



Red Hat Enterprise Linux OpenStack Platform 6 Command-Line Interface Reference

Command-line clients for the Red Hat Enterprise Linux OpenStack
Platform

OpenStack Documentation TeamRed Hat

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Abstract

This guide collects the help content from the OpenStack command-line clients, for reference.

Table of Contents

Chapter 1. OpenStack command-line clients	15
1. Overview	15
2. Install the OpenStack command-line clients	16
3. Discover the version number for a client	18
4. Set environment variables using the OpenStack RC file	18
Chapter 2. Packstack command-line client	21
1. packstack usage	21
2. packstack optional arguments	21
3. packstack Global Options	22
4. packstack vCenter Config Parameters	23
5. packstack Server Prepare Configs	24
6. packstack RHEL config	24
7. packstack RHN Satellite config	24
8. packstack RHN Satellite proxy config	24
9. packstack AMQP Config parameters	25
10. packstack AMQP Config SSL parameters	25
11. packstack AMQP Config Authentication parameters	25
12. packstack Keystone Config parameters	25
13. packstack Glance Config parameters	26
14. packstack Cinder Config parameters	26
15. packstack Cinder volume create Config parameters	26
16. packstack Cinder volume size Config parameters	26
17. packstack Cinder gluster Config parameters	27
18. packstack Cinder NFS Config parameters	27
19. packstack Nova Options	27
20. packstack Nova Network Options	27
21. packstack Nova Network VLAN Options	28
22. packstack Neutron config	28
23. packstack Neutron LB plugin config	29
24. packstack Neutron LB agent config	29
25. packstack Neutron OVS plugin config	29
26. packstack Neutron OVS agent config	29
27. packstack Neutron OVS plugin config for tunnels	29
28. packstack Neutron OVS agent config for tunnels	30
29. packstack Neutron OVS agent config for VXLAN	30
30. packstack NOVACLIENT Config parameters	30
31. packstack OpenStack Horizon Config parameters	30
32. packstack SSL Config parameters	30
33. packstack OpenStack Swift Config parameters	30
34. packstack Provisioning demo config	31
35. packstack Provisioning demo config	31
36. packstack Optional tempest git uri and branch	31
37. packstack Heat Config parameters	32
38. packstack Ceilometer Config parameters	32
39. packstack MONGODB Config parameters	32
40. packstack Nagios Config parameters	32
41. packstack POSTSCRIPT Config parameters	32
42. packstack Puppet Config parameters	32
Chapter 3. Configuration file editor	33
1. openstack-config usage	33

2. openstack-config optional arguments	33
Chapter 4. Block Storage command-line client	34
1. cinder usage	34
2. cinder optional arguments	38
3. Block Storage API v1 commands	40
4. Block Storage API v2 commands	61
Chapter 5. Compute command-line client	88
1. nova usage	88
2. nova optional arguments	100
3. nova absolute-limits	102
4. nova add-fixed-ip	102
5. nova add-secgroup	102
6. nova agent-create	102
7. nova agent-delete	103
8. nova agent-list	103
9. nova agent-modify	104
10. nova aggregate-add-host	104
11. nova aggregate-create	104
12. nova aggregate-delete	105
13. nova aggregate-details	105
14. nova aggregate-list	105
15. nova aggregate-remove-host	105
16. nova aggregate-set-metadata	105
17. nova aggregate-update	106
18. nova availability-zone-list	106
19. nova backup	106
20. nova baremetal-interface-add	107
21. nova baremetal-interface-list	107
22. nova baremetal-interface-remove	107
23. nova baremetal-node-create	108
24. nova baremetal-node-delete	109
25. nova baremetal-node-list	109
26. nova baremetal-node-show	109
27. nova boot	109
28. nova cell-capacities	111
29. nova cell-show	111
30. nova clear-password	112
31. nova cloudpipe-configure	112
32. nova cloudpipe-create	112
33. nova cloudpipe-list	112
34. nova console-log	113
35. nova credentials	113
36. nova delete	113
37. nova diagnostics	113
38. nova dns-create	114
39. nova dns-create-private-domain	114
40. nova dns-create-public-domain	115
41. nova dns-delete	115
42. nova dns-delete-domain	115
43. nova dns-domains	115
44. nova dns-list	116
45. nova endpoints	116

45. nova endpoints	115
46. nova evacuate	116
47. nova fixed-ip-get	117
48. nova fixed-ip-reserve	117
49. nova fixed-ip-unreserve	117
50. nova flavor-access-add	117
51. nova flavor-access-list	118
52. nova flavor-access-remove	118
53. nova flavor-create	118
54. nova flavor-delete	119
55. nova flavor-key	119
56. nova flavor-list	120
57. nova flavor-show	120
58. nova floating-ip-associate	120
59. nova floating-ip-bulk-create	121
60. nova floating-ip-bulk-delete	121
61. nova floating-ip-bulk-list	121
62. nova floating-ip-create	122
63. nova floating-ip-delete	122
64. nova floating-ip-disassociate	122
65. nova floating-ip-list	122
66. nova floating-ip-pool-list	123
67. nova force-delete	123
68. nova get-password	123
69. nova get-rdp-console	123
70. nova get-serial-console	124
71. nova get-spice-console	124
72. nova get-vnc-console	124
73. nova host-action	124
74. nova host-describe	125
75. nova host-evacuate	125
76. nova host-list	125
77. nova host-meta	126
78. nova host-servers-migrate	126
79. nova host-update	126
80. nova hypervisor-list	127
81. nova hypervisor-servers	127
82. nova hypervisor-show	127
83. nova hypervisor-stats	127
84. nova hypervisor-uptime	128
85. nova image-create	128
86. nova image-delete	128
87. nova image-list	129
88. nova image-meta	129
89. nova image-show	129
90. nova instance-action	129
91. nova instance-action-list	130
92. nova interface-attach	130
93. nova interface-detach	130
94. nova interface-list	131
95. nova keypair-add	131
96. nova keypair-delete	131
97. nova keypair-list	132
98. nova keypair-show	132

98. nova keypair-show	132
99. nova list	132
100. nova list-extensions	133
101. nova list-secgroup	133
102. nova live-migration	133
103. nova lock	134
104. nova meta	134
105. nova migrate	135
106. nova migration-list	135
107. nova net	135
108. nova net-create	136
109. nova net-delete	136
110. nova net-list	136
111. nova network-associate-host	136
112. nova network-associate-project	136
113. nova network-create	137
114. nova network-delete	139
115. nova network-disassociate	139
116. nova network-list	139
117. nova network-show	139
118. nova pause	140
119. nova quota-class-show	140
120. nova quota-class-update	140
121. nova quota-defaults	141
122. nova quota-delete	142
123. nova quota-show	142
124. nova quota-update	142
125. nova rate-limits	144
126. nova reboot	144
127. nova rebuild	144
128. nova refresh-network	145
129. nova remove-fixed-ip	145
130. nova remove-secgroup	146
131. nova rename	146
132. nova rescue	146
133. nova reset-network	146
134. nova reset-state	147
135. nova resize	147
136. nova resize-confirm	147
137. nova resize-revert	148
138. nova restore	148
139. nova resume	148
140. nova root-password	148
141. nova scrub	149
142. nova secgroup-add-default-rule	149
143. nova secgroup-add-group-rule	149
144. nova secgroup-add-rule	150
145. nova secgroup-create	150
146. nova secgroup-delete	151
147. nova secgroup-delete-default-rule	151
148. nova secgroup-delete-group-rule	151
149. nova secgroup-delete-rule	152
150. nova secgroup-list	152
151. nova secgroup-list-default-rules	152

151. nova secgroup-list-default-rules	153
152. nova secgroup-list-rules	153
153. nova secgroup-update	153
154. nova server-group-create	153
155. nova server-group-delete	154
156. nova server-group-get	154
157. nova server-group-list	154
158. nova service-delete	154
159. nova service-disable	154
160. nova service-enable	155
161. nova service-list	155
162. nova shelve	155
163. nova shelve-offload	156
164. nova show	156
165. nova ssh	156
166. nova start	157
167. nova stop	157
168. nova suspend	158
169. nova unlock	158
170. nova unpause	158
171. nova unrescue	158
172. nova unshelve	158
173. nova usage	159
174. nova usage-list	159
175. nova version-list	159
176. nova volume-attach	160
177. nova volume-create	160
178. nova volume-delete	161
179. nova volume-detach	161
180. nova volume-list	161
181. nova volume-show	161
182. nova volume-snapshot-create	162
183. nova volume-snapshot-delete	162
184. nova volume-snapshot-list	162
185. nova volume-snapshot-show	162
186. nova volume-type-create	163
187. nova volume-type-delete	163
188. nova volume-type-list	163
189. nova volume-update	163
190. nova x509-create-cert	164
191. nova x509-get-root-cert	164
Chapter 6. Identity service command-line client	165
1. keystone usage	165
2. keystone optional arguments	167
3. keystone bootstrap	169
4. keystone catalog	169
5. keystone discover	169
6. keystone ec2-credentials-create	170
7. keystone ec2-credentials-delete	170
8. keystone ec2-credentials-get	170
9. keystone ec2-credentials-list	171
10. keystone endpoint-create	171
11. keystone endpoint-delete	171

12. keystone endpoint-get	172
13. keystone endpoint-list	172
14. keystone password-update	172
15. keystone role-create	172
16. keystone role-delete	173
17. keystone role-get	173
18. keystone role-list	173
19. keystone service-create	173
20. keystone service-delete	174
21. keystone service-get	174
22. keystone service-list	174
23. keystone tenant-create	174
24. keystone tenant-delete	175
25. keystone tenant-get	175
26. keystone tenant-list	175
27. keystone tenant-update	175
28. keystone token-get	176
29. keystone user-create	176
30. keystone user-delete	177
31. keystone user-get	177
32. keystone user-list	177
33. keystone user-password-update	177
34. keystone user-role-add	178
35. keystone user-role-list	178
36. keystone user-role-remove	178
37. keystone user-update	179
Chapter 7. Image Service command-line client	180
1. glance usage	180
2. glance optional arguments	181
3. Image Service API v1 commands	183
4. Image Service API v2 commands	189
Chapter 8. Image Service property keys	195
Chapter 9. Networking command-line client	203
1. neutron usage	203
2. neutron optional arguments	203
3. neutron API v2.0 commands	205
4. neutron agent-delete	216
5. neutron agent-list	216
6. neutron agent-show	217
7. neutron agent-update	217
8. neutron cisco-credential-create	218
9. neutron cisco-credential-delete	218
10. neutron cisco-credential-list	219
11. neutron cisco-credential-show	219
12. neutron cisco-network-profile-create	220
13. neutron cisco-network-profile-delete	221
14. neutron cisco-network-profile-list	221
15. neutron cisco-network-profile-show	222
16. neutron cisco-network-profile-update	222
17. neutron cisco-policy-profile-list	223
18. neutron cisco-policy-profile-show	223

18. neutron cisco-policy-profile-show	220
19. neutron cisco-policy-profile-update	224
20. neutron dhcp-agent-list-hosting-net	224
21. neutron dhcp-agent-network-add	225
22. neutron dhcp-agent-network-remove	225
23. neutron ext-list	226
24. neutron ext-show	226
25. neutron firewall-create	227
26. neutron firewall-delete	228
27. neutron firewall-list	228
28. neutron firewall-policy-create	229
29. neutron firewall-policy-delete	230
30. neutron firewall-policy-insert-rule	230
31. neutron firewall-policy-list	231
32. neutron firewall-policy-remove-rule	231
33. neutron firewall-policy-show	232
34. neutron firewall-policy-update	233
35. neutron firewall-rule-create	233
36. neutron firewall-rule-delete	234
37. neutron firewall-rule-list	234
38. neutron firewall-rule-show	235
39. neutron firewall-rule-update	236
40. neutron firewall-show	236
41. neutron firewall-update	237
42. neutron floatingip-associate	237
43. neutron floatingip-create	238
44. neutron floatingip-delete	238
45. neutron floatingip-disassociate	239
46. neutron floatingip-list	239
47. neutron floatingip-show	240
48. neutron gateway-device-create	241
49. neutron gateway-device-delete	241
50. neutron gateway-device-list	242
51. neutron gateway-device-show	242
52. neutron gateway-device-update	243
53. neutron ipsec-site-connection-create	244
54. neutron ipsec-site-connection-delete	245
55. neutron ipsec-site-connection-list	246
56. neutron ipsec-site-connection-show	246
57. neutron ipsec-site-connection-update	247
58. neutron l3-agent-list-hosting-router	247
59. neutron l3-agent-router-add	248
60. neutron l3-agent-router-remove	249
61. neutron lb-agent-hosting-pool	249
62. neutron lb-healthmonitor-associate	250
63. neutron lb-healthmonitor-create	250
64. neutron lb-healthmonitor-delete	251
65. neutron lb-healthmonitor-disassociate	252
66. neutron lb-healthmonitor-list	252
67. neutron lb-healthmonitor-show	253
68. neutron lb-healthmonitor-update	253
69. neutron lb-member-create	254
70. neutron lb-member-delete	255
71. neutron lb-member-list	255

71. neutron lb-member-list	255
72. neutron lb-member-show	256
73. neutron lb-member-update	256
74. neutron lb-pool-create	257
75. neutron lb-pool-delete	258
76. neutron lb-pool-list	258
77. neutron lb-pool-list-on-agent	259
78. neutron lb-pool-show	259
79. neutron lb-pool-stats	260
80. neutron lb-pool-update	260
81. neutron lb-vip-create	261
82. neutron lb-vip-delete	262
83. neutron lb-vip-list	262
84. neutron lb-vip-show	263
85. neutron lb-vip-update	264
86. neutron meter-label-create	264
87. neutron meter-label-delete	265
88. neutron meter-label-list	265
89. neutron meter-label-rule-create	266
90. neutron meter-label-rule-delete	266
91. neutron meter-label-rule-list	267
92. neutron meter-label-rule-show	268
93. neutron meter-label-show	268
94. neutron nec-packet-filter-create	269
95. neutron nec-packet-filter-delete	270
96. neutron nec-packet-filter-list	271
97. neutron nec-packet-filter-show	271
98. neutron nec-packet-filter-update	272
99. neutron net-create	273
100. neutron net-delete	274
101. neutron net-external-list	274
102. neutron net-gateway-connect	275
103. neutron net-gateway-create	275
104. neutron net-gateway-delete	276
105. neutron net-gateway-disconnect	277
106. neutron net-gateway-list	277
107. neutron net-gateway-show	278
108. neutron net-gateway-update	278
109. neutron net-list	279
110. neutron net-list-on-dhcp-agent	279
111. neutron net-show	280
112. neutron net-update	281
113. neutron nuage-netpartition-create	281
114. neutron nuage-netpartition-delete	282
115. neutron nuage-netpartition-list	282
116. neutron nuage-netpartition-show	282
117. neutron port-create	283
118. neutron port-delete	284
119. neutron port-list	285
120. neutron port-show	285
121. neutron port-update	286
122. neutron queue-create	286
123. neutron queue-delete	287
124. neutron queue-list	288

124. neutron queue-list	288
125. neutron queue-show	288
126. neutron quota-delete	289
127. neutron quota-list	289
128. neutron quota-show	289
129. neutron quota-update	290
130. neutron router-create	291
131. neutron router-delete	292
132. neutron router-gateway-clear	292
133. neutron router-gateway-set	293
134. neutron router-interface-add	293
135. neutron router-interface-delete	294
136. neutron router-list	294
137. neutron router-list-on-l3-agent	295
138. neutron router-port-list	295
139. neutron router-show	296
140. neutron router-update	297
141. neutron security-group-create	297
142. neutron security-group-delete	298
143. neutron security-group-list	298
144. neutron security-group-rule-create	299
145. neutron security-group-rule-delete	300
146. neutron security-group-rule-list	300
147. neutron security-group-rule-show	301
148. neutron security-group-show	302
149. neutron security-group-update	302
150. neutron service-provider-list	303
151. neutron subnet-create	304
152. neutron subnet-delete	305
153. neutron subnet-list	305
154. neutron subnet-show	306
155. neutron subnet-update	307
156. neutron vpn-ikepolicy-create	308
157. neutron vpn-ikepolicy-delete	309
158. neutron vpn-ikepolicy-list	309
159. neutron vpn-ikepolicy-show	310
160. neutron vpn-ikepolicy-update	311
161. neutron vpn-ipsecpolicy-create	311
162. neutron vpn-ipsecpolicy-delete	312
163. neutron vpn-ipsecpolicy-list	313
164. neutron vpn-ipsecpolicy-show	313
165. neutron vpn-ipsecpolicy-update	314
166. neutron vpn-service-create	314
167. neutron vpn-service-delete	315
168. neutron vpn-service-list	315
169. neutron vpn-service-show	316
170. neutron vpn-service-update	317
Chapter 10. neutron-debug command-line client	318
1. neutron-debug usage	318
2. neutron-debug optional arguments	318
3. neutron-debug probe-create command	320
4. neutron-debug probe-list command	320
5. neutron-debug probe-clear command	320

6. neutron-debug probe-delete command	320
7. neutron-debug probe-exec command	320
8. neutron-debug ping-all command	320
9. neutron-debug example	321
Chapter 11. Object Storage command-line client	322
1. swift usage	322
2. swift examples	323
3. swift optional arguments	323
4. swift delete	324
5. swift download	325
6. swift list	326
7. swift post	326
8. swift stat	327
9. swift upload	327
Chapter 12. Orchestration command-line client	329
1. heat usage	329
2. heat optional arguments	331
3. heat action-check	334
4. heat action-resume	334
5. heat action-suspend	334
6. heat build-info	334
7. heat event-list	335
8. heat event-show	335
9. heat output-list	335
10. heat output-show	336
11. heat resource-list	336
12. heat resource-metadata	336
13. heat resource-show	337
14. heat resource-signal	337
15. heat resource-template	337
16. heat resource-type-list	338
17. heat resource-type-show	338
18. heat resource-type-template	338
19. heat stack-abandon	338
20. heat stack-adopt	339
21. heat stack-cancel-update	340
22. heat stack-create	340
23. heat stack-delete	341
24. heat stack-list	341
25. heat stack-preview	342
26. heat stack-show	342
27. heat stack-update	343
28. heat template-show	344
29. heat template-validate	344
Chapter 13. Telemetry command-line client	345
1. ceilometer usage	345
2. ceilometer optional arguments	347
3. ceilometer alarm-combination-create	349
4. ceilometer alarm-combination-update	350
5. ceilometer alarm-delete	351
6. ceilometer alarm-history	351

6. ceilometer alarm-list	351
7. ceilometer alarm-list	352
8. ceilometer alarm-show	352
9. ceilometer alarm-state-get	352
10. ceilometer alarm-state-set	353
11. ceilometer alarm-threshold-create	353
12. ceilometer alarm-threshold-update	354
13. ceilometer alarm-update	356
14. ceilometer event-list	358
15. ceilometer event-show	358
16. ceilometer event-type-list	358
17. ceilometer meter-list	358
18. ceilometer query-alarm-history	359
19. ceilometer query-alarms	359
20. ceilometer query-samples	360
21. ceilometer resource-list	360
22. ceilometer resource-show	360
23. ceilometer sample-create	360
24. ceilometer sample-list	361
25. ceilometer statistics	362
26. ceilometer trait-description-list	362
27. ceilometer trait-list	362
Chapter 14. Data processing command-line client	364
1. sahara usage	364
2. sahara optional arguments	367
3. sahara cluster-create	369
4. sahara cluster-delete	369
5. sahara cluster-list	369
6. sahara cluster-show	369
7. sahara cluster-template-create	370
8. sahara cluster-template-delete	370
9. sahara cluster-template-list	370
10. sahara cluster-template-show	370
11. sahara data-source-create	371
12. sahara data-source-delete	371
13. sahara data-source-list	372
14. sahara data-source-show	372
15. sahara image-add-tag	372
16. sahara image-list	372
17. sahara image-register	372
18. sahara image-remove-tag	373
19. sahara image-show	373
20. sahara image-unregister	374
21. sahara job-binary-create	374
22. sahara job-binary-data-create	374
23. sahara job-binary-data-delete	375
24. sahara job-binary-data-list	375
25. sahara job-binary-delete	375
26. sahara job-binary-list	375
27. sahara job-binary-show	375
28. sahara job-create	376
29. sahara job-delete	376
30. sahara job-list	377

31. sahara job-show	377
32. sahara job-template-create	377
33. sahara job-template-delete	377
34. sahara job-template-list	378
35. sahara job-template-show	378
36. sahara node-group-template-create	378
37. sahara node-group-template-delete	378
38. sahara node-group-template-list	379
39. sahara node-group-template-show	379
40. sahara plugin-list	379
41. sahara plugin-show	379
Chapter 15. Database Service command-line client	381
1. trove usage	381
2. trove optional arguments	385
3. trove backup-copy	386
4. trove backup-create	387
5. trove backup-delete	387
6. trove backup-list	387
7. trove backup-list-instance	388
8. trove backup-show	388
9. trove cluster-create	388
10. trove cluster-delete	389
11. trove cluster-instances	389
12. trove cluster-list	389
13. trove cluster-show	390
14. trove configuration-attach	390
15. trove configuration-create	390
16. trove configuration-default	391
17. trove configuration-delete	391
18. trove configuration-detach	391
19. trove configuration-instances	391
20. trove configuration-list	392
21. trove configuration-parameter-list	392
22. trove configuration-parameter-show	392
23. trove configuration-patch	393
24. trove configuration-show	393
25. trove configuration-update	393
26. trove create	394
27. trove database-create	395
28. trove database-delete	395
29. trove database-list	396
30. trove datastore-list	396
31. trove datastore-show	396
32. trove datastore-version-list	396
33. trove datastore-version-show	396
34. trove delete	397
35. trove detach-replica	397
36. trove flavor-list	397
37. trove flavor-show	397
38. trove limit-list	398
39. trove list	398
40. trove metadata-create	398

41. trove metadata-delete	399
42. trove metadata-edit	399
43. trove metadata-list	399
44. trove metadata-show	399
45. trove metadata-update	400
46. trove resize-instance	400
47. trove resize-volume	400
48. trove restart	401
49. trove root-enable	401
50. trove root-show	401
51. trove secgroup-add-rule	402
52. trove secgroup-delete-rule	402
53. trove secgroup-list	402
54. trove secgroup-list-rules	402
55. trove secgroup-show	402
56. trove show	403
57. trove update	403
58. trove user-create	403
59. trove user-delete	404
60. trove user-grant-access	404
61. trove user-list	405
62. trove user-revoke-access	405
63. trove user-show	406
64. trove user-show-access	406
65. trove user-update-attributes	406
Revision History	408

Chapter 1. OpenStack command-line clients

1. Overview

You can use the OpenStack command-line clients to run simple commands that make API calls. You can run these commands from the command line or in scripts to automate tasks. If you provide OpenStack credentials, you can run these commands on any computer.

Internally, each client command runs cURL commands that embed API requests. The OpenStack APIs are RESTful APIs that use the HTTP protocol, including methods, URIs, media types, and response codes.

These open-source Python clients run on Linux or Mac OS X systems and are easy to learn and use. Each OpenStack service has its own command-line client. On some client commands, you can specify a **debug** parameter to show the underlying API request for the command. This is a good way to become familiar with the OpenStack API calls.

The following table lists the command-line client for each OpenStack service with its package name and description.

Table 1.1. OpenStack services and clients

Service	Client	Package	Description
Block Storage	cinder	python-cinderclient	Create and manage volumes.
Compute	nova	python-novaclient	Create and manage images, instances, and flavors.
Database Service	trove	python-troveclient	Create and manage databases.
Identity	keystone	python-keystoneclient	Create and manage users, tenants, roles, endpoints, and credentials.
Image Service	glance	python-glanceclient	Create and manage images.
Networking	neutron	python-neutronclient	Configure networks for guest servers. This client was previously called quantum .
Object Storage	swift	python-swiftclient	Gather statistics, list items, update metadata, and upload, download, and delete files stored by the Object Storage service. Gain access to an Object Storage installation for ad hoc processing.
Orchestration	heat	python-heatclient	Launch stacks from templates, view details of running stacks including events and resources, and update and delete stacks.
Telemetry	ceilometer	python-ceilometerclient	Create and collect measurements across OpenStack.

An OpenStack **common** client is in development.

For client installation instructions, see [Section 2, “Install the OpenStack command-line clients”](#). For information about the OpenStack RC file, see the *Red Hat Enterprise Linux OpenStack Platform End User Guide*.

2. Install the OpenStack command-line clients

Install the prerequisite software and the Python package for each OpenStack client.

2.1. Install the prerequisite software

The following table lists the software that you need to have to run the command-line clients, and provides installation instructions as needed.

Table 1.2. Prerequisite software

Prerequisite	Description
Python 2.6 or later	Currently, the clients do not support Python 3.
setuptools package	Many Linux distributions provide packages to make setuptools easy to install. Search your package manager for setuptools to find an installation package. If you cannot find one, download the setuptools package directly from http://pypi.python.org/pypi/setuptools .
pip package	<p>To install the clients on Red Hat Enterprise Linux, use pip. It is easy to use, ensures that you get the latest version of the clients from the Python Package Index, and lets you update or remove the packages later on.</p> <p>Install pip through the package manager:</p> <p>Red Hat Enterprise Linux.</p> <p>A packaged version enables you to use yum to install the clients, or you can install pip and use it to manage client installation:</p> <pre># yum install python-pip</pre>

2.2. Install the clients

When following the instructions in this section, replace *PROJECT* with the lowercase name of the client to install, such as **nova**. Repeat for each client. The following values are valid:

- ✱ **ceilometer** - Telemetry API

- ✧ **cinder** - Block Storage API and extensions
- ✧ **glance** - Image Service API
- ✧ **heat** - Orchestration API
- ✧ **keystone** - Identity service API and extensions
- ✧ **neutron** - Networking API
- ✧ **nova** - Compute API and extensions
- ✧ **swift** - Object Storage API
- ✧ **trove** - Database Service API

The following example shows the command for installing the nova client with *pip*.

```
# pip install python-novaclient
```

2.2.1. Installing with pip

Use *pip* to install the OpenStack clients on a Red Hat Enterprise Linux system. It is easy to use and ensures that you get the latest version of the client from the [Python Package Index](#). Also, *pip* enables you to update or remove a package.

Install each client separately by using the following command:

- ✧ Red Hat Enterprise Linux:

```
# pip install python-PROJECTclient
```

2.2.2. Installing from packages

On Red Hat Enterprise Linux, use **yum** to install the clients:

```
# yum install python-PROJECTclient
```

2.3. Upgrade or remove clients

To upgrade a client, add the **--upgrade** option to the **pip install** command:

```
# pip install --upgrade python-PROJECTclient
```

To remove the a client, run the **pip uninstall** command:

```
# pip uninstall python-PROJECTclient
```

2.4. What's next

Before you can run client commands, you must create and source the **PROJECT-openrc.sh** file to set environment variables. See [Section 4, “Set environment variables using the OpenStack RC file”](#).

3. Discover the version number for a client

Run the following command to discover the version number for a client:

```
$ PROJECT --version
```

For example, to see the version number for the **nova** client, run the following command:

```
$ nova --version
```

The version number (2.15.0 in the example) is returned.

```
2.15.0
```

4. Set environment variables using the OpenStack RC file

To set the required environment variables for the OpenStack command-line clients, you must create an environment file called an OpenStack rc file, or **openrc.sh** file. If your OpenStack installation provides it, you can download the file from the OpenStack dashboard as an administrative user or any other user. This project-specific environment file contains the credentials that all OpenStack services use.

When you source the file, environment variables are set for your current shell. The variables enable the OpenStack client commands to communicate with the OpenStack services that run in the cloud.

Note

Defining environment variables using an environment file is not a common practice on Microsoft Windows. Environment variables are usually defined in the **Advanced** tab of the System Properties dialog box.

4.1. Download and source the OpenStack RC file

1. Log in to the OpenStack dashboard, choose the project for which you want to download the OpenStack RC file, and click **Access & Security**.
2. On the API Access tab, click **Download OpenStack RC File** and save the file. The filename will be of the form **PROJECT-openrc.sh** where **PROJECT** is the name of the project for which you downloaded the file.
3. Copy the **PROJECT-openrc.sh** file to the computer from which you want to run OpenStack commands.

For example, copy the file to the computer from which you want to upload an image with a **glance** client command.

4. On any shell from which you want to run OpenStack commands, source the **PROJECT-openrc.sh** file for the respective project.

In the following example, the **demo-openrc.sh** file is sourced for the demo project:

```
$ source demo-openrc.sh
```

- When you are prompted for an OpenStack password, enter the password for the user who downloaded the **PROJECT-openrc.sh** file.

4.2. Create and source the OpenStack RC file

Alternatively, you can create the **PROJECT-openrc.sh** file from scratch, if for some reason you cannot download the file from the dashboard.

- In a text editor, create a file named **PROJECT-openrc.sh** file and add the following authentication information:

```
export OS_USERNAME=username
export OS_PASSWORD=password
export OS_TENANT_NAME=projectName
export OS_AUTH_URL=https://identityHost:portNumber/v2.0
# The following lines can be omitted
export OS_TENANT_ID=tenantIDString
export OS_REGION_NAME=regionName
```

The following example shows the information for a project called **admin**, where the OS username is also **admin**, and the identity host is located at **controller**.

```
export OS_USERNAME=admin
export OS_PASSWORD=ADMIN_PASS
export OS_TENANT_NAME=admin
export OS_AUTH_URL=http://controller:35357/v2.0
```

- On any shell from which you want to run OpenStack commands, source the **PROJECT-openrc.sh** file for the respective project. In this example, you source the **admin-openrc.sh** file for the *admin* project:

```
$ source admin-openrc.sh
```

Note

You are not prompted for the password with this method. The password lives in clear text format in the **PROJECT-openrc.sh** file. Restrict the permissions on this file to avoid security problems. You can also remove the **OS_PASSWORD** variable from the file, and use the **--password** parameter with OpenStack client commands instead.

4.3. Override environment variable values

When you run OpenStack client commands, you can override some environment variable settings by using the options that are listed at the end of the **help** output of the various client commands. For example, you can override the **OS_PASSWORD** setting in the **PROJECT-openrc.sh** file by specifying a password on a **keystone** command, as follows:

```
$ keystone --os-password PASSWORD service-list
```

Where *PASSWORD* is your password.

Chapter 2. Packstack command-line client

The **packstack** client is the command-line interface (CLI) for installing single node, proof-of-concept deployments. This chapter documents **packstack** version **2014.2.dev1316.g733aa73**.

For help on a specific **packstack** command, enter:

```
$ packstack help COMMAND
```

1. packstack usage

```
Usage: packstack [options] [--help]
```

2. packstack optional arguments

--version

show program's version number and exit

-h, --help

show this help message and exit

--gen-answer-file=GEN_ANSWER_FILE

Generate a template of an answer file, using this option excludes all other options

--answer-file=ANSWER_FILE

Runs the configuration in non-interactive mode, extracting all information from the configuration file. using this option excludes all other options

--install-hosts=INSTALL_HOSTS

Install on a set of hosts in a single step. The format should be a comma separated list of hosts, the first is setup as a controller, and the others are setup as compute nodes. if only a single host is supplied then it is setup as an all in one installation. An answerfile will also be generated and should be used if Packstack needs to be run a second time

--allinone

Shorthand for `--install-hosts=<local ipaddr> --novanetwork-pubif=<dev> --novacompute-privif=lo --novanetwork-privif=lo --os-swift-install=y --nagios-install=y`, this option can be used to install an all in one OpenStack on this host

-t TIMEOUT, --timeout=TIMEOUT

The timeout for puppet Exec calls

-o, --options

Print details on options available in answer file(rst format)

-d, --debug

Enable debug in logging

-y, --dry-run

Don't execute, just generate manifests

3. packstack Global Options

--ssh-public-key=SSH_PUBLIC_KEY

Path to a Public key to install on servers. If a usable key has not been installed on the remote servers the user will be prompted for a password and this key will be installed so the password will not be required again

--default-password=DEFAULT_PASSWORD

Set a default password everywhere. The default password will be overridden by whatever password is set for each individual service or user.

--mariadb-install=MARIADB_INSTALL

Set to 'y' if you would like Packstack to install MariaDB

--os-glance-install=OS_GLANCE_INSTALL

Set to 'y' if you would like Packstack to install OpenStack Image Service (Glance)

--os-cinder-install=OS_CINDER_INSTALL

Set to 'y' if you would like Packstack to install OpenStack Block Storage (Cinder)

--os-nova-install=OS_NOVA_INSTALL

Set to 'y' if you would like Packstack to install OpenStack Compute (Nova)

--os-neutron-install=OS_NEUTRON_INSTALL

Set to 'y' if you would like Packstack to install OpenStack Networking (Neutron). Otherwise Nova Network will be used.

--os-horizon-install=OS_HORIZON_INSTALL

Set to 'y' if you would like Packstack to install OpenStack Dashboard (Horizon)

--os-swift-install=OS_SWIFT_INSTALL

Set to 'y' if you would like Packstack to install OpenStack Object Storage (Swift)

--os-ceilometer-install=OS_CEILOMETER_INSTALL

Set to 'y' if you would like Packstack to install OpenStack Metering (Ceilometer)

--os-heat-install=OS_HEAT_INSTALL

Set to 'y' if you would like Packstack to install OpenStack Orchestration (Heat)

--os-client-install=OS_CLIENT_INSTALL

Set to 'y' if you would like Packstack to install the OpenStack Client packages. An admin "rc" file will also be installed

--ntp-servers=NTP_SERVERS

Comma separated list of NTP servers. Leave plain if Packstack should not install ntpd on instances.

--nagios-install=NAGIOS_INSTALL

Set to 'y' if you would like Packstack to install Nagios to monitor OpenStack hosts

--exclude-servers=EXCLUDE_SERVERS

Comma separated list of servers to be excluded from installation in case you are running Packstack the second time with the same answer file and don't want Packstack to touch these servers. Leave plain if you don't need to exclude any server.

--os-debug-mode=OS_DEBUG_MODE

Set to 'y' if you want to run OpenStack services in debug mode. Otherwise set to 'n'.

--os-controller-host=OS_CONTROLLER_HOST

The IP address of the server on which to install OpenStack services specific to controller role such as API servers, Horizon, etc.

--os-compute-hosts=OS_COMPUTE_HOSTS

The list of IP addresses of the server on which to install the Nova compute service

--os-network-hosts=OS_NETWORK_HOSTS

The list of IP addresses of the server on which to install the network service such as Nova network or Neutron

--os-vmware=OS_VMWARE

Set to 'y' if you want to use VMware vCenter as hypervisor and storage. Otherwise set to 'n'.

--unsupported=UNSUPPORTED

Set to 'y' if you want to use unsupported parameters. This should be used only if you know what you are doing. Issues caused by using unsupported options won't be fixed before next major release.

4. packstack vCenter Config Parameters

--vcenter-host=VCENTER_HOST

The IP address of the VMware vCenter server

--vcenter-username=VCENTER_USERNAME

The username to authenticate to VMware vCenter server

--vcenter-password=VCENTER_PASSWORD

The password to authenticate to VMware vCenter server

--vcenter-cluster=VCENTER_CLUSTER

The name of the vCenter cluster

5. packstack Server Prepare Configs

--use-epel=USE_EPEL

To subscribe each server to EPEL enter "y"

--additional-repo=ADDITIONAL_REPO

A comma separated list of URLs to any additional yum repositories to install

6. packstack RHEL config

--rh-username=RH_USERNAME

To subscribe each server with Red Hat subscription manager, include this with CONFIG_RH_PW

--rhn-satellite-server=RHN_SATELLITE_SERVER

To subscribe each server with RHN Satellite, fill Satellite's URL here. Note that either satellite's username/password or activation key has to be provided

7. packstack RHN Satellite config

--rhn-satellite-username=RHN_SATELLITE_USERNAME

Username to access RHN Satellite

--rhn-satellite-password=RHN_SATELLITE_PASSWORD

Password to access RHN Satellite

--rhn-satellite-activation-key=RHN_SATELLITE_ACTIVATION_KEY

Activation key for subscription to RHN Satellite

--rhn-satellite-cacert=RHN_SATELLITE_CACERT

Specify a path or URL to a SSL CA certificate to use

--rhn-satellite-profile=RHN_SATELLITE_PROFILE

If required specify the profile name that should be used as an identifier for the system in RHN Satellite

--rhn-satellite-flags=RHN_SATELLITE_FLAGS

Comma separated list of flags passed to rhnreg_ks. Valid flags are: novirtinfo, norhnsd, nopackages

--rhn-satellite-proxy-host=RHN_SATELLITE_PROXY_HOST

Specify a HTTP proxy to use with RHN Satellite

8. packstack RHN Satellite proxy config

--rhn-satellite-proxy-username=RHN_SATELLITE_PROXY_USERNAME

Specify a username to use with an authenticated HTTP proxy

--rhn-satellite-proxy-password=RHN_SATELLITE_PROXY_PASSWORD

Specify a password to use with an authenticated HTTP proxy.

9. packstack AMQP Config parameters

--amqp-backend=AMQP_BACKEND

Set the AMQP service backend. Allowed values are: qpid, rabbitmq

--amqp-host=AMQP_HOST

The IP address of the server on which to install the AMQP service

--amqp-enable-ssl=AMQP_ENABLE_SSL

Enable SSL for the AMQP service

--amqp-enable-auth=AMQP_ENABLE_AUTH

Enable Authentication for the AMQP service

10. packstack AMQP Config SSL parameters

--amqp-nss-certdb-pw=AMQP_NSS_CERTDB_PW

The password for the NSS certificate database of the AMQP service

--amqp-ssl-port=AMQP_SSL_PORT

The port in which the AMQP service listens to SSL connections

--amqp-ssl-cert-file=AMQP_SSL_CERT_FILE

The filename of the certificate that the AMQP service is going to use

--amqp-ssl-key-file=AMQP_SSL_KEY_FILE

The filename of the private key that the AMQP service is going to use

--amqp-ssl-self-signed=AMQP_SSL_SELF_SIGNED

Auto Generates self signed SSL certificate and key

11. packstack AMQP Config Authentication parameters

--amqp-auth-user=AMQP_AUTH_USER

User for amqp authentication

--amqp-auth-password=AMQP_AUTH_PASSWORD

Password for user authentication

12. packstack Keystone Config parameters

--keystone-db-passwd=KEYSTONE_DB_PASSWD

The password to use for the Keystone to access DB

--keystone-admin-passwd=KEYSTONE_ADMIN_PASSWD

The password to use for the Keystone admin user

--keystone-demo-passwd=KEYSTONE_DEMO_PASSWD

The password to use for the Keystone demo user

13. packstack Glance Config parameters

--glance-db-passwd=GLANCE_DB_PASSWD

The password to use for the Glance to access DB

--glance-ks-passwd=GLANCE_KS_PASSWD

The password to use for the Glance to authenticate with Keystone

--glance-backend=GLANCE_BACKEND

Glance storage backend controls how Glance stores disk images. Supported values: file, swift. Note that Swift installation have to be enabled to have swift backend working. Otherwise Packstack will fallback to 'file'.

14. packstack Cinder Config parameters

--cinder-db-passwd=CINDER_DB_PASSWD

The password to use for the Cinder to access DB

--cinder-ks-passwd=CINDER_KS_PASSWD

The password to use for the Cinder to authenticate with Keystone

--cinder-backend=CINDER_BACKEND

The Cinder backend to use, valid options are: lvm, gluster, nfs, netapp

15. packstack Cinder volume create Config parameters

--cinder-volumes-create=CINDER_VOLUMES_CREATE

Create Cinder's volumes group. This should only be done for testing on a proof-of-concept installation of Cinder. This will create a file-backed volume group and is not suitable for production usage.

16. packstack Cinder volume size Config parameters

--cinder-volumes-size=CINDER_VOLUMES_SIZE

Cinder's volumes group size. Note that actual volume size will be extended with 3% more space for VG metadata.

17. packstack Cinder gluster Config parameters

--cinder-gluster-mounts=CINDER_GLUSTER_MOUNTS

A single or comma separated list of gluster volume shares to mount, eg: ip-address:/vol-name, domain :/vol-name

18. packstack Cinder NFS Config parameters

--cinder-nfs-mounts=CINDER_NFS_MOUNTS

A single or comma separated list of NFS exports to mount, eg: ip-address:/export-name

19. packstack Nova Options

--nova-db-passwd=NOVA_DB_PASSWD

The password to use for the Nova to access DB

--nova-ks-passwd=NOVA_KS_PASSWD

The password to use for the Nova to authenticate with Keystone

--novasched-cpu-allocation-ratio=NOVASCHED_CPU_ALLOCATION_RATIO

The overcommitment ratio for virtual to physical CPUs. Set to 1.0 to disable CPU overcommitment

--novasched-ram-allocation-ratio=NOVASCHED_RAM_ALLOCATION_RATIO

The overcommitment ratio for virtual to physical RAM. Set to 1.0 to disable RAM overcommitment

--novacompute-migrate-protocol=NOVACOMPUTE_MIGRATE_PROTOCOL

Protocol used for instance migration. Allowed values are tcp and ssh. Note that by default nova user is created with /sbin/nologin shell so that ssh protocol won't be working. To make ssh protocol work you have to fix nova user on compute hosts manually.

20. packstack Nova Network Options

--novacompute-privif=NOVACOMPUTE_PRIVIF

Private interface for Flat DHCP on the Nova compute servers

--novanetwork-manager=NOVANETWORK_MANAGER

Nova network manager

--novanetwork-pubif=NOVANETWORK_PUBIF

Public interface on the Nova network server

--novanetwork-privif=NOVANETWORK_PRIVIF

Private interface for network manager on the Nova network server

--novanetwork-fixed-range=NOVANETWORK_FIXED_RANGE

IP Range for network manager

--novanetwork-floating-range=NOVANETWORK_FLOATING_RANGE

IP Range for Floating IP's

--novanetwork-default-floating-pool=NOVANETWORK_DEFAULT_FLOATING_POOL

Name of the default floating pool to which the specified floating ranges are added to

--novanetwork-auto-assign-floating-ip=NOVANETWORK_AUTO_ASSIGN_FLOATING_IP

Automatically assign a floating IP to new instances

21. packstack Nova Network VLAN Options

--novanetwork-vlan-start=NOVANETWORK_VLAN_START

First VLAN for private networks

--novanetwork-num-networks=NOVANETWORK_NUM_NETWORKS

Number of networks to support

--novanetwork-network-size=NOVANETWORK_NETWORK_SIZE

Number of addresses in each private subnet

22. packstack Neutron config

--os-neutron-ks-password=OS_NEUTRON_KS_PASSWORD

The password to use for Neutron to authenticate with Keystone

--os-neutron-db-password=OS_NEUTRON_DB_PASSWORD

The password to use for Neutron to access DB

--os-neutron-l3-ext-bridge=OS_NEUTRON_L3_EXT_BRIDGE

The name of the bridge that the Neutron L3 agent will use for external traffic, or 'provider' if using provider networks

--os-neutron-l2-plugin=OS_NEUTRON_L2_PLUGIN

The name of the L2 plugin to be used with Neutron. (eg. linuxbridge, openvswitch, ml2)

--os-neutron-metadata-pw=OS_NEUTRON_METADATA_PW

Neutron metadata agent password

--os-neutron-lbaas-install=OS_NEUTRON_LBAAS_INSTALL

Set to 'y' if you would like Packstack to install Neutron LBaaS

```
--os-neutron-metering-agent-  
install=OS_NEUTRON_METERING_AGENT_INSTALL
```

Set to 'y' if you would like Packstack to install Neutron L3 Metering agent

```
--neutron-fwaas=NEUTRON_FWAAS
```

Whether to configure neutron Firewall as a Service

23. packstack Neutron LB plugin config

```
--os-neutron-lb-tenant-network-  
type=OS_NEUTRON_LB_TENANT_NETWORK_TYPE
```

The type of network to allocate for tenant networks (eg. vlan, local)

```
--os-neutron-lb-vlan-ranges=OS_NEUTRON_LB_VLAN_RANGES
```

A comma separated list of VLAN ranges for the Neutron linuxbridge plugin (eg. physnet1:1:4094,physnet2,physnet3:3000:3999)

24. packstack Neutron LB agent config

```
--os-neutron-lb-interface-mappings=OS_NEUTRON_LB_INTERFACE_MAPPINGS
```

A comma separated list of interface mappings for the Neutron linuxbridge plugin (eg. physnet1:br-eth1,physnet2:br-eth2,physnet3:br-eth3)

25. packstack Neutron OVS plugin config

```
--os-neutron-ovs-tenant-network-  
type=OS_NEUTRON_OVS_TENANT_NETWORK_TYPE
```

Type of network to allocate for tenant networks (eg. vlan, local, gre, vxlan)

```
--os-neutron-ovs-vlan-ranges=OS_NEUTRON_OVS_VLAN_RANGES
```

A comma separated list of VLAN ranges for the Neutron openvswitch plugin (eg. physnet1:1:4094,physnet2,physnet3:3000:3999)

26. packstack Neutron OVS agent config

```
--os-neutron-ovs-bridge-mappings=OS_NEUTRON_OVS_BRIDGE_MAPPINGS
```

A comma separated list of bridge mappings for the Neutron openvswitch plugin (eg. physnet1:br-eth1,physnet2:br-eth2,physnet3:br-eth3)

```
--os-neutron-ovs-bridge-interfaces=OS_NEUTRON_OVS_BRIDGE_INTERFACES
```

A comma separated list of colon-separated OVS bridge:interface pairs. The interface will be added to the associated bridge.

27. packstack Neutron OVS plugin config for tunnels

--os-neutron-ovs-tunnel-ranges=OS_NEUTRON_OVS_TUNNEL_RANGES

A comma separated list of tunnel ranges for the Neutron openvswitch plugin (eg. 1:1000)

28. packstack Neutron OVS agent config for tunnels

--os-neutron-ovs-tunnel-if=OS_NEUTRON_OVS_TUNNEL_IF

The interface for the OVS tunnel. Packstack will override the IP address used for tunnels on this hypervisor to the IP found on the specified interface. (eg. eth1)

29. packstack Neutron OVS agent config for VXLAN

--os-neutron-ovs-vxlan-udp-port=OS_NEUTRON_OVS_VXLAN_UDP_PORT

VXLAN UDP port

30. packstack NOVACLIENT Config parameters

31. packstack OpenStack Horizon Config parameters

--os-horizon-ssl=OS_HORIZON_SSL

To set up Horizon communication over https set this to 'y'

32. packstack SSL Config parameters

--os-ssl-cert=OS_SSL_CERT

PEM encoded certificate to be used for ssl on the https server, leave blank if one should be generated, this certificate should not require a passphrase

--os-ssl-key=OS_SSL_KEY

SSL keyfile corresponding to the certificate if one was entered

--os-ssl-cachain=OS_SSL_CACHAIN

PEM encoded CA certificates from which the certificate chain of the server certificate can be assembled.

33. packstack OpenStack Swift Config parameters

--os-swift-ks-passwd=OS_SWIFT_KS_PASSWD

The password to use for the Swift to authenticate with Keystone

--os-swift-storages=OS_SWIFT_STORAGES

A comma separated list of devices which to use as Swift Storage device. Each entry should take the format /path/to/dev, for example /dev/vdb will install /dev/vdb as Swift

storage device (packstack does not create the filesystem, you must do this first). If value is omitted Packstack will create a loopback device for test setup

--os-swift-storage-zones=OS_SWIFT_STORAGE_ZONES

Number of swift storage zones, this number MUST be no bigger than the number of storage devices configured

--os-swift-storage-replicas=OS_SWIFT_STORAGE_REPLICAS

Number of swift storage replicas, this number MUST be no bigger than the number of storage zones configured

--os-swift-storage-fstype=OS_SWIFT_STORAGE_FSTYPE

FileSystem type for storage nodes

--os-swift-storage-size=OS_SWIFT_STORAGE_SIZE

Size of the swift loopback file storage device

34. packstack Provisioning demo config

--provision-demo=PROVISION_DEMO

Whether to provision for demo usage and testing. Note that provisioning is only supported for all-in-one installations.

--provision-tempest=PROVISION_TEMPEST

Whether to configure tempest for testing

--provision-tempest-user=PROVISION_TEMPEST_USER

The name of the Tempest Provisioning user. If you don't provide a user name, Tempest will be configured in a standalone mode

--provision-tempest-user-passwd=PROVISION_TEMPEST_USER_PASSWD

The password to use for the Tempest Provisioning user

35. packstack Provisioning demo config

--provision-demo-floatrange=PROVISION_DEMO_FLOATRANGE

The CIDR network address for the floating IP subnet

36. packstack Optional tempest git uri and branch

--provision-tempest-repo-uri=PROVISION_TEMPEST_REPO_URI

The uri of the tempest git repository to use

--provision-tempest-repo-revision=PROVISION_TEMPEST_REPO_REVISION

The revision of the tempest git repository to use

37. packstack Heat Config parameters

37. packstack Heat Config parameters

--os-heat-mysql-password=OS_HEAT_MYSQL_PASSWORD

The password used by Heat user to authenticate against MySQL

--os-heat-ks-passwd=OS_HEAT_KS_PASSWD

The password to use for the Heat to authenticate with Keystone

--os-heat-cloudwatch-install=OS_HEAT_CLOUDWATCH_INSTALL

Set to 'y' if you would like Packstack to install Heat CloudWatch API

--os-heat-using-trusts=OS_HEAT_USING_TRUSTS

Set to 'y' if you would like Packstack to install Heat with trusts as deferred auth method. If not, the stored password method will be used.

--os-heat-cfn-install=OS_HEAT_CFN_INSTALL

Set to 'y' if you would like Packstack to install Heat CloudFormation API

--os-heat-domain=OS_HEAT_DOMAIN

Name of Keystone domain for Heat

--os-heat-domain-admin=OS_HEAT_DOMAIN_ADMIN

Name of Keystone domain admin user for Heat

--os-heat-domain-password=OS_HEAT_DOMAIN_PASSWORD

Password for Keystone domain admin user for Heat

38. packstack Ceilometer Config parameters

--ceilometer-ks-passwd=CEILOMETER_KS_PASSWD

The password to use for Ceilometer to authenticate with Keystone

39. packstack MONGODB Config parameters

--mongodb-host=MONGODB_HOST

The IP address of the server on which to install MongoDB

40. packstack Nagios Config parameters

--nagios-passwd=NAGIOS_PASSWD

The password of the nagiosadmin user on the Nagios server

41. packstack POSTSCRIPT Config parameters

42. packstack Puppet Config parameters

Chapter 3. Configuration file editor

The **openstack-config** client is the command-line interface (CLI) for the and its extensions. This chapter documents **openstack-config** version **0.4**.

For help on a specific **openstack-config** command, enter:

```
$ openstack-config help COMMAND
```

1. openstack-config usage

```
Usage: crudini --set [OPTION]... config_file section [param]
[value] crudini --get [OPTION]... config_file [section] [param]
crudini --del [OPTION]... config_file section [param] [value]
crudini --merge [OPTION]... config_file [section]
```

2. openstack-config optional arguments

--existing

For --set, --del and --merge fail if the section or param is not present

--format=FMT

For --get, select the output FMT. Formats are sh,ini,lines

--inplace

Lock and write files in place. This is not atomic but has less restrictions than the default replacement method.

--list

For --set and --del, update a list (set) of values

--list-sep=STR

Delimit list values with "STR" instead of " ,"

--output=FILE

Write output to FILE instead. '-' means stdout

Chapter 4. Block Storage command-line client

The **cinder** client is the command-line interface (CLI) for the OpenStack Block Storage API and its extensions. This chapter documents **cinder** version **1.1.1**.

For help on a specific **cinder** command, enter:

```
$ cinder help COMMAND
```

1. cinder usage

```
usage: cinder [--version] [--debug] [--os-auth-system <auth-system>]
  [--service-type <service-type>] [--service-name <service-name>] [--
  volume-service-name <volume-service-name>] [--endpoint-type
  <endpoint-type>] [--os-volume-api-version <volume-api-ver>] [--
  retries <retries>] [--os-auth-strategy <auth-strategy>] [--os-
  username <auth-user-name>] [--os-password <auth-password>] [--os-
  tenant-name <auth-tenant-name>] [--os-tenant-id <auth-tenant-id>] [--
  os-auth-url <auth-url>] [--os-user-id <auth-user-id>] [--os-user-
  domain-id <auth-user-domain-id>] [--os-user-domain-name <auth-user-
  domain-name>] [--os-project-id <auth-project-id>] [--os-project-name
  <auth-project-name>] [--os-project-domain-id <auth-project-domain-
  id>] [--os-project-domain-name <auth-project-domain-name>] [--os-
  cert <certificate>] [--os-key <key>] [--os-region-name <region-
  name>] [--os-token <token>] [--os-url <url>] [--os-cacert <ca-
  certificate>] <subcommand> ...
```

Subcommands

absolute-limits

Lists absolute limits for a user.

availability-zone-list

Lists all availability zones.

backup-create

Creates a volume backup.

backup-delete

Removes a backup.

backup-list

Lists all backups.

backup-restore

Restores a backup.

backup-show

Show backup details.

create

Creates a volume.

credentials

Shows user credentials returned from auth.

delete

Removes one or more volumes.

encryption-type-create

Creates encryption type for a volume type. Admin only.

encryption-type-delete

Deletes encryption type for a volume type. Admin only.

encryption-type-list

Shows encryption type details for volume types. Admin only.

encryption-type-show

Shows encryption type details for volume type. Admin only.

endpoints

Discovers endpoints registered by authentication service.

extend

Attempts to extend size of an existing volume.

extra-specs-list

Lists current volume types and extra specs.

force-delete

Attempts force-delete of volume, regardless of state.

list

Lists all volumes.

metadata

Sets or deletes volume metadata.

metadata-show

Shows volume metadata.

metadata-update-all

Updates volume metadata.

migrate

Migrates volume to a new host.

qos-associate

Associates qos specs with specified volume type.

qos-create

Creates a qos specs.

qos-delete

Deletes a specified qos specs.

qos-disassociate

Disassociates qos specs from specified volume type.

qos-disassociate-all

Disassociates qos specs from all associations.

qos-get-association

Gets all associations for specified qos specs.

qos-key

Sets or unsets specifications for a qos spec.

qos-list

Lists qos specs.

qos-show

Shows a specified qos specs.

quota-class-show

Lists quotas for a quota class.

quota-class-update

Updates quotas for a quota class.

quota-defaults

Lists default quotas for a tenant.

quota-delete

Delete the quotas for a tenant.

quota-show

Lists quotas for a tenant.

quota-update

Updates quotas for a tenant.

quota-usage

Lists quota usage for a tenant.

rate-limits

Lists rate limits for a user.

readonly-mode-update

Updates volume read-only access-mode flag.

rename

Renames a volume.

reset-state

Explicitly updates the volume state.

service-disable

Disables the service.

service-enable

Enables the service.

service-list

Lists all services. Filter by host and service binary.

set-bootable

Update bootable status of a volume.

show

Shows volume details.

snapshot-create

Creates a snapshot.

snapshot-delete

Remove one or more snapshots.

snapshot-list

Lists all snapshots.

snapshot-metadata

Sets or deletes snapshot metadata.

snapshot-metadata-show

Shows snapshot metadata.

snapshot-metadata-update-all

Updates snapshot metadata.

snapshot-rename

Renames a snapshot.

snapshot-reset-state

Explicitly updates the snapshot state.

snapshot-show

Shows snapshot details.

transfer-accept

Accepts a volume transfer.

transfer-create

Creates a volume transfer.

transfer-delete

Undoes a transfer.

transfer-list

Lists all transfers.

transfer-show

Show transfer details.

type-create

Creates a volume type.

type-delete

Deletes a specified volume type.

type-key

Sets or unsets extra_spec for a volume type.

type-list

Lists available 'volume types'.

upload-to-image

Uploads volume to Image Service as an image.

bash-completion

Prints arguments for bash_completion.

help

Shows help about this program or one of its subcommands.

list-extensions

Lists all available os-api extensions.

2. cinder optional arguments

-
- version**
show program's version number and exit
 - debug**
Shows debugging output.
 - os-auth-system <auth-system>**
Defaults to `env[OS_AUTH_SYSTEM]`.
 - service-type <service-type>**
Service type. For most actions, default is volume.
 - service-name <service-name>**
Service name. Default=`env[CINDER_SERVICE_NAME]`.
 - volume-service-name <volume-service-name>**
Volume service name. Default=`env[CINDER_VOLUME_SERVICE_NAME]`.
 - endpoint-type <endpoint-type>**
Endpoint type, which is `publicURL` or `internalURL`. Default=`nova env[CINDER_ENDPOINT_TYPE]` or `publicURL`.
 - os-volume-api-version <volume-api-ver>**
Block Storage API version. Valid values are 1 or 2.
Default=`env[OS_VOLUME_API_VERSION]`.
 - retries <retries>**
Number of retries.
 - os-auth-strategy <auth-strategy>**
Authentication strategy (Env: `OS_AUTH_STRATEGY`, default `keystone`). For now, any other value will disable the authentication
 - os-username <auth-user-name>**
OpenStack user name. Default=`env[OS_USERNAME]`.
 - os-password <auth-password>**
Password for OpenStack user. Default=`env[OS_PASSWORD]`.
 - os-tenant-name <auth-tenant-name>**
Tenant name. Default=`env[OS_TENANT_NAME]`.
 - os-tenant-id <auth-tenant-id>**
ID for the tenant. Default=`env[OS_TENANT_ID]`.
 - os-auth-url <auth-url>**
URL for the authentication service. Default=`env[OS_AUTH_URL]`.
 - os-user-id <auth-user-id>**
-

Authentication user ID (Env: OS_USER_ID)

--os-user-domain-id <auth-user-domain-id>

OpenStack user domain ID. Defaults to `env[OS_USER_DOMAIN_ID]`.

--os-user-domain-name <auth-user-domain-name>

OpenStack user domain name. Defaults to `env[OS_USER_DOMAIN_NAME]`.

--os-project-id <auth-project-id>

Another way to specify tenant ID. This option is mutually exclusive with `--os-tenant-id`. Defaults to `env[OS_PROJECT_ID]`.

--os-project-name <auth-project-name>

Another way to specify tenant name. This option is mutually exclusive with `--os-tenant-name`. Defaults to `env[OS_PROJECT_NAME]`.

--os-project-domain-id <auth-project-domain-id>

Defaults to `env[OS_PROJECT_DOMAIN_ID]`.

--os-project-domain-name <auth-project-domain-name>

Defaults to `env[OS_PROJECT_DOMAIN_NAME]`.

--os-cert <certificate>

Defaults to `env[OS_CERT]`.

--os-key <key>

Defaults to `env[OS_KEY]`.

--os-region-name <region-name>

Region name. Default=`env[OS_REGION_NAME]`.

--os-token <token>

Defaults to `env[OS_TOKEN]`

--os-url <url>

Defaults to `env[OS_URL]`

--os-cacert <ca-certificate>

Specify a CA bundle file to use in verifying a TLS (https) server certificate. Defaults to `env[OS_CACERT]`

3. Block Storage API v1 commands

3.1. cinder absolute-limits

```
usage: cinder absolute-limits
```

Lists absolute limits for a user.

3.2. cinder availability-zone-list

```
usage: cinder availability-zone-list
```

Lists all availability zones.

3.3. cinder backup-create

```
usage: cinder backup-create [--container <container>] [--display-
name <display-name>] [--display-description <display-description>]
<volume>
```

Creates a volume backup.

Positional arguments

<volume>

Name or ID of volume to back up.

Optional arguments

--container <container>

Backup container name. Default=None.

--display-name <display-name>

Backup name. Default=None.

--display-description <display-description>

Backup description. Default=None.

3.4. cinder backup-delete

```
usage: cinder backup-delete <backup>
```

Removes a backup.

Positional arguments

<backup>

Name or ID of backup to delete.

3.5. cinder backup-list

```
usage: cinder backup-list
```

Lists all backups.

3.6. cinder backup-restore

```
usage: cinder backup-restore [--volume-id <volume>] <backup>
```

Restores a backup.

Positional arguments

<backup>

ID of backup to restore.

Optional arguments

--volume-id <volume> ID

or name of backup volume to which to restore. Default=None.

3.7. cinder backup-show

```
usage: cinder backup-show <backup>
```

Show backup details.

Positional arguments

<backup>

Name or ID of backup.

3.8. cinder create

```
usage: cinder create [--snapshot-id <snapshot-id>] [--source-uuid <source-uuid>] [--image-id <image-id>] [--display-name <display-name>] [--display-description <display-description>] [--volume-type <volume-type>] [--availability-zone <availability-zone>] [--metadata [<key=value> [<key=value> ...]]] <size>
```

Creates a volume.

Positional arguments

<size>

Volume size, in GBs.

Optional arguments

--snapshot-id <snapshot-id>

Creates volume from snapshot ID. Default=None.

--source-uuid <source-uuid>

Creates volume from volume ID. Default=None.

--image-id <image-id>

Creates volume from image ID. Default=None.

--display-name <display-name>

Volume name. Default=None.

--display-description <display-description>

Volume description. Default=None.

--volume-type <volume-type>

Volume type. Default=None.

--availability-zone <availability-zone>

Availability zone for volume. Default=None.

--metadata [<key=value> [<key=value> ...]]

Metadata key and value pairs. Default=None.

3.9. cinder credentials

```
usage: cinder credentials
```

Shows user credentials returned from auth.

3.10. cinder delete

```
usage: cinder delete <volume> [<volume> ...]
```

Removes one or more volumes.

Positional arguments

<volume>

Name or ID of volume to delete. Separate multiple volumes with a space.

3.11. cinder encryption-type-create

```
usage: cinder encryption-type-create [--cipher <cipher>] [--key_size
<key_size>] [--control_location <control_location>] <volume_type>
<provider>
```

Creates encryption type for a volume type. Admin only.

Positional arguments

<volume_type>

Name or ID of volume type.

<provider>

The class that provides encryption support. For example, a volume driver class path.

Optional arguments**--cipher <cipher>**

The encryption algorithm and mode. For example, aes-xts-plain64. Default=None.

--key_size <key_size>

Size of encryption key, in bits. For example, 128 or 256. Default=None.

--control_location <control_location>

Notional service where encryption is performed. Valid values are "front-end" or "back-end." For example, front-end=Nova. Default is "front-end."

3.12. cinder encryption-type-delete

```
usage: cinder encryption-type-delete <volume_type>
```

Deletes encryption type for a volume type. Admin only.

Positional arguments**<volume_type>**

Name or ID of volume type.

3.13. cinder encryption-type-list

```
usage: cinder encryption-type-list
```

Shows encryption type details for volume types. Admin only.

3.14. cinder encryption-type-show

```
usage: cinder encryption-type-show <volume_type>
```

Shows encryption type details for volume type. Admin only.

Positional arguments**<volume_type>**

Name or ID of volume type.

3.15. cinder endpoints

```
usage: cinder endpoints
```

Discovers endpoints registered by authentication service.

3.16. cinder extend

```
usage: cinder extend <volume> <new-size>
```

Attempts to extend size of an existing volume.

Positional arguments

<volume>

Name or ID of volume to extend.

<new-size>

Size of volume, in GBs.

3.17. cinder extra-specs-list

```
usage: cinder extra-specs-list
```

Lists current volume types and extra specs.

3.18. cinder force-delete

```
usage: cinder force-delete <volume> [<volume> ...]
```

Attempts force-delete of volume, regardless of state.

Positional arguments

<volume>

Name or ID of volume to delete. Separate multiple volumes with a space.

3.19. cinder list

```
usage: cinder list [--all-tenants [<0|1>]] [--display-name <display-name>]
  [--status <status>] [--metadata [<key=value> [<key=value> ...]]]
```

Lists all volumes.

Optional arguments

--all-tenants [<0|1>]

Shows details for all tenants. Admin only.

--display-name <display-name>

Filters list by a volume display name. Default=None.

--status <status>

Filters list by a status. Default=None.

--metadata [<key=value> [<key=value> ...]]

Filters list by metadata key and value pair. Default=None.

3.20. cinder list-extensions

```
usage: cinder list-extensions
```

Lists all available os-api extensions.

3.21. cinder metadata

```
usage: cinder metadata <volume> <action> <key=value> [<key=value> ...]
```

Sets or deletes volume metadata.

Positional arguments

<volume>

Name or ID of volume for which to update metadata.

<action>

The action. Valid values are 'set' or 'unset.'

<key=value>

The metadata key and pair to set or unset. For unset, specify only the key. Default=[].

3.22. cinder metadata-show

```
usage: cinder metadata-show <volume>
```

Shows volume metadata.

Positional arguments

<volume>

ID of volume.

3.23. cinder metadata-update-all

```
usage: cinder metadata-update-all <volume> <key=value> [<key=value>
...]
```

Updates volume metadata.

Positional arguments

<volume>

ID of volume for which to update metadata.

<key=value>

Metadata key and value pair or pairs to update. Default=[].

3.24. cinder migrate

```
usage: cinder migrate [--force-host-copy <True|False>] <volume>
<host>
```

Migrates volume to a new host.

Positional arguments

<volume>

ID of volume to migrate.

<host>

Destination host.

Optional arguments

--force-host-copy <True|False>

Enables or disables generic host-based force- migration, which bypasses driver optimizations. Default=False.

3.25. cinder qos-associate

```
usage: cinder qos-associate <qos_specs> <volume_type_id>
```

Associates qos specs with specified volume type.

Positional arguments

<qos_specs>

ID of QoS specifications.

<volume_type_id>

ID of volume type.

3.26. cinder qos-create

```
usage: cinder qos-create <name> <key=value> [<key=value> ...]
```

Creates a qos specs.

Positional arguments

<name>

Name of new QoS specifications.

<key=value>

Specifications for QoS.

3.27. cinder qos-delete

```
usage: cinder qos-delete [--force <True|False>] <qos_specs>
```

Deletes a specified qos specs.

Positional arguments

<qos_specs>

ID of QoS specifications.

Optional arguments

--force <True|False>

Enables or disables deletion of in-use QoS specifications. Default=False.

3.28. cinder qos-disassociate

```
usage: cinder qos-disassociate <qos_specs> <volume_type_id>
```

Disassociates qos specs from specified volume type.

Positional arguments

<qos_specs>

ID of QoS specifications.

<volume_type_id>

ID of volume type.

3.29. cinder qos-disassociate-all

```
usage: cinder qos-disassociate-all <qos_specs>
```

Disassociates qos specs from all associations.

Positional arguments

<qos_specs>

ID of QoS specifications.

3.30. cinder qos-get-association

```
usage: cinder qos-get-association <qos_specs>
```

Gets all associations for specified qos specs.

Positional arguments

<qos_specs>

ID of QoS specifications.

3.31. cinder qos-key

```
usage: cinder qos-key <qos_specs> <action> key=value [key=value ...]
```

Sets or unsets specifications for a qos spec.

Positional arguments

<qos_specs>

ID of QoS specifications.

<action>

The action. Valid values are 'set' or 'unset.'

key=value

Metadata key and value pair to set or unset. For unset, specify only the key.

3.32. cinder qos-list

```
usage: cinder qos-list
```

Lists qos specs.

3.33. cinder qos-show

```
usage: cinder qos-show <qos_specs>
```

Shows a specified qos specs.

Positional arguments

<qos_specs>

ID of QoS specifications.

3.34. cinder quota-class-show

```
usage: cinder quota-class-show <class>
```

Lists quotas for a quota class.

Positional arguments

<class>

Name of quota class for which to list quotas.

3.35. cinder quota-class-update

```
usage: cinder quota-class-update [--volumes <volumes>] [--snapshots <snapshots>] [--gigabytes <gigabytes>] [--volume-type <volume_type_name>] <class>
```

Updates quotas for a quota class.

Positional arguments

<class>

Name of quota class for which to set quotas.

Optional arguments

--volumes <volumes>

The new "volumes" quota value. Default=None.

--snapshots <snapshots>

The new "snapshots" quota value. Default=None.

--gigabytes <gigabytes>

The new "gigabytes" quota value. Default=None.

--volume-type <volume_type_name>

Volume type. Default=None.

3.36. cinder quota-defaults

```
usage: cinder quota-defaults <tenant_id>
```

Lists default quotas for a tenant.

Positional arguments

<tenant_id>

ID of the tenant for which to list default quotas.

3.37. cinder quota-delete

```
usage: cinder quota-delete <tenant_id>
```

Delete the quotas for a tenant.

Positional arguments

<tenant_id>

UUID of tenant to delete the quotas for.

3.38. cinder quota-show

```
usage: cinder quota-show <tenant_id>
```

Lists quotas for a tenant.

Positional arguments

<tenant_id>

ID of the tenant for which to list quotas.

3.39. cinder quota-update

```
usage: cinder quota-update [--volumes <volumes>] [--snapshots
<snapshots>] [--gigabytes <gigabytes>] [--volume-type
<volume_type_name>] <tenant_id>
```

Updates quotas for a tenant.

Positional arguments

<tenant_id>

ID of the tenant for which to set quotas.

Optional arguments

--volumes <volumes>

The new "volumes" quota value. Default=None.

--snapshots <snapshots>

The new "snapshots" quota value. Default=None.

--gigabytes <gigabytes>

The new "gigabytes" quota value. Default=None.

--volume-type <volume_type_name>

Volume type. Default=None.

3.40. cinder quota-usage

usage: cinder quota-usage <tenant_id>

Lists quota usage for a tenant.

Positional arguments

<tenant_id>

ID of the tenant for which to list quota usage.

3.41. cinder rate-limits

usage: cinder rate-limits

Lists rate limits for a user.

3.42. cinder readonly-mode-update

usage: cinder readonly-mode-update <volume> <True|true|False|false>

Updates volume read-only access-mode flag.

Positional arguments

<volume>

ID of volume to update.

<True|true|False|false>

Enables or disables update of volume to read-only access mode.

3.43. cinder rename

**usage: cinder rename [--display-description <display-description>]
<volume> [<display-name>]**

Renames a volume.

Positional arguments

<volume>

Name or ID of volume to rename.

<display-name>

New display name for volume.

Optional arguments

--display-description <display-description>

Volume description. Default=None.

3.44. cinder reset-state

```
usage: cinder reset-state [--state <state>] <volume> [<volume> ...]
```

Explicitly updates the volume state.

Positional arguments

<volume>

Name or ID of volume to modify. Separate multiple volumes with a space.

Optional arguments

--state <state>

The state to assign to the volume. Valid values are "available," "error," "creating," "deleting," or "error_deleting." Default is "available."

3.45. cinder service-disable

```
usage: cinder service-disable [--reason <reason>] <hostname>
<binary>
```

Disables the service.

Positional arguments

<hostname>

Host name.

<binary>

Service binary.

Optional arguments

--reason <reason>

Reason for disabling service.

3.46. cinder service-enable

3.46. cinder service-enable

```
usage: cinder service-enable <hostname> <binary>
```

Enables the service.

Positional arguments

<hostname>

Host name.

<binary>

Service binary.

3.47. cinder service-list

```
usage: cinder service-list [--host <hostname>] [--binary <binary>]
```

Lists all services. Filter by host and service binary.

Optional arguments

--host <hostname>

Host name. Default=None.

--binary <binary>

Service binary. Default=None.

3.48. cinder set-bootable

```
usage: cinder set-bootable <volume> <True|true|False|false>
```

Update bootable status of a volume.

Positional arguments

<volume>

ID of the volume to update.

<True|true|False|false>

Flag to indicate whether volume is bootable.

3.49. cinder show

```
usage: cinder show <volume>
```

Shows volume details.

Positional arguments

<volume>

Volume name or ID.

3.50. cinder snapshot-create

```
usage: cinder snapshot-create [--force <True|False>] [--display-name
<display-name>] [--display-description <display-description>]
<volume>
```

Creates a snapshot.

Positional arguments

<volume>

Name or ID of volume to snapshot.

Optional arguments

--force <True|False>

Allows or disallows snapshot of a volume when the volume is attached to an instance. If set to True, ignores the current status of the volume when attempting to snapshot it rather than forcing it to be available. Default=False.

--display-name <display-name>

The snapshot name. Default=None.

--display-description <display-description>

The snapshot description. Default=None.

3.51. cinder snapshot-delete

```
usage: cinder snapshot-delete <snapshot> [<snapshot> ...]
```

Remove one or more snapshots.

Positional arguments

<snapshot>

Name or ID of the snapshot(s) to delete.

3.52. cinder snapshot-list

```
usage: cinder snapshot-list [--all-tenants [<0|1>]] [--display-name
<display-name>] [--status <status>] [--volume-id <volume-id>]
```

Lists all snapshots.

Optional arguments

--all-tenants [**<0|1>**]

Shows details for all tenants. Admin only.

--display-name **<display-name>**

Filters list by a display name. Default=None.

--status **<status>**

Filters list by a status. Default=None.

--volume-id **<volume-id>**

Filters list by a volume ID. Default=None.

3.53. cinder snapshot-metadata

```
usage: cinder snapshot-metadata <snapshot> <action> <key=value>
[<key=value> ...]
```

Sets or deletes snapshot metadata.

Positional arguments

<snapshot>

ID of snapshot for which to update metadata.

<action>

The action. Valid values are 'set' or 'unset.'

<key=value>

The metadata key and value pair to set or unset. For unset, specify only the key.

3.54. cinder snapshot-metadata-show

```
usage: cinder snapshot-metadata-show <snapshot>
```

Shows snapshot metadata.

Positional arguments

<snapshot>

ID of snapshot.

3.55. cinder snapshot-metadata-update-all

```
usage: cinder snapshot-metadata-update-all <snapshot> <key=value>
[<key=value> ...]
```

Updates snapshot metadata.

Positional arguments

<snapshot>

ID of snapshot for which to update metadata.

<key=value>

Metadata key and value pair or pairs to update. Default=[].

3.56. cinder snapshot-rename

```
usage: cinder snapshot-rename [--display-description <display-
description>] <snapshot> [<display-name>]
```

Renames a snapshot.

Positional arguments

<snapshot>

Name or ID of snapshot.

<display-name>

New display name for snapshot.

Optional arguments

--display-description <display-description>

Snapshot description. Default=None.

3.57. cinder snapshot-reset-state

```
usage: cinder snapshot-reset-state [--state <state>] <snapshot>
[<snapshot> ...]
```

Explicitly updates the snapshot state.

Positional arguments

<snapshot>

Name or ID of snapshot to modify.

Optional arguments

--state <state>

The state to assign to the snapshot. Valid values are "available," "error," "creating," "deleting," or "error_deleting." Default is "available."

3.58. cinder snapshot-show

```
usage: cinder snapshot-show <snapshot>
```

Shows snapshot details.

Positional arguments

<snapshot>

Name or ID of snapshot.

3.59. cinder transfer-accept

```
usage: cinder transfer-accept <transfer> <auth_key>
```

Accepts a volume transfer.

Positional arguments

<transfer>

ID of transfer to accept.

<auth_key>

Authentication key of transfer to accept.

3.60. cinder transfer-create

```
usage: cinder transfer-create [--display-name <display-name>]
<volume>
```

Creates a volume transfer.

Positional arguments

<volume>

Name or ID of volume to transfer.

Optional arguments

--display-name <display-name>

Transfer name. Default=None.

3.61. cinder transfer-delete

```
usage: cinder transfer-delete <transfer>
```

Undoes a transfer.

Positional arguments

<transfer>

Name or ID of transfer to delete.

3.62. cinder transfer-list

```
usage: cinder transfer-list
```

Lists all transfers.

3.63. cinder transfer-show

```
usage: cinder transfer-show <transfer>
```

Show transfer details.

Positional arguments

<transfer>

Name or ID of transfer to accept.

3.64. cinder type-create

```
usage: cinder type-create <name>
```

Creates a volume type.

Positional arguments

<name>

Name for the volume type.

3.65. cinder type-delete

```
usage: cinder type-delete <id>
```

Deletes a specified volume type.

Positional arguments

<id>

ID of volume type to delete.

3.66. cinder type-key

```
usage: cinder type-key <vtype> <action> [<key=value> [<key=value>
...]]
```

Sets or unsets `extra_spec` for a volume type.

Positional arguments

<vtype>

Name or ID of volume type.

<action>

The action. Valid values are 'set' or 'unset.'

<key=value>

The extra specs key and value pair to set or unset. For unset, specify only the key. Default=None.

3.67. cinder type-list

```
usage: cinder type-list
```

Lists available 'volume types'.

3.68. cinder upload-to-image

```
usage: cinder upload-to-image [--force <True|False>] [--container-
format <container-format>] [--disk-format <disk-format>] <volume>
<image-name>
```

Uploads volume to Image Service as an image.

Positional arguments

<volume>

Name or ID of volume to upload to an image.

<image-name>

The new image name.

Optional arguments

--force <True|False>

Enables or disables upload of a volume that is attached to an instance. Default=False.

--container-format <container-format>

Container format type. Default is bare.

--disk-format <disk-format>

Disk format type. Default is raw.

4. Block Storage API v2 commands

You can select an API version to use by adding the **--os-volume-api-version** option or by setting the corresponding environment variable:

```
$ export OS_VOLUME_API_VERSION=2
```

4.1. cinder absolute-limits (v2)

```
usage: cinder --os-volume-api-version 2 absolute-limits
```

Lists absolute limits for a user.

4.2. cinder availability-zone-list (v2)

```
usage: cinder --os-volume-api-version 2 availability-zone-list
```

Lists all availability zones.

4.3. cinder backup-create (v2)

```
usage: cinder --os-volume-api-version 2 backup-create [--container
<container>] [--name <name>] [--description <description>] <volume>
```

Creates a volume backup.

Positional arguments

<volume>

Name or ID of volume to backup.

Optional arguments

--container <container>

Backup container name. Default=None.

--name <name>

Backup name. Default=None.

--description <description>

Backup description. Default=None.

4.4. cinder backup-delete (v2)

```
usage: cinder --os-volume-api-version 2 backup-delete <backup>
```

Removes a backup.

Positional arguments

<backup>

Name or ID of backup to delete.

4.5. cinder backup-export (v2)

```
usage: cinder --os-volume-api-version 2 backup-export <backup>
```

Export backup metadata record.

Positional arguments

<backup>

ID of the backup to export.

4.6. cinder backup-import (v2)

```
usage: cinder --os-volume-api-version 2 backup-import  
<backup_service> <backup_url>
```

Import backup metadata record.

Positional arguments

<backup_service>

Backup service to use for importing the backup.

<backup_url>

Backup URL for importing the backup metadata.

4.7. cinder backup-list (v2)

```
usage: cinder --os-volume-api-version 2 backup-list
```

Lists all backups.

4.8. cinder backup-restore (v2)

```
usage: cinder --os-volume-api-version 2 backup-restore [--volume  
<volume>] <backup>
```

Restores a backup.

Positional arguments

<backup>

ID of backup to restore.

Optional arguments

--volume <volume>

Name or ID of volume to which to restore. Default=None.

4.9. cinder backup-show (v2)

```
usage: cinder --os-volume-api-version 2 backup-show <backup>
```

Shows backup details.

Positional arguments

<backup>

Name or ID of backup.

4.10. cinder cgsnapshot-create (v2)

```
usage: cinder --os-volume-api-version 2 cgsnapshot-create [--name <name>] [--description <description>] <consistencygroup>
```

Creates a cgsnapshot.

Positional arguments

<consistencygroup>

Name or ID of a consistency group.

Optional arguments

--name <name>

Cgsnapshot name. Default=None.

--description <description>

Cgsnapshot description. Default=None.

4.11. cinder cgsnapshot-delete (v2)

```
usage: cinder --os-volume-api-version 2 cgsnapshot-delete <cgsnapshot> [<cgsnapshot> ...]
```

Removes one or more cgsnapshots.

Positional arguments

<cgsnapshot>

Name or ID of one or more cgsnapshots to be deleted.

4.12. cinder cgsnapshot-list (v2)

```
usage: cinder --os-volume-api-version 2 cgsnapshot-list [--all-tenants [<0|1>]] [--status <status>] [--consistencygroup-id <consistencygroup_id>]
```

Lists all cgsnapshots.

Optional arguments

--all-tenants [<0|1>]

Shows details for all tenants. Admin only.

--status <status>

Filters results by a status. Default=None.

--consistencygroup-id <consistencygroup_id>

Filters results by a consistency group ID. Default=None.

4.13. cinder cgsnapshot-show (v2)

```
usage: cinder --os-volume-api-version 2 cgsnapshot-show <cgsnapshot>
```

Shows cgsnapshot details.

Positional arguments

<cgsnapsho t>

Name or ID of cgsnapshot.

4.14. cinder consisgroup-create (v2)

```
usage: cinder --os-volume-api-version 2 consisgroup-create [--name <name>] [--description <description>] [--availability-zone <availability-zone>] <volume-types>
```

Creates a consistency group.

Positional arguments

<volume-types>

Volume types.

Optional arguments

--name <name>

Name of a consistency group.

--description <description>

Description of a consistency group. Default=None.

--availability-zone <availability-zone>

Availability zone for volume. Default=None.

4.15. cinder consisgroup-delete (v2)

```
usage: cinder --os-volume-api-version 2 consisgroup-delete [--force]
<consistencygroup> [<consistencygroup> ...]
```

Removes one or more consistency groups.

Positional arguments

<consistencygroup>

Name or ID of one or more consistency groups to be deleted.

Optional arguments

--force

Allows or disallows consistency groups to be deleted. If the consistency group is empty, it can be deleted without the force flag. If the consistency group is not empty, the force flag is required for it to be deleted.

4.16. cinder consisgroup-list (v2)

```
usage: cinder --os-volume-api-version 2 consisgroup-list [--all-
tenants [<0|1>]]
```

Lists all consistencygroups.

Optional arguments

--all-tenants [<0|1>]

Shows details for all tenants. Admin only.

4.17. cinder consisgroup-show (v2)

```
usage: cinder --os-volume-api-version 2 consisgroup-show
<consistencygroup>
```

Shows details of a consistency group.

Positional arguments

<consistencygroup>

Name or ID of a consistency group.

4.18. cinder create (v2)

```
usage: cinder --os-volume-api-version 2 create [--consisgroup-id
<consistencygroup-id>] [--snapshot-id <snapshot-id>] [--source-voidid
<source-voidid>] [--source-replica <source-replica>] [--image-id
<image-id>] [--name <name>] [--description <description>] [--volume-
type <volume-type>] [--availability-zone <availability-zone>] [--
metadata [<key=value> [<key=value> ...]]] [--hint <key=value>]
[<size>]
```

Creates a volume.

Positional arguments

<size>

Size of volume, in GBs. (Required unless snapshot-id /source-voidid is specified).

Optional arguments

--consisgroup-id <consistencygroup-id>

ID of a consistency group where the new volume belongs to. Default=None.

--snapshot-id <snapshot-id>

Creates volume from snapshot ID. Default=None.

--source-voidid <source-voidid>

Creates volume from volume ID. Default=None.

--source-replica <source-replica>

Creates volume from replicated volume ID. Default=None.

--image-id <image-id>

Creates volume from image ID. Default=None.

--name <name>

Volume name. Default=None.

--description <description>

Volume description. Default=None.

--volume-type <volume-type>

Volume type. Default=None.

--availability-zone <availability-zone>

Availability zone for volume. Default=None.

--metadata [**<key=value>** [**<key=value>** ...]]

Metadata key and value pairs. Default=None.

--hint **<key=value>**

Scheduler hint, like in nova.

4.19. cinder credentials (v2)

```
usage: cinder --os-volume-api-version 2 credentials
```

Shows user credentials returned from auth.

4.20. cinder delete (v2)

```
usage: cinder --os-volume-api-version 2 delete <volume> [<volume>
...]
```

Removes one or more volumes.

Positional arguments

<volume>

Name or ID of volume or volumes to delete.

4.21. cinder encryption-type-create (v2)

```
usage: cinder --os-volume-api-version 2 encryption-type-create [--cipher
<cipher>] [--key_size <key_size>] [--control_location
<control_location>] <volume_type> <provider>
```

Creates encryption type for a volume type. Admin only.

Positional arguments

<volume_type>

Name or ID of volume type.

<provider>

The class that provides encryption support. For example, LuksEncryptor.

Optional arguments

--cipher **<cipher>**

The encryption algorithm or mode. For example, aes-xts-plain64. Default=None.

--key_size **<key_size>**

Size of encryption key, in bits. For example, 128 or 256. Default=None.

--control_location <control_location>

Notional service where encryption is performed. Valid values are "front-end" or "back-end." For example, front-end=Nova. Default is "front-end."

4.22. cinder encryption-type-delete (v2)

```
usage: cinder --os-volume-api-version 2 encryption-type-delete  
<volume_type>
```

Deletes encryption type for a volume type. Admin only.

Positional arguments

<volume_type>

Name or ID of volume type.

4.23. cinder encryption-type-list (v2)

```
usage: cinder --os-volume-api-version 2 encryption-type-list
```

Shows encryption type details for volume types. Admin only.

4.24. cinder encryption-type-show (v2)

```
usage: cinder --os-volume-api-version 2 encryption-type-show  
<volume_type>
```

Shows encryption type details for a volume type. Admin only.

Positional arguments

<volume_type>

Name or ID of volume type.

4.25. cinder endpoints (v2)

```
usage: cinder --os-volume-api-version 2 endpoints
```

Discovers endpoints registered by authentication service.

4.26. cinder extend (v2)

```
usage: cinder --os-volume-api-version 2 extend <volume> <new_size>
```

Attempts to extend size of an existing volume.

Positional arguments

<volume>

Name or ID of volume to extend.

<new_size>

New size of volume, in GBs.

4.27. cinder extra-specs-list (v2)

```
usage: cinder --os-volume-api-version 2 extra-specs-list
```

Lists current volume types and extra specs.

4.28. cinder force-delete (v2)

```
usage: cinder --os-volume-api-version 2 force-delete <volume>
[<volume> ...]
```

Attempts force-delete of volume, regardless of state.

Positional arguments

<volume>

Name or ID of volume or volumes to delete.

4.29. cinder list (v2)

```
usage: cinder --os-volume-api-version 2 list [--all-tenants [<0|1>]]
[--name <name>] [--status <status>] [--metadata [<key=value>
[<key=value> ...]]] [--marker <marker>] [--limit <limit>] [--sort_key
<sort_key>] [--sort_dir <sort_dir>]
```

Lists all volumes.

Optional arguments

--all-tenants [<0|1>]

Shows details for all tenants. Admin only.

--name <name>

Filters results by a name. OPTIONAL: Default=None.

--status <status>

Filters results by a status. OPTIONAL: Default=None.

--metadata [<key=value> [<key=value> ...]]

Filters results by a metadata key and value pair. OPTIONAL: Default=None.

--marker <marker>

Begin returning volumes that appear later in the volume list than that represented by this volume id. OPTIONAL: Default=None.

--limit <limit>

Maximum number of volumes to return. OPTIONAL: Default=None.

--sort_key <sort_key>

Key to be sorted, should be ('id', 'status', 'size', 'availability_zone', 'name', 'bootable', 'created_at'). OPTIONAL: Default=None.

--sort_dir <sort_dir>

Sort direction, should be 'desc' or 'asc'. OPTIONAL: Default=None.

4.30. cinder list-extensions (v2)

```
usage: cinder --os-volume-api-version 2 list-extensions
```

Lists all available os-api extensions.

4.31. cinder manage (v2)

```
usage: cinder --os-volume-api-version 2 manage [--source-name
<source-name>] [--source-id <source-id>] [--name <name>] [--
description <description>] [--volume-type <volume-type>] [--
availability-zone <availability-zone>] [--metadata [<key=value>
[<key=value> ...]]] [--bootable] <host> [<key=value> [<key=value>
...]]
```

Manage an existing volume.

Positional arguments**<host>**

Cinder host on which the existing volume resides

<key=value>

Driver-specific reference to the existing volume as key=value pairs

Optional arguments**--source-name <source-name>**

Name of the volume to manage (Optional)

--source-id <source-id>

ID of the volume to manage (Optional)

--name <name>

Volume name (Optional, Default=None)

--description <description>

Volume description (Optional, Default=None)

--volume-type <volume-type>

Volume type (Optional, Default=None)

--availability-zone <availability-zone>

Availability zone for volume (Optional, Default=None)

--metadata [<key=value> [<key=value> ...]]

Metadata key=value pairs (Optional, Default=None)

--bootable

Specifies that the newly created volume should be marked as bootable

4.32. cinder metadata (v2)

```
usage: cinder --os-volume-api-version 2 metadata <volume> <action>
<key=value> [<key=value> ...]
```

Sets or deletes volume metadata.

Positional arguments**<volume>**

Name or ID of volume for which to update metadata.

<action>

The action. Valid values are 'set' or 'unset.'

<key=value>

Metadata key and value pair to set or unset. For unset, specify only the key.

4.33. cinder metadata-show (v2)

```
usage: cinder --os-volume-api-version 2 metadata-show <volume>
```

Shows volume metadata.

Positional arguments**<volume>**

ID of volume.

4.34. cinder metadata-update-all (v2)

```
usage: cinder --os-volume-api-version 2 metadata-update-all  
<volume> <key=value> [<key=value> ...]
```

Updates volume metadata.

Positional arguments

<volume>

ID of volume for which to update metadata.

<key=value>

Metadata key and value pair or pairs to update.

4.35. cinder migrate (v2)

```
usage: cinder --os-volume-api-version 2 migrate [--force-host-copy  
<True|False>] <volume> <host>
```

Migrates volume to a new host.

Positional arguments

<volume>

ID of volume to migrate.

<host>

Destination host.

Optional arguments

--force-host-copy <True|False>

Enables or disables generic host-based force- migration, which bypasses driver optimizations. Default=False.

4.36. cinder qos-associate (v2)

```
usage: cinder --os-volume-api-version 2 qos-associate <qos_specs>  
<volume_type_id>
```

Associates qos specs with specified volume type.

Positional arguments

<qos_specs>

ID of QoS specifications.

<volume_type_id>

ID of volume type with which to associate QoS specifications.

4.37. cinder qos-create (v2)

```
usage: cinder --os-volume-api-version 2 qos-create <name>
       <key=value> [<key=value> ...]
```

Creates a qos specs.

Positional arguments

<name>

Name of new QoS specifications.

<key=value>

QoS specifications.

4.38. cinder qos-delete (v2)

```
usage: cinder --os-volume-api-version 2 qos-delete [--force
       <True|False>] <qos_specs>
```

Deletes a specified qos specs.

Positional arguments

<qos_specs>

ID of QoS specifications to delete.

Optional arguments

--force <True|False>

Enables or disables deletion of in-use QoS specifications. Default=False.

4.39. cinder qos-disassociate (v2)

```
usage: cinder --os-volume-api-version 2 qos-disassociate <qos_specs>
       <volume_type_id>
```

Disassociates qos specs from specified volume type.

Positional arguments

<qos_specs>

ID of QoS specifications.

<volume_type_id>

ID of volume type with which to associate QoS specifications.

4.40. cinder qos-disassociate-all (v2)

```
usage: cinder --os-volume-api-version 2 qos-disassociate-all  
<qos_specs>
```

Disassociates qos specs from all its associations.

Positional arguments

<qos_specs>

ID of QoS specifications on which to operate.

4.41. cinder qos-get-association (v2)

```
usage: cinder --os-volume-api-version 2 qos-get-association  
<qos_specs>
```

Lists all associations for specified qos specs.

Positional arguments

<qos_specs>

ID of QoS specifications.

4.42. cinder qos-key (v2)

```
usage: cinder --os-volume-api-version 2 qos-key <qos_specs> <action>  
key=value [key=value ...]
```

Sets or unsets specifications for a qos spec.

Positional arguments

<qos_specs>

ID of QoS specifications.

<action>

The action. Valid values are 'set' or 'unset.'

key=value

Metadata key and value pair to set or unset. For unset, specify only the key.

4.43. cinder qos-list (v2)

```
usage: cinder --os-volume-api-version 2 qos-list
```

Lists qos specs.

4.44. cinder qos-show (v2)

```
usage: cinder --os-volume-api-version 2 qos-show <qos_specs>
```

Shows qos specs details.

Positional arguments

<qos_specs>

ID of QoS specifications to show.

4.45. cinder quota-class-show (v2)

```
usage: cinder --os-volume-api-version 2 quota-class-show <class>
```

Lists quotas for a quota class.

Positional arguments

<class>

Name of quota class for which to list quotas.

4.46. cinder quota-class-update (v2)

```
usage: cinder --os-volume-api-version 2 quota-class-update [--volumes <volumes>] [--snapshots <snapshots>] [--gigabytes <gigabytes>] [--volume-type <volume_type_name>] <class-name>
```

Updates quotas for a quota class.

Positional arguments

<class-name>

Name of quota class for which to set quotas.

Optional arguments

--volumes <volumes>

The new "volumes" quota value. Default=None.

--snapshots <snapshots>

The new "snapshots" quota value. Default=None.

--gigabytes <gigabytes>

The new "gigabytes" quota value. Default=None.

--volume-type <volume_type_name>

Volume type. Default=None.

4.47. cinder quota-defaults (v2)

```
usage: cinder --os-volume-api-version 2 quota-defaults <tenant_id>
```

Lists default quotas for a tenant.

Positional arguments

<tenant_id>

ID of tenant for which to list quota defaults.

4.48. cinder quota-delete (v2)

```
usage: cinder --os-volume-api-version 2 quota-delete <tenant_id>
```

Delete the quotas for a tenant.

Positional arguments

<tenant_id>

UUID of tenant to delete the quotas for.

4.49. cinder quota-show (v2)

```
usage: cinder --os-volume-api-version 2 quota-show <tenant_id>
```

Lists quotas for a tenant.

Positional arguments

<tenant_id>

ID of tenant for which to list quotas.

4.50. cinder quota-update (v2)

```
usage: cinder --os-volume-api-version 2 quota-update [--volumes <volumes>] [--snapshots <snapshots>] [--gigabytes <gigabytes>] [--volume-type <volume_type_name>] <tenant_id>
```

Updates quotas for a tenant.

Positional arguments

<tenant_id>

ID of tenant for which to set quotas.

Optional arguments

--volumes <volumes>

The new "volumes" quota value. Default=None.

--snapshots <snapshots>

The new "snapshots" quota value. Default=None.

--gigabytes <gigabytes>

The new "gigabytes" quota value. Default=None.

--volume-type <volume_type_name>

Volume type. Default=None.

4.51. cinder quota-usage (v2)

```
usage: cinder --os-volume-api-version 2 quota-usage <tenant_id>
```

Lists quota usage for a tenant.

Positional arguments**<tenant_id>**

ID of tenant for which to list quota usage.

4.52. cinder rate-limits (v2)

```
usage: cinder --os-volume-api-version 2 rate-limits
```

Lists rate limits for a user.

4.53. cinder readonly-mode-update (v2)

```
usage: cinder --os-volume-api-version 2 readonly-mode-update
<volume> <True|true|False|false>
```

Updates volume read-only access-mode flag.

Positional arguments**<volume>**

ID of volume to update.

<True|true|False|false>

Enables or disables update of volume to read-only access mode.

4.54. cinder rename (v2)

```
usage: cinder --os-volume-api-version 2 rename [--description  
<description>] <volume> [<name>]
```

Renames a volume.

Positional arguments

<volume>

Name or ID of volume to rename.

<name>

New name for volume.

Optional arguments

--description <description>

Volume description. Default=None.

4.55. cinder replication-promote (v2)

```
usage: cinder --os-volume-api-version 2 replication-promote  
<volume>
```

Promote a secondary volume to primary for a relationship.

Positional arguments

<volume>

Name or ID of the volume to promote.

4.56. cinder replication-reenable (v2)

```
usage: cinder --os-volume-api-version 2 replication-reenable  
<volume>
```

Sync the secondary volume with primary for a relationship.

Positional arguments

<volume>

Name or ID of the volume to reenable replication.

4.57. cinder reset-state (v2)

```
usage: cinder --os-volume-api-version 2 reset-state [--state  
<state>] <volume> [<volume> ...]
```

Explicitly updates the volume state.

Positional arguments**<volume>**

Name or ID of volume to modify.

Optional arguments**--state <state>**

The state to assign to the volume. Valid values are "available," "error," "creating," "deleting," and "error_deleting." Default=available.

4.58. cinder retype (v2)

```
usage: cinder --os-volume-api-version 2 retype [--migration-policy
<never|on-demand>] <volume> <volume-type>
```

Changes the volume type for a volume.

Positional arguments**<volume>**

Name or ID of volume for which to modify type.

<volume-type>

New volume type.

Optional arguments**--migration-policy <never|on-demand>**

Migration policy during retype of volume.

4.59. cinder service-disable (v2)

```
usage: cinder --os-volume-api-version 2 service-disable [--reason
<reason>] <hostname> <binary>
```

Disables the service.

Positional arguments**<hostname>**

Host name.

<binary>

Service binary.

Optional arguments

--reason <reason>

Reason for disabling service.

4.60. cinder service-enable (v2)

```
usage: cinder --os-volume-api-version 2 service-enable <hostname>
<binary>
```

Enables the service.

Positional arguments

<hostname>

Host name.

<binary>

Service binary.

4.61. cinder service-list (v2)

```
usage: cinder --os-volume-api-version 2 service-list [--host
<hostname>] [--binary <binary>]
```

Lists all services. Filter by host and service binary.

Optional arguments

--host <hostname>

Host name. Default=None.

--binary <binary>

Service binary. Default=None.

4.62. cinder set-bootable (v2)

```
usage: cinder --os-volume-api-version 2 set-bootable <volume>
<True|true|False|false>
```

Update bootable status of a volume.

Positional arguments

<volume>

ID of the volume to update.

<True|true|False|false>

Flag to indicate whether volume is bootable.

4.63. cinder show (v2)

```
usage: cinder --os-volume-api-version 2 show <volume>
```

Shows volume details.

Positional arguments

<volume>

Name or ID of volume.

4.64. cinder snapshot-create (v2)

```
usage: cinder --os-volume-api-version 2 snapshot-create [--force
<True|False>] [--name <name>] [--description <description>] <volume>
```

Creates a snapshot.

Positional arguments

<volume>

Name or ID of volume to snapshot.

Optional arguments

--force <True|False>

Allows or disallows snapshot of a volume when the volume is attached to an instance. If set to True, ignores the current status of the volume when attempting to snapshot it rather than forcing it to be available. Default=False.

--name <name>

Snapshot name. Default=None.

--description <description>

Snapshot description. Default=None.

4.65. cinder snapshot-delete (v2)

```
usage: cinder --os-volume-api-version 2 snapshot-delete <snapshot>
[<snapshot> ...]
```

Removes one or more snapshots.

Positional arguments

<snapshot>

Name or ID of the snapshot(s) to delete.

4.66. cinder snapshot-list (v2)

```
usage: cinder --os-volume-api-version 2 snapshot-list [--all-tenants
[<0|1>]] [--name <name>] [--status <status>] [--volume-id <volume-
id>]
```

Lists all snapshots.

Optional arguments

--all-tenants [**<0|1>**]

Shows details for all tenants. Admin only.

--name **<name>**

Filters results by a name. Default=None.

--status **<status>**

Filters results by a status. Default=None.

--volume-id **<volume-id>**

Filters results by a volume ID. Default=None.

4.67. cinder snapshot-metadata (v2)

```
usage: cinder --os-volume-api-version 2 snapshot-metadata <snapshot>
<action> <key=value> [<key=value> ...]
```

Sets or deletes snapshot metadata.

Positional arguments

<snapshot>

ID of snapshot for which to update metadata.

<action>

The action. Valid values are 'set' or 'unset.'

<key=value>

Metadata key and value pair to set or unset. For unset, specify only the key.

4.68. cinder snapshot-metadata-show (v2)

```
usage: cinder --os-volume-api-version 2 snapshot-metadata-show
<snapshot>
```

Shows snapshot metadata.

Positional arguments

<snapshot>

ID of snapshot.

4.69. cinder snapshot-metadata-update-all (v2)

```
usage: cinder --os-volume-api-version 2 snapshot-metadata-update-all
<snapshot> <key=value> [<key=value> ...]
```

Updates snapshot metadata.

Positional arguments**<snapshot>**

ID of snapshot for which to update metadata.

<key=value>

Metadata key and value pair to update.

4.70. cinder snapshot-rename (v2)

```
usage: cinder --os-volume-api-version 2 snapshot-rename [--
description <description>] <snapshot> [<name>]
```

Renames a snapshot.

Positional arguments**<snapshot>**

Name or ID of snapshot.

<name>

New name for snapshot.

Optional arguments**--description <description>**

Snapshot description. Default=None.

4.71. cinder snapshot-reset-state (v2)

```
usage: cinder --os-volume-api-version 2 snapshot-reset-state [--
state <state>] <snapshot> [<snapshot> ...]
```

Explicitly updates the snapshot state.

Positional arguments**<snapshot>**

Name or ID of snapshot to modify.

Optional arguments

--state <state>

The state to assign to the snapshot. Valid values are "available," "error," "creating," "deleting," and "error_deleting." Default is "available."

4.72. cinder snapshot-show (v2)

```
usage: cinder --os-volume-api-version 2 snapshot-show <snapshot>
```

Shows snapshot details.

Positional arguments

<snapshot>

Name or ID of snapshot.

4.73. cinder transfer-accept (v2)

```
usage: cinder --os-volume-api-version 2 transfer-accept <transfer>  
<auth_key>
```

Accepts a volume transfer.

Positional arguments

<transfer>

ID of transfer to accept.

<auth_key>

Authentication key of transfer to accept.

4.74. cinder transfer-create (v2)

```
usage: cinder --os-volume-api-version 2 transfer-create [--name  
<name>] <volume>
```

Creates a volume transfer.

Positional arguments

<volume>

Name or ID of volume to transfer.

Optional arguments

--name <name>

Transfer name. Default=None.

4.75. cinder transfer-delete (v2)

```
usage: cinder --os-volume-api-version 2 transfer-delete <transfer>
```

Undoes a transfer.

Positional arguments

<transfer>

Name or ID of transfer to delete.

4.76. cinder transfer-list (v2)

```
usage: cinder --os-volume-api-version 2 transfer-list
```

Lists all transfers.

4.77. cinder transfer-show (v2)

```
usage: cinder --os-volume-api-version 2 transfer-show <transfer>
```

Shows transfer details.

Positional arguments

<transfer>

Name or ID of transfer to accept.

4.78. cinder type-create (v2)

```
usage: cinder --os-volume-api-version 2 type-create <name>
```

Creates a volume type.

Positional arguments

<name>

Name of new volume type.

4.79. cinder type-delete (v2)

```
usage: cinder --os-volume-api-version 2 type-delete <id>
```

Deletes a volume type.

Positional arguments

<id>

ID of volume type to delete.

4.80. cinder type-key (v2)

```
usage: cinder --os-volume-api-version 2 type-key <vtype> <action>
       <key=value> [<key=value> ...]
```

Sets or unsets extra_spec for a volume type.

Positional arguments

<vtype>

Name or ID of volume type.

<action>

The action. Valid values are 'set' or 'unset.'

<key=value>

The extra specs key and value pair to set or unset. For unset, specify only the key.

4.81. cinder type-list (v2)

```
usage: cinder --os-volume-api-version 2 type-list
```

Lists available 'volume types'.

4.82. cinder unmanage (v2)

```
usage: cinder --os-volume-api-version 2 unmanage <volume>
```

Positional arguments

<volume>

Name or ID of the volume to unmanage.

4.83. cinder upload-to-image (v2)

```
usage: cinder --os-volume-api-version 2 upload-to-image [--force
       <True|False>] [--container-format <container-format>] [--disk-format
       <disk-format>] <volume> <image-name>
```

Uploads volume to Image Service as an image.

Positional arguments

<volume>

Name or ID of volume to snapshot.

<image-name>

The new image name.

Optional arguments**--force <True|False>**

Enables or disables upload of a volume that is attached to an instance.
Default=False.

--container-format <container-format>

Container format type. Default is bare.

--disk-format <disk-format>

Disk format type. Default is raw.

Chapter 5. Compute command-line client

The **nova** client is the command-line interface (CLI) for the OpenStack Compute API and its extensions. This chapter documents **nova** version **2.20.0**.

For help on a specific **nova** command, enter:

```
$ nova help COMMAND
```

1. nova usage

```
usage: nova [--version] [--debug] [--os-cache] [--timings] [--timeout
<seconds>] [--os-auth-token OS_AUTH_TOKEN] [--os-username <auth-
user-name>] [--os-user-id <auth-user-id>] [--os-password <auth-
password>] [--os-tenant-name <auth-tenant-name>] [--os-tenant-id
<auth-tenant-id>] [--os-auth-url <auth-url>] [--os-region-name
<region-name>] [--os-auth-system <auth-system>] [--service-type
<service-type>] [--service-name <service-name>] [--volume-service-
name <volume-service-name>] [--endpoint-type <endpoint-type>] [--os-
compute-api-version <compute-api-ver>] [--os-cacert <ca-
certificate>] [--insecure] [--bypass-url <bypass-url>] <subcommand>
...
```

Subcommands

absolute-limits

Print a list of absolute limits for a user

add-fixed-ip

Add new IP address on a network to server.

add-floating-ip

DEPRECATED, use floating-ip-associate instead.

add-secgroup

Add a Security Group to a server.

agent-create

Create new agent build.

agent-delete

Delete existing agent build.

agent-list

List all builds.

agent-modify

Modify existing agent build.

aggregate-add-host

Add the host to the specified aggregate.

aggregate-create

Create a new aggregate with the specified details.

aggregate-delete

Delete the aggregate.

aggregate-details

Show details of the specified aggregate.

aggregate-list

Print a list of all aggregates.

aggregate-remove-host

Remove the specified host from the specified aggregate.

aggregate-set-metadata

Update the metadata associated with the aggregate.

aggregate-update

Update the aggregate's name and optionally availability zone.

availability-zone-list

List all the availability zones.

backup

Backup a server by creating a 'backup' type snapshot.

boot

Boot a new server.

clear-password

Clear password for a server.

cloudpipe-configure

Update the VPN IP/port of a cloudpipe instance.

cloudpipe-create

Create a cloudpipe instance for the given project.

cloudpipe-list

Print a list of all cloudpipe instances.

console-log

Get console log output of a server.

credentials

Show user credentials returned from auth.

delete

Immediately shut down and delete specified server(s).

diagnostics

Retrieve server diagnostics.

dns-create

Create a DNS entry for domain, name and ip.

dns-create-private-domain

Create the specified DNS domain.

dns-create-public-domain

Create the specified DNS domain.

dns-delete

Delete the specified DNS entry.

dns-delete-domain

Delete the specified DNS domain.

dns-domains

Print a list of available dns domains.

dns-list

List current DNS entries for domain and ip or domain and name.

endpoints

Discover endpoints that get returned from the authenticate services.

evacuate

Evacuate server from failed host.

fixed-ip-get

Retrieve info on a fixed ip.

fixed-ip-reserve

Reserve a fixed IP.

fixed-ip-unreserve

Unreserve a fixed IP.

flavor-access-add

Add flavor access for the given tenant.

flavor-access-list

Print access information about the given flavor.

flavor-access-remove

Remove flavor access for the given tenant.

flavor-create

Create a new flavor

flavor-delete

Delete a specific flavor

flavor-key

Set or unset extra_spec for a flavor.

flavor-list

Print a list of available 'flavors' (sizes of servers).

flavor-show

Show details about the given flavor.

floating-ip-associate

Associate a floating IP address to a server.

floating-ip-bulk-create

Bulk create floating ips by range.

floating-ip-bulk-delete

Bulk delete floating ips by range.

floating-ip-bulk-list

List all floating ips.

floating-ip-create

Allocate a floating IP for the current tenant.

floating-ip-delete

De-allocate a floating IP.

floating-ip-disassociate

Disassociate a floating IP address from a server.

floating-ip-list

List floating ips.

floating-ip-pool-list

List all floating ip pools.

get-password

Get password for a server.

get-rdp-console

Get a rdp console to a server.

get-serial-console

Get a serial console to a server.

get-spice-console

Get a spice console to a server.

get-vnc-console

Get a vnc console to a server.

host-action

Perform a power action on a host.

host-describe

Describe a specific host.

host-list

List all hosts by service.

host-update

Update host settings.

hypervisor-list

List hypervisors.

hypervisor-servers

List servers belonging to specific hypervisors.

hypervisor-show

Display the details of the specified hypervisor.

hypervisor-stats

Get hypervisor statistics over all compute nodes.

hypervisor-uptime

Display the uptime of the specified hypervisor.

image-create

Create a new image by taking a snapshot of a running server.

image-delete

Delete specified image(s).

image-list

Print a list of available images to boot from.

image-meta

Set or Delete metadata on an image.

image-show

Show details about the given image.

interface-attach

Attach a network interface to a server.

interface-detach

Detach a network interface from a server.

interface-list

List interfaces attached to a server.

keypair-add

Create a new key pair for use with servers.

keypair-delete

Delete keypair given by its name.

keypair-list

Print a list of keypairs for a user

keypair-show

Show details about the given keypair.

list

List active servers.

list-secgroup

List Security Group(s) of a server.

live-migration

Migrate running server to a new machine.

lock

Lock a server.

meta

Set or Delete metadata on a server.

migrate

Migrate a server. The new host will be selected by the scheduler.

network-associate-host

Associate host with network.

network-associate-project

Associate project with network.

network-create

Create a network.

network-delete

Delete network by label or id.

network-disassociate

Disassociate host and/or project from the given network.

network-list

Print a list of available networks.

network-show

Show details about the given network.

pause

Pause a server.

quota-class-show

List the quotas for a quota class.

quota-class-update

Update the quotas for a quota class.

quota-defaults

List the default quotas for a tenant.

quota-delete

Delete quota for a tenant/user so their quota will Revert back to default.

quota-show

List the quotas for a tenant/user.

quota-update

Update the quotas for a tenant/user.

rate-limits

Print a list of rate limits for a user

reboot

Reboot a server.

rebuild

Shutdown, re-image, and re-boot a server.

refresh-network

Refresh server network information.

remove-fixed-ip

Remove an IP address from a server.

remove-floating-ip

DEPRECATED, use floating-ip-disassociate instead.

remove-secgroup

Remove a Security Group from a server.

rename

Rename a server.

rescue

Reboots a server into rescue mode, which starts the machine from the initial image, attaching the current boot disk as secondary.

reset-network

Reset network of a server.

reset-state

Reset the state of a server.

resize

Resize a server.

resize-confirm

Confirm a previous resize.

resize-revert

Revert a previous resize (and return to the previous VM).

resume

Resume a server.

root-password

Change the root password for a server.

scrub

Delete data associated with the project.

secgroup-add-default-rule

Add a rule to the default security group.

secgroup-add-group-rule

Add a source group rule to a security group.

secgroup-add-rule

Add a rule to a security group.

secgroup-create

Create a security group.

secgroup-delete

Delete a security group.

secgroup-delete-default-rule

Delete a rule from the default security group.

secgroup-delete-group-rule

Delete a source group rule from a security group.

secgroup-delete-rule

Delete a rule from a security group.

secgroup-list

List security groups for the current tenant.

secgroup-list-default-rules

List rules for the default security group.

secgroup-list-rules

List rules for a security group.

secgroup-update

Update a security group.

server-group-create

Create a new server group with the specified details.

server-group-delete

Delete specific server group(s).

server-group-get

Get a specific server group.

server-group-list

Print a list of all server groups.

service-delete

Delete the service.

service-disable

Disable the service.

service-enable

Enable the service.

service-list

Show a list of all running services. Filter by host & binary.

shelve

Shelve a server.

shelve-offload

Remove a shelved server from the compute node.

show

Show details about the given server.

ssh

SSH into a server.

start

Start a server.

stop

Stop a server.

suspend

Suspend a server.

unlock

Unlock a server.

unpause

Unpause a server.

unrescue

Restart the server from normal boot disk again.

unshelve

Unshelve a server.

usage

Show usage data for a single tenant.

usage-list

List usage data for all tenants.

version-list

List all API versions.

volume-attach

Attach a volume to a server.

volume-create

Add a new volume.

volume-delete

Remove volume(s).

volume-detach

Detach a volume from a server.

volume-list

List all the volumes.

volume-show

Show details about a volume.

volume-snapshot-create

Add a new snapshot.

volume-snapshot-delete

Remove a snapshot.

volume-snapshot-list

List all the snapshots.

volume-snapshot-show

Show details about a snapshot.

volume-type-create

Create a new volume type.

volume-type-delete

Delete a specific volume type.

volume-type-list

Print a list of available 'volume types'.

volume-update

Update volume attachment.

x509-create-cert

Create x509 cert for a user in tenant.

x509-get-root-cert

Fetch the x509 root cert.

bash-completion

Prints all of the commands and options to stdout so that the nova.bash_completion script doesn't have to hard code them.

help

Display help about this program or one of its subcommands.

net

Show a network

net-create

Create a network

net-delete

Delete a network

net-list

List networks

list-extensions

List all the os-api extensions that are available.

instance-action

Show an action.

instance-action-list

List actions on a server.

force-delete

Force delete a server.

restore

Restore a soft-deleted server.

baremetal-interface-add

Add a network interface to a baremetal node.

baremetal-interface-list

List network interfaces associated with a baremetal node.

baremetal-interface-remove

Remove a network interface from a baremetal node.

baremetal-node-create

Create a baremetal node.

baremetal -node-delete

Remove a baremetal node and any associated interfaces.

baremetal -node-list

Print list of available baremetal nodes.

baremetal -node-show

Show information about a baremetal node.

migration-list

Print a list of migrations.

host-evacuate

Evacuate all instances from failed host.

cell-capacities

Get cell capacities for all cells or a given cell.

cell-show

Show details of a given cell.

host-servers-migrate

Migrate all instances of the specified host to other available hosts.

host-meta

Set or Delete metadata on all instances of a host.

2. nova optional arguments

--version

show program's version number and exit

--debug

Print debugging output

--os-cache

Use the auth token cache. Defaults to False if **env[OS_CACHE]** is not set.

--timings

Print call timing info

--timeout <seconds>

Set HTTP call timeout (in seconds)

--os-auth-token OS_AUTH_TOKEN

Defaults to **env[OS_AUTH_TOKEN]**

--os-username <auth-user-name>

Defaults to `env[OS_USERNAME]`.

--os-user-id <auth-user-id>

Defaults to `env[OS_USER_ID]`.

--os-password <auth-password>

Defaults to `env[OS_PASSWORD]`.

--os-tenant-name <auth-tenant-name>

Defaults to `env[OS_TENANT_NAME]`.

--os-tenant-id <auth-tenant-id>

Defaults to `env[OS_TENANT_ID]`.

--os-auth-url <auth-url>

Defaults to `env[OS_AUTH_URL]`.

--os-region-name <region-name>

Defaults to `env[OS_REGION_NAME]`.

--os-auth-system <auth-system>

Defaults to `env[OS_AUTH_SYSTEM]`.

--service-type <service-type>

Defaults to compute for most actions

--service-name <service-name>

Defaults to `env[NOVA_SERVICE_NAME]`

--volume-service-name <volume-service-name>

Defaults to `env[NOVA_VOLUME_SERVICE_NAME]`

--endpoint-type <endpoint-type>

Defaults to `env[NOVA_ENDPOINT_TYPE]` or publicURL.

--os-compute-api-version <compute-api-ver>

Accepts 1.1 or 3, defaults to `env[OS_COMPUTE_API_VERSION]`.

--os-cacert <ca-certificate>

Specify a CA bundle file to use in verifying a TLS (https) server certificate. Defaults to `env[OS_CACERT]`

--insecure

Explicitly allow novaclient to perform "insecure" SSL (https) requests. The server's certificate will not be verified against any certificate authorities. This option should be used with caution.

--bypass-url <bypass-url>

Use this API endpoint instead of the Service Catalog. Defaults to `env[NOVACLIENT_BYPASS_URL]`

3. nova absolute-limits

```
usage: nova absolute-limits [--tenant [<tenant>]] [--reserved]
```

Print a list of absolute limits for a user

Optional arguments

--tenant [<tenant>]

Display information from single tenant (Admin only).

--reserved

Include reservations count.

4. nova add-fixed-ip

```
usage: nova add-fixed-ip <server> <network-id>
```

Add new IP address on a network to server.

Positional arguments

<server>

Name or ID of server.

<network-id>

Network ID.

5. nova add-secgroup

```
usage: nova add-secgroup <server> <secgroup>
```

Add a Security Group to a server.

Positional arguments

<server>

Name or ID of server.

<secgroup>

Name of Security Group.

6. nova agent-create

```
usage: nova agent-create <os> <architecture> <version> <url>
<md5hash> <hypervisor>
```

Create new agent build.

Positional arguments

<os>

type of os.

<architecture>

type of architecture

<version>

version

<url>

url

<md5hash>

md5 hash

<hypervisor>

type of hypervisor.

7. nova agent-delete

```
usage: nova agent-delete <id>
```

Delete existing agent build.

Positional arguments

<id>

id of the agent-build

8. nova agent-list

```
usage: nova agent-list [--hypervisor <hypervisor>]
```

List all builds.

Optional arguments

--hypervisor <hypervisor>

type of hypervisor.

9. nova agent-modify

```
usage: nova agent-modify <id> <version> <url> <md5hash>
```

Modify existing agent build.

Positional arguments

<id>

id of the agent-build

<version>

version

<url>

url

<md5hash>

md5hash

10. nova aggregate-add-host

```
usage: nova aggregate-add-host <aggregate> <host>
```

Add the host to the specified aggregate.

Positional arguments

<aggregate>

Name or ID of aggregate.

<host>

The host to add to the aggregate.

11. nova aggregate-create

```
usage: nova aggregate-create <name> [<availability-zone>]
```

Create a new aggregate with the specified details.

Positional arguments

<name>

Name of aggregate.

<availability-zone>

The availability zone of the aggregate (optional).

12. nova aggregate-delete

```
usage: nova aggregate-delete <aggregate>
```

Delete the aggregate.

Positional arguments

<aggregate>

Name or ID of aggregate to delete.

13. nova aggregate-details

```
usage: nova aggregate-details <aggregate>
```

Show details of the specified aggregate.

Positional arguments

<aggregate>

Name or ID of aggregate.

14. nova aggregate-list

```
usage: nova aggregate-list
```

Print a list of all aggregates.

15. nova aggregate-remove-host

```
usage: nova aggregate-remove-host <aggregate> <host>
```

Remove the specified host from the specified aggregate.

Positional arguments

<aggregate>

Name or ID of aggregate.

<host>

The host to remove from the aggregate.

16. nova aggregate-set-metadata

```
usage: nova aggregate-set-metadata <aggregate> <key=value>
[<key=value> ...]
```

- Update the metadata associated with the aggregate.

Positional arguments

<aggregate>

Name or ID of aggregate to update.

<key=value>

Metadata to add/update to aggregate. Specify only the key to delete a metadata item.

17. nova aggregate-update

```
usage: nova aggregate-update <aggregate> <name> [<availability-zone>]
```

Update the aggregate's name and optionally availability zone.

Positional arguments

<aggregate>

Name or ID of aggregate to update.

<name>

Name of aggregate.

<availability-zone>

The availability zone of the aggregate.

18. nova availability-zone-list

```
usage: nova availability-zone-list
```

List all the availability zones.

19. nova backup

```
usage: nova backup <server> <name> <backup-type> <rotation>
```

Backup a server by creating a 'backup' type snapshot.

Positional arguments

<server>

Name or ID of server.

<name>

Name of the backup image.

<backup-type>

The backup type, like "daily" or "weekly".

<rotation>

Int parameter representing how many backups to keep around.

20. nova baremetal-interface-add

```
usage: nova baremetal-interface-add [--datapath_id <datapath_id>] [-
-port_no <port_no>] <node> <address>
```

Add a network interface to a baremetal node.

Positional arguments

<node>

ID of node

<address>

MAC address of interface

Optional arguments

--datapath_id <datapath_id>

OpenFlow Datapath ID of interface

--port_no <port_no>

OpenFlow port number of interface

21. nova baremetal-interface-list

```
usage: nova baremetal-interface-list <node>
```

List network interfaces associated with a baremetal node.

Positional arguments

<node>

ID of node

22. nova baremetal-interface-remove

```
usage: nova baremetal-interface-remove <node> <address>
```

Remove a network interface from a baremetal node.

Positional arguments

<node>

ID of node

<address>

MAC address of interface

23. nova baremetal-node-create

```
usage: nova baremetal-node-create [--pm_address <pm_address>] [--pm_user <pm_user>] [--pm_password <pm_password>] [--terminal_port <terminal_port>] <service_host> <cpus> <memory_mb> <local_gb> <prov_mac_address>
```

Create a baremetal node.

Positional arguments

<service_host>

Name of nova compute host which will control this baremetal node

<cpus>

Number of CPUs in the node

<memory_mb>

Megabytes of RAM in the node

<local_gb>

Gigabytes of local storage in the node

<prov_mac_address>

MAC address to provision the node

Optional arguments

--pm_address <pm_address>

Power management IP for the node

--pm_user <pm_user>

Username for the node's power management

--pm_password <pm_password>

Password for the node's power management

--terminal_port <terminal_port>

ShellInABox port?

24. nova baremetal-node-delete

```
usage: nova baremetal-node-delete <node>
```

Remove a baremetal node and any associated interfaces.

Positional arguments

<node>

ID of the node to delete.

25. nova baremetal-node-list

```
usage: nova baremetal-node-list
```

Print list of available baremetal nodes.

26. nova baremetal-node-show

```
usage: nova baremetal-node-show <node>
```

Show information about a baremetal node.

Positional arguments

<node>

ID of node

27. nova boot

```
usage: nova boot [--flavor <flavor>] [--image <image>] [--image-with
<key=value>] [--boot-volume <volume_id>] [--snapshot <snapshot_id>]
[--min-count <number>] [--max-count <number>] [--meta <key=value>]
[--file <dst-path=src-path>] [--key-name <key-name>] [--user-data
<user-data>] [--availability-zone <availability-zone>] [--security-
groups <security-groups>] [--block-device-mapping <dev-
name=mapping>] [--block-device key1=value1[,key2=value2...]] [--swap
<swap_size>] [--ephemeral size=<size>[,format=<format>]] [--hint
<key=value>] [--nic <net-id=net-uuid,v4-fixed-ip=ip-addr,v6-fixed-
ip=ip-addr,port-id=port-uuid>] [--config-drive <value>] [--poll]
<name>
```

Boot a new server.

Positional arguments

<name>

Name for the new server

Optional arguments

--flavor <flavor>

Name or ID of flavor (see 'nova flavor-list').

--image <image>

Name or ID of image (see 'nova image-list').

--image-with <key=value>

Image metadata property (see 'nova image-show').

--boot-volume <volume_id>

Volume ID to boot from.

--snapshot <snapshot_id>

Snapshot ID to boot from (will create a volume).

--min-count <number>

Boot at least <number> servers (limited by quota).

--max-count <number>

Boot up to <number> servers (limited by quota).

--meta <key=value>

Record arbitrary key/value metadata to /meta.js on the new server. Can be specified multiple times.

--file <dst-path=src-path>

Store arbitrary files from <src-path> locally to <dst-path> on the new server. You may store up to 5 files.

--key-name <key-name>

Key name of keypair that should be created earlier with the command keypair-add

--user-data <user-data>

user data file to pass to be exposed by the metadata server.

--availability-zone <availability-zone>

The availability zone for server placement.

--security-groups <security-groups>

Comma separated list of security group names.

--block-device-mapping <dev-name=mapping>

Block device mapping in the format <dev-name>=<id>:<type>:<size(GB)>:<delete-on-terminate>.

--block-device

key1=value1[,key2=value2...] Block device mapping with the keys: id=UUID

(image_id, snapshot_id or volume_id only if using source image, snapshot or volume) source=source type (image, snapshot, volume or blank), dest=destination type of the block device (volume or local), bus=device's bus (e.g. uml, lxc, virtio, ...; if omitted, hypervisor driver chooses a suitable default, honoured only if device type is supplied) type=device type (e.g. disk, cdrom, ...; defaults to 'disk') device=name of the device (e.g. vda, xda, ...; if omitted, hypervisor driver chooses suitable device depending on selected bus), size=size of the block device in GB (if omitted, hypervisor driver calculates size), format=device will be formatted (e.g. swap, ntfs, ...; optional), bootindex=integer used for ordering the boot disks (for image backed instances it is equal to 0, for others need to be specified) and shutdown=shutdown behaviour (either preserve or remove, for local destination set to remove).

--swap <swap_size>

Create and attach a local swap block device of <swap_size> MB.

--ephemeral

size=<size>[,format=<format>] Create and attach a local ephemeral block device of <size> GB and format it to <format>.

--hint <key=value>

Send arbitrary key/value pairs to the scheduler for custom use.

--nic <net-id=net-uuid,v4-fixed-ip=ip-addr,v6-fixed-ip=ip-addr,port-id=port-uuid>

Create a NIC on the server. Specify option multiple times to create multiple NICs. net-id: attach NIC to network with this UUID (either port-id or net-id must be provided), v4-fixed-ip: IPv4 fixed address for NIC (optional), v6-fixed-ip: IPv6 fixed address for NIC (optional), port-id: attach NIC to port with this UUID (either port-id or net-id must be provided).

--config-drive <value>

Enable config drive

--poll

Report the new server boot progress until it completes.

28. nova cell-capacities

usage: nova cell-capacities [--cell <cell-name>]

Get cell capacities for all cells or a given cell.

Optional arguments

--cell <cell-name>

Name of the cell to get the capacities.

29. nova cell-show

```
usage: nova cell-show <cell-name>
```

Show details of a given cell.

Positional arguments

<cell-name>

Name of the cell.

30. nova clear-password

```
usage: nova clear-password <server>
```

Clear password for a server.

Positional arguments

<server>

Name or ID of server.

31. nova cloudpipe-configure

```
usage: nova cloudpipe-configure <ip address> <port>
```

Update the VPN IP/port of a cloudpipe instance.

Positional arguments

<ip address>

New IP Address.

<port>

New Port.

32. nova cloudpipe-create

```
usage: nova cloudpipe-create <project_id>
```

Create a cloudpipe instance for the given project.

Positional arguments

<project_id>

UUID of the project to create the cloudpipe for.

33. nova cloudpipe-list

```
usage: nova cloudpipe-list
```

Print a list of all cloudpipe instances.

34. nova console-log

```
usage: nova console-log [--length <length>] <server>
```

Get console log output of a server.

Positional arguments

<server>

Name or ID of server.

Optional arguments

--length <length>

Length in lines to tail.

35. nova credentials

```
usage: nova credentials [--wrap <integer>]
```

Show user credentials returned from auth.

Optional arguments

--wrap <integer>

wrap PKI tokens to a specified length, or 0 to disable

36. nova delete

```
usage: nova delete <server> [<server> ...]
```

Immediately shut down and delete specified server(s).

Positional arguments

<server>

Name or ID of server(s).

37. nova diagnostics

```
usage: nova diagnostics <server>
```

Retrieve server diagnostics.

Positional arguments

<server>

Name or ID of server.

38. nova dns-create

```
usage: nova dns-create [--type <type>] <ip> <name> <domain>
```

Create a DNS entry for domain, name and ip.

Positional arguments

<ip>

ip address

<name>

DNS name

<domain>

DNS domain

Optional arguments

--type <type>

dns type (e.g. "A")

39. nova dns-create-private-domain

```
usage: nova dns-create-private-domain [--availability-zone <availability-zone>] <domain>
```

Create the specified DNS domain.

Positional arguments

<domain>

DNS domain

Optional arguments

--availability-zone <availability-zone>

Limit access to this domain to servers in the specified availability zone.

40. nova dns-create-public-domain

```
usage: nova dns-create-public-domain [--project <project>] <domain>
```

Create the specified DNS domain.

Positional arguments

<domain>

DNS domain

Optional arguments

--project <project>

Limit access to this domain to users of the specified project.

41. nova dns-delete

```
usage: nova dns-delete <domain> <name>
```

Delete the specified DNS entry.

Positional arguments

<domain>

DNS domain

<name>

DNS name

42. nova dns-delete-domain

```
usage: nova dns-delete-domain <domain>
```

Delete the specified DNS domain.

Positional arguments

<domain>

DNS domain

43. nova dns-domains

```
usage: nova dns-domains
```

Print a list of available dns domains.

44. nova dns-list

```
usage: nova dns-list [--ip <ip>] [--name <name>] <domain>
```

List current DNS entries for domain and ip or domain and name.

Positional arguments

<domain>

DNS domain

Optional arguments

--ip <ip>

ip address

--name <name> DNS

name

45. nova endpoints

```
usage: nova endpoints
```

Discover endpoints that get returned from the authenticate services.

46. nova evacuate

```
usage: nova evacuate [--password <password>] [--on-shared-storage]
<server> [<host>]
```

Evacuate server from failed host.

Positional arguments

<server>

Name or ID of server.

<host>

Name or ID of the target host. If no host is specified, the scheduler will choose one.

Optional arguments

--password <password>

Set the provided password on the evacuated server. Not applicable with on-shared-storage flag

--on-shared-storage

Specifies whether server files are located on shared storage

47. nova fixed-ip-get

```
usage: nova fixed-ip-get <fixed_ip>
```

Retrieve info on a fixed ip.

Positional arguments

<fixed_ip>

Fixed IP Address.

48. nova fixed-ip-reserve

```
usage: nova fixed-ip-reserve <fixed_ip>
```

Reserve a fixed IP.

Positional arguments

<fixed_ip>

Fixed IP Address.

49. nova fixed-ip-unreserve

```
usage: nova fixed-ip-unreserve <fixed_ip>
```

Unreserve a fixed IP.

Positional arguments

<fixed_ip>

Fixed IP Address.

50. nova flavor-access-add

```
usage: nova flavor-access-add <flavor> <tenant_id>
```

Add flavor access for the given tenant.

Positional arguments

<flavor>

Flavor name or ID to add access for the given tenant.

<tenant_id>

Tenant ID to add flavor access for.

51. nova flavor-access-list

```
usage: nova flavor-access-list [--flavor <flavor>] [--tenant <tenant_id>]
```

Print access information about the given flavor.

Optional arguments

--flavor <flavor>

Filter results by flavor name or ID.

--tenant <tenant_id>

Filter results by tenant ID.

52. nova flavor-access-remove

```
usage: nova flavor-access-remove <flavor> <tenant_id>
```

Remove flavor access for the given tenant.

Positional arguments

<flavor>

Flavor name or ID to remove access for the given tenant.

<tenant_id>

Tenant ID to remove flavor access for.

53. nova flavor-create

```
usage: nova flavor-create [--ephemeral <ephemeral>] [--swap <swap>]
[--rxtx-factor <factor>] [--is-public <is-public>] <name> <id> <ram>
<disk> <vcpus>
```

Create a new flavor

Positional arguments

<name>

Name of the new flavor

<id>

Unique ID (integer or UUID) for the new flavor. If specifying 'auto', a UUID will be generated as id

<ram>

Memory size in MB

<disk>

Disk size in GB

<vcpus>

Number of vcpus

Optional arguments**--ephemeral <ephemeral>**

Ephemeral space size in GB (default 0)

--swap <swap>

Swap space size in MB (default 0)

--rxtx-factor <factor>

RX/TX factor (default 1)

--is-public <is-public>

Make flavor accessible to the public (default true)

54. nova flavor-delete

```
usage: nova flavor-delete <flavor>
```

Delete a specific flavor

Positional arguments**<flavor>**

Name or ID of the flavor to delete

55. nova flavor-key

```
usage: nova flavor-key <flavor> <action> <key=value> [<key=value>
...]
```

Set or unset extra_spec for a flavor.

Positional arguments**<flavor>**

Name or ID of flavor

<action>

Actions: 'set' or 'unset'

<key=value>

Extra_specs to set/unset (only key is necessary on unset)

56. nova flavor-list

```
usage: nova flavor-list [--extra-specs] [--all]
```

Print a list of available 'flavors' (sizes of servers).

Optional arguments

--extra-specs

Get extra-specs of each flavor.

--all

Display all flavors (Admin only).

57. nova flavor-show

```
usage: nova flavor-show <flavor>
```

Show details about the given flavor.

Positional arguments

<flavor>

Name or ID of flavor

58. nova floating-ip-associate

```
usage: nova floating-ip-associate [--fixed-address <fixed_address>]
<server> <address>
```

Associate a floating IP address to a server.

Positional arguments

<server>

Name or ID of server.

<address>

IP Address.

Optional arguments

--fixed-address <fixed_address>

Fixed IP Address to associate with.

59. nova floating-ip-bulk-create

```
usage: nova floating-ip-bulk-create [--pool <pool>] [--interface <interface>] <range>
```

Bulk create floating ips by range.

Positional arguments

<range>

Address range to create

Optional arguments

--pool <pool>

Pool for new Floating IPs

--interface <interface>

Interface for new Floating IPs

60. nova floating-ip-bulk-delete

```
usage: nova floating-ip-bulk-delete <range>
```

Bulk delete floating ips by range.

Positional arguments

<range>

Address range to delete

61. nova floating-ip-bulk-list

```
usage: nova floating-ip-bulk-list [--host <host>]
```

List all floating ips.

Optional arguments

--host <host>

Filter by host

62. nova floating-ip-create

```
usage: nova floating-ip-create [<floating-ip-pool>]
```

Allocate a floating IP for the current tenant.

Positional arguments

<floating-ip-pool>

Name of Floating IP Pool. (Optional)

63. nova floating-ip-delete

```
usage: nova floating-ip-delete <address>
```

De-allocate a floating IP.

Positional arguments

<address>

IP of Floating Ip.

64. nova floating-ip-disassociate

```
usage: nova floating-ip-disassociate <server> <address>
```

Disassociate a floating IP address from a server.

Positional arguments

<server>

Name or ID of server.

<address>

IP Address.

65. nova floating-ip-list

```
usage: nova floating-ip-list [--all-tenants]
```

List floating ips.

Optional arguments

--all-tenants

Display floatingips from all tenants (Admin only).

66. nova floating-ip-pool-list

```
usage: nova floating-ip-pool-list
```

List all floating ip pools.

67. nova force-delete

```
usage: nova force-delete <server>
```

Force delete a server.

Positional arguments

<server>

Name or ID of server.

68. nova get-password

```
usage: nova get-password <server> [<private-key>]
```

Get password for a server.

Positional arguments

<server>

Name or ID of server.

<private-key>

Private key (used locally to decrypt password) (Optional). When specified, the command displays the clear (decrypted) VM password. When not specified, the ciphered VM password is displayed.

69. nova get-rdp-console

```
usage: nova get-rdp-console <server> <console-type>
```

Get a rdp console to a server.

Positional arguments

<server>

Name or ID of server.

<console-type>

Type of rdp console ("rdp-html5").

70. nova get-serial-console

```
usage: nova get-serial-console [--console_type CONSOLE_TYPE]
<server>
```

Get a serial console to a server.

Positional arguments

<server>

Name or ID of server.

Optional arguments

--console_type CONSOLE_TYPE

Type of serial console, default="serial".

71. nova get-spice-console

```
usage: nova get-spice-console <server> <console-type>
```

Get a spice console to a server.

Positional arguments

<server>

Name or ID of server.

<console-type>

Type of spice console ("spice-html5").

72. nova get-vnc-console

```
usage: nova get-vnc-console <server> <console-type>
```

Get a vnc console to a server.

Positional arguments

<server>

Name or ID of server.

<console-type>

Type of vnc console ("novnc" or "xvpvnc").

73. nova host-action

```
usage: nova host-action [--action <action>] <hostname>
```

Perform a power action on a host.

Positional arguments

<hostname>

Name of host.

Optional arguments

--action <action> A

power action: startup, reboot, or shutdown.

74. nova host-describe

```
usage: nova host-describe <hostname>
```

Describe a specific host.

Positional arguments

<hostname>

Name of host.

75. nova host-evacuate

```
usage: nova host-evacuate [--target_host <target_host>] [--on-  
shared-storage] <host>
```

Evacuate all instances from failed host.

Positional arguments

<host>

Name of host.

Optional arguments

--target_host <target_host>

Name of target host. If no host is specified the scheduler will select a target.

--on-shared-storage

Specifies whether all instances files are on shared storage

76. nova host-list

```
usage: nova host-list [--zone <zone>]
```

List all hosts by service.

Optional arguments

--zone <zone>

Filters the list, returning only those hosts in the availability zone <zone>.

77. nova host-meta

```
usage: nova host-meta <host> <action> <key=value> [<key=value> ...]
```

Set or Delete metadata on all instances of a host.

Positional arguments

<host>

Name of host.

<action>

Actions: 'set' or 'delete'

<key=value>

Metadata to set or delete (only key is necessary on delete)

78. nova host-servers-migrate

```
usage: nova host-servers-migrate <host>
```

Migrate all instances of the specified host to other available hosts.

Positional arguments

<host>

Name of host.

79. nova host-update

```
usage: nova host-update [--status <enable|disable>] [--maintenance <enable|disable>] <hostname>
```

Update host settings.

Positional arguments

<hostname>

Name of host.

Optional arguments**--status <enable|disable>**

Either enable or disable a host.

--maintenance <enable|disable>

Either put or resume host to/from maintenance.

80. nova hypervisor-list

```
usage: nova hypervisor-list [--matching <hostname>]
```

List hypervisors.

Optional arguments**--matching <hostname>**

List hypervisors matching the given <hostname>.

81. nova hypervisor-servers

```
usage: nova hypervisor-servers <hostname>
```

List servers belonging to specific hypervisors.

Positional arguments**<hostname>**

The hypervisor hostname (or pattern) to search for.

82. nova hypervisor-show

```
usage: nova hypervisor-show <hypervisor>
```

Display the details of the specified hypervisor.

Positional arguments**<hypervisor>**

Name or ID of the hypervisor to show the details of.

83. nova hypervisor-stats

-

```
usage: nova hypervisor-stats
```

Get hypervisor statistics over all compute nodes.

84. nova hypervisor-uptime

```
usage: nova hypervisor-uptime <hypervisor>
```

Display the uptime of the specified hypervisor.

Positional arguments

<hypervisor>

Name or ID of the hypervisor to show the uptime of.

85. nova image-create

```
usage: nova image-create [--show] [--poll] <server> <name>
```

Create a new image by taking a snapshot of a running server.

Positional arguments

<server>

Name or ID of server.

<name>

Name of snapshot.

Optional arguments

--show

Print image info.

--poll

Report the snapshot progress and poll until image creation is complete.

86. nova image-delete

```
usage: nova image-delete <image> [<image> ...]
```

Delete specified image(s).

Positional arguments

<image>

Name or ID of image(s).

87. nova image-list

```
usage: nova image-list [--limit <limit>]
```

Print a list of available images to boot from.

Optional arguments

--limit <limit>

Number of images to return per request.

88. nova image-meta

```
usage: nova image-meta <image> <action> <key=value> [<key=value>
...]
```

Set or Delete metadata on an image.

Positional arguments

<image>

Name or ID of image

<action>

Actions: 'set' or 'delete'

<key=value>

Metadata to add/update or delete (only key is necessary on delete)

89. nova image-show

```
usage: nova image-show <image>
```

Show details about the given image.

Positional arguments

<image>

Name or ID of image

90. nova instance-action

```
usage: nova instance-action <server> <request_id>
```

Show an action.

Positional arguments

<server>

Name or UUID of the server to show an action for.

<request_id>

Request ID of the action to get.

91. nova instance-action-list

```
usage: nova instance-action-list <server>
```

List actions on a server.

Positional arguments

<server>

Name or UUID of the server to list actions for.

92. nova interface-attach

```
usage: nova interface-attach [--port-id <port_id>] [--net-id <net_id>] [--fixed-ip <fixed_ip>] <server>
```

Attach a network interface to a server.

Positional arguments

<server>

Name or ID of server.

Optional arguments

--port-id <port_id>

Port ID.

--net-id <net_id>

Network ID

--fixed-ip <fixed_ip>

Requested fixed IP.

93. nova interface-detach

```
usage: nova interface-detach <server> <port_id>
```

Detach a network interface from a server.

Positional arguments

<server>

Name or ID of server.

<port_id>

Port ID.

94. nova interface-list

```
usage: nova interface-list <server>
```

List interfaces attached to a server.

Positional arguments

<server>

Name or ID of server.

95. nova keypair-add

```
usage: nova keypair-add [--pub-key <pub-key>] <name>
```

Create a new key pair for use with servers.

Positional arguments

<name>

Name of key.

Optional arguments

--pub-key <pub-key>

Path to a public ssh key.

96. nova keypair-delete

```
usage: nova keypair-delete <name>
```

Delete keypair given by its name.

Positional arguments

<name>

Keypair name to delete.

97. nova keypair-list

```
usage: nova keypair-list
```

Print a list of keypairs for a user

98. nova keypair-show

```
usage: nova keypair-show <keypair>
```

Show details about the given keypair.

Positional arguments

<keypair>

Name or ID of keypair

99. nova list

```
usage: nova list [--reservation-id <reservation-id>] [--ip <ip-regex>] [--ip6 <ip6-regex>] [--name <name-regex>] [--instance-name <name-regex>] [--status <status>] [--flavor <flavor>] [--image <image>] [--host <hostname>] [--all-tenants [<0|1>]] [--tenant <tenant>]] [--deleted] [--fields <fields>] [--minimal]
```

List active servers.

Optional arguments

--reservation-id <reservation-id>

Only return servers that match reservation-id.

--ip <ip-regex>

Search with regular expression match by IP address.

--ip6 <ip6-regex>

Search with regular expression match by IPv6 address.

--name <name-regex>

Search with regular expression match by name

--instance-name <name-regex>

Search with regular expression match by server name.

--status <status>

Search by server status

--flavor <flavor>

Search by flavor name or ID

--image <image>

Search by image name or ID

--host <hostname>

Search servers by hostname to which they are assigned (Admin only).

--all-tenants [<0|1>]

Display information from all tenants (Admin only).

--tenant [<tenant>]

Display information from single tenant (Admin only).

--deleted

Only display deleted servers (Admin only).

--fields <fields>

Comma-separated list of fields to display. Use the show command to see which fields are available.

--minimal

Get only uuid and name.

100. nova list-extensions

```
usage: nova list-extensions
```

List all the os-api extensions that are available.

101. nova list-secgroup

```
usage: nova list-secgroup <server>
```

List Security Group(s) of a server.

Positional arguments

<server>

Name or ID of server.

102. nova live-migration

■

```
usage: nova live-migration [--block-migrate] [--disk-over-commit]
<server> [<host>]
```

Migrate running server to a new machine.

Positional arguments

<server>

Name or ID of server.

<host>

destination host name.

Optional arguments

--block-migrate

True in case of block_migration. (Default=False:live_migration)

--disk-over-commit

Allow overcommit.(Default=False)

103. nova lock

```
usage: nova lock <server>
```

Lock a server.

Positional arguments

<server>

Name or ID of server.

104. nova meta

```
usage: nova meta <server> <action> <key=value> [<key=value> ...]
```

Set or Delete metadata on a server.

Positional arguments

<server>

Name or ID of server

<action>

Actions: 'set' or 'delete'

<key=value>

Metadata to set or delete (only key is necessary on delete)

105. nova migrate

```
usage: nova migrate [--poll] <server>
```

Migrate a server. The new host will be selected by the scheduler.

Positional arguments

<server>

Name or ID of server.

Optional arguments

--poll

Report the server migration progress until it completes.

106. nova migration-list

```
usage: nova migration-list [--host <host>] [--status <status>] [--  
cell_name <cell_name>]
```

Print a list of migrations.

Optional arguments

--host <host>

Fetch migrations for the given host.

--status <status>

Fetch migrations for the given status.

--cell_name <cell_name>

Fetch migrations for the given cell_name.

107. nova net

```
usage: nova net <network_id>
```

Show a network

Positional arguments

<network_id>

ID of network

108. nova net-create

```
usage: nova net-create <network_label> <cidr>
```

Create a network

Positional arguments

<network_label>

Network label (ex. my_new_network)

<cidr>

IP block to allocate from (ex. 172.16.0.0/24 or 2001:DB8::/64)

109. nova net-delete

```
usage: nova net-delete <network_id>
```

Delete a network

Positional arguments

<network_id>

ID of network

110. nova net-list

```
usage: nova net-list
```

List networks

111. nova network-associate-host

```
usage: nova network-associate-host <network> <host>
```

Associate host with network.

Positional arguments

<network>

uuid of network

<host>

Name of host

112. nova network-associate-project

```
usage: nova network-associate-project <network>
```

Associate project with network.

Positional arguments

<network>

uuid of network

113. nova network-create

```
usage: nova network-create [--fixed-range-v4 <x.x.x.x/yy>] [--fixed-range-v6 CIDR_V6] [--vlan <vlan id>] [--vlan-start <vlan start>] [--vpn <vpn start>] [--gateway GATEWAY] [--gateway-v6 GATEWAY_V6] [--bridge <bridge>] [--bridge-interface <bridge interface>] [--multi-host <'T'|'F'>] [--dns1 <DNS Address>] [--dns2 <DNS Address>] [--uuid <network uuid>] [--fixed-cidr <x.x.x.x/yy>] [--project-id <project id>] [--priority <number>] [--mtu MTU] [--enable-dhcp <'T'|'F'>] [--dhcp-server DHCP_SERVER] [--share-address <'T'|'F'>] [--allowed-start ALLOWED_START] [--allowed-end ALLOWED_END] <network_label>
```

Create a network.

Positional arguments

<network_label>

Label for network

Optional arguments

--fixed-range-v4 <x.x.x.x/yy>

IPv4 subnet (ex: 10.0.0.0/8)

--fixed-range-v6

CIDR_V6 IPv6 subnet (ex: fe80::/64)

--vlan <vlan id>

The vlan ID to be assigned to the project.

--vlan-start <vlan start>

First vlan ID to be assigned to the project. Subsequent vlan IDs will be assigned incrementally.

--vpn <vpn start>

vpn start

--gateway GATEWAY

gateway

--gateway-v6

GATEWAY_V6 IPv6 gateway

--bridge <bridge>

VIFs on this network are connected to this bridge.

--bridge-interface <bridge interface>

The bridge is connected to this interface.

--multi-host <'T' | 'F'>

Multi host

--dns1 <DNS Address>

First DNS

--dns2 <DNS Address>

Second DNS

--uuid <network uuid>

Network UUID

--fixed-cidr <x.x.x.x/yy>

IPv4 subnet for fixed IPs (ex: 10.20.0.0/16)

--project-id <project id>

Project ID

--priority <number>

Network interface priority

--mtu MTU MTU

for network

--enable-dhcp <'T' | 'F'>

Enable dhcp

--dhcp-server DHCP_SERVER

Dhcp-server (defaults to gateway address)

--share-address <'T' | 'F'>

Share address

--allowed-start ALLOWED_START

Start of allowed addresses for instances

--allowed-end ALLOWED_END

End of allowed addresses for instances

114. nova network-delete

```
usage: nova network-delete <network>
```

Delete network by label or id.

Positional arguments

<network>

uuid or label of network

115. nova network-disassociate

```
usage: nova network-disassociate [--host-only [<0|1>]] [--project-only [<0|1>]] <network>
```

Disassociate host and/or project from the given network.

Positional arguments

<network>

uuid of network

Optional arguments

--host-only [<0|1>]

--project-only [<0|1>]

116. nova network-list

```
usage: nova network-list [--fields <fields>]
```

Print a list of available networks.

Optional arguments

--fields <fields>

Comma-separated list of fields to display. Use the show command to see which fields are available.

117. nova network-show

```
usage: nova network-show <network>
```

Show details about the given network.

Positional arguments

<network>

uuid or label of network

118. nova pause

```
usage: nova pause <server>
```

Pause a server.

Positional arguments

<server>

Name or ID of server.

119. nova quota-class-show

```
usage: nova quota-class-show <class>
```

List the quotas for a quota class.

Positional arguments

<class>

Name of quota class to list the quotas for.

120. nova quota-class-update

```
usage: nova quota-class-update [--instances <instances>] [--cores <cores>] [--ram <ram>] [--floating-ips <floating-ips>] [--fixed-ips <fixed-ips>] [--metadata-items <metadata-items>] [--injected-files <injected-files>] [--injected-file-content-bytes <injected-file-content-bytes>] [--injected-file-path-bytes <injected-file-path-bytes>] [--key-pairs <key-pairs>] [--security-groups <security-groups>] [--security-group-rules <security-group-rules>] [--server-groups <server-groups>] [--server-group-members <server-group-members>] <class>
```

Update the quotas for a quota class.

Positional arguments

<class>

Name of quota class to set the quotas for.

Optional arguments

- instances <instances>**
New value for the "instances" quota.
- cores <cores>**
New value for the "cores" quota.
- ram <ram>**
New value for the "ram" quota.
- floating-ips <floating-ips>**
New value for the "floating-ips" quota.
- fixed-ips <fixed-ips>**
New value for the "fixed-ips" quota.
- metadata-items <metadata-items>**
New value for the "metadata-items" quota.
- injected-files <injected-files>**
New value for the "injected-files" quota.
- injected-file-content-bytes <injected-file-content-bytes>**
New value for the "injected-file-content- bytes" quota.
- injected-file-path-bytes <injected-file-path-bytes>**
New value for the "injected-file-path-bytes" quota.
- key-pairs <key-pairs>**
New value for the "key-pairs" quota.
- security-groups <security-groups>**
New value for the "security-groups" quota.
- security-group-rules <security-group-rules>**
New value for the "security-group-rules" quota.
- server-groups <server-groups>**
New value for the "server-groups" quota.
- server-group-members <server-group-members>**
New value for the "server-group-members" quota.

121. nova quota-defaults

```
usage: nova quota-defaults [--tenant <tenant-id>]
```

List the default quotas for a tenant.

Optional arguments

--tenant <tenant-id> ID
of tenant to list the default quotas for.

122. nova quota-delete

```
usage: nova quota-delete --tenant <tenant-id> [--user <user-id>]
```

Delete quota for a tenant/user so their quota will Revert back to default.

Optional arguments

--tenant <tenant-id> ID
of tenant to delete quota for.

--user <user-id> ID
of user to delete quota for.

123. nova quota-show

```
usage: nova quota-show [--tenant <tenant-id>] [--user <user-id>]
```

List the quotas for a tenant/user.

Optional arguments

--tenant <tenant-id> ID
of tenant to list the quotas for.

--user <user-id> ID
of user to list the quotas for.

124. nova quota-update

```
usage: nova quota-update [--user <user-id>] [--instances  
<instances>] [--cores <cores>] [--ram <ram>] [--floating-ips  
<floating-ips>] [--fixed-ips <fixed-ips>] [--metadata-items  
<metadata-items>] [--injected-files <injected-files>] [--injected-  
file-content-bytes <injected-file-content-bytes>] [--injected-file-  
path-bytes <injected-file-path-bytes>] [--key-pairs <key-pairs>] [--  
security-groups <security-groups>] [--security-group-rules  
<security-group-rules>] [--server-groups <server-groups>] [--server-  
group-members <server-group-members>] [--force] <tenant-id>
```

Update the quotas for a tenant/user.

Positional arguments

<tenant-id>

ID of tenant to set the quotas for.

Optional arguments**--user <user-id> ID**

of user to set the quotas for.

--instances <instances>

New value for the "instances" quota.

--cores <cores>

New value for the "cores" quota.

--ram <ram>

New value for the "ram" quota.

--floating-ips <floating-ips>

New value for the "floating-ips" quota.

--fixed-ips <fixed-ips>

New value for the "fixed-ips" quota.

--metadata-items <metadata-items>

New value for the "metadata-items" quota.

--injected-files <injected-files>

New value for the "injected-files" quota.

--injected-file-content-bytes <injected-file-content-bytes>

New value for the "injected-file-content- bytes" quota.

--injected-file-path-bytes <injected-file-path-bytes>

New value for the "injected-file-path-bytes" quota.

--key-pairs <key-pairs>

New value for the "key-pairs" quota.

--security-groups <security-groups>

New value for the "security-groups" quota.

--security-group-rules <security-group-rules>

New value for the "security-group-rules" quota.

--server-groups <server-groups>

New value for the "server-groups" quota.

--server-group-members <server-group-members>

New value for the "server-group-members" quota.

--force

Whether force update the quota even if the already used and reserved exceeds the new quota

125. nova rate-limits

```
usage: nova rate-limits
```

Print a list of rate limits for a user

126. nova reboot

```
usage: nova reboot [--hard] [--poll] <server>
```

Reboot a server.

Positional arguments

<server>

Name or ID of server.

Optional arguments

--hard

Perform a hard reboot (instead of a soft one).

--poll

Poll until reboot is complete.

127. nova rebuild

```
usage: nova rebuild [--rebuild-password <rebuild-password>] [--poll]
  [--minimal] [--preserve-ephemeral] [--name <name>] [--meta
  <key=value>] [--file <dst-path=src-path>] <server> <image>
```

Shutdown, re-image, and re-boot a server.

Positional arguments

<server>

Name or ID of server.

<image>

Name or ID of new image.

Optional arguments

--rebuild-password <rebuild-password>

Set the provided password on the rebuild server.

--poll

Report the server rebuild progress until it completes.

--minimal

Skips flavor/image lookups when showing servers

--preserve-ephemeral

Preserve the default ephemeral storage partition on rebuild.

--name <name>

Name for the new server

--meta <key=value>

Record arbitrary key/value metadata to /meta.js on the new server. Can be specified multiple times.

--file <dst-path=src-path>

Store arbitrary files from <src-path> locally to <dst-path> on the new server. You may store up to 5 files.

128. nova refresh-network

```
usage: nova refresh-network <server>
```

Refresh server network information.

Positional arguments

<server>

Name or ID of a server for which the network cache should be refreshed from neutron (Admin only).

129. nova remove-fixed-ip

```
usage: nova remove-fixed-ip <server> <address>
```

Remove an IP address from a server.

Positional arguments

<server>

Name or ID of server.

<address>

IP Address.

130. nova remove-secgroup

```
usage: nova remove-secgroup <server> <secgroup>
```

Remove a Security Group from a server.

Positional arguments

<server>

Name or ID of server.

<secgroup>

Name of Security Group.

131. nova rename

```
usage: nova rename <server> <name>
```

Rename a server.

Positional arguments

<server>

Name (old name) or ID of server.

<name>

New name for the server.

132. nova rescue

```
usage: nova rescue <server>
```

Reboots a server into rescue mode, which starts the machine from the initial image, attaching the current boot disk as secondary.

Positional arguments

<server>

Name or ID of server.

133. nova reset-network

```
usage: nova reset-network <server>
```

-
Reset network of a server.

Positional arguments

<server>

Name or ID of server.

134. nova reset-state

```
usage: nova reset-state [--active] <server> [<server> ...]
```

Reset the state of a server.

Positional arguments

<server>

Name or ID of server(s).

Optional arguments

--active

Request the server be reset to "active" state instead of "error" state (the default).

135. nova resize

```
usage: nova resize [--poll] <server> <flavor>
```

Resize a server.

Positional arguments

<server>

Name or ID of server.

<flavor>

Name or ID of new flavor.

Optional arguments

--poll

Report the server resize progress until it completes.

136. nova resize-confirm

```
usage: nova resize-confirm <server>
```

Confirm a previous resize.

Positional arguments

<server>

Name or ID of server.

137. nova resize-revert

usage: nova resize-revert <server>

Revert a previous resize (and return to the previous VM).

Positional arguments

<server>

Name or ID of server.

138. nova restore

usage: nova restore <server>

Restore a soft-deleted server.

Positional arguments

<server>

Name or ID of server.

139. nova resume

usage: nova resume <server>

Resume a server.

Positional arguments

<server>

Name or ID of server.

140. nova root-password

usage: nova root-password <server>

Change the root password for a server.

Positional arguments

<server>

Name or ID of server.

141. nova scrub

```
usage: nova scrub <project_id>
```

Delete data associated with the project.

Positional arguments

<project_id>

The ID of the project.

142. nova secgroup-add-default-rule

```
usage: nova secgroup-add-default-rule <ip-PROTO> <from-port> <to-  
port> <cidr>
```

Add a rule to the default security group.

Positional arguments

<ip-PROTO>

IP protocol (icmp, tcp, udp).

<from-port>

Port at start of range.

<to-port>

Port at end of range.

<cidr>

CIDR for address range.

143. nova secgroup-add-group-rule

```
usage: nova secgroup-add-group-rule <secgroup> <source-group> <ip-  
PROTO> <from-port> <to-port>
```

Add a source group rule to a security group.

Positional arguments

<secgroup>

ID or name of security group.

<source-group>

ID or name of source group.

<ip-proto>

IP protocol (icmp, tcp, udp).

<from-port>

Port at start of range.

<to-port>

Port at end of range.

144. nova secgroup-add-rule

```
usage: nova secgroup-add-rule <secgroup> <ip-proto> <from-port>
<to-port> <cidr>
```

Add a rule to a security group.

Positional arguments

<secgroup>

ID or name of security group.

<ip-proto>

IP protocol (icmp, tcp, udp).

<from-port>

Port at start of range.

<to-port>

Port at end of range.

<cidr>

CIDR for address range.

145. nova secgroup-create

```
usage: nova secgroup-create <name> <description>
```

Create a security group.

Positional arguments

<name>

Name of security group.

<description>

Description of security group.

146. nova secgroup-delete

```
usage: nova secgroup-delete <secgroup>
```

Delete a security group.

Positional arguments

<secgroup>

ID or name of security group.

147. nova secgroup-delete-default-rule

```
usage: nova secgroup-delete-default-rule <ip-proto> <from-port>
<to-port> <cidr>
```

Delete a rule from the default security group.

Positional arguments

<ip-proto>

IP protocol (icmp, tcp, udp).

<from-port>

Port at start of range.

<to-port>

Port at end of range.

<cidr>

CIDR for address range.

148. nova secgroup-delete-group-rule

```
usage: nova secgroup-delete-group-rule <secgroup> <source-group>
<ip-proto> <from-port> <to-port>
```

Delete a source group rule from a security group.

Positional arguments

<secgroup>

ID or name of security group.

<source-group>

ID or name of source group.

<ip-proto>

IP protocol (icmp, tcp, udp).

<from-port>

Port at start of range.

<to-port>

Port at end of range.

149. nova secgroup-delete-rule

```
usage: nova secgroup-delete-rule <secgroup> <ip-proto> <from-port>
<to-port> <cidr>
```

Delete a rule from a security group.

Positional arguments

<secgroup>

ID or name of security group.

<ip-proto>

IP protocol (icmp, tcp, udp).

<from-port>

Port at start of range.

<to-port>

Port at end of range.

<cidr>

CIDR for address range.

150. nova secgroup-list

```
usage: nova secgroup-list [--all-tenants [<0|1>]]
```

List security groups for the current tenant.

Optional arguments

--all-tenants [<0|1>]

Display information from all tenants (Admin only).

151. nova secgroup-list-default-rules

```
usage: nova secgroup-list-default-rules
```

List rules for the default security group.

152. nova secgroup-list-rules

```
usage: nova secgroup-list-rules <secgroup>
```

List rules for a security group.

Positional arguments

<secgroup>

ID or name of security group.

153. nova secgroup-update

```
usage: nova secgroup-update <secgroup> <name> <description>
```

Update a security group.

Positional arguments

<secgroup>

ID or name of security group.

<name>

Name of security group.

<description>

Description of security group.

154. nova server-group-create

```
usage: nova server-group-create <name> [<policy> [<policy> ...]]
```

Create a new server group with the specified details.

Positional arguments

<name>

Server group name.

<policy>

Policies for the server groups ("affinity" or "anti-affinity")

155. nova server-group-delete

```
usage: nova server-group-delete <id> [<id> ...]
```

Delete specific server group(s).

Positional arguments**<id>**

Unique ID(s) of the server group to delete

156. nova server-group-get

```
usage: nova server-group-get <id>
```

Get a specific server group.

Positional arguments**<id>**

Unique ID of the server group to get

157. nova server-group-list

```
usage: nova server-group-list
```

Print a list of all server groups.

158. nova service-delete

```
usage: nova service-delete <id>
```

Delete the service.

Positional arguments**<id>**

Id of service.

159. nova service-disable

```
usage: nova service-disable [--reason <reason>] <hostname> <binary>
```

Disable the service.

Positional arguments

<hostname>

Name of host.

<binary>

Service binary.

Optional arguments

--reason <reason>

Reason for disabling service.

160. nova service-enable

```
usage: nova service-enable <hostname> <binary>
```

Enable the service.

Positional arguments

<hostname>

Name of host.

<binary>

Service binary.

161. nova service-list

```
usage: nova service-list [--host <hostname>] [--binary <binary>]
```

Show a list of all running services. Filter by host & binary.

Optional arguments

--host <hostname>

Name of host.

--binary <binary>

Service binary.

162. nova shelve

```
usage: nova shelve <server>
```

Shelve a server.

Positional arguments

<server>

Name or ID of server.

163. nova shelve-offload

usage: nova shelve-offload <server>

Remove a shelved server from the compute node.

Positional arguments

<server>

Name or ID of server.

164. nova show

usage: nova show [--minimal] <server>

Show details about the given server.

Positional arguments

<server>

Name or ID of server.

Optional arguments

--minimal

Skips flavor/image lookups when showing servers

165. nova ssh

usage: nova ssh [--port PORT] [--address-type ADDRESS_TYPE] [--network <network>] [--ipv6] [--login <login>] [-i IDENTITY] [--extra-opts EXTRA] <server>

SSH into a server.

Positional arguments

<server>

Name or ID of server.

Optional arguments

--port PORT

Optional flag to indicate which port to use for ssh. (Default=22)

--address-type ADDRESS_TYPE

Optional flag to indicate which IP type to use. Possible values includes fixed and floating (the Default).

--network <network>

Network to use for the ssh.

--ipv6

Optional flag to indicate whether to use an IPv6 address attached to a server. (Defaults to IPv4 address)

--login <login>

Login to use.

-i IDENTITY, --identity IDENTITY

Private key file, same as the -i option to the ssh command.

--extra-opts EXTRA

Extra options to pass to ssh. see: man ssh

166. nova start

```
usage: nova start <server>
```

Start a server.

Positional arguments

<server>

Name or ID of server.

167. nova stop

```
usage: nova stop <server>
```

Stop a server.

Positional arguments

<server>

Name or ID of server.

168. nova suspend

```
usage: nova suspend <server>
```

Suspend a server.

Positional arguments

<server>

Name or ID of server.

169. nova unlock

```
usage: nova unlock <server>
```

Unlock a server.

Positional arguments

<server>

Name or ID of server.

170. nova unpause

```
usage: nova unpause <server>
```

Unpause a server.

Positional arguments

<server>

Name or ID of server.

171. nova unrescue

```
usage: nova unrescue <server>
```

Restart the server from normal boot disk again.

Positional arguments

<server>

Name or ID of server.

172. nova unshelve

```
usage: nova unshelve <server>
```

Unshelve a server.

Positional arguments

<server>

Name or ID of server.

173. nova usage

```
usage: nova usage [--start <start>] [--end <end>] [--tenant <tenant-id>]
```

Show usage data for a single tenant.

Optional arguments

--start <start>

Usage range start date ex 2012-01-20 (default: 4 weeks ago)

--end <end>

Usage range end date, ex 2012-01-20 (default: tomorrow)

--tenant <tenant-id> UUID

or name of tenant to get usage for.

174. nova usage-list

```
usage: nova usage-list [--start <start>] [--end <end>]
```

List usage data for all tenants.

Optional arguments

--start <start>

Usage range start date ex 2012-01-20 (default: 4 weeks ago)

--end <end>

Usage range end date, ex 2012-01-20 (default: tomorrow)

175. nova version-list

```
usage: nova version-list
```

List all API versions.

176. nova volume-attach

```
usage: nova volume-attach <server> <volume> [<device>]
```

Attach a volume to a server.

Positional arguments

<server>

Name or ID of server.

<volume>

ID of the volume to attach.

<device>

Name of the device e.g. /dev/vdb. Use "auto" for autoassign (if supported)

177. nova volume-create

```
usage: nova volume-create [--snapshot-id <snapshot-id>] [--image-id <image-id>] [--display-name <display-name>] [--display-description <display-description>] [--volume-type <volume-type>] [--availability-zone <availability-zone>] <size>
```

Add a new volume.

Positional arguments

<size>

Size of volume in GB

Optional arguments

--snapshot-id <snapshot-id>

Optional snapshot id to create the volume from. (Default=None)

--image-id <image-id>

Optional image id to create the volume from. (Default=None)

--display-name <display-name>

Optional volume name. (Default=None)

--display-description <display-description>

Optional volume description. (Default=None)

--volume-type <volume-type>

Optional volume type. (Default=None)

--availability-zone <availability-zone>

Optional Availability Zone for volume. (Default=None)

178. nova volume-delete

```
usage: nova volume-delete <volume> [<volume> ...]
```

Remove volume(s).

Positional arguments

<volume>

Name or ID of the volume(s) to delete.

179. nova volume-detach

```
usage: nova volume-detach <server> <volume>
```

Detach a volume from a server.

Positional arguments

<server>

Name or ID of server.

<volume>

ID of the volume to detach.

180. nova volume-list

```
usage: nova volume-list [--all-tenants [<0|1>]]
```

List all the volumes.

Optional arguments

--all-tenants [<0|1>]

Display information from all tenants (Admin only).

181. nova volume-show

```
usage: nova volume-show <volume>
```

Show details about a volume.

Positional arguments

<volume>

Name or ID of the volume.

182. nova volume-snapshot-create

```
usage: nova volume-snapshot-create [--force <True|False>] [--display-name <display-name>] [--display-description <display-description>] <volume-id>
```

Add a new snapshot.

Positional arguments

<volume-id>

ID of the volume to snapshot

Optional arguments

--force <True|False>

Optional flag to indicate whether to snapshot a volume even if its attached to a server. (Default=False)

--display-name <display-name>

Optional snapshot name. (Default=None)

--display-description <display-description>

Optional snapshot description. (Default=None)

183. nova volume-snapshot-delete

```
usage: nova volume-snapshot-delete <snapshot>
```

Remove a snapshot.

Positional arguments

<snapshot>

Name or ID of the snapshot to delete.

184. nova volume-snapshot-list

```
usage: nova volume-snapshot-list
```

List all the snapshots.

185. nova volume-snapshot-show

```
usage: nova volume-snapshot-show <snapshot>
```

Show details about a snapshot.

Positional arguments

<snapshot>

Name or ID of the snapshot.

186. nova volume-type-create

```
usage: nova volume-type-create <name>
```

Create a new volume type.

Positional arguments

<name>

Name of the new volume type

187. nova volume-type-delete

```
usage: nova volume-type-delete <id>
```

Delete a specific volume type.

Positional arguments

<id>

Unique ID of the volume type to delete

188. nova volume-type-list

```
usage: nova volume-type-list
```

Print a list of available 'volume types'.

189. nova volume-update

```
usage: nova volume-update <server> <attachment> <volume>
```

Update volume attachment.

Positional arguments

<server>

Name or ID of server.

<attachment>

Attachment ID of the volume.

<volume>

ID of the volume to attach.

190. nova x509-create-cert

```
usage: nova x509-create-cert [<private-key-filename>] [<x509-cert-filename>]
```

Create x509 cert for a user in tenant.

Positional arguments

<private-key-filename>

Filename for the private key [Default: pk.pem]

<x509-cert-filename>

Filename for the X.509 certificate [Default: cert.pem]

191. nova x509-get-root-cert

```
usage: nova x509-get-root-cert [<filename>]
```

Fetch the x509 root cert.

Positional arguments

<filename>

Filename to write the x509 root cert.

Chapter 6. Identity service command-line client

The **keystone** client is the command-line interface (CLI) for the OpenStack Identity API and its extensions. This chapter documents **keystone** version **0.11.1**.

For help on a specific **keystone** command, enter:

```
$ keystone help COMMAND
```

1. keystone usage

```
usage: keystone [--version] [--debug] [--os-username <auth-user-name>] [--os-password <auth-password>] [--os-tenant-name <auth-tenant-name>] [--os-tenant-id <tenant-id>] [--os-auth-url <auth-url>] [--os-region-name <region-name>] [--os-identity-api-version <identity-api-version>] [--os-token <service-token>] [--os-endpoint <service-endpoint>] [--os-cache] [--force-new-token] [--stale-duration <seconds>] [--insecure] [--os-cacert <ca-certificate>] [--os-cert <certificate>] [--os-key <key>] [--timeout <seconds>] <subcommand> ...
```

Subcommands

catalog

List service catalog, possibly filtered by service.

ec2-credentials-create

Create EC2-compatible credentials for user per tenant.

ec2-credentials-delete

Delete EC2-compatible credentials.

ec2-credentials-get

Display EC2-compatible credentials.

ec2-credentials-list

List EC2-compatible credentials for a user.

endpoint-create

Create a new endpoint associated with a service.

endpoint-delete

Delete a service endpoint.

endpoint-get

Find endpoint filtered by a specific attribute or service type.

endpoint-list

List configured service endpoints.

password - update

Update own password.

role - create

Create new role.

role - delete

Delete role.

role - get

Display role details.

role - list

List all roles.

service - create

Add service to Service Catalog.

service - delete

Delete service from Service Catalog.

service - get

Display service from Service Catalog.

service - list

List all services in Service Catalog.

tenant - create

Create new tenant.

tenant - delete

Delete tenant.

tenant - get

Display tenant details.

tenant - list

List all tenants.

tenant - update

Update tenant name, description, enabled status.

token - get

Display the current user token.

user - create

Create new user.

user-delete

Delete user.

user-get

Display user details.

user-list

List users.

user-password-update

Update user password.

user-role-add

Add role to user.

user-role-list

List roles granted to a user.

user-role-remove

Remove role from user.

user-update

Update user's name, email, and enabled status.

discover

Discover Keystone servers, supported API versions and extensions.

bootstrap

Grants a new role to a new user on a new tenant, after creating each.

bash-completion

Prints all of the commands and options to stdout.

help

Display help about this program or one of its subcommands.

2. keystone optional arguments

--version

Shows the client version and exits.

--debug

Prints debugging output onto the console, this includes the curl request and response calls. Helpful for debugging and understanding the API calls.

--os-username <auth-user-name>

Name used for authentication with the OpenStack Identity service. Defaults to `env[OS_USERNAME]`.

--os-password <auth-password>

Password used for authentication with the OpenStack Identity service. Defaults to `env[OS_PASSWORD]`.

--os-tenant-name <auth-tenant-name>

Tenant to request authorization on. Defaults to `env[OS_TENANT_NAME]`.

--os-tenant-id <tenant-id>

Tenant to request authorization on. Defaults to `env[OS_TENANT_ID]`.

--os-auth-url <auth-url>

Specify the Identity endpoint to use for authentication. Defaults to `env[OS_AUTH_URL]`.

--os-region-name <region-name>

Specify the region to use. Defaults to `env[OS_REGION_NAME]`.

--os-identity-api-version <identity-api-version>

Specify Identity API version to use. Defaults to `env[OS_IDENTITY_API_VERSION]` or 2.0.

--os-token <service-token>

Specify an existing token to use instead of retrieving one via authentication (e.g. with username & password). Defaults to `env[OS_SERVICE_TOKEN]`.

--os-endpoint <service-endpoint>

Specify an endpoint to use instead of retrieving one from the service catalog (via authentication). Defaults to `env[OS_SERVICE_ENDPOINT]`.

--os-cache

Use the auth token cache. Defaults to `env[OS_CACHE]`.

--force-new-token

If the keyring is available and in use, token will always be stored and fetched from the keyring until the token has expired. Use this option to request a new token and replace the existing one in the keyring.

--stale-duration <seconds>

Stale duration (in seconds) used to determine whether a token has expired when retrieving it from keyring. This is useful in mitigating process or network delays. Default is 30 seconds.

--insecure

Explicitly allow client to perform "insecure" TLS (https) requests. The server's certificate will not be verified against any certificate authorities. This option should be used with caution.

--os-cacert <ca-certificate>

Specify a CA bundle file to use in verifying a TLS (https) server certificate. Defaults to `env[OS_CACERT]`.

--os-cert <certificate>

Defaults to `env[OS_CERT]`.

--os-key <key>

Defaults to `env[OS_KEY]`.

--timeout <seconds>

Set request timeout (in seconds).

3. keystone bootstrap

```
usage: keystone bootstrap [--user-name <user-name>] --pass <password>
      [--role-name <role-name>] [--tenant-name <tenant-name>]
```

Grants a new role to a new user on a new tenant, after creating each.

Arguments

--user-name <user-name>

The name of the user to be created (default="admin").

--pass <password>

The password for the new user.

--role-name <role-name>

The name of the role to be created and granted to the user (default="admin").

--tenant-name <tenant-name>

The name of the tenant to be created (default="admin").

4. keystone catalog

```
usage: keystone catalog [--service <service-type>]
```

List service catalog, possibly filtered by service.

Arguments

--service <service-type>

Service type to return.

5. keystone discover

■

```
usage: keystone discover
```

Discover Keystone servers, supported API versions and extensions.

6. keystone ec2-credentials-create

```
usage: keystone ec2-credentials-create [--user-id <user-id>] [--tenant-id <tenant-id>]
```

Create EC2-compatible credentials for user per tenant.

Arguments

--user-id <user-id>

User ID for which to create credentials. If not specified, the authenticated user will be used.

--tenant-id <tenant-id>

Tenant ID for which to create credentials. If not specified, the authenticated tenant ID will be used.

7. keystone ec2-credentials-delete

```
usage: keystone ec2-credentials-delete [--user-id <user-id>] --access <access-key>
```

Delete EC2-compatible credentials.

Arguments

--user-id <user-id>

User ID.

--access <access-key>

Access Key.

8. keystone ec2-credentials-get

```
usage: keystone ec2-credentials-get [--user-id <user-id>] --access <access-key>
```

Display EC2-compatible credentials.

Arguments

--user-id <user-id>

User ID.

--access <access-key>

Access Key.

9. keystone ec2-credentials-list

```
usage: keystone ec2-credentials-list [--user-id <user-id>]
```

List EC2-compatible credentials for a user.

Arguments

--user-id <user-id>

User ID.

10. keystone endpoint-create

```
usage: keystone endpoint-create [--region <endpoint-region>] --
service <service> --publicurl <public-url> [--adminurl <admin-url>]
[--internalurl <internal-url>]
```

Create a new endpoint associated with a service.

Arguments

--region <endpoint-region>

Endpoint region.

--service <service>, --service-id <service>, --service_id <service>

Name or ID of service associated with endpoint.

--publicurl <public-url>

Public URL endpoint.

--adminurl <admin-url>

Admin URL endpoint.

--internalurl <internal-url>

Internal URL endpoint.

11. keystone endpoint-delete

```
usage: keystone endpoint-delete <endpoint-id>
```

Delete a service endpoint.

Arguments

<endpoint-id>

ID of endpoint to delete.

12. keystone endpoint-get

```
usage: keystone endpoint-get --service <service-type> [--endpoint-  
type <endpoint-type>] [--attr <service-attribute>] [--value <value>]
```

Find endpoint filtered by a specific attribute or service type.

Arguments

--service <service-type>

Service type to select.

--endpoint-type <endpoint-type>

Endpoint type to select.

--attr <service-attribute>

Service attribute to match for selection.

--value <value>

Value of attribute to match.

13. keystone endpoint-list

```
usage: keystone endpoint-list
```

List configured service endpoints.

14. keystone password-update

```
usage: keystone password-update [--current-password <current-  
password>] [--new-password <new-password>]
```

Update own password.

Arguments

--current-password <current-password>

Current password, Defaults to the password as set by --os-password or **env[OS_PASSWORD]**.

--new-password <new-password>

Desired new password.

15. keystone role-create

```
usage: keystone role-create --name <role-name>
```

Create new role.

Arguments

--name <role-name>

Name of new role.

16. keystone role-delete

```
usage: keystone role-delete <role>
```

Delete role.

Arguments

<role>

Name or ID of role to delete.

17. keystone role-get

```
usage: keystone role-get <role>
```

Display role details.

Arguments

<role>

Name or ID of role to display.

18. keystone role-list

```
usage: keystone role-list
```

List all roles.

19. keystone service-create

```
usage: keystone service-create --name <name> --type <type> [--  
description <service-description>]
```

Add service to Service Catalog.

Arguments

--name <name>

Name of new service (must be unique).

--type <type>

Service type (one of: identity, compute, network, image, object-store, or other service identifier string).

--description <service-description>

Description of service.

20. keystone service-delete

usage: keystone service-delete <service>

Delete service from Service Catalog.

Arguments

<service>

Name or ID of service to delete.

21. keystone service-get

usage: keystone service-get <service>

Display service from Service Catalog.

Arguments

<service>

Name or ID of service to display.

22. keystone service-list

usage: keystone service-list

List all services in Service Catalog.

23. keystone tenant-create

usage: keystone tenant-create --name <tenant-name> [--description <tenant-description>] [--enabled <true|false>]

Create new tenant.

Arguments

--name <tenant-name>

New tenant name (must be unique).

--description <tenant-description>

Description of new tenant. Default is none.

--enabled <true|false>

Initial tenant enabled status. Default is true.

24. keystone tenant-delete

usage: keystone tenant-delete <tenant>

Delete tenant.

Arguments

<tenant>

Name or ID of tenant to delete.

25. keystone tenant-get

usage: keystone tenant-get <tenant>

Display tenant details.

Arguments

<tenant>

Name or ID of tenant to display.

26. keystone tenant-list

usage: keystone tenant-list

List all tenants.

27. keystone tenant-update

usage: keystone tenant-update [--name <tenant_name>] [--description <tenant-description>] [--enabled <true|false>] <tenant>

Update tenant name, description, enabled status.

Arguments

--name <tenant_name>

Desired new name of tenant.

--description <tenant-description>

Desired new description of tenant.

--enabled <true|false>

Enable or disable tenant.

<tenant>

Name or ID of tenant to update.

28. keystone token-get

usage: keystone token-get [--wrap <integer>]

Display the current user token.

Arguments

--wrap <integer>

Wrap PKI tokens to a specified length, or 0 to disable.

29. keystone user-create

usage: keystone user-create --name <user-name> [--tenant <tenant>]
[--pass [<pass>]] [--email <email>] [--enabled <true|false>]

Create new user.

Arguments

--name <user-name>

New user name (must be unique).

--tenant <tenant>, --tenant-id <tenant>

New user default tenant.

--pass [<pass>]

New user password; required for some auth backends.

--email <email>

New user email address.

--enabled <true|false>

Initial user enabled status. Default is true.

30. keystone user-delete

```
usage: keystone user-delete <user>
```

Delete user.

Arguments

<user>

Name or ID of user to delete.

31. keystone user-get

```
usage: keystone user-get <user>
```

Display user details.

Arguments

<user>

Name or ID of user to display.

32. keystone user-list

```
usage: keystone user-list [--tenant <tenant>]
```

List users.

Arguments

--tenant <tenant>, **--tenant-id <tenant>**

Tenant; lists all users if not specified.

33. keystone user-password-update

```
usage: keystone user-password-update [--pass <password>] <user>
```

Update user password.

Arguments

--pass <password>

Desired new password.

<user>

Name or ID of user to update password.

34. keystone user-role-add

```
usage: keystone user-role-add --user <user> --role <role> [--tenant <tenant>]
```

Add role to user.

Arguments

--user <user>, --user-id <user>, --user_id <user>

Name or ID of user.

--role <role>, --role-id <role>, --role_id <role>

Name or ID of role.

--tenant <tenant>, --tenant-id <tenant>

Name or ID of tenant.

35. keystone user-role-list

```
usage: keystone user-role-list [--user <user>] [--tenant <tenant>]
```

List roles granted to a user.

Arguments

--user <user>, --user-id <user>

List roles granted to specified user.

--tenant <tenant>, --tenant-id <tenant>

List only roles granted on specified tenant.

36. keystone user-role-remove

```
usage: keystone user-role-remove --user <user> --role <role> [--tenant <tenant>]
```

Remove role from user.

Arguments

--user <user>, --user-id <user>, --user_id <user>

Name or ID of user.

--role <role>, --role-id <role>, --role_id <role>

Name or ID of role.

--tenant <tenant>, --tenant-id <tenant>

Name or ID of tenant.

37. keystone user-update

```
usage: keystone user-update [--name <user-name>] [--email <email>]
[--enabled <true|false>] <user>
```

Update user's name, email, and enabled status.

Arguments

--name <user-name>

Desired new user name.

--email <email>

Desired new email address.

--enabled <true|false>

Enable or disable user.

<user>

Name or ID of user to update.

Chapter 7. Image Service command-line client

The **glance** client is the command-line interface (CLI) for the OpenStack Image Service API and its extensions. This chapter documents **glance** version **0.14.1**.

For help on a specific **glance** command, enter:

```
$ glance help COMMAND
```

1. glance usage

```
usage: glance [--version] [-d] [-v] [--get-schema] [--timeout
TIMEOUT] [--no-ssl-compression] [-f] [--os-image-url OS_IMAGE_URL] [-
-os-image-api-version OS_IMAGE_API_VERSION] [--profile HMAC_KEY] [-
k] [--os-cert OS_CERT] [--cert-file OS_CERT] [--os-key OS_KEY] [--
key-file OS_KEY] [--os-cacert <ca-certificate-file>] [--ca-file
OS_CACERT] [--os-username OS_USERNAME] [--os-user-id OS_USER_ID] [--
os-user-domain-id OS_USER_DOMAIN_ID] [--os-user-domain-name
OS_USER_DOMAIN_NAME] [--os-project-id OS_PROJECT_ID] [--os-project-
name OS_PROJECT_NAME] [--os-project-domain-id OS_PROJECT_DOMAIN_ID]
[--os-project-domain-name OS_PROJECT_DOMAIN_NAME] [--os-password
OS_PASSWORD] [--os-tenant-id OS_TENANT_ID] [--os-tenant-name
OS_TENANT_NAME] [--os-auth-url OS_AUTH_URL] [--os-region-name
OS_REGION_NAME] [--os-auth-token OS_AUTH_TOKEN] [--os-service-type
OS_SERVICE_TYPE] [--os-endpoint-type OS_ENDPOINT_TYPE] <subcommand>
...
```

Subcommands

image-create

Create a new image.

image-delete

Delete specified image(s).

image-download

Download a specific image.

image-list

List images you can access.

image-show

Describe a specific image.

image-update

Update a specific image.

member-create

Share a specific image with a tenant.

member-delete

Remove a shared image from a tenant.

member-list

Describe sharing permissions by image or tenant.

help

Display help about this program or one of its subcommands.

2. glance optional arguments**--version**

show program's version number and exit

-d, --debug

Defaults to `env[GLANCECLIENT_DEBUG]`.

-v, --verbose

Print more verbose output

--get-schema

Ignores cached copy and forces retrieval of schema that generates portions of the help text. Ignored with API version 1.

--timeout TIMEOUT

Number of seconds to wait for a response

--no-ssl-compression

Disable SSL compression when using https.

-f, --force

Prevent select actions from requesting user confirmation.

--os-image-url OS_IMAGE_URL

Defaults to `env[OS_IMAGE_URL]`.

--os-image-api-version OS_IMAGE_API_VERSION

Defaults to `env[OS_IMAGE_API_VERSION]` or 1.

--profile HMAC_KEY HMAC

key to use for encrypting context data for performance profiling of operation. This key should be the value of HMAC key configured in osprofiler middleware in glance, it is specified in paste configuration file at `/etc/glance/api-paste.ini` and `/etc/glance/registry-paste.ini`. Without key the profiling will not be triggered even if osprofiler is enabled on server side.

-k, --insecure

Explicitly allow glanceclient to perform "insecure SSL" (https) requests. The server's certificate will not be verified against any certificate authorities. This option should be used with caution.

--os-cert OS_CERT

Path of certificate file to use in SSL connection. This file can optionally be prepended with the private key.

--cert-file OS_CERT

DEPRECATED! Use --os-cert.

--os-key OS_KEY

Path of client key to use in SSL connection. This option is not necessary if your key is prepended to your cert file.

--key-file OS_KEY

DEPRECATED! Use --os-key.

--os-cacert <ca-certificate-file>

Path of CA TLS certificate(s) used to verify the remote server's certificate. Without this option glance looks for the default system CA certificates.

--ca-file OS_CACERT

DEPRECATED! Use --os-cacert.

--os-username OS_USERNAME

Defaults to `env[OS_USERNAME]`.

--os-user-id OS_USER_ID

Defaults to `env[OS_USER_ID]`.

--os-user-domain-id OS_USER_DOMAIN_ID

Defaults to `env[OS_USER_DOMAIN_ID]`.

--os-user-domain-name OS_USER_DOMAIN_NAME

Defaults to `env[OS_USER_DOMAIN_NAME]`.

--os-project-id OS_PROJECT_ID

Another way to specify tenant ID. This option is mutually exclusive with --os-tenant-id. Defaults to `env[OS_PROJECT_ID]`.

--os-project-name OS_PROJECT_NAME

Another way to specify tenant name. This option is mutually exclusive with --os-tenant-name. Defaults to `env[OS_PROJECT_NAME]`.

--os-project-domain-id OS_PROJECT_DOMAIN_ID

Defaults to `env[OS_PROJECT_DOMAIN_ID]`.

--os-project-domain-name OS_PROJECT_DOMAIN_NAME

Defaults to `env[OS_PROJECT_DOMAIN_NAME]`.

--os-password OS_PASSWORD

Defaults to `env[OS_PASSWORD]`.

--os-tenant-id OS_TENANT_ID

Defaults to `env[OS_TENANT_ID]`.

--os-tenant-name OS_TENANT_NAME

Defaults to `env[OS_TENANT_NAME]`.

--os-auth-url OS_AUTH_URL

Defaults to `env[OS_AUTH_URL]`.

--os-region-name OS_REGION_NAME

Defaults to `env[OS_REGION_NAME]`.

--os-auth-token OS_AUTH_TOKEN

Defaults to `env[OS_AUTH_TOKEN]`.

--os-service-type OS_SERVICE_TYPE

Defaults to `env[OS_SERVICE_TYPE]`.

--os-endpoint-type OS_ENDPOINT_TYPE

Defaults to `env[OS_ENDPOINT_TYPE]`.

3. Image Service API v1 commands

3.1. glance image-create

```
usage: glance image-create [--id <IMAGE_ID>] [--name <NAME>] [--store <STORE>] [--disk-format <DISK_FORMAT>] [--container-format <CONTAINER_FORMAT>] [--owner <TENANT_ID>] [--size <SIZE>] [--min-disk <DISK_GB>] [--min-ram <DISK_RAM>] [--location <IMAGE_URL>] [--file <FILE>] [--checksum <CHECKSUM>] [--copy-from <IMAGE_URL>] [--is-public {True,False}] [--is-protected {True,False}] [--property <key=value>] [--human-readable] [--progress]
```

Create a new image.

Optional arguments

--id <IMAGE_ID> ID

of image to reserve.

--name <NAME>

Name of image.

--store <STORE>

Store to upload image to.

--disk-format <DISK_FORMAT>

Disk format of image. Acceptable formats: ami, ari, aki, vhd, vmdk, raw, qcow2, vdi, and iso.

--container-format <CONTAINER_FORMAT>

Container format of image. Acceptable formats: ami, ari, aki, bare, and ovf.

--owner <TENANT_ID>

Tenant who should own image.

--size <SIZE>

Size of image data (in bytes). Only used with '--location' and '--copy_from'.

--min-disk <DISK_GB>

Minimum size of disk needed to boot image (in gigabytes).

--min-ram <DISK_RAM>

Minimum amount of ram needed to boot image (in megabytes).

--location <IMAGE_URL>

URL where the data for this image already resides. For example, if the image data is stored in swift, you could specify 'swift+http://tenant%3Aaccount:key@auth_url/v2.0/container/obj'. (Note: '%3A' is ':' URL encoded.)

--file <FILE>

Local file that contains disk image to be uploaded during creation. Alternatively, images can be passed to the client via stdin.

--checksum <CHECKSUM>

Hash of image data used Glance can use for verification. Provide a md5 checksum here.

--copy-from <IMAGE_URL>

Similar to '--location' in usage, but this indicates that the Glance server should immediately copy the data and store it in its configured image store.

--is-public {True,False}

Make image accessible to the public.

--is-protected {True,False}

Prevent image from being deleted.

--property <key=value>

Arbitrary property to associate with image. May be used multiple times.

--human-readable

Print image size in a human-friendly format.

--progress

Show upload progress bar.

3.2. glance image-delete

```
usage: glance image-delete <IMAGE> [<IMAGE> ...]
```

Delete specified image(s).

Positional arguments

<IMAGE>

Name or ID of image(s) to delete.

3.3. glance image-list

```
usage: glance image-list [--name <NAME>] [--status <STATUS>] [--
container-format <CONTAINER_FORMAT>] [--disk-format <DISK_FORMAT>]
[--size-min <SIZE>] [--size-max <SIZE>] [--property-filter
<KEY=VALUE>] [--page-size <SIZE>] [--human-readable] [--sort-key
{name,status,container_format,disk_format,size,id,created_at,updated
_at}] [--sort-dir {asc,desc}] [--is-public {True,False}] [--owner
<TENANT_ID>] [--all-tenants]
```

List images you can access.

Optional arguments

--name <NAME>

Filter images to those that have this name.

--status <STATUS>

Filter images to those that have this status.

--container-format <CONTAINER_FORMAT>

Filter images to those that have this container format. Acceptable formats: ami, ari, aki, bare, and ovf.

--disk-format <DISK_FORMAT>

Filter images to those that have this disk format. Acceptable formats: ami, ari, aki, vhd, vmdk, raw, qcow2, vdi, and iso.

--size-min <SIZE>

Filter images to those with a size greater than this.

--size-max <SIZE>

Filter images to those with a size less than this.

--property-filter <KEY=VALUE>

Filter images by a user-defined image property.

--page-size <SIZE>

Number of images to request in each paginated request.

--human-readable

Print image size in a human-friendly format.

--sort-key

{name,status,container_format,disk_format,size,id,created_at,updated_at}

Sort image list by specified field.

--sort-dir {asc,desc}

Sort image list in specified direction.

--is-public {True,False}

Allows the user to select a listing of public or non public images.

--owner <TENANT_ID>

Display only images owned by this tenant id. Filtering occurs on the client side so may be inefficient. This option is mainly intended for admin use. Use an empty string ("") to list images with no owner. Note: This option overrides the --is-public argument if present. Note: the v2 API supports more efficient server-side owner based filtering.

--all-tenants

Allows the admin user to list all images irrespective of the image's owner or is_public value.

3.4. glance image-show

```
usage: glance image-show [--human-readable] [--max-column-width
<integer>] <IMAGE>
```

Describe a specific image.

Positional arguments**<IMAGE>**

Name or ID of image to describe.

Optional arguments**--human-readable**

Print image size in a human-friendly format.

--max-column-width <integer>

The max column width of the printed table.

3.5. glance image-update

```
usage: glance image-update [--name <NAME>] [--disk-format
<DISK_FORMAT>] [--container-format <CONTAINER_FORMAT>] [--owner
<TENANT_ID>] [--size <SIZE>] [--min-disk <DISK_GB>] [--min-ram
<DISK_RAM>] [--location <IMAGE_URL>] [--file <FILE>] [--checksum
<CHECKSUM>] [--copy-from <IMAGE_URL>] [--is-public {True,False}] [--
is-protected {True,False}] [--property <key=value>] [--purge-props]
[--human-readable] [--progress] <IMAGE>
```

Update a specific image.

Positional arguments

<IMAGE>

Name or ID of image to modify.

Optional arguments

--name <NAME>

Name of image.

--disk-format <DISK_FORMAT>

Disk format of image. Acceptable formats: ami, ari, aki, vhd, vmdk, raw, qcow2, vdi, and iso.

--container-format <CONTAINER_FORMAT>

Container format of image. Acceptable formats: ami, ari, aki, bare, and ovf.

--owner <TENANT_ID>

Tenant who should own image.

--size <SIZE>

Size of image data (in bytes).

--min-disk <DISK_GB>

Minimum size of disk needed to boot image (in gigabytes).

--min-ram <DISK_RAM>

Minimum amount of ram needed to boot image (in megabytes).

--location <IMAGE_URL>

URL where the data for this image already resides. For example, if the image data is stored in swift, you could specify 'swift+http://tenant%3Aaccount:key@auth_url/v2.0/container/obj'. (Note: '%3A' is ':' URL encoded.)

--file <FILE>

Local file that contains disk image to be uploaded during update. Alternatively, images can be passed to the client via stdin.

--checksum <CHECKSUM>

Hash of image data used Glance can use for verification.

--copy-from <IMAGE_URL>

Similar to '--location' in usage, but this indicates that the Glance server should immediately copy the data and store it in its configured image store.

--is-public {True,False}

Make image accessible to the public.

--is-protected {True,False}

Prevent image from being deleted.

--property <key=value>

Arbitrary property to associate with image. May be used multiple times.

--purge-props

If this flag is present, delete all image properties not explicitly set in the update request. Otherwise, those properties not referenced are preserved.

--human-readable

Print image size in a human-friendly format.

--progress

Show upload progress bar.

3.6. glance member-create

```
usage: glance member-create [--can-share] <IMAGE> <TENANT_ID>
```

Share a specific image with a tenant.

Positional arguments

<IMAGE>

Image to add member to.

<TENANT_ID>

Tenant to add as member

Optional arguments

--can-share

Allow the specified tenant to share this image.

3.7. glance member-delete

```
usage: glance member-delete <IMAGE> <TENANT_ID>
```

- Remove a shared image from a tenant.

Positional arguments

<IMAGE>

Image from which to remove member.

<TENANT_ID>

Tenant to remove as member.

3.8. glance member-list

```
usage: glance member-list [--image-id <IMAGE_ID>] [--tenant-id <TENANT_ID>]
```

Describe sharing permissions by image or tenant.

Optional arguments

--image-id <IMAGE_ID>

Filter results by an image ID.

--tenant-id <TENANT_ID>

Filter results by a tenant ID.

4. Image Service API v2 commands

You can select an API version to use by adding the **--os-image-api-version** option or by setting the corresponding environment variable:

```
$ export OS_IMAGE_API_VERSION=2
```

4.1. glance explain (v2)

```
usage: glance --os-image-api-version 2 explain <MODEL>
```

Describe a specific model.

Positional arguments

<MODEL>

Name of model to describe.

4.2. glance image-create (v2)

```
usage: glance --os-image-api-version 2 image-create [--property <key=value>] <unavailable>
```

Create a new image.

Positional arguments

<unavailable>

Please run with connection parameters set to retrieve the schema for generating help for this command

Optional arguments

--property <key=value>

Arbitrary property to associate with image. May be used multiple times.

4.3. glance image-delete (v2)

```
usage: glance --os-image-api-version 2 image-delete <IMAGE_ID>
```

Delete specified image.

Positional arguments

<IMAGE_ID>

ID of image to delete.

4.4. glance image-download (v2)

```
usage: glance --os-image-api-version 2 image-download [--file <FILE>] [--progress] <IMAGE_ID>
```

Download a specific image.

Positional arguments

<IMAGE_ID>

ID of image to download.

Optional arguments

--file <FILE>

Local file to save downloaded image data to. If this is not specified the image data will be written to stdout.

--progress

Show download progress bar.

4.5. glance image-list (v2)

```
usage: glance --os-image-api-version 2 image-list [--page-size
<SIZE>] [--visibility <VISIBILITY>] [--member-status
<MEMBER_STATUS>] [--owner <OWNER>] [--checksum <CHECKSUM>] [--tag
<TAG>]
```

List images you can access.

Optional arguments

--page-size <SIZE>

Number of images to request in each paginated request.

--visibility <VISIBILITY>

The visibility of the images to display.

--member-status <MEMBER_STATUS>

The status of images to display.

--owner <OWNER>

Display images owned by <OWNER>.

--checksum <CHECKSUM>

Displays images that match the checksum.

--tag <TAG>

Filter images by a user-defined tag.

4.6. glance image-show (v2)

```
usage: glance --os-image-api-version 2 image-show [--max-column-
width <integer>] <IMAGE_ID>
```

Describe a specific image.

Positional arguments

<IMAGE_ID>

ID of image to describe.

Optional arguments

--max-column-width <integer>

The max column width of the printed table.

4.7. glance image-tag-delete (v2)

```
usage: glance --os-image-api-version 2 image-tag-delete <IMAGE_ID>
<TAG_VALUE>
```

Delete the tag associated with the given image.

Positional arguments

<IMAGE_ID>

ID of the image from which to delete tag.

<TAG_VALUE>

Value of the tag.

4.8. glance image-tag-update (v2)

```
usage: glance --os-image-api-version 2 image-tag-update <IMAGE_ID>
<TAG_VALUE>
```

Update an image with the given tag.

Positional arguments

<IMAGE_ID>

Image to be updated with the given tag.

<TAG_VALUE>

Value of the tag.

4.9. glance image-update (v2)

```
usage: glance --os-image-api-version 2 image-update [--property
<key=value>] [--remove-property key] <IMAGE_ID> <unavailable>
```

Update an existing image.

Positional arguments

<IMAGE_ID>

ID of image to update.

<unavailable>

Please run with connection parameters set to retrieve the schema for generating help for this command

Optional arguments

--property <key=value>

Arbitrary property to associate with image. May be used multiple times.

--remove-property

key Name of arbitrary property to remove from the image.

4.10. glance image-upload (v2)

```
usage: glance --os-image-api-version 2 image-upload [--file <FILE>]
       [--size <IMAGE_SIZE>] [--progress] <IMAGE_ID>
```

Upload data for a specific image.

Positional arguments**<IMAGE_ID>**

ID of image to upload data to.

Optional arguments**--file <FILE>**

Local file that contains disk image to be uploaded. Alternatively, images can be passed to the client via stdin.

--size <IMAGE_SIZE>

Size in bytes of image to be uploaded. Default is to get size from provided data object but this is supported in case where size cannot be inferred.

--progress

Show upload progress bar.

4.11. glance member-create (v2)

```
usage: glance --os-image-api-version 2 member-create <IMAGE_ID>
       <MEMBER_ID>
```

Create member for a given image.

Positional arguments**<IMAGE_ID>**

Image with which to create member.

<MEMBER_ID>

Tenant to add as member.

4.12. glance member-delete (v2)

```
usage: glance --os-image-api-version 2 member-delete <IMAGE_ID>
       <MEMBER_ID>
```

Delete image member.

Positional arguments

<IMAGE_ID>

Image from which to remove member.

<MEMBER_ID>

Tenant to remove as member.

4.13. glance member-list (v2)

```
usage: glance --os-image-api-version 2 member-list --image-id  
<IMAGE_ID>
```

Describe sharing permissions by image.

Optional arguments

--image-id <IMAGE_ID>

Image to display members of.

4.14. glance member-update (v2)

```
usage: glance --os-image-api-version 2 member-update <IMAGE_ID>  
<MEMBER_ID> <MEMBER_STATUS>
```

Update the status of a member for a given image.

Positional arguments

<IMAGE_ID>

Image from which to update member.

<MEMBER_ID>

Tenant to update.

<MEMBER_STATUS>

Updated status of member.

Chapter 8. Image Service property keys

The following keys, together with the components to which they are specific, can be used with the **property** option for both the **glance image-update** and **glance image-create** commands. For example:

```
$ glance image-update IMG-UUID --property architecture=x86_64
```

Note

Behavior set using image properties overrides behavior set using flavors. For more information, refer to the *Red Hat Enterprise Linux OpenStack Platform Cloud Admin Guide*.

Table 8.1. Property keys

Specific to	Key	Description	Supported values
All	architecture	The CPU architecture that must be supported by the hypervisor. For example, x86_64 , arm , or ppc64 . Run uname -m to get the architecture of a machine. We strongly recommend using the architecture data vocabulary defined by the libosinfo project for this purpose.	<ul style="list-style-type: none"> ✦ alpha—DEC 64-bit RISC ✦ armv71—ARM Cortex-A7 MPCore ✦ cris—Ethernet, Token Ring, AXis—Code Reduced Instruction Set ✦ i686—Intel sixth-generation x86 (P6 micro architecture) ✦ ia64—Itanium ✦ lm32—Lattice Micro32 ✦ m68k—Motorola 68000 ✦ microblaze—Xilinx 32-bit FPGA (Big Endian) ✦ microblazeel—Xilinx 32-bit FPGA (Little Endian) ✦ mips—MIPS 32-bit RISC (Big Endian) ✦ mipsel—MIPS 32-bit RISC (Little Endian) ✦ mips64—MIPS 64-bit RISC (Big Endian) ✦ mips64el—MIPS 64-bit RISC (Little Endian)

Specific to	Key	Description	Supported values
			<ul style="list-style-type: none"> ✦ openrisc—OpenCores RISC ✦ parisc—HP Precision Architecture RISC ✦ parisc64—HP Precision Architecture 64-bit RISC ✦ ppc—PowerPC 32-bit ✦ ppc64—PowerPC 64-bit ✦ ppcemb—PowerPC (Embedded 32-bit) ✦ s390—IBM Enterprise Systems Architecture/390 ✦ s390x—S/390 64-bit ✦ sh4—SuperH SH-4 (Little Endian) ✦ sh4eb—SuperH SH-4 (Big Endian) ✦ sparc—Scalable Processor Architecture, 32-bit ✦ sparc64—Scalable Processor Architecture, 64-bit ✦ unicore32—Microprocessor Research and Development Center RISC Unicore32 ✦ x86_64—64-bit extension of IA-32 ✦ xtensa—Tensilica Xtensa configurable microprocessor core ✦ xtensaeb—Tensilica Xtensa configurable microprocessor core (Big Endian)
All	hypervisor_type	The hypervisor type.	xen , qemu , kvm , lxc , uml , vmware , or hyperv
All	instance_uuid	For snapshot images, this is the UUID of the server used to create this image.	Valid server UUID
All	kernel_id	The ID of an image stored in the Image Service that should be used as the kernel when booting an AMI-style image.	Valid image ID

All Specific to	os, distro Key	Description	Supported values
		<p>The common name of the operating system distribution in lowercase (uses the same data vocabulary as the libosinfo project). Specify only a recognized value for this field. Deprecated values are listed to assist you in searching for the recognized value.</p>	<ul style="list-style-type: none"> ✦ arch—Arch Linux. Do not use archlinux or org.archlinux ✦ centos—Community Enterprise Operating System. Do not use org.centos or CentOS ✦ debian—Debian. Do not use Debian or org.debian ✦ fedora—Fedora. Do not use Fedora, org.fedora, or org.fedoraproject ✦ freebsd—FreeBSD. Do not use org.freebsd, freeBSD, or FreeBSD ✦ gentoo—Gentoo Linux. Do not use Gentoo or org.gentoo ✦ mandrake—Mandrakelinux (MandrakeSoft) distribution. Do not use mandrakelinux or MandrakeLinux ✦ mandriva—Mandriva Linux. Do not use mandrivalinux ✦ mes—Mandriva Enterprise Server. Do not use mandrivaent or mandrivaES ✦ msdos—Microsoft Disc Operating System. Do not use ms-dos ✦ netbsd—NetBSD. Do not use NetBSD or org.netbsd ✦ netware—Novell NetWare. Do not use novell or NetWare ✦ openbsd—OpenBSD. Do not use OpenBSD or org.openbsd ✦ opensolaris—OpenSolaris. Do not use OpenSolaris or org.opensolaris

Specific to	Key	Description	Supported values
			<ul style="list-style-type: none"> ✦ opensuse—openSUSE. Do not use suse, SuSE, or org.opensuse ✦ rhel—Red Hat Enterprise Linux. Do not use redhat, RedHat, or com.redhat ✦ sled—SUSE Linux Enterprise Desktop. Do not use com.suse ✦ ubuntu—Ubuntu. Do not use Ubuntu, com.ubuntu, org.ubuntu, or canonical ✦ windows—Microsoft Windows. Do not use com.microsoft.server
All	os_version	The operating system version as specified by the distributor.	Version number (for example, "11.10")
All	ramdisk_id	The ID of image stored in the Image Service that should be used as the ramdisk when booting an AMI-style image.	Valid image ID
All	vm_mode	The virtual machine mode. This represents the host/guest ABI (application binary interface) used for the virtual machine.	<ul style="list-style-type: none"> ✦ hvm—Fully virtualized. This is the mode used by QEMU and KVM. ✦ xen—Xen 3.0 paravirtualized. ✦ uml—User Mode Linux paravirtualized. ✦ exe—Executables in containers. This is the mode used by LXC.
libvirt API driver	hw_disk_bus	Specifies the type of disk controller to attach disk devices to.	One of scsi , virtio , uml , xen , ide , or usb .

Specific to	Key	Description	Supported values
libvirt API driver	hw_rng_model	<p>Adds a random-number generator device to the image's instances. The cloud administrator can enable and control device behavior by configuring the instance's flavor. By default:</p> <ul style="list-style-type: none"> ➤ The generator device is disabled. ➤ <code>/dev/random</code> is used as the default entropy source. To specify a physical HW RNG device, use the following option in the <code>nova.conf</code> file: <pre>rng_dev_path=/dev/hwrng</pre>	virtio , or other supported device.
libvirt API driver	hw_machine_type	<p>Enables booting an ARM system using the specified machine type. By default, if an ARM image is used and its type is not specified, Compute uses vexpress-a15 (for ARMv7) or virt (for AArch64) machine types.</p>	Libvirt machine type. Valid types can be viewed by using the virsh capabilities command (machine types are displayed in the machine tag).
libvirt API driver	hw_scsi_model	<p>Enables the use of VirtIO SCSI (virtio-scsi) to provide block device access for compute instances; by default, instances use VirtIO Block (virtio-blk). VirtIO SCSI is a para-virtualized SCSI controller device that provides improved scalability and performance, and supports advanced SCSI hardware.</p>	virtio-scsi
libvirt API driver	hw_video_model	The video image driver used.	vga , cirrus , vmvga , xen , or qxl
libvirt API driver	hw_video_ram	<p>Maximum RAM for the video image. Used only if a hw_video:ram_max_mb value has been set in the flavor's extra_specs and that value is higher than the value set in hw_video_ram.</p>	Integer in MB (for example, '64')

Specific to	Key	Description	Supported values
libvirt API driver	hw_watchdog_action	Enables a virtual hardware watchdog device that carries out the specified action if the server hangs. The watchdog uses the i6300esb device (emulating a PCI Intel 6300ESB). If hw_watchdog_action is not specified, the watchdog is disabled.	<ul style="list-style-type: none"> ✦ disabled—(default) The device is not attached. Allows the user to disable the watchdog for the image, even if it has been enabled using the image's flavor. ✦ reset—Forcefully reset the guest. ✦ poweroff—Forcefully power off the guest. ✦ pause—Pause the guest. ✦ none—Only enable the watchdog; do nothing if the server hangs.
libvirt API driver	os_command_line	The kernel command line to be used by the libvirt driver, instead of the default. For linux containers (LXC), the value is used as arguments for initialization. This key is valid only for Amazon kernel, ramdisk, or machine images (aki, ari, or ami).	
libvirt API driver and VMware API driver	hw_vif_model	Specifies the model of virtual network interface device to use.	<p>The valid options depend on the configured hypervisor.</p> <ul style="list-style-type: none"> ✦ KVM and QEMU: e1000, ne2k_pci, pcnet, rtl8139, and virtio. ✦ VMware: e1000, e1000e, VirtualE1000, VirtualE1000e, VirtualPCNet32, VirtualSriovEthernetCard, and VirtualVmxnet. ✦ Xen: e1000, netfront, ne2k_pci, pcnet, and rtl8139.
VMware API driver	vmware_adapter_type	The virtual SCSI or IDE controller used by the hypervisor.	lsiLogic , busLogic , or ide

Specific to	Key	Description	Supported values
VMware API driver	vmware_ostype	A VMware GuestID which describes the operating system installed in the image. This value is passed to the hypervisor when creating a virtual machine. If not specified, the key defaults to otherGuest .	See thinkvirt.com .
VMware API driver	vmware_image_version	Currently unused.	1
XenAPI driver	auto_disk_config	If true, the root partition on the disk is automatically resized before the instance boots. This value is only taken into account by the Compute service when using a Xen-based hypervisor with the XenAPI driver. The Compute service will only attempt to resize if there is a single partition on the image, and only if the partition is in ext3 or ext4 format.	true false
XenAPI driver	os_type	The operating system installed on the image. The XenAPI driver contains logic that takes different actions depending on the value of the os_type parameter of the image. For example, for os_type=windows images, it creates a FAT32-based swap partition instead of a Linux swap partition, and it limits the injected host name to less than 16 characters.	linux or windows

Chapter 9. Networking command-line client

The **neutron** client is the command-line interface (CLI) for the OpenStack Networking API and its extensions. This chapter documents **neutron** version **2.3.9**.

For help on a specific **neutron** command, enter:

```
$ neutron help COMMAND
```

1. neutron usage

```
usage: neutron [--version] [-v] [-q] [-h] [-r NUM] [--os-service-type
<os-service-type>] [--os-endpoint-type <os-endpoint-type>] [--
service-type <service-type>] [--endpoint-type <endpoint-type>] [--
os-auth-strategy <auth-strategy>] [--os-auth-url <auth-url>] [--os-
tenant-name <auth-tenant-name> | --os-project-name <auth-project-
name>] [--os-tenant-id <auth-tenant-id> | --os-project-id <auth-
project-id>] [--os-username <auth-username>] [--os-user-id <auth-
user-id>] [--os-user-domain-id <auth-user-domain-id>] [--os-user-
domain-name <auth-user-domain-name>] [--os-project-domain-id <auth-
project-domain-id>] [--os-project-domain-name <auth-project-domain-
name>] [--os-cert <certificate>] [--os-cacert <ca-certificate>] [--
os-key <key>] [--os-password <auth-password>] [--os-region-name
<auth-region-name>] [--os-token <token>] [--http-timeout <seconds>]
[--os-url <url>] [--insecure]
```

2. neutron optional arguments

--version

show program's version number and exit

-v, --verbose, --debug

Increase verbosity of output and show tracebacks on errors. You can repeat this option.

-q, --quiet

Suppress output except warnings and errors.

-h, --help

Show this help message and exit.

-r NUM, --retries NUM

How many times the request to the Neutron server should be retried if it fails.

--os-service-type <os-service-type>

Defaults to `env[OS_NETWORK_SERVICE_TYPE]` or `network`.

--os-endpoint-type <os-endpoint-type>

Defaults to `env[OS_ENDPOINT_TYPE]` or `publicURL`.

--service-type <service-type>

DEPRECATED! Use --os-service-type.

--endpoint-type <endpoint-type>

DEPRECATED! Use --os-endpoint-type.

--os-auth-strategy <auth-strategy>

DEPRECATED! Only keystone is supported.

--os-auth-url <auth-url>

Authentication URL, defaults to **env[OS_AUTH_URL]**.

--os-tenant-name <auth-tenant-name>

Authentication tenant name, defaults to **env[OS_TENANT_NAME]**.

--os-project-name <auth-project-name>

Another way to specify tenant name. This option is mutually exclusive with --os-tenant-name. Defaults to **env[OS_PROJECT_NAME]**.

--os-tenant-id <auth-tenant-id>

Authentication tenant ID, defaults to **env[OS_TENANT_ID]**.

--os-project-id <auth-project-id>

Another way to specify tenant ID. This option is mutually exclusive with --os-tenant-id. Defaults to **env[OS_PROJECT_ID]**.

--os-username <auth-username>

Authentication username, defaults to **env[OS_USERNAME]**.

--os-user-id <auth-user-id>

Authentication user ID (Env: OS_USER_ID)

--os-user-domain-id <auth-user-domain-id>

OpenStack user domain ID. Defaults to **env[OS_USER_DOMAIN_ID]**.

--os-user-domain-name <auth-user-domain-name>

OpenStack user domain name. Defaults to **env[OS_USER_DOMAIN_NAME]**.

--os-project-domain-id <auth-project-domain-id>

Defaults to **env[OS_PROJECT_DOMAIN_ID]**.

--os-project-domain-name <auth-project-domain-name>

Defaults to **env[OS_PROJECT_DOMAIN_NAME]**.

--os-cert <certificate>

Path of certificate file to use in SSL connection. This file can optionally be prepended with the private key. Defaults to **env[OS_CERT]**.

--os-cacert <ca-certificate>

Specify a CA bundle file to use in verifying a TLS (https) server certificate. Defaults to `env[OS_CACERT]`.

--os-key <key>

Path of client key to use in SSL connection. This option is not necessary if your key is prepended to your certificate file. Defaults to `env[OS_KEY]`.

--os-password <auth-password>

Authentication password, defaults to `env[OS_PASSWORD]`.

--os-region-name <auth-region-name>

Authentication region name, defaults to `env[OS_REGION_NAME]`.

--os-token <token>

Authentication token, defaults to `env[OS_TOKEN]`.

--http-timeout <seconds>

Timeout in seconds to wait for an HTTP response. Defaults to `env[OS_NETWORK_TIMEOUT]` or None if not specified.

--os-url <url>

Defaults to `env[OS_URL]`.

--insecure

Explicitly allow neutronclient to perform "insecure" SSL (https) requests. The server's certificate will not be verified against any certificate authorities. This option should be used with caution.

3. neutron API v2.0 commands

agent-delete

Delete a given agent.

agent-list

List agents.

agent-show

Show information of a given agent.

agent-update

Update a given agent.

cisco-credential-create

Creates a credential.

cisco-credential-delete

Delete a given credential.

cisco-credential-list

List credentials that belong to a given tenant.

cisco-credential-show

Show information of a given credential.

cisco-network-profile-create

Creates a network profile.

cisco-network-profile-delete

Delete a given network profile.

cisco-network-profile-list

List network profiles that belong to a given tenant.

cisco-network-profile-show

Show information of a given network profile.

cisco-network-profile-update

Update network profile's information.

cisco-policy-profile-list

List policy profiles that belong to a given tenant.

cisco-policy-profile-show

Show information of a given policy profile.

cisco-policy-profile-update

Update policy profile's information.

complete

print bash completion command

dhcp-agent-list-hosting-net

List DHCP agents hosting a network.

dhcp-agent-network-add

Add a network to a DHCP agent.

dhcp-agent-network-remove

Remove a network from a DHCP agent.

ext-list

List all extensions.

ext-show

Show information of a given resource.

firewall-create

Create a firewall.

firewall-delete

Delete a given firewall.

firewall-list

List firewalls that belong to a given tenant.

firewall-policy-create

Create a firewall policy.

firewall-policy-delete

Delete a given firewall policy.

firewall-policy-insert-rule

Insert a rule into a given firewall policy.

firewall-policy-list

List firewall policies that belong to a given tenant.

firewall-policy-remove-rule

Remove a rule from a given firewall policy.

firewall-policy-show

Show information of a given firewall policy.

firewall-policy-update

Update a given firewall policy.

firewall-rule-create

Create a firewall rule.

firewall-rule-delete

Delete a given firewall rule.

firewall-rule-list

List firewall rules that belong to a given tenant.

firewall-rule-show

Show information of a given firewall rule.

firewall-rule-update

Update a given firewall rule.

firewall-show

Show information of a given firewall.

firewall-update

Update a given firewall.

floatingip-associate

Create a mapping between a floating IP and a fixed IP.

floatingip-create

Create a floating IP for a given tenant.

floatingip-delete

Delete a given floating IP.

floatingip-disassociate

Remove a mapping from a floating IP to a fixed IP.

floatingip-list

List floating IPs that belong to a given tenant.

floatingip-show

Show information of a given floating IP.

gateway-device-create

Create a network gateway device.

gateway-device-delete

Delete a given network gateway device.

gateway-device-list

List network gateway devices for a given tenant.

gateway-device-show

Show information for a given network gateway device.

gateway-device-update

Update a network gateway device.

help

print detailed help for another command

ipsec-site-connection-create

Create an IPsec site connection.

ipsec-site-connection-delete

Delete a given IPsec site connection.

ipsec-site-connection-list

List IPsec site connections that belong to a given tenant.

ipsec-site-connection-show

Show information of a given IPsec site connection.

ipsec-site-connection-update

Update a given IPsec site connection.

l3-agent-list-hosting-router

List L3 agents hosting a router.

l3-agent-router-add

Add a router to a L3 agent.

l3-agent-router-remove

Remove a router from a L3 agent.

lb-agent-hosting-pool

Get loadbalancer agent hosting a pool.

lb-healthmonitor-associate

Create a mapping between a health monitor and a pool.

lb-healthmonitor-create

Create a healthmonitor.

lb-healthmonitor-delete

Delete a given healthmonitor.

lb-healthmonitor-disassociate

Remove a mapping from a health monitor to a pool.

lb-healthmonitor-list

List healthmonitors that belong to a given tenant.

lb-healthmonitor-show

Show information of a given healthmonitor.

lb-healthmonitor-update

Update a given healthmonitor.

lb-member-create

Create a member.

lb-member-delete

Delete a given member.

lb-member-list

List members that belong to a given tenant.

lb-member-show

Show information of a given member.

lb-member-update

Update a given member.

lb-pool-create

Create a pool.

lb-pool-delete

Delete a given pool.

lb-pool-list

List pools that belong to a given tenant.

lb-pool-list-on-agent

List the pools on a loadbalancer agent.

lb-pool-show

Show information of a given pool.

lb-pool-stats

Retrieve stats for a given pool.

lb-pool-update

Update a given pool.

lb-vip-create

Create a vip.

lb-vip-delete

Delete a given vip.

lb-vip-list

List vips that belong to a given tenant.

lb-vip-show

Show information of a given vip.

lb-vip-update

Update a given vip.

meter-label-create

Create a metering label for a given tenant.

meter-label-delete

Delete a given metering label.

meter-label-list

List metering labels that belong to a given tenant.

meter-label-rule-create

Create a metering label rule for a given label.

meter-label-rule-delete

Delete a given metering label.

meter-label-rule-list

List metering labels that belong to a given label.

meter-label-rule-show

Show information of a given metering label rule.

meter-label-show

Show information of a given metering label.

nec-packet-filter-create

Create a packet filter for a given tenant.

nec-packet-filter-delete

Delete a given packet filter.

nec-packet-filter-list

List packet filters that belong to a given tenant.

nec-packet-filter-show

Show information of a given packet filter.

nec-packet-filter-update

Update packet filter's information.

net-create

Create a network for a given tenant.

net-delete

Delete a given network.

net-external-list

List external networks that belong to a given tenant.

net-gateway-connect

Add an internal network interface to a router.

net-gateway-create

Create a network gateway.

net-gateway-delete

Delete a given network gateway.

net-gateway-disconnect

Remove a network from a network gateway.

net-gateway-list

List network gateways for a given tenant.

net-gateway-show

Show information of a given network gateway.

net-gateway-update

Update the name for a network gateway.

net-list

List networks that belong to a given tenant.

net-list-on-dhcp-agent

List the networks on a DHCP agent.

net-show

Show information of a given network.

net-update

Update network's information.

nuage-netpartition-create

Create a netpartition for a given tenant.

nuage-netpartition-delete

Delete a given netpartition.

nuage-netpartition-list

List netpartitions that belong to a given tenant.

nuage-netpartition-show

Show information of a given netpartition.

port-create

Create a port for a given tenant.

port-delete

Delete a given port.

port-list

List ports that belong to a given tenant.

port-show

Show information of a given port.

port-update

Update port's information.

queue-create

Create a queue.

queue-delete

Delete a given queue.

queue-list

List queues that belong to a given tenant.

queue-show

Show information of a given queue.

quota-delete

Delete defined quotas of a given tenant.

quota-list

List quotas of all tenants who have non-default quota values.

quota-show

Show quotas of a given tenant.

quota-update

Define tenant's quotas not to use defaults.

router-create

Create a router for a given tenant.

router-delete

Delete a given router.

router-gateway-clear

Remove an external network gateway from a router.

router-gateway-set

Set the external network gateway for a router.

router-interface-add

Add an internal network interface to a router.

router-interface-delete

Remove an internal network interface from a router.

router-list

List routers that belong to a given tenant.

router-list-on-l3-agent

List the routers on a L3 agent.

router-port-list

List ports that belong to a given tenant, with specified router.

router-show

Show information of a given router.

router-update

Update router's information.

security-group-create

Create a security group.

security-group-delete

Delete a given security group.

security-group-list

List security groups that belong to a given tenant.

security-group-rule-create

Create a security group rule.

security-group-rule-delete

Delete a given security group rule.

security-group-rule-list

List security group rules that belong to a given tenant.

security-group-rule-show

Show information of a given security group rule.

security-group-show

Show information of a given security group.

security-group-update

Update a given security group.

service-provider-list

List service providers.

subnet-create

Create a subnet for a given tenant.

subnet-delete

Delete a given subnet.

subnet-list

List subnets that belong to a given tenant.

subnet-show

Show information of a given subnet.

subnet-update

Update subnet's information.

vpn-ikepolicy-create

Create an IKE policy.

vpn-ikepolicy-delete

Delete a given IKE policy.

vpn-ikepolicy-list

List IKE policies that belong to a tenant.

vpn-ikepolicy-show

Show information of a given IKE policy.

vpn-ikepolicy-update

Update a given IKE policy.

vpn-ipsecpolicy-create

Create an IPsec policy.

vpn-ipsecpolicy-delete

Delete a given IPsec policy.

vpn-ipsecpolicy-list

List ipsecpolicies that belongs to a given tenant connection.

vpn-ipsecpolicy-show

Show information of a given IPsec policy.

vpn-ipsecpolicy-update

Update a given IPsec policy.

vpn-service-create

Create a VPN service.

vpn-service-delete

Delete a given VPN service.

vpn-service-list

List VPN service configurations that belong to a given tenant.

vpn-service-show

Show information of a given VPN service.

vpn-service-update

Update a given VPN service.

4. neutron agent-delete

```
usage: neutron agent-delete [-h] [--request-format {json,xml}] AGENT
```

Delete a given agent.

Positional arguments**AGENT**

ID of agent to delete.

Optional arguments**-h, --help**

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

5. neutron agent-list

```
usage: neutron agent-list [-h] [-f {csv,table}] [-c COLUMN] [--max-width <integer>]
[--quote {all,minimal,none,nonnumeric}] [--request-format {json,xml}]
[-D] [-F FIELD] [--sort-key FIELD] [--sort-dir {asc,desc}]
```

List agents.

Optional arguments**-h, --help**

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

--sort-key FIELD

Sorts the list by the specified fields in the specified directions. You can repeat this option, but you must specify an equal number of `sort_dir` and `sort_key` values. Extra `sort_dir` options are ignored. Missing `sort_dir` options use the default `asc` value.

--sort-dir {asc,desc}

Sorts the list in the specified direction. You can repeat this option.

6. neutron agent-show

```
usage: neutron agent-show [-h] [-f {shell,table,value}] [-c COLUMN]
  [--max-width <integer>] [--prefix PREFIX] [--request-format
  {json,xml}] [-D] [-F FIELD] AGENT
```

Show information of a given agent.

Positional arguments

AGENT

ID of agent to look up.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

7. neutron agent-update

```
usage: neutron agent-update [-h] [--request-format {json,xml}] AGENT
```

Update a given agent.

Positional arguments

AGENT

ID or name of agent to update.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

8. neutron cisco-credential-create

```
usage: neutron cisco-credential-create [-h] [-f {shell,table,value}]
[-c COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-
format {json,xml}] [--tenant-id TENANT_ID] [--username USERNAME] [--
password PASSWORD] credential_name credential_type
```

Creates a credential.

Positional arguments

credential_name

Name/IP address for credential.

credential_type

Type of the credential.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--tenant-id TENANT_ID

The owner tenant ID.

--username USERNAME

Username for the credential.

--password PASSWORD

Password for the credential.

9. neutron cisco-credential-delete

```
usage: neutron cisco-credential-delete [-h] [--request-format
{json,xml}] CREDENTIAL
```

Delete a given credential.

Positional arguments

CREDENTIAL

ID of credential to delete.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

10. neutron cisco-credential-list

```
usage: neutron cisco-credential-list [-h] [-f {csv,table}] [-c
COLUMN] [--max-width <integer>] [--quote
{all,minimal,none,nonnumeric}] [--request-format {json,xml}] [-D] [-
F FIELD]
```

List credentials that belong to a given tenant.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

11. neutron cisco-credential-show

```
usage: neutron cisco-credential-show [-h] [-f {shell,table,value}]
[-c COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-
format {json,xml}] [-D] [-F FIELD] CREDENTIAL
```

Show information of a given credential.

Positional arguments

CREDENTIAL

ID of credential to look up.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

12. neutron cisco-network-profile-create

```
usage: neutron cisco-network-profile-create [-h] [-f
{shell,table,value}] [-c COLUMN] [--max-width <integer>] [--prefix
PREFIX] [--request-format {json,xml}] [--tenant-id TENANT_ID] [--
sub_type SUB_TYPE] [--segment_range SEGMENT_RANGE] [--
physical_network PHYSICAL_NETWORK] [--multicast_ip_range
MULTICAST_IP_RANGE] [--add-tenant ADD_TENANTS] name
{vlan,overlay,multi-segment,trunk}
```

Creates a network profile.

Positional arguments

name

Name for network profile.

{vlan,overlay,multi-segment,trunk}

Segment type.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--tenant-id TENANT_ID

The owner tenant ID.

--sub_type SUB_TYPE

Sub-type for the segment. Available sub-types for overlay segments: native, enhanced; For trunk segments: vlan, overlay.

--segment_range SEGMENT_RANGE

Range for the segment.

--physical_network PHYSICAL_NETWORK

Name for the physical network.

--multicast_ip_range MULTICAST_IP_RANGE

Multicast IPv4 range.

--add-tenant ADD_TENANTS

Add tenant to the network profile. You can repeat this option.

13. neutron cisco-network-profile-delete

```
usage: neutron cisco-network-profile-delete [-h] [--request-format
{json,xml}] NETWORK_PROFILE
```

Delete a given network profile.

Positional arguments

NETWORK_PROFILE

ID or name of network_profile to delete.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

14. neutron cisco-network-profile-list

```
usage: neutron cisco-network-profile-list [-h] [-f {csv,table}] [-c
COLUMN] [--max-width <integer>] [--quote
{all,minimal,none,nonnumeric}] [--request-format {json,xml}] [-D] [-
F FIELD]
```

List network profiles that belong to a given tenant.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

15. neutron cisco-network-profile-show

```
usage: neutron cisco-network-profile-show [-h] [-f
{shell,table,value}] [-c COLUMN] [--max-width <integer>] [--prefix
PREFIX] [--request-format {json,xml}] [-D] [-F FIELD] NETWORK_PROFILE
```

Show information of a given network profile.

Positional arguments

NETWORK_PROFILE

ID or name of network_profile to look up.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

16. neutron cisco-network-profile-update

```
usage: neutron cisco-network-profile-update [-h] [--request-format
{json,xml}] [--remove-tenant REMOVE_TENANTS] [--add-tenant
ADD_TENANTS] NETWORK_PROFILE
```

Update network profile's information.

Positional arguments

NETWORK_PROFILE

ID or name of network_profile to update.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--remove-tenant REMOVE_TENANTS

Remove tenant from the network profile. You can repeat this option.

--add-tenant ADD_TENANTS

Add tenant to the network profile. You can repeat this option.

17. neutron cisco-policy-profile-list

```
usage: neutron cisco-policy-profile-list [-h] [-f {csv,table}] [-c
COLUMN] [--max-width <integer>] [--quote
{all,minimal,none,nonnumeric}] [--request-format {json,xml}] [-D] [-
F FIELD]
```

List policy profiles that belong to a given tenant.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

18. neutron cisco-policy-profile-show

```
usage: neutron cisco-policy-profile-show [-h] [-f
{shell,table,value}] [-c COLUMN] [--max-width <integer>] [--prefix
PREFIX] [--request-format {json,xml}] [-D] [-F FIELD] POLICY_PROFILE
```

Show information of a given policy profile.

Positional arguments

POLICY_PROFILE

ID or name of policy_profile to look up.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

19. neutron cisco-policy-profile-update

```
usage: neutron cisco-policy-profile-update [-h] [--request-format
{json,xml}] POLICY_PROFILE
```

Update policy profile's information.

Positional arguments

POLICY_PROFILE

ID or name of policy_profile to update.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

20. neutron dhcp-agent-list-hosting-net

```
usage: neutron dhcp-agent-list-hosting-net [-h] [-f {csv,table}] [-c
COLUMN] [--max-width <integer>] [--quote
{all,minimal,none,nonnumeric}] [--request-format {json,xml}] [-D] [-
F FIELD] network
```

List DHCP agents hosting a network.

Positional arguments

network

Network to query.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

21. neutron dhcp-agent-network-add

```
usage: neutron dhcp-agent-network-add [-h] [--request-format {json,xml}] dhcp_agent network
```

Add a network to a DHCP agent.

Positional arguments

dhcp_agent

ID of the DHCP agent.

network

Network to add.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

22. neutron dhcp-agent-network-remove

```
usage: neutron dhcp-agent-network-remove [-h] [--request-format
{json,xml}] dhcp_agent network
```

Remove a network from a DHCP agent.

Positional arguments

dhcp_agent

ID of the DHCP agent.

network

Network to remove.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

23. neutron ext-list

```
usage: neutron ext-list [-h] [-f {csv,table}] [-c COLUMN] [--max-
width <integer>] [--quote {all,minimal,none,nonnumeric}] [--request-
format {json,xml}] [-D] [-F FIELD]
```

List all extensions.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

24. neutron ext-show

```
usage: neutron ext-show [-h] [-f {shell,table,value}] [-c COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format {json,xml}] [-D] [-F FIELD] EXTENSION
```

Show information of a given resource.

Positional arguments

EXTENSION

ID of extension to look up.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

25. neutron firewall-create

```
usage: neutron firewall-create [-h] [-f {shell,table,value}] [-c COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format {json,xml}] [--tenant-id TENANT_ID] [--name NAME] [--description DESCRIPTION] [--shared] [--admin-state-down] POLICY
```

Create a firewall.

Positional arguments

POLICY

Firewall policy name or ID.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--tenant-id TENANT_ID

The owner tenant ID.

--name NAME

Name for the firewall.

--description DESCRIPTION

Description for the firewall rule.

--shared

Set shared to True (default is False).

--admin-state-down

Set admin state up to false.

26. neutron firewall-delete

```
usage: neutron firewall-delete [-h] [--request-format {json,xml}]
FIREWALL
```

Delete a given firewall.

Positional arguments

FIREWALL

ID or name of firewall to delete.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

27. neutron firewall-list

```
usage: neutron firewall-list [-h] [-f {csv,table}] [-c COLUMN] [--
max-width <integer>] [--quote {all,minimal,none,nonnumeric}] [--
request-format {json,xml}] [-D] [-F FIELD] [-P SIZE] [--sort-key
FIELD] [--sort-dir {asc,desc}]
```

List firewalls that belong to a given tenant.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

-P SIZE, --page-size SIZE

Specify retrieve unit of each request, then split one request to several requests.

--sort-key FIELD

Sorts the list by the specified fields in the specified directions. You can repeat this option, but you must specify an equal number of `sort_dir` and `sort_key` values. Extra `sort_dir` options are ignored. Missing `sort_dir` options use the default `asc` value.

--sort-dir {asc,desc}

Sorts the list in the specified direction. You can repeat this option.

28. neutron firewall-policy-create

```
usage: neutron firewall-policy-create [-h] [-f {shell,table,value}]
[-c COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-
format {json,xml}] [--tenant-id TENANT_ID] [--description
DESCRIPTION] [--shared] [--firewall-rules FIREWALL_RULES] [--audited]
NAME
```

Create a firewall policy.

Positional arguments

NAME

Name for the firewall policy.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--tenant-id TENANT_ID

The owner tenant ID.

--description DESCRIPTION

Description for the firewall policy.

--shared

Create a shared policy.

--firewall-rules FIREWALL_RULES

Ordered list of whitespace-delimited firewall rule names or IDs; e.g., --firewall-rules "rule1 rule2"

--audited

Sets audited to True.

29. neutron firewall-policy-delete

```
usage: neutron firewall-policy-delete [-h] [--request-format
{json,xml}] FIREWALL_POLICY
```

Delete a given firewall policy.

Positional arguments

FIREWALL_POLICY

ID or name of firewall_policy to delete.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

30. neutron firewall-policy-insert-rule

```
usage: neutron firewall-policy-insert-rule [-h] [--request-format
{json,xml}] [--insert-before FIREWALL_RULE] [--insert-after
FIREWALL_RULE] FIREWALL_POLICY FIREWALL_RULE
```

Insert a rule into a given firewall policy.

Positional arguments

FIREWALL_POLICY

ID or name of firewall_policy to update.

FIREWALL_RULE

New rule to insert.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--insert-before FIREWALL_RULE

Insert before this rule.

--insert-after FIREWALL_RULE

Insert after this rule.

31. neutron firewall-policy-list

```
usage: neutron firewall-policy-list [-h] [-f {csv,table}] [-c COLUMN]
[--max-width <integer>] [--quote {all,minimal,none,nonnumeric}] [--
request-format {json,xml}] [-D] [-F FIELD] [-P SIZE] [--sort-key
FIELD] [--sort-dir {asc,desc}]
```

List firewall policies that belong to a given tenant.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

-P SIZE, --page-size SIZE

Specify retrieve unit of each request, then split one request to several requests.

--sort-key FIELDSorts the list by the specified fields in the specified directions. You can repeat this option, but you must specify an equal number of `sort_dir` and `sort_key` values. Extra `sort_dir` options are ignored. Missing `sort_dir` options use the default `asc` value.**--sort-dir {asc,desc}**

Sorts the list in the specified direction. You can repeat this option.

32. neutron firewall-policy-remove-rule

■

```
usage: neutron firewall-policy-remove-rule [-h] [--request-format
{json,xml}] FIREWALL_POLICY FIREWALL_RULE
```

Remove a rule from a given firewall policy.

Positional arguments

FIREWALL_POLICY

ID or name of firewall_policy to update.

FIREWALL_RULE

Firewall rule to remove from policy.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

33. neutron firewall-policy-show

```
usage: neutron firewall-policy-show [-h] [-f {shell,table,value}] [-c
COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-
format {json,xml}] [-D] [-F FIELD] FIREWALL_POLICY
```

Show information of a given firewall policy.

Positional arguments

FIREWALL_POLICY

ID or name of firewall_policy to look up.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

34. neutron firewall-policy-update

```
usage: neutron firewall-policy-update [-h] [--request-format
{json,xml}] FIREWALL_POLICY
```

Update a given firewall policy.

Positional arguments

FIREWALL_POLICY

ID or name of firewall_policy to update.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

35. neutron firewall-rule-create

```
usage: neutron firewall-rule-create [-h] [-f {shell,table,value}] [-c
COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-
format {json,xml}] [--tenant-id TENANT_ID] [--name NAME] [--
description DESCRIPTION] [--shared] [--source-ip-address
SOURCE_IP_ADDRESS] [--destination-ip-address DESTINATION_IP_ADDRESS]
[--source-port SOURCE_PORT] [--destination-port DESTINATION_PORT] [-
-enabled {True,False}] --protocol {tcp,udp,icmp,any} --action
{allow,deny}
```

Create a firewall rule.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--tenant-id TENANT_ID

The owner tenant ID.

--name NAME

Name for the firewall rule.

--description DESCRIPTION

Description for the firewall rule.

--shared

Set shared to True (default is False).

--source-ip-address SOURCE_IP_ADDRESS

Source IP address or subnet.

--destination-ip-address DESTINATION_IP_ADDRESS

Destination IP address or subnet.

--source-port SOURCE_PORT

Source port (integer in [1, 65535] or range in a:b).

--destination-port DESTINATION_PORT

Destination port (integer in [1, 65535] or range in a:b).

--enabled {True,False}

Whether to enable or disable this rule.

--protocol {tcp,udp,icmp,any}

Protocol for the firewall rule.

--action {allow,deny}

Action for the firewall rule.

36. neutron firewall-rule-delete

```
usage: neutron firewall-rule-delete [-h] [--request-format
{json,xml}] FIREWALL_RULE
```

Delete a given firewall rule.

Positional arguments

FIREWALL_RULE

ID or name of firewall_rule to delete.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

37. neutron firewall-rule-list

```
usage: neutron firewall-rule-list [-h] [-f {csv,table}] [-c COLUMN]
[--max-width <integer>] [--quote {all,minimal,none,nonnumeric}] [--
request-format {json,xml}] [-D] [-F FIELD] [-P SIZE] [--sort-key
FIELD] [--sort-dir {asc,desc}]
```

List firewall rules that belong to a given tenant.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

-P SIZE, --page-size SIZE

Specify retrieve unit of each request, then split one request to several requests.

--sort-key FIELD

Sorts the list by the specified fields in the specified directions. You can repeat this option, but you must specify an equal number of `sort_dir` and `sort_key` values. Extra `sort_dir` options are ignored. Missing `sort_dir` options use the default `asc` value.

--sort-dir {asc,desc}

Sorts the list in the specified direction. You can repeat this option.

38. neutron firewall-rule-show

```
usage: neutron firewall-rule-show [-h] [-f {shell,table,value}] [-c
COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format
{json,xml}] [-D] [-F FIELD] FIREWALL_RULE
```

Show information of a given firewall rule.

Positional arguments

FIREWALL_RULE

ID or name of `firewall_rule` to look up.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

39. neutron firewall-rule-update

```
usage: neutron firewall-rule-update [-h] [--request-format
{json,xml}] [--protocol {tcp,udp,icmp,any}] FIREWALL_RULE
```

Update a given firewall rule.

Positional arguments

FIREWALL_RULE

ID or name of firewall_rule to update.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--protocol {tcp,udp,icmp,any}

Protocol for the firewall rule.

40. neutron firewall-show

```
usage: neutron firewall-show [-h] [-f {shell,table,value}] [-c
COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format
{json,xml}] [-D] [-F FIELD] FIREWALL
```

Show information of a given firewall.

Positional arguments

FIREWALL

ID or name of firewall to look up.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

41. neutron firewall-update

```
usage: neutron firewall-update [-h] [--request-format {json,xml}] [-policy POLICY] FIREWALL
```

Update a given firewall.

Positional arguments

FIREWALL

ID or name of firewall to update.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--policy POLICY

Firewall policy name or ID.

42. neutron floatingip-associate

```
usage: neutron floatingip-associate [-h] [--request-format {json,xml}] [--fixed-ip-address FIXED_IP_ADDRESS] FLOATINGIP_ID PORT
```

Create a mapping between a floating IP and a fixed IP.

Positional arguments

FLOATINGIP_ID

ID of the floating IP to associate.

PORT

ID or name of the port to be associated with the floating IP.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--fixed-ip-address FIXED_IP_ADDRESS

IP address on the port (only required if port has multiple IPs).

43. neutron floatingip-create

```
usage: neutron floatingip-create [-h] [-f {shell,table,value}] [-c
COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format
{json,xml}] [--tenant-id TENANT_ID] [--port-id PORT_ID] [--fixed-ip-
address FIXED_IP_ADDRESS] FLOATING_NETWORK
```

Create a floating IP for a given tenant.

Positional arguments

FLOATING_NETWORK

Network name or ID to allocate floating IP from.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--tenant-id TENANT_ID

The owner tenant ID.

--port-id PORT_ID ID

of the port to be associated with the floating IP.

--fixed-ip-address FIXED_IP_ADDRESS

IP address on the port (only required if port has multiple IPs).

44. neutron floatinip-delete

44. neutron floatingip delete

```
usage: neutron floatingip-delete [-h] [--request-format {json,xml}]
    FLOATINGIP
```

Delete a given floating IP.

Positional arguments

FLOATINGIP

ID of floatingip to delete.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

45. neutron floatingip-disassociate

```
usage: neutron floatingip-disassociate [-h] [--request-format
    {json,xml}] FLOATINGIP_ID
```

Remove a mapping from a floating IP to a fixed IP.

Positional arguments

FLOATINGIP_ID

ID of the floating IP to disassociate.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

46. neutron floatingip-list

```
usage: neutron floatingip-list [-h] [-f {csv,table}] [-c COLUMN] [--
    max-width <integer>] [--quote {all,minimal,none,nonnumeric}] [--
    request-format {json,xml}] [-D] [-F FIELD] [-P SIZE] [--sort-key
    FIELD] [--sort-dir {asc,desc}]
```

List floating IPs that belong to a given tenant.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

-P SIZE, --page-size SIZE

Specify retrieve unit of each request, then split one request to several requests.

--sort-key FIELD

Sorts the list by the specified fields in the specified directions. You can repeat this option, but you must specify an equal number of `sort_dir` and `sort_key` values. Extra `sort_dir` options are ignored. Missing `sort_dir` options use the default `asc` value.

--sort-dir {asc,desc}

Sorts the list in the specified direction. You can repeat this option.

47. neutron floatingip-show

```
usage: neutron floatingip-show [-h] [-f {shell,table,value}] [-c
COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format
{json,xml}] [-D] [-F FIELD] FLOATINGIP
```

Show information of a given floating IP.

Positional arguments

FLOATINGIP

ID of floatingip to look up.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

48. neutron gateway-device-create

```
usage: neutron gateway-device-create [-h] [-f {shell,table,value}]
[-c COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-
format {json,xml}] [--tenant-id TENANT_ID] [--connector-type
{stt,gre,ipsecre,ipsecestt,bridge}] --connector-ip CONNECTOR_IP (--)
client-certificate CERT_DATA | --client-certificate-file CERT_FILE)
NAME
```

Create a network gateway device.

Positional arguments

NAME

Name of network gateway device to create.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--tenant-id TENANT_ID

The owner tenant ID.

--connector-type {stt,gre,ipsecre,ipsecestt,bridge}

Type of the transport zone connector to use for this device. Valid values are gre, stt, ipsecre, ipsecestt, and bridge. Defaults to stt.

--connector-ip CONNECTOR_IP

IP address for this device's transport connector. It must correspond to the IP address of the interface used for tenant traffic on the NSX gateway node.

--client-certificate CERT_DATA

PEM certificate used by the NSX gateway transport node to authenticate with the NSX controller.

--client-certificate-file CERT_FILE

File containing the PEM certificate used by the NSX gateway transport node to authenticate with the NSX controller.

49. neutron gateway-device-delete

```
usage: neutron gateway-device-delete [-h] [--request-format
{json,xml}] GATEWAY_DEVICE
```

Delete a given network gateway device.

Positional arguments

GATEWAY_DEVICE

ID or name of gateway_device to delete.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

50. neutron gateway-device-list

```
usage: neutron gateway-device-list [-h] [-f {csv,table}] [-c COLUMN]
[--max-width <integer>] [--quote {all,minimal,none,nonnumeric}] [--
request-format {json,xml}] [-D] [-F FIELD]
```

List network gateway devices for a given tenant.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

51. neutron gateway-device-show

```
usage: neutron gateway-device-show [-h] [-f {shell,table,value}] [-c
COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format
{json,xml}] [-D] [-F FIELD] GATEWAY_DEVICE
```

Show information for a given network gateway device.

Positional arguments

GATEWAY_DEVICE

ID or name of gateway_device to look up.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

52. neutron gateway-device-update

```
usage: neutron gateway-device-update [-h] [--request-format
{json,xml}] [--name NAME] [--connector-type
{stt,gre,ipsecre,ipsecestt,bridge}] [--connector-ip CONNECTOR_IP] [-
-client-certificate CERT_DATA | --client-certificate-file CERT_FILE]
GATEWAY_DEVICE
```

Update a network gateway device.

Positional arguments

GATEWAY_DEVICE

ID or name of gateway_device to update.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--name NAME

New name for network gateway device.

--connector-type {stt,gre,ipsecre,ipsecestt,bridge}

Type of the transport zone connector to use for this device. Valid values are gre, stt, ipsecre, ipsecestt, and bridge. Defaults to stt.

--connector-ip CONNECTOR_IP

IP address for this device's transport connector. It must correspond to the IP address of the interface used for tenant traffic on the NSX gateway node.

--client-certificate CERT_DATA

PEM certificate used by the NSX gateway transport node to authenticate with the NSX controller.

--client-certificate-file CERT_FILE

File containing the PEM certificate used by the NSX gateway transport node to authenticate with the NSX controller.

53. neutron ipsec-site-connection-create

```
usage: neutron ipsec-site-connection-create [-h] [-f
{shell,table,value}] [-c COLUMN] [--max-width <integer>] [--prefix
PREFIX] [--request-format {json,xml}] [--tenant-id TENANT_ID] [--
admin-state-down] [--name NAME] [--description DESCRIPTION] [--mtu
MTU] [--initiator {bi-directional,response-only}] [--dpd
action=ACTION,interval=INTERVAL,timeout=TIMEOUT] --vpnservice-id
VPNSERVICE --ikepolicy-id IKEPOLICY --ipsecpolicy-id IPSECPOLICY --
peer-address PEER_ADDRESS --peer-id PEER_ID --peer-cidr PEER_CIDRS
--psk PSK
```

Create an IPsec site connection.

Optional arguments**-h, --help**

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--tenant-id TENANT_ID

The owner tenant ID.

--admin-state-down

Set admin state up to false.

--name NAME

Set friendly name for the connection.

--description DESCRIPTION

Set a description for the connection.

--mtu MTU MTU

size for the connection, default:1500

--initiator {bi-directional, response-only}

Initiator state in lowercase, default:bi-directional

--dpd

action=ACTION,interval=INTERVAL,timeout=TIMEOUT Ipsec connection. Dead Peer Detection attributes. 'action'-hold,clear,disabled,restart,restart-by-peer. 'interval' and 'timeout' are non negative integers. 'interval' should be less than 'timeout' value. 'action', default:hold 'interval', default:30, 'timeout', default:120.

--vpnservice-id VPNSERVICE

VPN service instance ID associated with this connection.

--ikepolicy-id IKEPOLICY

IKE policy ID associated with this connection.

--ipsecpolicy-id IPSECPOLICY

IPsec policy ID associated with this connection.

--peer-address PEER_ADDRESS

Peer gateway public IPv4/IPv6 address or FQDN.

--peer-id PEER_ID

Peer router identity for authentication. Can be IPv4/IPv6 address, e-mail address, key id, or FQDN.

--peer-cidr PEER_CIDRS

Remote subnet(s) in CIDR format.

--psk PSK

Pre-shared key string.

54. neutron ipsec-site-connection-delete

```
usage: neutron ipsec-site-connection-delete [-h] [--request-format
{json,xml}] IPSEC_SITE_CONNECTION
```

Delete a given IPsec site connection.

Positional arguments

IPSEC_SITE_CONNECTION

ID or name of ipsec_site_connection to delete.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

55. neutron ipsec-site-connection-list

```
usage: neutron ipsec-site-connection-list [-h] [-f {csv,table}] [-c
COLUMN] [--max-width <integer>] [--quote
{all,minimal,none,nonnumeric}] [--request-format {json,xml}] [-D] [-
F FIELD] [-P SIZE] [--sort-key FIELD] [--sort-dir {asc,desc}]
```

List IPsec site connections that belong to a given tenant.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

-P SIZE, --page-size SIZE

Specify retrieve unit of each request, then split one request to several requests.

--sort-key FIELD

Sorts the list by the specified fields in the specified directions. You can repeat this option, but you must specify an equal number of `sort_dir` and `sort_key` values. Extra `sort_dir` options are ignored. Missing `sort_dir` options use the default `asc` value.

--sort-dir {asc,desc}

Sorts the list in the specified direction. You can repeat this option.

56. neutron ipsec-site-connection-show

```
usage: neutron ipsec-site-connection-show [-h] [-f
{shell,table,value}] [-c COLUMN] [--max-width <integer>] [--prefix
PREFIX] [--request-format {json,xml}] [-D] [-F FIELD]
IPSEC_SITE_CONNECTION
```

Show information of a given IPsec site connection.

Positional arguments

IPSEC_SITE_CONNECTION

ID or name of ipsec_site_connection to look up.

Optional arguments**-h, --help**

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

57. neutron ipsec-site-connection-update

```
usage: neutron ipsec-site-connection-update [-h] [--request-format {json,xml}] [--dpd action=ACTION,interval=INTERVAL,timeout=TIMEOUT] IPSEC_SITE_CONNECTION
```

Update a given IPsec site connection.

Positional arguments**IPSEC_SITE_CONNECTION**

ID or name of ipsec_site_connection to update.

Optional arguments**-h, --help**

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--dpd

action=ACTION,interval=INTERVAL,timeout=TIMEOUT Ipsec connection. Dead Peer Detection attributes. 'action'-hold,clear,disabled,restart,restart-by-peer. 'interval' and 'timeout' are non negative integers. 'interval' should be less than 'timeout' value. 'action', default:hold 'interval', default:30, 'timeout', default:120.

58. neutron l3-agent-list-hosting-router

```
usage: neutron l3-agent-list-hosting-router [-h] [-f {csv,table}] [-c COLUMN] [--max-width <integer>] [--quote {all,minimal,none,nonnumeric}] [--request-format {json,xml}] [-D] [-F FIELD] router
```

List L3 agents hosting a router.

Positional arguments

router

Router to query.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

59. neutron l3-agent-router-add

```
usage: neutron l3-agent-router-add [-h] [--request-format {json,xml}] l3_agent router
```

Add a router to a L3 agent.

Positional arguments

l3_agent

ID of the L3 agent.

router

Router to add.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

60. neutron l3-agent-router-remove

```
usage: neutron l3-agent-router-remove [-h] [--request-format {json,xml}] l3_agent router
```

Remove a router from a L3 agent.

Positional arguments

l3_agent

ID of the L3 agent.

router

Router to remove.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

61. neutron lb-agent-hosting-pool

```
usage: neutron lb-agent-hosting-pool [-h] [-f {csv,table}] [-c COLUMN] [--max-width <integer>] [--quote {all,minimal,none,nonnumeric}] [--request-format {json,xml}] [-D] [-F FIELD] pool
```

Get loadbalancer agent hosting a pool. Deriving from ListCommand though server will return only one agent to keep common output format for all agent schedulers

Positional arguments

pool

Pool to query.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

62. neutron lb-healthmonitor-associate

```
usage: neutron lb-healthmonitor-associate [-h] [--request-format
{json,xml}] HEALTH_MONITOR_ID POOL
```

Create a mapping between a health monitor and a pool.

Positional arguments

HEALTH_MONITOR_ID

Health monitor to associate.

POOL

ID of the pool to be associated with the health monitor.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

63. neutron lb-healthmonitor-create

```
usage: neutron lb-healthmonitor-create [-h] [-f {shell,table,value}]
[-c COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-
format {json,xml}] [--tenant-id TENANT_ID] [--admin-state-down] [--
expected-codes EXPECTED_CODES] [--http-method HTTP_METHOD] [--url-
path URL_PATH] --delay DELAY --max-retries MAX_RETRIES --timeout
TIMEOUT --type {PING,TCP,HTTP,HTTPS}
```

Create a healthmonitor.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--tenant-id TENANT_ID

The owner tenant ID.

--admin-state-down

Set admin state up to false.

--expected-codes EXPECTED_CODES

The list of HTTP status codes expected in response from the member to declare it healthy. This attribute can contain one value, or a list of values separated by comma, or a range of values (e.g. "200-299"). If this attribute is not specified, it defaults to "200".

--http-method HTTP_METHOD

The HTTP method used for requests by the monitor of type HTTP.

--url-path URL_PATH

The HTTP path used in the HTTP request used by the monitor to test a member health. This must be a string beginning with a / (forward slash).

--delay DELAY

The time in seconds between sending probes to members.

--max-retries MAX_RETRIES

Number of permissible connection failures before changing the member status to INACTIVE. [1..10]

--timeout TIMEOUT

Maximum number of seconds for a monitor to wait for a connection to be established before it times out. The value must be less than the delay value.

--type {PING,TCP,HTTP,HTTPS}

One of the predefined health monitor types.

64. neutron lb-healthmonitor-delete

```
usage: neutron lb-healthmonitor-delete [-h] [--request-format  
{json,xml}] HEALTH_MONITOR
```

Delete a given healthmonitor.

Positional arguments

HEALTH_MONITOR

ID or name of health_monitor to delete.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

65. neutron lb-healthmonitor-disassociate

```
usage: neutron lb-healthmonitor-disassociate [-h] [--request-format
{json,xml}] HEALTH_MONITOR_ID POOL
```

Remove a mapping from a health monitor to a pool.

Positional arguments

HEALTH_MONITOR_ID

Health monitor to associate.

POOL

ID of the pool to be associated with the health monitor.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

66. neutron lb-healthmonitor-list

```
usage: neutron lb-healthmonitor-list [-h] [-f {csv,table}] [-c
COLUMN] [--max-width <integer>] [--quote
{all,minimal,none,nonnumeric}] [--request-format {json,xml}] [-D] [-
F FIELD] [-P SIZE] [--sort-key FIELD] [--sort-dir {asc,desc}]
```

List healthmonitors that belong to a given tenant.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

-P SIZE, --page-size SIZE

Specify retrieve unit of each request, then split one request to several requests.

--sort-key FIELD

Sorts the list by the specified fields in the specified directions. You can repeat this option, but you must specify an equal number of `sort_dir` and `sort_key` values. Extra `sort_dir` options are ignored. Missing `sort_dir` options use the default `asc` value.

--sort-dir {asc,desc}

Sorts the list in the specified direction. You can repeat this option.

67. neutron lb-healthmonitor-show

```
usage: neutron lb-healthmonitor-show [-h] [-f {shell,table,value}]
  [-c COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-
  format {json,xml}] [-D] [-F FIELD] HEALTH_MONITOR
```

Show information of a given healthmonitor.

Positional arguments

HEALTH_MONITOR

ID or name of `health_monitor` to look up.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

68. neutron lb-healthmonitor-update

```
usage: neutron lb-healthmonitor-update [-h] [--request-format
  {json,xml}] HEALTH_MONITOR
```

Update a given healthmonitor.

Positional arguments

HEALTH_MONITOR

ID or name of health_monitor to update.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

69. neutron lb-member-create

```
usage: neutron lb-member-create [-h] [-f {shell,table,value}] [-c
COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format
{json,xml}] [--tenant-id TENANT_ID] [--admin-state-down] [--weight
WEIGHT] --address ADDRESS --protocol-port PROTOCOL_PORT POOL
```

Create a member.

Positional arguments

POOL

Pool ID or name this vip belongs to.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--tenant-id TENANT_ID

The owner tenant ID.

--admin-state-down

Set admin state up to false.

--weight WEIGHT

Weight of pool member in the pool (default:1, [0..256]).

--address ADDRESS IP

address of the pool member on the pool network.

--protocol-port PROTOCOL_PORT

Port on which the pool member listens for requests or connections.

70. neutron lb-member-delete

```
usage: neutron lb-member-delete [-h] [--request-format {json,xml}]
MEMBER
```

Delete a given member.

Positional arguments

MEMBER

ID or name of member to delete.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

71. neutron lb-member-list

```
usage: neutron lb-member-list [-h] [-f {csv,table}] [-c COLUMN] [--
max-width <integer>] [--quote {all,minimal,none,nonnumeric}] [--
request-format {json,xml}] [-D] [-F FIELD] [-P SIZE] [--sort-key
FIELD] [--sort-dir {asc,desc}]
```

List members that belong to a given tenant.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

-P SIZE, --page-size SIZE

Specify retrieve unit of each request, then split one request to several requests.

--sort-key FIELD

Sorts the list by the specified fields in the specified directions. You can repeat this option, but you must specify an equal number of `sort_dir` and `sort_key` values. Extra `sort_dir` options are ignored. Missing `sort_dir` options use the default `asc` value.

--sort-dir {asc,desc}

Sorts the list in the specified direction. You can repeat this option.

72. neutron lb-member-show

```
usage: neutron lb-member-show [-h] [-f {shell,table,value}] [-c
COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format
{json,xml}] [-D] [-F FIELD] MEMBER
```

Show information of a given member.

Positional arguments

MEMBER

ID or name of member to look up.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

73. neutron lb-member-update

```
usage: neutron lb-member-update [-h] [--request-format {json,xml}]
MEMBER
```

Update a given member.

Positional arguments

MEMBER

ID or name of member to update.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

74. neutron lb-pool-create

```
usage: neutron lb-pool-create [-h] [-f {shell,table,value}] [-c
COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format
{json,xml}] [--tenant-id TENANT_ID] [--admin-state-down] [--
description DESCRIPTION] --lb-method
{ROUND_ROBIN,LEAST_CONNECTIONS,SOURCE_IP} --name NAME --protocol
{HTTP,HTTPS,TCP} --subnet-id SUBNET [--provider PROVIDER]
```

Create a pool.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--tenant-id TENANT_ID

The owner tenant ID.

--admin-state-down

Set admin state up to false.

--description DESCRIPTION

Description of the pool.

--lb-method {ROUND_ROBIN,LEAST_CONNECTIONS,SOURCE_IP}

The algorithm used to distribute load between the members of the pool.

--name NAME

The name of the pool.

--protocol {HTTP,HTTPS,TCP}

Protocol for balancing.

--subnet-id SUBNET

The subnet on which the members of the pool will be located.

--provider PROVIDER

Provider name of loadbalancer service.

75. neutron lb-pool-delete

```
usage: neutron lb-pool-delete [-h] [--request-format {json,xml}]
    POOL
```

Delete a given pool.

Positional arguments

POOL

ID or name of pool to delete.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

76. neutron lb-pool-list

```
usage: neutron lb-pool-list [-h] [-f {csv,table}] [-c COLUMN] [--max-
width <integer>] [--quote {all,minimal,none,nonnumeric}] [--request-
format {json,xml}] [-D] [-F FIELD] [-P SIZE] [--sort-key FIELD] [--
sort-dir {asc,desc}]
```

List pools that belong to a given tenant.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

-P SIZE, --page-size SIZE

Specify retrieve unit of each request, then split one request to several requests.

--sort-key FIELD

Sorts the list by the specified fields in the specified directions. You can repeat this option, but you must specify an equal number of `sort_dir` and `sort_key` values. Extra `sort_dir` options are ignored. Missing `sort_dir` options use the default `asc` value.

--sort-dir {asc,desc}

Sorts the list in the specified direction. You can repeat this option.

77. neutron lb-pool-list-on-agent

```
usage: neutron lb-pool-list-on-agent [-h] [-f {csv,table}] [-c
COLUMN] [--max-width <integer>] [--quote
{all,minimal,none,nonnumeric}] [--request-format {json,xml}] [-D] [-
F FIELD] lbaas_agent
```

List the pools on a loadbalancer agent.

Positional arguments

lbaas_agent

ID of the loadbalancer agent to query.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

78. neutron lb-pool-show

```
usage: neutron lb-pool-show [-h] [-f {shell,table,value}] [-c
COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format
{json,xml}] [-D] [-F FIELD] POOL
```

Show information of a given pool.

Positional arguments

POOL

ID or name of pool to look up.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

79. neutron lb-pool-stats

```
usage: neutron lb-pool-stats [-h] [-f {shell,table,value}] [-c
COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format
{json,xml}] [-D] [-F FIELD] POOL
```

Retrieve stats for a given pool.

Positional arguments

POOL

ID or name of pool to look up.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

80. neutron lb-pool-update

```
usage: neutron lb-pool-update [-h] [--request-format {json,xml}]
POOL
```

Update a given pool.

Positional arguments

POOL

ID or name of pool to update.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

81. neutron lb-vip-create

```
usage: neutron lb-vip-create [-h] [-f {shell,table,value}] [-c COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format {json,xml}] [--tenant-id TENANT_ID] [--address ADDRESS] [--admin-state-down] [--connection-limit CONNECTION_LIMIT] [--description DESCRIPTION] --name NAME --protocol-port PROTOCOL_PORT --protocol {TCP,HTTP,HTTPS} --subnet-id SUBNET POOL
```

Create a vip.

Positional arguments

POOL

Pool ID or name this vip belongs to.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--tenant-id TENANT_ID

The owner tenant ID.

--address ADDRESS IP

address of the vip.

--admin-state-down

Set admin state up to false.

--connection-limit CONNECTION_LIMIT

The maximum number of connections per second allowed for the vip. Positive integer or -1 for unlimited (default).

--description DESCRIPTION

Description of the vip.

--name NAME

Name of the vip.

--protocol-port PROTOCOL_PORT

TCP port on which to listen for client traffic that is associated with the vip address.

--protocol {TCP,HTTP,HTTPS}

Protocol for balancing.

--subnet-id SUBNET

The subnet on which to allocate the vip address.

82. neutron lb-vip-delete

```
usage: neutron lb-vip-delete [-h] [--request-format {json,xml}] VIP
```

Delete a given vip.

Positional arguments

VIP

ID or name of vip to delete.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

83. neutron lb-vip-list

```
usage: neutron lb-vip-list [-h] [-f {csv,table}] [-c COLUMN] [--max-width <integer>]
[--quote {all,minimal,none,nonnumeric}] [--request-format {json,xml}]
[-D] [-F FIELD] [-P SIZE] [--sort-key FIELD] [--sort-dir {asc,desc}]
```

List vips that belong to a given tenant.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

-P SIZE, --page-size SIZE

Specify retrieve unit of each request, then split one request to several requests.

--sort-key FIELD

Sorts the list by the specified fields in the specified directions. You can repeat this option, but you must specify an equal number of `sort_dir` and `sort_key` values. Extra `sort_dir` options are ignored. Missing `sort_dir` options use the default `asc` value.

--sort-dir {asc,desc}

Sorts the list in the specified direction. You can repeat this option.

84. neutron lb-vip-show

```
usage: neutron lb-vip-show [-h] [-f {shell,table,value}] [-c COLUMN]
  [--max-width <integer>] [--prefix PREFIX] [--request-format
  {json,xml}] [-D] [-F FIELD] VIP
```

Show information of a given vip.

Positional arguments

VIP

ID or name of vip to look up.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

85. neutron lb-vip-update

```
usage: neutron lb-vip-update [-h] [--request-format {json,xml}] VIP
```

Update a given vip.

Positional arguments

VIP

ID or name of vip to update.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

86. neutron meter-label-create

```
usage: neutron meter-label-create [-h] [-f {shell,table,value}] [-c
COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format
{json,xml}] [--tenant-id TENANT_ID] [--description DESCRIPTION] [--
shared] NAME
```

Create a metering label for a given tenant.

Positional arguments

NAME

Name of metering label to create.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--tenant-id TENANT_ID

The owner tenant ID.

--description DESCRIPTION

Description of metering label to create.

--shared

Set the label as shared.

87. neutron meter-label-delete

```
usage: neutron meter-label-delete [-h] [--request-format {json,xml}]
METERING_LABEL
```

Delete a given metering label.

Positional arguments

METERING_LABEL

ID or name of metering_label to delete.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

88. neutron meter-label-list

```
usage: neutron meter-label-list [-h] [-f {csv,table}] [-c COLUMN] [--
max-width <integer>] [--quote {all,minimal,none,nonnumeric}] [--
request-format {json,xml}] [-D] [-F FIELD] [-P SIZE] [--sort-key
FIELD] [--sort-dir {asc,desc}]
```

List metering labels that belong to a given tenant.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

-P SIZE, --page-size SIZE

Specify retrieve unit of each request, then split one request to several requests.

--sort-key FIELD

Sorts the list by the specified fields in the specified directions. You can repeat this option, but you must specify an equal number of `sort_dir` and `sort_key` values. Extra `sort_dir` options are ignored. Missing `sort_dir` options use the default `asc` value.

--sort-dir {asc,desc}

Sorts the list in the specified direction. You can repeat this option.

89. neutron meter-label-rule-create

```
usage: neutron meter-label-rule-create [-h] [-f {shell,table,value}]
[-c COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-
format {json,xml}] [--tenant-id TENANT_ID] [--direction
{ingress,egress}] [--excluded] LABEL REMOTE_IP_PREFIX
```

Create a metering label rule for a given label.

Positional arguments**LABEL**

Id or Name of the label.

REMOTE_IP_PREFIX

CIDR to match on.

Optional arguments**-h, --help**

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--tenant-id TENANT_ID

The owner tenant ID.

--direction {ingress,egress}

Direction of traffic, default: `ingress`.

--excluded

Exclude this CIDR from the label, default: not excluded.

90. neutron meter-label-rule-delete

```
usage: neutron meter-label-rule-delete [-h] [--request-format
{json,xml}] METERING_LABEL_RULE
```

Delete a given metering label.

Positional arguments

METERING_LABEL_RULE

ID or name of metering_label_rule to delete.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

91. neutron meter-label-rule-list

```
usage: neutron meter-label-rule-list [-h] [-f {csv,table}] [-c
COLUMN] [--max-width <integer>] [--quote
{all,minimal,none,nonnumeric}] [--request-format {json,xml}] [-D] [-
F FIELD] [-P SIZE] [--sort-key FIELD] [--sort-dir {asc,desc}]
```

List metering labels that belong to a given label.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

-P SIZE, --page-size SIZE

Specify retrieve unit of each request, then split one request to several requests.

--sort-key FIELD

Sorts the list by the specified fields in the specified directions. You can repeat this option, but you must specify an equal number of sort_dir and sort_key values. Extra sort_dir options are ignored. Missing sort_dir options use the default asc value.

--sort-dir {asc,desc}

Sorts the list in the specified direction. You can repeat this option.

92. neutron meter-label-rule-show

```
usage: neutron meter-label-rule-show [-h] [-f {shell,table,value}]
[-c COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-
format {json,xml}] [-D] [-F FIELD] METERING_LABEL_RULE
```

Show information of a given metering label rule.

Positional arguments

METERING_LABEL_RULE

ID or name of metering_label_rule to look up.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

93. neutron meter-label-show

```
usage: neutron meter-label-show [-h] [-f {shell,table,value}] [-c
COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format
{json,xml}] [-D] [-F FIELD] METERING_LABEL
```

Show information of a given metering label.

Positional arguments

METERING_LABEL

ID or name of metering_label to look up.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

94. neutron nec-packet-filter-create

```
usage: neutron nec-packet-filter-create [-h] [-f
{shell,table,value}] [-c COLUMN] [--max-width <integer>] [--prefix
PREFIX] [--request-format {json,xml}] [--tenant-id TENANT_ID] [--
admin-state-down] [--name NAME] [--in-port PORT] [--src-mac SRC_MAC]
[--dst-mac DST_MAC] [--eth-type ETH_TYPE] [--protocol PROTOCOL] [--
src-cidr SRC_CIDR] [--dst-cidr DST_CIDR] [--src-port SRC_PORT] [--
dst-port DST_PORT] [--priority PRIORITY] [--action {allow,drop}]
NETWORK
```

Create a packet filter for a given tenant.

Positional arguments

NETWORK

network to which this packet filter is applied

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--tenant-id TENANT_ID

The owner tenant ID.

--admin-state-down

Set Admin State Up to false

--name NAME

Name of this packet filter

--in-port PORT

Name or ID of the input port

--src-mac SRC_MAC

Source MAC address

--dst-mac DST_MAC

Destination MAC address

--eth-type ETH_TYPE

Ether Type. Integer [0:65535] (hex or decimal). E.g., 0x0800 (IPv4), 0x0806 (ARP), 0x86DD (IPv6)

--protocol PROTOCOL IP

Protocol. Protocol name or integer. Recognized names are icmp, tcp, udp, arp (case insensitive). Integer should be [0:255] (decimal or hex).

--src-cidr SRC_CIDR

Source IP address CIDR

--dst-cidr DST_CIDR

Destination IP address CIDR

--src-port SRC_PORT

Source port address

--dst-port DST_PORT

Destination port address

--priority PRIORITY

Priority of the filter. Integer of [0:65535]. Default: 30000.

--action {allow,drop}

Action of the filter. Default: allow

95. neutron nec-packet-filter-delete

```
usage: neutron nec-packet-filter-delete [-h] [--request-format
{json,xml}] PACKET_FILTER
```

Delete a given packet filter.

Positional arguments

PACKET_FILTER

ID or name of packet_filter to delete.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

96. neutron nec-packet-filter-list

```
usage: neutron nec-packet-filter-list [-h] [-f {csv,table}] [-c
COLUMN] [--max-width <integer>] [--quote
{all,minimal,none,nonnumeric}] [--request-format {json,xml}] [-D] [-
F FIELD] [-P SIZE] [--sort-key FIELD] [--sort-dir {asc,desc}]
```

List packet filters that belong to a given tenant.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

-P SIZE, --page-size SIZE

Specify retrieve unit of each request, then split one request to several requests.

--sort-key FIELD

Sorts the list by the specified fields in the specified directions. You can repeat this option, but you must specify an equal number of `sort_dir` and `sort_key` values. Extra `sort_dir` options are ignored. Missing `sort_dir` options use the default `asc` value.

--sort-dir {asc,desc}

Sorts the list in the specified direction. You can repeat this option.

97. neutron nec-packet-filter-show

```
usage: neutron nec-packet-filter-show [-h] [-f {shell,table,value}]
[-c COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-
format {json,xml}] [-D] [-F FIELD] PACKET_FILTER
```

Show information of a given packet filter.

Positional arguments

PACKET_FILTER

ID or name of `packet_filter` to look up.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

98. neutron nec-packet-filter-update

```
usage: neutron nec-packet-filter-update [-h] [--request-format
{json,xml}] [--admin-state {True,False}] [--name NAME] [--src-mac
SRC_MAC] [--dst-mac DST_MAC] [--eth-type ETH_TYPE] [--protocol
PROTOCOL] [--src-cidr SRC_CIDR] [--dst-cidr DST_CIDR] [--src-port
SRC_PORT] [--dst-port DST_PORT] [--priority PRIORITY] [--action
{allow,drop}] PACKET_FILTER
```

Update packet filter's information.

Positional arguments

PACKET_FILTER

ID or name of `packet_filter` to update.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--admin-state {True,False}

Set a value of Admin State Up

--name NAME

Name of this packet filter

--src-mac SRC_MAC

Source MAC address

--dst-mac DST_MAC

Destination MAC address

--eth-type ETH_TYPE

Ether Type. Integer [0:65535] (hex or decimal). E.g., 0x0800 (IPv4), 0x0806 (ARP), 0x86DD (IPv6)

--protocol PROTOCOL IP

Protocol. Protocol name or integer. Recognized names are icmp, tcp, udp, arp (case insensitive). Integer should be [0:255] (decimal or hex).

--src-cidr SRC_CIDR

Source IP address CIDR

--dst-cidr DST_CIDR

Destination IP address CIDR

--src-port SRC_PORT

Source port address

--dst-port DST_PORT

Destination port address

--priority PRIORITY

Priority of the filter. Integer of [0:65535].

--action {allow,drop}

Action of the filter.

99. neutron net-create

```
usage: neutron net-create [-h] [-f {shell,table,value}] [-c COLUMN]
  [--max-width <integer>] [--prefix PREFIX] [--request-format
  {json,xml}] [--tenant-id TENANT_ID] [--admin-state-down] [--shared]
  NAME
```

Create a network for a given tenant.

Positional arguments

NAME

Name of network to create.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--tenant-id TENANT_ID

The owner tenant ID.

--admin-state-down

Set admin state up to false.

--shared

Set the network as shared.

100. neutron net-delete

```
usage: neutron net-delete [-h] [--request-format {json,xml}] NETWORK
```

Delete a given network.

Positional arguments

NETWORK

ID or name of network to delete.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

101. neutron net-external-list

```
usage: neutron net-external-list [-h] [-f {csv,table}] [-c COLUMN] [-max-width <integer>] [--quote {all,minimal,none,nonnumeric}] [--request-format {json,xml}] [-D] [-F FIELD] [-P SIZE] [--sort-key FIELD] [--sort-dir {asc,desc}]
```

List external networks that belong to a given tenant.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

-P SIZE, --page-size SIZE

Specify retrieve unit of each request, then split one request to several requests.

--sort-key FIELD

Sorts the list by the specified fields in the specified directions. You can repeat this option, but you must specify an equal number of `sort_dir` and `sort_key` values. Extra `sort_dir` options are ignored. Missing `sort_dir` options use the default `asc` value.

--sort-dir {asc,desc}

Sorts the list in the specified direction. You can repeat this option.

102. neutron net-gateway-connect

```
usage: neutron net-gateway-connect [-h] [--request-format
{json,xml}] [--segmentation-type SEGMENTATION_TYPE] [--segmentation-
id SEGMENTATION_ID] NET-GATEWAY-ID NETWORK-ID
```

Add an internal network interface to a router.

Positional arguments

NET-GATEWAY-ID

ID of the network gateway.

NETWORK-ID

ID of the internal network to connect on the gateway.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--segmentation-type SEGMENTATION_TYPE

L2 segmentation strategy on the external side of the gateway (e.g.: VLAN, FLAT).

--segmentation-id SEGMENTATION_ID

Identifier for the L2 segment on the external side of the gateway.

103. neutron net-gateway-create

```
usage: neutron net-gateway-create [-h] [-f {shell,table,value}] [-c
COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format
{json,xml}] [--tenant-id TENANT_ID] [--device
id=ID,interface_name=NAME_OR_ID] NAME
```

Create a network gateway.

Positional arguments

NAME

Name of network gateway to create.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--tenant-id TENANT_ID

The owner tenant ID.

--device

id=ID,interface_name=NAME_OR_ID Device info for this gateway. You can repeat this option for multiple devices for HA gateways.

104. neutron net-gateway-delete

```
usage: neutron net-gateway-delete [-h] [--request-format {json,xml}]
NETWORK_GATEWAY
```

Delete a given network gateway.

Positional arguments

NETWORK_GATEWAY

ID or name of network_gateway to delete.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

105. neutron net-gateway-disconnect

```
usage: neutron net-gateway-disconnect [-h] [--request-format
{json,xml}] [--segmentation-type SEGMENTATION_TYPE] [--segmentation-
id SEGMENTATION_ID] NET-GATEWAY-ID NETWORK-ID
```

Remove a network from a network gateway.

Positional arguments

NET - GATEWAY - ID

ID of the network gateway.

NETWORK - ID

ID of the internal network to connect on the gateway.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--segmentation-type SEGMENTATION_TYPE

L2 segmentation strategy on the external side of the gateway (e.g.: VLAN, FLAT).

--segmentation-id SEGMENTATION_ID

Identifier for the L2 segment on the external side of the gateway.

106. neutron net-gateway-list

```
usage: neutron net-gateway-list [-h] [-f {csv,table}] [-c COLUMN] [--
max-width <integer>] [--quote {all,minimal,none,nonnumeric}] [--
request-format {json,xml}] [-D] [-F FIELD]
```

List network gateways for a given tenant.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

107. neutron net-gateway-show

```
usage: neutron net-gateway-show [-h] [-f {shell,table,value}] [-c
COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format
{json,xml}] [-D] [-F FIELD] NETWORK_GATEWAY
```

Show information of a given network gateway.

Positional arguments**NETWORK_GATEWAY**

ID or name of network_gateway to look up.

Optional arguments**-h, --help**

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

108. neutron net-gateway-update

```
usage: neutron net-gateway-update [-h] [--request-format {json,xml}]
NETWORK_GATEWAY
```

Update the name for a network gateway.

Positional arguments**NETWORK_GATEWAY**

ID or name of network_gateway to update.

Optional arguments**-h, --help**

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

109. neutron net-list

```
usage: neutron net-list [-h] [-f {csv,table}] [-c COLUMN] [--max-width <integer>] [--quote {all,minimal,none,nonnumeric}] [--request-format {json,xml}] [-D] [-F FIELD] [-P SIZE] [--sort-key FIELD] [--sort-dir {asc,desc}]
```

List networks that belong to a given tenant.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

-P SIZE, --page-size SIZE

Specify retrieve unit of each request, then split one request to several requests.

--sort-key FIELD

Sorts the list by the specified fields in the specified directions. You can repeat this option, but you must specify an equal number of `sort_dir` and `sort_key` values. Extra `sort_dir` options are ignored. Missing `sort_dir` options use the default `asc` value.

--sort-dir {asc,desc}

Sorts the list in the specified direction. You can repeat this option.

110. neutron net-list-on-dhcp-agent

```
usage: neutron net-list-on-dhcp-agent [-h] [-f {csv,table}] [-c COLUMN] [--max-width <integer>] [--quote {all,minimal,none,nonnumeric}] [--request-format {json,xml}] [-D] [-F FIELD] [-P SIZE] [--sort-key FIELD] [--sort-dir {asc,desc}] dhcp_agent
```

List the networks on a DHCP agent.

Positional arguments

dhcp_agent

ID of the DHCP agent.

Optional arguments**-h, --help**

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

-P SIZE, --page-size SIZE

Specify retrieve unit of each request, then split one request to several requests.

--sort-key FIELD

Sorts the list by the specified fields in the specified directions. You can repeat this option, but you must specify an equal number of sort_dir and sort_key values. Extra sort_dir options are ignored. Missing sort_dir options use the default asc value.

--sort-dir {asc,desc}

Sorts the list in the specified direction. You can repeat this option.

111. neutron net-show

```
usage: neutron net-show [-h] [-f {shell,table,value}] [-c COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format {json,xml}] [-D] [-F FIELD] NETWORK
```

Show information of a given network.

Positional arguments**NETWORK**

ID or name of network to look up.

Optional arguments**-h, --help**

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

112. neutron net-update

```
usage: neutron net-update [-h] [--request-format {json,xml}] NETWORK
```

Update network's information.

Positional arguments

NETWORK

ID or name of network to update.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

113. neutron nuage-netpartition-create

```
usage: neutron nuage-netpartition-create [-h] [-f {shell,table,value}] [-c COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format {json,xml}] [--tenant-id TENANT_ID] name
```

Create a netpartition for a given tenant.

Positional arguments

name

Name of netpartition to create.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--tenant-id TENANT_ID

The owner tenant ID.

114. neutron nuage-netpartition-delete

```
usage: neutron nuage-netpartition-delete [-h] [--request-format
{json,xml}] NET_PARTITION
```

Delete a given netpartition.

Positional arguments

NET_PARTITION

ID or name of net_partition to delete.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

115. neutron nuage-netpartition-list

```
usage: neutron nuage-netpartition-list [-h] [-f {csv,table}] [-c
COLUMN] [--max-width <integer>] [--quote
{all,minimal,none,nonnumeric}] [--request-format {json,xml}] [-D] [-
F FIELD]
```

List netpartitions that belong to a given tenant.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

116. neutron nuage-netpartition-show

```
usage: neutron nuage-netpartition-show [-h] [-f {shell,table,value}]
[-c COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-
format {json,xml}] [-D] [-F FIELD] NET_PARTITION
```

Show information of a given netpartition.

Positional arguments

NET_PARTITION

ID or name of net_partition to look up.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

117. neutron port-create

```
usage: neutron port-create [-h] [-f {shell,table,value}] [-c COLUMN]
[--max-width <integer>] [--prefix PREFIX] [--request-format
{json,xml}] [--tenant-id TENANT_ID] [--name NAME] [--admin-state-
down] [--mac-address MAC_ADDRESS] [--device-id DEVICE_ID] [--fixed-
ip subnet_id=SUBNET,ip_address=IP_ADDR] [--security-group
SECURITY_GROUP | --no-security-groups] [--extra-dhcp-opt
EXTRA_DHCP_OPTS] NETWORK
```

Create a port for a given tenant.

Positional arguments

NETWORK

Network ID or name this port belongs to.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--tenant-id TENANT_ID

The owner tenant ID.

--name NAME

Name of this port.

--admin-state-down

Set admin state up to false.

--mac-address MAC_ADDRESS

MAC address of this port.

--device-id DEVICE_ID

Device ID of this port.

--fixed-ip

subnet_id=SUBNET,ip_address=IP_ADDR Desired IP and/or subnet for this port:
subnet_id=<name_or_id>,ip_address=<ip>. You can repeat this option.

--security-group SECURITY_GROUP

Security group associated with the port. You can repeat this option.

--no-security-groups

Associate no security groups with the port.

--extra-dhcp-opt EXTRA_DHCP_OPTS

Extra dhcp options to be assigned to this port: opt_name=
<dhcp_option_name>,opt_value=<value>. You can repeat this option.

118. neutron port-delete

```
usage: neutron port-delete [-h] [--request-format {json,xml}] PORT
```

Delete a given port.

Positional arguments

PORT

ID or name of port to delete.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

119. neutron port-list

```
usage: neutron port-list [-h] [-f {csv,table}] [-c COLUMN] [--max-width <integer>] [--quote {all,minimal,none,nonnumeric}] [--request-format {json,xml}] [-D] [-F FIELD] [-P SIZE] [--sort-key FIELD] [--sort-dir {asc,desc}]
```

List ports that belong to a given tenant.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

-P SIZE, --page-size SIZE

Specify retrieve unit of each request, then split one request to several requests.

--sort-key FIELD

Sorts the list by the specified fields in the specified directions. You can repeat this option, but you must specify an equal number of `sort_dir` and `sort_key` values. Extra `sort_dir` options are ignored. Missing `sort_dir` options use the default `asc` value.

--sort-dir {asc,desc}

Sorts the list in the specified direction. You can repeat this option.

120. neutron port-show

```
usage: neutron port-show [-h] [-f {shell,table,value}] [-c COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format {json,xml}] [-D] [-F FIELD] PORT
```

Show information of a given port.

Positional arguments

PORT

ID or name of port to look up.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

121. neutron port-update

```
usage: neutron port-update [-h] [--request-format {json,xml}] [--security-group SECURITY_GROUP | --no-security-groups] [--extra-dhcp-opt EXTRA_DHCP_OPTS] PORT
```

Update port's information.

Positional arguments

PORT

ID or name of port to update.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--security-group SECURITY_GROUP

Security group associated with the port. You can repeat this option.

--no-security-groups

Associate no security groups with the port.

--extra-dhcp-opt EXTRA_DHCP_OPTS

Extra dhcp options to be assigned to this port: opt_name=<dhcp_option_name>,opt_value=<value>. You can repeat this option.

122. neutron queue-create

```
usage: neutron queue-create [-h] [-f {shell,table,value}] [-c
COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format
{json,xml}] [--tenant-id TENANT_ID] [--min MIN] [--max MAX] [--qos-
marking QOS_MARKING] [--default DEFAULT] [--dscp DSCP] NAME
```

Create a queue.

Positional arguments

NAME

Name of queue.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--tenant-id TENANT_ID

The owner tenant ID.

--min MIN

Minimum rate.

--max MAX

Maximum rate.

--qos-marking QOS_MARKING

QOS marking as untrusted or trusted.

--default DEFAULT

If true all created ports will be the size of this queue, if queue is not specified

--dscp DSCP

Differentiated Services Code Point.

123. neutron queue-delete

```
usage: neutron queue-delete [-h] [--request-format {json,xml}]
QOS_QUEUE
```

Delete a given queue.

Positional arguments

QOS_QUEUE

ID or name of qos_queue to delete.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

124. neutron queue-list

```
usage: neutron queue-list [-h] [-f {csv,table}] [-c COLUMN] [--max-width <integer>] [--quote {all,minimal,none,nonnumeric}] [--request-format {json,xml}] [-D] [-F FIELD]
```

List queues that belong to a given tenant.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

125. neutron queue-show

```
usage: neutron queue-show [-h] [-f {shell,table,value}] [-c COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format {json,xml}] [-D] [-F FIELD] QOS_QUEUE
```

Show information of a given queue.

Positional arguments

QOS_QUEUE

ID or name of qos_queue to look up.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

126. neutron quota-delete

```
usage: neutron quota-delete [-h] [--request-format {json,xml}] [--tenant-id tenant-id]
```

Delete defined quotas of a given tenant.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--tenant-id

tenant-id The owner tenant ID.

127. neutron quota-list

```
usage: neutron quota-list [-h] [-f {csv,table}] [-c COLUMN] [--max-width <integer>] [--quote {all,minimal,none,nonnumeric}] [--request-format {json,xml}]
```

List quotas of all tenants who have non-default quota values.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

128. neutron quota-show

```
usage: neutron quota-show [-h] [-f {shell,table,value}] [-c COLUMN]
[--max-width <integer>] [--prefix PREFIX] [--request-format
{json,xml}] [--tenant-id tenant-id]
```

Show quotas of a given tenant.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--tenant-id

tenant-id The owner tenant ID.

129. neutron quota-update

```
usage: neutron quota-update [-h] [-f {shell,table,value}] [-c
COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format
{json,xml}] [--tenant-id tenant-id] [--network networks] [--subnet
subnets] [--port ports] [--router routers] [--floatingip floatingips]
[--security-group security_groups] [--security-group-rule
security_group_rules] [--vip vips] [--pool pools] [--member members]
[--health-monitor health_monitors]
```

Define tenant's quotas not to use defaults.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--tenant-id

tenant-id The owner tenant ID.

--network

networks The limit of networks.

--subnet

subnets The limit of subnets.

--port

ports The limit of ports.

--router

routers The limit of routers.

--floatingip

floatingips The limit of floating IPs.

--security-group

security_groups The limit of security groups.

--security-group-rule

security_group_rules The limit of security groups rules.

--vip

vips The limit of vips.

--pool

pools The limit of pools.

--member

members The limit of pool members.

--health-monitor

health_monitors The limit of health monitors.

130. neutron router-create

```
usage: neutron router-create [-h] [-f {shell,table,value}] [-c
COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format
{json,xml}] [--tenant-id TENANT_ID] [--admin-state-down] [--
distributed {True,False}] [--ha {True,False}] NAME
```

Create a router for a given tenant.

Positional arguments

NAME

Name of router to create.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--tenant-id TENANT_ID

The owner tenant ID.

--admin-state-down

Set admin state up to false.

--distributed {True,False}

Create a distributed router.

--ha {True,False}

Create a highly available router.

131. neutron router-delete

```
usage: neutron router-delete [-h] [--request-format {json,xml}]
ROUTER
```

Delete a given router.

Positional arguments

ROUTER

ID or name of router to delete.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

132. neutron router-gateway-clear

```
usage: neutron router-gateway-clear [-h] [--request-format
{json,xml}] router-id
```

Remove an external network gateway from a router.

Positional arguments

router-id

ID of the router.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

133. neutron router-gateway-set

```
usage: neutron router-gateway-set [-h] [--request-format {json,xml}]
  [--disable-snat] router-id external-network-id
```

Set the external network gateway for a router.

Positional arguments

router-id

ID of the router.

external-network-id

ID of the external network for the gateway.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--disable-snat

Disable source NAT on the router gateway.

134. neutron router-interface-add

```
usage: neutron router-interface-add [-h] [--request-format
  {json,xml}] router-id INTERFACE
```

Add an internal network interface to a router.

Positional arguments

router-id

ID of the router.

INTERFACE

The format is "SUBNET|subnet=SUBNET|port=PORT". Either a subnet or port must be specified. Both ID and name are accepted as SUBNET or PORT. Note that "subnet=" can be omitted when specifying a subnet.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

135. neutron router-interface-delete

```
usage: neutron router-interface-delete [-h] [--request-format
{json,xml}] router-id INTERFACE
```

Remove an internal network interface from a router.

Positional arguments

router-id

ID of the router.

INTERFACE

The format is "SUBNET|subnet=SUBNET|port=PORT". Either a subnet or port must be specified. Both ID and name are accepted as SUBNET or PORT. Note that "subnet=" can be omitted when specifying a subnet.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

136. neutron router-list

```
usage: neutron router-list [-h] [-f {csv,table}] [-c COLUMN] [--max-
width <integer>] [--quote {all,minimal,none,nonnumeric}] [--request-
format {json,xml}] [-D] [-F FIELD] [-P SIZE] [--sort-key FIELD] [--
sort-dir {asc,desc}]
```

List routers that belong to a given tenant.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

-P SIZE, --page-size SIZE

Specify retrieve unit of each request, then split one request to several requests.

--sort-key FIELD

Sorts the list by the specified fields in the specified directions. You can repeat this option, but you must specify an equal number of `sort_dir` and `sort_key` values. Extra `sort_dir` options are ignored. Missing `sort_dir` options use the default `asc` value.

--sort-dir {asc,desc}

Sorts the list in the specified direction. You can repeat this option.

137. neutron router-list-on-l3-agent

```
usage: neutron router-list-on-l3-agent [-h] [-f {csv,table}] [-c
COLUMN] [--max-width <integer>] [--quote
{all,minimal,none,nonnumeric}] [--request-format {json,xml}] [-D] [-
F FIELD] l3_agent
```

List the routers on a L3 agent.

Positional arguments

l3_agent

ID of the L3 agent to query.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

138. neutron router-port-list

```
usage: neutron router-port-list [-h] [-f {csv,table}] [-c COLUMN] [--max-width <integer>] [--quote {all,minimal,none,nonnumeric}] [--request-format {json,xml}] [-D] [-F FIELD] [-P SIZE] [--sort-key FIELD] [--sort-dir {asc,desc}] router
```

List ports that belong to a given tenant, with specified router.

Positional arguments

router

ID or name of router to look up.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

-P SIZE, --page-size SIZE

Specify retrieve unit of each request, then split one request to several requests.

--sort-key FIELD

Sorts the list by the specified fields in the specified directions. You can repeat this option, but you must specify an equal number of `sort_dir` and `sort_key` values. Extra `sort_dir` options are ignored. Missing `sort_dir` options use the default `asc` value.

--sort-dir {asc,desc}

Sorts the list in the specified direction. You can repeat this option.

139. neutron router-show

```
usage: neutron router-show [-h] [-f {shell,table,value}] [-c COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format {json,xml}] [-D] [-F FIELD] ROUTER
```

Show information of a given router.

Positional arguments

ROUTER

ID or name of router to look up.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

140. neutron router-update

```
usage: neutron router-update [-h] [--request-format {json,xml}]
ROUTER
```

Update router's information.

Positional arguments

ROUTER

ID or name of router to update.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

141. neutron security-group-create

```
usage: neutron security-group-create [-h] [-f {shell,table,value}]
[-c COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-
format {json,xml}] [--tenant-id TENANT_ID] [--description
DESCRIPTION] NAME
```

Create a security group.

Positional arguments

NAME

Name of security group.

Optional arguments**-h, --help**

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--tenant-id TENANT_ID

The owner tenant ID.

--description DESCRIPTION

Description of security group.

142. neutron security-group-delete

```
usage: neutron security-group-delete [-h] [--request-format
{json,xml}] SECURITY_GROUP
```

Delete a given security group.

Positional arguments**SECURITY_GROUP**

ID or name of security_group to delete.

Optional arguments**-h, --help**

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

143. neutron security-group-list

```
usage: neutron security-group-list [-h] [-f {csv,table}] [-c COLUMN]
[--max-width <integer>] [--quote {all,minimal,none,nonnumeric}] [--
request-format {json,xml}] [-D] [-F FIELD] [-P SIZE] [--sort-key
FIELD] [--sort-dir {asc,desc}]
```

List security groups that belong to a given tenant.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

-P SIZE, --page-size SIZE

Specify retrieve unit of each request, then split one request to several requests.

--sort-key FIELD

Sorts the list by the specified fields in the specified directions. You can repeat this option, but you must specify an equal number of `sort_dir` and `sort_key` values. Extra `sort_dir` options are ignored. Missing `sort_dir` options use the default `asc` value.

--sort-dir {asc,desc}

Sorts the list in the specified direction. You can repeat this option.

144. neutron security-group-rule-create

```
usage: neutron security-group-rule-create [-h] [-f
{shell,table,value}] [-c COLUMN] [--max-width <integer>] [--prefix
PREFIX] [--request-format {json,xml}] [--tenant-id TENANT_ID] [--
direction {ingress,egress}] [--ethertype ETHERTYPE] [--protocol
PROTOCOL] [--port-range-min PORT_RANGE_MIN] [--port-range-max
PORT_RANGE_MAX] [--remote-ip-prefix REMOTE_IP_PREFIX] [--remote-
group-id REMOTE_GROUP] SECURITY_GROUP
```

Create a security group rule.

Positional arguments

SECURITY_GROUP

Security group name or ID to add rule.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--tenant-id TENANT_ID

The owner tenant ID.

--direction {ingress,egress}

Direction of traffic: ingress/egress.

--ethertype ETHERTYPE

IPv4/IPv6

--protocol PROTOCOL

Protocol of packet.

--port-range-min PORT_RANGE_MIN

Starting port range.

--port-range-max PORT_RANGE_MAX

Ending port range.

--remote-ip-prefix REMOTE_IP_PREFIX

CIDR to match on.

--remote-group-id REMOTE_GROUP

Remote security group name or ID to apply rule.

145. neutron security-group-rule-delete

```
usage: neutron security-group-rule-delete [-h] [--request-format
{json,xml}] SECURITY_GROUP_RULE
```

Delete a given security group rule.

Positional arguments

SECURITY_GROUP_RULE

ID of security_group_rule to delete.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

146. neutron security-group-rule-list

```
usage: neutron security-group-rule-list [-h] [-f {csv,table}] [-c
COLUMN] [--max-width <integer>] [--quote
```

```
{all,minimal,none,nonnumeric}] [--request-format {json,xml}] [-D] [-F FIELD] [-P SIZE] [--sort-key FIELD] [--sort-dir {asc,desc}] [--no-nameconv]
```

List security group rules that belong to a given tenant.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

-P SIZE, --page-size SIZE

Specify retrieve unit of each request, then split one request to several requests.

--sort-key FIELD

Sorts the list by the specified fields in the specified directions. You can repeat this option, but you must specify an equal number of `sort_dir` and `sort_key` values. Extra `sort_dir` options are ignored. Missing `sort_dir` options use the default `asc` value.

--sort-dir {asc,desc}

Sorts the list in the specified direction. You can repeat this option.

--no-nameconv

Do not convert security group ID to its name.

147. neutron security-group-rule-show

```
usage: neutron security-group-rule-show [-h] [-f {shell,table,value}] [-c COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format {json,xml}] [-D] [-F FIELD] SECURITY_GROUP_RULE
```

Show information of a given security group rule.

Positional arguments

SECURITY_GROUP_RULE

ID of `security_group_rule` to look up.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

148. neutron security-group-show

```
usage: neutron security-group-show [-h] [-f {shell,table,value}] [-c
COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format
{json,xml}] [-D] [-F FIELD] SECURITY_GROUP
```

Show information of a given security group.

Positional arguments

SECURITY_GROUP

ID or name of security_group to look up.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

149. neutron security-group-update

```
usage: neutron security-group-update [-h] [--request-format
{json,xml}] [--name NAME] [--description DESCRIPTION] SECURITY_GROUP
```

Update a given security group.

Positional arguments

SECURITY_GROUP

ID or name of security_group to update.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--name NAME

Name of security group.

--description DESCRIPTION

Description of security group.

150. neutron service-provider-list

```
usage: neutron service-provider-list [-h] [-f {csv,table}] [-c
COLUMN] [--max-width <integer>] [--quote
{all,minimal,none,nonnumeric}] [--request-format {json,xml}] [-D] [-
F FIELD] [-P SIZE] [--sort-key FIELD] [--sort-dir {asc,desc}]
```

List service providers.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

-P SIZE, --page-size SIZE

Specify retrieve unit of each request, then split one request to several requests.

--sort-key FIELD

Sorts the list by the specified fields in the specified directions. You can repeat this option, but you must specify an equal number of `sort_dir` and `sort_key` values. Extra `sort_dir` options are ignored. Missing `sort_dir` options use the default `asc` value.

--sort-dir {asc,desc}

Sorts the list in the specified direction. You can repeat this option.

151. neutron subnet-create

```
usage: neutron subnet-create [-h] [-f {shell,table,value}] [-c
COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format
{json,xml}] [--tenant-id TENANT_ID] [--name NAME] [--gateway
GATEWAY_IP] [--no-gateway] [--allocation-pool
start=IP_ADDR,end=IP_ADDR] [--host-route
destination=CIDR,nextHop=IP_ADDR] [--dns-nameserver DNS_NAMESERVER]
[--disable-dhcp] [--enable-dhcp] [--ipv6-ra-mode {dhcpv6-
stateful,dhcpv6-stateless,slaac}] [--ipv6-address-mode {dhcpv6-
stateful,dhcpv6-stateless,slaac}] [--ip-version {4,6}] NETWORK CIDR
```

Create a subnet for a given tenant.

Positional arguments

NETWORK

Network ID or name this subnet belongs to.

CIDR

CIDR of subnet to create.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--tenant-id TENANT_ID

The owner tenant ID.

--name NAME

Name of this subnet.

--gateway GATEWAY_IP

Gateway IP of this subnet.

--no-gateway

No distribution of gateway.

--allocation-pool

start=IP_ADDR,end=IP_ADDR Allocation pool IP addresses for this subnet (This option can be repeated).

--host-route

destination=CIDR,nexthop=IP_ADDR Additional route (This option can be repeated).

--dns-nameserver DNS_NAMESERVER

DNS name server for this subnet (This option can be repeated).

--disable-dhcp

Disable DHCP for this subnet.

--enable-dhcp

Enable DHCP for this subnet.

--ipv6-ra-mode {dhcpv6-stateful,dhcpv6-stateless,slaac}

IPv6 RA (Router Advertisement) mode.

--ipv6-address-mode {dhcpv6-stateful,dhcpv6-stateless,slaac}

IPv6 address mode.

--ip-version {4,6} IP

version to use, default is 4.

152. neutron subnet-delete

```
usage: neutron subnet-delete [-h] [--request-format {json,xml}]
SUBNET
```

Delete a given subnet.

Positional arguments

SUBNET

ID or name of subnet to delete.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

153. neutron subnet-list

```
usage: neutron subnet-list [-h] [-f {csv,table}] [-c COLUMN] [--max-width <integer>] [--quote {all,minimal,none,nonnumeric}] [--request-format {json,xml}] [-D] [-F FIELD] [-P SIZE] [--sort-key FIELD] [--sort-dir {asc,desc}]
```

List subnets that belong to a given tenant.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

-P SIZE, --page-size SIZE

Specify retrieve unit of each request, then split one request to several requests.

--sort-key FIELD

Sorts the list by the specified fields in the specified directions. You can repeat this option, but you must specify an equal number of `sort_dir` and `sort_key` values. Extra `sort_dir` options are ignored. Missing `sort_dir` options use the default `asc` value.

--sort-dir {asc,desc}

Sorts the list in the specified direction. You can repeat this option.

154. neutron subnet-show

```
usage: neutron subnet-show [-h] [-f {shell,table,value}] [-c COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format {json,xml}] [-D] [-F FIELD] SUBNET
```

Show information of a given subnet.

Positional arguments

SUBNET

ID or name of subnet to look up.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

155. neutron subnet-update

```
usage: neutron subnet-update [-h] [--request-format {json,xml}] [--name NAME] [--gateway GATEWAY_IP] [--no-gateway] [--allocation-pool start=IP_ADDR,end=IP_ADDR] [--host-route destination=CIDR,nexthop=IP_ADDR] [--dns-nameserver DNS_NAMESERVER] [--disable-dhcp] [--enable-dhcp] [--ipv6-ra-mode {dhcpv6-stateful,dhcpv6-stateless,slaac}] [--ipv6-address-mode {dhcpv6-stateful,dhcpv6-stateless,slaac}] SUBNET
```

Update subnet's information.

Positional arguments

SUBNET

ID or name of subnet to update.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--name NAME

Name of this subnet.

--gateway GATEWAY_IP

Gateway IP of this subnet.

--no-gateway

No distribution of gateway.

--allocation-pool

start=IP_ADDR,end=IP_ADDR Allocation pool IP addresses for this subnet (This option can be repeated).

--host-route

destination=CIDR,nexthop=IP_ADDR Additional route (This option can be repeated).

--dns-nameserver DNS_NAMESERVER

DNS name server for this subnet (This option can be repeated).

--disable-dhcp

Disable DHCP for this subnet.

--enable-dhcp

Enable DHCP for this subnet.

--ipv6-ra-mode {dhcpv6-stateful,dhcpv6-stateless,slaac}

IPv6 RA (Router Advertisement) mode.

--ipv6-address-mode {dhcpv6-stateful,dhcpv6-stateless,slaac}

IPv6 address mode.

156. neutron vpn-ikepolicy-create

```
usage: neutron vpn-ikepolicy-create [-h] [-f {shell,table,value}] [-c COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format {json,xml}] [--tenant-id TENANT_ID] [--description DESCRIPTION] [--auth-algorithm {sha1}] [--encryption-algorithm ENCRYPTION_ALGORITHM] [--phase1-negotiation-mode {main}] [--ike-version {v1,v2}] [--pfs {group2,group5,group14}] [--lifetime units=UNITS,value=VALUE] NAME
```

Create an IKE policy.

Positional arguments

NAME

Name of the IKE policy.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--tenant-id TENANT_ID

The owner tenant ID.

--description DESCRIPTION

Description of the IKE policy

--auth-algorithm {sha1}

Authentication algorithm in lowercase. Default:sha1

--encryption-algorithm ENCRYPTION_ALGORITHM

Encryption algorithm in lowercase, default:aes-128

--phase1-negotiation-mode {main}

IKE Phase1 negotiation mode in lowercase, default:main

--ike-version {v1,v2}

IKE version in lowercase, default:v1

--pfs {group2,group5,group14}

Perfect Forward Secrecy in lowercase, default:group5

--lifetime

units=UNITS,value=VALUE IKE lifetime attributes. 'units'-seconds, default:seconds. 'value'-non negative integer, default:3600.

157. neutron vpn-ikepolicy-delete

```
usage: neutron vpn-ikepolicy-delete [-h] [--request-format
{json,xml}] IKEPOLICY
```

Delete a given IKE policy.

Positional arguments

IKEPOLICY

ID or name of ikepolicy to delete.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

158. neutron vpn-ikepolicy-list

```
usage: neutron vpn-ikepolicy-list [-h] [-f {csv,table}] [-c COLUMN]
[--max-width <integer>] [--quote {all,minimal,none,nonnumeric}] [--
request-format {json,xml}] [-D] [-F FIELD] [-P SIZE] [--sort-key
FIELD] [--sort-dir {asc,desc}]
```

List IKE policies that belong to a tenant.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

-P SIZE, --page-size SIZE

Specify retrieve unit of each request, then split one request to several requests.

--sort-key FIELD

Sorts the list by the specified fields in the specified directions. You can repeat this option, but you must specify an equal number of `sort_dir` and `sort_key` values. Extra `sort_dir` options are ignored. Missing `sort_dir` options use the default `asc` value.

--sort-dir {asc,desc}

Sorts the list in the specified direction. You can repeat this option.

159. neutron vpn-ikepolicy-show

```
usage: neutron vpn-ikepolicy-show [-h] [-f {shell,table,value}] [-c
COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format
{json,xml}] [-D] [-F FIELD] IKEPOLICY
```

Show information of a given IKE policy.

Positional arguments

IKEPOLICY

ID or name of ikepolicy to look up.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

160. neutron vpn-ikepolicy-update

```
usage: neutron vpn-ikepolicy-update [-h] [--request-format
{json,xml}] [--lifetime units=UNITS,value=VALUE] IKEPOLICY
```

Update a given IKE policy.

Positional arguments**IKEPOLICY**

ID or name of ikepolicy to update.

Optional arguments**-h, --help**

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--lifetime

units=UNITS,value=VALUE IKE lifetime attributes. 'units'-seconds, default:seconds. 'value'-non negative integer, default:3600.

161. neutron vpn-ipsecpolicy-create

```
usage: neutron vpn-ipsecpolicy-create [-h] [-f {shell,table,value}]
[-c COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-
format {json,xml}] [--tenant-id TENANT_ID] [--description
DESCRIPTION] [--transform-protocol {esp,ah,ah-esp}] [--auth-
algorithm {sha1}] [--encryption-algorithm ENCRYPTION_ALGORITHM] [--
encapsulation-mode {tunnel,transport}] [--pfs
{group2,group5,group14}] [--lifetime units=UNITS,value=VALUE] NAME
```

Create an IPsec policy.

Positional arguments**NAME**

Name of the IPsec policy.

Optional arguments**-h, --help**

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--tenant-id TENANT_ID

The owner tenant ID.

--description DESCRIPTION

Description of the IPsec policy.

--transform-protocol {esp,ah,ah-esp}

Transform protocol in lowercase, default:esp

--auth-algorithm {sha1}

Authentication algorithm in lowercase, default:sha1

--encryption-algorithm ENCRYPTION_ALGORITHM

Encryption algorithm in lowercase, default:aes-128

--encapsulation-mode {tunnel,transport}

Encapsulation mode in lowercase, default:tunnel

--pfs {group2,group5,group14}

Perfect Forward Secrecy in lowercase, default:group5

--lifetime

units=UNITS,value=VALUE IPsec lifetime attributes. 'units'-seconds, default:seconds.
'value'-non negative integer, default:3600.

162. neutron vpn-ipsecpolicy-delete

```
usage: neutron vpn-ipsecpolicy-delete [-h] [--request-format
{json,xml}] IPSECPOLICY
```

Delete a given IPsec policy.

Positional arguments

IPSECPOLICY

ID or name of ipsecpolicy to delete.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

163. neutron vpn-ipsecpolicy-list

```
usage: neutron vpn-ipsecpolicy-list [-h] [-f {csv,table}] [-c COLUMN]
  [--max-width <integer>] [--quote {all,minimal,none,nonnumeric}] [--
  request-format {json,xml}] [-D] [-F FIELD] [-P SIZE] [--sort-key
  FIELD] [--sort-dir {asc,desc}]
```

List ipsecpolicies that belongs to a given tenant connection.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

-P SIZE, --page-size SIZE

Specify retrieve unit of each request, then split one request to several requests.

--sort-key FIELD

Sorts the list by the specified fields in the specified directions. You can repeat this option, but you must specify an equal number of `sort_dir` and `sort_key` values. Extra `sort_dir` options are ignored. Missing `sort_dir` options use the default `asc` value.

--sort-dir {asc,desc}

Sorts the list in the specified direction. You can repeat this option.

164. neutron vpn-ipsecpolicy-show

```
usage: neutron vpn-ipsecpolicy-show [-h] [-f {shell,table,value}] [-
  c COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-
  format {json,xml}] [-D] [-F FIELD] IPSECPOLICY
```

Show information of a given IPsec policy.

Positional arguments

IPSECPOLICY

ID or name of ipsecpolicy to look up.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

165. neutron vpn-ipsecpolicy-update

```
usage: neutron vpn-ipsecpolicy-update [-h] [--request-format
{json,xml}] [--lifetime units=UNITS,value=VALUE] IPSECPOLICY
```

Update a given IPsec policy.

Positional arguments

IPSECPOLICY

ID or name of ipsecpolicy to update.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--lifetime

units=UNITS,value=VALUE IPsec lifetime attributes. 'units'-seconds, default:seconds. 'value'-non negative integer, default:3600.

166. neutron vpn-service-create

```
usage: neutron vpn-service-create [-h] [-f {shell,table,value}] [-c
COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format
{json,xml}] [--tenant-id TENANT_ID] [--admin-state-down] [--name
NAME] [--description DESCRIPTION] ROUTER SUBNET
```

Create a VPN service.

Positional arguments

ROUTER

Router unique identifier for the VPN service.

SUBNET

Subnet unique identifier for the VPN service deployment.

Optional arguments**-h, --help**

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

--tenant-id TENANT_ID

The owner tenant ID.

--admin-state-down

Set admin state up to false.

--name NAME

Set a name for the VPN service.

--description DESCRIPTION

Set a description for the VPN service.

167. neutron vpn-service-delete

```
usage: neutron vpn-service-delete [-h] [--request-format {json,xml}]  
VPNSERVICE
```

Delete a given VPN service.

Positional arguments**VPNSERVICE**

ID or name of vpnservice to delete.

Optional arguments**-h, --help**

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

168. neutron vpn-service-list

```
usage: neutron vpn-service-list [-h] [-f {csv,table}] [-c COLUMN] [--max-width <integer>] [--quote {all,minimal,none,nonnumeric}] [--request-format {json,xml}] [-D] [-F FIELD] [-P SIZE] [--sort-key FIELD] [--sort-dir {asc,desc}]
```

List VPN service configurations that belong to a given tenant.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

-P SIZE, --page-size SIZE

Specify retrieve unit of each request, then split one request to several requests.

--sort-key FIELD

Sorts the list by the specified fields in the specified directions. You can repeat this option, but you must specify an equal number of `sort_dir` and `sort_key` values. Extra `sort_dir` options are ignored. Missing `sort_dir` options use the default `asc` value.

--sort-dir {asc,desc}

Sorts the list in the specified direction. You can repeat this option.

169. neutron vpn-service-show

```
usage: neutron vpn-service-show [-h] [-f {shell,table,value}] [-c COLUMN] [--max-width <integer>] [--prefix PREFIX] [--request-format {json,xml}] [-D] [-F FIELD] VPNSERVICE
```

Show information of a given VPN service.

Positional arguments

VPNSERVICE

ID or name of vpnservice to look up.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

-D, --show-details

Show detailed information.

-F FIELD, --field FIELD

Specify the field(s) to be returned by server. You can repeat this option.

170. neutron vpn-service-update

```
usage: neutron vpn-service-update [-h] [--request-format {json,xml}]
VPNSERVICE
```

Update a given VPN service.

Positional arguments

VPNSERVICE

ID or name of vpnservice to update.

Optional arguments

-h, --help

show this help message and exit

--request-format {json,xml}

The XML or JSON request format.

Chapter 10. neutron-debug command-line client

The **neutron-debug** client is an extension to the **neutron** command-line interface (CLI) for the OpenStack neutron-debug tool. This chapter documents **neutron-debug** version 2.3.0.

For help on a specific **neutron-debug** command, enter:

```
$ neutron-debug help COMMAND
```

1. neutron-debug usage

```
[--os-password <auth-password>] [--os-tenant-name <auth-tenant-name>] [--os-tenant-id <auth-tenant-id>] [--os-auth-url <auth-url>] [--os-region-name <region-name>] [--service-type <service-type>] [--service-name <service-name>] [--volume-service-name <volume-service-name>] [--endpoint-type <endpoint-type>] [--os-volume-api-version <volume-api-ver>] [--os-cacert <ca-certificate>] [--retries <retries>] <subcommand> ...
```

Subcommands

probe-create

Create probe port - create port and interface within a network namespace.

probe-list

List all probes.

probe-clear

Clear all probes.

probe-delete

Delete probe - delete port then delete the namespace.

probe-exec

Execute commands in the namespace of the probe.

ping-all

ping-all is all-in-one command to ping all fixed IP's in a specified network.

2. neutron-debug optional arguments

--version

Show version number and exit.

-v, --verbose, --debug

Increase verbosity of output and show tracebacks on errors. Can be repeated.

-q, --quiet

Suppress output except warnings and errors

-h, --help

Show this help message and exit

--os-auth-strategy <auth-strategy>

Authentication strategy (Env: OS_AUTH_STRATEGY, default keystone). For now, any other value will disable the authentication

--os-auth-url <auth-url>

Authentication URL (Env: OS_AUTH_URL)

--os-tenant-name <auth-tenant-name>

Authentication tenant name (Env: OS_TENANT_NAME)

--os-tenant-id <auth-tenant-id>

Authentication tenant name (Env: OS_TENANT_ID)

--os-username <auth-username>

Authentication username (Env: OS_USERNAME)

--os-password <auth-password>

Authentication password (Env: OS_PASSWORD)

--os-region-name <auth-region-name>

Authentication region name (Env: OS_REGION_NAME)

--os-token <token>

Defaults to `env[OS_TOKEN]`

--endpoint-type <endpoint-type>

Defaults to `env[OS_ENDPOINT_TYPE]` or public URL.

--os-url <url>

Defaults to `env[OS_URL]`

--os-cacert <ca-certificate>

Specify a CA bundle file to use in verifying a TLS (https) server certificate. Defaults to `env[OS_CACERT]`

--insecure

Explicitly allow neutron-debug to perform "insecure" SSL (https) requests. The server's certificate will not be verified against any certificate authorities. This option should be used with caution.

--config-file CONFIG_FILE

Config file for interface driver (You may also use `l3_agent.ini`)

3. neutron-debug probe-create command

```
usage: neutron-debug probe-create NET
```

Create probe port - create port and interface, then place it into the created network namespace.

Positional arguments

NET ID

ID of the network in which the probe will be created.

4. neutron-debug probe-list command

```
usage: neutron-debug probe-list
```

List probes.

5. neutron-debug probe-clear command

```
usage: neutron-debug probe-clear
```

Clear all probes.

6. neutron-debug probe-delete command

```
usage: neutron-debug probe-delete <port-id>
```

Remove a probe.

Positional arguments

<port-id>

ID of the probe to delete.

7. neutron-debug probe-exec command

```
usage: neutron-debug probe-exec <port-id> <command>
```

Execute commands in the namespace of the probe

8. neutron-debug ping-all command

```
usage: neutron-debug ping-all <port-id> --timeout <number>
```

All-in-one command to ping all fixed IP's in a specified network.

Positional arguments

<port-id>

ID of the port to use.

Optional arguments

--timeout <timeout in seconds>

Optional ping timeout.

9. neutron-debug example

```
usage: neutron-debug create-probe < NET_ID>
```

Create a probe namespace within the network identified by NET_ID. The namespace will have the name of qprobe-<UUID of the probe port>

Note

For the following examples to function, the security group rules may need to be modified to allow the SSH (TCP port 22) or ping (ICMP) traffic into network.

```
usage: neutron-debug probe-exec <probe ID> "ssh <IP of instance>"
```

SSH to an instance within the network.

```
usage: neutron-debug ping-all <network ID>"
```

Ping all instances on this network to verify they are responding.

```
usage: neutron-debug probe-exec <probe_ID> dhcping <VM_MAC address>  
-s <IP of DHCP server>"
```

Ping the DHCP server for this network using dhcping to verify it is working.

Chapter 11. Object Storage command-line client

The **swift** client is the command-line interface (CLI) for the OpenStack Object Storage API and its extensions. This chapter documents **swift** version **2.3.1**.

For help on a specific **swift** command, enter:

```
$ swift COMMAND --help
```

1. swift usage

```
Usage: swift [--version] [--help] [--os-help] [--snet] [--verbose] [-
-debug] [--info] [--quiet] [--auth <auth_url>] [--auth-version
<auth_version>] [--user <username>] [--key <api_key>] [--retries
<num_retries>] [--os-username <auth-user-name>] [--os-password
<auth-password>] [--os-user-id <auth-user-id>] [--os-user-domain-id
<auth-user-domain-id>] [--os-user-domain-name <auth-user-domain-
name>] [--os-tenant-id <auth-tenant-id>] [--os-tenant-name <auth-
tenant-name>] [--os-project-id <auth-project-id>] [--os-project-name
<auth-project-name>] [--os-project-domain-id <auth-project-domain-
id>] [--os-project-domain-name <auth-project-domain-name>] [--os-
auth-url <auth-url>] [--os-auth-token <auth-token>] [--os-storage-
url <storage-url>] [--os-region-name <region-name>] [--os-service-
type <service-type>] [--os-endpoint-type <endpoint-type>] [--os-
cacert <ca-certificate>] [--insecure] [--no-ssl-compression]
<subcommand> [--help]
```

Subcommands

delete

Delete a container or objects within a container.

download

Download objects from containers.

list

Lists the containers for the account or the objects for a container.

post

Updates meta information for the account, container, or object; creates containers if not present.

stat

Displays information for the account, container, or object.

upload

Uploads files or directories to the given container.

capabilities

List cluster capabilities.

tempurl

Create a temporary URL

2. swift examples

```
swift download --help swift -A
https://auth.api.rackspacecloud.com/v1.0 -U user -K api_key stat -v
swift --os-auth-url https://api.example.com/v2.0 --os-tenant-name
tenant \ --os-username user --os-password password list swift --os-
auth-url https://api.example.com/v3 --auth-version 3 \ --os-project-
name project1 --os-project-domain-name domain1 \ --os-username user
--os-user-domain-name domain1 \ --os-password password list swift --
os-auth-url https://api.example.com/v3 --auth-version 3 \ --os-
project-id 0123456789abcdef0123456789abcdef \ --os-user-id
abcdef0123456789abcdef0123456789 \ --os-password password list swift
--os-auth-token 6ee5eb33efad4e45ab46806eac010566 \ --os-storage-url
https://10.1.5.2:8080/v1/AUTH_ced809b6a4baea7aeab61a \ list swift
list --lh
```

3. swift optional arguments

--version

show program's version number and exit

-h, --help

show this help message and exit

--os-help

Show OpenStack authentication options.

-s, --snet

Use SERVICENET internal network.

-v, --verbose

Print more info.

--debug

Show the curl commands and results of all http queries regardless of result status.

--info

Show the curl commands and results of all http queries which return an error.

-q, --quiet

Suppress status output.

-A AUTH, --auth=AUTH URL

for obtaining an auth token.

-V AUTH_VERSION, --auth-version=AUTH_VERSION

Specify a version for authentication. Defaults to 1.0.

-U USER, --user=USER

User name for obtaining an auth token.

-K KEY, --key=KEY

Key for obtaining an auth token.

-R RETRIES, --retries=RETRIES

The number of times to retry a failed connection.

--insecure

Allow swiftclient to access servers without having to verify the SSL certificate. Defaults to `env[SWIFTCLIENT_INSECURE]` (set to 'true' to enable).

--no-ssl-compression

This option is deprecated and not used anymore. SSL compression should be disabled by default by the system SSL library.

4. swift delete

Usage: `swift delete`

Delete a container or objects within a container.

Positional arguments

<container>

Name of container to delete from.

[object]

Name of object to delete. Specify multiple times for multiple objects.

Optional arguments

--all

Delete all containers and objects.

--leave-segments

Do not delete segments of manifest objects.

--object-threads <threads>

Number of threads to use for deleting objects. Default is 10.

--container-threads <threads>

Number of threads to use for deleting containers. Default is 10.

5. swift download

Usage: swift download

Download objects from containers.

Positional arguments

<container>

Name of container to download from. To download a whole account, omit this and specify --all.

<object>

Name of object to download. Specify multiple times for multiple objects. Omit this to download all objects from the container.

Optional arguments

--all

Indicates that you really want to download everything in the account.

--marker

Marker to use when starting a container or account download.

--prefix <prefix>

Only download items beginning with <prefix>

--output <out_file>

For a single file download, stream the output to <out_file>. Specifying "-" as <out_file> will redirect to stdout.

--object-threads <threads>

Number of threads to use for downloading objects. Default is 10.

--container-threads <threads>

Number of threads to use for downloading containers. Default is 10.

--no-download

Perform download(s), but don't actually write anything to disk.

--header <header_name:header_value>

Adds a customized request header to the query, like "Range" or "If-Match". This argument is repeatable. Example --header "content-type:text/plain"

--skip-identical

Skip downloading files that are identical on both sides.

6. swift list

Usage: `swift list`

Lists the containers for the account or the objects for a container.

Positional arguments

[container]

Name of container to list object in.

Optional arguments

--long

Long listing format, similar to `ls -l`.

--lh

Report sizes in human readable format similar to `ls -lh`.

--totals

Used with `-l` or `--lh`, only report totals.

--prefix

Only list items beginning with the prefix.

--delimiter

Roll up items with the given delimiter. For containers only. See OpenStack Swift API documentation for what this means.

7. swift post

Usage: `swift post`

Updates meta information for the account, container, or object. If the container is not found, it will be created automatically.

Positional arguments

[container]

Name of container to post to.

[object]

Name of object to post. Specify multiple times for multiple objects.

Optional arguments

--read-acl <acl>

Read ACL for containers. Quick summary of ACL syntax: .r:*, .r:-.example.com, .r:www.example.com, account1, account2:user2

--write-acl <acl>

Write ACL for containers. Quick summary of ACL syntax: account1 account2:user2

--sync-to <sync-to>

Sync To for containers, for multi-cluster replication.

--sync-key <sync-key>

Sync Key for containers, for multi-cluster replication.

--meta <name:value>

Sets a meta data item. This option may be repeated. Example: -m Color:Blue -m Size:Large

--header <header>

Set request headers. This option may be repeated. Example -H "content-type:text/plain"

8. swift stat

Usage: swift stat

Displays information for the account, container, or object.

Positional arguments

[container]

Name of container to stat from.

[object]

Name of object to stat.

Optional arguments

--lh

Report sizes in human readable format similar to ls -lh.

9. swift upload

Usage: swift upload

Uploads specified files and directories to the given container.

Positional arguments

<container>

Name of container to upload to.

<file_or_directory>

Name of file or directory to upload. Specify multiple times for multiple uploads.

Optional arguments**--changed**

Only upload files that have changed since the last upload.

--skip-identical

Skip uploading files that are identical on both sides.

--segment-size <size>

Upload files in segments no larger than <size> (in Bytes) and then create a "manifest" file that will download all the segments as if it were the original file.

--segment-container <container>

Upload the segments into the specified container. If not specified, the segments will be uploaded to a <container>_segments container to not pollute the main <container> listings.

--leave-segments

Indicates that you want the older segments of manifest objects left alone (in the case of overwrites).

--object-threads <threads>

Number of threads to use for uploading full objects. Default is 10.

--segment-threads <threads>

Number of threads to use for uploading object segments. Default is 10.

--header <header>

Set request headers with the syntax header:value. This option may be repeated. Example -H "content-type:text/plain".

--use-slo

When used in conjunction with --segment-size it will create a Static Large Object instead of the default Dynamic Large Object.

--object-name <object-name>

Upload file and name object to <object-name> or upload dir and use <object-name> as object prefix instead of folder name.

Chapter 12. Orchestration command-line client

The **heat** client is the command-line interface (CLI) for the Orchestration API and its extensions. This chapter documents **heat** version **0 . 2 . 12**.

For help on a specific **heat** command, enter:

```
$ heat help COMMAND
```

1. heat usage

```
usage: heat [--version] [-d] [-v] [--api-timeout API_TIMEOUT] [--os-
no-client-auth] [--heat-url HEAT_URL] [--heat-api-version
HEAT_API_VERSION] [--include-password] [-k] [--os-cert OS_CERT] [--
cert-file OS_CERT] [--os-key OS_KEY] [--key-file OS_KEY] [--os-cacert
<ca-certificate-file>] [--ca-file OS_CACERT] [--os-username
OS_USERNAME] [--os-user-id OS_USER_ID] [--os-user-domain-id
OS_USER_DOMAIN_ID] [--os-user-domain-name OS_USER_DOMAIN_NAME] [--
os-project-id OS_PROJECT_ID] [--os-project-name OS_PROJECT_NAME] [--
os-project-domain-id OS_PROJECT_DOMAIN_ID] [--os-project-domain-name
OS_PROJECT_DOMAIN_NAME] [--os-password OS_PASSWORD] [--os-tenant-id
OS_TENANT_ID] [--os-tenant-name OS_TENANT_NAME] [--os-auth-url
OS_AUTH_URL] [--os-region-name OS_REGION_NAME] [--os-auth-token
OS_AUTH_TOKEN] [--os-service-type OS_SERVICE_TYPE] [--os-endpoint-
type OS_ENDPOINT_TYPE] [--profile HMAC_KEY] <subcommand> ...
```

Subcommands

action-check

Check that stack resources are in expected states.

action-resume

Resume the stack.

action-suspend

Suspend the stack.

build-info

Retrieve build information.

create

DEPRECATED! Use stack-create instead.

delete

DEPRECATED! Use stack-delete instead.

describe

DEPRECATED! Use stack-show instead.

event

DEPRECATED! Use event-show instead.

event-list

List events for a stack.

event-show

Describe the event.

gettemplate

DEPRECATED! Use template-show instead.

list

DEPRECATED! Use stack-list instead.

output-list

Show available outputs.

output-show

Show a specific stack output.

resource

DEPRECATED! Use resource-show instead.

resource-list

Show list of resources belonging to a stack.

resource-metadata

List resource metadata.

resource-show

Describe the resource.

resource-signal

Send a signal to a resource.

resource-template

DEPRECATED! Use resource-type-template instead.

resource-type-list

List the available resource types.

resource-type-show

Show the resource type.

resource-type-template

Generate a template based on a resource type.

stack-abandon

Abandon the stack.

stack-adopt

Adopt a stack.

stack-cancel-update

Cancel currently running update of the stack.

stack-create

Create the stack.

stack-delete

Delete the stack(s).

stack-list

List the user's stacks.

stack-preview

Preview the stack.

stack-show

Describe the stack.

stack-update

Update the stack.

template-show

Get the template for the specified stack.

template-validate

Validate a template with parameters.

update

DEPRECATED! Use stack-update instead.

validate

DEPRECATED! Use template-validate instead.

bash-completion

Prints all of the commands and options to stdout.

help

Display help about this program or one of its subcommands.

2. heat optional arguments

--version

Shows the client version and exits.

-d, --debug

Defaults to `env[HEATCLIENT_DEBUG]`.

-v, --verbose

Print more verbose output.

--api-timeout API_TIMEOUT

Number of seconds to wait for an API response, defaults to system socket timeout

--os-no-client-auth

Do not contact keystone for a token. Defaults to `env[OS_NO_CLIENT_AUTH]`.

--heat-url HEAT_URL

Defaults to `env[HEAT_URL]`.

--heat-api-version HEAT_API_VERSION

Defaults to `env[HEAT_API_VERSION]` or 1.

--include-password

Send os-username and os-password to heat.

-k, --insecure

Explicitly allow heatclient to perform "insecure SSL" (https) requests. The server's certificate will not be verified against any certificate authorities. This option should be used with caution.

--os-cert OS_CERT

Path of certificate file to use in SSL connection. This file can optionally be prepended with the private key.

--cert-file OS_CERT

DEPRECATED! Use `--os-cert`.

--os-key OS_KEY

Path of client key to use in SSL connection. This option is not necessary if your key is prepended to your cert file.

--key-file OS_KEY

DEPRECATED! Use `--os-key`.

--os-cacert <ca-certificate-file>

Path of CA TLS certificate(s) used to verify the remote server's certificate. Without this option glance looks for the default system CA certificates.

--ca-file OS_CACERT

DEPRECATED! Use `--os-cacert`.

--os-username OS_USERNAME

Defaults to `env[OS_USERNAME]`.

--os-user-id OS_USER_ID

Defaults to `env[OS_USER_ID]`.

--os-user-domain-id OS_USER_DOMAIN_ID

Defaults to `env[OS_USER_DOMAIN_ID]`.

--os-user-domain-name OS_USER_DOMAIN_NAME

Defaults to `env[OS_USER_DOMAIN_NAME]`.

--os-project-id OS_PROJECT_ID

Another way to specify tenant ID. This option is mutually exclusive with `--os-tenant-id`. Defaults to `env[OS_PROJECT_ID]`.

--os-project-name OS_PROJECT_NAME

Another way to specify tenant name. This option is mutually exclusive with `--os-tenant-name`. Defaults to `env[OS_PROJECT_NAME]`.

--os-project-domain-id OS_PROJECT_DOMAIN_ID

Defaults to `env[OS_PROJECT_DOMAIN_ID]`.

--os-project-domain-name OS_PROJECT_DOMAIN_NAME

Defaults to `env[OS_PROJECT_DOMAIN_NAME]`.

--os-password OS_PASSWORD

Defaults to `env[OS_PASSWORD]`.

--os-tenant-id OS_TENANT_ID

Defaults to `env[OS_TENANT_ID]`.

--os-tenant-name OS_TENANT_NAME

Defaults to `env[OS_TENANT_NAME]`.

--os-auth-url OS_AUTH_URL

Defaults to `env[OS_AUTH_URL]`.

--os-region-name OS_REGION_NAME

Defaults to `env[OS_REGION_NAME]`.

--os-auth-token OS_AUTH_TOKEN

Defaults to `env[OS_AUTH_TOKEN]`.

--os-service-type OS_SERVICE_TYPE

Defaults to `env[OS_SERVICE_TYPE]`.

--os-endpoint-type OS_ENDPOINT_TYPE

Defaults to `env[OS_ENDPOINT_TYPE]`.

--profile HMAC_KEY HMAC

key to use for encrypting context data for performance profiling of operation. This key should be the value of HMAC key configured in osprofiler middleware in heat, it is specified in the paste configuration (`/etc/heat/api-paste.ini`). Without the key, profiling will not be triggered even if osprofiler is enabled on server side.

3. heat action-check

```
usage: heat action-check <NAME or ID>
```

Check that stack resources are in expected states.

Positional arguments

<NAME or ID>

Name or ID of stack to check.

4. heat action-resume

```
usage: heat action-resume <NAME or ID>
```

Resume the stack.

Positional arguments

<NAME or ID>

Name or ID of stack to resume.

5. heat action-suspend

```
usage: heat action-suspend <NAME or ID>
```

Suspend the stack.

Positional arguments

<NAME or ID>

Name or ID of stack to suspend.

6. heat build-info

```
usage: heat build-info
```

Retrieve build information.

7. heat event-list

```
usage: heat event-list [-r <RESOURCE>] [-f
<KEY1=VALUE1;KEY2=VALUE2...>] [-l <LIMIT>] [-m <ID>] <NAME or ID>
```

List events for a stack.

Positional arguments

<NAME or ID>

Name or ID of stack to show the events for.

Optional arguments

-r <RESOURCE>, --resource <RESOURCE>

Name of the resource to filter events by.

**-f <KEY1=VALUE1;KEY2=VALUE2...>, --filters
<KEY1=VALUE1;KEY2=VALUE2...>**

Filter parameters to apply on returned events. This can be specified multiple times, or once with parameters separated by a semicolon.

-l <LIMIT>, --limit <LIMIT>

Limit the number of events returned.

-m <ID>, --marker <ID>

Only return events that appear after the given event ID.

8. heat event-show

```
usage: heat event-show <NAME or ID> <RESOURCE> <EVENT>
```

Describe the event.

Positional arguments

<NAME or ID>

Name or ID of stack to show the events for.

<RESOURCE>

Name of the resource the event belongs to.

<EVENT>

ID of event to display details for.

9. heat output-list

```
usage: heat output-list <NAME or ID>
```

Show available outputs.

Positional arguments

<NAME or ID>

Name or ID of stack to query.

10. heat output-show

```
usage: heat output-show <NAME or ID> <OUTPUT NAME>
```

Show a specific stack output.

Positional arguments

<NAME or ID>

Name or ID of stack to query.

<OUTPUT NAME>

Name of an output to display.

11. heat resource-list

```
usage: heat resource-list [-n <DEPTH>] <NAME or ID>
```

Show list of resources belonging to a stack.

Positional arguments

<NAME or ID>

Name or ID of stack to show the resources for.

Optional arguments

-n <DEPTH>, --nested-depth <DEPTH>

Depth of nested stacks from which to display resources.

12. heat resource-metadata

```
usage: heat resource-metadata <NAME or ID> <RESOURCE>
```

List resource metadata.

Positional arguments

<NAME or ID>

Name or ID of stack to show the resource metadata for.

<RESOURCE>

Name of the resource to show the metadata for.

13. heat resource-show

```
usage: heat resource-show <NAME or ID> <RESOURCE>
```

Describe the resource.

Positional arguments

<NAME or ID>

Name or ID of stack to show the resource for.

<RESOURCE>

Name of the resource to show the details for.

14. heat resource-signal

```
usage: heat resource-signal [-D <DATA>] [-f <FILE>] <NAME or ID> <RESOURCE>
```

Send a signal to a resource.

Positional arguments

<NAME or ID>

Name or ID of stack the resource belongs to.

<RESOURCE>

Name of the resource to signal.

Optional arguments

-D <DATA>, --data <DATA>

JSON Data to send to the signal handler.

-f <FILE>, --data-file <FILE>

File containing JSON data to send to the signal handler.

15. heat resource-template

```
usage: heat resource-template [-F <FORMAT>] <RESOURCE_TYPE>
```

DEPRECATED! Use resource-type-template instead.

Positional arguments

<RESOURCE_TYPE>

Resource type to generate a template for.

Optional arguments

-F <FORMAT>, --format <FORMAT>

The template output format, one of: yaml, json.

16. heat resource-type-list

usage: heat resource-type-list

List the available resource types.

17. heat resource-type-show

usage: heat resource-type-show <RESOURCE_TYPE>

Show the resource type.

Positional arguments

<RESOURCE_TYPE>

Resource type to get the details for.

18. heat resource-type-template

usage: heat resource-type-template [-F <FORMAT>] <RESOURCE_TYPE>

Generate a template based on a resource type.

Positional arguments

<RESOURCE_TYPE>

Resource type to generate a template for.

Optional arguments

-F <FORMAT>, --format <FORMAT>

The template output format, one of: yaml, json.

19. heat stack-abandon

```
usage: heat stack-abandon [-O <FILE>] <NAME or ID>
```

Abandon the stack. This will delete the record of the stack from Heat, but will not delete any of the underlying resources. Prints an adoptable JSON representation of the stack to stdout or a file on success.

Positional arguments

<NAME or ID>

Name or ID of stack to abandon.

Optional arguments

-O <FILE>, --output-file <FILE>

file to output abandon result. If the option is specified, the result will be output into <FILE>.

20. heat stack-adopt

```
usage: heat stack-adopt [-e <FILE or URL>] [-c <TIMEOUT>] [-t <TIMEOUT>] [-a <FILE or URL>] [-r] [-P <KEY1=VALUE1;KEY2=VALUE2...>] <STACK_NAME>
```

Adopt a stack.

Positional arguments

<STACK_NAME>

Name of the stack to adopt.

Optional arguments

-e <FILE or URL>, --environment-file <FILE or URL>

Path to the environment, it can be specified multiple times.

-c <TIMEOUT>, --create-timeout <TIMEOUT>

Stack creation timeout in minutes. *DEPRECATED* use --timeout instead.

-t <TIMEOUT>, --timeout <TIMEOUT>

Stack creation timeout in minutes.

-a <FILE or URL>, --adopt-file <FILE or URL>

Path to adopt stack data file.

-r, --enable-rollback

Enable rollback on create/update failure.

-P <KEY1=VALUE1;KEY2=VALUE2...>, --parameters <KEY1=VALUE1;KEY2=VALUE2...>

Parameter values used to create the stack. This can be specified multiple times, or once with parameters separated by a semicolon.

21. heat stack-cancel-update

usage: heat stack-cancel-update <NAME or ID>

Cancel currently running update of the stack.

Positional arguments

<NAME or ID>

Name or ID of stack to cancel update for.

22. heat stack-create

usage: heat stack-create [-f <FILE>] [-e <FILE or URL>] [-u <URL>] [-o <URL>] [-c <TIMEOUT>] [-t <TIMEOUT>] [-r] [-P <KEY1=VALUE1;KEY2=VALUE2...>] <STACK_NAME>

Create the stack.

Positional arguments

<STACK_NAME>

Name of the stack to create.

Optional arguments

-f <FILE>, --template-file <FILE>

Path to the template.

-e <FILE or URL>, --environment-file <FILE or URL>

Path to the environment, it can be specified multiple times.

-u <URL>, --template-url <URL>

URL of template.

-o <URL>, --template-object <URL>

URL to retrieve template object (e.g. from swift).

-c <TIMEOUT>, --create-timeout <TIMEOUT>

Stack creation timeout in minutes. *DEPRECATED* use --timeout instead.

-t <TIMEOUT>, --timeout <TIMEOUT>

Stack creation timeout in minutes.

-r, --enable-rollback

Enable rollback on create/update failure.

**-P <KEY1=VALUE1;KEY2=VALUE2...>, --parameters
<KEY1=VALUE1;KEY2=VALUE2...>**

Parameter values used to create the stack. This can be specified multiple times, or once with parameters separated by a semicolon.

23. heat stack-delete

```
usage: heat stack-delete <NAME or ID> [<NAME or ID> ...]
```

Delete the stack(s).

Positional arguments

<NAME or ID>

Name or ID of stack(s) to delete.

24. heat stack-list

```
usage: heat stack-list [-s] [-n] [-f <KEY1=VALUE1;KEY2=VALUE2...>] [-l  
l <LIMIT>] [-m <ID>] [-g] [-o]
```

List the user's stacks.

Optional arguments

-s, --show-deleted

Include soft-deleted stacks in the stack listing.

-n, --show-nested

Include nested stacks in the stack listing.

**-f <KEY1=VALUE1;KEY2=VALUE2...>, --filters
<KEY1=VALUE1;KEY2=VALUE2...>**

Filter parameters to apply on returned stacks. This can be specified multiple times, or once with parameters separated by a semicolon.

-l <LIMIT>, --limit <LIMIT>

Limit the number of stacks returned.

-m <ID>, --marker <ID>

Only return stacks that appear after the given stack ID.

-g, --global-tenant

Display stacks from all tenants. Operation only authorized for users who match the policy in heat's policy.json.

-o, --show-owner

Display stack owner information. This is automatically enabled when using --global-tenant.

25. heat stack-preview

```
usage: heat stack-preview [-f <FILE>] [-e <FILE or URL>] [-u <URL>]
[-o <URL>] [-t <TIMEOUT>] [-r] [-P <KEY1=VALUE1;KEY2=VALUE2...>]
<STACK_NAME>
```

Preview the stack.

Positional arguments

<STACK_NAME>

Name of the stack to preview.

Optional arguments

-f <FILE>, --template-file <FILE>

Path to the template.

-e <FILE or URL>, --environment-file <FILE or URL>

Path to the environment, it can be specified multiple times.

-u <URL>, --template-url <URL>

URL of template.

-o <URL>, --template-object <URL>

URL to retrieve template object (e.g. from swift)

-t <TIMEOUT>, --timeout <TIMEOUT>

Stack creation timeout in minutes. This is only used during validation in preview.

-r, --enable-rollback

Enable rollback on failure. This option is not used during preview and exists only for symmetry with stack- create.

-P <KEY1=VALUE1;KEY2=VALUE2...>, --parameters <KEY1=VALUE1;KEY2=VALUE2...>

Parameter values used to preview the stack. This can be specified multiple times, or once with parameters separated by semicolon.

26. heat stack-show

```
usage: heat stack-show <NAME or ID>
```

Describe the stack.

Positional arguments

<NAME or ID>

Name or ID of stack to describe.

27. heat stack-update

```
usage: heat stack-update [-f <FILE>] [-e <FILE or URL>] [-u <URL>] [-o <URL>] [-t <TIMEOUT>] [-r] [--rollback <VALUE>] [-P <KEY1=VALUE1;KEY2=VALUE2...>] [-x] [-c <PARAMETER>] <NAME or ID>
```

Update the stack.

Positional arguments

<NAME or ID>

Name or ID of stack to update.

Optional arguments

-f <FILE>, --template-file <FILE>

Path to the template.

-e <FILE or URL>, --environment-file <FILE or URL>

Path to the environment, it can be specified multiple times.

-u <URL>, --template-url <URL>

URL of template.

-o <URL>, --template-object <URL>

URL to retrieve template object (e.g. from swift).

-t <TIMEOUT>, --timeout <TIMEOUT>

Stack update timeout in minutes.

-r, --enable-rollback

DEPRECATED! Use --rollback argument instead. Enable rollback on stack update failure. NOTE: default behavior is now to use the rollback value of existing stack.

--rollback <VALUE>

Set rollback on update failure. Values ('1', 't', 'true', 'on', 'y', 'yes') set rollback to enabled. Values ('0', 'f', 'false', 'off', 'n', 'no') set rollback to disabled. Default is to use the value of existing stack to be updated.

-P <KEY1=VALUE1;KEY2=VALUE2...>, --parameters <KEY1=VALUE1;KEY2=VALUE2...>

Parameter values used to create the stack. This can be specified multiple times, or once with parameters separated by a semicolon.

-x, --existing

Re-use the set of parameters of the current stack. Parameters specified in --parameters will patch over the existing values in the current stack. Parameters omitted will keep the existing values.

-c <PARAMETER>, --clear-parameter <PARAMETER>

Remove the parameters from the set of parameters of current stack for the stack-update. The default value in the template will be used. This can be specified multiple times.

28. heat template-show

```
usage: heat template-show <NAME or ID>
```

Get the template for the specified stack.

Positional arguments

<NAME or ID>

Name or ID of stack to get the template for.

29. heat template-validate

```
usage: heat template-validate [-u <URL>] [-f <FILE>] [-e <FILE or URL>] [-o <URL>]
```

Validate a template with parameters.

Optional arguments

-u <URL>, --template-url <URL>

URL of template.

-f <FILE>, --template-file <FILE>

Path to the template.

-e <FILE or URL>, --environment-file <FILE or URL>

Path to the environment, it can be specified multiple times.

-o <URL>, --template-object <URL>

URL to retrieve template object (e.g. from swift).

Chapter 13. Telemetry command-line client

The **ceilometer** client is the command-line interface (CLI) for the Telemetry API and its extensions. This chapter documents **ceilometer** version **1.0.12**.

For help on a specific **ceilometer** command, enter:

```
$ ceilometer help COMMAND
```

1. ceilometer usage

```
usage: ceilometer [--version] [-d] [-v] [--timeout TIMEOUT] [--
ceilometer-url CEILOMETER_URL] [--ceilometer-api-version
CEILOMETER_API_VERSION] [--os-tenant-id <tenant-id>] [--os-region-
name <region-name>] [--os-auth-token <auth-token>] [--os-service-
type <service-type>] [--os-endpoint-type <endpoint-type>] [--os-
cacert <cacert>] [--os-insecure <insecure>] [--os-cert-file <cert-
file>] [--os-key-file <key-file>] [--os-cert <cert>] [--os-key <key>]
[--os-project-name <project-name>] [--os-project-id <project-id>] [-
os-user-domain-id <user-domain-id>] [--os-user-domain-name <user-
domain-name>] [--os-endpoint <endpoint>] [--os-auth-system <auth-
system>] [--os-username <username>] [--os-password <password>] [--os-
tenant-name <tenant-name>] [--os-token <token>] [--os-auth-url
<auth-url>] <subcommand> ...
```

Subcommands

alarm-combination-create

Create a new alarm based on state of other alarms.

alarm-combination-update

Update an existing alarm based on state of other alarms.

alarm-create

Create a new alarm (Deprecated). Use `alarm-threshold-create` instead.

alarm-delete

Delete an alarm.

alarm-history

Display the change history of an alarm.

alarm-list

List the user's alarms.

alarm-show

Show an alarm.

alarm-state-get

Get the state of an alarm.

alarm-state-set

Set the state of an alarm.

alarm-threshold-create

Create a new alarm based on computed statistics.

alarm-threshold-update

Update an existing alarm based on computed statistics.

alarm-update

Update an existing alarm (Deprecated).

event-list

List events.

event-show

Show a particular event.

event-type-list

List event types.

meter-list

List the user's meters.

query-alarm-history

Query Alarm History.

query-alarms

Query Alarms.

query-samples

Query samples.

resource-list

List the resources.

resource-show

Show the resource.

sample-create

Create a sample.

sample-list

List the samples for a meter.

statistics

List the statistics for a meter.

trait-description-list

List trait info for an event type.

trait-list

List trait all traits with name <trait_name> for Event Type

bash-completion

Prints all of the commands and options to stdout.

help

Display help about this program or one of its subcommands.

2. ceilometer optional arguments

--version

show program's version number and exit

-d, --debug

Defaults to `env[CEILOMETERCLIENT_DEBUG]`.

-v, --verbose

Print more verbose output.

--timeout TIMEOUT

Number of seconds to wait for a response.

--ceilometer-url CEILOMETER_URL

Defaults to `env[CEILOMETER_URL]`.

--ceilometer-api-version CEILOMETER_API_VERSION

Defaults to `env[CEILOMETER_API_VERSION]` or 2.

--os-tenant-id <tenant-id>

Defaults to `env[OS_TENANT_ID]`.

--os-region-name <region-name>

Defaults to `env[OS_REGION_NAME]`.

--os-auth-token <auth-token>

Defaults to `env[OS_AUTH_TOKEN]`.

--os-service-type <service-type>

Defaults to `env[OS_SERVICE_TYPE]`.

--os-endpoint-type <endpoint-type>

Defaults to `env[OS_ENDPOINT_TYPE]`.

--os-cacert <cacert>
Defaults to `env[OS_CACERT]`.

--os-insecure <insecure>
Defaults to `env[OS_INSECURE]`.

--os-cert-file <cert-file>
Defaults to `env[OS_CERT_FILE]`.

--os-key-file <key-file>
Defaults to `env[OS_KEY_FILE]`.

--os-cert <cert>
Defaults to `env[OS_CERT]`.

--os-key <key>
Defaults to `env[OS_KEY]`.

--os-project-name <project-name>
Defaults to `env[OS_PROJECT_NAME]`.

--os-project-id <project-id>
Defaults to `env[OS_PROJECT_ID]`.

--os-user-domain-id <user-domain-id>
Defaults to `env[OS_USER_DOMAIN_ID]`.

--os-user-domain-name <user-domain-name>
Defaults to `env[OS_USER_DOMAIN_NAME]`.

--os-endpoint <endpoint>
Defaults to `env[OS_ENDPOINT]`.

--os-auth-system <auth-system>
Defaults to `env[OS_AUTH_SYSTEM]`.

--os-username <username>
Defaults to `env[OS_USERNAME]`.

--os-password <password>
Defaults to `env[OS_PASSWORD]`.

--os-tenant-name <tenant-name>
Defaults to `env[OS_TENANT_NAME]`.

--os-token <token>

Defaults to `env[OS_TOKEN]`.

--os-auth-url <auth-url>

Defaults to `env[OS_AUTH_URL]`.

3. ceilometer alarm-combination-create

```
usage: ceilometer alarm-combination-create --name <NAME> [--project-id <PROJECT_ID>] [--user-id <USER_ID>] [--description <DESCRIPTION>] [--state <STATE>] [--enabled {True|False}] [--alarm-action <Webhook URL>] [--ok-action <Webhook URL>] [--insufficient-data-action <Webhook URL>] [--time-constraint <Time Constraint>] --alarm_ids <ALARM_IDS> [--operator <OPERATOR>] [--repeat-actions {True|False}]
```

Create a new alarm based on state of other alarms.

Optional arguments

--name <NAME>

Name of the alarm (must be unique per tenant). Required.

--project-id <PROJECT_ID>

Tenant to associate with alarm (only settable by admin users).

--user-id <USER_ID>

User to associate with alarm (only settable by admin users).

--description <DESCRIPTION>

Free text description of the alarm.

--state <STATE>

State of the alarm, one of: ['ok', 'alarm', 'insufficient data']

--enabled {True|False}

True if alarm evaluation/actioning is enabled.

--alarm-action <Webhook URL> URL

to invoke when state transitions to alarm. May be used multiple times. Defaults to None.

--ok-action <Webhook URL> URL

to invoke when state transitions to OK. May be used multiple times. Defaults to None.

--insufficient-data-action <Webhook URL>

URL to invoke when state transitions to insufficient data. May be used multiple times. Defaults to None.

--time-constraint <Time Constraint>

Only evaluate the alarm if the time at evaluation is within this time constraint. Start point(s) of the constraint are specified with a cron expression, whereas its duration is given in seconds. Can be specified multiple times for multiple time constraints, format is: name=<CONSTRAINT_NAME>;start=<CRON>;duration=<SECONDS>;[description=<DESCRIPTION>;[time zone=<IANA Timezone>]] Defaults to None.

--alarm_ids <ALARM_IDS>

List of alarm IDs. Required.

--operator <OPERATOR>

Operator to compare with, one of: ['and', 'or'].

--repeat-actions {True|False}

True if actions should be repeatedly notified while alarm remains in target state. Defaults to False.

4. ceilometer alarm-combination-update

```
usage: ceilometer alarm-combination-update [--name <NAME>] [--project-id <PROJECT_ID>] [--user-id <USER_ID>] [--description <DESCRIPTION>] [--state <STATE>] [--enabled {True|False}] [--alarm-action <Webhook URL>] [--ok-action <Webhook URL>] [--insufficient-data-action <Webhook URL>] [--time-constraint <Time Constraint>] [--remove-time-constraint <Constraint names>] [--alarm_ids <ALARM_IDS>] [--operator <OPERATOR>] [--repeat-actions {True|False}] [<ALARM_ID>]
```

Update an existing alarm based on state of other alarms.

Positional arguments

<ALARM_ID>

ID of the alarm to update.

Optional arguments

--name <NAME>

Name of the alarm (must be unique per tenant).

--project-id <PROJECT_ID>

Tenant to associate with alarm (only settable by admin users).

--user-id <USER_ID>

User to associate with alarm (only settable by admin users).

--description <DESCRIPTION>

Free text description of the alarm.

--state <STATE>

State of the alarm, one of: ['ok', 'alarm', 'insufficient data']

--enabled {True|False}

True if alarm evaluation/actioning is enabled.

--alarm-action <Webhook URL> URL

to invoke when state transitions to alarm. May be used multiple times. Defaults to None.

--ok-action <Webhook URL> URL

to invoke when state transitions to OK. May be used multiple times. Defaults to None.

--insufficient-data-action <Webhook URL>

URL to invoke when state transitions to insufficient data. May be used multiple times. Defaults to None.

--time-constraint <Time Constraint>

Only evaluate the alarm if the time at evaluation is within this time constraint. Start point(s) of the constraint are specified with a cron expression, whereas its duration is given in seconds. Can be specified multiple times for multiple time constraints, format is: name=<CONSTRAINT_NAME>;start=<CRON>;duration=<SECONDS>;[description=<DESCRIPTION>;[timezone=<IANA Timezone>]] Defaults to None.

--remove-time-constraint <Constraint names>

Name or list of names of the time constraints to remove.

--alarm_ids <ALARM_IDS>

List of alarm IDs.

--operator <OPERATOR>

Operator to compare with, one of: ['and', 'or'].

--repeat-actions {True|False}

True if actions should be repeatedly notified while alarm remains in target state.

5. ceilometer alarm-delete

```
usage: ceilometer alarm-delete [<ALARM_ID>]
```

Delete an alarm.

Positional arguments

<ALARM_ID>

ID of the alarm to delete.

6. ceilometer alarm-history

```
usage: ceilometer alarm-history [-q <QUERY>] [<ALARM_ID>]
```

Display the change history of an alarm.

Positional arguments

<ALARM_ID>

ID of the alarm for which history is shown.

Optional arguments

-q <QUERY>, --query <QUERY>

key[op]data_type::value; list. data_type is optional, but if supplied must be string, integer, float, or boolean.

7. ceilometer alarm-list

```
usage: ceilometer alarm-list [-q <QUERY>]
```

List the user's alarms.

Optional arguments

-q <QUERY>, --query <QUERY>

key[op]data_type::value; list. data_type is optional, but if supplied must be string, integer, float, or boolean.

8. ceilometer alarm-show

```
usage: ceilometer alarm-show [<ALARM_ID>]
```

Show an alarm.

Positional arguments

<ALARM_ID>

ID of the alarm to show.

9. ceilometer alarm-state-get

```
usage: ceilometer alarm-state-get [<ALARM_ID>]
```

Get the state of an alarm.

Positional arguments

<ALARM_ID>

ID of the alarm state to show.

10. ceilometer alarm-state-set

```
usage: ceilometer alarm-state-set --state <STATE> [<ALARM_ID>]
```

Set the state of an alarm.

Positional arguments

<ALARM_ID>

ID of the alarm state to set.

Optional arguments

--state <STATE>

State of the alarm, one of: ['ok', 'alarm', 'insufficient data']. Required.

11. ceilometer alarm-threshold-create

```
usage: ceilometer alarm-threshold-create --name <NAME> [--project-
id <PROJECT_ID>] [--user-id <USER_ID>] [--description <DESCRIPTION>]
[--state <STATE>] [--enabled {True|False}] [--alarm-action <Webhook
URL>] [--ok-action <Webhook URL>] [--insufficient-data-action
<Webhook URL>] [--time-constraint <Time Constraint>] -m <METRIC> [--
period <PERIOD>] [--evaluation-periods <COUNT>] [--statistic
<STATISTIC>] [--comparison-operator <OPERATOR>] --threshold
<THRESHOLD> [-q <QUERY>] [--repeat-actions {True|False}]
```

Create a new alarm based on computed statistics.

Optional arguments

--name <NAME>

Name of the alarm (must be unique per tenant). Required.

--project-id <PROJECT_ID>

Tenant to associate with alarm (only settable by admin users).

--user-id <USER_ID>

User to associate with alarm (only settable by admin users).

--description <DESCRIPTION>

Free text description of the alarm.

--state <STATE>

State of the alarm, one of: ['ok', 'alarm', 'insufficient data']

--enabled {True|False}

True if alarm evaluation/actioning is enabled.

--alarm-action <Webhook URL> URL

to invoke when state transitions to alarm. May be used multiple times. Defaults to None.

--ok-action <Webhook URL> URL

to invoke when state transitions to OK. May be used multiple times. Defaults to None.

--insufficient-data-action <Webhook URL>

URL to invoke when state transitions to insufficient data. May be used multiple times. Defaults to None.

--time-constraint <Time Constraint>

Only evaluate the alarm if the time at evaluation is within this time constraint. Start point(s) of the constraint are specified with a cron expression, whereas its duration is given in seconds. Can be specified multiple times for multiple time constraints, format is: name=<CONSTRAINT_NAME>;start=<CRON>;duration=<SECONDS>;[description=<DESCRIPTION>;[timezone=<IANA Timezone>]] Defaults to None.

-m <METRIC>, --meter-name <METRIC>

Metric to evaluate against. Required.

--period <PERIOD>

Length of each period (seconds) to evaluate over.

--evaluation-periods <COUNT>

Number of periods to evaluate over.

--statistic <STATISTIC>

Statistic to evaluate, one of: ['max', 'min', 'avg', 'sum', 'count'].

--comparison-operator <OPERATOR>

Operator to compare with, one of: ['lt', 'le', 'eq', 'ne', 'ge', 'gt'].

--threshold <THRESHOLD>

Threshold to evaluate against. Required.

-q <QUERY>, --query <QUERY>

key[op]data_type::value; list. data_type is optional, but if supplied must be string, integer, float, or boolean.

--repeat-actions {True|False}

True if actions should be repeatedly notified while alarm remains in target state. Defaults to False.

12. ceilometer alarm-threshold-update

```
usage: ceilometer alarm-threshold-update [--name <NAME>] [--project-id <PROJECT_ID>]
[--user-id <USER_ID>] [--description <DESCRIPTION>] [--state <STATE>]
[--enabled {True|False}] [--alarm-action <Webhook
```

```
URL>] [--ok-action <Webhook URL>] [--insufficient-data-action
<Webhook URL>] [--time-constraint <Time Constraint>] [--remove-time-
constraint <Constraint names>] [-m <METRIC>] [--period <PERIOD>] [--
evaluation-periods <COUNT>] [--statistic <STATISTIC>] [--comparison-
operator <OPERATOR>] [--threshold <THRESHOLD>] [-q <QUERY>] [--
repeat-actions {True|False}] [<ALARM_ID>]
```

Update an existing alarm based on computed statistics.

Positional arguments

<ALARM_ID>

ID of the alarm to update.

Optional arguments

--name <NAME>

Name of the alarm (must be unique per tenant).

--project-id <PROJECT_ID>

Tenant to associate with alarm (only settable by admin users).

--user-id <USER_ID>

User to associate with alarm (only settable by admin users).

--description <DESCRIPTION>

Free text description of the alarm.

--state <STATE>

State of the alarm, one of: ['ok', 'alarm', 'insufficient data']

--enabled {True|False}

True if alarm evaluation/actioning is enabled.

--alarm-action <Webhook URL> URL

to invoke when state transitions to alarm. May be used multiple times. Defaults to None.

--ok-action <Webhook URL> URL

to invoke when state transitions to OK. May be used multiple times. Defaults to None.

--insufficient-data-action <Webhook URL>

URL to invoke when state transitions to insufficient data. May be used multiple times. Defaults to None.

--time-constraint <Time Constraint>

Only evaluate the alarm if the time at evaluation is within this time constraint. Start point(s) of the constraint are specified with a cron expression , whereas its duration is given in seconds. Can be specified multiple times for multiple time constraints, format is: name=<CONSTRAINT_NAME>;start=<CRON>;duration=<SECONDS>;

[description=<DESCRIPTION>[timez one=<IANA Timezone>]] Defaults to None.

--remove-time-constraint <Constraint names>

Name or list of names of the time constraints to remove.

-m <METRIC>, --meter-name <METRIC>

Metric to evaluate against.

--period <PERIOD>

Length of each period (seconds) to evaluate over.

--evaluation-periods <COUNT>

Number of periods to evaluate over.

--statistic <STATISTIC>

Statistic to evaluate, one of: ['max', 'min', 'avg', 'sum', 'count'].

--comparison-operator <OPERATOR>

Operator to compare with, one of: ['lt', 'le', 'eq', 'ne', 'ge', 'gt'].

--threshold <THRESHOLD>

Threshold to evaluate against.

-q <QUERY>, --query <QUERY>

key[op]data_type:value; list. data_type is optional, but if supplied must be string, integer, float, or boolean.

--repeat-actions {True|False}

True if actions should be repeatedly notified while alarm remains in target state.

13. ceilometer alarm-update

```
usage: ceilometer alarm-update [--name <NAME>] [--project-id
<PROJECT_ID>] [--user-id <USER_ID>] [--description <DESCRIPTION>] [-
state <STATE>] [--enabled {True|False}] [--alarm-action <Webhook
URL>] [--ok-action <Webhook URL>] [--insufficient-data-action
<Webhook URL>] [--time-constraint <Time Constraint>] [--remove-time-
constraint <Constraint names>] [--period <PERIOD>] [--evaluation-
periods <COUNT>] [-m <METRIC>] [--statistic <STATISTIC>] [--
comparison-operator <OPERATOR>] [--threshold <THRESHOLD>] [--
matching-metadata <Matching Metadata>] [--repeat-actions
{True|False}] [<ALARM_ID>]
```

Update an existing alarm (Deprecated).

Positional arguments

<ALARM_ID>

ID of the alarm to update.

Optional arguments

--name <NAME>

Name of the alarm (must be unique per tenant).

--project-id <PROJECT_ID>

Tenant to associate with alarm (only settable by admin users).

--user-id <USER_ID>

User to associate with alarm (only settable by admin users).

--description <DESCRIPTION>

Free text description of the alarm.

--state <STATE>

State of the alarm, one of: ['ok', 'alarm', 'insufficient data']

--enabled {True|False}

True if alarm evaluation/actioning is enabled.

--alarm-action <Webhook URL> URL

to invoke when state transitions to alarm. May be used multiple times. Defaults to None.

--ok-action <Webhook URL> URL

to invoke when state transitions to OK. May be used multiple times. Defaults to None.

--insufficient-data-action <Webhook URL>

URL to invoke when state transitions to insufficient data. May be used multiple times. Defaults to None.

--time-constraint <Time Constraint>

Only evaluate the alarm if the time at evaluation is within this time constraint. Start point(s) of the constraint are specified with a cron expression, whereas its duration is given in seconds. Can be specified multiple times for multiple time constraints, format is: name=<CONSTRAINT_NAME>;start=<CRON>;duration=<SECONDS>;[description=<DESCRIPTION>;[time zone=<IANA Timezone>]] Defaults to None.

--remove-time-constraint <Constraint names>

Name or list of names of the time constraints to remove.

--period <PERIOD>

Length of each period (seconds) to evaluate over.

--evaluation-periods <COUNT>

Number of periods to evaluate over.

-m <METRIC>, --meter-name <METRIC>

Metric to evaluate against.

--statistic <STATISTIC>

Statistic to evaluate, one of: ['max', 'min', 'avg', 'sum', 'count']

--comparison-operator <OPERATOR>

Operator to compare with, one of: ['lt', 'le', 'eq', 'ne', 'ge', 'gt'].

--threshold <THRESHOLD>

Threshold to evaluate against.

--matching-metadata <Matching Metadata>

A meter should match this resource metadata (key=value) additionally to the meter_name. Defaults to None.

--repeat-actions {True|False}

True if actions should be repeatedly notified while alarm remains in target state.

14. ceilometer event-list

```
usage: ceilometer event-list [-q <QUERY>]
```

List events.

Optional arguments

-q <QUERY>, --query <QUERY>

key[op]data_type::value; list. data_type is optional, but if supplied must be string, integer, float or datetime.

15. ceilometer event-show

```
usage: ceilometer event-show <message_id>
```

Show a particular event.

Positional arguments

<message_id>

The ID of the event. Should be a UUID.

16. ceilometer event-type-list

```
usage: ceilometer event-type-list
```

List event types.

17. ceilometer meter-list

```
usage: ceilometer meter-list [-q <QUERY>]
```

List the user's meters.

Optional arguments

-q <QUERY>, --query <QUERY>

key[op]data_type::value; list. data_type is optional, but if supplied must be string, integer, float, or boolean.

18. ceilometer query-alarm-history

```
usage: ceilometer query-alarm-history [-f <FILTER>] [-o <ORDERBY>]
[-l <LIMIT>]
```

Query Alarm History.

Optional arguments

-f <FILTER>, --filter <FILTER>

{complex_op: [{simple_op: {field_name: value}}]} The complex_op is one of: ['and', 'or'], simple_op is one of: ['=', '!=', '<', '<=', '>', '>='].

-o <ORDERBY>, --orderby <ORDERBY>

{field_name: direction}, {field_name: direction} The direction is one of: ['asc', 'desc'].

-l <LIMIT>, --limit <LIMIT>

Maximum number of alarm history items to return.

19. ceilometer query-alarms

```
usage: ceilometer query-alarms [-f <FILTER>] [-o <ORDERBY>] [-l
<LIMIT>]
```

Query Alarms.

Optional arguments

-f <FILTER>, --filter <FILTER>

{complex_op: [{simple_op: {field_name: value}}]} The complex_op is one of: ['and', 'or'], simple_op is one of: ['=', '!=', '<', '<=', '>', '>='].

-o <ORDERBY>, --orderby <ORDERBY>

{field_name: direction}, {field_name: direction} The direction is one of: ['asc', 'desc'].

-l <LIMIT>, --limit <LIMIT>

Maximum number of alarms to return.

20. ceilometer query-samples

```
usage: ceilometer query-samples [-f <FILTER>] [-o <ORDERBY>] [-l
<LIMIT>]
```

Query samples.

Optional arguments

-f <FILTER>, --filter <FILTER>

{complex_op: [{simple_op: {field_name: value}}]} The complex_op is one of: ['and', 'or'], simple_op is one of: ['=', '!=', '<', '<=', '>', '>='].

-o <ORDERBY>, --orderby <ORDERBY>

{field_name: direction}, {field_name: direction} The direction is one of: ['asc', 'desc'].

-l <LIMIT>, --limit <LIMIT>

Maximum number of samples to return.

21. ceilometer resource-list

```
usage: ceilometer resource-list [-q <QUERY>]
```

List the resources.

Optional arguments

-q <QUERY>, --query <QUERY>

key[op]data_type::value; list. data_type is optional, but if supplied must be string, integer, float, or boolean.

22. ceilometer resource-show

```
usage: ceilometer resource-show <RESOURCE_ID>
```

Show the resource.

Positional arguments

<RESOURCE_ID>

ID of the resource to show.

23. ceilometer sample-create

```
usage: ceilometer sample-create [--project-id <PROJECT_ID>] [--user-
id <USER_ID>] -r <RESOURCE_ID> -m <METER_NAME> --meter-type
<METER_TYPE> --meter-unit <METER_UNIT> --sample-volume
```

```
<SAMPLE_VOLUME> [--resource-metadata <RESOURCE_METADATA>] [--
timestamp <TIMESTAMP>]
```

Create a sample.

Optional arguments

--project-id <PROJECT_ID>

Tenant to associate with sample (only settable by admin users).

--user-id <USER_ID>

User to associate with sample (only settable by admin users).

-r <RESOURCE_ID>, --resource-id <RESOURCE_ID>

ID of the resource. Required.

-m <METER_NAME>, --meter-name <METER_NAME>

The meter name. Required.

--meter-type <METER_TYPE>

The meter type. Required.

--meter-unit <METER_UNIT>

The meter unit. Required.

--sample-volume <SAMPLE_VOLUME>

The sample volume. Required.

--resource-metadata <RESOURCE_METADATA>

Resource metadata. Provided value should be a set of key-value pairs e.g. {"key":"value"}.

--timestamp <TIMESTAMP>

The sample timestamp.

24. ceilometer sample-list

```
usage: ceilometer sample-list [-q <QUERY>] -m <NAME> [-l <NUMBER>]
```

List the samples for a meter.

Optional arguments

-q <QUERY>, --query <QUERY>

key[op]data_type::value; list. data_type is optional, but if supplied must be string, integer, float, or boolean.

-m <NAME>, --meter <NAME>

Name of meter to show samples for. Required.

-l <NUMBER>, --limit <NUMBER>

Maximum number of samples to return.

25. ceilometer statistics

```
usage: ceilometer statistics [-q <QUERY>] -m <NAME> [-p <PERIOD>] [-g <FIELD>] [-a <FUNC>[<-<PARAM>]]
```

List the statistics for a meter.

Optional arguments

-q <QUERY>, --query <QUERY>

key[op]data_type::value; list. data_type is optional, but if supplied must be string, integer, float, or boolean.

-m <NAME>, --meter <NAME>

Name of meter to list statistics for. Required.

-p <PERIOD>, --period <PERIOD>

Period in seconds over which to group samples.

-g <FIELD>, --groupby <FIELD>

Field for group by.

-a <FUNC>[<-<PARAM>], --aggregate <FUNC>[<-<PARAM>]

Function for data aggregation. Available aggregates are: count, cardinality, min, max, sum, stddev, avg. Defaults to [].

26. ceilometer trait-description-list

```
usage: ceilometer trait-description-list -e <EVENT_TYPE>
```

List trait info for an event type.

Optional arguments

-e <EVENT_TYPE>, --event_type <EVENT_TYPE>

Type of the event for which traits will be shown. Required.

27. ceilometer trait-list

```
usage: ceilometer trait-list -e <EVENT_TYPE> -t <TRAIT_NAME>
```

List trait all traits with name <trait_name> for Event Type <event_type>.

Optional arguments

-e <EVENT_TYPE>, --event_type <EVENT_TYPE>

Type of the event for which traits will listed. Required.

-t <TRAIT_NAME>, --trait_name <TRAIT_NAME>

The name of the trait to list. Required.

Chapter 14. Data processing command-line client

The **sahara** client is the command-line interface (CLI) for the Data processing API and its extensions. This chapter documents **sahara** version **0.7.6**.

For help on a specific **sahara** command, enter:

```
$ sahara help COMMAND
```

1. sahara usage

```
usage: sahara [--version] [--debug] [--os-cache] [--service-type
<service-type>] [--endpoint-type <endpoint-type>] [--sahara-api-
version <sahara-api-ver>] [--bypass-url <bypass-url>] [--os-tenant-
name OS_TENANT_NAME] [--os-tenant-id OS_TENANT_ID] [--os-auth-system
OS_AUTH_SYSTEM] [--os-auth-token OS_AUTH_TOKEN] [--insecure] [--os-
cacert <ca-certificate>] [--os-cert <certificate>] [--os-key <key>]
[--timeout <seconds>] [--os-auth-url OS_AUTH_URL] [--os-domain-id
OS_DOMAIN_ID] [--os-domain-name OS_DOMAIN_NAME] [--os-project-id
OS_PROJECT_ID] [--os-project-name OS_PROJECT_NAME] [--os-project-
domain-id OS_PROJECT_DOMAIN_ID] [--os-project-domain-name
OS_PROJECT_DOMAIN_NAME] [--os-trust-id OS_TRUST_ID] [--os-user-id
OS_USER_ID] [--os-user-name OS_USERNAME] [--os-user-domain-id
OS_USER_DOMAIN_ID] [--os-user-domain-name OS_USER_DOMAIN_NAME] [--
os-password OS_PASSWORD] <subcommand> ...
```

Subcommands

cluster-create

Create a cluster.

cluster-delete

Delete a cluster.

cluster-list

Print a list of available clusters.

cluster-show

Show details of a cluster.

cluster-template-create

Create a cluster template.

cluster-template-delete

Delete a cluster template.

cluster-template-list

Print a list of available cluster templates.

cluster-template-show

Show details of a cluster template.

data-source-create

Create a data source that provides job input or receives job output.

data-source-delete

Delete a data source.

data-source-list

Print a list of available data sources.

data-source-show

Show details of a data source.

image-add-tag

Add a tag to an image.

image-list

Print a list of available images.

image-register

Register an image from the Image index.

image-remove-tag

Remove a tag from an image.

image-show

Show details of an image.

image-unregister

Unregister an image.

job-binary-create

Record a job binary.

job-binary-data-create

Store data in the internal DB. Use 'swift upload' instead of this command. Use this command only if Swift is not available.

job-binary-data-delete

Delete an internally stored job binary data.

job-binary-data-list

Print a list of internally stored job binary data.

job-binary-delete

Delete a job binary.

job-binary-list

Print a list of job binaries.

job-binary-show

Show details of a job binary.

job-create

Create a job.

job-delete

Delete a job.

job-list

Print a list of jobs.

job-show

Show details of a job.

job-template-create

Create a job template.

job-template-delete

Delete a job template.

job-template-list

Print a list of job templates.

job-template-show

Show details of a job template.

node-group-template-create

Create a node group template.

node-group-template-delete

Delete a node group template.

node-group-template-list

Print a list of available node group templates.

node-group-template-show

Show details of a node group template.

plugin-list

Print a list of available plugins.

plugin-show

Show details of a plugin.

bash-completion

Prints arguments for bash-completion. Prints all of the commands and options to stdout so that the `sahara.bash_completion` script doesn't have to hard code them.

help

Display help about this program or one of its subcommands.

2. sahara optional arguments

--version

show program's version number and exit

--debug

Print debugging output.

--os-cache

Use the auth token cache. Defaults to False if `env[OS_CACHE]` is not set.

--service-type <service-type>

Defaults to data-processing for all actions.

--endpoint-type <endpoint-type>

Defaults to `env[SAHARA_ENDPOINT_TYPE]` or publicURL.

--sahara-api-version <sahara-api-ver>

Accepts "api", defaults to `env[SAHARA_API_VERSION]`.

--bypass-url <bypass-url>

Use this API endpoint instead of the Service Catalog.

--os-tenant-name OS_TENANT_NAME

Defaults to `env[OS_TENANT_NAME]`.

--os-tenant-id OS_TENANT_ID

Defaults to `env[OS_TENANT_ID]`.

--os-auth-system OS_AUTH_SYSTEM

Defaults to `env[OS_AUTH_SYSTEM]`.

--os-auth-token OS_AUTH_TOKEN

Defaults to `env[OS_AUTH_TOKEN]`.

--insecure

Explicitly allow client to perform "insecure" TLS (https) requests. The server's certificate will not be verified against any certificate authorities. This option should be used with caution.

--os-cacert <ca-certificate>

Specify a CA bundle file to use in verifying a TLS (https) server certificate. Defaults to `env[OS_CACERT]`.

--os-cert <certificate>

Defaults to `env[OS_CERT]`.

--os-key <key>

Defaults to `env[OS_KEY]`.

--timeout <seconds>

Set request timeout (in seconds).

--os-auth-url OS_AUTH_URL

Authentication URL

--os-domain-id OS_DOMAIN_ID

Domain ID to scope to

--os-domain-name OS_DOMAIN_NAME

Domain name to scope to

--os-project-id OS_PROJECT_ID

Project ID to scope to

--os-project-name OS_PROJECT_NAME

Project name to scope to

--os-project-domain-id OS_PROJECT_DOMAIN_ID

Domain ID containing project

--os-project-domain-name OS_PROJECT_DOMAIN_NAME

Domain name containing project

--os-trust-id OS_TRUST_ID

Trust ID

--os-user-id OS_USER_ID

User ID

--os-user-name OS_USERNAME, --os-username OS_USERNAME

Username

--os-user-domain-id OS_USER_DOMAIN_ID

User's domain id

--os-user-domain-name OS_USER_DOMAIN_NAME

User's domain name

--os-password OS_PASSWORD

User's password

3. sahara cluster-create

```
usage: sahara cluster-create [--json JSON]
```

Create a cluster.

Optional arguments

--json JSON JSON
representation of cluster.

4. sahara cluster-delete

```
usage: sahara cluster-delete [--name NAME] [--id <cluster_id>]
```

Delete a cluster.

Optional arguments

--name NAME
Name of the cluster.

--id <cluster_id> ID
of the cluster to delete.

5. sahara cluster-list

```
usage: sahara cluster-list
```

Print a list of available clusters.

6. sahara cluster-show

```
usage: sahara cluster-show [--name NAME] [--id <cluster_id>] [--json]
```

Show details of a cluster.

Optional arguments

--name NAME
Name of the cluster.

--id <cluster_id> ID
of the cluster to show.

--json

Print JSON representation of the cluster.

7. sahara cluster-template-create

```
usage: sahara cluster-template-create [--json JSON]
```

Create a cluster template.

Optional arguments

--json JSON JSON

representation of cluster template.

8. sahara cluster-template-delete

```
usage: sahara cluster-template-delete [--name NAME] [--id <template_id>]
```

Delete a cluster template.

Optional arguments

--name NAME

Name of the cluster template.

--id <template_id> ID

of the cluster template to delete.

9. sahara cluster-template-list

```
usage: sahara cluster-template-list
```

Print a list of available cluster templates.

10. sahara cluster-template-show

```
usage: sahara cluster-template-show [--name NAME] [--id <template_id>] [--json]
```

Show details of a cluster template.

Optional arguments

--name NAME

Name of the cluster template.

--id <template_id> ID
of the cluster template to show.

--json
Print JSON representation of cluster template.

11. sahara data-source-create

```
usage: sahara data-source-create --name NAME --type TYPE --url URL  
[--description DESCRIPTION] [--user USER] [--password PASSWORD]
```

Create a data source that provides job input or receives job output.

Optional arguments

--name NAME
Name of the data source.

--type TYPE
Type of the data source.

--url URL URL
for the data source.

--description DESCRIPTION
Description of the data source.

--user USER
Username for accessing the data source URL.

--password PASSWORD
Password for accessing the data source URL.

12. sahara data-source-delete

```
usage: sahara data-source-delete [--name NAME] [--id ID]
```

Delete a data source.

Optional arguments

--name NAME
Name of the data source.

--id ID ID
of data source to delete.

13. sahara data-source-list

```
usage: sahara data-source-list
```

Print a list of available data sources.

14. sahara data-source-show

```
usage: sahara data-source-show [--name NAME] [--id ID]
```

Show details of a data source.

Optional arguments

--name NAME

Name of the data source.

--id ID ID

of the data source.

15. sahara image-add-tag

```
usage: sahara image-add-tag [--name NAME] [--id <image_id>] --tag  
<tag>
```

Add a tag to an image.

Optional arguments

--name NAME

Name of the image.

--id <image_id> ID

of image to tag.

--tag <tag>

Tag to add.

16. sahara image-list

```
usage: sahara image-list
```

Print a list of available images.

17. sahara image-register

```
usage: sahara image-register --id <image_id> [--username <name>] [--description <desc>]
```

Register an image from the Image index.

Optional arguments

--id <image_id> ID
of image, run "glance image-list" to see all IDs.

--username <name>
Username of privileged user in the image.

--description <desc>
Description of the image.

18. sahara image-remove-tag

```
usage: sahara image-remove-tag [--name NAME] [--id <image_id>] --tag <tag>
```

Remove a tag from an image.

Optional arguments

--name NAME
Name of the image.

--id <image_id>
Image to tag.

--tag <tag>
Tag to remove.

19. sahara image-show

```
usage: sahara image-show [--name NAME] [--id <image_id>]
```

Show details of an image.

Optional arguments

--name NAME
Name of the image.

--id <image_id> ID
of the image.

20. sahara image-unregister

```
usage: sahara image-unregister [--name NAME] [--id <image_id>]
```

Unregister an image.

Optional arguments

--name NAME

Name of the image.

--id <image_id> ID

of image to unregister.

21. sahara job-binary-create

```
usage: sahara job-binary-create --name NAME --url URL [--description  
DESCRIPTION] [--user USER] [--password PASSWORD]
```

Record a job binary.

Optional arguments

--name NAME

Name of the job binary.

--url URL URL

for the job binary.

--description DESCRIPTION

Description of the job binary.

--user USER

Username for accessing the job binary URL.

--password PASSWORD

Password for accessing the job binary URL.

22. sahara job-binary-data-create

```
usage: sahara job-binary-data-create [--file FILE]
```

Store data in the internal DB. Use 'swift upload' instead of this command. Use this command only if Swift is not available.

Optional arguments

--file FILE

Data to store.

23. sahara job-binary-data-delete

usage: sahara job-binary-data-delete --id ID

Delete an internally stored job binary data.

Optional arguments

--id ID ID

of internally stored job binary data.

24. sahara job-binary-data-list

usage: sahara job-binary-data-list

Print a list of internally stored job binary data.

25. sahara job-binary-delete

usage: sahara job-binary-delete [--name NAME] [--id ID]

Delete a job binary.

Optional arguments

--name NAME

Name of the job binary.

--id ID ID

of the job binary to delete.

26. sahara job-binary-list

usage: sahara job-binary-list

Print a list of job binaries.

27. sahara job-binary-show

usage: sahara job-binary-show [--name NAME] [--id ID]

Show details of a job binary.

Optional arguments

- name NAME**
Name of the job binary.
- id ID ID**
of the job binary.

28. sahara job-create

```
usage: sahara job-create --job-template JOB_TEMPLATE --cluster
CLUSTER [--input-data INPUT_DATA] [--output-data OUTPUT_DATA] [--
param name=value] [--arg ARG] [--config name=value]
```

Create a job.

Optional arguments

- job-template JOB_TEMPLATE**
ID of the job template to run.
- cluster CLUSTER ID**
of the cluster to run the job in.
- input-data INPUT_DATA**
ID of the input data source.
- output-data OUTPUT_DATA**
ID of the output data source.
- param**
name=value Parameters to add to the job, repeatable.
- arg ARG**
Arguments to add to the job, repeatable.
- config**
name=value Config parameters to add to the job, repeatable.

29. sahara job-delete

```
usage: sahara job-delete --id ID
```

Delete a job.

Optional arguments

--id ID ID
of a job.

30. sahara job-list

usage: sahara job-list

Print a list of jobs.

31. sahara job-show

usage: sahara job-show --id ID

Show details of a job.

Optional arguments

--id ID ID
of the job.

32. sahara job-template-create

usage: sahara job-template-create --name NAME --type TYPE [--main MAIN] [--lib LIB] [--description DESCRIPTION]

Create a job template.

Optional arguments

--name NAME
Name of the job template.

--type TYPE
Type of the job template.

--main MAIN ID
for job's main job-binary.

--lib LIB ID
of job's lib job-binary, repeatable.

--description DESCRIPTION
Description of the job template.

33. sahara job-template-delete

```
usage: sahara job-template-delete [--name NAME] [--id ID]
```

Delete a job template.

Optional arguments

--name NAME

Name of the job template.

--id ID ID

of the job template.

34. sahara job-template-list

```
usage: sahara job-template-list
```

Print a list of job templates.

35. sahara job-template-show

```
usage: sahara job-template-show [--name NAME] [--id ID]
```

Show details of a job template.

Optional arguments

--name NAME

Name of the job template.

--id ID ID

of the job template.

36. sahara node-group-template-create

```
usage: sahara node-group-template-create [--json JSON]
```

Create a node group template.

Optional arguments

--json JSON JSON

representation of node group template.

37. sahara node-group-template-delete

```
usage: sahara node-group-template-delete [--name NAME] [--id <template_id>]
```

Delete a node group template.

Optional arguments

--name NAME

Name of the node group template.

--id <template_id> ID

of the node group template to delete.

38. sahara node-group-template-list

```
usage: sahara node-group-template-list
```

Print a list of available node group templates.

39. sahara node-group-template-show

```
usage: sahara node-group-template-show [--name NAME] [--id <template_id>] [--json]
```

Show details of a node group template.

Optional arguments

--name NAME

Name of the node group template.

--id <template_id> ID

of the node group template to show.

--json

Print JSON representation of node group template.

40. sahara plugin-list

```
usage: sahara plugin-list
```

Print a list of available plugins.

41. sahara plugin-show

```
usage: sahara plugin-show --name <plugin>
```

Show details of a plugin.

Optional arguments

--name <plugin>

Name of the plugin.

Chapter 15. Database Service command-line client

The **trove** client is the command-line interface (CLI) for the Database API and its extensions. This chapter documents **trove** version **1.0.7**.

For help on a specific **trove** command, enter:

```
$ trove help COMMAND
```

1. trove usage

```
usage: trove [--version] [--debug] [--os-username <auth-user-name>]
  [--os-password <auth-password>] [--os-tenant-name <auth-tenant-
  name>] [--os-tenant-id <auth-tenant-id>] [--os-auth-url <auth-url>]
  [--os-region-name <region-name>] [--service-type <service-type>] [--
  service-name <service-name>] [--bypass-url <bypass-url>] [--
  database-service-name <database-service-name>] [--endpoint-type
  <endpoint-type>] [--os-database-api-version <database-api-ver>] [--
  os-cacert <ca-certificate>] [--retries <retries>] [--json]
  <subcommand> ...
```

Subcommands

backup-copy

Creates a backup from another backup.

backup-create

Creates a backup of an instance.

backup-delete

Deletes a backup.

backup-list

Lists available backups.

backup-list-instance

Lists available backups for an instance.

backup-show

Shows details of a backup.

cluster-create

Creates a new cluster.

cluster-delete

Deletes a cluster.

cluster-instances

Lists all instances of a cluster.

cluster-list

Lists all the clusters.

cluster-show

Shows details of a cluster.

configuration-attach

Attaches a configuration group to an instance.

configuration-create

Creates a configuration group.

configuration-default

Shows the default configuration of an instance.

configuration-delete

Deletes a configuration group.

configuration-detach

Detaches a configuration group from an instance.

configuration-instances

Lists all instances associated with a configuration group.

configuration-list

Lists all configuration groups.

configuration-parameter-list

Lists available parameters for a configuration group.

configuration-parameter-show

Shows details of a configuration parameter.

configuration-patch

Patches a configuration group.

configuration-show

Shows details of a configuration group.

configuration-update

Updates a configuration group.

create

Creates a new instance.

database-create

Creates a database on an instance.

database-delete

Deletes a database from an instance.

database-list

Lists available databases on an instance.

datastore-list

Lists available datastores.

datastore-show

Shows details of a datastore.

datastore-version-list

Lists available versions for a datastore.

datastore-version-show

Shows details of a datastore version.

delete

Deletes an instance.

detach-replica

Detaches a replica instance from its replication source.

flavor-list

Lists available flavors.

flavor-show

Shows details of a flavor.

limit-list

Lists the limits for a tenant.

list

Lists all the instances.

metadata-create

Creates metadata in the database for instance <id>.

metadata-delete

Deletes metadata for instance <id>.

metadata-edit

Replaces metadata value with a new one, this is non-destructive.

metadata-list

Shows all metadata for instance <id>.

metadata-show

Shows metadata entry for key <key> and instance <id>.

metadata-update

Updates metadata, this is destructive.

resize-flavor

[*DEPRECATED*] Please use resize-instance instead.

resize-instance

Resizes an instance with a new flavor.

resize-volume

Resizes the volume size of an instance.

restart

Restarts an instance.

root-enable

Enables root for an instance and resets if already exists.

root-show

Gets status if root was ever enabled for an instance.

secgroup-add-rule

Creates a security group rule.

secgroup-delete-rule

Deletes a security group rule.

secgroup-list

Lists all security groups.

secgroup-list-rules

Lists all rules for a security group.

secgroup-show

Shows details of a security group.

show

Shows details of an instance.

update

Updates an instance: Edits name, configuration, or replica source.

user-create

Creates a user on an instance.

user-delete

Deletes a user from an instance.

user-grant-access

Grants access to a database(s) for a user.

user-list

Lists the users for an instance.

user-revoke-access

Revokes access to a database for a user.

user-show

Shows details of a user of an instance.

user-show-access

Shows access details of a user of an instance.

user-update-attributes

Updates a user's attributes on an instance.

bash-completion

Prints arguments for bash_completion.

help

Displays help about this program or one of its subcommands.

2. trove optional arguments

--version

show program's version number and exit

--debug

Print debugging output.

--os-username <auth-user-name>

Defaults to `env[OS_USERNAME]`.

--os-password <auth-password>

Defaults to `env[OS_PASSWORD]`.

--os-tenant-name <auth-tenant-name>

Defaults to `env[OS_TENANT_NAME]`.

--os-tenant-id <auth-tenant-id>

Defaults to `env[OS_TENANT_ID]`.

--os-auth-url <auth-url>

Defaults to `env[OS_AUTH_URL]`.

--os-region-name <region-name>

Defaults to `env[OS_REGION_NAME]`.

--service-type <service-type>

Defaults to database for most actions.

--service-name <service-name>

Defaults to `env[TROVE_SERVICE_NAME]`.

--bypass-url <bypass-url>

Defaults to `env[TROVE_BYPASS_URL]`.

--database-service-name <database-service-name>

Defaults to `env[TROVE_DATABASE_SERVICE_NAME]`.

--endpoint-type <endpoint-type>

Defaults to `env[TROVE_ENDPOINT_TYPE]` or `publicURL`.

--os-database-api-version <database-api-ver>

Accepts 1, defaults to `env[OS_DATABASE_API_VERSION]`.

--os-cacert <ca-certificate>

Specify a CA bundle file to use in verifying a TLS (https) server certificate. Defaults to `env[OS_CACERT]`.

--retries <retries>

Number of retries.

--json, --os-json-output

Output JSON instead of prettyprint. Defaults to `env[OS_JSON_OUTPUT]`.

3. trove backup-copy

```
usage: trove backup-copy <name> <backup> [--region <region>] [--description <description>]
```

Creates a backup from another backup.

Positional arguments

<name>

Name of the backup.

<backup>

Backup ID of the source backup.

Optional arguments**--region <region>**

Region where the source backup resides.

--description <description>

An optional description for the backup.

4. trove backup-create

```
usage: trove backup-create <instance> <name> [--description  
<description>] [--parent <parent>]
```

Creates a backup of an instance.

Positional arguments**<instance>**

ID of the instance.

<name>

Name of the backup.

Optional arguments**--description <description>**

An optional description for the backup.

--parent <parent>

Optional ID of the parent backup to perform an incremental backup from.

5. trove backup-delete

```
usage: trove backup-delete <backup>
```

Deletes a backup.

Positional arguments**<backup>**

ID of the backup.

6. trove backup-list

```
usage: trove backup-list [--limit <limit>] [--datastore <datastore>]
```

Lists available backups.

Optional arguments

```
--limit <limit>
```

Return up to N number of the most recent backups.

```
--datastore <datastore>
```

Name or ID of the datastore to list backups for.

7. trove backup-list-instance

```
usage: trove backup-list-instance [--limit <limit>] <instance>
```

Lists available backups for an instance.

Positional arguments

```
<instance>
```

ID of the instance.

Optional arguments

```
--limit <limit>
```

Return up to N number of the most recent backups.

8. trove backup-show

```
usage: trove backup-show <backup>
```

Shows details of a backup.

Positional arguments

```
<backup>
```

ID of the backup.

9. trove cluster-create

```
usage: trove cluster-create <name> <datastore> <datastore_version>
       [--instance <flavor_id=flavor_id,volume=volume>]
```

Creates a new cluster.

Positional arguments

<name>

Name of the cluster.

<datastore>

A datastore name or UUID.

<datastore_version>

A datastore version name or UUID.

Optional arguments

--instance <flavor_id=flavor_id,volume=volume>

Create an instance for the cluster. Specify multiple times to create multiple instances.

10. trove cluster-delete

```
usage: trove cluster-delete <cluster>
```

Deletes a cluster.

Positional arguments

<cluster>

ID of the cluster.

11. trove cluster-instances

```
usage: trove cluster-instances <cluster>
```

Lists all instances of a cluster.

Positional arguments

<cluster>

ID or name of the cluster.

12. trove cluster-list

```
usage: trove cluster-list [--limit <limit>] [--marker <ID>]
```

Lists all the clusters.

Optional arguments

--limit <limit>

Limit the number of results displayed.

--marker <ID>

Begin displaying the results for IDs greater than the specified marker. When used with --limit, set this to the last ID displayed in the previous run.

13. trove cluster-show

```
usage: trove cluster-show <cluster>
```

Shows details of a cluster.

Positional arguments

<cluster>

ID or name of the cluster.

14. trove configuration-attach

```
usage: trove configuration-attach <instance> <configuration>
```

Attaches a configuration group to an instance.

Positional arguments

<instance>

ID of the instance.

<configuration>

ID of the configuration group to attach to the instance.

15. trove configuration-create

```
usage: trove configuration-create <name> <values> [--datastore
<datastore>] [--datastore_version <datastore_version>] [--
description <description>]
```

Creates a configuration group.

Positional arguments

<name>

Name of the configuration group.

<values>

Dictionary of the values to set.

Optional arguments

--datastore <datastore>

Datastore assigned to the configuration group.

--datastore_version <datastore_version>

Datastore version ID assigned to the configuration group.

--description <description>

An optional description for the configuration group.

16. trove configuration-default

usage: trove configuration-default <instance>

Shows the default configuration of an instance.

Positional arguments

<instance>

ID of the instance.

17. trove configuration-delete

usage: trove configuration-delete <configuration_group>

Deletes a configuration group.

Positional arguments

<configuration_group>

ID of the configuration group.

18. trove configuration-detach

usage: trove configuration-detach <instance>

Detaches a configuration group from an instance.

Positional arguments

<instance>

ID of the instance.

19. trove configuration-instances

```
usage: trove configuration-instances <configuration_group>
```

Lists all instances associated with a configuration group.

Positional arguments

<configuration_group>

ID of the configuration group.

20. trove configuration-list

```
usage: trove configuration-list
```

Lists all configuration groups.

21. trove configuration-parameter-list

```
usage: trove configuration-parameter-list <datastore_version> [--
datastore <datastore>]
```

Lists available parameters for a configuration group.

Positional arguments

<datastore_version>

Datastore version name or ID assigned to the configuration group.

Optional arguments

--datastore <datastore> ID

or name of the datastore to list configuration parameters for. Optional if the ID of the `datastore_version` is provided.

22. trove configuration-parameter-show

```
usage: trove configuration-parameter-show <datastore_version>
<parameter> [--datastore <datastore>]
```

Shows details of a configuration parameter.

Positional arguments

<datastore_version>

Datastore version name or ID assigned to the configuration group.

<parameter>

Name of the configuration parameter.

Optional arguments

--datastore <datastore> ID

or name of the datastore to list configuration parameters for. Optional if the ID of the `datastore_version` is provided.

23. trove configuration-patch

```
usage: trove configuration-patch <configuration_group> <values>
```

Patches a configuration group.

Positional arguments

<configuration_group>

ID of the configuration group.

<values>

Dictionary of the values to set.

24. trove configuration-show

```
usage: trove configuration-show <configuration_group>
```

Shows details of a configuration group.

Positional arguments

<configuration_group>

ID of the configuration group.

25. trove configuration-update

```
usage: trove configuration-update <configuration_group> <values> [--name <name>] [--description <description>]
```

Updates a configuration group.

Positional arguments

<configuration_group>

ID of the configuration group.

<values>

Dictionary of the values to set.

Optional arguments

--name <name>

Name of the configuration group.

--description <description>

An optional description for the configuration group.

26. trove create

```
usage: trove create <name> <flavor_id> [--size <size>] [--databases
<databases> [<databases> ...]] [--users <users> [<users> ...]] [--
backup <backup>] [--availability_zone <availability_zone>] [--
datastore <datastore>] [--datastore_version <datastore_version>] [--
nic <net-id=net-uuid,v4-fixed-ip=ip-addr,port-id=port-uuid>] [--
configuration <configuration>] [--replica_of <source_id>]
```

Creates a new instance.

Positional arguments

<name>

Name of the instance.

<flavor_id>

Flavor of the instance.

Optional arguments

--size <size>

Size of the instance disk volume in GB. Required when volume support is enabled.

--databases <databases> [<databases> ...]

Optional list of databases.

--users <users> [<users> ...]

Optional list of users in the form user:password.

--backup <backup> A

backup ID.

--availability_zone <availability_zone>

The Zone hint to give to nova.

--datastore <datastore> A

datastore name or ID.

--datastore_version <datastore_version>

A datastore version name or ID.

--nic <net-id=net-uuid,v4-fixed-ip=ip-addr,port-id=port-uuid>

Create a NIC on the instance. Specify option multiple times to create multiple NICs.
 net-id: attach NIC to network with this ID (either port-id or net-id must be specified),
 v4-fixed-ip: IPv4 fixed address for NIC (optional), port-id: attach NIC to port with this
 ID (either port-id or net-id must be specified).

--configuration <configuration>

ID of the configuration group to attach to the instance.

--replica_of <source_id> ID

of an existing instance to replicate from.

27. trove database-create

```
usage: trove database-create <instance> <name> [--character_set
<character_set>] [--collate <collate>]
```

Creates a database on an instance.

Positional arguments

<instance>

ID of the instance.

<name>

Name of the database.

Optional arguments

--character_set <character_set>

Optional character set for database.

--collate <collate>

Optional collation type for database.

28. trove database-delete

```
usage: trove database-delete <instance> <database>
```

Deletes a database from an instance.

Positional arguments

<instance>

ID of the instance.

<database>

Name of the database.

29. trove database-list

```
usage: trove database-list <instance>
```

Lists available databases on an instance.

Positional arguments**<instance>**

ID of the instance.

30. trove datastore-list

```
usage: trove datastore-list
```

Lists available datastores.

31. trove datastore-show

```
usage: trove datastore-show <datastore>
```

Shows details of a datastore.

Positional arguments**<datastore>**

ID of the datastore.

32. trove datastore-version-list

```
usage: trove datastore-version-list <datastore>
```

Lists available versions for a datastore.

Positional arguments**<datastore>**

ID or name of the datastore.

33. trove datastore-version-show

```
usage: trove datastore-version-show <datastore_version> [--datastore <datastore>]
```

Shows details of a datastore version.

Positional arguments

<datastore_version>

ID or name of the datastore version.

Optional arguments

--datastore <datastore> ID

or name of the datastore. Optional if the ID of the `datastore_version` is provided.

34. trove delete

```
usage: trove delete <instance>
```

Deletes an instance.

Positional arguments

<instance>

ID of the instance.

35. trove detach-replica

```
usage: trove detach-replica <instance>
```

Detaches a replica instance from its replication source.

Positional arguments

<instance>

ID of the instance.

36. trove flavor-list

```
usage: trove flavor-list
```

Lists available flavors.

37. trove flavor-show

```
usage: trove flavor-show <flavor>
```

- Shows details of a flavor.

Positional arguments

<flavor>

ID or name of the flavor.

38. trove limit-list

```
usage: trove limit-list
```

Lists the limits for a tenant.

39. trove list

```
usage: trove list [--limit <limit>] [--marker <ID>] [--include-
clustered]
```

Lists all the instances.

Optional arguments

--limit <limit>

Limit the number of results displayed.

--marker <ID>

Begin displaying the results for IDs greater than the specified marker. When used with --limit, set this to the last ID displayed in the previous run.

--include-clustered

Include instances that are part of a cluster (default false).

40. trove metadata-create

```
usage: trove metadata-create <instance_id> <key> <value>
```

Creates metadata in the database for instance <id>.

Positional arguments

<instance_id>

UUID for instance

<key>

Key for assignment

<value>

Value to assign to <key>

41. trove metadata-delete

```
usage: trove metadata-delete <instance_id> <key>
```

Deletes metadata for instance <id>.

Positional arguments

<instance_id>

UUID for instance

<key>

Metadata key to delete

42. trove metadata-edit

```
usage: trove metadata-edit <instance_id> <key> <value>
```

Replaces metadata value with a new one, this is non-destructive.

Positional arguments

<instance_id>

UUID for instance

<key>

Key to replace

<value>

New value to assign to <key>

43. trove metadata-list

```
usage: trove metadata-list <instance_id>
```

Shows all metadata for instance <id>.

Positional arguments

<instance_id>

UUID for instance

44. trove metadata-show

```
usage: trove metadata-show <instance_id> <key>
```

Shows metadata entry for key <key> and instance <id>.

Positional arguments

<instance_id>

UUID for instance

<key>

key to display

45. trove metadata-update

```
usage: trove metadata-update <instance_id> <key> <newkey> <value>
```

Updates metadata, this is destructive.

Positional arguments

<instance_id>

UUID for instance

<key>

Key to update

<newkey>

New key

<value>

Value to assign to <newkey>

46. trove resize-instance

```
usage: trove resize-instance <instance> <flavor_id>
```

Resizes an instance with a new flavor.

Positional arguments

<instance>

ID of the instance.

<flavor_id>

New flavor of the instance.

47. trove resize-volume

```
usage: trove resize-volume <instance> <size>
```

Resizes the volume size of an instance.

Positional arguments

<instance>

ID of the instance.

<size>

New size of the instance disk volume in GB.

48. trove restart

```
usage: trove restart <instance>
```

Restarts an instance.

Positional arguments

<instance>

ID of the instance.

49. trove root-enable

```
usage: trove root-enable <instance>
```

Enables root for an instance and resets if already exists.

Positional arguments

<instance>

ID of the instance.

50. trove root-show

```
usage: trove root-show <instance>
```

Gets status if root was ever enabled for an instance.

Positional arguments

<instance>

ID of the instance.

51. trove secgroup-add-rule

```
usage: trove secgroup-add-rule <security_group> <cidr>
```

Creates a security group rule.

Positional arguments

<security_group>

Security group ID.

<cidr>

CIDR address.

52. trove secgroup-delete-rule

```
usage: trove secgroup-delete-rule <security_group_rule>
```

Deletes a security group rule.

Positional arguments

<security_group_rule>

Name of security group rule.

53. trove secgroup-list

```
usage: trove secgroup-list
```

Lists all security groups.

54. trove secgroup-list-rules

```
usage: trove secgroup-list-rules <security_group>
```

Lists all rules for a security group.

Positional arguments

<security_group>

Security group ID.

55. trove secgroup-show

```
usage: trove secgroup-show <security_group>
```

Shows details of a security group.

Positional arguments

<security_group>

Security group ID

56. trove show

```
usage: trove show <instance>
```

Shows details of an instance.

Positional arguments

<instance>

ID or name of the instance.

57. trove update

```
usage: trove update <instance> [--name <name>] [--configuration  
<configuration>] [--detach-replica-source] [--remove_configuration]
```

Updates an instance: Edits name, configuration, or replica source.

Positional arguments

<instance>

UUID of the instance.

Optional arguments

--name <name>

Name of the instance.

--configuration <configuration>

ID of the configuration reference to attach.

--detach-replica-source

Detach the replica instance from its replication source.

--remove_configuration

Drops the current configuration reference.

58. trove user-create

```
usage: trove user-create <instance> <name> <password> [--host
<host>] [--databases <databases> [<databases> ...]]
```

Creates a user on an instance.

Positional arguments

<instance>

ID of the instance.

<name>

Name of user.

<password>

Password of user.

Optional arguments

--host <host>

Optional host of user.

--databases <databases> [<databases> ...]

Optional list of databases.

59. trove user-delete

```
usage: trove user-delete [--host <host>] <instance> <name>
```

Deletes a user from an instance.

Positional arguments

<instance>

ID of the instance.

<name>

Name of user.

Optional arguments

--host <host>

Optional host of user.

60. trove user-grant-access

```
usage: trove user-grant-access <instance> <name> <databases>
[<databases> ...] [--host <host>]
```

- Grants access to a database(s) for a user.

Positional arguments

<instance>

ID of the instance.

<name>

Name of user.

<databases>

List of databases.

Optional arguments

--host <host>

Optional host of user.

61. trove user-list

```
usage: trove user-list <instance>
```

Lists the users for an instance.

Positional arguments

<instance>

ID of the instance.

62. trove user-revoke-access

```
usage: trove user-revoke-access [--host <host>] <instance> <name>  
<database>
```

Revokes access to a database for a user.

Positional arguments

<instance>

ID of the instance.

<name>

Name of user.

<database>

A single database.

Optional arguments

--host <host>

Optional host of user.

63. trove user-show

```
usage: trove user-show [--host <host>] <instance> <name>
```

Shows details of a user of an instance.

Positional arguments

<instance>

ID of the instance.

<name>

Name of user.

Optional arguments

--host <host>

Optional host of user.

64. trove user-show-access

```
usage: trove user-show-access [--host <host>] <instance> <name>
```

Shows access details of a user of an instance.

Positional arguments

<instance>

ID of the instance.

<name>

Name of user.

Optional arguments

--host <host>

Optional host of user.

65. trove user-update-attributes

```
usage: trove user-update-attributes <instance> <name> [--host  
<host>] [--new_name <new_name>] [--new_password <new_password>] [--  
new_host <new_host>]
```

Updates a user's attributes on an instance. At least one optional argument must be provided.

Positional arguments

<instance>

ID of the instance.

<name>

Name of user.

Optional arguments

--host <host>

Optional host of user.

--new_name <new_name>

Optional new name of user.

--new_password <new_password>

Optional new password of user.

--new_host <new_host>

Optional new host of user.

Revision History

Revision 6.0.0-4 **Tue Feb 10 2015** **Don Domingo**
Added commands for Sahara.

Revision 6.0.0-3 **Fri Feb 06 2015** **Don Domingo**
Release for Red Hat Enterprise Linux OpenStack Platform 6.0.