage domain.



IMPORTANT

Since version 4.2 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. To move a disk use the [move](#) operation of the service that manages that disk.

Table 28.87. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the move should be performed asynchronously.
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
storage_domain	StorageDomain	In	The storage domain where the disk will be moved to.

28.31.5. register POST

Registers an unregistered disk.

28.31.6. remove DELETE

Removes a disk.



IMPORTANT

Since version 4.2 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. To remove a disk use the [remove](#) operation of the service that manages that disk.

28.31.7. sparsify POST

Sparsify the disk.

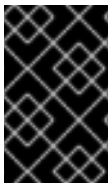


IMPORTANT

Since version 4.2 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. To remove a disk use the [remove](#) operation of the service that manages that disk.

28.31.8. update PUT

Updates the disk.



IMPORTANT

Since version 4.2 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. To update a disk use the [update](#) operation of the service that manages that disk.

Table 28.88. Parameters summary

Name	Type	Direction	Summary
disk	Disk	In/Out	The update to apply to the disk.

28.32. ATTACHEDSTORAGEDOMAINDISKS

Manages the collection of disks available inside an storage domain that is attached to a data center.

Table 28.89. Methods summary

Name	Summary
add	Adds or registers a disk.
list	Retrieve the list of disks that are available in the storage domain.

28.32.1. add POST

Adds or registers a disk.



IMPORTANT

Since version 4.2 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. To add a new disk use the [add](#) operation of the service that manages the disks of the system. To register an unregistered disk use the [register](#) operation of the service that manages that disk.

Table 28.90. Parameters summary

Name	Type	Direction	Summary
disk	Disk	In/Out	The disk to add or register.
unregistered	Boolean	In	Indicates if a new disk should be added or if an existing unregistered disk should be registered.

28.32.1.1. unregistered

Indicates if a new disk should be added or if an existing unregistered disk should be registered. If the value is **true** then the identifier of the disk to register needs to be provided. For example, to register the disk with id **456** send a request like this:

```
POST /ovirt-engine/api/storagedomains/123/disks?unregistered=true
```

With a request body like this:

```
<disk id="456"/>
```

If the value is **false** then a new disk will be created in the storage domain. In that case the **provisioned_size**, **format** and **name** attributes are mandatory. For example, to create a new *copy on write* disk of 1 GiB, send a request like this:

```
POST /ovirt-engine/api/storagedomains/123/disks
```

With a request body like this:

```
<disk>
  <name>mydisk</name>
  <format>cow</format>
  <provisioned_size>1073741824</provisioned_size>
</disk>
```

The default value is **false**.

28.32.2. list GET

Retrieve the list of disks that are available in the storage domain.

Table 28.91. Parameters summary

Name	Type	Direction	Summary
disks	Disk[]	Out	List of retrieved disks.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of disks to return.

28.32.2.1. disks

List of retrieved disks.

The order of the returned disks isn't guaranteed.

28.32.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.32.2.3. max

Sets the maximum number of disks to return. If not specified all the disks are returned.

28.33. ATTACHEDSTORAGEDOMAINS

Manages the storage domains attached to a data center.

Table 28.92. Methods summary

Name	Summary
add	Attaches an existing storage domain to the data center.
list	Returns the list of storage domains attached to the data center.

28.33.1. add POST

Attaches an existing storage domain to the data center.

Table 28.93. Parameters summary

Name	Type	Direction	Summary
storage_domain	StorageDomain	In/Out	The storage domain to attach to the data center.

28.33.2. list GET

Returns the list of storage domains attached to the data center.

The order of the returned storage domains isn't guaranteed.

Table 28.94. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of storage domains to return.
storage_domains	StorageDomain[]	Out	A list of storage domains that are attached to the data center.

28.33.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.33.2.2. max

Sets the maximum number of storage domains to return. If not specified all the storage domains are returned.

28.34. BALANCE

Table 28.95. Methods summary

Name	Summary
get	
remove	

28.34.1. get GET

Table 28.96. Parameters summary

Name	Type	Direction	Summary
balance	Balance	Out	
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.34.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.34.2. remove DELETE

Table 28.97. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.35. BALANCES

Table 28.98. Methods summary

Name	Summary
add	Add a balance module to a specified user defined scheduling policy.
list	Returns the list of balance modules used by the scheduling policy.

28.35.1. add POST

Add a balance module to a specified user defined scheduling policy.

Table 28.99. Parameters summary

Name	Type	Direction	Summary
balance	Balance	In/Out	

28.35.2. list GET

Returns the list of balance modules used by the scheduling policy.

The order of the returned balance modules isn't guaranteed.

Table 28.100. Parameters summary

Name	Type	Direction	Summary
balances	Balance[]	Out	
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
follow	String	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
max	Integer	In	Sets the maximum number of balances to return.

28.35.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.35.2.2. max

Sets the maximum number of balances to return. If not specified all the balances are returned.

28.36. BOOKMARK

A service to manage a bookmark.

Table 28.101. Methods summary

Name	Summary
get	Get a bookmark.
remove	Remove a bookmark.
update	Update a bookmark.

28.36.1. get GET

Get a bookmark.

An example for getting a bookmark:

```
GET /ovirt-engine/api/bookmarks/123
```

```
<bookmark href="/ovirt-engine/api/bookmarks/123" id="123">
  <name>example_vm</name>
  <value>vm: name=example*</value>
</bookmark>
```

Table 28.102. Parameters summary

Name	Type	Direction	Summary
bookmark	Bookmark	Out	The requested bookmark.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.36.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.36.2. remove DELETE

Remove a bookmark.

An example for removing a bookmark:

```
DELETE /ovirt-engine/api/bookmarks/123
```

Table 28.103. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.36.3. update PUT

Update a bookmark.

An example for updating a bookmark:

```
PUT /ovirt-engine/api/bookmarks/123
```

With the request body:

```
<bookmark>
  <name>new_example_vm</name>
  <value>vm: name=new_example*</value>
</bookmark>
```

Table 28.104. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
bookmark	Bookmark	In/Out	The updated bookmark.

28.37. BOOKMARKS

A service to manage bookmarks.

Table 28.105. Methods summary

Name	Summary
add	Adding a new bookmark.
list	Listing all the available bookmarks.

28.37.1. add POST

Adding a new bookmark.

Example of adding a bookmark:

POST /ovirt-engine/api/bookmarks

```
<bookmark>
  <name>new_example_vm</name>
  <value>vm: name=new_example*</value>
</bookmark>
```

Table 28.106. Parameters summary

Name	Type	Direction	Summary
bookmark	Bookmark	In/Out	The added bookmark.

28.37.2. list GET

Listing all the available bookmarks.

Example of listing bookmarks:

GET /ovirt-engine/api/bookmarks

```
<bookmarks>
  <bookmark href="/ovirt-engine/api/bookmarks/123" id="123">
    <name>database</name>
    <value>vm: name=database*</value>
  </bookmark>
  <bookmark href="/ovirt-engine/api/bookmarks/456" id="456">
    <name>example</name>
    <value>vm: name=example*</value>
  </bookmark>
</bookmarks>
```

The order of the returned bookmarks isn't guaranteed.

Table 28.107. Parameters summary

Name	Type	Direction	Summary
bookmarks	Bookmark[]	Out	The list of available bookmarks.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of bookmarks to return.

28.37.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.37.2.2. max

Sets the maximum number of bookmarks to return. If not specified all the bookmarks are returned.

28.38. CLUSTER

A service to manage a specific cluster.

Table 28.108. Methods summary

Name	Summary
get	Gets information about the cluster.
refreshglusterhealstatus	Refresh the Gluster heal info for all volumes in cluster.
remove	Removes the cluster from the system.
resetemulatedmachine	
syncallnetworks	Synchronizes all networks on the cluster.
update	Updates information about the cluster.
upgrade	Start, update or finish upgrade process for the cluster based on the action value.

28.38.1. get GET

Gets information about the cluster.

An example of getting a cluster:

```
GET /ovirt-engine/api/clusters/123
```

```

<cluster href="/ovirt-engine/api/clusters/123" id="123">
  <actions>
    <link href="/ovirt-engine/api/clusters/123/resetemulatedmachine" rel="resetemulatedmachine"/>
  </actions>
  <name>Default</name>
  <description>The default server cluster</description>
  <link href="/ovirt-engine/api/clusters/123/networks" rel="networks"/>
  <link href="/ovirt-engine/api/clusters/123/permissions" rel="permissions"/>
  <link href="/ovirt-engine/api/clusters/123/glustervolumes" rel="glustervolumes"/>
  <link href="/ovirt-engine/api/clusters/123/glusterhooks" rel="glusterhooks"/>
  <link href="/ovirt-engine/api/clusters/123/affinitygroups" rel="affinitygroups"/>
  <link href="/ovirt-engine/api/clusters/123/cpuprofiles" rel="cpuprofiles"/>
  <ballooning_enabled>>false</ballooning_enabled>
  <cpu>
    <architecture>x86_64</architecture>
    <type>Intel Nehalem Family</type>
  </cpu>
  <error_handling>
    <on_error>migrate</on_error>
  </error_handling>
  <fencing_policy>
    <enabled>>true</enabled>
    <skip_if_connectivity_broken>
      <enabled>>false</enabled>
      <threshold>50</threshold>
    </skip_if_connectivity_broken>
    <skip_if_sd_active>
      <enabled>>false</enabled>
    </skip_if_sd_active>
  </fencing_policy>
  <gluster_service>>false</gluster_service>
  <ha_reservation>>false</ha_reservation>
  <ksm>
    <enabled>>true</enabled>
    <merge_across_nodes>>true</merge_across_nodes>
  </ksm>
  <memory_policy>
    <over_commit>
      <percent>100</percent>
    </over_commit>
    <transparent_hugepages>
      <enabled>>true</enabled>
    </transparent_hugepages>
  </memory_policy>
  <migration>
    <auto_converge>inherit</auto_converge>
    <bandwidth>
      <assignment_method>auto</assignment_method>
    </bandwidth>
    <compressed>inherit</compressed>
  </migration>
  <required_rng_sources>
    <required_rng_source>random</required_rng_source>
  </required_rng_sources>
  <scheduling_policy href="/ovirt-engine/api/schedulingpolicies/456" id="456"/>
  <threads_as_cores>>false</threads_as_cores>

```



```

<trusted_service>false</trusted_service>
<tunnel_migration>false</tunnel_migration>
<version>
  <major>4</major>
  <minor>0</minor>
</version>
<virt_service>true</virt_service>
<data_center href="/ovirt-engine/api/datacenters/111" id="111"/>
</cluster>

```

Table 28.109. Parameters summary

Name	Type	Direction	Summary
cluster	Cluster	Out	
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.38.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.38.2. refreshglusterhealstatus POST

Refresh the Gluster heal info for all volumes in cluster.

For example, Cluster **123**, send a request like this:

```
POST /ovirt-engine/api/clusters/123/refreshglusterhealstatus
```

28.38.3. remove DELETE

Removes the cluster from the system.

```
DELETE /ovirt-engine/api/clusters/00000000-0000-0000-0000-000000000000
```

Table 28.110. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.38.4. resetemulatedmachine POST

Table 28.111. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the reset should be performed asynchronously.

28.38.5. syncallnetworks POST

Synchronizes all networks on the cluster.

POST /ovirt-engine/api/clusters/123/syncallnetworks

With a request body like this:

```
<action/>
```

Table 28.112. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the action should be performed asynchronously.

28.38.6. update PUT

Updates information about the cluster.

Only the specified fields are updated; others remain unchanged.

For example, to update the cluster's CPU:

PUT /ovirt-engine/api/clusters/123

With a request body like this:

```
<cluster>
  <cpu>
    <type>Intel Haswell-noTSX Family</type>
  </cpu>
</cluster>
```

Table 28.113. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
cluster	Cluster	In/Out	

28.38.7. upgrade POST

Start, update or finish upgrade process for the cluster based on the action value. This action marks the cluster for upgrade, updates the progress, or clears the upgrade running flag on the cluster based on the action value which takes values of **start**, **stop** or **update_progress**.

POST /ovirt-engine/api/clusters/123/upgrade

With a request body like this to mark the cluster for upgrade:

```
<action>
  <upgrade_action>
    start
  </upgrade_action>
</action>
```

After starting the upgrade, use a request body like this to update the progress to 15%:

```
<action>
  <upgrade_action>
    update_progress
  </upgrade_action>
  <upgrade_percent_complete>
    15
  </upgrade_percent_complete>
</action>
```

Table 28.114. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the action should be performed asynchronously.
correlation_id	String	In	Explicitly set the upgrade correlation identifier.
upgrade_action	ClusterUpgradeAction	In	The action to be performed.
upgrade_percent_complete	Integer	In	Update the upgrade's progress as a percent complete of the total process.

28.38.7.1. correlation_id

Explicitly set the upgrade correlation identifier. Use to correlate events detailing the cluster upgrade to the upgrade itself. If not specified, the correlation id from **Correlation-Id** http header will be used.

28.39. CLUSTERENABLEDFEATURE

Represents a feature enabled for the cluster.

Table 28.115. Methods summary

Name	Summary
get	Provides the information about the cluster feature enabled.
remove	Disables a cluster feature.

28.39.1. get GET

Provides the information about the cluster feature enabled.

For example, to find details of the enabled feature **456** for cluster **123**, send a request like this:

```
GET /ovirt-engine/api/clusters/123/enabledfeatures/456
```

That will return a [ClusterFeature](#) object containing the name:

```
<cluster_feature id="456">
  <name>libgfapi_supported</name>
</cluster_feature>
```

Table 28.116. Parameters summary

Name	Type	Direction	Summary
feature	ClusterFeature	Out	Retrieved cluster feature that's enabled.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.39.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.39.2. remove DELETE

Disables a cluster feature.

For example, to disable the feature **456** of cluster **123** send a request like this:

```
DELETE /ovirt-engine/api/clusters/123/enabledfeatures/456
```

28.40. CLUSTERENABLEDFEATURES

Provides information about the additional features that are enabled for this cluster. The features that are enabled are the available features for the cluster level

Table 28.117. Methods summary

Name	Summary
add	Enable an additional feature for a cluster.
list	Lists the additional features enabled for the cluster.

28.40.1. add POST

Enable an additional feature for a cluster.

For example, to enable a feature **456** on cluster **123**, send a request like this:

```
POST /ovirt-engine/api/clusters/123/enabledfeatures
```

The request body should look like this:

```
<cluster_feature id="456"/>
```

Table 28.118. Parameters summary

Name	Type	Direction	Summary
feature	ClusterFeature	In/Out	

28.40.2. list GET

Lists the additional features enabled for the cluster.

For example, to get the features enabled for cluster **123** send a request like this:

```
GET /ovirt-engine/api/clusters/123/enabledfeatures
```

This will return a list of features:

```
<enabled_features>
  <cluster_feature id="123">
    <name>test_feature</name>
  </cluster_feature>
  ...
</enabled_features>
```

Table 28.119. Parameters summary

Name	Type	Direction	Summary
features	ClusterFeature[]	Out	Retrieved features.

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.40.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.41. CLUSTEREXTERNALPROVIDERS

This service lists external providers.

Table 28.120. Methods summary

Name	Summary
list	Returns the list of external providers.

28.41.1. list GET

Returns the list of external providers.

The order of the returned list of providers is not guaranteed.

Table 28.121. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
providers	ExternalProvider[]	Out	

28.41.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.42. CLUSTERFEATURE

Represents a feature enabled for the cluster level

Table 28.122. Methods summary

Name	Summary
get	Provides the information about the a cluster feature supported by a cluster level.

28.42.1. get GET

Provides the information about the a cluster feature supported by a cluster level.

For example, to find details of the cluster feature **456** for cluster level 4.1, send a request like this:

```
GET /ovirt-engine/api/clusterlevels/4.1/clusterfeatures/456
```

That will return a [ClusterFeature](#) object containing the name:

```
<cluster_feature id="456">
  <name>libgfapi_supported</name>
</cluster_feature>
```

Table 28.123. Parameters summary

Name	Type	Direction	Summary
feature	ClusterFeature	Out	Retrieved cluster feature.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.42.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.43. CLUSTERFEATURES

Provides information about the cluster features that are supported by a cluster level.

Table 28.124. Methods summary

Name	Summary
list	Lists the cluster features supported by the cluster level.

28.43.1. list GET

Lists the cluster features supported by the cluster level.

```
GET /ovirt-engine/api/clusterlevels/4.1/clusterfeatures
```

This will return a list of cluster features supported by the cluster level:

```
<cluster_features>
  <cluster_feature id="123">
    <name>test_feature</name>
```

```

</cluster_feature>
...
</cluster_features>

```

Table 28.125. Parameters summary

Name	Type	Direction	Summary
features	ClusterFeature[]	Out	Retrieved features.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.43.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.44. CLUSTERLEVEL

Provides information about a specific cluster level. See the [ClusterLevels](#) service for more information.

Table 28.126. Methods summary

Name	Summary
get	Provides the information about the capabilities of the specific cluster level managed by this service.

28.44.1. get GET

Provides the information about the capabilities of the specific cluster level managed by this service.

For example, to find what CPU types are supported by level 3.6 you can send a request like this:

```
GET /ovirt-engine/api/clusterlevels/3.6
```

That will return a [ClusterLevel](#) object containing the supported CPU types, and other information which describes the cluster level:

```

<cluster_level id="3.6">
  <cpu_types>
    <cpu_type>
      <name>Intel Nehalem Family</name>
      <level>3</level>
      <architecture>x86_64</architecture>
    </cpu_type>
    ...
  </cpu_types>
  <permits>
    <permit id="1">

```



```

    <name>create_vm</name>
    <administrative>false</administrative>
  </permit>
  ...
</permits>
</cluster_level>

```

Table 28.127. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
level	ClusterLevel	Out	Retrieved cluster level.

28.44.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.45. CLUSTERLEVELS

Provides information about the capabilities of different cluster levels supported by the engine. Version 4.0 of the engine supports levels 4.0 and 3.6. Each of these levels support different sets of CPU types, for example. This service provides that information.

Table 28.128. Methods summary

Name	Summary
list	Lists the cluster levels supported by the system.

28.45.1. list GET

Lists the cluster levels supported by the system.

```
GET /ovirt-engine/api/clusterlevels
```

This will return a list of available cluster levels.

```

<cluster_levels>
  <cluster_level id="4.0">
    ...
  </cluster_level>
  ...
</cluster_levels>

```

The order of the returned cluster levels isn't guaranteed.

Table 28.129. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
levels	ClusterLevel []	Out	Retrieved cluster levels.

28.45.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.46. CLUSTERNETWORK

A service to manage a specific cluster network.

Table 28.130. Methods summary

Name	Summary
get	Retrieves the cluster network details.
remove	Unassigns the network from a cluster.
update	Updates the network in the cluster.

28.46.1. get GET

Retrieves the cluster network details.

Table 28.131. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
network	Network	Out	The cluster network.

28.46.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.46.2. remove DELETE

Unassigns the network from a cluster.

28.46.3. update PUT

Updates the network in the cluster.

Table 28.132. Parameters summary

Name	Type	Direction	Summary
network	Network	In/Out	The cluster network.

28.47. CLUSTER NETWORKS

A service to manage cluster networks.

Table 28.133. Methods summary

Name	Summary
add	Assigns the network to a cluster.
list	Lists the networks that are assigned to the cluster.

28.47.1. add POST

Assigns the network to a cluster.

Post a request like in the example below to assign the network to a cluster:

```
POST /ovirt-engine/api/clusters/123/networks
```

Use the following example in its body:

```
<network id="123" />
```

Table 28.134. Parameters summary

Name	Type	Direction	Summary
network	Network	In/Out	The network object to be assigned to the cluster.

28.47.2. list GET

Lists the networks that are assigned to the cluster.

The order of the returned clusters isn't guaranteed.

Table 28.135. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
max	Integer	In	Sets the maximum number of networks to return.
networks	Network[]	Out	The list of networks that are assigned to the cluster.

28.47.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.47.2.2. max

Sets the maximum number of networks to return. If not specified, all the networks are returned.

28.48. CLUSTERS

A service to manage clusters.

Table 28.136. Methods summary

Name	Summary
add	Creates a new cluster.
list	Returns the list of clusters of the system.

28.48.1. add POST

Creates a new cluster.

This requires the **name**, **cpu.type**, and **data_center** attributes. Identify the data center with either the **id** or **name** attribute.

POST /ovirt-engine/api/clusters

With a request body like this:

```
<cluster>
  <name>mycluster</name>
  <cpu>
    <type>Intel Nehalem Family</type>
  </cpu>
  <data_center id="123"/>
</cluster>
```

To create a cluster with an external network provider to be deployed on every host that is added to the cluster, send a request like this:

POST /ovirt-engine/api/clusters

With a request body containing a reference to the desired provider:

```
<cluster>
  <name>mycluster</name>
  <cpu>
    <type>Intel Nehalem Family</type>
  </cpu>
  <data_center id="123"/>
  <external_network_providers>
    <external_provider name="ovirt-provider-ovn"/>
  </external_network_providers>
</cluster>
```

Table 28.137. Parameters summary

Name	Type	Direction	Summary
cluster	Cluster	In/Out	

28.48.2. list GET

Returns the list of clusters of the system.

The order of the returned clusters is guaranteed only if the **sortby** clause is included in the **search** parameter.

Table 28.138. Parameters summary

Name	Type	Direction	Summary
case_sensitive	Boolean	In	Indicates if the search should be performed taking case into account.
clusters	Cluster[]	Out	
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of clusters to return.
search	String	In	A query string used to restrict the returned clusters.

28.48.2.1. case_sensitive

Indicates if the search should be performed taking case into account. The default value is **true**, which means that case is taken into account. To search ignoring case, set it to **false**.

28.48.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.48.2.3. max

Sets the maximum number of clusters to return. If not specified, all the clusters are returned.

28.49. COPYABLE

Table 28.139. Methods summary

Name	Summary
copy	

28.49.1. copy POST

Table 28.140. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the copy should be performed asynchronously.

28.50. CPUPROFILE

Table 28.141. Methods summary

Name	Summary
get	
remove	
update	Update the specified cpu profile in the system.

28.50.1. get GET

Table 28.142. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
profile	CpuProfile	Out	

28.50.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.50.2. remove DELETE

Table 28.143. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.50.3. update PUT

Update the specified cpu profile in the system.

Table 28.144. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
profile	CpuProfile	In/Out	

28.51. CPUPROFILES

Table 28.145. Methods summary

Name	Summary
add	Add a new cpu profile to the system.
list	Returns the list of CPU profiles of the system.

28.51.1. add POST

Add a new cpu profile to the system.

Table 28.146. Parameters summary

Name	Type	Direction	Summary
profile	CpuProfile	In/Out	

28.51.2. list GET

Returns the list of CPU profiles of the system.

The order of the returned list of CPU profiles is random.

Table 28.147. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of profiles to return.
profile	CpuProfile[]	Out	

28.51.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.51.2.2. max

Sets the maximum number of profiles to return. If not specified, all the profiles are returned.

28.52. DATACENTER

A service to manage a data center.

Table 28.148. Methods summary

Name	Summary
cleanfinishedtasks	Currently, the storage pool manager (SPM) fails to switch to another host if the SPM has uncleared tasks.
get	Get a data center.
remove	Removes the data center.
setmaster	Used for manually setting a storage domain in the data center as a master.
update	Updates the data center.

28.52.1. cleanfinishedtasks POST

Currently, the storage pool manager (SPM) fails to switch to another host if the SPM has uncleared tasks. Clearing all finished tasks enables the SPM switching.

For example, to clean all the finished tasks on a data center with ID **123** send a request like this:

```
POST /ovirt-engine/api/datacenters/123/cleanfinishedtasks
```

With a request body like this:


```
<action/>
```

Table 28.149. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the action should be performed asynchronously.

28.52.2. get GET

Get a data center.

An example of getting a data center:

```
GET /ovirt-engine/api/datacenters/123
```

```
<data_center href="/ovirt-engine/api/datacenters/123" id="123">
  <name>Default</name>
  <description>The default Data Center</description>
  <link href="/ovirt-engine/api/datacenters/123/clusters" rel="clusters"/>
  <link href="/ovirt-engine/api/datacenters/123/storagedomains" rel="storagedomains"/>
  <link href="/ovirt-engine/api/datacenters/123/permissions" rel="permissions"/>
  <link href="/ovirt-engine/api/datacenters/123/networks" rel="networks"/>
  <link href="/ovirt-engine/api/datacenters/123/quotas" rel="quotas"/>
  <link href="/ovirt-engine/api/datacenters/123/qoss" rel="qoss"/>
  <link href="/ovirt-engine/api/datacenters/123/iscsibonds" rel="iscsibonds"/>
  <local>false</local>
  <quota_mode>disabled</quota_mode>
  <status>up</status>
  <storage_format>v3</storage_format>
  <supported_versions>
    <version>
      <major>4</major>
      <minor>0</minor>
    </version>
  </supported_versions>
  <version>
    <major>4</major>
    <minor>0</minor>
  </version>
  <mac_pool href="/ovirt-engine/api/macpools/456" id="456"/>
</data_center>
```

Table 28.150. Parameters summary

Name	Type	Direction	Summary
data_center	DataCenter	Out	

Name	Type	Direction	Summary
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.52.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.52.3. remove DELETE

Removes the data center.

DELETE /ovirt-engine/api/datacenters/123

Without any special parameters, the storage domains attached to the data center are detached and then removed from the storage. If something fails when performing this operation, for example if there is no host available to remove the storage domains from the storage, the complete operation will fail.

If the **force** parameter is **true** then the operation will always succeed, even if something fails while removing one storage domain, for example. The failure is just ignored and the data center is removed from the database anyway.

Table 28.151. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.
force	Boolean	In	Indicates if the operation should succeed, and the storage domain removed from the database, even if something fails during the operation.

28.52.3.1. force

Indicates if the operation should succeed, and the storage domain removed from the database, even if something fails during the operation.

This parameter is optional, and the default value is **false**.

28.52.4. setmaster POST

Used for manually setting a storage domain in the data center as a master. For example, for setting a storage domain with ID '456' as a master on a data center with ID '123', send a request like this:

POST /ovirt-engine/api/datacenters/123/setmaster

With a request body like this:

```
<action>
  <storage_domain id="456"/>
</action>
```

The new master storage domain can be also specified by its name.

Table 28.152. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the action should be performed asynchronously.
storage_domain	StorageDomain	In	The new master storage domain for the data center.

28.52.5. update PUT

Updates the data center.

The **name**, **description**, **storage_type**, **version**, **storage_format** and **mac_pool** elements are updatable post-creation. For example, to change the name and description of data center **123** send a request like this:

PUT /ovirt-engine/api/datacenters/123

With a request body like this:

```
<data_center>
  <name>myupdatedname</name>
  <description>An updated description for the data center</description>
</data_center>
```

Table 28.153. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
data_center	DataCenter	In/Out	The data center that is being updated.

28.53. DATACENTERNETWORK

A service to manage a specific data center network.

Table 28.154. Methods summary

Name	Summary
get	Retrieves the data center network details.
remove	Removes the network.
update	Updates the network in the data center.

28.53.1. get GET

Retrieves the data center network details.

Table 28.155. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
network	Network	Out	The data center network.

28.53.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.53.2. remove DELETE

Removes the network.

28.53.3. update PUT

Updates the network in the data center.

Table 28.156. Parameters summary

Name	Type	Direction	Summary
network	Network	In/Out	The data center network.

28.54. DATACENTERNETWORKS

A service to manage data center networks.

Table 28.157. Methods summary

Name	Summary
add	Create a new network in a data center.
list	Lists networks in the data center.

28.54.1. add POST

Create a new network in a data center.

Post a request like in the example below to create a new network in a data center with an ID of **123**.

```
POST /ovirt-engine/api/datacenters/123/networks
```

Use the following example in its body:

```
<network>
  <name>mynetwork</name>
</network>
```

Table 28.158. Parameters summary

Name	Type	Direction	Summary
network	Network	In/Out	The network object to be created in the data center.

28.54.2. list GET

Lists networks in the data center.

The order of the returned list of networks isn't guaranteed.

Table 28.159. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of networks to return.
networks	Network[]	Out	The list of networks which are in the data center.

28.54.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.54.2.2. max

Sets the maximum number of networks to return. If not specified, all the networks are returned.

28.55. DATACENTERS

A service to manage data centers.

Table 28.160. Methods summary

Name	Summary
add	Creates a new data center.
list	Lists the data centers.

28.55.1. add POST

Creates a new data center.

Creation of a new data center requires the **name** and **local** elements. For example, to create a data center named **mydc** that uses shared storage (NFS, iSCSI or fibre channel) send a request like this:

```
POST /ovirt-engine/api/datacenters
```

With a request body like this:

```
<data_center>
  <name>mydc</name>
  <local>false</local>
</data_center>
```

Table 28.161. Parameters summary

Name	Type	Direction	Summary
data_center	DataCenter	In/Out	The data center that is being added.

28.55.2. list GET

Lists the data centers.

The following request retrieves a representation of the data centers:

```
GET /ovirt-engine/api/datacenters
```

The above request performed with **curl**:

```
curl \
  --request GET \
  --cacert /etc/pki/ovirt-engine/ca.pem \
```

```
--header "Version: 4" \
--header "Accept: application/xml" \
--user "admin@internal:mypassword" \
https://myengine.example.com/ovirt-engine/api/datacenters
```

This is what an example response could look like:

```
<data_center href="/ovirt-engine/api/datacenters/123" id="123">
  <name>Default</name>
  <description>The default Data Center</description>
  <link href="/ovirt-engine/api/datacenters/123/networks" rel="networks"/>
  <link href="/ovirt-engine/api/datacenters/123/storagedomains" rel="storagedomains"/>
  <link href="/ovirt-engine/api/datacenters/123/permissions" rel="permissions"/>
  <link href="/ovirt-engine/api/datacenters/123/clusters" rel="clusters"/>
  <link href="/ovirt-engine/api/datacenters/123/qoss" rel="qoss"/>
  <link href="/ovirt-engine/api/datacenters/123/iscsibonds" rel="iscsibonds"/>
  <link href="/ovirt-engine/api/datacenters/123/quotas" rel="quotas"/>
  <local>false</local>
  <quota_mode>disabled</quota_mode>
  <status>up</status>
  <supported_versions>
    <version>
      <major>4</major>
      <minor>0</minor>
    </version>
  </supported_versions>
  <version>
    <major>4</major>
    <minor>0</minor>
  </version>
</data_center>
```

Note the **id** code of your **Default** data center. This code identifies this data center in relation to other resources of your virtual environment.

The data center also contains a link to the storage domains collection. The data center uses this collection to attach storage domains from the storage domains main collection.

The order of the returned list of data centers is guaranteed only if the **sortby** clause is included in the **search** parameter.

Table 28.162. Parameters summary

Name	Type	Direction	Summary
case_sensitive	Boolean	In	Indicates if the search performed using the search parameter should be performed taking case into account.
data_centers	DataSet[]	Out	
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of data centers to return.
search	String	In	A query string used to restrict the returned data centers.

28.55.2.1. case_sensitive

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

28.55.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.55.2.3. max

Sets the maximum number of data centers to return. If not specified all the data centers are returned.

28.56. DISK

Manages a single disk.

Table 28.163. Methods summary

Name	Summary
convert	Converts disk format and/or preallocation mode.
copy	This operation copies a disk to the specified storage domain.
export	Exports a disk to an export storage domain.
get	Retrieves the description of the disk.
move	Moves a disk to another storage domain.
reduce	Reduces the size of the disk image.
refreshlun	Refreshes a direct LUN disk with up-to-date information from the storage.
remove	Removes a disk.

Name	Summary
sparsify	Sparsify the disk.
update	Updates the parameters of the specified disk.

28.56.1. convert POST

Converts disk format and/or preallocation mode.

For example, to convert the disk format from preallocated-cow to a sparse-raw image, send a request like the following:

```
POST /ovirt-engine/api/disks/123/convert
```

With the following request body:

```
<action>
  <disk>
    <sparse>true</sparse>
    <format>raw</format>
  </disk>
</action>
```

Table 28.164. Parameters summary

Name	Type	Direction	Summary
disk	Disk	In	The description of the disk.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.56.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.56.2. copy POST

This operation copies a disk to the specified storage domain.

For example, a disk can be copied using the following request:

```
POST /ovirt-engine/api/disks/123/copy
```

With a request body like this:

```
<action>
  <storage_domain id="456"/>
  <disk>
```

```

    <name>mydisk</name>
  </disk>
</action>

```

If the disk profile or the quota currently used by the disk are not defined for the new storage domain, they can be explicitly specified. If they are not specified, the first available disk profile and the default quota are used.

For example, to specify disk profile **987** and quota **753**, send a request body like this:

```

<action>
  <storage_domain id="456"/>
  <disk_profile id="987"/>
  <quota id="753"/>
</action>

```

Table 28.165. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the copy should be performed asynchronously.
disk	Disk	In	
disk_profile	DiskProfile	In	Disk profile for the disk in the new storage domain.
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
quota	Quota	In	Quota for the disk in the new storage domain.
storage_domain	StorageDomain	In	The storage domain where the new disk is created.

28.56.2.1. disk_profile

Disk profile for the disk in the new storage domain.

Disk profiles are defined for storage domains, so the old disk profile will not exist in the new storage domain. If this parameter is not used, the first disk profile from the new storage domain to which the user has permissions will be assigned to the disk.

28.56.2.2. quota

Quota for the disk in the new storage domain.

This optional parameter can be used to specify new quota for the disk, because the current quota may not be defined for the new storage domain. If this parameter is not used and the old quota is not defined for the new storage domain, the default (unlimited) quota will be assigned to the disk.

28.56.2.3. storage_domain

The storage domain where the new disk is created. This can be specified using the **id** or **name** attributes. For example, to copy a disk to the storage domain called **mydata**, send a request like this:

```
POST /ovirt-engine/api/storagedomains/123/disks/789
```

With a request body like this:

```
<action>
  <storage_domain>
    <name>mydata</name>
  </storage_domain>
</action>
```

28.56.3. export POST

Exports a disk to an export storage domain.

Table 28.166. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the export should be performed asynchronously.
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
storage_domain	StorageDomain	In	The export storage domain where the disk will be exported to.

28.56.4. get GET

Retrieves the description of the disk.

Table 28.167. Parameters summary

Name	Type	Direction	Summary
all_content	Boolean	In	Indicates if all of the attributes of the disk should be included in the response.
disk	Disk	Out	The description of the disk.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.56.4.1. all_content

Indicates if all of the attributes of the disk should be included in the response.

By default the following disk attributes are excluded:

- **vms**

For example, to retrieve the complete representation of disk '123':

```
GET /ovirt-engine/api/disks/123?all_content=true
```

28.56.4.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.56.5. move POST

Moves a disk to another storage domain.

For example, to move the disk with identifier **123** to a storage domain with identifier **456** send the following request:

```
POST /ovirt-engine/api/disks/123/move
```

With the following request body:

```
<action>
  <storage_domain id="456"/>
</action>
```

If the disk profile or the quota used currently by the disk aren't defined for the new storage domain, then they can be explicitly specified. If they aren't then the first available disk profile and the default quota are used.

For example, to explicitly use disk profile **987** and quota **753** send a request body like this:

```
<action>
  <storage_domain id="456"/>
  <disk_profile id="987"/>
  <quota id="753"/>
</action>
```

Table 28.168. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the move should be performed asynchronously.
disk_profile	DiskProfile	In	Disk profile for the disk in the new storage domain.
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.

Name	Type	Direction	Summary
quota	Quota	In	Quota for the disk in the new storage domain.
storage_domain	StorageDomain	In	The storage domain where the disk will be moved to.

28.56.5.1. disk_profile

Disk profile for the disk in the new storage domain.

Disk profiles are defined for storage domains, so the old disk profile will not exist in the new storage domain. If this parameter is not used, the first disk profile from the new storage domain to which the user has permissions will be assigned to the disk.

28.56.5.2. quota

Quota for the disk in the new storage domain.

This optional parameter can be used to specify new quota for the disk, because the current quota may not be defined for the new storage domain. If this parameter is not used and the old quota is not defined for the new storage domain, the default (unlimited) quota will be assigned to the disk.

28.56.6. reduce POST

Reduces the size of the disk image.

Invokes *reduce* on the logical volume (i.e. this is only applicable for block storage domains). This is applicable for floating disks and disks attached to non-running virtual machines. There is no need to specify the size as the optimal size is calculated automatically.

Table 28.169. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.56.7. refreshlun POST

Refreshes a direct LUN disk with up-to-date information from the storage.

Refreshing a direct LUN disk is useful when:

- The LUN was added using the API without the host parameter, and therefore does not contain any information from the storage (see [DisksService::add](#)).
- New information about the LUN is available on the storage and you want to update the LUN with it.

To refresh direct LUN disk **123** using host **456**, send the following request:

POST /ovirt-engine/api/disks/123/refreshlun

With the following request body:

```
<action>
  <host id='456' />
</action>
```

Table 28.170. Parameters summary

Name	Type	Direction	Summary
host	Host	In	The host that will be used to refresh the direct LUN disk.

28.56.8. remove DELETE

Removes a disk.

Table 28.171. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.56.9. sparsify POST

Sparsify the disk.

Sparsification frees space in the disk image that is not used by its filesystem. As a result, the image will occupy less space on the storage.

Currently sparsification works only on disks without snapshots. Disks having derived disks are also not allowed.

28.56.10. update PUT

Updates the parameters of the specified disk.

This operation allows updating the following floating disk properties:

- For Image disks: **provisioned_size**, **alias**, **description**, **wipe_after_delete**, **shareable**, **backup** and **disk_profile**.
- For LUN disks: **alias**, **description** and **shareable**.
- Cinder integration has been replaced by Managed Block Storage.
- For Managed Block disks: **provisioned_size**, **alias** and **description**.
- For VM attached disks, the **qcow_version** can also be updated.

For example, a disk's update can be done by using the following request:

```
PUT /ovirt-engine/api/disks/123
```

With a request body like this:

```
<disk>
  <qcow_version>qcow2_v3</qcow_version>
  <alias>new-alias</alias>
  <description>new-desc</description>
</disk>
```

Since the backend operation is asynchronous, the disk element that is returned to the user might not be synced with the changed properties.

Table 28.172. Parameters summary

Name	Type	Direction	Summary
disk	Disk	In/Out	The update to apply to the disk.

28.57. DISKATTACHMENT

This service manages the attachment of a disk to a virtual machine.

Table 28.173. Methods summary

Name	Summary
get	Returns the details of the attachment, including the bootable flag and link to the disk.
remove	Removes the disk attachment.
update	Update the disk attachment and the disk properties within it.

28.57.1. get GET

Returns the details of the attachment, including the bootable flag and link to the disk.

An example of getting a disk attachment:

```
GET /ovirt-engine/api/vms/123/diskattachments/456
```

```
<disk_attachment href="/ovirt-engine/api/vms/123/diskattachments/456" id="456">
  <active>true</active>
  <bootable>true</bootable>
  <interface>virtio</interface>
  <disk href="/ovirt-engine/api/disks/456" id="456"/>
  <vm href="/ovirt-engine/api/vms/123" id="123"/>
</disk_attachment>
```

Table 28.174. Parameters summary

Name	Type	Direction	Summary
attachment	DiskAttachment	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.57.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.57.2. remove DELETE

Removes the disk attachment.

This will only detach the disk from the virtual machine, but won't remove it from the system, unless the **detach_only** parameter is **false**.

An example of removing a disk attachment:

```
DELETE /ovirt-engine/api/vms/123/diskattachments/456?detach_only=true
```

Table 28.175. Parameters summary

Name	Type	Direction	Summary
detach_only	Boolean	In	Indicates if the disk should only be detached from the virtual machine, but not removed from the system.

28.57.2.1. detach_only

Indicates if the disk should only be detached from the virtual machine, but not removed from the system. The default value is **true**, which won't remove the disk from the system.

28.57.3. update PUT

Update the disk attachment and the disk properties within it.

```
PUT /vms/{vm:id}/disksattachments/{attachment:id}
<disk_attachment>
  <bootable>true</bootable>
  <interface>ide</interface>
  <active>true</active>
  <disk>
    <name>mydisk</name>
    <provisioned_size>1024</provisioned_size>
```



```
...
</disk>
</disk_attachment>
```

Table 28.176. Parameters summary

Name	Type	Direction	Summary
disk_attachment	DiskAttachment	In/Out	

28.58. DISKATTACHMENTS

This service manages the set of disks attached to a virtual machine. Each attached disk is represented by a [DiskAttachment](#), containing the bootable flag, the disk interface and the reference to the disk.

Table 28.177. Methods summary

Name	Summary
add	Adds a new disk attachment to the virtual machine.
list	List the disk that are attached to the virtual machine.

28.58.1. add POST

Adds a new disk attachment to the virtual machine. The **attachment** parameter can contain just a reference, if the disk already exists:

```
<disk_attachment>
  <bootable>true</bootable>
  <pass_discard>true</pass_discard>
  <interface>ide</interface>
  <active>true</active>
  <disk id="123"/>
</disk_attachment>
```

Or it can contain the complete representation of the disk, if the disk doesn't exist yet:

```
<disk_attachment>
  <bootable>true</bootable>
  <pass_discard>true</pass_discard>
  <interface>ide</interface>
  <active>true</active>
  <disk>
    <name>mydisk</name>
    <provisioned_size>1024</provisioned_size>
    ...
  </disk>
</disk_attachment>
```

In this case the disk will be created and then attached to the virtual machine.

In both cases, use the following URL for a virtual machine with an id **345**:

POST /ovirt-engine/api/vms/345/diskattachments



IMPORTANT

The server accepts requests that do not contain the **active** attribute, but the effect is undefined. In some cases the disk will be automatically activated and in other cases it won't. To avoid issues it is strongly recommended to always include the **active** attribute with the desired value.

Table 28.178. Parameters summary

Name	Type	Direction	Summary
attachment	DiskAttachment	In/Out	The disk attachment to add to the virtual machine.

28.58.2. list GET

List the disk that are attached to the virtual machine.

The order of the returned list of disks attachments isn't guaranteed.

Table 28.179. Parameters summary

Name	Type	Direction	Summary
attachments	DiskAttachment[]	Out	A list of disk attachments that are attached to the virtual machine.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.58.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.59. DISKPROFILE

Table 28.180. Methods summary

Name	Summary
get	
remove	

Name	Summary
update	Update the specified disk profile in the system.

28.59.1. get GET

Table 28.181. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
profile	DiskProfile	Out	

28.59.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.59.2. remove DELETE

Table 28.182. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.59.3. update PUT

Update the specified disk profile in the system.

Table 28.183. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
profile	DiskProfile	In/Out	

28.60. DISKPROFILES

Table 28.184. Methods summary

Name	Summary
add	Add a new disk profile to the system.
list	Returns the list of disk profiles of the system.

28.60.1. add POST

Add a new disk profile to the system.

Table 28.185. Parameters summary

Name	Type	Direction	Summary
profile	DiskProfile	In/Out	

28.60.2. list GET

Returns the list of disk profiles of the system.

The order of the returned list of disk profiles isn't guaranteed.

Table 28.186. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of profiles to return.
profile	DiskProfile[]	Out	

28.60.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.60.2.2. max

Sets the maximum number of profiles to return. If not specified all the profiles are returned.

28.61. DISKSNAPSHOT

Table 28.187. Methods summary

Name	Summary
get	
remove	

28.61.1. get GET

Table 28.188. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
snapshot	DiskSnapshot	Out	

28.61.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.61.2. remove DELETE

Table 28.189. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.62. DISKSNAPSHOTS

Manages the collection of disk snapshots available in an storage domain.

Table 28.190. Methods summary

Name	Summary
list	Returns the list of disk snapshots of the storage domain.

28.62.1. list GET

Returns the list of disk snapshots of the storage domain.

The order of the returned list of disk snapshots isn't guaranteed.

Table 28.191. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
include_active	Boolean	In	If true return also active snapshots.
include_template	Boolean	In	If true return also template snapshots.
max	Integer	In	Sets the maximum number of snapshots to return.
snapshots	DiskSnapshot[]	Out	

28.62.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.62.1.2. include_active

If true return also active snapshots. If not specified active snapshots are not returned.

28.62.1.3. include_template

If true return also template snapshots. If not specified template snapshots are not returned.

28.62.1.4. max

Sets the maximum number of snapshots to return. If not specified all the snapshots are returned.

28.63. DISKS

Manages the collection of disks available in the system.

Table 28.192. Methods summary

Name	Summary
add	Adds a new floating disk.
list	Get list of disks.

28.63.1. add POST

Adds a new floating disk.

There are three types of disks that can be added - disk image, direct LUN and Managed Block disk. [Cinder](#) integration has been replaced by Managed Block Storage.

Adding a new image disk:

When creating a new floating image [Disk](#), the API requires the **storage_domain**, **provisioned_size** and **format** attributes.

Note that block storage domains (i.e. storage domains with the [storage type](#) of iSCSI or FCP) do not support the combination of the raw **format** with **sparse=true**, so **sparse=false** must be stated explicitly.

To create a new floating image disk with specified **provisioned_size**, **format** and **name** on a storage domain with an id **123** and enabled for incremental backup, send a request as follows:

```
POST /ovirt-engine/api/disks
```

With a request body as follows:

```
<disk>
  <storage_domains>
    <storage_domain id="123"/>
  </storage_domains>
  <name>mydisk</name>
  <provisioned_size>1048576</provisioned_size>
  <format>cow</format>
  <backup>incremental</backup>
</disk>
```

Adding a new direct LUN disk:

When adding a new floating direct LUN via the API, there are two flavors that can be used:

1. With a **host** element - in this case, the host is used for sanity checks (e.g., that the LUN is visible) and to retrieve basic information about the LUN (e.g., size and serial).
2. Without a **host** element - in this case, the operation is a database-only operation, and the storage is never accessed.

To create a new floating direct LUN disk with a **host** element with an id **123**, specified **alias**, **type** and **logical_unit** with an id **456** (that has the attributes **address**, **port** and **target**), send a request as follows:

```
POST /ovirt-engine/api/disks
```

With a request body as follows:

```
<disk>
  <alias>mylun</alias>
  <lun_storage>
    <host id="123"/>
    <type>iscsi</type>
    <logical_units>
      <logical_unit id="456">
        <address>10.35.10.20</address>
        <port>3260</port>
        <target>iqn.2017-01.com.myhost:444</target>
      </logical_unit>
    </logical_units>
  </lun_storage>
</disk>
```

```

    </logical_unit>
  </logical_units>
</lun_storage>
</disk>

```

To create a new floating direct LUN disk without using a host, remove the **host** element.

Adding a new Cinder disk:

Cinder integration has been replaced by Managed Block Storage.

Adding a floating disks in order to upload disk snapshots:

Since version 4.2 of the engine it is possible to upload disks with snapshots. This request should be used to create the base image of the images chain (The consecutive disk snapshots (images), should be created using **disk-attachments** element when creating a snapshot).

The disk has to be created with the same disk identifier and image identifier of the uploaded image. I.e. the identifiers should be saved as part of the backup process. The image identifier can be also fetched using the **qemu-img info** command. For example, if the disk image is stored into a file named

b7a4c6c5-443b-47c5-967f-6abc79675e8b/myimage.img:

```

$ qemu-img info b7a4c6c5-443b-47c5-967f-6abc79675e8b/myimage.img
image: b548366b-fb51-4b41-97be-733c887fe305
file format: qcow2
virtual size: 1.0G (1073741824 bytes)
disk size: 196K
cluster_size: 65536
backing file: ad58716a-1fe9-481f-815e-664de1df04eb
backing file format: raw

```

To create a disk with the disk identifier and image identifier obtained with the **qemu-img info** command shown above, send a request like this:

```
POST /ovirt-engine/api/disks
```

With a request body as follows:

```

<disk id="b7a4c6c5-443b-47c5-967f-6abc79675e8b">
  <image_id>b548366b-fb51-4b41-97be-733c887fe305</image_id>
  <storage_domains>
    <storage_domain id="123"/>
  </storage_domains>
  <name>mydisk</name>
  <provisioned_size>1048576</provisioned_size>
  <format>cow</format>
</disk>

```

Table 28.193. Parameters summary

Name	Type	Direction	Summary
disk	Disk	In/Out	The disk.

28.63.2. list GET

Get list of disks.

GET /ovirt-engine/api/disks

You will get a XML response which will look like this one:

```
<disks>
  <disk id="123">
    <actions>...</actions>
    <name>MyDisk</name>
    <description>MyDisk description</description>
    <link href="/ovirt-engine/api/disks/123/permissions" rel="permissions"/>
    <link href="/ovirt-engine/api/disks/123/statistics" rel="statistics"/>
    <actual_size>5345845248</actual_size>
    <alias>MyDisk alias</alias>
    ...
    <status>ok</status>
    <storage_type>image</storage_type>
    <wipe_after_delete>false</wipe_after_delete>
    <disk_profile id="123"/>
    <quota id="123"/>
    <storage_domains>...</storage_domains>
  </disk>
  ...
</disks>
```

The order of the returned list of disks is guaranteed only if the **sortby** clause is included in the **search** parameter.

Table 28.194. Parameters summary

Name	Type	Direction	Summary
case_sensitive	Boolean	In	Indicates if the search performed using the search parameter should be performed taking case into account.
disks	Disk[]	Out	List of retrieved disks.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of disks to return.
search	String	In	A query string used to restrict the returned disks.

28.63.2.1. case_sensitive

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

28.63.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.63.2.3. max

Sets the maximum number of disks to return. If not specified all the disks are returned.

28.64. DOMAIN

A service to view details of an authentication domain in the system.

Table 28.195. Methods summary

Name	Summary
get	Gets the authentication domain information.

28.64.1. get GET

Gets the authentication domain information.

Usage:

```
GET /ovirt-engine/api/domains/5678
```

Will return the domain information:

```
<domain href="/ovirt-engine/api/domains/5678" id="5678">
  <name>internal-authz</name>
  <link href="/ovirt-engine/api/domains/5678/users" rel="users"/>
  <link href="/ovirt-engine/api/domains/5678/groups" rel="groups"/>
  <link href="/ovirt-engine/api/domains/5678/users?search={query}" rel="users/search"/>
  <link href="/ovirt-engine/api/domains/5678/groups?search={query}" rel="groups/search"/>
</domain>
```

Table 28.196. Parameters summary

Name	Type	Direction	Summary
domain	Domain	Out	The authentication domain.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.64.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.65. DOMAINGROUP

Table 28.197. Methods summary

Name	Summary
get	

28.65.1. get GET

Table 28.198. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
get	Group	Out	

28.65.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.66. DOMAINGROUPS

Table 28.199. Methods summary

Name	Summary
list	Returns the list of groups.

28.66.1. list GET

Returns the list of groups.

The order of the returned list of groups isn't guaranteed.

Table 28.200. Parameters summary

Name	Type	Direction	Summary
case_sensitive	Boolean	In	Indicates if the search performed using the search parameter should be performed taking case into account.
follow	String	In	Indicates which inner links should be <i>followed</i> .
groups	Group[]	Out	

Name	Type	Direction	Summary
max	Integer	In	Sets the maximum number of groups to return.
search	String	In	A query string used to restrict the returned groups.

28.66.1.1. case_sensitive

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

28.66.1.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.66.1.3. max

Sets the maximum number of groups to return. If not specified all the groups are returned.

28.67. DOMAINUSER

A service to view a domain user in the system.

Table 28.201. Methods summary

Name	Summary
get	Gets the domain user information.

28.67.1. get GET

Gets the domain user information.

Usage:

```
GET /ovirt-engine/api/domains/5678/users/1234
```

Will return the domain user information:

```
<user href="/ovirt-engine/api/users/1234" id="1234">
  <name>admin</name>
  <namespace>*</namespace>
  <principal>admin</principal>
  <user_name>admin@internal-authz</user_name>
  <domain href="/ovirt-engine/api/domains/5678" id="5678">
    <name>internal-authz</name>
```

```

</domain>
<groups/>
</user>

```

Table 28.202. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
user	User	Out	The domain user.

28.67.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.68. DOMAINUSERGROUPS

A service that shows a user's group membership in the AAA extension.

Table 28.203. Methods summary

Name	Summary
list	Returns the list of groups that the user is a member of.

28.68.1. list GET

Returns the list of groups that the user is a member of.

Table 28.204. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
groups	Group[]	Out	The list of groups that the user is a member of.

28.68.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.69. DOMAINUSERS

A service to list all domain users in the system.

Table 28.205. Methods summary

Name	Summary
list	List all the users in the domain.

28.69.1. list GET

List all the users in the domain.

Usage:

```
GET /ovirt-engine/api/domains/5678/users
```

Will return the list of users in the domain:

```
<users>
  <user href="/ovirt-engine/api/domains/5678/users/1234" id="1234">
    <name>admin</name>
    <namespace>*</namespace>
    <principal>admin</principal>
    <user_name>admin@internal-authz</user_name>
    <domain href="/ovirt-engine/api/domains/5678" id="5678">
      <name>internal-authz</name>
    </domain>
    <groups/>
  </user>
</users>
```

The order of the returned list of users isn't guaranteed.

Table 28.206. Parameters summary

Name	Type	Direction	Summary
case_sensitive	Boolean	In	Indicates if the search performed using the search parameter should be performed taking case into account.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of users to return.
search	String	In	A query string used to restrict the returned users.
users	User[]	Out	The list of users in the domain.

28.69.1.1. case_sensitive

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

28.69.1.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.69.1.3. max

Sets the maximum number of users to return. If not specified all the users are returned.

28.70. DOMAINS

A service to list all authentication domains in the system.

Table 28.207. Methods summary

Name	Summary
list	List all the authentication domains in the system.

28.70.1. list GET

List all the authentication domains in the system.

Usage:

```
GET /ovirt-engine/api/domains
```

Will return the list of domains:

```
<domains>
  <domain href="/ovirt-engine/api/domains/5678" id="5678">
    <name>internal-authz</name>
    <link href="/ovirt-engine/api/domains/5678/users" rel="users"/>
    <link href="/ovirt-engine/api/domains/5678/groups" rel="groups"/>
    <link href="/ovirt-engine/api/domains/5678/users?search={query}" rel="users/search"/>
    <link href="/ovirt-engine/api/domains/5678/groups?search={query}" rel="groups/search"/>
  </domain>
</domains>
```

The order of the returned list of domains isn't guaranteed.

Table 28.208. Parameters summary

Name	Type	Direction	Summary
domains	Domain[]	Out	The list of domains.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of domains to return.

28.70.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.70.1.2. max

Sets the maximum number of domains to return. If not specified all the domains are returned.

28.71. ENGINEKATELLOERRATA

A service to manage Katello errata assigned to the engine. The information is retrieved from Katello.

Table 28.209. Methods summary

Name	Summary
list	Retrieves the representation of the Katello errata.

28.71.1. list GET

Retrieves the representation of the Katello errata.

GET /ovirt-engine/api/katelloerrata

You will receive response in XML like this one:

```

<katello_errata>
  <katello_erratum href="/ovirt-engine/api/katelloerrata/123" id="123">
    <name>RHBA-2013:XYZ</name>
    <description>The description of the erratum</description>
    <title>some bug fix update</title>
    <type>bugfix</type>
    <issued>2013-11-20T02:00:00.000+02:00</issued>
    <solution>Few guidelines regarding the solution</solution>
    <summary>Updated packages that fix one bug are now available for XYZ</summary>
    <packages>
      <package>
        <name>libipa_hbac-1.9.2-82.11.el6_4.i686</name>
      </package>
      ...
    </packages>
  </katello_erratum>
  ...
</katello_errata>

```

The order of the returned list of erratum isn't guaranteed.

Table 28.210. Parameters summary

Name	Type	Direction	Summary
errata	KatelloErratum[]	Out	A representation of Katello errata.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of errata to return.

28.71.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.71.1.2. max

Sets the maximum number of errata to return. If not specified all the errata are returned.

28.72. EVENT

A service to manage an event in the system.

Table 28.211. Methods summary

Name	Summary
get	Get an event.
remove	Removes an event from internal audit log.

28.72.1. get GET

Get an event.

An example of getting an event:

```
GET /ovirt-engine/api/events/123
```

```
<event href="/ovirt-engine/api/events/123" id="123">
  <description>Host example.com was added by admin@internal-authz.</description>
  <code>42</code>
  <correlation_id>135</correlation_id>
  <custom_id>-1</custom_id>
  <flood_rate>30</flood_rate>
  <origin>oVirt</origin>
  <severity>normal</severity>
  <time>2016-12-11T11:13:44.654+02:00</time>
  <cluster href="/ovirt-engine/api/clusters/456" id="456"/>
```

```
<host href="/ovirt-engine/api/hosts/789" id="789"/>
<user href="/ovirt-engine/api/users/987" id="987"/>
</event>
```

Note that the number of fields changes according to the information that resides on the event. For example, for storage domain related events you will get the storage domain reference, as well as the reference for the data center this storage domain resides in.

Table 28.212. Parameters summary

Name	Type	Direction	Summary
event	Event	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.72.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.72.2. remove DELETE

Removes an event from internal audit log.

An event can be removed by sending following request

```
DELETE /ovirt-engine/api/events/123
```

Table 28.213. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.73. EVENTSUBSCRIPTION

A service to manage a specific event-subscription in the system.

Table 28.214. Methods summary

Name	Summary
get	Gets the information about the event-subscription.
remove	Removes the event-subscription from the system.

28.73.1. get GET

Gets the information about the event-subscription.

For example to retrieve the information about the subscription of user '123' to the event 'vm_console_detected':

```
GET /ovirt-engine/api/users/123/vm_console_detected
```

```
<event-subscription href="/ovirt-engine/api/users/123/event-subscriptions/vm_console_detected">
  <event>vm_console_detected</event>
  <notification_method>smtp</notification_method>
  <user href="/ovirt-engine/api/users/123" id="123"/>
  <address>a@b.com</address>
</event-subscription>
```

Table 28.215. Parameters summary

Name	Type	Direction	Summary
event_subscription	EventSubscription	Out	The event-subscription.

28.73.2. remove DELETE

Removes the event-subscription from the system.

For example to remove user 123's subscription to **vm_console_detected** event:

```
DELETE /ovirt-engine/api/users/123/vm_console_detected
```

Table 28.216. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.74. EVENTSUBSCRIPTIONS

Represents a service to manage collection of event-subscription of a user.

Table 28.217. Methods summary

Name	Summary
add	Add a new event-subscription to the system.
list	List the event-subscriptions for the provided user.

28.74.1. add POST

Add a new event-subscription to the system.

An event-subscription is always added in the context of a user. For example, to add new event-subscription for **host_high_cpu_use** for user **123**, and have the notification sent to the e-mail address: **a@b.com**, send a request like this:

```
POST /ovirt-engine/api/users/123/eventsubscriptions
```

With a request body like this:

```
<event_subscription>
  <event>host_high_cpu_use</event>
  <address>a@b.com</address>
</event_subscription>
```

The event name will become the ID of the new event-subscription entity: GET ...
/api/users/123/eventsubscriptions/host_high_cpu_use

Note that no user id is provided in the request body. This is because the user-id (in this case 123) is already known to the API from the context. Note also that event-subscription entity contains notification-method field, but it is not provided either in the request body. This is because currently it's always set to SMTP as SNMP notifications are still unsupported by the API layer.

Table 28.218. Parameters summary

Name	Type	Direction	Summary
event_subscription	EventSubscription	In/Out	The added event-subscription.

28.74.2. list GET

List the event-subscriptions for the provided user.

For example to list event-subscriptions for user **123**:

```
GET /ovirt-engine/api/users/123/event-subscriptions
```

```
<event-subscriptions>
  <event-subscription href="/ovirt-engine/api/users/123/event-subscriptions/host_install_failed">
    <event>host_install_failed</event>
    <notification_method>smtp</notification_method>
    <user href="/ovirt-engine/api/users/123" id="123"/>
    <address>a@b.com</address>
  </event-subscription>
  <event-subscription href="/ovirt-engine/api/users/123/event-subscriptions/vm_paused">
    <event>vm_paused</event>
    <notification_method>smtp</notification_method>
    <user href="/ovirt-engine/api/users/123" id="123"/>
    <address>a@b.com</address>
  </event-subscription>
</event-subscriptions>
```

Table 28.219. Parameters summary

Name	Type	Direction	Summary
event_subscriptions	EventSubscription[]	Out	List of the event-subscriptions for the specified user
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of event-subscriptions to return.

28.74.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.74.2.2. max

Sets the maximum number of event-subscriptions to return. If not specified all the event-subscriptions are returned.

28.75. EVENTS

A service to manage events in the system.

Table 28.220. Methods summary

Name	Summary
add	Adds an external event to the internal audit log.
list	Get list of events.
undelete	

28.75.1. add POST

Adds an external event to the internal audit log.

This is intended for integration with external systems that detect or produce events relevant for the administrator of the system. For example, an external monitoring tool may be able to detect that a file system is full inside the guest operating system of a virtual machine. This event can be added to the internal audit log sending a request like this:

```
POST /ovirt-engine/api/events
<event>
  <description>File system /home is full</description>
  <severity>alert</severity>
```

```
<origin>mymonitor</origin>
<custom_id>1467879754</custom_id>
</event>
```

Events can also be linked to specific objects. For example, the above event could be linked to the specific virtual machine where it happened, using the **vm** link:

```
POST /ovirt-engine/api/events
<event>
  <description>File system /home is full</description>
  <severity>alert</severity>
  <origin>mymonitor</origin>
  <custom_id>1467879754</custom_id>
  <vm id="aae98225-5b73-490d-a252-899209af17e9"/>
</event>
```



NOTE

When using links, like the **vm** in the previous example, only the **id** attribute is accepted. The **name** attribute, if provided, is simply ignored.

Table 28.221. Parameters summary

Name	Type	Direction	Summary
event	Event	In/Out	

28.75.2. list GET

Get list of events.

```
GET /ovirt-engine/api/events
```

To the above request we get following response:

```
<events>
  <event href="/ovirt-engine/api/events/2" id="2">
    <description>User admin@internal-authz logged out.</description>
    <code>31</code>
    <correlation_id>1e892ea9</correlation_id>
    <custom_id>-1</custom_id>
    <flood_rate>30</flood_rate>
    <origin>oVirt</origin>
    <severity>normal</severity>
    <time>2016-09-14T12:14:34.541+02:00</time>
    <user href="/ovirt-engine/api/users/57d91d48-00da-0137-0138-000000000244" id="57d91d48-00da-0137-0138-000000000244"/>
  </event>
  <event href="/ovirt-engine/api/events/1" id="1">
    <description>User admin logged in.</description>
    <code>30</code>
    <correlation_id>1fbd81f4</correlation_id>
```

```

<custom_id>-1</custom_id>
<flood_rate>30</flood_rate>
<origin>oVirt</origin>
<severity>normal</severity>
<time>2016-09-14T11:54:35.229+02:00</time>
<user href="/ovirt-engine/api/users/57d91d48-00da-0137-0138-000000000244" id="57d91d48-00da-0137-0138-000000000244"/>
</event>
</events>

```

The following events occur:

- id="1" - The API logs in the admin user account.
- id="2" - The API logs out of the admin user account.

The order of the returned list of events is always guaranteed. If the **sortby** clause is included in the **search** parameter, then the events will be ordered according to that clause. If the **sortby** clause isn't included, then the events will be sorted by the numeric value of the **id** attribute, starting with the highest value. This, combined with the **max** parameter, simplifies obtaining the most recent event:

```
GET /ovirt-engine/api/events?max=1
```

Table 28.222. Parameters summary

Name	Type	Direction	Summary
case_sensitive	Boolean	In	Indicates if the search performed using the search parameter should be performed taking case into account.
events	Event[]	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .
from	Integer	In	Indicates the event index after which events should be returned.
max	Integer	In	Sets the maximum number of events to return.
search	String	In	The events service provides search queries similar to other resource services.

28.75.2.1. case_sensitive

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

28.75.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.75.2.3. from

Indicates the event index after which events should be returned. The indexes of events are strictly increasing, so when this parameter is used only the events with greater indexes will be returned. For example, the following request will return only the events with indexes greater than **123**:

```
GET /ovirt-engine/api/events?from=123
```

This parameter is optional, and if not specified then the first event returned will be most recently generated.

28.75.2.4. max

Sets the maximum number of events to return. If not specified all the events are returned.

28.75.2.5. search

The events service provides search queries similar to other resource services.

We can search by providing specific severity.

```
GET /ovirt-engine/api/events?search=severity%3Dnormal
```

To the above request we get a list of events which severity is equal to **normal**:

```
<events>
  <event href="/ovirt-engine/api/events/2" id="2">
    <description>User admin@internal-authz logged out.</description>
    <code>31</code>
    <correlation_id>1fbd81f4</correlation_id>
    <custom_id>-1</custom_id>
    <flood_rate>30</flood_rate>
    <origin>oVirt</origin>
    <severity>normal</severity>
    <time>2016-09-14T11:54:35.229+02:00</time>
    <user href="/ovirt-engine/api/users/57d91d48-00da-0137-0138-000000000244" id="57d91d48-00da-0137-0138-000000000244"/>
  </event>
  <event href="/ovirt-engine/api/events/1" id="1">
    <description>Affinity Rules Enforcement Manager started.</description>
    <code>10780</code>
    <custom_id>-1</custom_id>
    <flood_rate>30</flood_rate>
    <origin>oVirt</origin>
    <severity>normal</severity>
    <time>2016-09-14T11:52:18.861+02:00</time>
  </event>
</events>
```

A virtualization environment generates a large amount of events after a period of time. However, the API only displays a default number of events for one search query. To display more than the default, the

API separates results into pages with the page command in a search query. The following search query tells the API to paginate results using a page value in combination with the sortby clause:

```
sortby time asc page 1
```

Below example paginates event resources. The URL-encoded request is:

```
GET /ovirt-engine/api/events?search=sortby%20time%20asc%20page%201
```

Increase the page value to view the next page of results.

```
GET /ovirt-engine/api/events?search=sortby%20time%20asc%20page%202
```

28.75.3. undelete POST

Table 28.223. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the un-delete should be performed asynchronously.

28.76. EXTERNALCOMPUTERESOURCE

Manages a single external compute resource.

Compute resource is a term of host external provider. The external provider also needs to know to where the provisioned host needs to register. The login details of the engine are saved as a compute resource in the external provider side.

Table 28.224. Methods summary

Name	Summary
get	Retrieves external compute resource details.

28.76.1. get GET

Retrieves external compute resource details.

For example, to get the details of compute resource **234** of provider **123**, send a request like this:

```
GET /ovirt-engine/api/externalhostproviders/123/computeresources/234
```

It will return a response like this:

```
<external_compute_resource href="/ovirt-
engine/api/externalhostproviders/123/computeresources/234" id="234">
  <name>hostname</name>
  <provider>oVirt</provider>
```

```
<url>https://hostname/api</url>
<user>admin@internal</user>
<external_host_provider href="/ovirt-engine/api/externalhostproviders/123" id="123"/>
</external_compute_resource>
```

Table 28.225. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
resource	ExternalComputeResource	Out	External compute resource information

28.76.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.77. EXTERNALCOMPUTERESOURCES

Manages a collection of external compute resources.

Compute resource is a term of host external provider. The external provider also needs to know to where the provisioned host needs to register. The login details of the engine is saved as a compute resource in the external provider side.

Table 28.226. Methods summary

Name	Summary
list	Retrieves a list of external compute resources.

28.77.1. list GET

Retrieves a list of external compute resources.

For example, to retrieve the compute resources of external host provider **123**, send a request like this:

```
GET /ovirt-engine/api/externalhostproviders/123/computeresources
```

It will return a response like this:

```
<external_compute_resources>
  <external_compute_resource href="/ovirt-
engine/api/externalhostproviders/123/computeresources/234" id="234">
    <name>hostname</name>
    <provider>oVirt</provider>
    <url>https://address/api</url>
    <user>admin@internal</user>
```

```

<external_host_provider href="/ovirt-engine/api/externalhostproviders/123" id="123"/>
</external_compute_resource>
...
</external_compute_resources>

```

The order of the returned list of compute resources isn't guaranteed.

Table 28.227. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of resources to return.
resources	ExternalComputeResource[]	Out	List of external computer resources.

28.77.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.77.1.2. max

Sets the maximum number of resources to return. If not specified all the resources are returned.

28.78. EXTERNALDISCOVEREDHOST

This service manages a single discovered host.

Table 28.228. Methods summary

Name	Summary
get	Get discovered host info.

28.78.1. get GET

Get discovered host info.

Retrieves information about an host that is managed in external provider management system, such as Foreman. The information includes hostname, address, subnet, base image and more.

For example, to get the details of host **234** from provider **123**, send a request like this:

```
GET /ovirt-engine/api/externalhostproviders/123/discoveredhosts/234
```

The result will be like this:

```

<external_discovered_host href="/ovirt-engine/api/externalhostproviders/123/discoveredhosts/234"
id="234">
  <name>mac001a4ad04040</name>
  <ip>10.34.67.43</ip>
  <last_report>2017-04-24 11:05:41 UTC</last_report>
  <mac>00:1a:4a:d0:40:40</mac>
  <subnet_name>sat0</subnet_name>
  <external_host_provider href="/ovirt-engine/api/externalhostproviders/123" id="123"/>
</external_discovered_host>

```

Table 28.229. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
host	ExternalDisc overedHost	Out	Host's hardware and config information.

28.78.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.79. EXTERNALDISCOVEREDHOSTS

This service manages external discovered hosts.

Table 28.230. Methods summary

Name	Summary
list	Get list of discovered hosts' information.

28.79.1. list GET

Get list of discovered hosts' information.

Discovered hosts are fetched from third-party providers such as Foreman.

To list all discovered hosts for provider **123** send the following:

```
GET /ovirt-engine/api/externalhostproviders/123/discoveredhost
```

```

<external_discovered_hosts>
  <external_discovered_host href="/ovirt-engine/api/externalhostproviders/123/discoveredhosts/456"
id="456">
    <name>mac001a4ad04031</name>
    <ip>10.34.67.42</ip>
    <last_report>2017-04-24 11:05:41 UTC</last_report>
    <mac>00:1a:4a:d0:40:31</mac>
  </external_discovered_host>
</external_discovered_hosts>

```

```

<subnet_name>sat0</subnet_name>
<external_host_provider href="/ovirt-engine/api/externalhostproviders/123" id="123"/>
</external_discovered_host>
<external_discovered_host href="/ovirt-engine/api/externalhostproviders/123/discoveredhosts/789"
id="789">
  <name>mac001a4ad04040</name>
  <ip>10.34.67.43</ip>
  <last_report>2017-04-24 11:05:41 UTC</last_report>
  <mac>00:1a:4a:d0:40:40</mac>
  <subnet_name>sat0</subnet_name>
  <external_host_provider href="/ovirt-engine/api/externalhostproviders/123" id="123"/>
</external_discovered_host>
...
</external_discovered_hosts>

```

The order of the returned list of hosts isn't guaranteed.

Table 28.231. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
hosts	ExternalDiscoveredHost[]	Out	List of discovered hosts
max	Integer	In	Sets the maximum number of hosts to return.

28.79.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.79.1.2. max

Sets the maximum number of hosts to return. If not specified all the hosts are returned.

28.80. EXTERNALHOST

Table 28.232. Methods summary

Name	Summary
get	

28.80.1. get GET

Table 28.233. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
host	ExternalHost	Out	

28.80.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.81. EXTERNALHOSTGROUP

This service manages a single host group information.

Host group is a term of host provider – the host group includes provision details that are applied to new discovered host. Information such as subnet, operating system, domain, etc.

Table 28.234. Methods summary

Name	Summary
get	Get host group information.

28.81.1. get GET

Get host group information.

For example, to get the details of hostgroup **234** of provider **123**, send a request like this:

```
GET /ovirt-engine/api/externalhostproviders/123/hostgroups/234
```

It will return a response like this:

```
<external_host_group href="/ovirt-engine/api/externalhostproviders/123/hostgroups/234" id="234">
  <name>rhel7</name>
  <architecture_name>x86_64</architecture_name>
  <domain_name>s.com</domain_name>
  <operating_system_name>RedHat 7.3</operating_system_name>
  <subnet_name>sat0</subnet_name>
  <external_host_provider href="/ovirt-engine/api/externalhostproviders/123" id="123"/>
</external_host_group>
```

Table 28.235. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
group	ExternalHost Group	Out	Host group information.

28.81.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.82. EXTERNALHOSTGROUPS

This service manages hostgroups.

Table 28.236. Methods summary

Name	Summary
list	Get host groups list from external host provider.

28.82.1. list GET

Get host groups list from external host provider.

Host group is a term of host providers - the host group includes provision details. This API returns all possible hostgroups exposed by the external provider.

For example, to get the details of all host groups of provider **123**, send a request like this:

```
GET /ovirt-engine/api/externalhostproviders/123/hostgroups
```

The response will be like this:

```
<external_host_groups>
  <external_host_group href="/ovirt-engine/api/externalhostproviders/123/hostgroups/234" id="234">
    <name>rhel7</name>
    <architecture_name>x86_64</architecture_name>
    <domain_name>example.com</domain_name>
    <operating_system_name>RedHat 7.3</operating_system_name>
    <subnet_name>sat0</subnet_name>
    <external_host_provider href="/ovirt-engine/api/externalhostproviders/123" id="123"/>
  </external_host_group>
  ...
</external_host_groups>
```

The order of the returned list of host groups isn't guaranteed.

Table 28.237. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
groups	ExternalHost Group[]	Out	List of all hostgroups available for external host provider
max	Integer	In	Sets the maximum number of groups to return.

28.82.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.82.1.2. max

Sets the maximum number of groups to return. If not specified all the groups are returned.

28.83. EXTERNALHOSTPROVIDER

Represents an external host provider, such as Foreman or Satellite.

See [Foreman documentation](#) for details. See [Satellite documentation](#) for details.

Table 28.238. Methods summary

Name	Summary
get	Get external host provider information Host provider, Foreman or Satellite, can be set as an external provider in ovirt.
importcertificates	Import the SSL certificates of the external host provider.
remove	
testconnectivity	In order to test connectivity for external provider we need to run following request where 123 is an id of a provider.
update	Update the specified external host provider in the system.

28.83.1. get GET

Get external host provider information

Host provider, Foreman or Satellite, can be set as an external provider in ovirt. To see details about specific host providers attached to ovirt use this API.

For example, to get the details of host provider **123**, send a request like this:

```
GET /ovirt-engine/api/externalhostproviders/123
```

The response will be like this:

```
<external_host_provider href="/ovirt-engine/api/externalhostproviders/123" id="123">
  <name>mysatellite</name>
  <requires_authentication>true</requires_authentication>
  <url>https://mysatellite.example.com</url>
  <username>admin</username>
</external_host_provider>
```

Table 28.239. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
provider	ExternalHost Provider	Out	

28.83.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.83.2. importcertificates POST

Import the SSL certificates of the external host provider.

Table 28.240. Parameters summary

Name	Type	Direction	Summary
certificates	Certificate[]	In	

28.83.3. remove DELETE

Table 28.241. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.83.4. testconnectivity POST

In order to test connectivity for external provider we need to run following request where 123 is an id of a provider.

POST /ovirt-engine/api/externalhostproviders/123/testconnectivity

Table 28.242. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the test should be performed asynchronously.

28.83.5. update PUT

Update the specified external host provider in the system.

Table 28.243. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
provider	ExternalHost Provider	In/Out	

28.84. EXTERNALHOSTPROVIDERS

Table 28.244. Methods summary

Name	Summary
add	Add a new external host provider to the system.
list	Returns the list of external host providers.

28.84.1. add POST

Add a new external host provider to the system.

Table 28.245. Parameters summary

Name	Type	Direction	Summary
provider	ExternalHost Provider	In/Out	

28.84.2. list GET

Returns the list of external host providers.

The order of the returned list of host providers isn't guaranteed.

Table 28.246. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of providers to return.
providers	ExternalHost Provider[]	Out	
search	String	In	A query string used to restrict the returned external host providers.

28.84.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.84.2.2. max

Sets the maximum number of providers to return. If not specified all the providers are returned.

28.85. EXTERNALHOSTS

Table 28.247. Methods summary

Name	Summary
list	Return the list of external hosts.

28.85.1. list GET

Return the list of external hosts.

The order of the returned list of hosts isn't guaranteed.

Table 28.248. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
hosts	ExternalHost []	Out	
max	Integer	In	Sets the maximum number of hosts to return.

28.85.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.85.1.2. max

Sets the maximum number of hosts to return. If not specified all the hosts are returned.

28.86. EXTERNALNETWORKPROVIDERCONFIGURATION

Describes how an external network provider is provisioned by the system on the host.

Table 28.249. Methods summary

Name	Summary
get	Returns the information about an external network provider on the host.

28.86.1. get GET

Returns the information about an external network provider on the host.

Table 28.250. Parameters summary

Name	Type	Direction	Summary
configuration	ExternalNetworkProviderConfiguration	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.86.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.87. EXTERNALNETWORKPROVIDERCONFIGURATIONS

A service to list all external network providers provisioned by the system on the host.

Table 28.251. Methods summary

Name	Summary
list	Returns the list of all external network providers on the host.

28.87.1. list GET

Returns the list of all external network providers on the host.

The order of the returned list of networks is not guaranteed.

Table 28.252. Parameters summary

Name	Type	Direction	Summary
configurations	ExternalNetworkProviderConfiguration[]	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.87.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.88. EXTERNALPROVIDER

Provides capability to manage external providers.

Table 28.253. Methods summary

Name	Summary
importcertificates	Import the SSL certificates of the external host provider.
testconnectivity	In order to test connectivity for external provider we need to run following request where 123 is an id of a provider.

28.88.1. importcertificates POST

Import the SSL certificates of the external host provider.

Table 28.254. Parameters summary

Name	Type	Direction	Summary
certificates	Certificate[]	In	

28.88.2. testconnectivity POST

In order to test connectivity for external provider we need to run following request where 123 is an id of a provider.

POST /ovirt-engine/api/externalhostproviders/123/testconnectivity

Table 28.255. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the test should be performed asynchronously.

28.89. EXTERNALPROVIDERCERTIFICATE

A service to view specific certificate for external provider.

Table 28.256. Methods summary

Name	Summary
get	Get specific certificate.

28.89.1. get GET

Get specific certificate.

GET /ovirt-engine/api/externalhostproviders/123/certificate/0

And here is sample response:

```
<certificate id="0">
  <organization>provider.example.com</organization>
  <subject>CN=provider.example.com</subject>
  <content>...</content>
</certificate>
```

Table 28.257. Parameters summary

Name	Type	Direction	Summary
certificate	Certificate	Out	The details of the certificate.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.89.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.90. EXTERNALPROVIDERCERTIFICATES

A service to view certificates for external provider.

Table 28.258. Methods summary

Name	Summary
list	Returns the chain of certificates presented by the external provider.

28.90.1. list GET

Returns the chain of certificates presented by the external provider.

GET /ovirt-engine/api/externalhostproviders/123/certificates

And here is sample response:

```
<certificates>
  <certificate id="789">...</certificate>
  ...
</certificates>
```

The order of the returned certificates is always guaranteed to be the sign order: the first is the certificate of the server itself, the second the certificate of the CA that signs the first, so on.

Table 28.259. Parameters summary

Name	Type	Direction	Summary
certificates	Certificate[]	Out	List containing certificate details.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of certificates to return.

28.90.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.90.1.2. max

Sets the maximum number of certificates to return. If not specified all the certificates are returned.

28.91. EXTERNALTEMPLATEIMPORTS

Provides capability to import external templates. Currently supports OVA only.

Table 28.260. Methods summary

Name	Summary
add	This operation is used to import a template from external hypervisor.

28.91.1. add POST

This operation is used to import a template from external hypervisor.

For example import of a template OVA can be facilitated using the following request:

```
POST /externaltemplateimports
```

With request body of type [ExternalTemplateImport](#), for example:

```
<external_template_import>
  <template>
    <name>my_template</name>
  </template>
  <cluster id="2b18aca2-4469-11eb-9449-482ae35a5f83" />
  <storage_domain id="8bb5ade5-e988-4000-8b93-dbf6717fe50" />
  <url>ova:///mnt/ova/ova_template.ova</url>
  <host id="8bb5ade5-e988-4000-8b93-dbf6717fe50" />
</external_template_import>
```

Table 28.261. Parameters summary

Name	Type	Direction	Summary
import	ExternalTemplateImport	In/Out	

28.92. EXTERNALVMIMPORTS

Provides capability to import external virtual machines.

Table 28.262. Methods summary

Name	Summary
add	This operation is used to import a virtual machine from external hypervisor, such as KVM, XEN or VMware.

28.92.1. add POST

This operation is used to import a virtual machine from external hypervisor, such as KVM, XEN or VMware.

For example import of a virtual machine from VMware can be facilitated using the following request:

```
POST /externalvmimports
```

With request body of type [ExternalVmImport](#), for example:

```
<external_vm_import>
  <vm>
```



```

    <name>my_vm</name>
  </vm>
  <cluster id="360014051136c20574f743bdbd28177fd" />
  <storage_domain id="8bb5ade5-e988-4000-8b93-dbf6717fe50" />
  <name>vm_name_as_is_in_vmware</name>
  <sparse>true</sparse>
  <username>vmware_user</username>
  <password>123456</password>
  <provider>VMWARE</provider>
  <url>vpx://wmware_user@vcenter-host/DataCenter/Cluster/esxi-host?no_verify=1</url>
  <drivers_iso id="virtio-win-1.6.7.iso" />
</external_vm_import>

```

Table 28.263. Parameters summary

Name	Type	Direction	Summary
import	ExternalVml mport	In/Out	

28.93. FENCEAGENT

A service to manage fence agent for a specific host.

Table 28.264. Methods summary

Name	Summary
get	Gets details of this fence agent.
remove	Removes a fence agent for a specific host.
update	Update a fencing-agent.

28.93.1. get GET

Gets details of this fence agent.

```
GET /ovirt-engine/api/hosts/123/fenceagents/0
```

And here is sample response:

```

<agent id="0">
  <type>apc</type>
  <order>1</order>
  <ip>192.168.1.101</ip>
  <user>user</user>
  <password>xxx</password>
  <port>9</port>
  <options>name1=value1, name2=value2</options>
</agent>

```

Table 28.265. Parameters summary

Name	Type	Direction	Summary
agent	Agent	Out	Fence agent details.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.93.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.93.2. remove DELETE

Removes a fence agent for a specific host.

DELETE /ovirt-engine/api/hosts/123/fenceagents/0

Table 28.266. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.93.3. update PUT

Update a fencing-agent.

Table 28.267. Parameters summary

Name	Type	Direction	Summary
agent	Agent	In/Out	Fence agent details.
async	Boolean	In	Indicates if the update should be performed asynchronously.

28.94. FENCEAGENTS

A service to manage fence agents for a specific host.

Table 28.268. Methods summary

Name	Summary
add	Add a new fencing-agent to the host.

Name	Summary
list	Returns the list of fencing agents configured for the host.

28.94.1. add POST

Add a new fencing-agent to the host.

POST /ovirt-engine/api/hosts/123/fenceagents

You should consult the /usr/sbin/fence_<agent_name> manual page for the legal parameters to [name1=value1, name2=value2,...] in the options field. If any parameter in options appears by name that means that it is mandatory. For example in <options>slot=7[,name1=value1, name2=value2,...]</options> slot is mandatory.

apc, bladecenter, wti fencing agent/s sample request:

```
<agent>
  <type>apc</type>
  <order>1</order>
  <ip>192.168.1.101</ip>
  <user>user</user>
  <password>xxx</password>
  <port>9</port>
  <options>slot=7[,name1=value1, name2=value2,...]</options>
</agent>
```

apc_snmp, hpblade, ilo, ilo2, ilo_ssh, redfish, rsa fencing agent/s sample request:

```
<agent>
  <type>apc_snmp</type>
  <order>1</order>
  <ip>192.168.1.101</ip>
  <user>user</user>
  <password>xxx</password>
  <port>9</port>
  <options>[name1=value1, name2=value2,...]</options>
</agent>
```

cisco_ucs, drac5, eps fencing agent/s sample request:

```
<agent>
  <type>cisco_ucs</type>
  <order>1</order>
  <ip>192.168.1.101</ip>
  <user>user</user>
  <password>xxx</password>
  <options>slot=7[,name1=value1, name2=value2,...]</options>
</agent>
```

drac7, ilo3, ilo4, ipmilan, rsb fencing agent/s sample request:

```

<agent>
  <type>drac7</type>
  <order>1</order>
  <ip>192.168.1.101</ip>
  <user>user</user>
  <password>xxx</password>
  <options>[name1=value1, name2=value2,...]</options>
</agent>

```

Table 28.269. Parameters summary

Name	Type	Direction	Summary
agent	Agent	In/Out	

28.94.2. list GET

Returns the list of fencing agents configured for the host.

```
GET /ovirt-engine/api/hosts/123/fenceagents
```

And here is sample response:

```

<agents>
  <agent id="0">
    <type>apc</type>
    <order>1</order>
    <ip>192.168.1.101</ip>
    <user>user</user>
    <password>xxx</password>
    <port>9</port>
    <options>name1=value1, name2=value2</options>
  </agent>
</agents>

```

The order of the returned list of fencing agents isn't guaranteed.

Table 28.270. Parameters summary

Name	Type	Direction	Summary
agents	Agent[]	Out	List of fence agent details.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of agents to return.

28.94.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.94.2.2. max

Sets the maximum number of agents to return. If not specified all the agents are returned.

28.95. FILE

Table 28.271. Methods summary

Name	Summary
get	

28.95.1. get GET

Table 28.272. Parameters summary

Name	Type	Direction	Summary
file	File	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.95.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.96. FILES

Provides a way for clients to list available files.

This service is specifically targeted to ISO storage domains, which contain ISO images and virtual floppy disks (VFDs) that an administrator uploads.

The addition of a CD-ROM device to a virtual machine requires an ISO image from the files of an ISO storage domain.

Table 28.273. Methods summary

Name	Summary
list	Returns the list of ISO images and virtual floppy disks available in the storage domain.

28.96.1. list GET

Returns the list of ISO images and virtual floppy disks available in the storage domain. The order of the returned list is not guaranteed.

If the **refresh** parameter is **false**, the returned list may not reflect recent changes to the storage domain; for example, it may not contain a new ISO file that was recently added. This is because the server caches

the list of files to improve performance. To get the very latest results, set the **refresh** parameter to **true**.

The default value of the **refresh** parameter is **true**, but it can be changed using the configuration value **ForceRefreshDomainFilesByDefault**:

```
# engine-config -s ForceRefreshDomainFilesByDefault=false
```



IMPORTANT

Setting the value of the **refresh** parameter to **true** has an impact on the performance of the server. Use it only if necessary.

Table 28.274. Parameters summary

Name	Type	Direction	Summary
case_sensitive	Boolean	In	Indicates if the search performed using the search parameter should take case into account.
file	File[]	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of files to return.
refresh	Boolean	In	Indicates whether the list of files should be refreshed from the storage domain, rather than showing cached results that are updated at certain intervals.
search	String	In	A query string used to restrict the returned files.

28.96.1.1. case_sensitive

Indicates if the search performed using the **search** parameter should take case into account. The default value is **true**.

28.96.1.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.96.1.3. max

Sets the maximum number of files to return. If not specified, all the files are returned.

28.97. FILTER

Table 28.275. Methods summary

Name	Summary
get	
remove	

28.97.1. get GET

Table 28.276. Parameters summary

Name	Type	Direction	Summary
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
follow	String	In	Indicates which inner links should be <i>followed</i> .
result	Filter	Out	

28.97.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.97.2. remove DELETE

Table 28.277. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.98. FILTERS

Manages the filters used by an scheduling policy.

Table 28.278. Methods summary

Name	Summary
add	Add a filter to a specified user defined scheduling policy.
list	Returns the list of filters used by the scheduling policy.

28.98.1. add POST

Add a filter to a specified user defined scheduling policy.

Table 28.279. Parameters summary

Name	Type	Direction	Summary
filter	Filter	In/Out	

28.98.2. list GET

Returns the list of filters used by the scheduling policy.

The order of the returned list of filters isn't guaranteed.

Table 28.280. Parameters summary

Name	Type	Direction	Summary
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
filters	Filter[]	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of filters to return.

28.98.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.98.2.2. max

Sets the maximum number of filters to return. If not specified all the filters are returned.

28.99. FOLLOW

28.100. GLUSTERBRICK

This service manages a single gluster brick.

Table 28.281. Methods summary

Name	Summary
get	Get details of a brick.
remove	Removes a brick.

Name	Summary
replace	Replaces this brick with a new one.

28.100.1. get GET

Get details of a brick.

Retrieves status details of brick from underlying gluster volume with header **All-Content** set to **true**. This is the equivalent of running **gluster volume status <volumename> <brickname> detail**.

For example, to get the details of brick **234** of gluster volume **123**, send a request like this:

```
GET /ovirt-engine/api/clusters/567/glustervolumes/123/glusterbricks/234
```

Which will return a response body like this:

```
<brick id="234">
  <name>host1:/rhgs/data/brick1</name>
  <brick_dir>/rhgs/data/brick1</brick_dir>
  <server_id>111</server_id>
  <status>up</status>
  <device>/dev/mapper/RHGS_vg1-lv_vmaddldisks</device>
  <fs_name>xfs</fs_name>
  <gluster_clients>
    <gluster_client>
      <bytes_read>2818417648</bytes_read>
      <bytes_written>1384694844</bytes_written>
      <client_port>1011</client_port>
      <host_name>client2</host_name>
    </gluster_client>
  </gluster_clients>
  <memory_pools>
    <memory_pool>
      <name>data-server:fd_t</name>
      <alloc_count>1626348</alloc_count>
      <cold_count>1020</cold_count>
      <hot_count>4</hot_count>
      <max_alloc>23</max_alloc>
      <max_stdalloc>0</max_stdalloc>
      <padded_size>140</padded_size>
      <pool_misses>0</pool_misses>
    </memory_pool>
  </memory_pools>

  <mnt_options>rw,seclabel,noatime,nodiratime,attr2,inode64,sunit=512,swidth=2048,noquota</mnt_options>
  <pid>25589</pid>
  <port>49155</port>
</brick>
```

Table 28.282. Parameters summary

Name	Type	Direction	Summary
brick	GlusterBrick	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.100.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.100.2. remove DELETE

Removes a brick.

Removes a brick from the underlying gluster volume and deletes entries from database. This can be used only when removing a single brick without data migration. To remove multiple bricks and with data migration, use [migrate](#) instead.

For example, to delete brick **234** from gluster volume **123**, send a request like this:

```
DELETE /ovirt-engine/api/clusters/567/glustervolumes/123/glusterbricks/234
```

Table 28.283. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.100.3. replace POST

Replaces this brick with a new one.



IMPORTANT

This operation has been deprecated since version 3.5 of the engine and will be removed in the future. Use [add brick\(s\)](#) and [migrate brick\(s\)](#) instead.

Table 28.284. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the replacement should be performed asynchronously.
force	Boolean	In	

28.101. GLUSTERBRICKS

This service manages the gluster bricks in a gluster volume

Table 28.285. Methods summary

Name	Summary
activate	Activate the bricks post data migration of remove brick operation.
add	Adds a list of bricks to gluster volume.
list	Lists the bricks of a gluster volume.
migrate	Start migration of data prior to removing bricks.
remove	Removes bricks from gluster volume.
stopmigrate	Stops migration of data from bricks for a remove brick operation.

28.101.1. activate POST

Activate the bricks post data migration of remove brick operation.

Used to activate brick(s) once the data migration from bricks is complete but user no longer wishes to remove bricks. The bricks that were previously marked for removal will now be used as normal bricks.

For example, to retain the bricks that on glustervolume **123** from which data was migrated, send a request like this:

```
POST /ovirt-engine/api/clusters/567/glustervolumes/123/glusterbricks/activate
```

With a request body like this:

```
<action>
  <bricks>
    <brick>
      <name>host1:/rhgs/brick1</name>
    </brick>
  </bricks>
</action>
```

Table 28.286. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the activation should be performed asynchronously.

Name	Type	Direction	Summary
bricks	GlusterBrick[]	In	The list of bricks that need to be re-activated.

28.101.2. add POST

Adds a list of bricks to gluster volume.

Used to expand a gluster volume by adding bricks. For replicated volume types, the parameter **replica_count** needs to be passed. In case the replica count is being increased, then the number of bricks needs to be equivalent to the number of replica sets.

For example, to add bricks to gluster volume **123**, send a request like this:

```
POST /ovirt-engine/api/clusters/567/glustervolumes/123/glusterbricks
```

With a request body like this:

```
<bricks>
  <brick>
    <server_id>111</server_id>
    <brick_dir>/export/data/brick3</brick_dir>
  </brick>
</bricks>
```

Table 28.287. Parameters summary

Name	Type	Direction	Summary
bricks	GlusterBrick[]	In/Out	The list of bricks to be added to the volume
replica_count	Integer	In	Replica count of volume post add operation.
stripe_count	Integer	In	Stripe count of volume post add operation.

28.101.3. list GET

Lists the bricks of a gluster volume.

For example, to list bricks of gluster volume **123**, send a request like this:

```
GET /ovirt-engine/api/clusters/567/glustervolumes/123/glusterbricks
```

Provides an output as below:

```
<bricks>
```

```

<brick id="234">
  <name>host1:/rhgs/data/brick1</name>
  <brick_dir>/rhgs/data/brick1</brick_dir>
  <server_id>111</server_id>
  <status>up</status>
</brick>
<brick id="233">
  <name>host2:/rhgs/data/brick1</name>
  <brick_dir>/rhgs/data/brick1</brick_dir>
  <server_id>222</server_id>
  <status>up</status>
</brick>
</bricks>

```

The order of the returned list is based on the brick order provided at gluster volume creation.

Table 28.288. Parameters summary

Name	Type	Direction	Summary
bricks	GlusterBrick[]	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of bricks to return.

28.101.3.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.101.3.2. max

Sets the maximum number of bricks to return. If not specified all the bricks are returned.

28.101.4. migrate POST

Start migration of data prior to removing bricks.

Removing bricks is a two-step process, where the data on bricks to be removed, is first migrated to remaining bricks. Once migration is completed the removal of bricks is confirmed via the API [remove](#). If at any point, the action needs to be cancelled [stopmigrate](#) has to be called.

For instance, to delete a brick from a gluster volume with id **123**, send a request:

```
POST /ovirt-engine/api/clusters/567/glustervolumes/123/glusterbricks/migrate
```

With a request body like this:

```

<action>
  <bricks>
    <brick>

```

```

    <name>host1:/rhgs/brick1</name>
  </brick>
</bricks>
</action>

```

The migration process can be tracked from the job id returned from the API using [job](#) and steps in job using [step](#)

Table 28.289. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the migration should be performed asynchronously.
bricks	GlusterBrick []	In	List of bricks for which data migration needs to be started.

28.101.5. remove DELETE

Removes bricks from gluster volume.

The recommended way to remove bricks without data loss is to first migrate the data using [stopmigrate](#) and then removing them. If migrate was not called on bricks prior to remove, the bricks are removed without data migration which may lead to data loss.

For example, to delete the bricks from gluster volume **123**, send a request like this:

```
DELETE /ovirt-engine/api/clusters/567/glustervolumes/123/glusterbricks
```

With a request body like this:

```

<bricks>
  <brick>
    <name>host:brick_directory</name>
  </brick>
</bricks>

```

Table 28.290. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.
bricks	GlusterBrick []	In	The list of bricks to be removed
replica_count	Integer	In	Replica count of volume post add operation.

28.101.6. stopmigrate POST

Stops migration of data from bricks for a remove brick operation.

To cancel data migration that was started as part of the 2-step remove brick process in case the user wishes to continue using the bricks. The bricks that were marked for removal will function as normal bricks post this operation.

For example, to stop migration of data from the bricks of gluster volume **123**, send a request like this:

```
POST /ovirt-engine/api/clusters/567/glustervolumes/123/glusterbricks/stopmigrate
```

With a request body like this:

```
<bricks>
  <brick>
    <name>host:brick_directory</name>
  </brick>
</bricks>
```

Table 28.291. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the action should be performed asynchronously.
bricks	GlusterBrick[]	In	List of bricks for which data migration needs to be stopped.

28.101.6.1. bricks

List of bricks for which data migration needs to be stopped. This list should match the arguments passed to [migrate](#).

28.102. GLUSTERHOOK

Table 28.292. Methods summary

Name	Summary
disable	Resolves status conflict of hook among servers in cluster by disabling Gluster hook in all servers of the cluster.
enable	Resolves status conflict of hook among servers in cluster by disabling Gluster hook in all servers of the cluster.
get	
remove	Removes the this Gluster hook from all servers in cluster and deletes it from the database.

Name	Summary
resolve	Resolves missing hook conflict depending on the resolution type.

28.102.1. disable POST

Resolves status conflict of hook among servers in cluster by disabling Gluster hook in all servers of the cluster. This updates the hook status to **DISABLED** in database.

Table 28.293. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the action should be performed asynchronously.

28.102.2. enable POST

Resolves status conflict of hook among servers in cluster by disabling Gluster hook in all servers of the cluster. This updates the hook status to **DISABLED** in database.

Table 28.294. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the action should be performed asynchronously.

28.102.3. get GET

Table 28.295. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
hook	GlusterHook	Out	

28.102.3.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.102.4. remove DELETE

Removes the this Gluster hook from all servers in cluster and deletes it from the database.

Table 28.296. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.102.5. resolve POST

Resolves missing hook conflict depending on the resolution type.

For **ADD** resolves by copying hook stored in engine database to all servers where the hook is missing. The engine maintains a list of all servers where hook is missing.

For **COPY** resolves conflict in hook content by copying hook stored in engine database to all servers where the hook is missing. The engine maintains a list of all servers where the content is conflicting. If a host id is passed as parameter, the hook content from the server is used as the master to copy to other servers in cluster.

Table 28.297. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the action should be performed asynchronously.
host	Host	In	
resolution_type	String	In	

28.103. GLUSTERHOOKS

Table 28.298. Methods summary

Name	Summary
list	Returns the list of hooks.

28.103.1. list GET

Returns the list of hooks.

The order of the returned list of hooks isn't guaranteed.

Table 28.299. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
hooks	GlusterHook []	Out	
max	Integer	In	Sets the maximum number of hooks to return.

28.103.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.103.1.2. max

Sets the maximum number of hooks to return. If not specified all the hooks are returned.

28.104. GLUSTERVOLUME

This service manages a single gluster volume.

Table 28.300. Methods summary

Name	Summary
get	Get the gluster volume details.
getprofilestatistics	Get gluster volume profile statistics.
rebalance	Rebalance the gluster volume.
remove	Removes the gluster volume.
resetalloptions	Resets all the options set in the gluster volume.
resetoption	Resets a particular option in the gluster volume.
setoption	Sets a particular option in the gluster volume.
start	Starts the gluster volume.
startprofile	Start profiling the gluster volume.
stop	Stops the gluster volume.
stopprofile	Stop profiling the gluster volume.

Name	Summary
stoprebalance	Stop rebalancing the gluster volume.

28.104.1. get GET

Get the gluster volume details.

For example, to get details of a gluster volume with identifier **123** in cluster **456**, send a request like this:

```
GET /ovirt-engine/api/clusters/456/glustervolumes/123
```

This GET request will return the following output:

```
<gluster_volume id="123">
  <name>data</name>
  <link href="/ovirt-engine/api/clusters/456/glustervolumes/123/glusterbricks" rel="glusterbricks"/>
  <disperse_count>0</disperse_count>
  <options>
    <option>
      <name>storage.owner-gid</name>
      <value>36</value>
    </option>
    <option>
      <name>performance.io-cache</name>
      <value>off</value>
    </option>
    <option>
      <name>cluster.data-self-heal-algorithm</name>
      <value>full</value>
    </option>
  </options>
  <redundancy_count>0</redundancy_count>
  <replica_count>3</replica_count>
  <status>up</status>
  <stripe_count>0</stripe_count>
  <transport_types>
    <transport_type>tcp</transport_type>
  </transport_types>
  <volume_type>replicate</volume_type>
</gluster_volume>
```

Table 28.301. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
volume	GlusterVolume	Out	Representation of the gluster volume.

28.104.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.104.2. getprofilestatistics POST

Get gluster volume profile statistics.

For example, to get profile statistics for a gluster volume with identifier **123** in cluster **456**, send a request like this:

```
POST /ovirt-engine/api/clusters/456/glustervolumes/123/getprofilestatistics
```

Table 28.302. Parameters summary

Name	Type	Direction	Summary
details	GlusterVolumeProfileDetails	Out	Gluster volume profiling information returned from the action.

28.104.3. rebalance POST

Rebalance the gluster volume.

Rebalancing a gluster volume helps to distribute the data evenly across all the bricks. After expanding or shrinking a gluster volume (without migrating data), we need to rebalance the data among the bricks. In a non-replicated volume, all bricks should be online to perform the rebalance operation. In a replicated volume, at least one of the bricks in the replica should be online.

For example, to rebalance a gluster volume with identifier **123** in cluster **456**, send a request like this:

```
POST /ovirt-engine/api/clusters/456/glustervolumes/123/rebalance
```

Table 28.303. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the rebalance should be performed asynchronously.
fix_layout	Boolean	In	If set to true, rebalance will only fix the layout so that new data added to the volume is distributed across all the hosts.
force	Boolean	In	Indicates if the rebalance should be force started.

28.104.3.1. fix_layout

If set to true, rebalance will only fix the layout so that new data added to the volume is distributed across all the hosts. But it will not migrate/rebalance the existing data. Default is **false**.

28.104.3.2. force

Indicates if the rebalance should be force started. The rebalance command can be executed with the force option even when the older clients are connected to the cluster. However, this could lead to a data loss situation. Default is **false**.

28.104.4. remove DELETE

Removes the gluster volume.

For example, to remove a volume with identifier **123** in cluster **456**, send a request like this:

```
DELETE /ovirt-engine/api/clusters/456/glustervolumes/123
```

Table 28.304. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.104.5. resetalloptions POST

Resets all the options set in the gluster volume.

For example, to reset all options in a gluster volume with identifier **123** in cluster **456**, send a request like this:

```
POST /ovirt-engine/api/clusters/456/glustervolumes/123/resetalloptions
```

Table 28.305. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the reset should be performed asynchronously.

28.104.6. resetoption POST

Resets a particular option in the gluster volume.

For example, to reset a particular option **option1** in a gluster volume with identifier **123** in cluster **456**, send a request like this:

```
POST /ovirt-engine/api/clusters/456/glustervolumes/123/resetoption
```

With the following request body:

```
<action>
<option name="option1"/>
</action>
```

Table 28.306. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the reset should be performed asynchronously.
force	Boolean	In	
option	Option	In	Option to reset.

28.104.7. setoption POST

Sets a particular option in the gluster volume.

For example, to set **option1** with value **value1** in a gluster volume with identifier **123** in cluster **456**, send a request like this:

```
POST /ovirt-engine/api/clusters/456/glustervolumes/123/setoption
```

With the following request body:

```
<action>
<option name="option1" value="value1"/>
</action>
```

Table 28.307. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the action should be performed asynchronously.
option	Option	In	Option to set.

28.104.8. start POST

Starts the gluster volume.

A Gluster Volume should be started to read/write data. For example, to start a gluster volume with identifier **123** in cluster **456**, send a request like this:

```
POST /ovirt-engine/api/clusters/456/glustervolumes/123/start
```

Table 28.308. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the action should be performed asynchronously.
force	Boolean	In	Indicates if the volume should be force started.

28.104.8.1. force

Indicates if the volume should be force started. If a gluster volume is started already but few/all bricks are down then force start can be used to bring all the bricks up. Default is **false**.

28.104.9. startprofile POST

Start profiling the gluster volume.

For example, to start profiling a gluster volume with identifier **123** in cluster **456**, send a request like this:

```
POST /ovirt-engine/api/clusters/456/glustervolumes/123/startprofile
```

Table 28.309. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the action should be performed asynchronously.

28.104.10. stop POST

Stops the gluster volume.

Stopping a volume will make its data inaccessible.

For example, to stop a gluster volume with identifier **123** in cluster **456**, send a request like this:

```
POST /ovirt-engine/api/clusters/456/glustervolumes/123/stop
```

Table 28.310. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the action should be performed asynchronously.
force	Boolean	In	

28.104.11. stopprofile POST

Stop profiling the gluster volume.

For example, to stop profiling a gluster volume with identifier **123** in cluster **456**, send a request like this:

```
POST /ovirt-engine/api/clusters/456/glustervolumes/123/stopprofile
```

Table 28.311. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the action should be performed asynchronously.

28.104.12. stoprebalance POST

Stop rebalancing the gluster volume.

For example, to stop rebalancing a gluster volume with identifier **123** in cluster **456**, send a request like this:

```
POST /ovirt-engine/api/clusters/456/glustervolumes/123/stoprebalance
```

Table 28.312. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the action should be performed asynchronously.

28.105. GLUSTERVOLUMES

This service manages a collection of gluster volumes available in a cluster.

Table 28.313. Methods summary

Name	Summary
add	Creates a new gluster volume.
list	Lists all gluster volumes in the cluster.

28.105.1. add POST

Creates a new gluster volume.

The volume is created based on properties of the **volume** parameter. The properties **name**, **volume_type** and **bricks** are required.

For example, to add a volume with name **myvolume** to the cluster **123**, send the following request:

```
POST /ovirt-engine/api/clusters/123/glustervolumes
```


With the following request body:

```
<gluster_volume>
  <name>myvolume</name>
  <volume_type>replicate</volume_type>
  <replica_count>3</replica_count>
  <bricks>
    <brick>
      <server_id>server1</server_id>
      <brick_dir>/exp1</brick_dir>
    </brick>
    <brick>
      <server_id>server2</server_id>
      <brick_dir>/exp1</brick_dir>
    </brick>
    <brick>
      <server_id>server3</server_id>
      <brick_dir>/exp1</brick_dir>
    </brick>
  </bricks>
</gluster_volume>
```

Table 28.314. Parameters summary

Name	Type	Direction	Summary
volume	GlusterVolume	In/Out	The gluster volume definition from which to create the volume is passed as input and the newly created volume is returned.

28.105.2. list GET

Lists all gluster volumes in the cluster.

For example, to list all Gluster Volumes in cluster **456**, send a request like this:

```
GET /ovirt-engine/api/clusters/456/glustervolumes
```

The order of the returned list of volumes isn't guaranteed.

Table 28.315. Parameters summary

Name	Type	Direction	Summary
case_sensitive	Boolean	In	Indicates if the search performed using the search parameter should be performed taking case into account.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of volumes to return.

Name	Type	Direction	Summary
search	String	In	A query string used to restrict the returned volumes.
volumes	GlusterVolume[]	Out	

28.105.2.1. case_sensitive

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

28.105.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.105.2.3. max

Sets the maximum number of volumes to return. If not specified all the volumes are returned.

28.106. GROUP

Manages a group of users. Use this service to either get groups details or remove groups. In order to add new groups please use [service](#) that manages the collection of groups.

Table 28.316. Methods summary

Name	Summary
get	Gets the system group information.
remove	Removes the system group.

28.106.1. get GET

Gets the system group information.

Usage:

```
GET /ovirt-engine/api/groups/123
```

Will return the group information:

```
<group href="/ovirt-engine/api/groups/123" id="123">
  <name>mygroup</name>
  <link href="/ovirt-engine/api/groups/123/roles" rel="roles"/>
  <link href="/ovirt-engine/api/groups/123/permissions" rel="permissions"/>
```

```

<link href="/ovirt-engine/api/groups/123/tags" rel="tags"/>

<domain_entry_id>476652557A382F67696B6D2B32762B37796E46476D513D3D</domain_entry_id>
>
<namespace>DC=example,DC=com</namespace>
<domain href="/ovirt-engine/api/domains/ABCDEF" id="ABCDEF">
  <name>myextension-authz</name>
</domain>
</group>

```

Table 28.317. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
get	Group	Out	The system group.

28.106.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.106.2. remove DELETE

Removes the system group.

Usage:

```
DELETE /ovirt-engine/api/groups/123
```

Table 28.318. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.107. GROUPS

Manages the collection of groups of users.

Table 28.319. Methods summary

Name	Summary
add	Add group from a directory service.
list	List all the groups in the system.

28.107.1. add POST

Add group from a directory service. Please note that domain name is name of the authorization provider.

For example, to add the **Developers** group from the **internal-authz** authorization provider send a request like this:

POST /ovirt-engine/api/groups

With a request body like this:

```
<group>
  <name>Developers</name>
  <domain>
    <name>internal-authz</name>
  </domain>
</group>
```

Table 28.320. Parameters summary

Name	Type	Direction	Summary
group	Group	In/Out	The group to be added.

28.107.2. list GET

List all the groups in the system.

Usage:

GET /ovirt-engine/api/groups

Will return the list of groups:

```
<groups>
  <group href="/ovirt-engine/api/groups/123" id="123">
    <name>mygroup</name>
    <link href="/ovirt-engine/api/groups/123/roles" rel="roles"/>
    <link href="/ovirt-engine/api/groups/123/permissions" rel="permissions"/>
    <link href="/ovirt-engine/api/groups/123/tags" rel="tags"/>

  <domain_entry_id>476652557A382F67696B6D2B32762B37796E46476D513D3D</domain_entry_id>
  >
    <namespace>DC=example,DC=com</namespace>
    <domain href="/ovirt-engine/api/domains/ABCDEF" id="ABCDEF">
      <name>myextension-authz</name>
    </domain>
  </group>
  ...
</groups>
```

The order of the returned list of groups isn't guaranteed.

Table 28.321. Parameters summary

Name	Type	Direction	Summary
case_sensitive	Boolean	In	Indicates if the search performed using the search parameter should be performed taking case into account.
follow	String	In	Indicates which inner links should be <i>followed</i> .
groups	Group[]	Out	The list of groups.
max	Integer	In	Sets the maximum number of groups to return.
search	String	In	A query string used to restrict the returned groups.

28.107.2.1. case_sensitive

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

28.107.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.107.2.3. max

Sets the maximum number of groups to return. If not specified all the groups are returned.

28.108. HOST

A service to manage a host.

Table 28.322. Methods summary

Name	Summary
activate	Activates the host for use, for example to run virtual machines.
approve	Approve a pre-installed Hypervisor host for usage in the virtualization environment.
commitnetconfig	Marks the network configuration as good and persists it inside the host.
copyhostnetworks	Copy the network configuration of the specified host to current host.

Name	Summary
deactivate	Deactivates the host to perform maintenance tasks.
discoveriscsi	Discovers iSCSI targets on the host, using the initiator details.
enrollcertificate	Enrolls the certificate of the host.
fence	Controls the host's power management device.
forceselectspm	To manually set a host as the storage pool manager (SPM).
get	Gets the host details.
install	Installs the latest version of VDSM and related software on the host.
iscsidiscover	This method has been deprecated since Engine version 4.
iscsilogin	Login to iSCSI targets on the host, using the target details.
refresh	Refresh the host devices and capabilities.
remove	Remove the host from the system.
setupnetworks	This method is used to change the configuration of the network interfaces of a host.
syncallnetworks	To synchronize all networks on the host, send a request like this: <pre>[source] ---- POST /ovirt-engine/api/hosts/123/syncallnetworks ----</pre> With a request body like this: <pre>[source,xml] ---- <action/> ----</pre>
unregisteredstoragedomainsdiscover	Discovers the block Storage Domains which are candidates to be imported to the setup.
update	Update the host properties.
upgrade	Upgrades VDSM and selected software on the host.
upgradecheck	Check if there are upgrades available for the host.

28.108.1. activate POST

Activates the host for use, for example to run virtual machines.

Table 28.323. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the activation should be performed asynchronously.

28.108.2. approve POST

Approve a pre-installed Hypervisor host for usage in the virtualization environment.

This action also accepts an optional cluster element to define the target cluster for this host.

Table 28.324. Parameters summary

Name	Type	Direction	Summary
activate	Boolean	In	When set to 'true', this host will be activated after its approval completes.
async	Boolean	In	Indicates if the approval should be performed asynchronously.
cluster	Cluster	In	The cluster where the host will be added after it is approved.
host	Host	In	The host to approve.
reboot	Boolean	In	Indicates if the host should be rebooted after successful installation.

28.108.2.1. activate

When set to 'true', this host will be activated after its approval completes. When set to 'false' the host will remain in 'maintenance' status after its approval. Absence of this parameter will be interpreted as 'true', since the desired default behavior is activating the host after approval.

28.108.2.2. reboot

Indicates if the host should be rebooted after successful installation. The default value is **true**.

28.108.3. commitnetconfig POST

Marks the network configuration as good and persists it inside the host.

An API user commits the network configuration to persist a host network interface attachment or detachment, or persist the creation and deletion of a bonded interface.

**IMPORTANT**

Networking configuration is only committed after the engine has established that host connectivity is not lost as a result of the configuration changes. If host connectivity is lost, the host requires a reboot and automatically reverts to the previous networking configuration.

For example, to commit the network configuration of host with id **123** send a request like this:

```
POST /ovirt-engine/api/hosts/123/commitnetconfig
```

With a request body like this:

```
<action/>
```

**IMPORTANT**

Since Red Hat Virtualization Manager 4.3, it is possible to also specify **commit_on_success** in the [setupnetworks](#) request, in which case the new configuration is automatically saved in the {hypervisor-name} upon completing the setup and re-establishing connectivity between the {hypervisor-name} and Red Hat Virtualization Manager, and without waiting for a separate [commitnetconfig](#) request.

Table 28.325. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the action should be performed asynchronously.

28.108.4. copyhostnetworks POST

Copy the network configuration of the specified host to current host.

**IMPORTANT**

Any network attachments that are not present on the source host will be erased from the target host by the copy operation.

To copy networks from another host, send a request like this:

```
POST /ovirt-engine/api/hosts/123/copyhostnetworks
```

With a request body like this:

```
<action>
  <source_host id="456"/>
</action>
```

Table 28.326. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the action should be performed asynchronously.
source_host	Host	In	The host to copy networks from.

28.108.5. deactivate POST

Deactivates the host to perform maintenance tasks.

Table 28.327. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the deactivation should be performed asynchronously.
reason	String	In	
stop_gluster_service	Boolean	In	Indicates if the gluster service should be stopped as part of deactivating the host.

28.108.5.1. stop_gluster_service

Indicates if the gluster service should be stopped as part of deactivating the host. It can be used while performing maintenance operations on the gluster host. Default value for this variable is **false**.

28.108.6. discoveriscsi POST

Discovers iSCSI targets on the host, using the initiator details. Returns a list of `IscsiDetails` objects containing the discovered data.

For example, to discover iSCSI targets available in **myiscsi.example.com**, from host **123**, send a request like this:

```
POST /ovirt-engine/api/hosts/123/discoveriscsi
```

With a request body like this:

```
<action>
  <iscsi>
    <address>myiscsi.example.com</address>
  </iscsi>
</action>
```

The result will be like this:

```
<discovered_targets>
```

```

<iscsi_details>
  <address>10.35.1.72</address>
  <port>3260</port>
  <portal>10.35.1.72:3260,1</portal>
  <target>iqn.2015-08.com.tgt:444</target>
</iscsi_details>
</discovered_targets>

```



IMPORTANT

When using this method to discover iscsi targets, you can use an FQDN or an IP address, but you must use the iscsi details from the discovered targets results to log in using the iscsilogin method.

Table 28.328. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the discovery should be performed asynchronously.
discovered_targets	IscsiDetails[]	Out	The discovered targets including all connection information.
iscsi	IscsiDetails	In	The target iSCSI device.

28.108.7. enrollcertificate POST

Enrolls the certificate of the host. Useful in case you get a warning that it is about to expire or has already expired.

Table 28.329. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the enrollment should be performed asynchronously.

28.108.8. fence POST

Controls the host's power management device.

For example, to start the host. This can be done via:

```

#!/bin/sh -ex

url="https://engine.example.com/ovirt-engine/api"
user="admin@internal"
password="..."

curl \

```

```
--verbose \
--cacert /etc/pki/ovirt-engine/ca.pem \
--user "${user}:${password}" \
--request POST \
--header "Version: 4" \
--header "Content-Type: application/xml" \
--header "Accept: application/xml" \
--data '
<action>
  <fence_type>start</fence_type>
</action>
' \
"${url}/hosts/123/fence"
```

Table 28.330. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the fencing should be performed asynchronously.
fence_type	String	In	
maintenance_after_restart	Boolean	In	Indicates if host should be put into maintenance after restart.
power_management	PowerManagement	Out	

28.108.9. forceselectspm POST

To manually set a host as the storage pool manager (SPM).

```
POST /ovirt-engine/api/hosts/123/forceselectspm
```

With a request body like this:

```
<action/>
```

Table 28.331. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the action should be performed asynchronously.

28.108.10. get GET

Gets the host details.

■

```
GET /ovirt-engine/api/hosts/123
```

Table 28.332. Parameters summary

Name	Type	Direction	Summary
all_content	Boolean	In	Indicates if all of the attributes of the host should be included in the response.
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
follow	String	In	Indicates which inner links should be <i>followed</i> .
host	Host	Out	The queried host.

28.108.10.1. all_content

Indicates if all of the attributes of the host should be included in the response.

By default the following attributes are excluded:

- **hosted_engine**

For example, to retrieve the complete representation of host '123':

```
GET /ovirt-engine/api/hosts/123?all_content=true
```



NOTE

These attributes are not included by default because retrieving them impacts performance. They are seldom used and require additional queries to the database. Use this parameter with caution and only when specifically required.

28.108.10.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.108.11. install POST

Installs the latest version of VDSM and related software on the host.

The action also performs every configuration steps on the host which is done during adding host to the engine: kdump configuration, hosted-engine deploy, kernel options changes, etc.

The host type defines additional parameters for the action.

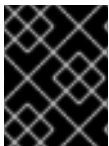
Example of installing a host, using **curl** and JSON, plain:

```
curl \
--verbose \
```

```
--cacert /etc/pki/ovirt-engine/ca.pem \
--request PUT \
--header "Content-Type: application/json" \
--header "Accept: application/json" \
--header "Version: 4" \
--user "admin@internal:..." \
--data '
{
  "root_password": "myrootpassword"
}
'\
"https://engine.example.com/ovirt-engine/api/hosts/123"
```

Example of installing a host using **curl** and JSON with hosted engine components:

```
curl \
curl \
--verbose \
--cacert /etc/pki/ovirt-engine/ca.pem \
--request PUT \
--header "Content-Type: application/json" \
--header "Accept: application/json" \
--header "Version: 4" \
--user "admin@internal:..." \
--data '
{
  "root_password": "myrootpassword"
  "deploy_hosted_engine" : "true"
}
'\
"https://engine.example.com/ovirt-engine/api/hosts/123"
```



IMPORTANT

Since version 4.1.2 of the engine, when a host is reinstalled we override the host firewall definitions by default.

Table 28.333. Parameters summary

Name	Type	Direction	Summary
activate	Boolean	In	When set to 'true', this host will be activated after its installation completes.
async	Boolean	In	Indicates if the installation should be performed asynchronously.
deploy_hosted_engine	Boolean	In	When set to true this host will also deploy the self-hosted engine components.

Name	Type	Direction	Summary
host	Host	In	The override_iptables property is used to indicate if the firewall configuration should be replaced by the default one.
image	String	In	When installing {hypervisor-name}, an ISO image file is required.
reboot	Boolean	In	Indicates if the host should be rebooted after successful installation.
root_password	String	In	The password of the root user used to connect to the host via SSH.
ssh	Ssh	In	The SSH details used to connect to the host.
undeploy_hosted_engine	Boolean	In	When set to true this host will un-deploy the self-hosted engine components, and this host will not function as part of the High Availability cluster.

28.108.11.1. activate

When set to 'true', this host will be activated after its installation completes. When set to 'false' the host will remain in 'maintenance' status after its installation. Absence of this parameter will be interpreted as 'true', since the desired default behavior is activating the host after install.

28.108.11.2. deploy_hosted_engine

When set to **true** this host will also deploy the self-hosted engine components. A missing value is treated as **true** i.e deploy. Omitting this parameter means **false** and will not perform any operation in the self-hosted engine area.

28.108.11.3. reboot

Indicates if the host should be rebooted after successful installation. The default value is **true**.

28.108.11.4. undeploy_hosted_engine

When set to **true** this host will un-deploy the self-hosted engine components, and this host will not function as part of the High Availability cluster. A missing value is treated as **true** i.e un-deploy. Omitting this parameter means **false** and will not perform any operation in the self-hosted engine area.

28.108.12. iscsidiscover POST

This method has been deprecated since Engine version 4.4.6. DiscoverIscsi should be used instead.

Discovers iSCSI targets on the host, using the initiator details. Returns an array of strings containing the discovered data.

For example, to discover iSCSI targets available in **myiscsi.example.com**, from host **123**, send a request like this:

```
POST /ovirt-engine/api/hosts/123/iscsidiscover
```

With a request body like this:

```
<action>
  <iscsi>
    <address>myiscsi.example.com</address>
  </iscsi>
</action>
```

Table 28.334. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the discovery should be performed asynchronously.
iscsi	IscsiDetails	In	The target iSCSI device.
iscsi_targets	String[]	Out	The iSCSI targets.

28.108.12.1. iscsi_targets

The iSCSI targets. *

28.108.13. iscsilogin POST

Login to iSCSI targets on the host, using the target details.



IMPORTANT

When using this method to log in, you must use the iscsi details from the discovered targets results in the discoveriscsi method.

Table 28.335. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the login should be performed asynchronously.
iscsi	IscsiDetails	In	The target iSCSI device.

28.108.14. refresh POST

Refresh the host devices and capabilities.

Table 28.336. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the refresh should be performed asynchronously.

28.108.15. remove DELETE

Remove the host from the system.

```
#!/bin/sh -ex

url="https://engine.example.com/ovirt-engine/api"
user="admin@internal"
password="..."

curl \
--verbose \
--cacert /etc/pki/ovirt-engine/ca.pem \
--user "${user}:${password}" \
--request DELETE \
--header "Version: 4" \
"${url}/hosts/1ff7a191-2f3b-4eff-812b-9f91a30c3acc"
```

Table 28.337. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.
force	Boolean	In	Indicates that the host should be removed even if it is non-responsive, or if it is part of a Gluster Storage cluster and has volume bricks on it.

28.108.16. setupnetworks POST

This method is used to change the configuration of the network interfaces of a host.

For example, if you have a host with three network interfaces **eth0**, **eth1** and **eth2** and you want to configure a new bond using **eth0** and **eth1**, and put a VLAN on top of it. Using a simple shell script and the **curl** command line HTTP client that can be done as follows:

```
#!/bin/sh -ex

url="https://engine.example.com/ovirt-engine/api"
user="admin@internal"
password="..."

curl \
--verbose \
```



```

--cacert /etc/pki/ovirt-engine/ca.pem \
--user "${user}:${password}" \
--request POST \
--header "Version: 4" \
--header "Content-Type: application/xml" \
--header "Accept: application/xml" \
--data '
<action>
  <modified_bonds>
    <host_nic>
      <name>bond0</name>
      <bonding>
        <options>
          <option>
            <name>mode</name>
            <value>4</value>
          </option>
          <option>
            <name>miimon</name>
            <value>100</value>
          </option>
        </options>
      <slaves>
        <host_nic>
          <name>eth1</name>
        </host_nic>
        <host_nic>
          <name>eth2</name>
        </host_nic>
      </slaves>
    </bonding>
  </host_nic>
</modified_bonds>
<modified_network_attachments>
  <network_attachment>
    <network>
      <name>myvlan</name>
    </network>
    <host_nic>
      <name>bond0</name>
    </host_nic>
    <ip_address_assignments>
      <ip_address_assignment>
        <assignment_method>static</assignment_method>
        <ip>
          <address>192.168.122.10</address>
          <netmask>255.255.255.0</netmask>
        </ip>
      </ip_address_assignment>
    </ip_address_assignments>
    <dns_resolver_configuration>
      <name_servers>
        <name_server>1.1.1.1</name_server>
        <name_server>2.2.2.2</name_server>
      </name_servers>
    </dns_resolver_configuration>
  </network_attachment>
</modified_network_attachments>
</action>
'

```

```

    </network_attachment>
  </modified_network_attachments>
</action>
'\
"${url}/hosts/1ff7a191-2f3b-4eff-812b-9f91a30c3acc/setupnetworks"

```



NOTE

This is valid for version 4 of the API. In previous versions some elements were represented as XML attributes instead of XML elements. In particular the **options** and **ip** elements were represented as follows:

```

<options name="mode" value="4"/>
<options name="miimon" value="100"/>
<ip address="192.168.122.10" netmask="255.255.255.0"/>

```

The same thing can be done using the Python SDK with the following code:

```

# Find the service that manages the collection of hosts:
hosts_service = connection.system_service().hosts_service()

# Find the host:
host = hosts_service.list(search='name=myhost')[0]

# Find the service that manages the host:
host_service = hosts_service.host_service(host.id)

# Configure the network adding a bond with two slaves and attaching it to a
# network with an static IP address:
host_service.setup_networks(
    modified_bonds=[
        types.HostNic(
            name='bond0',
            bonding=types.Bonding(
                options=[
                    types.Option(
                        name='mode',
                        value='4',
                    ),
                    types.Option(
                        name='miimon',
                        value='100',
                    ),
                ],
            ),
            slaves=[
                types.HostNic(
                    name='eth1',
                ),
                types.HostNic(
                    name='eth2',
                ),
            ],
        ),
    ],
)

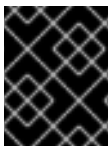
```

```

],
modified_network_attachments=[
    types.NetworkAttachment(
        network=types.Network(
            name='myvlan',
        ),
        host_nic=types.HostNic(
            name='bond0',
        ),
        ip_address_assignments=[
            types.IpAddressAssignment(
                assignment_method=types.BootProtocol.STATIC,
                ip=types.Ip(
                    address='192.168.122.10',
                    netmask='255.255.255.0',
                ),
            ),
        ],
        dns_resolver_configuration=types.DnsResolverConfiguration(
            name_servers=[
                '1.1.1.1',
                '2.2.2.2',
            ],
        ),
    ),
],
)

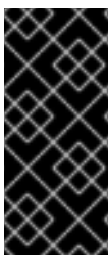
```

*# After modifying the network configuration it is very important to make it
persistent:*
host_service.commit_net_config()



IMPORTANT

To make sure that the network configuration has been saved in the host, and that it will be applied when the host is rebooted, remember to call [commitnetconfig](#).



IMPORTANT

Since Red Hat Virtualization Manager 4.3, it is possible to also specify **commit_on_success** in the [setupnetworks](#) request, in which case the new configuration is automatically saved in the {hypervisor-name} upon completing the setup and re-establishing connectivity between the {hypervisor-name} and Red Hat Virtualization Manager, and without waiting for a separate [commitnetconfig](#) request.

Table 28.338. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the action should be performed asynchronously.

Name	Type	Direction	Summary
check_connectivity	Boolean	In	
commit_on_success	Boolean	In	Specifies whether to automatically save the configuration in the {hypervisor-name} upon completing the setup and re-establishing connectivity between the {hypervisor-name} and Red Hat Virtualization Manager, and without waiting for a separate commitnetconfig request.
connectivity_timeout	Integer	In	
modified_bonds	HostNic[]	In	
modified_labels	NetworkLabel[]	In	
modified_network_attachments	NetworkAttachment[]	In	
removed_bonds	HostNic[]	In	
removed_labels	NetworkLabel[]	In	
removed_network_attachments	NetworkAttachment[]	In	
synchronized_network_attachments	NetworkAttachment[]	In	A list of network attachments that will be synchronized.

28.108.16.1. commit_on_success

Specifies whether to automatically save the configuration in the {hypervisor-name} upon completing the setup and re-establishing connectivity between the {hypervisor-name} and Red Hat Virtualization Manager, and without waiting for a separate [commitnetconfig](#) request. The default value is **false**, which means that the configuration will not be saved automatically.

28.108.17. syncallnetworks POST

To synchronize all networks on the host, send a request like this:

–

POST /ovirt-engine/api/hosts/123/syncallnetworks

With a request body like this:

```
<action/>
```

Table 28.339. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the action should be performed asynchronously.

28.108.18. unregisteredstoragedomainsdiscover POST

Discovers the block Storage Domains which are candidates to be imported to the setup. For FCP no arguments are required.

Table 28.340. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the discovery should be performed asynchronously.
iscsi	IscsiDetails	In	
storage_domains	StorageDomain[]	Out	

28.108.19. update PUT

Update the host properties.

For example, to update a the kernel command line of a host send a request like this:

PUT /ovirt-engine/api/hosts/123

With request body like this:

```
<host>
  <os>
    <custom_kernel_cmdline>vfio_iommu_type1.allow_unsafe_interrupts=1 </custom_kernel_cmdline>
  </os>
</host>
```

Table 28.341. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
host	Host	In/Out	

28.108.20. upgrade POST

Upgrades VDSM and selected software on the host.

Table 28.342. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the upgrade should be performed asynchronously.
image	String	In	This property is no longer relevant, since Vintage Node is no longer supported, and has been deprecated.
reboot	Boolean	In	Indicates if the host should be rebooted after the upgrade.
timeout	Integer	In	Upgrade timeout.

28.108.20.1. reboot

Indicates if the host should be rebooted after the upgrade. By default the host is rebooted.



NOTE

This parameter is ignored for {hypervisor-name}, which is always rebooted after the upgrade.

28.108.20.2. timeout

Upgrade timeout.

The maximum time to wait for upgrade to finish in minutes. Default value is specified by **ANSIBLE_PLAYBOOK_EXEC_DEFAULT_TIMEOUT** configuration option.

28.108.21. upgradecheck POST

Check if there are upgrades available for the host. If there are upgrades available an icon will be displayed next to host status icon in the Administration Portal. Audit log messages are also added to indicate the availability of upgrades. The upgrade can be started from the webadmin or by using the [upgrade](#) host action.

28.109. HOSTCPUUNITS

Table 28.343. Methods summary

Name	Summary
list	Returns the List of all host's CPUs with detailed information about the topology (socket, core) and with information about the current CPU pinning.

28.109.1. list GET

Returns the List of all host's CPUs with detailed information about the topology (socket, core) and with information about the current CPU pinning.

Table 28.344. Parameters summary

Name	Type	Direction	Summary
cpu_units	HostCpuUnit []	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.109.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.110. HOSTDEVICE

A service to access a particular device of a host.

Table 28.345. Methods summary

Name	Summary
get	Retrieve information about a particular host's device.

28.110.1. get GET

Retrieve information about a particular host's device.

An example of getting a host device:

```
GET /ovirt-engine/api/hosts/123/devices/456
```

```
<host_device href="/ovirt-engine/api/hosts/123/devices/456" id="456">
  <name>usb_1_9_1_1_0</name>
  <capability>usb</capability>
</host href="/ovirt-engine/api/hosts/123" id="123"/>
```

```

<parent_device href="/ovirt-engine/api/hosts/123/devices/789" id="789">
  <name>usb_1_9_1</name>
</parent_device>
</host_device>

```

Table 28.346. Parameters summary

Name	Type	Direction	Summary
device	HostDevice	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.110.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.111. HOSTDEVICES

A service to access host devices.

Table 28.347. Methods summary

Name	Summary
list	List the devices of a host.

28.111.1. list GET

List the devices of a host.

The order of the returned list of devices isn't guaranteed.

Table 28.348. Parameters summary

Name	Type	Direction	Summary
devices	HostDevice []	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of devices to return.

28.111.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.111.1.2. max

Sets the maximum number of devices to return. If not specified all the devices are returned.

28.112. HOSTHOOK

Table 28.349. Methods summary

Name	Summary
get	

28.112.1. get GET

Table 28.350. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
hook	Hook	Out	

28.112.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.113. HOSTHOOKS

Table 28.351. Methods summary

Name	Summary
list	Returns the list of hooks configured for the host.

28.113.1. list GET

Returns the list of hooks configured for the host.

The order of the returned list of hooks is random.

Table 28.352. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
hooks	Hook[]	Out	

Name	Type	Direction	Summary
max	Integer	In	Sets the maximum number of hooks to return.

28.113.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.113.1.2. max

Sets the maximum number of hooks to return. If not specified, all the hooks are returned.

28.114. HOSTNIC

A service to manage a network interface of a host.

Table 28.353. Methods summary

Name	Summary
get	
updatevirtualfunctionsconfiguration	The action updates virtual function configuration in case the current resource represents an SR-IOV enabled NIC.

28.114.1. get GET

Table 28.354. Parameters summary

Name	Type	Direction	Summary
all_content	Boolean	In	Indicates if all of the attributes of the host network interface should be included in the response.
follow	String	In	Indicates which inner links should be <i>followed</i> .
nic	HostNic	Out	

28.114.1.1. all_content

Indicates if all of the attributes of the host network interface should be included in the response.

By default the following attributes are excluded:

- **virtual_functions_configuration**

For example, to retrieve the complete representation network interface '456' of host '123':

```
GET /ovirt-engine/api/hosts/123/nics/456?all_content=true
```



NOTE

These attributes are not included by default because retrieving them impacts performance. They are seldom used and require additional queries to the database. Use this parameter with caution and only when specifically required.

28.114.1.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.114.2. updatevirtualfunctionsconfiguration POST

The action updates virtual function configuration in case the current resource represents an SR-IOV enabled NIC. The input should be consisted of at least one of the following properties:

- **allNetworksAllowed**
- **numberOfVirtualFunctions**

Please see the **HostNicVirtualFunctionsConfiguration** type for the meaning of the properties.

Table 28.355. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
virtual_functions_configuration	HostNicVirtualFunctionsConfiguration	In	

28.115. HOSTNICS

A service to manage the network interfaces of a host.

Table 28.356. Methods summary

Name	Summary
list	Returns the list of network interfaces of the host.

28.115.1. list GET

Returns the list of network interfaces of the host.

The order of the returned list of network interfaces isn't guaranteed.

Table 28.357. Parameters summary

Name	Type	Direction	Summary
all_content	Boolean	In	Indicates if all of the attributes of the host network interface should be included in the response.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of NICs to return.
nics	HostNic[]	Out	

28.115.1.1. all_content

Indicates if all of the attributes of the host network interface should be included in the response.

By default the following attributes are excluded:

- **virtual_functions_configuration**

For example, to retrieve the complete representation of network interface '456' of host '123':

```
GET /ovirt-engine/api/hosts/123/nics?all_content=true
```



NOTE

These attributes are not included by default because retrieving them impacts performance. They are seldom used and require additional queries to the database. Use this parameter with caution and only when specifically required.

28.115.1.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.115.1.3. max

Sets the maximum number of NICs to return. If not specified all the NICs are returned.

28.116. HOSTNUMANODE

Table 28.358. Methods summary

Name	Summary
get	

28.116.1. get GET

Table 28.359. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
node	NumaNode	Out	

28.116.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.117. HOSTNUMANODES

Table 28.360. Methods summary

Name	Summary
list	Returns the list of NUMA nodes of the host.

28.117.1. list GET

Returns the list of NUMA nodes of the host.

The order of the returned list of NUMA nodes isn't guaranteed.

Table 28.361. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of nodes to return.
nodes	NumaNode[]	Out	

28.117.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.117.1.2. max

Sets the maximum number of nodes to return. If not specified all the nodes are returned.

28.118. HOSTSTORAGE

A service to manage host storages.

Table 28.362. Methods summary

Name	Summary
list	Get list of storages.

28.118.1. list GET

Get list of storages.

GET /ovirt-engine/api/hosts/123/storage

The XML response you get will be like this one:

```
<host_storages>
  <host_storage id="123">
    ...
  </host_storage>
  ...
</host_storages>
```

The order of the returned list of storages isn't guaranteed.

Table 28.363. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
report_status	Boolean	In	Indicates if the status of the LUNs in the storage should be checked.
storages	HostStorage []	Out	Retrieved list of storages.

28.118.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.118.1.2. report_status

Indicates if the status of the LUNs in the storage should be checked. Checking the status of the LUN is an heavy weight operation and this data is not always needed by the user. This parameter will give the option to not perform the status check of the LUNs.

The default is **true** for backward compatibility.

Here an example with the LUN status :

```

<host_storage id="123">
  <logical_units>
    <logical_unit id="123">
      <lun_mapping>0</lun_mapping>
      <paths>1</paths>
      <product_id>lun0</product_id>
      <serial>123</serial>
      <size>10737418240</size>
      <status>used</status>
      <vendor_id>LIO-ORG</vendor_id>
      <volume_group_id>123</volume_group_id>
    </logical_unit>
  </logical_units>
  <type>iscsi</type>
</host id="123"/>
</host_storage>

```

Here an example without the LUN status :

```

<host_storage id="123">
  <logical_units>
    <logical_unit id="123">
      <lun_mapping>0</lun_mapping>
      <paths>1</paths>
      <product_id>lun0</product_id>
      <serial>123</serial>
      <size>10737418240</size>
      <vendor_id>LIO-ORG</vendor_id>
      <volume_group_id>123</volume_group_id>
    </logical_unit>
  </logical_units>
  <type>iscsi</type>
</host id="123"/>
</host_storage>

```

28.119. HOSTS

A service that manages hosts.

Table 28.364. Methods summary

Name	Summary
add	Creates a new host.
list	Get a list of all available hosts.

28.119.1. add POST

Creates a new host.

The host is created based on the attributes of the **host** parameter. The **name**, **address**, and **root_password** properties are required.

For example, to add a host, send the following request:

```
POST /ovirt-engine/api/hosts
```

With the following request body:

```
<host>
  <name>myhost</name>
  <address>myhost.example.com</address>
  <root_password>myrootpassword</root_password>
</host>
```



NOTE

The **root_password** element is only included in the client-provided initial representation and is not exposed in the representations returned from subsequent requests.



IMPORTANT

Since version 4.1.2 of the engine, when a host is newly added, the host's firewall definitions are overridden by default.

To add a hosted engine host, use the optional **deploy_hosted_engine** parameter:

```
POST /ovirt-engine/api/hosts?deploy_hosted_engine=true
```

If the cluster has a default external network provider that is supported for automatic deployment, the external network provider is deployed when adding the host. Only external network providers for OVN are supported for the automatic deployment. To deploy an external network provider other than the one defined in the clusters, overwrite the external network provider when adding hosts, by sending the following request:

```
POST /ovirt-engine/api/hosts
```

With a request body that contains a reference to the desired provider in the **external_network_provider_configuration**:

```
<host>
  <name>myhost</name>
  <address>myhost.example.com</address>
  <root_password>123456</root_password>
  <external_network_provider_configurations>
    <external_network_provider_configuration>
      <external_network_provider name="ovirt-provider-ovn"/>
    </external_network_provider_configuration>
  </external_network_provider_configurations>
</host>
```

Table 28.365. Parameters summary

Name	Type	Direction	Summary
activate	Boolean	In	When set to true , this host will be activated after its installation completes.
deploy_hosted_engine	Boolean	In	When set to true , this host deploys the hosted engine components.
host	Host	In/Out	The host definition with which the new host is created is passed as a parameter, and the newly created host is returned.
reboot	Boolean	In	Indicates if the host should be rebooted after successful installation.
undeploy_hosted_engine	Boolean	In	When set to true , this host un-deploys the hosted engine components and does not function as part of the High Availability cluster.

28.119.1.1. activate

When set to **true**, this host will be activated after its installation completes. When set to **false** the host will remain in **maintenance** status after its installation. Absence of this parameter will be interpreted as **true**, since the desired default behavior is activating the host after install.

28.119.1.2. deploy_hosted_engine

When set to **true**, this host deploys the hosted engine components. A missing value is treated as **true**, i.e., deploy the hosted engine components. Omitting this parameter equals **false**, and the host performs no operation in the hosted engine area.

28.119.1.3. reboot

Indicates if the host should be rebooted after successful installation. The default value is **true**.

28.119.1.4. undeploy_hosted_engine

When set to **true**, this host un-deploys the hosted engine components and does not function as part of the High Availability cluster. A missing value is treated as **true**, i.e., un-deploy. Omitting this parameter equals **false** and the host performs no operation in the hosted engine area.

28.119.2. list GET

Get a list of all available hosts.

For example, to list the hosts send the following request:

```
GET /ovirt-engine/api/hosts
```

The response body will be similar to this:

```

<hosts>
  <host href="/ovirt-engine/api/hosts/123" id="123">
    ...
  </host>
  <host href="/ovirt-engine/api/hosts/456" id="456">
    ...
  </host>
  ...
</hosts>

```

The order of the returned list of hosts is guaranteed only if the **sortby** clause is included in the **search** parameter.

Table 28.366. Parameters summary

Name	Type	Direction	Summary
all_content	Boolean	In	Indicates if all of the attributes of the hosts should be included in the response.
case_sensitive	Boolean	In	Indicates if the search performed using the search parameter should be performed taking case into account.
check_vms_in_affinity_closure	Boolean	In	This parameter can be used with migration_target_of to get valid migration targets for the listed virtual machines and all other virtual machines that are in positive enforcing affinity with the listed virtual machines.
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
follow	String	In	Indicates which inner links should be <i>followed</i> .
hosts	Host[]	Out	
max	Integer	In	Sets the maximum number of hosts to return.
migration_target_of	String	In	Accepts a comma-separated list of virtual machine IDs and returns the hosts that these virtual machines can be migrated to.
search	String	In	A query string used to restrict the returned hosts.

28.119.2.1. all_content

Indicates if all of the attributes of the hosts should be included in the response.

By default the following host attributes are excluded:

- **hosted_engine**

For example, to retrieve the complete representation of the hosts:

```
GET /ovirt-engine/api/hosts?all_content=true
```



NOTE

These attributes are not included by default because retrieving them impacts performance. They are seldom used and require additional queries to the database. Use this parameter with caution and only when specifically required.

28.119.2.2. case_sensitive

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

28.119.2.3. check_vms_in_affinity_closure

This parameter can be used with **migration_target_of** to get valid migration targets for the listed virtual machines and all other virtual machines that are in positive enforcing affinity with the listed virtual machines.

This is useful in case the virtual machines will be migrated together with others in positive affinity groups.

The default value is **false**.

```
GET /ovirt-engine/api/hosts?migration_target_of=123,456&check_vms_in_affinity_closure=true
```

28.119.2.4. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.119.2.5. max

Sets the maximum number of hosts to return. If not specified all the hosts are returned.

28.119.2.6. migration_target_of

Accepts a comma-separated list of virtual machine IDs and returns the hosts that these virtual machines can be migrated to.

For example, to retrieve the list of hosts to which the virtual machine with ID 123 and the virtual machine with ID 456 can be migrated to, send the following request:

```
GET /ovirt-engine/api/hosts?migration_target_of=123,456
```

28.120. ICON

A service to manage an icon (read-only).

Table 28.367. Methods summary

Name	Summary
get	Get an icon.

28.120.1. get GET

Get an icon.

```
GET /ovirt-engine/api/icons/123
```

You will get a XML response like this one:

```
<icon id="123">
  <data>Some binary data here</data>
  <media_type>image/png</media_type>
</icon>
```

Table 28.368. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
icon	Icon	Out	Retrieved icon.

28.120.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.121. ICONS

A service to manage icons.

Table 28.369. Methods summary

Name	Summary
list	Get a list of icons.

28.121.1. list GET

Get a list of icons.

```
GET /ovirt-engine/api/icons
```

You will get a XML response which is similar to this one:

```
<icons>
  <icon id="123">
    <data>...</data>
    <media_type>image/png</media_type>
  </icon>
  ...
</icons>
```

The order of the returned list of icons isn't guaranteed.

Table 28.370. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
icons	Icon[]	Out	Retrieved list of icons.
max	Integer	In	Sets the maximum number of icons to return.

28.121.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.121.1.2. max

Sets the maximum number of icons to return. If not specified all the icons are returned.

28.122. IMAGE

Table 28.371. Methods summary

Name	Summary
get	
import	Imports an image.

28.122.1. get GET

Table 28.372. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
image	Image	Out	

28.122.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.122.2. import POST

Imports an image.

If the **import_as_template** parameter is **true** then the image will be imported as a template, otherwise it will be imported as a disk.

When imported as a template, the name of the template can be specified by the optional **template.name** parameter. If that parameter is not specified, then the name of the template will be automatically assigned by the engine as **GlanceTemplate-x** (where **x** will be seven random hexadecimal characters).

When imported as a disk, the name of the disk can be specified by the optional **disk.name** parameter. If that parameter is not specified, then the name of the disk will be automatically assigned by the engine as **GlanceDisk-x** (where **x** will be the seven hexadecimal characters of the image identifier).

It is recommended to always explicitly specify the template or disk name, to avoid these automatic names generated by the engine.

Table 28.373. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the import should be performed asynchronously.
cluster	Cluster	In	The cluster to which the image should be imported if the import_as_template parameter is set to true .
disk	Disk	In	The disk to import.
import_as_template	Boolean	In	Specifies if a template should be created from the imported disk.
storage_domain	StorageDomain	In	The storage domain to which the disk should be imported.
template	Template	In	The name of the template being created if the import_as_template parameter is set to true .

28.123. IMAGETRANSFER

This service provides a mechanism to control an image transfer. The client will have to create a transfer by using [add](#) of the [image transfers](#) service, stating the image to transfer data to/from.

After doing that, the transfer is managed by this service.

Using oVirt's Python's SDK:

Uploading a **disk** with id **123** (on a random host in the data center):

```
transfers_service = system_service.image_transfers_service()
transfer = transfers_service.add(
    types.ImageTransfer(
        disk=types.Disk(
            id='123'
        )
    )
)
```

Uploading a **disk** with id **123** on **host** id **456**:

```
transfers_service = system_service.image_transfers_service()
transfer = transfers_service.add(
    types.ImageTransfer(
        disk=types.Disk(
            id='123'
        ),
        host=types.Host(
            id='456'
        )
    )
)
```

If the user wishes to download a disk rather than upload, he/she should specify **download** as the [direction](#) attribute of the transfer. This will grant a read permission from the image, instead of a write permission.

E.g:

```
transfers_service = system_service.image_transfers_service()
transfer = transfers_service.add(
    types.ImageTransfer(
        disk=types.Disk(
            id='123'
        ),
        direction=types.ImageTransferDirection.DOWNLOAD
    )
)
```

Transfers have phases, which govern the flow of the upload/download. A client implementing such a flow should poll/check the transfer's phase and act accordingly. All the possible phases can be found in [ImageTransferPhase](#).

After adding a new transfer, its phase will be [initializing](#). The client will have to poll on the transfer's phase until it changes. When the phase becomes [transferring](#), the session is ready to start the transfer.

For example:

```
transfer_service = transfers_service.image_transfer_service(transfer.id)
while transfer.phase == types.ImageTransferPhase.INITIALIZING:
    time.sleep(3)
    transfer = transfer_service.get()
```

At that stage, if the phase of the transfer is `paused_system`, the session was not successfully established. This can happen if `ovirt-imageio` is not running in the selected host.

Table 28.374. Methods summary

Name	Summary
cancel	Cancel the image transfer session.
extend	Extend the image transfer session.
finalize	After finishing to transfer the data, finalize the transfer.
get	Get the image transfer entity.
pause	Pause the image transfer session.
resume	Resume the image transfer session.

28.123.1. cancel POST

Cancel the image transfer session. This terminates the transfer operation and removes the partial image.

28.123.2. extend POST

Extend the image transfer session.

28.123.3. finalize POST

After finishing to transfer the data, finalize the transfer.

This will make sure that the data being transferred is valid and fits the image entity that was targeted in the transfer. Specifically, will verify that if the image entity is a QCOW disk, the data uploaded is indeed a QCOW file, and that the image doesn't have a backing file.

28.123.4. get GET

Get the image transfer entity.

Table 28.375. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
image_transfer	ImageTransfer	Out	

28.123.4.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.123.5. pause POST

Pause the image transfer session.

28.123.6. resume POST

Resume the image transfer session. The client will need to poll the transfer's phase until it is different than **resuming**. For example:

```
transfer_service = transfers_service.image_transfer_service(transfer.id)
transfer_service.resume()
transfer = transfer_service.get()

while transfer.phase == types.ImageTransferPhase.RESUMING:
    time.sleep(1)
    transfer = transfer_service.get()
```

28.124. IMAGETRANSFERS

This service manages image transfers, for performing Image I/O API in Red Hat Virtualization. Please refer to [image transfer](#) for further documentation.

Table 28.376. Methods summary

Name	Summary
add	Add a new image transfer.
list	Retrieves the list of image transfers that are currently being performed.

28.124.1. add POST

Add a new image transfer. An image, disk or disk snapshot needs to be specified in order to make a new transfer.



IMPORTANT

The **image** attribute is deprecated since version 4.2 of the engine. Use the **disk** or **snapshot** attributes instead.

Creating a new image transfer for downloading or uploading a disk:

To create an image transfer to download or upload a disk with id **123**, send the following request:

POST /ovirt-engine/api/imagetransfers

With a request body like this:

```
<image_transfer>
  <disk id="123"/>
  <direction>upload|download</direction>
</image_transfer>
```

Creating a new image transfer for downloading or uploading a disk snapshot:

To create an image transfer to download or upload a **disk_snapshot** with id **456**, send the following request:

POST /ovirt-engine/api/imagetransfers

With a request body like this:

```
<image_transfer>
  <snapshot id="456"/>
  <direction>download|upload</direction>
</image_transfer>
```

Table 28.377. Parameters summary

Name	Type	Direction	Summary
image_transfer	ImageTransfer	In/Out	The image transfer to add.

28.124.2. list GET

Retrieves the list of image transfers that are currently being performed.

The order of the returned list of image transfers is not guaranteed.

Table 28.378. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
image_transfer	ImageTransfer[]	Out	A list of image transfers that are currently being performed.

28.124.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.125. IMAGES

Manages the set of images available in an storage domain or in an OpenStack image provider.

Table 28.379. Methods summary

Name	Summary
list	Returns the list of images available in the storage domain or provider.

28.125.1. list GET

Returns the list of images available in the storage domain or provider.

The order of the returned list of images isn't guaranteed.

Table 28.380. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
images	Image[]	Out	
max	Integer	In	Sets the maximum number of images to return.

28.125.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.125.1.2. max

Sets the maximum number of images to return. If not specified all the images are returned.

28.126. INSTANCETYPE

Table 28.381. Methods summary

Name	Summary
get	Get a specific instance type and it's attributes.
remove	Removes a specific instance type from the system.
update	Update a specific instance type and it's attributes.

28.126.1. get GET

Get a specific instance type and it's attributes.

GET /ovirt-engine/api/instancetypeypes/123

Table 28.382. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
instance_type	InstanceType	Out	

28.126.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.126.2. remove DELETE

Removes a specific instance type from the system.

If a virtual machine was created using an instance type X after removal of the instance type the virtual machine's instance type will be set to **custom**.

DELETE /ovirt-engine/api/instancetypeypes/123

Table 28.383. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.126.3. update PUT

Update a specific instance type and it's attributes.

All the attributes are editable after creation. If a virtual machine was created using an instance type X and some configuration in instance type X was updated, the virtual machine's configuration will be updated automatically by the engine.

PUT /ovirt-engine/api/instancetype/123

For example, to update the memory of instance type **123** to 1 GiB and set the cpu topology to 2 sockets and 1 core, send a request like this:

```
<instance_type>
<memory>1073741824</memory>
<cpu>
  <topology>
    <cores>1</cores>
    <sockets>2</sockets>
    <threads>1</threads>
  </topology>
</cpu>
</instance_type>
```

Table 28.384. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
instance_type	InstanceType	In/Out	

28.127. INSTANCETYPEGRAPHICSCONSOLE

Table 28.385. Methods summary

Name	Summary
get	Gets graphics console configuration of the instance type.
remove	Remove the graphics console from the instance type.

28.127.1. get GET

Gets graphics console configuration of the instance type.

Table 28.386. Parameters summary

Name	Type	Direction	Summary
console	GraphicsConsole	Out	The information about the graphics console of the instance type.

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.127.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.127.2. remove DELETE

Remove the graphics console from the instance type.

Table 28.387. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.128. INSTANCETYPEGRAPHICSCONSOLES

Table 28.388. Methods summary

Name	Summary
add	Add new graphics console to the instance type.
list	Lists all the configured graphics consoles of the instance type.

28.128.1. add POST

Add new graphics console to the instance type.

Table 28.389. Parameters summary

Name	Type	Direction	Summary
console	GraphicsConsole	In/Out	

28.128.2. list GET

Lists all the configured graphics consoles of the instance type.

The order of the returned list of graphics consoles isn't guaranteed.

Table 28.390. Parameters summary

Name	Type	Direction	Summary
consoles	GraphicsConsole[]	Out	The list of graphics consoles of the instance type.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of consoles to return.

28.128.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.128.2.2. max

Sets the maximum number of consoles to return. If not specified all the consoles are returned.

28.129. INSTANCETYPENIC

Table 28.391. Methods summary

Name	Summary
get	Gets network interface configuration of the instance type.
remove	Remove the network interface from the instance type.
update	Updates the network interface configuration of the instance type.

28.129.1. get GET

Gets network interface configuration of the instance type.

Table 28.392. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
nic	Nic	Out	

28.129.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.129.2. remove DELETE

Remove the network interface from the instance type.

Table 28.393. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.129.3. update PUT

Updates the network interface configuration of the instance type.

Table 28.394. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
nic	Nic	In/Out	

28.130. INSTANCETYPENICs

Table 28.395. Methods summary

Name	Summary
add	Add new network interface to the instance type.
list	Lists all the configured network interface of the instance type.

28.130.1. add POST

Add new network interface to the instance type.

Table 28.396. Parameters summary

Name	Type	Direction	Summary
nic	Nic	In/Out	

28.130.2. list GET

Lists all the configured network interface of the instance type.

The order of the returned list of network interfaces isn't guaranteed.

Table 28.397. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of NICs to return.
nics	Nic[]	Out	
search	String	In	A query string used to restrict the returned templates.

28.130.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.130.2.2. max

Sets the maximum number of NICs to return. If not specified all the NICs are returned.

28.131. INSTANCETYPEWATCHDOG

Table 28.398. Methods summary

Name	Summary
get	Gets watchdog configuration of the instance type.
remove	Remove a watchdog from the instance type.
update	Updates the watchdog configuration of the instance type.

28.131.1. get GET

Gets watchdog configuration of the instance type.

Table 28.399. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
watchdog	Watchdog	Out	

28.131.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.131.2. remove DELETE

Remove a watchdog from the instance type.

Table 28.400. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.131.3. update PUT

Updates the watchdog configuration of the instance type.

Table 28.401. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
watchdog	Watchdog	In/Out	

28.132. INSTANCETYPEWATCHDOGS

Table 28.402. Methods summary

Name	Summary
add	Add new watchdog to the instance type.
list	Lists all the configured watchdogs of the instance type.

28.132.1. add POST

Add new watchdog to the instance type.

Table 28.403. Parameters summary

Name	Type	Direction	Summary
watchdog	Watchdog	In/Out	

28.132.2. list GET

Lists all the configured watchdogs of the instance type.

The order of the returned list of watchdogs isn't guaranteed.

Table 28.404. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of watchdogs to return.
search	String	In	A query string used to restrict the returned templates.
watchdogs	Watchdog[]	Out	

28.132.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.132.2.2. max

Sets the maximum number of watchdogs to return. If not specified all the watchdogs are returned.

28.133. INSTANCETYPES

Table 28.405. Methods summary

Name	Summary
add	Creates a new instance type.
list	Lists all existing instance types in the system.

28.133.1. add POST

Creates a new instance type.

This requires only a name attribute and can include all hardware configurations of the virtual machine.

```
POST /ovirt-engine/api/instancetypees
```

With a request body like this:

```
<instance_type>
  <name>myinstancetype</name>
</template>
```

Creating an instance type with all hardware configurations with a request body like this:

```
<instance_type>
```

```
<name>myinstancetype</name>
<console>
  <enabled>true</enabled>
</console>
<cpu>
  <topology>
    <cores>2</cores>
    <sockets>2</sockets>
    <threads>1</threads>
  </topology>
</cpu>
<custom_cpu_model>AMD Opteron_G2</custom_cpu_model>
<custom_emulated_machine>q35</custom_emulated_machine>
<display>
  <monitors>1</monitors>
  <single_qxl_pci>true</single_qxl_pci>
  <smartcard_enabled>true</smartcard_enabled>
  <type>spice</type>
</display>
<high_availability>
  <enabled>true</enabled>
  <priority>1</priority>
</high_availability>
<io>
  <threads>2</threads>
</io>
<memory>4294967296</memory>
<memory_policy>
  <ballooning>true</ballooning>
  <guaranteed>268435456</guaranteed>
</memory_policy>
<migration>
  <auto_converge>inherit</auto_converge>
  <compressed>inherit</compressed>
  <policy id="00000000-0000-0000-0000-000000000000"/>
</migration>
<migration_downtime>2</migration_downtime>
<os>
  <boot>
    <devices>
      <device>hd</device>
    </devices>
  </boot>
</os>
<rng_device>
  <rate>
    <bytes>200</bytes>
    <period>2</period>
  </rate>
  <source>urandom</source>
</rng_device>
<soundcard_enabled>true</soundcard_enabled>
<usb>
  <enabled>true</enabled>
  <type>native</type>
</usb>
```

```

<virtio_scsi>
  <enabled>true</enabled>
</virtio_scsi>
</instance_type>

```

Table 28.406. Parameters summary

Name	Type	Direction	Summary
instance_type	InstanceType	In/Out	

28.133.2. list GET

Lists all existing instance types in the system.

The order of the returned list of instance types isn't guaranteed.

Table 28.407. Parameters summary

Name	Type	Direction	Summary
case_sensitive	Boolean	In	Indicates if the search performed using the search parameter should be performed taking case into account.
follow	String	In	Indicates which inner links should be <i>followed</i> .
instance_type	InstanceType e[]	Out	
max	Integer	In	Sets the maximum number of instance types to return.
search	String	In	A query string used to restrict the returned templates.

28.133.2.1. case_sensitive

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

28.133.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.133.2.3. max

Sets the maximum number of instance types to return. If not specified all the instance types are returned.

28.134. ISCSIBOND

Table 28.408. Methods summary

Name	Summary
get	
remove	Removes of an existing iSCSI bond.
update	Updates an iSCSI bond.

28.134.1. get GET

Table 28.409. Parameters summary

Name	Type	Direction	Summary
bond	iscsiBond	Out	The iSCSI bond.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.134.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.134.2. remove DELETE

Removes of an existing iSCSI bond.

For example, to remove the iSCSI bond **456** send a request like this:

```
DELETE /ovirt-engine/api/datacenters/123/iscsibonds/456
```

Table 28.410. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.134.3. update PUT

Updates an iSCSI bond.

Updating of an iSCSI bond can be done on the **name** and the **description** attributes only. For example, to update the iSCSI bond **456** of data center **123**, send a request like this:

```
PUT /ovirt-engine/api/datacenters/123/iscsibonds/1234
```

The request body should look like this:

```
<iscsi_bond>
  <name>mybond</name>
  <description>My iSCSI bond</description>
</iscsi_bond>
```

Table 28.411. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
bond	IscsiBond	In/Out	The iSCSI bond to update.

28.135. ISCSIBONDS

Table 28.412. Methods summary

Name	Summary
add	Create a new iSCSI bond on a data center.
list	Returns the list of iSCSI bonds configured in the data center.

28.135.1. add POST

Create a new iSCSI bond on a data center.

For example, to create a new iSCSI bond on data center **123** using storage connections **456** and **789**, send a request like this:

```
POST /ovirt-engine/api/datacenters/123/iscsibonds
```

The request body should look like this:

```
<iscsi_bond>
  <name>mybond</name>
  <storage_connections>
    <storage_connection id="456"/>
    <storage_connection id="789"/>
  </storage_connections>
  <networks>
```

```

    <network id="abc"/>
  </networks>
</iscsi_bond>

```

Table 28.413. Parameters summary

Name	Type	Direction	Summary
bond	IscsiBond	In/Out	

28.135.2. list GET

Returns the list of iSCSI bonds configured in the data center.

The order of the returned list of iSCSI bonds isn't guaranteed.

Table 28.414. Parameters summary

Name	Type	Direction	Summary
bonds	IscsiBond[]	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of bonds to return.

28.135.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.135.2.2. max

Sets the maximum number of bonds to return. If not specified all the bonds are returned.

28.136. JOB

A service to manage a job.

Table 28.415. Methods summary

Name	Summary
clear	Set an external job execution to be cleared by the system.
end	Marks an external job execution as ended.
get	Retrieves a job.

28.136.1. clear POST

Set an external job execution to be cleared by the system.

For example, to set a job with identifier **123** send the following request:

```
POST /ovirt-engine/api/jobs/clear
```

With the following request body:

```
<action/>
```

Table 28.416. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the action should be performed asynchronously.

28.136.2. end POST

Marks an external job execution as ended.

For example, to terminate a job with identifier **123** send the following request:

```
POST /ovirt-engine/api/jobs/end
```

With the following request body:

```
<action>
  <force>true</force>
  <status>finished</status>
</action>
```

Table 28.417. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the action should be performed asynchronously.
force	Boolean	In	Indicates if the job should be forcibly terminated.
succeeded	Boolean	In	Indicates if the job should be marked as successfully finished or as failed.

28.136.2.1. succeeded

Indicates if the job should be marked as successfully finished or as failed.

This parameter is optional, and the default value is **true**.

28.136.3. get GET

Retrieves a job.

```
GET /ovirt-engine/api/jobs/123
```

You will receive response in XML like this one:

```
<job href="/ovirt-engine/api/jobs/123" id="123">
  <actions>
    <link href="/ovirt-engine/api/jobs/123/clear" rel="clear"/>
    <link href="/ovirt-engine/api/jobs/123/end" rel="end"/>
  </actions>
  <description>Adding Disk</description>
  <link href="/ovirt-engine/api/jobs/123/steps" rel="steps"/>
  <auto_cleared>true</auto_cleared>
  <end_time>2016-12-12T23:07:29.758+02:00</end_time>
  <external>false</external>
  <last_updated>2016-12-12T23:07:29.758+02:00</last_updated>
  <start_time>2016-12-12T23:07:26.593+02:00</start_time>
  <status>failed</status>
  <owner href="/ovirt-engine/api/users/456" id="456"/>
</job>
```

Table 28.418. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
job	Job	Out	Retrieves the representation of the job.

28.136.3.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.137. JOBS

A service to manage jobs.

Table 28.419. Methods summary

Name	Summary
add	Add an external job.
list	Retrieves the representation of the jobs.

28.137.1. add POST

Add an external job.

For example, to add a job with the following request:

```
POST /ovirt-engine/api/jobs
```

With the following request body:

```
<job>
  <description>Doing some work</description>
  <auto_cleared>true</auto_cleared>
</job>
```

The response should look like:

```
<job href="/ovirt-engine/api/jobs/123" id="123">
  <actions>
    <link href="/ovirt-engine/api/jobs/123/clear" rel="clear"/>
    <link href="/ovirt-engine/api/jobs/123/end" rel="end"/>
  </actions>
  <description>Doing some work</description>
  <link href="/ovirt-engine/api/jobs/123/steps" rel="steps"/>
  <auto_cleared>true</auto_cleared>
  <external>true</external>
  <last_updated>2016-12-13T02:15:42.130+02:00</last_updated>
  <start_time>2016-12-13T02:15:42.130+02:00</start_time>
  <status>started</status>
  <owner href="/ovirt-engine/api/users/456" id="456"/>
</job>
```

Table 28.420. Parameters summary

Name	Type	Direction	Summary
job	Job	In/Out	Job that will be added.

28.137.2. list GET

Retrieves the representation of the jobs.

```
GET /ovirt-engine/api/jobs
```

You will receive response in XML like this one:

```
<jobs>
  <job href="/ovirt-engine/api/jobs/123" id="123">
    <actions>
      <link href="/ovirt-engine/api/jobs/123/clear" rel="clear"/>
      <link href="/ovirt-engine/api/jobs/123/end" rel="end"/>
    </actions>
    <description>Adding Disk</description>
    <link href="/ovirt-engine/api/jobs/123/steps" rel="steps"/>
  </job>
</jobs>
```

```

<auto_cleared>true</auto_cleared>
<end_time>2016-12-12T23:07:29.758+02:00</end_time>
<external>false</external>
<last_updated>2016-12-12T23:07:29.758+02:00</last_updated>
<start_time>2016-12-12T23:07:26.593+02:00</start_time>
<status>failed</status>
<owner href="/ovirt-engine/api/users/456" id="456"/>
</job>
...
</jobs>

```

The order of the returned list of jobs isn't guaranteed.

Table 28.421. Parameters summary

Name	Type	Direction	Summary
case_sensitive	Boolean	In	Indicates if the search performed using the search parameter should be performed taking case into account.
follow	String	In	Indicates which inner links should be <i>followed</i> .
jobs	Job[]	Out	A representation of jobs.
max	Integer	In	Sets the maximum number of jobs to return.
search	String	In	A query string used to restrict the returned jobs.

28.137.2.1. case_sensitive

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

28.137.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.137.2.3. max

Sets the maximum number of jobs to return. If not specified all the jobs are returned.

28.138. KATELLOERRATA

A service to manage Katello errata. The information is retrieved from Katello.

Table 28.422. Methods summary

Name	Summary
list	Retrieves the representation of the Katello errata.

28.138.1. list GET

Retrieves the representation of the Katello errata.

GET /ovirt-engine/api/katelloerrata

You will receive response in XML like this one:

```
<katello_errata>
  <katello_erratum href="/ovirt-engine/api/katelloerrata/123" id="123">
    <name>RHBA-2013:XYZ</name>
    <description>The description of the erratum</description>
    <title>some bug fix update</title>
    <type>bugfix</type>
    <issued>2013-11-20T02:00:00.000+02:00</issued>
    <solution>Few guidelines regarding the solution</solution>
    <summary>Updated packages that fix one bug are now available for XYZ</summary>
    <packages>
      <package>
        <name>libipa_hbac-1.9.2-82.11.el6_4.i686</name>
      </package>
      ...
    </packages>
  </katello_erratum>
  ...
</katello_errata>
```

The order of the returned list of erratum isn't guaranteed.

Table 28.423. Parameters summary

Name	Type	Direction	Summary
errata	KatelloErratum[]	Out	A representation of Katello errata.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of errata to return.

28.138.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.138.1.2. max

Sets the maximum number of errata to return. If not specified all the errata are returned.

28.139. KATELLOERRATUM

A service to manage a Katello erratum.

Table 28.424. Methods summary

Name	Summary
get	Retrieves a Katello erratum.

28.139.1. get GET

Retrieves a Katello erratum.

```
GET /ovirt-engine/api/katelloerrata/123
```

You will receive response in XML like this one:

```
<katello_erratum href="/ovirt-engine/api/katelloerrata/123" id="123">
  <name>RHBA-2013:XYZ</name>
  <description>The description of the erratum</description>
  <title>some bug fix update</title>
  <type>bugfix</type>
  <issued>2013-11-20T02:00:00.000+02:00</issued>
  <solution>Few guidelines regarding the solution</solution>
  <summary>Updated packages that fix one bug are now available for XYZ</summary>
  <packages>
    <package>
      <name>libipa_hbac-1.9.2-82.11.el6_4.i686</name>
    </package>
    ...
  </packages>
</katello_erratum>
```

Table 28.425. Parameters summary

Name	Type	Direction	Summary
erratum	KatelloErratum	Out	Retrieves the representation of the Katello erratum.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.139.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.140. LINKLAYERDISCOVERYPROTOCOL

A service to fetch information elements received by Link Layer Discovery Protocol (LLDP).

Table 28.426. Methods summary

Name	Summary
list	Fetches information elements received by LLDP.

28.140.1. list GET

Fetches information elements received by LLDP.

Table 28.427. Parameters summary

Name	Type	Direction	Summary
elements	LinkLayerDiscoveryProtocolElement[]	Out	Retrieves a list of information elements received by LLDP.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.140.1.1. elements

Retrieves a list of information elements received by LLDP.

For example, to retrieve the information elements received on the NIC **321** on host **123**, send a request like this:

```
GET ovirt-engine/api/hosts/123/nics/321/linklayerdiscoveryprotocolelements
```

It will return a response like this:

```
<link_layer_discovery_protocol_elements>
...
<link_layer_discovery_protocol_element>
  <name>Port Description</name>
  <properties>
    <property>
      <name>port description</name>
      <value>Summit300-48-Port 1001</value>
    </property>
  </properties>
  <type>4</type>
</link_layer_discovery_protocol_element>
...
</link_layer_discovery_protocol_elements>
```

28.140.1.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.141. MACPOOL

Table 28.428. Methods summary

Name	Summary
get	
remove	Removes a MAC address pool.
update	Updates a MAC address pool.

28.141.1. get GET

Table 28.429. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
pool	MacPool	Out	

28.141.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.141.2. remove DELETE

Removes a MAC address pool.

For example, to remove the MAC address pool having id **123** send a request like this:

```
DELETE /ovirt-engine/api/macpools/123
```

Table 28.430. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.141.3. update PUT

Updates a MAC address pool.

The **name**, **description**, **allow_duplicates**, and **ranges** attributes can be updated.

For example, to update the MAC address pool of id **123** send a request like this:

```
PUT /ovirt-engine/api/macpools/123
```

With a request body like this:

```
<mac_pool>
  <name>UpdatedMACPool</name>
  <description>An updated MAC address pool</description>
  <allow_duplicates>false</allow_duplicates>
  <ranges>
    <range>
      <from>00:1A:4A:16:01:51</from>
      <to>00:1A:4A:16:01:e6</to>
    </range>
    <range>
      <from>02:1A:4A:01:00:00</from>
      <to>02:1A:4A:FF:FF:FF</to>
    </range>
  </ranges>
</mac_pool>
```

Table 28.431. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
pool	MacPool	In/Out	

28.142. MACPOOLS

Table 28.432. Methods summary

Name	Summary
add	Creates a new MAC address pool.
list	Return the list of MAC address pools of the system.

28.142.1. add POST

Creates a new MAC address pool.

Creation of a MAC address pool requires values for the **name** and **ranges** attributes.

For example, to create MAC address pool send a request like this:

POST /ovirt-engine/api/macpools

With a request body like this:

```
<mac_pool>
  <name>MACPool</name>
  <description>A MAC address pool</description>
  <allow_duplicates>true</allow_duplicates>
  <default_pool>>false</default_pool>
  <ranges>
    <range>
      <from>00:1A:4A:16:01:51</from>
      <to>00:1A:4A:16:01:e6</to>
    </range>
  </ranges>
</mac_pool>
```

Table 28.433. Parameters summary

Name	Type	Direction	Summary
pool	MacPool	In/Out	

28.142.2. list GET

Return the list of MAC address pools of the system.

The returned list of MAC address pools isn’t guaranteed.

Table 28.434. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of pools to return.
pools	MacPool[]	Out	

28.142.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.142.2.2. max

Sets the maximum number of pools to return. If not specified all the pools are returned.

28.143. MEASURABLE

28.144. MOVEABLE

Table 28.435. Methods summary

Name	Summary
move	

28.144.1. move POST

Table 28.436. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the move should be performed asynchronously.

28.145. NETWORK

A service managing a network

Table 28.437. Methods summary

Name	Summary
get	Gets a logical network.
remove	Removes a logical network, or the association of a logical network to a data center.
update	Updates a logical network.

28.145.1. get GET

Gets a logical network.

For example:

```
GET /ovirt-engine/api/networks/123
```

Will respond:

```
<network href="/ovirt-engine/api/networks/123" id="123">
  <name>ovirtmgmt</name>
  <description>Default Management Network</description>
  <link href="/ovirt-engine/api/networks/123/permissions" rel="permissions"/>
  <link href="/ovirt-engine/api/networks/123/vnicprofiles" rel="vnicprofiles"/>
  <link href="/ovirt-engine/api/networks/123/networklabels" rel="networklabels"/>
  <mtu>0</mtu>
  <stp>>false</stp>
```

```

<usages>
  <usage>vm</usage>
</usages>
<data_center href="/ovirt-engine/api/datacenters/456" id="456"/>
</network>

```

Table 28.438. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
network	Network	Out	

28.145.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.145.2. remove DELETE

Removes a logical network, or the association of a logical network to a data center.

For example, to remove the logical network **123** send a request like this:

```
DELETE /ovirt-engine/api/networks/123
```

Each network is bound exactly to one data center. So if we disassociate network with data center it has the same result as if we would just remove that network. However it might be more specific to say we're removing network **456** of data center **123**.

For example, to remove the association of network **456** to data center **123** send a request like this:

```
DELETE /ovirt-engine/api/datacenters/123/networks/456
```



NOTE

To remove an external logical network, the network has to be removed directly from its provider by [OpenStack Networking API](#). The entity representing the external network inside Red Hat Virtualization is removed automatically, if **auto_sync** is enabled for the provider, otherwise the entity has to be removed using this method.

Table 28.439. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.145.3. update PUT

Updates a logical network.

The **name**, **description**, **ip**, **vlan**, **stp** and **display** attributes can be updated.

For example, to update the description of the logical network **123** send a request like this:

```
PUT /ovirt-engine/api/networks/123
```

With a request body like this:

```
<network>
  <description>My updated description</description>
</network>
```

The maximum transmission unit of a network is set using a PUT request to specify the integer value of the **mtu** attribute.

For example, to set the maximum transmission unit send a request like this:

```
PUT /ovirt-engine/api/datacenters/123/networks/456
```

With a request body like this:

```
<network>
  <mtu>1500</mtu>
</network>
```



NOTE

Updating external networks is not propagated to the provider.

Table 28.440. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
network	Network	In/Out	

28.146. NETWORKATTACHMENT

Table 28.441. Methods summary

Name	Summary
get	
remove	

Name	Summary
update	Update the specified network attachment on the host.

28.146.1. get GET

Table 28.442. Parameters summary

Name	Type	Direction	Summary
attachment	NetworkAttachment	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.146.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.146.2. remove DELETE

Table 28.443. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.146.3. update PUT

Update the specified network attachment on the host.

Table 28.444. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
attachment	NetworkAttachment	In/Out	

28.147. NETWORKATTACHMENTS

Manages the set of network attachments of a host or host NIC.

Table 28.445. Methods summary

Name	Summary
add	Add a new network attachment to the network interface.
list	Returns the list of network attachments of the host or host NIC.

28.147.1. add POST

Add a new network attachment to the network interface.

Table 28.446. Parameters summary

Name	Type	Direction	Summary
attachment	NetworkAttachment	In/Out	

28.147.2. list GET

Returns the list of network attachments of the host or host NIC.

The order of the returned list of network attachments isn't guaranteed.

Table 28.447. Parameters summary

Name	Type	Direction	Summary
attachments	NetworkAttachments	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of attachments to return.

28.147.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.147.2.2. max

Sets the maximum number of attachments to return. If not specified all the attachments are returned.

28.148. NETWORKFILTER

Manages a network filter.

```
<network_filter id="00000019-0019-0019-0019-00000000026b">
  <name>example-network-filter-b</name>
  <version>
    <major>4</major>
    <minor>0</minor>
    <build>-1</build>
    <revision>-1</revision>
  </version>
</network_filter>
```

Please note that version is referring to the minimal support version for the specific filter.

Table 28.448. Methods summary

Name	Summary
get	Retrieves a representation of the network filter.

28.148.1. get GET

Retrieves a representation of the network filter.

Table 28.449. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
network_filter	NetworkFilter	Out	

28.148.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.149. NETWORKFILTERS

Represents a readonly network filters sub-collection.

The network filter enables to filter packets send to/from the VM's nic according to defined rules. For more information please refer to [NetworkFilter](#) service documentation

Network filters are supported in different versions, starting from version 3.0.

A network filter is defined for each vnic profile.

A vnic profile is defined for a specific network.

A network can be assigned to several different clusters. In the future, each network will be defined in cluster level.

Currently, each network is being defined at data center level. Potential network filters for each network are determined by the network's data center compatibility version V. V must be $\geq$ the network filter version in order to configure this network filter for a specific network. Please note, that if a network is assigned to cluster with a version supporting a network filter, the filter may not be available due to the data center version being smaller than the network filter's version.

Example of listing all of the supported network filters for a specific cluster:

```
GET http://localhost:8080/ovirt-engine/api/clusters/{cluster:id}/networkfilters
```

Output:

```
<network_filters>
  <network_filter id="00000019-0019-0019-0019-00000000026c">
    <name>example-network-filter-a</name>
    <version>
      <major>4</major>
      <minor>0</minor>
      <build>-1</build>
      <revision>-1</revision>
    </version>
  </network_filter>
  <network_filter id="00000019-0019-0019-0019-00000000026b">
    <name>example-network-filter-b</name>
    <version>
      <major>4</major>
      <minor>0</minor>
      <build>-1</build>
      <revision>-1</revision>
    </version>
  </network_filter>
  <network_filter id="00000019-0019-0019-0019-00000000026a">
    <name>example-network-filter-a</name>
    <version>
      <major>3</major>
      <minor>0</minor>
      <build>-1</build>
      <revision>-1</revision>
    </version>
  </network_filter>
</network_filters>
```

Table 28.450. Methods summary

Name	Summary
list	Retrieves the representations of the network filters.

28.149.1. list GET

Retrieves the representations of the network filters.

The order of the returned list of network filters isn't guaranteed.

Table 28.451. Parameters summary

Name	Type	Direction	Summary
filters	NetworkFilter[]	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.149.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.150. NETWORKLABEL

Table 28.452. Methods summary

Name	Summary
get	
remove	Removes a label from a logical network.

28.150.1. get GET

Table 28.453. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
label	NetworkLabel	Out	

28.150.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.150.2. remove DELETE

Removes a label from a logical network.

For example, to remove the label **exemplary** from a logical network having id **123** send the following request:

```
DELETE /ovirt-engine/api/networks/123/networklabels/exemplary
```

Table 28.454. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.151. NETWORKLABELS

Manages the set of labels attached to a network or to a host NIC.

Table 28.455. Methods summary

Name	Summary
add	Attaches label to logical network.
list	Returns the list of labels attached to the network or host NIC.

28.151.1. add POST

Attaches label to logical network.

You can attach labels to a logical network to automate the association of that logical network with physical host network interfaces to which the same label has been attached.

For example, to attach the label **mylabel** to a logical network having id **123** send a request like this:

```
POST /ovirt-engine/api/networks/123/networklabels
```

With a request body like this:

```
<network_label id="mylabel"/>
```

Table 28.456. Parameters summary

Name	Type	Direction	Summary
label	NetworkLabel	In/Out	

28.151.2. list GET

Returns the list of labels attached to the network or host NIC.

The order of the returned list of labels isn't guaranteed.

Table 28.457. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
labels	NetworkLabel[]	Out	
max	Integer	In	Sets the maximum number of labels to return.

28.151.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.151.2.2. max

Sets the maximum number of labels to return. If not specified all the labels are returned.

28.152. NETWORKS

Manages logical networks.

The engine creates a default **ovirtmgmt** network on installation. This network acts as the management network for access to hypervisor hosts. This network is associated with the **Default** cluster and is a member of the **Default** data center.

Table 28.458. Methods summary

Name	Summary
add	Creates a new logical network, or associates an existing network with a data center.
list	List logical networks.

28.152.1. add POST

Creates a new logical network, or associates an existing network with a data center.

Creation of a new network requires the **name** and **data_center** elements.

For example, to create a network named **mynetwork** for data center **123** send a request like this:

```
POST /ovirt-engine/api/networks
```

With a request body like this:

```
<network>
  <name>mynetwork</name>
  <data_center id="123"/>
</network>
```

To associate the existing network **456** with the data center **123** send a request like this:

```
POST /ovirt-engine/api/datacenters/123/networks
```

With a request body like this:

```
<network>
  <name>ovirtmgmt</name>
</network>
```

To create a network named **exnetwork** on top of an external *OpenStack* network provider **456** send a request like this:

```
POST /ovirt-engine/api/networks
```

```
<network>
  <name>exnetwork</name>
  <external_provider id="456"/>
  <data_center id="123"/>
</network>
```

Table 28.459. Parameters summary

Name	Type	Direction	Summary
network	Network	In/Out	

28.152.2. list GET

List logical networks.

For example:

```
GET /ovirt-engine/api/networks
```

Will respond:

```
<networks>
  <network href="/ovirt-engine/api/networks/123" id="123">
    <name>ovirtmgmt</name>
    <description>Default Management Network</description>
    <link href="/ovirt-engine/api/networks/123/permissions" rel="permissions"/>
    <link href="/ovirt-engine/api/networks/123/vnicprofiles" rel="vnicprofiles"/>
    <link href="/ovirt-engine/api/networks/123/networklabels" rel="networklabels"/>
    <mtu>0</mtu>
    <stp>false</stp>
    <usages>
      <usage>vm</usage>
    </usages>
    <data_center href="/ovirt-engine/api/datacenters/456" id="456"/>
  </network>
</networks>
```

```

</network>
...
</networks>

```

The order of the returned list of networks is guaranteed only if the **sortby** clause is included in the **search** parameter.

Table 28.460. Parameters summary

Name	Type	Direction	Summary
case_sensitive	Boolean	In	Indicates if the search performed using the search parameter should be performed taking case into account.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of networks to return.
networks	Network[]	Out	
search	String	In	A query string used to restrict the returned networks.

28.152.2.1. case_sensitive

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

28.152.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.152.2.3. max

Sets the maximum number of networks to return. If not specified all the networks are returned.

28.153. NICNETWORKFILTERPARAMETER

This service manages a parameter for a network filter.

Table 28.461. Methods summary

Name	Summary
get	Retrieves a representation of the network filter parameter.
remove	Removes the filter parameter.

Name	Summary
update	Updates the network filter parameter.

28.153.1. get GET

Retrieves a representation of the network filter parameter.

Table 28.462. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
parameter	NetworkFilterParameter	Out	The representation of the network filter parameter.

28.153.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.153.2. remove DELETE

Removes the filter parameter.

For example, to remove the filter parameter with id **123** on NIC **456** of virtual machine **789** send a request like this:

```
DELETE /ovirt-engine/api/vms/789/nics/456/networkfilterparameters/123
```

28.153.3. update PUT

Updates the network filter parameter.

For example, to update the network filter parameter having with with id **123** on NIC **456** of virtual machine **789** send a request like this:

```
PUT /ovirt-engine/api/vms/789/nics/456/networkfilterparameters/123
```

With a request body like this:

```
<network_filter_parameter>
  <name>updatedName</name>
  <value>updatedValue</value>
</network_filter_parameter>
```

Table 28.463. Parameters summary

Name	Type	Direction	Summary
parameter	NetworkFilterParameter	In/Out	The network filter parameter that is being updated.

28.154. NICNETWORKFILTERPARAMETERS

This service manages a collection of parameters for network filters.

Table 28.464. Methods summary

Name	Summary
add	Add a network filter parameter.
list	Retrieves the representations of the network filter parameters.

28.154.1. add POST

Add a network filter parameter.

For example, to add the parameter for the network filter on NIC **456** of virtual machine **789** send a request like this:

```
POST /ovirt-engine/api/vms/789/nics/456/networkfilterparameters
```

With a request body like this:

```
<network_filter_parameter>
  <name>IP</name>
  <value>10.0.1.2</value>
</network_filter_parameter>
```

Table 28.465. Parameters summary

Name	Type	Direction	Summary
parameter	NetworkFilterParameter	In/Out	The network filter parameter that is being added.

28.154.2. list GET

Retrieves the representations of the network filter parameters.

The order of the returned list of network filters isn't guaranteed.

Table 28.466. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
parameters	NetworkFilterParameter[]	Out	The list of the network filter parameters.

28.154.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.155. OPENSTACKIMAGE

Table 28.467. Methods summary

Name	Summary
get	
import	Imports a virtual machine from a Glance image storage domain.

28.155.1. get GET

Table 28.468. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
image	OpenStackImage	Out	

28.155.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.155.2. import POST

Imports a virtual machine from a Glance image storage domain.

For example, to import the image with identifier **456** from the storage domain with identifier **123** send a request like this:

```
POST /ovirt-engine/api/openstackimageproviders/123/images/456/import
```

With a request body like this:

```

<action>
  <storage_domain>
    <name>images0</name>
  </storage_domain>
  <cluster>
    <name>images0</name>
  </cluster>
</action>

```

Table 28.469. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the import should be performed asynchronously.
cluster	Cluster	In	This parameter is mandatory in case of using import_as_template and indicates which cluster should be used for import glance image as template.
disk	Disk	In	
import_as_template	Boolean	In	Indicates whether the image should be imported as a template.
storage_domain	StorageDomain	In	
template	Template	In	

28.156. OPENSTACKIMAGEPROVIDER

Table 28.470. Methods summary

Name	Summary
get	
importcertificates	Import the SSL certificates of the external host provider.
remove	
testconnectivity	In order to test connectivity for external provider we need to run following request where 123 is an id of a provider.
update	Update the specified OpenStack image provider in the system.

28.156.1. get GET

Table 28.471. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
provider	OpenStackImageProvider	Out	

28.156.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.156.2. importcertificates POST

Import the SSL certificates of the external host provider.

Table 28.472. Parameters summary

Name	Type	Direction	Summary
certificates	Certificate[]	In	

28.156.3. remove DELETE

Table 28.473. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.156.4. testconnectivity POST

In order to test connectivity for external provider we need to run following request where 123 is an id of a provider.

```
POST /ovirt-engine/api/externalhostproviders/123/testconnectivity
```

Table 28.474. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the test should be performed asynchronously.

28.156.5. update PUT

Update the specified OpenStack image provider in the system.

Table 28.475. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
provider	OpenStackImageProvider	In/Out	

28.157. OPENSTACKIMAGEPROVIDERS

Table 28.476. Methods summary

Name	Summary
add	Add a new OpenStack image provider to the system.
list	Returns the list of providers.

28.157.1. add POST

Add a new OpenStack image provider to the system.

Table 28.477. Parameters summary

Name	Type	Direction	Summary
provider	OpenStackImageProvider	In/Out	

28.157.2. list GET

Returns the list of providers.

The order of the returned list of providers isn't guaranteed.

Table 28.478. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
max	Integer	In	Sets the maximum number of providers to return.
providers	OpenStackImageProvider[]	Out	
search	String	In	A query string used to restrict the returned OpenStack image providers.

28.157.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.157.2.2. max

Sets the maximum number of providers to return. If not specified all the providers are returned.

28.158. OPENSTACKIMAGES

Table 28.479. Methods summary

Name	Summary
list	Lists the images of a Glance image storage domain.

28.158.1. list GET

Lists the images of a Glance image storage domain.

The order of the returned list of images isn't guaranteed.

Table 28.480. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
images	OpenStackImage[]	Out	
max	Integer	In	Sets the maximum number of images to return.

28.158.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.158.1.2. max

Sets the maximum number of images to return. If not specified all the images are returned.

28.159. OPENSTACKNETWORK

Table 28.481. Methods summary

Name	Summary
get	
import	This operation imports an external network into Red Hat Virtualization.

28.159.1. get GET

Table 28.482. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
network	OpenStackNetwork	Out	

28.159.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.159.2. import POST

This operation imports an external network into Red Hat Virtualization. The network will be added to the specified data center.

Table 28.483. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the import should be performed asynchronously.
data_center	DataCenter	In	The data center into which the network is to be imported.

28.159.2.1. data_center

The data center into which the network is to be imported. Data center is mandatory, and can be specified using the **id** or **name** attributes. The rest of the attributes will be ignored.

**NOTE**

If **auto_sync** is enabled for the provider, the network might be imported automatically. To prevent this, automatic import can be disabled by setting the **auto_sync** to false, and enabling it again after importing the network.

28.160. OPENSTACKNETWORKPROVIDER

This service manages the OpenStack network provider.

Table 28.484. Methods summary

Name	Summary
get	Returns the representation of the object managed by this service.
importcertificates	Import the SSL certificates of the external host provider.
remove	Removes the provider.
testconnectivity	In order to test connectivity for external provider we need to run following request where 123 is an id of a provider.
update	Updates the provider.

28.160.1. get GET

Returns the representation of the object managed by this service.

For example, to get the OpenStack network provider with identifier **1234**, send a request like this:

```
GET /ovirt-engine/api/openstacknetworkproviders/1234
```

Table 28.485. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
provider	OpenStackNetworkProvider	Out	

28.160.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.160.2. importcertificates POST

Import the SSL certificates of the external host provider.

Table 28.486. Parameters summary

Name	Type	Direction	Summary
certificates	Certificate[]	In	

28.160.3. remove DELETE

Removes the provider.

For example, to remove the OpenStack network provider with identifier **1234**, send a request like this:

```
DELETE /ovirt-engine/api/openstacknetworkproviders/1234
```

Table 28.487. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.160.4. testconnectivity POST

In order to test connectivity for external provider we need to run following request where 123 is an id of a provider.

```
POST /ovirt-engine/api/externalhostproviders/123/testconnectivity
```

Table 28.488. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the test should be performed asynchronously.

28.160.5. update PUT

Updates the provider.

For example, to update **provider_name**, **requires_authentication**, **url**, **tenant_name** and **type** properties, for the OpenStack network provider with identifier **1234**, send a request like this:

```
PUT /ovirt-engine/api/openstacknetworkproviders/1234
```

With a request body like this:

```
<openstack_network_provider>
<name>ovn-network-provider</name>
```



```

<requires_authentication>false</requires_authentication>
<url>http://some_server_url.domain.com:9696</url>
<tenant_name>oVirt</tenant_name>
<type>external</type>
</openstack_network_provider>

```

Table 28.489. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
provider	OpenStackNetworkProvider	In/Out	The provider to update.

28.161. OPENSTACKNETWORKPROVIDERS

This service manages OpenStack network providers.

Table 28.490. Methods summary

Name	Summary
add	The operation adds a new network provider to the system.
list	Returns the list of providers.

28.161.1. add POST

The operation adds a new network provider to the system. If the **type** property is not present, a default value of **NEUTRON** will be used.

Table 28.491. Parameters summary

Name	Type	Direction	Summary
provider	OpenStackNetworkProvider	In/Out	

28.161.2. list GET

Returns the list of providers.

The order of the returned list of providers isn't guaranteed.

Table 28.492. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of providers to return.
providers	OpenStackNetworkProvider[]	Out	
search	String	In	A query string used to restrict the returned OpenStack network providers.

28.161.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.161.2.2. max

Sets the maximum number of providers to return. If not specified all the providers are returned.

28.162. OPENSTACKNETWORKS

Table 28.493. Methods summary

Name	Summary
list	Returns the list of networks.

28.162.1. list GET

Returns the list of networks.

The order of the returned list of networks isn't guaranteed.

Table 28.494. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of networks to return.
networks	OpenStackNetwork[]	Out	

28.162.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.162.1.2. max

Sets the maximum number of networks to return. If not specified all the networks are returned.

28.163. OPENSTACKSUBNET

Table 28.495. Methods summary

Name	Summary
get	
remove	

28.163.1. get GET

Table 28.496. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
subnet	OpenStackSubnet	Out	

28.163.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.163.2. remove DELETE

Table 28.497. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.164. OPENSTACKSUBNETS

Table 28.498. Methods summary

Name	Summary
add	
list	Returns the list of sub-networks.

28.164.1. add POST

Table 28.499. Parameters summary

Name	Type	Direction	Summary
subnet	OpenStackS ubnet	In/Out	

28.164.2. list GET

Returns the list of sub-networks.

The order of the returned list of sub-networks isn't guaranteed.

Table 28.500. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of sub-networks to return.
subnets	OpenStackS ubnet[]	Out	

28.164.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.164.2.2. max

Sets the maximum number of sub-networks to return. If not specified all the sub-networks are returned.

28.165. OPENSTACKVOLUMEAUTHENTICATIONKEY

Openstack Volume (Cinder) integration has been replaced by Managed Block Storage.

Table 28.501. Methods summary

Name	Summary
get	
remove	
update	Update the specified authentication key.

28.165.1. get GET

Table 28.502. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
key	OpenstackVolumeAuthenticationKey	Out	

28.165.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.165.2. remove DELETE

Table 28.503. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.165.3. update PUT

Update the specified authentication key.

Table 28.504. Parameters summary

Name	Type	Direction	Summary
key	OpenstackVolumeAuthenticationKey	In/Out	

28.166. OPENSTACKVOLUMEAUTHENTICATIONKEYS

Openstack Volume (Cinder) integration has been replaced by Managed Block Storage.

Table 28.505. Methods summary

Name	Summary
add	Add a new authentication key to the OpenStack volume provider.
list	Returns the list of authentication keys.

28.166.1. add POST

Add a new authentication key to the OpenStack volume provider.

Table 28.506. Parameters summary

Name	Type	Direction	Summary
key	OpenstackVolumeAuthenticationKey	In/Out	

28.166.2. list GET

Returns the list of authentication keys.

The order of the returned list of authentication keys isn't guaranteed.

Table 28.507. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
keys	OpenstackVolumeAuthenticationKey[]	Out	
max	Integer	In	Sets the maximum number of keys to return.

28.166.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.166.2.2. max

Sets the maximum number of keys to return. If not specified all the keys are returned.

28.167. OPENSTACKVOLUMEPROVIDER

Openstack Volume (Cinder) integration has been replaced by Managed Block Storage.

Table 28.508. Methods summary

Name	Summary
get	
importcertificates	Import the SSL certificates of the external host provider.
remove	
testconnectivity	In order to test connectivity for external provider we need to run following request where 123 is an id of a provider.
update	Update the specified OpenStack volume provider in the system.

28.167.1. get GET

Table 28.509. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
provider	OpenStackVolumeProvider	Out	

28.167.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.167.2. importcertificates POST

Import the SSL certificates of the external host provider.

Table 28.510. Parameters summary

Name	Type	Direction	Summary
certificates	Certificate[]	In	

28.167.3. remove DELETE

Table 28.511. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.
force	Boolean	In	Indicates if the operation should succeed, and the provider removed from the database, even if something fails during the operation.

28.167.3.1. force

Indicates if the operation should succeed, and the provider removed from the database, even if something fails during the operation.

This parameter is optional, and the default value is **false**.

28.167.4. testconnectivity POST

In order to test connectivity for external provider we need to run following request where 123 is an id of a provider.

POST /ovirt-engine/api/externalhostproviders/123/testconnectivity

Table 28.512. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the test should be performed asynchronously.

28.167.5. update PUT

Update the specified OpenStack volume provider in the system.

Table 28.513. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
provider	OpenStackVolumeProvider	In/Out	

28.168. OPENSTACKVOLUMEPROVIDERS

Openstack Volume (Cinder) integration has been replaced by Managed Block Storage.

Table 28.514. Methods summary

Name	Summary
add	Adds a new volume provider.
list	Retrieves the list of volume providers.

28.168.1. add POST

Adds a new volume provider.

For example:

```
POST /ovirt-engine/api/openstackvolumeproviders
```

With a request body like this:

```
<openstack_volume_provider>
  <name>mycinder</name>
  <url>https://mycinder.example.com:8776</url>
  <data_center>
    <name>mydc</name>
  </data_center>
  <requires_authentication>true</requires_authentication>
  <username>admin</username>
  <password>mypassword</password>
  <tenant_name>mytenant</tenant_name>
</openstack_volume_provider>
```

Table 28.515. Parameters summary

Name	Type	Direction	Summary
provider	OpenStackV olumeProvid er	In/Out	

28.168.2. list GET

Retrieves the list of volume providers.

The order of the returned list of volume providers isn't guaranteed.

Table 28.516. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
max	Integer	In	Sets the maximum number of providers to return.
providers	OpenStackVolumeProvider[]	Out	
search	String	In	A query string used to restrict the returned volume providers.

28.168.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.168.2.2. max

Sets the maximum number of providers to return. If not specified all the providers are returned.

28.169. OPENSTACKVOLUMETYPE

Openstack Volume (Cinder) integration has been replaced by Managed Block Storage.

Table 28.517. Methods summary

Name	Summary
get	

28.169.1. get GET

Table 28.518. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
type	OpenStackVolumeType	Out	

28.169.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.170. OPENSTACKVOLUMETYPES

Openstack Volume (Cinder) integration has been replaced by Managed Block Storage.

Table 28.519. Methods summary

Name	Summary
list	Returns the list of volume types.

28.170.1. list GET

Returns the list of volume types.

The order of the returned list of volume types isn't guaranteed.

Table 28.520. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of volume types to return.
types	OpenStackVolumeType[]	Out	

28.170.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.170.1.2. max

Sets the maximum number of volume types to return. If not specified all the volume types are returned.

28.171. OPERATINGSYSTEM

Table 28.521. Methods summary

Name	Summary
get	

28.171.1. get GET

Table 28.522. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
operating_system	OperatingSystemInfo	Out	

28.171.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.172. OPERATINGSYSTEMS

Manages the set of types of operating systems available in the system.

Table 28.523. Methods summary

Name	Summary
list	Returns the list of types of operating system available in the system.

28.172.1. list GET

Returns the list of types of operating system available in the system.

The order of the returned list of operating systems isn't guaranteed.

Table 28.524. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of networks to return.
operating_system	OperatingSystemInfo[]	Out	

28.172.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.172.1.2. max

Sets the maximum number of networks to return. If not specified all the networks are returned.

28.173. PERMISSION

Table 28.525. Methods summary

Name	Summary
get	
remove	

28.173.1. get GET

Table 28.526. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
permission	Permission	Out	

28.173.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.173.2. remove DELETE

Table 28.527. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.174. PERMIT

A service to manage a specific permit of the role.

Table 28.528. Methods summary

Name	Summary
get	Gets the information about the permit of the role.
remove	Removes the permit from the role.

28.174.1. get GET

Gets the information about the permit of the role.

For example to retrieve the information about the permit with the id **456** of the role with the id **123** send a request like this:

GET /ovirt-engine/api/roles/123/permits/456

```
<permit href="/ovirt-engine/api/roles/123/permits/456" id="456">
  <name>change_vm_cd</name>
  <administrative>false</administrative>
  <role href="/ovirt-engine/api/roles/123" id="123"/>
</permit>
```

Table 28.529. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
permit	Permit	Out	The permit of the role.

28.174.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.174.2. remove DELETE

Removes the permit from the role.

For example to remove the permit with id **456** from the role with id **123** send a request like this:

DELETE /ovirt-engine/api/roles/123/permits/456

Table 28.530. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.175. PERMITS

Represents a permits sub-collection of the specific role.

Table 28.531. Methods summary

Name	Summary
add	Adds a permit to the role.
list	List the permits of the role.

28.175.1. add POST

Adds a permit to the role. The permit name can be retrieved from the [cluster_levels](#) service.

For example to assign a permit **create_vm** to the role with id **123** send a request like this:

```
POST /ovirt-engine/api/roles/123/permits
```

With a request body like this:

```
<permit>
  <name>create_vm</name>
</permit>
```

Table 28.532. Parameters summary

Name	Type	Direction	Summary
permit	Permit	In/Out	The permit to add.

28.175.2. list GET

List the permits of the role.

For example to list the permits of the role with the id **123** send a request like this:

```
GET /ovirt-engine/api/roles/123/permits
```

```
<permits>
  <permit href="/ovirt-engine/api/roles/123/permits/5" id="5">
    <name>change_vm_cd</name>
    <administrative>false</administrative>
    <role href="/ovirt-engine/api/roles/123" id="123"/>
  </permit>
  <permit href="/ovirt-engine/api/roles/123/permits/7" id="7">
    <name>connect_to_vm</name>
    <administrative>false</administrative>
    <role href="/ovirt-engine/api/roles/123" id="123"/>
  </permit>
</permits>
```

The order of the returned list of permits isn't guaranteed.

Table 28.533. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of permits to return.

Name	Type	Direction	Summary
permits	Permit[]	Out	List of permits.

28.175.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.175.2.2. max

Sets the maximum number of permits to return. If not specified all the permits are returned.

28.176. QOS

Table 28.534. Methods summary

Name	Summary
get	Get specified QoS in the data center.
remove	Remove specified QoS from datacenter.
update	Update the specified QoS in the dataCenter.

28.176.1. get GET

Get specified QoS in the data center.

```
GET /ovirt-engine/api/datacenters/123/qoss/123
```

You will get response like this one below:

```
<qos href="/ovirt-engine/api/datacenters/123/qoss/123" id="123">
  <name>123</name>
  <description>123</description>
  <max_iops>1</max_iops>
  <max_throughput>1</max_throughput>
  <type>storage</type>
  <data_center href="/ovirt-engine/api/datacenters/123" id="123"/>
</qos>
```

Table 28.535. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
qos	Qos	Out	Queried QoS object.

28.176.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.176.2. remove DELETE

Remove specified QoS from datacenter.

```
DELETE /ovirt-engine/api/datacenters/123/qoss/123
```

Table 28.536. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.176.3. update PUT

Update the specified QoS in the dataCenter.

```
PUT /ovirt-engine/api/datacenters/123/qoss/123
```

For example with curl:

```
curl -u admin@internal:123456 -X PUT -H "content-type: application/xml" -d \
"<qos><name>321</name><description>321</description><max_iops>10</max_iops></qos>" \
https://engine/ovirt-engine/api/datacenters/123/qoss/123
```

You will receive response like this:

```
<qos href="/ovirt-engine/api/datacenters/123/qoss/123" id="123">
  <name>321</name>
  <description>321</description>
  <max_iops>10</max_iops>
  <max_throughput>1</max_throughput>
  <type>storage</type>
  <data_center href="/ovirt-engine/api/datacenters/123" id="123"/>
</qos>
```

Table 28.537. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
qos	Qos	In/Out	Updated QoS object.

28.177. QOSS

Manages the set of *quality of service* configurations available in a data center.

Table 28.538. Methods summary

Name	Summary
add	Add a new QoS to the dataCenter.
list	Returns the list of <i>quality of service</i> configurations available in the data center.

28.177.1. add POST

Add a new QoS to the dataCenter.

POST /ovirt-engine/api/datacenters/123/qoss

The response will look as follows:

```
<qos href="/ovirt-engine/api/datacenters/123/qoss/123" id="123">
  <name>123</name>
  <description>123</description>
  <max_iops>10</max_iops>
  <type>storage</type>
  <data_center href="/ovirt-engine/api/datacenters/123" id="123"/>
</qos>
```

Table 28.539. Parameters summary

Name	Type	Direction	Summary
qos	Qos	In/Out	Added QoS object.

28.177.2. list GET

Returns the list of *quality of service* configurations available in the data center.

GET /ovirt-engine/api/datacenter/123/qoss

You will get response which will look like this:

-

```

<qoss>
  <qos href="/ovirt-engine/api/datacenters/123/qoss/1" id="1">...</qos>
  <qos href="/ovirt-engine/api/datacenters/123/qoss/2" id="2">...</qos>
  <qos href="/ovirt-engine/api/datacenters/123/qoss/3" id="3">...</qos>
</qoss>

```

The returned list of quality of service configurations isn't guaranteed.

Table 28.540. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of QoS descriptors to return.
qoss	Qos[]	Out	List of queried QoS objects.

28.177.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.177.2.2. max

Sets the maximum number of QoS descriptors to return. If not specified all the descriptors are returned.

28.178. QUOTA

Table 28.541. Methods summary

Name	Summary
get	Retrieves a quota.
remove	Delete a quota.
update	Updates a quota.

28.178.1. get GET

Retrieves a quota.

An example of retrieving a quota:

```
GET /ovirt-engine/api/datacenters/123/quotas/456
```

```

<quota id="456">
  <name>myquota</name>

```

```
<description>My new quota for virtual machines</description>
<cluster_hard_limit_pct>20</cluster_hard_limit_pct>
<cluster_soft_limit_pct>80</cluster_soft_limit_pct>
<storage_hard_limit_pct>20</storage_hard_limit_pct>
<storage_soft_limit_pct>80</storage_soft_limit_pct>
</quota>
```

Table 28.542. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
quota	Quota	Out	

28.178.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.178.2. remove DELETE

Delete a quota.

An example of deleting a quota:

```
DELETE /ovirt-engine/api/datacenters/123-456/quotas/654-321
-0472718ab224 HTTP/1.1
Accept: application/xml
Content-type: application/xml
```

Table 28.543. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.178.3. update PUT

Updates a quota.

An example of updating a quota:

```
PUT /ovirt-engine/api/datacenters/123/quotas/456
```

```
<quota>
<cluster_hard_limit_pct>30</cluster_hard_limit_pct>
<cluster_soft_limit_pct>70</cluster_soft_limit_pct>
```

```
<storage_hard_limit_pct>20</storage_hard_limit_pct>
<storage_soft_limit_pct>80</storage_soft_limit_pct>
</quota>
```

Table 28.544. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
quota	Quota	In/Out	

28.179. QUOTACLUSTERLIMIT

Table 28.545. Methods summary

Name	Summary
get	
remove	

28.179.1. get GET

Table 28.546. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
limit	QuotaClusterLimit	Out	

28.179.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.179.2. remove DELETE

Table 28.547. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.180. QUOTACLUSTERLIMITS

Manages the set of quota limits configured for a cluster.

Table 28.548. Methods summary

Name	Summary
add	Add a cluster limit to a specified Quota.
list	Returns the set of quota limits configured for the cluster.

28.180.1. add POST

Add a cluster limit to a specified Quota.

Table 28.549. Parameters summary

Name	Type	Direction	Summary
limit	QuotaClusterLimit	In/Out	

28.180.2. list GET

Returns the set of quota limits configured for the cluster.

The returned list of quota limits isn't guaranteed.

Table 28.550. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
limits	QuotaClusterLimit[]	Out	
max	Integer	In	Sets the maximum number of limits to return.

28.180.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.180.2.2. max

Sets the maximum number of limits to return. If not specified all the limits are returned.

28.181. QUOTASTORAGELIMIT

Table 28.551. Methods summary

Name	Summary
get	
remove	

28.181.1. get GET

Table 28.552. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
limit	QuotaStorageLimit	Out	

28.181.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.181.2. remove DELETE

Table 28.553. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.

28.182. QUOTASTORAGELIMITS

Manages the set of storage limits configured for a quota.

Table 28.554. Methods summary

Name	Summary
add	Adds a storage limit to a specified quota.
list	Returns the list of storage limits configured for the quota.

28.182.1. add POST

Adds a storage limit to a specified quota.

To create a 100GiB storage limit for all storage domains in a data center, send a request like this:

```
POST /ovirt-engine/api/datacenters/123/quotas/456/quotastoragelimits
```

With a request body like this:

```
<quota_storage_limit>
  <limit>100</limit>
</quota_storage_limit>
```

To create a 50GiB storage limit for a storage domain with the ID **000**, send a request like this:

```
POST /ovirt-engine/api/datacenters/123/quotas/456/quotastoragelimits
```

With a request body like this:

```
<quota_storage_limit>
  <limit>50</limit>
  <storage_domain id="000"/>
</quota_storage_limit>
```

Table 28.555. Parameters summary

Name	Type	Direction	Summary
limit	QuotaStorageLimit	In/Out	

28.182.2. list GET

Returns the list of storage limits configured for the quota.

The order of the returned list of storage limits is not guaranteed.

Table 28.556. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
limits	QuotaStorageLimit[]	Out	
max	Integer	In	Sets the maximum number of limits to return.

28.182.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.182.2.2. max

Sets the maximum number of limits to return. If not specified, all the limits are returned.

28.183. QUOTAS

Manages the set of quotas configured for a data center.

Table 28.557. Methods summary

Name	Summary
add	Creates a new quota.
list	Lists quotas of a data center.

28.183.1. add POST

Creates a new quota.

An example of creating a new quota:

```
POST /ovirt-engine/api/datacenters/123/quotas
```

```
<quota>
  <name>myquota</name>
  <description>My new quota for virtual machines</description>
</quota>
```

Table 28.558. Parameters summary

Name	Type	Direction	Summary
quota	Quota	In/Out	

28.183.2. list GET

Lists quotas of a data center.

The order of the returned list of quotas isn't guaranteed.

Table 28.559. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
max	Integer	In	Sets the maximum number of quota descriptors to return.
quotas	Quota[]	Out	

28.183.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.183.2.2. max

Sets the maximum number of quota descriptors to return. If not specified all the descriptors are returned.

28.184. ROLE

Table 28.560. Methods summary

Name	Summary
get	Get the role.
remove	Removes the role.
update	Updates a role.

28.184.1. get GET

Get the role.

```
GET /ovirt-engine/api/roles/123
```

You will receive XML response like this one:

```
<role id="123">
  <name>MyRole</name>
  <description>MyRole description</description>
  <link href="/ovirt-engine/api/roles/123/permits" rel="permits"/>
  <administrative>true</administrative>
  <mutable>false</mutable>
</role>
```

Table 28.561. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
role	Role	Out	Retrieved role.

28.184.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.184.2. remove DELETE

Removes the role.

To remove the role you need to know its id, then send request like this:

```
DELETE /ovirt-engine/api/roles/{role_id}
```

Table 28.562. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.184.3. update PUT

Updates a role. You are allowed to update **name**, **description** and **administrative** attributes after role is created. Within this endpoint you can't add or remove roles permits you need to use [service](#) that manages permits of role.

For example to update role's **name**, **description** and **administrative** attributes send a request like this:

```
PUT /ovirt-engine/api/roles/123
```

With a request body like this:

```
<role>
  <name>MyNewRoleName</name>
  <description>My new description of the role</description>
  <administrative>true</administrative>
</group>
```

Table 28.563. Parameters summary

Name	Type	Direction	Summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
role	Role	In/Out	Updated role.

28.185. ROLES

Provides read-only access to the global set of roles

Table 28.564. Methods summary

Name	Summary
add	Create a new role.
list	List roles.

28.185.1. add POST

Create a new role. The role can be administrative or non-administrative and can have different permits.

For example, to add the **MyRole** non-administrative role with permits to login and create virtual machines send a request like this (note that you have to pass permit id):

```
POST /ovirt-engine/api/roles
```

With a request body like this:

```
<role>
  <name>MyRole</name>
  <description>My custom role to create virtual machines</description>
  <administrative>>false</administrative>
  <permits>
    <permit id="1"/>
    <permit id="1300"/>
  </permits>
</group>
```

Table 28.565. Parameters summary

Name	Type	Direction	Summary
role	Role	In/Out	Role that will be added.

28.185.2. list GET

List roles.

GET /ovirt-engine/api/roles

You will receive response in XML like this one:

```
<roles>
  <role id="123">
    <name>SuperUser</name>
    <description>Roles management administrator</description>
    <link href="/ovirt-engine/api/roles/123/permits" rel="permits"/>
    <administrative>true</administrative>
    <mutable>false</mutable>
  </role>
  ...
</roles>
```

The order of the returned list of roles isn't guaranteed.

Table 28.566. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of roles to return.
roles	Role[]	Out	Retrieved list of roles.

28.185.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.185.2.2. max

Sets the maximum number of roles to return. If not specified all the roles are returned.

28.186. SCHEDULINGPOLICIES

Manages the set of scheduling policies available in the system.

Table 28.567. Methods summary

Name	Summary
add	Add a new scheduling policy to the system.
list	Returns the list of scheduling policies available in the system.

28.186.1. add POST

Add a new scheduling policy to the system.

Table 28.568. Parameters summary

Name	Type	Direction	Summary
policy	SchedulingPolicy	In/Out	

28.186.2. list GET

Returns the list of scheduling policies available in the system.

The order of the returned list of scheduling policies isn't guaranteed.

Table 28.569. Parameters summary

Name	Type	Direction	Summary
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of policies to return.
policies	SchedulingPolicy[]	Out	

28.186.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.186.2.2. max

Sets the maximum number of policies to return. If not specified all the policies are returned.

28.187. SCHEDULINGPOLICY

Table 28.570. Methods summary

Name	Summary
get	
remove	
update	Update the specified user defined scheduling policy in the system.

28.187.1. get GET

Table 28.571. Parameters summary

Name	Type	Direction	Summary
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
follow	String	In	Indicates which inner links should be <i>followed</i> .
policy	SchedulingPolicy	Out	

28.187.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.187.2. remove DELETE

Table 28.572. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.187.3. update PUT

Update the specified user defined scheduling policy in the system.

Table 28.573. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
policy	SchedulingPolicy	In/Out	

28.188. SCHEDULINGPOLICYUNIT

Table 28.574. Methods summary

Name	Summary
get	
remove	

28.188.1. get GET

Table 28.575. Parameters summary

Name	Type	Direction	Summary
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
follow	String	In	Indicates which inner links should be <i>followed</i> .
unit	SchedulingPolicyUnit	Out	

28.188.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.188.2. remove DELETE

Table 28.576. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.189. SCHEDULINGPOLICYUNITS

Manages the set of scheduling policy units available in the system.

Table 28.577. Methods summary

Name	Summary
list	Returns the list of scheduling policy units available in the system.

28.189.1. list GET

Returns the list of scheduling policy units available in the system.

The order of the returned list of scheduling policy units isn't guaranteed.

Table 28.578. Parameters summary

Name	Type	Direction	Summary
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of policy units to return.
units	SchedulingPolicyUnit[]	Out	

28.189.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.189.1.2. max

Sets the maximum number of policy units to return. If not specified all the policy units are returned.

28.190. SNAPSHOT

Table 28.579. Methods summary

Name	Summary
get	
remove	
restore	Restores a virtual machine snapshot.

28.190.1. get GET

Table 28.580. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
snapshot	Snapshot	Out	

28.190.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.190.2. remove DELETE

Table 28.581. Parameters summary

Name	Type	Direction	Summary
all_content	Boolean	In	Indicates if all the attributes of the virtual machine snapshot should be included in the response.
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.190.2.1. all_content

Indicates if all the attributes of the virtual machine snapshot should be included in the response.

By default the attribute **initialization.configuration.data** is excluded.

For example, to retrieve the complete representation of the snapshot with id **456** of the virtual machine with id **123** send a request like this:

```
GET /ovirt-engine/api/vms/123/snapshots/456?all_content=true
```

28.190.3. restore POST

Restores a virtual machine snapshot.

For example, to restore the snapshot with identifier **456** of virtual machine with identifier **123** send a request like this:

```
POST /ovirt-engine/api/vms/123/snapshots/456/restore
```

With an empty **action** in the body:

```
<action/>
```



NOTE

Confirm that the commit operation is finished and the virtual machine is down before running the virtual machine.

Table 28.582. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the restore should be performed asynchronously.

Name	Type	Direction	Summary
disks	Disk[]	In	Specify the disks included in the snapshot's restore.
restore_memory	Boolean	In	

28.190.3.1. disks

Specify the disks included in the snapshot's restore.

For each disk parameter, it is also required to specify its **image_id**.

For example, to restore a snapshot with an identifier **456** of a virtual machine with identifier **123**, including a disk with identifier **111** and **image_id** of **222**, send a request like this:

```
POST /ovirt-engine/api/vms/123/snapshots/456/restore
```

Request body:

```
<action>
<disks>
  <disk id="111">
    <image_id>222</image_id>
  </disk>
</disks>
</action>
```

28.191. SNAPSHOTCDROM

Table 28.583. Methods summary

Name	Summary
get	

28.191.1. get GET

Table 28.584. Parameters summary

Name	Type	Direction	Summary
cdrom	Cdrom	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.191.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.192. SNAPSHOTCDROMS

Manages the set of CD-ROM devices of a virtual machine snapshot.

Table 28.585. Methods summary

Name	Summary
list	Returns the list of CD-ROM devices of the snapshot.

28.192.1. list GET

Returns the list of CD-ROM devices of the snapshot.

The order of the returned list of CD-ROM devices isn't guaranteed.

Table 28.586. Parameters summary

Name	Type	Direction	Summary
cdroms	Cdrom[]	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of CDROMS to return.

28.192.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.192.1.2. max

Sets the maximum number of CDROMS to return. If not specified all the CDROMS are returned.

28.193. SNAPSHOTDISK

Table 28.587. Methods summary

Name	Summary
get	

28.193.1. get GET

Table 28.588. Parameters summary

Name	Type	Direction	Summary
disk	Disk	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.193.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.194. SNAPSHOTDISKS

Manages the set of disks of an snapshot.

Table 28.589. Methods summary

Name	Summary
list	Returns the list of disks of the snapshot.

28.194.1. list GET

Returns the list of disks of the snapshot.

The order of the returned list of disks isn't guaranteed.

Table 28.590. Parameters summary

Name	Type	Direction	Summary
disks	Disk[]	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of disks to return.

28.194.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.194.1.2. max

Sets the maximum number of disks to return. If not specified all the disks are returned.

28.195. SNAPSHOTNIC

Table 28.591. Methods summary

Name	Summary
get	

28.195.1. get GET

Table 28.592. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
nic	Nic	Out	

28.195.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.196. SNAPSHOTNICS

Manages the set of NICs of an snapshot.

Table 28.593. Methods summary

Name	Summary
list	Returns the list of NICs of the snapshot.

28.196.1. list GET

Returns the list of NICs of the snapshot.

The order of the returned list of NICs isn't guaranteed.

Table 28.594. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of NICs to return.
nics	Nic[]	Out	

28.196.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.196.1.2. max

Sets the maximum number of NICs to return. If not specified all the NICs are returned.

28.197. SNAPSHOTS

Manages the set of snapshots of a storage domain or virtual machine.

Table 28.595. Methods summary

Name	Summary
add	Creates a virtual machine snapshot.
list	Returns the list of snapshots of the storage domain or virtual machine.

28.197.1. add POST

Creates a virtual machine snapshot.

For example, to create a new snapshot for virtual machine **123** send a request like this:

```
POST /ovirt-engine/api/vms/123/snapshots
```

With a request body like this:

```
<snapshot>
  <description>My snapshot</description>
</snapshot>
```

For including only a sub-set of disks in the snapshots, add **disk_attachments** element to the request body. Note that disks which are not specified in **disk_attachments** element will not be a part of the snapshot. If an empty **disk_attachments** element is passed, the snapshot will include only the virtual machine configuration. If no **disk_attachments** element is passed, then all the disks will be included in the snapshot.

For each disk, **image_id** element can be specified for setting the new active image id. This is used in order to restore a chain of images from backup. I.e. when restoring a disk with snapshots, the relevant **image_id** should be specified for each snapshot (so the identifiers of the disk snapshots are identical to the backup).

```
<snapshot>
  <description>My snapshot</description>
  <disk_attachments>
    <disk_attachment>
      <disk id="123">
        <image_id>456</image_id>
      </disk>
    </disk_attachment>
  </disk_attachments>
</snapshot>
```

```
</disk_attachment>
</disk_attachments>
</snapshot>
```



IMPORTANT

When a snapshot is created, the default value for the `persist_memorystate` attribute is **true**. That means that the content of the memory of the virtual machine will be included in the snapshot, and it also means that the virtual machine will be paused for a longer time. That can negatively affect applications that are very sensitive to timing (NTP servers, for example). In those cases make sure that you set the attribute to **false**:

```
<snapshot>
  <description>My snapshot</description>
  <persist_memorystate>>false</persist_memorystate>
</snapshot>
```

Table 28.596. Parameters summary

Name	Type	Direction	Summary
snapshot	Snapshot	In/Out	

28.197.2. list GET

Returns the list of snapshots of the storage domain or virtual machine.

The order of the returned list of snapshots isn't guaranteed.

Table 28.597. Parameters summary

Name	Type	Direction	Summary
all_content	Boolean	In	Indicates if all the attributes of the virtual machine snapshot should be included in the response.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of snapshots to return.
snapshots	Snapshot[]	Out	

28.197.2.1. all_content

Indicates if all the attributes of the virtual machine snapshot should be included in the response.

By default the attribute **initialization.configuration.data** is excluded.

For example, to retrieve the complete representation of the virtual machine with id **123** snapshots send a request like this:

GET /ovirt-engine/api/vms/123/snapshots?all_content=true

28.197.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.197.2.3. max

Sets the maximum number of snapshots to return. If not specified all the snapshots are returned.

28.198. SSHPUBLICKEY

Table 28.598. Methods summary

Name	Summary
get	
remove	
update	Replaces the key with a new resource.

28.198.1. get GET

Table 28.599. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
key	SshPublicKey	Out	

28.198.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.198.2. remove DELETE

Table 28.600. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.198.3. update PUT

Replaces the key with a new resource.



IMPORTANT

Since version 4.4.8 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. Instead please use DELETE followed by [add operation](#).

Table 28.601. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
key	SshPublicKey	In/Out	

28.199. SSHPUBLICKEYS

Table 28.602. Methods summary

Name	Summary
add	
list	Returns a list of SSH public keys of the user.

28.199.1. add POST

Table 28.603. Parameters summary

Name	Type	Direction	Summary
key	SshPublicKey	In/Out	

28.199.2. list GET

Returns a list of SSH public keys of the user.

For example, to retrieve the list of SSH keys of user with identifier **123**, send a request like this:

```
GET /ovirt-engine/api/users/123/sshpublickeys
```

The result will be the following XML document:

```

<ssh_public_keys>
  <ssh_public_key href="/ovirt-engine/api/users/123/sshpublickeys/456" id="456">
    <content>ssh-rsa ...</content>
    <user href="/ovirt-engine/api/users/123" id="123"/>
  </ssh_public_key>
</ssh_public_keys>

```

Or the following JSON object

```

{
  "ssh_public_key": [
    {
      "content": "ssh-rsa ...",
      "user": {
        "href": "/ovirt-engine/api/users/123",
        "id": "123"
      },
      "href": "/ovirt-engine/api/users/123/sshpublickeys/456",
      "id": "456"
    }
  ]
}

```

The order of the returned list of keys is not guaranteed.

Table 28.604. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
keys	SshPublicKey[]	Out	
max	Integer	In	Sets the maximum number of keys to return.

28.199.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.199.2.2. max

Sets the maximum number of keys to return. If not specified all the keys are returned.

28.200. STATISTIC

Table 28.605. Methods summary

Name	Summary
get	

28.200.1. get GET

Table 28.606. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
statistic	Statistic	Out	

28.200.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.201. STATISTICS

Table 28.607. Methods summary

Name	Summary
list	Retrieves a list of statistics.

28.201.1. list GET

Retrieves a list of statistics.

For example, to retrieve the statistics for virtual machine **123** send a request like this:

```
GET /ovirt-engine/api/vms/123/statistics
```

The result will be like this:

```
<statistics>
  <statistic href="/ovirt-engine/api/vms/123/statistics/456" id="456">
    <name>memory.installed</name>
    <description>Total memory configured</description>
    <kind>gauge</kind>
    <type>integer</type>
    <unit>bytes</unit>
    <values>
      <value>
        <datum>1073741824</datum>
      </value>
    </values>
```

```

    <vm href="/ovirt-engine/api/vms/123" id="123"/>
  </statistic>
  ...
</statistics>

```

Just a single part of the statistics can be retrieved by specifying its id at the end of the URI. That means:

```
GET /ovirt-engine/api/vms/123/statistics/456
```

Outputs:

```

<statistic href="/ovirt-engine/api/vms/123/statistics/456" id="456">
  <name>memory.installed</name>
  <description>Total memory configured</description>
  <kind>gauge</kind>
  <type>integer</type>
  <unit>bytes</unit>
  <values>
    <value>
      <datum>1073741824</datum>
    </value>
  </values>
  <vm href="/ovirt-engine/api/vms/123" id="123"/>
</statistic>

```

The order of the returned list of statistics isn't guaranteed.

Table 28.608. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of statistics to return.
statistics	Statistic[]	Out	

28.201.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.201.1.2. max

Sets the maximum number of statistics to return. If not specified all the statistics are returned.

28.202. STEP

A service to manage a step.

Table 28.609. Methods summary

Name	Summary
end	Marks an external step execution as ended.
get	Retrieves a step.

28.202.1. end POST

Marks an external step execution as ended.

For example, to terminate a step with identifier **456** which belongs to a **job** with identifier **123** send the following request:

```
POST /ovirt-engine/api/jobs/123/steps/456/end
```

With the following request body:

```
<action>
  <force>true</force>
  <succeeded>true</succeeded>
</action>
```

Table 28.610. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the action should be performed asynchronously.
force	Boolean	In	Indicates if the step should be forcibly terminated.
succeeded	Boolean	In	Indicates if the step should be marked as successfully finished or as failed.

28.202.1.1. succeeded

Indicates if the step should be marked as successfully finished or as failed.

This parameter is optional, and the default value is **true**.

28.202.2. get GET

Retrieves a step.

```
GET /ovirt-engine/api/jobs/123/steps/456
```

You will receive response in XML like this one:

```
<step href="/ovirt-engine/api/jobs/123/steps/456" id="456">
  <actions>
```

```

    <link href="/ovirt-engine/api/jobs/123/steps/456/end" rel="end"/>
  </actions>
  <description>Validating</description>
  <end_time>2016-12-12T23:07:26.627+02:00</end_time>
  <external>false</external>
  <number>0</number>
  <start_time>2016-12-12T23:07:26.605+02:00</start_time>
  <status>finished</status>
  <type>validating</type>
  <job href="/ovirt-engine/api/jobs/123" id="123"/>
</step>

```

Table 28.611. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
step	Step	Out	Retrieves the representation of the step.

28.202.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.203. STEPS

A service to manage steps.

Table 28.612. Methods summary

Name	Summary
add	Add an external step to an existing job or to an existing step.
list	Retrieves the representation of the steps.

28.203.1. add POST

Add an external step to an existing job or to an existing step.

For example, to add a step to **job** with identifier **123** send the following request:

```
POST /ovirt-engine/api/jobs/123/steps
```

With the following request body:

```

<step>
  <description>Validating</description>
  <start_time>2016-12-12T23:07:26.605+02:00</start_time>

```

```
<status>started</status>
<type>validating</type>
</step>
```

The response should look like:

```
<step href="/ovirt-engine/api/jobs/123/steps/456" id="456">
  <actions>
    <link href="/ovirt-engine/api/jobs/123/steps/456/end" rel="end"/>
  </actions>
  <description>Validating</description>
  <link href="/ovirt-engine/api/jobs/123/steps/456/statistics" rel="statistics"/>
  <external>true</external>
  <number>2</number>
  <start_time>2016-12-13T01:06:15.380+02:00</start_time>
  <status>started</status>
  <type>validating</type>
  <job href="/ovirt-engine/api/jobs/123" id="123"/>
</step>
```

Table 28.613. Parameters summary

Name	Type	Direction	Summary
step	Step	In/Out	Step that will be added.

28.203.2. list GET

Retrieves the representation of the steps.

GET /ovirt-engine/api/job/123/steps

You will receive response in XML like this one:

```
<steps>
  <step href="/ovirt-engine/api/jobs/123/steps/456" id="456">
    <actions>
      <link href="/ovirt-engine/api/jobs/123/steps/456/end" rel="end"/>
    </actions>
    <description>Validating</description>
    <link href="/ovirt-engine/api/jobs/123/steps/456/statistics" rel="statistics"/>
    <external>true</external>
    <number>2</number>
    <start_time>2016-12-13T01:06:15.380+02:00</start_time>
    <status>started</status>
    <type>validating</type>
    <job href="/ovirt-engine/api/jobs/123" id="123"/>
  </step>
  ...
</steps>
```

The order of the returned list of steps isn't guaranteed.

Table 28.614. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of steps to return.
steps	Step[]	Out	A representation of steps.

28.203.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.203.2.2. max

Sets the maximum number of steps to return. If not specified all the steps are returned.

28.204. STORAGE

Table 28.615. Methods summary

Name	Summary
get	

28.204.1. get GET

Table 28.616. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
report_status	Boolean	In	Indicates if the status of the LUNs in the storage should be checked.
storage	HostStorage	Out	

28.204.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.204.1.2. report_status

Indicates if the status of the LUNs in the storage should be checked. Checking the status of the LUN is an heavy weight operation and this data is not always needed by the user. This parameter will give the option to not perform the status check of the LUNs.

The default is **true** for backward compatibility.

Here an example with the LUN status :

```
<host_storage id="360014051136c20574f743bdbd28177fd">
  <logical_units>
    <logical_unit id="360014051136c20574f743bdbd28177fd">
      <lun_mapping>0</lun_mapping>
      <paths>1</paths>
      <product_id>lun0</product_id>
      <serial>SLIO-ORG_lun0_1136c205-74f7-43bd-bd28-177fd5ce6993</serial>
      <size>10737418240</size>
      <status>used</status>
      <vendor_id>LIO-ORG</vendor_id>
      <volume_group_id>O9Du7I-RahN-ECe1-dZ1w-nh0b-64io-MNzIBZ</volume_group_id>
    </logical_unit>
  </logical_units>
  <type>iscsi</type>
</host id="8bb5ade5-e988-4000-8b93-dbf6717fe50"/>
</host_storage>
```

Here an example without the LUN status :

```
<host_storage id="360014051136c20574f743bdbd28177fd">
  <logical_units>
    <logical_unit id="360014051136c20574f743bdbd28177fd">
      <lun_mapping>0</lun_mapping>
      <paths>1</paths>
      <product_id>lun0</product_id>
      <serial>SLIO-ORG_lun0_1136c205-74f7-43bd-bd28-177fd5ce6993</serial>
      <size>10737418240</size>
      <vendor_id>LIO-ORG</vendor_id>
      <volume_group_id>O9Du7I-RahN-ECe1-dZ1w-nh0b-64io-MNzIBZ</volume_group_id>
    </logical_unit>
  </logical_units>
  <type>iscsi</type>
</host id="8bb5ade5-e988-4000-8b93-dbf6717fe50"/>
</host_storage>
```

28.205. STORAGEDOMAIN

Table 28.617. Methods summary

Name	Summary
get	Retrieves the description of the storage domain.
isattached	Used for querying if the storage domain is already attached to a data center using the <code>is_attached</code> boolean field, which is part of the storage server.

Name	Summary
reduceluns	This operation reduces logical units from the storage domain.
refreshluns	This operation refreshes the LUN size.
remove	Removes the storage domain.
update	Updates a storage domain.
updateovfstore	This operation forces the update of the OVF_STORE of this storage domain.

28.205.1. get GET

Retrieves the description of the storage domain.

Table 28.618. Parameters summary

Name	Type	Direction	Summary
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
follow	String	In	Indicates which inner links should be <i>followed</i> .
storage_domain	StorageDomain	Out	The description of the storage domain.

28.205.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.205.2. isattached POST

Used for querying if the storage domain is already attached to a data center using the `is_attached` boolean field, which is part of the storage server. IMPORTANT: Executing this API will cause the host to disconnect from the storage domain.

Table 28.619. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the action should be performed asynchronously.
host	Host	In	Indicates the data center's host.

Name	Type	Direction	Summary
is_attached	Boolean	Out	Indicates whether the storage domain is attached to the data center.

28.205.3. reduceluns POST

This operation reduces logical units from the storage domain.

In order to do so the data stored on the provided logical units will be moved to other logical units of the storage domain and only then they will be reduced from the storage domain.

For example, in order to reduce two logical units from a storage domain send a request like this:

```
POST /ovirt-engine/api/storageDomains/123/reduceluns
```

With a request body like this:

```
<action>
  <logical_units>
    <logical_unit id="1IET_00010001"/>
    <logical_unit id="1IET_00010002"/>
  </logical_units>
</action>
```

Note that this operation is only applicable to block storage domains (i.e., storage domains with the `xref:types-storage_type[storage type]` of iSCSI or FCP).

Table 28.620. Parameters summary

Name	Type	Direction	Summary
logical_units	LogicalUnit[]	In	The logical units that need to be reduced from the storage domain.

28.205.4. refreshluns POST

This operation refreshes the LUN size.

After increasing the size of the underlying LUN on the storage server, the user can refresh the LUN size. This action forces a rescan of the provided LUNs and updates the database with the new size, if required.

For example, in order to refresh the size of two LUNs send a request like this:

```
POST /ovirt-engine/api/storageDomains/262b056b-aede-40f1-9666-b883eff59d40/refreshluns
```

With a request body like this:

```

<action>
  <logical_units>
    <logical_unit id="1IET_00010001"/>
    <logical_unit id="1IET_00010002"/>
  </logical_units>
</action>

```

Table 28.621. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the refresh should be performed asynchronously.
logical_units	LogicalUnit[]	In	The LUNs that need to be refreshed.

28.205.5. remove DELETE

Removes the storage domain.

Without any special parameters, the storage domain is detached from the system and removed from the database. The storage domain can then be imported to the same or to a different setup, with all the data on it. If the storage is not accessible the operation will fail.

If the **destroy** parameter is **true** then the operation will always succeed, even if the storage is not accessible, the failure is just ignored and the storage domain is removed from the database anyway.

If the **format** parameter is **true** then the actual storage is formatted, and the metadata is removed from the LUN or directory, so it can no longer be imported to the same or to a different setup.

Table 28.622. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.
destroy	Boolean	In	Indicates if the operation should succeed, and the storage domain removed from the database, even if the storage is not accessible.
format	Boolean	In	Indicates if the actual storage should be formatted, removing all the metadata from the underlying LUN or directory: [source] ---- DELETE /ovirt-engine/api/storageDomains/123?format=true ---- This parameter is optional, and the default value is false.

Name	Type	Direction	Summary
host	String	In	Indicates which host should be used to remove the storage domain.

28.205.5.1. destroy

Indicates if the operation should succeed, and the storage domain removed from the database, even if the storage is not accessible.

```
DELETE /ovirt-engine/api/storageDomains/123?destroy=true
```

This parameter is optional, and the default value is **false**. When the value of **destroy** is **true** the **host** parameter will be ignored.

28.205.5.2. host

Indicates which host should be used to remove the storage domain.

This parameter is mandatory, except if the **destroy** parameter is included and its value is **true**, in that case the **host** parameter will be ignored.

The value should contain the name or the identifier of the host. For example, to use the host named **myhost** to remove the storage domain with identifier **123** send a request like this:

```
DELETE /ovirt-engine/api/storageDomains/123?host=myhost
```

28.205.6. update PUT

Updates a storage domain.

Not all of the [StorageDomain](#)'s attributes are updatable after creation. Those that can be updated are: **name**, **description**, **comment**, **warning_low_space_indicator**, **critical_space_action_blocker** and **wipe_after_delete**. (Note that changing the **wipe_after_delete** attribute will not change the wipe after delete property of disks that already exist).

To update the **name** and **wipe_after_delete** attributes of a storage domain with an identifier **123**, send a request as follows:

```
PUT /ovirt-engine/api/storageDomains/123
```

With a request body as follows:

```
<storage_domain>
  <name>data2</name>
  <wipe_after_delete>true</wipe_after_delete>
</storage_domain>
```

Table 28.623. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
storage_domain	StorageDomain	In/Out	The updated storage domain.

28.205.7. updateovfstore POST

This operation forces the update of the **OVF_STORE** of this storage domain.

The **OVF_STORE** is a disk image that contains the metadata of virtual machines and disks that reside in the storage domain. This metadata is used in case the domain is imported or exported to or from a different data center or a different installation.

By default the **OVF_STORE** is updated periodically (set by default to 60 minutes) but users might want to force an update after an important change, or when they believe the **OVF_STORE** is corrupt.

When initiated by the user, **OVF_STORE** update will be performed whether an update is needed or not.

Table 28.624. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the OVF_STORE update should be performed asynchronously.

28.206. STORAGEDOMAINCONTENTDISK

Table 28.625. Methods summary

Name	Summary
get	

28.206.1. get GET

Table 28.626. Parameters summary

Name	Type	Direction	Summary
disk	Disk	Out	
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.206.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.207. STORAGEDOMAINCONTENTDISKS

Manages the set of disks available in a storage domain.

Table 28.627. Methods summary

Name	Summary
list	Returns the list of disks available in the storage domain.

28.207.1. list GET

Returns the list of disks available in the storage domain.

The order of the returned list of disks is guaranteed only if the **sortby** clause is included in the **search** parameter.

Table 28.628. Parameters summary

Name	Type	Direction	Summary
case_sensitive	Boolean	In	Indicates if the search performed using the search parameter should be performed taking case into account.
disks	Disk[]	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of disks to return.
search	String	In	A query string used to restrict the returned disks.

28.207.1.1. case_sensitive

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

28.207.1.2. follow

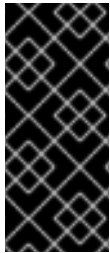
Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.207.1.3. max

Sets the maximum number of disks to return. If not specified all the disks are returned.

28.208. STORAGEDOMAINDISK

Manages a single disk available in a storage domain.



IMPORTANT

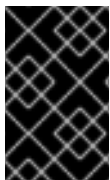
Since version 4.2 of the engine this service is intended only to list disks available in the storage domain, and to register unregistered disks. All the other operations, like copying a disk, moving a disk, etc, have been deprecated and will be removed in the future. To perform those operations use the [service that manages all the disks of the system](#) or the [service that manages a specific disk](#).

Table 28.629. Methods summary

Name	Summary
copy	Copies a disk to the specified storage domain.
export	Exports a disk to an export storage domain.
get	Retrieves the description of the disk.
move	Moves a disk to another storage domain.
reduce	Reduces the size of the disk image.
remove	Removes a disk.
sparsify	Sparsify the disk.
update	Updates the disk.

28.208.1. copy POST

Copies a disk to the specified storage domain.



IMPORTANT

Since version 4.2 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. To copy a disk use the [copy](#) operation of the service that manages that disk.

Table 28.630. Parameters summary

Name	Type	Direction	Summary
disk	Disk	In	Description of the resulting disk.

Name	Type	Direction	Summary
storage_domain	StorageDomain	In	The storage domain where the new disk will be created.

28.208.2. export POST

Exports a disk to an export storage domain.



IMPORTANT

Since version 4.2 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. To export a disk use the [export](#) operation of the service that manages that disk.

Table 28.631. Parameters summary

Name	Type	Direction	Summary
storage_domain	StorageDomain	In	The export storage domain where the disk should be exported to.

28.208.3. get GET

Retrieves the description of the disk.

Table 28.632. Parameters summary

Name	Type	Direction	Summary
disk	Disk	Out	The description of the disk.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.208.3.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.208.4. move POST

Moves a disk to another storage domain.



IMPORTANT

Since version 4.2 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. To move a disk use the [move](#) operation of the service that manages that disk.

Table 28.633. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the move should be performed asynchronously.
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
storage_domain	StorageDomain	In	The storage domain where the disk will be moved to.

28.208.5. reduce POST

Reduces the size of the disk image.

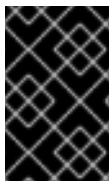
Invokes *reduce* on the logical volume (i.e. this is only applicable for block storage domains). This is applicable for floating disks and disks attached to non-running virtual machines. There is no need to specify the size as the optimal size is calculated automatically.

Table 28.634. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.208.6. remove DELETE

Removes a disk.

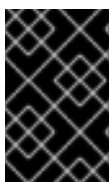


IMPORTANT

Since version 4.2 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. To remove a disk use the [remove](#) operation of the service that manages that disk.

28.208.7. sparsify POST

Sparsify the disk.



IMPORTANT

Since version 4.2 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. To remove a disk use the [remove](#) operation of the service that manages that disk.

28.208.8. update PUT

Updates the disk.



IMPORTANT

Since version 4.2 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. To update a disk use the [update](#) operation of the service that manages that disk.

Table 28.635. Parameters summary

Name	Type	Direction	Summary
disk	Disk	In/Out	The update to apply to the disk.

28.209. STORAGEDOMAINDISKS

Manages the collection of disks available inside a specific storage domain.

Table 28.636. Methods summary

Name	Summary
add	Adds or registers a disk.
list	Retrieves the list of disks that are available in the storage domain.

28.209.1. add POST

Adds or registers a disk.



IMPORTANT

Since version 4.2 of the Red Hat Virtualization Manager this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. To add a new disk use the [add](#) operation of the service that manages the disks of the system. To register an unregistered disk use the [register](#) operation of the service that manages that disk.

Table 28.637. Parameters summary

Name	Type	Direction	Summary
disk	Disk	In/Out	The disk to add or register.
unregistered	Boolean	In	Indicates if a new disk should be added or if an existing unregistered disk should be registered.

28.209.1.1. unregistered

Indicates if a new disk should be added or if an existing unregistered disk should be registered. If the value is **true** then the identifier of the disk to register needs to be provided. For example, to register the disk with ID **456** send a request like this:

```
POST /ovirt-engine/api/storagedomains/123/disks?unregistered=true
```

With a request body like this:

```
<disk id="456"/>
```

If the value is **false** then a new disk will be created in the storage domain. In that case the **provisioned_size**, **format**, and **name** attributes are mandatory. For example, to create a new *copy on write* disk of 1 GiB, send a request like this:

```
POST /ovirt-engine/api/storagedomains/123/disks
```

With a request body like this:

```
<disk>
  <name>mydisk</name>
  <format>cow</format>
  <provisioned_size>1073741824</provisioned_size>
</disk>
```

The default value is **false**.

This parameter has been deprecated since version 4.2 of the Red Hat Virtualization Manager.

28.209.2. list GET

Retrieves the list of disks that are available in the storage domain.

The order of the returned list of disks is not guaranteed.

Table 28.638. Parameters summary

Name	Type	Direction	Summary
disks	Disk[]	Out	The list of retrieved disks.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of disks to return.
unregistered	Boolean	In	Indicates whether to retrieve a list of registered or unregistered disks in the storage domain.

28.209.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.209.2.2. max

Sets the maximum number of disks to return. If not specified, all the disks are returned.

28.209.2.3. unregistered

Indicates whether to retrieve a list of registered or unregistered disks in the storage domain. To get a list of unregistered disks in the storage domain the call should indicate the unregistered flag. For example, to get a list of unregistered disks the REST API call should look like this:

```
GET /ovirt-engine/api/storagedomains/123/disks?unregistered=true
```

The default value of the unregistered flag is **false**. The request only applies to storage domains that are attached.

28.210. STORAGEDOMAINSERVERCONNECTION

Table 28.639. Methods summary

Name	Summary
get	
remove	Detaches a storage connection from storage.

28.210.1. get GET

Table 28.640. Parameters summary

Name	Type	Direction	Summary
connection	StorageConnection	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.210.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.210.2. remove DELETE

Detaches a storage connection from storage.

Table 28.641. Parameters summary

Name	Type	Direction	Summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the action should be performed asynchronously.

28.211. STORAGEDOMAINSERVERCONNECTIONS

Manages the set of connections to storage servers that exist in a storage domain.

Table 28.642. Methods summary

Name	Summary
add	
list	Returns the list of connections to storage servers that exist in the storage domain.

28.211.1. add POST

Table 28.643. Parameters summary

Name	Type	Direction	Summary
connection	StorageConnection	In/Out	

28.211.2. list GET

Returns the list of connections to storage servers that exist in the storage domain.

The order of the returned list of connections isn't guaranteed.

Table 28.644. Parameters summary

Name	Type	Direction	Summary
connections	StorageConnection[]	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of connections to return.

28.211.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.211.2.2. max

Sets the maximum number of connections to return. If not specified all the connections are returned.

28.212. STORAGEDOMAINTEMPLATE

Table 28.645. Methods summary

Name	Summary
get	
import	Action to import a template from an export storage domain.
register	Register the Template means importing the Template from the data domain by inserting the configuration of the Template and disks into the database without the copy process.
remove	

28.212.1. get GET

Table 28.646. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
template	Template	Out	

28.212.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.212.2. import POST

Action to import a template from an export storage domain.

For example, to import the template **456** from the storage domain **123** send the following request:

```
POST /ovirt-engine/api/storagedomains/123/templates/456/import
```

With the following request body:

```

<action>
  <storage_domain>
    <name>myexport</name>
  </storage_domain>
  <cluster>

```



```

<name>mycluster</name>
</cluster>
</action>

```

If you register an entity without specifying the cluster ID or name, the cluster name from the entity's OVF will be used (unless the register request also includes the cluster mapping).

Table 28.647. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the import should be performed asynchronously.
clone	Boolean	In	Use the optional clone parameter to generate new UUIDs for the imported template and its entities.
cluster	Cluster	In	
exclusive	Boolean	In	
storage_domain	StorageDomain	In	
template	Template	In	
vm	Vm	In	

28.212.2.1. clone

Use the optional **clone** parameter to generate new UUIDs for the imported template and its entities.

You can import a template with the **clone** parameter set to **false** when importing a template from an export domain, with templates that were exported by a different Red Hat Virtualization environment.

28.212.3. register POST

Register the Template means importing the Template from the data domain by inserting the configuration of the Template and disks into the database without the copy process.

Table 28.648. Parameters summary

Name	Type	Direction	Summary
allow_partial_import	Boolean	In	Indicates whether a template is allowed to be registered with only some of its disks.
async	Boolean	In	Indicates if the registration should be performed asynchronously.

Name	Type	Direction	Summary
clone	Boolean	In	
cluster	Cluster	In	
exclusive	Boolean	In	
registration_configuration	Registration Configuration	In	This parameter describes how the template should be registered.
template	Template	In	
vnics_profile_mappings	VnicProfileMapping[]	In	Deprecated attribute describing mapping rules for virtual NIC profiles that will be applied during the import\register process.

28.212.3.1. allow_partial_import

Indicates whether a template is allowed to be registered with only some of its disks.

If this flag is **true**, the system will not fail in the validation process if an image is not found, but instead it will allow the template to be registered without the missing disks. This is mainly used during registration of a template when some of the storage domains are not available. The default value is **false**.

28.212.3.2. registration_configuration

This parameter describes how the template should be registered.

This parameter is optional. If the parameter is not specified, the template will be registered with the same configuration that it had in the original environment where it was created.

28.212.3.3. vnics_profile_mappings

Deprecated attribute describing mapping rules for virtual NIC profiles that will be applied during the import\register process.



WARNING

Please note that this attribute has been deprecated since version 4.2.1 of the engine, and preserved only for backward compatibility. It will be removed in the future. To specify **vnics_profile_mappings** use the **vnics_profile_mappings** attribute inside the [RegistrationConfiguration](#) type.

28.212.4. remove DELETE

Table 28.649. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.213. STORAGEDOMAINTEMPLATES

Manages the set of templates available in a storage domain.

Table 28.650. Methods summary

Name	Summary
list	Returns the list of templates availalbe in the storage domain.

28.213.1. list GET

Returns the list of templates availalbe in the storage domain.

The order of the returned list of templates isn't guaranteed.

Table 28.651. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of templates to return.
templates	Template[]	Out	
unregistered	Boolean	In	Indicates whether to retrieve a list of registered or unregistered templates which contain disks on the storage domain.

28.213.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.213.1.2. max

Sets the maximum number of templates to return. If not specified all the templates are returned.

28.213.1.3. unregistered

Indicates whether to retrieve a list of registered or unregistered templates which contain disks on the storage domain. To get a list of unregistered templates the call should indicate the unregistered flag. For example, to get a list of unregistered templates the REST API call should look like this:

```
GET /ovirt-engine/api/storagedomains/123/templates?unregistered=true
```

The default value of the unregistered flag is **false**. The request only apply to storage domains that are attached.

28.214. STORAGEDOMAINVM

Table 28.652. Methods summary

Name	Summary
get	
import	Imports a virtual machine from an export storage domain.
register	
remove	Deletes a virtual machine from an export storage domain.

28.214.1. get GET

Table 28.653. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
vm	Vm	Out	

28.214.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.214.2. import POST

Imports a virtual machine from an export storage domain.

For example, send a request like this:

```
POST /ovirt-engine/api/storagedomains/123/vms/456/import
```

With a request body like this:

```
<action>
<storage_domain>
```

```

    <name>mydata</name>
  </storage_domain>
</cluster>
  <name>mycluster</name>
</cluster>
</action>

```

To import a virtual machine as a new entity add the **clone** parameter:

```

<action>
  <storage_domain>
    <name>mydata</name>
  </storage_domain>
  <cluster>
    <name>mycluster</name>
  </cluster>
  <clone>true</clone>
  <vm>
    <name>myvm</name>
  </vm>
</action>

```

Include an optional **disks** parameter to choose which disks to import. For example, to import the disks of the template that have the identifiers **123** and **456** send the following request body:

```

<action>
  <cluster>
    <name>mycluster</name>
  </cluster>
  <vm>
    <name>myvm</name>
  </vm>
  <disks>
    <disk id="123"/>
    <disk id="456"/>
  </disks>
</action>

```

If you register an entity without specifying the cluster ID or name, the cluster name from the entity's OVF will be used (unless the register request also includes the cluster mapping).

Table 28.654. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the import should be performed asynchronously.
clone	Boolean	In	Indicates if the identifiers of the imported virtual machine should be regenerated.
cluster	Cluster	In	

Name	Type	Direction	Summary
collapse_snapshots	Boolean	In	Indicates of the snapshots of the virtual machine that is imported should be collapsed, so that the result will be a virtual machine without snapshots.
exclusive	Boolean	In	
storage_domain	StorageDomain	In	
vm	Vm	In	

28.214.2.1. clone

Indicates if the identifiers of the imported virtual machine should be regenerated.

By default when a virtual machine is imported the identifiers are preserved. This means that the same virtual machine can't be imported multiple times, as that identifiers needs to be unique. To allow importing the same machine multiple times set this parameter to **true**, as the default is **false**.

28.214.2.2. collapse_snapshots

Indicates of the snapshots of the virtual machine that is imported should be collapsed, so that the result will be a virtual machine without snapshots.

This parameter is optional, and if it isn't explicitly specified the default value is **false**.

28.214.3. register POST

Table 28.655. Parameters summary

Name	Type	Direction	Summary
allow_partial_import	Boolean	In	Indicates whether a virtual machine is allowed to be registered with only some of its disks.
async	Boolean	In	Indicates if the registration should be performed asynchronously.
clone	Boolean	In	
cluster	Cluster	In	
reassign_bad_macs	Boolean	In	Indicates if the problematic MAC addresses should be re-assigned during the import process by the engine.

Name	Type	Direction	Summary
registration_configuration	Registration Configuration	In	This parameter describes how the virtual machine should be registered.
vm	Vm	In	
vnic_profile_mappings	VnicProfileMapping[]	In	Deprecated attribute describing mapping rules for virtual NIC profiles that will be applied during the import\register process.

28.214.3.1. allow_partial_import

Indicates whether a virtual machine is allowed to be registered with only some of its disks.

If this flag is **true**, the engine will not fail in the validation process if an image is not found, but instead it will allow the virtual machine to be registered without the missing disks. This is mainly used during registration of a virtual machine when some of the storage domains are not available. The default value is **false**.

28.214.3.2. reassign_bad_mac

Indicates if the problematic MAC addresses should be re-assigned during the import process by the engine.

A MAC address would be considered as a problematic one if one of the following is true:

- It conflicts with a MAC address that is already allocated to a virtual machine in the target environment.
- It's out of the range of the target MAC address pool.

28.214.3.3. registration_configuration

This parameter describes how the virtual machine should be registered.

This parameter is optional. If the parameter is not specified, the virtual machine will be registered with the same configuration that it had in the original environment where it was created.

28.214.3.4. vnic_profile_mappings

Deprecated attribute describing mapping rules for virtual NIC profiles that will be applied during the import\register process.



WARNING

Please note that this attribute has been deprecated since version 4.2.1 of the engine, and preserved only for backward compatibility. It will be removed in the future. To specify **vnic_profile_mappings** use the **vnic_profile_mappings** attribute inside the [RegistrationConfiguration](#) type.

28.214.4. remove DELETE

Deletes a virtual machine from an export storage domain.

For example, to delete the virtual machine **456** from the storage domain **123**, send a request like this:

```
DELETE /ovirt-engine/api/storagedomains/123/vms/456
```

Table 28.656. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.215. STORAGEDOMAINVMDISKATTACHMENT

Returns the details of the disks attached to a virtual machine in the export domain.

Table 28.657. Methods summary

Name	Summary
get	Returns the details of the attachment with all its properties and a link to the disk.

28.215.1. get GET

Returns the details of the attachment with all its properties and a link to the disk.

Table 28.658. Parameters summary

Name	Type	Direction	Summary
attachment	DiskAttachm ent	Out	The disk attachment.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.215.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.216. STORAGEDOMAINVMDISKATTACHMENTS

Returns the details of a disk attached to a virtual machine in the export domain.

Table 28.659. Methods summary

Name	Summary
list	List the disks that are attached to the virtual machine.

28.216.1. list GET

List the disks that are attached to the virtual machine.

The order of the returned list of disk attachments isn't guaranteed.

Table 28.660. Parameters summary

Name	Type	Direction	Summary
attachments	DiskAttachment[]	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.216.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.217. STORAGEDOMAINVMS

Lists the virtual machines of an export storage domain.

For example, to retrieve the virtual machines that are available in the storage domain with identifier **123** send the following request:

```
GET /ovirt-engine/api/storagedomains/123/vms
```

This will return the following response body:

```
<vms>
  <vm id="456" href="/api/storagedomains/123/vms/456">
    <name>vm1</name>
    ...
    <storage_domain id="123" href="/api/storagedomains/123"/>
```

```

<actions>
  <link rel="import" href="/api/storagedomains/123/vms/456/import"/>
</actions>
</vm>
</vms>

```

Virtual machines and templates in these collections have a similar representation to their counterparts in the top-level [Vm](#) and [Template](#) collections, except they also contain a [StorageDomain](#) reference and an [import](#) action.

Table 28.661. Methods summary

Name	Summary
list	Returns the list of virtual machines of the export storage domain.

28.217.1. list GET

Returns the list of virtual machines of the export storage domain.

The order of the returned list of virtual machines isn't guaranteed.

Table 28.662. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of virtual machines to return.
unregistered	Boolean	In	Indicates whether to retrieve a list of registered or unregistered virtual machines which contain disks on the storage domain.
vm	Vm[]	Out	

28.217.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.217.1.2. max

Sets the maximum number of virtual machines to return. If not specified all the virtual machines are returned.

28.217.1.3. unregistered

Indicates whether to retrieve a list of registered or unregistered virtual machines which contain disks on the storage domain. To get a list of unregistered virtual machines the call should indicate the

unregistered flag. For example, to get a list of unregistered virtual machines the REST API call should look like this:

```
GET /ovirt-engine/api/storagedomains/123/vms?unregistered=true
```

The default value of the unregistered flag is **false**. The request only apply to storage domains that are attached.

28.218. STORAGEDOMAINS

Manages the set of storage domains in the system.

Table 28.663. Methods summary

Name	Summary
add	Adds a new storage domain.
list	Returns the list of storage domains in the system.

28.218.1. add POST

Adds a new storage domain.

Creation of a new [StorageDomain](#) requires the **name**, **type**, **host**, and **storage** attributes. Identify the **host** attribute with the **id** or **name** attributes. In Red Hat Virtualization 3.6 and later you can enable the wipe after delete option by default on the storage domain. To configure this, specify **wipe_after_delete** in the POST request. This option can be edited after the domain is created, but doing so will not change the wipe after delete property of disks that already exist.

To add a new storage domain with specified **name**, **type**, **storage.type**, **storage.address**, and **storage.path**, and using a host with an id **123**, send a request like this:

```
POST /ovirt-engine/api/storageDomains
```

With a request body like this:

```
<storage_domain>
  <name>mydata</name>
  <type>data</type>
  <storage>
    <type>nfs</type>
    <address>my nfs.example.com</address>
    <path>/exports/mydata</path>
  </storage>
  <host>
    <name>myhost</name>
  </host>
</storage_domain>
```

To create a new NFS ISO storage domain send a request like this:

```
<storage_domain>
  <name>myisos</name>
  <type>iso</type>
  <storage>
    <type>nfs</type>
    <address>my nfs.example.com</address>
    <path>/export/myisos</path>
  </storage>
  <host>
    <name>myhost</name>
  </host>
</storage_domain>
```

To create a new iSCSI storage domain send a request like this:

```
<storage_domain>
  <name>myiscsi</name>
  <type>data</type>
  <storage>
    <type>iscsi</type>
    <logical_units>
      <logical_unit id="3600144f09dbd050000004eedbd340001"/>
      <logical_unit id="3600144f09dbd050000004eedbd340002"/>
    </logical_units>
  </storage>
  <host>
    <name>myhost</name>
  </host>
</storage_domain>
```

Table 28.664. Parameters summary

Name	Type	Direction	Summary
storage_domain	StorageDomain	In/Out	The storage domain to add.

28.218.2. list GET

Returns the list of storage domains in the system.

The order of the returned list of storage domains is guaranteed only if the **sortby** clause is included in the **search** parameter.

Table 28.665. Parameters summary

Name	Type	Direction	Summary
case_sensitive	Boolean	In	Indicates if the search should be performed taking case into account.

Name	Type	Direction	Summary
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of storage domains to return.
search	String	In	A query string used to restrict the returned storage domains.
storage_domains	StorageDomain[]	Out	A list of the storage domains in the system.

28.218.2.1. case_sensitive

Indicates if the search should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case, set it to **false**.

28.218.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.218.2.3. max

Sets the maximum number of storage domains to return. If not specified, all the storage domains are returned.

28.219. STORAGESERVERCONNECTION

Table 28.666. Methods summary

Name	Summary
get	
remove	Removes a storage connection.
update	Updates the storage connection.

28.219.1. get GET

Table 28.667. Parameters summary

Name	Type	Direction	Summary
connection	StorageConnection	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.219.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.219.2. remove DELETE

Removes a storage connection.

A storage connection can only be deleted if neither storage domain nor LUN disks reference it. The host name or id is optional; providing it disconnects (unmounts) the connection from that host.

Table 28.668. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.
host	String	In	The name or identifier of the host from which the connection would be unmounted (disconnected).

28.219.2.1. host

The name or identifier of the host from which the connection would be unmounted (disconnected). If not provided, no host will be disconnected.

For example, to use the host with identifier **456** to delete the storage connection with identifier **123** send a request like this:

```
DELETE /ovirt-engine/api/storageconnections/123?host=456
```

28.219.3. update PUT

Updates the storage connection.

For example, to change the address of an NFS storage server, send a request like this:

```
PUT /ovirt-engine/api/storageconnections/123
```

With a request body like this:

```
<storage_connection>
  <address>mynewnfs.example.com</address>
</storage_connection>
```

To change the connection of an iSCSI storage server, send a request like this:

```
PUT /ovirt-engine/api/storageconnections/123
```

With a request body like this:

```
<storage_connection>
  <port>3260</port>
  <target>iqn.2017-01.com.myhost:444</target>
</storage_connection>
```

Table 28.669. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
connection	StorageConnection	In/Out	
force	Boolean	In	Indicates if the operation should succeed regardless to the relevant storage domain's status (i.

28.219.3.1. force

Indicates if the operation should succeed regardless to the relevant storage domain's status (i.e. updating is also applicable when storage domain's status is not maintenance).

This parameter is optional, and the default value is **false**.

28.220. STORAGESERVERCONNECTIONEXTENSION

Table 28.670. Methods summary

Name	Summary
get	
remove	
update	Update a storage server connection extension for the given host.

28.220.1. get GET

Table 28.671. Parameters summary

Name	Type	Direction	Summary
extension	StorageConnectionExtension	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.220.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.220.2. remove DELETE

Table 28.672. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.220.3. update PUT

Update a storage server connection extension for the given host.

To update the storage connection **456** of host **123** send a request like this:

```
PUT /ovirt-engine/api/hosts/123/storageconnectionextensions/456
```

With a request body like this:

```
<storage_connection_extension>
  <target>iqn.2016-01.com.example:mytarget</target>
  <username>myuser</username>
  <password>mypassword</password>
</storage_connection_extension>
```

Table 28.673. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
extension	StorageConnectionExtension	In/Out	

28.221. STORAGESEVERCONNECTIONEXTENSIONS

Table 28.674. Methods summary

Name	Summary
add	Creates a new storage server connection extension for the given host.
list	Returns the list os storage connection extensions.

28.221.1. add POST

Creates a new storage server connection extension for the given host.

The extension lets the user define credentials for an iSCSI target for a specific host. For example to use **myuser** and **mypassword** as the credentials when connecting to the iSCSI target from host **123** send a request like this:

```
POST /ovirt-engine/api/hosts/123/storageconnectionextensions
```

With a request body like this:

```
<storage_connection_extension>
  <target>iqn.2016-01.com.example:mytarget</target>
  <username>myuser</username>
  <password>mypassword</password>
</storage_connection_extension>
```

Table 28.675. Parameters summary

Name	Type	Direction	Summary
extension	StorageConnectionExtension	In/Out	

28.221.2. list GET

Returns the list os storage connection extensions.

The order of the returned list of storage connections isn't guaranteed.

Table 28.676. Parameters summary

Name	Type	Direction	Summary
extensions	StorageConnectionExtension[]	Out	

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of extensions to return.

28.221.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.221.2.2. max

Sets the maximum number of extensions to return. If not specified all the extensions are returned.

28.222. STORAGESEVERCONNECTIONS

Table 28.677. Methods summary

Name	Summary
add	Creates a new storage connection.
list	Returns the list of storage connections.

28.222.1. add POST

Creates a new storage connection.

For example, to create a new storage connection for the NFS server **my nfs.example.com** and NFS share **/export/mydata** send a request like this:

```
POST /ovirt-engine/api/storageconnections
```

With a request body like this:

```
<storage_connection>
  <type>nfs</type>
  <address>my nfs.example.com</address>
  <path>/export/mydata</path>
  <host>
    <name>myhost</name>
  </host>
</storage_connection>
```

Table 28.678. Parameters summary

Name	Type	Direction	Summary
connection	StorageConnection	In/Out	

28.222.2. list GET

Returns the list of storage connections.

The order of the returned list of connections isn't guaranteed.

Table 28.679. Parameters summary

Name	Type	Direction	Summary
connections	StorageConnection[]	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of connections to return.

28.222.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.222.2.2. max

Sets the maximum number of connections to return. If not specified all the connections are returned.

28.223. SYSTEM

Table 28.680. Methods summary

Name	Summary
get	Returns basic information describing the API, like the product name, the version number and a summary of the number of relevant objects.
reloadconfigurations	

28.223.1. get GET

Returns basic information describing the API, like the product name, the version number and a summary of the number of relevant objects.

GET /ovirt-engine/api

We get following response:

```
<api>
  <link rel="capabilities" href="/api/capabilities"/>
  <link rel="clusters" href="/api/clusters"/>
  <link rel="clusters/search" href="/api/clusters?search={query}"/>
  <link rel="datacenters" href="/api/datacenters"/>
  <link rel="datacenters/search" href="/api/datacenters?search={query}"/>
  <link rel="events" href="/api/events"/>
  <link rel="events/search" href="/api/events?search={query}"/>
  <link rel="hosts" href="/api/hosts"/>
  <link rel="hosts/search" href="/api/hosts?search={query}"/>
  <link rel="networks" href="/api/networks"/>
  <link rel="roles" href="/api/roles"/>
  <link rel="storagedomains" href="/api/storagedomains"/>
  <link rel="storagedomains/search" href="/api/storagedomains?search={query}"/>
  <link rel="tags" href="/api/tags"/>
  <link rel="templates" href="/api/templates"/>
  <link rel="templates/search" href="/api/templates?search={query}"/>
  <link rel="users" href="/api/users"/>
  <link rel="groups" href="/api/groups"/>
  <link rel="domains" href="/api/domains"/>
  <link rel="vmpools" href="/api/vmpools"/>
  <link rel="vmpools/search" href="/api/vmpools?search={query}"/>
  <link rel="vms" href="/api/vms"/>
  <link rel="vms/search" href="/api/vms?search={query}"/>
</product_info>
  <name>oVirt Engine</name>
  <vendor>ovirt.org</vendor>
  <version>
    <build>4</build>
    <full_version>4.0.4</full_version>
    <major>4</major>
    <minor>0</minor>
    <revision>0</revision>
  </version>
</product_info>
<special_objects>
  <blank_template href="/ovirt-engine/api/templates/00000000-0000-0000-0000-000000000000"
id="00000000-0000-0000-0000-000000000000"/>
  <root_tag href="/ovirt-engine/api/tags/00000000-0000-0000-0000-000000000000" id="00000000-
0000-0000-0000-000000000000"/>
</special_objects>
<summary>
  <hosts>
    <active>0</active>
    <total>0</total>
  </hosts>
  <storage_domains>
    <active>0</active>
    <total>1</total>
  </storage_domains>
  <users>
```

```

    <active>1</active>
    <total>1</total>
  </users>
  <vms>
    <active>0</active>
    <total>0</total>
  </vms>
</summary>
<time>2016-09-14T12:00:48.132+02:00</time>
</api>

```

The entry point provides a user with links to the collections in a virtualization environment. The **rel** attribute of each collection link provides a reference point for each link.

The entry point also contains other data such as **product_info**, **special_objects** and **summary**.

Table 28.681. Parameters summary

Name	Type	Direction	Summary
api	Api	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.223.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.223.2. reloadconfigurations POST

Table 28.682. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the reload should be performed asynchronously.

28.224. SYSTEMOPTION

A service that provides values of specific configuration option of the system.

Table 28.683. Methods summary

Name	Summary
get	Get the values of specific configuration option.

28.224.1. get GET

Get the values of specific configuration option.

For example to retrieve the values of configuration option **MigrationPolicies** send a request like this:

```
GET /ovirt-engine/api/options/MigrationPolicies
```

The response to that request will be the following:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<system_option href="/ovirt-engine/api/options/MigrationPolicies" id="MigrationPolicies">
  <name>MigrationPolicies</name>
  <values>
    <system_option_value>
      <value>[{"id":{"uuid":"80554327-0569-496b-bdeb-fcbbf52b827b"},...}]</value>
      <version>4.2</version>
    </system_option_value>
    <system_option_value>
      <value>[{"id":{"uuid":"80554327-0569-496b-bdeb-fcbbf52b827b"},...}]</value>
      <version>4.3</version>
    </system_option_value>
    <system_option_value>
      <value>[{"id":{"uuid":"80554327-0569-496b-bdeb-fcbbf52b827b"},...}]</value>
      <version>4.4</version>
    </system_option_value>
    <system_option_value>
      <value>[{"id":{"uuid":"80554327-0569-496b-bdeb-fcbbf52b827b"},...}]</value>
      <version>4.5</version>
    </system_option_value>
    <system_option_value>
      <value>[{"id":{"uuid":"80554327-0569-496b-bdeb-fcbbf52b827b"},...}]</value>
      <version>4.6</version>
    </system_option_value>
    <system_option_value>
      <value>[{"id":{"uuid":"80554327-0569-496b-bdeb-fcbbf52b827b"},...}]</value>
      <version>4.7</version>
    </system_option_value>
  </values>
</system_option>
```



NOTE

The appropriate permissions are required to query configuration options. Some options can be queried only by users with administrator permissions.



IMPORTANT

There is NO backward compatibility and no guarantee about the names or values of the options. Options may be removed and their meaning can be changed at any point.

We strongly discourage the use of this service for applications other than the ones that are released simultaneously with the engine. Usage by other applications is not supported. Therefore there will be no documentation listing accessible configuration options.

Table 28.684. Parameters summary

Name	Type	Direction	Summary
option	SystemOption	Out	The returned configuration option of the system.
version	String	In	Optional version parameter that specifies that only particular version of the configuration option should be returned.

28.224.1.1. version

Optional version parameter that specifies that only particular version of the configuration option should be returned. If this parameter isn't used then all the versions will be returned.

For example, to get the value of the **MigrationPolicies** option but only for version **4.2** send a request like this:

```
GET /ovirt-engine/api/options/MigrationPolicies?version=4.2
```

The response to that request will be like this:

```
<system_option href="/ovirt-engine/api/options/MigrationPolicies" id="MigrationPolicies">
  <name>MigrationPolicies</name>
  <values>
    <system_option_value>
      <value>[{"id":{"uuid":"80554327-0569-496b-bdeb-fcbbf52b827b"},...}]</value>
      <version>4.2</version>
    </system_option_value>
  </values>
</system_option>
```

28.225. SYSTEMOPTIONS

Service that provides values of configuration options of the system.

28.226. SYSTEMPERMISSIONS

This service doesn't add any new methods, it is just a placeholder for the annotation that specifies the path of the resource that manages the permissions assigned to the system object.

Table 28.685. Methods summary

Name	Summary
add	Assign a new permission to a user or group for specific entity.
list	List all the permissions of the specific entity.

28.226.1. add POST

Assign a new permission to a user or group for specific entity.

For example, to assign the **UserVmManager** role to the virtual machine with id **123** to the user with id **456** send a request like this:

```
POST /ovirt-engine/api/vms/123/permissions
```

With a request body like this:

```
<permission>
  <role>
    <name>UserVmManager</name>
  </role>
  <user id="456"/>
</permission>
```

To assign the **SuperUser** role to the system to the user with id **456** send a request like this:

```
POST /ovirt-engine/api/permissions
```

With a request body like this:

```
<permission>
  <role>
    <name>SuperUser</name>
  </role>
  <user id="456"/>
</permission>
```

If you want to assign permission to the group instead of the user please replace the **user** element with the **group** element with proper **id** of the group. For example to assign the **UserRole** role to the cluster with id **123** to the group with id **789** send a request like this:

```
POST /ovirt-engine/api/clusters/123/permissions
```

With a request body like this:

```
<permission>
  <role>
    <name>UserRole</name>
  </role>
  <group id="789"/>
</permission>
```

Table 28.686. Parameters summary

Name	Type	Direction	Summary
permission	Permission	In/Out	The permission.

28.226.2. list GET

List all the permissions of the specific entity.

For example to list all the permissions of the cluster with id **123** send a request like this:

```
GET /ovirt-engine/api/clusters/123/permissions
```

```
<permissions>
  <permission id="456">
    <cluster id="123"/>
    <role id="789"/>
    <user id="451"/>
  </permission>
  <permission id="654">
    <cluster id="123"/>
    <role id="789"/>
    <group id="127"/>
  </permission>
</permissions>
```

The order of the returned permissions isn't guaranteed.

Table 28.687. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
permissions	Permission[]	Out	The list of permissions.

28.226.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.227. TAG

A service to manage a specific tag in the system.

Table 28.688. Methods summary

Name	Summary
get	Gets the information about the tag.
remove	Removes the tag from the system.
update	Updates the tag entity.

28.227.1. get GET

Gets the information about the tag.

For example to retrieve the information about the tag with the id **123** send a request like this:

```
GET /ovirt-engine/api/tags/123
```

```
<tag href="/ovirt-engine/api/tags/123" id="123">
  <name>root</name>
  <description>root</description>
</tag>
```

Table 28.689. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
tag	Tag	Out	The tag.

28.227.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.227.2. remove DELETE

Removes the tag from the system.

For example to remove the tag with id **123** send a request like this:

```
DELETE /ovirt-engine/api/tags/123
```

Table 28.690. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.227.3. update PUT

Updates the tag entity.

For example to update parent tag to tag with id **456** of the tag with id **123** send a request like this:

```
PUT /ovirt-engine/api/tags/123
```

With request body like:

-

```
<tag>
  <parent id="456"/>
</tag>
```

You may also specify a tag name instead of id. For example to update parent tag to tag with name **mytag** of the tag with id **123** send a request like this:

```
<tag>
  <parent>
    <name>mytag</name>
  </parent>
</tag>
```

Table 28.691. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
tag	Tag	In/Out	The updated tag.

28.228. TAGS

Represents a service to manage collection of the tags in the system.

Table 28.692. Methods summary

Name	Summary
add	Add a new tag to the system.
list	List the tags in the system.

28.228.1. add POST

Add a new tag to the system.

For example, to add new tag with name **mytag** to the system send a request like this:

```
POST /ovirt-engine/api/tags
```

With a request body like this:

```
<tag>
  <name>mytag</name>
</tag>
```

**NOTE**

The root tag is a special pseudo-tag assumed as the default parent tag if no parent tag is specified. The root tag cannot be deleted nor assigned a parent tag.

To create new tag with specific parent tag send a request body like this:

```
<tag>
  <name>mytag</name>
  <parent>
    <name>myparenttag</name>
  </parent>
</tag>
```

Table 28.693. Parameters summary

Name	Type	Direction	Summary
tag	Tag	In/Out	The added tag.

28.228.2. list GET

List the tags in the system.

For example to list the full hierarchy of the tags in the system send a request like this:

```
GET /ovirt-engine/api/tags
```

```
<tags>
  <tag href="/ovirt-engine/api/tags/222" id="222">
    <name>root2</name>
    <description>root2</description>
    <parent href="/ovirt-engine/api/tags/111" id="111"/>
  </tag>
  <tag href="/ovirt-engine/api/tags/333" id="333">
    <name>root3</name>
    <description>root3</description>
    <parent href="/ovirt-engine/api/tags/222" id="222"/>
  </tag>
  <tag href="/ovirt-engine/api/tags/111" id="111">
    <name>root</name>
    <description>root</description>
  </tag>
</tags>
```

In the previous XML output you can see the following hierarchy of the tags:

```
root:      (id: 111)
- root2    (id: 222)
- root3    (id: 333)
```

The order of the returned list of tags isn't guaranteed.

Table 28.694. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of tags to return.
tags	Tag[]	Out	List of all tags in the system.

28.228.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.228.2.2. max

Sets the maximum number of tags to return. If not specified all the tags are returned.

28.229. TEMPLATE

Manages the virtual machine template and template versions.

Table 28.695. Methods summary

Name	Summary
export	Exports a template to the data center export domain.
get	Returns the information about this template or template version.
remove	Removes a virtual machine template.
update	Updates the template.

28.229.1. export POST

Exports a template to the data center export domain.

For example, send the following request:

```
POST /ovirt-engine/api/templates/123/export
```

With a request body like this:

```
<action>
  <storage_domain id="456"/>
  <exclusive>true</exclusive>
</action>
```

Since version 4.2 of the engine it is also possible to export a template as a virtual appliance (OVA). For example, to export template **123** as an OVA file named **myvm.ova** that is placed in the directory **/home/ovirt/** on host **myhost**:

```
POST /ovirt-engine/api/templates/123/export
```

With a request body like this:

```
<action>
  <host>
    <name>myhost</name>
  </host>
  <directory>/home/ovirt</directory>
  <filename>myvm.ova</filename>
</action>
```

Table 28.696. Parameters summary

Name	Type	Direction	Summary
exclusive	Boolean	In	Indicates if the existing templates with the same name should be overwritten.
storage_domain	StorageDomain	In	Specifies the destination export storage domain.

28.229.1.1. exclusive

Indicates if the existing templates with the same name should be overwritten.

The export action reports a failed action if a template of the same name exists in the destination domain. Set this parameter to **true** to change this behavior and overwrite any existing template.

28.229.2. get GET

Returns the information about this template or template version.

Table 28.697. Parameters summary

Name	Type	Direction	Summary
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
follow	String	In	Indicates which inner links should be <i>followed</i> .
template	Template	Out	The information about the template or template version.

28.229.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.229.3. remove DELETE

Removes a virtual machine template.

```
DELETE /ovirt-engine/api/templates/123
```

Table 28.698. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the removal should be performed asynchronously.

28.229.4. update PUT

Updates the template.

The **name**, **description**, **type**, **memory**, **cpu**, **topology**, **os**, **high_availability**, **display**, **stateless**, **usb**, and **timezone** elements can be updated after a template has been created.

For example, to update a template so that it has 1 GiB of memory send a request like this:

```
PUT /ovirt-engine/api/templates/123
```

With the following request body:

```
<template>
  <memory>1073741824</memory>
</template>
```

The **version_name** name attribute is the only one that can be updated within the **version** attribute used for template versions:

```
<template>
  <version>
    <version_name>mytemplate_2</version_name>
  </version>
</template>
```

Table 28.699. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
template	Template	In/Out	

28.230. TEMPLATECDROM

A service managing a CD-ROM device on templates.

Table 28.700. Methods summary

Name	Summary
get	Returns the information about this CD-ROM device.

28.230.1. get GET

Returns the information about this CD-ROM device.

For example, to get information about the CD-ROM device of template **123** send a request like:

```
GET /ovirt-engine/api/templates/123/cdroms/
```

Table 28.701. Parameters summary

Name	Type	Direction	Summary
cdrom	Cdrom	Out	The information about the CD-ROM device.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.230.1.1. cdrom

The information about the CD-ROM device.

The information consists of **cdrom** attribute containing reference to the CD-ROM device, the template, and optionally the inserted disk.

If there is a disk inserted then the **file** attribute will contain a reference to the ISO image:

```
<cdrom href="..." id="00000000-0000-0000-0000-000000000000">
  <template href="/ovirt-engine/api/templates/123" id="123"/>
  <file id="mycd.iso"/>
</cdrom>
```

If there is no disk inserted then the **file** attribute won't be reported:

```
<cdrom href="..." id="00000000-0000-0000-0000-000000000000">
  <template href="/ovirt-engine/api/templates/123" id="123"/>
</cdrom>
```

28.230.1.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.231. TEMPLATECDROMS

Lists the CD-ROM devices of a template.

Table 28.702. Methods summary

Name	Summary
list	Returns the list of CD-ROM devices of the template.

28.231.1. list GET

Returns the list of CD-ROM devices of the template.

The order of the returned list of CD-ROM devices isn't guaranteed.

Table 28.703. Parameters summary

Name	Type	Direction	Summary
cdroms	Cdrom[]	Out	The list of CD-ROM devices of the template.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of CD-ROMs to return.

28.231.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.231.1.2. max

Sets the maximum number of CD-ROMs to return. If not specified all the CD-ROMs are returned.

28.232. TEMPLATEDISK

Table 28.704. Methods summary

Name	Summary
copy	Copy the specified disk attached to the template to a specific storage domain.
export	
get	
remove	

28.232.1. copy POST

Copy the specified disk attached to the template to a specific storage domain.

Table 28.705. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the copy should be performed asynchronously.
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
storage_domain	StorageDomain	In	

28.232.2. export POST

Table 28.706. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the export should be performed asynchronously.
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
storage_domain	StorageDomain	In	

28.232.3. get GET

Table 28.707. Parameters summary

Name	Type	Direction	Summary
disk	Disk	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.232.3.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.232.4. remove DELETE

Table 28.708. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.233. TEMPLATEDISKATTACHMENT

This service manages the attachment of a disk to a template.

Table 28.709. Methods summary

Name	Summary
get	Returns the details of the attachment.
remove	Removes the disk from the template.

28.233.1. get GET

Returns the details of the attachment.

Table 28.710. Parameters summary

Name	Type	Direction	Summary
attachment	DiskAttachment	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.233.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.233.2. remove DELETE

Removes the disk from the template. The disk will only be removed if there are other existing copies of the disk on other storage domains.

A storage domain has to be specified to determine which of the copies should be removed (template disks can have copies on multiple storage domains).

```
DELETE /ovirt-engine/api/templates/{template:id}/diskattachments/{attachment:id}?
storage_domain=072fbaa1-08f3-4a40-9f34-a5ca22dd1d74
```

Table 28.711. Parameters summary

Name	Type	Direction	Summary
force	Boolean	In	
storage_domain	String	In	Specifies the identifier of the storage domain the image to be removed resides on.

28.234. TEMPLATEDISKATTACHMENTS

This service manages the set of disks attached to a template. Each attached disk is represented by a [DiskAttachment](#).

Table 28.712. Methods summary

Name	Summary
list	List the disks that are attached to the template.

28.234.1. list GET

List the disks that are attached to the template.

The order of the returned list of attachments isn't guaranteed.

Table 28.713. Parameters summary

Name	Type	Direction	Summary
attachments	DiskAttachment[]	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.234.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.235. TEMPLATEDISKS

Table 28.714. Methods summary

Name	Summary
list	Returns the list of disks of the template.

28.235.1. list GET

Returns the list of disks of the template.

The order of the returned list of disks isn't guaranteed.

Table 28.715. Parameters summary

Name	Type	Direction	Summary
disks	Disk[]	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of disks to return.

28.235.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.235.1.2. max

Sets the maximum number of disks to return. If not specified all the disks are returned.

28.236. TEMPLATEGRAPHICSCONSOLE

Table 28.716. Methods summary

Name	Summary
get	Gets graphics console configuration of the template.
remove	Remove the graphics console from the template.

28.236.1. get GET

Gets graphics console configuration of the template.

Table 28.717. Parameters summary

Name	Type	Direction	Summary
console	GraphicsConsole	Out	The information about the graphics console of the template.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.236.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.236.2. remove DELETE

Remove the graphics console from the template.

Table 28.718. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.237. TEMPLATEGRAPHICSCONSOLES

Table 28.719. Methods summary

Name	Summary
add	Add new graphics console to the template.
list	Lists all the configured graphics consoles of the template.

28.237.1. add POST

Add new graphics console to the template.

Table 28.720. Parameters summary

Name	Type	Direction	Summary
console	GraphicsConsole	In/Out	

28.237.2. list GET

Lists all the configured graphics consoles of the template.

The order of the returned list of graphics consoles isn't guaranteed.

Table 28.721. Parameters summary

Name	Type	Direction	Summary
consoles	GraphicsConsole[]	Out	The list of graphics consoles of the template.
follow	String	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
max	Integer	In	Sets the maximum number of consoles to return.

28.237.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.237.2.2. max

Sets the maximum number of consoles to return. If not specified all the consoles are returned.

28.238. TEMPLATEMEDIATEDDEVICE

Table 28.722. Methods summary

Name	Summary
get	Gets mediated device configuration of the template.
remove	Remove the mediated device from the template.
update	Updates the information about the mediated device.

28.238.1. get GET

Gets mediated device configuration of the template.

Table 28.723. Parameters summary

Name	Type	Direction	Summary
device	VmMediated Device	Out	The information about the mediated device of the template.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.238.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.238.2. remove DELETE

Remove the mediated device from the template.

Table 28.724. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.238.3. update PUT

Updates the information about the mediated device.

You can update the information using **specParams** element.

For example, to update a mediated device, send a request like this:

```
PUT /ovirt-engine/api/templates/123/mediateddevices/00000000-0000-0000-0000-000000000000
<vm_mediated_device>
  <spec_params>
    <property>
      <name>mdevType</name>
      <value>nvidia-11</value>
    </property>
  </spec_params>
</vm_mediated_device>
```

with response body:

```
<vm_mediated_device href="/ovirt-engine/api/templates/123/mediateddevices/00000000-0000-0000-0000-000000000000" id="00000000-0000-0000-0000-000000000000">
  <template href="/ovirt-engine/api/templates/123" id="123"/>
  <spec_params>
    <property>
      <name>mdevType</name>
      <value>nvidia-11</value>
    </property>
  </spec_params>
</vm_mediated_device>
```

Table 28.725. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
devices	VmMediated Device	In/Out	The information about the mediated device.

28.238.3.1. devices

The information about the mediated device.

The request data must contain **specParams** properties. The response data contains complete information about the updated mediated device.

28.239. TEMPLATEMEDIATEDDEVICES

A service that manages mediated devices of a template.

Table 28.726. Methods summary

Name	Summary
add	Add new mediated device to the template.
list	Lists all the configured mediated devices of the template.

28.239.1. add POST

Add new mediated device to the template.

Table 28.727. Parameters summary

Name	Type	Direction	Summary
device	VmMediated Device	In/Out	

28.239.2. list GET

Lists all the configured mediated devices of the template.

The order of the returned list of mediated devices isn't guaranteed.

Table 28.728. Parameters summary

Name	Type	Direction	Summary
devices	VmMediated Device[]	Out	The list of mediated devices of the template.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of mediated devices to return.

28.239.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.239.2.2. max

Sets the maximum number of mediated devices to return. If not specified all the mediated devices are returned.

28.240. TEMPLATENIC

Table 28.729. Methods summary

Name	Summary
get	
remove	
update	Update the specified network interface card attached to the template.

28.240.1. get GET

Table 28.730. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
nic	Nic	Out	

28.240.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.240.2. remove DELETE

Table 28.731. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.240.3. update PUT

Update the specified network interface card attached to the template.

Table 28.732. Parameters summary

Name	Type	Direction	Summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
nic	Nic	In/Out	

28.241. TEMPLATENICS

Table 28.733. Methods summary

Name	Summary
add	Add a new network interface card to the template.
list	Returns the list of NICs of the template.

28.241.1. add POST

Add a new network interface card to the template.

Table 28.734. Parameters summary

Name	Type	Direction	Summary
nic	Nic	In/Out	

28.241.2. list GET

Returns the list of NICs of the template.

The order of the returned list of NICs isn't guaranteed.

Table 28.735. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of NICs to return.
nics	Nic[]	Out	

28.241.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.241.2.2. max

Sets the maximum number of NICs to return. If not specified all the NICs are returned.

28.242. TEMPLATEWATCHDOG

Table 28.736. Methods summary

Name	Summary
get	
remove	
update	Update the watchdog for the template identified by the given id.

28.242.1. get GET

Table 28.737. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
watchdog	Watchdog	Out	

28.242.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.242.2. remove DELETE

Table 28.738. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.242.3. update PUT

Update the watchdog for the template identified by the given id.

Table 28.739. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
watchdog	Watchdog	In/Out	

28.243. TEMPLATEWATCHDOGS

Table 28.740. Methods summary

Name	Summary
add	Add a watchdog to the template identified by the given id.
list	Returns the list of watchdogs.

28.243.1. add POST

Add a watchdog to the template identified by the given id.

Table 28.741. Parameters summary

Name	Type	Direction	Summary
watchdog	Watchdog	In/Out	

28.243.2. list GET

Returns the list of watchdogs.

The order of the returned list of watchdogs isn't guaranteed.

Table 28.742. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of watchdogs to return.
watchdogs	Watchdog[]	Out	

28.243.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.243.2.2. max

Sets the maximum number of watchdogs to return. If not specified all the watchdogs are returned.

28.244. TEMPLATES

This service manages the virtual machine templates available in the system.

Table 28.743. Methods summary

Name	Summary
add	Creates a new template.
list	Returns the list of virtual machine templates.

28.244.1. add POST

Creates a new template.

This requires the **name** and **vm** elements. To identify the virtual machine use the **vm.id** or **vm.name** attributes. For example, to create a template from a virtual machine with the identifier **123** send a request like this:

```
POST /ovirt-engine/api/templates
```

With a request body like this:

```
<template>
  <name>mytemplate</name>
  <vm id="123"/>
</template>
```

Since version 4.3, in order to create virtual machine template from a snapshot send a request body like this:

```
<template>
  <name>mytemplate</name>
  <vm id="123">
    <snapshots>
      <snapshot id="456"/>
    </snapshots>
  </vm>
</template>
```

The disks of the template can be customized, making some of their characteristics different from the disks of the original virtual machine. To do so use the **vm.disk_attachments** attribute, specifying the identifier of the disk of the original virtual machine and the characteristics that you want to change. For

example, if the original virtual machine has a disk with the identifier **456**, and, for that disk, you want to change the name to **mydisk** the format to *Copy On Write* and make it *sparse*, send a request body like this:

```
<template>
  <name>mytemplate</name>
  <vm id="123">
    <disk_attachments>
      <disk_attachment>
        <disk id="456">
          <name>mydisk</name>
          <format>cow</format>
          <sparse>true</sparse>
        </disk>
      </disk_attachment>
    </disk_attachments>
  </vm>
</template>
```

The template can be created as a sub-version of an existing template. This requires the **name** and **vm** attributes for the new template, and the **base_template** and **version_name** attributes for the new template version. The **base_template** and **version_name** attributes must be specified within a **version** section enclosed in the **template** section. Identify the virtual machine with the **id** or **name** attributes.

```
<template>
  <name>mytemplate</name>
  <vm id="123"/>
  <version>
    <base_template id="456"/>
    <version_name>mytemplate_001</version_name>
  </version>
</template>
```

The destination storage domain of the template can be customized, in one of two ways:

1. Globally, at the request level. The request must list the desired disk attachments to be created on the storage domain. If the disk attachments are not listed, the global storage domain parameter will be ignored.

```
<template>
  <name>mytemplate</name>
  <storage_domain id="123"/>
  <vm id="456">
    <disk_attachments>
      <disk_attachment>
        <disk id="789">
          <format>cow</format>
          <sparse>true</sparse>
        </disk>
      </disk_attachment>
    </disk_attachments>
  </vm>
</template>
```

- Per each disk attachment. Specify the desired storage domain for each disk attachment. Specifying the global storage definition will override the storage domain per disk attachment specification.

```
<template>
  <name>mytemplate</name>
  <vm id="123">
    <disk_attachments>
      <disk_attachment>
        <disk id="456">
          <format>cow</format>
          <sparse>true</sparse>
          <storage_domains>
            <storage_domain id="789"/>
          </storage_domains>
        </disk>
      </disk_attachment>
    </disk_attachments>
  </vm>
</template>
```

Table 28.744. Parameters summary

Name	Type	Direction	Summary
clone_permissions	Boolean	In	Specifies if the permissions of the virtual machine should be copied to the template.
seal	Boolean	In	Seals the template.
template	Template	In/Out	The information about the template or template version.

28.244.1.1. clone_permissions

Specifies if the permissions of the virtual machine should be copied to the template.

If this optional parameter is provided, and its value is **true**, then the permissions of the virtual machine (only the direct ones, not the inherited ones) will be copied to the created template. For example, to create a template from the **myvm** virtual machine copying its permissions, send a request like this:

```
POST /ovirt-engine/api/templates?clone_permissions=true
```

With a request body like this:

```
<template>
  <name>mytemplate<name>
  <vm>
    <name>myvm<name>
  </vm>
</template>
```


28.244.1.2. seal

Seals the template.

If this optional parameter is provided and its value is **true**, then the template is sealed after creation.

Sealing erases all host-specific configuration from the filesystem: SSH keys, UDEV rules, MAC addresses, system ID, hostname, and so on, thus making it easier to use the template to create multiple virtual machines without manual intervention.

Currently, sealing is supported only for Linux operating systems.

28.244.2. list GET

Returns the list of virtual machine templates.

For example:

```
GET /ovirt-engine/api/templates
```

Will return the list of virtual machines and virtual machine templates.

The order of the returned list of templates is not guaranteed.

Table 28.745. Parameters summary

Name	Type	Direction	Summary
case_sensitive	Boolean	In	Indicates if the search performed using the search parameter should be performed taking case into account.
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of templates to return.
search	String	In	A query string used to restrict the returned templates.
templates	Template[]	Out	The list of virtual machine templates.

28.244.2.1. case_sensitive

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

28.244.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.244.2.3. max

Sets the maximum number of templates to return. If not specified, all the templates are returned.

28.245. UNMANAGEDNETWORK

Table 28.746. Methods summary

Name	Summary
get	
remove	

28.245.1. get GET

Table 28.747. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
network	Unmanaged Network	Out	

28.245.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.245.2. remove DELETE

Table 28.748. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.246. UNMANAGEDNETWORKS

Table 28.749. Methods summary

Name	Summary
list	Returns the list of unmanaged networks of the host.

28.246.1. list GET

Returns the list of unmanaged networks of the host.

The order of the returned list of networks isn't guaranteed.

Table 28.750. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of networks to return.
networks	Unmanaged Network[]	Out	

28.246.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.246.1.2. max

Sets the maximum number of networks to return. If not specified all the networks are returned.

28.247. USER

A service to manage a user in the system. Use this service to either get users details or remove users. In order to add new users please use [users](#).

Table 28.751. Methods summary

Name	Summary
get	Gets the system user information.
remove	Removes the system user.
update	Updates information about the user.

28.247.1. get GET

Gets the system user information.

Usage:

```
GET /ovirt-engine/api/users/1234
```

Will return the user information:

```
<user href="/ovirt-engine/api/users/1234" id="1234">
  <name>admin</name>
  <link href="/ovirt-engine/api/users/1234/sshpublickeys" rel="sshpublickeys"/>
  <link href="/ovirt-engine/api/users/1234/roles" rel="roles"/>
  <link href="/ovirt-engine/api/users/1234/permissions" rel="permissions"/>
  <link href="/ovirt-engine/api/users/1234/tags" rel="tags"/>
  <department></department>
  <domain_entry_id>23456</domain_entry_id>
  <email>user1@domain.com</email>
  <last_name>Lastname</last_name>
  <namespace>*</namespace>
  <principal>user1</principal>
  <user_name>user1@domain-authz</user_name>
  <domain href="/ovirt-engine/api/domains/45678" id="45678">
    <name>domain-authz</name>
  </domain>
</user>
```

Table 28.752. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
user	User	Out	The system user.

28.247.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.247.2. remove DELETE

Removes the system user.

Usage:

```
DELETE /ovirt-engine/api/users/1234
```

Table 28.753. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.247.3. update PUT

Updates information about the user.

Only the **user_options** field can be updated.

For example, to update user options:

```
PUT /ovirt-engine/api/users/123
```

With a request body like this:

```
<user>
  <user_options>
    <property>
      <name>test</name>
      <value>["any","JSON"]</value>
    </property>
  </user_options>
</user>
```



IMPORTANT

Since version 4.4.5 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. Please use the [options](#) endpoint instead.

Table 28.754. Parameters summary

Name	Type	Direction	Summary
user	User	In/Out	

28.248. USEROPTION

Table 28.755. Methods summary

Name	Summary
get	Returns a user profile property of type JSON.
remove	Deletes an existing property of type JSON.

28.248.1. get GET

Returns a user profile property of type JSON.

Example request(for user with identifier **123** and option with identifier **456**):

```
GET /ovirt-engine/api/users/123/options/456
```

The result will be the following XML document:

```
<user_option href="/ovirt-engine/api/users/123/options/456" id="456">
  <name>SomeName</name>
  <content>["any", "JSON"]</content>
  <user href="/ovirt-engine/api/users/123" id="123"/>
</user_option>
```

Table 28.756. Parameters summary

Name	Type	Direction	Summary
option	UserOption	Out	

28.248.2. remove DELETE

Deletes an existing property of type JSON.

Example request(for user with identifier **123** and option with identifier **456**):

```
DELETE /ovirt-engine/api/users/123/options/456
```

28.249. USEROPTIONS

Table 28.757. Methods summary

Name	Summary
add	Adds a new user profile property of type JSON.
list	Returns a list of user profile properties of type JSON.

28.249.1. add POST

Adds a new user profile property of type JSON.

Example request(for user with identifier **123**):

```
POST /ovirt-engine/api/users/123/options
```

Payload:

```
<user_option>
  <name>SomeName</name>
  <content>["any", "JSON"]</content>
</user_option>
```

Table 28.758. Parameters summary

Name	Type	Direction	Summary
option	UserOption	In/Out	

28.249.2. list GET

Returns a list of user profile properties of type JSON.

Example request(for user with identifier **123**):

```
GET /ovirt-engine/api/users/123/options
```

The result will be the following XML document:

```
<user_options>
  <user_option href="/ovirt-engine/api/users/123/options/456" id="456">
    <name>SomeName</name>
    <content>["any", "JSON"]</content>
    <user href="/ovirt-engine/api/users/123" id="123"/>
  </user_option>
</user_options>
```

Table 28.759. Parameters summary

Name	Type	Direction	Summary
options	UserOption []	Out	

28.250. USERS

A service to manage the users in the system.

Table 28.760. Methods summary

Name	Summary
add	Add user from a directory service.
list	List all the users in the system.

28.250.1. add POST

Add user from a directory service.

For example, to add the **myuser** user from the **myextension-authz** authorization provider send a request like this:

```
POST /ovirt-engine/api/users
```

With a request body like this:

```
<user>
  <user_name>myuser@myextension-authz</user_name>
  <domain>
    <name>myextension-authz</name>
  </domain>
</user>
```

In case you are working with Active Directory you have to pass user principal name (UPN) as **username**, followed by authorization provider name. Due to [bug 1147900](#) you need to provide also **principal** parameter set to UPN of the user.

For example, to add the user with UPN **myuser@mysubdomain.mydomain.com** from the **myextension-authz** authorization provider send a request body like this:

```
<user>
  <principal>myuser@mysubdomain.mydomain.com</principal>
  <user_name>myuser@mysubdomain.mydomain.com@myextension-authz</user_name>
  <domain>
    <name>myextension-authz</name>
  </domain>
</user>
```

Table 28.761. Parameters summary

Name	Type	Direction	Summary
user	User	In/Out	

28.250.2. list GET

List all the users in the system.

Usage:

```
GET /ovirt-engine/api/users
```

Will return the list of users:

```
<users>
  <user href="/ovirt-engine/api/users/1234" id="1234">
    <name>admin</name>
    <link href="/ovirt-engine/api/users/1234/sshpublishkeys" rel="sshpublishkeys"/>
    <link href="/ovirt-engine/api/users/1234/roles" rel="roles"/>
    <link href="/ovirt-engine/api/users/1234/permissions" rel="permissions"/>
    <link href="/ovirt-engine/api/users/1234/tags" rel="tags"/>
    <domain_entry_id>23456</domain_entry_id>
    <namespace>*</namespace>
    <principal>user1</principal>
    <user_name>user1@domain-authz</user_name>
    <domain href="/ovirt-engine/api/domains/45678" id="45678">
      <name>domain-authz</name>
```



```

    </domain>
  </user>
</users>

```

The order of the returned list of users isn't guaranteed.

Table 28.762. Parameters summary

Name	Type	Direction	Summary
case_sensitive	Boolean	In	Indicates if the search performed using the search parameter should be performed taking case into account.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of users to return.
search	String	In	A query string used to restrict the returned users.
users	User[]	Out	The list of users.

28.250.2.1. case_sensitive

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

28.250.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.250.2.3. max

Sets the maximum number of users to return. If not specified all the users are returned.

28.251. VIRTUALFUNCTIONALLOWEDNETWORK

Table 28.763. Methods summary

Name	Summary
get	
remove	

28.251.1. get GET

Table 28.764. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
network	Network	Out	

28.251.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.251.2. remove DELETE

Table 28.765. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.252. VIRTUALFUNCTIONALLOWEDNETWORKS

Table 28.766. Methods summary

Name	Summary
add	
list	Returns the list of networks.

28.252.1. add POST

Table 28.767. Parameters summary

Name	Type	Direction	Summary
network	Network	In/Out	

28.252.2. list GET

Returns the list of networks.

The order of the returned list of networks isn't guaranteed.

Table 28.768. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of networks to return.
networks	Network[]	Out	

28.252.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.252.2.2. max

Sets the maximum number of networks to return. If not specified all the networks are returned.

28.253. VM

Table 28.769. Methods summary

Name	Summary
autopincpuand numanodes	Apply an automatic CPU and NUMA configuration on the VM.
cancelmigration	This operation stops any migration of a virtual machine to another physical host.
clone	
commitsnapsho t	Permanently restores the virtual machine to the state of the previewed snapshot.
detach	Detaches a virtual machine from a pool.
export	Exports the virtual machine.
freezefilesystem s	Freezes virtual machine file systems.
get	Retrieves the description of the virtual machine.
logon	Initiates the automatic user logon to access a virtual machine from an external console.
maintenance	Sets the global maintenance mode on the hosted engine virtual machine.
migrate	Migrates a virtual machine to another physical host.

Name	Summary
previewsnapshot	Temporarily restores the virtual machine to the state of a snapshot.
reboot	Sends a reboot request to a virtual machine.
remove	Removes the virtual machine, including the virtual disks attached to it.
reordermacaddresses	
reset	Sends a reset request to a virtual machine.
screenshot	Captures screenshot of the current state of the VM.
shutdown	This operation sends a shutdown request to a virtual machine.
start	Starts the virtual machine.
stop	This operation forces a virtual machine to power-off.
suspend	This operation saves the virtual machine state to disk and stops it.
thawfilesystems	Thaws virtual machine file systems.
ticket	Generates a time-sensitive authentication token for accessing a virtual machine's display.
undosnapshot	Restores the virtual machine to the state it had before previewing the snapshot.
update	Update the virtual machine in the system for the given virtual machine id.

28.253.1. autopincpuandnumanodes POST

Apply an automatic CPU and NUMA configuration on the VM.



IMPORTANT

Since version 4.5 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. Instead please use PUT followed by [update operation](#).

An example for a request:

```
POST /ovirt-engine/api/vms/123/autopincpuandnumanodes
```

With a request body like this:

```
<action>
  <optimize_cpu_settings>true</optimize_cpu_settings>
</action>
```

Table 28.770. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the detach action should be performed asynchronously.
optimize_cpu_settings	Boolean	In	Specifies how the auto CPU and NUMA configuration is applied.

28.253.1.1. optimize_cpu_settings

Specifies how the auto CPU and NUMA configuration is applied. If set to true, will adjust the CPU topology to fit the VM pinned host hardware. Otherwise, it will use the VM CPU topology.

28.253.2. cancelmigration POST

This operation stops any migration of a virtual machine to another physical host.

POST /ovirt-engine/api/vms/123/cancelmigration

The cancel migration action does not take any action specific parameters; therefore, the request body should contain an empty **action**:

```
<action/>
```

Table 28.771. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the migration should cancelled asynchronously.

28.253.3. clone POST

Table 28.772. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the clone should be performed asynchronously.

Name	Type	Direction	Summary
discard_snapshots	Boolean	In	Use the discard_snapshots parameter when the virtual machine should be clone with its snapshots collapsed.
storage_domain	StorageDomain	In	The storage domain on which the virtual machines disks will be copied to.
vm	Vm	In	

28.253.3.1. discard_snapshots

Use the **discard_snapshots** parameter when the virtual machine should be clone with its snapshots collapsed. Default is true.

28.253.4. commitsnapshot POST

Permanently restores the virtual machine to the state of the previewed snapshot.

See the [preview_snapshot](#) operation for details.

Table 28.773. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the snapshots should be committed asynchronously.

28.253.5. detach POST

Detaches a virtual machine from a pool.

POST /ovirt-engine/api/vms/123/detach

The detach action does not take any action specific parameters; therefore, the request body should contain an empty **action**:

```
<action/>
```

Table 28.774. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the detach action should be performed asynchronously.

28.253.6. export POST

Exports the virtual machine.

A virtual machine can be exported to an export domain. For example, to export virtual machine **123** to the export domain **myexport**:

```
POST /ovirt-engine/api/vms/123/export
```

With a request body like this:

```
<action>
  <storage_domain>
    <name>myexport</name>
  </storage_domain>
  <exclusive>true</exclusive>
  <discard_snapshots>true</discard_snapshots>
</action>
```

Since version 4.2 of the engine it is also possible to export a virtual machine as a virtual appliance (OVA). For example, to export virtual machine **123** as an OVA file named **myvm.ova** that is placed in the directory **/home/ovirt/** on host **myhost**:

```
POST /ovirt-engine/api/vms/123/export
```

With a request body like this:

```
<action>
  <host>
    <name>myhost</name>
  </host>
  <directory>/home/ovirt</directory>
  <filename>myvm.ova</filename>
</action>
```



NOTE

Confirm that the export operation has completed before attempting any actions on the export domain.

Table 28.775. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the export should be performed asynchronously.
discard_snapshots	Boolean	In	Use the discard_snapshots parameter when the virtual machine should be exported with all of its snapshots collapsed.

Name	Type	Direction	Summary
exclusive	Boolean	In	Use the exclusive parameter when the virtual machine should be exported even if another copy of it already exists in the export domain (override).
storage_domain	StorageDomain	In	The (export) storage domain to export the virtual machine to.

28.253.7. freeze filesystems POST

Freezes virtual machine file systems.

This operation freezes a virtual machine's file systems using the QEMU guest agent when taking a live snapshot of a running virtual machine. Normally, this is done automatically by the manager, but this must be executed manually with the API for virtual machines using OpenStack Volume (Cinder) disks.

Example:

```
POST /ovirt-engine/api/vms/123/freeze filesystems
```

```
<action/>
```

Table 28.776. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the freeze should be performed asynchronously.

28.253.8. get GET

Retrieves the description of the virtual machine.

Table 28.777. Parameters summary

Name	Type	Direction	Summary
all_content	Boolean	In	Indicates if all of the attributes of the virtual machine should be included in the response.
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
follow	String	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
next_run	Boolean	In	Indicates if the returned result describes the virtual machine as it is currently running or if describes the virtual machine with the modifications that have already been performed but that will only come into effect when the virtual machine is restarted.
ovf_as_ova	Boolean	In	Indicates if the results should expose the OVF as it appears in OVA files of that VM.
vm	Vm	Out	Description of the virtual machine.

28.253.8.1. all_content

Indicates if all of the attributes of the virtual machine should be included in the response.

By default the following attributes are excluded:

- **console**
- **initialization.configuration.data** - The OVF document describing the virtual machine.
- **rng_source**
- **soundcard**
- **virtio_scsi**

For example, to retrieve the complete representation of the virtual machine '123':

```
GET /ovirt-engine/api/vms/123?all_content=true
```



NOTE

These attributes are not included by default as they reduce performance. These attributes are seldom used and require additional queries to the database. Only use this parameter when required as it will reduce performance.

28.253.8.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.253.8.3. next_run

Indicates if the returned result describes the virtual machine as it is currently running or if describes the virtual machine with the modifications that have already been performed but that will only come into effect when the virtual machine is restarted. By default the value is **false**.

If the parameter is included in the request, but without a value, it is assumed that the value is **true**. The the following request:

```
GET /vms/{vm:id};next_run
```

Is equivalent to using the value **true**:

```
GET /vms/{vm:id};next_run=true
```

28.253.8.4. ovf_as_ova

Indicates if the results should expose the OVF as it appears in OVA files of that VM. The OVF document describing the virtual machine. This parameter will work only when `all_content=True` is set. The OVF will be presented in **initialization.configuration.data**.

For example:

```
GET /vms/{vm:id}?all_content=true&ovf_as_ova=true
```

28.253.9. logon POST

Initiates the automatic user logon to access a virtual machine from an external console.

This action requires the **ovirt-guest-agent-gdm-plugin** and the **ovirt-guest-agent-pam-module** packages to be installed and the **ovirt-guest-agent** service to be running on the virtual machine.

Users require the appropriate user permissions for the virtual machine in order to access the virtual machine from an external console.

For example:

```
POST /ovirt-engine/api/vms/123/logon
```

Request body:

```
<action/>
```

Table 28.778. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the logon should be performed asynchronously.

28.253.10. maintenance POST

Sets the global maintenance mode on the hosted engine virtual machine.

This action has no effect on other virtual machines.

Example:

```
■
```

```
POST /ovirt-engine/api/vms/123/maintenance
```

```
<action>
  <maintenance_enabled>true</maintenance_enabled/>
</action>
```

Table 28.779. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the global maintenance action should be performed asynchronously.
maintenance_enabled	Boolean	In	Indicates if global maintenance should be enabled or disabled.

28.253.11. migrate POST

Migrates a virtual machine to another physical host.

Example:

```
POST /ovirt-engine/api/vms/123/migrate
```

To specify a specific host to migrate the virtual machine to:

```
<action>
  <host id="2ab5e1da-b726-4274-bbf7-0a42b16a0fc3"/>
</action>
```

Table 28.780. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the migration should be performed asynchronously.
cluster	Cluster	In	Specifies the cluster the virtual machine should migrate to.
force	Boolean	In	Specifies that the virtual machine should migrate even if the virtual machine is defined as non-migratable.
host	Host	In	Specifies a specific host that the virtual machine should migrate to.

Name	Type	Direction	Summary
migrate_vms_in_affinity_closure	Boolean	In	Migrate also all other virtual machines in positive enforcing affinity groups with this virtual machine, that are running on the same host.

28.253.11.1. cluster

Specifies the cluster the virtual machine should migrate to. This is an optional parameter. By default, the virtual machine is migrated to another host within the same cluster.



WARNING

Live migration to another cluster is not supported. Strongly consider the target cluster's hardware architecture and network architecture before attempting a migration.

28.253.11.2. force

Specifies that the virtual machine should migrate even if the virtual machine is defined as non-migratable. This is an optional parameter. By default, it is set to **false**.

28.253.11.3. host

Specifies a specific host that the virtual machine should migrate to. This is an optional parameter. By default, the Red Hat Virtualization Manager automatically selects a default host for migration within the same cluster. If an API user requires a specific host, the user can specify the host with either an **id** or **name** parameter.

28.253.11.4. migrate_vms_in_affinity_closure

Migrate also all other virtual machines in positive enforcing affinity groups with this virtual machine, that are running on the same host.

The default value is **false**.

28.253.12. previewsnapshot POST

Temporarily restores the virtual machine to the state of a snapshot.

The snapshot is indicated with the **snapshot.id** parameter. It is restored temporarily, so that the content can be inspected. Once that inspection is finished, the state of the virtual machine can be made permanent, using the [commit_snapshot](#) method, or discarded using the [undo_snapshot](#) method.

Table 28.781. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the preview should be performed asynchronously.
disks	Disk[]	In	Specify the disks included in the snapshot's preview.
lease	StorageDomainLease	In	Specify the lease storage domain ID to use in the preview of the snapshot.
restore_memory	Boolean	In	
snapshot	Snapshot	In	
vm	Vm	In	

28.253.12.1. disks

Specify the disks included in the snapshot's preview.

For each disk parameter, it is also required to specify its **image_id**.

For example, to preview a snapshot with identifier **456** which includes a disk with identifier **111** and its **image_id** as **222**, send a request like this:

```
POST /ovirt-engine/api/vms/123/previewsnapshot
```

Request body:

```
<action>
  <disks>
    <disk id="111">
      <image_id>222</image_id>
    </disk>
  </disks>
  <snapshot id="456"/>
</action>
```

28.253.12.2. lease

Specify the lease storage domain ID to use in the preview of the snapshot. If lease parameter is not passed, then the previewed snapshot lease storage domain will be used. If lease parameter is passed with empty storage domain parameter, then no lease will be used for the snapshot preview. If lease parameter is passed with storage domain parameter then the storage domain ID can be only one of the leases domain IDs that belongs to one of the virtual machine snapshots. This is an optional parameter, set by default to **null**

28.253.13. reboot POST

Sends a reboot request to a virtual machine.

For example:

```
POST /ovirt-engine/api/vms/123/reboot
```

The reboot action does not take any action specific parameters; therefore, the request body should contain an empty **action**:

```
<action/>
```

To reboot the VM even if a backup is running for it, the action should include the 'force' element.

For example, to force reboot virtual machine **123**:

```
POST /ovirt-engine/api/vms/123/reboot
```

```
<action>
  <force>true</force>
</action>
```

Table 28.782. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the reboot should be performed asynchronously.
force	Boolean	In	Indicates if the VM should be forcibly rebooted even if a backup is running for it.

28.253.14. remove DELETE

Removes the virtual machine, including the virtual disks attached to it.

For example, to remove the virtual machine with identifier **123**:

```
DELETE /ovirt-engine/api/vms/123
```

Table 28.783. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.
detach_only	Boolean	In	Indicates if the attached virtual disks should be detached first and preserved instead of being removed.
force	Boolean	In	Indicates if the virtual machine should be forcibly removed.

28.253.14.1. force

Indicates if the virtual machine should be forcibly removed.

Locked virtual machines and virtual machines with locked disk images cannot be removed without this flag set to true.

28.253.15. reordermacaddresses POST

Table 28.784. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the action should be performed asynchronously.

28.253.16. reset POST

Sends a reset request to a virtual machine.

For example:

```
POST /ovirt-engine/api/vms/123/reset
```

The reset action does not take any action specific parameters; therefore, the request body should contain an empty **action**:

```
<action/>
```

Table 28.785. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the reset should be performed asynchronously.

28.253.17. screenshot POST

Captures screenshot of the current state of the VM.

For example:

```
POST /ovirt-engine/api/vms/123/screenshot
```

The screenshot action does not take any action specific parameters; therefore, the request body should contain an empty **action**:

```
<action/>
```

28.253.18. shutdown POST

This operation sends a shutdown request to a virtual machine.

For example:

```
POST /ovirt-engine/api/vms/123/shutdown
```

The shutdown action does not take any action specific parameters; therefore, the request body should contain an empty **action**:

```
<action/>
```

To shutdown the VM even if a backup is running for it, the action should include the 'force' element.

For example, to force shutdown virtual machine **123**:

```
POST /ovirt-engine/api/vms/123/shutdown
```

```
<action>
  <force>true</force>
</action>
```

Table 28.786. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the shutdown should be performed asynchronously.
force	Boolean	In	Indicates if the VM should be forcibly shutdown even if a backup is running for it.
reason	String	In	The reason the virtual machine was stopped.

28.253.18.1. reason

The reason the virtual machine was stopped. Optionally set by user when shutting down the virtual machine.

28.253.19. start POST

Starts the virtual machine.

If the virtual environment is complete and the virtual machine contains all necessary components to function, it can be started.

This example starts the virtual machine:

```
POST /ovirt-engine/api/vms/123/start
```

With a request body:

`<action/>`

Table 28.787. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the start action should be performed asynchronously.
authorized_key	AuthorizedKey	In	
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
pause	Boolean	In	If set to true , start the virtual machine in paused mode.
use_cloud_init	Boolean	In	If set to true , the initialization type is set to <i>cloud-init</i> .
use_ignition	Boolean	In	If set to true , the initialization type is set to <i>Ignition</i> .
use_initialization	Boolean	In	If set to true , the initialization type is set by the VM's OS.
use_sysprep	Boolean	In	If set to true , the initialization type is set to <i>Sysprep</i> .
vm	Vm	In	The definition of the virtual machine for this specific run.
volatile	Boolean	In	Indicates that this run configuration will be discarded even in the case of guest-initiated reboot.

28.253.19.1. pause

If set to **true**, start the virtual machine in paused mode. The default is **false**.

28.253.19.2. use_cloud_init

If set to **true**, the initialization type is set to *cloud-init*. The default value is **false**. See [cloud-init documentation](#) for details.

28.253.19.3. use_ignition

If set to **true**, the initialization type is set to *Ignition*. The default value is **false**. See [Ignition documentation](#) for details.

28.253.19.4. use_initialization

If set to **true**, the initialization type is set by the VM's OS. Windows will set to *Sysprep*, Linux to *cloud-init* and RedHat CoreOS to *Ignition*. If any of the initialization-types are explicitly set (useCloudInit, useSysprep or useIgnition), they will be prioritized and this flag will be ignored. The default value is **false**.

28.253.19.5. use_sysprep

If set to **true**, the initialization type is set to *Sysprep*. The default value is **false**. See [Sysprep](#) for details.

28.253.19.6. vm

The definition of the virtual machine for this specific run.

For example:

```
<action>
  <vm>
    <os>
      <boot>
        <devices>
          <device>cdrom</device>
        </devices>
      </boot>
    </os>
  </vm>
</action>
```

This will set the boot device to the CDROM only for this specific start. After the virtual machine is powered off, this definition will be reverted.

28.253.19.7. volatile

Indicates that this run configuration will be discarded even in the case of guest-initiated reboot. The default value is **false**.

28.253.20. stop POST

This operation forces a virtual machine to power-off.

For example:

```
POST /ovirt-engine/api/vms/123/stop
```

The stop action does not take any action specific parameters; therefore, the request body should contain an empty **action**:

```
<action/>
```

To stop the VM even if a backup is running for it, the action should include the 'force' element.

For example, to force stop virtual machine **123**:

```
POST /ovirt-engine/api/vms/123/stop
```

```

<action>
  <force>true</force>
</action>

```

Table 28.788. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the stop action should be performed asynchronously.
force	Boolean	In	Indicates if the VM should be forcibly stop even if a backup is running for it.
reason	String	In	The reason the virtual machine was stopped.

28.253.20.1. reason

The reason the virtual machine was stopped. Optionally set by user when shutting down the virtual machine.

28.253.21. suspend POST

This operation saves the virtual machine state to disk and stops it. Start a suspended virtual machine and restore the virtual machine state with the start action.

For example:

```
POST /ovirt-engine/api/vms/123/suspend
```

The suspend action does not take any action specific parameters; therefore, the request body should contain an empty **action**:

```
<action/>
```

Table 28.789. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the suspend action should be performed asynchronously.

28.253.22. thawfilesystems POST

Thaws virtual machine file systems.

This operation thaws a virtual machine's file systems using the QEMU guest agent when taking a live snapshot of a running virtual machine. Normally, this is done automatically by the manager, but this must be executed manually with the API for virtual machines using OpenStack Volume (Cinder) disks.

Example:

POST /api/vms/123/thawfilesystems

<action/>

Table 28.790. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the thaw file systems action should be performed asynchronously.

28.253.23. ticket POST

Generates a time-sensitive authentication token for accessing a virtual machine’s display.

For example:

POST /ovirt-engine/api/vms/123/ticket

The client-provided action optionally includes a desired ticket value and/or an expiry time in seconds.

The response specifies the actual ticket value and expiry used.

<action>
 <ticket>
 <value>abcd12345</value>
 <expiry>120</expiry>
 </ticket>
</action>



IMPORTANT

If the virtual machine is configured to support only one graphics protocol then the generated authentication token will be valid for that protocol. But if the virtual machine is configured to support multiple protocols, VNC and SPICE, then the authentication token will only be valid for the SPICE protocol.

In order to obtain an authentication token for a specific protocol, for example for VNC, use the **ticket** method of the [service](#), which manages the graphics consoles of the virtual machine, by sending a request:

POST /ovirt-engine/api/vms/123/graphicsconsoles/456/ticket

Table 28.791. Parameters summary

Name	Type	Direction	Summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the generation of the ticket should be performed asynchronously.
ticket	Ticket	In/Out	

28.253.24. undosnapshot POST

Restores the virtual machine to the state it had before previewing the snapshot.

See the [preview_snapshot](#) operation for details.

Table 28.792. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the undo snapshot action should be performed asynchronously.

28.253.25. update PUT

Update the virtual machine in the system for the given virtual machine id.

Table 28.793. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
next_run	Boolean	In	Indicates if the update should be applied to the virtual machine immediately or if it should be applied only when the virtual machine is restarted.
vm	Vm	In/Out	

28.253.25.1. next_run

Indicates if the update should be applied to the virtual machine immediately or if it should be applied only when the virtual machine is restarted. The default value is **false**, so by default changes are applied immediately.

28.254. VMAPPLICATION

A service that provides information about an application installed in a virtual machine.

Table 28.794. Methods summary

Name	Summary
get	Returns the information about the application.

28.254.1. get GET

Returns the information about the application.

Table 28.795. Parameters summary

Name	Type	Direction	Summary
application	Application	Out	The information about the application.
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.254.1.1. application

The information about the application.

The information consists of **name** attribute containing the name of the application (which is an arbitrary string that may also contain additional information such as version) and **vm** attribute identifying the virtual machine.

For example, a request like this:

```
GET /ovirt-engine/api/vms/123/applications/789
```

May return information like this:

```
<application href="/ovirt-engine/api/vms/123/applications/789" id="789">
  <name>ovirt-guest-agent-common-1.0.12-3.el7</name>
  <vm href="/ovirt-engine/api/vms/123" id="123"/>
</application>
```

28.254.1.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.255. VMAPPLICATIONS

A service that provides information about applications installed in a virtual machine.

Table 28.796. Methods summary

Name	Summary
list	Returns a list of applications installed in the virtual machine.

28.255.1. list GET

Returns a list of applications installed in the virtual machine.

The order of the returned list of applications isn't guaranteed.

Table 28.797. Parameters summary

Name	Type	Direction	Summary
applications	Application[]	Out	A list of applications installed in the virtual machine.
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of applications to return.

28.255.1.1. applications

A list of applications installed in the virtual machine.

For example, a request like this:

```
GET /ovirt-engine/api/vms/123/applications/
```

May return a list like this:

```
<applications>
  <application href="/ovirt-engine/api/vms/123/applications/456" id="456">
    <name>kernel-3.10.0-327.36.1.el7</name>
    <vm href="/ovirt-engine/api/vms/123" id="123"/>
  </application>
  <application href="/ovirt-engine/api/vms/123/applications/789" id="789">
    <name>ovirt-guest-agent-common-1.0.12-3.el7</name>
    <vm href="/ovirt-engine/api/vms/123" id="123"/>
  </application>
</applications>
```

28.255.1.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.255.1.3. max

Sets the maximum number of applications to return. If not specified all the applications are returned.

28.256. VMBACKUP

A service managing a backup of a virtual machines.

Table 28.798. Methods summary

Name	Summary
finalize	Finalize the virtual machine backup entity.
get	Returns information about the virtual machine backup.

28.256.1. finalize POST

Finalize the virtual machine backup entity.

End backup, unlock resources, and perform cleanups. To finalize a virtual machine with an id '123' and a backup with an id '456' send a request as follows:

```
POST /ovirt-engine/api/vms/123/backups/456/finalize
```

With a request body as follows:

```
<action />
```

28.256.2. get GET

Returns information about the virtual machine backup.

Table 28.799. Parameters summary

Name	Type	Direction	Summary
backup	Backup	Out	The information about the virtual machine backup entities.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.256.2.1. backup

The information about the virtual machine backup entities.

```
<backups>
  <backup id="backup-uuid">
    <from_checkpoint_id>previous-checkpoint-uuid</from_checkpoint_id>
    <link href="/ovirt-engine/api/vms/vm-uuid/backups/backup-uuid/disks" rel="disks"/>
  </backup>
</backups>
```



```

<status>initializing</status>
<creation_date>
</backup>
</backups>

```

28.256.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.257. VMBACKUPDISK

Table 28.800. Methods summary

Name	Summary
get	Retrieves the description of the disk.

28.257.1. get GET

Retrieves the description of the disk.

Table 28.801. Parameters summary

Name	Type	Direction	Summary
disk	Disk	Out	The description of the disk.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.257.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.258. VMBACKUPDISKS

Table 28.802. Methods summary

Name	Summary
list	Returns the list of disks in backup.

28.258.1. list GET

Returns the list of disks in backup.

Table 28.803. Parameters summary

Name	Type	Direction	Summary
disks	Disk[]	Out	The list of retrieved disks.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of disks to return.

28.258.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.258.1.2. max

Sets the maximum number of disks to return. If not specified, all the disks are returned.

28.259. VMBACKUPS

Lists the backups of a virtual machine.

Table 28.804. Methods summary

Name	Summary
add	Adds a new backup entity to a virtual machine.
list	The list of virtual machine backups.

28.259.1. add POST

Adds a new backup entity to a virtual machine.

For example, to start a new incremental backup of a virtual machine since checkpoint id **previous-checkpoint-uuid**, send a request like this:

```
POST /ovirt-engine/api/vms/123/backups
```

With a request body like this:

```
<backup>
  <from_checkpoint_id>previous-checkpoint-uuid</from_checkpoint_id>
  <disks>
    <disk id="disk-uuid" />
    ...
  </disks>
</backup>
```

The response body:

```

<backup id="backup-uuid">
  <from_checkpoint_id>previous-checkpoint-uuid</from_checkpoint_id>
  <to_checkpoint_id>new-checkpoint-uuid</to_checkpoint_id>
  <disks>
    <disk id="disk-uuid" />
    ...
  </disks>
  <status>initializing</status>
  <creation_date>
</backup>

```

To provide the ID of the created backup, send a request like this:

```
POST /ovirt-engine/api/vms/123/backups
```

With a request body like this:

```

<backup id="backup-uuid">
  <from_checkpoint_id>previous-checkpoint-uuid</from_checkpoint_id>
  <disks>
    <disk id="disk-uuid" />
    ...
  </disks>
</backup>

```

Table 28.805. Parameters summary

Name	Type	Direction	Summary
backup	Backup	In/Out	The information about the virtual machine backup entity.
require_consistency	Boolean	In	Indicates if the backup will fail if VM failed to freeze or not.
use_active	Boolean	In	Indicate whether to use the active volume for performing the backup.

28.259.1.1. require_consistency

Indicates if the backup will fail if VM failed to freeze or not.

If requireConsistency=True VM backup will fail in case of a failure to freeze the VM.

The REST API call should look like this:

```
POST /ovirt-engine/api/vms/123/backups?require_consistency=true
```

The default value of the requireConsistency flag is **false**.

28.259.1.2. use_active

Indicate whether to use the active volume for performing the backup.

If useActive=False a snapshot will be created for the backup operation.

The REST API call should look like this:

```
POST /ovirt-engine/api/vms/123/backups?use_active=false
```

The default value of the useActive flag is **false**.

28.259.2. list GET

The list of virtual machine backups.

Table 28.806. Parameters summary

Name	Type	Direction	Summary
backups	Backup[]	Out	The information about the virtual machine backup entities.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of virtual machine backups to return.

28.259.2.1. backups

The information about the virtual machine backup entities.

```
<backups>
  <backup id="backup-uuid">
    <from_checkpoint_id>previous-checkpoint-uuid</from_checkpoint_id>
    <disks>
      <disk id="disk-uuid" />
      ...
    </disks>
    <status>initializing</status>
    <creation_date>
  </backup>
</backups>
```

28.259.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.259.2.3. max

Sets the maximum number of virtual machine backups to return. If not specified, all the virtual machine backups are returned.

28.260. VMCDROM

Manages a CDROM device of a virtual machine.

Changing and ejecting the disk is done using always the **update** method, to change the value of the **file** attribute.

Table 28.807. Methods summary

Name	Summary
get	Returns the information about this CDROM device.
update	Updates the information about this CDROM device.

28.260.1. get GET

Returns the information about this CDROM device.

The information consists of **cdrom** attribute containing reference to the CDROM device, the virtual machine, and optionally the inserted disk.

If there is a disk inserted then the **file** attribute will contain a reference to the ISO image:

```
<cdrom href="..." id="00000000-0000-0000-0000-000000000000">
  <file id="mycd.iso"/>
  <vm href="/ovirt-engine/api/vms/123" id="123"/>
</cdrom>
```

If there is no disk inserted then the **file** attribute won't be reported:

```
<cdrom href="..." id="00000000-0000-0000-0000-000000000000">
  <vm href="/ovirt-engine/api/vms/123" id="123"/>
</cdrom>
```

Table 28.808. Parameters summary

Name	Type	Direction	Summary
cdrom	Cdrom	Out	The information about the CDROM device.
current	Boolean	In	Indicates if the operation should return the information for the currently running virtual machine.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.260.1.1. current

Indicates if the operation should return the information for the currently running virtual machine. This parameter is optional, and the default value is **false**.

28.260.1.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.260.2. update PUT

Updates the information about this CDROM device.

It allows to change or eject the disk by changing the value of the **file** attribute. For example, to insert or change the disk send a request like this:

```
PUT /ovirt-engine/api/vms/123/cdroms/00000000-0000-0000-0000-000000000000
```

The body should contain the new value for the **file** attribute:

```
<cdrom>
  <file id="mycd.iso"/>
</cdrom>
```

The value of the **id** attribute, **mycd.iso** in this example, should correspond to a file available in an attached ISO storage domain.

To eject the disk use a **file** with an empty **id**:

```
<cdrom>
  <file id=""/>
</cdrom>
```

By default the above operations change permanently the disk that will be visible to the virtual machine after the next boot, but they do not have any effect on the currently running virtual machine. If you want to change the disk that is visible to the current running virtual machine, add the **current=true** parameter. For example, to eject the current disk send a request like this:

```
PUT /ovirt-engine/api/vms/123/cdroms/00000000-0000-0000-0000-000000000000?current=true
```

With a request body like this:

```
<cdrom>
  <file id=""/>
</cdrom>
```



IMPORTANT

The changes made with the **current=true** parameter are never persisted, so they won't have any effect after the virtual machine is rebooted.

Table 28.809. Parameters summary

Name	Type	Direction	Summary
cdrom	Cdrom	In/Out	The information about the CDROM device.

Name	Type	Direction	Summary
current	Boolean	In	Indicates if the update should apply to the currently running virtual machine, or to the virtual machine after the next boot.

28.260.2.1. current

Indicates if the update should apply to the currently running virtual machine, or to the virtual machine after the next boot. This parameter is optional, and the default value is **false**, which means that by default the update will have effect only after the next boot.

28.261. VMCDROMS

Manages the CDROM devices of a virtual machine.

Currently virtual machines have exactly one CDROM device. No new devices can be added, and the existing one can't be removed, thus there are no **add** or **remove** methods. Changing and ejecting CDROM disks is done with the [update](#) method of the [service](#) that manages the CDROM device.

Table 28.810. Methods summary

Name	Summary
add	Add a cdrom to a virtual machine identified by the given id.
list	Returns the list of CDROM devices of the virtual machine.

28.261.1. add POST

Add a cdrom to a virtual machine identified by the given id.

Table 28.811. Parameters summary

Name	Type	Direction	Summary
cdrom	Cdrom	In/Out	

28.261.2. list GET

Returns the list of CDROM devices of the virtual machine.

The order of the returned list of CD-ROM devices isn't guaranteed.

Table 28.812. Parameters summary

Name	Type	Direction	Summary
cdroms	Cdrom[]	Out	The list of CDROM devices of the virtual machine.

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of CDROMs to return.

28.261.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.261.2.2. max

Sets the maximum number of CDROMs to return. If not specified all the CDROMs are returned.

28.262. VMCHECKPOINT

A service managing a checkpoint of a virtual machines.

Table 28.813. Methods summary

Name	Summary
get	Returns information about the virtual machine checkpoint.
remove	Remove the virtual machine checkpoint entity.

28.262.1. get GET

Returns information about the virtual machine checkpoint.

Table 28.814. Parameters summary

Name	Type	Direction	Summary
checkpoint	Checkpoint	Out	The information about the virtual machine checkpoint entity.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.262.1.1. checkpoint

The information about the virtual machine checkpoint entity.

```
<checkpoint id="checkpoint-uuid">
  <link href="/ovirt-engine/api/vms/vm-uuid/checkpoints/checkpoint-uuid/disks" rel="disks"/>
  <parent_id>parent-checkpoint-uuid</parent_id>
```



```
<creation_date>xxx</creation_date>
<vm href="/ovirt-engine/api/vms/vm-uuid" id="vm-uuid"/>
</checkpoint>
```

28.262.1.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.262.2. remove DELETE

Remove the virtual machine checkpoint entity.

Remove the checkpoint from libvirt and the database.

Table 28.815. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.263. VMCHECKPOINTDISK

Table 28.816. Methods summary

Name	Summary
get	Retrieves the description of the disk.

28.263.1. get GET

Retrieves the description of the disk.

Table 28.817. Parameters summary

Name	Type	Direction	Summary
disk	Disk	Out	The description of the disk.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.263.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.264. VMCHECKPOINTDISKS

Table 28.818. Methods summary

Name	Summary
list	Returns the list of disks in checkpoint.

28.264.1. list GET

Returns the list of disks in checkpoint.

Table 28.819. Parameters summary

Name	Type	Direction	Summary
disks	Disk[]	Out	The list of retrieved disks.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of disks to return.

28.264.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.264.1.2. max

Sets the maximum number of disks to return. If not specified, all the disks are returned.

28.265. VMCHECKPOINTS

Lists the checkpoints of a virtual machine.

Table 28.820. Methods summary

Name	Summary
list	The list of virtual machine checkpoints.

28.265.1. list GET

The list of virtual machine checkpoints.

To get a list of checkpoints for a virtual machine with an id '123', send a request as follows:

```
GET /ovirt-engine/api/vms/123/checkpoints
```

Table 28.821. Parameters summary

Name	Type	Direction	Summary
checkpoints	Checkpoint[]	Out	The information about the virtual machine checkpoint entities.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of virtual machine checkpoints to return.

28.265.1.1. checkpoints

The information about the virtual machine checkpoint entities.

```
<checkpoints>
  <checkpoint id="checkpoint-uuid">
    <link href="/ovirt-engine/api/vms/vm-uuid/checkpoints/checkpoint-uuid/disks" rel="disks"/>
    <parent_id>parent-checkpoint-uuid</parent_id>
    <creation_date>xxx</creation_date>
    <vm href="/ovirt-engine/api/vm-uuid" id="vm-uuid"/>
  </checkpoint>
</checkpoints>
```

28.265.1.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.265.1.3. max

Sets the maximum number of virtual machine checkpoints to return. If not specified, all the virtual machine checkpoints are returned.

28.266. VMDISK

Table 28.822. Methods summary

Name	Summary
activate	
deactivate	
export	
get	
move	

Name	Summary
reduce	Reduces the size of the disk image.
remove	Detach the disk from the virtual machine.
update	

28.266.1. activate POST

Table 28.823. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the activation should be performed asynchronously.

28.266.2. deactivate POST

Table 28.824. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the deactivation should be performed asynchronously.

28.266.3. export POST

Table 28.825. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the export should be performed asynchronously.
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.

28.266.4. get GET

Table 28.826. Parameters summary

Name	Type	Direction	Summary
disk	Disk	Out	

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.266.4.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.266.5. move POST

Table 28.827. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the move should be performed asynchronously.
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.

28.266.6. reduce POST

Reduces the size of the disk image.

Invokes *reduce* on the logical volume (i.e. this is only applicable for block storage domains). This is applicable for floating disks and disks attached to non-running virtual machines. There is no need to specify the size as the optimal size is calculated automatically.

Table 28.828. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.266.7. remove DELETE

Detach the disk from the virtual machine.



NOTE

In version 3 of the API this used to also remove the disk completely from the system, but starting with version 4 it doesn't. If you need to remove it completely use the [remove method of the top level disk service](#).

Table 28.829. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.266.8. update PUT

Table 28.830. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
disk	Disk	In/Out	

28.267. VMDISKS

Table 28.831. Methods summary

Name	Summary
add	
list	Returns the list of disks of the virtual machine.

28.267.1. add POST

Table 28.832. Parameters summary

Name	Type	Direction	Summary
disk	Disk	In/Out	

28.267.2. list GET

Returns the list of disks of the virtual machine.

The order of the returned list of disks isn't guaranteed.

Table 28.833. Parameters summary

Name	Type	Direction	Summary
disks	Disk[]	Out	
follow	String	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
max	Integer	In	Sets the maximum number of disks to return.

28.267.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.267.2.2. max

Sets the maximum number of disks to return. If not specified all the disks are returned.

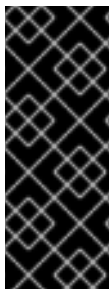
28.268. VMGRAPHICSCONSOLE

Table 28.834. Methods summary

Name	Summary
get	Retrieves the graphics console configuration of the virtual machine.
proxyticket	
remoteviewerconnectionfile	Generates the file which is compatible with remote-viewer client.
remove	Remove the graphics console from the virtual machine.
ticket	Generates a time-sensitive authentication token for accessing this virtual machine's console.

28.268.1. get GET

Retrieves the graphics console configuration of the virtual machine.



IMPORTANT

By default, when the **current** parameter is not specified, the data returned corresponds to the next execution of the virtual machine. In the current implementation of the system this means that the **address** and **port** attributes will not be populated because the system does not know what address and port will be used for the next execution. Since in most cases those attributes are needed, it is strongly advised to always explicitly include the **current** parameter with the value **true**.

Table 28.835. Parameters summary

Name	Type	Direction	Summary
console	GraphicsConsole	Out	The information about the graphics console of the virtual machine.
current	Boolean	In	Specifies if the data returned should correspond to the next execution of the virtual machine, or to the current execution.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.268.1.1. current

Specifies if the data returned should correspond to the next execution of the virtual machine, or to the current execution.



IMPORTANT

The **address** and **port** attributes will not be populated unless the value is **true**.

For example, to get data for the current execution of the virtual machine, including the **address** and **port** attributes, send a request like this:

```
GET /ovirt-engine/api/vms/123/graphicsconsoles/456?current=true
```

The default value is **false**.

28.268.1.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.268.2. proxyticket POST

Table 28.836. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the generation of the ticket should be performed asynchronously.
proxy_ticket	ProxyTicket	Out	

28.268.3. remoteviewerconnectionfile POST

Generates the file which is compatible with **remote-viewer** client.

Use the following request to generate remote viewer connection file of the graphics console. Note that this action generates the file only if virtual machine is running.

POST /ovirt-engine/api/vms/123/graphicsconsoles/456/remotewriterconnectionfile

The **remotewriterconnectionfile** action does not take any action specific parameters, so the request body should contain an empty **action**:

<action/>

The response contains the file, which can be used with **remote-viewer** client.

```
<action>
<remote_viewer_connection_file>
[virt-viewer]
type=spice
host=192.168.1.101
port=-1
password=123456789
delete-this-file=1
fullscreen=0
toggle-fullscreen=shift+f11
release-cursor=shift+f12
secure-attention=ctrl+alt+end
tls-port=5900
enable-smartcard=0
enable-usb-autoshare=0
usb-filter=null
tls-ciphers=DEFAULT
host-subject=O=local,CN=example.com
ca=...
</remote_viewer_connection_file>
</action>
```

E.g., to fetch the content of remote viewer connection file and save it into temporary file, user can use oVirt Python SDK as follows:

```
# Find the virtual machine:
vm = vms_service.list(search='name=myvm')[0]

# Locate the service that manages the virtual machine, as that is where
# the locators are defined:
vm_service = vms_service.vm_service(vm.id)

# Find the graphic console of the virtual machine:
graphics_consoles_service = vm_service.graphics_consoles_service()
graphics_console = graphics_consoles_service.list()[0]

# Generate the remote viewer connection file:
console_service = graphics_consoles_service.console_service(graphics_console.id)
remote_viewer_connection_file = console_service.remote_viewer_connection_file()

# Write the content to file "/tmp/remote_viewer_connection_file.vv"
path = "/tmp/remote_viewer_connection_file.vv"
with open(path, "w") as f:
    f.write(remote_viewer_connection_file)
```

When you create the remote viewer connection file, then you can connect to virtual machine graphic console, as follows:

```
#!/bin/sh -ex
```

```
remote-viewer --ovirt-ca-file=/etc/pki/ovirt-engine/ca.pem /tmp/remote_viewer_connection_file.vv
```

Table 28.837. Parameters summary

Name	Type	Direction	Summary
remote_viewer_connection_file	String	Out	Contains the file which is compatible with remote-viewer client.

28.268.3.1. remote_viewer_connection_file

Contains the file which is compatible with **remote-viewer** client.

User can use the content of this attribute to create a file, which can be passed to **remote-viewer** client to connect to virtual machine graphic console.

28.268.4. remove DELETE

Remove the graphics console from the virtual machine.

Table 28.838. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.268.5. ticket POST

Generates a time-sensitive authentication token for accessing this virtual machine's console.

```
POST /ovirt-engine/api/vms/123/graphicsconsoles/456/ticket
```

The client-provided action optionally includes a desired ticket value and/or an expiry time in seconds.

In any case, the response specifies the actual ticket value and expiry used.

```
<action>
  <ticket>
    <value>abcd12345</value>
    <expiry>120</expiry>
  </ticket>
</action>
```

Table 28.839. Parameters summary

Name	Type	Direction	Summary
ticket	Ticket	In/Out	The generated ticket that can be used to access this console.

28.269. VMGRAPHICSCONSOLES

Table 28.840. Methods summary

Name	Summary
add	Add new graphics console to the virtual machine.
list	Lists all the configured graphics consoles of the virtual machine.

28.269.1. add POST

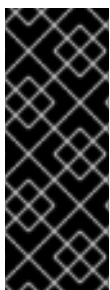
Add new graphics console to the virtual machine.

Table 28.841. Parameters summary

Name	Type	Direction	Summary
console	GraphicsConsole	In/Out	

28.269.2. list GET

Lists all the configured graphics consoles of the virtual machine.



IMPORTANT

By default, when the **current** parameter is not specified, the data returned corresponds to the next execution of the virtual machine. In the current implementation of the system this means that the **address** and **port** attributes will not be populated because the system does not know what address and port will be used for the next execution. Since in most cases those attributes are needed, it is strongly advised to always explicitly include the **current** parameter with the value **true**.

The order of the returned list of graphics consoles is not guaranteed.

Table 28.842. Parameters summary

Name	Type	Direction	Summary
consoles	GraphicsConsole[]	Out	The list of graphics consoles of the virtual machine.

Name	Type	Direction	Summary
current	Boolean	In	Specifies if the data returned should correspond to the next execution of the virtual machine, or to the current execution.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of consoles to return.

28.269.2.1. current

Specifies if the data returned should correspond to the next execution of the virtual machine, or to the current execution.



IMPORTANT

The **address** and **port** attributes will not be populated unless the value is **true**.

For example, to get data for the current execution of the virtual machine, including the **address** and **port** attributes, send a request like this:

```
GET /ovirt-engine/api/vms/123/graphicsconsoles?current=true
```

The default value is **false**.

28.269.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.269.2.3. max

Sets the maximum number of consoles to return. If not specified all the consoles are returned.

28.270. VMHOSTDEVICE

A service to manage individual host device attached to a virtual machine.

Table 28.843. Methods summary

Name	Summary
get	Retrieve information about particular host device attached to given virtual machine.
remove	Remove the attachment of this host device from given virtual machine.

28.270.1. get GET

Retrieve information about particular host device attached to given virtual machine.

Example:

```
GET /ovirt-engine/api/vms/123/hostdevices/456
```

```
<host_device href="/ovirt-engine/api/hosts/543/devices/456" id="456">
  <name>pci_0000_04_00_0</name>
  <capability>pci</capability>
  <iommu_group>30</iommu_group>
  <placeholder>true</placeholder>
  <product id="0x13ba">
    <name>GM107GL [Quadro K2200]</name>
  </product>
  <vendor id="0x10de">
    <name>NVIDIA Corporation</name>
  </vendor>
  <host href="/ovirt-engine/api/hosts/543" id="543"/>
  <parent_device href="/ovirt-engine/api/hosts/543/devices/456" id="456">
    <name>pci_0000_00_03_0</name>
  </parent_device>
  <vm href="/ovirt-engine/api/vms/123" id="123"/>
</host_device>
```

Table 28.844. Parameters summary

Name	Type	Direction	Summary
device	HostDevice	Out	Retrieved information about the host device attached to given virtual machine.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.270.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.270.2. remove DELETE

Remove the attachment of this host device from given virtual machine.



NOTE

In case this device serves as an IOMMU placeholder, it cannot be removed (remove will result only in setting its **placeholder** flag to **true**). Note that all IOMMU placeholder devices will be removed automatically as soon as there will be no more non-placeholder devices (all devices from given IOMMU group are detached).

```
DELETE /ovirt-engine/api/vms/123/hostdevices/456
```

Table 28.845. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.271. VMHOSTDEVICES

A service to manage host devices attached to a virtual machine.

Table 28.846. Methods summary

Name	Summary
add	Attach target device to given virtual machine.
list	List the host devices assigned to given virtual machine.

28.271.1. add POST

Attach target device to given virtual machine.

Example:

```
POST /ovirt-engine/api/vms/123/hostdevices
```

With request body of type [HostDevice](#), for example

```
<host_device id="123" />
```



NOTE

A necessary precondition for a successful host device attachment is that the virtual machine must be pinned to **exactly** one host. The device ID is then taken relative to this host.



NOTE

Attachment of a PCI device that is part of a bigger IOMMU group will result in attachment of the remaining devices from that IOMMU group as "placeholders". These devices are then identified using the **placeholder** attribute of the [HostDevice](#) type set to **true**.

In case you want attach a device that already serves as an IOMMU placeholder, simply issue an explicit Add operation for it, and its **placeholder** flag will be cleared, and the device will be accessible to the virtual machine.

Table 28.847. Parameters summary

Name	Type	Direction	Summary
device	HostDevice	In/Out	The host device to be attached to given virtual machine.

28.271.2. list GET

List the host devices assigned to given virtual machine.

The order of the returned list of devices isn't guaranteed.

Table 28.848. Parameters summary

Name	Type	Direction	Summary
device	HostDevice[]	Out	Retrieved list of host devices attached to given virtual machine.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of devices to return.

28.271.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.271.2.2. max

Sets the maximum number of devices to return. If not specified all the devices are returned.

28.272. VMMEDIEDDEVICE

Table 28.849. Methods summary

Name	Summary
get	Retrieves the configuration of mediated devices in the virtual machine.
remove	Remove the mediated device from the virtual machine.
update	Updates the information about the mediated device.

28.272.1. get GET

Retrieves the configuration of mediated devices in the virtual machine.

Table 28.850. Parameters summary

Name	Type	Direction	Summary
device	VmMediated Device	Out	The information about the mediated device of the virtual machine.
follow	String	In	Indicates which inner links should be <i>followed</i> .

28.272.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.272.2. remove DELETE

Remove the mediated device from the virtual machine.

Table 28.851. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.272.3. update PUT

Updates the information about the mediated device.

You can update the information using **specParams** element.

For example, to update a mediated device, send a request like this:

```
PUT /ovirt-engine/api/vms/123/mediateddevices/00000000-0000-0000-0000-000000000000
<vm_mediated_device>
  <spec_params>
    <property>
      <name>mdevType</name>
      <value>nvidia-11</value>
    </property>
  </spec_params>
</vm_mediated_device>
```

with response body:

```
<vm_mediated_device href="/ovirt-engine/api/vms/123/mediateddevices/00000000-0000-0000-0000-000000000000" id="00000000-0000-0000-0000-000000000000">
  <vm href="/ovirt-engine/api/vms/123" id="123"/>
  <spec_params>
    <property>
      <name>mdevType</name>
      <value>nvidia-11</value>
```



```

    </property>
  </spec_params>
</vm_mediated_device>

```

Table 28.852. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
device	VmMediated Device	In/Out	The information about the mediated device.

28.272.3.1. device

The information about the mediated device.

The request data must contain **specParams** properties. The response data contains complete information about the updated mediated device.

28.273. VMMEDIEDDEVICES

A service that manages mediated devices of a VM.

Table 28.853. Methods summary

Name	Summary
add	Add a new mediated device to the virtual machine.
list	Lists all the configured mediated devices of the virtual machine.

28.273.1. add POST

Add a new mediated device to the virtual machine.

Table 28.854. Parameters summary

Name	Type	Direction	Summary
device	VmMediated Device	In/Out	

28.273.2. list GET

Lists all the configured mediated devices of the virtual machine.

The order of the returned list of mediated devices is not guaranteed.

Table 28.855. Parameters summary

Name	Type	Direction	Summary
devices	VmMediatedDevice[]	Out	The list of mediated devices of the virtual machine.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of mediated devices to return.

28.273.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.273.2.2. max

Sets the maximum number of mediated devices to return. If not specified all the mediated devices are returned.

28.274. VMNIC

Table 28.856. Methods summary

Name	Summary
activate	
deactivate	
get	
remove	Removes the NIC.
update	Updates the NIC.

28.274.1. activate POST

Table 28.857. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the activation should be performed asynchronously.

28.274.2. deactivate POST

Table 28.858. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the deactivation should be performed asynchronously.

28.274.3. get GET

Table 28.859. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
nic	Nic	Out	

28.274.3.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.274.4. remove DELETE

Removes the NIC.

For example, to remove the NIC with id **456** from the virtual machine with id **123** send a request like this:

```
DELETE /ovirt-engine/api/vms/123/nics/456
```



IMPORTANT

The hotplugging feature only supports virtual machine operating systems with hotplugging operations. Example operating systems include:

- Red Hat Enterprise Linux 6
- Red Hat Enterprise Linux 5
- Windows Server 2008 and
- Windows Server 2003

Table 28.860. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.274.5. update PUT

Updates the NIC.

For example, to update the NIC having with **456** belonging to virtual the machine with id **123** send a request like this:

```
PUT /ovirt-engine/api/vms/123/nics/456
```

With a request body like this:

```
<nic>
  <name>mynic</name>
  <interface>e1000</interface>
  <vnic_profile id='789' />
</nic>
```



IMPORTANT

The hotplugging feature only supports virtual machine operating systems with hotplugging operations. Example operating systems include:

- Red Hat Enterprise Linux 6
- Red Hat Enterprise Linux 5
- Windows Server 2008 and
- Windows Server 2003

Table 28.861. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
nic	Nic	In/Out	

28.275. VMNICS

Table 28.862. Methods summary

Name	Summary
add	Adds a NIC to the virtual machine.
list	Returns the list of NICs of the virtual machine.

28.275.1. add POST

Adds a NIC to the virtual machine.

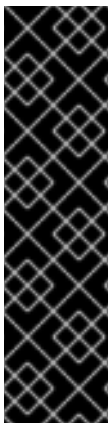
The following example adds to the virtual machine **123** a network interface named **mynic** using **virtio** and the NIC profile **456**.

```
POST /ovirt-engine/api/vms/123/nics
```

```
<nic>
  <name>mynic</name>
  <interface>virtio</interface>
  <vnic_profile id="456"/>
</nic>
```

The following example sends that request using **curl**:

```
curl \
--request POST \
--header "Version: 4" \
--header "Content-Type: application/xml" \
--header "Accept: application/xml" \
--user "admin@internal:mypassword" \
--cacert /etc/pki/ovirt-engine/ca.pem \
--data '
<nic>
  <name>mynic</name>
  <interface>virtio</interface>
  <vnic_profile id="456"/>
</nic>
'\
https://myengine.example.com/ovirt-engine/api/vms/123/nics
```



IMPORTANT

The hotplugging feature only supports virtual machine operating systems with hotplugging operations. Example operating systems include:

- Red Hat Enterprise Linux 6
- Red Hat Enterprise Linux 5
- Windows Server 2008 and
- Windows Server 2003

Table 28.863. Parameters summary

Name	Type	Direction	Summary
nic	Nic	In/Out	

28.275.2. list GET

Returns the list of NICs of the virtual machine.

The order of the returned list of NICs isn't guaranteed.

Table 28.864. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of NICs to return.
nics	Nic[]	Out	

28.275.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.275.2.2. max

Sets the maximum number of NICs to return. If not specified all the NICs are returned.

28.276. VMNUMANODE

Table 28.865. Methods summary

Name	Summary
get	
remove	Removes a virtual NUMA node.
update	Updates a virtual NUMA node.

28.276.1. get GET

Table 28.866. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
node	VirtualNumaNode	Out	

28.276.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.276.2. remove DELETE

Removes a virtual NUMA node.

An example of removing a virtual NUMA node:

```
DELETE /ovirt-engine/api/vms/123/numanodes/456
```



NOTE

It's required to remove the numa nodes from the highest index first.

Table 28.867. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.276.3. update PUT

Updates a virtual NUMA node.

An example of pinning a virtual NUMA node to a physical NUMA node on the host:

```
PUT /ovirt-engine/api/vms/123/numanodes/456
```

The request body should contain the following:

```
<vm_numa_node>
  <numa_node_pins>
    <numa_node_pin>
      <index>0</index>
    </numa_node_pin>
  </numa_node_pins>
</vm_numa_node>
```

Table 28.868. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
node	VirtualNuma Node	In/Out	

28.277. VMNUMANODES

Table 28.869. Methods summary

Name	Summary
add	Creates a new virtual NUMA node for the virtual machine.
list	Lists virtual NUMA nodes of a virtual machine.

28.277.1. add POST

Creates a new virtual NUMA node for the virtual machine.

An example of creating a NUMA node:

```
POST /ovirt-engine/api/vms/c7ecd2dc/numanodes
Accept: application/xml
Content-type: application/xml
```

The request body can contain the following:

```
<vm_numa_node>
  <cpu>
    <cores>
      <core>
        <index>0</index>
      </core>
    </cores>
  </cpu>
  <index>0</index>
  <memory>1024</memory>
  <numa_tune_mode>strict</numa_tune_mode>
</vm_numa_node>
```

Table 28.870. Parameters summary

Name	Type	Direction	Summary
node	VirtualNuma Node	In/Out	

28.277.2. list GET

Lists virtual NUMA nodes of a virtual machine.

The order of the returned list of NUMA nodes isn't guaranteed.

Table 28.871. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of nodes to return.
nodes	VirtualNuma Node[]	Out	

28.277.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.277.2.2. max

Sets the maximum number of nodes to return. If not specified all the nodes are returned.

28.278. VMPOOL

A service to manage a virtual machines pool.

Table 28.872. Methods summary

Name	Summary
allocatevm	This operation allocates a virtual machine in the virtual machine pool.
get	Get the virtual machine pool.
remove	Removes a virtual machine pool.
update	Update the virtual machine pool.

28.278.1. allocatevm POST

This operation allocates a virtual machine in the virtual machine pool.

POST /ovirt-engine/api/vmpools/123/allocatevm

The allocate virtual machine action does not take any action specific parameters, so the request body should contain an empty **action**:

<action/>

Table 28.873. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the allocation should be performed asynchronously.

28.278.2. get GET

Get the virtual machine pool.

GET /ovirt-engine/api/vmpools/123

You will get a XML response like that one:

```
<vm_pool id="123">
  <actions>...</actions>
  <name>MyVmPool</name>
  <description>MyVmPool description</description>
  <link href="/ovirt-engine/api/vmpools/123/permissions" rel="permissions"/>
  <max_user_vms>1</max_user_vms>
  <prestarted_vms>0</prestarted_vms>
  <size>100</size>
  <stateful>>false</stateful>
  <type>automatic</type>
  <use_latest_template_version>>false</use_latest_template_version>
  <cluster id="123"/>
  <template id="123"/>
  <vm id="123">...</vm>
  ...
</vm_pool>
```

Table 28.874. Parameters summary

Name	Type	Direction	Summary
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
follow	String	In	Indicates which inner links should be <i>followed</i> .
pool	VmPool	Out	Retrieved virtual machines pool.

28.278.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.278.3. remove DELETE

Removes a virtual machine pool.

■

DELETE /ovirt-engine/api/vmpools/123

Table 28.875. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.278.4. update PUT

Update the virtual machine pool.

PUT /ovirt-engine/api/vmpools/123

The **name**, **description**, **size**, **prestarted_vms** and **max_user_vms** attributes can be updated after the virtual machine pool has been created.

```
<vmPool>
  <name>VM_Pool_B</name>
  <description>Virtual Machine Pool B</description>
  <size>3</size>
  <prestarted_vms>1</size>
  <max_user_vms>2</size>
</vmPool>
```

Table 28.876. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
pool	VmPool	In/Out	The virtual machine pool that is being updated.
seal	Boolean	In	Specifies if virtual machines created for the pool should be sealed after creation.

28.278.4.1. seal

Specifies if virtual machines created for the pool should be sealed after creation.

If this optional parameter is provided, and its value is **true**, virtual machines created for the pool will be sealed after creation. If the value is 'false', the virtual machines will not be sealed. If the parameter is not provided, the virtual machines will be sealed, only if they are created from a sealed template and their guest OS is not set to Windows. This parameter affects only the virtual machines created when the pool is updated.

For example, to update a virtual machine pool and to seal the additional virtual machines that are created, send a request like this:

PUT /ovirt-engine/api/vmpools/123?seal=true

With the following body:

```
<vmpool>
  <name>VM_Pool_B</name>
  <description>Virtual Machine Pool B</description>
  <size>7</size>
</vmpool>
```

28.279. VMPOOLS

Provides read-write access to virtual machines pools.

Table 28.877. Methods summary

Name	Summary
add	Creates a new virtual machine pool.
list	Get a list of available virtual machines pools.

28.279.1. add POST

Creates a new virtual machine pool.

A new pool requires the **name**, **cluster** and **template** attributes. Identify the cluster and template with the **id** or **name** nested attributes:

POST /ovirt-engine/api/vmpools

With the following body:

```
<vmpool>
  <name>mypool</name>
  <cluster id="123"/>
  <template id="456"/>
</vmpool>
```

Table 28.878. Parameters summary

Name	Type	Direction	Summary
pool	VmPool	In/Out	Pool to add.
seal	Boolean	In	Specifies if virtual machines created for the pool should be sealed after creation.

28.279.1.1. seal

Specifies if virtual machines created for the pool should be sealed after creation.

If this optional parameter is provided, and its value is **true**, virtual machines created for the pool will be sealed after creation. If the value is 'false', the virtual machines will not be sealed. If the parameter is not provided, the virtual machines will be sealed, only if they are created from a sealed template and their guest OS is not set to Windows. This parameter affects only the virtual machines created when the pool is created.

For example, to create a virtual machine pool with 5 virtual machines and to seal them, send a request like this:

```
POST /ovirt-engine/api/vmpools?seal=true
```

With the following body:

```
<vm_pool>
  <name>mypool</name>
  <cluster id="123"/>
  <template id="456"/>
  <size>5</size>
</vm_pool>
```

28.279.2. list GET

Get a list of available virtual machines pools.

```
GET /ovirt-engine/api/vmpools
```

You will receive the following response:

```
<vm_pools>
  <vm_pool id="123">
    ...
  </vm_pool>
  ...
</vm_pools>
```

The order of the returned list of pools is guaranteed only if the **sortby** clause is included in the **search** parameter.

Table 28.879. Parameters summary

Name	Type	Direction	Summary
case_sensitive	Boolean	In	Indicates if the search performed using the search parameter should be performed taking case into account.
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
follow	String	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
max	Integer	In	Sets the maximum number of pools to return.
pools	VmPool[]	Out	Retrieved pools.
search	String	In	A query string used to restrict the returned pools.

28.279.2.1. case_sensitive

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

28.279.2.2. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.279.2.3. max

Sets the maximum number of pools to return. If this value is not specified, all of the pools are returned.

28.280. VMREPORTEDDEVICE

Table 28.880. Methods summary

Name	Summary
get	

28.280.1. get GET

Table 28.881. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
reported_device	ReportedDevice	Out	

28.280.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.281. VMREPORTEDDEVICES

Table 28.882. Methods summary

Name	Summary
list	Returns the list of reported devices of the virtual machine.

28.281.1. list GET

Returns the list of reported devices of the virtual machine.

The order of the returned list of devices isn't guaranteed.

Table 28.883. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of devices to return.
reported_device	ReportedDevice[]	Out	

28.281.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.281.1.2. max

Sets the maximum number of devices to return. If not specified all the devices are returned.

28.282. VMSESSION

Table 28.884. Methods summary

Name	Summary
get	

28.282.1. get GET

Table 28.885. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
session	Session	Out	

28.282.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.283. VMSESSIONS

Provides information about virtual machine user sessions.

Table 28.886. Methods summary

Name	Summary
list	Lists all user sessions for this virtual machine.

28.283.1. list GET

Lists all user sessions for this virtual machine.

For example, to retrieve the session information for virtual machine **123** send a request like this:

```
GET /ovirt-engine/api/vms/123/sessions
```

The response body will contain something like this:

```
<sessions>
  <session href="/ovirt-engine/api/vms/123/sessions/456" id="456">
    <console_user>true</console_user>
    <ip>
      <address>192.168.122.1</address>
    </ip>
    <user href="/ovirt-engine/api/users/789" id="789"/>
    <vm href="/ovirt-engine/api/vms/123" id="123"/>
  </session>
  ...
</sessions>
```

The order of the returned list of sessions isn't guaranteed.

Table 28.887. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .

Name	Type	Direction	Summary
max	Integer	In	Sets the maximum number of sessions to return.
sessions	Session[]	Out	

28.283.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.283.1.2. max

Sets the maximum number of sessions to return. If not specified all the sessions are returned.

28.284. VMWATCHDOG

A service managing a watchdog on virtual machines.

Table 28.888. Methods summary

Name	Summary
get	Returns the information about the watchdog.
remove	Removes the watchdog from the virtual machine.
update	Updates the information about the watchdog.

28.284.1. get GET

Returns the information about the watchdog.

Table 28.889. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
watchdog	Watchdog	Out	The information about the watchdog.

28.284.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.284.1.2. watchdog

The information about the watchdog.

The information consists of **model** element, **action** element and the reference to the virtual machine. It may look like this:

```
<watchdogs>
  <watchdog href="/ovirt-engine/api/vms/123/watchdogs/00000000-0000-0000-0000-000000000000"
id="00000000-0000-0000-0000-000000000000">
    <vm href="/ovirt-engine/api/vms/123" id="123"/>
    <action>poweroff</action>
    <model>i6300esb</model>
  </watchdog>
</watchdogs>
```

28.284.2. remove DELETE

Removes the watchdog from the virtual machine.

For example, to remove a watchdog from a virtual machine, send a request like this:

```
DELETE /ovirt-engine/api/vms/123/watchdogs/00000000-0000-0000-0000-000000000000
```

Table 28.890. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.284.3. update PUT

Updates the information about the watchdog.

You can update the information using **action** and **model** elements.

For example, to update a watchdog, send a request like this:

```
PUT /ovirt-engine/api/vms/123/watchdogs
<watchdog>
  <action>reset</action>
</watchdog>
```

with response body:

```
<watchdog href="/ovirt-engine/api/vms/123/watchdogs/00000000-0000-0000-0000-000000000000"
id="00000000-0000-0000-0000-000000000000">
  <vm href="/ovirt-engine/api/vms/123" id="123"/>
  <action>reset</action>
  <model>i6300esb</model>
</watchdog>
```

Table 28.891. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
watchdog	Watchdog	In/Out	The information about the watchdog.

28.284.3.1. watchdog

The information about the watchdog.

The request data must contain at least one of **model** and **action** elements. The response data contains complete information about the updated watchdog.

28.285. VMWATCHDOGS

Lists the watchdogs of a virtual machine.

Table 28.892. Methods summary

Name	Summary
add	Adds new watchdog to the virtual machine.
list	The list of watchdogs of the virtual machine.

28.285.1. add POST

Adds new watchdog to the virtual machine.

For example, to add a watchdog to a virtual machine, send a request like this:

```
POST /ovirt-engine/api/vms/123/watchdogs
<watchdog>
  <action>poweroff</action>
  <model>i6300esb</model>
</watchdog>
```

with response body:

```
<watchdog href="/ovirt-engine/api/vms/123/watchdogs/00000000-0000-0000-0000-000000000000"
id="00000000-0000-0000-0000-000000000000">
  <vm href="/ovirt-engine/api/vms/123" id="123"/>
  <action>poweroff</action>
  <model>i6300esb</model>
</watchdog>
```

Table 28.893. Parameters summary

Name	Type	Direction	Summary
watchdog	Watchdog	In/Out	The information about the watchdog.

28.285.1.1. watchdog

The information about the watchdog.

The request data must contain **model** element (such as **i6300esb**) and **action** element (one of **none**, **reset**, **poweroff**, **dump**, **pause**). The response data additionally contains references to the added watchdog and to the virtual machine.

28.285.2. list GET

The list of watchdogs of the virtual machine.

The order of the returned list of watchdogs isn't guaranteed.

Table 28.894. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of watchdogs to return.
watchdogs	Watchdog[]	Out	The information about the watchdog.

28.285.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.285.2.2. max

Sets the maximum number of watchdogs to return. If not specified all the watchdogs are returned.

28.285.2.3. watchdogs

The information about the watchdog.

The information consists of **model** element, **action** element and the reference to the virtual machine. It may look like this:

```
<watchdogs>
  <watchdog href="/ovirt-engine/api/vms/123/watchdogs/00000000-0000-0000-0000-000000000000"
id="00000000-0000-0000-0000-000000000000">
    <vm href="/ovirt-engine/api/vms/123" id="123"/>
    <action>poweroff</action>
```

```
<model>i6300esb</model>
</watchdog>
</watchdogs>
```

28.286. VMS

Table 28.895. Methods summary

Name	Summary
add	Creates a new virtual machine.
list	Returns the list of virtual machines of the system.

28.286.1. add POST

Creates a new virtual machine.

The virtual machine can be created in different ways:

- From a template. In this case the identifier or name of the template must be provided. For example, using a plain shell script and XML:

```
#!/bin/sh -ex

url="https://engine.example.com/ovirt-engine/api"
user="admin@internal"
password="..."
curl \
--verbose \
--cacert /etc/pki/ovirt-engine/ca.pem \
--user "${user}:${password}" \
--request POST \
--header "Version: 4" \
--header "Content-Type: application/xml" \
--header "Accept: application/xml" \
--data '
<vm>
  <name>myvm</name>
  <template>
    <name>Blank</name>
  </template>
  <cluster>
    <name>mycluster</name>
  </cluster>
</vm>
' \
"${url}/vms"
```

- From a snapshot. In this case the identifier of the snapshot has to be provided. For example, using a plain shell script and XML:

```
#!/bin/sh -ex
```

```

url="https://engine.example.com/ovirt-engine/api"
user="admin@internal"
password="..."
curl \
--verbose \
--cacert /etc/pki/ovirt-engine/ca.pem \
--user "${user}:${password}" \
--request POST \
--header "Content-Type: application/xml" \
--header "Accept: application/xml" \
--data '
<vm>
  <name>myvm</name>
  <snapshots>
    <snapshot id="266742a5-6a65-483c-816d-d2ce49746680"/>
  </snapshots>
  <cluster>
    <name>mycluster</name>
  </cluster>
</vm>
' \
"${url}/vms"

```

When creating a virtual machine from a template or from a snapshot it is usually useful to explicitly indicate in what storage domain to create the disks for the virtual machine. If the virtual machine is created from a template then this is achieved passing a set of **disk_attachment** elements that indicate the mapping:

```

<vm>
...
<disk_attachments>
  <disk_attachment>
    <disk id="8d4bd566-6c86-4592-a4a7-912dbf93c298">
      <storage_domains>
        <storage_domain id="9cb6cb0a-cf1d-41c2-92ca-5a6d665649c9"/>
      </storage_domains>
    </disk>
  <disk_attachment>
</disk_attachments>
</vm>

```

When the virtual machine is created from a snapshot this set of disks is slightly different, it uses the **image_id** attribute instead of **id**.

```

<vm>
...
<disk_attachments>
  <disk_attachment>
    <disk>
      <image_id>8d4bd566-6c86-4592-a4a7-912dbf93c298</image_id>
      <storage_domains>
        <storage_domain id="9cb6cb0a-cf1d-41c2-92ca-5a6d665649c9"/>
      </storage_domains>
    </disk>

```

```

    <disk_attachment>
  </disk_attachments>
</vm>

```

It is possible to specify additional virtual machine parameters in the XML description, e.g. a virtual machine of **desktop** type, with 2 GiB of RAM and additional description can be added sending a request body like the following:

```

<vm>
  <name>myvm</name>
  <description>My Desktop Virtual Machine</description>
  <type>desktop</type>
  <memory>2147483648</memory>
  ...
</vm>

```

A bootable CDROM device can be set like this:

```

<vm>
  ...
  <os>
    <boot dev="cdrom"/>
  </os>
</vm>

```

In order to boot from CDROM, you first need to insert a disk, as described in the [CDROM service](#). Then booting from that CDROM can be specified using the **os.boot.devices** attribute:

```

<vm>
  ...
  <os>
    <boot>
      <devices>
        <device>cdrom</device>
      </devices>
    </boot>
  </os>
</vm>

```

In all cases the name or identifier of the cluster where the virtual machine will be created is mandatory.

Table 28.896. Parameters summary

Name	Type	Direction	Summary
auto_pinning_policy	AutoPinning Policy	In	Specifies if and how the auto CPU and NUMA configuration is applied.
clone	Boolean	In	Specifies if the virtual machine should be independent of the template.
clone_permissions	Boolean	In	Specifies if the permissions of the template should be copied to the virtual machine.

Name	Type	Direction	Summary
filter	Boolean	In	Relevant for admin users only.
seal	Boolean	In	Specifies if the virtual machine should be sealed after creation.
vm	Vm	In/Out	

28.286.1.1. auto_pinning_policy

Specifies if and how the auto CPU and NUMA configuration is applied.



IMPORTANT

Since version 4.5 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. Instead please use POST followed by [add operation](#).

An example for a request:

```
POST /ovirt-engine/api/vms?auto_pinning_policy=existing/adjust
```

With a request body like this:

```
<vm>
  <name>myvm</name>
  <template>
    <name>mytemplate</name>
  </template>
  <cluster>
    <name>mycluster</name>
  </cluster>
  <placement_policy>
    <hosts>
      <host>
        <name>myhost</name>
      </host>
    </hosts>
  </placement_policy>
</vm>
```

28.286.1.2. clone

Specifies if the virtual machine should be independent of the template.

When a virtual machine is created from a template by default the disks of the virtual machine depend on the disks of the template, they are using the [copy on write](#) mechanism so that only the differences from the template take up real storage space. If this parameter is specified and the value is **true** then the disks of the created virtual machine will be *cloned*, and independent of the template. For example, to create an independent virtual machine, send a request like this:

POST /ovirt-engine/vms?clone=true

With a request body like this:

```
<vm>
  <name>myvm<name>
  <template>
    <name>mytemplate<name>
  </template>
  <cluster>
    <name>mycluster<name>
  </cluster>
</vm>
```



NOTE

When this parameter is **true** the permissions of the template will also be copied, as when using **clone_permissions=true**.

28.286.1.3. clone_permissions

Specifies if the permissions of the template should be copied to the virtual machine.

If this optional parameter is provided, and its value is **true** then the permissions of the template (only the direct ones, not the inherited ones) will be copied to the created virtual machine. For example, to create a virtual machine from the **mytemplate** template copying its permissions, send a request like this:

POST /ovirt-engine/api/vms?clone_permissions=true

With a request body like this:

```
<vm>
  <name>myvm<name>
  <template>
    <name>mytemplate<name>
  </template>
  <cluster>
    <name>mycluster<name>
  </cluster>
</vm>
```

28.286.1.4. filter

Relevant for admin users only. Indicates whether to assign UserVmManager role on the created Virtual Machine for this user. This will enable the user to later access the Virtual Machine as though he were a non-admin user, foregoing his admin permissions (by providing filter=true).



NOTE

admin-as-user (meaning providing filter=true) POST requests on an existing Virtual Machine will fail unless the Virtual Machine has been previously created by the admin as a user (meaning with filter=true).

28.286.1.5. seal

Specifies if the virtual machine should be sealed after creation.

If this optional parameter is provided, and its value is **true**, the virtual machine will be sealed after creation. If the value is 'false', the virtual machine will not be sealed. If the parameter is not provided, the virtual machine will be sealed, only if it is created from a sealed template and its guest OS is not set to Windows.

For example, to create a virtual machine from the **mytemplate** template and to seal it, send a request like this:

```
POST /ovirt-engine/api/vms?seal=true
```

With a request body like this:

```
<vm>
  <name>myvm</name>
  <template>
    <name>mytemplate</name>
  </template>
  <cluster>
    <name>mycluster</name>
  </cluster>
</vm>
```

28.286.2. list GET

Returns the list of virtual machines of the system.

The order of the returned list of virtual machines is guaranteed only if the **sortby** clause is included in the **search** parameter.

Table 28.897. Parameters summary

Name	Type	Direction	Summary
all_content	Boolean	In	Indicates if all the attributes of the virtual machines should be included in the response.
case_sensitive	Boolean	In	Indicates if the search performed using the search parameter should be performed taking case into account.
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	The maximum number of results to return.

Name	Type	Direction	Summary
ovf_as_ova	Boolean	In	Indicates if the results should expose the OVF as it appears in OVA files of that VM.
search	String	In	A query string used to restrict the returned virtual machines.
vms	Vm[]	Out	

28.286.2.1. all_content

Indicates if all the attributes of the virtual machines should be included in the response.

By default the following attributes are excluded:

- **console**
- **initialization.configuration.data** - The OVF document describing the virtual machine.
- **rng_source**
- **soundcard**
- **virtio_scsi**

For example, to retrieve the complete representation of the virtual machines send a request like this:

```
GET /ovirt-engine/api/vms?all_content=true
```



NOTE

The reason for not including these attributes is performance: they are seldom used and they require additional queries to the database. So try to use the this parameter only when it is really needed.

28.286.2.2. case_sensitive

Indicates if the search performed using the **search** parameter should be performed taking case into account. The default value is **true**, which means that case is taken into account. If you want to search ignoring case set it to **false**.

28.286.2.3. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.286.2.4. ovf_as_ova

Indicates if the results should expose the OVF as it appears in OVA files of that VM. The OVF document describing the virtual machine. This parameter will work only when `all_content=True` is set. The OVF will be presented in **initialization.configuration.data**.

For example:

```
GET /vms?all_content=true&ovf_as_ova=true
```

28.287. VNICPROFILE

This service manages a vNIC profile.

Table 28.898. Methods summary

Name	Summary
get	Retrieves details about a vNIC profile.
remove	Removes the vNIC profile.
update	Updates details of a vNIC profile.

28.287.1. get GET

Retrieves details about a vNIC profile.

Table 28.899. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
profile	VnicProfile	Out	

28.287.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.287.2. remove DELETE

Removes the vNIC profile.

Table 28.900. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.287.3. update PUT

Updates details of a vNIC profile.

Table 28.901. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the update should be performed asynchronously.
profile	VnicProfile	In/Out	The vNIC profile that is being updated.

28.288. VNICPROFILES

This service manages the collection of all vNIC profiles.

Table 28.902. Methods summary

Name	Summary
add	Add a vNIC profile.
list	List all vNIC profiles.

28.288.1. add POST

Add a vNIC profile.

For example to add vNIC profile **123** to network **456** send a request to:

```
POST /ovirt-engine/api/networks/456/vnicprofiles
```

With the following body:

```
<vnic_profile id="123">
  <name>new_vNIC_name</name>
  <pass_through>
    <mode>disabled</mode>
  </pass_through>
  <port_mirroring>false</port_mirroring>
</vnic_profile>
```

Please note that there is a default network filter to each VNIC profile. For more details of how the default network filter is calculated please refer to the documentation in [NetworkFilters](#).



NOTE

The automatically created vNIC profile for the external network will be without network filter.

The output of creating a new VNIC profile depends in the body arguments that were given. In case no network filter was given, the default network filter will be configured. For example:

```
<vnic_profile href="/ovirt-engine/api/vnicprofiles/123" id="123">
  <name>new_vNIC_name</name>
  <link href="/ovirt-engine/api/vnicprofiles/123/permissions" rel="permissions"/>
  <pass_through>
    <mode>disabled</mode>
  </pass_through>
  <port_mirroring>false</port_mirroring>
  <network href="/ovirt-engine/api/networks/456" id="456"/>
  <network_filter href="/ovirt-engine/api/networkfilters/789" id="789"/>
</vnic_profile>
```

In case an empty network filter was given, no network filter will be configured for the specific vNIC profile regardless of the vNIC profile's default network filter. For example:

```
<vnic_profile>
  <name>no_network_filter</name>
  <network_filter/>
</vnic_profile>
```

In case that a specific valid network filter id was given, the vNIC profile will be configured with the given network filter regardless of the vNIC profiles's default network filter. For example:

```
<vnic_profile>
  <name>user_choice_network_filter</name>
  <network_filter id= "0000001b-001b-001b-001b-0000000001d5"/>
</vnic_profile>
```

Table 28.903. Parameters summary

Name	Type	Direction	Summary
profile	VnicProfile	In/Out	The vNIC profile that is being added.

28.288.2. list GET

List all vNIC profiles.

The order of the returned list of vNIC profiles isn't guaranteed.

Table 28.904. Parameters summary

Name	Type	Direction	Summary
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of profiles to return.
profiles	VnicProfile[]	Out	The list of all vNIC profiles.

28.288.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.288.2.2. max

Sets the maximum number of profiles to return. If not specified all the profiles are returned.

28.289. WEIGHT

Table 28.905. Methods summary

Name	Summary
get	
remove	

28.289.1. get GET

Table 28.906. Parameters summary

Name	Type	Direction	Summary
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
follow	String	In	Indicates which inner links should be <i>followed</i> .
weight	Weight	Out	

28.289.1.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.289.2. remove DELETE

Table 28.907. Parameters summary

Name	Type	Direction	Summary
async	Boolean	In	Indicates if the remove should be performed asynchronously.

28.290. WEIGHTS

Table 28.908. Methods summary

Name	Summary
add	Add a weight to a specified user defined scheduling policy.
list	Returns the list of weights.

28.290.1. add POST

Add a weight to a specified user defined scheduling policy.

Table 28.909. Parameters summary

Name	Type	Direction	Summary
weight	Weight	In/Out	

28.290.2. list GET

Returns the list of weights.

The order of the returned list of weights isn't guaranteed.

Table 28.910. Parameters summary

Name	Type	Direction	Summary
filter	Boolean	In	Indicates if the results should be filtered according to the permissions of the user.
follow	String	In	Indicates which inner links should be <i>followed</i> .
max	Integer	In	Sets the maximum number of weights to return.
weights	Weight[]	Out	

28.290.2.1. follow

Indicates which inner links should be *followed*. The objects referenced by these links will be fetched as part of the current request. See [here](#) for details.

28.290.2.2. max

Sets the maximum number of weights to return. If not specified all the weights are returned.

CHAPTER 29. TYPES

This section enumerates all the data types that are available in the API.

29.1. ACCESSPROTOCOL ENUM

Represents the access protocols supported by Gluster volumes. **gluster** and **nfs** are enabled by default.

Table 29.1. Values summary

Name	Summary
cifs	CIFS access protocol.
gluster	Gluster access protocol.
nfs	NFS access protocol.

29.2. ACTION STRUCT

Table 29.2. Attributes summary

Name	Type	Summary
activate	Boolean	
allow_partial_import	Boolean	
async	Boolean	
attachment	DiskAttachment	
authorized_key	AuthorizedKey	
auto_pinning_policy	AutoPinningPolicy	
bricks	GlusterBrick[]	
certificates	Certificate[]	
check_connectivity	Boolean	
clone	Boolean	

Name	Type	Summary
clone_permissions	Boolean	
cluster	Cluster	
collapse_snapshots	Boolean	
comment	String	Free text containing comments about this object.
commit_on_success	Boolean	
connection	StorageConnection	
connectivity_timeout	Integer	
correlation_id	String	
data_center	DataCenter	
deploy_hosted_engine	Boolean	
description	String	A human-readable description in plain text.
details	GlusterVolumeProfileDetails	
directory	String	
discard_snapshots	Boolean	
discovered_targets	IscsiDetails[]	
disk	Disk	
disk_profile	DiskProfile	
disks	Disk[]	
exclusive	Boolean	

Name	Type	Summary
fault	Fault	
fence_type	String	
filename	String	
filter	Boolean	
fix_layout	Boolean	
follow	String	
force	Boolean	
grace_period	GracePeriod	
host	Host	
id	String	A unique identifier.
image	String	
image_transfer	ImageTransfer	
import_as_template	Boolean	
is_attached	Boolean	
iscsi	IscsiDetails	
iscsi_targets	String[]	
job	Job	
lease	StorageDomainLease	
logical_units	LogicalUnit[]	
maintenance_after_restart	Boolean	
maintenance_enabled	Boolean	

Name	Type	Summary
migrate_vms_in_affinity_closure	Boolean	
modified_bonds	HostNic[]	
modified_labels	NetworkLabel[]	
modified_network_attachments	NetworkAttachment[]	
name	String	A human-readable name in plain text.
optimize_cpu_settings	Boolean	
option	Option	
pause	Boolean	
permission	Permission	
power_management	PowerManagement	
proxy_ticket	ProxyTicket	
quota	Quota	
reason	String	
reassign_bad_macs	Boolean	
reboot	Boolean	
registration_configuration	RegistrationConfiguration	
remote_viewer_connection_file	String	
removed_bonds	HostNic[]	
removed_labels	NetworkLabel[]	

Name	Type	Summary
removed_network_attachments	NetworkAttachment[]	
resolution_type	String	
restore_memory	Boolean	
root_password	String	
seal	Boolean	
snapshot	Snapshot	
source_host	Host	
ssh	Ssh	
status	String	
stop_gluster_service	Boolean	
storage_domain	StorageDomain	
storage_domains	StorageDomain[]	
succeeded	Boolean	
synchronized_network_attachments	NetworkAttachment[]	
template	Template	
ticket	Ticket	
timeout	Integer	
undeploy_hosted_engine	Boolean	
upgrade_action	ClusterUpgradeAction	

Name	Type	Summary
upgrade_percent_complete	Integer	
use_cloud_init	Boolean	
use_ignition	Boolean	
use_initialization	Boolean	
use_sysprep	Boolean	
virtual_functions_configuration	HostNicVirtualFunctionsConfiguration	
vm	Vm	
vnic_profile_mappings	VnicProfileMapping[]	
volatile	Boolean	

29.3. AFFINITYGROUP STRUCT

An affinity group represents a group of virtual machines with a defined relationship.

Table 29.3. Attributes summary

Name	Type	Summary
broken	Boolean	Specifies if the affinity group is broken.
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
enforcing	Boolean	Specifies whether the affinity group uses hard or soft enforcement of the affinity applied to virtual machines that are members of that affinity group.
hosts_rule	AffinityRule	Specifies the affinity rule applied between virtual machines and hosts that are members of this affinity group.

Name	Type	Summary
id	String	A unique identifier.
name	String	A human-readable name in plain text.
positive	Boolean	Specifies whether the affinity group applies positive affinity or negative affinity to virtual machines that are members of that affinity group.
priority	Decimal	Priority of the affinity group.
vms_rule	AffinityRule	Specifies the affinity rule applied to virtual machines that are members of this affinity group.

29.3.1. broken

Specifies if the affinity group is broken. Affinity group is considered broken when any of its rules are not satisfied. Broken field is a computed field in the engine. Because of that, this field is only usable in GET requests.

29.3.2. enforcing

Specifies whether the affinity group uses hard or soft enforcement of the affinity applied to virtual machines that are members of that affinity group.



WARNING

Please note that this attribute has been deprecated since version 4.1 of the engine, and will be removed in the future. Use the **vms_rule** attribute from now on.

29.3.3. positive

Specifies whether the affinity group applies positive affinity or negative affinity to virtual machines that are members of that affinity group.



WARNING

Please note that this attribute has been deprecated since version 4.1 of the engine, and will be removed in the future. Use the **vms_rule** attribute from now on.

Table 29.4. Links summary

Name	Type	Summary
cluster	Cluster	A reference to the cluster to which the affinity group applies.
host_labels	AffinityLabel[]	A list of all host labels assigned to this affinity group.
hosts	Host[]	A list of all hosts assigned to this affinity group.
vm_labels	AffinityLabel[]	A list of all virtual machine labels assigned to this affinity group.
vms	Vm[]	A list of all virtual machines assigned to this affinity group.

29.4. AFFINITYLABEL STRUCT

The affinity label can influence virtual machine scheduling. It is most frequently used to create a sub-cluster from the available hosts.

Table 29.5. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
has_implicit_affinity_group	Boolean	This property enables the legacy behavior for labels.
id	String	A unique identifier.
name	String	A human-readable name in plain text.
read_only	Boolean	The read_only property marks a label that can not be modified.

29.4.1. has_implicit_affinity_group

This property enables the legacy behavior for labels. If **true**, the label acts also as a positive enforcing VM-to-host affinity group.

This parameter is only used for clusters with compatibility version 4.3 or lower.

29.4.2. read_only

The **read_only** property marks a label that can not be modified. This is usually the case when listing internally-generated labels.

Table 29.6. Links summary

Name	Type	Summary
hosts	Host[]	A list of hosts that were labeled using this scheduling label.
vms	Vm[]	A list of virtual machines that were labeled using this scheduling label.

29.5. AFFINITYRULE STRUCT

Generic rule definition for affinity group. Each supported resource type (virtual machine, host) is controlled by a separate rule. This allows expressing of rules like: no affinity between defined virtual machines, but hard affinity between defined virtual machines and virtual hosts.

Table 29.7. Attributes summary

Name	Type	Summary
enabled	Boolean	Specifies whether the affinity group uses this rule or not.
enforcing	Boolean	Specifies whether the affinity group uses hard or soft enforcement of the affinity applied to the resources that are controlled by this rule.
positive	Boolean	Specifies whether the affinity group applies positive affinity or negative affinity to the resources that are controlled by this rule.

29.5.1. enabled

Specifies whether the affinity group uses this rule or not. This attribute is optional during creation and is considered to be **true** when it is not provided. In case this attribute is not provided to the update operation, it is considered to be **true** if AffinityGroup **positive** attribute is set as well. The backend **enabled** value will be preserved when both **enabled** and **positive** attributes are missing.

29.5.2. enforcing

Specifies whether the affinity group uses hard or soft enforcement of the affinity applied to the resources that are controlled by this rule. This argument is mandatory if the rule is enabled and is ignored when the rule is disabled.

29.5.3. positive

Specifies whether the affinity group applies positive affinity or negative affinity to the resources that are controlled by this rule. This argument is mandatory if the rule is enabled and is ignored when the rule is disabled.

29.6. AGENT STRUCT

Type representing a fence agent.

Table 29.8. Attributes summary

Name	Type	Summary
address	String	Fence agent address.
comment	String	Free text containing comments about this object.
concurrent	Boolean	Specifies whether the agent should be used concurrently or sequentially.
description	String	A human-readable description in plain text.
encrypt_options	Boolean	Specifies whether the options should be encrypted.
id	String	A unique identifier.
name	String	A human-readable name in plain text.
options	Option[]	Fence agent options (comma-delimited list of key-value pairs).
order	Integer	The order of this agent if used with other agents.
password	String	Fence agent password.
port	Integer	Fence agent port.
type	String	Fence agent type.
username	String	Fence agent user name.

Table 29.9. Links summary

Name	Type	Summary
host	Host	Reference to the host service.

29.6.1. host

Reference to the host service. Each fence agent belongs to a single host.

29.7. AGENTCONFIGURATION STRUCT

Deprecated Agent configuration settings.

Ignored, because the deployment of OpenStack Neutron agent is dropped since Red Hat Virtualization 4.4.0. The deployment of OpenStack hosts can be done by Red Hat OpenStack Platform Director or TripleO.

Table 29.10. Attributes summary

Name	Type	Summary
address	String	
broker_type	MessageBrokerType	
network_mappings	String	Not recommended to use, because the Open vSwitch interface mappings are managed by VDSM since Red Hat Virtualization 4.
password	String	
port	Integer	
username	String	

29.7.1. network_mappings

Not recommended to use, because the Open vSwitch interface mappings are managed by VDSM since Red Hat Virtualization 4.2.0.

29.8. API STRUCT

This type contains the information returned by the root service of the API.

To get that information send a request like this:

```
GET /ovirt-engine/api
```

The result will be like this:

```
<api>
  <link rel="hosts" href="/ovirt-engine/api/hosts"/>
  <link rel="vms" href="/ovirt-engine/api/vms"/>
  ...
  <product_info>
    <name>oVirt Engine</name>
    <vendor>ovirt.org</vendor>
    <version>
      <build>0</build>
      <full_version>4.1.0_master</full_version>
      <major>4</major>
      <minor>1</minor>
      <revision>0</revision>
    </version>
  </product_info>
  <special_objects>
    <link rel="templates/blank" href="..." />
    <link rel="tags/root" href="..." />
  </special_objects>
  <summary>
```

```

<vms>
  <total>10</total>
  <active>3</active>
</vms>
<hosts>
  <total>2</total>
  <active>2</active>
</hosts>
<users>
  <total>8</total>
  <active>2</active>
</users>
<storage_domains>
  <total>2</total>
  <active>2</active>
</storage_domains>
</summary>
<time>2016-12-12T12:22:25.866+01:00</time>
</api>

```

Table 29.11. Attributes summary

Name	Type	Summary
product_info	ProductInfo	Information about the product, such as its name, the name of the vendor, and the version.
special_objects	SpecialObjects	References to special objects, such as the blank template and the root of the hierarchy of tags.
summary	ApiSummary	A summary containing the total number of relevant objects, such as virtual machines, hosts, and storage domains.
time	Date	The date and time when this information was generated.

Table 29.12. Links summary

Name	Type	Summary
authenticated_user	User	Reference to the authenticated user.
effective_user	User	Reference to the effective user.

29.8.1. authenticated_user

Reference to the authenticated user.

The authenticated user is the user whose credentials were verified in order to accept the current request. In the current version of the system the authenticated user and the effective user are always the same. In the future, when support for user impersonation is introduced, they will be potentially

different.

29.8.2. effective_user

Reference to the effective user.

The effective user is the user whose permissions apply during the current request. In the current version of the system the authenticated user and the effective user are always the same. In the future, when support for user impersonation is introduced, they will be potentially different.

29.9. APISUMMARY STRUCT

A summary containing the total number of relevant objects, such as virtual machines, hosts, and storage domains.

Table 29.13. Attributes summary

Name	Type	Summary
hosts	ApiSummaryItem	The summary of hosts.
storage_domains	ApiSummaryItem	The summary of storage domains.
users	ApiSummaryItem	The summary of users.
vms	ApiSummaryItem	The summary of virtual machines.

29.10. APISUMMARYITEM STRUCT

This type contains an item of the API summary. Each item contains the total and active number of some kind of object.

Table 29.14. Attributes summary

Name	Type	Summary
active	Integer	The total number of active objects.
total	Integer	The total number of objects.

29.11. APPLICATION STRUCT

Represents an application installed on a virtual machine. Applications are reported by the guest agent, if you deploy one on the virtual machine operating system.

To get that information send a request like this:

```
GET /ovirt-engine/api/vms/123/applications/456
```

The result will be like this:

```
<application href="/ovirt-engine/api/vms/123/applications/456" id="456">
  <name>application-test-1.0.0-0.el7</name>
  <vm href="/ovirt-engine/api/vms/123" id="123"/>
</application>
```

Table 29.15. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.

Table 29.16. Links summary

Name	Type	Summary
vm	Vm	A reference to the virtual machine the application is installed on.

29.12. ARCHITECTURE ENUM

Table 29.17. Values summary

Name	Summary
aarch64	AARCH64 CPU architecture.
ppc64	
s390x	IBM S390X CPU architecture.
undefined	
x86_64	

29.12.1. s390x

IBM S390X CPU architecture.

Needs to be specified for virtual machines and clusters running on the S390X architecture.

Note that S390 is often used in an ambiguous way to describe either the general machine architecture as such or its 31-bit variant. S390X is used specifically for the 64-bit architecture, which is in line with the other architectures, like X86_64 or PPC64.

29.13. AUTHORIZEDKEY STRUCT

Table 29.18. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
key	String	
name	String	A human-readable name in plain text.

Table 29.19. Links summary

Name	Type	Summary
user	User	

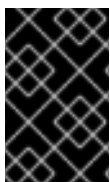
29.14. AUTONUMASTATUS ENUM

Table 29.20. Values summary

Name	Summary
disable	
enable	
unknown	

29.15. AUTOPINNINGPOLICY ENUM

Type representing what the CPU and NUMA pinning policy is.



IMPORTANT

Since version 4.5 of the engine this operation is deprecated, and preserved only for backwards compatibility. It will be removed in the future. Instead please use `CpuPinningPolicy`.

Table 29.21. Values summary

Name	Summary
adjust	The CPU and NUMA pinning will be configured by the dedicated host.
disabled	The CPU and NUMA pinning won't be calculated.
existing	The CPU and NUMA pinning will be configured by the virtual machine current state.

29.15.1. adjust

The CPU and NUMA pinning will be configured by the dedicated host.

Currently, its implication is that the CPU and NUMA pinning will use the dedicated host CPU topology. The virtual machine configuration will automatically be set to fit the host to get the highest possible performance.

29.15.2. disabled

The CPU and NUMA pinning won't be calculated.

Currently, its implication is that the CPU and NUMA pinning won't be calculated to the current virtual machine configuration. By default the VM topology set with 1 Socket, 1 Core and 1 Thread.

29.15.3. existing

The CPU and NUMA pinning will be configured by the virtual machine current state.

Currently, its implication is that the CPU and NUMA pinning will use the provided virtual machine CPU topology. Without given CPU topology it will use the engine defaults (the VM topology set with 1 Socket, 1 Core and 1 Thread).

29.16. BACKUP STRUCT

Table 29.22. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
creation_date	Date	The backup creation date.
description	String	A human-readable description in plain text.
from_checkpoint_id	String	The checkpoint id at which to start the incremental backup.
id	String	A unique identifier.

Name	Type	Summary
modification_date	Date	The backup modification date.
name	String	A human-readable name in plain text.
phase	BackupPhase	The phase of the backup operation.
to_checkpoint_id	String	The checkpoint id created by this backup operation.

29.16.1. to_checkpoint_id

The checkpoint id created by this backup operation. This id can be used as the **fromCheckpointId** in the next incremental backup.

Table 29.23. Links summary

Name	Type	Summary
disks	Disk[]	A list of disks contained in the virtual machine backup.
host	Host	The host that was used to start the backup.
snapshot	Snapshot	A reference to the snapshot created if the backup is using a snapshot.
vm	Vm	A reference to the virtual machine associated with the backup.

29.17. BACKUPPHASE ENUM

Table 29.24. Values summary

Name	Summary
failed	The final phase, indicates that the backup has failed.
finalizing	In this phase, the backup is invoking 'stop_backup' operation in order to complete the backup and unlock the relevant disk.
initializing	The initial phase of the backup.
ready	The phase means that the relevant disks' backup URLs are ready to be used and downloaded using image transfer.

Name	Summary
starting	The phase is set before invoking 'start_backup' operation in vdsm/libvirt (which means that 'stop_backup' should be invoked to complete the flow).
succeeded	The final phase, indicates that the backup has finished successfully.

29.17.1. initializing

The initial phase of the backup. It is set on entity creation.

29.18. BALANCE STRUCT

Table 29.25. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.

Table 29.26. Links summary

Name	Type	Summary
scheduling_policy	SchedulingPolicy	
scheduling_policy_unit	SchedulingPolicyUnit	

29.19. BIOS STRUCT

Table 29.27. Attributes summary

Name	Type	Summary
boot_menu	BootMenu	
type	BiosType	Chipset and BIOS type combination.

29.20. BIOS TYPE ENUM

Type representing a chipset and a BIOS type combination.

Table 29.28. Values summary

Name	Summary
cluster_default	Use the cluster-wide default.
i440fx_sea_bios	i440fx chipset with SeaBIOS.
q35_ovmf	q35 chipset with OVMF (UEFI) BIOS.
q35_sea_bios	q35 chipset with SeaBIOS.
q35_secure_boot	q35 chipset with OVMF (UEFI) BIOS with SecureBoot enabled.

29.20.1. cluster_default

Use the cluster-wide default.

This value cannot be used for cluster.

29.20.2. i440fx_sea_bios

i440fx chipset with SeaBIOS.

For non-x86 architectures this is the only non-default value allowed.

29.21. BLOCKSTATISTIC STRUCT

Table 29.29. Attributes summary

Name	Type	Summary
statistics	Statistic[]	

29.22. BONDING STRUCT

Represents a network interfaces bond.

Table 29.30. Attributes summary

Name	Type	Summary
ad_partner_mac	Mac	The ad_partner_mac property of the partner bond in mode 4.

Name	Type	Summary
options	Option[]	A list of option elements for a bonded interface.
slaves	HostNic[]	A list of slave NICs for a bonded interface.

29.22.1. ad_partner_mac

The **ad_partner_mac** property of the partner bond in mode 4. Bond mode 4 is the 802.3ad standard, which is also called dynamic link aggregation. See [Wikipedia](#) and [Presentation](#) for more information. **ad_partner_mac** is the MAC address of the system (switch) at the other end of a bond. This parameter is read-only. Setting it will have no effect on the bond. It is retrieved from `/sys/class/net/bondX/bonding/ad_partner_mac` file on the system where the bond is located.

29.22.2. options

A list of option elements for a bonded interface. Each option contains property name and value attributes. Only required when adding bonded interfaces.

29.22.3. slaves

A list of slave NICs for a bonded interface. Only required when adding bonded interfaces.

Table 29.31. Links summary

Name	Type	Summary
active_slave	HostNic	The active_slave property of the bond in modes that support it (active-backup, balance-alb and balance-tlb).

29.22.4. active_slave

The **active_slave** property of the bond in modes that support it (active-backup, balance-alb and balance-tlb). See [Linux documentation](#) for further details. This parameter is read-only. Setting it will have no effect on the bond. It is retrieved from `/sys/class/net/bondX/bonding/active_slave` file on the system where the bond is located.

For example:

```
GET /ovirt-engine/api/hosts/123/nics/321
```

Will respond:

```
<host_nic href="/ovirt-engine/api/hosts/123/nics/321" id="321">
...
<bonding>
  <slaves>
    <host_nic href="/ovirt-engine/api/hosts/123/nics/456" id="456" />
    ...
  </slaves>
  <active_slave href="/ovirt-engine/api/hosts/123/nics/456" id="456" />
</host_nic>
```

```

</bonding>
...
</host_nic>

```

29.23. BOOKMARK STRUCT

Represents a bookmark in the system.

Table 29.32. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.
value	String	The bookmark value, representing a search in the engine.

29.24. BOOT STRUCT

Configuration of the boot sequence of a virtual machine.

Table 29.33. Attributes summary

Name	Type	Summary
devices	BootDevice[]	Ordered list of boot devices.

29.24.1. devices

Ordered list of boot devices. The virtual machine will try to boot from the given boot devices, in the given order.

29.25. BOOTDEVICE ENUM

Represents the kinds of devices that a virtual machine can boot from.

Table 29.34. Values summary

Name	Summary
cdrom	Boot from CD-ROM.
hd	Boot from the hard drive.

Name	Summary
network	Boot from the network, using PXE.

29.25.1. cdrom

Boot from CD-ROM. The CD-ROM can be chosen from the list of ISO files available in an ISO domain attached to the ata center that the virtual machine belongs to.

29.25.2. network

Boot from the network, using PXE. It is necessary to have [PXE](#) configured on the network that the virtual machine is connected to.

29.26. BOOTMENU STRUCT

Represents boot menu configuration for virtual machines and templates.

Table 29.35. Attributes summary

Name	Type	Summary
enabled	Boolean	Whether the boot menu is enabled for this virtual machine (or template), or not.

29.27. BOOTPROTOCOL ENUM

Defines the options of the IP address assignment method to a NIC.

Table 29.36. Values summary

Name	Summary
autoconf	Stateless address auto-configuration.
dhcp	Dynamic host configuration protocol.
none	No address configuration.
poly_dhcp_autoconf	DHCP alongside Stateless address auto-configuration (SLAAC).
static	Statically-defined address, mask and gateway.

29.27.1. autoconf

Stateless address auto-configuration.

The mechanism is defined by [RFC 4862](#). Please refer to [this wikipedia article](#) for more information.



NOTE

The value is valid for IPv6 addresses only.

29.27.2. dhcp

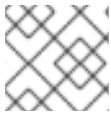
Dynamic host configuration protocol.

Please refer to [this wikipedia article](#) for more information.

29.27.3. poly_dhcp_autoconf

DHCP alongside Stateless address auto-configuration (SLAAC).

The SLAAC mechanism is defined by [RFC 4862](#). Please refer to the [Stateless address auto-configuration](#) article and the [DHCP](#) article for more information.



NOTE

The value is valid for IPv6 addresses only.

29.28. BRICKPROFILEDETAIL STRUCT

Table 29.37. Attributes summary

Name	Type	Summary
profile_details	ProfileDetail[]	

Table 29.38. Links summary

Name	Type	Summary
brick	GlusterBrick	

29.29. CDROM STRUCT

Table 29.39. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
file	File	

Name	Type	Summary
id	String	A unique identifier.
name	String	A human-readable name in plain text.

Table 29.40. Links summary

Name	Type	Summary
instance_type	InstanceType	Optionally references to an instance type the device is used by.
template	Template	Optionally references to a template the device is used by.
vm	Vm	Do not use this element, use vms instead.
vms	Vm[]	References to the virtual machines that are using this device.

29.29.1. vms

References to the virtual machines that are using this device. A device may be used by several virtual machines; for example, a shared disk may be used simultaneously by two or more virtual machines.

29.30. CERTIFICATE STRUCT

Table 29.41. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
content	String	
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.
organization	String	
subject	String	

29.31. CHECKPOINT STRUCT

Table 29.42. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
creation_date	Date	The checkpoint creation date.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.
parent_id	String	The parent checkpoint id.
state	CheckpointState	The state of the checkpoint.

Table 29.43. Links summary

Name	Type	Summary
disks	Disk[]	A list of disks contained in the backup checkpoint.
vm	Vm	A reference to the virtual machine associated with the checkpoint.

29.32. CHECKPOINTSTATE ENUM

Table 29.44. Values summary

Name	Summary
created	The initial state of the checkpoint.
invalid	The INVALID state set when a checkpoint cannot be used anymore for incremental backup and should be removed (For example, after committing to an older VM snapshot).

29.32.1. created

The initial state of the checkpoint. It is set on entity creation.

29.33. CLOUDINIT STRUCT

Deprecated type to specify *cloud-init* configuration.

This type has been deprecated and replaced by alternative attributes inside the [Initialization](#) type. See the [cloud_init](#) attribute documentation for details.

Table 29.45. Attributes summary

Name	Type	Summary
authorized_keys	AuthorizedKey[]	
files	File[]	
host	Host	
network_configuration	NetworkConfiguration	
regenerate_ssh_keys	Boolean	
timezone	String	
users	User[]	

29.34. CLOUDINITNETWORKPROTOCOL ENUM

Defines the values for the cloud-init protocol. This protocol decides how the cloud-init network parameters are formatted before being passed to the virtual machine in order to be processed by cloud-init.

Protocols supported are cloud-init version dependent. For more information, see [Network Configuration Sources](#)

Table 29.46. Values summary

Name	Summary
eni	Legacy protocol.
openstack_metadata	Successor of the ENI protocol, with support for IPv6 and more.

29.34.1. eni

Legacy protocol. Does not support IPv6. For more information, see [Network Configuration ENI \(Legacy\)](#)

29.34.2. openstack_metadata

Successor of the ENI protocol, with support for IPv6 and more. This is the default value. For more information, see [API: Proxy neutron configuration to guest instance](#)

29.35. CLUSTER STRUCT

Type representation of a cluster.

A JSON representation of a cluster:

```
{
  "cluster": [ {
    "ballooning_enabled": "false",
    "cpu": {
      "architecture": "x86_64",
      "type": "Intel SandyBridge Family"
    },
    "custom_scheduling_policy_properties": {
      "property": [ {
        "name": "HighUtilization",
        "value": "80"
      }, {
        "name": "CpuOverCommitDurationMinutes",
        "value": "2"
      } ]
    },
    "error_handling": {
      "on_error": "migrate"
    },
    "fencing_policy": {
      "enabled": "true",
      "skip_if_connectivity_broken": {
        "enabled": "false",
        "threshold": "50"
      },
      "skip_if_gluster_bricks_up": "false",
      "skip_if_gluster_quorum_not_met": "false",
      "skip_if_sd_active": {
        "enabled": "false"
      }
    },
    "gluster_service": "false",
    "firewall_type": "iptables",
    "ha_reservation": "false",
    "kvm": {
      "enabled": "true",
      "merge_across_nodes": "true"
    },
    "memory_policy": {
      "over_commit": {
        "percent": "100"
      },
      "transparent_hugepages": {
        "enabled": "true"
      }
    },
    "migration": {
```

```

    "auto_converge" : "inherit",
    "bandwidth" : {
      "assignment_method" : "auto"
    },
    "compressed" : "inherit",
    "policy" : {
      "id" : "00000000-0000-0000-0000-000000000000"
    }
  },
  "required_rng_sources" : {
    "required_rng_source" : [ "random" ]
  },
  "switch_type" : "legacy",
  "threads_as_cores" : "false",
  "trusted_service" : "false",
  "tunnel_migration" : "false",
  "version" : {
    "major" : "4",
    "minor" : "1"
  },
  "virt_service" : "true",
  "data_center" : {
    "href" : "/ovirt-engine/api/datacenters/123",
    "id" : "123"
  },
  "mac_pool" : {
    "href" : "/ovirt-engine/api/macpools/456",
    "id" : "456"
  },
  "scheduling_policy" : {
    "href" : "/ovirt-engine/api/schedulingpolicies/789",
    "id" : "789"
  },
  "actions" : {
    "link" : [ {
      "href" : "/ovirt-engine/api/clusters/234/resetemulatedmachine",
      "rel" : "resetemulatedmachine"
    } ]
  },
  "name" : "Default",
  "description" : "The default server cluster",
  "href" : "/ovirt-engine/api/clusters/234",
  "id" : "234",
  "link" : [ {
    "href" : "/ovirt-engine/api/clusters/234/permissions",
    "rel" : "permissions"
  }, {
    "href" : "/ovirt-engine/api/clusters/234/cpuprofiles",
    "rel" : "cpuprofiles"
  }, {
    "href" : "/ovirt-engine/api/clusters/234/networkfilters",
    "rel" : "networkfilters"
  }, {
    "href" : "/ovirt-engine/api/clusters/234/networks",
    "rel" : "networks"
  }, {

```

```

    "href" : "/ovirt-engine/api/clusters/234/affinitygroups",
    "rel" : "affinitygroups"
  }, {
    "href" : "/ovirt-engine/api/clusters/234/glusterhooks",
    "rel" : "glusterhooks"
  }, {
    "href" : "/ovirt-engine/api/clusters/234/glustervolumes",
    "rel" : "glustervolumes"
  }, {
    "href" : "/ovirt-engine/api/clusters/234/enabledfeatures",
    "rel" : "enabledfeatures"
  }, {
    "href" : "/ovirt-engine/api/clusters/234/externalnetworkproviders",
    "rel" : "externalnetworkproviders"
  }
]
}
}
}

```

Table 29.47. Attributes summary

Name	Type	Summary
ballooning_enabled	Boolean	
bios_type	BiosType	Chipset and BIOS type combination.
comment	String	Free text containing comments about this object.
cpu	Cpu	
custom_scheduling_policy_properties	Property[]	Custom scheduling policy properties of the cluster.
description	String	A human-readable description in plain text.
display	Display	
error_handling	ErrorHandling	
fencing_policy	FencingPolicy	A custom fencing policy can be defined for a cluster.
fips_mode	FipsMode	FIPS mode of the cluster.
firewall_type	FirewallType	The type of firewall to be used on hosts in this cluster.
gluster_service	Boolean	
gluster_tuned_profile	String	The name of the tuned profile.

Name	Type	Summary
ha_reservation	Boolean	
id	String	A unique identifier.
ksm	Ksm	
log_max_memory_used_threshold	Integer	The memory consumption threshold for logging audit log events.
log_max_memory_used_threshold_type	LogMaxMemoryUsedThresholdType	The memory consumption threshold type for logging audit log events.
maintenance_reason_required	Boolean	This property has no longer any relevance and has been deprecated.
memory_policy	MemoryPolicy	
migration	MigrationOptions	Reference to cluster-wide configuration of migration of a running virtual machine to another host.
name	String	A human-readable name in plain text.
optional_reason	Boolean	This property has no longer any relevance and has been deprecated.
required_rng_sources	RngSource[]	Set of random number generator (RNG) sources required from each host in the cluster.
serial_number	SerialNumber	
supported_versions	Version[]	
switch_type	SwitchType	The type of switch to be used by all networks in given cluster.
threads_as_cores	Boolean	
trusted_service	Boolean	

Name	Type	Summary
tunnel_migration	Boolean	
upgrade_correlation_id	String	The upgrade correlation identifier.
upgrade_in_progress	Boolean	Indicates if an upgrade has been started for the cluster.
upgrade_percent_complete	Integer	If an upgrade is in progress, the upgrade's reported percent complete.
version	Version	The compatibility version of the cluster.
virt_service	Boolean	
vnc_encryption	Boolean	Enable VNC encryption.

29.35.1. bios_type

Chipset and BIOS type combination.

This value is used as default for all virtual machines in the cluster having **biosType** set to **CLUSTER_DEFAULT**.

29.35.2. custom_scheduling_policy_properties

Custom scheduling policy properties of the cluster. These optional properties override the properties of the scheduling policy specified by the **scheduling_policy** link, and apply only for this specific cluster.

For example, to update the custom properties of the cluster, send a request:

```
PUT /ovirt-engine/api/clusters/123
```

With a request body:

```
<cluster>
  <custom_scheduling_policy_properties>
    <property>
      <name>HighUtilization</name>
      <value>70</value>
    </property>
  </custom_scheduling_policy_properties>
</cluster>
```

Update operations using the **custom_scheduling_policy_properties** attribute will not update the the properties of the scheduling policy specified by the **scheduling_policy** link, they will only be reflected on this specific cluster.

29.35.3. fencing_policy

A custom fencing policy can be defined for a cluster.

For example:

```
PUT /ovirt-engine/api/cluster/123
```

With request body like this:

```
<cluster>
  <fencing_policy>
    <enabled>true</enabled>
    <skip_if_sd_active>
      <enabled>>false</enabled>
    </skip_if_sd_active>
    <skip_if_connectivity_broken>
      <enabled>>false</enabled>
      <threshold>50</threshold>
    </skip_if_connectivity_broken>
  </fencing_policy>
</cluster>
```

29.35.4. fips_mode

FIPS mode of the cluster.

FIPS mode represents the cluster's policy towards hosts. Hosts added to the cluster will be checked to fulfill the cluster's FIPS mode, making them non-operational if they do not. Unless a value is explicitly provided, new clusters are initialized by default to **UNDEFINED**. This value changes automatically to the FIPS mode of the first host added to the cluster.

29.35.5. gluster_tuned_profile

The name of the tuned profile.

Tuned profile to set on all the hosts in the cluster. This is not mandatory and relevant only for clusters with Gluster service.

29.35.6. log_max_memory_used_threshold

The memory consumption threshold for logging audit log events.

For percentage, an audit log event is logged if the used memory is more than the value specified. For absolute value, an audit log event is logged when the free memory falls below the value specified in MB.

29.35.7. log_max_memory_used_threshold_type

The memory consumption threshold type for logging audit log events.

You can choose between 'percentage' and 'absolute_value_in_mb'.

29.35.8. maintenance_reason_required

This property has no longer any relevance and has been deprecated. Its default value is true,

29.35.9. migration

Reference to cluster-wide configuration of migration of a running virtual machine to another host.



NOTE

API for querying migration policy by ID returned by this method is not implemented yet. Use **/ovirt-engine/api/options/MigrationPolicies** to get a list of all migration policies with their IDs.

29.35.10. optional_reason

This property has no longer any relevance and has been deprecated. Its default value is true.

29.35.11. required_rng_sources

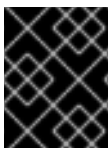
Set of random number generator (RNG) sources required from each host in the cluster.

When read, it returns the implicit **urandom** (for cluster version 4.1 and higher) or **random** (for cluster version 4.0 and lower) plus additional selected RNG sources. When written, the implicit **urandom** and **random** RNG sources cannot be removed.



IMPORTANT

Before version 4.1 of the engine, the set of required random number generators was completely controllable by the administrator; any source could be added or removed, including the **random** source. But starting with version 4.1, the **urandom** and **random** sources will always be part of the set, and can't be removed.



IMPORTANT

Engine version 4.1 introduces a new RNG source **urandom** that replaces **random** RNG source in clusters with compatibility version 4.1 or higher.

29.35.12. upgrade_correlation_id

The upgrade correlation identifier. Use to correlate events detailing the cluster upgrade to the upgrade itself.

29.35.13. version

The compatibility version of the cluster.

All hosts in this cluster must support at least this compatibility version.

For example:

```
GET /ovirt-engine/api/clusters/123
```

Will respond with:

```
<cluster>
...
<version>
  <major>4</major>
  <minor>0</minor>
</version>
...
</cluster>
```

To update the compatibility version, use:

```
PUT /ovirt-engine/api/clusters/123
```

With a request body like this:

```
<cluster>
<version>
  <major>4</major>
  <minor>1</minor>
</version>
</cluster>
```

In order to update the cluster compatibility version, all hosts in the cluster must support the new compatibility version.

29.35.14. vnc_encryption

Enable VNC encryption. Default value for this property is false.

Table 29.48. Links summary

Name	Type	Summary
affinity_groups	AffinityGroup[]	
cpu_profiles	CpuProfile[]	
data_center	DataCenter	
enabled_features	ClusterFeature[]	Custom features that are enabled for the cluster.
external_network_providers	ExternalProvider[]	A reference to the external network provider available in the cluster.
gluster_hooks	GlusterHook[]	

Name	Type	Summary
gluster_volumes	GlusterVolume[]	
mac_pool	MacPool	A reference to the MAC pool used by this cluster.
management_network	Network	
network_filters	NetworkFilter[]	
networks	Network[]	
permissions	Permission[]	
scheduling_policy	SchedulingPolicy	Reference to the default scheduling policy used by this cluster.

29.35.15. external_network_providers

A reference to the external network provider available in the cluster.

If the automatic deployment of the external network provider is supported, the networks of the referenced network provider are available on every host in the cluster. External network providers of a cluster can only be set during [adding the cluster](#). This value may be overwritten for individual hosts during [adding the host](#).

29.35.16. scheduling_policy

Reference to the default scheduling policy used by this cluster.



NOTE

The scheduling policy properties are taken by default from the referenced scheduling policy, but they are overridden by the properties specified in the **custom_scheduling_policy_properties** attribute for this cluster.

29.36. CLUSTERFEATURE STRUCT

Type represents an additional feature that is available at a cluster level.

Table 29.49. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.

Name	Type	Summary
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.

Table 29.50. Links summary

Name	Type	Summary
cluster_level	ClusterLevel	Reference to the cluster level.

29.37. CLUSTERLEVEL STRUCT

Describes the capabilities supported by a specific cluster level.

Table 29.51. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
cpu_types	CpuType[]	The CPU types supported by this cluster level.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.
permits	Permit[]	The permits supported by this cluster level.

Table 29.52. Links summary

Name	Type	Summary
cluster_features	ClusterFeature[]	The additional features supported by this cluster level.

29.38. CLUSTERUPGRADEACTION ENUM

The action type for cluster upgrade action.

Table 29.53. Values summary

Name	Summary
finish	The upgrade action to be passed to finish the cluster upgrade process by marking the cluster's <code>upgrade_running</code> flag to false.
start	The upgrade action to be passed to start the cluster upgrade process by marking the cluster's <code>upgrade_running</code> flag to true.
update_progress	The upgrade action to be passed to update the cluster upgrade progress.

29.38.1. finish

The upgrade action to be passed to finish the cluster upgrade process by marking the cluster's `upgrade_running` flag to false. This should be used at the end of the cluster upgrade process.

29.38.2. start

The upgrade action to be passed to start the cluster upgrade process by marking the cluster's `upgrade_running` flag to true. This should be used at the beginning of the cluster upgrade process.

29.38.3. update_progress

The upgrade action to be passed to update the cluster upgrade progress. This should be used as the upgrade progresses.

29.39. CONFIGURATION STRUCT

Table 29.54. Attributes summary

Name	Type	Summary
data	String	The document describing the virtual machine.
type	ConfigurationType	

29.39.1. data

The document describing the virtual machine.

Example of the OVF document:

```
<?xml version='1.0' encoding='UTF-8'?>
<ovf:Envelope xmlns:ovf="http://schemas.dmtf.org/ovf/envelope/1/"
  xmlns:rasd="http://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/CIM_ResourceAllocationSettingData"
  xmlns:vssd="http://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/CIM_VirtualSystemSettingData"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  ovf:version="3.5.0.0">
  <References/>
```

```

<Section xsi:type="ovf:NetworkSection_Type">
  <Info>List of networks</Info>
  <Network ovf:name="Network 1"/>
</Section>
<Section xsi:type="ovf:DiskSection_Type">
  <Info>List of Virtual Disks</Info>
</Section>
<Content ovf:id="out" xsi:type="ovf:VirtualSystem_Type">
  <CreationDate>2014/12/03 04:25:45</CreationDate>
  <ExportDate>2015/02/09 14:12:24</ExportDate>
  <DeleteProtected>false</DeleteProtected>
  <SsoMethod>guest_agent</SsoMethod>
  <IsSmartcardEnabled>false</IsSmartcardEnabled>
  <TimeZone>Etc/GMT</TimeZone>
  <default_boot_sequence>0</default_boot_sequence>
  <Generation>1</Generation>
  <VmType>1</VmType>
  <MinAllocatedMem>1024</MinAllocatedMem>
  <IsStateless>false</IsStateless>
  <IsRunAndPause>false</IsRunAndPause>
  <AutoStartup>false</AutoStartup>
  <Priority>1</Priority>
  <CreatedByUserId>fd6c627c-d875-11e0-90f0-83df133b58cc</CreatedByUserId>
  <IsBootMenuEnabled>false</IsBootMenuEnabled>
  <IsSpiceFileTransferEnabled>true</IsSpiceFileTransferEnabled>
  <IsSpiceCopyPasteEnabled>true</IsSpiceCopyPasteEnabled>
  <Name>VM_export</Name>
  <TemplateId>00000000-0000-0000-0000-000000000000</TemplateId>
  <TemplateName>Blank</TemplateName>
  <IsInitalized>false</IsInitalized>
  <Origin>3</Origin>
  <DefaultDisplayType>1</DefaultDisplayType>
  <TrustedService>false</TrustedService>
  <OriginalTemplateId>00000000-0000-0000-0000-000000000000</OriginalTemplateId>
  <OriginalTemplateName>Blank</OriginalTemplateName>
  <UseLatestVersion>false</UseLatestVersion>
  <Section ovf:id="70b4d9a7-4f73-4def-89ca-24fc5f60e01a"
    ovf:required="false"
    xsi:type="ovf:OperatingSystemSection_Type">
    <Info>Guest Operating System</Info>
    <Description>other</Description>
  </Section>
  <Section xsi:type="ovf:VirtualHardwareSection_Type">
    <Info>1 CPU, 1024 Memory</Info>
    <System>
      <vssd:VirtualSystemType>ENGINE 3.5.0.0</vssd:VirtualSystemType>
    </System>
    <Item>
      <rasd:Caption>1 virtual cpu</rasd:Caption>
      <rasd:Description>Number of virtual CPU</rasd:Description>
      <rasd:InstanceId>1</rasd:InstanceId>
      <rasd:ResourceType>3</rasd:ResourceType>
      <rasd:num_of_sockets>1</rasd:num_of_sockets>
      <rasd:cpu_per_socket>1</rasd:cpu_per_socket>
    </Item>
  </Section>

```

```
<rasd:Caption>1024 MB of memory</rasd:Caption>
<rasd:Description>Memory Size</rasd:Description>
<rasd:Instanceld>2</rasd:Instanceld>
<rasd:ResourceType>4</rasd:ResourceType>
<rasd:AllocationUnits>MegaBytes</rasd:AllocationUnits>
<rasd:VirtualQuantity>1024</rasd:VirtualQuantity>
</Item>
<Item>
  <rasd:Caption>USB Controller</rasd:Caption>
  <rasd:Instanceld>3</rasd:Instanceld>
  <rasd:ResourceType>23</rasd:ResourceType>
  <rasd:UsbPolicy>DISABLED</rasd:UsbPolicy>
</Item>
</Section>
</Content>
</ovf:Envelope>
```

29.40. CONFIGURATIONTYPE ENUM

Configuration format types.

Table 29.55. Values summary

Name	Summary
ova	ConfigurationType of type standard OVF.
ovf	ConfigurationType of type oVirt-compatible OVF.

29.40.1. ova

ConfigurationType of type standard OVF.

The provided virtual machine configuration conforms with the Open Virtualization Format (OVF) standard. This value should be used for an OVF configuration that is extracted from an Open Virtual Appliance (OVA) that was generated by oVirt or by other vendors. See the [OVF specification](#).

29.40.2. ovf

ConfigurationType of type oVirt-compatible OVF.

The provided virtual machine configuration conforms with the oVirt-compatible form of the Open Virtualization Format (OVF). Note that the oVirt-compatible form of the OVF may differ from the OVF standard that is used by other vendors. This value should be used for an OVF configuration that is taken from a storage domain.

29.41. CONSOLE STRUCT

Representation for serial console device.

Table 29.56. Attributes summary

Name	Type	Summary
enabled	Boolean	Enable/disable the serial console device.

29.42. CORE STRUCT

Table 29.57. Attributes summary

Name	Type	Summary
index	Integer	
socket	Integer	

29.43. CPU STRUCT

Table 29.58. Attributes summary

Name	Type	Summary
architecture	Architecture	
cores	Core[]	
cpu_tune	CpuTune	
level	Integer	
mode	CpuMode	
name	String	
speed	Decimal	
topology	CpuTopology	
type	String	

29.44. CPUMODE ENUM

Table 29.59. Values summary

Name	Summary
custom	

Name	Summary
host_model	
host_passthrou gh	

29.45. CPUPINNINGPOLICY ENUM

Type representing the CPU and NUMA pinning policy.

Table 29.60. Values summary

Name	Summary
dedicated	The CPU pinning will be automatically calculated by the engine when a vm starts and it will be dropped when the vm stops.
isolate_threads	The CPU pinning will be automatically calculated by the engine when a vm starts, and it will be dropped when the vm stops.
manual	The CPU pinning will be manually configured.
none	The CPU pinning won't be configured.
resize_and_pin_ numa	The CPU and NUMA pinning will be configured by the dedicated host.

29.45.1. dedicated

The CPU pinning will be automatically calculated by the engine when a vm starts and it will be dropped when the vm stops.

The pinning is exclusive, that means that no other VM can use the pinned physical CPU.

29.45.2. isolate_threads

The CPU pinning will be automatically calculated by the engine when a vm starts, and it will be dropped when the vm stops.

The pinning is exclusive, each virtual thread will get an exclusive physical core. That means that no other VM can use the pinned physical CPU.

29.45.3. manual

The CPU pinning will be manually configured.

Currently, this means that the CPU pinning will be manually configured to the current virtual machine configuration. The VM needs to be pinned to at least one host. The Pinning is provided within the CPU configuration, using CpuTune.

29.45.4. none

The CPU pinning won't be configured.

Currently, this means that the CPU pinning won't be configured to the current virtual machine configuration. By default, the VM topology is set with 1 Socket, 1 Core and 1 Thread.

29.45.5. resize_and_pin_numa

The CPU and NUMA pinning will be configured by the dedicated host.

The CPU and NUMA pinning will use the dedicated host CPU topology. The virtual machine configuration will automatically be set to fit the host to get the highest possible performance.

29.46. CPUPROFILE STRUCT

Table 29.61. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.

Table 29.62. Links summary

Name	Type	Summary
cluster	Cluster	
permissions	Permission[]	
qos	Qos	

29.47. CPUTOPOLOGY STRUCT

Table 29.63. Attributes summary

Name	Type	Summary
cores	Integer	

Name	Type	Summary
sockets	Integer	
threads	Integer	

29.48. CPUTUNE STRUCT

Table 29.64. Attributes summary

Name	Type	Summary
vcpu_pins	VcpuPin[]	

29.49. CPUTYPE STRUCT

Describes a supported CPU type.

Table 29.65. Attributes summary

Name	Type	Summary
architecture	Architecture	The architecture of the CPU.
level	Integer	The level of the CPU type.
name	String	The name of the CPU type, for example Intel Nehalem Family .

29.50. CREATIONSTATUS ENUM

Table 29.66. Values summary

Name	Summary
complete	
failed	
in_progress	
pending	

29.51. CUSTOMPROPERTY STRUCT

Custom property representation.

Table 29.67. Attributes summary

Name	Type	Summary
name	String	Property name.
regexp	String	A regular expression defining the available values a custom property can get.
value	String	Property value.

29.52. DATACENTER STRUCT

Table 29.68. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
local	Boolean	
name	String	A human-readable name in plain text.
quota_mode	QuotaModeType	
status	DataCenterStatus	
storage_format	StorageFormat	
supported_versions	Version[]	
version	Version	The compatibility version of the data center.

29.52.1. version

The compatibility version of the data center.

All clusters in this data center must already be set to at least this compatibility version.

For example:

```
GET /ovirt-engine/api/datacenters/123
```

Will respond:

```
<data_center>
...
<version>
  <major>4</major>
  <minor>0</minor>
</version>
...
</data_center>
```

To update the compatibility version, use:

```
PUT /ovirt-engine/api/datacenters/123
```

With a request body:

```
<data_center>
<version>
  <major>4</major>
  <minor>1</minor>
</version>
</data_center>
```

Table 29.69. Links summary

Name	Type	Summary
clusters	Cluster[]	Reference to clusters inside this data center.
iscsi_bonds	IscsiBond[]	Reference to iSCSI bonds used by this data center.
mac_pool	MacPool	Reference to the MAC pool used by this data center.
networks	Network[]	Reference to networks attached to this data center.
permissions	Permission[]	Reference to permissions assigned to this data center.
qoss	Qos[]	Reference to quality of service used by this data center.
quotas	Quota[]	Reference to quotas assigned to this data center.
storage_domains	StorageDomain[]	Reference to storage domains attached to this data center.

29.53. DATACENTERSTATUS ENUM

Table 29.70. Values summary

Name	Summary
contend	
maintenance	
not_operational	
problematic	
uninitialized	
up	

29.54. DEVICE STRUCT

A device wraps links to potential parents of a device.

Table 29.71. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.

Table 29.72. Links summary

Name	Type	Summary
instance_type	InstanceType	Optionally references to an instance type the device is used by.
template	Template	Optionally references to a template the device is used by.
vm	Vm	Do not use this element, use vms instead.
vms	Vm[]	References to the virtual machines that are using this device.

29.54.1. vms

References to the virtual machines that are using this device. A device may be used by several virtual machines; for example, a shared disk may be used simultaneously by two or more virtual machines.

29.55. DISK STRUCT

Represents a virtual disk device.

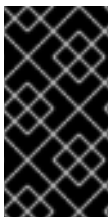
Table 29.73. Attributes summary

Name	Type	Summary
active	Boolean	Indicates if the disk is visible to the virtual machine.
actual_size	Integer	The actual size of the disk, in bytes.
alias	String	
backup	DiskBackup	The backup behavior supported by the disk.
backup_mode	DiskBackupMode	The type of the disk backup (full/incremental), visible only when the disk backup is in progress.
bootable	Boolean	Indicates if the disk is marked as bootable.
comment	String	Free text containing comments about this object.
content_type	DiskContentType	Indicates the actual content residing on the disk.
description	String	A human-readable description in plain text.
external_disk	String	Use external disk.
format	DiskFormat	The underlying storage format.
id	String	A unique identifier.
image_id	String	
initial_size	Integer	The initial size of a sparse image disk created on block storage, in bytes.
interface	DiskInterface	The type of interface driver used to connect the disk device to the virtual machine.
logical_name	String	
lun_storage	HostStorage	
name	String	A human-readable name in plain text.

Name	Type	Summary
propagate_errors	Boolean	Indicates if disk errors should cause virtual machine to be paused or if disk errors should be propagated to the the guest operating system instead.
provisioned_size	Integer	The virtual size of the disk, in bytes.
qcow_version	QcowVersion	The underlying QCOW version of a QCOW volume.
read_only	Boolean	Indicates if the disk is in read-only mode.
sgio	ScsiGenericIO	Indicates whether SCSI passthrough is enable and its policy.
shareable	Boolean	Indicates if the disk can be attached to multiple virtual machines.
sparse	Boolean	Indicates if the physical storage for the disk should not be preallocated.
status	DiskStatus	The status of the disk device.
storage_type	DiskStorageType	
total_size	Integer	The total size of the disk including all of its snapshots, in bytes.
uses_scsi_reservation	Boolean	
wipe_after_delete	Boolean	Indicates if the disk's blocks will be read back as zeros after it is deleted: - On block storage, the disk will be zeroed and only then deleted.

29.55.1. active

Indicates if the disk is visible to the virtual machine.



IMPORTANT

When adding a disk attachment to a virtual machine, if the server accepts requests that do not contain this attribute the result is undefined. In some cases the disk will be automatically activated and in other cases it will not. To avoid issues it is strongly recommended to always include the this attribute with the desired value.

29.55.2. actual_size

The actual size of the disk, in bytes.

The actual size is the number of bytes actually used by the disk. It will be smaller than the provisioned size for disks that use the **cow** format.

29.55.3. bootable

Indicates if the disk is marked as bootable.



IMPORTANT

This attribute only makes sense for disks that are actually connected to virtual machines, and in version 4 of the API it has been moved to the [DiskAttachment](#) type. It is preserved here only for backwards compatibility, and it will be removed in the future.

29.55.4. external_disk

Use external disk.

An external disk can be a path to a local file or a block device, or a URL supported by QEMU such as:

- `nbd:<host>:<port>[:exportname=<export>]`
- `nbd:unix:</path>[:exportname=<export>]`
- `http://[<username>[:<password>]@]<host>/<path>`
- `https://[<username>[:<password>]@]<host>/<path>`
- `ftp://[<username>[:<password>]@]<host>/<path>`
- `ftps://[<username>[:<password>]@]<host>/<path>`

See the QEMU manual for additional supported protocols and more info.

29.55.5. initial_size

The initial size of a sparse image disk created on block storage, in bytes.

The initial size is the number of bytes a sparse disk is initially allocated with when created on block storage. The initial size will be smaller than the provisioned size. If not specified the default initial size used by the system will be allocated.

29.55.6. interface

The type of interface driver used to connect the disk device to the virtual machine.



IMPORTANT

This attribute only makes sense for disks that are actually connected to virtual machines, and in version 4 of the API it has been moved to the [DiskAttachment](#) type. It is preserved here only for backwards compatibility, and it will be removed in the future.

29.55.7. provisioned_size

The virtual size of the disk, in bytes.

This attribute is mandatory when creating a new disk.

29.55.8. qcow_version

The underlying QCOW version of a QCOW volume. The QCOW version specifies to the qemu which qemu version the volume supports. This field can be updated using the update API and will be reported only for QCOW volumes. It is determined by the version of the storage domain that the disk is created on. Storage domains with a version lower than V4 support QCOW2 volumes. V4 storage domains also support QCOW2v3. For more information about features of the different QCOW versions, see [QCOW3](#).

29.55.9. read_only

Indicates if the disk is in read-only mode.

Since version 4.0 this attribute is not shown in the API and was moved to [DiskAttachment](#).

Since version 4.1.2 of Red Hat Virtualization Manager this attribute is deprecated, and it will be removed in the future. In order to attach a disk in read only mode use the **read_only** attribute of the [DiskAttachment](#) type. For example:

```
POST /ovirt-engine/api/vms/123/diskattachments
```

```
<disk_attachment>
  <read_only>true</read_only>
  ...
</disk_attachment>
```

29.55.10. sgio

Indicates whether SCSI passthrough is enable and its policy.

Setting a value of **filtered/unfiltered** will enable SCSI passthrough for a LUN disk with unprivileged/privileged SCSI I/O. To disable SCSI passthrough the value should be set to **disabled**

29.55.11. shareable

Indicates if the disk can be attached to multiple virtual machines.



IMPORTANT

When a disk is attached to multiple virtual machines it is the responsibility of the guest operating systems of those virtual machines to coordinate access to it, to avoid corruption of the data, for example using a shared file system like [GlusterFS](#) or [GFS](#).

29.55.12. total_size

The total size of the disk including all of its snapshots, in bytes.

The total size is the number of bytes actually used by the disk plus the size of its snapshots. It won't be populated for direct LUN and Cinder disks. For disks without snapshots the total size is equal to the actual size.

29.55.13. wipe_after_delete

Indicates if the disk's blocks will be read back as zeros after it is deleted:

- On block storage, the disk will be zeroed and only then deleted.
- On file storage, since the file system already guarantees that previously removed blocks are read back as zeros, the disk will be deleted immediately.

Table 29.74. Links summary

Name	Type	Summary
disk_profile	DiskProfile	
disk_snapshots	DiskSnapshot[]	
instance_type	InstanceType	Optionally references to an instance type the device is used by.
openstack_volume_type	OpenStackVolumeType	
permissions	Permission[]	
quota	Quota	
snapshot	Snapshot	
statistics	Statistic[]	Statistics exposed by the disk.
storage_domain	StorageDomain	
storage_domains	StorageDomain[]	The storage domains associated with this disk.
template	Template	Optionally references to a template the device is used by.
vm	Vm	Do not use this element, use vms instead.
vms	Vm[]	References to the virtual machines that are using this device.

29.55.14. statistics

Statistics exposed by the disk. For example:

```
<statistics>
  <statistic href="/ovirt-engine/api/disks/123/statistics/456" id="456">
    <name>data.current.read</name>
    <description>Read data rate</description>
    <kind>gauge</kind>
```

```
<type>decimal</type>
<unit>bytes_per_second</unit>
<values>
  <value>
    <datum>1052</datum>
  </value>
</values>
<disk href="/ovirt-engine/api/disks/123" id="123"/>
</statistic>
...
</statistics>
```

These statistics are not directly included when the disk is retrieved, only a link. To obtain the statistics follow the included link:

```
GET /ovirt-engine/api/disks/123/statistics
```

29.55.15. storage_domains

The storage domains associated with this disk.



NOTE
Only required when the first disk is being added to a virtual machine that was not itself created from a template.

29.55.16. vms

References to the virtual machines that are using this device. A device may be used by several virtual machines; for example, a shared disk may be used simultaneously by two or more virtual machines.

29.56. DISKATTACHMENT STRUCT

Describes how a disk is attached to a virtual machine.

Table 29.75. Attributes summary

Name	Type	Summary
active	Boolean	Defines whether the disk is active in the virtual machine it's attached to.
bootable	Boolean	Defines whether the disk is bootable.
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.

Name	Type	Summary
interface	DiskInterface	The type of interface driver used to connect the disk device to the virtual machine.
logical_name	String	The logical name of the virtual machine's disk, as seen from inside the virtual machine.
name	String	A human-readable name in plain text.
pass_discard	Boolean	Defines whether the virtual machine passes discard commands to the storage.
read_only	Boolean	Indicates whether the disk is connected to the virtual machine as read only.
uses_scsi_reservation	Boolean	Defines whether SCSI reservation is enabled for this disk.

29.56.1. active

Defines whether the disk is active in the virtual machine it's attached to.

A disk attached to a virtual machine in an active status is connected to the virtual machine at run time and can be used.

29.56.2. logical_name

The logical name of the virtual machine's disk, as seen from inside the virtual machine.

The logical name of a disk is reported only when the guest agent is installed and running inside the virtual machine.

For example, if the guest operating system is Linux and the disk is connected via a VirtIO interface, the logical name will be reported as **/dev/vda**:

```
<disk_attachment>
...
<logical_name>/dev/vda</logical_name>
</disk_attachment>
```

If the guest operating system is Windows, the logical name will be reported as **\\.\PHYSICALDRIVE0**.

29.56.3. read_only

Indicates whether the disk is connected to the virtual machine as read only.

When adding a new disk attachment the default value is **false**.

```
<disk_attachment>
...
```

```
<read_only>true</read_only>
</disk_attachment>
```

29.56.4. uses_scsi_reservation

Defines whether SCSI reservation is enabled for this disk.

Virtual machines with VIRTIO-SCSI passthrough enabled can set persistent SCSI reservations on disks. If they set persistent SCSI reservations, those virtual machines cannot be migrated to a different host because they would lose access to the disk, because SCSI reservations are specific to SCSI initiators, and therefore hosts. This scenario cannot be automatically detected. To avoid migrating these virtual machines, the user can set this attribute to **true**, to indicate the virtual machine is using SCSI reservations.

Table 29.76. Links summary

Name	Type	Summary
disk	Disk	The reference to the disk.
template	Template	The reference to the template.
vm	Vm	The reference to the virtual machine.

29.57. DISKBACKUP ENUM

Represents an enumeration of the backup mechanism that is enabled on the disk.

Table 29.77. Values summary

Name	Summary
incremental	Incremental backup support.
none	No backup support.

29.58. DISKBACKUPMODE ENUM

Represents an enumeration of backup modes

Table 29.78. Values summary

Name	Summary
full	This disk supports full backup.
incremental	This disk supports incremental backup.

29.58.1. full

This disk supports full backup. You can query zero extents and download all disk data.

29.58.2. incremental

This disk supports incremental backup. You can query dirty extents and download changed blocks.

29.59. DISKCONTENTTYPE ENUM

The actual content residing on the disk.

Table 29.79. Values summary

Name	Summary
backup_scratch	The disk contains protected VM backup data.
data	The disk contains data.
hosted_engine	The disk contains the Hosted Engine VM disk.
hosted_engine_configuration	The disk contains the Hosted Engine configuration disk.
hosted_engine_metadata	The disk contains the Hosted Engine metadata disk.
hosted_engine_sanlock	The disk contains the Hosted Engine Sanlock disk.
iso	The disk contains an ISO image to be used a CDROM device.
memory_dump_volume	The disk contains a memory dump from a live snapshot.
memory_metadata_volume	The disk contains memory metadata from a live snapshot.
ovf_store	The disk is an OVF store.

29.60. DISKFORMAT ENUM

The underlying storage format of disks.

Table 29.80. Values summary

Name	Summary
cow	The <i>Copy On Write</i> format allows snapshots, with a small performance overhead.

Name	Summary
raw	The raw format does not allow snapshots, but offers improved performance.

29.61. DISKINTERFACE ENUM

The underlying storage interface of disks communication with controller.

Table 29.81. Values summary

Name	Summary
ide	Legacy controller device.
sata	SATA controller device.
spapr_vscsi	Para-virtualized device supported by the IBM pSeries family of machines, using the SCSI protocol.
virtio	Virtualization interface where just the guest's device driver knows it is running in a virtual environment.
virtio_scsi	Para-virtualized SCSI controller device.

29.61.1. ide

Legacy controller device. Works with almost all guest operating systems, so it is good for compatibility. Performance is lower than with the other alternatives.

29.61.2. virtio

Virtualization interface where just the guest's device driver knows it is running in a virtual environment. Enables guests to get high performance disk operations.

29.61.3. virtio_scsi

Para-virtualized SCSI controller device. Fast interface with the guest via direct physical storage device address, using the SCSI protocol.

29.62. DISKPROFILE STRUCT

Table 29.82. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.

Name	Type	Summary
id	String	A unique identifier.
name	String	A human-readable name in plain text.

Table 29.83. Links summary

Name	Type	Summary
permissions	Permission[]	
qos	Qos	
storage_domain	StorageDomain	

29.63. DISKSNAPSHOT STRUCT

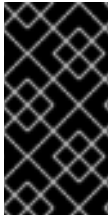
Table 29.84. Attributes summary

Name	Type	Summary
active	Boolean	Indicates if the disk is visible to the virtual machine.
actual_size	Integer	The actual size of the disk, in bytes.
alias	String	
backup	DiskBackup	The backup behavior supported by the disk.
backup_mode	DiskBackupMode	The type of the disk backup (full/incremental), visible only when the disk backup is in progress.
bootable	Boolean	Indicates if the disk is marked as bootable.
comment	String	Free text containing comments about this object.
content_type	DiskContentType	Indicates the actual content residing on the disk.
description	String	A human-readable description in plain text.
external_disk	String	Use external disk.
format	DiskFormat	The underlying storage format.
id	String	A unique identifier.

Name	Type	Summary
image_id	String	
initial_size	Integer	The initial size of a sparse image disk created on block storage, in bytes.
interface	DiskInterface	The type of interface driver used to connect the disk device to the virtual machine.
logical_name	String	
lun_storage	HostStorage	
name	String	A human-readable name in plain text.
propagate_errors	Boolean	Indicates if disk errors should cause virtual machine to be paused or if disk errors should be propagated to the the guest operating system instead.
provisioned_size	Integer	The virtual size of the disk, in bytes.
qcow_version	QcowVersion	The underlying QCOW version of a QCOW volume.
read_only	Boolean	Indicates if the disk is in read-only mode.
sgio	ScsiGenericIO	Indicates whether SCSI passthrough is enable and its policy.
shareable	Boolean	Indicates if the disk can be attached to multiple virtual machines.
sparse	Boolean	Indicates if the physical storage for the disk should not be preallocated.
status	DiskStatus	The status of the disk device.
storage_type	DiskStorageType	
total_size	Integer	The total size of the disk including all of its snapshots, in bytes.
uses_scsi_reservation	Boolean	
wipe_after_delete	Boolean	Indicates if the disk's blocks will be read back as zeros after it is deleted: - On block storage, the disk will be zeroed and only then deleted.

29.63.1. active

Indicates if the disk is visible to the virtual machine.



IMPORTANT

When adding a disk attachment to a virtual machine, if the server accepts requests that do not contain this attribute the result is undefined. In some cases the disk will be automatically activated and in other cases it will not. To avoid issues it is strongly recommended to always include the this attribute with the desired value.

29.63.2. actual_size

The actual size of the disk, in bytes.

The actual size is the number of bytes actually used by the disk. It will be smaller than the provisioned size for disks that use the **cow** format.

29.63.3. bootable

Indicates if the disk is marked as bootable.



IMPORTANT

This attribute only makes sense for disks that are actually connected to virtual machines, and in version 4 of the API it has been moved to the [DiskAttachment](#) type. It is preserved here only for backwards compatibility, and it will be removed in the future.

29.63.4. external_disk

Use external disk.

An external disk can be a path to a local file or a block device, or a URL supported by QEMU such as:

- `nbd:<host>:<port>[:exportname=<export>]`
- `nbd:unix:</path>[:exportname=<export>]`
- `http://[<username>[:<password>]@]<host>/<path>`
- `https://[<username>[:<password>]@]<host>/<path>`
- `ftp://[<username>[:<password>]@]<host>/<path>`
- `ftps://[<username>[:<password>]@]<host>/<path>`

See the QEMU manual for additional supported protocols and more info.

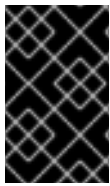
29.63.5. initial_size

The initial size of a sparse image disk created on block storage, in bytes.

The initial size is the number of bytes a sparse disk is initially allocated with when created on block storage. The initial size will be smaller than the provisioned size. If not specified the default initial size used by the system will be allocated.

29.63.6. interface

The type of interface driver used to connect the disk device to the virtual machine.



IMPORTANT

This attribute only makes sense for disks that are actually connected to virtual machines, and in version 4 of the API it has been moved to the [DiskAttachment](#) type. It is preserved here only for backwards compatibility, and it will be removed in the future.

29.63.7. provisioned_size

The virtual size of the disk, in bytes.

This attribute is mandatory when creating a new disk.

29.63.8. qcow_version

The underlying QCOW version of a QCOW volume. The QCOW version specifies to the qemu which qemu version the volume supports. This field can be updated using the update API and will be reported only for QCOW volumes. It is determined by the version of the storage domain that the disk is created on. Storage domains with a version lower than V4 support QCOW2 volumes. V4 storage domains also support QCOW2v3. For more information about features of the different QCOW versions, see [QCOW3](#).

29.63.9. read_only

Indicates if the disk is in read-only mode.

Since version 4.0 this attribute is not shown in the API and was moved to [DiskAttachment](#).

Since version 4.1.2 of Red Hat Virtualization Manager this attribute is deprecated, and it will be removed in the future. In order to attach a disk in read only mode use the **read_only** attribute of the [DiskAttachment](#) type. For example:

```
POST /ovirt-engine/api/vms/123/diskattachments
```

```
<disk_attachment>
  <read_only>true</read_only>
  ...
</disk_attachment>
```

29.63.10. sgio

Indicates whether SCSI passthrough is enable and its policy.

Setting a value of **filtered/unfiltered** will enable SCSI passthrough for a LUN disk with unprivileged/privileged SCSI I/O. To disable SCSI passthrough the value should be set to **disabled**

29.63.11. shareable

Indicates if the disk can be attached to multiple virtual machines.



IMPORTANT

When a disk is attached to multiple virtual machines it is the responsibility of the guest operating systems of those virtual machines to coordinate access to it, to avoid corruption of the data, for example using a shared file system like [GlusterFS](#) or [GFS](#).

29.63.12. total_size

The total size of the disk including all of its snapshots, in bytes.

The total size is the number of bytes actually used by the disk plus the size of its snapshots. It won't be populated for direct LUN and Cinder disks. For disks without snapshots the total size is equal to the actual size.

29.63.13. wipe_after_delete

Indicates if the disk's blocks will be read back as zeros after it is deleted:

- On block storage, the disk will be zeroed and only then deleted.
- On file storage, since the file system already guarantees that previously removed blocks are read back as zeros, the disk will be deleted immediately.

Table 29.85. Links summary

Name	Type	Summary
disk	Disk	
disk_profile	DiskProfile	
disk_snapshots	DiskSnapshot[]	
instance_type	InstanceType	Optionally references to an instance type the device is used by.
openstack_volume_type	OpenStackVolumeType	
parent	DiskSnapshot	Parent disk snapshot.
permissions	Permission[]	
quota	Quota	
snapshot	Snapshot	
statistics	Statistic[]	Statistics exposed by the disk.
storage_domain	StorageDomain	

Name	Type	Summary
storage_domains	StorageDomain[]	The storage domains associated with this disk.
template	Template	Optionally references to a template the device is used by.
vm	Vm	Do not use this element, use vms instead.
vms	Vm[]	References to the virtual machines that are using this device.

29.63.14. statistics

Statistics exposed by the disk. For example:

```
<statistics>
  <statistic href="/ovirt-engine/api/disks/123/statistics/456" id="456">
    <name>data.current.read</name>
    <description>Read data rate</description>
    <kind>gauge</kind>
    <type>decimal</type>
    <unit>bytes_per_second</unit>
    <values>
      <value>
        <datum>1052</datum>
      </value>
    </values>
    <disk href="/ovirt-engine/api/disks/123" id="123"/>
  </statistic>
  ...
</statistics>
```

These statistics are not directly included when the disk is retrieved, only a link. To obtain the statistics follow the included link:

```
GET /ovirt-engine/api/disks/123/statistics
```

29.63.15. storage_domains

The storage domains associated with this disk.



NOTE

Only required when the first disk is being added to a virtual machine that was not itself created from a template.

29.63.16. vms

References to the virtual machines that are using this device. A device may be used by several virtual machines; for example, a shared disk may be used simultaneously by two or more virtual machines.

29.64. DISKSTATUS ENUM

Current status representation for disk.

Table 29.86. Values summary

Name	Summary
illegal	Disk cannot be accessed by the virtual machine, and the user needs to take action to resolve the issue.
locked	The disk is being used by the system, therefore it cannot be accessed by virtual machines at this point.
ok	The disk status is normal and can be accessed by the virtual machine.

29.64.1. locked

The disk is being used by the system, therefore it cannot be accessed by virtual machines at this point. This is usually a temporary status, until the disk is freed.

29.65. DISKSTORAGETYPE ENUM

Table 29.87. Values summary

Name	Summary
cinder	
image	
lun	
managed_block_storage	A storage type, used for a storage domain that was created using a cinderlib driver.

29.66. DISKTYPE ENUM

Table 29.88. Values summary

Name	Summary
data	
system	

29.67. DISPLAY STRUCT

Represents a graphic console configuration.

Table 29.89. Attributes summary

Name	Type	Summary
address	String	The IP address of the guest to connect the graphic console client to.
allow_override	Boolean	Indicates if to override the display address per host.
certificate	Certificate	The TLS certificate in case of a TLS connection.
copy_paste_enabled	Boolean	Indicates whether a user is able to copy and paste content from an external host into the graphic console.
disconnect_action	String	Returns the action that will take place when the graphic console is disconnected.
disconnect_action_delay	Integer	Delay (in minutes) before the graphic console disconnect action is carried out.
file_transfer_enabled	Boolean	Indicates if a user is able to drag and drop files from an external host into the graphic console.
keyboard_layout	String	The keyboard layout to use with this graphic console.
monitors	Integer	The number of monitors opened for this graphic console.
port	Integer	The port address on the guest to connect the graphic console client to.
proxy	String	The proxy IP which will be used by the graphic console client to connect to the guest.
secure_port	Integer	The secured port address on the guest, in case of using TLS, to connect the graphic console client to.
single_qxl_pci	Boolean	The engine now sets it automatically according to the operating system.
smartcard_enabled	Boolean	Indicates if to use smart card authentication.
type	DisplayType	The graphic console protocol type.

29.67.1. allow_override

Indicates if to override the display address per host. Relevant only for the **Host.display** attribute. If set, the graphical console address of a virtual machine will be overridden by the host specified display address. If not set, the graphical console address of a virtual machine will not be overridden.

29.67.2. certificate

The TLS certificate in case of a TLS connection. If TLS isn't enabled then it won't be reported.

29.67.3. copy_paste_enabled

Indicates whether a user is able to copy and paste content from an external host into the graphic console. This option is only available for the SPICE console type.

29.67.4. disconnect_action

Returns the action that will take place when the graphic console is disconnected. The options are:

none

No action is taken.

lock_screen

Locks the currently active user session.

logout

Logs out the currently active user session.

reboot

Initiates a graceful virtual machine reboot.

shutdown

Initiates a graceful virtual machine shutdown.

This option is only available for the SPICE console type.

29.67.5. disconnect_action_delay

Delay (in minutes) before the graphic console disconnect action is carried out. This option is only available for Shutdown disconnect action.

29.67.6. file_transfer_enabled

Indicates if a user is able to drag and drop files from an external host into the graphic console. This option is only available for the SPICE console type.

29.67.7. keyboard_layout

The keyboard layout to use with this graphic console. This option is only available for the VNC console type. If no keyboard is enabled then it won't be reported.

29.67.8. monitors

The number of monitors opened for this graphic console. This option is only available for the SPICE console type. Possible values are 1, 2 or 4.

29.67.9. proxy

The proxy IP which will be used by the graphic console client to connect to the guest. It is useful when the client is outside the guest's network. This option is only available for the SPICE console type. This proxy can be set in global configuration, cluster level, virtual machine pool level or disabled per virtual machine. If the proxy is set in any of this mentioned places and not disabled for the virtual machine, it will be returned by this method. If the proxy is not set, nothing will be reported.

29.67.10. secure_port

The secured port address on the guest, in case of using TLS, to connect the graphic console client to. If TLS isn't enabled then it won't be reported.

29.67.11. single_qxl_pci

The engine now sets it automatically according to the operating system. Therefore, it has been deprecated since 4.4.5. Indicates if to use one PCI slot for each monitor or to use a single PCI channel for all multiple monitors. This option is only available for the SPICE console type and only for connecting a guest Linux based OS.

29.67.12. smartcard_enabled

Indicates if to use smart card authentication. This option is only available for the SPICE console type.

29.68. DISPLAYTYPE ENUM

Represents an enumeration of the protocol used to connect to the graphic console of the virtual machine.

Table 29.90. Values summary

Name	Summary
spice	Display of type SPICE.
vnc	Display of type VNC.

29.68.1. spice

Display of type SPICE. See [SPICE documentation](#) for more details.

29.68.2. vnc

Display of type VNC. VNC stands for Virtual Network Computing, and it is a graphical desktop sharing system that uses RFB (Remote Frame Buffer) protocol to remotely control another machine.

29.69. DNS STRUCT

Represents the DNS resolver configuration.

Table 29.91. Attributes summary

Name	Type	Summary
search_domains	Host[]	Array of hosts serving as search domains.
servers	Host[]	Array of hosts serving as DNS servers.

29.70. DNSRESOLVERCONFIGURATION STRUCT

Represents the DNS resolver configuration.

Table 29.92. Attributes summary

Name	Type	Summary
name_servers	String[]	Array of addresses of name servers.

29.70.1. name_servers

Array of addresses of name servers. Either IPv4 or IPv6 addresses may be specified.

29.71. DOMAIN STRUCT

This type represents a directory service domain.

Table 29.93. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.
user	User	

Table 29.94. Links summary

Name	Type	Summary
groups	Group[]	A reference to all groups in the directory service.
users	User[]	A reference to a list of all users in the directory service.

29.71.1. users

A reference to a list of all users in the directory service. This information is used to add new users to the Red Hat Virtualization environment.

29.72. DYNAMICCPU STRUCT

Configuration of the Dynamic CPUs of a virtual machine.

Table 29.95. Attributes summary

Name	Type	Summary
cpu_tune	CpuTune	
topology	CpuTopology	

29.73. ENTITYEXTERNALSTATUS ENUM

Type representing an external entity status.

Table 29.96. Values summary

Name	Summary
error	The external entity status is erroneous.
failure	The external entity has an issue that causes failures.
info	There external entity status is okay but with some information that might be relevant.
ok	The external entity status is okay.
warning	The external entity status is okay but with an issue that might require attention.

29.73.1. error

The external entity status is erroneous. This might require a moderate attention.

29.73.2. failure

The external entity has an issue that causes failures. This might require immediate attention.

29.74. ENTITYPROFILEDETAIL STRUCT

Table 29.97. Attributes summary

Name	Type	Summary
profile_details	ProfileDetail[]	

29.75. ERRORHANDLING STRUCT

Table 29.98. Attributes summary

Name	Type	Summary
on_error	MigrateOnError	

29.76. EVENT STRUCT

Type representing an event.

Table 29.99. Attributes summary

Name	Type	Summary
code	Integer	The event code.
comment	String	Free text containing comments about this object.
correlation_id	String	The event correlation identifier.
custom_data	String	Free text representing custom event data.
custom_id	Integer	A custom event identifier.
description	String	A human-readable description in plain text.
flood_rate	Integer	Defines the flood rate.
id	String	A unique identifier.
index	Integer	The numeric index of this event.
log_on_host	Boolean	Specifies whether the event should also be written to the \${hypervisor}.
name	String	A human-readable name in plain text.
origin	String	Free text identifying the origin of the event.
severity	LogSeverity	The event severity.

Name	Type	Summary
time	Date	The event time.

29.76.1. correlation_id

The event correlation identifier. Used in order to correlate several events together.

29.76.2. flood_rate

Defines the flood rate. This prevents flooding in case an event appeared more than once in the defined rate. Defaults is 30 seconds.

29.76.3. index

The numeric index of this event. The indexes of events are always increasing, so events with higher indexes are guaranteed to be older than events with lower indexes.



IMPORTANT

In the current implementation of the engine, the **id** attribute has the same value as this **index** attribute. That is an implementation detail that the user of the API should not rely on. In the future the **id** attribute may be changed to an arbitrary string, containing non numeric characters and no implicit order. On the other hand this **index** attribute is guaranteed to stay as integer and ordered.

29.76.4. log_on_host

Specifies whether the event should also be written to the \${hypervisor.name} log. If no host is specified the event description will be written to all hosts. Default is false.

Table 29.100. Links summary

Name	Type	Summary
cluster	Cluster	Reference to the cluster service.
data_center	DataCenter	Reference to the data center service.
host	Host	Reference to the host service.
storage_domain	StorageDomain	Reference to the storage domain service.
template	Template	Reference to the template service.
user	User	Reference to the user service.

Name	Type	Summary
vm	Vm	Reference to the virtual machine service.

29.76.5. cluster

Reference to the cluster service. Event can be associated with a cluster.

29.76.6. data_center

Reference to the data center service. Event can be associated with a data center.

29.76.7. host

Reference to the host service. Event can be associated with a host.

29.76.8. storage_domain

Reference to the storage domain service. Event can be associated with a storage domain.

29.76.9. template

Reference to the template service. Event can be associated with a template.

29.76.10. user

Reference to the user service. Event can be associated with a user.

29.76.11. vm

Reference to the virtual machine service. Event can be associated with a virtual machine.

29.77. EVENTSUBSCRIPTION STRUCT

Table 29.101. Attributes summary

Name	Type	Summary
address	String	The email address to which notifications should be sent.
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
event	NotifiableEvent	The subscribed-for event.
id	String	A unique identifier.

Name	Type	Summary
name	String	A human-readable name in plain text.
notification_method	NotificationMethod	The notification method: SMTP or SNMP.
user	User	The subscribing user.

29.77.1. address

The email address to which notifications should be sent.

When not provided, notifications are sent to the user's email. Only a single address per user is currently supported. If a subscription with a different email address to that of existing subscriptions is added, a 409 (CONFLICT) status is returned with an explanation that the provided address conflicts with an existing address of an event-subscription for this user.

This field might be deprecated in the future, and notifications will always be sent on the user's email address.

29.77.2. event

The subscribed-for event.

(Combined with the user, Uniquely identifies the event-subscription).

29.77.3. notification_method

The notification method: SMTP or SNMP.

Currently only SMTP supported by API. Support for SNMP will be added in the future.

29.77.4. user

The subscribing user.

Combined with the event-name, uniquely identifies the event-subscription.

29.78. EXTERNALCOMPUTERESOURCE STRUCT

Table 29.102. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.

Name	Type	Summary
name	String	A human-readable name in plain text.
provider	String	
url	String	
user	String	

Table 29.103. Links summary

Name	Type	Summary
external_host_provider	ExternalHostProvider	

29.79. EXTERNALDISCOVEREDHOST STRUCT

Table 29.104. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
ip	String	
last_report	String	
mac	String	
name	String	A human-readable name in plain text.
subnet_name	String	

Table 29.105. Links summary

Name	Type	Summary
external_host_provider	ExternalHostProvider	

29.80. EXTERNALHOST STRUCT

Represents a host provisioned by a host provider (such as Foreman/Satellite).

See [Foreman documentation](#) for more details. See [Satellite documentation](#) for more details on Red Hat Satellite.

Table 29.106. Attributes summary

Name	Type	Summary
address	String	The address of the host, either IP address or FQDN (Fully Qualified Domain Name).
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.

Table 29.107. Links summary

Name	Type	Summary
external_host_provider	ExternalHostProvider	A reference to the external host provider that the host is managed by.

29.81. EXTERNALHOSTGROUP STRUCT

Table 29.108. Attributes summary

Name	Type	Summary
architecture_name	String	
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
domain_name	String	
id	String	A unique identifier.
name	String	A human-readable name in plain text.

Name	Type	Summary
operating_system_name	String	
subnet_name	String	

Table 29.109. Links summary

Name	Type	Summary
external_host_provider	ExternalHostProvider	

29.82. EXTERNALHOSTPROVIDER STRUCT

Represents an external host provider, such as Foreman or Satellite.

See [Foreman documentation](#) for more details. See [Satellite documentation](#) for more details on Red Hat Satellite.

Table 29.110. Attributes summary

Name	Type	Summary
authentication_url	String	Defines the external provider authentication URL address.
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.
password	String	Defines password for the user during the authentication process.
properties	Property[]	Array of provider name/value properties.
requires_authentication	Boolean	Defines whether provider authentication is required or not.
url	String	Defines URL address of the external provider.
username	String	Defines user name to be used during authentication process.

29.82.1. requires_authentication

Defines whether provider authentication is required or not.

If authentication is required, both **username** and **password** attributes will be used during authentication.

Table 29.111. Links summary

Name	Type	Summary
certificates	Certificate[]	A reference to the certificates the engine supports for this provider.
compute_resources	ExternalComputeResource[]	A reference to the compute resource as represented in the host provider.
discovered_hosts	ExternalDiscoveredHost[]	A reference to the discovered hosts in the host provider.
host_groups	ExternalHostGroup[]	A reference to the host groups in the host provider.
hosts	Host[]	A reference to the hosts provisioned by the host provider.

29.82.2. compute_resources

A reference to the compute resource as represented in the host provider. Each host provider optionally has the engine defined as a compute resource, which allows to create virtual machines in the engine. This compute resource details are used in the Bare-Metal provisioning use-case, in order to deploy the hypervisor.

29.82.3. discovered_hosts

A reference to the discovered hosts in the host provider. Discovered hosts are hosts that were not provisioned yet.

29.82.4. host_groups

A reference to the host groups in the host provider. Host group contains different properties that the host provider applies on all hosts that are member of this group. Such as installed software, system definitions, passwords and more.

29.83. EXTERNALNETWORKPROVIDERCONFIGURATION STRUCT

Describes how an external network provider is provisioned on a host.

Table 29.112. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.

Table 29.113. Links summary

Name	Type	Summary
external_network_provider	ExternalProvider	Link to the external network provider.
host	Host	Link to the host.

29.84. EXTERNALPROVIDER STRUCT

Represents an external provider.

Table 29.114. Attributes summary

Name	Type	Summary
authentication_url	String	Defines the external provider authentication URL address.
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.
password	String	Defines password for the user during the authentication process.
properties	Property[]	Array of provider name/value properties.
requires_authentication	Boolean	Defines whether provider authentication is required or not.
url	String	Defines URL address of the external provider.

Name	Type	Summary
username	String	Defines user name to be used during authentication process.

29.84.1. requires_authentication

Defines whether provider authentication is required or not.

If authentication is required, both **username** and **password** attributes will be used during authentication.

29.85. EXTERNALSTATUS ENUM

Represents an external status. This status is currently used for [hosts](#) and [storage domains](#), and allows an external system to update status of objects it is aware of.

Table 29.115. Values summary

Name	Summary
error	Error status.
failure	Failure status.
info	Info status.
ok	OK status.
warning	Warning status.

29.85.1. error

Error status. There is some kind of error in the relevant object.

29.85.2. failure

Failure status. The relevant object is failing.

29.85.3. info

Info status. The relevant object is in OK status, but there is an information available that might be relevant for the administrator.

29.85.4. ok

OK status. The relevant object is working well.

29.85.5. warning

Warning status. The relevant object is working well, but there is some warning that might be relevant for the administrator.

29.86. EXTERNALSYSTEMTYPE ENUM

Represents the type of the external system that is associated with the **step**.

Table 29.116. Values summary

Name	Summary
gluster	Represents Gluster as the external system which is associated with the step .
vdsd	Represents VDSM as the external system which is associated with the step .

29.87. EXTERNALTEMPLATEIMPORT STRUCT

Describes the parameters for the template import operation from an external system. Currently supports OVA only.

Table 29.117. Attributes summary

Name	Type	Summary
clone	Boolean	Optional.
url	String	The URL to be passed to the engine.

29.87.1. clone

Optional. Indicates if the identifiers of the imported template should be regenerated.

By default when a template is imported the identifiers are preserved. This means that the same template can't be imported multiple times, as that identifiers needs to be unique. To allow importing the same template multiple times set this parameter to **true**, as the default is **false**.

29.87.2. url

The URL to be passed to the engine.

Example:

```
ova:///mnt/ova/ova_file.ova
```

Table 29.118. Links summary

Name	Type	Summary
cluster	Cluster	Specifies the target cluster for the resulting template.

Name	Type	Summary
cpu_profile	CpuProfile	Optional.
host	Host	Specifies the host that the OVA file exists on.
quota	Quota	Optional.
storage_domain	StorageDomain	Specifies the target storage domain for disks.
template	Template	The template entity used to specify a name for the newly created template.

29.87.3. cpu_profile

Optional. Specifies the CPU profile of the resulting template.

29.87.4. quota

Optional. Specifies the quota that will be applied to the resulting template.

29.87.5. template

The template entity used to specify a name for the newly created template.

If a name is not specified, the source template name will be used.

29.88. EXTERNALVMIMPORT STRUCT

Describes the parameters for the virtual machine import operation from an external system.

Table 29.119. Attributes summary

Name	Type	Summary
name	String	The name of the virtual machine to be imported, as is defined within the external system.
password	String	The password to authenticate against the external hypervisor system.
provider	ExternalVmProviderType	The type of external virtual machine provider.
sparse	Boolean	Optional.
url	String	The URL to be passed to the virt-v2v tool for conversion.

Name	Type	Summary
username	String	The username to authenticate against the external hypervisor system.

29.88.1. sparse

Optional. Specifies the disk allocation policy of the resulting virtual machine: **true** for sparse, **false** for preallocated.

If not specified: - When importing an OVA that was produced by oVirt, it will be determined according to the configuration of the disk within the OVF. - Otherwise, it will be set to true.

29.88.2. url

The URL to be passed to the **virt-v2v** tool for conversion.

Example:

```
vpix://vmware_user@vcenter-host/DataCenter/Cluster/esxi-host?no_verify=1
```

More examples can be found at <http://libguestfs.org/virt-v2v.1.html>.

Table 29.120. Links summary

Name	Type	Summary
cluster	Cluster	Specifies the target cluster for the resulting virtual machine.
cpu_profile	CpuProfile	Optional.
drivers_iso	File	Optional.
host	Host	Optional.
quota	Quota	Optional.
storage_domain	StorageDomain	Specifies the target storage domain for converted disks.
vm	Vm	The virtual machine entity used to specify a name for the newly created virtual machine.

29.88.3. cpu_profile

Optional. Specifies the CPU profile of the resulting virtual machine.

29.88.4. drivers_iso

Optional. The name of the ISO containing drivers that can be used during the **virt-v2v** conversion process.

29.88.5. host

Optional. Specifies the host (using host’s ID) to be used for the conversion process. If not specified, one is selected automatically.

29.88.6. quota

Optional. Specifies the quota that will be applied to the resulting virtual machine.

29.88.7. vm

The virtual machine entity used to specify a name for the newly created virtual machine.

If a name is not specified, the source virtual machine name will be used.

29.89. EXTERNALVMPROVIDERTYPE ENUM

Describes the type of external hypervisor system.

Table 29.121. Values summary

Name	Summary
kvm	
vmware	
xen	

29.90. FAULT STRUCT

Table 29.122. Attributes summary

Name	Type	Summary
detail	String	
reason	String	

29.91. FENCETYPE ENUM

Type representing the type of the fence operation.

Table 29.123. Values summary

Name	Summary
manual	Manual host fencing via power management.
restart	Restart the host via power management.
start	Start the host via power management.
status	Check the host power status via power management.
stop	Stop the host via power management.

29.92. FENCINGPOLICY STRUCT

Type representing a cluster fencing policy.

Table 29.124. Attributes summary

Name	Type	Summary
enabled	Boolean	Enable or disable fencing on this cluster.
skip_if_connectivity_broken	SkipIfConnectivityBroken	If enabled, we will not fence a host in case more than a configurable percentage of hosts in the cluster lost connectivity as well.
skip_if_gluster_bricks_up	Boolean	A flag indicating if fencing should be skipped if Gluster bricks are up and running in the host being fenced.
skip_if_gluster_quorum_not_met	Boolean	A flag indicating if fencing should be skipped if Gluster bricks are up and running and Gluster quorum will not be met without those bricks.
skip_if_sd_active	SkipIfSdActive	If enabled, we will skip fencing in case the host maintains its lease in the storage.

29.92.1. skip_if_connectivity_broken

If enabled, we will not fence a host in case more than a configurable percentage of hosts in the cluster lost connectivity as well. This comes to prevent fencing *storm* in cases where there is a global networking issue in the cluster.

29.92.2. skip_if_gluster_bricks_up

A flag indicating if fencing should be skipped if Gluster bricks are up and running in the host being fenced. This flag is optional, and the default value is **false**.

29.92.3. skip_if_gluster_quorum_not_met

A flag indicating if fencing should be skipped if Gluster bricks are up and running and Gluster quorum will not be met without those bricks. This flag is optional, and the default value is **false**.

29.92.4. skip_if_sd_active

If enabled, we will skip fencing in case the host maintains its lease in the storage. It means that if the host still has storage access then it won't get fenced.

29.93. FILE STRUCT

Table 29.125. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
content	String	
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.
type	String	

Table 29.126. Links summary

Name	Type	Summary
storage_domain	StorageDomain	

29.94. FILTER STRUCT

Table 29.127. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.
position	Integer	

Table 29.128. Links summary

Name	Type	Summary
scheduling_policy_unit	SchedulingPolicyUnit	

29.95. FIPSMODE ENUM

Representation of the FIPS mode to the cluster.

Table 29.129. Values summary

Name	Summary
disabled	The FIPS mode is disabled.
enabled	The FIPS mode is enabled.
undefined	The FIPS mode is not yet evaluated.

29.95.1. disabled

The FIPS mode is disabled.

Its implication is that the FIPS mode is disabled and the hosts within should be with FIPS mode disabled, otherwise they would be non-operational.

29.95.2. enabled

The FIPS mode is enabled.

Its implication is that the FIPS mode is enabled and the hosts within should be with FIPS mode enabled, otherwise they should be non-operational.

29.95.3. undefined

The FIPS mode is not yet evaluated.

Currently, its implication is that the FIPS mode is undetermined. Once a host is added, this value will switch according to the host settings.

29.96. FIREWALLTYPE ENUM

Describes all firewall types supported by the system.

Table 29.130. Values summary

Name	Summary
firewalld	Firewalld firewall type.
iptables	IPTables firewall type.

29.96.1. firewalld

Firewalld firewall type.

When a cluster has the firewall type set to **firewalld**, the firewalls of all hosts in the cluster will be configured using **firewalld**. [Firewalld](#) replaced IPTables in version 4.2. It simplifies configuration using a command line program and dynamic configuration.

29.96.2. iptables

IPTables firewall type.

iptables is deprecated.

29.97. FLOPPY STRUCT

The underlying representation of a floppy file.

Table 29.131. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
file	File	File object that represent the Floppy device's content and its type.
id	String	A unique identifier.
name	String	A human-readable name in plain text.

Table 29.132. Links summary

Name	Type	Summary
instance_type	InstanceType	Optionally references to an instance type the device is used by.
template	Template	Optionally references to a template the device is used by.
vm	Vm	Do not use this element, use vms instead.

Name	Type	Summary
vms	Vm[]	References to the virtual machines that are using this device.

29.97.1. vms

References to the virtual machines that are using this device. A device may be used by several virtual machines; for example, a shared disk may be used simultaneously by two or more virtual machines.

29.98. FOPSTATISTIC STRUCT

Table 29.133. Attributes summary

Name	Type	Summary
name	String	
statistics	Statistic[]	

29.99. GLUSTERBRICK STRUCT

Table 29.134. Attributes summary

Name	Type	Summary
brick_dir	String	
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
device	String	
fs_name	String	
gluster_clients	GlusterClient[]	
id	String	A unique identifier.
memory_pools	GlusterMemoryPool[]	
mnt_options	String	
name	String	A human-readable name in plain text.

Name	Type	Summary
pid	Integer	
port	Integer	
server_id	String	
status	GlusterBrickStatus	

Table 29.135. Links summary

Name	Type	Summary
gluster_volume	GlusterVolume	
instance_type	InstanceType	Optionally references to an instance type the device is used by.
statistics	Statistic[]	
template	Template	Optionally references to a template the device is used by.
vm	Vm	Do not use this element, use vms instead.
vms	Vm[]	References to the virtual machines that are using this device.

29.99.1. vms

References to the virtual machines that are using this device. A device may be used by several virtual machines; for example, a shared disk may be used simultaneously by two or more virtual machines.

29.100. GLUSTERBRICKADVANCEDDETAILS STRUCT

Table 29.136. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
device	String	
fs_name	String	
gluster_clients	GlusterClient[]	

Name	Type	Summary
id	String	A unique identifier.
memory_pools	GlusterMemoryPool[]	
mnt_options	String	
name	String	A human-readable name in plain text.
pid	Integer	
port	Integer	

Table 29.137. Links summary

Name	Type	Summary
instance_type	InstanceType	Optionally references to an instance type the device is used by.
template	Template	Optionally references to a template the device is used by.
vm	Vm	Do not use this element, use vms instead.
vms	Vm[]	References to the virtual machines that are using this device.

29.100.1. vms

References to the virtual machines that are using this device. A device may be used by several virtual machines; for example, a shared disk may be used simultaneously by two or more virtual machines.

29.101. GLUSTERBRICKMEMORYINFO STRUCT

Table 29.138. Attributes summary

Name	Type	Summary
memory_pools	GlusterMemoryPool[]	

29.102. GLUSTERBRICKSTATUS ENUM

Table 29.139. Values summary

Name	Summary
down	Brick is in down state, the data cannot be stored or retrieved from it.
unknown	When the status cannot be determined due to host being non-responsive.
up	Brick is in up state, the data can be stored or retrieved from it.

29.103. GLUSTERCLIENT STRUCT

Table 29.140. Attributes summary

Name	Type	Summary
bytes_read	Integer	
bytes_written	Integer	
client_port	Integer	
host_name	String	

29.104. GLUSTERHOOK STRUCT

Table 29.141. Attributes summary

Name	Type	Summary
checksum	String	
comment	String	Free text containing comments about this object.
conflict_status	Integer	
conflicts	String	
content	String	
content_type	HookContentType	
description	String	A human-readable description in plain text.
gluster_command	String	
id	String	A unique identifier.

Name	Type	Summary
name	String	A human-readable name in plain text.
stage	HookStage	
status	GlusterHookStatus	

Table 29.142. Links summary

Name	Type	Summary
cluster	Cluster	
server_hooks	GlusterServerHook[]	

29.105. GLUSTERHOOKSTATUS ENUM

Table 29.143. Values summary

Name	Summary
disabled	Hook is disabled in the cluster.
enabled	Hook is enabled in the cluster.
missing	Unknown/missing hook status.

29.106. GLUSTERMEMORYPOOL STRUCT

Table 29.144. Attributes summary

Name	Type	Summary
alloc_count	Integer	
cold_count	Integer	
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
hot_count	Integer	

Name	Type	Summary
id	String	A unique identifier.
max_alloc	Integer	
max_stdalloc	Integer	
name	String	A human-readable name in plain text.
padded_size	Integer	
pool_misses	Integer	
type	String	

29.107. GLUSTERSERVERHOOK STRUCT

Table 29.145. Attributes summary

Name	Type	Summary
checksum	String	
comment	String	Free text containing comments about this object.
content_type	HookContentType	
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.
status	GlusterHookStatus	

Table 29.146. Links summary

Name	Type	Summary
host	Host	

29.108. GLUSTERSTATE ENUM

Table 29.147. Values summary

Name	Summary
down	
unknown	
up	

29.109. GLUSTERVOLUME STRUCT

Table 29.148. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
disperse_count	Integer	
id	String	A unique identifier.
name	String	A human-readable name in plain text.
options	Option[]	
redundancy_count	Integer	
replica_count	Integer	
status	GlusterVolumeStatus	
stripe_count	Integer	
transport_types	TransportType[]	
volume_type	GlusterVolumeType	

Table 29.149. Links summary

Name	Type	Summary
bricks	GlusterBrick[]	
cluster	Cluster	
statistics	Statistic[]	

29.110. GLUSTERVOLUMEPROFILEDETAILS STRUCT

Table 29.150. Attributes summary

Name	Type	Summary
brick_profile_details	BrickProfileDetail[]	
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.
nfs_profile_details	NfsProfileDetail[]	

29.111. GLUSTERVOLUMESTATUS ENUM

Table 29.151. Values summary

Name	Summary
down	Volume needs to be started, for clients to be able to mount and use it.
unknown	When the status cannot be determined due to host being non-responsive.
up	Volume is started, and can be mounted and used by clients.

29.112. GLUSTERVOLUMETYPE ENUM

Type representing the type of Gluster Volume.

Table 29.152. Values summary

Name	Summary
disperse	Dispersed volumes are based on erasure codes, providing space-efficient protection against disk or server failures.
distribute	Distributed volumes distributes files throughout the bricks in the volume.
distributed_disperse	Distributed dispersed volumes distribute files across dispersed subvolumes.
distributed_replicate	Distributed replicated volumes distributes files across replicated bricks in the volume.
distributed_stripe	Distributed striped volumes stripe data across two or more nodes in the cluster.
distributed_stripped_replicate	Distributed striped replicated volumes distributes striped data across replicated bricks in the cluster.
replicate	Replicated volumes replicates files across bricks in the volume.
stripe	Striped volumes stripes data across bricks in the volume.
striped_replicate	Striped replicated volumes stripes data across replicated bricks in the cluster.

29.112.1. disperse

Dispersed volumes are based on erasure codes, providing space-efficient protection against disk or server failures.

Dispersed volumes an encoded fragment of the original file to each brick in a way that only a subset of the fragments is needed to recover the original file. The number of bricks that can be missing without losing access to data is configured by the administrator on volume creation time.

29.112.2. distribute

Distributed volumes distributes files throughout the bricks in the volume.

Distributed volumes can be used where the requirement is to scale storage and the redundancy is either not important or is provided by other hardware/software layers.

29.112.3. distributed_disperse

Distributed dispersed volumes distribute files across dispersed subvolumes.

This has the same advantages of distribute replicate volumes, but using disperse to store the data into the bricks.

29.112.4. distributed_replicate

Distributed replicated volumes distributes files across replicated bricks in the volume.

Distributed replicated volumes can be used in environments where the requirement is to scale storage and high-reliability is critical. Distributed replicated volumes also offer improved read performance in most environments.

29.112.5. distributed_stripe

Distributed striped volumes stripe data across two or more nodes in the cluster.

Distributed striped volumes should be used where the requirement is to scale storage and in high concurrency environments accessing very large files is critical.

Note: With the introduction of Sharding in Glusterfs 3.7 releases, striped volumes are not recommended and it will be removed in future release.

29.112.6. distributed_striped_replicate

Distributed striped replicated volumes distributes striped data across replicated bricks in the cluster.

For best results, distributed striped replicated volumes should be used in highly concurrent environments where parallel access of very large files and performance is critical.

Note: With the introduction of Sharding in Glusterfs 3.7 releases, striped volumes are not recommended and it will be removed in future release.

29.112.7. replicate

Replicated volumes replicates files across bricks in the volume.

Replicated volumes can be used in environments where high-availability and high-reliability are critical.

29.112.8. stripe

Striped volumes stripes data across bricks in the volume.

For best results, striped volumes should only in high concurrency environments accessing very large files.

Note: With the introduction of Sharding in Glusterfs 3.7 releases, striped volumes are not recommended and it will be removed in future release.

29.112.9. striped_replicate

Striped replicated volumes stripes data across replicated bricks in the cluster.

For best results, striped replicated volumes should be used in highly concurrent environments where there is parallel access of very large files and performance is critical.

Note: With the introduction of Sharding in Glusterfs 3.7 releases, striped volumes are not recommended and it will be removed in future release.

29.113. GRACEPERIOD STRUCT

Table 29.153. Attributes summary

Name	Type	Summary
expiry	Integer	

29.114. GRAPHICSCONSOLE STRUCT

Table 29.154. Attributes summary

Name	Type	Summary
address	String	
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.
port	Integer	
protocol	GraphicsType	
tls_port	Integer	

Table 29.155. Links summary

Name	Type	Summary
instance_type	InstanceType	
template	Template	
vm	Vm	

29.115. GRAPHICSTYPE ENUM

The graphics protocol used to connect to the graphic console.

Table 29.156. Values summary

Name	Summary
spice	Graphics protocol of type SPICE.

Name	Summary
vnc	Graphics protocol of type VNC.

29.115.1. spice

Graphics protocol of type SPICE. See [SPICE documentation](#) for more details.

29.115.2. vnc

Graphics protocol of type VNC. VNC stands for Virtual Network Computing, and it is a graphical desktop sharing system that uses RFB (Remote Frame Buffer) protocol to remotely control another machine.

29.116. GROUP STRUCT

This type represents all groups in the directory service.

Table 29.157. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
domain_entry_id	String	The containing directory service domain id.
id	String	A unique identifier.
name	String	A human-readable name in plain text.
namespace	String	Namespace where group resides.

Table 29.158. Links summary

Name	Type	Summary
domain	Domain	A link to the domain containing this group.
permissions	Permission[]	A link to the permissions sub-collection for permissions attached to this group.
roles	Role[]	A link to the roles sub-collection for roles attached to this group.

Name	Type	Summary
tags	Tag[]	A link to the tags sub-collection for tags attached to this group.

29.116.1. roles

A link to the roles sub-collection for roles attached to this group.

Used only to represent the initial role assignments for a new group; thereafter, modification of role assignments is only supported via the **roles** sub-collection.

29.117. GUESTOPERATINGSYSTEM STRUCT

Represents an operating system installed on the virtual machine.

To get that information send a request like this:

```
GET /ovirt-engine/api/vms/123
```

The result will be like this:

```
<vm href="/ovirt-engine/api/vms/123" id="123">
...
<guest_operating_system>
  <architecture>x86_64</architecture>
  <codename>Maipo</codename>
  <distribution>Red Hat Enterprise Linux Server</distribution>
  <family>Linux</family>
  <kernel>
    <version>
      <build>0</build>
      <full_version>3.10.0-514.10.2.el7.x86_64</full_version>
      <major>3</major>
      <minor>10</minor>
      <revision>514</revision>
    </version>
  </kernel>
  <version>
    <full_version>7.3</full_version>
    <major>7</major>
    <minor>3</minor>
  </version>
</guest_operating_system>
</vm>
```

Table 29.159. Attributes summary

Name	Type	Summary
architecture	String	The architecture of the operating system, such as x86_64.

Name	Type	Summary
codename	String	Code name of the operating system, such as Maipo .
distribution	String	Full name of operating system distribution.
family	String	Family of operating system, such as Linux .
kernel	Kernel	Kernel version of the operating system.
version	Version	Version of the installed operating system.

29.118. HARDWAREINFORMATION STRUCT

Represents hardware information of host.

To get that information send a request like this:

```
GET /ovirt-engine/api/hosts/123
```

The result will be like this:

```
<host href="/ovirt-engine/api/hosts/123" id="123">
...
<hardware_information>
  <family>Red Hat Enterprise Linux</family>
  <manufacturer>Red Hat</manufacturer>
  <product_name>RHEV Hypervisor</product_name>
  <serial_number>01234567-89AB-CDEF-0123-456789ABCDEF</serial_number>
  <supported_rng_sources>
    <supported_rng_source>random</supported_rng_source>
  </supported_rng_sources>
  <uuid>12345678-9ABC-DEF0-1234-56789ABCDEF0</uuid>
  <version>1.2-34.5.el7ev</version>
</hardware_information>
...
</application>
```

Table 29.160. Attributes summary

Name	Type	Summary
family	String	Type of host's CPU.
manufacturer	String	Manufacturer of the host's machine and hardware vendor.
product_name	String	Host's product name (for example RHEV Hypervisor).
serial_number	String	Unique ID for host's chassis.

Name	Type	Summary
supported_rng_sources	RngSource[]	Supported sources of random number generator.
uuid	String	Unique ID for each host.
version	String	Unique name for each of the manufacturer.

29.119. HIGHAVAILABILITY STRUCT

Type representing high availability of a virtual machine.

Table 29.161. Attributes summary

Name	Type	Summary
enabled	Boolean	Define if the virtual machine is considered highly available.
priority	Integer	Indicates the priority of the virtual machine inside the run and migration queues.

29.119.1. enabled

Define if the virtual machine is considered highly available. Configuring a VM lease is highly recommended (refer to that section) in order to prevent split-brain scenarios. Use a boot disk's storage-domain or any other active storage-domain.

29.119.2. priority

Indicates the priority of the virtual machine inside the run and migration queues.

Virtual machines with higher priorities will be started and migrated before virtual machines with lower priorities.

The value is an integer between 0 and 100. The higher the value, the higher the priority.

The graphical user interface (GUI) does not allow specifying all the possible values, instead it only allows you to select *Low*, *Medium* or *High*. When the value is set using the API, the GUI will set the label as follows:

API Value	GUI Label
0 - 25	Low
26 - 74	Medium
75 - 100	High

When the label is selected using the GUI, the value in the API will be set as follows:

GUI Label	API Value
Low	1
Medium	50
High	100

29.120. HOOK STRUCT

Represents a hook.

Table 29.162. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
event_name	String	Name of the event to execute the hook on.
id	String	A unique identifier.
md5	String	Checksum of the hook.
name	String	A human-readable name in plain text.

Table 29.163. Links summary

Name	Type	Summary
host	Host	Reference to the host the hook belongs to.

29.121. HOOKCONTENTTYPE ENUM

Represents content type of hook script.

Table 29.164. Values summary

Name	Summary
binary	Binary content type of the hook.
text	Text content type of the hook.

29.122. HOOKSTAGE ENUM

Type represents a stage of volume event at which hook executes.

Table 29.165. Values summary

Name	Summary
post	Stage after start of volume.
pre	Stage before start of volume.

29.123. HOOKSTATUS ENUM

Type represents the status of a hook.

Table 29.166. Values summary

Name	Summary
disabled	Hook is disabled.
enabled	Hook is enabled.
missing	Hook is missing.

29.124. HOST STRUCT

Type representing a host.

Table 29.167. Attributes summary

Name	Type	Summary
address	String	The host address (FQDN/IP).
auto_numa_status	AutoNumaStatus	The host <i>auto non uniform memory access</i> (NUMA) status.
certificate	Certificate	The host certificate.
comment	String	Free text containing comments about this object.
cpu	Cpu	The CPU type of this host.
description	String	A human-readable description in plain text.

Name	Type	Summary
device_passthrough	HostDevicePassthrough	Specifies whether host device passthrough is enabled on this host.
display	Display	Optionally specify the display address of this host explicitly.
external_status	ExternalStatus	The host external status.
hardware_information	HardwareInformation	The host hardware information.
hosted_engine	HostedEngine	The self-hosted engine status of this host.
id	String	A unique identifier.
iscsi	IscsiDetails	The host iSCSI details.
kdump_status	KdumpStatus	The host KDUMP status.
ksm	Ksm	Kernel SamePage Merging (KSM) reduces references to memory pages from multiple identical pages to a single page reference.
libvirt_version	Version	The host libvirt version.
max_scheduling_memory	Integer	The max scheduling memory on this host in bytes.
memory	Integer	The amount of physical memory on this host in bytes.
name	String	A human-readable name in plain text.
network_operation_in_progress	Boolean	Specifies whether a network-related operation, such as 'setup networks', 'sync networks', or 'refresh capabilities', is currently being executed on this host.
numa_supported	Boolean	Specifies whether <i>non uniform memory access</i> (NUMA) is supported on this host.
os	OperatingSystem	The operating system on this host.
override_iptables	Boolean	Specifies whether we should override firewall definitions.
ovn_configured	Boolean	Indicates if the host has correctly configured OVN.
port	Integer	The host port.

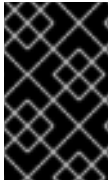
Name	Type	Summary
power_management	PowerManagement	The host power management definitions.
protocol	HostProtocol	The protocol that the engine uses to communicate with the host.
reinstallation_required	Boolean	Specifies whether the host should be reinstalled.
root_password	String	When creating a new host, a root password is required if the password authentication method is chosen, but this is not subsequently included in the representation.
se_linux	SeLinux	The host SELinux status.
spm	Spm	The host <i>storage pool manager</i> (SPM) status and definition.
ssh	Ssh	The SSH definitions.
status	HostStatus	The host status.
status_detail	String	The host status details.
summary	VmSummary	The virtual machine summary – how many are active, migrating and total.
transparent_huge_pages	TransparentHugePages	Transparent huge page support expands the size of memory pages beyond the standard 4 KiB limit.
type	HostType	Indicates if the host contains a full installation of the operating system or a scaled-down version intended only to host virtual machines.
update_available	Boolean	Specifies whether there is an oVirt-related update on this host.
version	Version	The version of VDSM.
vgpu_placement	VgpuPlacement	Specifies the vGPU placement strategy.

29.124.1. external_status

The host external status. This can be used by third-party software to change the host external status in case of an issue. This has no effect on the host lifecycle, unless a third-party software checks for this status and acts accordingly.

29.124.2. hosted_engine

The self-hosted engine status of this host.



IMPORTANT

When a host or collection of hosts is retrieved, this attribute is not included unless the **all_content** parameter of the operation is explicitly set to **true**. See the documentation of the operations that retrieve [one](#) or [multiple](#) hosts for details.

29.124.3. kdump_status

The host KDUMP status. KDUMP happens when the host kernel has crashed and it is now going through memory dumping.

29.124.4. ksm

Kernel SamePage Merging (KSM) reduces references to memory pages from multiple identical pages to a single page reference. This helps with optimization for memory density.

For example, to enable KSM for host **123**, send a request like this:

```
PUT /ovirt-engine/api/hosts/123
```

With a request body like this:

```
<host>
  <ksm>
    <enabled>true</enabled>
  </ksm>
</host>
```

29.124.5. libvirt_version

The host libvirt version. For more information on libvirt please go to [libvirt](#).

29.124.6. network_operation_in_progress

Specifies whether a network-related operation, such as 'setup networks', 'sync networks', or 'refresh capabilities', is currently being executed on this host.



NOTE

The header **All-Content:true** must be added to the request in order for this attribute to be included in the response.

29.124.7. override_iptables

Specifies whether we should override firewall definitions. This applies only when the host is installed or re-installed.

29.124.8. protocol

The protocol that the engine uses to communicate with the host.



WARNING

Since version 4.1 of the engine the protocol is always set to **stomp** since **xml** was removed.

29.124.9. se_linux

The host SELinux status. *Security-Enhanced Linux (SELinux)* is a component in the Linux kernel that provides a mechanism for supporting access control security policies.

29.124.10. spm

The host *storage pool manager* (SPM) status and definition. Use it to set the SPM priority of this host, and to see whether this is the current SPM or not.

29.124.11. status_detail

The host status details. Relevant for Gluster hosts.

29.124.12. transparent_huge_pages

Transparent huge page support expands the size of memory pages beyond the standard 4 KiB limit. This reduces memory consumption and increases host performance.

For example, to enable transparent huge page support for host **123**, send a request like this:

```
PUT /ovirt-engine/api/hosts/123
```

With a request body like this:

```
<host>
  <transparent_hugepages>
    <enabled>true</enabled>
  </transparent_hugepages>
</host>
```

29.124.13. version

The version of VDSM.

For example:

```
GET /ovirt-engine/api/hosts/123
```

This **GET** request will return the following output:

```

<host>
...
<version>
  <build>999</build>
  <full_version>vdsm-4.18.999-419.gitcf06367.el7</full_version>
  <major>4</major>
  <minor>18</minor>
  <revision>0</revision>
</version>
...
</host>

```

Table 29.168. Links summary

Name	Type	Summary
affinity_labels	AffinityLabel[]	
agents	Agent[]	
cluster	Cluster	
cpu_units	HostCpuUnit[]	List of all host's CPUs with detailed information about the topology (socket, core) and with information about the current CPU pinning.
devices	HostDevice[]	
external_host_provider	ExternalHostProvider	
external_network_provider_configurations	ExternalNetworkProviderConfiguration[]	External network providers provisioned on the host.
hooks	Hook[]	
katello_errata	KatelloErratum[]	Lists all the Katello errata assigned to the host.
network_attachments	NetworkAttachment[]	
nics	HostNic[]	
numa_nodes	NumaNode[]	
permissions	Permission[]	
statistics	Statistic[]	Each host resource exposes a statistics sub-collection for host-specific statistics.

Name	Type	Summary
storage_connection_extensions	StorageConnectionExtension[]	
storages	HostStorage[]	
tags	Tag[]	
unmanaged_networks	UnmanagedNetwork[]	

29.124.14. cpu_units

List of all host's CPUs with detailed information about the topology (socket, core) and with information about the current CPU pinning.

GET /ovirt-engine/api/hosts/123/cpuunits

You will receive response in XML like this one:

```
<host_cpu_units>
  <host_cpu_unit>
    <core_id>0</core_id>
    <cpu_id>0</cpu_id>
    <socket_id>0</socket_id>
    <vms>
      <vm href="/ovirt-engine/api/vms/def" id="def" />
    </vms>
  </host_cpu_unit>
  <host_cpu_unit>
    <core_id>0</core_id>
    <cpu_id>1</cpu_id>
    <socket_id>1</socket_id>
    <runs_vdsm>true</runs_vdsm>
  </host_cpu_unit>
  <host_cpu_unit>
    <core_id>0</core_id>
    <cpu_id>2</cpu_id>
    <socket_id>2</socket_id>
  </host_cpu_unit>
</host_cpu_units>
```

29.124.15. external_network_provider_configurations

External network providers provisioned on the host.

This attribute is read-only. Setting it will have no effect on the host. The value of this parameter reflects the [Default Network Provider](#) of the cluster.

29.124.16. katello_errata

Lists all the Katello errata assigned to the host.

GET /ovirt-engine/api/hosts/123/katelloerrata

You will receive response in XML like this one:

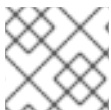
```
<katello_errata>
  <katello_erratum href="/ovirt-engine/api/katelloerrata/456" id="456">
    <name>RHBA-2013:XYZ</name>
    <description>The description of the erratum</description>
    <title>some bug fix update</title>
    <type>bugfix</type>
    <issued>2013-11-20T02:00:00.000+02:00</issued>
    <solution>Few guidelines regarding the solution</solution>
    <summary>Updated packages that fix one bug are now available for XYZ</summary>
    <packages>
      <package>
        <name>libipa_hbac-1.9.2-82.11.el6_4.i686</name>
      </package>
      ...
    </packages>
  </katello_erratum>
  ...
</katello_errata>
```

29.124.17. statistics

Each host resource exposes a statistics sub-collection for host-specific statistics.

An example of an XML representation:

```
<statistics>
  <statistic href="/ovirt-engine/api/hosts/123/statistics/456" id="456">
    <name>memory.total</name>
    <description>Total memory</description>
    <kind>gauge</kind>
    <type>integer</type>
    <unit>bytes</unit>
    <values>
      <value>
        <datum>25165824000</datum>
      </value>
    </values>
    <host href="/ovirt-engine/api/hosts/123" id="123"/>
  </statistic>
  ...
</statistics>
```



NOTE

This statistics sub-collection is read-only.

The following list shows the statistic types for hosts:

Name	Description
memory.total	Total memory in bytes on the host.
memory.used	Memory in bytes used on the host.
memory.free	Memory in bytes free on the host.
memory.shared	Memory in bytes shared on the host.
memory.buffers	I/O buffers in bytes.
memory.cached	OS caches in bytes.
swap.total	Total swap memory in bytes on the host.
swap.free	Swap memory in bytes free on the host.
swap.used	Swap memory in bytes used on the host.
swap.cached	Swap memory in bytes also cached in host's memory.
ksm.cpu.current	Percentage of CPU usage for Kernel SamePage Merging.
cpu.current.user	Percentage of CPU usage for user slice.
cpu.current.system	Percentage of CPU usage for system.
cpu.current.idle	Percentage of idle CPU usage.
cpu.load.avg.5m	CPU load average per five minutes.
boot.time	Boot time of the machine.

29.125. HOSTCPUUNIT STRUCT

Type representing a physical CPU of a host with the current pinning status.

Table 29.169. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
core_id	Integer	The id of the core the CPU belongs to.

Name	Type	Summary
cpu_id	Integer	The id of the CPU.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.
runs_vdsm	Boolean	A flag indicating that the CPU runs the VDSM
socket_id	Integer	The id of the socket the CPU belongs to.

Table 29.170. Links summary

Name	Type	Summary
vms	Vm[]	A list of VMs that has its virtual CPU pinned to this physical CPU.

29.126. HOSTDEVICE STRUCT

Table 29.171. Attributes summary

Name	Type	Summary
capability	String	
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
driver	String	The name of the driver this device is bound to.
id	String	A unique identifier.
iommu_group	Integer	
m_dev_types	MDevType[]	List of all supported mdev types on the physical device,
name	String	A human-readable name in plain text.
physical_function	HostDevice	

Name	Type	Summary
placeholder	Boolean	
product	Product	
vendor	Vendor	
virtual_function s	Integer	

29.126.1. driver

The name of the driver this device is bound to.

For example: **pcieport** or **uhci_hcd**.

Table 29.172. Links summary

Name	Type	Summary
host	Host	
parent_device	HostDevice	
vm	Vm	

29.127. HOSTDEVICEPASSTHROUGH STRUCT

Table 29.173. Attributes summary

Name	Type	Summary
enabled	Boolean	

29.128. HOSTNIC STRUCT

Represents a host NIC.

For example, the XML representation of a host NIC looks like this:

```
<host_nic href="/ovirt-engine/api/hosts/123/nics/456" id="456">
  <name>eth0</name>
  <boot_protocol>static</boot_protocol>
  <bridged>true</bridged>
  <custom_configuration>true</custom_configuration>
  <ip>
    <address>192.168.122.39</address>
```

```

    <gateway>192.168.122.1</gateway>
    <netmask>255.255.255.0</netmask>
    <version>v4</version>
  </ip>
  <ipv6>
    <gateway>:::</gateway>
    <version>v6</version>
  </ipv6>
  <ipv6_boot_protocol>none</ipv6_boot_protocol>
  <mac>
    <address>52:54:00:0c:79:1d</address>
  </mac>
  <mtu>1500</mtu>
  <status>up</status>
</host_nic>

```

A bonded interface is represented as a [HostNic](#) object containing the **bonding** and **slaves** attributes.

For example, the XML representation of a bonded host NIC looks like this:

```

<host_nic href="/ovirt-engine/api/hosts/123/nics/456" id="456">
  <name>bond0</name>
  <mac address="00:00:00:00:00:00"/>
  <ip>
    <address>192.168.122.39</address>
    <gateway>192.168.122.1</gateway>
    <netmask>255.255.255.0</netmask>
    <version>v4</version>
  </ip>
  <boot_protocol>dhcp</boot_protocol>
  <bonding>
    <options>
      <option>
        <name>mode</name>
        <value>4</value>
        <type>Dynamic link aggregation (802.3ad)</type>
      </option>
      <option>
        <name>miimon</name>
        <value>100</value>
      </option>
    </options>
    <slaves>
      <host_nic id="123"/>
      <host_nic id="456"/>
    </slaves>
  </bonding>
  <mtu>1500</mtu>
  <bridged>true</bridged>
  <custom_configuration>false</custom_configuration>
</host_nic>

```

Table 29.174. Attributes summary

Name	Type	Summary
ad_aggregator_id	Integer	The ad_aggregator_id property of a bond or bond slave, for bonds in mode 4.
base_interface	String	The base interface of the NIC.
bonding	Bonding	The bonding parameters of the NIC.
boot_protocol	BootProtocol	The IPv4 boot protocol configuration of the NIC.
bridged	Boolean	Defines the bridged network status.
check_connectivity	Boolean	
comment	String	Free text containing comments about this object.
custom_configuration	Boolean	
description	String	A human-readable description in plain text.
id	String	A unique identifier.
ip	Ip	The IPv4 address of the NIC.
ipv6	Ip	The IPv6 address of the NIC.
ipv6_boot_protocol	BootProtocol	The IPv6 boot protocol configuration of the NIC.
mac	Mac	The MAC address of the NIC.
mtu	Integer	The maximum transmission unit for the interface.
name	String	A human-readable name in plain text.
override_configuration	Boolean	
properties	Property[]	
speed	Integer	
status	NicStatus	

Name	Type	Summary
virtual_function_s_configuration	HostNicVirtualFunctionsConfiguration	Describes the virtual functions configuration of a physical function NIC.
vlan	Vlan	

29.128.1. ad_aggregator_id

The **ad_aggregator_id** property of a bond or bond slave, for bonds in mode 4. Bond mode 4 is the 802.3ad standard, also called dynamic link aggregation. (See [Wikipedia](#) and [Presentation](#) for more information). This is only valid for bonds in mode 4, or NICs which are part of a bond. It is not present for bonds in other modes, or NICs which are not part of a bond in mode 4. The **ad_aggregator_id** property indicates which of the bond slaves are active. The value of the **ad_aggregator_id** of an active slave is the same as the value of the **ad_aggregator_id** property of the bond. This parameter is read only. Setting it will have no effect on the bond/NIC. It is retrieved from the `/sys/class/net/bondX/bonding/ad_aggregator` file for a bond, and the `/sys/class/net/ensX/bonding_slave/ad_aggregator_id` file for a NIC.

29.128.2. bridged

Defines the bridged network status. Set to **true** for a bridged network and **false** for a bridgeless network.

Table 29.175. Links summary

Name	Type	Summary
host	Host	
network	Network	A reference to the network to which the interface should be connected.
network_labels	NetworkLabel[]	The labels that are applied to this NIC.
physical_function	HostNic	A reference to the physical function NIC of a SR-IOV virtual function NIC.
qos	Qos	A link to the quality-of-service configuration of the interface.
statistics	Statistic[]	A link to the statistics of the NIC.

29.128.3. network

A reference to the network to which the interface should be connected. A blank network ID is allowed.

29.128.4. statistics

A link to the statistics of the NIC.

The data types for HostNic statistical values:

- `data.current.rx` – The rate in bytes per second of data received.
- `data.current.tx` – The rate in bytes per second of data transmitted.
- `data.current.rx.bps` – The rate in bits per second of data received (since version 4.2).
- `data.current.tx.bps` – The rate in bits per second of data transmitted (since version 4.2).
- `data.total.rx` – Total received data.
- `data.total.tx` – Total transmitted data.
- `errors.total.rx` – Total errors from receiving data.
- `errors.total.tx` – Total errors from transmitting data.

29.129. HOSTNICVIRTUALFUNCTIONSCONFIGURATION STRUCT

Describes the virtual functions configuration of an SR-IOV-enabled physical function NIC.

Table 29.176. Attributes summary

Name	Type	Summary
<code>all_networks_allowed</code>	Boolean	Defines whether all networks are allowed to be defined on the related virtual functions, or specified ones only.
<code>max_number_of_virtual_functions</code>	Integer	The maximum number of virtual functions the NIC supports.
<code>number_of_virtual_functions</code>	Integer	The number of virtual functions currently defined.

29.129.1. max_number_of_virtual_functions

The maximum number of virtual functions the NIC supports. This property is read-only.

29.129.2. number_of_virtual_functions

The number of virtual functions currently defined. A user-defined value between 0 and **`max_number_of_virtual_functions`**.

29.130. HOSTPROTOCOL ENUM

The protocol used by the engine to communicate with a host.

**WARNING**

Since version 4.1 of the engine the protocol is always set to **stomp** since **xml** was removed.

Table 29.177. Values summary

Name	Summary
stomp	JSON-RPC protocol on top of STOMP.
xml	XML-RPC protocol.

29.131. HOSTSTATUS ENUM

Type representing a host status.

Table 29.178. Values summary

Name	Summary
connecting	The engine cannot communicate with the host for a specific threshold so it is now trying to connect before going through fencing.
down	The host is down.
error	The host is in error status.
initializing	The host is initializing.
install_failed	The host installation failed.
installing	The host is being installed.
installing_os	The host operating system is now installing.
kdumping	The host kernel has crashed and it is now going through memory dumping.
maintenance	The host is in maintenance status.
non_operational	The host is non operational.
non_responsive	The host is not responsive.

Name	Summary
pending_approval	The host is pending administrator approval.
preparing_for_maintenance	The host is preparing for maintenance.
reboot	The host is being rebooted.
unassigned	The host is in activation process.
up	The host is up.

29.131.1. error

The host is in error status. This will happen if we will try to run a virtual machine several times and it will fail.

29.131.2. initializing

The host is initializing. This is an intermediate step before moving the host to 'up' status.

29.131.3. install_failed

The host installation failed. In such cases look at the event log to understand what failed the installation, and issue a re-install.

29.131.4. installing_os

The host operating system is now installing. This status is relevant when using a Satellite/Foreman provider, and issuing a bare-metal provisioning (discovered host provisioning).

29.131.5. maintenance

The host is in maintenance status. When a host is in maintenance it cannot run virtual machines.

29.131.6. non_operational

The host is non operational. This can happen due to various reasons, such as not having a connection with the storage, not supporting a mandatory network, not supporting the cluster level, and more.

29.131.7. non_responsive

The host is not responsive. This means that the engine is not able to communicate with the host.

29.131.8. pending_approval

The host is pending administrator approval. This is relevant only for vintage ovirt-node / RHV-H. This property is no longer relevant since Vintage Node is no longer supported, and has been deprecated.

29.131.9. preparing_for_maintenance

The host is preparing for maintenance. During this time the engine makes sure to live migrate all the virtual machines from this host to other hosts. Once all migrations have been completed the host will move to 'maintenance' status.

29.132. HOSTSTORAGE STRUCT

Table 29.179. Attributes summary

Name	Type	Summary
address	String	
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
driver_options	Property[]	The options to be passed when creating a storage domain using a cinder driver.
driver_sensitive_options	Property[]	Parameters containing sensitive information, to be passed when creating a storage domain using a cinder driver.
id	String	A unique identifier.
logical_units	LogicalUnit[]	
mount_options	String	
name	String	A human-readable name in plain text.
nfs_retrans	Integer	The number of times to retry a request before attempting further recovery actions.
nfs_timeo	Integer	The time in tenths of a second to wait for a response before retrying NFS requests.
nfs_version	NfsVersion	
override_luns	Boolean	
password	String	
path	String	

Name	Type	Summary
port	Integer	
portal	String	
target	String	
type	StorageType	
username	String	
vfs_type	String	
volume_group	VolumeGroup	

29.132.1. driver_options

The options to be passed when creating a storage domain using a cinder driver.

For example (Kaminario backend):

POST /ovirt-engine/api/storagedomains/

```
<storage_domain>
<name>kamniraio-cinder</name>
<type>managed_block_storage</type>
<storage>
  <type>managed_block_storage</type>
  <driver_options>
    <property>
      <name>san_ip</name>
      <value>192.168.1.1</value>
    </property>
    <property>
      <name>san_login</name>
      <value>username</value>
    </property>
    <property>
      <name>san_password</name>
      <value>password</value>
    </property>
    <property>
      <name>use_multipath_for_image_xfer</name>
      <value>true</value>
    </property>
    <property>
      <name>volume_driver</name>
      <value>cinder.volume.drivers.kaminario.kaminario_iscsi.KaminarioISCSIDriver</value>
    </property>
  </driver_options>
```

```

</storage>
<host>
  <name>host</name>
</host>
</storage_domain>

```

29.132.2. driver_sensitive_options

Parameters containing sensitive information, to be passed when creating a storage domain using a cinder driver. These parameters are encrypted when they are saved.

For example, the following XML encrypts and saves a username, password and SAN IP address:

POST /ovirt-engine/api/storagedomains/

```

<storage_domain>
  <name>kamniraio-cinder</name>
  <type>managed_block_storage</type>
  <storage>
    <type>managed_block_storage</type>
    <driver_options>
      <property>
        <name>san_ip</name>
        <value>192.168.1.1</value>
      </property>
      <property>
        <name>san_login</name>
        <value>username</value>
      </property>
      <property>
        <name>san_password</name>
        <value>password</value>
      </property>
      <property>
        <name>use_multipath_for_image_xfer</name>
        <value>true</value>
      </property>
      <property>
        <name>volume_driver</name>
        <value>cinder.volume.drivers.kaminario.kaminario_iscsi.KaminarioISCSIDriver</value>
      </property>
    </driver_options>
    <driver_sensitive_options>
      <property>
        <name>username</name>
        <value>admin</value>
      </property>
      <property>
        <name>password</name>
        <value>123</value>
      </property>
      <property>
        <name>san_ip</name>
        <value>192.168.1.1</value>
      </property>
    </driver_sensitive_options>
  </storage>
</storage_domain>

```

```

    </driver_sensitive_options>
  </storage>
  <host>
    <name>host</name>
  </host>
</storage_domain>

```

29.132.3. nfs_retrans

The number of times to retry a request before attempting further recovery actions. The value must be in the range of 0 to 65535. For more details see the description of the **retrans** mount option in the **nfs** man page.

29.132.4. nfs_timeo

The time in tenths of a second to wait for a response before retrying NFS requests. The value must be in the range of 0 to 65535. For more details see the description of the **timeo** mount option in the **nfs** man page.

Table 29.180. Links summary

Name	Type	Summary
host	Host	

29.133. HOSTTYPE ENUM

This enumerated type is used to determine which type of operating system is used by the host.

Table 29.181. Values summary

Name	Summary
ovirt_node	The host contains Red Hat Virtualization Host (RHVH): a new implementation of Red Hat Enterprise Virtualization Hypervisor (RHEV-H) which uses the same installer as Red Hat Enterprise Linux, CentOS, or Fedora.
rhel	The host contains a full Red Hat Enterprise Linux, CentOS, or Fedora installation.
rhev_h	The host contains Red Hat Enterprise Virtualization Hypervisor (RHEV-H), a small-scaled version of Red Hat Enterprise Linux, CentOS, or Fedora, used solely to host virtual machines.

29.133.1. ovirt_node

The host contains Red Hat Virtualization Host (RHVH): a new implementation of Red Hat Enterprise Virtualization Hypervisor (RHEV-H) which uses the same installer as Red Hat Enterprise Linux, CentOS, or Fedora. The main difference between RHVH and legacy RHEV-H is that RHVH has a writeable file system and will handle its own installation instead of having RPMs pushed to it by the Manager like in legacy RHEV-H.

29.133.2. rhev_h

The host contains Red Hat Enterprise Virtualization Hypervisor (RHEV-H), a small-scaled version of Red Hat Enterprise Linux, CentOS, or Fedora, used solely to host virtual machines.

This property is no longer relevant since Vintage Node is no longer supported, and has been deprecated.

29.134. HOSTEDENGINE STRUCT

Table 29.182. Attributes summary

Name	Type	Summary
active	Boolean	
configured	Boolean	
global_maintenance	Boolean	
local_maintenance	Boolean	
score	Integer	

29.135. ICON STRUCT

Icon of virtual machine or template.

Table 29.183. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
data	String	Base64 encode content of the icon file.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
media_type	String	Format of icon file.
name	String	A human-readable name in plain text.

29.135.1. media_type

Format of icon file.

One of:

- **image/jpeg**
- **image/png**
- **image/gif**

29.136. IDENTIFIED STRUCT

This interface is the base model for all types that represent objects with an identifier.

Table 29.184. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.

29.137. IMAGE STRUCT

Represents an image entity.

Table 29.185. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.
size	Integer	The size of the image file.
type	ImageFileType	The type of the image file.

Table 29.186. Links summary

Name	Type	Summary
storage_domain	StorageDomain	The storage domain associated with this image.

Name	Type	Summary

29.138. IMAGEFILETYPE ENUM

Represents the file type of an image.

Table 29.187. Values summary

Name	Summary
disk	The image is a disk format that can be used as a virtual machine's disk.
floppy	The image is a floppy disk that can be attached to a virtual machine, for example to install the VirtIO drivers in Windows.
iso	The image is a `.

29.138.1. iso

The image is a **.iso** file that can be used as a CD-ROM to boot and install a virtual machine.

29.139. IMAGETRANSFER STRUCT

This type contains information regarding an image transfer being performed.

Table 29.188. Attributes summary

Name	Type	Summary
active	Boolean	Indicates whether there's at least one active session for this transfer, i.e there's at least one live transfer session between the client and the daemon.
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
direction	ImageTransferDirection	The direction indicates whether the transfer is sending image data (upload) or receiving image data (download).
format	DiskFormat	The format of the data sent during upload or received during download.
id	String	A unique identifier.

Name	Type	Summary
inactivity_timeout	Integer	The timeout in seconds of client inactivity, after which the transfer is aborted by the Red Hat Virtualization Manager.
name	String	A human-readable name in plain text.
phase	ImageTransferPhase	The current phase of the image transfer in progress.
proxy_url	String	The URL of the proxy server that the user inputs or outputs to.
shallow	Boolean	Download only the specified image instead of the entire image chain.
timeout_policy	ImageTransferTimeoutPolicy	Timeout policy determines how the system handles the transfer when a client is idle for more than inactivityTimeout.
transfer_url	String	The URL of the daemon server that the user can input or output to directly.
transferred	Integer	Indicates the amount of transferred bytes.

29.139.1. direction

The direction indicates whether the transfer is sending image data (**upload**) or receiving image data (**download**).

If a direction is not set during an addition of a new transfer, The default direction for the transfer will be **upload**.

29.139.2. format

The format of the data sent during upload or received during download. If not specified, defaults to disk's format.

29.139.3. inactivity_timeout

The timeout in seconds of client inactivity, after which the transfer is aborted by the Red Hat Virtualization Manager. To disable the inactivity timeout specify '0'. If not specified, the value is defaulted to the **engine-config** value: `TransferImageClientInactivityTimeoutInSeconds`.

29.139.4. phase

The current phase of the image transfer in progress. Each transfer needs a managed session, which must be opened for the user to input or output an image. Please refer to [image transfer](#) for further documentation.

29.139.5. proxy_url

The URL of the proxy server that the user inputs or outputs to. This attribute is available only if the image transfer is in the [transferring](#) phase. See **phase** for details.

29.139.6. shallow

Download only the specified image instead of the entire image chain.

If true, when using format="raw" and direction="download", the transfer includes data only from the specified disk snapshot, and unallocated areas are reported as holes. By default, the transfer includes data from all disk snapshots.

When specifying a disk snapshot, the transfer includes only data for the specified disk snapshot. When specifying a disk, the transfer includes only data from the active disk snapshot.

This parameter has no effect when not using format="raw" or for direction="upload".

Example: Downloading a single snapshot:

```
<image_transfer>
  <snapshot id="2fb24fa2-a5db-446b-b733-4654661cd56d"/>
  <direction>download</direction>
  <format>raw</format>
  <shallow>true</shallow>
</image_transfer>
```

To download the active snapshot disk image (which is not accessible as a disk snapshot), specify the disk:

```
<image_transfer>
  <disk id="ff6be46d-ef5d-41d6-835c-4a68e8956b00"/>
  <direction>download</direction>
  <format>raw</format>
  <shallow>true</shallow>
</image_transfer>
```

In both cases you can now download a qcow2 image using imageio client:

```
from ovirt_imageio import client

client.download(
    transfer.transfer_url,
    "51275e7d-42e9-491f-9d65-b9211c897eac",
    backing_file="07c0ccac-0845-4665-9097-d0a3b16cf43b",
    backing_format="qcow2")
```

29.139.7. transfer_url

The URL of the daemon server that the user can input or output to directly.

This is as an alternative to the **proxy_url**. I.e. if the client has access to the host machine, it could bypass the proxy and transfer directly to the host, potentially improving the throughput performance. This attribute is available only if the image transfer is in the [transferring](#) phase. See **phase** for details.

Table 29.189. Links summary

Name	Type	Summary
backup	Backup	The backup associated with the image transfer.
disk	Disk	The disk which is targeted for input or output.
host	Host	The host which will be used to write to the image which is targeted for input or output.
image	Image	The image which is targeted for input or output.
snapshot	DiskSnapshot	The disk snapshot which is targeted for input or output.

29.139.8. backup

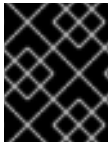
The backup associated with the image transfer. Specify when initiating an image transfer for a disk that is part of a backup.

29.139.9. host

The host which will be used to write to the image which is targeted for input or output. If not specified, an active host will be randomly selected from the data center.

29.139.10. image

The image which is targeted for input or output.



IMPORTANT

This attribute is deprecated since version 4.2 of the engine. Use the **disk** or **snapshot** attributes instead.

29.140. IMAGETRANSFERDIRECTION ENUM

The [image transfer](#) direction for a transfer.

When adding a new transfer, the user can choose whether the transfer will be to an image, choosing **upload**, or to transfer from an image- choosing **download** as an ImageTransferDirection.

Please refer to [image transfer](#) for further documentation.

Table 29.190. Values summary

Name	Summary
download	The user must choose download when he/she wants to stream data from an image.
upload	The user can choose upload when he/she wants to stream data to an image.

29.141. IMAGETRANSFERPHASE ENUM

A list of possible phases for an [image transfer](#) entity. Each of these values defines a specific point in a transfer flow.

Please refer to [image transfer](#) for more information.

Table 29.191. Values summary

Name	Summary
cancelled	This phase will be set as a result of the user cancelling the transfer.
cancelled_system	This phase will be set as a result of the system cancelling the transfer.
cancelled_user	This phase will be set as a result of the user cancelling the transfer.
finalizing_cleanup	This phase indicates that the user cancelled the transfer, and necessary cleanup is being done.
finalizing_failure	This phase can only be set in the Administration Portal, and indicates that there was an error during the transfer, and it is being finalized with a failure.
finalizing_success	This phase will be set when the user calls finalize .
finished_cleanup	This phase indicates that the user cancelled the transfer, and necessary cleanup is done.
finished_failure	Indicates that the targeted image failed the verification, and cannot be used.
finished_success	Indicates that the transfer session was successfully closed, and the targeted image was verified and ready to be used.
initializing	The initial phase of an image transfer.
paused_system	This phase means the session timed out, or some other error occurred with this transfer; for example ovirt-imageio is not running in the selected host.
paused_user	This phase is a result of a pause call by the user, using pause .
resuming	The phase where the transfer has been resumed by the client calling resume .
transferring	The phase where the transfer session is open, and the client can input or output the desired image using the preferred tools.
unknown	An unknown phase.

29.141.1. cancelled

This phase will be set as a result of the user cancelling the transfer. The cancellation can only be performed in the Administration Portal.

29.141.2. finalizing_success

This phase will be set when the user calls [finalize](#). Calling finalize is essential to finish the transfer session, and finish using the targeted image. After finalizing, the phase will be changed to **finished_success** or **finished_failure**.

Refer to [image transfer](#) for more information.

29.141.3. finished_failure

Indicates that the targeted image failed the verification, and cannot be used. After reaching this phase, the image transfer entity will be deleted, and the targeted image will be set to illegal. System cancelling the transfer will also result in this.

29.141.4. finished_success

Indicates that the transfer session was successfully closed, and the targeted image was verified and ready to be used. After reaching this phase, the image transfer entity will be deleted.

29.141.5. initializing

The initial phase of an image transfer. It is set while the transfer session is establishing. Once the session is established, the phase will be changed to **transferring**

29.141.6. paused_system

This phase means the session timed out, or some other error occurred with this transfer; for example ovirt-imageio is not running in the selected host. To resume the session, the client should call [resume](#). After resuming, the phase will change to **resuming**.

29.141.7. resuming

The phase where the transfer has been resumed by the client calling [resume](#). Resuming starts a new session, and after calling it, the phase will be changed to **transferring**, or **paused_system** in case of a failure.

29.141.8. unknown

An unknown phase. This will only be set in cases of unpredictable errors.

29.142. IMAGETRANSFERTIMEOUTPOLICY ENUM

The [image transfer](#) timeout policy.

Define how the system handles a transfer when the client is inactive for inactivityTimeout seconds.

Please refer to [image transfer](#) for further documentation.

Table 29.192. Values summary

Name	Summary
cancel	Cancel the transfer and unlock the disk.
legacy	LEGACY policy will preserve the legacy functionality which is the default.
pause	Pause the transfer.

29.142.1. cancel

Cancel the transfer and unlock the disk. For image transfer using upload direction, the disk is deleted.

29.142.2. legacy

LEGACY policy will preserve the legacy functionality which is the default. The default behaviour will cancel the transfer if the direction is download, and pause it if its upload.

29.142.3. pause

Pause the transfer. The transfer can be resumed or canceled by the user. The disk will remain locked while the transfer is paused.

29.143. INHERITABLEBOOLEAN ENUM

Enum representing the boolean value that can be either set, or inherited from a higher level. The inheritance order is virtual machine → cluster → engine-config.

Table 29.193. Values summary

Name	Summary
false	Set the value to false on this level.
inherit	Inherit the value from higher level.
true	Set the value to true on this level.

29.144. INITIALIZATION STRUCT

Table 29.194. Attributes summary

Name	Type	Summary
active_directory_ou	String	

Name	Type	Summary
authorized_ssh_keys	String	
cloud_init	CloudInit	Deprecated attribute to specify <i>cloud-init</i> configuration.
cloud_init_network_protocol	CloudInitNetworkProtocol	Attribute specifying the cloud-init protocol to use for formatting the cloud-init network parameters.
configuration	Configuration	
custom_script	String	
dns_search	String	
dns_servers	String	
domain	String	
host_name	String	
input_locale	String	
nic_configurations	NicConfiguration[]	
org_name	String	
regenerate_ids	Boolean	
regenerate_ssh_keys	Boolean	
root_password	String	
system_locale	String	
timezone	String	
ui_language	String	
user_locale	String	
user_name	String	

Name	Type	Summary
windows_licens e_key	String	

29.144.1. cloud_init

Deprecated attribute to specify *cloud-init* configuration.

This attribute and the [CloudInit](#) type have been deprecated and will be removed in the future. To specify the *cloud-init* configuration, use the attributes inside the [Initialization](#) type. The mapping between the attributes of these two types are as follows:

CloudInit	Initialization
authorized_keys	authorized_ssh_keys
dns.search_domains	dns_search
dns.servers	dns_servers
files	custom_script
host	host_name
network_configuration.nics	nic_configurations
regenerate_ssh_keys	regenerate_ssh_keys
timezone	timezone
users	user_name & root_password

For more details on how to use *cloud-init* see the examples in [Python](#) and [Java](#).

29.144.2. cloud_init_network_protocol

Attribute specifying the cloud-init protocol to use for formatting the cloud-init network parameters. If omitted, a default value is used, as described in the [CloudInitNetworkProtocol](#)

29.145. INSTANCETYPE STRUCT

Describes the hardware configuration of virtual machines.

For example **medium** instance type includes 1 virtual CPU and 4 GiB of memory. It is a top-level entity (e.g. not bound to any data center or cluster). The attributes that are used for instance types and are common to virtual machine and template types are:

- **console**

- **cpu**
- **custom_cpu_model**
- **custom_emulated_machine**
- **display**
- **high_availability**
- **io**
- **memory**
- **memory_policy**
- **migration**
- **migration_downtime**
- **os**
- **rng_device**
- **soundcard_enabled**
- **usb**
- **virtio_scsi**

When creating a virtual machine from both an instance type and a template, the virtual machine will inherit the hardware configurations from the instance type



NOTE

An instance type inherits its attributes from the template entity although most template attributes are not used in instance types.

Table 29.195. Attributes summary

Name	Type	Summary
auto_pinning_policy	AutoPinningPolicy	Specifies if and how the auto CPU and NUMA configuration is applied.
bios	Bios	Reference to virtual machine's BIOS configuration.
comment	String	Free text containing comments about this object.
console	Console	Console configured for this virtual machine.
cpu	Cpu	The configuration of the virtual machine CPU.

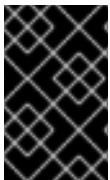
Name	Type	Summary
cpu_pinning_policy	CpuPinningPolicy	Specifies if and how the CPU and NUMA configuration is applied.
cpu_shares	Integer	
creation_time	Date	The virtual machine creation date.
custom_compatibility_version	Version	Virtual machine custom compatibility version.
custom_cpu_model	String	
custom_emulated_machine	String	
custom_properties	CustomProperty[]	Properties sent to VDSM to configure various hooks.
delete_protected	Boolean	If true , the virtual machine cannot be deleted.
description	String	A human-readable description in plain text.
display	Display	The virtual machine display configuration.
domain	Domain	Domain configured for this virtual machine.
high_availability	HighAvailability	The virtual machine high availability configuration.
id	String	A unique identifier.
initialization	Initialization	Reference to the virtual machine's initialization configuration.
io	Io	For performance tuning of IO threading.
large_icon	Icon	Virtual machine's large icon.
lease	StorageDomainLease	Reference to the storage domain this virtual machine/template lease reside on.
memory	Integer	The virtual machine's memory, in bytes.
memory_policy	MemoryPolicy	Reference to virtual machine's memory management configuration.

Name	Type	Summary
migration	MigrationOptions	Reference to configuration of migration of a running virtual machine to another host.
migration_down_time	Integer	Maximum time the virtual machine can be non responsive during its live migration to another host in ms.
multi_queues_enabled	Boolean	If true , each virtual interface will get the optimal number of queues, depending on the available virtual Cpus.
name	String	A human-readable name in plain text.
origin	String	The origin of this virtual machine.
os	OperatingSystem	Operating system type installed on the virtual machine.
placement_policy	VmPlacementPolicy	The configuration of the virtual machine's placement policy.
rng_device	RngDevice	Random Number Generator device configuration for this virtual machine.
serial_number	SerialNumber	Virtual machine's serial number in a cluster.
small_icon	Icon	Virtual machine's small icon.
soundcard_enabled	Boolean	If true , the sound card is added to the virtual machine.
sso	Sso	Reference to the Single Sign On configuration this virtual machine is configured for.
start_paused	Boolean	If true , the virtual machine will be initially in 'paused' state after start.
stateless	Boolean	If true , the virtual machine is stateless – it's state (disks) are rolled-back after shutdown.
status	TemplateStatus	The status of the template.
storage_error_resume_behaviour	VmStorageErrorResumeBehaviour	Determines how the virtual machine will be resumed after storage error.

Name	Type	Summary
time_zone	TimeZone	The virtual machine's time zone set by oVirt.
tpm_enabled	Boolean	If true , a TPM device is added to the virtual machine.
tunnel_migration	Boolean	If true , the network data transfer will be encrypted during virtual machine live migration.
type	VmType	Determines whether the virtual machine is optimized for desktop or server.
usb	Usb	Configuration of USB devices for this virtual machine (count, type).
version	TemplateVersion	Indicates whether this is the base version or a sub-version of another template.
virtio_scsi	VirtioScsi	Reference to VirtIO SCSI configuration.
virtio_scsi_multi_queues	Integer	Number of queues for a Virtio-SCSI controller this field requires virtioScsiMultiQueuesEnabled to be true see virtioScsiMultiQueuesEnabled for more info
virtio_scsi_multi_queues_enabled	Boolean	If true , the Virtio-SCSI devices will obtain a number of multiple queues depending on the available virtual Cpus and disks, or according to the specified virtioScsiMultiQueues.
vm	Vm	The virtual machine configuration associated with this template.

29.145.1. auto_pinning_policy

Specifies if and how the auto CPU and NUMA configuration is applied.



IMPORTANT

Since version 4.5 of the engine this operation is deprecated, and preserved only for backwards compatibility. It might be removed in the future. Please use CpuPinningPolicy instead.

29.145.2. cpu

The configuration of the virtual machine CPU.

The socket configuration can be updated without rebooting the virtual machine. The cores and the threads require a reboot.

For example, to change the number of sockets to 4 immediately, and the number of cores and threads to 2 after reboot, send the following request:

```
PUT /ovirt-engine/api/vms/123
```

With a request body:

```
<vm>
  <cpu>
    <topology>
      <sockets>4</sockets>
      <cores>2</cores>
      <threads>2</threads>
    </topology>
  </cpu>
</vm>
```

29.145.3. cpu_pinning_policy

Specifies if and how the CPU and NUMA configuration is applied. When not specified the previous behavior of CPU pinning string will determine CpuPinningPolicy to None or Manual.

29.145.4. custom_compatibility_version

Virtual machine custom compatibility version.

Enables a virtual machine to be customized to its own compatibility version. If **custom_compatibility_version** is set, it overrides the cluster's compatibility version for this particular virtual machine.

The compatibility version of a virtual machine is limited by the data center the virtual machine resides in, and is checked against capabilities of the host the virtual machine is planned to run on.

29.145.5. high_availability

The virtual machine high availability configuration. If set, the virtual machine will be automatically restarted when it unexpectedly goes down.

29.145.6. initialization

Reference to the virtual machine's initialization configuration.



NOTE

Since Red Hat Virtualization 4.1.8 this property can be cleared by sending an empty tag.

For example, to clear the **initialization** attribute send a request like this:

```
PUT /ovirt-engine/api/vms/123
```

With a request body like this:

```
<vm>
  <initialization/>
</vm>
```

The response to such a request, and requests with the header **All-Content: true** will still contain this attribute.

29.145.7. large_icon

Virtual machine's large icon. Either set by user or refers to image set according to operating system.

29.145.8. lease

Reference to the storage domain this virtual machine/template lease reside on.

A virtual machine running with a lease requires checking while running that the lease is not taken by another host, preventing another instance of this virtual machine from running on another host. This provides protection against split-brain in highly available virtual machines. A template can also have a storage domain defined for a lease in order to have the virtual machines created from this template to be preconfigured with this storage domain as the location of the leases.

29.145.9. memory

The virtual machine's memory, in bytes.

For example, to update a virtual machine to contain 1 Gibibyte (GiB) of memory, send the following request:

```
PUT /ovirt-engine/api/vms/123
```

With the following request body:

```
<vm>
  <memory>1073741824</memory>
</vm>
```

Memory hot plug is supported from Red Hat Virtualization 3.6 onwards. You can use the example above to increase memory while the virtual machine is in state [up](#). The size increment must be dividable by the value of the **HotPlugMemoryBlockSizeMb** configuration value (256 MiB by default). If the memory size increment is not dividable by this value, the memory size change is only stored to next run configuration. Each successful memory hot plug operation creates one or two new memory devices.

Memory hot unplug is supported since Red Hat Virtualization 4.2 onwards. Memory hot unplug can only be performed when the virtual machine is in state [up](#). Only previously hot plugged memory devices can be removed by the hot unplug operation. The requested memory decrement is rounded down to match sizes of a combination of previously hot plugged memory devices. The requested memory value is stored to next run configuration without rounding.



NOTE

Memory in the example is converted to bytes using the following formula:
 $1 \text{ GiB} = 2^{30} \text{ bytes} = 1073741824 \text{ bytes}.$



NOTE

Red Hat Virtualization Manager internally rounds values down to whole MiBs ($1 \text{ MiB} = 2^{20} \text{ bytes}$)

29.145.10. migration

Reference to configuration of migration of a running virtual machine to another host.



NOTE

API for querying migration policy by ID returned by this method is not implemented yet. Use **/ovirt-engine/api/options/MigrationPolicies** to get a list of all migration policies with their IDs.

29.145.11. migration_downtime

Maximum time the virtual machine can be non responsive during its live migration to another host in ms.

Set either explicitly for the virtual machine or by **engine-config -s DefaultMaximumMigrationDowntime=[value]**

29.145.12. origin

The origin of this virtual machine.

Possible values:

- **ovirt**
- **rhev**
- **vmware**
- **xen**
- **external**
- **hosted_engine**
- **managed_hosted_engine**
- **kvm**
- **physical_machine**
- **hyperv**

29.145.13. placement_policy

The configuration of the virtual machine's placement policy.

This configuration can be updated to pin a virtual machine to one or more hosts.



NOTE

Virtual machines that are pinned to multiple hosts cannot be live migrated, but in the event of a host failure, any virtual machine configured to be highly available is automatically restarted on one of the other hosts to which the virtual machine is pinned.

For example, to pin a virtual machine to two hosts, send the following request:

```
PUT /api/vms/123
```

With a request body like this:

```
<vm>
  <high_availability>
    <enabled>true</enabled>
    <priority>1</priority>
  </high_availability>
  <placement_policy>
    <hosts>
      <host>
        <name>Host1</name>
      </host>
      <host>
        <name>Host2</name>
      </host>
    </hosts>
    <affinity>pinned</affinity>
  </placement_policy>
</vm>
```

29.145.14. small_icon

Virtual machine's small icon. Either set by user or refers to image set according to operating system.

29.145.15. sso

Reference to the Single Sign On configuration this virtual machine is configured for. The user can be automatically signed in the virtual machine's operating system when console is opened.

29.145.16. tpm_enabled

If **true**, a TPM device is added to the virtual machine. By default the value is **false**. This property is only visible when fetching if "All-Content=true" header is set.

Table 29.196. Links summary

Name	Type	Summary
cdroms	Cdrom[]	Reference to the CD-ROM devices attached to the template.
cluster	Cluster	Reference to cluster the virtual machine belongs to.
cpu_profile	CpuProfile	Reference to CPU profile used by this virtual machine.
disk_attachments	DiskAttachment[]	Reference to the disks attached to the template.

Name	Type	Summary
graphics_consoles	GraphicsConsole[]	Reference to the graphic consoles attached to the template.
mediated_devices	VmMediatedDevice[]	Mediated devices configuration.
nics	Nic[]	Reference to the network interfaces attached to the template.
permissions	Permission[]	Reference to the user permissions attached to the template.
quota	Quota	Reference to quota configuration set for this virtual machine.
storage_domain	StorageDomain	Reference to storage domain the virtual machine belongs to.
tags	Tag[]	Reference to the tags attached to the template.
watchdogs	Watchdog[]	Reference to the watchdog devices attached to the template.

29.146. IO STRUCT

Table 29.197. Attributes summary

Name	Type	Summary
threads	Integer	

29.147. IP STRUCT

Represents the IP configuration of a network interface.

Table 29.198. Attributes summary

Name	Type	Summary
address	String	The text representation of the IP address.
gateway	String	The address of the default gateway.
netmask	String	The network mask.
version	IpVersion	The version of the IP protocol.

29.147.1. address

The text representation of the IP address.

For example, an IPv4 address will be represented as follows:

```
<ip>
  <address>192.168.0.1</address>
  ...
</ip>
```

An IPv6 address will be represented as follows:

```
<ip>
  <address>2620:52:0:20f0:4216:7eff:feaa:1b50</address>
  ...
</ip>
```

29.147.2. netmask

The network mask.

For IPv6 addresses the value is an integer in the range of 0-128, which represents the subnet prefix.

29.147.3. version

The version of the IP protocol.



NOTE

From version 4.1 of the Manager this attribute will be optional, and when a value is not provided, it will be inferred from the value of the **address** attribute.

29.148. IPADDRESSASSIGNMENT STRUCT

Represents an IP address assignment for a network device.

For a static boot protocol assignment, subnet mask and IP address (and optionally default gateway) must be provided in the IP configuration.

Table 29.199. Attributes summary

Name	Type	Summary
assignment_method	BootProtocol	Sets the boot protocol used to assign the IP configuration for a network device.
ip	Ip	Sets the IP configuration for a network device.

29.149. IPVERSION ENUM

Defines the values for the IP protocol version.

Table 29.200. Values summary

Name	Summary
v4	IPv4.
v6	IPv6.

29.150. ISCSIBOND STRUCT

Table 29.201. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.

Table 29.202. Links summary

Name	Type	Summary
data_center	DataCenter	
networks	Network[]	
storage_connections	StorageConnection[]	

29.151. ISCSIDetails STRUCT

Table 29.203. Attributes summary

Name	Type	Summary
address	String	
disk_id	String	
initiator	String	
lun_mapping	Integer	
password	String	

Name	Type	Summary
paths	Integer	
port	Integer	
portal	String	
product_id	String	
serial	String	
size	Integer	
status	String	
storage_domain_id	String	
target	String	
username	String	
vendor_id	String	
volume_group_id	String	

29.152. JOB STRUCT

Represents a job, which monitors execution of a flow in the system. A job can contain multiple steps in a hierarchic structure. The steps can be processed in parallel, depends on the implementation of the flow.

Table 29.204. Attributes summary

Name	Type	Summary
auto_cleared	Boolean	Indicates if the job should be cleared automatically after it was completed by the system.
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
end_time	Date	The end time of the job.
external	Boolean	Indicates if the job is originated by an external system.

Name	Type	Summary
id	String	A unique identifier.
last_updated	Date	The last update date of the job.
name	String	A human-readable name in plain text.
start_time	Date	The start time of the job.
status	JobStatus	The status of the job.

29.152.1. external

Indicates if the job is originated by an external system. External jobs are managed externally, by the creator of the job.

Table 29.205. Links summary

Name	Type	Summary
owner	User	The user who is the owner of the job.
steps	Step[]	The steps of the job.

29.153. JOBSTATUS ENUM

Represents the status of the job.

Table 29.206. Values summary

Name	Summary
aborted	The aborted job status.
failed	The failed job status.
finished	The finished job status.
started	The started job status.
unknown	The unknown job status.

29.153.1. aborted

The aborted job status. This status is applicable for an external job that was forcibly aborted.

29.153.2. finished

The finished job status. This status describes a completed job execution.

29.153.3. started

The started job status. This status represents a job which is currently being executed.

29.153.4. unknown

The unknown job status. This status represents jobs which their resolution is not known, i.e. jobs that were executed before the system was unexpectedly restarted.

29.154. KATELLOERRATUM STRUCT

Type representing a Katello erratum.

Table 29.207. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
issued	Date	The date when the Katello erratum was issued.
name	String	A human-readable name in plain text.
packages	Package[]	The list of packages which solve the issue reported by the Katello erratum.
severity	String	The severity of the Katello erratum.
solution	String	The solution for the issue described by the Katello erratum.
summary	String	The summary of the Katello erratum.
title	String	The title of the Katello erratum.
type	String	The type of the Katello erratum.

29.154.1. severity

The severity of the Katello erratum.

The supported severities are **moderate**, **important** or **critical**.

29.154.2. type

The type of the Katello erratum.

The supported types are **bugfix**, **enhancement** or **security**.

Table 29.208. Links summary

Name	Type	Summary
host	Host	Reference to the host that the Katello erratum is assigned to.
vm	Vm	Reference to the virtual machine that the Katello erratum is assigned to.

29.155. KDUMPSTATUS ENUM

Table 29.209. Values summary

Name	Summary
disabled	
enabled	
unknown	

29.156. KERNEL STRUCT

Table 29.210. Attributes summary

Name	Type	Summary
version	Version	

29.157. KSM STRUCT

Table 29.211. Attributes summary

Name	Type	Summary
enabled	Boolean	
merge_across_nodes	Boolean	

29.158. LINKLAYERDISCOVERYPROTOCOLELEMENT STRUCT

Represents an information element received by Link Layer Discovery Protocol (LLDP). IEEE 802.1AB defines type, length, value (TLV) as a "short, variable length encoding of an information element". This type represents such an information element.

The attribute **name** is a human-readable string used to describe what the value is about, and may not be unique. The name is redundant, because it could be created from **type** and the optional **oui** and **subtype**. The purpose of **name** is to simplify the reading of the information element. The **name** of a property is exactly the same string which is used in IEEE 802.1AB chapter 8.

Organizationally-specific information elements have the **type** of **127** and the attributes **oui** and **subtype**.

For example, the XML representation of an information element may look like this:

```
<link_layer_discovery_protocol_element>
  <name>Port VLAN Id</name>
  <oui>32962</oui>
  <properties>
    <property>
      <name>vlan id</name>
      <value>488</value>
    </property>
    <property>
      <name>vlan name</name>
      <value>v2-0488-03-0505</value>
    </property>
  </properties>
  <subtype>3</subtype>
  <type>127</type>
</link_layer_discovery_protocol_element>
```

Table 29.212. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.
oui	Integer	The organizationally-unique identifier (OUI) encoded as an integer.
properties	Property[]	Represents structured data transported by the information element as a list of name/value pairs.
subtype	Integer	The organizationally-defined subtype encoded as an integer.

Name	Type	Summary
type	Integer	The type of the LinkLayerDiscoveryProtocolElement encoded as an integer.

29.158.1. oui

The organizationally-unique identifier (OUI) encoded as an integer. Only available if **type** is **127**.

29.158.2. subtype

The organizationally-defined subtype encoded as an integer. Only available if **type** is **127**.

29.159. LOGMAXMEMORYUSEDTHRESHOLDTYPE ENUM

Describes all maximum memory threshold types supported by the system.

Table 29.213. Values summary

Name	Summary
absolute_value_in_mb	Absolute value threshold type.
percentage	Percentage threshold type.

29.159.1. absolute_value_in_mb

Absolute value threshold type.

When an absolute value is specified, an audit log event is logged if the free memory in MB falls below the value specified in **LogMaxMemoryUsedThreshold**.

29.159.2. percentage

Percentage threshold type.

When a percentage is specified, an audit log event is logged if the memory used is above the value specified in **LogMaxMemoryUsedThreshold**.

29.160. LOGSEVERITY ENUM

Enum representing a severity of an event.

Table 29.214. Values summary

Name	Summary
alert	Alert severity.

Name	Summary
error	Error severity.
normal	Normal severity.
warning	Warning severity.

29.160.1. alert

Alert severity. Used to specify a condition that requires an immediate attention.

29.160.2. error

Error severity. Used to specify that there is an error that needs to be examined.

29.160.3. normal

Normal severity. Used for information events.

29.160.4. warning

Warning severity. Used to warn something might be wrong.

29.161. LOGICALUNIT STRUCT

Table 29.215. Attributes summary

Name	Type	Summary
address	String	
discard_max_size	Integer	The maximum number of bytes that can be discarded by the logical unit's underlying storage in a single operation.
discard_zeroes_data	Boolean	True, if previously discarded blocks in the logical unit's underlying storage are read back as zeros.
disk_id	String	
id	String	
lun_mapping	Integer	
password	String	
paths	Integer	

Name	Type	Summary
port	Integer	
portal	String	
product_id	String	
serial	String	
size	Integer	
status	LunStatus	
storage_domain_id	String	
target	String	
username	String	
vendor_id	String	
volume_group_id	String	

29.161.1. discard_max_size

The maximum number of bytes that can be discarded by the logical unit's underlying storage in a single operation. A value of 0 means that the device does not support discard functionality.



NOTE

This is the software limit, and not the hardware limit, as noted in the [queue-sysfs documentation](#) for **discard_max_bytes**.

29.161.2. discard_zeroes_data

True, if previously discarded blocks in the logical unit's underlying storage are read back as zeros. For more information please see the [queue-sysfs documentation](#) for **discard_zeroes_data**.



IMPORTANT

Since version 4.2.1 of the system, the support for this attribute has been removed as the sysfs file, **discard_zeroes_data**, was deprecated in the kernel. It is preserved for backwards compatibility, but the value will always be **false**.

29.162. LUNSTATUS ENUM

Table 29.216. Values summary

Name	Summary
free	
unusable	
used	

29.163. MDEVTYPE STRUCT

Mediated device is a software device that allows to divide physical device's resources.

See [Libvirt-MDEV](#) for further details.

Table 29.217. Attributes summary

Name	Type	Summary
available_instances	Integer	MDev type available instances count.
description	String	MDev type description.
human_readable_name	String	MDev type human readable name.
name	String	MDev type name.

29.164. MAC STRUCT

Represents a MAC address of a virtual network interface.

Table 29.218. Attributes summary

Name	Type	Summary
address	String	MAC address.

29.165. MACPOOL STRUCT

Represents a MAC address pool.

Example of an XML representation of a MAC address pool:

```
<mac_pool href="/ovirt-engine/api/macpools/123" id="123">
  <name>Default</name>
  <description>Default MAC pool</description>
```

```

<allow_duplicates>false</allow_duplicates>
<default_pool>true</default_pool>
<ranges>
  <range>
    <from>00:1A:4A:16:01:51</from>
    <to>00:1A:4A:16:01:E6</to>
  </range>
</ranges>
</mac_pool>

```

Table 29.219. Attributes summary

Name	Type	Summary
allow_duplicates	Boolean	Defines whether duplicate MAC addresses are permitted in the pool.
comment	String	Free text containing comments about this object.
default_pool	Boolean	Defines whether this is the default pool.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.
ranges	Range[]	Defines the range of MAC addresses for the pool.

29.165.1. allow_duplicates

Defines whether duplicate MAC addresses are permitted in the pool. If not specified, defaults to **false**.

29.165.2. default_pool

Defines whether this is the default pool. If not specified, defaults to **false**.

29.165.3. ranges

Defines the range of MAC addresses for the pool. Multiple ranges can be defined.

Table 29.220. Links summary

Name	Type	Summary
permissions	Permission[]	Returns a reference to the permissions that are associated with the MacPool.

29.166. MEMORYOVERCOMMIT STRUCT

Table 29.221. Attributes summary

Name	Type	Summary
percent	Integer	

29.167. MEMORYPOLICY STRUCT

Logical grouping of memory-related properties of virtual machine-like entities.

Table 29.222. Attributes summary

Name	Type	Summary
ballooning	Boolean	
guaranteed	Integer	The amount of memory, in bytes, that is guaranteed to not be drained by the balloon mechanism.
max	Integer	Maximum virtual machine memory, in bytes.
over_commit	MemoryOverCommit	
transparent_huge_pages	TransparentHugePages	

29.167.1. guaranteed

The amount of memory, in bytes, that is guaranteed to not be drained by the balloon mechanism.

The Red Hat Virtualization Manager internally rounds this value down to whole MiB (1MiB = 2²⁰ bytes).



NOTE

It can be updated while the virtual machine is running since Red Hat Virtualization 4.2 onwards, provided [memory](#) is updated in the same request as well, and the virtual machine is in state [up](#).

29.167.2. max

Maximum virtual machine memory, in bytes.

The user provides the value in bytes, and the Red Hat Virtualization Manager rounds the value down to the nearest lower MiB value.

For example, if the user enters a value of 1073741825 (1 GiB + 1 byte), then the Red Hat Virtualization Manager will truncate that value to the nearest lower MiB boundary: in this case 1073741824 (1 GiB).

29.168. MESSAGEBROKERTYPE ENUM

Deprecated Message Broker type.

Ignored, because the deployment of OpenStack Neutron agent is dropped since Red Hat Virtualization 4.4.0.

Table 29.223. Values summary

Name	Summary
qpid	
rabbit_mq	

29.169. METHOD STRUCT

Table 29.224. Attributes summary

Name	Type	Summary
id	SsoMethod	

29.170. MIGRATEONERROR ENUM

Table 29.225. Values summary

Name	Summary
do_not_migrate	
migrate	
migrate_highly_available	

29.171. MIGRATIONBANDWIDTH STRUCT

Defines the bandwidth used by migration.

Table 29.226. Attributes summary

Name	Type	Summary
assignment_method	MigrationBandwidthAssignmentMethod	The method used to assign the bandwidth.
custom_value	Integer	Custom bandwidth in Mbps.

29.171.1. custom_value

Custom bandwidth in Mbps. Will be applied only if the **assignmentMethod** attribute is **custom**.

29.172. MIGRATIONBANDWIDTHASSIGNMENTMETHOD ENUM

Defines how the migration bandwidth is assigned.

Table 29.227. Values summary

Name	Summary
auto	Takes the bandwidth from the Quality of Service if the Quality of Service is defined.
custom	Custom defined bandwidth in Mbit/s.
hypervisor_default	Takes the value as configured on the hypervisor.

29.172.1. auto

Takes the bandwidth from the Quality of Service if the Quality of Service is defined. If the Quality of Service is not defined the bandwidth is taken from the detected link speed being used. If nothing is detected, bandwidth falls back to the hypervisor_default value.

29.173. MIGRATIONOPTIONS STRUCT

The type for migration options.

Table 29.228. Attributes summary

Name	Type	Summary
auto_converge	InheritableBoolean	
bandwidth	MigrationBandwidth	The bandwidth that is allowed to be used by the migration.
compressed	InheritableBoolean	
custom_parallel_migrations	Integer	Specifies how many parallel migration connections to use.
encrypted	InheritableBoolean	Specifies whether the migration should be encrypted or not.
parallel_migrations_policy	ParallelMigrationsPolicy	Specifies whether and how to use parallel migration connections.

29.173.1. custom_parallel_migrations

Specifies how many parallel migration connections to use. May be specified only when `ParallelMigrationsPolicy` is `CUSTOM`. The valid range of values is 2-255. The recommended range of values is 2-16.

Table 29.229. Links summary

Name	Type	Summary
policy	MigrationPolicy	A reference to the migration policy, as defined using engine-config .

29.174. MIGRATIONPOLICY STRUCT

A policy describing how the migration is treated, such as convergence or how many parallel migrations are allowed.

Table 29.230. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.

29.175. NETWORK STRUCT

The type for a logical network.

An example of the JSON representation of a logical network:

```
{
  "network": [ {
    "data_center": {
      "href": "/ovirt-engine/api/datacenters/123",
      "id": "123"
    },
    "stp": "false",
    "mtu": "0",
    "usages": {
      "usage": [ "vm" ]
    },
    "name": "ovirtmgmt",
    "description": "Management Network",
    "href": "/ovirt-engine/api/networks/456",
    "id": "456",
    "link": [ {
      "href": "/ovirt-engine/api/networks/456/permissions",
```

```

    "rel" : "permissions"
  }, {
    "href" : "/ovirt-engine/api/networks/456/vnicprofiles",
    "rel" : "vnicprofiles"
  }, {
    "href" : "/ovirt-engine/api/networks/456/labels",
    "rel" : "labels"
  }
]
}

```

An example of the XML representation of the same logical network:

```

<network href="/ovirt-engine/api/networks/456" id="456">
  <name>ovirtmgmt</name>
  <description>Management Network</description>
  <link href="/ovirt-engine/api/networks/456/permissions" rel="permissions"/>
  <link href="/ovirt-engine/api/networks/456/vnicprofiles" rel="vnicprofiles"/>
  <link href="/ovirt-engine/api/networks/456/labels" rel="labels"/>
  <data_center href="/ovirt-engine/api/datacenters/123" id="123"/>
  <stp>false</stp>
  <mtu>0</mtu>
  <usages>
    <usage>vm</usage>
  </usages>
</network>

```

Table 29.231. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
display	Boolean	Deprecated, 'usages' should be used to define network as a display network.
dns_resolver_configuration	DnsResolverConfiguration	The DNS resolver configuration will be reported when retrieving the network using GET.
id	String	A unique identifier.
ip	Ip	Deprecated, not in use.
mtu	Integer	Specifies the maximum transmission unit for the network.
name	String	A human-readable name in plain text.
port_isolation	Boolean	Defines whether communication between VMs running on the same host is blocked on this network.

Name	Type	Summary
profile_required	Boolean	Specifies whether upon creation of the network a virtual network interface profile should automatically be created.
required	Boolean	Defines whether the network is mandatory for all the hosts in the cluster.
status	NetworkStatus	The status of the network.
stp	Boolean	Specifies whether the spanning tree protocol is enabled for the network.
usages	NetworkUsage[]	Defines a set of usage elements for the network.
vdsd_name	String	The name of the network used on the host.
vlan	Vlan	A VLAN tag.

29.175.1. dns_resolver_configuration

The DNS resolver configuration will be reported when retrieving the network using GET. It is optional both when creating a new network or updating existing one.

29.175.2. port_isolation

Defines whether communication between VMs running on the same host is blocked on this network. Applies only to VM networks. It is on the network administrator to ensure that the communication between multiple hosts is blocked. This attribute can be set only on network creation and cannot be edited. When the value is not set, communication between VMs running on the same host is allowed.

29.175.3. required

Defines whether the network is mandatory for all the hosts in the cluster. In case a 'required' **operational** network is omitted from a host, the host will be marked as **non_operational**,

29.175.4. status

The status of the network. **non_operational** if the network defined as 'required' and omitted from any active cluster host. **operational** otherwise.

29.175.5. usages

Defines a set of usage elements for the network.

For example, users can specify that the network is to be used for virtual machine traffic and also for display traffic with the **vm** and **display** values.

29.175.6. vdsd_name

The name of the network used on the host. This alternative name is automatically generated by VDSM when the network name is found unsuitable to serve as a bridge name on the host. Unsuitable names contain spaces, special characters or are longer than 15 characters and are replaced with a UUID on the host. This parameter is read-only. Setting it will have no effect.

Table 29.232. Links summary

Name	Type	Summary
cluster	Cluster	A reference to the cluster this network is attached to.
data_center	DataCenter	A reference to the data center that the network is a member of.
external_provider	OpenStackNetworkProvider	An optional reference to the <i>OpenStack</i> network provider on which the network is created.
external_provider_physical_network	Network	An optional reference to a network that should be used for physical network access.
network_labels	NetworkLabel[]	A reference to the labels assigned to the network.
permissions	Permission[]	A reference to the permissions of the network.
qos	Qos	Reference to quality of service.
vnic_profiles	VnicProfile[]	A reference to the profiles of the network.

29.175.7. cluster

A reference to the cluster this network is attached to. Will be filled only if the network is accessed from the cluster level.

29.175.8. external_provider

An optional reference to the *OpenStack* network provider on which the network is created.

If it is specified when a network is created, a matching *OpenStack* network will be also created.

29.175.9. external_provider_physical_network

An optional reference to a network that should be used for physical network access. Valid only if **external_provider** is specified.

29.176. NETWORKATTACHMENT STRUCT

Describes how a host connects to a network.

An XML representation of a network attachment on a host:

```
<network_attachment href="/ovirt-engine/api/hosts/123/nics/456/networkattachments/789" id="789">
```

```

<network href="/ovirt-engine/api/networks/234" id="234"/>
<host_nic href="/ovirt-engine/api/hosts/123/nics/123" id="123"/>
<in_sync>true</in_sync>
<ip_address_assignments>
  <ip_address_assignment>
    <assignment_method>static</assignment_method>
    <ip>
      <address>192.168.122.39</address>
      <gateway>192.168.122.1</gateway>
      <netmask>255.255.255.0</netmask>
      <version>v4</version>
    </ip>
  </ip_address_assignment>
</ip_address_assignments>
<reported_configurations>
  <reported_configuration>
    <name>mtu</name>
    <expected_value>1500</expected_value>
    <actual_value>1500</actual_value>
    <in_sync>true</in_sync>
  </reported_configuration>
  <reported_configuration>
    <name>bridged</name>
    <expected_value>true</expected_value>
    <actual_value>true</actual_value>
    <in_sync>true</in_sync>
  </reported_configuration>
  ...
</reported_configurations>
</network_attachment>

```

The network element, with either a **name** or an **id**, is required in order to attach a network to a network interface card (NIC).

For example, to attach a network to a host network interface card, send a request like this:

```
POST /ovirt-engine/api/hosts/123/nics/456/networkattachments
```

With a request body like this:

```

<networkattachment>
  <network id="234"/>
</networkattachment>

```

To attach a network to a host, send a request like this:

```
POST /ovirt-engine/api/hosts/123/networkattachments
```

With a request body like this:

```

<network_attachment>
  <network id="234"/>
  <host_nic id="456"/>
</network_attachment>

```

The **ip_address_assignments** and **properties** elements are updatable post-creation.

For example, to update a network attachment, send a request like this:

```
PUT /ovirt-engine/api/hosts/123/nics/456/networkattachments/789
```

With a request body like this:

```
<network_attachment>
  <ip_address_assignments>
    <ip_address_assignment>
      <assignment_method>static</assignment_method>
      <ip>
        <address>7.1.1.1</address>
        <gateway>7.1.1.2</gateway>
        <netmask>255.255.255.0</netmask>
        <version>v4</version>
      </ip>
    </ip_address_assignment>
  </ip_address_assignments>
</network_attachment>
```

To detach a network from the network interface card send a request like this:

```
DELETE /ovirt-engine/api/hosts/123/nics/456/networkattachments/789
```



IMPORTANT

Changes to network attachment configuration must be explicitly committed.

An XML representation of a network attachment’s **properties** sub-collection:

```
<network_attachment>
  <properties>
    <property>
      <name>bridge_opts</name>
      <value>
        forward_delay=1500 group_fwd_mask=0x0 multicast_snooping=1
      </value>
    </property>
  </properties>
  ...
</network_attachment>
```

Table 29.233. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.

Name	Type	Summary
dns_resolver_configuration	DnsResolverConfiguration	DNS resolver configuration will be reported when retrieving the network attachment using GET.
id	String	A unique identifier.
in_sync	Boolean	
ip_address_assignments	IpAddressAssignment[]	The IP configuration of the network.
name	String	A human-readable name in plain text.
properties	Property[]	Defines custom properties for the network configuration.
reported_configurations	ReportedConfiguration[]	A read-only list of configuration properties.

29.176.1. dns_resolver_configuration

DNS resolver configuration will be reported when retrieving the network attachment using GET. It is optional when creating a new network attachment or updating an existing one.

29.176.2. properties

Defines custom properties for the network configuration.

Bridge options have the set name of `bridge_opts`. Separate multiple entries with a whitespace character. The following keys are valid for **bridge_opts**:

Name	Default value
forward_delay	1500
gc_timer	3765
group_addr	1:80:c2:0:0:0
group_fwd_mask	0x0
hash_elasticity	4
hash_max	512
hello_time	200
hello_timer	70

Name	Default value
max_age	2000
multicast_last_member_count	2
multicast_last_member_interval	100
multicast_membership_interval	26000
multicast_querier	0
multicast_querier_interval	25500
multicast_query_interval	13000
multicast_query_response_interval	1000
multicast_query_use_ifaddr	0
multicast_router	1
multicast_snooping	1
multicast_startup_query_count	2
multicast_startup_query_interval	3125

Table 29.234. Links summary

Name	Type	Summary
host	Host	
host_nic	HostNic	A reference to the host network interface.
network	Network	A reference to the network that the interface is attached to.
qos	Qos	

29.177. NETWORKCONFIGURATION STRUCT

Table 29.235. Attributes summary

Name	Type	Summary
dns	Dns	
nics	Nic[]	

29.178. NETWORKFILTER STRUCT

Network filters filter packets sent to and from the virtual machine's NIC according to defined rules.

There are several types of network filters supported based on libvirt. For more details about the different network filters see [here](#).

The default Network Filter is based on network type and configuration. VM network's default filter is **vdsm-no-mac-spoof** if **EnableMACAntiSpoofingFilterRules** is True, otherwise the filter is not configured, for **OVN** networks the filter is not configured.

In addition to libvirt's network filters, there are two additional network filters: The first is called **vdsm-no-mac-spoofing** and is composed of **no-mac-spoofing** and **no-arp-mac-spoofing**. The second is called **ovirt-no-filter** and is used when no network filter is to be defined for the virtual machine's NIC. The **ovirt-no-filter** network filter is only used for internal implementation, and does not exist on the NICs.

This is a example of the XML representation:

```
<network_filter id="000000019-0019-0019-0019-000000000026c">
  <name>example-filter</name>
  <version>
    <major>4</major>
    <minor>0</minor>
    <build>-1</build>
    <revision>-1</revision>
  </version>
</network_filter>
```

If any part of the version is not present, it is represented by -1.

Table 29.236. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.
version	Version	The minimum supported version of a specific NetworkFilter.

29.178.1. version

The minimum supported version of a specific NetworkFilter. This is the version that the NetworkFilter was first introduced in.

29.179. NETWORKFILTERPARAMETER STRUCT

Parameter for the [network filter](#).

See [Libvirt-Filters](#) for further details. This is a example of the XML representation:

```
<network_filter_parameter id="123">
  <name>IP</name>
  <value>10.0.1.2</value>
</network_filter_parameter>
```

Table 29.237. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.
value	String	Represents the value of the parameter.

Table 29.238. Links summary

Name	Type	Summary
nic	Nic	The virtual machine NIC the parameter is associated to.

29.180. NETWORKLABEL STRUCT

Represents a label which can be added to a host network interface and to a network. The label binds the network to the host network interface by the label **id**.

Table 29.239. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.

Name	Type	Summary
id	String	A unique identifier.
name	String	A human-readable name in plain text.

Table 29.240. Links summary

Name	Type	Summary
host_nic	HostNic	A reference to the host network interface which contains this label.
network	Network	A reference to the network which contains this label.

29.181. NETWORKPLUGINTYPE ENUM

Network plug-in type.

Specifies the provider driver implementation on the host.

Since version 4.2 of the Red Hat Virtualization Manager, this type has been deprecated in favour of the **external_plugin_type** attribute of the **OpenStackNetworkProvider** type.

Table 29.241. Values summary

Name	Summary
open_vswitch	Open vSwitch.

29.181.1. open_vswitch

Open vSwitch.

Specifies that [Open vSwitch](#) based driver implementation should be used for this provider.

Since version 4.2 of the Red Hat Virtualization Manager, this value has been deprecated. Use the string **open_vswitch** in the **OpenStackNetworkProvider.external_plugin_type** attribute instead.

29.182. NETWORKSTATUS ENUM

Table 29.242. Values summary

Name	Summary
non_operational	

Name	Summary
operational	

29.183. NETWORKUSAGE ENUM

This type indicates the purpose that the network is used for in the cluster.

Table 29.243. Values summary

Name	Summary
default_route	The default gateway and the DNS resolver configuration of the host will be taken from this network.
display	The network will be used for SPICE and VNC traffic.
gluster	The network will be used for Gluster (bricks) data traffic.
management	The network will be used for communication between the Red Hat Virtualization Manager and the nodes.
migration	The network will be used for virtual machine migration.
vm	

29.183.1. default_route

The default gateway and the DNS resolver configuration of the host will be taken from this network.

If this network is attached to the host, then the DNS resolver configuration will be taken from the **dns_resolver_configuration** attribute of the network attachment. If there is no **dns_resolver_configuration** attribute in this network attachment, then they will be taken from the **dns_resolver_configuration** of the network itself. If **dns_resolver_configuration** attribute isn't present even there, DNS resolver configuration won't be set.

If you set this flag on a network, then the the default gateway for the host will be taken from the **gateway** attribute of the **ip_address_assignment** of the network attachment.

29.183.2. management

The network will be used for communication between the Red Hat Virtualization Manager and the nodes. This is the network where the ovirtmgmt bridge will be created.

29.184. NFSPROFILEDETAIL STRUCT

Table 29.244. Attributes summary

Name	Type	Summary
nfs_server_ip	String	
profile_details	ProfileDetail[]	

29.185. NFSVERSION ENUM

Table 29.245. Values summary

Name	Summary
auto	
v3	
v4	
v4_0	NFS 4.
v4_1	
v4_2	NFS 4.

29.185.1. v4_0

NFS 4.0.

29.185.2. v4_2

NFS 4.2.

29.186. NIC STRUCT

Represents a virtual machine NIC.

For example, the XML representation of a NIC will look like this:

```
<nic href="/ovirt-engine/api/vms/123/nics/456" id="456">
  <name>nic1</name>
  <vm href="/ovirt-engine/api/vms/123" id="123"/>
  <interface>virtio</interface>
  <linked>true</linked>
  <mac>
    <address>02:00:00:00:00:00</address>
  </mac>
  <plugged>true</plugged>
  <vnic_profile href="/ovirt-engine/api/vnicprofiles/789" id="789"/>
</nic>
```

Table 29.246. Attributes summary

Name	Type	Summary
boot_protocol	BootProtocol	Defines how an IP address is assigned to the NIC.
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
interface	NicInterface	The type of driver used for the NIC.
linked	Boolean	Defines if the NIC is linked to the virtual machine.
mac	Mac	The MAC address of the interface.
name	String	A human-readable name in plain text.
on_boot	Boolean	Defines if the network interface should be activated upon operation system startup.
plugged	Boolean	Defines if the NIC is plugged in to the virtual machine.
synced	Boolean	Defines if the NIC configuration on the virtual machine is synced with the configuration represented by engine.

Table 29.247. Links summary

Name	Type	Summary
instance_type	InstanceType	Optionally references to an instance type the device is used by.
network	Network	A reference to the network that the interface should be connected to.
network_attachments	NetworkAttachment[]	A link to a collection of network attachments that are associated with the host NIC.
network_filter_parameters	NetworkFilterParameter[]	A link to the network filter parameters.
network_labels	NetworkLabel[]	A link to a collection of network labels that are associated with the host NIC.

Name	Type	Summary
reported_devices	ReportedDevice[]	A link to a collection of reported devices that are associated with the virtual network interface.
statistics	Statistic[]	A link to the statistics for the NIC.
template	Template	Optionally references to a template the device is used by.
virtual_function_allowed_labels	NetworkLabel[]	A link to a collection of network labels that are allowed to be attached to the virtual functions of an SR-IOV NIC.
virtual_function_allowed_networks	Network[]	A link to a collection of networks that are allowed to be attached to the virtual functions of an SR-IOV NIC.
vm	Vm	Do not use this element, use vms instead.
vms	Vm[]	References to the virtual machines that are using this device.
vnic_profile	VnicProfile	A link to an associated virtual network interface profile.

29.186.1. network

A reference to the network that the interface should be connected to. A blank network ID is allowed.

Usage of this element for creating or updating a NIC is deprecated; use **vnic_profile** instead. It is preserved because it is still in use by the **initialization** element, as a holder for IP addresses and other network details.

29.186.2. vms

References to the virtual machines that are using this device. A device may be used by several virtual machines; for example, a shared disk may be used simultaneously by two or more virtual machines.

29.187. NICCONFIGURATION STRUCT

The type describes the configuration of a virtual network interface.

Table 29.248. Attributes summary

Name	Type	Summary
boot_protocol	BootProtocol	IPv4 boot protocol.
ip	Ip	IPv4 address details.
ipv6	Ip	IPv6 address details.

Name	Type	Summary
ipv6_boot_protocol	BootProtocol	IPv6 boot protocol.
name	String	Network interface name.
on_boot	Boolean	Specifies whether the network interface should be activated on the virtual machine guest operating system boot.

29.188. NICINTERFACE ENUM

Defines the options for an emulated virtual network interface device model.

Table 29.249. Values summary

Name	Summary
e1000	e1000.
e1000e	e1000e.
pci_passthrough	PCI Passthrough.
rtl8139	rtl8139.
rtl8139_virtio	Dual mode rtl8139, VirtIO.
spapr_vlan	sPAPR VLAN.
virtio	VirtIO.

29.189. NICSTATUS ENUM

Network interface card status.

Table 29.250. Values summary

Name	Summary
down	The NIC is down and cannot be accessed.
up	The NIC is up and can be accessed.

29.190. NOTIFIABLEEVENT ENUM

Type representing a subset of events in the Red Hat Virtualization server: those which a user may subscribe to receive a notification about.

Table 29.251. Values summary

Name	Summary
cluster_alert_ha_reservation	HA Reservation check has failed
cluster_alert_ha_reservation_down	HA Reservation check has passed
dwh_error	ETL Service Error
dwh_stopped	ETL Service Stopped
engine_backup_completed	Engine backup completed successfully
engine_backup_failed	Engine backup failed
engine_backup_started	Engine backup started
engine_ca_certification_has_expired	Engine CA's certification has expired
engine_ca_certification_is_about_to_expire	Engine CA's certification is about to expire
engine_certification_has_expired	Engine's certification has expired
engine_certification_is_about_to_expire	Engine's certification is about to expire
engine_stop	Engine has stopped
faulty_multipaths_on_host	Faulty multipath paths on host
gluster_brick_status_changed	Detected change in status of brick

Name	Summary
gluster_hook_added_failed	Failed to add Gluster Hook on conflicting servers
gluster_hook_added	Added Gluster Hook
gluster_hook_conflict_detected	Detected conflict in Gluster Hook
gluster_hook_detected_delete	Detected removal of Gluster Hook
gluster_hook_detected_new	Detected new Gluster Hook
gluster_hook_disabled	Gluster Hook Disabled
gluster_hook_disabled_failed	Failed to Disable Gluster Hook
gluster_hook_enabled	Gluster Hook Enabled
gluster_hook_enabled_failed	Failed to Enable Gluster Hook
gluster_hook_remove_failed	Failed to remove Gluster Hook from cluster
gluster_hook_removed	Removed Gluster Hook
gluster_server_add_failed	Failed to Add Gluster Server
gluster_server_remove	Gluster Server Removed
gluster_server_remove_failed	Failed to Remove Gluster Server
gluster_service_restart_failed	Failed to re-start Gluster Service
gluster_service_restarted	Gluster Service re-started

Name	Summary
gluster_service_start_failed	Failed to start Gluster service
gluster_service_started	Gluster Service started
gluster_service_stop_failed	Failed to stop Gluster service
gluster_service_stopped	Gluster Service stopped
gluster_volume_add_brick	Gluster Volume brick(s) added
gluster_volume_add_brick_failed	Failed to add brick(s) on Gluster Volume
gluster_volume_all_snapshots_delete_failed	Failed to delete snapshots on the volume
gluster_volume_all_snapshots_deleted	All the snapshots deleted on the volume
gluster_volume_brick_replaced	Gluster Volume Brick Replaced
gluster_volume_confirmed_space_low	Low space for volume confirmed
gluster_volume_create	Gluster Volume Created
gluster_volume_create_failed	Gluster Volume could not be created
gluster_volume_delete	Gluster Volume deleted
gluster_volume_delete_failed	Gluster Volume could not be deleted

Name	Summary
gluster_volume_migrate_brick_data_finished	Gluster Volume migration of data for remove brick finished
gluster_volume_option_added	Gluster Volume Option added
gluster_volume_option_modified	Gluster Volume Option modified
gluster_volume_option_set_failed	Gluster Volume Option could not be set
gluster_volume_options_reset	Gluster Volume Options reset
gluster_volume_options_reset_all	All the Gluster Volume Options reset
gluster_volume_options_reset_failed	Gluster Volume Options could not be reset
gluster_volume_profile_start	Gluster Volume Profile started
gluster_volume_profile_start_failed	Failed to start Gluster Volume Profile
gluster_volume_profile_stop	Gluster Volume Profile stopped
gluster_volume_profile_stop_failed	Failed to stop Gluster Volume Profile
gluster_volume_rebalance_finished	Gluster Volume rebalance finished
gluster_volume_rebalance_not_found_from_cli	Could not find information for rebalance on volume from CLI.

Name	Summary
gluster_volume_rebalance_start	Gluster Volume Rebalance started
gluster_volume_rebalance_start_detected_from_cli	Detected start of rebalance on gluster volume from CLI
gluster_volume_rebalance_start_failed	Gluster Volume Rebalance could not be started
gluster_volume_rebalance_stop	Gluster Volume Rebalance stopped
gluster_volume_rebalance_stop_failed	Gluster Volume Rebalance could not be stopped
gluster_volume_remove_bricks	Gluster Volume Bricks Removed
gluster_volume_remove_bricks_failed	Gluster Volume Bricks could not be removed
gluster_volume_remove_bricks_stop	Stopped removing bricks from Gluster Volume
gluster_volume_remove_bricks_stop_failed	Failed to stop remove bricks from Gluster Volume
gluster_volume_replace_brick_failed	Gluster Volume Replace Brick Failed
gluster_volume_replace_brick_start	Gluster Volume Replace Brick Started
gluster_volume_replace_brick_start_failed	Gluster Volume Replace Brick could not be started

Name	Summary
gluster_volume_snapshot_activate_failed	Failed to activate snapshot on the volume
gluster_volume_snapshot_activated	Snapshot activated on the volume
gluster_volume_snapshot_create_failed	Could not create snapshot for volume <code>\${glusterVolumeName}</code> on cluster <code>\${clusterName}</code> .
gluster_volume_snapshot_created	Snapshot <code>\${snapname}</code> created for volume <code>\${glusterVolumeName}</code> on cluster <code>\${clusterName}</code> .
gluster_volume_snapshot_deactivate_failed	Failed to de-activate snapshot on the volume
gluster_volume_snapshot_deactivated	Snapshot de-activated on the volume
gluster_volume_snapshot_delete_failed	Failed to delete snapshot on volume
gluster_volume_snapshot_deleted	Snapshot deleted on volume
gluster_volume_snapshot_restore_failed	Failed to restore snapshot on the volume
gluster_volume_snapshot_restored	Snapshot restore on the volume
gluster_volume_start	Gluster volume started
gluster_volume_start_failed	Gluster Volume could not be started
gluster_volume_stop	Gluster volume stopped

Name	Summary
gluster_volume_stop_failed	Gluster Volume could not be stopped
ha_vm_failed	Highly-Available VM failed
ha_vm_restart_failed	Highly-Available VM restart failed
host_activate_failed	Failed to activate Host
host_activate_manual_ha	Host was activated, but the Hosted Engine HA service may still be in maintenance mode
host_approve_failed	Failed to approve Host
host_bond_slave_state_down	Host's slave of bond changed state to down
host_certificate_has_invalid_san	Host's certificate contains invalid subject alternative name (SAN)
host_certification_has_expired	Host's certification has expired
host_certification_is_about_to_expire	Host's certification is about to expire
host_failure	Host is non responsive
host_high_cpu_use	Host cpu usage exceeded defined threshold
host_high_memory_use	Host memory usage exceeded defined threshold
host_high_swap_use	Host swap memory usage exceeded defined threshold
host_initiated_restart_vm_failed	Failed to restart VM on a different host

Name	Summary
host_install_failed	Host installation failed
host_interface_high_network_use	Host network interface usage exceeded defined threshold
host_interface_state_down	Host's interface changed state to down
host_low_mem	Host free memory is under defined threshold
host_low_swap	Host free swap memory is under defined threshold
host_recover_failed	Host failed to recover
host_set_nonoperational	Host state was set to non-operational
host_set_nonoperational_domain	Host state was set to non-operational due to inaccessible Storage Domain
host_set_nonoperational_iface_down	Host state was set to non-operational due to a missing Interface
host_slow_storage_response_time	Slow storage response time
host_time_drift_alert	Host has time-drift
host_untrusted	Host state was set to non-operational.
host_updates_are_available	Host has available updates
host_updates_are_available_with_packages	Host has available packages to update
importexport_import_template_from_trusted_to_untrusted	Template imported from trusted cluster into non-trusted cluster

Name	Summary
importexport_import_template_from_untrusted_to_trusted	Template imported from non-trusted cluster into trusted cluster
importexport_import_vm_from_trusted_to_untrusted	Import VM from trusted cluster into non-trusted cluster
importexport_import_vm_from_untrusted_to_trusted	Import VM from non-trusted cluster into trusted cluster
irs_confirmed_disk_space_low	Confirmed low disk space
irs_disk_space_low	Low disk space
irs_disk_space_low_error	Critically low disk space
irs_failure	Failed to access Storage
mac_address_is_external	VM with external MAC address
multipath_devices_without_valid_paths_on_host	Multipath devices without valid paths on host
network_update_display_for_cluster_with_active_vm	Display network was updated on cluster with an active VM
network_update_display_for_host_with_active_vm	Display network was updated on host with an active VM

Name	Summary
no_faulty_multi_paths_on_host	No faulty multipath paths on host
number_of_lvs_on_storage_domain_exceeded_threshold	Storage Domain's number of LVs exceeded threshold
remove_gluster_volume_bricks_not_found_from_cli	Could not find information for remove brick on volume from CLI.
start_removing_gluster_volume_bricks	Started removing bricks from Volume
start_removing_gluster_volume_bricks_detected_from_cli	Detected start of brick removal for bricks on volume from CLI
start_removing_gluster_volume_bricks_failed	Could not remove volume bricks
system_change_storage_pool_status_no_host_for_spm	Failed electing an SPM for the Data-Center
system_deactivated_storage_domain	Storage Domain state was set to inactive
user_add_vm_from_trusted_to_untrusted	A non-trusted VM was created from trusted Template
user_add_vm_from_untrusted_to_trusted	A trusted VM was created from non-trusted Template
user_add_vm_template_from_trusted_to_untrusted	A non-trusted Template was created from trusted VM

Name	Summary
user_add_vm_template_from_untrusted_to_trusted	A trusted Template was created from non-trusted VM
user_host_maintenance	Host was switched to Maintenance Mode
user_host_maintenance_manual_ha	Host was switched to Maintenance Mode, but Hosted Engine HA maintenance mode could not be enabled
user_host_maintenance_migration_failed	Failed to switch Host to Maintenance mode
user_update_vm_from_trusted_to_untrusted	VM moved from trusted cluster to non-trusted cluster
user_update_vm_from_untrusted_to_trusted	VM moved from non-trusted cluster to trusted cluster
user_update_vm_template_from_trusted_to_untrusted	Template moved from trusted cluster to non-trusted cluster
user_update_vm_template_from_untrusted_to_trusted	Template moved from a non-trusted cluster to a trusted cluster
vm_console_connected	VM console connected
vm_console_disconnected	VM console disconnected
vm_down_error	VM is down with error
vm_failure	VM cannot be found on Host
vm_migration_failed	Migration failed

Name	Summary
vm_migration_start	Starting migration of VM
vm_migration_to_server_failed	Migration of VM to a destination host failed
vm_not_responding	VM is not responding
vm_paused	VM has been paused
vm_paused_eio	VM has been paused due to a storage I/O error
vm_paused_enospc	VM has been paused due to lack of storage space
vm_paused_error	VM has been paused due to storage read/write permissions problem
vm_paused_err	VM has been paused due to unknown storage error
vm_recovered_from_pause_error	VM has recovered from paused back to up
vm_set_ticket	VM console session initiated
vm_status_restored	VM status restored

29.190.1. gluster_volume_rebalance_not_found_from_cli

Could not find information for rebalance on volume from CLI. Marking it as unknown.

29.190.2. host_untrusted

Host state was set to non-operational. Host is untrusted by the attestation service

29.190.3. remove_gluster_volume_bricks_not_found_from_cli

Could not find information for remove brick on volume from CLI. Marking it as unknown.

29.191. NOTIFICATIONMETHOD ENUM

Type representing the notification method for an event subscription. Currently only SMTP is supported by the API In the future support for SNMP notifications may be added.

Table 29.252. Values summary

Name	Summary
smtp	Notification by e-mail.
snmp	Notification by SNMP.

29.191.1. smtp

Notification by e-mail.

Event-subscriptions with SMTP notification method will contain an email address in the address field.

29.191.2. snmp

Notification by SNMP.

Event-subscriptions with SNMP notification method will contain an SNMP address in the address field.

29.192. NUMANODE STRUCT

Represents a physical NUMA node.

Example XML representation:

```
<host_numa_node href="/ovirt-engine/api/hosts/0923f1ea/numanodes/007cf1ab" id="007cf1ab">
  <cpu>
    <cores>
      <core>
        <index>0</index>
      </core>
    </cores>
  </cpu>
  <index>0</index>
  <memory>65536</memory>
  <node_distance>40 20 40 10</node_distance>
  <host href="/ovirt-engine/api/hosts/0923f1ea" id="0923f1ea"/>
</host_numa_node>
```

Table 29.253. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
cpu	Cpu	
description	String	A human-readable description in plain text.
id	String	A unique identifier.

Name	Type	Summary
index	Integer	
memory	Integer	Memory of the NUMA node in MB.
name	String	A human-readable name in plain text.
node_distance	String	

Table 29.254. Links summary

Name	Type	Summary
host	Host	
statistics	Statistic[]	Each host NUMA node resource exposes a statistics sub-collection for host NUMA node specific statistics.

29.192.1. statistics

Each host NUMA node resource exposes a statistics sub-collection for host NUMA node specific statistics.

An example of an XML representation:

```
<statistics>
  <statistic href="/ovirt-engine/api/hosts/123/numanodes/456/statistics/789" id="789">
    <name>memory.total</name>
    <description>Total memory</description>
    <kind>gauge</kind>
    <type>integer</type>
    <unit>bytes</unit>
    <values>
      <value>
        <datum>25165824000</datum>
      </value>
    </values>
    <host_numa_node href="/ovirt-engine/api/hosts/123/numanodes/456" id="456" />
  </statistic>
  ...
</statistics>
```



NOTE

This statistics sub-collection is read-only.

The following list shows the statistic types for a host NUMA node:

Name	Description
memory.total	Total memory in bytes on the NUMA node.
memory.used	Memory in bytes used on the NUMA node.
memory.free	Memory in bytes free on the NUMA node.
cpu.current.user	Percentage of CPU usage for user slice.
cpu.current.system	Percentage of CPU usage for system.
cpu.current.idle	Percentage of idle CPU usage.

29.193. NUMANODEPIN STRUCT

Represents the pinning of a virtual NUMA node to a physical NUMA node.

Table 29.255. Attributes summary

Name	Type	Summary
host_numa_node	NumaNode	Deprecated.
index	Integer	The index of a physical NUMA node to which the virtual NUMA node is pinned.
pinned	Boolean	Deprecated.

29.193.1. host_numa_node

Deprecated. Has no function.

29.193.2. pinned

Deprecated. Should always be **true**.

29.194. NUMATUNEMODE ENUM

Table 29.256. Values summary

Name	Summary
interleave	
preferred	

Name	Summary
strict	

29.195. OPENSTACKIMAGE STRUCT

Table 29.257. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.

Table 29.258. Links summary

Name	Type	Summary
openstack_image_provider	OpenStackImageProvider	

29.196. OPENSTACKIMAGEPROVIDER STRUCT

Table 29.259. Attributes summary

Name	Type	Summary
authentication_url	String	Defines the external provider authentication URL address.
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.
password	String	Defines password for the user during the authentication process.
properties	Property[]	Array of provider name/value properties.

Name	Type	Summary
requires_authentication	Boolean	Defines whether provider authentication is required or not.
tenant_name	String	Defines the tenant name for OpenStack Identity API v2.
url	String	Defines URL address of the external provider.
username	String	Defines user name to be used during authentication process.

29.196.1. requires_authentication

Defines whether provider authentication is required or not.

If authentication is required, both **username** and **password** attributes will be used during authentication.

29.196.2. tenant_name

Defines the tenant name for OpenStack Identity API v2.0.

Table 29.260. Links summary

Name	Type	Summary
certificates	Certificate[]	
images	OpenStackImage[]	

29.197. OPENSTACKNETWORK STRUCT

Table 29.261. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.

Table 29.262. Links summary

Name	Type	Summary
openstack_network_provider	OpenStackNetworkProvider	

29.198. OPENSTACKNETWORKPROVIDER STRUCT

Table 29.263. Attributes summary

Name	Type	Summary
agent_configuration	AgentConfiguration	Deprecated Agent configuration settings.
authentication_url	String	Defines the external provider authentication URL address.
auto_sync	Boolean	Indicates if the networks of this provider are automatically synchronized.
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
external_plugin_type	String	Network plug-in type.
id	String	A unique identifier.
name	String	A human-readable name in plain text.
password	String	Defines password for the user during the authentication process.
plugin_type	NetworkPluginType	Network plug-in type.
project_domain_name	String	Defines the project's domain name for OpenStack Identity API v3.
project_name	String	Defines the project name for OpenStack Identity API v3.
properties	Property[]	Array of provider name/value properties.
read_only	Boolean	Indicates whether the provider is read-only.
requires_authentication	Boolean	Defines whether provider authentication is required or not.

Name	Type	Summary
tenant_name	String	Defines the tenant name for OpenStack Identity API v2.
type	OpenStackNetworkProviderType	The type of provider.
unmanaged	Boolean	Indicates whether the provider is unmanaged by Red Hat Virtualization.
url	String	Defines URL address of the external provider.
user_domain_name	String	Defines the domain name of the username in ExternalProvider for OpenStack Identity API v3.
username	String	Defines user name to be used during authentication process.

29.198.1. agent_configuration

Deprecated Agent configuration settings.

Ignored, because the deployment of OpenStack Neutron agent is dropped since Red Hat Virtualization 4.4.0.

29.198.2. auto_sync

Indicates if the [networks](#) of this provider are automatically synchronized.

If **true**, the networks of this provider are automatically and cyclically synchronized to Red Hat Virtualization in the background. This means that all new networks of this provider are imported, and all discarded networks are removed from all [clusters](#) that have this external provider as the default provider. If the name of a network is changed on the provider, the change is synchronized to the network entity in Red Hat Virtualization. Furthermore, if a new cluster that has the provider as the default provider is added, already imported networks are attached to this new cluster during synchronization.

The automatically initiated import triggers the following steps:

- The networks of the external provider will be imported to every [data center](#) in the data centers of the clusters that have that external provider as the default provider.
- A [vNIC profile](#) will be created for each involved data center and network.
- The networks will be assigned to each cluster that has that external provider as the default provider.

All users are allowed to use the new vNIC Profile.

The default is **false** for backwards compatibility.

29.198.3. external_plugin_type

Network plug-in type.

This attribute allows you to choose the correct provider driver on the host when an external NIC is added or modified. If automated installation of the driver is supported (only available for some predefined implementations, for example **ovirt-provider-ovn**), this attribute will also allow the system to decide which driver implementation to install on newly added hosts.

29.198.4. plugin_type

Network plug-in type.

Since version 4.2 of the Red Hat Virtualization Manager, this attribute has been deprecated in favour of **external_plugin_type**. This attribute is only valid for providers of type **open_vswitch**, and will only be returned when the value of the **external_plugin_type** attribute value is equal to **open_vswitch**.

If both **plugin_type** and **external_plugin_type** are specified during an update, the value of **plugin_type** will be ignored.

For external providers this value will not be shown and will be ignored during update requests.

29.198.5. read_only

Indicates whether the provider is read-only.

A read-only provider does not allow adding, modifying, or deleting of networks or subnets. Port-related operations are allowed, as they are required for the provisioning of virtual NICs.

29.198.6. requires_authentication

Defines whether provider authentication is required or not.

If authentication is required, both **username** and **password** attributes will be used during authentication.

29.198.7. tenant_name

Defines the tenant name for OpenStack Identity API v2.0.

29.198.8. unmanaged

Indicates whether the provider is unmanaged by Red Hat Virtualization.

If **true**, authentication and subnet control are entirely left to the external provider and are unmanaged by Red Hat Virtualization.

The default is **false** for backwards compatibility.

Table 29.264. Links summary

Name	Type	Summary
certificates	Certificate[]	Reference to the certificates list.

Name	Type	Summary
networks	OpenStackNetwork[]	Reference to the OpenStack networks list.
subnets	OpenStackSubnet[]	Reference to the OpenStack networks subnets list.

29.199. OPENSTACKNETWORKPROVIDERTYPE ENUM

The OpenStack network provider can either be implemented by OpenStack Neutron, in which case the Neutron agent is automatically installed on the hosts, or it can be an external provider implementing the OpenStack API, in which case the virtual interface driver is a custom solution installed manually.

Table 29.265. Values summary

Name	Summary
external	Indicates that the provider is an external one, implementing the OpenStack Neutron API.
neutron	Indicates that the provider is OpenStack Neutron.

29.199.1. external

Indicates that the provider is an external one, implementing the OpenStack Neutron API. The virtual interface driver in this case is implemented by the external provider.

29.199.2. neutron

Indicates that the provider is OpenStack Neutron. The standard OpenStack Neutron agent is used as the virtual interface driver.

29.200. OPENSTACKPROVIDER STRUCT

Table 29.266. Attributes summary

Name	Type	Summary
authentication_url	String	Defines the external provider authentication URL address.
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.

Name	Type	Summary
name	String	A human-readable name in plain text.
password	String	Defines password for the user during the authentication process.
properties	Property[]	Array of provider name/value properties.
requires_authentication	Boolean	Defines whether provider authentication is required or not.
tenant_name	String	Defines the tenant name for OpenStack Identity API v2.
url	String	Defines URL address of the external provider.
username	String	Defines user name to be used during authentication process.

29.200.1. requires_authentication

Defines whether provider authentication is required or not.

If authentication is required, both **username** and **password** attributes will be used during authentication.

29.200.2. tenant_name

Defines the tenant name for OpenStack Identity API v2.0.

29.201. OPENSTACKSUBNET STRUCT

Table 29.267. Attributes summary

Name	Type	Summary
cidr	String	Defines network CIDR.
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
dns_servers	String[]	Defines a list of DNS servers.
gateway	String	Defines IP gateway.
id	String	A unique identifier.
ip_version	String	Defines IP version.

Name	Type	Summary
name	String	A human-readable name in plain text.

29.201.1. ip_version

Defines IP version.

Values can be **v4' for IPv4 or `v6** for IPv6.

Table 29.268. Links summary

Name	Type	Summary
openstack_network	OpenStackNetwork	Reference to the service managing the OpenStack network.

29.202. OPENSTACKVOLUMEPROVIDER STRUCT

Openstack Volume (Cinder) integration has been replaced by Managed Block Storage.

Table 29.269. Attributes summary

Name	Type	Summary
authentication_url	String	Defines the external provider authentication URL address.
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.
password	String	Defines password for the user during the authentication process.
properties	Property[]	Array of provider name/value properties.
requires_authentication	Boolean	Defines whether provider authentication is required or not.
tenant_name	String	Defines the tenant name for OpenStack Identity API v2.
url	String	Defines URL address of the external provider.

Name	Type	Summary
username	String	Defines user name to be used during authentication process.

29.202.1. requires_authentication

Defines whether provider authentication is required or not.

If authentication is required, both **username** and **password** attributes will be used during authentication.

29.202.2. tenant_name

Defines the tenant name for OpenStack Identity API v2.0.

Table 29.270. Links summary

Name	Type	Summary
authentication_keys	OpenstackVolumeAuthenticationKey[]	
certificates	Certificate[]	
data_center	DataCenter	
volume_types	OpenStackVolumeType[]	

29.203. OPENSTACKVOLUMETYPE STRUCT

Openstack Volume (Cinder) integration has been replaced by Managed Block Storage.

Table 29.271. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.
properties	Property[]	

Table 29.272. Links summary

Name	Type	Summary
openstack_volume_provider	OpenStackVolumeProvider	

29.204. OPENSTACKVOLUMEAUTHENTICATIONKEY STRUCT

Openstack Volume (Cinder) integration has been replaced by Managed Block Storage.

Table 29.273. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
creation_date	Date	
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.
usage_type	OpenstackVolumeAuthenticationKeyUsageType	
uuid	String	
value	String	

Table 29.274. Links summary

Name	Type	Summary
openstack_volume_provider	OpenStackVolumeProvider	

29.205. OPENSTACKVOLUMEAUTHENTICATIONKEYUSAGETYPE ENUM

Openstack Volume (Cinder) integration has been replaced by Managed Block Storage.

Table 29.275. Values summary

Name	Summary
ceph	

29.206. OPERATINGSYSTEMSTRUCT

Information describing the operating system. This is used for both virtual machines and hosts.

Table 29.276. Attributes summary

Name	Type	Summary
boot	Boot	Configuration of the boot sequence.
cmdline	String	Custom kernel parameters for starting the virtual machine if Linux operating system is used.
custom_kernel_cmdline	String	A custom part of the host kernel command line.
initrd	String	Path to custom initial ramdisk on ISO storage domain if Linux operating system is used.
kernel	String	Path to custom kernel on ISO storage domain if Linux operating system is used.
reported_kernel_cmdline	String	The host kernel command line as reported by a running host.
type	String	Operating system name in human readable form.
version	Version	

29.206.1. boot

Configuration of the boot sequence.



NOTE

Not used for hosts.

29.206.2. cmdline

Custom kernel parameters for starting the virtual machine if Linux operating system is used.



NOTE

Not used for hosts.

29.206.3. custom_kernel_cmdline

A custom part of the host kernel command line. This will be merged with the existing kernel command line.

You must reinstall and then reboot the host to apply the changes implemented by this attribute.

During each host deploy procedure, kernel parameters that were added in the previous host deploy procedure are removed using **grubby --update-kernel DEFAULT --remove-args <previous_custom_params>**, and the current kernel command line customization is applied using **grubby --update-kernel DEFAULT --args <custom_params>**. The Manager internally keeps track of the last-applied kernel parameters customization.



NOTE

This attribute is currently only used for hosts.

29.206.4. initrd

Path to custom initial ramdisk on ISO storage domain if Linux operating system is used.

For example **iso:///initramfs-3.10.0-514.6.1.el7.x86_64.img**.



NOTE

Not used for hosts.

29.206.5. kernel

Path to custom kernel on ISO storage domain if Linux operating system is used.

For example **iso:///vmlinuz-3.10.0-514.6.1.el7.x86_64**.



NOTE

Not used for hosts.

29.206.6. reported_kernel_cmdline

The host kernel command line as reported by a running host.

This is a read-only attribute. Attempts to change this attribute are silently ignored.



NOTE

This attribute is currently only used for hosts.

29.206.7. type

Operating system name in human readable form.

For example **Fedora** or **RHEL**. In general one of the names returned by the [operating system](#) service.

**NOTE**

Read only for hosts.

29.207. OPERATINGSYSTEMINFO STRUCT

Represents a guest operating system.

Table 29.277. Attributes summary

Name	Type	Summary
architecture	Architecture	Operating system architecture.
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
large_icon	Icon	Large icon of the guest operating system.
name	String	A human-readable name in plain text.
small_icon	Icon	Small icon of the guest operating system.
tpm_support	TpmSupport	TPM support status.

29.207.1. large_icon

Large icon of the guest operating system. Maximum dimensions: width 150px, height 120px.

29.207.2. small_icon

Small icon of the guest operating system. Maximum dimensions: width 43px, height 43px.

29.208. OPTION STRUCT

Table 29.278. Attributes summary

Name	Type	Summary
name	String	
type	String	
value	String	

29.209. OSTYPE ENUM

Type representing kind of operating system.



WARNING

This type has been deprecated with the introduction of the [OperatingSystemInfo](#) type. Operating systems are available as a top-level collection in the API: [operating_systems](#).

The end-user declares the type of the operating system installed in the virtual machine (guest operating system) by selecting one of these values. This declaration enables the system to tune the virtual machine configuration for better user experience. For example, the system chooses devices that are most suitable for the operating system. Note that the system rely on user's selection and does not verify it by inspecting the actual guest operating system installed.

Table 29.279. Values summary

Name	Summary
other	Other type of operating system, not specified by the other values.
other_linux	Distribution of Linux other than those specified by the other values.
rhel_3	Red Hat Enterprise Linux 3 32-bit.
rhel_3x64	Red Hat Enterprise Linux 3 64-bit.
rhel_4	Red Hat Enterprise Linux 4 32-bit.
rhel_4x64	Red Hat Enterprise Linux 4 64-bit.
rhel_5	Red Hat Enterprise Linux 5 32-bit.
rhel_5x64	Red Hat Enterprise Linux 5 64-bit.
rhel_6	Red Hat Enterprise Linux 6 32-bit.
rhel_6x64	Red Hat Enterprise Linux 6 64-bit.
unassigned	This value is mapped to other .
windows_2003	Windows 2003 32-bit.

Name	Summary
windows_2003x64	Windows 2003 64-bit.
windows_2008	Windows 2008 32-bit.
windows_2008r2x64	Windows 2008 R2 64-bit.
windows_2008x64	Windows 2008 64-bit.
windows_2012x64	Windows 2012 64-bit.
windows_7	Windows 7 32-bit.
windows_7x64	Windows 7 64-bit.
windows_8	Windows 8 32-bit.
windows_8x64	Windows 8 64-bit.
windows_xp	Windows XP.

29.210. PACKAGE STRUCT

Type representing a package.

This is an example of the package element:

```
<package>
  <name>libipa_hbac-1.9.2-82.11.el6_4.i686</name>
</package>
```

Table 29.280. Attributes summary

Name	Type	Summary
name	String	The name of the package.

29.211. PARALLELMIGRATIONSPOLICY ENUM

Type representing parallel migration connections policy.

Table 29.281. Values summary

Name	Summary
auto	Choose automatically between parallel and non-parallel connections.
auto_parallel	Use parallel connections and select their number automatically.
custom	Use manually specified number of parallel connections.
disabled	Use non-parallel connections.
inherit	Use cluster value (applicable only to VMs).

29.211.1. auto

Choose automatically between parallel and non-parallel connections. If parallel connections are used, select their number automatically.

29.211.2. custom

Use manually specified number of parallel connections. The number of parallel connections must be set in `MigrationOptions.customParallelMigrations`.

29.212. PAYLOAD STRUCT

Table 29.282. Attributes summary

Name	Type	Summary
files	File[]	
type	VmDeviceType	
volume_id	String	

29.213. PAYLOADENCODING ENUM

Table 29.283. Values summary

Name	Summary
base64	
plaintext	

29.214. PERMISSION STRUCT

Type represents a permission.

Table 29.284. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.

Table 29.285. Links summary

Name	Type	Summary
cluster	Cluster	Reference to cluster.
data_center	DataCenter	Reference to data center.
disk	Disk	Reference to disk.
group	Group	Reference to group.
host	Host	Reference to host.
role	Role	Reference to role.
storage_domain	StorageDomain	Reference to storage domain.
template	Template	Reference to template.
user	User	Reference to user.
vm	Vm	Reference to virtual machine.
vm_pool	VmPool	Reference to virtual machines pool.

29.215. PERMIT STRUCT

Type represents a permit.

Table 29.286. Attributes summary

Name	Type	Summary
administrative	Boolean	Specifies whether permit is administrative or not.

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.

Table 29.287. Links summary

Name	Type	Summary
role	Role	Reference to the role the permit belongs to.

29.216. PMPROXY STRUCT

Table 29.288. Attributes summary

Name	Type	Summary
type	PmProxyType	

29.217. PMPROXYTYPE ENUM

Table 29.289. Values summary

Name	Summary
cluster	The fence proxy is selected from the same cluster as the fenced host.
dc	The fence proxy is selected from the same data center as the fenced host.
other_dc	The fence proxy is selected from a different data center than the fenced host.

29.218. POLICYUNITTYPE ENUM

Holds the types of all internal policy unit types.

Table 29.290. Values summary

Name	Summary
filter	

Name	Summary
load_balancing	
weight	

29.219. PORTMIRRORING STRUCT

29.220. POWERMANAGEMENT STRUCT

Table 29.291. Attributes summary

Name	Type	Summary
address	String	The host name or IP address of the host.
agents	Agent[]	Specifies fence agent options when multiple fences are used.
automatic_pm_enabled	Boolean	Toggles the automated power control of the host in order to save energy.
enabled	Boolean	Indicates whether power management configuration is enabled or disabled.
kdump_detection	Boolean	Toggles whether to determine if kdump is running on the host before it is shut down.
options	Option[]	Fencing options for the selected type= specified with the option name="" and value="" strings.
password	String	A valid, robust password for power management.
pm_proxies	PmProxy[]	Determines the power management proxy.
status	PowerManagementStatus	Determines the power status of the host.
type	String	Fencing device code.
username	String	A valid user name for power management.

29.220.1. agents

Specifies fence agent options when multiple fences are used.

Use the `order` sub-element to prioritize the fence agents. Agents are run sequentially according to their order until the fence action succeeds. When two or more fence agents have the same order, they are run concurrently. Other sub-elements include `type`, `ip`, `user`, `password`, and `options`.

29.220.2. `automatic_pm_enabled`

Toggles the automated power control of the host in order to save energy. When set to `true`, the host will be automatically powered down if the cluster's load is low, and powered on again when required. This is set to `true` when a host is created, unless disabled by the user.

29.220.3. `kdump_detection`

Toggles whether to determine if `kdump` is running on the host before it is shut down. When set to `true`, the host will not shut down during a `kdump` process. This is set to `true` when a host has power management enabled, unless disabled by the user.

29.220.4. `type`

Fencing device code.

A list of valid fencing device codes are available in the `capabilities` collection.

29.221. POWERMANAGEMENTSTATUS ENUM

Table 29.292. Values summary

Name	Summary
off	Host is OFF.
on	Host is ON.
unknown	Unknown status.

29.222. PRODUCT STRUCT

Table 29.293. Attributes summary

Name	Type	Summary
comment	<code>String</code>	Free text containing comments about this object.
description	<code>String</code>	A human-readable description in plain text.
id	<code>String</code>	A unique identifier.
name	<code>String</code>	A human-readable name in plain text.

29.223. PRODUCTINFO STRUCT

Product information.

The entry point contains a **product_info** element to help an API user determine the legitimacy of the Red Hat Virtualization environment. This includes the name of the product, the **vendor** and the **version**.

Verify a genuine Red Hat Virtualization environment

The follow elements identify a genuine Red Hat Virtualization environment:

```
<api>
...
<product_info>
  <name>oVirt Engine</name>
  <vendor>ovirt.org</vendor>
  <version>
    <build>0</build>
    <full_version>4.1.0_master</full_version>
    <major>4</major>
    <minor>1</minor>
    <revision>0</revision>
  </version>
</product_info>
...
</api>
```

Table 29.294. Attributes summary

Name	Type	Summary
instance_id	String	The ID of this particular installation of the product.
name	String	The name of the product, for example oVirt Engine .
vendor	String	The name of the vendor, for example `ovirt.
version	Version	The version number of the product.

29.223.1. vendor

The name of the vendor, for example **ovirt.org**.

29.224. PROFILEDETAIL STRUCT

Table 29.295. Attributes summary

Name	Type	Summary
block_statistics	BlockStatistic[]	
duration	Integer	

Name	Type	Summary
fop_statistics	FopStatistic[]	
profile_type	String	
statistics	Statistic[]	

29.225. PROPERTY STRUCT

Table 29.296. Attributes summary

Name	Type	Summary
name	String	
value	String	

29.226. PROXYTICKET STRUCT

Table 29.297. Attributes summary

Name	Type	Summary
value	String	

29.227. QCOWVERSION ENUM

The QCOW version specifies to the qemu which qemu version the volume supports.

This field can be updated using the update API and will be reported only for QCOW volumes, it is determined by the storage domain's version which the disk is created on. Storage domains with version lower than V4 support QCOW2 version 2 volumes, while V4 storage domains also support QCOW2 version 3. For more information about features of the different QCOW versions, see [here](#).

Table 29.298. Values summary

Name	Summary
qcow2_v2	The <i>Copy On Write</i> default compatibility version It means that every QEMU can use it.
qcow2_v3	The <i>Copy On Write</i> compatibility version which was introduced in QEMU 1.

29.227.1. qcow2_v3

The *Copy On Write* compatibility version which was introduced in QEMU 1.1 It means that the new format is in use.

29.228. QOS STRUCT

This type represents the attributes to define Quality of service (QoS).

For storage the **type** is [storage](#), the attributes **max_throughput**, **max_read_throughput**, **max_write_throughput**, **max_iops**, **max_read_iops** and **max_write_iops** are relevant.

For resources with computing capabilities the **type** is [cpu](#), the attribute **cpu_limit** is relevant.

For virtual machines networks the **type** is [network](#), the attributes **inbound_average**, **inbound_peak**, **inbound_burst**, **outbound_average**, **outbound_peak** and **outbound_burst** are relevant.

For host networks the **type** is [hostnetwork](#), the attributes **outbound_average_linkshare**, **outbound_average_upperlimit** and **outbound_average_realtime** are relevant.

Table 29.299. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
cpu_limit	Integer	The maximum processing capability in %.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
inbound_average	Integer	The desired average inbound bit rate in Mbps (Megabits per sec).
inbound_burst	Integer	The amount of data that can be delivered in a single burst, in MB.
inbound_peak	Integer	The maximum inbound rate in Mbps (Megabits per sec).
max_iops	Integer	Maximum permitted number of input and output operations per second.
max_read_iops	Integer	Maximum permitted number of input operations per second.
max_read_throughput	Integer	Maximum permitted throughput for read operations.
max_throughput	Integer	Maximum permitted total throughput.
max_write_iops	Integer	Maximum permitted number of output operations per second.
max_write_throughput	Integer	Maximum permitted throughput for write operations.

Name	Type	Summary
name	String	A human-readable name in plain text.
outbound_average	Integer	The desired average outbound bit rate in Mbps (Megabits per sec).
outbound_average_linkshare	Integer	Weighted share.
outbound_average_realtime	Integer	The committed rate in Mbps (Megabits per sec).
outbound_average_upperlimit	Integer	The maximum bandwidth to be used by a network in Mbps (Megabits per sec).
outbound_burst	Integer	The amount of data that can be sent in a single burst, in MB.
outbound_peak	Integer	The maximum outbound rate in Mbps (Megabits per sec).
type	QosType	The kind of resources this entry can be assigned.

29.228.1. cpu_limit

The maximum processing capability in %.

Used to configure computing resources.

29.228.2. inbound_average

The desired average inbound bit rate in Mbps (Megabits per sec).

Used to configure virtual machines networks. If defined, **inbound_peak** and **inbound_burst** also has to be set.

See [Libvirt-QOS](#) for further details.

29.228.3. inbound_burst

The amount of data that can be delivered in a single burst, in MB.

Used to configure virtual machine networks. If defined, **inbound_average** and **inbound_peak** must also be set.

See [Libvirt-QOS](#) for further details.

29.228.4. inbound_peak

The maximum inbound rate in Mbps (Megabits per sec).

Used to configure virtual machines networks. If defined, **inbound_average** and **inbound_burst** also has to be set.

See [Libvirt-QOS](#) for further details.

29.228.5. max_iops

Maximum permitted number of input and output operations per second.

Used to configure storage. Must not be set if **max_read_iops** or **max_write_iops** is set.

29.228.6. max_read_iops

Maximum permitted number of input operations per second.

Used to configure storage. Must not be set if **max_iops** is set.

29.228.7. max_read_throughput

Maximum permitted throughput for read operations.

Used to configure storage. Must not be set if **max_throughput** is set.

29.228.8. max_throughput

Maximum permitted total throughput.

Used to configure storage. Must not be set if **max_read_throughput** or **max_write_throughput** is set.

29.228.9. max_write_iops

Maximum permitted number of output operations per second.

Used to configure storage. Must not be set if **max_iops** is set.

29.228.10. max_write_throughput

Maximum permitted throughput for write operations.

Used to configure storage. Must not be set if **max_throughput** is set.

29.228.11. outbound_average

The desired average outbound bit rate in Mbps (Megabits per sec).

Used to configure virtual machines networks. If defined, **outbound_peak** and **outbound_burst** also has to be set.

See [Libvirt-QOS](#) for further details.

29.228.12. outbound_average_linkshare

Weighted share.

Used to configure host networks. Signifies how much of the logical link's capacity a specific network should be allocated, relative to the other networks attached to the same logical link. The exact share depends on the sum of shares of all networks on that link. By default this is a number in the range 1-100.

29.228.13. `outbound_average_realtime`

The committed rate in Mbps (Megabits per sec).

Used to configure host networks. The minimum bandwidth required by a network. The committed rate requested is not guaranteed and will vary depending on the network infrastructure and the committed rate requested by other networks on the same logical link.

29.228.14. `outbound_average_upperlimit`

The maximum bandwidth to be used by a network in Mbps (Megabits per sec).

Used to configure host networks. If `outboundAverageUpperlimit` and `outbound_average_realtime` are provided, the `outbound_averageUpperlimit` must not be lower than the `outbound_average_realtime`.

See [Libvirt-QOS](#) for further details.

29.228.15. `outbound_burst`

The amount of data that can be sent in a single burst, in MB.

Used to configure virtual machine networks. If defined, `outbound_average` and `outbound_peak` must also be set.

See [Libvirt-QOS](#) for further details.

29.228.16. `outbound_peak`

The maximum outbound rate in Mbps (Megabits per sec).

Used to configure virtual machines networks. If defined, `outbound_average` and `outbound_burst` also has to be set.

See [Libvirt-QOS](#) for further details.

Table 29.300. Links summary

Name	Type	Summary
<code>data_center</code>	DataCenter	The data center the QoS is associated to.

29.229. QOSTYPE ENUM

This type represents the kind of resource the [Quality of service \(QoS\)](#) can be assigned to.

Table 29.301. Values summary

Name	Summary
cpu	The Quality of service (QoS) can be assigned to resources with computing capabilities.
hostnetwork	The Quality of service (QoS) can be assigned to host networks.
network	The Quality of service (QoS) can be assigned to virtual machines networks.
storage	The Quality of service (QoS) can be assigned to storage.

29.230. QUOTA STRUCT

Represents a quota object.

An example XML representation of a quota:

```
<quota href="/ovirt-engine/api/datacenters/7044934e/quotas/dcad5ddc" id="dcad5ddc">
  <name>My Quota</name>
  <description>A quota for my oVirt environment</description>
  <cluster_hard_limit_pct>0</cluster_hard_limit_pct>
  <cluster_soft_limit_pct>0</cluster_soft_limit_pct>
  <data_center href="/ovirt-engine/api/datacenters/7044934e" id="7044934e"/>
  <storage_hard_limit_pct>0</storage_hard_limit_pct>
  <storage_soft_limit_pct>0</storage_soft_limit_pct>
</quota>
```

Table 29.302. Attributes summary

Name	Type	Summary
cluster_hard_limit_pct	Integer	
cluster_soft_limit_pct	Integer	
comment	String	Free text containing comments about this object.
data_center	DataCenter	
description	String	A human-readable description in plain text.
disks	Disk[]	
id	String	A unique identifier.
name	String	A human-readable name in plain text.

Name	Type	Summary
storage_hard_limit_pct	Integer	
storage_soft_limit_pct	Integer	
users	User[]	
vms	Vm[]	

Table 29.303. Links summary

Name	Type	Summary
permissions	Permission[]	
quota_cluster_limits	QuotaClusterLimit[]	
quota_storage_limits	QuotaStorageLimit[]	

29.231. QUOTACLUSTERLIMIT STRUCT

Table 29.304. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
memory_limit	Decimal	
memory_usage	Decimal	
name	String	A human-readable name in plain text.
vcpu_limit	Integer	
vcpu_usage	Integer	

Table 29.305. Links summary

Name	Type	Summary
cluster	Cluster	
quota	Quota	

29.232. QUOTAMODETYPE ENUM

Table 29.306. Values summary

Name	Summary
audit	
disabled	
enabled	

29.233. QUOTASTORAGELIMIT STRUCT

Table 29.307. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
limit	Integer	
name	String	A human-readable name in plain text.
usage	Decimal	

Table 29.308. Links summary

Name	Type	Summary
quota	Quota	
storage_domain	StorageDomain	

29.234. RANGE STRUCT

Table 29.309. Attributes summary

Name	Type	Summary
from	String	
to	String	

29.235. RATE STRUCT

Determines maximum speed of consumption of bytes from random number generator device.

Table 29.310. Attributes summary

Name	Type	Summary
bytes	Integer	Number of bytes allowed to consume per period.
period	Integer	Duration of one period in milliseconds.

29.236. REGISTRATIONAFFINITYGROUPMAPPING STRUCT

This type describes how to map affinity groups as part of the object registration. An object can be a virtual machine, template, etc.

An example of an XML representation using this mapping:

```
<action>
  <registration_configuration>
    <affinity_group_mappings>
      <registration_affinity_group_mapping>
        <from>
          <name>affinity</name>
        </from>
        <to>
          <name>affinity2</name>
        </to>
      </registration_affinity_group_mapping>
    </affinity_group_mappings>
  </registration_configuration>
</action>
```

Table 29.311. Links summary

Name	Type	Summary
from	AffinityGroup	Reference to the original affinity group.

Name	Type	Summary
to	AffinityGroup	Reference to the destination affinity group.

29.236.1. from

Reference to the original affinity group. It can be specified using **name**.

29.237. REGISTRATIONAFFINITYLABELMAPPING STRUCT

This type describes how to map affinity labels as part of the object registration. An object can be a virtual machine, template, etc.

An example of an XML representation using mapping:

```
<action>
  <registration_configuration>
    <affinity_label_mappings>
      <registration_affinity_label_mapping>
        <from>
          <name>affinity_label</name>
        </from>
        <to>
          <name>affinity_label2</name>
        </to>
      </registration_affinity_label_mapping>
    </affinity_label_mappings>
  </registration_configuration>
</action>
```

Table 29.312. Links summary

Name	Type	Summary
from	AffinityLabel	Reference to the original affinity label.
to	AffinityLabel	Reference to the destination affinity label.

29.237.1. from

Reference to the original affinity label. It can be specified using **name**.

29.238. REGISTRATIONCLUSTERMAPPING STRUCT

This type describes how to map clusters as part of the object registration. An object can be a virtual machine, template, etc.

An example of an XML representation using this mapping:

```

<action>
  <registration_configuration>
    <cluster_mappings>
      <registration_cluster_mapping>
        <from>
          <name>myoriginalcluster</name>
        </from>
        <to>
          <name>mynewcluster</name>
        </to>
      </registration_cluster_mapping>
    </cluster_mappings>
  </registration_configuration>
</action>

```

Table 29.313. Links summary

Name	Type	Summary
from	Cluster	Reference to the original cluster.
to	Cluster	Reference to the destination cluster.

29.238.1. from

Reference to the original cluster. It can be specified using the **id** or the **name**.

29.238.2. to

Reference to the destination cluster. It can be specified using the **id** or the **name**.

29.239. REGISTRATIONCONFIGURATION STRUCT

This type describes how an object (virtual machine, template, etc) is registered, and is used for the implementation of disaster recovery solutions.

Each mapping contained in this type can be used to map objects in the original system to corresponding objects in the system where the virtual machine or template is being registered. For example, there could be a primary setup with a virtual machine configured on cluster A, and an active secondary setup with cluster B. Cluster B is compatible with that virtual machine, and in case of a disaster recovery scenario the storage domain can be imported to the secondary setup, and the user can register the virtual machine to cluster B.

In that case, we can automate the recovery process by defining a cluster mapping. After the entity is registered, its OVF will indicate it belongs to cluster A, but the mapping will indicate that cluster A will be replaced with cluster B. Red Hat Virtualization Manager should do the switch and register the virtual machine to cluster B in the secondary site.

Cluster mapping is just one example, there are different types of mappings:

- Cluster mapping.
- LUN mapping.

- Role mapping.
- Domain mapping.
- Permissions mapping.
- Affinity Group mapping.
- Affinity Label mapping.
- Virtual NIC profile mapping.

Each mapping will be used for its specific OVF's data once the register operation takes place in the Red Hat Virtualization Manager.

An example of an XML representation using the mapping:

```
<action>
  <registration_configuration>
    <cluster_mappings>
      <registration_cluster_mapping>
        <from>
          <name>myoriginalcluster</name>
        </from>
        <to>
          <name>mynewcluster</name>
        </to>
      </registration_cluster_mapping>
    </cluster_mappings>
    <role_mappings>
      <registration_role_mapping>
        <from>
          <name>SuperUser</name>
        </from>
        <to>
          <name>UserVmRunTimeManager</name>
        </to>
      </registration_role_mapping>
    </role_mappings>
    <domain_mappings>
      <registration_domain_mapping>
        <from>
          <name>redhat</name>
        </from>
        <to>
          <name>internal</name>
        </to>
      </registration_domain_mapping>
    </domain_mappings>
    <lun_mappings>
      <registration_lun_mapping>
        <from id="111">
        </from>
        <to id="222">
          <alias>weTestLun</alias>
        </to>
      </registration_lun_mapping>
    </lun_mappings>
  </registration_configuration>
</action>
```

```

    <type>iscsi</type>
    <logical_units>
      <logical_unit id="36001405fb1ddb4b91e44078f1ffcfef">
        <address>44.33.11.22</address>
        <port>3260</port>
        <portal>1</portal>
        <target>iqn.2017-11.com.name.redhat:444</target>
      </logical_unit>
    </logical_units>
  </lun_storage>
</to>
</registration_lun_mapping>
</lun_mappings>
<affinity_group_mappings>
  <registration_affinity_group_mapping>
    <from>
      <name>affinity</name>
    </from>
    <to>
      <name>affinity2</name>
    </to>
  </registration_affinity_group_mapping>
</affinity_group_mappings>
<affinity_label_mappings>
  <registration_affinity_label_mapping>
    <from>
      <name>affinity_label</name>
    </from>
    <to>
      <name>affinity_label2</name>
    </to>
  </registration_affinity_label_mapping>
</affinity_label_mappings>
<vnic_profile_mappings>
  <registration_vnic_profile_mapping>
    <from>
      <name>gold</name>
      <network>
        <name>red</name>
      </network>
    </from>
    <to id="738dd914-8ec8-4a8b-8628-34672a5d449b"/>
  </registration_vnic_profile_mapping>
  <registration_vnic_profile_mapping>
    <from>
      <name>silver</name>
      <network>
        <name>blue</name>
      </network>
    </from>
    <to>
      <name>copper</name>
      <network>
        <name>orange</name>
      </network>
    </to>
  </registration_vnic_profile_mapping>
</vnic_profile_mappings>

```

```

    </registration_vnic_profile_mapping>
  </vnic_profile_mappings>
</registration_configuration>
</action>

```

Table 29.314. Attributes summary

Name	Type	Summary
affinity_group_mappings	RegistrationAffinityGroupMapping[]	Describes how the affinity groups are mapped.
affinity_label_mappings	RegistrationAffinityLabelMapping[]	Describes how the affinity labels are mapped.
cluster_mappings	RegistrationClusterMapping[]	Describes how the clusters that the object references are mapped.
domain_mappings	RegistrationDomainMapping[]	Describes how the users' domains are mapped.
lun_mappings	RegistrationLunMapping[]	Describes how the LUNs are mapped.
role_mappings	RegistrationRoleMapping[]	Describes how the roles are mapped.
vnic_profile_mappings	RegistrationVnicProfileMapping[]	Mapping rules for virtual NIC profiles that will be applied during the register process.

29.240. REGISTRATIONDOMAINMAPPING STRUCT

This type describes how to map the users' domain as part of the object registration. An object can be a virtual machine, template, etc. NOTE: This is based on the assumption that user names will be the same, and that only the domain name will be changed.

An example of an XML representation using this mapping:

```

<action>
  <registration_configuration>
    <domain_mappings>
      <registration_domain_mapping>
        <from>
          <name>redhat</name>
        </from>
        <to>
          <name>internal</name>
        </to>
      </registration_domain_mapping>
    </domain_mappings>
  </registration_configuration>
</action>

```


Table 29.315. Links summary

Name	Type	Summary
from	Domain	Reference to the original domain.
to	Domain	Reference to the destination domain.

29.240.1. from

Reference to the original domain. It can be specified using **name**.

29.241. REGISTRATIONLUNMAPPING STRUCT

This type describes how to map LUNs as part of the object registration. An object can be a virtual machine, template, etc.

An external LUN disk is an entity which does not reside on a storage domain. It must be specified because it doesn't need to exist in the environment where the object is registered. An example of an XML representation using this mapping:

```
<action>
  <registration_configuration>
    <lun_mappings>
      <registration_lun_mapping>
    <lun_mappings>
      <registration_lun_mapping>
        <from id="111">
        </from>
        <to id="222">
          <alias>weTestLun</alias>
          <lun_storage>
            <type>iscsi</type>
            <logical_units>
              <logical_unit id="36001405fb1ddb4b91e44078f1ffcfef">
                <address>44.33.11.22</address>
                <port>3260</port>
                <portal>1</portal>
                <target>iqn.2017-11.com.name.redhat:444</target>
              </logical_unit>
            </logical_units>
          </lun_storage>
        </to>
      </registration_lun_mapping>
    </lun_mappings>
  </registration_configuration>
</action>
```

Table 29.316. Links summary

Name	Type	Summary
from	Disk	Reference to the original LUN.
to	Disk	Reference to the LUN which is to be added to the virtual machine.

29.241.1. from

Reference to the original LUN. This must be specified using the **id** attribute.

29.242. REGISTRATIONROLEMAPPING STRUCT

This type describes how to map roles as part of the object registration. An object can be a virtual machine, template, etc.

A role mapping is intended to map correlating roles between the primary site and the secondary site. For example, there may be permissions with role **UserVmRunTimeManager** for the virtual machine that is being registered. Therefore we can send a mapping that will register the virtual machine in the secondary setup using the **SuperUser** role instead of **UserVmRunTimeManager**. An example of an XML representation using this mapping:

```
<action>
  <registration_configuration>
    <role_mappings>
      <registration_eole_mapping>
        <from>
          <name>SuperUser</name>
        </from>
        <to>
          <name>UserVmRunTimeManager</name>
        </to>
      </registration_role_mapping>
    </role_mappings>
  </registration_configuration>
</action>
```

Table 29.317. Links summary

Name	Type	Summary
from	Role	Reference to the original role.
to	Role	Reference to the destination role.

29.242.1. from

Reference to the original role. It can be specified using **name**.

29.243. REGISTRATIONVNICPROFILEMAPPING STRUCT

Maps an external virtual NIC profile to one that exists in the Red Hat Virtualization Manager. The target may be specified as a profile ID or a pair of profile name and network name.

If, for example, the desired virtual NIC profile mapping includes the following lines:

Source network name	Source network profile name	Target virtual NIC profile ID\names
red	gold	738dd914-8ec8-4a8b-8628-34672a5d449b
<empty> (no network name)	<empty> (no network profile name)	892a12ec-2028-4451-80aa-ff3bf55d6bac
blue	silver	orange\copper
yellow	platinum	<empty> (no profile)
green	bronze	

Then the following snippet should be added to [RegistrationConfiguration](#)

```
<vnic_profile_mappings>
  <registration_vnic_profile_mapping>
    <from>
      <name>gold</name>
      <network>
        <name>red</name>
      </network>
    </from>
    <to id="738dd914-8ec8-4a8b-8628-34672a5d449b"/>
  </registration_vnic_profile_mapping>
  <registration_vnic_profile_mapping>
    <from>
      <name></name>
      <network>
        <name></name>
      </network>
    </from>
    <to id="892a12ec-2028-4451-80aa-ff3bf55d6bac"/>
  </registration_vnic_profile_mapping>
  <registration_vnic_profile_mapping>
    <from>
      <name>silver</name>
      <network>
        <name>blue</name>
      </network>
    </from>
    <to>
      <name>copper</name>
      <network>
```

```

    <name>orange</name>
  </network>
</to>
</registration_vnic_profile_mapping>
<registration_vnic_profile_mapping>
  <from>
    <name>platinum</name>
    <network>
      <name>yellow</name>
    </network>
  </from>
  <to>
    <name></name>
    <network>
      <name></name>
    </network>
  </to>
</registration_vnic_profile_mapping>
</registration_vnic_profile_mapping>
  <from>
    <name>bronze</name>
    <network>
      <name>green</name>
    </network>
  </from>
</registration_vnic_profile_mapping>
</vnic_profile_mappings>
```

Table 29.318. Links summary

Name	Type	Summary
from	VnicProfile	References to the external network and the external network profile.
to	VnicProfile	Reference to to an existing virtual NIC profile.

29.243.1. from

References to the external network and the external network profile. Both should be specified using their **name**.

29.243.2. to

Reference to to an existing virtual NIC profile. It should be specified using its **name** or **id**. Either **name** or **id** should be specified but not both.

29.244. REPORTEDCONFIGURATION STRUCT

Table 29.319. Attributes summary

Name	Type	Summary
actual_value	String	
expected_value	String	
in_sync	Boolean	false when the network attachment contains uncommitted network configuration.
name	String	

29.245. REPORTEDDEVICE STRUCT

Table 29.320. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
ips	Ip[]	
mac	Mac	
name	String	A human-readable name in plain text.
type	ReportedDeviceType	

Table 29.321. Links summary

Name	Type	Summary
vm	Vm	

29.246. REPORTEDDEVICETYPE ENUM

Table 29.322. Values summary

Name	Summary
network	

29.247. RESOLUTIONTYPE ENUM

Table 29.323. Values summary

Name	Summary
add	
copy	

29.248. RNGDEVICE STRUCT

Random number generator (RNG) device model.

Table 29.324. Attributes summary

Name	Type	Summary
rate	Rate	Determines maximum speed of consumption of bytes from random number generator device.
source	RngSource	Backend of the random number generator device.

29.249. RNGSOURCE ENUM

Representing the random generator backend types.

Table 29.325. Values summary

Name	Summary
hwrng	Obtains random data from the /dev/hwrng (usually specialized HW generator) device.
random	Obtains random data from the /dev/random device.
urandom	Obtains random data from the /dev/urandom device.

29.249.1. urandom

Obtains random data from the **/dev/urandom** device.

This RNG source is meant to replace **random** RNG source for non-cluster-aware entities (i.e. Blank template and instance types) and entities associated with clusters with compatibility version 4.1 or higher.

29.250. ROLE STRUCT

Represents a system role.

Table 29.326. Attributes summary

Name	Type	Summary
administrative	Boolean	Defines the role as administrative-only or not.
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
mutable	Boolean	Defines the ability to update or delete the role.
name	String	A human-readable name in plain text.

29.250.1. mutable

Defines the ability to update or delete the role.

Roles with mutable set to **false** are predefined roles.

Table 29.327. Links summary

Name	Type	Summary
permits	Permit[]	A link to the permits sub-collection for role permits.
user	User	

29.251. ROLETYPE ENUM

Type representing whether a role is administrative or not. A user which was granted at least one administrative role is considered an administrator.

Table 29.328. Values summary

Name	Summary
admin	Administrative role.
user	User role.

29.252. SCHEDULINGPOLICY STRUCT

Table 29.329. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
default_policy	Boolean	
description	String	A human-readable description in plain text.
id	String	A unique identifier.
locked	Boolean	
name	String	A human-readable name in plain text.
properties	Property[]	

Table 29.330. Links summary

Name	Type	Summary
balances	Balance[]	
filters	Filter[]	
weight	Weight[]	

29.253. SCHEDULINGPOLICYUNIT STRUCT

Table 29.331. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
enabled	Boolean	
id	String	A unique identifier.
internal	Boolean	
name	String	A human-readable name in plain text.
properties	Property[]	

Name	Type	Summary
type	PolicyUnitType	

29.254. SCSIGENERICIO ENUM

When a direct LUN disk is using SCSI passthrough the privileged I/O policy is determined by this enum.

Table 29.332. Values summary

Name	Summary
disabled	Disable SCSI passthrough.
filtered	Disallow privileged SCSI I/O.
unfiltered	Allow privileged SCSI I/O.

29.255. SELINUX STRUCT

Represents SELinux in the system.

Table 29.333. Attributes summary

Name	Type	Summary
mode	SeLinuxMode	SELinux current mode.

29.256. SELINUXMODE ENUM

Represents an SELinux enforcement mode.

Table 29.334. Values summary

Name	Summary
disabled	SELinux is disabled in the kernel.
enforcing	SELinux is running and enforcing permissions.
permissive	SELinux is running and logging but not enforcing permissions.

29.257. SERIALNUMBER STRUCT

Table 29.335. Attributes summary

Name	Type	Summary
policy	SerialNumberPolicy	
value	String	

29.258. SERIALNUMBERPOLICY ENUM

Type representing the policy of a Serial Number.

Table 29.336. Values summary

Name	Summary
custom	This policy allows the user to provide an arbitrary string as the Serial Number.
host	This policy is the legacy policy.
none	This policy is used to remove the Serial Number Policy, moving it to default: null.
vm	This policy will use the Virtual Machine ID as the Serial Number.

29.258.1. host

This policy is the legacy policy. It will use the Host ID as the Serial Number.

29.259. SESSION STRUCT

Describes a user session to a virtual machine.

Table 29.337. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
console_user	Boolean	Indicates if this is a console session.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
ip	Ip	The IP address the user is connected from.
name	String	A human-readable name in plain text.

Name	Type	Summary
protocol	String	The protocol used by the session.

29.259.1. console_user

Indicates if this is a console session.

The value will be **true** for console users (SPICE or VNC), and **false** for others (such as RDP or SSH).

29.259.2. ip

The IP address the user is connected from.

Currently only available for console users.

29.259.3. protocol

The protocol used by the session.

Currently not used. Intended for info about how the user is connected: through SPICE, VNC, SSH, or RDP.

Table 29.338. Links summary

Name	Type	Summary
user	User	The user related to this session.
vm	Vm	A link to the virtual machine related to this session.

29.259.4. user

The user related to this session.

If the user is a console user, this is a link to the real Red Hat Virtualization user. Otherwise, only the user name is provided.

29.260. SKIIFCONNECTIVITYBROKEN STRUCT

Table 29.339. Attributes summary

Name	Type	Summary
enabled	Boolean	If enabled, we will not fence a host in case more than a configurable percentage of hosts in the cluster lost connectivity as well.
threshold	Integer	Threshold for connectivity testing.

29.260.1. enabled

If enabled, we will not fence a host in case more than a configurable percentage of hosts in the cluster lost connectivity as well. This comes to prevent fencing *storm* in cases where there is a global networking issue in the cluster.

29.260.2. threshold

Threshold for connectivity testing. If at least the threshold percentage of hosts in the cluster lost connectivity then fencing will not take place.

29.261. SKIPIFSDACTIVE STRUCT

This type represents the storage related configuration in the fencing policy.

Table 29.340. Attributes summary

Name	Type	Summary
enabled	Boolean	If enabled, we will skip fencing in case the host maintains its lease in the storage.

29.261.1. enabled

If enabled, we will skip fencing in case the host maintains its lease in the storage. It means that if the host still has storage access then it won't get fenced.

29.262. SNAPSHOT STRUCT

Represents a snapshot object.

Example XML representation:

```
<snapshot id="456" href="/ovirt-engine/api/vms/123/snapshots/456">
  <actions>
    <link rel="restore" href="/ovirt-engine/api/vms/123/snapshots/456/restore"/>
  </actions>
  <vm id="123" href="/ovirt-engine/api/vms/123"/>
  <description>Virtual Machine 1 - Snapshot A</description>
  <type>active</type>
  <date>2010-08-16T14:24:29</date>
  <persist_memorystate>false</persist_memorystate>
</snapshot>
```

Table 29.341. Attributes summary

Name	Type	Summary
auto_pinning_policy	AutoPinningPolicy	Specifies if and how the auto CPU and NUMA configuration is applied.

Name	Type	Summary
bios	Bios	Reference to virtual machine's BIOS configuration.
comment	String	Free text containing comments about this object.
console	Console	Console configured for this virtual machine.
cpu	Cpu	The configuration of the virtual machine CPU.
cpu_pinning_policy	CpuPinningPolicy	Specifies if and how the CPU and NUMA configuration is applied.
cpu_shares	Integer	
creation_time	Date	The virtual machine creation date.
custom_compatibility_version	Version	Virtual machine custom compatibility version.
custom_cpu_model	String	
custom_emulated_machine	String	
custom_properties	CustomProperty[]	Properties sent to VDSM to configure various hooks.
date	Date	The date when this snapshot has been created.
delete_protected	Boolean	If true , the virtual machine cannot be deleted.
description	String	A human-readable description in plain text.
display	Display	The virtual machine display configuration.
domain	Domain	Domain configured for this virtual machine.
fqdn	String	Fully qualified domain name of the virtual machine.
guest_operating_system	GuestOperatingSystem	What operating system is installed on the virtual machine.
guest_time_zone	TimeZone	What time zone is used by the virtual machine (as returned by guest agent).

Name	Type	Summary
has_illegal_images	Boolean	Indicates whether the virtual machine has snapshots with disks in ILLEGAL state.
high_availability	HighAvailability	The virtual machine high availability configuration.
id	String	A unique identifier.
initialization	Initialization	Reference to the virtual machine's initialization configuration.
io	Io	For performance tuning of IO threading.
large_icon	Icon	Virtual machine's large icon.
lease	StorageDomainLease	Reference to the storage domain this virtual machine/template lease reside on.
memory	Integer	The virtual machine's memory, in bytes.
memory_policy	MemoryPolicy	Reference to virtual machine's memory management configuration.
migration	MigrationOptions	Reference to configuration of migration of a running virtual machine to another host.
migration_down_time	Integer	Maximum time the virtual machine can be non responsive during its live migration to another host in ms.
multi_queues_enabled	Boolean	If true , each virtual interface will get the optimal number of queues, depending on the available virtual Cpus.
name	String	A human-readable name in plain text.
next_run_configuration_exists	Boolean	Virtual machine configuration has been changed and requires restart of the virtual machine.
numa_tune_mode	NumaTuneMode	How the NUMA topology is applied.
origin	String	The origin of this virtual machine.
os	OperatingSystem	Operating system type installed on the virtual machine.
payloads	Payload[]	Optional payloads of the virtual machine, used for ISOs to configure it.

Name	Type	Summary
persist_memory_state	Boolean	Indicates if the content of the memory of the virtual machine is included in the snapshot.
placement_policy	VmPlacementPolicy	The configuration of the virtual machine's placement policy.
rng_device	RngDevice	Random Number Generator device configuration for this virtual machine.
run_once	Boolean	If true , the virtual machine has been started using the <i>run once</i> command, meaning it's configuration might differ from the stored one for the purpose of this single run.
serial_number	SerialNumber	Virtual machine's serial number in a cluster.
small_icon	Icon	Virtual machine's small icon.
snapshot_statuses	SnapshotStatus	Status of the snapshot.
snapshot_type	SnapshotType	Type of the snapshot.
soundcard_enabled	Boolean	If true , the sound card is added to the virtual machine.
sso	Sso	Reference to the Single Sign On configuration this virtual machine is configured for.
start_paused	Boolean	If true , the virtual machine will be initially in 'paused' state after start.
start_time	Date	The date in which the virtual machine was started.
stateless	Boolean	If true , the virtual machine is stateless - it's state (disks) are rolled-back after shutdown.
status	VmStatus	The current status of the virtual machine.
status_detail	String	Human readable detail of current status.
stop_reason	String	The reason the virtual machine was stopped.
stop_time	Date	The date in which the virtual machine was stopped.

Name	Type	Summary
storage_error_resume_behavior	VmStorageErrorResumeBehaviour	Determines how the virtual machine will be resumed after storage error.
time_zone	TimeZone	The virtual machine's time zone set by oVirt.
tpm_enabled	Boolean	If true , a TPM device is added to the virtual machine.
tunnel_migration	Boolean	If true , the network data transfer will be encrypted during virtual machine live migration.
type	VmType	Determines whether the virtual machine is optimized for desktop or server.
usb	Usb	Configuration of USB devices for this virtual machine (count, type).
use_latest_template_version	Boolean	If true , the virtual machine is reconfigured to the latest version of it's template when it is started.
virtio_scsi	VirtioScsi	Reference to VirtIO SCSI configuration.
virtio_scsi_multi_queues	Integer	Number of queues for a Virtio-SCSI controller this field requires <code>virtioScsiMultiQueuesEnabled</code> to be true see <code>virtioScsiMultiQueuesEnabled</code> for more info
virtio_scsi_multi_queues_enabled	Boolean	If true , the Virtio-SCSI devices will obtain a number of multiple queues depending on the available virtual Cpus and disks, or according to the specified <code>virtioScsiMultiQueues</code> .

29.262.1. auto_pinning_policy

Specifies if and how the auto CPU and NUMA configuration is applied.



IMPORTANT

Since version 4.5 of the engine this operation is deprecated, and preserved only for backwards compatibility. It might be removed in the future. Please use `CpuPinningPolicy` instead.

29.262.2. cpu

The configuration of the virtual machine CPU.

The socket configuration can be updated without rebooting the virtual machine. The cores and the threads require a reboot.

For example, to change the number of sockets to 4 immediately, and the number of cores and threads to 2 after reboot, send the following request:

```
PUT /ovirt-engine/api/vms/123
```

With a request body:

```
<vm>
  <cpu>
    <topology>
      <sockets>4</sockets>
      <cores>2</cores>
      <threads>2</threads>
    </topology>
  </cpu>
</vm>
```

29.262.3. cpu_pinning_policy

Specifies if and how the CPU and NUMA configuration is applied. When not specified the previous behavior of CPU pinning string will determine CpuPinningPolicy to None or Manual.

29.262.4. custom_compatibility_version

Virtual machine custom compatibility version.

Enables a virtual machine to be customized to its own compatibility version. If

custom_compatibility_version is set, it overrides the cluster's compatibility version for this particular virtual machine.

The compatibility version of a virtual machine is limited by the data center the virtual machine resides in, and is checked against capabilities of the host the virtual machine is planned to run on.

29.262.5. high_availability

The virtual machine high availability configuration. If set, the virtual machine will be automatically restarted when it unexpectedly goes down.

29.262.6. initialization

Reference to the virtual machine's initialization configuration.



NOTE

Since Red Hat Virtualization 4.1.8 this property can be cleared by sending an empty tag.

For example, to clear the **initialization** attribute send a request like this:

```
PUT /ovirt-engine/api/vms/123
```

With a request body like this:

```
<vm>
  <initialization/>
</vm>
```

The response to such a request, and requests with the header **All-Content: true** will still contain this attribute.

29.262.7. large_icon

Virtual machine's large icon. Either set by user or refers to image set according to operating system.

29.262.8. lease

Reference to the storage domain this virtual machine/template lease reside on.

A virtual machine running with a lease requires checking while running that the lease is not taken by another host, preventing another instance of this virtual machine from running on another host. This provides protection against split-brain in highly available virtual machines. A template can also have a storage domain defined for a lease in order to have the virtual machines created from this template to be preconfigured with this storage domain as the location of the leases.

29.262.9. memory

The virtual machine's memory, in bytes.

For example, to update a virtual machine to contain 1 Gibibyte (GiB) of memory, send the following request:

```
PUT /ovirt-engine/api/vms/123
```

With the following request body:

```
<vm>
  <memory>1073741824</memory>
</vm>
```

Memory hot plug is supported from Red Hat Virtualization 3.6 onwards. You can use the example above to increase memory while the virtual machine is in state [up](#). The size increment must be dividable by the value of the **HotPlugMemoryBlockSizeMb** configuration value (256 MiB by default). If the memory size increment is not dividable by this value, the memory size change is only stored to next run configuration. Each successful memory hot plug operation creates one or two new memory devices.

Memory hot unplug is supported since Red Hat Virtualization 4.2 onwards. Memory hot unplug can only be performed when the virtual machine is in state [up](#). Only previously hot plugged memory devices can be removed by the hot unplug operation. The requested memory decrement is rounded down to match sizes of a combination of previously hot plugged memory devices. The requested memory value is stored to next run configuration without rounding.



NOTE

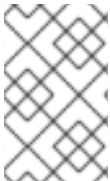
Memory in the example is converted to bytes using the following formula:
 1 GiB = 2^{30} bytes = 1073741824 bytes.

**NOTE**

Red Hat Virtualization Manager internally rounds values down to whole MiBs (1MiB = 2^{20} bytes)

29.262.10. migration

Reference to configuration of migration of a running virtual machine to another host.

**NOTE**

API for querying migration policy by ID returned by this method is not implemented yet. Use **/ovirt-engine/api/options/MigrationPolicies** to get a list of all migration policies with their IDs.

29.262.11. migration_downtime

Maximum time the virtual machine can be non responsive during its live migration to another host in ms.

Set either explicitly for the virtual machine or by **engine-config -s DefaultMaximumMigrationDowntime=[value]**

29.262.12. next_run_configuration_exists

Virtual machine configuration has been changed and requires restart of the virtual machine. Changed configuration is applied at processing the virtual machine's *shut down*.

29.262.13. numa_tune_mode

How the NUMA topology is applied. Deprecated in favor of NUMA tune per vNUMA node.

29.262.14. origin

The origin of this virtual machine.

Possible values:

- **ovirt**
- **rhev**
- **vmware**
- **xen**
- **external**
- **hosted_engine**
- **managed_hosted_engine**
- **kvm**
- **physical_machine**

- **hyperv**

29.262.15. `persist_memorystate`

Indicates if the content of the memory of the virtual machine is included in the snapshot.

When a snapshot is created the default value is **true**.

29.262.16. `placement_policy`

The configuration of the virtual machine's placement policy.

This configuration can be updated to pin a virtual machine to one or more hosts.



NOTE

Virtual machines that are pinned to multiple hosts cannot be live migrated, but in the event of a host failure, any virtual machine configured to be highly available is automatically restarted on one of the other hosts to which the virtual machine is pinned.

For example, to pin a virtual machine to two hosts, send the following request:

```
PUT /api/vms/123
```

With a request body like this:

```
<vm>
  <high_availability>
    <enabled>true</enabled>
    <priority>1</priority>
  </high_availability>
  <placement_policy>
    <hosts>
      <host>
        <name>Host1 </name>
      </host>
      <host>
        <name>Host2</name>
      </host>
    </hosts>
    <affinity>pinned</affinity>
  </placement_policy>
</vm>
```

29.262.17. `small_icon`

Virtual machine's small icon. Either set by user or refers to image set according to operating system.

29.262.18. `sso`

Reference to the Single Sign On configuration this virtual machine is configured for. The user can be automatically signed in the virtual machine's operating system when console is opened.

29.262.19. stop_reason

The reason the virtual machine was stopped. Optionally set by user when shutting down the virtual machine.

29.262.20. tpm_enabled

If **true**, a TPM device is added to the virtual machine. By default the value is **false**. This property is only visible when fetching if "All-Content=true" header is set.

Table 29.342. Links summary

Name	Type	Summary
affinity_labels	AffinityLabel[]	Optional.
applications	Application[]	List of applications installed on the virtual machine.
cdroms	Cdrom[]	Reference to the ISO mounted to the CDROM.
cluster	Cluster	Reference to cluster the virtual machine belongs to.
cpu_profile	CpuProfile	Reference to CPU profile used by this virtual machine.
disk_attachments	DiskAttachment[]	References the disks attached to the virtual machine.
disks	Disk[]	List of disks linked to the snapshot.
dynamic_cpu	DynamicCpu	The dynamic configuration of the virtual machine CPU.
external_host_provider	ExternalHostProvider	
floppies	Floppy[]	Reference to the ISO mounted to the floppy.
graphics_consoles	GraphicsConsole[]	List of graphics consoles configured for this virtual machine.
host	Host	Reference to the host the virtual machine is running on.
host_devices	HostDevice[]	References devices associated to this virtual machine.
instance_type	InstanceType	The virtual machine configuration can be optionally predefined via one of the instance types.
katello_errata	KatelloErratum[]	Lists all the Katello errata assigned to the virtual machine.

Name	Type	Summary
mediated_devices	VmMediatedDevice[]	Mediated devices configuration.
nics	Nic[]	References the list of network interface devices on the virtual machine.
numa_nodes	NumaNode[]	Refers to the NUMA Nodes configuration used by this virtual machine.
original_template	Template	References the original template used to create the virtual machine.
permissions	Permission[]	Permissions set for this virtual machine.
quota	Quota	Reference to quota configuration set for this virtual machine.
reported_devices	ReportedDevice[]	
sessions	Session[]	List of user sessions opened for this virtual machine.
snapshots	Snapshot[]	Refers to all snapshots taken from the virtual machine.
statistics	Statistic[]	Statistics data collected from this virtual machine.
storage_domain	StorageDomain	Reference to storage domain the virtual machine belongs to.
tags	Tag[]	
template	Template	Reference to the template the virtual machine is based on.
vm	Vm	The virtual machine this snapshot has been taken for.
vm_pool	VmPool	Reference to the pool the virtual machine is optionally member of.
watchdogs	Watchdog[]	Refers to the Watchdog configuration.

29.262.21. affinity_labels

Optional. Used for labeling of sub-clusters.

29.262.22. katello_errata

Lists all the Katello errata assigned to the virtual machine.

GET /ovirt-engine/api/vms/123/katelloerrata

You will receive response in XML like this one:

```
<katello_errata>
  <katello_erratum href="/ovirt-engine/api/katelloerrata/456" id="456">
    <name>RHBA-2013:XYZ</name>
    <description>The description of the erratum</description>
    <title>some bug fix update</title>
    <type>bugfix</type>
    <issued>2013-11-20T02:00:00.000+02:00</issued>
    <solution>Few guidelines regarding the solution</solution>
    <summary>Updated packages that fix one bug are now available for XYZ</summary>
    <packages>
      <package>
        <name>libipa_hbac-1.9.2-82.11.el6_4.i686</name>
      </package>
      ...
    </packages>
  </katello_erratum>
  ...
</katello_errata>
```

29.262.23. original_template

References the original template used to create the virtual machine.

If the virtual machine is cloned from a template or another virtual machine, the **template** links to the Blank template, and the **original_template** is used to track history.

Otherwise the **template** and **original_template** are the same.

29.262.24. statistics

Statistics data collected from this virtual machine.

Note that some statistics, notably **memory.buffered** and **memory.cached** are available only when [Red Hat Virtualization guest agent](#) is installed in the virtual machine.

29.263. SNAPSHOTSTATUS ENUM

Represents the current status of the snapshot.

Table 29.343. Values summary

Name	Summary
in_preview	The snapshot is being previewed.
locked	The snapshot is locked.
ok	The snapshot is OK.

29.263.1. locked

The snapshot is locked.

The snapshot is locked when it is in process of being created, deleted, restored or previewed.

29.264. SNAPSHOTTYPE ENUM

Represents the type of the snapshot.

Table 29.344. Values summary

Name	Summary
active	Reference to the current configuration of the virtual machines.
preview	The active snapshot will become preview if some snapshot is being previewed.
regular	Snapshot created by user.
stateless	Snapshot created internally for stateless virtual machines.

29.264.1. preview

The **active** snapshot will become **preview** if some snapshot is being previewed.

In other words, this is the **active** snapshot before preview.

29.264.2. stateless

Snapshot created internally for stateless virtual machines.

This snapshot is created when the virtual machine is started and it is restored when the virtual machine is shut down.

29.265. SPECIALOBJECTS STRUCT

This type contains references to special objects, such as blank templates and the root of a hierarchy of tags.

Table 29.345. Links summary

Name	Type	Summary
blank_template	Template	A reference to a blank template.
root_tag	Tag	A reference to the root of a hierarchy of tags.

29.266. SPM STRUCT

Table 29.346. Attributes summary

Name	Type	Summary
priority	Integer	
status	SpmStatus	

29.267. SPMSTATUS ENUM

Table 29.347. Values summary

Name	Summary
contending	
none	
spm	

29.268. SSH STRUCT

Table 29.348. Attributes summary

Name	Type	Summary
authentication_method	SshAuthenticationMethod	
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
fingerprint	String	Fingerprint of SSH public key for a host.
id	String	A unique identifier.
name	String	A human-readable name in plain text.
port	Integer	
public_key	String	SSH public key of the host using SSH public key format as defined in link:https://tools .
user	User	

29.268.1. fingerprint

Fingerprint of SSH public key for a host. This field is deprecated since 4.4.5 and will be removed in the future.

Please use `publicKey` instead.

29.268.2. public_key

SSH public key of the host using SSH public key format as defined in [RFC4253](#).

29.269. SSHAUTHENTICATIONMETHOD ENUM

Table 29.349. Values summary

Name	Summary
password	
publickey	

29.270. SSHPUBLICKEY STRUCT

Table 29.350. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
content	String	Contains a saved SSH key.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.

Table 29.351. Links summary

Name	Type	Summary
user	User	

29.271. SSO STRUCT

Table 29.352. Attributes summary

Name	Type	Summary
methods	Method[]	

29.272. SSOMETHOD ENUM

Table 29.353. Values summary

Name	Summary
guest_agent	

29.273. STATISTIC STRUCT

A generic type used for all kinds of statistics.

Statistic contains the statistics values for various entities. The following object contain statistics:

- Disk
- Host
- HostNic
- NumaNode
- Nic
- Vm
- GlusterBrick
- Step
- GlusterVolume

An example of a XML representation:

```
<statistics>
  <statistic id="1234" href="/ovirt-engine/api/hosts/1234/nics/1234/statistics/1234">
    <name>data.current.rx</name>
    <description>Receive data rate</description>
    <values type="DECIMAL">
      <value>
        <datum>0</datum>
      </value>
    </values>
    <type>GAUGE</type>
    <unit>BYTES_PER_SECOND</unit>
    <host_nic id="1234" href="/ovirt-engine/api/hosts/1234/nics/1234"/>
  </statistic>
</statistics>
```

```
</statistic>
...
</statistics>
```



NOTE

This statistics sub-collection is read-only.

Table 29.354. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
kind	StatisticKind	The type of statistic measures.
name	String	A human-readable name in plain text.
type	ValueType	The data type for the statistical values that follow.
unit	StatisticUnit	The unit or rate to measure of the statistical values.
values	Value[]	A data set that contains datum .

Table 29.355. Links summary

Name	Type	Summary
brick	GlusterBrick	
disk	Disk	A relationship to the containing disk resource.
gluster_volume	GlusterVolume	
host	Host	
host_nic	HostNic	A reference to the host NIC.
host_numa_node	NumaNode	
nic	Nic	

Name	Type	Summary
step	Step	
vm	Vm	

29.274. STATISTICKIND ENUM

Table 29.356. Values summary

Name	Summary
counter	
gauge	

29.275. STATISTICUNIT ENUM

Table 29.357. Values summary

Name	Summary
bits_per_second	
bytes	
bytes_per_second	
count_per_second	
none	
percent	
seconds	

29.276. STEP STRUCT

Represents a step, which is part of **job** execution. Step is used to describe and track a specific execution unit which is part of a wider sequence. Some steps support reporting their progress.

Table 29.358. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
end_time	Date	The end time of the step.
external	Boolean	Indicates if the step is originated by an external system.
external_type	ExternalSystemType	The external system which is referenced by the step.
id	String	A unique identifier.
name	String	A human-readable name in plain text.
number	Integer	The order of the step in current hierarchy level.
progress	Integer	The step progress (if reported) in percentages.
start_time	Date	The start time of the step.
status	StepStatus	The status of the step.
type	StepEnum	The type of the step.

29.276.1. external

Indicates if the step is originated by an external system. External steps are managed externally, by the creator of the step.

Table 29.359. Links summary

Name	Type	Summary
execution_host	Host	The host used for the step execution (optional).
job	Job	References the job which is the top of the current step hierarchy.
parent_step	Step	References the parent step of the current step in the hierarchy.
statistics	Statistic[]	

29.277. STEPENUM ENUM

Type representing a step type.

Table 29.360. Values summary

Name	Summary
executing	The executing step type.
finalizing	The finalizing step type.
rebalancing_volume	The rebalancing volume step type.
removing_bricks	The removing bricks step type.
unknown	The unknown step type.
validating	The validation step type.

29.277.1. executing

The executing step type. Used to track the main execution block of the job. Usually it will be a parent step of several sub-steps which describe portions of the execution step.

29.277.2. finalizing

The finalizing step type. Describes the post-execution steps requires to complete the **job**.

29.277.3. rebalancing_volume

The **rebalancing volume** step type. Describes a step type which is part of **Gluster** flow.

29.277.4. removing_bricks

The **removing bricks** step type. Describes a step type which is part of **Gluster** flow.

29.277.5. unknown

The unknown step type. Describes a step type which its origin is unknown.

29.277.6. validating

The validation step type. Used to verify the correctness of parameters and the validity of the parameters prior to the execution.

29.278. STEPSTATUS ENUM

Represents the status of the step.

Table 29.361. Values summary

Name	Summary
aborted	The aborted step status.
failed	The failed step status.
finished	The finished step status.
started	The started step status.
unknown	The unknown step status.

29.278.1. aborted

The aborted step status. This status is applicable for an external step that was forcibly aborted.

29.278.2. finished

The finished step status. This status describes a completed step execution.

29.278.3. started

The started step status. This status represents a step which is currently being executed.

29.278.4. unknown

The unknown step status. This status represents steps which their resolution is not known, i.e. steps that were executed before the system was unexpectedly restarted.

29.279. STORAGECONNECTION STRUCT

Represents a storage server connection.

Example XML representation:

```
<storage_connection id="123">
  <address>my nfs.example.com</address>
  <type>nfs</type>
  <path>/exports/mydata</path>
</storage_connection>
```

Table 29.362. Attributes summary

Name	Type	Summary
address	String	A storage server connection's address.

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
mount_options	String	The mount options of an NFS storage server connection.
name	String	A human-readable name in plain text.
nfs_retrans	Integer	The NFS retrans value of an NFS storage server connection.
nfs_timeo	Integer	The NFS timeo value of an NFS storage server connection.
nfs_version	NfsVersion	The NFS version of an NFS storage server connection.
password	String	The password of an iSCSI storage server connection.
path	String	The path of an NFS storage server connection.
port	Integer	The port of an iSCSI storage server connection.
portal	String	The portal of an iSCSI storage server connection.
target	String	The target of an iSCSI storage server connection.
type	StorageType	A storage server connection's type.
username	String	The user name of an iSCSI storage server connection.
vfs_type	String	The VFS type of an NFS storage server connection.

Table 29.363. Links summary

Name	Type	Summary
gluster_volume	GlusterVolume	Link to the gluster volume, used by that storage domain.
host	Host	

29.280. STORAGECONNECTIONEXTENSION STRUCT

Table 29.364. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.
password	String	
target	String	
username	String	

Table 29.365. Links summary

Name	Type	Summary
host	Host	

29.281. STORAGEDOMAIN STRUCT

Storage domain.

An XML representation of a NFS storage domain with identifier **123**:

```
<storage_domain href="/ovirt-engine/api/storagedomains/123" id="123">
  <name>mydata</name>
  <description>My data</description>
  <available>38654705664</available>
  <committed>1073741824</committed>
  <critical_space_action_blocker>5</critical_space_action_blocker>
  <external_status>ok</external_status>
  <master>true</master>
  <storage>
    <address>mynfs.example.com</address>
    <nfs_version>v3</nfs_version>
    <path>/exports/mydata</path>
    <type>nfs</type>
  </storage>
  <storage_format>v3</storage_format>
  <type>data</type>
  <used>13958643712</used>
  <warning_low_space_indicator>10</warning_low_space_indicator>
  <wipe_after_delete>false</wipe_after_delete>
  <data_centers>
```

```

<data_center href="/ovirt-engine/api/datacenters/456" id="456"/>
</data_centers>
</storage_domain>

```

Table 29.366. Attributes summary

Name	Type	Summary
available	Integer	
backup	Boolean	This attribute indicates whether a data storage domain is used as backup domain or not.
block_size	Integer	Specifies block size in bytes for a storage domain.
comment	String	Free text containing comments about this object.
committed	Integer	
critical_space_action_blocker	Integer	
description	String	A human-readable description in plain text.
discard_after_delete	Boolean	Indicates whether disks ' blocks on block storage domains will be discarded right before they are deleted.
external_status	ExternalStatus	
id	String	A unique identifier.
import	Boolean	
master	Boolean	
name	String	A human-readable name in plain text.
status	StorageDomainStatus	
storage	HostStorage	
storage_format	StorageFormat	
supports_discard	Boolean	Indicates whether a block storage domain supports discard operations.
supports_discard_zeroes_data	Boolean	Indicates whether a block storage domain supports the property that discard zeroes the data.

Name	Type	Summary
type	StorageDomainType	
used	Integer	
warning_low_space_indicator	Integer	
wipe_after_delete	Boolean	Serves as the default value of wipe_after_delete for disks on this storage domain .

29.281.1. backup

This attribute indicates whether a data storage domain is used as backup domain or not. If the domain is set to backup then it will be used to store virtual machines and templates for disaster recovery purposes in the same way we use export storage domain. This attribute is only available with data storage domain and not with ISO domain or export storage domain. User can use this functionality while creating a data storage domain or importing a data storage domain.

29.281.2. block_size

Specifies block size in bytes for a storage domain. Can be omitted and in that case will be defaulted to 512 bytes. Not all storage domains support all possible sizes.

29.281.3. discard_after_delete

Indicates whether [disks](#)' blocks on block [storage domains](#) will be discarded right before they are deleted.

If true, and a disk on this storage domain has its **wipe_after_delete** value enabled, then when the disk is deleted:

1. It is first wiped.
2. Then its blocks are discarded.
3. Finally it is deleted.

Note that:

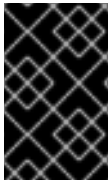
- Discard after delete will always be **false** for non block storage types.
- Discard after delete can be set to **true** only if the storage domain [supports discard](#).

29.281.4. supports_discard

Indicates whether a block storage domain supports discard operations. A [storage domain](#) only supports discard if all of the [logical units](#) that it is built from support discard; that is, if each logical unit's **discard_max_size** value is greater than 0. This is one of the conditions necessary for a virtual disk in this storage domain to have its **pass_discard** attribute enabled.

29.281.5. supports_discard_zeroes_data

Indicates whether a block storage domain supports the property that discard zeroes the data. A [storage domain](#) only supports the property that discard zeroes the data if all of the [logical units](#) that it is built from support it; that is, if each logical unit's **discard_zeroes_data** value is true.



IMPORTANT

Since version 4.2.1 of the system, the support for this attribute has been removed as the sysfs file, **discard_zeroes_data**, was deprecated in the kernel. It is preserved for backwards compatibility, but the value will always be **false**.

29.281.6. wipe_after_delete

Serves as the default value of **wipe_after_delete** for [disks](#) on this [storage domain](#).

That is, newly created disks will get their **wipe_after_delete** value from their storage domains by default. Note that the configuration value **SANWipeAfterDelete** serves as the default value of block storage domains' **wipe_after_delete** value.

Table 29.367. Links summary

Name	Type	Summary
data_center	DataCenter	A link to the data center that the storage domain is attached to.
data_centers	DataCenter[]	A set of links to the data centers that the storage domain is attached to.
disk_profiles	DiskProfile[]	
disk_snapshots	DiskSnapshot[]	
disks	Disk[]	
files	File[]	
host	Host	Host is only relevant at creation time.
images	Image[]	
permissions	Permission[]	
storage_connections	StorageConnection[]	
templates	Template[]	
vms	Vm[]	

29.281.7. data_center

A link to the data center that the storage domain is attached to. This is preserved for backwards compatibility only, as the storage domain may be attached to multiple data centers (if it is an ISO domain). Use the **dataCenters** element instead.

29.282. STORAGEDOMAINLEASE STRUCT

Represents a lease residing on a storage domain.

A lease is a [Sanlock](#) resource residing on a special volume on the storage domain, this Sanlock resource is used to provide storage base locking.

Table 29.368. Links summary

Name	Type	Summary
storage_domain	StorageDomain	Reference to the storage domain on which the lock resides on.

29.283. STORAGEDOMAINSTATUS ENUM

Table 29.369. Values summary

Name	Summary
activating	
active	
detaching	
inactive	
locked	
maintenance	
mixed	
preparing_for_maintenance	
unattached	
unknown	

29.284. STORAGEDOMAINTYPE ENUM

Indicates the kind of data managed by a [storage domain](#).

Table 29.370. Values summary

Name	Summary
data	Data domains are used to store the disks and snapshots of the virtual machines and templates in the system.
export	Export domains are temporary storage repositories used to copy and move virtual machines and templates between data centers and Red Hat Virtualization environments.
image	Image domain store images that can be imported into from an external system.
iso	ISO domains store ISO files (or logical CDs) used to install and boot operating systems and applications for the virtual machines.
managed_block_storage	Managed block storage domains are created on block storage devices.
volume	Volume domains store logical volumes that can be used as disks for virtual machines.

29.284.1. data

Data domains are used to store the disks and snapshots of the virtual machines and templates in the system. In addition, snapshots of the disks are also stored in data domains. Data domains cannot be shared across data centers.

29.284.2. export

Export domains are temporary storage repositories used to copy and move virtual machines and templates between data centers and Red Hat Virtualization environments. Export domains can also be used to backup virtual machines. An export domain can be moved between data centers but it can only be active in one data center at a time.

29.284.3. image

Image domain store images that can be imported into from an external system. For example, images from an OpenStack Glance image repository.

29.284.4. iso

ISO domains store ISO files (or logical CDs) used to install and boot operating systems and applications for the virtual machines. ISO domains remove the data center's need for physical media. An ISO domain can be shared across different data centers.

29.284.5. managed_block_storage

Managed block storage domains are created on block storage devices. These domains are accessed and managed by cinder.

29.284.6. volume

Volume domains store logical volumes that can be used as disks for virtual machines. For example, volumes from an OpenStack Cinder block storage service.

29.285. STORAGEFORMAT ENUM

Type which represents a format of [storage domain](#).

Table 29.371. Values summary

Name	Summary
v1	Version 1 of the storage domain format is applicable to NFS, iSCSI and FC storage domains.
v2	Version 2 of the storage domain format is applicable to iSCSI and FC storage domains.
v3	Version 3 of the storage domain format is applicable to NFS, POSIX, iSCSI and FC storage domains.
v4	Version 4 of the storage domain format.
v5	Version 5 of the storage domain format is applicable to NFS, POSIX, and Gluster storage domains.

29.285.1. v1

Version 1 of the storage domain format is applicable to NFS, iSCSI and FC storage domains.

Each storage domain contains metadata describing its own structure, and all of the names of physical volumes that are used to back virtual machine disk images. Master domains additionally contain metadata for all the domains and physical volume names in the storage pool. The total size of this metadata is limited to 2 KiB, limiting the number of storage domains that can be in a pool. Template and virtual machine base images are read only.

29.285.2. v2

Version 2 of the storage domain format is applicable to iSCSI and FC storage domains.

All storage domain and pool metadata is stored as logical volume tags rather than written to a logical volume. Metadata about virtual machine disk volumes is still stored in a logical volume on the domains. Physical volume names are no longer included in the metadata. Template and virtual machine base images are read only.

29.285.3. v3

Version 3 of the storage domain format is applicable to NFS, POSIX, iSCSI and FC storage domains.

All storage domain and pool metadata is stored as logical volume tags rather than written to a logical volume. Metadata about virtual machine disk volumes is still stored in a logical volume on the domains. Virtual machine and template base images are no longer read only. This change enables live snapshots, live storage migration, and clone from snapshot. Support for Unicode metadata is added, for non-English volume names.

29.285.4. v5

Version 5 of the storage domain format is applicable to NFS, POSIX, and Gluster storage domains.

Added support for 4096 bytes block sizes and variable sanlock alignments.

29.286. STORAGETYPE ENUM

Type representing a storage domain type.

Table 29.372. Values summary

Name	Summary
cinder	Cinder storage domain.
fcp	Fibre-Channel storage domain.
glance	Glance storage domain.
glusterfs	Gluster-FS storage domain.
iscsi	iSCSI storage domain.
localfs	Storage domain on Local storage.
managed_block_storage	Managed block storage domain.
nfs	NFS storage domain.
posixfs	POSIX-FS storage domain.

29.286.1. cinder

Cinder storage domain. For more details on Cinder please go to [Cinder](#).

29.286.2. glance

Glance storage domain. For more details on Glance please go to [Glance](#).

29.286.3. glusterfs

Gluster-FS storage domain. For more details on Gluster please go to [Gluster](#).

29.286.4. managed_block_storage

Managed block storage domain. A storage domain managed using cinderlib. For supported storage drivers, see [Available Drivers](#).

29.287. SWITCHTYPE ENUM

Describes all switch types supported by the Manager.

Table 29.373. Values summary

Name	Summary
legacy	The native switch type.
ovs	The Open vSwitch type.

29.288. SYSTEMOPTION STRUCT

Type representing a configuration option of the system.

Table 29.374. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.
values	SystemOptionValue[]	Values of the option for various system versions.

29.289. SYSTEMOPTIONVALUE STRUCT

Type representing a pair of value and version of a configuration option.

Table 29.375. Attributes summary

Name	Type	Summary
value	String	Configuration option's value for specific version.
version	String	Configuration option's version.

29.290. TAG STRUCT

Represents a tag in the system.

Table 29.376. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.

Table 29.377. Links summary

Name	Type	Summary
group	Group	Reference to the group which has this tag assigned.
host	Host	Reference to the host which has this tag assigned.
parent	Tag	Reference to the parent tag of this tag.
template	Template	Reference to the template which has this tag assigned.
user	User	Reference to the user who has this tag assigned.
vm	Vm	Reference to the virtual machine which has this tag assigned.

29.291. TEMPLATE STRUCT

The type that represents a virtual machine template. Templates allow for a rapid instantiation of virtual machines with common configuration and disk states.

Table 29.378. Attributes summary

Name	Type	Summary
auto_pinning_policy	AutoPinningPolicy	Specifies if and how the auto CPU and NUMA configuration is applied.
bios	Bios	Reference to virtual machine's BIOS configuration.
comment	String	Free text containing comments about this object.
console	Console	Console configured for this virtual machine.
cpu	Cpu	The configuration of the virtual machine CPU.

Name	Type	Summary
cpu_pinning_policy	CpuPinningPolicy	Specifies if and how the CPU and NUMA configuration is applied.
cpu_shares	Integer	
creation_time	Date	The virtual machine creation date.
custom_compatibility_version	Version	Virtual machine custom compatibility version.
custom_cpu_model	String	
custom_emulated_machine	String	
custom_properties	CustomProperty[]	Properties sent to VDSM to configure various hooks.
delete_protected	Boolean	If true , the virtual machine cannot be deleted.
description	String	A human-readable description in plain text.
display	Display	The virtual machine display configuration.
domain	Domain	Domain configured for this virtual machine.
high_availability	HighAvailability	The virtual machine high availability configuration.
id	String	A unique identifier.
initialization	Initialization	Reference to the virtual machine's initialization configuration.
io	Io	For performance tuning of IO threading.
large_icon	Icon	Virtual machine's large icon.
lease	StorageDomainLease	Reference to the storage domain this virtual machine/template lease reside on.
memory	Integer	The virtual machine's memory, in bytes.

Name	Type	Summary
memory_policy	MemoryPolicy	Reference to virtual machine's memory management configuration.
migration	MigrationOptions	Reference to configuration of migration of a running virtual machine to another host.
migration_down_time	Integer	Maximum time the virtual machine can be non responsive during its live migration to another host in ms.
multi_queues_enabled	Boolean	If true , each virtual interface will get the optimal number of queues, depending on the available virtual Cpus.
name	String	A human-readable name in plain text.
origin	String	The origin of this virtual machine.
os	OperatingSystem	Operating system type installed on the virtual machine.
placement_policy	VmPlacementPolicy	The configuration of the virtual machine's placement policy.
rng_device	RngDevice	Random Number Generator device configuration for this virtual machine.
serial_number	SerialNumber	Virtual machine's serial number in a cluster.
small_icon	Icon	Virtual machine's small icon.
soundcard_enabled	Boolean	If true , the sound card is added to the virtual machine.
sso	Sso	Reference to the Single Sign On configuration this virtual machine is configured for.
start_paused	Boolean	If true , the virtual machine will be initially in 'paused' state after start.
stateless	Boolean	If true , the virtual machine is stateless – it's state (disks) are rolled-back after shutdown.
status	TemplateStatus	The status of the template.
storage_error_resume_behaviour	VmStorageErrorResumeBehaviour	Determines how the virtual machine will be resumed after storage error.

Name	Type	Summary
time_zone	TimeZone	The virtual machine's time zone set by oVirt.
tpm_enabled	Boolean	If true , a TPM device is added to the virtual machine.
tunnel_migration	Boolean	If true , the network data transfer will be encrypted during virtual machine live migration.
type	VmType	Determines whether the virtual machine is optimized for desktop or server.
usb	Usb	Configuration of USB devices for this virtual machine (count, type).
version	TemplateVersion	Indicates whether this is the base version or a sub-version of another template.
virtio_scsi	VirtioScsi	Reference to VirtIO SCSI configuration.
virtio_scsi_multi_queues	Integer	Number of queues for a Virtio-SCSI controller this field requires virtioScsiMultiQueuesEnabled to be true see virtioScsiMultiQueuesEnabled for more info
virtio_scsi_multi_queues_enabled	Boolean	If true , the Virtio-SCSI devices will obtain a number of multiple queues depending on the available virtual Cpus and disks, or according to the specified virtioScsiMultiQueues.
vm	Vm	The virtual machine configuration associated with this template.

29.291.1. auto_pinning_policy

Specifies if and how the auto CPU and NUMA configuration is applied.



IMPORTANT

Since version 4.5 of the engine this operation is deprecated, and preserved only for backwards compatibility. It might be removed in the future. Please use CpuPinningPolicy instead.

29.291.2. cpu

The configuration of the virtual machine CPU.

The socket configuration can be updated without rebooting the virtual machine. The cores and the threads require a reboot.

For example, to change the number of sockets to 4 immediately, and the number of cores and threads to 2 after reboot, send the following request:

```
PUT /ovirt-engine/api/vms/123
```

With a request body:

```
<vm>
  <cpu>
    <topology>
      <sockets>4</sockets>
      <cores>2</cores>
      <threads>2</threads>
    </topology>
  </cpu>
</vm>
```

29.291.3. cpu_pinning_policy

Specifies if and how the CPU and NUMA configuration is applied. When not specified the previous behavior of CPU pinning string will determine CpuPinningPolicy to None or Manual.

29.291.4. custom_compatibility_version

Virtual machine custom compatibility version.

Enables a virtual machine to be customized to its own compatibility version. If **custom_compatibility_version** is set, it overrides the cluster's compatibility version for this particular virtual machine.

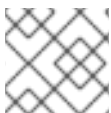
The compatibility version of a virtual machine is limited by the data center the virtual machine resides in, and is checked against capabilities of the host the virtual machine is planned to run on.

29.291.5. high_availability

The virtual machine high availability configuration. If set, the virtual machine will be automatically restarted when it unexpectedly goes down.

29.291.6. initialization

Reference to the virtual machine's initialization configuration.



NOTE

Since Red Hat Virtualization 4.1.8 this property can be cleared by sending an empty tag.

For example, to clear the **initialization** attribute send a request like this:

```
PUT /ovirt-engine/api/vms/123
```

With a request body like this:

```
<vm>
  <initialization/>
</vm>
```

The response to such a request, and requests with the header **All-Content: true** will still contain this attribute.

29.291.7. large_icon

Virtual machine's large icon. Either set by user or refers to image set according to operating system.

29.291.8. lease

Reference to the storage domain this virtual machine/template lease reside on.

A virtual machine running with a lease requires checking while running that the lease is not taken by another host, preventing another instance of this virtual machine from running on another host. This provides protection against split-brain in highly available virtual machines. A template can also have a storage domain defined for a lease in order to have the virtual machines created from this template to be preconfigured with this storage domain as the location of the leases.

29.291.9. memory

The virtual machine's memory, in bytes.

For example, to update a virtual machine to contain 1 Gibibyte (GiB) of memory, send the following request:

```
PUT /ovirt-engine/api/vms/123
```

With the following request body:

```
<vm>
  <memory>1073741824</memory>
</vm>
```

Memory hot plug is supported from Red Hat Virtualization 3.6 onwards. You can use the example above to increase memory while the virtual machine is in state [up](#). The size increment must be dividable by the value of the **HotPlugMemoryBlockSizeMb** configuration value (256 MiB by default). If the memory size increment is not dividable by this value, the memory size change is only stored to next run configuration. Each successful memory hot plug operation creates one or two new memory devices.

Memory hot unplug is supported since Red Hat Virtualization 4.2 onwards. Memory hot unplug can only be performed when the virtual machine is in state [up](#). Only previously hot plugged memory devices can be removed by the hot unplug operation. The requested memory decrement is rounded down to match sizes of a combination of previously hot plugged memory devices. The requested memory value is stored to next run configuration without rounding.



NOTE

Memory in the example is converted to bytes using the following formula:
 $1 \text{ GiB} = 2^{30} \text{ bytes} = 1073741824 \text{ bytes}.$



NOTE

Red Hat Virtualization Manager internally rounds values down to whole MiBs ($1 \text{ MiB} = 2^{20} \text{ bytes}$)

29.291.10. migration

Reference to configuration of migration of a running virtual machine to another host.



NOTE

API for querying migration policy by ID returned by this method is not implemented yet. Use **/ovirt-engine/api/options/MigrationPolicies** to get a list of all migration policies with their IDs.

29.291.11. migration_downtime

Maximum time the virtual machine can be non responsive during its live migration to another host in ms.

Set either explicitly for the virtual machine or by **engine-config -s DefaultMaximumMigrationDowntime=[value]**

29.291.12. origin

The origin of this virtual machine.

Possible values:

- **ovirt**
- **rhev**
- **vmware**
- **xen**
- **external**
- **hosted_engine**
- **managed_hosted_engine**
- **kvm**
- **physical_machine**
- **hyperv**

29.291.13. placement_policy

The configuration of the virtual machine's placement policy.

This configuration can be updated to pin a virtual machine to one or more hosts.



NOTE

Virtual machines that are pinned to multiple hosts cannot be live migrated, but in the event of a host failure, any virtual machine configured to be highly available is automatically restarted on one of the other hosts to which the virtual machine is pinned.

For example, to pin a virtual machine to two hosts, send the following request:

```
PUT /api/vms/123
```

With a request body like this:

```
<vm>
  <high_availability>
    <enabled>true</enabled>
    <priority>1</priority>
  </high_availability>
  <placement_policy>
    <hosts>
      <host>
        <name>Host1</name>
      </host>
      <host>
        <name>Host2</name>
      </host>
    </hosts>
    <affinity>pinned</affinity>
  </placement_policy>
</vm>
```

29.291.14. small_icon

Virtual machine's small icon. Either set by user or refers to image set according to operating system.

29.291.15. sso

Reference to the Single Sign On configuration this virtual machine is configured for. The user can be automatically signed in the virtual machine's operating system when console is opened.

29.291.16. tpm_enabled

If **true**, a TPM device is added to the virtual machine. By default the value is **false**. This property is only visible when fetching if "All-Content=true" header is set.

Table 29.379. Links summary

Name	Type	Summary
cdroms	Cdrom[]	Reference to the CD-ROM devices attached to the template.
cluster	Cluster	Reference to cluster the virtual machine belongs to.
cpu_profile	CpuProfile	Reference to CPU profile used by this virtual machine.
disk_attachments	DiskAttachment[]	Reference to the disks attached to the template.

Name	Type	Summary
graphics_consoles	GraphicsConsole[]	Reference to the graphic consoles attached to the template.
mediated_devices	VmMediatedDevice[]	Mediated devices configuration.
nics	Nic[]	Reference to the network interfaces attached to the template.
permissions	Permission[]	Reference to the user permissions attached to the template.
quota	Quota	Reference to quota configuration set for this virtual machine.
storage_domain	StorageDomain	Reference to storage domain the virtual machine belongs to.
tags	Tag[]	Reference to the tags attached to the template.
watchdogs	Watchdog[]	Reference to the watchdog devices attached to the template.

29.292. TEMPLATESTATUS ENUM

Type representing a status of a virtual machine template.

Table 29.380. Values summary

Name	Summary
illegal	This status indicates that at least one of the disks of the template is illegal.
locked	This status indicates that some operation that prevents other operations with the template is being executed.
ok	This status indicates that the template is valid and ready for use.

29.293. TEMPLATEVERSION STRUCT

Type representing a version of a virtual machine template.

Table 29.381. Attributes summary

Name	Type	Summary
version_name	String	The name of this version.
version_number	Integer	The index of this version in the versions hierarchy of the template.

29.293.1. version_number

The index of this version in the versions hierarchy of the template. The index 1 represents the original version of a template that is also called base version.

Table 29.382. Links summary

Name	Type	Summary
base_template	Template	References the template that this version is associated with.

29.294. TICKET STRUCT

Type representing a ticket that allows virtual machine access.

Table 29.383. Attributes summary

Name	Type	Summary
expiry	Integer	Time to live for the ticket in seconds.
value	String	The virtual machine access ticket.

29.295. TIMEZONE STRUCT

Time zone representation.

Table 29.384. Attributes summary

Name	Type	Summary
name	String	Name of the time zone.
utc_offset	String	UTC offset.

29.295.1. utc_offset

UTC offset.

Offset from [UTC](#).

29.296. TPMSUPPORT ENUM

Table 29.385. Values summary

Name	Summary
required	TPM is required by the operating system

Name	Summary
supported	TPM is supported but optional
unsupported	

29.297. TRANSPARENTHUGEPAGES STRUCT

Type representing a transparent huge pages (THP) support.

Table 29.386. Attributes summary

Name	Type	Summary
enabled	Boolean	Enable THP support.

29.298. TRANSPORTTYPE ENUM

Protocol used to access a Gluster volume.

Table 29.387. Values summary

Name	Summary
rdma	Remote direct memory access.
tcp	TCP.

29.299. UNMANAGEDNETWORK STRUCT

Table 29.388. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.

Table 29.389. Links summary

Name	Type	Summary
host	Host	
host_nic	HostNic	

29.300. USB STRUCT

Configuration of the USB device of a virtual machine.

Table 29.390. Attributes summary

Name	Type	Summary
enabled	Boolean	Determines whether the USB device should be included or not.
type	UsbType	USB type, currently only native is supported.

29.301. USBTYPE ENUM

Type of USB device redirection.

Table 29.391. Values summary

Name	Summary
legacy	Legacy USB redirection.
native	Native USB redirection.

29.301.1. legacy

Legacy USB redirection.

This USB type has been deprecated since version 3.6 of the engine, and has been completely removed in version 4.1. It is preserved only to avoid syntax errors in existing scripts. If it is used it will be automatically replaced by **native**.

29.301.2. native

Native USB redirection.

Native USB redirection allows KVM/SPICE USB redirection for Linux and Windows virtual machines. Virtual (guest) machines require no guest-installed agents or drivers for native USB. On Linux clients, all packages required for USB redirection are provided by the **virt-viewer** package. On Windows clients, you must also install the **usbdk** package.

29.302. USER STRUCT

Represents a user in the system.

Table 29.392. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
department	String	
description	String	A human-readable description in plain text.
domain_entry_id	String	
email	String	
id	String	A unique identifier.
last_name	String	
logged_in	Boolean	
name	String	A human-readable name in plain text.
namespace	String	Namespace where the user resides.
password	String	
principal	String	Similar to user_name .
user_name	String	The user's username.
user_options	Property[]	User options allow you to save key/value properties which are used to customize the settings per individual user.

29.302.1. namespace

Namespace where the user resides. When using the authorization provider that stores users in the LDAP server, this attribute equals the naming context of the LDAP server. See [oVirt Engine Extension AAA LDAP](#) for more information. When using the built-in authorization provider that stores users in the database this attribute is ignored. See [oVirt Engine extension - AAA - JDBC](#) for more information.

29.302.2. principal

Similar to **user_name**. The format depends on the LDAP provider. With most LDAP providers it is the value of the **uid** LDAP attribute. In the case of Active Directory it is the User Principal Name (UPN).

29.302.3. user_name

The user's username. The format depends on authorization provider type. In most LDAP providers it is the value of the **uid** LDAP attribute. In Active Directory it is the User Principal Name (UPN). **UPN** or **uid** must be followed by the authorization provider name. For example, in the case of LDAP's **uid** attribute it is: **myuser@myextension-authz**. In the case of Active Directory using **UPN** it is: **myuser@mysubdomain.mydomain.com@myextension-authz**. This attribute is a required parameter when adding a new user.

29.302.4. user_options

User options allow you to save key/value properties which are used to customize the settings per individual user. Note that since version 4.4.5 this property is deprecated and preserved only for backwards compatibility. It will be removed in the future. Please use the [options](#) endpoint instead.

Table 29.393. Links summary

Name	Type	Summary
domain	Domain	
groups	Group[]	
options	UserOption[]	
permissions	Permission[]	
roles	Role[]	A link to the roles sub-collection for user resources.
ssh_public_keys	SshPublicKey[]	
tags	Tag[]	A link to the tags sub-collection for user resources.

29.303. USEROPTION STRUCT

User options allow you to save key/value properties which are used to customize the settings per individual user.

Table 29.394. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
content	String	JSON content encoded as string.
description	String	A human-readable description in plain text.
id	String	A unique identifier.

Name	Type	Summary
name	String	A human-readable name in plain text.

29.303.1. content

JSON content encoded as string. Any valid JSON is supported.

Table 29.395. Links summary

Name	Type	Summary
user	User	

29.304. VALUE STRUCT

Table 29.396. Attributes summary

Name	Type	Summary
datum	Decimal	
detail	String	

29.305. VALUETYPE ENUM

Table 29.397. Values summary

Name	Summary
decimal	
integer	
string	

29.306. VCPUPIN STRUCT

Table 29.398. Attributes summary

Name	Type	Summary
cpu_set	String	
vcpu	Integer	

29.307. VENDOR STRUCT

Table 29.399. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.

29.308. VERSION STRUCT

Table 29.400. Attributes summary

Name	Type	Summary
build	Integer	
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
full_version	String	
id	String	A unique identifier.
major	Integer	
minor	Integer	
name	String	A human-readable name in plain text.
revision	Integer	

29.309. VGPUPLACEMENT ENUM

The vGPU placement strategy.

It can either put vGPUs on the first available physical cards, or spread them over multiple physical cards.

Table 29.401. Values summary

Name	Summary
consolidated	Use consolidated placement.
separated	Use separated placement.

29.309.1. consolidated

Use consolidated placement. Each vGPU is placed on the first physical card with available space.

This is the default placement, utilizing all available space on the physical cards.

29.309.2. separated

Use separated placement. Each vGPU is placed on a separate physical card, if possible.

This can be useful for improving vGPU performance.

29.310. VIRTIO SCSI STRUCT

Type representing the support of virtio-SCSI. If it supported we use virtio driver for SCSI guest device.

Table 29.402. Attributes summary

Name	Type	Summary
enabled	Boolean	Enable Virtio SCSI support.

29.311. VIRTUALNUMANODE STRUCT

Represents the virtual NUMA node.

An example XML representation:

```
<vm_numa_node href="/ovirt-engine/api/vms/123/humanodes/456" id="456">
  <cpu>
    <cores>
      <core>
        <index>0</index>
      </core>
    </cores>
  </cpu>
  <index>0</index>
  <memory>1024</memory>
  <numa_node_pins>
    <numa_node_pin>
      <index>0</index>
    </numa_node_pin>
  </numa_node_pins>
</vm_numa_node>
```

```

</numa_node_pins>
<vm href="/ovirt-engine/api/vms/123" id="123" />
</vm_numa_node>

```

Table 29.403. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
cpu	Cpu	
description	String	A human-readable description in plain text.
id	String	A unique identifier.
index	Integer	
memory	Integer	Memory of the NUMA node in MB.
name	String	A human-readable name in plain text.
node_distance	String	
numa_node_pins	NumaNodePin[]	
numa_tune_mode	NumaTuneMode	How the NUMA topology is applied.

Table 29.404. Links summary

Name	Type	Summary
host	Host	
statistics	Statistic[]	Each host NUMA node resource exposes a statistics sub-collection for host NUMA node specific statistics.
vm	Vm	

29.311.1. statistics

Each host NUMA node resource exposes a statistics sub-collection for host NUMA node specific statistics.

An example of an XML representation:

```
<statistics>
```

```
<statistic href="/ovirt-engine/api/hosts/123/numanodes/456/statistics/789" id="789">
  <name>memory.total</name>
  <description>Total memory</description>
  <kind>gauge</kind>
  <type>integer</type>
  <unit>bytes</unit>
  <values>
    <value>
      <datum>25165824000</datum>
    </value>
  </values>
  <host_numa_node href="/ovirt-engine/api/hosts/123/numanodes/456" id="456" />
</statistic>
...
</statistics>
```



NOTE

This statistics sub-collection is read-only.

The following list shows the statistic types for a host NUMA node:

Name	Description
memory.total	Total memory in bytes on the NUMA node.
memory.used	Memory in bytes used on the NUMA node.
memory.free	Memory in bytes free on the NUMA node.
cpu.current.user	Percentage of CPU usage for user slice.
cpu.current.system	Percentage of CPU usage for system.
cpu.current.idle	Percentage of idle CPU usage.

29.312. VLAN STRUCT

Type representing a Virtual LAN (VLAN) type.

Table 29.405. Attributes summary

Name	Type	Summary
id	<i>Integer</i>	Virtual LAN ID.

29.313. VM STRUCT

Represents a virtual machine.

Table 29.406. Attributes summary

Name	Type	Summary
auto_pinning_policy	AutoPinningPolicy	Specifies if and how the auto CPU and NUMA configuration is applied.
bios	Bios	Reference to virtual machine's BIOS configuration.
comment	String	Free text containing comments about this object.
console	Console	Console configured for this virtual machine.
cpu	Cpu	The configuration of the virtual machine CPU.
cpu_pinning_policy	CpuPinningPolicy	Specifies if and how the CPU and NUMA configuration is applied.
cpu_shares	Integer	
creation_time	Date	The virtual machine creation date.
custom_compatibility_version	Version	Virtual machine custom compatibility version.
custom_cpu_model	String	
custom_emulated_machine	String	
custom_properties	CustomProperty[]	Properties sent to VDSM to configure various hooks.
delete_protected	Boolean	If true , the virtual machine cannot be deleted.
description	String	A human-readable description in plain text.
display	Display	The virtual machine display configuration.
domain	Domain	Domain configured for this virtual machine.
fqdn	String	Fully qualified domain name of the virtual machine.
guest_operating_system	GuestOperatingSystem	What operating system is installed on the virtual machine.

Name	Type	Summary
guest_time_zone	TimeZone	What time zone is used by the virtual machine (as returned by guest agent).
has_illegal_images	Boolean	Indicates whether the virtual machine has snapshots with disks in ILLEGAL state.
high_availability	HighAvailability	The virtual machine high availability configuration.
id	String	A unique identifier.
initialization	Initialization	Reference to the virtual machine's initialization configuration.
io	Io	For performance tuning of IO threading.
large_icon	Icon	Virtual machine's large icon.
lease	StorageDomainLease	Reference to the storage domain this virtual machine/template lease reside on.
memory	Integer	The virtual machine's memory, in bytes.
memory_policy	MemoryPolicy	Reference to virtual machine's memory management configuration.
migration	MigrationOptions	Reference to configuration of migration of a running virtual machine to another host.
migration_down_time	Integer	Maximum time the virtual machine can be non responsive during its live migration to another host in ms.
multi_queues_enabled	Boolean	If true , each virtual interface will get the optimal number of queues, depending on the available virtual Cpus.
name	String	A human-readable name in plain text.
next_run_configuration_exists	Boolean	Virtual machine configuration has been changed and requires restart of the virtual machine.
numa_tune_mode	NumaTuneMode	How the NUMA topology is applied.
origin	String	The origin of this virtual machine.
os	OperatingSystem	Operating system type installed on the virtual machine.

Name	Type	Summary
payloads	Payload[]	Optional payloads of the virtual machine, used for ISOs to configure it.
placement_policy	VmPlacementPolicy	The configuration of the virtual machine's placement policy.
rng_device	RngDevice	Random Number Generator device configuration for this virtual machine.
run_once	Boolean	If true , the virtual machine has been started using the <i>run once</i> command, meaning it's configuration might differ from the stored one for the purpose of this single run.
serial_number	SerialNumber	Virtual machine's serial number in a cluster.
small_icon	Icon	Virtual machine's small icon.
soundcard_enabled	Boolean	If true , the sound card is added to the virtual machine.
sso	Sso	Reference to the Single Sign On configuration this virtual machine is configured for.
start_paused	Boolean	If true , the virtual machine will be initially in 'paused' state after start.
start_time	Date	The date in which the virtual machine was started.
stateless	Boolean	If true , the virtual machine is stateless - it's state (disks) are rolled-back after shutdown.
status	VmStatus	The current status of the virtual machine.
status_detail	String	Human readable detail of current status.
stop_reason	String	The reason the virtual machine was stopped.
stop_time	Date	The date in which the virtual machine was stopped.
storage_error_resume_behaviour	VmStorageErrorResumeBehaviour	Determines how the virtual machine will be resumed after storage error.
time_zone	TimeZone	The virtual machine's time zone set by oVirt.
tpm_enabled	Boolean	If true , a TPM device is added to the virtual machine.

Name	Type	Summary
tunnel_migration	Boolean	If true , the network data transfer will be encrypted during virtual machine live migration.
type	VmType	Determines whether the virtual machine is optimized for desktop or server.
usb	Usb	Configuration of USB devices for this virtual machine (count, type).
use_latest_template_version	Boolean	If true , the virtual machine is reconfigured to the latest version of it's template when it is started.
virtio_scsi	VirtioScsi	Reference to VirtIO SCSI configuration.
virtio_scsi_multi_queues	Integer	Number of queues for a Virtio-SCSI controller this field requires virtioScsiMultiQueuesEnabled to be true see virtioScsiMultiQueuesEnabled for more info
virtio_scsi_multi_queues_enabled	Boolean	If true , the Virtio-SCSI devices will obtain a number of multiple queues depending on the available virtual Cpus and disks, or according to the specified virtioScsiMultiQueues.

29.313.1. auto_pinning_policy

Specifies if and how the auto CPU and NUMA configuration is applied.



IMPORTANT

Since version 4.5 of the engine this operation is deprecated, and preserved only for backwards compatibility. It might be removed in the future. Please use CpuPinningPolicy instead.

29.313.2. cpu

The configuration of the virtual machine CPU.

The socket configuration can be updated without rebooting the virtual machine. The cores and the threads require a reboot.

For example, to change the number of sockets to 4 immediately, and the number of cores and threads to 2 after reboot, send the following request:

```
PUT /ovirt-engine/api/vms/123
```

With a request body:

```
<vm>
  <cpu>
```

```

<topology>
  <sockets>4</sockets>
  <cores>2</cores>
  <threads>2</threads>
</topology>
</cpu>
</vm>

```

29.313.3. cpu_pinning_policy

Specifies if and how the CPU and NUMA configuration is applied. When not specified the previous behavior of CPU pinning string will determine CpuPinningPolicy to None or Manual.

29.313.4. custom_compatibility_version

Virtual machine custom compatibility version.

Enables a virtual machine to be customized to its own compatibility version. If

custom_compatibility_version is set, it overrides the cluster's compatibility version for this particular virtual machine.

The compatibility version of a virtual machine is limited by the data center the virtual machine resides in, and is checked against capabilities of the host the virtual machine is planned to run on.

29.313.5. high_availability

The virtual machine high availability configuration. If set, the virtual machine will be automatically restarted when it unexpectedly goes down.

29.313.6. initialization

Reference to the virtual machine's initialization configuration.



NOTE

Since Red Hat Virtualization 4.1.8 this property can be cleared by sending an empty tag.

For example, to clear the **initialization** attribute send a request like this:

```
PUT /ovirt-engine/api/vms/123
```

With a request body like this:

```

<vm>
  <initialization/>
</vm>

```

The response to such a request, and requests with the header **All-Content: true** will still contain this attribute.

29.313.7. large_icon

Virtual machine's large icon. Either set by user or refers to image set according to operating system.

29.313.8. lease

Reference to the storage domain this virtual machine/template lease reside on.

A virtual machine running with a lease requires checking while running that the lease is not taken by another host, preventing another instance of this virtual machine from running on another host. This provides protection against split-brain in highly available virtual machines. A template can also have a storage domain defined for a lease in order to have the virtual machines created from this template to be preconfigured with this storage domain as the location of the leases.

29.313.9. memory

The virtual machine's memory, in bytes.

For example, to update a virtual machine to contain 1 Gibibyte (GiB) of memory, send the following request:

```
PUT /ovirt-engine/api/vms/123
```

With the following request body:

```
<vm>
  <memory>1073741824</memory>
</vm>
```

Memory hot plug is supported from Red Hat Virtualization 3.6 onwards. You can use the example above to increase memory while the virtual machine is in state [up](#). The size increment must be dividable by the value of the **HotPlugMemoryBlockSizeMb** configuration value (256 MiB by default). If the memory size increment is not dividable by this value, the memory size change is only stored to next run configuration. Each successful memory hot plug operation creates one or two new memory devices.

Memory hot unplug is supported since Red Hat Virtualization 4.2 onwards. Memory hot unplug can only be performed when the virtual machine is in state [up](#). Only previously hot plugged memory devices can be removed by the hot unplug operation. The requested memory decrement is rounded down to match sizes of a combination of previously hot plugged memory devices. The requested memory value is stored to next run configuration without rounding.



NOTE

Memory in the example is converted to bytes using the following formula:

1 GiB = 2^{30} bytes = 1073741824 bytes.



NOTE

Red Hat Virtualization Manager internally rounds values down to whole MiBs (1MiB = 2^{20} bytes)

29.313.10. migration

Reference to configuration of migration of a running virtual machine to another host.

**NOTE**

API for querying migration policy by ID returned by this method is not implemented yet. Use **/ovirt-engine/api/options/MigrationPolicies** to get a list of all migration policies with their IDs.

29.313.11. migration_downtime

Maximum time the virtual machine can be non responsive during its live migration to another host in ms.

Set either explicitly for the virtual machine or by **engine-config -s DefaultMaximumMigrationDowntime=[value]**

29.313.12. next_run_configuration_exists

Virtual machine configuration has been changed and requires restart of the virtual machine. Changed configuration is applied at processing the virtual machine's *shut down*.

29.313.13. numa_tune_mode

How the NUMA topology is applied. Deprecated in favor of NUMA tune per vNUMA node.

29.313.14. origin

The origin of this virtual machine.

Possible values:

- **ovirt**
- **rhev**
- **vmware**
- **xen**
- **external**
- **hosted_engine**
- **managed_hosted_engine**
- **kvm**
- **physical_machine**
- **hyperv**

29.313.15. placement_policy

The configuration of the virtual machine's placement policy.

This configuration can be updated to pin a virtual machine to one or more hosts.

**NOTE**

Virtual machines that are pinned to multiple hosts cannot be live migrated, but in the event of a host failure, any virtual machine configured to be highly available is automatically restarted on one of the other hosts to which the virtual machine is pinned.

For example, to pin a virtual machine to two hosts, send the following request:

```
PUT /api/vms/123
```

With a request body like this:

```
<vm>
  <high_availability>
    <enabled>true</enabled>
    <priority>1</priority>
  </high_availability>
  <placement_policy>
    <hosts>
      <host>
        <name>Host1</name>
      </host>
      <host>
        <name>Host2</name>
      </host>
    </hosts>
    <affinity>pinned</affinity>
  </placement_policy>
</vm>
```

29.313.16. small_icon

Virtual machine's small icon. Either set by user or refers to image set according to operating system.

29.313.17. sso

Reference to the Single Sign On configuration this virtual machine is configured for. The user can be automatically signed in the virtual machine's operating system when console is opened.

29.313.18. stop_reason

The reason the virtual machine was stopped. Optionally set by user when shutting down the virtual machine.

29.313.19. tpm_enabled

If **true**, a TPM device is added to the virtual machine. By default the value is **false**. This property is only visible when fetching if "All-Content=true" header is set.

Table 29.407. Links summary

Name	Type	Summary
affinity_labels	AffinityLabel[]	Optional.
applications	Application[]	List of applications installed on the virtual machine.
cdroms	Cdrom[]	Reference to the ISO mounted to the CDROM.
cluster	Cluster	Reference to cluster the virtual machine belongs to.
cpu_profile	CpuProfile	Reference to CPU profile used by this virtual machine.
disk_attachments	DiskAttachment[]	References the disks attached to the virtual machine.
dynamic_cpu	DynamicCpu	The dynamic configuration of the virtual machine CPU.
external_host_provider	ExternalHostProvider	
floppies	Floppy[]	Reference to the ISO mounted to the floppy.
graphics_consoles	GraphicsConsole[]	List of graphics consoles configured for this virtual machine.
host	Host	Reference to the host the virtual machine is running on.
host_devices	HostDevice[]	References devices associated to this virtual machine.
instance_type	InstanceType	The virtual machine configuration can be optionally predefined via one of the instance types.
katello_errata	KatelloErratum[]	Lists all the Katello errata assigned to the virtual machine.
mediated_devices	VmMediatedDevice[]	Mediated devices configuration.
nics	Nic[]	References the list of network interface devices on the virtual machine.
numa_nodes	NumaNode[]	Refers to the NUMA Nodes configuration used by this virtual machine.
original_template	Template	References the original template used to create the virtual machine.
permissions	Permission[]	Permissions set for this virtual machine.

Name	Type	Summary
quota	Quota	Reference to quota configuration set for this virtual machine.
reported_devices	ReportedDevice[]	
sessions	Session[]	List of user sessions opened for this virtual machine.
snapshots	Snapshot[]	Refers to all snapshots taken from the virtual machine.
statistics	Statistic[]	Statistics data collected from this virtual machine.
storage_domain	StorageDomain	Reference to storage domain the virtual machine belongs to.
tags	Tag[]	
template	Template	Reference to the template the virtual machine is based on.
vm_pool	VmPool	Reference to the pool the virtual machine is optionally member of.
watchdogs	Watchdog[]	Refers to the Watchdog configuration.

29.313.20. affinity_labels

Optional. Used for labeling of sub-clusters.

29.313.21. katello_errata

Lists all the Katello errata assigned to the virtual machine.

```
GET /ovirt-engine/api/vms/123/katelloerrata
```

You will receive response in XML like this one:

```
<katello_errata>
  <katello_erratum href="/ovirt-engine/api/katelloerrata/456" id="456">
    <name>RHBA-2013:XYZ</name>
    <description>The description of the erratum</description>
    <title>some bug fix update</title>
    <type>bugfix</type>
    <issued>2013-11-20T02:00:00.000+02:00</issued>
    <solution>Few guidelines regarding the solution</solution>
    <summary>Updated packages that fix one bug are now available for XYZ</summary>
    <packages>
      <package>
        <name>libipa_hbac-1.9.2-82.11.el6_4.i686</name>
      </package>
    ...
```

```

    </packages>
  </katello_erratum>
  ...
</katello_errata>

```

29.313.22. original_template

References the original template used to create the virtual machine.

If the virtual machine is cloned from a template or another virtual machine, the **template** links to the Blank template, and the **original_template** is used to track history.

Otherwise the **template** and **original_template** are the same.

29.313.23. statistics

Statistics data collected from this virtual machine.

Note that some statistics, notably **memory.buffered** and **memory.cached** are available only when [Red Hat Virtualization guest agent](#) is installed in the virtual machine.

29.314. VMAFFINITY ENUM

Table 29.408. Values summary

Name	Summary
migratable	
pinned	
user_migratable	

29.315. VMBASE STRUCT

Represents basic virtual machine configuration. This is used by virtual machines, templates and instance types.

Table 29.409. Attributes summary

Name	Type	Summary
auto_pinning_policy	AutoPinningPolicy	Specifies if and how the auto CPU and NUMA configuration is applied.
bios	Bios	Reference to virtual machine's BIOS configuration.
comment	String	Free text containing comments about this object.
console	Console	Console configured for this virtual machine.

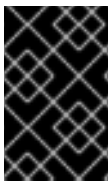
Name	Type	Summary
cpu	Cpu	The configuration of the virtual machine CPU.
cpu_pinning_policy	CpuPinningPolicy	Specifies if and how the CPU and NUMA configuration is applied.
cpu_shares	Integer	
creation_time	Date	The virtual machine creation date.
custom_compatibility_version	Version	Virtual machine custom compatibility version.
custom_cpu_model	String	
custom_emulated_machine	String	
custom_properties	CustomProperty[]	Properties sent to VDSM to configure various hooks.
delete_protected	Boolean	If true , the virtual machine cannot be deleted.
description	String	A human-readable description in plain text.
display	Display	The virtual machine display configuration.
domain	Domain	Domain configured for this virtual machine.
high_availability	HighAvailability	The virtual machine high availability configuration.
id	String	A unique identifier.
initialization	Initialization	Reference to the virtual machine's initialization configuration.
io	Io	For performance tuning of IO threading.
large_icon	Icon	Virtual machine's large icon.
lease	StorageDomainLease	Reference to the storage domain this virtual machine/template lease reside on.
memory	Integer	The virtual machine's memory, in bytes.

Name	Type	Summary
memory_policy	MemoryPolicy	Reference to virtual machine's memory management configuration.
migration	MigrationOptions	Reference to configuration of migration of a running virtual machine to another host.
migration_down_time	Integer	Maximum time the virtual machine can be non responsive during its live migration to another host in ms.
multi_queues_enabled	Boolean	If true , each virtual interface will get the optimal number of queues, depending on the available virtual Cpus.
name	String	A human-readable name in plain text.
origin	String	The origin of this virtual machine.
os	OperatingSystem	Operating system type installed on the virtual machine.
placement_policy	VmPlacementPolicy	The configuration of the virtual machine's placement policy.
rng_device	RngDevice	Random Number Generator device configuration for this virtual machine.
serial_number	SerialNumber	Virtual machine's serial number in a cluster.
small_icon	Icon	Virtual machine's small icon.
soundcard_enabled	Boolean	If true , the sound card is added to the virtual machine.
sso	Sso	Reference to the Single Sign On configuration this virtual machine is configured for.
start_paused	Boolean	If true , the virtual machine will be initially in 'paused' state after start.
stateless	Boolean	If true , the virtual machine is stateless - it's state (disks) are rolled-back after shutdown.
storage_error_resume_behaviour	VmStorageErrorResumeBehaviour	Determines how the virtual machine will be resumed after storage error.
time_zone	TimeZone	The virtual machine's time zone set by oVirt.

Name	Type	Summary
tpm_enabled	Boolean	If true , a TPM device is added to the virtual machine.
tunnel_migration	Boolean	If true , the network data transfer will be encrypted during virtual machine live migration.
type	VmType	Determines whether the virtual machine is optimized for desktop or server.
usb	Usb	Configuration of USB devices for this virtual machine (count, type).
virtio_scsi	VirtioScsi	Reference to VirtIO SCSI configuration.
virtio_scsi_multi_queues	Integer	Number of queues for a Virtio-SCSI controller this field requires virtioScsiMultiQueuesEnabled to be true see virtioScsiMultiQueuesEnabled for more info
virtio_scsi_multi_queues_enabled	Boolean	If true , the Virtio-SCSI devices will obtain a number of multiple queues depending on the available virtual Cpus and disks, or according to the specified virtioScsiMultiQueues.

29.315.1. auto_pinning_policy

Specifies if and how the auto CPU and NUMA configuration is applied.



IMPORTANT

Since version 4.5 of the engine this operation is deprecated, and preserved only for backwards compatibility. It might be removed in the future. Please use CpuPinningPolicy instead.

29.315.2. cpu

The configuration of the virtual machine CPU.

The socket configuration can be updated without rebooting the virtual machine. The cores and the threads require a reboot.

For example, to change the number of sockets to 4 immediately, and the number of cores and threads to 2 after reboot, send the following request:

```
PUT /ovirt-engine/api/vms/123
```

With a request body:

```
<vm>
  <cpu>
    <topology>
```

```

    <sockets>4</sockets>
    <cores>2</cores>
    <threads>2</threads>
  </topology>
</cpu>
</vm>

```

29.315.3. cpu_pinning_policy

Specifies if and how the CPU and NUMA configuration is applied. When not specified the previous behavior of CPU pinning string will determine CpuPinningPolicy to None or Manual.

29.315.4. custom_compatibility_version

Virtual machine custom compatibility version.

Enables a virtual machine to be customized to its own compatibility version. If

custom_compatibility_version is set, it overrides the cluster's compatibility version for this particular virtual machine.

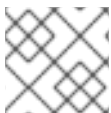
The compatibility version of a virtual machine is limited by the data center the virtual machine resides in, and is checked against capabilities of the host the virtual machine is planned to run on.

29.315.5. high_availability

The virtual machine high availability configuration. If set, the virtual machine will be automatically restarted when it unexpectedly goes down.

29.315.6. initialization

Reference to the virtual machine's initialization configuration.



NOTE

Since Red Hat Virtualization 4.1.8 this property can be cleared by sending an empty tag.

For example, to clear the **initialization** attribute send a request like this:

```
PUT /ovirt-engine/api/vms/123
```

With a request body like this:

```

<vm>
  <initialization/>
</vm>

```

The response to such a request, and requests with the header **All-Content: true** will still contain this attribute.

29.315.7. large_icon

Virtual machine's large icon. Either set by user or refers to image set according to operating system.

29.315.8. lease

Reference to the storage domain this virtual machine/template lease reside on.

A virtual machine running with a lease requires checking while running that the lease is not taken by another host, preventing another instance of this virtual machine from running on another host. This provides protection against split-brain in highly available virtual machines. A template can also have a storage domain defined for a lease in order to have the virtual machines created from this template to be preconfigured with this storage domain as the location of the leases.

29.315.9. memory

The virtual machine's memory, in bytes.

For example, to update a virtual machine to contain 1 Gibibyte (GiB) of memory, send the following request:

```
PUT /ovirt-engine/api/vms/123
```

With the following request body:

```
<vm>
  <memory>1073741824</memory>
</vm>
```

Memory hot plug is supported from Red Hat Virtualization 3.6 onwards. You can use the example above to increase memory while the virtual machine is in state [up](#). The size increment must be dividable by the value of the **HotPlugMemoryBlockSizeMb** configuration value (256 MiB by default). If the memory size increment is not dividable by this value, the memory size change is only stored to next run configuration. Each successful memory hot plug operation creates one or two new memory devices.

Memory hot unplug is supported since Red Hat Virtualization 4.2 onwards. Memory hot unplug can only be performed when the virtual machine is in state [up](#). Only previously hot plugged memory devices can be removed by the hot unplug operation. The requested memory decrement is rounded down to match sizes of a combination of previously hot plugged memory devices. The requested memory value is stored to next run configuration without rounding.



NOTE

Memory in the example is converted to bytes using the following formula:

$1 \text{ GiB} = 2^{30} \text{ bytes} = 1073741824 \text{ bytes}$.



NOTE

Red Hat Virtualization Manager internally rounds values down to whole MiBs ($1 \text{ MiB} = 2^{20} \text{ bytes}$)

29.315.10. migration

Reference to configuration of migration of a running virtual machine to another host.

**NOTE**

API for querying migration policy by ID returned by this method is not implemented yet. Use **/ovirt-engine/api/options/MigrationPolicies** to get a list of all migration policies with their IDs.

29.315.11. migration_downtime

Maximum time the virtual machine can be non responsive during its live migration to another host in ms.

Set either explicitly for the virtual machine or by **engine-config -s DefaultMaximumMigrationDowntime=[value]**

29.315.12. origin

The origin of this virtual machine.

Possible values:

- **ovirt**
- **rhev**
- **vmware**
- **xen**
- **external**
- **hosted_engine**
- **managed_hosted_engine**
- **kvm**
- **physical_machine**
- **hyperv**

29.315.13. placement_policy

The configuration of the virtual machine's placement policy.

This configuration can be updated to pin a virtual machine to one or more hosts.

**NOTE**

Virtual machines that are pinned to multiple hosts cannot be live migrated, but in the event of a host failure, any virtual machine configured to be highly available is automatically restarted on one of the other hosts to which the virtual machine is pinned.

For example, to pin a virtual machine to two hosts, send the following request:

```
PUT /api/vms/123
```

With a request body like this:

```
<vm>
  <high_availability>
    <enabled>true</enabled>
    <priority>1</priority>
  </high_availability>
  <placement_policy>
    <hosts>
      <host>
        <name>Host1</name>
      </host>
      <host>
        <name>Host2</name>
      </host>
    </hosts>
    <affinity>pinned</affinity>
  </placement_policy>
</vm>
```

29.315.14. small_icon

Virtual machine's small icon. Either set by user or refers to image set according to operating system.

29.315.15. sso

Reference to the Single Sign On configuration this virtual machine is configured for. The user can be automatically signed in the virtual machine's operating system when console is opened.

29.315.16. tpm_enabled

If **true**, a TPM device is added to the virtual machine. By default the value is **false**. This property is only visible when fetching if "All-Content=true" header is set.

Table 29.410. Links summary

Name	Type	Summary
cluster	Cluster	Reference to cluster the virtual machine belongs to.
cpu_profile	CpuProfile	Reference to CPU profile used by this virtual machine.
quota	Quota	Reference to quota configuration set for this virtual machine.
storage_domain	StorageDomain	Reference to storage domain the virtual machine belongs to.

29.316. VMDEVICETYPE ENUM

Table 29.411. Values summary

Name	Summary
cdrom	
floppy	

29.317. VMMEDIEDDEVICE STRUCT

VM mediated device is a fake device specifying properties of vGPU mediated devices. It is not an actual device, it just serves as a specification how to configure a part of a host device.

Table 29.412. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
name	String	A human-readable name in plain text.
spec_params	Property[]	Properties of the device.

Table 29.413. Links summary

Name	Type	Summary
instance_type	InstanceType	Optionally references to an instance type the device is used by.
template	Template	Optionally references to a template the device is used by.
vm	Vm	Do not use this element, use vms instead.
vms	Vm[]	References to the virtual machines that are using this device.

29.317.1. vms

References to the virtual machines that are using this device. A device may be used by several virtual machines; for example, a shared disk may be used simultaneously by two or more virtual machines.

29.318. VMPLACEMENTPOLICY STRUCT

Table 29.414. Attributes summary

Name	Type	Summary
affinity	VmAffinity	

Table 29.415. Links summary

Name	Type	Summary
hosts	Host[]	

29.319. VMPOOL STRUCT

Type representing a virtual machines pool.

Table 29.416. Attributes summary

Name	Type	Summary
auto_storage_select	Boolean	Indicates if the pool should automatically distribute the disks of the virtual machines across the multiple storage domains where the template is copied.
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
display	Display	The display settings configured for virtual machines in the pool.
id	String	A unique identifier.
max_user_vms	Integer	The maximum number of virtual machines in the pool that could be assigned to a particular user.
name	String	A human-readable name in plain text.
prestarted_vms	Integer	The system attempts to prestart the specified number of virtual machines from the pool.
rng_device	RngDevice	The random number generator device configured for virtual machines in the pool.
size	Integer	The number of virtual machines in the pool.
soundcard_enabled	Boolean	Indicates if sound card should be configured for virtual machines in the pool.
stateful	Boolean	Virtual machine pool's stateful flag.

Name	Type	Summary
tpm_enabled	Boolean	If true , a TPM device is added to the virtual machine.
type	VmPoolType	The deallocation policy of virtual machines in the pool.
use_latest_template_version	Boolean	Indicates if virtual machines in the pool are updated to newer versions of the template the pool is based on.

29.319.1. auto_storage_select

Indicates if the pool should automatically distribute the disks of the virtual machines across the multiple storage domains where the template is copied.

When the template used by the pool is present in multiple storage domains, the disks of the virtual machines of the pool will be created in one of those storage domains. By default, or when the value of this attribute is **false**, that storage domain is selected when the pool is created, and all virtual machines will use the same. If this attribute is **true**, then, when a virtual machine is added to the pool, the storage domain that has more free space is selected.

29.319.2. display

The display settings configured for virtual machines in the pool.



WARNING

Please note that this attribute is not working and is now deprecated. Please use **Vm.display** instead.

29.319.3. prestarted_vms

The system attempts to prestart the specified number of virtual machines from the pool.

These virtual machines are started without being attached to any user. That way, users can acquire virtual machines from the pool faster.

29.319.4. stateful

Virtual machine pool's stateful flag.

Virtual machines from a stateful virtual machine pool are always started in stateful mode (stateless snapshot is not created). The state of the virtual machine is preserved even when the virtual machine is passed to a different user.

29.319.5. tpm_enabled

If **true**, a TPM device is added to the virtual machine. By default the value is **false**. This property is only visible when fetching if "All-Content=true" header is set.

Table 29.417. Links summary

Name	Type	Summary
cluster	Cluster	Reference to the cluster the pool resides in.
instance_type	InstanceType	Reference to the instance type on which this pool is based.
permissions	Permission[]	Permissions set for this virtual machine pool.
template	Template	Reference to the template the pool is based on.
vm	Vm	Reference to an arbitrary virtual machine that is part of the pool.

29.319.6. instance_type

Reference to the instance type on which this pool is based. It can be set only on pool creation and cannot be edited.

29.319.7. vm

Reference to an arbitrary virtual machine that is part of the pool.

Note that this virtual machine may not be based to the latest version of the pool's template.

29.320. VMPOOLTYPE ENUM

Type representing the deallocation policy of virtual machines in a virtual machines pool.

Table 29.418. Values summary

Name	Summary
automatic	This policy indicates that virtual machines in the pool are automatically deallocated by the system.
manual	This policy indicates that virtual machines in the pool are deallocated manually by the administrator.

29.320.1. automatic

This policy indicates that virtual machines in the pool are automatically deallocated by the system.

With this policy, when a virtual machine that is part of the pool and is assigned to a user is shut-down, it is detached from the user, its state is restored to the pool's default state, and the virtual machine returns to pool (i.e., the virtual machine can then be assigned to another user).

29.320.2. manual

This policy indicates that virtual machines in the pool are deallocated manually by the administrator.

With this policy, a virtual machine that is part of the pool remains assigned to its user and preserves its state on shut-down. In order to return the virtual machine back to the pool, the administrator needs to deallocate it explicitly by removing the user's permissions on that virtual machine.

29.321. VMSTATUS ENUM

Type representing a status of a virtual machine.

Table 29.419. Values summary

Name	Summary
down	This status indicates that the virtual machine process is not running.
image_locked	This status indicates that the virtual machine process is not running and there is some operation on the disks of the virtual machine that prevents it from being started.
migrating	This status indicates that the virtual machine process is running and the virtual machine is being migrated from one host to another.
not_responding	This status indicates that the hypervisor detected that the virtual machine is not responding.
paused	This status indicates that the virtual machine process is running and the virtual machine is paused.
powering_down	This status indicates that the virtual machine process is running and it is about to stop running.
powering_up	This status indicates that the virtual machine process is running and the guest operating system is being loaded.
reboot_in_progress	This status indicates that the virtual machine process is running and the guest operating system is being rebooted.
restoring_state	This status indicates that the virtual machine process is about to run and the virtual machine is going to awake from hibernation.
saving_state	This status indicates that the virtual machine process is running and the virtual machine is being hibernated.
suspended	This status indicates that the virtual machine process is not running and a running state of the virtual machine was saved.
unassigned	This status is set when an invalid status is received.

Name	Summary
unknown	This status indicates that the system failed to determine the status of the virtual machine.
up	This status indicates that the virtual machine process is running and the guest operating system is loaded.
wait_for_launch	This status indicates that the virtual machine process is about to run.

29.321.1. paused

This status indicates that the virtual machine process is running and the virtual machine is paused. This may happen in two cases: when running a virtual machine is paused mode and when the virtual machine is being automatically paused due to an error.

29.321.2. powering_up

This status indicates that the virtual machine process is running and the guest operating system is being loaded. Note that if no guest-agent is installed, this status is set for a predefined period of time, that is by default 60 seconds, when running a virtual machine.

29.321.3. restoring_state

This status indicates that the virtual machine process is about to run and the virtual machine is going to awake from hibernation. In this status, the running state of the virtual machine is being restored.

29.321.4. saving_state

This status indicates that the virtual machine process is running and the virtual machine is being hibernated. In this status, the running state of the virtual machine is being saved. Note that this status does not mean that the guest operating system is being hibernated.

29.321.5. suspended

This status indicates that the virtual machine process is not running and a running state of the virtual machine was saved. This status is similar to Down, but when the VM is started in this status its saved running state is restored instead of being booted using the normal procedure.

29.321.6. unknown

This status indicates that the system failed to determine the status of the virtual machine. The virtual machine process may be running or not running in this status. For instance, when host becomes non-responsive the virtual machines that ran on it are set with this status.

29.321.7. up

This status indicates that the virtual machine process is running and the guest operating system is loaded. Note that if no guest-agent is installed, this status is set after a predefined period of time, that is by default 60 seconds, when running a virtual machine.

29.321.8. wait_for_launch

This status indicates that the virtual machine process is about to run. This status is set when a request to run a virtual machine arrives to the host. It is possible that the virtual machine process will fail to run.

29.322. VMSTORAGEERRORRESUMEBEHAVIOUR ENUM

If the storage, on which this virtual machine has some disks gets unresponsive, the virtual machine gets paused.

This are the possible options, what should happen with the virtual machine in the moment the storage gets available again.

Table 29.420. Values summary

Name	Summary
auto_resume	The virtual machine gets resumed automatically in the moment the storage is available again.
kill	The virtual machine will be killed after a timeout (configurable on the hypervisor).
leave_paused	Do nothing with the virtual machine.

29.322.1. auto_resume

The virtual machine gets resumed automatically in the moment the storage is available again.

This is the only behavior available before 4.2.

29.322.2. kill

The virtual machine will be killed after a timeout (configurable on the hypervisor).

This is the only option supported for highly available virtual machines with leases. The reason is that the highly available virtual machine is restarted using the infrastructure and any kind of resume risks split brains.

29.322.3. leave_paused

Do nothing with the virtual machine.

Useful if there is a custom failover implemented and the user does not want the virtual machine to get resumed.

29.323. VMSUMMARY STRUCT

Type containing information related to virtual machines on a particular host.

Table 29.421. Attributes summary

Name	Type	Summary
active	Integer	The number of virtual machines active on the host.
migrating	Integer	The number of virtual machines migrating to or from the host.
total	Integer	The number of virtual machines present on the host.

29.324. VMTYPE ENUM

Type representing what the virtual machine is optimized for.

Table 29.422. Values summary

Name	Summary
desktop	The virtual machine is intended to be used as a desktop.
high_performance	The virtual machine is intended to be used as a high performance virtual machine.
server	The virtual machine is intended to be used as a server.

29.324.1. desktop

The virtual machine is intended to be used as a desktop.

Currently, its implication is that a sound device will automatically be added to the virtual machine.

29.324.2. high_performance

The virtual machine is intended to be used as a high performance virtual machine.

Currently, its implication is that the virtual machine configuration will automatically be set for running with the highest possible performance, and with performance metrics as close to bare metal as possible.

Some of the recommended configuration settings for the highest possible performance cannot be set automatically; manually setting them before running the virtual machine is recommended.

The following configuration changes are set automatically:

- Enable headless mode.
- Enable serial console.
- Enable pass-through host CPU.
- Enable I/O threads.
- Enable I/O threads pinning and set the pinning topology.

- Enable the paravirtualized random number generator PCI (virtio-rng) device.
- Disable all USB devices.
- Disable the soundcard device.
- Disable the smartcard device.
- Disable the memory balloon device.
- Disable the watchdog device.
- Disable migration.
- Disable high availability.

The following recommended configuration changes have to be set manually by the user:

- Enable CPU pinning topology.
- Enable non-uniform memory access (NUMA) pinning topology.
- Enable and set huge pages configuration.
- Disable kernel same-page merging (KSM).

29.324.3. server

The virtual machine is intended to be used as a server.

Currently, its implication is that a sound device will not automatically be added to the virtual machine.

29.325. VNICPASSTHROUGH STRUCT

Table 29.423. Attributes summary

Name	Type	Summary
mode	VnicPassThrough Mode	Defines whether the vNIC will be implemented as a virtual device, or as a pass-through to a host device.

29.326. VNICPASSTHROUGHMODE ENUM

Describes whether the vNIC is to be implemented as a pass-through device or a virtual one.

Table 29.424. Values summary

Name	Summary
disabled	To be implemented as a virtual device.
enabled	To be implemented as a pass-through device.

29.327. VNICPROFILE STRUCT

A vNIC profile is a collection of settings that can be applied to individual [NIC](#).

Table 29.425. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
custom_properties	CustomProperty[]	Custom properties applied to the vNIC profile.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
migratable	Boolean	Marks whether pass_through NIC is migratable or not.
name	String	A human-readable name in plain text.
pass_through	VnicPassThrough	Enables passthrough to an SR-IOV-enabled host NIC .
port_mirroring	Boolean	Enables port mirroring.

29.327.1. migratable

Marks whether **pass_through** NIC is migratable or not.

If **pass_through.mode** is set to **disabled** this option has no meaning, and it will be considered to be **true**. If you omit this option from a request, by default, this will be set to **true**.

When migrating a virtual machine, this virtual machine will be migrated only if all **pass_through** NICs are flagged as **migratable**.

29.327.2. pass_through

Enables passthrough to an SR-IOV-enabled [host NIC](#).

A vNIC profile enables a NIC to be directly connected to a [virtual function \(VF\)](#) of an SR-IOV-enabled host NIC, if passthrough is enabled. The NIC will then bypass the software network virtualization and connect directly to the VF for direct device assignment.

Passthrough cannot be enabled if the vNIC profile is already attached to a NIC. If a vNIC profile has passthrough enabled, **qos** and **port_mirroring** are disabled for the vNIC profile.

29.327.3. port_mirroring

Enables port mirroring.

Port mirroring copies layer 3 network traffic on a given [logical network](#) and [host](#) to a NIC on a [virtual machine](#). This virtual machine can be used for network debugging and tuning, intrusion detection, and

monitoring the behavior of other virtual machines on the same host and logical network. The only traffic copied is internal to one logical network on one host. There is no increase in traffic on the network external to the host; however a virtual machine with port mirroring enabled uses more host CPU and RAM than other virtual machines.

Port mirroring has the following limitations:

- Hot linking a NIC with a vNIC profile that has port mirroring enabled is not supported.
- Port mirroring cannot be altered when the vNIC profile is attached to a virtual machine.

Given the above limitations, it is recommended that you enable port mirroring on an additional, dedicated vNIC profile.



IMPORTANT

Enabling port mirroring reduces the privacy of other network users.

Table 29.426. Links summary

Name	Type	Summary
failover	VnicProfile	Failover vNIC profile for SR-IOV migration without downtime
network	Network	Reference to the network that the vNIC profile is applied to.
network_filter	NetworkFilter	Reference to the top-level network filter that applies to the NICs that use this profile.
permissions	Permission[]	Permissions to allow usage of the vNIC profile.
qos	Qos	Reference to the quality of service attributes to apply to the vNIC profile.

29.327.4. network_filter

Reference to the top-level network filter that applies to the NICs that use this profile.

Network filters enhance the ability to manage the network packets traffic to and from virtual machines. The network filter may either contain a reference to other filters, rules for traffic filtering, or a combination of both.

29.327.5. qos

Reference to the quality of service attributes to apply to the vNIC profile.

Quality of Service attributes regulate inbound and outbound network traffic of the NIC.

29.328. VNICPROFILEMAPPING STRUCT

Deprecated type that maps an external virtual NIC profile to one that exists in the Red Hat Virtualization Manager.

If, for example, the desired virtual NIC profile’s mapping includes the following two lines:

Source network name	Source network profile name	Target virtual NIC profile ID
red	gold	738dd914-8ec8-4a8b-8628-34672a5d449b
blue	silver	892a12ec-2028-4451-80aa-ff3bf55d6bac

The following form is deprecated since 4.2.1 and will be removed in the future:

```
<vnic_profile_mappings>
  <vnic_profile_mapping>
    <source_network_name>red</source_network_name>
    <source_network_profile_name>gold</source_network_profile_name>
    <target_vnic_profile id="738dd914-8ec8-4a8b-8628-34672a5d449b"/>
  </vnic_profile_mapping>
  <vnic_profile_mapping>
    <source_network_name>blue</source_network_name>
    <source_network_profile_name>silver</source_network_profile_name>
    <target_vnic_profile id="892a12ec-2028-4451-80aa-ff3bf55d6bac"/>
  </vnic_profile_mapping>
</vnic_profile_mappings>
```

Table 29.427. Attributes summary

Name	Type	Summary
source_network_name	String	Deprecated attribute describing the name of the external network.
source_network_profile_name	String	Deprecated attribute describing the name of the external network profile.

29.328.1. source_network_name

Deprecated attribute describing the name of the external network.



WARNING

Please note that this attribute has been deprecated since version 4.2.1 of the engine, and preserved only for backward compatibility. It will be removed in the future.

29.328.2. source_network_profile_name

Deprecated attribute describing the name of the external network profile.



WARNING

Please note that this attribute has been deprecated since version 4.2.1 of the engine, and preserved only for backward compatibility. It will be removed in the future.

Table 29.428. Links summary

Name	Type	Summary
target_vnic_profile	VnicProfile	Deprecated attribute describing an existing virtual NIC profile.

29.328.3. target_vnic_profile

Deprecated attribute describing an existing virtual NIC profile.



WARNING

Please note that this attribute has been deprecated since version 4.2.1 of the engine, and preserved only for backward compatibility. It will be removed in the future.

29.329. VOLUMEGROUP STRUCT

Table 29.429. Attributes summary

Name	Type	Summary
id	String	
logical_units	LogicalUnit[]	
name	String	

29.330. WATCHDOG STRUCT

This type represents a watchdog configuration.

Table 29.430. Attributes summary

Name	Type	Summary
action	WatchdogAction	Watchdog action to be performed when watchdog is triggered.
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.
id	String	A unique identifier.
model	WatchdogModel	Model of watchdog device.
name	String	A human-readable name in plain text.

29.330.1. model

Model of watchdog device. Currently supported only I6300ESB.

Table 29.431. Links summary

Name	Type	Summary
instance_type	InstanceType	Optionally references to an instance type the device is used by.
template	Template	Optionally references to a template the device is used by.
vm	Vm	Do not use this element, use vms instead.
vms	Vm[]	References to the virtual machines that are using this device.

29.330.2. vms

References to the virtual machines that are using this device. A device may be used by several virtual machines; for example, a shared disk may be used simultaneously by two or more virtual machines.

29.331. WATCHDOGACTION ENUM

This type describes available watchdog actions.

Table 29.432. Values summary

Name	Summary
dump	Virtual machine process will get core dumped to the default path on the host.
none	No action will be performed when watchdog action is triggered.

Name	Summary
pause	Virtual machine will be paused when watchdog action is triggered.
poweroff	Virtual machine will be powered off when watchdog action is triggered.
reset	Virtual machine will be rebooted when watchdog action is triggered.

29.331.1. none

No action will be performed when watchdog action is triggered. However log message will still be generated.

29.332. WATCHDOGMODEL ENUM

This type represents the watchdog model.

Table 29.433. Values summary

Name	Summary
diag288	The watchdog model for S390X machines.
i6300esb	PCI based watchdog model.

29.332.1. diag288

The watchdog model for S390X machines.

S390X has an integrated watchdog facility that is controlled via the DIAG288 instruction. Use this model for S390X virtual machines.

29.332.2. i6300esb

PCI based watchdog model.

Use the I6300ESB watchdog for x86_64 and PPC64 virtual machines.

29.333. WEIGHT STRUCT

Table 29.434. Attributes summary

Name	Type	Summary
comment	String	Free text containing comments about this object.
description	String	A human-readable description in plain text.

Name	Type	Summary
factor	Integer	
id	String	A unique identifier.
name	String	A human-readable name in plain text.

Table 29.435. Links summary

Name	Type	Summary
scheduling_policy	SchedulingPolicy	
scheduling_policy_unit	SchedulingPolicyUnit	

APPENDIX A. PRIMITIVE TYPES

This section describes the primitive data types supported by the API.

CHAPTER 30. STRING PRIMITIVE

A finite sequence of [Unicode](#) characters.

CHAPTER 31. BOOLEAN PRIMITIVE

Represents the *false* and *true* concepts used in mathematical logic.

The valid values are the strings **false** and **true**.

Case is ignored by the engine, so for example **False** and **FALSE** also valid values. However the server will always return lower case values.

For backwards compatibility with older versions of the engine, the values **0** and **1** are also accepted. The value **0** has the same meaning than **false**, and **1** has the same meaning than **true**. Try to avoid using these values, as support for them may be removed in the future.

CHAPTER 32. INTEGER PRIMITIVE

Represents the mathematical concept of integer number.

The valid values are finite sequences of decimal digits.

Currently the engine implements this type using a signed 32 bit integer, so the minimum value is -2^{31} (-2147483648) and the maximum value is $2^{31}-1$ (2147483647).

However, there are some attributes in the system where the range of values possible with 32 bit isn't enough. In those exceptional cases the engine uses 64 bit integers, in particular for the following attributes:

- **Disk.actual_size**
- **Disk.provisioned_size**
- **GlusterClient.bytes_read**
- **GlusterClient.bytes_written**
- **Host.max_scheduling_memory**
- **Host.memory**
- **HostNic.speed**
- **LogicalUnit.size**
- **MemoryPolicy.guaranteed**
- **NumaNode.memory**
- **QuotaStorageLimit.limit**
- **StorageDomain.available**
- **StorageDomain.used**
- **StorageDomain.committed**
- **VmBase.memory**

For these exception cases the minimum value is -2^{63} (-9223372036854775808) and the maximum value is $2^{63}-1$ (9223372036854775807).



NOTE

In the future the integer type will be implemented using unlimited precision integers, so the above limitations and exceptions will eventually disappear.

CHAPTER 33. DECIMAL PRIMITIVE

Represents the mathematical concept of real number.

Currently the engine implements this type using 32-bit [IEEE 754](#) single precision floating point numbers.

For some attributes this isn't enough precision. In those exceptional cases the engine uses 64 bit double precision floating point numbers, in particular for the following attributes:

- **QuotaStorageLimit.usage**
- **QuotaStorageLimit.memory_limit**
- **QuotaStorageLimit.memory_usage**



NOTE

In the future the decimal type will be implemented using unlimited precision decimal numbers, so the above limitations and exceptions will eventually disappear.

CHAPTER 34. DATE PRIMITIVE

Represents a date and time.

The format returned by the engine is the one described in the [XML Schema specification](#) when requesting XML. For example, if you send a request like this to retrieve the XML representation of a virtual machine:

```
GET /ovirt-engine/api/vms/123
Accept: application/xml
```

The response body will contain the following XML document:

```
<vm id="123" href="/ovirt-engine/api/vms/123">
  ...
  <creation_time>2016-09-08T09:53:35.138+02:00</creation_time>
  ...
</vm>
```

When requesting the JSON representation the engine uses a different, format: an integer containing the number of milliseconds since Jan 1st 1970, also known as [epoch time](#). For example, if you send a request like this to retrieve the JSON representation of a virtual machine:

```
GET /ovirt-engine/api/vms/123
Accept: application/json
```

The response body will contain the following JSON document:

```
{
  "id": "123",
  "href="/ovirt-engine/api/vms/123",
  ...
  "creation_time": 1472564909990,
  ...
}
```



NOTE

In both cases, the dates returned by the engine use the time zone configured in the server where it is running. In these examples, the time zone is UTC+2.

APPENDIX B. CHANGES IN VERSION 4 OF THE API

This section enumerates the backwards-compatibility breaking changes that have been introduced in and since version 4 of the API.

CHAPTER 35. CHANGES IN API VERSION 4.0 (SUCCEEDING VERSION 3.6)

35.1. REMOVED YAML SUPPORT

The support for YAML has been completely removed.

35.2. RENAMED COMPLEX TYPES

The following XML schema complex types have been renamed:

Version 3	Version 4
API	Api
CPU	Cpu
CPUs	Cpus
CdRom	Cdrom
CdRoms	Cdroms
DNS	Dns
GuestNicConfiguration	NicConfiguration
GuestNicsConfiguration	NicConfigurations
HostNICStates	HostNicStates
HostNIC	HostNic
HostStorage	HostStorages
IO	Io
IP	Ip
IPs	Ips
KSM	Ksm
MAC	Mac
NIC	Nic

Version 3	Version 4
PreviewVMs	PreviewVms
QoS	Qos
QoSs	Qoss
RSDL	RsdI
SELinux	SeLinux
SPM	Spm
SSHPublicKey	SshPublicKey
SSHPublicKeys	SshPublicKeys
SSH	Ssh
SkipIfSDActive	SkipIfSdActive
Slaves	HostNics
Storage	HostStorage
SupportedVersions	Versions
VCpuPin	VcpuPin
VLAN	Vlan
VM	Vm
VMs	Vms
VirtIO_SCSI	VirtioScsi
WatchDog	Watchdog
WatchDogs	Watchdogs

35.3. REPLACED THE `STATUS` TYPE WITH ENUM TYPES

Currently the status of different objects is reported using the **Status** type, which contains a **state** string describing the status and another **detail** string for additional details. For example, the status of a virtual machine that is paused due to an IO error is currently reported as follows:

```
<vm>
...
<status>
  <state>paused</state>
  <detail>eio</detail>
</status>
...
</vm>
```

In version 4 of the API this **Status** type has been removed and replaced by enum types. When the additional **detail** string is needed it has been replaced with an additional **status_detail** attribute. So, for example, the status of the same virtual machine will now be reported as follows:

```
<vm>
...
<status>paused</status>
<status_detail>eio</status_detail>
...
</vm>
```

35.4. REMOVE THE NIC NETWORK AND PORT_MIRRORING PROPERTIES

The NIC **network** and **port_mirroring** elements have been replaced by the **vnic_profile** element, so when creating or updating a NIC instead of specifying the network and port mirroring configuration, these are previously specified creating a vNIC profile:

```
POST /ovirt-engine/api/vnicprofiles
```

```
<vnic_profile>
  <name>myprofile</name>
  <network id="..." />
  <port_mirroring>true</port_mirroring>
</vnic_profile>
```

And then the NIC is created or referencing the existing vNIC profile:

```
PUT /ovirt-engine/api/vms/123/nics/456
```

```
<nic>
  <vnic_profile id="/vnicprofiles/...">
</nic>
```

The old elements and their meaning were preserved for backwards compatibility, but they have now been completely removed.

Note that the **network** element hasn't been removed from the XML schema because it is still used by the **initialization** element, but it will be completely ignored if provided when creating or updating a NIC.

35.5. REMOVE THE NIC **ACTIVE** PROPERTY

The NIC **active** property was replaced by **plugged** some time ago. It has been completely removed now.

35.6. REMOVE THE DISK **TYPE** PROPERTY

The **type** property of disks has been removed, but kept in the XML schema and ignored. It has been completely removed now.

35.7. REMOVE THE DISK **SIZE** PROPERTY

The disk **size** property has been replaced by **provisioned_size** long ago. It has been completely removed now.

35.8. REMOVED SUPPORT FOR PINNING A VM TO A SINGLE HOST

Before version 3.6 the API had the possibility to pin a VM to a single host, using the **placement_policy** element of the VM entity:

```
PUT /ovirt-engine/api/vms/123
```

```
<vm>
  <placement_policy>
    <host id="456"/>
  </placement_policy>
</vm>
```

In version 3.6 this capability was enhanced to support multiple hosts, and to do so a new **hosts** element was added:

```
PUT /ovirt-engine/api/vms/123
```

```
<vm>
  <placement_policy>
    <hosts>
      <host id="456"/>
      <host id="789"/>
      ...
    </hosts>
  </placement_policy>
</vm>
```

To preserve backwards compatibility the single **host** element was preserved. In 4.0 this has been removed, so applications will need to use the **hosts** element even if when pinning to a single host.

35.9. REMOVED THE **CAPABILITIES.PERMITS** ELEMENT

The list of permits is potentiall different for each cluster level, and it has been added to the **version** element long ago, but it has been kept into the **capabilities** element as well, just for backwards compatibility.

In 4.0 the **capabilities** service has been completely removed, and replaced by the new **clusterlevels** service. To find the permits supported by cluster level 4.0 a request like this should be used:

```
GET /ovirt-engine/api/clusterlevels/4.0
```

The result will be a document containing the information specific to that cluster level, in particular the set of supported permits:

```
<cluster_level id="4.0" href="/clusterlevels/4.0">
  ...
  <permits>
    <permit id="1">
      <name>create_vm</name>
      <administrative>false</administrative>
    </permit>
    ...
  </permits>
</cluster_level>
```

35.10. REMOVED THE `STORAGE_MANAGER` ELEMENT

The **storage_manager** element was replaced by the **spm** element some time ago. The old one was kept for backwards compatibility, but it has been completely removed now.

35.11. REMOVED THE `DATA_CENTER_STORAGE_TYPE` ELEMENT

Data centers used to be associated to a specific storage type (NFS, Fiber Channel, iSCSI, etc) but they have been changed some time so that there are only two types: with local storage and with shared storage. A new **local** element was introduced to indicate this, and the old **storage_type** element was preserved for backwards compatibility. This old element has now been completely removed.

35.12. REMOVE THE `TIMEZONE` ELEMENT

The VM resource used to contain a **timezone** element to represent the time zone. This element only allowed a string:

```
<vm>
  <timezone>Europe/Madrid</timezone>
</vm>
```

This doesn't allow extension, and as it was necessary to add the UTC offset, it was replaced with a new structured **time_zone** element:

```
<vm>
  <time_zone>
    <name>Europe/Madrid</name>
    <utc_offset>GMT+1</utc_offset>
  </time_zone>
</vm>
```

The old **timezone** element was preserved, but it has been completely removed now.

35.13. REMOVED THE `GUEST_INFO` ELEMENT

The **guest_info** element was used to hold information gathered by the guest agent, like the IP addresses and the fully qualified host name. This information is also available in other places. For example, the IP addresses are available within VM resource:

```
GET /ovirt-engine/api/vms/123
```

```
<vm>
  <guest_info>
    <ips>
      <ip address="192.168.122.30"/>
    </ips>
    <fqdn>myvm.example.com</fqdn>
  </guest_info>
</vm>
```

And also within the NIC resource, using the newer **reported_devices** element:

```
GET /ovirt-engine/api/vms/{vm:id}/nics/{nic:id}
```

```
<nic>
  <reported_devices>
    <reported_device>
      <name>eth0</name>
      <mac address="00:1a:4a:b5:4c:94"/>
      <ips>
        <ip address="192.168.1.115" version="v4"/>
        <ip address="fe80::21a:4aff:feb5:4c94" version="v6"/>
        <ip address="::1:21a:4aff:feb5:4c94" version="v6"/>
      </ips>
    </reported_device>
  </reported_devices>
</nic>
```

In addition this newer **reported_devices** element provides more complete information, like multiple IP addresses, MAC addresses, etc.

To remove this duplication the **guest_info** element has been removed.

To support the fully qualified domain name a new **fqdn** element has been added to the VM resource:

```
GET /ovirt-engine/api/vms/123
```

```
<vm>
  <fqdn>myvm.example.com</fqdn>
</vms>
```

This will contain the same information that **guest_info.fqdn** used to contain.

35.14. REPLACED CPU ID ATTRIBUTE WITH `TYPE` ELEMENT

The **cpu** element used to have an **id** attribute that indicates the type of CPU:

```
<cpu id="Intel Nehalem Family">
  <architecture>X86_64</architecture>
  ...
</cpu>
```

This is in contradiction with the rest of the elements of the API model, where the **id** attribute is used for opaque identifiers. This **id** attribute has been replaced with a new **type** element:

```
<cpu>
  <type>Intel Nehalem Family</type>
  <architecture>X86_64</architecture>
</cpu>
```

35.15. USE ELEMENTS INSTEAD OF ATTRIBUTES IN CPU TOPOLOGY

In the past the CPU topology element used attributes for its properties:

```
<cpu>
  <topology sockets="1" cores="1" threads="1"/>
  ...
</cpu>
```

This is contrary to the common practice in the API. They have been replaced by inner elements:

```
<cpu>
  <topology>
    <sockets>1</sockets>
    <cores>1</cores>
    <threads>1</threads>
  </topology>
  ...
</cpu>
```

35.16. USE ELEMENTS INSTEAD OF ATTRIBUTES IN VCPU PIN

In the past the VCPU pin element used attributes for its properties:

```
<cpu_tune>
  <vcpu_pin vcpu="0" cpu_set="0"/>
</cpu_tune>
```

This is contrary to the common practice in the API. They have been replaced by inner elements:

```
<cpu_tune>
  <vcpu_pin>
    <vcpu>0</vcpu>
    <cpu_set>0</cpu_set>
  </vcpu_pin>
</cpu_tune>
```

35.17. USE ELEMENTS INSTEAD OF ATTRIBUTES IN VCPU PIN

In the past the **version** element used attributes for its properties:

```
<version major="3" minor="5" ../>
```

This is contrary to the common practice in the API. They have been replaced by inner elements:

```
<version>
  <major>3</major>
  <minor>5</minor>
  ...
</version>
```

35.18. USE ELEMENTS INSTEAD OF ATTRIBUTES IN MEMORY OVERCOMMIT

In the past the **overcommit** element used attributes for its properties:

```
<memory_policy>
  <overcommit percent="100"/>
  ...
</memory_policy>
```

This is contrary to the common practice in the API. They have been replaced by inner elements:

```
<memory_policy>
  <overcommit>
    <percent>100</percent>
  </overcommit>
  ...
</memory_policy>
```

35.19. USE ELEMENTS INSTEAD OF ATTRIBUTES IN `console`

In the past the **console** element used attributes for its properties:

```
<console enabled="true"/>
```

This is contrary to the common practice in the API. They have been replaced by inner elements:

```
<console>
  <enabled>true</enabled>
</console>
```

35.20. USE ELEMENTS INSTEAD OF ATTRIBUTES IN VIRTIO SCSI

In the past the VIRTIO ISCSI element used attributes for its properties:

```
<virtio_scsi enabled="true"/>
```

This is contrary to the common practice in the API. They have been replaced by inner elements:

```
<virtio_scsi>
  <enabled>true</enabled>
</virtio_scsi>
```

35.21. USE ELEMENT INSTEAD OF ATTRIBUTE FOR POWER MANAGEMENT AGENT TYPE

The power management **type** property was represented as an attribute:

```
<agent type="apc">
  <username>myuser</username>
  ...
</agent>
```

This is contrary to the common practice in the API. It has been replaced with an inner element:

```
<agent>
  <type>apc</type>
  <username>myuser</username>
  ...
</agent>
```

35.22. USE ELEMENTS INSTEAD OF ATTRIBUTES IN POWER MANAGEMENT AGENT OPTIONS

In the past the power management agent options element used attributes for its properties:

```
<options>
  <option name="port" value="22"/>
  <option name="slot" value="5"/>
  ...
</options>
```

This is contrary to the common practice in the API. They have been replaced with inner elements:

```
<options>
  <option>
    <name>port</name>
    <value>22</value>
  </option>
  <option>
    <name>slot</name>
    <value>5</value>
  </option>
  ...
</options>
```

35.23. USE ELEMENTS INSTEAD OF ATTRIBUTES IN IP ADDRESS:

In the past the IP address element used attributes for its properties:

```
<ip address="192.168.122.1" netmask="255.255.255.0"/>
```

This is contrary to the common practice in the API. They have been replaced with inner elements:

```
<ip>
  <address>192.168.122.1</address>
  <netmask>255.255.255.0</netmask>
</ip>
```

35.24. USE ELEMENTS INSTEAD OF ATTRIBUTES IN MAC ADDRESS:

In the past the MAC address element used attributes for its properties:

```
<mac address="66:f2:c5:5f:bb:8d"/>
```

This is contrary to the common practice in the API. They have been replaced by inner elements:

```
<mac>
  <address>66:f2:c5:5f:bb:8d</address>
</mac>
```

35.25. USE ELEMENTS INSTEAD OF ATTRIBUTES IN BOOT DEVICE:

In the past the boot device element used attributes for its properties:

```
<boot dev="cdrom"/>
```

This is contrary to the common practice in the API. They have been replaced by inner elements:

```
<boot>
  <dev>cdrom</dev>
</boot>
```

35.26. USE ELEMENT INSTEAD OF ATTRIBUTE FOR OPERATING SYSTEM TYPE

The operating system **type** property was represented as an attribute:

```
<os type="other">
  ...
</os>
```

This is contrary to the common practice in the API. It has been replaced with an inner element:

```
<os>
  <type>other</type>
  ...
</os>
```


35.27. REMOVED THE **force** PARAMETER FROM THE REQUEST TO RETRIEVE A HOST

The request to retrieve a host used to support a **force** matrix parameter to indicate that the data of the host should be refreshed (calling VDSM to reload host capabilities and devices) before retrieving it from the database:

```
GET /ovirt-engine/api/hosts/123;force
```

This **force** parameter has been superseded by the host **refresh** action, but kept for backwards compatibility. It has been completely removed now. Applications that require this functionality should perform two requests, first one to refresh the host:

```
POST /ovirt-engine/api/hosts/123/refresh
```

```
<action/>
```

And then one to retrieve it, without the **force** parameter:

```
GET /ovirt-engine/api/hosts/123
```

35.28. REMOVED DEPRECATED HOST POWER MANAGEMENT CONFIGURATION

The host power management configuration used to be part of the host resource, using embedded configuration elements:

```
<power_management type="apc">
  <enabled>true</enabled>
  <address>myaddress</address>
  <username>myaddress</username>
  <options>
    <option name="port" value="22"/>
    </option name="slot" value="5"/>
  </options>
  ...
</power_management>
```

This has been changed some time ago, in order to support multiple power management agents, introducing a new **/hosts/123/fenceagents** collection.

The old **type** attribute, the old **address**, **username** and **password** elements, and the inner **agents** element directly inside **power_management** were preserved for backwards compatibility. All these elements have been completely removed, so the only way to query or modify the power management agents is now the **/hosts/123/fenceagents** sub-collection.

35.29. USE MULTIPLE **BOOT.DEVICES.DEVICE** INSTEAD OF MULTIPLE **BOOT**

In the past the way to specify the boot sequence when starting a virtual machine was to use multiple **boot** elements, each containing a **dev** element. For example, to specify that the virtual machine should first try to boot from CDROM and then from hard disk the following request was used:

–

```
POST /ovirt-engine/api/vms/123/start
```

```
<action>
  <vm>
    ...
    <boot>
      <dev>cdrom</dev>
    </boot>
    <boot>
      <dev>hd</dev>
    </boot>
  </vm>
</action>
```

The common practice in other parts of the API is to represent arrays with a wrapper element. In that case that wrapper element could be named **boots**, but that doesn't make much sense, as what can have multiple values here is the boot device, not the boot sequence. To fix this inconsistency this has been replaced with a single **boot** element that can contain multiple devices:

```
POST /ovirt-engine/api/vms/123/start
```

```
<action>
  <vm>
    ...
    <boot>
      <devices>
        <device>cdrom</device>
        <device>hd</device>
      </devices>
    </boot>
  </vm>
</action>
```

35.30. REMOVED THE `DISKS.CLONE` AND `DISKS.DETACH_ONLY` ELEMENTS

These elements aren't really part of the representation of disks, but parameters of the operations to add and remove virtual machines.

The **disks.clone** element was used to indicate that the disks of a new virtual machine have to be cloned:

```
POST /ovirt-engine/api/vms
```

```
<vm>
  ...
  <disks>
    <clone>true</clone>
  </disks>
</vm>
```

This has been now removed, and replaced by a new **clone** query parameter:

```
POST /ovirt-engine/api/vms?clone=true
```

```
<vm>
...
</vm>
```

The **disks.detach_only** element was used to indicate that when removing a virtual machine the disks do not have to be removed, but just detached from the virtual machine:

```
DELETE /ovirt-engine/api/vms/123
```

```
<action>
  <vm>
    <disks>
      <detach_only>true</detach_only>
    </disks>
  </vm>
</action>
```

This has been now removed, and replaced by a new **detach_only** query parameter:

```
DELETE /ovirt-engine/api/vms/123?detach_only=true
```

35.31. RENAME ELEMENT **VMPOOL** TO **VM_POOL**

The names of the elements that represent pools of virtual machines used to be **vm_pool** and **vm_pools**. They have been renamed to **vm_pool** and **vm_pools** in order to have a consistent correspondence between names of complex types (**VmPool** and **VmPools** in this case) and elements.

35.32. USE **LOGICAL_UNITS** INSTEAD OF MULTIPLE **LOGICAL_UNIT**

The logical units that are part of a volume group used to be reported as an unbounded number of **logical_unit** elements. For example, when reporting the details of a storage domain:

```
GET /ovirt-engine/api/storagedomains/123
```

```
<storage_domain>
...
  <storage>
    ...
    <volume_group>
      <logical_unit>
        <!-- First LU -->
      </logical_unit>
      <logical_unit>
        <!-- Second LU -->
      </logical_unit>
    ...
    </volume_group>
  </storage>
</storage_domain>
```

This is contrary to the usual practice in the API, as list of elements are always wrapped with an element. This has been fixed now, so the list of logical units will be wrapped with the **logical_units** element:

```
GET /ovirt-engine/api/storagedomains/123
```

```
<storage_domain>
...
<storage>
...
<volume_group>
  <logical_units>
    <logical_unit>
      <!-- First LU -->
    </logical_unit>
    <logical_unit>
      <!-- Second LU -->
    </logical_unit>
  ...
</logical_units>
</volume_group>
</storage>
</storage_domain>
```

35.33. REMOVED THE SNAPSHOTS.COLLAPSE_SNAPSHOTS ELEMENT

This element isn't really part of the representation of snapshots, but a parameter of the operation that imports a virtual machine from an export storage domain:

```
POST /ovirt-engine/api/storagedomains/123/vms/456/import
```

```
<action>
  <vm>
    <snapshots>
      <collapse_snapshots>true</collapse_snapshots>
    </snapshots>
  </vm>
</action>
```

This has been now removed, and replaced by a new **collapse_snapshots** query parameter:

```
POST /ovirt-engine/api/storagedomains/123/vms/456/import?collapse_snapshots=true
```

```
<action/>
```

35.34. RENAMED STORAGE AND HOST_STORAGE ELEMENTS

The host storage collection used the **storage** and **host_storage** elements and the **Storage** and **HostStorage** complex types to report the storage associated to a host:

```
GET /ovirt-engine/api/hosts/123/storage
```

```
<host_storage>
  <storage>
  ...
```

```

</storage>
<storage>
...
</storage>
...
</host_storage>

```

This doesn't follow the pattern used in the rest of the API, where the outer element is a plural name and the inner element is the same name but in singular. This has now been changed to use **host_storages** as the outer element and **host_storage** as the inner element:

```
GET /ovirt-engine/api/hosts/123/storage
```

```

<host_storages>
  <host_storage>
    ...
  </host_storage>
  <host_storage>
    ...
  </host_storage>
  ...
</host_storages>

```

35.35. REMOVED THE PERMISSIONS.CLONE ELEMENT

This element isn't really part of the representation of permissions, but a parameter of the operations to create virtual machines or templates:

```
POST /ovirt-engine/api/vms
```

```

<vm>
  <template id="...">
    <permissions>
      <clone>true</clone>
    </permissions>
  </template>
</action>

```

```
POST /ovirt-engine/api/templates
```

```

<template>
  <vm id="...">
    <permissions>
      <clone>true</clone>
    </permissions>
  </vm>
</template>

```

This has been now removed, and replaced by a new **clone_permissions** query parameter:

```
POST /ovirt-engine/api/vms?clone_permissions=true
```

```
<vm>
  <template id="..."/>
</vm>
```

POST /ovirt-engine/api/templates?clone_permissions=true

```
<template>
  <vm id="..."/>
</template>
```

35.36. RENAMED THE RANDOM NUMBER GENERATOR SOURCE ELEMENTS

The random number generator sources used to be reported using a collection of **source** elements wrapped by an element with a name reflecting its use. For example, the required random number generator sources of a cluster used to be reported as follows:

GET /ovirt-engine/api/clusters/123

```
<cluster>
...
  <required_rng_sources>
    <source>random</source>
  </required_rng_sources>
...
</cluster>
```

And the random number generator sources supported by a host used to be reported as follows:

GET /ovirt-engine/api/hosts/123

```
<host>
...
  <hardware_information>
    <supported_rng_sources>
      <source>random</source>
    </supported_rng_sources>
  </hardware_information>
...
</host>
```

This isn't consistent with the rest of the API, where collections are wrapped by a name in plural and elements by the same name in singular. This has been now fixed. The required random number generator sources will now be reported as follows:

GET /ovirt-engine/api/clusters/123

```
<cluster>
  <required_rng_sources>
    <required_rng_source>random</required_rng_source>
```

```

</required_rng_sources>
...
</cluster>

```

And the random number generator sources supported by a host will be reported as follows:

```
GET /ovirt-engine/api/hosts/123
```

```

<host>
...
<hardware_information>
  <supported_rng_sources>
    <supported_rng_source>random</supported_rng_source>
  </supported_rng_sources>
</hardware_information>
...
</host>

```

Note the use of **required_rng_source** and **supported_rng_source** instead of just **source**.

35.37. REMOVED THE INTERMEDIATE TAG.PARENT ELEMENT

The relationship between a tag and it's parent tag used to be represented using an intermediate **parent** tag, that in turn contains another **tag** element:

```

<tag>
  <name>mytag</name>
  <parent>
    <tag id="..." href="..." />
  </parent>
</tag>

```

This structure has been simplified so that only one **parent** element is used now:

```

<tag>
  <name>mytag</name>
  <parent id="..." href="..." />
</tag>

```

35.38. REMOVE SCHEDULING BUILT-IN NAMES AND THRESHOLDS

In the past the specification of scheduling policies for clusters was based in built-in names and thresholds. For example a cluster that used the **evenly distributed** scheduling policy was represented as follows:

```

<cluster>
  <name>mycluster</name>
  <scheduling_policy>
    <policy>evenly_distributed</policy>
    <thresholds high="80" duration="120"/>
  </scheduling_policy>
</cluster>

```

```
</scheduling_policy>
...
</cluster>
```

This mechanism was replaced with a top level **/schedulingpolicies** collection where scheduling policies can be defined with arbitrary names and properties. For example, the same scheduling policy is represented as follows in that top level collection:

```
<scheduling_policy>
  <name>evenly_distributed</name>
  <properties>
    <property>
      <name>CpuOverCommitDurationMinutes</name>
      <value>2</value>
    </property>
    <property>
      <name>HighUtilization</name>
      <value>80</value>
    </property>
  </properties>
</scheduling_policy>
```

The representation of the cluster references the scheduling policy with its identifier:

```
<cluster>
  <name>mycluster</name>
  <scheduling_policy id="..." />
  ...
</cluster>
```

To preserve backwards compatibility the old **policy** and **thresholds** elements were preserved. The scheduling policy representation embedded within the cluster was also preserved. All these things have been completely removed now, so the only way to reference a scheduling policy when retrieving, creating or updating a cluster is to reference an existing one using its identifier. For example, when retrieving a cluster only the **id** (and **href**) will be populated:

```
GET /ovirt-engine/api/clusters/123
```

```
<cluster>
  ...
  <scheduling_policy id="..." href="..." />
  ...
</cluster>
```

When creating or updating a cluster only the **id** will be accepted.

35.39. REMOVED THE BRICKS.REPLICA_COUNT AND BRICKS.STRIPE_COUNT ELEMENTS

These elements aren't really part of the representation of a collection of bricks, but parameters of the operations to add and remove bricks. They have now been removed, and replaced by new **replica_count** and **stripe_count** parameters:


```
POST .../bricks?replica_count=3&stripe_count=2
```

```
DELETE .../bricks?replica_count=3
```

35.40. RENAMED THE STATISTICS `type` PROPERTY TO `kind`

The statistics used to be represented using a **type** element that indicates the kind of statistic (gauge, counter, etc) and also a **type** attribute that indicates the type of the values (integer, string, etc):

```
<statistic>
  <type>GAUGE</type>
  <values type="INTEGER">
    <value>...</value>
    <value>...</value>
    ...
  </values>
</statistic>
```

To avoid the use of the **type** concept for both things the first has been replaced by **kind**, and both **kind** and **type** are now elements:

```
<statistic>
  <kind>gauge</kind>
  <type>integer</type>
  <values>
    <value>...</value>
    <value>...</value>
    ...
  </values>
</statistic>
```

35.41. USE MULTIPLE `vcpu_pins.vcpu_pin` INSTEAD OF MULTIPLE `vcpu_pin`

In the past the way to specify the virtual to physical CPU pinning of a virtual machine was to use multiple **vcpu_pin** elements:

```
<vm>
  <cpu>
    <cpu_tune>
      <vcpu_pin>...</vcpu_pin>
      <vcpu_pin>...</vcpu_pin>
      ...
    </cpu_tune>
  </cpu>
</vm>
```

In order to conform to the common practice in other parts of the API this has been changed to use a wrapper element, in this case **vcpu_pins**:

```
<vm>
  <cpu>
    <cpu_tune>
```

```

    <vcpu_pins>
      <vcpu_pin>...</vcpu_pin>
      <vcpu_pin>...</vcpu_pin>
      ...
    </vcpu_pins>
  </cpu_tune>
</cpu>
</vm>

```

35.42. USE **FORCE** PARAMETER TO FORCE REMOVE A DATA CENTER

The operation that removes a data center supports a **force** parameter. In order to use it the **DELETE** operation used to support an optional action parameter:

```
DELETE /ovirt-engine/api/datacenters/123
```

```

<action>
  <force>true</force>
</action>

```

This optional action parameter has been replaced with an optional parameter:

```
DELETE /ovirt-engine/api/datacenters/123?force=true
```

35.43. USE **FORCE** PARAMETER TO FORCE REMOVE A HOST

The operation that removes a host supports a **force** parameter. In order to use it the **DELETE** operation used to support an optional action parameter:

```
DELETE /ovirt-engine/api/host/123
```

```

<action>
  <force>true</force>
</action>

```

This optional action parameter has been replaced with an optional parameter:

```
DELETE /ovirt-engine/api/host/123?force=true
```

35.44. USE PARAMETERS FOR FORCE REMOVE STORAGE DOMAIN

The operation that removes a storage domain supports the **force**, **destroy** and **host** parameters. These parameters were passed to the **DELETE** method using the representation of the storage domain as the body:

```
DELETE /ovirt-engine/api/storagedomains/123
```

```

<storage_domain>
  <force>...</force>
  <destroy>...</destroy>

```

```
<host id="...">
  <name>...</name>
</host>
</storage_domain>
```

This was problematic, as the HTTP **DELETE** parameters shouldn't have a body, and the representation of the storage domain shouldn't include things that aren't attributes of the storage domain, rather parameters of the operation.

The **force**, **delete** and **host** attributes have been replaced by equivalent parameters, and the operation doesn't now accept a body. For example, now the correct way to delete a storage domain with the **force** parameter is the following:

```
DELETE /ovirt-engine/api/storagedomain/123?host=myhost&force=true
```

To delete with the **destroy** parameter:

```
DELETE /ovirt-engine/api/storagedomain/123?host=myhost&destroy=true
```

35.45. USE **host** PARAMETER TO REMOVE STORAGE SERVER CONNECTION

The operation that removes a storage server connection supports a **host** parameter. In order to use it the **DELETE** method used to support an optional action parameter:

```
DELETE /ovirt-engine/api/storageconnections/123
```

```
<action>
  <host id="...">
    <name>...</name>
  </host>
</action>
```

This optional action parameter has been replaced with an optional parameter:

```
DELETE /ovirt-engine/api/storageconnections/123?host=myhost
```

35.46. USE **FORCE** AND **STORAGE_DOMAIN** PARAMETERS TO REMOVE TEMPLATE DISKS

The operation that removes a template disk supports the **force** and **storage_domain** parameters. In order to use it them the **DELETE** method used to support an optional action parameter:

```
DELETE /ovirt-engine/api/templates/123/disks/456
```

```
<action>
  <force>...</force>
  <storage_domain id="...">
</action>
```

In version 4 of the API this operation has been moved to the new **diskattachments** collection, and the request body has been replaced with the query parameters **force** and **storage_domain**:

```
DELETE /ovirt-engine/api/templates/123/diskattachments/456?force=true
```

```
DELETE /ovirt-engine/api/templates/123/diskattachments/456?storage_domain=123
```

35.47. DO NOT REMOVE DISKS VIA THE VM DISK API

Removing an entity by deleting **/vms/123/disks/456** means removing the relationship between the VM and the disk - i.e., this operation should just detach the disk from the VM. This operation is no longer able to remove disks completely from the system, which was prone to user errors and had unreversible consequences. To remove a disk, instead use the **/disk/456** API:

```
DELETE /ovirt-engine/api/disks/456
```

35.48. USE FORCE QUERY PARAMETER TO FORCE REMOVE A VIRTUAL MACHINE

The operation that removes a virtual machine supports a **force** parameter. In order to use it the **DELETE** method used to support an optional action parameter:

```
DELETE /ovirt-engine/api/vms/123
```

```
<action>
  <force>true</force>
</action>
```

This optional action parameter has been replaced with an optional query parameter:

```
DELETE /ovirt-engine/api/vms/123?force=true
```

35.49. USE POST INSTEAD OF DELETE TO REMOVE MULTIPLE BRICKS

The operation that removes multiple Gluster bricks was implemented using the **DELETE** method and passing the list of bricks as the body of the request:

```
DELETE /ovirt-engine/api/clusters/123/glustervolumes/456/bricks
```

```
<bricks>
  <bricks id="...">
  <bricks id="...">
  ...
</bricks>
```

This is problematic because the **DELETE** method shouldn't have a body, so it has been replaced with a new **remove** action that uses the **POST** method:

```
POST /ovirt-engine/api/clusters/123/glustervolumes/456/bricks/remove
```

```
<bricks>
  <bricks id="..." />
  <bricks id="..." />
  ...
</bricks>
```

35.50. REMOVED THE SCHEDULING_POLICY.POLICY ELEMENT

The element was kept for backward compatibility. Use **scheduling_policy.name** instead.

POST /ovirt-engine/api/schedulingpolicies

```
<scheduling_policy>
  ...
  <name>policy_name</name>
  ...
</scheduling_policy>
```

PUT /ovirt-engine/api/schedulingpolicies/123

```
<scheduling_policy>
  ...
  <name>policy_name</name>
  ...
</scheduling_policy>
```

35.51. ADDED SNAPSHOT.SNAPSHOT_TYPE

Enums are being gradually introduced to the API. Some fields which were string until now, are replaced with an appropriate enum. One such field is `vm.type`. But this field is inherited by `snapshot`, and `snapshot` type is different than `vm` type. So a new field has been added to `snapshot` entity:

snapshot.snapshot_type.

```
<snapshot>
  ...
  <snapshot_type>regular|active|stateless|preview</snapshot_type>
  ...
</snapshot>
```

35.52. REMOVED MOVE ACTION FROM VM

The deprecated **move** action of the **VM** entity has been removed. Instead, you can move individual disks.

35.53. MOVED REPORTED_CONFIGURATIONS.IN_SYNC TO NETWORK_ATTACHMENT

In version 3 of the API the XML schema type **ReportedConfigurations** had a **in_sync** property:

```
<network_attachment>
  <reported_configurations>
```

```

<in_sync>true</in_sync>
<reported_configuration>
...
</reported_configuration>
...
</reported_configurations>
</network_attachment>

```

In the specification mechanism used by version 4 of the API this can't be expressed, because list types (the list of reported configurations) can't have attributes. To be able to represent it the attribute has been moved to the enclosing **network_attachment**:

```

<network_attachment>
  <in_sync>true</in_sync>
  <reported_configurations>
    <reported_configuration>
      ...
    </reported_configuration>
    ...
  </reported_configurations>
</network_attachment>

```

35.54. REPLACED CAPABILITIES WITH CLUSTERLEVELS

The top level **capabilities** collection has been replaced by the new **clusterlevels** collection. This new collection will contain the information that isn't available in the model, like the list of CPU types available for each cluster level:

```
GET /ovirt-engine/api/clusterlevels
```

This will return a list of **ClusterLevel** objects containing the details for all the cluster levels supported by the system:

```

<cluster_levels>
  <cluster_level id="3.6" href="/clusterlevels/3.6">
    <cpu_types>
      <cpu_type>
        <name>Intel Nehalem Family</name>
        <level>2</level>
        <architecture>x86_64</architecture>
      </cpu_type>
      ...
    </cpu_types>
    ...
  </cluster_level>
</cluster_levels>

```

Each specific cluster level has it's own subresource, identified by the version itself:

```
GET /ovirt-engine/api/clusterlevels/3.6
```

This will return the details of that version:

```

<cluster_level id="3.6" href="/clusterlevels/3.6">
  <cpu_types>
    <cpu_type>
      <name>Intel Nehalem Family</name>
      <level>2</level>
      <architecture>x86_64</architecture>
    </cpu_type>
    ...
  </cpu_types>
  ...
</cluster_level>

```

35.55. REPLACED DISKS WITH DISKATTACHMENTS

In version 3 of the API virtual machines and templates had a **disks** collection containing all the information of the disks attached to them. In version 4 of the API these **disks** collections have been removed and replaced with a new **diskattachments** collection that will contain only the references to the disk and the attributes that are specific of the relationship between disks and the virtual machine or template that they are attached to: **interface** and **bootable**.

To find what disks are attached to a virtual machine, for example, send a request like this:

```
GET /ovirt-engine/api/vms/123/diskattachments
```

That will return a response like this:

```

<disk_attachments>
  <disk_attachment href="/vms/123/diskattachments/456" id="456">
    <bootable>>false</bootable>
    <interface>virtio</interface>
    <disk href="/disks/456" id="456"/>
    <vm href="/vms/123" id="123"/>
  </disk_attachment>
  ...
</disk_attachments>

```

To find the rest of the details of the disk, follow the link provided.

Adding disks to a virtual machine or template uses the new **disk_attachment** element as well: request like this:

```
POST /ovirt-engine/api/vms/123/diskattachments
```

With the following body if the disk doesn't exist and you want to create it:

```

<disk_attachment>
  <bootable>>false</bootable>
  <interface>virtio</interface>
  <disk>
    <description>My disk</description>
    <format>cow</format>
    <name>mydisk</name>
    <provisioned_size>1048576</provisioned_size>
  </disk>
</disk_attachment>

```

```

<storage_domains>
  <storage_domain>
    <name>mydata</name>
  </storage_domain>
</storage_domains>
</disk>
</disk_attachment>

```

Or with the following body if the disk already exists, and you just want to attach it to the virtual machine:

```

<disk_attachment>
  <bootable>>false</bootable>
  <interface>virtio</interface>
  <disk id="456"/>
</disk_attachment>

```

Take into account that the **vm.disks** and **template.disks** attributes have **disk_attachments** for all usages. For example, when creating a template the **vm.disks** element was used to indicate in which storage domain to create the disks of the template. This usage has also been replaced by **vm.disk_attachments**, so the request to create a template with disks in specific storage domains will now look like this:

```

<template>
  <name>mytemplate</name>
  <vm id="123">
    <disk_attachments>
      <disk_attachment>
        <disk id="456">
          <storage_domains>
            <storage_domain id="789"/>
          </storage_domains>
        </disk>
      </disk_attachment>
      ...
    </disk_attachments>
  </vm>
</template>

```

35.56. USE ISCSI_TARGETS ELEMENT TO DISCOVER UNREGISTERED STORAGE

In version 3 of the API the operation to discover unregistered storage domains used to receive a list of iSCSI targets, using multiple **iscsi_target** elements:

POST /ovirt-engine/api/hosts/123/unregisteredstoragedomaindiscover

```

<action>
  <iscsi>
    <address>myiscsiserver</address>
  </iscsi>
  <iscsi_target>iqn.2016-07.com.example:mytarget1</iscsi_target>
  <iscsi_target>iqn.2016-07.com.example:mytarget2</iscsi_target>
</action>

```


In version 4 of the API all repeating elements, like **iscsi_target** in this case, are wrapped with another element, **iscsi_targets** in case. So the same request should now look like this:

```
POST /ovirt-engine/api/hosts/123/unregisteredstoragedomaindiscover
```

```
<action>
  <iscsi>
    <address>myiscsiserver</address>
  </iscsi>
  <iscsi_targets>
    <iscsi_target>iqn.2016-07.com.example:mytarget1</iscsi_target>
    <iscsi_target>iqn.2016-07.com.example:mytarget2</iscsi_target>
  </iscsi_targets>
</action>
```

CHAPTER 36. CHANGES IN ENGINE VERSION 4.5

36.1. OPENSTACK VOLUME (CINDER) INTEGRATION REPLACED BY MANAGED BLOCK STORAGE.

APPENDIX C. LEGAL NOTICE

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