

The OpenStack logo is a red arrow pointing to the right, with the word "OpenStack" in white text inside it.

OpenStack

# Command-Line Interface Reference

current (June 9, 2015)



# OpenStack Command-Line Interface Reference

current (2015-06-09)

Copyright © 2014, 2015 OpenStack Foundation Some rights reserved.

This guide documents the OpenStack command-line clients.



Except where otherwise noted, this document is licensed under  
**Creative Commons Attribution 3.0 License.**  
<http://creativecommons.org/licenses/by/3.0/legalcode>

# Table of Contents

Preface .....	xxii
Conventions .....	xxii
Document change history .....	xxii
1. OpenStack command-line clients .....	1
Overview .....	1
Install the OpenStack command-line clients .....	3
Discover the version number for a client .....	6
Set environment variables using the OpenStack RC file .....	7
2. Bare metal command-line client .....	9
ironic usage .....	9
ironic optional arguments .....	11
ironic chassis-create .....	13
ironic chassis-delete .....	13
ironic chassis-list .....	13
ironic chassis-node-list .....	14
ironic chassis-show .....	14
ironic chassis-update .....	14
ironic driver-list .....	15
ironic driver-properties .....	15
ironic driver-show .....	15
ironic driver-vendor-passthru .....	15
ironic node-create .....	16
ironic node-delete .....	16
ironic node-get-boot-device .....	16
ironic node-get-console .....	16
ironic node-get-supported-boot-devices .....	17
ironic node-list .....	17
ironic node-port-list .....	17
ironic node-set-boot-device .....	18
ironic node-set-console-mode .....	18
ironic node-set-maintenance .....	18
ironic node-set-power-state .....	19
ironic node-set-provision-state .....	19
ironic node-show .....	19
ironic node-update .....	20
ironic node-validate .....	20
ironic node-vendor-passthru .....	20
ironic port-create .....	21
ironic port-delete .....	21
ironic port-list .....	21
ironic port-show .....	22
ironic port-update .....	22
3. Block Storage command-line client .....	23
cinder usage .....	23
cinder optional arguments .....	26
Block Storage API v1 commands .....	27
Block Storage API v2 commands .....	44
4. Compute command-line client .....	69

nova usage .....	73
nova optional arguments .....	80
nova absolute-limits .....	82
nova add-fixed-ip .....	82
nova add-secgroup .....	82
nova agent-create .....	83
nova agent-delete .....	83
nova agent-list .....	83
nova agent-modify .....	83
nova aggregate-add-host .....	84
nova aggregate-create .....	84
nova aggregate-delete .....	84
nova aggregate-details .....	84
nova aggregate-list .....	85
nova aggregate-remove-host .....	85
nova aggregate-set-metadata .....	85
nova aggregate-update .....	85
nova availability-zone-list .....	85
nova backup .....	86
nova baremetal-interface-add .....	86
nova baremetal-interface-list .....	86
nova baremetal-interface-remove .....	86
nova baremetal-node-create .....	87
nova baremetal-node-delete .....	87
nova baremetal-node-list .....	88
nova baremetal-node-show .....	88
nova boot .....	88
nova cell-capacities .....	90
nova cell-show .....	90
nova clear-password .....	90
nova cloudpipe-configure .....	90
nova cloudpipe-create .....	91
nova cloudpipe-list .....	91
nova console-log .....	91
nova credentials .....	91
nova delete .....	91
nova diagnostics .....	92
nova dns-create .....	92
nova dns-create-private-domain .....	92
nova dns-create-public-domain .....	92
nova dns-delete .....	93
nova dns-delete-domain .....	93
nova dns-domains .....	93
nova dns-list .....	93
nova endpoints .....	94
nova evacuate .....	94
nova fixed-ip-get .....	94
nova fixed-ip-reserve .....	94
nova fixed-ip-unreserve .....	94
nova flavor-access-add .....	95
nova flavor-access-list .....	95

nova flavor-access-remove .....	95
nova flavor-create .....	95
nova flavor-delete .....	96
nova flavor-key .....	96
nova flavor-list .....	96
nova flavor-show .....	97
nova floating-ip-associate .....	97
nova floating-ip-bulk-create .....	97
nova floating-ip-bulk-delete .....	97
nova floating-ip-bulk-list .....	98
nova floating-ip-create .....	98
nova floating-ip-delete .....	98
nova floating-ip-disassociate .....	98
nova floating-ip-list .....	98
nova floating-ip-pool-list .....	99
nova force-delete .....	99
nova get-password .....	99
nova get-rdp-console .....	99
nova get-serial-console .....	99
nova get-spice-console .....	100
nova get-vnc-console .....	100
nova host-action .....	100
nova host-describe .....	100
nova host-evacuate .....	101
nova host-evacuate-live .....	101
nova host-list .....	101
nova host-meta .....	102
nova host-servers-migrate .....	102
nova host-update .....	102
nova hypervisor-list .....	102
nova hypervisor-servers .....	103
nova hypervisor-show .....	103
nova hypervisor-stats .....	103
nova hypervisor-uptime .....	103
nova image-create .....	103
nova image-delete .....	104
nova image-list .....	104
nova image-meta .....	104
nova image-show .....	104
nova instance-action .....	104
nova instance-action-list .....	105
nova interface-attach .....	105
nova interface-detach .....	105
nova interface-list .....	105
nova keypair-add .....	106
nova keypair-delete .....	106
nova keypair-list .....	106
nova keypair-show .....	106
nova list .....	106
nova list-extensions .....	107
nova list-secgroup .....	107

nova live-migration .....	108
nova lock .....	108
nova meta .....	108
nova migrate .....	108
nova migration-list .....	109
nova network-associate-host .....	109
nova network-associate-project .....	109
nova network-create .....	109
nova network-delete .....	111
nova network-disassociate .....	111
nova network-list .....	111
nova network-show .....	111
nova pause .....	112
nova quota-class-show .....	112
nova quota-class-update .....	112
nova quota-defaults .....	113
nova quota-delete .....	113
nova quota-show .....	114
nova quota-update .....	114
nova rate-limits .....	115
nova reboot .....	115
nova rebuild .....	115
nova refresh-network .....	116
nova remove-fixed-ip .....	116
nova remove-secgroup .....	116
nova rename .....	117
nova rescue .....	117
nova reset-network .....	117
nova reset-state .....	117
nova resize .....	118
nova resize-confirm .....	118
nova resize-revert .....	118
nova restore .....	118
nova resume .....	119
nova root-password .....	119
nova scrub .....	119
nova secgroup-add-default-rule .....	119
nova secgroup-add-group-rule .....	120
nova secgroup-add-rule .....	120
nova secgroup-create .....	120
nova secgroup-delete .....	120
nova secgroup-delete-default-rule .....	121
nova secgroup-delete-group-rule .....	121
nova secgroup-delete-rule .....	121
nova secgroup-list .....	122
nova secgroup-list-default-rules .....	122
nova secgroup-list-rules .....	122
nova secgroup-update .....	122
nova server-group-create .....	122
nova server-group-delete .....	123
nova server-group-get .....	123

nova server-group-list .....	123
nova service-delete .....	123
nova service-disable .....	123
nova service-enable .....	124
nova service-list .....	124
nova shelve .....	124
nova shelve-offload .....	124
nova show .....	124
nova ssh .....	125
nova start .....	125
nova stop .....	126
nova suspend .....	126
nova tenant-network-create .....	126
nova tenant-network-delete .....	126
nova tenant-network-list .....	126
nova tenant-network-show .....	126
nova unlock .....	127
nova unpause .....	127
nova unrescue .....	127
nova unshelve .....	127
nova usage .....	127
nova usage-list .....	128
nova version-list .....	128
nova volume-attach .....	128
nova volume-create .....	128
nova volume-delete .....	129
nova volume-detach .....	129
nova volume-list .....	129
nova volume-show .....	130
nova volume-snapshot-create .....	130
nova volume-snapshot-delete .....	130
nova volume-snapshot-list .....	130
nova volume-snapshot-show .....	131
nova volume-type-create .....	131
nova volume-type-delete .....	131
nova volume-type-list .....	131
nova volume-update .....	131
nova x509-create-cert .....	132
nova x509-get-root-cert .....	132
5. Identity service command-line client .....	133
keystone usage .....	134
keystone optional arguments .....	135
keystone bootstrap .....	136
keystone catalog .....	137
keystone discover .....	137
keystone ec2-credentials-create .....	137
keystone ec2-credentials-delete .....	137
keystone ec2-credentials-get .....	138
keystone ec2-credentials-list .....	138
keystone endpoint-create .....	138
keystone endpoint-delete .....	138

keystone endpoint-get .....	139
keystone endpoint-list .....	139
keystone password-update .....	139
keystone role-create .....	139
keystone role-delete .....	140
keystone role-get .....	140
keystone role-list .....	140
keystone service-create .....	140
keystone service-delete .....	140
keystone service-get .....	141
keystone service-list .....	141
keystone tenant-create .....	141
keystone tenant-delete .....	141
keystone tenant-get .....	141
keystone tenant-list .....	142
keystone tenant-update .....	142
keystone token-get .....	142
keystone user-create .....	142
keystone user-delete .....	143
keystone user-get .....	143
keystone user-list .....	143
keystone user-password-update .....	143
keystone user-role-add .....	143
keystone user-role-list .....	144
keystone user-role-remove .....	144
keystone user-update .....	144
6. Image service command-line client .....	146
glance usage .....	146
glance optional arguments .....	147
Image service API v1 commands .....	148
Image service API v2 commands .....	154
7. Image service property keys .....	167
8. Networking command-line client .....	172
neutron usage .....	176
neutron optional arguments .....	176
neutron API v2.0 commands .....	178
neutron agent-delete .....	185
neutron agent-list .....	185
neutron agent-show .....	186
neutron agent-update .....	186
neutron cisco-credential-create .....	187
neutron cisco-credential-delete .....	187
neutron cisco-credential-list .....	188
neutron cisco-credential-show .....	188
neutron cisco-network-profile-create .....	188
neutron cisco-network-profile-delete .....	189
neutron cisco-network-profile-list .....	190
neutron cisco-network-profile-show .....	190
neutron cisco-network-profile-update .....	191
neutron cisco-policy-profile-list .....	191
neutron cisco-policy-profile-show .....	191



neutron cisco-policy-profile-update .....	192
neutron dhcp-agent-list-hosting-net .....	192
neutron dhcp-agent-network-add .....	193
neutron dhcp-agent-network-remove .....	193
neutron ext-list .....	193
neutron ext-show .....	194
neutron firewall-create .....	194
neutron firewall-delete .....	195
neutron firewall-list .....	195
neutron firewall-policy-create .....	196
neutron firewall-policy-delete .....	196
neutron firewall-policy-insert-rule .....	197
neutron firewall-policy-list .....	197
neutron firewall-policy-remove-rule .....	198
neutron firewall-policy-show .....	198
neutron firewall-policy-update .....	199
neutron firewall-rule-create .....	199
neutron firewall-rule-delete .....	200
neutron firewall-rule-list .....	200
neutron firewall-rule-show .....	201
neutron firewall-rule-update .....	201
neutron firewall-show .....	202
neutron firewall-update .....	202
neutron floatingip-associate .....	203
neutron floatingip-create .....	203
neutron floatingip-delete .....	204
neutron floatingip-disassociate .....	204
neutron floatingip-list .....	204
neutron floatingip-show .....	205
neutron gateway-device-create .....	205
neutron gateway-device-delete .....	206
neutron gateway-device-list .....	207
neutron gateway-device-show .....	207
neutron gateway-device-update .....	207
neutron ipsec-site-connection-create .....	208
neutron ipsec-site-connection-delete .....	209
neutron ipsec-site-connection-list .....	210
neutron ipsec-site-connection-show .....	210
neutron ipsec-site-connection-update .....	211
neutron l3-agent-list-hosting-router .....	211
neutron l3-agent-router-add .....	212
neutron l3-agent-router-remove .....	212
neutron lb-agent-hosting-pool .....	213
neutron lb-healthmonitor-associate .....	213
neutron lb-healthmonitor-create .....	213
neutron lb-healthmonitor-delete .....	214
neutron lb-healthmonitor-disassociate .....	215
neutron lb-healthmonitor-list .....	215
neutron lb-healthmonitor-show .....	216
neutron lb-healthmonitor-update .....	216
neutron lb-member-create .....	216

neutron lb-member-delete .....	217
neutron lb-member-list .....	217
neutron lb-member-show .....	218
neutron lb-member-update .....	218
neutron lb-pool-create .....	219
neutron lb-pool-delete .....	219
neutron lb-pool-list .....	220
neutron lb-pool-list-on-agent .....	220
neutron lb-pool-show .....	221
neutron lb-pool-stats .....	221
neutron lb-pool-update .....	222
neutron lb-vip-create .....	222
neutron lb-vip-delete .....	223
neutron lb-vip-list .....	223
neutron lb-vip-show .....	224
neutron lb-vip-update .....	224
neutron lbaas-agent-hosting-loadbalancer .....	225
neutron lbaas-healthmonitor-create .....	225
neutron lbaas-healthmonitor-delete .....	226
neutron lbaas-healthmonitor-list .....	227
neutron lbaas-healthmonitor-show .....	227
neutron lbaas-healthmonitor-update .....	228
neutron lbaas-listener-create .....	228
neutron lbaas-listener-delete .....	229
neutron lbaas-listener-list .....	229
neutron lbaas-listener-show .....	230
neutron lbaas-listener-update .....	230
neutron lbaas-loadbalancer-create .....	231
neutron lbaas-loadbalancer-delete .....	231
neutron lbaas-loadbalancer-list .....	232
neutron lbaas-loadbalancer-list-on-agent .....	232
neutron lbaas-loadbalancer-show .....	233
neutron lbaas-loadbalancer-update .....	233
neutron lbaas-member-create .....	234
neutron lbaas-member-delete .....	234
neutron lbaas-member-list .....	235
neutron lbaas-member-show .....	236
neutron lbaas-member-update .....	236
neutron lbaas-pool-create .....	237
neutron lbaas-pool-delete .....	237
neutron lbaas-pool-list .....	238
neutron lbaas-pool-show .....	238
neutron lbaas-pool-update .....	239
neutron meter-label-create .....	239
neutron meter-label-delete .....	239
neutron meter-label-list .....	240
neutron meter-label-rule-create .....	240
neutron meter-label-rule-delete .....	241
neutron meter-label-rule-list .....	241
neutron meter-label-rule-show .....	242
neutron meter-label-show .....	242

neutron nec-packet-filter-create .....	243
neutron nec-packet-filter-delete .....	244
neutron nec-packet-filter-list .....	244
neutron nec-packet-filter-show .....	245
neutron nec-packet-filter-update .....	246
neutron net-create .....	247
neutron net-delete .....	247
neutron net-external-list .....	248
neutron net-gateway-connect .....	248
neutron net-gateway-create .....	249
neutron net-gateway-delete .....	249
neutron net-gateway-disconnect .....	250
neutron net-gateway-list .....	250
neutron net-gateway-show .....	250
neutron net-gateway-update .....	251
neutron net-list .....	251
neutron net-list-on-dhcp-agent .....	252
neutron net-show .....	253
neutron net-update .....	253
neutron nuage-netpartition-create .....	253
neutron nuage-netpartition-delete .....	254
neutron nuage-netpartition-list .....	254
neutron nuage-netpartition-show .....	254
neutron port-create .....	255
neutron port-delete .....	256
neutron port-list .....	256
neutron port-show .....	257
neutron port-update .....	257
neutron queue-create .....	258
neutron queue-delete .....	259
neutron queue-list .....	259
neutron queue-show .....	259
neutron quota-delete .....	260
neutron quota-list .....	260
neutron quota-show .....	260
neutron quota-update .....	261
neutron router-create .....	262
neutron router-delete .....	262
neutron router-gateway-clear .....	262
neutron router-gateway-set .....	263
neutron router-interface-add .....	263
neutron router-interface-delete .....	264
neutron router-list .....	264
neutron router-list-on-l3-agent .....	265
neutron router-port-list .....	265
neutron router-show .....	266
neutron router-update .....	266
neutron security-group-create .....	266
neutron security-group-delete .....	267
neutron security-group-list .....	267
neutron security-group-rule-create .....	268

neutron security-group-rule-delete .....	269
neutron security-group-rule-list .....	269
neutron security-group-rule-show .....	270
neutron security-group-show .....	270
neutron security-group-update .....	271
neutron service-provider-list .....	271
neutron subnet-create .....	272
neutron subnet-delete .....	273
neutron subnet-list .....	273
neutron subnet-show .....	274
neutron subnet-update .....	274
neutron subnetpool-create .....	275
neutron subnetpool-delete .....	276
neutron subnetpool-list .....	276
neutron subnetpool-show .....	277
neutron subnetpool-update .....	277
neutron vpn-ikepolicy-create .....	278
neutron vpn-ikepolicy-delete .....	279
neutron vpn-ikepolicy-list .....	279
neutron vpn-ikepolicy-show .....	280
neutron vpn-ikepolicy-update .....	280
neutron vpn-ipsecpolicy-create .....	281
neutron vpn-ipsecpolicy-delete .....	282
neutron vpn-ipsecpolicy-list .....	282
neutron vpn-ipsecpolicy-show .....	282
neutron vpn-ipsecpolicy-update .....	283
neutron vpn-service-create .....	283
neutron vpn-service-delete .....	284
neutron vpn-service-list .....	284
neutron vpn-service-show .....	285
neutron vpn-service-update .....	285
9. neutron-debug command-line client .....	287
neutron-debug usage .....	287
neutron-debug optional arguments .....	287
neutron-debug probe-create command .....	288
neutron-debug probe-list command .....	289
neutron-debug probe-clear command .....	289
neutron-debug probe-delete command .....	289
neutron-debug probe-exec command .....	289
neutron-debug ping-all command .....	289
neutron-debug example .....	289
10. Object Storage command-line client .....	291
swift usage .....	291
swift examples .....	292
swift optional arguments .....	292
swift capabilities .....	293
swift delete .....	293
swift download .....	293
swift list .....	294
swift post .....	295
swift stat .....	295

swift tempurl .....	295
swift upload .....	296
11. Orchestration command-line client .....	298
heat usage .....	299
heat optional arguments .....	301
heat action-check .....	302
heat action-resume .....	302
heat action-suspend .....	303
heat build-info .....	303
heat config-create .....	303
heat config-delete .....	303
heat config-show .....	303
heat deployment-create .....	304
heat deployment-delete .....	304
heat deployment-metadata-show .....	305
heat deployment-output-show .....	305
heat deployment-show .....	305
heat event-list .....	305
heat event-show .....	306
heat hook-clear .....	306
heat output-list .....	307
heat output-show .....	307
heat resource-list .....	307
heat resource-metadata .....	307
heat resource-show .....	308
heat resource-signal .....	308
heat resource-type-list .....	308
heat resource-type-show .....	308
heat resource-type-template .....	309
heat service-list .....	309
heat snapshot-delete .....	309
heat snapshot-list .....	309
heat snapshot-show .....	309
heat stack-abandon .....	310
heat stack-adopt .....	310
heat stack-cancel-update .....	311
heat stack-create .....	311
heat stack-delete .....	312
heat stack-list .....	312
heat stack-preview .....	312
heat stack-restore .....	313
heat stack-show .....	313
heat stack-snapshot .....	314
heat stack-update .....	314
heat template-show .....	315
heat template-validate .....	315
12. Telemetry command-line client .....	316
ceilometer usage .....	316
ceilometer optional arguments .....	318
ceilometer alarm-combination-create .....	320
ceilometer alarm-combination-update .....	321

ceilometer alarm-delete .....	322
ceilometer alarm-gnocchi-aggregation-by-metrics-threshold-create .....	322
ceilometer alarm-gnocchi-aggregation-by-metrics-threshold-update .....	324
ceilometer alarm-gnocchi-aggregation-by-resources-threshold-create .....	325
ceilometer alarm-gnocchi-aggregation-by-resources-threshold-update .....	327
ceilometer alarm-gnocchi-resources-threshold-create .....	328
ceilometer alarm-gnocchi-resources-threshold-update .....	330
ceilometer alarm-history .....	332
ceilometer alarm-list .....	332
ceilometer alarm-show .....	332
ceilometer alarm-state-get .....	333
ceilometer alarm-state-set .....	333
ceilometer alarm-threshold-create .....	333
ceilometer alarm-threshold-update .....	335
ceilometer capabilities .....	336
ceilometer event-list .....	336
ceilometer event-show .....	337
ceilometer event-type-list .....	337
ceilometer meter-list .....	337
ceilometer query-alarm-history .....	337
ceilometer query-alarms .....	337
ceilometer query-samples .....	338
ceilometer resource-list .....	338
ceilometer resource-show .....	338
ceilometer sample-create .....	338
ceilometer sample-list .....	339
ceilometer sample-show .....	339
ceilometer statistics .....	340
ceilometer trait-description-list .....	340
ceilometer trait-list .....	340
13. Database service command-line client .....	341
trove usage .....	342
trove optional arguments .....	345
trove backup-copy .....	347
trove backup-create .....	347
trove backup-delete .....	347
trove backup-list .....	348
trove backup-list-instance .....	348
trove backup-show .....	348
trove cluster-create .....	348
trove cluster-delete .....	349
trove cluster-instances .....	349
trove cluster-list .....	349
trove cluster-show .....	349
trove configuration-attach .....	349
trove configuration-create .....	350
trove configuration-default .....	350
trove configuration-delete .....	350
trove configuration-detach .....	351
trove configuration-instances .....	351
trove configuration-list .....	351

trove configuration-parameter-list .....	351
trove configuration-parameter-show .....	351
trove configuration-patch .....	352
trove configuration-show .....	352
trove configuration-update .....	352
trove create .....	353
trove database-create .....	354
trove database-delete .....	354
trove database-list .....	354
trove datastore-list .....	354
trove datastore-show .....	354
trove datastore-version-list .....	355
trove datastore-version-show .....	355
trove delete .....	355
trove detach-replica .....	355
trove eject-replica-source .....	356
trove flavor-list .....	356
trove flavor-show .....	356
trove limit-list .....	356
trove list .....	356
trove metadata-create .....	357
trove metadata-delete .....	357
trove metadata-edit .....	357
trove metadata-list .....	357
trove metadata-show .....	358
trove metadata-update .....	358
trove promote-to-replica-source .....	358
trove resize-instance .....	358
trove resize-volume .....	359
trove restart .....	359
trove root-enable .....	359
trove root-show .....	359
trove secgroup-add-rule .....	359
trove secgroup-delete-rule .....	360
trove secgroup-list .....	360
trove secgroup-list-rules .....	360
trove secgroup-show .....	360
trove show .....	360
trove update .....	360
trove user-create .....	361
trove user-delete .....	361
trove user-grant-access .....	362
trove user-list .....	362
trove user-revoke-access .....	362
trove user-show .....	362
trove user-show-access .....	363
trove user-update-attributes .....	363
14. Database Service Management command-line client .....	364
trove-manage usage .....	364
trove-manage optional arguments .....	364
trove-manage datastore_update command .....	365

trove-manage datastore_version_update command .....	366
trove-manage db_downgrade command .....	366
trove-manage db_recreate command .....	367
trove-manage db_sync command .....	367
trove-manage db_upgrade command .....	367
15. Data processing command-line client .....	368
sahara usage .....	369
sahara optional arguments .....	371
sahara cluster-create .....	372
sahara cluster-delete .....	372
sahara cluster-list .....	372
sahara cluster-show .....	373
sahara cluster-template-create .....	373
sahara cluster-template-delete .....	373
sahara cluster-template-list .....	373
sahara cluster-template-show .....	373
sahara data-source-create .....	374
sahara data-source-delete .....	374
sahara data-source-list .....	374
sahara data-source-show .....	374
sahara image-add-tag .....	375
sahara image-list .....	375
sahara image-register .....	375
sahara image-remove-tag .....	375
sahara image-show .....	376
sahara image-unregister .....	376
sahara job-binary-create .....	376
sahara job-binary-data-create .....	376
sahara job-binary-data-delete .....	377
sahara job-binary-data-list .....	377
sahara job-binary-delete .....	377
sahara job-binary-list .....	377
sahara job-binary-show .....	377
sahara job-create .....	378
sahara job-delete .....	378
sahara job-list .....	378
sahara job-show .....	378
sahara job-template-create .....	379
sahara job-template-delete .....	379
sahara job-template-list .....	379
sahara job-template-show .....	379
sahara job-type-list .....	379
sahara node-group-template-create .....	380
sahara node-group-template-delete .....	380
sahara node-group-template-list .....	380
sahara node-group-template-show .....	380
sahara plugin-list .....	381
sahara plugin-show .....	381
16. OpenStack client .....	382
openstack usage .....	385
openstack optional arguments .....	385



openstack aggregate add host .....	389
openstack aggregate create .....	389
openstack aggregate delete .....	389
openstack aggregate list .....	390
openstack aggregate remove host .....	390
openstack aggregate set .....	390
openstack aggregate show .....	391
openstack availability zone list .....	391
openstack backup create .....	391
openstack backup delete .....	392
openstack backup list .....	392
openstack backup restore .....	392
openstack backup show .....	393
openstack catalog list .....	393
openstack catalog show .....	393
openstack command list .....	394
openstack compute agent create .....	394
openstack compute agent delete .....	394
openstack compute agent list .....	395
openstack compute agent set .....	395
openstack compute service list .....	395
openstack compute service set .....	396
openstack console log show .....	396
openstack console url show .....	397
openstack container create .....	397
openstack container delete .....	397
openstack container list .....	398
openstack container save .....	398
openstack container show .....	398
openstack ec2 credentials create .....	399
openstack ec2 credentials delete .....	399
openstack ec2 credentials list .....	399
openstack ec2 credentials show .....	400
openstack endpoint create .....	400
openstack endpoint delete .....	401
openstack endpoint list .....	401
openstack endpoint show .....	401
openstack extension list .....	401
openstack flavor create .....	402
openstack flavor delete .....	403
openstack flavor list .....	403
openstack flavor set .....	403
openstack flavor show .....	404
openstack flavor unset .....	404
openstack host list .....	404
openstack host show .....	405
openstack hypervisor list .....	405
openstack hypervisor show .....	405
openstack hypervisor stats show .....	406
openstack image create .....	406
openstack image delete .....	407

openstack image list .....	407
openstack image save .....	408
openstack image set .....	408
openstack image show .....	409
openstack ip fixed add .....	409
openstack ip fixed remove .....	410
openstack ip floating add .....	410
openstack ip floating create .....	410
openstack ip floating delete .....	411
openstack ip floating list .....	411
openstack ip floating pool list .....	411
openstack ip floating remove .....	411
openstack keypair create .....	412
openstack keypair delete .....	412
openstack keypair list .....	412
openstack keypair show .....	413
openstack limits show .....	413
openstack module list .....	413
openstack network create .....	414
openstack network delete .....	414
openstack network list .....	415
openstack network set .....	415
openstack network show .....	415
openstack object create .....	416
openstack object delete .....	416
openstack object list .....	416
openstack object save .....	417
openstack object show .....	417
openstack project create .....	418
openstack project delete .....	418
openstack project list .....	419
openstack project set .....	419
openstack project show .....	419
openstack project usage list .....	420
openstack quota set .....	420
openstack quota show .....	421
openstack role add .....	422
openstack role create .....	422
openstack role delete .....	422
openstack role list .....	423
openstack role remove .....	423
openstack role show .....	423
openstack security group create .....	424
openstack security group delete .....	424
openstack security group list .....	424
openstack security group rule create .....	425
openstack security group rule delete .....	425
openstack security group rule list .....	426
openstack security group set .....	426
openstack security group show .....	426
openstack server add security group .....	427

openstack server add volume .....	427
openstack server create .....	427
openstack server delete .....	429
openstack server image create .....	429
openstack server list .....	429
openstack server lock .....	430
openstack server migrate .....	430
openstack server pause .....	431
openstack server reboot .....	431
openstack server rebuild .....	432
openstack server remove security group .....	432
openstack server remove volume .....	432
openstack server rescue .....	433
openstack server resize .....	433
openstack server resume .....	434
openstack server set .....	434
openstack server show .....	434
openstack server ssh .....	435
openstack server suspend .....	435
openstack server unlock .....	436
openstack server unpause .....	436
openstack server unrescue .....	436
openstack server unset .....	436
openstack service create .....	437
openstack service delete .....	437
openstack service list .....	437
openstack service show .....	438
openstack snapshot create .....	438
openstack snapshot delete .....	439
openstack snapshot list .....	439
openstack snapshot set .....	439
openstack snapshot show .....	440
openstack snapshot unset .....	440
openstack token issue .....	440
openstack token revoke .....	440
openstack usage list .....	441
openstack usage show .....	441
openstack user create .....	441
openstack user delete .....	442
openstack user list .....	442
openstack user role list .....	443
openstack user set .....	443
openstack user show .....	444
openstack volume create .....	444
openstack volume delete .....	445
openstack volume list .....	445
openstack volume set .....	446
openstack volume show .....	446
openstack volume type create .....	446
openstack volume type delete .....	447
openstack volume type list .....	447

---

openstack volume type set .....	447
openstack volume type unset .....	448
openstack volume unset .....	448
A. Community support .....	449
Documentation .....	449
ask.openstack.org .....	450
OpenStack mailing lists .....	450
The OpenStack wiki .....	450
The Launchpad Bugs area .....	451
The OpenStack IRC channel .....	452
Documentation feedback .....	452
OpenStack distribution packages .....	452

## List of Tables

1.1. OpenStack services and clients .....	1
1.2. Prerequisite software .....	3
7.1. Property keys .....	167

# Preface

Conventions .....	xxii
Document change history .....	xxii

## Conventions

The OpenStack documentation uses several typesetting conventions.

## Notices

Notices take these forms:



### Note

A handy tip or reminder.



### Important

Something you must be aware of before proceeding.



### Warning

Critical information about the risk of data loss or security issues.

## Command prompts

- \$ prompt** Any user, including the `root` user, can run commands that are prefixed with the `$` prompt.
- # prompt** The `root` user must run commands that are prefixed with the `#` prompt. You can also prefix these commands with the `sudo` command, if available, to run them.

## Document change history

This version of the guide replaces and obsoletes all earlier versions.

The following table describes the most recent changes:

Revision Date	Summary of Changes
October 15, 2014	<ul style="list-style-type: none"><li>For the Juno release, this guide has been updated for all integrated command-line clients. The additional chapters for the Juno release include the OpenStack client, the Data processing client, and the trove-manage command.</li></ul>
September 6, 2014	<ul style="list-style-type: none"><li>Document OpenStack client.</li></ul>
April 16, 2014	<ul style="list-style-type: none"><li>For the Icehouse release, updated documentation for clients, add trove options, document neutron-debug, document Image service property keys.</li></ul>
January 29, 2014	<ul style="list-style-type: none"><li>Initial version.</li></ul>
March 14, 2014	<ul style="list-style-type: none"><li>Added documentation for the neutron-debug command.</li></ul>

# 1. OpenStack command-line clients

Overview .....	1
Install the OpenStack command-line clients .....	3
Discover the version number for a client .....	6
Set environment variables using the OpenStack RC file .....	7

## Overview

Each OpenStack project provides a command-line client, which enables you to access the project API through easy-to-use commands. For example, the Compute service provides a nova command-line client.

You can run the commands from the command line, or include the commands within scripts to automate tasks. If you provide OpenStack credentials, such as your user name and password, you can run these commands on any computer.

Internally, each command uses cURL command-line tools, which embed API requests. OpenStack APIs are RESTful APIs, and use the HTTP protocol. They include methods, URIs, media types, and response codes.

OpenStack APIs are open-source Python clients, and can run on Linux or Mac OS X systems. 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	<b>cinder</b>	python-cinderclient	Create and manage volumes.
Compute	<b>nova</b>	python-novaclient	Create and manage images, instances, and flavors.
Database service	<b>trove</b>	python-troveclient	Create and manage databases.
Identity	<b>openstack</b>	python-openstack-client	Create and manage users, tenants, roles, endpoints, and credentials.
Image service	<b>glance</b>	python-glanceclient	Create and manage images.
Networking	<b>neutron</b>	python-neutronclient	Configure networks for guest servers. This client was previously called <b>quantum</b> .
Object Storage	<b>swift</b>	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	<b>heat</b>	python-heatclient	Launch stacks from templates, view details of running stacks including events and resources, and update and delete stacks.
Telemetry	<b>ceilometer</b>	python-ceilometer-client	Create and collect measurements across OpenStack.
Data processing service	<b>sahara</b>	python-saharaclient	Creates and manages Hadoop clusters on OpenStack.
Common client	<b>openstack</b>	python-openstack-client	Common client for the OpenStack project.





# Install the OpenStack command-line clients

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

## Install the prerequisite software

Most Linux distributions include packaged versions of the command-line clients that you can install directly, see [the section called “Installing from packages” \[5\]](#).

If you need to install the command-line packages source packages, 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	Interpreter for the Python programming language.
setuptools package	<p>Installed by default on Mac OS X.</p> <p>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 <a href="http://pypi.python.org/pypi/setuptools">http://pypi.python.org/pypi/setuptools</a>.</p> <p>The recommended way to install setuptools on Microsoft Windows is to follow the documentation provided <a href="#">on the setuptools website</a>. Another option is to use the unofficial binary installer maintained by Christoph Gohlke (<a href="http://www.lfd.uci.edu/~gohlke/pythonlibs/#setuptools">http://www.lfd.uci.edu/~gohlke/pythonlibs/#setuptools</a>).</p>
pip package	<p>To install the clients on a Linux, Mac OS X, or Microsoft Windows system, use pip. It is easy to use, ensures that you get the latest version of the clients from the <a href="#">Python Package Index</a>, and lets you update or remove the packages later on.</p> <p>Since the installation process compiles source files, this requires the related Python development package for your operating system and distribution.</p> <p>Install pip through the package manager for your system:</p> <p><b>MacOS.</b></p> <pre># easy_install pip</pre> <p><b>Microsoft Windows.</b> Ensure that the C:\Python27\Scripts directory is defined in the PATH environment variable, and use the <b>easy_install</b> command from the setuptools package:</p> <pre>C:\&gt;easy_install pip</pre> <p>Another option is to use the unofficial binary installer provided by Christoph Gohlke (<a href="http://www.lfd.uci.edu/~gohlke/pythonlibs/#pip">http://www.lfd.uci.edu/~gohlke/pythonlibs/#pip</a>).</p> <p><b>Ubuntu and Debian.</b></p> <pre># apt-get install python-dev python-pip</pre> <p>Note that extra dependencies may be required, per operating system, depending on the package being installed, such as is the case with Tempest.</p> <p><b>Red Hat Enterprise Linux, CentOS, or Fedora.</b> A packaged version enables you to use yum to install the package:</p> <pre># yum install python-devel python-pip</pre>

Prerequisite	Description
	<p>There are also packaged versions of the clients available in <a href="#">RDO</a> that enable yum to install the clients as described in <a href="#">the section called “Installing from packages”</a> [5].</p> <p><b>SUSE Linux Enterprise Linux 11.</b> A <a href="#">packaged version available in the Open Build Service</a> enables you to use or zypper to install the package. First, add the Open Build Service repository:</p> <pre># zypper addrepo -f obs://Cloud:OpenStack:Kilo/SLE_12 Kilo</pre> <p>Then install pip and use it to manage client installation:</p> <pre># zypper install python-devel python-pip</pre> <p>There are also packaged versions of the clients available that enable zypper to install the clients as described in <a href="#">the section called “Installing from packages”</a> [5].</p> <p><b>openSUSE.</b> You can install pip and use it to manage client installation:</p> <pre># zypper install python-devel python-pip</pre> <p>There are also packaged versions of the clients available that enable zypper to install the clients as described in <a href="#">the section called “Installing from packages”</a> [5]</p>

## 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
- **neutron** - Networking API
- **nova** - Compute API and extensions
- **sahara** - Database Processing API
- **swift** - Object Storage API
- **trove** - Database service API
- **openstack** - Common OpenStack client supporting multiple services



### Warning

The following CLIs are deprecated in favor of **openstack**, the Common OpenStack client supporting multiple services:

- **keystone** - Identity service API and extensions

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

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

## Installing with pip

Use pip to install the OpenStack clients on a Linux, Mac OS X, or Microsoft Windows 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:

- For Mac OS X or Linux:

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

- For Microsoft Windows:

```
C:\>pip install python-PROJECTclient
```

## Installing from packages

RDO, openSUSE and SUSE Linux Enterprise have client packages that can be installed without pip.

On Red Hat Enterprise Linux, CentOS, or Fedora, use **yum** to install the clients from the packaged versions available in [RDO](#):

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

For openSUSE, use zypper to install the clients from the distribution packages Service:

```
# zypper install python-PROJECT
```

For SUSE Linux Enterprise Server, use zypper to install the clients from the distribution packages in the Open Build Service. First, add the Open Build Service repository:

```
# zypper addrepo -f obs://Cloud:OpenStack:Kilo/SLE_12 Kilo
```

Then you can install the packages:

```
# zypper install python-PROJECT
```

## 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
```

## What's next

Before you can run client commands, you must create and source the *PROJECT-openrc.sh* file to set environment variables. See [the section called "Set environment variables using the OpenStack RC file" \[7\]](#).

## 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
```

## 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.

## 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 file name 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
```

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

## 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.

1. 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
export OS_CACERT=/path/to/cacertFile
```

2. 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.



### Note

You must set the *OS\_CACERT* environment variable when using the https protocol in the *OS\_AUTH\_URL* environment setting because the verification process for the TLS (HTTPS) server certificate uses the one indicated in the environment. This certificate will be used when verifying the TLS (HTTPS) server certificate.

## 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.

A user specifies their username and password credentials to interact with OpenStack, using any client command. These credentials can be specified using various mechanisms, namely, the environment variable or command-line argument. It is not safe to specify the password using either of these methods.

For example, when you specify your password using the command-line client with the *--os-password* argument, anyone with access to your computer can view it in plain text with the *ps* field.

To avoid storing the password in plain text, you can prompt for the OpenStack password interactively.

## 2. Bare metal command-line client

ironic usage .....	9
ironic optional arguments .....	11
ironic chassis-create .....	13
ironic chassis-delete .....	13
ironic chassis-list .....	13
ironic chassis-node-list .....	14
ironic chassis-show .....	14
ironic chassis-update .....	14
ironic driver-list .....	15
ironic driver-properties .....	15
ironic driver-show .....	15
ironic driver-vendor-passthru .....	15
ironic node-create .....	16
ironic node-delete .....	16
ironic node-get-boot-device .....	16
ironic node-get-console .....	16
ironic node-get-supported-boot-devices .....	17
ironic node-list .....	17
ironic node-port-list .....	17
ironic node-set-boot-device .....	18
ironic node-set-console-mode .....	18
ironic node-set-maintenance .....	18
ironic node-set-power-state .....	19
ironic node-set-provision-state .....	19
ironic node-show .....	19
ironic node-update .....	20
ironic node-validate .....	20
ironic node-vendor-passthru .....	20
ironic port-create .....	21
ironic port-delete .....	21
ironic port-list .....	21
ironic port-show .....	22
ironic port-update .....	22

The **ironic** client is the command-line interface (CLI) for the Bare metal API and its extensions. This chapter documents **ironic** version 0.6.0.

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

```
$ ironic help COMMAND
```

### ironic usage

```
usage: ironic [--version] [--debug] [-v] [--cert-file OS_CERT]
             [--key-file OS_KEY] [--ca-file OS_CACERT]
             [--os-username OS_USERNAME] [--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] [--ironic-url IRONIC_URL]
```

```
[--ironic-api-version IRONIC_API_VERSION]
[--os-service-type OS_SERVICE_TYPE] [--os-endpoint OS_ENDPOINT]
[--os-endpoint-type OS_ENDPOINT_TYPE]
[--max-retries MAX_RETRIES] [--retry-interval RETRY_INTERVAL]
[--insecure] [--os-cacert <ca-certificate>]
[--os-cert <certificate>] [--os-key <key>] [--timeout <seconds>]
[--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]
<subcommand> ...
```

## Subcommands

<b>chassis-create</b>	Create a new chassis.
<b>chassis-delete</b>	Delete a chassis.
<b>chassis-list</b>	List the chassis.
<b>chassis-node-list</b>	List the nodes contained in a chassis.
<b>chassis-show</b>	Show detailed information about a chassis.
<b>chassis-update</b>	Update information about a chassis.
<b>node-create</b>	Register a new node with the Ironic service.
<b>node-delete</b>	Unregister a node from the Ironic service.
<b>node-get-boot-device</b>	Get the current boot device for a node.
<b>node-get-console</b>	Get the connection information for a node's console, if enabled.
<b>node-get-supported-boot-devices</b>	Get the supported boot devices for a node.
<b>node-list</b>	List the nodes which are registered with the Ironic service.
<b>node-port-list</b>	List the ports associated with a node.
<b>node-set-boot-device</b>	Set the boot device for a node.
<b>node-set-console-mode</b>	Enable or disable serial console access for a node.
<b>node-set-maintenance</b>	Enable or disable maintenance mode for a node.
<b>node-set-power-state</b>	Power a node on or off or reboot.
<b>node-set-provision-state</b>	Provision, rebuild, delete, inspect, provide or manage an instance.



<b>node-show</b>	Show detailed information about a node.
<b>node-update</b>	Update information about a registered node.
<b>node-validate</b>	Validate a node's driver interfaces.
<b>node-vendor-passthru</b>	Call a vendor-passthru extension for a node.
<b>port-create</b>	Create a new port.
<b>port-delete</b>	Delete a port.
<b>port-list</b>	List the ports.
<b>port-show</b>	Show detailed information about a port.
<b>port-update</b>	Update information about a port.
<b>driver-list</b>	List the enabled drivers.
<b>driver-properties</b>	Get properties of a driver.
<b>driver-show</b>	Show information about a driver.
<b>driver-vendor-passthru</b>	Call a vendor-passthru extension for a driver.
<b>bash-completion</b>	Prints all of the commands and options for bash- completion.
<b>help</b>	Display help about this program or one of its subcommands.

## ironic optional arguments

<b>-version</b>	show program's version number and exit
<b>-debug</b>	Defaults to env [ IRONICCLIENT_DEBUG ]
<b>-v, -verbose</b>	Print more verbose output
<b>-cert-file OS_CERT</b>	<i>DEPRECATED!</i> Use <b>-os-cert</b> .
<b>-key-file OS_KEY</b>	<i>DEPRECATED!</i> Use <b>-os-key</b> .
<b>-ca-file OS_CACERT</b>	<i>DEPRECATED!</i> Use <b>-os-cacert</b> .
<b>-os-username OS_USERNAME</b>	Defaults to env [ OS_USERNAME ]
<b>-os-password OS_PASSWORD</b>	Defaults to env [ OS_PASSWORD ]
<b>-os-tenant-id OS_TENANT_ID</b>	Defaults to env [ OS_TENANT_ID ]
<b>-os-tenant-name OS_TENANT_NAME</b>	Defaults to env [ OS_TENANT_NAME ]

---

<b>-os-auth-url OS_AUTH_URL</b>	Defaults to env[ OS_AUTH_URL ]
<b>-os-region-name OS_REGION_NAME</b>	Defaults to env[ OS_REGION_NAME ]
<b>-os-auth-token OS_AUTH_TOKEN</b>	Defaults to env[ OS_AUTH_TOKEN ]
<b>-ironic-url IRONIC_URL</b>	Defaults to env[ IRONIC_URL ]
<b>-ironic-api-version IRONIC_API_VERSION</b>	Accepts 1.x (where "x" is microversion) or "latest", Defaults to env[ IRONIC_API_VERSION ] or 1
<b>-os-service-type OS_SERVICE_TYPE</b>	Defaults to env[ OS_SERVICE_TYPE ] or "baremetal"
<b>-os-endpoint OS_ENDPOINT</b>	Specify an endpoint to use instead of retrieving one from the service catalog (via authentication). Defaults to env[ OS_SERVICE_ENDPOINT ].
<b>-os-endpoint-type OS_ENDPOINT_TYPE</b>	Defaults to env[ OS_ENDPOINT_TYPE ] or "publicURL"
<b>-max-retries MAX_RETRIES</b>	Maximum number of retries in case of conflict error (HTTP 409). Defaults to env[ IRONIC_MAX_RETRIES ] or 5. Use 0 to disable retrying.
<b>-retry-interval RETRY_INTERVAL</b>	Amount of time (in seconds) between retries in case of conflict error (HTTP 409). Defaults to env[ IRONIC_RETRY_INTERVAL ] or 2.
<b>-insecure</b>	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.
<b>-os-cacert &lt;ca-certificate&gt;</b>	Specify a CA bundle file to use in verifying a TLS (https) server certificate. Defaults to env[ OS_CACERT ].
<b>-os-cert &lt;certificate&gt;</b>	Defaults to env[ OS_CERT ].
<b>-os-key &lt;key&gt;</b>	Defaults to env[ OS_KEY ].
<b>-timeout &lt;seconds&gt;</b>	Set request timeout (in seconds).
<b>-os-user-domain-id OS_USER_DOMAIN_ID</b>	Defaults to env[ OS_USER_DOMAIN_ID ].
<b>-os-user-domain-name OS_USER_DOMAIN_NAME</b>	Defaults to env[ OS_USER_DOMAIN_NAME ].
<b>-os-project-id OS_PROJECT_ID</b>	Another way to specify tenant ID. This option is mutually exclusive with -os-tenant-id. Defaults to env[ OS_PROJECT_ID ].

---

<b>-os-project-name</b> <b>OS_PROJECT_NAME</b>	Another way to specify tenant name. This option is mutually exclusive with <b>-os-tenant-name</b> . Defaults to <code>env[OS_PROJECT_NAME]</code> .
<b>-os-project-domain-id</b> <b>OS_PROJECT_DOMAIN_ID</b>	Defaults to <code>env[OS_PROJECT_DOMAIN_ID]</code> .
<b>-os-project-domain-name</b> <b>OS_PROJECT_DOMAIN_NAME</b>	Defaults to <code>env[OS_PROJECT_DOMAIN_NAME]</code> .

## ironic chassis-create

```
usage: ironic chassis-create [-d <description>] [-e <key=value>]
```

Create a new chassis.

### Optional arguments

<b>-d &lt;description&gt;</b> , <b>-description &lt;description&gt;</b>	Description of the chassis.
<b>-e &lt;key=value&gt;</b> , <b>-extra &lt;key=value&gt;</b>	Record arbitrary key/value metadata. Can be specified multiple times.

## ironic chassis-delete

```
usage: ironic chassis-delete <chassis> [<chassis> ...]
```

Delete a chassis.

### Positional arguments

**<chassis>**      UUID of the chassis.

## ironic chassis-list

```
usage: ironic chassis-list [--detail] [--limit <limit>] [--marker <chassis>]
                             [--sort-key <field>] [--sort-dir <direction>]
```

List the chassis.

### Optional arguments

<b>-detail</b>	Show detailed information about the chassis.
<b>-limit &lt;limit&gt;</b>	Maximum number of chassis to return per request, 0 for no limit. Default is the maximum number used by the Ironic API Service.
<b>-marker &lt;chassis&gt;</b>	Chassis UUID (for example, of the last chassis in the list from a previous request). Returns the list of chassis after this UUID.

<b>-sort-key &lt;field&gt;</b>	Chassis field that will be used for sorting.
<b>-sort-dir &lt;direction&gt;</b>	Sort direction: "asc" (the default) or "desc".

## ironic chassis-node-list

```
usage: ironic chassis-node-list [--detail] [--limit <limit>] [--marker <node>]
                                [--sort-key <field>] [--sort-dir <direction>]
                                <chassis>
```

List the nodes contained in a chassis.

### Positional arguments

**<chassis>**      UUID of the chassis.

### Optional arguments

<b>-detail</b>	Show detailed information about the nodes.
<b>-limit &lt;limit&gt;</b>	Maximum number of nodes to return per request, 0 for no limit. Default is the maximum number used by the Ironic API Service.
<b>-marker &lt;node&gt;</b>	Node UUID (for example, of the last node in the list from a previous request). Returns the list of nodes after this UUID.
<b>-sort-key &lt;field&gt;</b>	Node field that will be used for sorting.
<b>-sort-dir &lt;direction&gt;</b>	Sort direction: "asc" (the default) or "desc".

## ironic chassis-show

```
usage: ironic chassis-show <chassis>
```

Show detailed information about a chassis.

### Positional arguments

**<chassis>**      UUID of the chassis.

## ironic chassis-update

```
usage: ironic chassis-update <chassis> <op> <path=value> [<path=value> ...]
```

Update information about a chassis.

### Positional arguments

<b>&lt;chassis&gt;</b>	UUID of the chassis.
<b>&lt;op&gt;</b>	Operation: 'add', 'replace', or 'remove'.

**<path=value>** Attribute to add, replace, or remove. Can be specified multiple times. For 'remove', only <path> is necessary.

## ironic driver-list

```
usage: ironic driver-list
```

List the enabled drivers.

## ironic driver-properties

```
usage: ironic driver-properties <driver>
```

Get properties of a driver.

### Positional arguments

**<driver>** Name of the driver.

## ironic driver-show

```
usage: ironic driver-show <driver>
```

Show information about a driver.

### Positional arguments

**<driver>** Name of the driver.

## ironic driver-vendor-passthru

```
usage: ironic driver-vendor-passthru [--http-method <http-method>]
                                     <driver> <method>
                                     [<arg=value> [<arg=value> ...]]
```

Call a vendor-passthru extension for a driver.

### Positional arguments

**<driver>** Name of the driver.

**<method>** Vendor-passthru method to be called.

**<arg=value>** Argument to be passed to the vendor-passthru method. Can be specified multiple times.

### Optional arguments

**-http-method <http-method>** The HTTP method to use in the request. Valid HTTP methods are: 'POST', 'PUT', 'GET', 'DELETE', and 'PATCH'. Defaults to 'POST'.

## ironic node-create

```
usage: ironic node-create [-c <chassis>] -d <driver> [-i <key=value>]
                           [-p <key=value>] [-e <key=value>] [-u <uuid>]
                           [-n <name>]
```

Register a new node with the Ironic service.

### Optional arguments

<b>-c &lt;chassis&gt;, --chassis &lt;chassis&gt;</b>	UUID of the chassis that this node belongs to.
<b>-d &lt;driver&gt;, --driver &lt;driver&gt;</b>	Driver used to control the node [REQUIRED].
<b>-i &lt;key=value&gt;, --driver-info &lt;key=value&gt;</b>	Key/value pair used by the driver, such as out-of-band management credentials. Can be specified multiple times.
<b>-p &lt;key=value&gt;, --properties &lt;key=value&gt;</b>	Key/value pair describing the physical characteristics of the node. This is exported to Nova and used by the scheduler. Can be specified multiple times.
<b>-e &lt;key=value&gt;, --extra &lt;key=value&gt;</b>	Record arbitrary key/value metadata. Can be specified multiple times.
<b>-u &lt;uuid&gt;, --uuid &lt;uuid&gt;</b>	Unique UUID for the node.
<b>-n &lt;name&gt;, --name &lt;name&gt;</b>	Unique name for the node.

## ironic node-delete

```
usage: ironic node-delete <node> [<node> ...]
```

Unregister a node from the Ironic service.

### Positional arguments

**<node>** Name or UUID of the node.

## ironic node-get-boot-device

```
usage: ironic node-get-boot-device <node>
```

Get the current boot device for a node.

### Positional arguments

**<node>** Name or UUID of the node.

## ironic node-get-console

```
usage: ironic node-get-console <node>
```

Get the connection information for a node's console, if enabled.

### Positional arguments

**<node>** Name or UUID of the node.

## ironic node-get-supported-boot-devices

```
usage: ironic node-get-supported-boot-devices <node>
```

Get the supported boot devices for a node.

### Positional arguments

**<node>** Name or UUID of the node.

## ironic node-list

```
usage: ironic node-list [--limit <limit>] [--marker <node>]
                        [--sort-key <field>] [--sort-dir <direction>]
                        [--maintenance <boolean>] [--associated <boolean>]
                        [--detail]
```

List the nodes which are registered with the Ironic service.

### Optional arguments

<b>-limit &lt;limit&gt;</b>	Maximum number of nodes to return per request, 0 for no limit. Default is the maximum number used by the Ironic API Service.
<b>-marker &lt;node&gt;</b>	Node UUID (for example, of the last node in the list from a previous request). Returns the list of nodes after this UUID.
<b>-sort-key &lt;field&gt;</b>	Node field that will be used for sorting.
<b>-sort-dir &lt;direction&gt;</b>	Sort direction: "asc" (the default) or "desc".
<b>-maintenance &lt;boolean&gt;</b>	List nodes in maintenance mode: 'true' or 'false'.
<b>-associated &lt;boolean&gt;</b>	List nodes by instance association: 'true' or 'false'.
<b>-detail</b>	Show detailed information about the nodes.

## ironic node-port-list

```
usage: ironic node-port-list [--detail] [--limit <limit>] [--marker <port>]
                             [--sort-key <field>] [--sort-dir <direction>]
                             <node>
```

List the ports associated with a node.

### Positional arguments

**<node>**    UUID of the node.

### Optional arguments

**-detail**                      Show detailed information about the ports.

**-limit <limit>**              Maximum number of ports to return per request, 0 for no limit. Default is the maximum number used by the Ironic API Service.

**-marker <port>**              Port UUID (for example, of the last port in the list from a previous request). Returns the list of ports after this UUID.

**-sort-key <field>**            Port field that will be used for sorting.

**-sort-dir <direction>**      Sort direction: "asc" (the default) or "desc".

## ironic node-set-boot-device

```
usage: ironic node-set-boot-device [--persistent] <node> <boot-device>
```

Set the boot device for a node.

### Positional arguments

**<node>**                      Name or UUID of the node.

**<boot-device>**              'pxe', 'disk', 'cdrom', 'bios', or 'safe'.

### Optional arguments

**-persistent**              Make changes persistent for all future boots.

## ironic node-set-console-mode

```
usage: ironic node-set-console-mode <node> <enabled>
```

Enable or disable serial console access for a node.

### Positional arguments

**<node>**                      Name or UUID of the node.

**<enabled>**                  Enable or disable console access for a node. Supported options are: 'true' or 'false'.

## ironic node-set-maintenance

```
usage: ironic node-set-maintenance [--reason <reason>]
      <node> <maintenance-mode>
```



Enable or disable maintenance mode for a node.

### Positional arguments

**<node>** Name or UUID of the node.

**<maintenance-mode>** 'true' or 'false'; 'on' or 'off'.

### Optional arguments

**-reason <reason>** Reason for setting maintenance mode to "true" or "on"; not valid when setting to "false" or "off".

## ironic node-set-power-state

```
usage: ironic node-set-power-state <node> <power-state>
```

Power a node on or off or reboot.

### Positional arguments

**<node>** Name or UUID of the node.

**<power-state>** 'on', 'off', or 'reboot'.

## ironic node-set-provision-state

```
usage: ironic node-set-provision-state [--config-drive <config-drive>]
                                         <node> <provision-state>
```

Provision, rebuild, delete, inspect, provide or manage an instance.

### Positional arguments

**<node>** Name or UUID of the node.

**<provision-state>** Supported states: 'active', 'deleted', 'rebuild', 'inspect', 'provide' or 'manage'

### Optional arguments

**-config-drive <config-drive>** A gzipped, base64-encoded configuration drive string OR the path to the configuration drive file OR the path to a directory containing the config drive files. In case it's a directory, a config drive will be generated from it. This parameter is only valid when setting provision state to 'active'.

## ironic node-show

```
usage: ironic node-show [--instance] <id>
```

Show detailed information about a node.

### Positional arguments

**<id>** Name or UUID of the node (or instance UUID if `--instance` is specified).

### Optional arguments

`--instance <id>` is an instance UUID.

## ironic node-update

```
usage: ironic node-update <node> <op> <path=value> [<path=value> ...]
```

Update information about a registered node.

### Positional arguments

**<node>** Name or UUID of the node.

**<op>** Operation: 'add', 'replace', or 'remove'.

**<path=value>** Attribute to add, replace, or remove. Can be specified multiple times. For 'remove', only <path> is necessary.

## ironic node-validate

```
usage: ironic node-validate <node>
```

Validate a node's driver interfaces.

### Positional arguments

**<node>** Name or UUID of the node.

## ironic node-vendor-passthru

```
usage: ironic node-vendor-passthru [--http-method <http-method>]
                                     <node> <method>
                                     [<arg=value> [<arg=value> ...]]
```

Call a vendor-passthru extension for a node.

### Positional arguments

**<node>** Name or UUID of the node.

**<method>** Vendor-passthru method to be called.

**<arg=value>** Argument to be passed to the vendor-passthru method. Can be specified multiple times.

### Optional arguments

<b>-http-method &lt;http-method&gt;</b>	The HTTP method to use in the request. Valid HTTP methods are: 'POST', 'PUT', 'GET', 'DELETE', and 'PATCH'. Defaults to 'POST'.
---	---

## ironic port-create

```
usage: ironic port-create -a <address> -n <node> [-e <key=value>]
```

Create a new port.

### Optional arguments

<b>-a &lt;address&gt;, --address &lt;address&gt;</b>	MAC address for this port.
<b>-n &lt;node&gt;, --node &lt;node&gt;, --node-uuid &lt;node&gt;</b>	UUID of the node that this port belongs to.
<b>-e &lt;key=value&gt;, --extra &lt;key=value&gt;</b>	Record arbitrary key/value metadata. Can be specified multiple times.

## ironic port-delete

```
usage: ironic port-delete <port> [<port> ...]
```

Delete a port.

### Positional arguments

**<port>**      UUID of the port.

## ironic port-list

```
usage: ironic port-list [--detail] [--address <mac-address>] [--limit <limit>]
                        [--marker <port>] [--sort-key <field>]
                        [--sort-dir <direction>]
```

List the ports.

### Optional arguments

<b>-detail</b>	Show detailed information about ports.
<b>-address &lt;mac-address&gt;</b>	Only show information for the port with this MAC address.
<b>-limit &lt;limit&gt;</b>	Maximum number of ports to return per request, 0 for no limit. Default is the maximum number used by the Ironic API Service.

<b>-marker &lt;port&gt;</b>	Port UUID (for example, of the last port in the list from a previous request). Returns the list of ports after this UUID.
<b>-sort-key &lt;field&gt;</b>	Port field that will be used for sorting.
<b>-sort-dir &lt;direction&gt;</b>	Sort direction: "asc" (the default) or "desc".

## ironic port-show

```
usage: ironic port-show [--address] <id>
```

Show detailed information about a port.

### Positional arguments

**<id>**     UUID of the port (or MAC address if **-address** is specified).

### Optional arguments

**-address <id>**     is the MAC address (instead of the UUID) of the port.

## ironic port-update

```
usage: ironic port-update <port> <op> <path=value> [<path=value> ...]
```

Update information about a port.

### Positional arguments

**<port>**     UUID of the port.

**<op>**     Operation: 'add', 'replace', or 'remove'.

**<path=value>**     Attribute to add, replace, or remove. Can be specified multiple times. For 'remove', only <path> is necessary.

## 3. Block Storage command-line client

cinder usage .....	23
cinder optional arguments .....	26
Block Storage API v1 commands .....	27
Block Storage API v2 commands .....	44

The **cinder** client is the command-line interface (CLI) for the OpenStack Block Storage API and its extensions. This chapter documents **cinder** version 1.2.1.

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

```
$ cinder help COMMAND
```

### cinder usage

```
usage: cinder [--version] [-d] [--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>]
             [--bypass-url <bypass-url>] [--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

<b>absolute-limits</b>	Lists absolute limits for a user.
<b>availability-zone-list</b>	Lists all availability zones.
<b>backup-create</b>	Creates a volume backup.
<b>backup-delete</b>	Removes a backup.
<b>backup-list</b>	Lists all backups.
<b>backup-restore</b>	Restores a backup.
<b>backup-show</b>	Show backup details.
<b>create</b>	Creates a volume.

---

<b>credentials</b>	Shows user credentials returned from auth.
<b>delete</b>	Removes one or more volumes.
<b>encryption-type-create</b>	Creates encryption type for a volume type. Admin only.
<b>encryption-type-delete</b>	Deletes encryption type for a volume type. Admin only.
<b>encryption-type-list</b>	Shows encryption type details for volume types. Admin only.
<b>encryption-type-show</b>	Shows encryption type details for volume type. Admin only.
<b>endpoints</b>	Discovers endpoints registered by authentication service.
<b>extend</b>	Attempts to extend size of an existing volume.
<b>extra-specs-list</b>	Lists current volume types and extra specs.
<b>force-delete</b>	Attempts force-delete of volume, regardless of state.
<b>list</b>	Lists all volumes.
<b>metadata</b>	Sets or deletes volume metadata.
<b>metadata-show</b>	Shows volume metadata.
<b>metadata-update-all</b>	Updates volume metadata.
<b>migrate</b>	Migrates volume to a new host.
<b>qos-associate</b>	Associates qos specs with specified volume type.
<b>qos-create</b>	Creates a qos specs.
<b>qos-delete</b>	Deletes a specified qos specs.
<b>qos-disassociate</b>	Disassociates qos specs from specified volume type.
<b>qos-disassociate-all</b>	Disassociates qos specs from all associations.
<b>qos-get-association</b>	Gets all associations for specified qos specs.
<b>qos-key</b>	Sets or unsets specifications for a qos spec.
<b>qos-list</b>	Lists qos specs.
<b>qos-show</b>	Shows a specified qos specs.
<b>quota-class-show</b>	Lists quotas for a quota class.
<b>quota-class-update</b>	Updates quotas for a quota class.
<b>quota-defaults</b>	Lists default quotas for a tenant.

---

---

<b>quota-delete</b>	Delete the quotas for a tenant.
<b>quota-show</b>	Lists quotas for a tenant.
<b>quota-update</b>	Updates quotas for a tenant.
<b>quota-usage</b>	Lists quota usage for a tenant.
<b>rate-limits</b>	Lists rate limits for a user.
<b>readonly-mode-update</b>	Updates volume read-only access-mode flag.
<b>rename</b>	Renames a volume.
<b>reset-state</b>	Explicitly updates the volume state.
<b>service-disable</b>	Disables the service.
<b>service-enable</b>	Enables the service.
<b>service-list</b>	Lists all services. Filter by host and service binary.
<b>set-bootable</b>	Update bootable status of a volume.
<b>show</b>	Shows volume details.
<b>snapshot-create</b>	Creates a snapshot.
<b>snapshot-delete</b>	Remove one or more snapshots.
<b>snapshot-list</b>	Lists all snapshots.
<b>snapshot-metadata</b>	Sets or deletes snapshot metadata.
<b>snapshot-metadata-show</b>	Shows snapshot metadata.
<b>snapshot-metadata-update-all</b>	Updates snapshot metadata.
<b>snapshot-rename</b>	Renames a snapshot.
<b>snapshot-reset-state</b>	Explicitly updates the snapshot state.
<b>snapshot-show</b>	Shows snapshot details.
<b>transfer-accept</b>	Accepts a volume transfer.
<b>transfer-create</b>	Creates a volume transfer.
<b>transfer-delete</b>	Undoes a transfer.
<b>transfer-list</b>	Lists all transfers.
<b>transfer-show</b>	Show transfer details.
<b>type-create</b>	Creates a volume type.
<b>type-delete</b>	Deletes a specified volume type.

<b>type-key</b>	Sets or unsets extra_spec for a volume type.
<b>type-list</b>	Lists available 'volume types'.
<b>upload-to-image</b>	Uploads volume to Image Service as an image.
<b>bash-completion</b>	Prints arguments for bash_completion.
<b>help</b>	Shows help about this program or one of its subcommands.
<b>list-extensions</b>	Lists all available os-api extensions.

## cinder optional arguments

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



<b>-os-tenant-id &lt;auth-tenant-id&gt;</b>	ID for the tenant. Default= <code>env[OS_TENANT_ID]</code> .
<b>-os-auth-url &lt;auth-url&gt;</b>	URL for the authentication service. Default= <code>env[OS_AUTH_URL]</code> .
<b>-os-user-id &lt;auth-user-id&gt;</b>	Authentication user ID (Env: <code>OS_USER_ID</code> )
<b>-os-user-domain-id &lt;auth-user-domain-id&gt;</b>	OpenStack user domain ID. Defaults to <code>env[OS_USER_DOMAIN_ID]</code> .
<b>-os-user-domain-name &lt;auth-user-domain-name&gt;</b>	OpenStack user domain name. Defaults to <code>env[OS_USER_DOMAIN_NAME]</code> .
<b>-os-project-id &lt;auth-project-id&gt;</b>	Another way to specify tenant ID. This option is mutually exclusive with <code>-os-tenant-id</code> . Defaults to <code>env[OS_PROJECT_ID]</code> .
<b>-os-project-name &lt;auth-project-name&gt;</b>	Another way to specify tenant name. This option is mutually exclusive with <code>-os-tenant-name</code> . Defaults to <code>env[OS_PROJECT_NAME]</code> .
<b>-os-project-domain-id &lt;auth-project-domain-id&gt;</b>	Defaults to <code>env[OS_PROJECT_DOMAIN_ID]</code> .
<b>-os-project-domain-name &lt;auth-project-domain-name&gt;</b>	Defaults to <code>env[OS_PROJECT_DOMAIN_NAME]</code> .
<b>-os-cert &lt;certificate&gt;</b>	Defaults to <code>env[OS_CERT]</code> .
<b>-os-key &lt;key&gt;</b>	Defaults to <code>env[OS_KEY]</code> .
<b>-os-region-name &lt;region-name&gt;</b>	Region name. Default= <code>env[OS_REGION_NAME]</code> .
<b>-os-token &lt;token&gt;</b>	Defaults to <code>env[OS_TOKEN]</code>
<b>-os-url &lt;url&gt;</b>	Defaults to <code>env[OS_URL]</code>
<b>-os-cacert &lt;ca-certificate&gt;</b>	Specify a CA bundle file to use in verifying a TLS (https) server certificate. Defaults to <code>env[OS_CACERT]</code>

## Block Storage API v1 commands

### cinder absolute-limits

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

Lists absolute limits for a user.

### cinder availability-zone-list

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

Lists all availability zones.

## 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.

## cinder backup-delete

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

Removes a backup.

### Positional arguments

**<backup>** Name or ID of backup to delete.

## cinder backup-list

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

Lists all backups.

## 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.

## cinder backup-show

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

Show backup details.

### Positional arguments

**<backup>** Name or ID of backup.

## cinder create

```
usage: cinder create [--snapshot-id <snapshot-id>]
                    [--source-volid <source-volid>] [--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

<b>-snapshot-id &lt;snapshot-id&gt;</b>	Creates volume from snapshot ID. Default=None.
<b>-source-volid &lt;source-volid&gt;</b>	Creates volume from volume ID. Default=None.
<b>-image-id &lt;image-id&gt;</b>	Creates volume from image ID. Default=None.
<b>-display-name &lt;display-name&gt;</b>	Volume name. Default=None.
<b>-display-description &lt;display-description&gt;</b>	Volume description. Default=None.
<b>-volume-type &lt;volume-type&gt;</b>	Volume type. Default=None.
<b>-availability-zone &lt;availability-zone&gt;</b>	Availability zone for volume. Default=None.
<b>-metadata [&lt;key=value&gt; [&lt;key=value&gt; ...]]</b>	Metadata key and value pairs. Default=None.

## cinder credentials

```
usage: cinder credentials
```

Shows user credentials returned from auth.

## 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.

## 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."

## 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.

## cinder encryption-type-list

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

Shows encryption type details for volume types. Admin only.

## 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.

## cinder endpoints

```
usage: cinder endpoints
```

Discovers endpoints registered by authentication service.

## 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.

## cinder extra-specs-list

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

Lists current volume types and extra specs.

## 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.

## cinder list

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

Lists all volumes.

### Optional arguments

<b>-all-tenants</b> [<0 1>]	Shows details for all tenants. Admin only.
<b>-display-name</b> <display-name>	Filters list by a volume display name. Default=None.
<b>-status</b> <status>	Filters list by a status. Default=None.
<b>-metadata</b> [<key=value> [<key=value> ...]]	Filters list by metadata key and value pair. Default=None.
<b>-tenant</b> [<tenant>]	Display information from single tenant (Admin only).
<b>-limit</b> <limit>	Maximum number of volumes to return. OPTIONAL: Default=None.

## cinder list-extensions

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

Lists all available os-api extensions.

## cinder metadata

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

Sets or deletes volume metadata.

### Positional arguments

<b>&lt;volume&gt;</b>	Name or ID of volume for which to update metadata.
<b>&lt;action&gt;</b>	The action. Valid values are "set" or "unset."
<b>&lt;key=value&gt;</b>	The metadata key and pair to set or unset. For unset, specify only the key. Default=[].

## cinder metadata-show

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

Shows volume metadata.

### Positional arguments

<b>&lt;volume&gt;</b>	ID of volume.
-----------------------	---------------

## 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=[].

## 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.

## 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.

## 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.

## 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.

## 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.

## 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.

## 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.

## 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.

## cinder qos-list

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

Lists qos specs.

## cinder qos-show

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

Shows a specified qos specs.

### Positional arguments

**<qos\_specs>** ID of QoS specifications.

## 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.

## 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

<b>-volumes &lt;volumes&gt;</b>	The new "volumes" quota value. Default=None.
<b>-snapshots &lt;snapshots&gt;</b>	The new "snapshots" quota value. Default=None.
<b>-gigabytes &lt;gigabytes&gt;</b>	The new "gigabytes" quota value. Default=None.
<b>-volume-type &lt;volume_type_name&gt;</b>	Volume type. Default=None.

## 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.

## 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.

## 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.

## cinder quota-update

```
usage: cinder quota-update [--volumes <volumes>] [--snapshots <snapshots>]
                             [--gigabytes <gigabytes>] [--backups <backups>]
                             [--backup-gigabytes <backup_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

<b>--volumes &lt;volumes&gt;</b>	The new "volumes" quota value. Default=None.
<b>--snapshots &lt;snapshots&gt;</b>	The new "snapshots" quota value. Default=None.
<b>--gigabytes &lt;gigabytes&gt;</b>	The new "gigabytes" quota value. Default=None.
<b>--backups &lt;backups&gt;</b>	The new "backups" quota value. Default=None.

<b>-backup-gigabytes</b> <b>&lt;backup_gigabytes&gt;</b>	The new "backup_gigabytes" quota value. Default=None.
<b>-volume-type</b> <b>&lt;volume_type_name&gt;</b>	Volume type. Default=None.

## 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.

## cinder rate-limits

```
usage: cinder rate-limits
```

Lists rate limits for a user.

## 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.

## 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.

## 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," "in-use," "attaching," "detaching" and "error\_deleting." NOTE: This command simply changes the state of the Volume in the DataBase with no regard to actual status, exercise caution when using. Default=available.

## 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.

## cinder service-enable

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

Enables the service.

### Positional arguments

**<hostname>** Host name.

**<binary>** Service binary.

## 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.

## 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.

## cinder show

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

Shows volume details.

### Positional arguments

- <volume>** Volume name or ID.

## 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.

## 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.

## 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

<b>-all-tenants</b> [<0 1>]	Shows details for all tenants. Admin only.
<b>-display-name</b> <display-name>	Filters list by a display name. Default=None.
<b>-status</b> <status>	Filters list by a status. Default=None.
<b>-volume-id</b> <volume-id>	Filters list by a volume ID. Default=None.

## cinder snapshot-metadata

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

Sets or deletes snapshot metadata.

### Positional arguments

<b>&lt;snapshot&gt;</b>	ID of snapshot for which to update metadata.
<b>&lt;action&gt;</b>	The action. Valid values are "set" or "unset."
<b>&lt;key=value&gt;</b>	The metadata key and value pair to set or unset. For unset, specify only the key.

## cinder snapshot-metadata-show

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

Shows snapshot metadata.

### Positional arguments

**<snapshot>** ID of snapshot.

## 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=[].

## 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.

## 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," and "error\_deleting." NOTE: This command simply changes the state of the Snapshot in the DataBase with no regard to actual status, exercise caution when using. Default=available.

## cinder snapshot-show

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

Shows snapshot details.

### Positional arguments

**<snapshot>**      Name or ID of snapshot.

## 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.

## 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.

## cinder transfer-delete

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

Undoes a transfer.

### Positional arguments

**<transfer>**      Name or ID of transfer to delete.

## cinder transfer-list

```
usage: cinder transfer-list [--all-tenants [<0|1>]]
```

Lists all transfers.

### Optional arguments

**--all-tenants [<0|1>]**      Shows details for all tenants. Admin only.



## cinder transfer-show

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

Show transfer details.

### Positional arguments

**<transfer>**      Name or ID of transfer to accept.

## cinder type-create

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

Creates a volume type.

### Positional arguments

**<name>**      Name for the volume type.

## cinder type-delete

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

Deletes a specified volume type.

### Positional arguments

**<id>**      ID of volume type to delete.

## 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.

## cinder type-list

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

Lists available 'volume types'.

## 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.

## Block Storage API v2 commands

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

```
$ export OS_VOLUME_API_VERSION=2
```

### cinder absolute-limits (v2)

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

Lists absolute limits for a user.

### cinder availability-zone-list (v2)

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

Lists all availability zones.

### cinder backup-create (v2)

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

Creates a volume backup.

### Positional arguments

**<volume>** Name or ID of volume to backup.

### Optional arguments

<b>-container &lt;container&gt;</b>	Backup container name. Default=None.
<b>-name &lt;name&gt;</b>	Backup name. Default=None.
<b>-description &lt;description&gt;</b>	Backup description. Default=None.
<b>-incremental</b>	Incremental backup. Default=False.

## 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.

## 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.

## 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.

## cinder backup-list (v2)

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

Lists all backups.

## 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.

## 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.

## 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.

## 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.

## 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

<b>-all-tenants</b> [<0 1>]	Shows details for all tenants. Admin only.
<b>-status</b> <status>	Filters results by a status. Default=None.
<b>-consistencygroup-id</b> <b>&lt;consistencygroup_id&gt;</b>	Filters results by a consistency group ID. Default=None.

## cinder cgsnapshot-show (v2)

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

Shows cgsnapshot details.

### Positional arguments

**<cgsnapshot>** Name or ID of cgsnapshot.

## 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

<b>-name</b> <name>	Name of a consistency group.
<b>-description</b> <description>	Description of a consistency group. Default=None.
<b>-availability-zone</b> <availability-zone>	Availability zone for volume. Default=None.

## cinder consisgroup-create-from-src (v2)

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

Creates a consistency group from a cgsnapshot.

### Optional arguments

- cgsnapshot <cgsnapshot>** Name or ID of a cgsnapshot. Default=None.
- name <name>** Name of a consistency group. Default=None.
- description <description>** Description of a consistency group. Default=None.

## 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.

## 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.

## 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.

## cinder consisgroup-update (v2)

```
usage: cinder --os-volume-api-version 2 consisgroup-update [--name <name>] [--description <description>]
        [--add-volumes <uuid1,uuid2,.....>]
        [--remove-volumes <uuid3,uuid4,.....>]
```

<consistencygroup>

Updates a consistencygroup.

### Positional arguments

<consistencygroup>      Name or ID of a consistency group.

### Optional arguments

**-name <name>**      New name for consistency group. Default=None.

**-description <description>**      New description for consistency group. Default=None.

**-add-volumes  
<uuid1,uuid2,.....>**      UUID of one or more volumes to be added to the consistency group, separated by commas. Default=None.

**-remove-volumes  
<uuid3,uuid4,.....>**      UUID of one or more volumes to be removed from the consistency group, separated by commas. Default=None.

## cinder create (v2)

```
usage: cinder --os-volume-api-version 2 create [--consisgroup-id
<consistencygroup-id>]
        [--snapshot-id <snapshot-id>]
        [--source-void <source-void>]
        [--source-replica <source-replica>]
        [--image-id <image-id>] [--image <image>] [--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-void is specified).

### Optional arguments

**-consisgroup-id <consistency-group-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-void <source-void>**      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.

<b>-image &lt;image&gt;</b>	Creates a volume from image (ID or name). Default=None.
<b>-name &lt;name&gt;</b>	Volume name. Default=None.
<b>-description &lt;description&gt;</b>	Volume description. Default=None.
<b>-volume-type &lt;volume-type&gt;</b>	Volume type. Default=None.
<b>-availability-zone &lt;availability-zone&gt;</b>	Availability zone for volume. Default=None.
<b>-metadata [&lt;key=value&gt; [&lt;key=value&gt; ...]]</b>	Metadata key and value pairs. Default=None.
<b>-hint &lt;key=value&gt;</b>	Scheduler hint, like in nova.

## cinder credentials (v2)

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

Shows user credentials returned from auth.

## 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.

## 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.



<b>-key_size &lt;key_size&gt;</b>	Size of encryption key, in bits. For example, 128 or 256. Default=None.
<b>-control_location &lt;control_location&gt;</b>	Notional service where encryption is performed. Valid values are "front-end" or "back-end." For example, front-end=Nova. Default is "front-end."

## 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.

## cinder encryption-type-list (v2)

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

Shows encryption type details for volume types. Admin only.

## 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.

## cinder endpoints (v2)

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

Discovers endpoints registered by authentication service.

## 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.

## cinder extra-specs-list (v2)

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

Lists current volume types and extra specs.

## 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.

## cinder get-pools (v2)

```
usage: cinder --os-volume-api-version 2 get-pools [--detail]
```

Show pool information for backends. Admin only.

### Optional arguments

**-detail** Show detailed information about pools.

## 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>[:<direction>]] [--tenant [<tenant>]]
```

Lists all volumes.

### Optional arguments

<b>-all-tenants [&lt;0 1&gt;]</b>	Shows details for all tenants. Admin only.
<b>-name &lt;name&gt;</b>	Filters results by a name. Default=None.
<b>-status &lt;status&gt;</b>	Filters results by a status. Default=None.
<b>-metadata [&lt;key=value&gt; [&lt;key=value&gt; ...]]</b>	Filters results by a metadata key and value pair. Default=None.
<b>-marker &lt;marker&gt;</b>	Begin returning volumes that appear later in the volume list than that represented by this volume id. Default=None.
<b>-limit &lt;limit&gt;</b>	Maximum number of volumes to return. Default=None.
<b>-sort &lt;key&gt;[:&lt;direction&gt;]</b>	Comma-separated list of sort keys and directions in the form of <key>[:<asc desc>]. Valid keys: id, status, size, availability_zone, name, bootable, created_at. Default=None.

**-tenant [<tenant>]** Display information from single tenant (Admin only).

## cinder list-extensions (v2)

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

Lists all available os-api extensions.

## cinder manage (v2)

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

Manage an existing volume.

### Positional arguments

**<host>** Cinder host on which the existing volume resides; takes the form: host@backend-name#pool

**<identifier>** Name or other Identifier for existing volume

### Optional arguments

**-id-type <id-type>** Type of backend device identifier provided, typically source-name or source-id (Default=source-name)

**-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=value pairs (Default=None)

**-bootable** Specifies that the newly created volume should be marked as bootable

## 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.

## cinder metadata-show (v2)

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

Shows volume metadata.

### Positional arguments

- <volume>** ID of volume.

## 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.

## 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.

## 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.

## 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.

## 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.

## 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.

## 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.

## 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.

## 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.

## cinder qos-list (v2)

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

Lists qos specs.

## 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.

## 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.

## 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

<b>-volumes &lt;volumes&gt;</b>	The new "volumes" quota value. Default=None.
<b>-snapshots &lt;snapshots&gt;</b>	The new "snapshots" quota value. Default=None.
<b>-gigabytes &lt;gigabytes&gt;</b>	The new "gigabytes" quota value. Default=None.
<b>-volume-type &lt;volume_type_name&gt;</b>	Volume type. Default=None.

## 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.

## 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.

## 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.

## cinder quota-update (v2)

```
usage: cinder --os-volume-api-version 2 quota-update [--volumes <volumes>] [--
snapshots <snapshots>]
                                [--gigabytes <gigabytes>] [--backups <backups>]
                                [--backup-gigabytes <backup_gigabytes>]
                                [--consistencygroups <consistencygroups>]
                                [--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

<b>-volumes &lt;volumes&gt;</b>	The new "volumes" quota value. Default=None.
<b>-snapshots &lt;snapshots&gt;</b>	The new "snapshots" quota value. Default=None.
<b>-gigabytes &lt;gigabytes&gt;</b>	The new "gigabytes" quota value. Default=None.
<b>-backups &lt;backups&gt;</b>	The new "backups" quota value. Default=None.
<b>-backup-gigabytes &lt;backup_gigabytes&gt;</b>	The new "backup_gigabytes" quota value. Default=None.
<b>-consistencygroups &lt;consisten- cylgroups&gt;</b>	The new "consistencygroups" quota value. Default=None.
<b>-volume-type &lt;volume_type_name&gt;</b>	Volume type. Default=None.

## 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.

## cinder rate-limits (v2)

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



Lists rate limits for a user.

## 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

<b>&lt;volume&gt;</b>	ID of volume to update.
<b>&lt;True true False false&gt;</b>	Enables or disables update of volume to read-only access mode.

## cinder rename (v2)

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

Renames a volume.

### Positional arguments

<b>&lt;volume&gt;</b>	Name or ID of volume to rename.
<b>&lt;name&gt;</b>	New name for volume.

### Optional arguments

<b>-description &lt;description&gt;</b>	Volume description. Default=None.
---	-----------------------------------

## 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

<b>&lt;volume&gt;</b>	Name or ID of the volume to promote.
-----------------------	--------------------------------------

## 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

<b>&lt;volume&gt;</b>	Name or ID of the volume to reenable replication.
-----------------------	---

## cinder reset-state (v2)

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

Explicitly updates the volume state in the Cinder database. Note that this does not affect whether the volume is actually attached to the Nova compute host or instance and can result in an unusable volume. Being a database change only, this has no impact on the true state of the volume and may not match the actual state. This can render a volume unusable in the case of change to the 'available' 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," "in-use," "attaching," "detaching" and "error\_deleting." NOTE: This command simply changes the state of the Volume in the DataBase with no regard to actual status, exercise caution when using. Default=available.

## 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.

## 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.

## 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.

## 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.

## 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.

## cinder show (v2)

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

Shows volume details.

### Positional arguments

**<volume>**      Name or ID of volume.

## cinder snapshot-create (v2)

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

Creates a snapshot.

### Positional arguments

**<volume>** Name or ID of volume to snapshot.

### Optional arguments

<b>-force [&lt;True False&gt;]</b>	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.
<b>-name &lt;name&gt;</b>	Snapshot name. Default=None.
<b>-description &lt;description&gt;</b>	Snapshot description. Default=None.
<b>-metadata [&lt;key=value&gt; [&lt;key=value&gt; ...]]</b>	Snapshot metadata key and value pairs. Default=None.

## 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.

## 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

<b>-all-tenants [&lt;0 1&gt;]</b>	Shows details for all tenants. Admin only.
<b>-name &lt;name&gt;</b>	Filters results by a name. Default=None.
<b>-status &lt;status&gt;</b>	Filters results by a status. Default=None.

**-volume-id <volume-id>** Filters results by a volume ID. Default=None.

## 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.

## 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.

## 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.

## 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.

## 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." NOTE: This command simply changes the state of the Snapshot in the DataBase with no regard to actual status, exercise caution when using. Default=available.

## 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.

## 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.

## 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.

## 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.

## cinder transfer-list (v2)

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

Lists all transfers.

### Optional arguments

**-all-tenants [<0|1>]** Shows details for all tenants. Admin only.

## 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.

## cinder type-access-add (v2)

```
usage: cinder --os-volume-api-version 2 type-access-add --volume-type  
       <volume_type> --project-id  
                               <project_id>
```

Adds volume type access for the given project.

### Optional arguments

**-volume-type <volume\_type>** Volume type name or ID to add access for the given project.

**-project-id <project\_id>** Project ID to add volume type access for.

## cinder type-access-list (v2)

```
usage: cinder --os-volume-api-version 2 type-access-list --volume-type
<volume_type>
```

Print access information about the given volume type.

### Optional arguments

**-volume-type <volume\_type>** Filter results by volume type name or ID.

## cinder type-access-remove (v2)

```
usage: cinder --os-volume-api-version 2 type-access-remove --volume-type
<volume_type> --project-id
<project_id>
```

Removes volume type access for the given project.

### Optional arguments

**-volume-type <volume\_type>** Volume type name or ID to remove access for the given project.

**-project-id <project\_id>** Project ID to remove volume type access for.

## cinder type-create (v2)

```
usage: cinder --os-volume-api-version 2 type-create [--description
<description>]
[--is-public <is-public>]
<name>
```

Creates a volume type.

### Positional arguments

**<name>** Name of new volume type.

### Optional arguments

**-description <description>** Description of new volume type.

**-is-public <is-public>** Make type accessible to the public (default true).

## cinder type-default (v2)

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

List the default volume type.

## 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.

## 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.

## cinder type-list (v2)

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

Lists available 'volume types'.

### Optional arguments

**-all** Display all volume types (Admin only).

## cinder type-update (v2)

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

Updates volume type name and/or description.

### Positional arguments

**<id>** ID of the volume type.

### Optional arguments

**-name <name>** Name of the volume type.

**-description <description>** Description of the volume type.

## cinder unmanage (v2)

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

Stop managing a volume.

### Positional arguments

**<volume>** Name or ID of the volume to unmanage.

## 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

<b>-force [&lt;True False&gt;]</b>	Enables or disables upload of a volume that is attached to an instance. Default=False.
<b>-container-format &lt;container-format&gt;</b>	Container format type. Default is bare.
<b>-disk-format &lt;disk-format&gt;</b>	Disk format type. Default is raw.

## 4. Compute command-line client

nova usage .....	73
nova optional arguments .....	80
nova absolute-limits .....	82
nova add-fixed-ip .....	82
nova add-secgroup .....	82
nova agent-create .....	83
nova agent-delete .....	83
nova agent-list .....	83
nova agent-modify .....	83
nova aggregate-add-host .....	84
nova aggregate-create .....	84
nova aggregate-delete .....	84
nova aggregate-details .....	84
nova aggregate-list .....	85
nova aggregate-remove-host .....	85
nova aggregate-set-metadata .....	85
nova aggregate-update .....	85
nova availability-zone-list .....	85
nova backup .....	86
nova baremetal-interface-add .....	86
nova baremetal-interface-list .....	86
nova baremetal-interface-remove .....	86
nova baremetal-node-create .....	87
nova baremetal-node-delete .....	87
nova baremetal-node-list .....	88
nova baremetal-node-show .....	88
nova boot .....	88
nova cell-capacities .....	90
nova cell-show .....	90
nova clear-password .....	90
nova cloudpipe-configure .....	90
nova cloudpipe-create .....	91
nova cloudpipe-list .....	91
nova console-log .....	91
nova credentials .....	91
nova delete .....	91
nova diagnostics .....	92
nova dns-create .....	92
nova dns-create-private-domain .....	92
nova dns-create-public-domain .....	92
nova dns-delete .....	93
nova dns-delete-domain .....	93
nova dns-domains .....	93
nova dns-list .....	93
nova endpoints .....	94
nova evacuate .....	94
nova fixed-ip-get .....	94
nova fixed-ip-reserve .....	94

nova fixed-ip-unreserve .....	94
nova flavor-access-add .....	95
nova flavor-access-list .....	95
nova flavor-access-remove .....	95
nova flavor-create .....	95
nova flavor-delete .....	96
nova flavor-key .....	96
nova flavor-list .....	96
nova flavor-show .....	97
nova floating-ip-associate .....	97
nova floating-ip-bulk-create .....	97
nova floating-ip-bulk-delete .....	97
nova floating-ip-bulk-list .....	98
nova floating-ip-create .....	98
nova floating-ip-delete .....	98
nova floating-ip-disassociate .....	98
nova floating-ip-list .....	98
nova floating-ip-pool-list .....	99
nova force-delete .....	99
nova get-password .....	99
nova get-rdp-console .....	99
nova get-serial-console .....	99
nova get-spice-console .....	100
nova get-vnc-console .....	100
nova host-action .....	100
nova host-describe .....	100
nova host-evacuate .....	101
nova host-evacuate-live .....	101
nova host-list .....	101
nova host-meta .....	102
nova host-servers-migrate .....	102
nova host-update .....	102
nova hypervisor-list .....	102
nova hypervisor-servers .....	103
nova hypervisor-show .....	103
nova hypervisor-stats .....	103
nova hypervisor-uptime .....	103
nova image-create .....	103
nova image-delete .....	104
nova image-list .....	104
nova image-meta .....	104
nova image-show .....	104
nova instance-action .....	104
nova instance-action-list .....	105
nova interface-attach .....	105
nova interface-detach .....	105
nova interface-list .....	105
nova keypair-add .....	106
nova keypair-delete .....	106
nova keypair-list .....	106
nova keypair-show .....	106

nova list .....	106
nova list-extensions .....	107
nova list-secgroup .....	107
nova live-migration .....	108
nova lock .....	108
nova meta .....	108
nova migrate .....	108
nova migration-list .....	109
nova network-associate-host .....	109
nova network-associate-project .....	109
nova network-create .....	109
nova network-delete .....	111
nova network-disassociate .....	111
nova network-list .....	111
nova network-show .....	111
nova pause .....	112
nova quota-class-show .....	112
nova quota-class-update .....	112
nova quota-defaults .....	113
nova quota-delete .....	113
nova quota-show .....	114
nova quota-update .....	114
nova rate-limits .....	115
nova reboot .....	115
nova rebuild .....	115
nova refresh-network .....	116
nova remove-fixed-ip .....	116
nova remove-secgroup .....	116
nova rename .....	117
nova rescue .....	117
nova reset-network .....	117
nova reset-state .....	117
nova resize .....	118
nova resize-confirm .....	118
nova resize-revert .....	118
nova restore .....	118
nova resume .....	119
nova root-password .....	119
nova scrub .....	119
nova secgroup-add-default-rule .....	119
nova secgroup-add-group-rule .....	120
nova secgroup-add-rule .....	120
nova secgroup-create .....	120
nova secgroup-delete .....	120
nova secgroup-delete-default-rule .....	121
nova secgroup-delete-group-rule .....	121
nova secgroup-delete-rule .....	121
nova secgroup-list .....	122
nova secgroup-list-default-rules .....	122
nova secgroup-list-rules .....	122
nova secgroup-update .....	122

nova server-group-create .....	122
nova server-group-delete .....	123
nova server-group-get .....	123
nova server-group-list .....	123
nova service-delete .....	123
nova service-disable .....	123
nova service-enable .....	124
nova service-list .....	124
nova shelve .....	124
nova shelve-offload .....	124
nova show .....	124
nova ssh .....	125
nova start .....	125
nova stop .....	126
nova suspend .....	126
nova tenant-network-create .....	126
nova tenant-network-delete .....	126
nova tenant-network-list .....	126
nova tenant-network-show .....	126
nova unlock .....	127
nova unpause .....	127
nova unrescue .....	127
nova unshelve .....	127
nova usage .....	127
nova usage-list .....	128
nova version-list .....	128
nova volume-attach .....	128
nova volume-create .....	128
nova volume-delete .....	129
nova volume-detach .....	129
nova volume-list .....	129
nova volume-show .....	130
nova volume-snapshot-create .....	130
nova volume-snapshot-delete .....	130
nova volume-snapshot-list .....	130
nova volume-snapshot-show .....	131
nova volume-type-create .....	131
nova volume-type-delete .....	131
nova volume-type-list .....	131
nova volume-update .....	131
nova x509-create-cert .....	132
nova x509-get-root-cert .....	132

The **nova** client is the command-line interface (CLI) for the OpenStack Compute API and its extensions. This chapter documents **nova** version 2.24.1.

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

```
$ nova help COMMAND
```

## nova usage

```
usage: nova [--version] [--debug] [--os-cache] [--timings]
           [--os-auth-token OS_AUTH_TOKEN]
           [--os-tenant-name <auth-tenant-name>]
           [--os-tenant-id <auth-tenant-id>] [--os-region-name <region-name>]
           [--os-auth-system <auth-system>] [--service-type <service-type>]
           [--service-name <service-name>]
           [--volume-service-name <volume-service-name>]
           [--os-endpoint-type <endpoint-type>]
           [--os-compute-api-version <compute-api-ver>]
           [--bypass-url <bypass-url>] [--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

<b>absolute-limits</b>	Print a list of absolute limits for a user
<b>add-fixed-ip</b>	Add new IP address on a network to server.
<b>add-floating-ip</b>	<i>DEPRECATED</i> , use floating-ip-associate instead.
<b>add-secgroup</b>	Add a Security Group to a server.
<b>agent-create</b>	Create new agent build.
<b>agent-delete</b>	Delete existing agent build.
<b>agent-list</b>	List all builds.
<b>agent-modify</b>	Modify existing agent build.
<b>aggregate-add-host</b>	Add the host to the specified aggregate.
<b>aggregate-create</b>	Create a new aggregate with the specified details.
<b>aggregate-delete</b>	Delete the aggregate.
<b>aggregate-details</b>	Show details of the specified aggregate.
<b>aggregate-list</b>	Print a list of all aggregates.
<b>aggregate-remove-host</b>	Remove the specified host from the specified aggregate.

---

<b>aggregate-set-metadata</b>	Update the metadata associated with the aggregate.
<b>aggregate-update</b>	Update the aggregate's name and optionally availability zone.
<b>availability-zone-list</b>	List all the availability zones.
<b>backup</b>	Backup a server by creating a 'backup' type snapshot.
<b>boot</b>	Boot a new server.
<b>clear-password</b>	Clear the admin password for a server.
<b>cloudpipe-configure</b>	Update the VPN IP/port of a cloudpipe instance.
<b>cloudpipe-create</b>	Create a cloudpipe instance for the given project.
<b>cloudpipe-list</b>	Print a list of all cloudpipe instances.
<b>console-log</b>	Get console log output of a server.
<b>credentials</b>	Show user credentials returned from auth.
<b>delete</b>	Immediately shut down and delete specified server(s).
<b>diagnostics</b>	Retrieve server diagnostics.
<b>dns-create</b>	Create a DNS entry for domain, name and IP.
<b>dns-create-private-domain</b>	Create the specified DNS domain.
<b>dns-create-public-domain</b>	Create the specified DNS domain.
<b>dns-delete</b>	Delete the specified DNS entry.
<b>dns-delete-domain</b>	Delete the specified DNS domain.
<b>dns-domains</b>	Print a list of available dns domains.
<b>dns-list</b>	List current DNS entries for domain and IP or domain and name.
<b>endpoints</b>	Discover endpoints that get returned from the authenticate services.
<b>evacuate</b>	Evacuate server from failed host.
<b>fixed-ip-get</b>	Retrieve info on a fixed IP.
<b>fixed-ip-reserve</b>	Reserve a fixed IP.
<b>fixed-ip-unreserve</b>	Unreserve a fixed IP.
<b>flavor-access-add</b>	Add flavor access for the given tenant.
<b>flavor-access-list</b>	Print access information about the given flavor.

---



---

<b>flavor-access-remove</b>	Remove flavor access for the given tenant.
<b>flavor-create</b>	Create a new flavor
<b>flavor-delete</b>	Delete a specific flavor
<b>flavor-key</b>	Set or unset extra_spec for a flavor.
<b>flavor-list</b>	Print a list of available 'flavors' (sizes of servers).
<b>flavor-show</b>	Show details about the given flavor.
<b>floating-ip-associate</b>	Associate a floating IP address to a server.
<b>floating-ip-bulk-create</b>	Bulk create floating IPs by range.
<b>floating-ip-bulk-delete</b>	Bulk delete floating IPs by range.
<b>floating-ip-bulk-list</b>	List all floating IPs.
<b>floating-ip-create</b>	Allocate a floating IP for the current tenant.
<b>floating-ip-delete</b>	De-allocate a floating IP.
<b>floating-ip-disassociate</b>	Disassociate a floating IP address from a server.
<b>floating-ip-list</b>	List floating IPs.
<b>floating-ip-pool-list</b>	List all floating IP pools.
<b>get-password</b>	Get the admin password for a server.
<b>get-rdp-console</b>	Get a rdp console to a server.
<b>get-serial-console</b>	Get a serial console to a server.
<b>get-spice-console</b>	Get a spice console to a server.
<b>get-vnc-console</b>	Get a vnc console to a server.
<b>host-action</b>	Perform a power action on a host.
<b>host-describe</b>	Describe a specific host.
<b>host-list</b>	List all hosts by service.
<b>host-update</b>	Update host settings.
<b>hypervisor-list</b>	List hypervisors.
<b>hypervisor-servers</b>	List servers belonging to specific hypervisors.
<b>hypervisor-show</b>	Display the details of the specified hypervisor.
<b>hypervisor-stats</b>	Get hypervisor statistics over all compute nodes.

---

<b>hypervisor-uptime</b>	Display the uptime of the specified hypervisor.
<b>image-create</b>	Create a new image by taking a snapshot of a running server.
<b>image-delete</b>	Delete specified image(s).
<b>image-list</b>	Print a list of available images to boot from.
<b>image-meta</b>	Set or Delete metadata on an image.
<b>image-show</b>	Show details about the given image.
<b>interface-attach</b>	Attach a network interface to a server.
<b>interface-detach</b>	Detach a network interface from a server.
<b>interface-list</b>	List interfaces attached to a server.
<b>keypair-add</b>	Create a new key pair for use with servers.
<b>keypair-delete</b>	Delete keypair given by its name.
<b>keypair-list</b>	Print a list of keypairs for a user
<b>keypair-show</b>	Show details about the given keypair.
<b>list</b>	List active servers.
<b>list-secgroup</b>	List Security Group(s) of a server.
<b>live-migration</b>	Migrate running server to a new machine.
<b>lock</b>	Lock a server. A normal (non-admin) user will not be able to execute actions on a locked server.
<b>meta</b>	Set or Delete metadata on a server.
<b>migrate</b>	Migrate a server. The new host will be selected by the scheduler.
<b>network-associate-host</b>	Associate host with network.
<b>network-associate-project</b>	Associate project with network.
<b>network-create</b>	Create a network.
<b>network-delete</b>	Delete network by label or id.
<b>network-disassociate</b>	Disassociate host and/or project from the given network.
<b>network-list</b>	Print a list of available networks.
<b>network-show</b>	Show details about the given network.

---

---

<b>pause</b>	Pause a server.
<b>quota-class-show</b>	List the quotas for a quota class.
<b>quota-class-update</b>	Update the quotas for a quota class.
<b>quota-defaults</b>	List the default quotas for a tenant.
<b>quota-delete</b>	Delete quota for a tenant/user so their quota will Revert back to default.
<b>quota-show</b>	List the quotas for a tenant/user.
<b>quota-update</b>	Update the quotas for a tenant/user.
<b>rate-limits</b>	Print a list of rate limits for a user
<b>reboot</b>	Reboot a server.
<b>rebuild</b>	Shutdown, re-image, and re-boot a server.
<b>refresh-network</b>	Refresh server network information.
<b>remove-fixed-ip</b>	Remove an IP address from a server.
<b>remove-floating-ip</b>	<i>DEPRECATED</i> , use floating-ip-disassociate instead.
<b>remove-secgroup</b>	Remove a Security Group from a server.
<b>rename</b>	Rename a server.
<b>rescue</b>	Reboots a server into rescue mode, which starts the machine from either the initial image or a specified image, attaching the current boot disk as secondary.
<b>reset-network</b>	Reset network of a server.
<b>reset-state</b>	Reset the state of a server.
<b>resize</b>	Resize a server.
<b>resize-confirm</b>	Confirm a previous resize.
<b>resize-revert</b>	Revert a previous resize (and return to the previous VM).
<b>resume</b>	Resume a server.
<b>root-password</b>	Change the admin password for a server.
<b>scrub</b>	Delete networks and security groups associated with a project.
<b>secgroup-add-default-rule</b>	Add a rule to the set of rules that will be added to the 'default' security group for new tenants.

---

---

<b>secgroup-add-group-rule</b>	Add a source group rule to a security group.
<b>secgroup-add-rule</b>	Add a rule to a security group.
<b>secgroup-create</b>	Create a security group.
<b>secgroup-delete</b>	Delete a security group.
<b>secgroup-delete-default-rule</b>	Delete a rule from the set of rules that will be added to the 'default' security group for new tenants.
<b>secgroup-delete-group-rule</b>	Delete a source group rule from a security group.
<b>secgroup-delete-rule</b>	Delete a rule from a security group.
<b>secgroup-list</b>	List security groups for the current tenant.
<b>secgroup-list-default-rules</b>	List rules that will be added to the 'default' security group for new tenants.
<b>secgroup-list-rules</b>	List rules for a security group.
<b>secgroup-update</b>	Update a security group.
<b>server-group-create</b>	Create a new server group with the specified details.
<b>server-group-delete</b>	Delete specific server group(s).
<b>server-group-get</b>	Get a specific server group.
<b>server-group-list</b>	Print a list of all server groups.
<b>service-delete</b>	Delete the service.
<b>service-disable</b>	Disable the service.
<b>service-enable</b>	Enable the service.
<b>service-list</b>	Show a list of all running services. Filter by host & binary.
<b>shelve</b>	Shelve a server.
<b>shelve-offload</b>	Remove a shelved server from the compute node.
<b>show</b>	Show details about the given server.
<b>ssh</b>	SSH into a server.
<b>start</b>	Start the server(s).
<b>stop</b>	Stop the server(s).
<b>suspend</b>	Suspend a server.
<b>unlock</b>	Unlock a server.

---

---

<b>unpause</b>	Unpause a server.
<b>unrescue</b>	Restart the server from normal boot disk again.
<b>unshelve</b>	Unshelve a server.
<b>usage</b>	Show usage data for a single tenant.
<b>usage-list</b>	List usage data for all tenants.
<b>version-list</b>	List all API versions.
<b>volume-attach</b>	Attach a volume to a server.
<b>volume-create</b>	Add a new volume.
<b>volume-delete</b>	Remove volume(s).
<b>volume-detach</b>	Detach a volume from a server.
<b>volume-list</b>	List all the volumes.
<b>volume-show</b>	Show details about a volume.
<b>volume-snapshot-create</b>	Add a new snapshot.
<b>volume-snapshot-delete</b>	Remove a snapshot.
<b>volume-snapshot-list</b>	List all the snapshots.
<b>volume-snapshot-show</b>	Show details about a snapshot.
<b>volume-type-create</b>	Create a new volume type.
<b>volume-type-delete</b>	Delete a specific volume type.
<b>volume-type-list</b>	Print a list of available 'volume types'.
<b>volume-update</b>	Update volume attachment.
<b>x509-create-cert</b>	Create x509 cert for a user in tenant.
<b>x509-get-root-cert</b>	Fetch the x509 root cert.
<b>bash-completion</b>	Prints all of the commands and options to stdout so that the nova.bash_completion script doesn't have to hard code them.
<b>help</b>	Display help about this program or one of its subcommands.
<b>instance-action</b>	Show an action.
<b>instance-action-list</b>	List actions on a server.
<b>host-meta</b>	Set or Delete metadata on all instances of a host.

---

<b>host-evacuate-live</b>	Live migrate all instances of the specified host to other available hosts.
<b>force-delete</b>	Force delete a server.
<b>restore</b>	Restore a soft-deleted server.
<b>migration-list</b>	Print a list of migrations.
<b>net</b>	<i>DEPRECATED</i> , Use tenant-network-show instead.
<b>net-create</b>	<i>DEPRECATED</i> , use tenant-network-create instead.
<b>net-delete</b>	<i>DEPRECATED</i> , use tenant-network-delete instead.
<b>net-list</b>	<i>DEPRECATED</i> , use tenant-network-list instead.
<b>tenant-network-create</b>	Create a tenant network.
<b>tenant-network-delete</b>	Delete a tenant network.
<b>tenant-network-list</b>	List tenant networks.
<b>tenant-network-show</b>	Show a tenant network.
<b>list-extensions</b>	List all the os-api extensions that are available.
<b>baremetal-interface-add</b>	Add a network interface to a baremetal node.
<b>baremetal-interface-list</b>	List network interfaces associated with a baremetal node.
<b>baremetal-interface-remove</b>	Remove a network interface from a baremetal node.
<b>baremetal-node-create</b>	Create a baremetal node.
<b>baremetal-node-delete</b>	Remove a baremetal node and any associated interfaces.
<b>baremetal-node-list</b>	Print list of available baremetal nodes.
<b>baremetal-node-show</b>	Show information about a baremetal node.
<b>cell-capacities</b>	Get cell capacities for all cells or a given cell.
<b>cell-show</b>	Show details of a given cell.
<b>host-servers-migrate</b>	Migrate all instances of the specified host to other available hosts.
<b>host-evacuate</b>	Evacuate all instances from failed host.

## nova optional arguments

<b>-version</b>	show program's version number and exit
-----------------	--

---

<b>-debug</b>	Print debugging output
<b>-os-cache</b>	Use the auth token cache. Defaults to False if env[ OS_CACHE ] is not set.
<b>-timings</b>	Print call timing info
<b>-os-auth-token OS_AUTH_TOKEN</b>	Defaults to env[ OS_AUTH_TOKEN ]
<b>-os-tenant-name &lt;auth-tenant-name&gt;</b>	Defaults to env[ OS_TENANT_NAME ].
<b>-os-tenant-id &lt;auth-tenant-id&gt;</b>	Defaults to env[ OS_TENANT_ID ].
<b>-os-region-name &lt;region-name&gt;</b>	Defaults to env[ OS_REGION_NAME ].
<b>-os-auth-system &lt;auth-system&gt;</b>	Defaults to env[ OS_AUTH_SYSTEM ].
<b>-service-type &lt;service-type&gt;</b>	Defaults to compute for most actions
<b>-service-name &lt;service-name&gt;</b>	Defaults to env[ NOVA_SERVICE_NAME ]
<b>-volume-service-name &lt;volume-service-name&gt;</b>	Defaults to env[ NOVA_VOLUME_SERVICE_NAME ]
<b>-os-endpoint-type &lt;endpoint-type&gt;</b>	Defaults to env[ NOVA_ENDPOINT_TYPE ], env[ OS_ENDPOINT_TYPE ] or publicURL.
<b>-os-compute-api-version &lt;compute-api-ver&gt;</b>	Accepts 1.1 or 3, defaults to env[ OS_COMPUTE_API_VERSION ].
<b>-bypass-url &lt;bypass-url&gt;</b>	Use this API endpoint instead of the Service Catalog. Defaults to env[ NOVACLIENT_BYPASS_URL ]
<b>-insecure</b>	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.
<b>-os-cacert &lt;ca-certificate&gt;</b>	Specify a CA bundle file to use in verifying a TLS (https) server certificate. Defaults to env[ OS_CACERT ].
<b>-os-cert &lt;certificate&gt;</b>	Defaults to env[ OS_CERT ].
<b>-os-key &lt;key&gt;</b>	Defaults to env[ OS_KEY ].
<b>-timeout &lt;seconds&gt;</b>	Set request timeout (in seconds).
<b>-os-auth-url OS_AUTH_URL</b>	Authentication URL
<b>-os-domain-id OS_DOMAIN_ID</b>	Domain ID to scope to
<b>-os-domain-name OS_DOMAIN_NAME</b>	Domain name to scope to

---

<b>-os-project-id OS_PROJECT_ID</b>	Project ID to scope to
<b>-os-project-name OS_PROJECT_NAME</b>	Project name to scope to
<b>-os-project-domain-id OS_PROJECT_DOMAIN_ID</b>	Domain ID containing project
<b>-os-project-domain-name OS_PROJECT_DOMAIN_NAME</b>	Domain name containing project
<b>-os-trust-id OS_TRUST_ID</b>	Trust ID
<b>-os-user-id OS_USER_ID</b>	User ID
<b>-os-user-name OS_USERNAME, -os-username OS_USERNAME</b>	Username
<b>-os-user-domain-id OS_USER_DOMAIN_ID</b>	User's domain id
<b>-os-user-domain-name OS_USER_DOMAIN_NAME</b>	User's domain name
<b>-os-password OS_PASSWORD</b>	User's password

## nova absolute-limits

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

Print a list of absolute limits for a user

### Optional arguments

<b>-tenant [&lt;tenant&gt;]</b>	Display information from single tenant (Admin only).
<b>-reserved</b>	Include reservations count.

## nova add-fixed-ip

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

Add new IP address on a network to server.

### Positional arguments

<b>&lt;server&gt;</b>	Name or ID of server.
<b>&lt;network-id&gt;</b>	Network ID.

## 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.

## 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.

## nova agent-delete

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

Delete existing agent build.

### Positional arguments

**<id>**      id of the agent-build

## nova agent-list

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

List all builds.

### Optional arguments

**--hypervisor <hypervisor>**      type of hypervisor.

## nova agent-modify

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

Modify existing agent build.

### Positional arguments

<b>&lt;id&gt;</b>	id of the agent-build
<b>&lt;version&gt;</b>	version
<b>&lt;url&gt;</b>	url
<b>&lt;md5hash&gt;</b>	md5hash

## nova aggregate-add-host

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

Add the host to the specified aggregate.

### Positional arguments

<b>&lt;aggregate&gt;</b>	Name or ID of aggregate.
<b>&lt;host&gt;</b>	The host to add to the aggregate.

## nova aggregate-create

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

Create a new aggregate with the specified details.

### Positional arguments

<b>&lt;name&gt;</b>	Name of aggregate.
<b>&lt;availability-zone&gt;</b>	The availability zone of the aggregate (optional).

## nova aggregate-delete

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

Delete the aggregate.

### Positional arguments

<b>&lt;aggregate&gt;</b>	Name or ID of aggregate to delete.
--------------------------	------------------------------------

## nova aggregate-details

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

Show details of the specified aggregate.

**Positional arguments**

**<aggregate>** Name or ID of aggregate.

## nova aggregate-list

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

Print a list of all aggregates.

## 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.

## 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.

## 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.

## nova availability-zone-list

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

List all the availability zones.

## nova backup

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

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

### Positional arguments

<b>&lt;server&gt;</b>	Name or ID of server.
<b>&lt;name&gt;</b>	Name of the backup image.
<b>&lt;backup-type&gt;</b>	The backup type, like "daily" or "weekly".
<b>&lt;rotation&gt;</b>	Int parameter representing how many backups to keep around.

## 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

<b>&lt;node&gt;</b>	ID of node
<b>&lt;address&gt;</b>	MAC address of interface

### Optional arguments

<b>--datapath_id &lt;datapath_id&gt;</b>	OpenFlow Datapath ID of interface
<b>--port_no &lt;port_no&gt;</b>	OpenFlow port number of interface

## nova baremetal-interface-list

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

List network interfaces associated with a baremetal node.

### Positional arguments

<b>&lt;node&gt;</b>	ID of node
---------------------	------------

## 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

## 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?

## 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.

## nova baremetal-node-list

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

Print list of available baremetal nodes.

## nova baremetal-node-show

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

Show information about a baremetal node.

### Positional arguments

**<node>** ID of node

## 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

<b>-flavor &lt;flavor&gt;</b>	Name or ID of flavor (see 'nova flavor-list').
<b>-image &lt;image&gt;</b>	Name or ID of image (see 'nova image-list').
<b>-image-with &lt;key=value&gt;</b>	Image metadata property (see 'nova image-show').
<b>-boot-volume &lt;volume_id&gt;</b>	Volume ID to boot from.
<b>-snapshot &lt;snapshot_id&gt;</b>	Snapshot ID to boot from (will create a volume).
<b>-min-count &lt;number&gt;</b>	Boot at least <number> servers (limited by quota).

<b>-max-count &lt;number&gt;</b>	Boot up to <number> servers (limited by quota).
<b>-meta &lt;key=value&gt;</b>	Record arbitrary key/value metadata to / meta_data.json on the metadata server. Can be specified multiple times.
<b>-file &lt;dst-path=src-path&gt;</b>	Store arbitrary files from <src-path> locally to <dst-path> on the new server. Limited by the injected_files quota value.
<b>-key-name &lt;key-name&gt;</b>	Key name of keypair that should be created earlier with the command keypair-add
<b>-user-data &lt;user-data&gt;</b>	user data file to pass to be exposed by the metadata server.
<b>-availability-zone &lt;availability-zone&gt;</b>	The availability zone for server placement.
<b>-security-groups &lt;security-groups&gt;</b>	Comma separated list of security group names.
<b>-block-device-mapping &lt;dev-name=mapping&gt;</b>	Block device mapping in the format <dev-name>=<id>:<type>:<size(GB)>:<delete-on-terminate>.
<b>-block-device</b>	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 MB(for swap) and in GB(for other formats) (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).
<b>-swap &lt;swap_size&gt;</b>	Create and attach a local swap block device of <swap_size> MB.
<b>-ephemeral</b>	size=<size>[,format=<format>] Create and attach a local ephemeral block device of <size> GB and format it to <format>.
<b>-hint &lt;key=value&gt;</b>	Send arbitrary key/value pairs to the scheduler for custom use.

<b>-nic &lt;net-id=net-uuid,v4-fixed-ip=ip-addr,v6-fixed-ip=ip-addr,port-id=port-uuid&gt;</b>	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).
<b>-config-drive &lt;value&gt;</b>	Enable config drive
<b>-poll</b>	Report the new server boot progress until it completes.

## 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.

## nova cell-show

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

Show details of a given cell.

### Positional arguments

**<cell-name>**      Name of the cell.

## nova clear-password

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

Clear the admin password for a server.

### Positional arguments

**<server>**      Name or ID of server.

## 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.

## 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.

## nova cloudpipe-list

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

Print a list of all cloudpipe instances.

## 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.

## 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

## nova delete

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

Immediately shut down and delete specified server(s).

### Positional arguments

**<server>**        Name or ID of server(s).

## nova diagnostics

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

Retrieve server diagnostics.

### Positional arguments

**<server>**      Name or ID of server.

## 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")

## 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.

## 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.

## nova dns-delete

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

Delete the specified DNS entry.

### Positional arguments

<domain> DNS domain

<name> DNS name

## nova dns-delete-domain

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

Delete the specified DNS domain.

### Positional arguments

<domain> DNS domain

## nova dns-domains

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

Print a list of available dns domains.

## 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

## nova endpoints

```
usage: nova endpoints
```

Discover endpoints that get returned from the authenticate services.

## 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 admin password on the evacuated server. Not applicable with on-shared-storage flag

**--on-shared-storage**        Specifies whether server files are located on shared storage

## nova fixed-ip-get

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

Retrieve info on a fixed IP.

### Positional arguments

**<fixed\_ip>**      Fixed IP Address.

## nova fixed-ip-reserve

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

Reserve a fixed IP.

### Positional arguments

**<fixed\_ip>**      Fixed IP Address.

## nova fixed-ip-unreserve

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

Unreserve a fixed IP.

### Positional arguments

**<fixed\_ip>** Fixed IP Address.

## 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.

## 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.

## 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.

## 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

<b>&lt;id&gt;</b>	Unique ID (integer or UUID) for the new flavor. If specifying 'auto', a UUID will be generated as id
<b>&lt;ram&gt;</b>	Memory size in MB
<b>&lt;disk&gt;</b>	Disk size in GB
<b>&lt;vcpus&gt;</b>	Number of vcpus

### Optional arguments

<b>-ephemeral &lt;ephemeral&gt;</b>	Ephemeral space size in GB (default 0)
<b>-swap &lt;swap&gt;</b>	Swap space size in MB (default 0)
<b>-rxtx-factor &lt;factor&gt;</b>	RX/TX factor (default 1)
<b>-is-public &lt;is-public&gt;</b>	Make flavor accessible to the public (default true)

## nova flavor-delete

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

Delete a specific flavor

### Positional arguments

**<flavor>** Name or ID of the flavor to delete

## 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)

## 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).

## nova flavor-show

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

Show details about the given flavor.

### Positional arguments

**<flavor>** Name or ID of flavor

## 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.

## 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

## 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

## nova floating-ip-bulk-list

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

List all floating IPs.

**Optional arguments**

**-host <host>**     Filter by host

## 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)

## nova floating-ip-delete

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

De-allocate a floating IP.

**Positional arguments**

**<address>**     IP of Floating IP.

## 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.

## 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).

## nova floating-ip-pool-list

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

List all floating IP pools.

## nova force-delete

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

Force delete a server.

### Positional arguments

**<server>**      Name or ID of server.

## nova get-password

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

Get the admin 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.

## 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").

## 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".

## 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").

## 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").

## 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.

## nova host-describe

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

Describe a specific host.

### Positional arguments

**<hostname>**    Name of host.

## 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

<b>-target_host &lt;target_host&gt;</b>	Name of target host. If no host is specified the scheduler will select a target.
<b>-on-shared-storage</b>	Specifies whether all instances files are on shared storage

## nova host-evacuate-live

```
usage: nova host-evacuate-live [--target-host <target_host>] [--block-migrate]
                                [--disk-over-commit]
                                <host>
```

Live migrate all instances of the specified host to other available hosts.

### Positional arguments

**<host>**    Name of host.

### Optional arguments

<b>-target-host &lt;target_host&gt;</b>	Name of target host.
<b>-block-migrate</b>	Enable block migration.
<b>-disk-over-commit</b>	Enable disk overcommit.

## nova host-list

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

List all hosts by service.

### Optional arguments

<b>-zone &lt;zone&gt;</b>	Filters the list, returning only those hosts in the availability zone <zone>.
---------------------------	---

## 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)

## 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.

## 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.

## nova hypervisor-list

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

List hypervisors.

### Optional arguments

**--matching <hostname>** List hypervisors matching the given <hostname>.

## 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.

## 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.

## nova hypervisor-stats

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

Get hypervisor statistics over all compute nodes.

## 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.

## 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.

## nova image-delete

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

Delete specified image(s).

### Positional arguments

**<image>** Name or ID of image(s).

## 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.

## 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)

## nova image-show

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

Show details about the given image.

### Positional arguments

**<image>** Name or ID of image

## 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.

## 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.

## 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.

## 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.

## nova interface-list

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

List interfaces attached to a server.

### Positional arguments

**<server>**      Name or ID of server.

## 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.

## nova keypair-delete

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

Delete keypair given by its name.

### Positional arguments

**<name>**      Keypair name to delete.

## nova keypair-list

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

Print a list of keypairs for a user

## nova keypair-show

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

Show details about the given keypair.

### Positional arguments

**<keypair>**      Name or ID of keypair

## nova list

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



```
[--sort <key>[:<direction>]]
```

List active servers.

### Optional arguments

<b>–reservation-id &lt;reservation-id&gt;</b>	Only return servers that match reservation-id.
<b>–ip &lt;ip-regexp&gt;</b>	Search with regular expression match by IP address.
<b>–ip6 &lt;ip6-regexp&gt;</b>	Search with regular expression match by IPv6 address.
<b>–name &lt;name-regexp&gt;</b>	Search with regular expression match by name
<b>–instance-name &lt;name-regexp&gt;</b>	Search with regular expression match by server name.
<b>–status &lt;status&gt;</b>	Search by server status
<b>–flavor &lt;flavor&gt;</b>	Search by flavor name or ID
<b>–image &lt;image&gt;</b>	Search by image name or ID
<b>–host &lt;hostname&gt;</b>	Search servers by hostname to which they are assigned (Admin only).
<b>–all-tenants [&lt;0 1&gt;]</b>	Display information from all tenants (Admin only).
<b>–tenant [&lt;tenant&gt;]</b>	Display information from single tenant (Admin only). The <b>–all-tenants</b> option must also be provided.
<b>–user [&lt;user&gt;]</b>	Display information from single user (Admin only).
<b>–deleted</b>	Only display deleted servers (Admin only).
<b>–fields &lt;fields&gt;</b>	Comma-separated list of fields to display. Use the show command to see which fields are available.
<b>–minimal</b>	Get only uuid and name.
<b>–sort &lt;key&gt;[:&lt;direction&gt;]</b>	Comma-separated list of sort keys and directions in the form of <key>[:<asc desc>]. The direction defaults to descending if not specified.

## nova list-extensions

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

List all the os-api extensions that are available.

## nova list-secgroup

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

List Security Group(s) of a server.

### Positional arguments

**<server>**      Name or ID of server.

## 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)

## nova lock

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

Lock a server. A normal (non-admin) user will not be able to execute actions on a locked server.

### Positional arguments

**<server>**      Name or ID of server.

## 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)

## 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.

## 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.

## 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

## nova network-associate-project

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

Associate project with network.

### Positional arguments

**<network>**      uuid of network

## 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

<b>-fixed-range-v4 &lt;x.x.x.x/yy&gt;</b>	IPv4 subnet (ex: 10.0.0.0/8)
<b>-fixed-range-v6</b>	CIDR_V6 IPv6 subnet (ex: fe80::/64)
<b>-vlan &lt;vlan id&gt;</b>	The vlan ID to be assigned to the project.
<b>-vlan-start &lt;vlan start&gt;</b>	First vlan ID to be assigned to the project. Subsequent vlan IDs will be assigned incrementally.
<b>-vpn &lt;vpn start&gt;</b>	vpn start
<b>-gateway GATEWAY</b>	gateway
<b>-gateway-v6</b>	GATEWAY_V6 IPv6 gateway
<b>-bridge &lt;bridge&gt;</b>	VIFs on this network are connected to this bridge.
<b>-bridge-interface &lt;bridge interface&gt;</b>	The bridge is connected to this interface.
<b>-multi-host &lt;'T' 'F'&gt;</b>	Multi host
<b>-dns1 &lt;DNS Address&gt;</b>	First DNS
<b>-dns2 &lt;DNS Address&gt;</b>	Second DNS
<b>-uuid &lt;network uuid&gt;</b>	Network UUID
<b>-fixed-cidr &lt;x.x.x.x/yy&gt;</b>	IPv4 subnet for fixed IPs (ex: 10.20.0.0/16)
<b>-project-id &lt;project id&gt;</b>	Project ID
<b>-priority &lt;number&gt;</b>	Network interface priority
<b>-mtu MTU MTU</b>	for network

<code>-enable-dhcp &lt;'T'   'F'&gt;</code>	Enable dhcp
<code>-dhcp-server DHCP_SERVER</code>	Dhcp-server (defaults to gateway address)
<code>-share-address &lt;'T'   'F'&gt;</code>	Share address
<code>-allowed-start ALLOWED_START</code>	Start of allowed addresses for instances
<code>-allowed-end ALLOWED_END</code>	End of allowed addresses for instances

## nova network-delete

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

Delete network by label or id.

### Positional arguments

**<network>**    uuid or label of network

## 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>]`

## 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.

## nova network-show

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

Show details about the given network.

### Positional arguments

**<network>**      uuid or label of network

## nova pause

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

Pause a server.

### Positional arguments

**<server>**      Name or ID of server.

## 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.

## 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.

<b>-cores &lt;cores&gt;</b>	New value for the "cores" quota.
<b>-ram &lt;ram&gt;</b>	New value for the "ram" quota.
<b>-floating-ips &lt;floating-ips&gt;</b>	New value for the "floating-ips" quota.
<b>-fixed-ips &lt;fixed-ips&gt;</b>	New value for the "fixed-ips" quota.
<b>-metadata-items &lt;meta-data-items&gt;</b>	New value for the "metadata-items" quota.
<b>-injected-files &lt;injected-files&gt;</b>	New value for the "injected-files" quota.
<b>-injected-file-content-bytes &lt;injected-file-content-bytes&gt;</b>	New value for the "injected-file-content- bytes" quota.
<b>-injected-file-path-bytes &lt;injected-file-path-bytes&gt;</b>	New value for the "injected-file-path-bytes" quota.
<b>-key-pairs &lt;key-pairs&gt;</b>	New value for the "key-pairs" quota.
<b>-security-groups &lt;security-groups&gt;</b>	New value for the "security-groups" quota.
<b>-security-group-rules &lt;security-group-rules&gt;</b>	New value for the "security-group-rules" quota.
<b>-server-groups &lt;server-groups&gt;</b>	New value for the "server-groups" quota.
<b>-server-group-members &lt;server-group-members&gt;</b>	New value for the "server-group-members" quota.

## 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.

## 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.

## 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.

## 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 <metada-  
ta-items>** New value for the "metadata-items" quota.



<b>-injected-files &lt;injected-files&gt;</b>	New value for the "injected-files" quota.
<b>-injected-file-content-bytes &lt;injected-file-content-bytes&gt;</b>	New value for the "injected-file-content- bytes" quota.
<b>-injected-file-path-bytes &lt;injected-file-path-bytes&gt;</b>	New value for the "injected-file-path-bytes" quota.
<b>-key-pairs &lt;key-pairs&gt;</b>	New value for the "key-pairs" quota.
<b>-security-groups &lt;security-groups&gt;</b>	New value for the "security-groups" quota.
<b>-security-group-rules &lt;security-group-rules&gt;</b>	New value for the "security-group-rules" quota.
<b>-server-groups &lt;server-groups&gt;</b>	New value for the "server-groups" quota.
<b>-server-group-members &lt;server-group-members&gt;</b>	New value for the "server-group-members" quota.
<b>-force</b>	Whether force update the quota even if the already used and reserved exceeds the new quota

## nova rate-limits

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

Print a list of rate limits for a user

## 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.

## 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 <re-build-password>**      Set the provided admin password on the rebuilt 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\_data.json on the metadata 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.

## 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).

## 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.

## 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.

## 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.

## nova rescue

```
usage: nova rescue [--password <password>] [--image <image>] <server>
```

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

### Positional arguments

**<server>**      Name or ID of server.

### Optional arguments

**--password <password>**      The admin password to be set in the rescue environment.

**--image <image>**              The image to rescue with.

## nova reset-network

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

Reset network of a server.

### Positional arguments

**<server>**      Name or ID of server.

## 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).

## 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.

## nova resize-confirm

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

Confirm a previous resize.

### Positional arguments

**<server>**      Name or ID of server.

## 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.

## nova restore

```
usage: nova restore <server>
```

Restore a soft-deleted server.

### Positional arguments

**<server>**      Name or ID of server.

## nova resume

```
usage: nova resume <server>
```

Resume a server.

### Positional arguments

**<server>**      Name or ID of server.

## nova root-password

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

Change the admin password for a server.

### Positional arguments

**<server>**      Name or ID of server.

## nova scrub

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

Delete networks and security groups associated with a project.

### Positional arguments

**<project\_id>**      The ID of the project.

## nova secgroup-add-default-rule

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

Add a rule to the set of rules that will be added to the 'default' security group for new tenants.

### 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.

## 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

<b>&lt;secgroup&gt;</b>	ID or name of security group.
<b>&lt;source-group&gt;</b>	ID or name of source group.
<b>&lt;ip-proto&gt;</b>	IP protocol (icmp, tcp, udp).
<b>&lt;from-port&gt;</b>	Port at start of range.
<b>&lt;to-port&gt;</b>	Port at end of range.

## 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

<b>&lt;secgroup&gt;</b>	ID or name of security group.
<b>&lt;ip-proto&gt;</b>	IP protocol (icmp, tcp, udp).
<b>&lt;from-port&gt;</b>	Port at start of range.
<b>&lt;to-port&gt;</b>	Port at end of range.
<b>&lt;cidr&gt;</b>	CIDR for address range.

## nova secgroup-create

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

Create a security group.

### Positional arguments

<b>&lt;name&gt;</b>	Name of security group.
<b>&lt;description&gt;</b>	Description of security group.

## nova secgroup-delete

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

Delete a security group.

### Positional arguments

**<secgroup>** ID or name of security group.

## nova secgroup-delete-default-rule

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

Delete a rule from the set of rules that will be added to the 'default' security group for new tenants.

### 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.

## 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.

## 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.

<b>&lt;ip-proto&gt;</b>	IP protocol (icmp, tcp, udp).
<b>&lt;from-port&gt;</b>	Port at start of range.
<b>&lt;to-port&gt;</b>	Port at end of range.
<b>&lt;cidr&gt;</b>	CIDR for address range.

## 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).

## nova secgroup-list-default-rules

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

List rules that will be added to the 'default' security group for new tenants.

## 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.

## 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.

## 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")

## 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

## 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

## nova server-group-list

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

Print a list of all server groups.

## nova service-delete

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

Delete the service.

### Positional arguments

**<id>** Id of service.

## 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.

## nova service-enable

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

Enable the service.

### Positional arguments

**<hostname>** Name of host.

**<binary>** Service binary.

## 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.

## nova shelve

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

Shelve a server.

### Positional arguments

**<server>** Name or ID of server.

## nova shelve-offload

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

Remove a shelved server from the compute node.

### Positional arguments

**<server>** Name or ID of server.

## 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

## 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

<b>-port PORT</b>	Optional flag to indicate which port to use for ssh. (Default=22)
<b>-address-type ADDRESS_TYPE</b>	Optional flag to indicate which IP type to use. Possible values includes fixed and floating (the Default).
<b>-network &lt;network&gt;</b>	Network to use for the ssh.
<b>-ipv6</b>	Optional flag to indicate whether to use an IPv6 address attached to a server. (Defaults to IPv4 address)
<b>-login &lt;login&gt;</b>	Login to use.
<b>-i IDENTITY, -identity IDENTITY</b>	Private key file, same as the -i option to the ssh command.
<b>-extra-opts EXTRA</b>	Extra options to pass to ssh. see: man ssh

## nova start

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

Start the server(s).

### Positional arguments

**<server>** Name or ID of server(s).

## nova stop

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

Stop the server(s).

### Positional arguments

**<server>**      Name or ID of server(s).

## nova suspend

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

Suspend a server.

### Positional arguments

**<server>**      Name or ID of server.

## nova tenant-network-create

```
usage: nova tenant-network-create <network_label> <cidr>
```

Create a tenant 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)

## nova tenant-network-delete

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

Delete a tenant network.

### Positional arguments

**<network\_id>**      ID of network

## nova tenant-network-list

```
usage: nova tenant-network-list
```

List tenant networks.

## nova tenant-network-show

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

Show a tenant network.

### Positional arguments

**<network\_id>** ID of network

## nova unlock

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

Unlock a server.

### Positional arguments

**<server>** Name or ID of server.

## nova unpause

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

Unpause a server.

### Positional arguments

**<server>** Name or ID of server.

## nova unrescue

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

Restart the server from normal boot disk again.

### Positional arguments

**<server>** Name or ID of server.

## nova unshelve

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

Unshelve a server.

### Positional arguments

**<server>** Name or ID of server.

## nova usage

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

Show usage data for a single tenant.

### Optional arguments

<b>-start &lt;start&gt;</b>	Usage range start date ex 2012-01-20 (default: 4 weeks ago)
<b>-end &lt;end&gt;</b>	Usage range end date, ex 2012-01-20 (default: tomorrow)
<b>-tenant &lt;tenant-id&gt; UUID</b>	of tenant to get usage for.

## nova usage-list

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

List usage data for all tenants.

### Optional arguments

<b>-start &lt;start&gt;</b>	Usage range start date ex 2012-01-20 (default: 4 weeks ago)
<b>-end &lt;end&gt;</b>	Usage range end date, ex 2012-01-20 (default: tomorrow)

## nova version-list

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

List all API versions.

## nova volume-attach

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

Attach a volume to a server.

### Positional arguments

<b>&lt;server&gt;</b>	Name or ID of server.
<b>&lt;volume&gt;</b>	ID of the volume to attach.
<b>&lt;device&gt;</b>	Name of the device e.g. /dev/vdb. Use "auto" for autoassign (if supported)

## 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

<b>-snapshot-id &lt;snapshot-id&gt;</b>	Optional snapshot id to create the volume from. (Default=None)
<b>-image-id &lt;image-id&gt;</b>	Optional image id to create the volume from. (Default=None)
<b>-display-name &lt;display-name&gt;</b>	Optional volume name. (Default=None)
<b>-display-description &lt;display-description&gt;</b>	Optional volume description. (Default=None)
<b>-volume-type &lt;volume-type&gt;</b>	Optional volume type. (Default=None)
<b>-availability-zone &lt;availability-zone&gt;</b>	Optional Availability Zone for volume. (Default=None)

## nova volume-delete

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

Remove volume(s).

### Positional arguments

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

## 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.

## 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).

## nova volume-show

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

Show details about a volume.

### Positional arguments

**<volume>**      Name or ID of the volume.

## 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)

## nova volume-snapshot-delete

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

Remove a snapshot.

### Positional arguments

**<snapshot>**      Name or ID of the snapshot to delete.

## nova volume-snapshot-list

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



List all the snapshots.

## nova volume-snapshot-show

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

Show details about a snapshot.

### Positional arguments

**<snapshot>** Name or ID of the snapshot.

## nova volume-type-create

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

Create a new volume type.

### Positional arguments

**<name>** Name of the new volume type

## 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

## nova volume-type-list

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

Print a list of available 'volume types'.

## 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.

## 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]

## 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.

## 5. Identity service command-line client

keystone usage .....	134
keystone optional arguments .....	135
keystone bootstrap .....	136
keystone catalog .....	137
keystone discover .....	137
keystone ec2-credentials-create .....	137
keystone ec2-credentials-delete .....	137
keystone ec2-credentials-get .....	138
keystone ec2-credentials-list .....	138
keystone endpoint-create .....	138
keystone endpoint-delete .....	138
keystone endpoint-get .....	139
keystone endpoint-list .....	139
keystone password-update .....	139
keystone role-create .....	139
keystone role-delete .....	140
keystone role-get .....	140
keystone role-list .....	140
keystone service-create .....	140
keystone service-delete .....	140
keystone service-get .....	141
keystone service-list .....	141
keystone tenant-create .....	141
keystone tenant-delete .....	141
keystone tenant-get .....	141
keystone tenant-list .....	142
keystone tenant-update .....	142
keystone token-get .....	142
keystone user-create .....	142
keystone user-delete .....	143
keystone user-get .....	143
keystone user-list .....	143
keystone user-password-update .....	143
keystone user-role-add .....	143
keystone user-role-list .....	144
keystone user-role-remove .....	144
keystone user-update .....	144



### Warning

The keystone CLI is deprecated in favor of `python-openstackclient`. For a Python library, continue using `python-keystoneclient`.

The **keystone** client is the command-line interface (CLI) for the OpenStack Identity API and its extensions. This chapter documents **keystone** version 1.4.0.

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

```
$ keystone help COMMAND
```

## 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

<b>catalog</b>	List service catalog, possibly filtered by service.
<b>ec2-credentials-create</b>	Create EC2-compatible credentials for user per tenant.
<b>ec2-credentials-delete</b>	Delete EC2-compatible credentials.
<b>ec2-credentials-get</b>	Display EC2-compatible credentials.
<b>ec2-credentials-list</b>	List EC2-compatible credentials for a user.
<b>endpoint-create</b>	Create a new endpoint associated with a service.
<b>endpoint-delete</b>	Delete a service endpoint.
<b>endpoint-get</b>	Find endpoint filtered by a specific attribute or service type.
<b>endpoint-list</b>	List configured service endpoints.
<b>password-update</b>	Update own password.
<b>role-create</b>	Create new role.
<b>role-delete</b>	Delete role.
<b>role-get</b>	Display role details.
<b>role-list</b>	List all roles.
<b>service-create</b>	Add service to Service Catalog.
<b>service-delete</b>	Delete service from Service Catalog.
<b>service-get</b>	Display service from Service Catalog.
<b>service-list</b>	List all services in Service Catalog.
<b>tenant-create</b>	Create new tenant.

---

<b>tenant-delete</b>	Delete tenant.
<b>tenant-get</b>	Display tenant details.
<b>tenant-list</b>	List all tenants.
<b>tenant-update</b>	Update tenant name, description, enabled status.
<b>token-get</b>	Display the current user token.
<b>user-create</b>	Create new user.
<b>user-delete</b>	Delete user.
<b>user-get</b>	Display user details.
<b>user-list</b>	List users.
<b>user-password-update</b>	Update user password.
<b>user-role-add</b>	Add role to user.
<b>user-role-list</b>	List roles granted to a user.
<b>user-role-remove</b>	Remove role from user.
<b>user-update</b>	Update user's name, email, and enabled status.
<b>discover</b>	Discover Keystone servers, supported API versions and extensions.
<b>bootstrap</b>	Grants a new role to a new user on a new tenant, after creating each.
<b>bash-completion</b>	Prints all of the commands and options to stdout.
<b>help</b>	Display help about this program or one of its subcommands.

## keystone optional arguments

<b>-version</b>	Shows the client version and exits.
<b>-debug</b>	Prints debugging output onto the console, this includes the curl request and response calls. Helpful for debugging and understanding the API calls.
<b>-os-username &lt;auth-username&gt;</b>	Name used for authentication with the OpenStack Identity service. Defaults to <code>env[OS_USERNAME]</code> .
<b>-os-password &lt;auth-password&gt;</b>	Password used for authentication with the OpenStack Identity service. Defaults to <code>env[OS_PASSWORD]</code> .
<b>-os-tenant-name &lt;auth-tenant-name&gt;</b>	Tenant to request authorization on. Defaults to <code>env[OS_TENANT_NAME]</code> .

<b>-os-tenant-id &lt;tenant-id&gt;</b>	Tenant to request authorization on. Defaults to <code>env[OS_TENANT_ID]</code> .
<b>-os-auth-url &lt;auth-url&gt;</b>	Specify the Identity endpoint to use for authentication. Defaults to <code>env[OS_AUTH_URL]</code> .
<b>-os-region-name &lt;region-name&gt;</b>	Specify the region to use. Defaults to <code>env[OS_REGION_NAME]</code> .
<b>-os-identity-api-version &lt;identity-api-version&gt;</b>	Specify Identity API version to use. Defaults to <code>env[OS_IDENTITY_API_VERSION]</code> or 2.0.
<b>-os-token &lt;service-token&gt;</b>	Specify an existing token to use instead of retrieving one via authentication (e.g. with username & password). Defaults to <code>env[OS_SERVICE_TOKEN]</code> .
<b>-os-endpoint &lt;service-endpoint&gt;</b>	Specify an endpoint to use instead of retrieving one from the service catalog (via authentication). Defaults to <code>env[OS_SERVICE_ENDPOINT]</code> .
<b>-os-cache</b>	Use the auth token cache. Defaults to <code>env[OS_CACHE]</code> .
<b>-force-new-token</b>	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.
<b>-stale-duration &lt;seconds&gt;</b>	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.
<b>-insecure</b>	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.
<b>-os-cacert &lt;ca-certificate&gt;</b>	Specify a CA bundle file to use in verifying a TLS (https) server certificate. Defaults to <code>env[OS_CACERT]</code> .
<b>-os-cert &lt;certificate&gt;</b>	Defaults to <code>env[OS_CERT]</code> .
<b>-os-key &lt;key&gt;</b>	Defaults to <code>env[OS_KEY]</code> .
<b>-timeout &lt;seconds&gt;</b>	Set request timeout (in seconds).

## 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

<b>-user-name &lt;user-name&gt;</b>	The name of the user to be created (default="admin").
<b>-pass &lt;password&gt;</b>	The password for the new user.
<b>-role-name &lt;role-name&gt;</b>	The name of the role to be created and granted to the user (default="admin").
<b>-tenant-name &lt;tenant-name&gt;</b>	The name of the tenant to be created (default="admin").

## keystone catalog

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

List service catalog, possibly filtered by service.

### Arguments

<b>-service &lt;service-type&gt;</b>	Service type to return.
--------------------------------------	-------------------------

## keystone discover

```
usage: keystone discover
```

Discover Keystone servers, supported API versions and extensions.

## 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

<b>-user-id &lt;user-id&gt;</b>	User ID for which to create credentials. If not specified, the authenticated user will be used.
<b>-tenant-id &lt;tenant-id&gt;</b>	Tenant ID for which to create credentials. If not specified, the authenticated tenant ID will be used.

## keystone ec2-credentials-delete

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

Delete EC2-compatible credentials.

### Arguments

<b>-user-id &lt;user-id&gt;</b>	User ID.
---------------------------------	----------

**-access <access-key>** Access Key.

## 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.

## 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.

## 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.

## keystone endpoint-delete

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

Delete a service endpoint.



### Arguments

**<endpoint-id>** ID of endpoint to delete.

## 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.

## keystone endpoint-list

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

List configured service endpoints.

## 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.

## keystone role-create

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

Create new role.

### Arguments

**--name <role-name>** Name of new role.

## keystone role-delete

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

Delete role.

### Arguments

**<role>** Name or ID of role to delete.

## keystone role-get

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

Display role details.

### Arguments

**<role>** Name or ID of role to display.

## keystone role-list

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

List all roles.

## keystone service-create

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

Add service to Service Catalog.

### Arguments

**--type <type>** Service type (one of: identity, compute, network, image, object-store, or other service identifier string).

**--name <name>** Name of new service (must be unique).

**--description <service-description>** Description of service.

## keystone service-delete

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

Delete service from Service Catalog.

### Arguments

**<service>** Name or ID of service to delete.

## keystone service-get

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

Display service from Service Catalog.

### Arguments

**<service>**      Name or ID of service to display.

## keystone service-list

```
usage: keystone service-list
```

List all services in Service Catalog.

## keystone tenant-create

```
usage: keystone tenant-create --name <tenant-name>
                                [--description <tenant-description>]
                                [--enabled <true|false>]
```

Create new tenant.

### Arguments

<b>--name &lt;tenant-name&gt;</b>	New tenant name (must be unique).
<b>--description &lt;tenant-description&gt;</b>	Description of new tenant. Default is none.
<b>--enabled &lt;true false&gt;</b>	Initial tenant enabled status. Default is true.

## keystone tenant-delete

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

Delete tenant.

### Arguments

**<tenant>**      Name or ID of tenant to delete.

## keystone tenant-get

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

Display tenant details.

### Arguments

**<tenant>**      Name or ID of tenant to display.

## keystone tenant-list

```
usage: keystone tenant-list
```

List all tenants.

## keystone tenant-update

```
usage: keystone tenant-update [--name <tenant_name>]
                               [--description <tenant-description>]
                               [--enabled <true|false>]
                               <tenant>
```

Update tenant name, description, enabled status.

### Arguments

<b>-name &lt;tenant_name&gt;</b>	Desired new name of tenant.
<b>-description &lt;tenant-description&gt;</b>	Desired new description of tenant.
<b>-enabled &lt;true false&gt;</b>	Enable or disable tenant.
<b>&lt;tenant&gt;</b>	Name or ID of tenant to update.

## keystone token-get

```
usage: keystone token-get [--wrap <integer>]
```

Display the current user token.

### Arguments

<b>-wrap &lt;integer&gt;</b>	Wrap PKI tokens to a specified length, or 0 to disable.
------------------------------	---

## keystone user-create

```
usage: keystone user-create --name <user-name> [--tenant <tenant>]
                               [--pass [<pass>]] [--email <email>]
                               [--enabled <true|false>]
```

Create new user.

### Arguments

<b>-name &lt;user-name&gt;</b>	New user name (must be unique).
<b>-tenant &lt;tenant&gt;, -tenant-id &lt;tenant&gt;</b>	New user default tenant.
<b>-pass [&lt;pass&gt;]</b>	New user password; required for some auth backends.

- email <email>** New user email address.
- enabled <true|false>** Initial user enabled status. Default is true.

## keystone user-delete

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

Delete user.

### Arguments

**<user>** Name or ID of user to delete.

## keystone user-get

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

Display user details.

### Arguments

**<user>** Name or ID of user to display.

## keystone user-list

```
usage: keystone user-list [--tenant <tenant>]
```

List users.

### Arguments

**-tenant <tenant>, -tenant-id <tenant>** Tenant; lists all users if not specified.

## 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.

## 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.

## 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.

## 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.

## 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.

<b>-email &lt;email&gt;</b>	Desired new email address.
<b>-enabled &lt;true false&gt;</b>	Enable or disable user.
<b>&lt;user&gt;</b>	Name or ID of user to update.

## 6. Image service command-line client

glance usage .....	146
glance optional arguments .....	147
Image service API v1 commands .....	148
Image service API v2 commands .....	154

The **glance** client is the command-line interface (CLI) for the OpenStack Image service API and its extensions. This chapter documents **glance** version 0.18.0.

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

```
$ glance help COMMAND
```

### 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] [-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

<b>image-create</b>	Create a new image.
<b>image-delete</b>	Delete specified image(s).
<b>image-download</b>	Download a specific image.
<b>image-list</b>	List images you can access.
<b>image-show</b>	Describe a specific image.
<b>image-update</b>	Update a specific image.
<b>member-create</b>	Share a specific image with a tenant.
<b>member-delete</b>	Remove a shared image from a tenant.



<b>member-list</b>	Describe sharing permissions by image or tenant.
<b>bash-completion</b>	Prints arguments for bash_completion.
<b>help</b>	Display help about this program or one of its subcommands.

## glance optional arguments

<b>-version</b>	show program's version number and exit
<b>-d, -debug</b>	Defaults to env [ GLANCECLIENT_DEBUG ].
<b>-v, -verbose</b>	Print more verbose output
<b>-get-schema</b>	Ignores cached copy and forces retrieval of schema that generates portions of the help text. Ignored with API version 1.
<b>-timeout TIMEOUT</b>	Number of seconds to wait for a response
<b>-no-ssl-compression</b>	Disable SSL compression when using https.
<b>-f, -force</b>	Prevent select actions from requesting user confirmation.
<b>-os-image-url OS_IMAGE_URL</b>	Defaults to env [ OS_IMAGE_URL ]. If the provided image url contains a version number and <code>-os-image-api-version`</code> is omitted the version of the URL will be picked as the image api version to use.
<b>-os-image-api-version OS_IMAGE_API_VERSION</b>	Defaults to env [ OS_IMAGE_API_VERSION ] or 1.
<b>-k, -insecure</b>	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.
<b>-os-cert OS_CERT</b>	Path of certificate file to use in SSL connection. This file can optionally be prepended with the private key.
<b>-cert-file OS_CERT</b>	<i>DEPRECATED!</i> Use <code>-os-cert</code> .
<b>-os-key OS_KEY</b>	Path of client key to use in SSL connection. This option is not necessary if your key is prepended to your cert file.
<b>-key-file OS_KEY</b>	<i>DEPRECATED!</i> Use <code>-os-key</code> .
<b>-os-cacert &lt;ca-certificate-file&gt;</b>	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.
<b>-ca-file OS_CACERT</b>	<i>DEPRECATED!</i> Use <code>-os-cacert</code> .

<b>-os-username OS_USERNAME</b>	Defaults to env[ OS_USERNAME ].
<b>-os-user-id OS_USER_ID</b>	Defaults to env[ OS_USER_ID ].
<b>-os-user-domain-id OS_USER_DOMAIN_ID</b>	Defaults to env[ OS_USER_DOMAIN_ID ].
<b>-os-user-domain-name OS_USER_DOMAIN_NAME</b>	Defaults to env[ OS_USER_DOMAIN_NAME ].
<b>-os-project-id OS_PROJECT_ID</b>	Another way to specify tenant ID. This option is mutually exclusive with -os-tenant-id. Defaults to env[ OS_PROJECT_ID ].
<b>-os-project-name OS_PROJECT_NAME</b>	Another way to specify tenant name. This option is mutually exclusive with -os-tenant-name. Defaults to env[ OS_PROJECT_NAME ].
<b>-os-project-domain-id OS_PROJECT_DOMAIN_ID</b>	Defaults to env[ OS_PROJECT_DOMAIN_ID ].
<b>-os-project-domain-name OS_PROJECT_DOMAIN_NAME</b>	Defaults to env[ OS_PROJECT_DOMAIN_NAME ].
<b>-os-password OS_PASSWORD</b>	Defaults to env[ OS_PASSWORD ].
<b>-os-tenant-id OS_TENANT_ID</b>	Defaults to env[ OS_TENANT_ID ].
<b>-os-tenant-name OS_TENANT_NAME</b>	Defaults to env[ OS_TENANT_NAME ].
<b>-os-auth-url OS_AUTH_URL</b>	Defaults to env[ OS_AUTH_URL ].
<b>-os-region-name OS_REGION_NAME</b>	Defaults to env[ OS_REGION_NAME ].
<b>-os-auth-token OS_AUTH_TOKEN</b>	Defaults to env[ OS_AUTH_TOKEN ].
<b>-os-service-type OS_SERVICE_TYPE</b>	Defaults to env[ OS_SERVICE_TYPE ].
<b>-os-endpoint-type OS_ENDPOINT_TYPE</b>	Defaults to env[ OS_ENDPOINT_TYPE ].

## Image service API v1 commands

### 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

<b>-id &lt;IMAGE_ID&gt; ID</b>	of image to reserve.
<b>-name &lt;NAME&gt;</b>	Name of image.
<b>-store &lt;STORE&gt;</b>	Store to upload image to.
<b>-disk-format &lt;DISK_FORMAT&gt;</b>	Disk format of image. Acceptable formats: ami, ari, aki, vhd, vmrk, raw, qcow2, vdi, and iso.
<b>-container-format &lt;CONTAINER_FORMAT&gt;</b>	Container format of image. Acceptable formats: ami, ari, aki, bare, and ovf.
<b>-owner &lt;TENANT_ID&gt;</b>	Tenant who should own image.
<b>-size &lt;SIZE&gt;</b>	Size of image data (in bytes). Only used with '-location' and '-copy_from'.
<b>-min-disk &lt;DISK_GB&gt;</b>	Minimum size of disk needed to boot image (in gigabytes).
<b>-min-ram &lt;DISK_RAM&gt;</b>	Minimum amount of ram needed to boot image (in megabytes).
<b>-location &lt;IMAGE_URL&gt;</b>	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.)
<b>-file &lt;FILE&gt;</b>	Local file that contains disk image to be uploaded during creation. Alternatively, images can be passed to the client via stdin.
<b>-checksum &lt;CHECKSUM&gt;</b>	Hash of image data used Glance can use for verification. Provide a md5 checksum here.
<b>-copy-from &lt;IMAGE_URL&gt;</b>	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.
<b>-is-public {True,False}</b>	Make image accessible to the public.
<b>-is-protected {True,False}</b>	Prevent image from being deleted.
<b>-property &lt;key=value&gt;</b>	Arbitrary property to associate with image. May be used multiple times.

- |                        |  |
|------------------------|--|
| <b>-human-readable</b> | Print image size in a human-friendly format. |
| <b>-progress</b>       | Show upload progress bar.                    |

## glance image-delete

```
usage: glance image-delete <IMAGE> [<IMAGE> ...]
```

Delete specified image(s).

### Positional arguments

**<IMAGE>** Name or ID of image(s) to delete.

## glance image-download

```
usage: glance image-download [--file <FILE>] [--progress] <IMAGE>
```

Download a specific image.

### Positional arguments

**<IMAGE>** Name or ID of image to download.

### Optional arguments

- |                           |   |
|---------------------------|---|
| <b>-file &lt;FILE&gt;</b> | Local file to save downloaded image data to. If this is not specified the image data will be written to stdout. |
| <b>-progress</b>          | Show download progress bar.   |

## 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

- |   |   |
|---|---|
| <b>-name &lt;NAME&gt;</b>                         | Filter images to those that have this name.   |
| <b>-status &lt;STATUS&gt;</b>                     | Filter images to those that have this status.   |
| <b>-container-format &lt;CONTAINER_FORMAT&gt;</b> | Filter images to those that have this container format. Acceptable formats: ami, ari, aki, bare, and ovf. |

<b>-disk-format &lt;DISK_FORMAT&gt;</b>	Filter images to those that have this disk format. Acceptable formats: ami, ari, aki, vhd, vmdk, raw, qcow2, vdi, and iso.
<b>-size-min &lt;SIZE&gt;</b>	Filter images to those with a size greater than this.
<b>-size-max &lt;SIZE&gt;</b>	Filter images to those with a size less than this.
<b>-property-filter &lt;KEY=VALUE&gt;</b>	Filter images by a user-defined image property.
<b>-page-size &lt;SIZE&gt;</b>	Number of images to request in each paginated request.
<b>-human-readable</b>	Print image size in a human-friendly format.
<b>-sort-key</b> <b>{name,status,container_format,disk_format,size,id,created_at,updated_at}</b>	Sort image list by specified field.
<b>-sort-dir {asc,desc}</b>	Sort image list in specified direction.
<b>-is-public {True,False}</b>	Allows the user to select a listing of public or non public images.
<b>-owner &lt;TENANT_ID&gt;</b>	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.
<b>-all-tenants</b>	Allows the admin user to list all images irrespective of the image's owner or is_public value.

## 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

<b>-human-readable</b>	Print image size in a human-friendly format.
<b>-max-column-width &lt;integer&gt;</b>	The max column width of the printed table.

## 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

<b>-name &lt;NAME&gt;</b>	Name of image.
<b>-disk-format &lt;DISK_FORMAT&gt;</b>	Disk format of image. Acceptable formats: ami, ari, aki, vhd, vmdk, raw, qcow2, vdi, and iso.
<b>-container-format &lt;CONTAINER_FORMAT&gt;</b>	Container format of image. Acceptable formats: ami, ari, aki, bare, and ovf.
<b>-owner &lt;TENANT_ID&gt;</b>	Tenant who should own image.
<b>-size &lt;SIZE&gt;</b>	Size of image data (in bytes).
<b>-min-disk &lt;DISK_GB&gt;</b>	Minimum size of disk needed to boot image (in gigabytes).
<b>-min-ram &lt;DISK_RAM&gt;</b>	Minimum amount of ram needed to boot image (in megabytes).
<b>-location &lt;IMAGE_URL&gt;</b>	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.) This option only works for images in 'queued' status.
<b>-file &lt;FILE&gt;</b>	Local file that contains disk image to be uploaded during update. Alternatively, images can be passed to the client via stdin.
<b>-checksum &lt;CHECKSUM&gt;</b>	Hash of image data used Glance can use for verification.
<b>-copy-from &lt;IMAGE_URL&gt;</b>	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. This option only works for images in 'queued' status.
<b>-is-public {True,False}</b>	Make image accessible to the public.

<b>-is-protected {True,False}</b>	Prevent image from being deleted.
<b>-property &lt;key=value&gt;</b>	Arbitrary property to associate with image. May be used multiple times.
<b>-purge-props</b>	If this flag is present, delete all image properties not explicitly set in the update request. Otherwise, those properties not referenced are preserved.
<b>-human-readable</b>	Print image size in a human-friendly format.
<b>-progress</b>	Show upload progress bar.

## 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.

## 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.

## 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.

## Image service API v2 commands

You can select an API version to use by adding the `--os-image-api-version` parameter or by setting the corresponding environment variable:

```
$ export OS_IMAGE_API_VERSION=2
```

### glance explain (v2)

```
usage: glance --os-image-api-version 2 explain <MODEL>
```

Describe a specific model.

#### Positional arguments

**<MODEL>**      Name of model to describe.  
**EL>**

### glance image-create (v2)

```
usage: glance --os-image-api-version 2 image-create [--property <key=value>]
        [--file <FILE>]                                [--progress]
                                                         <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

<b>-property &lt;key=value&gt;</b>	Arbitrary property to associate with image. May be used multiple times.
<b>-file &lt;FILE&gt;</b>	Local file that contains disk image to be uploaded during creation. Alternatively, images can be passed to the client via stdin.
<b>-progress</b>	Show upload progress bar.

### 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.



## 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.

## glance image-list (v2)

```
usage: glance --os-image-api-version 2 image-list [--limit <LIMIT>] [--page-size <SIZE>]
                                     [--visibility <VISIBILITY>]
                                     [--member-status <MEMBER_STATUS>] [--owner <OWNER>]
                                     [--property-filter <KEY=VALUE>]
                                     [--checksum <CHECKSUM>] [--tag <TAG>]
                                     [--sort-key {name,status,container_format,
disk_format,size,id,created_at,updated_at}]
                                     [--sort-dir {asc,desc}] [--sort <key>[:<direction>]]
```

List images you can access.

### Optional arguments

**-limit <LIMIT>** Maximum number of images to get.

**-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>.

**-property-filter <KEY=VALUE>** Filter images by a user-defined image property.

**-checksum <CHECKSUM>** Displays images that match the checksum.

**-tag <TAG>** Filter images by a user-defined tag.

**-sort-key {name,status,container\_format,disk\_format,size,id,created\_at,updated\_at}** Sort image list by specified fields.

<b>-sort-dir {asc,desc}</b>	Sort image list in specified directions.
<b>-sort &lt;key&gt;[:&lt;direction&gt;]</b>	Comma-separated list of sort keys and directions in the form of <key>[:<asc desc>]. Valid keys: name, status, container_format, disk_format, size, id, created_at, updated_at. OPTIONAL: Default='name:asc'.

## glance image-show (v2)

```
usage: glance --os-image-api-version 2 image-show [--human-readable] [--max-column-width <integer>]
<IMAGE_ID>
```

Describe a specific image.

### Positional arguments

**<IMAGE\_ID>** 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.

## 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.

## 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.

## 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.

## 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.

## glance location-add (v2)

```
usage: glance --os-image-api-version 2 location-add --url <URL> [--metadata <STRING>] <ID>
```

Add a location (and related metadata) to an image.

### Positional arguments

- <ID>** ID of image to which the location is to be added.

### Optional arguments

- url <URL> URL** of location to add.

**-metadata <STRING>** Metadata associated with the location. Must be a valid JSON object (default: {})

## glance location-delete (v2)

```
usage: glance --os-image-api-version 2 location-delete --url <URL> <ID>
```

Remove locations (and related metadata) from an image.

### Positional arguments

**<ID>** ID of image whose locations are to be removed.

### Optional arguments

**-url <URL> URL** of location to remove. May be used multiple times.

## glance location-update (v2)

```
usage: glance --os-image-api-version 2 location-update --url <URL> [--metadata <STRING>] <ID>
```

Update metadata of an image's location.

### Positional arguments

**<ID>** ID of image whose location is to be updated.

### Optional arguments

**-url <URL> URL** of location to update.

**-metadata <STRING>** Metadata associated with the location. Must be a valid JSON object (default: {})

## glance md-namespace-create (v2)

```
usage: glance --os-image-api-version 2 md-namespace-create <NAMESPACE>  
<unavailable>
```

Create a new metadata definitions namespace.

### Positional arguments

**<NAMESPACE>** Name of the namespace.

**<unavailable>** Please run with connection parameters set to retrieve the schema for generating help for this command

## glance md-namespace-delete (v2)

```
usage: glance --os-image-api-version 2 md-namespace-delete <NAMESPACE>
```

Delete specified metadata definitions namespace with its contents.

### Positional arguments

**<NAMESPACE>** Name of namespace to delete.

## glance md-namespace-import (v2)

```
usage: glance --os-image-api-version 2 md-namespace-import [--file <FILEPATH>]
```

Import a metadata definitions namespace from file or standard input.

### Optional arguments

**-file <FILEPATH>** Path to file with namespace schema to import. Alternatively, namespaces schema can be passed to the client via stdin.

## glance md-namespace-list (v2)

```
usage: glance --os-image-api-version 2 md-namespace-list [--resource-types
<RESOURCE_TYPES>]
                                [--visibility <VISIBILITY>]
                                [--page-size <SIZE>]
```

List metadata definitions namespaces.

### Optional arguments

**-resource-types <RESOURCE\_TYPES>** Resource type to filter namespaces.

**-visibility <VISIBILITY>** Visibility parameter to filter namespaces.

**-page-size <SIZE>** Number of namespaces to request in each paginated request.

## glance md-namespace-objects-delete (v2)

```
usage: glance --os-image-api-version 2 md-namespace-objects-delete <NAMESPACE>
```

Delete all metadata definitions objects inside a specific namespace.

### Positional arguments

**<NAMESPACE>** Name of namespace.

## glance md-namespace-properties-delete (v2)

```
usage: glance --os-image-api-version 2 md-namespace-properties-delete
<NAMESPACE>
```

Delete all metadata definitions property inside a specific namespace.

### Positional arguments

**<NAMESPACE>** Name of namespace.

## glance md-namespace-resource-type-list (v2)

```
usage: glance --os-image-api-version 2 md-namespace-resource-type-list
<NAMESPACE>
```

List resource types associated to specific namespace.

### Positional arguments

**<NAMESPACE>** Name of namespace.

## glance md-namespace-show (v2)

```
usage: glance --os-image-api-version 2 md-namespace-show [--resource-type
<RESOURCE_TYPE>]
                                [--max-column-width <integer>]
                                <NAMESPACE>
```

Describe a specific metadata definitions namespace. Lists also the namespace properties, objects and resource type associations.

### Positional arguments

**<NAMESPACE>** Name of namespace to describe.

### Optional arguments

**-resource-type <RESOURCE\_TYPE>** Applies prefix of given resource type associated to a namespace to all properties of a namespace.

**-max-column-width <integer>** The max column width of the printed table.

## glance md-namespace-update (v2)

```
usage: glance --os-image-api-version 2 md-namespace-update <NAMESPACE>
<unavailable>
```

Update an existing metadata definitions namespace.

### Positional arguments

**<NAMESPACE>** Name of namespace to update.

**<unavailable>** Please run with connection parameters set to retrieve the schema for generating help for this command

## glance md-object-create (v2)

```
usage: glance --os-image-api-version 2 md-object-create --name <NAME> --schema
<SCHEMA> <NAMESPACE>
```

Create a new metadata definitions object inside a namespace.

### Positional arguments

**<NAMESPACE>** Name of namespace the object will belong.

### Optional arguments

**--name <NAME>** Internal name of an object.

**--schema <SCHEMA>** Valid JSON schema of an object.

## glance md-object-delete (v2)

```
usage: glance --os-image-api-version 2 md-object-delete <NAMESPACE> <OBJECT>
```

Delete a specific metadata definitions object inside a namespace.

### Positional arguments

**<NAMESPACE>** Name of namespace the object belongs.

**<OBJECT>** Name of an object.

## glance md-object-list (v2)

```
usage: glance --os-image-api-version 2 md-object-list <NAMESPACE>
```

List metadata definitions objects inside a specific namespace.

### Positional arguments

**<NAMESPACE>** Name of namespace.

## glance md-object-property-show (v2)

```
usage: glance --os-image-api-version 2 md-object-property-show [--max-column-
width <integer>]
                                <NAMESPACE> <OBJECT> <PROPERTY>
```

Describe a specific metadata definitions property inside an object.

### Positional arguments

**<NAMESPACE>** Name of namespace the object belongs.

**<OBJECT>**      Name of an object.

**<PROPERTY>**    Name of a property.

### Optional arguments

**--max-column-width <integer>**      The max column width of the printed table.

## glance md-object-show (v2)

```
usage: glance --os-image-api-version 2 md-object-show [--max-column-width
<integer>]
                                <NAMESPACE> <OBJECT>
```

Describe a specific metadata definitions object inside a namespace.

### Positional arguments

**<NAME-SPACE>**      Name of namespace the object belongs.

**<OBJECT>**          Name of an object.

### Optional arguments

**--max-column-width <integer>**      The max column width of the printed table.

## glance md-object-update (v2)

```
usage: glance --os-image-api-version 2 md-object-update [--name <NAME>] [--
schema <SCHEMA>]
                                <NAMESPACE> <OBJECT>
```

Update metadata definitions object inside a namespace.

### Positional arguments

**<NAME-SPACE>**      Name of namespace the object belongs.

**<OBJECT>**          Name of an object.

### Optional arguments

**--name <NAME>**      New name of an object.

**--schema <SCHEMA>**    Valid JSON schema of an object.

## glance md-property-create (v2)

```
usage: glance --os-image-api-version 2 md-property-create --name <NAME> --
title <TITLE> --schema
                                <SCHEMA>
                                <NAMESPACE>
```



Create a new metadata definitions property inside a namespace.

### Positional arguments

**<NAMESPACE>** Name of namespace the property will belong.

### Optional arguments

**-name <NAME>** Internal name of a property.

**-title <TITLE>** Property name displayed to the user.

**-schema <SCHEMA>** Valid JSON schema of a property.

## glance md-property-delete (v2)

```
usage: glance --os-image-api-version 2 md-property-delete <NAMESPACE>
<PROPERTY>
```

Delete a specific metadata definitions property inside a namespace.

### Positional arguments

**<NAMESPACE>** Name of namespace the property belongs.

**<PROPERTY>** Name of a property.

## glance md-property-list (v2)

```
usage: glance --os-image-api-version 2 md-property-list <NAMESPACE>
```

List metadata definitions properties inside a specific namespace.

### Positional arguments

**<NAMESPACE>** Name of namespace.

## glance md-property-show (v2)

```
usage: glance --os-image-api-version 2 md-property-show [--max-column-width
<integer>]
<NAMESPACE> <PROPERTY>
```

Describe a specific metadata definitions property inside a namespace.

### Positional arguments

**<NAMESPACE>** Name of namespace the property belongs.

**<PROPERTY>** Name of a property.

### Optional arguments

**-max-column-width <integer>**      The max column width of the printed table.

## glance md-property-update (v2)

```
usage: glance --os-image-api-version 2 md-property-update [--name <NAME>] [--  
title <TITLE>]  
                                [--schema <SCHEMA>]  
                                <NAMESPACE> <PROPERTY>
```

Update metadata definitions property inside a namespace.

### Positional arguments

**<NAME-SPACE>**      Name of namespace the property belongs.

**<PROPERTY>**      Name of a property.

### Optional arguments

**-name <NAME>**      New name of a property.

**-title <TITLE>**      Property name displayed to the user.

**-schema <SCHEMA>**      Valid JSON schema of a property.

## glance md-resource-type-associate (v2)

```
usage: glance --os-image-api-version 2 md-resource-type-associate <NAMESPACE>  
<unavailable>
```

Associate resource type with a metadata definitions namespace.

### Positional arguments

**<NAMESPACE>**      Name of namespace.

**<unavailable>**      Please run with connection parameters set to retrieve the schema for generating help for this command

## glance md-resource-type-deassociate (v2)

```
usage: glance --os-image-api-version 2 md-resource-type-deassociate  
<NAMESPACE> <RESOURCE_TYPE>
```

Deassociate resource type with a metadata definitions namespace.

### Positional arguments

**<NAMESPACE>**      Name of namespace.

**<RESOURCE\_TYPE>**      Name of resource type.

## glance md-resource-type-list (v2)

```
usage: glance --os-image-api-version 2 md-resource-type-list
```

List available resource type names.

## 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.

## 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.

## 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.

## 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. Valid Values: accepted, rejected, pending

## glance task-create (v2)

```
usage: glance --os-image-api-version 2 task-create [--type <TYPE>] [--input <STRING>]
```

Create a new task.

### Optional arguments

**--type <TYPE>** Type of Task. Please refer to Glance schema or documentation to see which tasks are supported.

**--input <STRING>** Parameters of the task to be launched

## glance task-list (v2)

```
usage: glance --os-image-api-version 2 task-list [--sort-key {id,type,status}]
        [--sort-dir {asc,desc}] [--page-size <SIZE>] [--type <TYPE>]
        [--status <STATUS>]
```

List tasks you can access.

### Optional arguments

**--sort-key {id,type,status}** Sort task list by specified field.

**--sort-dir {asc,desc}** Sort task list in specified direction.

**--page-size <SIZE>** Number of tasks to request in each paginated request.

**--type <TYPE>** Filter tasks to those that have this type.

**--status <STATUS>** Filter tasks to those that have this status.

## glance task-show (v2)

```
usage: glance --os-image-api-version 2 task-show <TASK_ID>
```

Describe a specific task.

### Positional arguments

**<TASK\_ID>** ID of task to describe.

## 7. 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 [OpenStack Cloud Administrator Guide](#)

**Table 7.1. Property keys**

Specific to	Key	Description	Supported values
All	architecture	The CPU architecture that must be supported by the hypervisor. For example, <code>x86_64</code> , <code>arm</code> , or <code>ppc64</code> . Run <code>uname -m</code> to get the architecture of a machine. We strongly recommend using the architecture data vocabulary defined by the <a href="#">libosinfo project</a> for this purpose.	<ul style="list-style-type: none"> <li><code>alpha</code>—DEC 64-bit RISC</li> <li><code>armv7l</code>—ARM Cortex-A7 MPCore</li> <li><code>cris</code>—Ethernet, Token Ring, AXIs—Code Reduced Instruction Set</li> <li><code>i686</code>—Intel sixth-generation x86 (P6 micro architecture)</li> <li><code>ia64</code>—Itanium</li> <li><code>lm32</code>—Lattice Micro32</li> <li><code>m68k</code>—Motorola 68000</li> <li><code>microblaze</code>—Xilinx 32-bit FPGA (Big Endian)</li> <li><code>microblazeel</code>—Xilinx 32-bit FPGA (Little Endian)</li> <li><code>mips</code>—MIPS 32-bit RISC (Big Endian)</li> <li><code>mipsel</code>—MIPS 32-bit RISC (Little Endian)</li> <li><code>mips64</code>—MIPS 64-bit RISC (Big Endian)</li> <li><code>mips64el</code>—MIPS 64-bit RISC (Little Endian)</li> <li><code>openrisc</code>—OpenCores RISC</li> <li><code>parisc</code>—HP Precision Architecture RISC</li> <li><code>parisc64</code>—HP Precision Architecture 64-bit RISC</li> <li><code>ppc</code>—PowerPC 32-bit</li> <li><code>ppc64</code>—PowerPC 64-bit</li> <li><code>ppcemb</code>—PowerPC (Embedded 32-bit)</li> <li><code>s390</code>—IBM Enterprise Systems Architecture/390</li> <li><code>s390x</code>—S/390 64-bit</li> <li><code>sh4</code>—SuperH SH-4 (Little Endian)</li> </ul>

Specific to	Key	Description	Supported values
			<ul style="list-style-type: none"> <li>• <code>sh4eb</code>—<a href="#">SuperH SH-4 (Big Endian)</a></li> <li>• <code>sparc</code>—<a href="#">Scalable Processor Architecture, 32-bit</a></li> <li>• <code>sparc64</code>—<a href="#">Scalable Processor Architecture, 64-bit</a></li> <li>• <code>unicore32</code>—<a href="#">Microprocessor Research and Development Center RISC Unicores32</a></li> <li>• <code>x86_64</code>—<a href="#">64-bit extension of IA-32</a></li> <li>• <code>xtensa</code>—<a href="#">Tensilica Xtensa configurable microprocessor core</a></li> <li>• <code>xtensaeb</code>—<a href="#">Tensilica Xtensa configurable microprocessor core (Big Endian)</a></li> </ul>
All	<code>hypervisor_type</code>	The hypervisor type. Note that <code>qemu</code> is used for both QEMU and KVM hypervisor types.	<code>xen</code> , <code>qemu</code> , <code>lxc</code> , <code>uml</code> , <code>vmware</code> , or <code>hyperv</code>
All	<code>instance_uuid</code>	For snapshot images, this is the UUID of the server used to create this image.	Valid server UUID
All	<code>img_config_drive</code>	Specifies whether the image needs a config drive.	mandatory or optional (default if property is not used).
All	<code>kernel_id</code>	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	<code>os_distro</code>	The common name of the operating system distribution in lowercase (uses the same data vocabulary as the <a href="#">libosinfo project</a> ). Specify only a recognized value for this field. Deprecated values are listed to assist you in searching for the recognized value.	<ul style="list-style-type: none"> <li>• <code>arch</code>—Arch Linux. Do not use <code>archlinux</code> or <code>org.archlinux</code></li> <li>• <code>centos</code>—Community Enterprise Operating System. Do not use <code>org.centos</code> or <code>CentOS</code></li> <li>• <code>debian</code>—Debian. Do not use <code>Debian</code> or <code>org.debian</code></li> <li>• <code>fedora</code>—Fedora. Do not use <code>Fedora</code>, <code>org.fedora</code>, or <code>org.fedoraproject</code></li> <li>• <code>freebsd</code>—FreeBSD. Do not use <code>org.freebsd</code>, <code>freebsd</code>, or <code>FreeBSD</code></li> <li>• <code>gentoo</code>—Gentoo Linux. Do not use <code>Gentoo</code> or <code>org.gentoo</code></li> <li>• <code>mandrake</code>—Mandrakelinux (Mandrake-Soft) distribution. Do not use <code>mandrake-linux</code> or <code>MandrakeLinux</code></li> <li>• <code>mandriva</code>—Mandriva Linux. Do not use <code>mandrivalinux</code></li> <li>• <code>mes</code>—Mandriva Enterprise Server. Do not use <code>mandrivaent</code> or <code>mandrivaES</code></li> <li>• <code>msdos</code>—Microsoft Disc Operating System. Do not use <code>ms-dos</code></li> <li>• <code>netbsd</code>—NetBSD. Do not use <code>NetBSD</code> or <code>org.netbsd</code></li> <li>• <code>netware</code>—Novell NetWare. Do not use <code>novell</code> or <code>NetWare</code></li> </ul>

Specific to	Key	Description	Supported values
			<ul style="list-style-type: none"> <li>• <code>openbsd</code>—OpenBSD. Do not use <code>OpenBSD</code> or <code>org.openbsd</code></li> <li>• <code>opensolaris</code>—OpenSolaris. Do not use <code>OpenSolaris</code> or <code>org.opensolaris</code></li> <li>• <code>opensuse</code>—openSUSE. Do not use <code>suse</code>, <code>SuSE</code>, or <code>org.opensuse</code></li> <li>• <code>rhel</code>—Red Hat Enterprise Linux. Do not use <code>redhat</code>, <code>RedHat</code>, or <code>com.redhat</code></li> <li>• <code>sled</code>—SUSE Linux Enterprise Desktop. Do not use <code>com.suse</code></li> <li>• <code>ubuntu</code>—Ubuntu. Do not use <code>Ubuntu</code>, <code>com.ubuntu</code>, <code>org.ubuntu</code>, or <code>canonical</code></li> <li>• <code>windows</code>—Microsoft Windows. Do not use <code>com.microsoft.server</code> or <code>win-doze</code></li> </ul>
All	<code>os_version</code>	The operating system version as specified by the distributor.	Version number (for example, "11.10")
All	<code>ramdisk_id</code>	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	<code>vm_mode</code>	The virtual machine mode. This represents the host/guest ABI (application binary interface) used for the virtual machine.	<ul style="list-style-type: none"> <li>• <code>hvm</code>—Fully virtualized. This is the mode used by QEMU and KVM.</li> <li>• <code>xen</code>—Xen 3.0 paravirtualized.</li> <li>• <code>uml</code>—User Mode Linux paravirtualized.</li> <li>• <code>exe</code>—Executables in containers. This is the mode used by LXC.</li> </ul>
libvirt API driver	<code>hw_disk_bus</code>	Specifies the type of disk controller to attach disk devices to.	One of <code>scsi</code> , <code>virtio</code> , <code>uml</code> , <code>xen</code> , <code>ide</code> , or <code>usb</code> .
libvirt API driver	<code>hw_rng_mode</code>	<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"> <li>• The generator device is disabled.</li> <li>• <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:</li> </ul> <pre>rng_dev_path=/dev/hwrng</pre>	<code>virtio</code> , or other supported device.
libvirt API driver	<code>hw_machine_type</code>	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 <code>vexpress-a15</code> (for ARMv7) or <code>virt</code> (for AArch64) machine types.	Libvirt machine type. Valid types can be viewed by using the <b>virsh capabilities</b> command (machine types are displayed in the machine tag).
libvirt API driver	<code>hw_scsi_mode</code>	Enables the use of VirtIO SCSI ( <code>virtio-scsi</code> ) to provide block device access for compute instances; by default, instances use VirtIO Block ( <code>virtio-blk</code> ). VirtIO SCSI is a paravirtualized SCSI controller device that provides	<code>virtio-scsi</code>

Specific to	Key	Description	Supported values
		improved scalability and performance, and supports advanced SCSI hardware.	
libvirt API driver	hw_serial_port_count	Specifies the count of serial ports that should be provided. If <code>hw:serial_port_count</code> is not set in the flavor's <code>extra_specs</code> , then any count is permitted. If <code>hw:serial_port_count</code> is set, then this provides the default serial port count. It is permitted to override the default serial port count, but only with a lower value.	Integer
libvirt API driver	hw_video_model	The video image driver used.	vga, cirrus, vmvga, xen, or qxl
libvirt API driver	hw_video_ram_max_mb	Maximum RAM for the video image. Used only if a <code>hw_video:ram_max_mb</code> value has been set in the flavor's <code>extra_specs</code> and that value is higher than the value set in <code>hw_video_ram</code> .	Integer in MB (for example, '64')
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 <code>hw:watchdog_action</code> is not specified, the watchdog is disabled.	<ul style="list-style-type: none"> <li>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.</li> <li>reset—Forcefully reset the guest.</li> <li>poweroff—Forcefully power off the guest.</li> <li>pause—Pause the guest.</li> <li>none—Only enable the watchdog; do nothing if the server hangs.</li> </ul>
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"> <li>KVM and QEMU: e1000, ne2k_pci, pcnet, rtl8139, and virtio.</li> <li>VMware: e1000, e1000e, VirtualE1000, VirtualE1000e, VirtualPCNet32, VirtualSriovEthernetCard, and VirtualVmxnet.</li> <li>Xen: e1000, netfront, ne2k_pci, pcnet, and rtl8139.</li> </ul>
libvirt API driver	hw_boot_menu	If true, enables the BIOS bootmenu. In cases where both the image metadata and Extra Spec are set, the Extra Spec setting is used. This allows for flexibility in setting/overriding the default behavior as needed.	true   false
VMware API driver	vmware_adapter_type	The type of virtual SCSI or IDE controller used by the hypervisor.	lsiLogic, lsiLogicsas, busLogic, ide, or paraVirtual
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 cre-	See <a href="http://thinkvirt.com">thinkvirt.com</a> .



Specific to	Key	Description	Supported values
		ating a virtual machine. If not specified, the key defaults to <code>otherGuest</code> .	
VMware API driver	<code>vmware_image</code>	Currently unused.	1
VMware API driver	<code>quota:cpu_limit</code>	Specifies the upper limit for CPU allocation in MHz. This parameter ensures that a machine never uses more than the defined amount of CPU time. It can be used to enforce a limit on the machine's CPU performance.	A numerical value in MHz
VMware API driver	<code>quota:cpu_reservation</code>	Specifies the guaranteed minimum CPU reservation in MHz. This means that if needed, the machine will definitely get allocated the reserved amount of CPU cycles.	A numerical value in MHz
VMware API driver	<code>vmware:hw_version</code>	Specifies the hardware version VMware uses to create images. If the hardware version needs to be compatible with a cluster version, for backward compatibility or other circumstances, the <code>vmware:hw_version</code> key specifies a virtual machine hardware version. In the event that a cluster has mixed host version types, the key will enable the VC to place the cluster on the correct host.	See <a href="http://vmware.com">vmware.com</a> .
XenAPI driver	<code>auto_disk_config</code>	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 <code>ext3</code> or <code>ext4</code> format.	true   false
XenAPI driver	<code>os_type</code>	The operating system installed on the image. The XenAPI driver contains logic that takes different actions depending on the value of the <code>os_type</code> parameter of the image. For example, for <code>os_type=windows</code> 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

## 8. Networking command-line client

neutron usage .....	176
neutron optional arguments .....	176
neutron API v2.0 commands .....	178
neutron agent-delete .....	185
neutron agent-list .....	185
neutron agent-show .....	186
neutron agent-update .....	186
neutron cisco-credential-create .....	187
neutron cisco-credential-delete .....	187
neutron cisco-credential-list .....	188
neutron cisco-credential-show .....	188
neutron cisco-network-profile-create .....	188
neutron cisco-network-profile-delete .....	189
neutron cisco-network-profile-list .....	190
neutron cisco-network-profile-show .....	190
neutron cisco-network-profile-update .....	191
neutron cisco-policy-profile-list .....	191
neutron cisco-policy-profile-show .....	191
neutron cisco-policy-profile-update .....	192
neutron dhcp-agent-list-hosting-net .....	192
neutron dhcp-agent-network-add .....	193
neutron dhcp-agent-network-remove .....	193
neutron ext-list .....	193
neutron ext-show .....	194
neutron firewall-create .....	194
neutron firewall-delete .....	195
neutron firewall-list .....	195
neutron firewall-policy-create .....	196
neutron firewall-policy-delete .....	196
neutron firewall-policy-insert-rule .....	197
neutron firewall-policy-list .....	197
neutron firewall-policy-remove-rule .....	198
neutron firewall-policy-show .....	198
neutron firewall-policy-update .....	199
neutron firewall-rule-create .....	199
neutron firewall-rule-delete .....	200
neutron firewall-rule-list .....	200
neutron firewall-rule-show .....	201
neutron firewall-rule-update .....	201
neutron firewall-show .....	202
neutron firewall-update .....	202
neutron floatingip-associate .....	203
neutron floatingip-create .....	203
neutron floatingip-delete .....	204
neutron floatingip-disassociate .....	204
neutron floatingip-list .....	204
neutron floatingip-show .....	205
neutron gateway-device-create .....	205

neutron gateway-device-delete .....	206
neutron gateway-device-list .....	207
neutron gateway-device-show .....	207
neutron gateway-device-update .....	207
neutron ipsec-site-connection-create .....	208
neutron ipsec-site-connection-delete .....	209
neutron ipsec-site-connection-list .....	210
neutron ipsec-site-connection-show .....	210
neutron ipsec-site-connection-update .....	211
neutron l3-agent-list-hosting-router .....	211
neutron l3-agent-router-add .....	212
neutron l3-agent-router-remove .....	212
neutron lb-agent-hosting-pool .....	213
neutron lb-healthmonitor-associate .....	213
neutron lb-healthmonitor-create .....	213
neutron lb-healthmonitor-delete .....	214
neutron lb-healthmonitor-disassociate .....	215
neutron lb-healthmonitor-list .....	215
neutron lb-healthmonitor-show .....	216
neutron lb-healthmonitor-update .....	216
neutron lb-member-create .....	216
neutron lb-member-delete .....	217
neutron lb-member-list .....	217
neutron lb-member-show .....	218
neutron lb-member-update .....	218
neutron lb-pool-create .....	219
neutron lb-pool-delete .....	219
neutron lb-pool-list .....	220
neutron lb-pool-list-on-agent .....	220
neutron lb-pool-show .....	221
neutron lb-pool-stats .....	221
neutron lb-pool-update .....	222
neutron lb-vip-create .....	222
neutron lb-vip-delete .....	223
neutron lb-vip-list .....	223
neutron lb-vip-show .....	224
neutron lb-vip-update .....	224
neutron lbaas-agent-hosting-loadbalancer .....	225
neutron lbaas-healthmonitor-create .....	225
neutron lbaas-healthmonitor-delete .....	226
neutron lbaas-healthmonitor-list .....	227
neutron lbaas-healthmonitor-show .....	227
neutron lbaas-healthmonitor-update .....	228
neutron lbaas-listener-create .....	228
neutron lbaas-listener-delete .....	229
neutron lbaas-listener-list .....	229
neutron lbaas-listener-show .....	230
neutron lbaas-listener-update .....	230
neutron lbaas-loadbalancer-create .....	231
neutron lbaas-loadbalancer-delete .....	231
neutron lbaas-loadbalancer-list .....	232

neutron lbaas-loadbalancer-list-on-agent .....	232
neutron lbaas-loadbalancer-show .....	233
neutron lbaas-loadbalancer-update .....	233
neutron lbaas-member-create .....	234
neutron lbaas-member-delete .....	234
neutron lbaas-member-list .....	235
neutron lbaas-member-show .....	236
neutron lbaas-member-update .....	236
neutron lbaas-pool-create .....	237
neutron lbaas-pool-delete .....	237
neutron lbaas-pool-list .....	238
neutron lbaas-pool-show .....	238
neutron lbaas-pool-update .....	239
neutron meter-label-create .....	239
neutron meter-label-delete .....	239
neutron meter-label-list .....	240
neutron meter-label-rule-create .....	240
neutron meter-label-rule-delete .....	241
neutron meter-label-rule-list .....	241
neutron meter-label-rule-show .....	242
neutron meter-label-show .....	242
neutron nec-packet-filter-create .....	243
neutron nec-packet-filter-delete .....	244
neutron nec-packet-filter-list .....	244
neutron nec-packet-filter-show .....	245
neutron nec-packet-filter-update .....	246
neutron net-create .....	247
neutron net-delete .....	247
neutron net-external-list .....	248
neutron net-gateway-connect .....	248
neutron net-gateway-create .....	249
neutron net-gateway-delete .....	249
neutron net-gateway-disconnect .....	250
neutron net-gateway-list .....	250
neutron net-gateway-show .....	250
neutron net-gateway-update .....	251
neutron net-list .....	251
neutron net-list-on-dhcp-agent .....	252
neutron net-show .....	253
neutron net-update .....	253
neutron nuage-netpartition-create .....	253
neutron nuage-netpartition-delete .....	254
neutron nuage-netpartition-list .....	254
neutron nuage-netpartition-show .....	254
neutron port-create .....	255
neutron port-delete .....	256
neutron port-list .....	256
neutron port-show .....	257
neutron port-update .....	257
neutron queue-create .....	258
neutron queue-delete .....	259

neutron queue-list .....	259
neutron queue-show .....	259
neutron quota-delete .....	260
neutron quota-list .....	260
neutron quota-show .....	260
neutron quota-update .....	261
neutron router-create .....	262
neutron router-delete .....	262
neutron router-gateway-clear .....	262
neutron router-gateway-set .....	263
neutron router-interface-add .....	263
neutron router-interface-delete .....	264
neutron router-list .....	264
neutron router-list-on-l3-agent .....	265
neutron router-port-list .....	265
neutron router-show .....	266
neutron router-update .....	266
neutron security-group-create .....	266
neutron security-group-delete .....	267
neutron security-group-list .....	267
neutron security-group-rule-create .....	268
neutron security-group-rule-delete .....	269
neutron security-group-rule-list .....	269
neutron security-group-rule-show .....	270
neutron security-group-show .....	270
neutron security-group-update .....	271
neutron service-provider-list .....	271
neutron subnet-create .....	272
neutron subnet-delete .....	273
neutron subnet-list .....	273
neutron subnet-show .....	274
neutron subnet-update .....	274
neutron subnetpool-create .....	275
neutron subnetpool-delete .....	276
neutron subnetpool-list .....	276
neutron subnetpool-show .....	277
neutron subnetpool-update .....	277
neutron vpn-ikepolicy-create .....	278
neutron vpn-ikepolicy-delete .....	279
neutron vpn-ikepolicy-list .....	279
neutron vpn-ikepolicy-show .....	280
neutron vpn-ikepolicy-update .....	280
neutron vpn-ipsecpolicy-create .....	281
neutron vpn-ipsecpolicy-delete .....	282
neutron vpn-ipsecpolicy-list .....	282
neutron vpn-ipsecpolicy-show .....	282
neutron vpn-ipsecpolicy-update .....	283
neutron vpn-service-create .....	283
neutron vpn-service-delete .....	284
neutron vpn-service-list .....	284
neutron vpn-service-show .....	285

neutron vpn-service-update ..... 285

The **neutron** client is the command-line interface (CLI) for the OpenStack Networking API and its extensions. This chapter documents **neutron** version 2.5.0.

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

```
$ neutron help COMMAND
```

## 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]
```

## neutron optional arguments

<b>-version</b>	show program's version number and exit
<b>-v, --verbose, --debug</b>	Increase verbosity of output and show tracebacks on errors. You can repeat this option.
<b>-q, --quiet</b>	Suppress output except warnings and errors.
<b>-h, --help</b>	Show this help message and exit.
<b>-r NUM, --retries NUM</b>	How many times the request to the Neutron server should be retried if it fails.
<b>--os-service-type &lt;os-service-type&gt;</b>	Defaults to env[OS_NETWORK_SERVICE_TYPE] or network.
<b>--os-endpoint-type &lt;os-endpoint-type&gt;</b>	Defaults to env[OS_ENDPOINT_TYPE] or publicURL.
<b>--service-type &lt;service-type&gt;</b>	<i>DEPRECATED!</i> Use --os-service-type.
<b>--endpoint-type &lt;endpoint-type&gt;</b>	<i>DEPRECATED!</i> Use --os-endpoint-type.

---

<b>-os-auth-strategy &lt;auth-strategy&gt;</b>	<i>DEPRECATED!</i> Only keystone is supported.
<b>-os-auth-url &lt;auth-url&gt;</b>	Authentication URL, defaults to <code>env[OS_AUTH_URL]</code> .
<b>-os-tenant-name &lt;auth-tenant-name&gt;</b>	Authentication tenant name, defaults to <code>env[OS_TENANT_NAME]</code> .
<b>-os-project-name &lt;auth-project-name&gt;</b>	Another way to specify tenant name. This option is mutually exclusive with <code>-os-tenant-name</code> . Defaults to <code>env[OS_PROJECT_NAME]</code> .
<b>-os-tenant-id &lt;auth-tenant-id&gt;</b>	Authentication tenant ID, defaults to <code>env[OS_TENANT_ID]</code> .
<b>-os-project-id &lt;auth-project-id&gt;</b>	Another way to specify tenant ID. This option is mutually exclusive with <code>-os-tenant-id</code> . Defaults to <code>env[OS_PROJECT_ID]</code> .
<b>-os-username &lt;auth-username&gt;</b>	Authentication username, defaults to <code>env[OS_USERNAME]</code> .
<b>-os-user-id &lt;auth-user-id&gt;</b>	Authentication user ID (Env: <code>OS_USER_ID</code> )
<b>-os-user-domain-id &lt;auth-user-domain-id&gt;</b>	OpenStack user domain ID. Defaults to <code>env[OS_USER_DOMAIN_ID]</code> .
<b>-os-user-domain-name &lt;auth-user-domain-name&gt;</b>	OpenStack user domain name. Defaults to <code>env[OS_USER_DOMAIN_NAME]</code> .
<b>-os-project-domain-id &lt;auth-project-domain-id&gt;</b>	Defaults to <code>env[OS_PROJECT_DOMAIN_ID]</code> .
<b>-os-project-domain-name &lt;auth-project-domain-name&gt;</b>	Defaults to <code>env[OS_PROJECT_DOMAIN_NAME]</code> .
<b>-os-cert &lt;certificate&gt;</b>	Path of certificate file to use in SSL connection. This file can optionally be prepended with the private key. Defaults to <code>env[OS_CERT]</code> .
<b>-os-cacert &lt;ca-certificate&gt;</b>	Specify a CA bundle file to use in verifying a TLS (https) server certificate. Defaults to <code>env[OS_CACERT]</code> .
<b>-os-key &lt;key&gt;</b>	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 <code>env[OS_KEY]</code> .
<b>-os-password &lt;auth-password&gt;</b>	Authentication password, defaults to <code>env[OS_PASSWORD]</code> .
<b>-os-region-name &lt;auth-region-name&gt;</b>	Authentication region name, defaults to <code>env[OS_REGION_NAME]</code> .
<b>-os-token &lt;token&gt;</b>	Authentication token, defaults to <code>env[OS_TOKEN]</code> .

---

<b>-http-timeout &lt;seconds&gt;</b>	Timeout in seconds to wait for an HTTP response. Defaults to <code>env[ OS_NETWORK_TIMEOUT ]</code> or None if not specified.
<b>-os-url &lt;url&gt;</b>	Defaults to <code>env[ OS_URL ]</code> .
<b>-insecure</b>	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.

## neutron API v2.0 commands

<b>agent-delete</b>	Delete a given agent.
<b>agent-list</b>	List agents.
<b>agent-show</b>	Show information of a given agent.
<b>agent-update</b>	Updates the admin status and description for a specified agent.
<b>bash-completion</b>	Prints all of the commands and options for bash-completion.
<b>cisco-credential-create</b>	Create a credential.
<b>cisco-credential-delete</b>	Delete a given credential.
<b>cisco-credential-list</b>	List credentials that belong to a given tenant.
<b>cisco-credential-show</b>	Show information of a given credential.
<b>cisco-network-profile-create</b>	Create a network profile.
<b>cisco-network-profile-delete</b>	Delete a given network profile.
<b>cisco-network-profile-list</b>	List network profiles that belong to a given tenant.
<b>cisco-network-profile-show</b>	Show information of a given network profile.
<b>cisco-network-profile-update</b>	Update network profile's information.
<b>cisco-policy-profile-list</b>	List policy profiles that belong to a given tenant.
<b>cisco-policy-profile-show</b>	Show information of a given policy profile.
<b>cisco-policy-profile-update</b>	Update policy profile's information.
<b>dhcp-agent-list-hosting-net</b>	List DHCP agents hosting a network.
<b>dhcp-agent-network-add</b>	Add a network to a DHCP agent.
<b>dhcp-agent-network-remove</b>	Remove a network from a DHCP agent.
<b>ext-list</b>	List all extensions.



---

<b>ext-show</b>	Show information of a given resource.
<b>firewall-create</b>	Create a firewall.
<b>firewall-delete</b>	Delete a given firewall.
<b>firewall-list</b>	List firewalls that belong to a given tenant.
<b>firewall-policy-create</b>	Create a firewall policy.
<b>firewall-policy-delete</b>	Delete a given firewall policy.
<b>firewall-policy-insert-rule</b>	Insert a rule into a given firewall policy.
<b>firewall-policy-list</b>	List firewall policies that belong to a given tenant.
<b>firewall-policy-remove-rule</b>	Remove a rule from a given firewall policy.
<b>firewall-policy-show</b>	Show information of a given firewall policy.
<b>firewall-policy-update</b>	Update a given firewall policy.
<b>firewall-rule-create</b>	Create a firewall rule.
<b>firewall-rule-delete</b>	Delete a given firewall rule.
<b>firewall-rule-list</b>	List firewall rules that belong to a given tenant.
<b>firewall-rule-show</b>	Show information of a given firewall rule.
<b>firewall-rule-update</b>	Update a given firewall rule.
<b>firewall-show</b>	Show information of a given firewall.
<b>firewall-update</b>	Update a given firewall.
<b>floatingip-associate</b>	Create a mapping between a floating IP and a fixed IP.
<b>floatingip-create</b>	Create a floating IP for a given tenant.
<b>floatingip-delete</b>	Delete a given floating IP.
<b>floatingip-disassociate</b>	Remove a mapping from a floating IP to a fixed IP.
<b>floatingip-list</b>	List floating IPs that belong to a given tenant.
<b>floatingip-show</b>	Show information of a given floating IP.
<b>gateway-device-create</b>	Create a network gateway device.
<b>gateway-device-delete</b>	Delete a given network gateway device.
<b>gateway-device-list</b>	List network gateway devices for a given tenant.
<b>gateway-device-show</b>	Show information for a given network gateway device.
<b>gateway-device-update</b>	Update a network gateway device.

---

---

<b>help</b>	print detailed help for another command
<b>ipsec-site-connection-create</b>	Create an IPsec site connection.
<b>ipsec-site-connection-delete</b>	Delete a given IPsec site connection.
<b>ipsec-site-connection-list</b>	List IPsec site connections that belong to a given tenant.
<b>ipsec-site-connection-show</b>	Show information of a given IPsec site connection.
<b>ipsec-site-connection-update</b>	Update a given IPsec site connection.
<b>l3-agent-list-hosting-router</b>	List L3 agents hosting a router.
<b>l3-agent-router-add</b>	Add a router to a L3 agent.
<b>l3-agent-router-remove</b>	Remove a router from a L3 agent.
<b>lb-agent-hosting-pool</b>	Get loadbalancer agent hosting a pool.
<b>lb-healthmonitor-associate</b>	Create a mapping between a health monitor and a pool.
<b>lb-healthmonitor-create</b>	Create a health monitor.
<b>lb-healthmonitor-delete</b>	Delete a given health monitor.
<b>lb-healthmonitor-disassociate</b>	Remove a mapping from a health monitor to a pool.
<b>lb-healthmonitor-list</b>	List health monitors that belong to a given tenant.
<b>lb-healthmonitor-show</b>	Show information of a given health monitor.
<b>lb-healthmonitor-update</b>	Update a given health monitor.
<b>lb-member-create</b>	Create a member.
<b>lb-member-delete</b>	Delete a given member.
<b>lb-member-list</b>	List members that belong to a given tenant.
<b>lb-member-show</b>	Show information of a given member.
<b>lb-member-update</b>	Update a given member.
<b>lb-pool-create</b>	Create a pool.
<b>lb-pool-delete</b>	Delete a given pool.
<b>lb-pool-list</b>	List pools that belong to a given tenant.
<b>lb-pool-list-on-agent</b>	List the pools on a loadbalancer agent.
<b>lb-pool-show</b>	Show information of a given pool.
<b>lb-pool-stats</b>	Retrieve stats for a given pool.

---

---

<b>lb-pool-update</b>	Update a given pool.
<b>lb-vip-create</b>	Create a vip.
<b>lb-vip-delete</b>	Delete a given vip.
<b>lb-vip-list</b>	List vips that belong to a given tenant.
<b>lb-vip-show</b>	Show information of a given vip.
<b>lb-vip-update</b>	Update a given vip.
<b>lbaas-agent-hosting-loadbalancer</b>	Get lbaas v2 agent hosting a loadbalancer.
<b>lbaas-healthmonitor-create</b>	LBaaS v2 Create a healthmonitor.
<b>lbaas-healthmonitor-delete</b>	LBaaS v2 Delete a given healthmonitor.
<b>lbaas-healthmonitor-list</b>	LBaaS v2 List healthmonitors that belong to a given tenant.
<b>lbaas-healthmonitor-show</b>	LBaaS v2 Show information of a given healthmonitor.
<b>lbaas-healthmonitor-update</b>	LBaaS v2 Update a given healthmonitor.
<b>lbaas-listener-create</b>	LBaaS v2 Create a listener.
<b>lbaas-listener-delete</b>	LBaaS v2 Delete a given listener.
<b>lbaas-listener-list</b>	LBaaS v2 List listeners that belong to a given tenant.
<b>lbaas-listener-show</b>	LBaaS v2 Show information of a given listener.
<b>lbaas-listener-update</b>	LBaaS v2 Update a given listener.
<b>lbaas-loadbalancer-create</b>	LBaaS v2 Create a loadbalancer.
<b>lbaas-loadbalancer-delete</b>	LBaaS v2 Delete a given loadbalancer.
<b>lbaas-loadbalancer-list</b>	LBaaS v2 List loadbalancers that belong to a given tenant.
<b>lbaas-loadbalancer-list-on-agent</b>	List the loadbalancers on a loadbalancer v2 agent.
<b>lbaas-loadbalancer-show</b>	LBaaS v2 Show information of a given loadbalancer.
<b>lbaas-loadbalancer-update</b>	LBaaS v2 Update a given loadbalancer.
<b>lbaas-member-create</b>	LBaaS v2 Create a member.
<b>lbaas-member-delete</b>	LBaaS v2 Delete a given member.
<b>lbaas-member-list</b>	LBaaS v2 List members that belong to a given tenant.
<b>lbaas-member-show</b>	LBaaS v2 Show information of a given member.

---

---

<b>lbaas-member-update</b>	LBaaS v2 Update a given member.
<b>lbaas-pool-create</b>	LBaaS v2 Create a pool.
<b>lbaas-pool-delete</b>	LBaaS v2 Delete a given pool.
<b>lbaas-pool-list</b>	LBaaS v2 List pools that belong to a given tenant.
<b>lbaas-pool-show</b>	LBaaS v2 Show information of a given pool.
<b>lbaas-pool-update</b>	LBaaS v2 Update a given pool.
<b>meter-label-create</b>	Create a metering label for a given tenant.
<b>meter-label-delete</b>	Delete a given metering label.
<b>meter-label-list</b>	List metering labels that belong to a given tenant.
<b>meter-label-rule-create</b>	Create a metering label rule for a given label.
<b>meter-label-rule-delete</b>	Delete a given metering label.
<b>meter-label-rule-list</b>	List metering labels that belong to a given label.
<b>meter-label-rule-show</b>	Show information of a given metering label rule.
<b>meter-label-show</b>	Show information of a given metering label.
<b>nec-packet-filter-create</b>	Create a packet filter for a given tenant.
<b>nec-packet-filter-delete</b>	Delete a given packet filter.
<b>nec-packet-filter-list</b>	List packet filters that belong to a given tenant.
<b>nec-packet-filter-show</b>	Show information of a given packet filter.
<b>nec-packet-filter-update</b>	Update packet filter's information.
<b>net-create</b>	Create a network for a given tenant.
<b>net-delete</b>	Delete a given network.
<b>net-external-list</b>	List external networks that belong to a given tenant.
<b>net-gateway-connect</b>	Add an internal network interface to a router.
<b>net-gateway-create</b>	Create a network gateway.
<b>net-gateway-delete</b>	Delete a given network gateway.
<b>net-gateway-disconnect</b>	Remove a network from a network gateway.
<b>net-gateway-list</b>	List network gateways for a given tenant.
<b>net-gateway-show</b>	Show information of a given network gateway.
<b>net-gateway-update</b>	Update the name for a network gateway.

---

<b>net-list</b>	List networks that belong to a given tenant.
<b>net-list-on-dhcp-agent</b>	List the networks on a DHCP agent.
<b>net-show</b>	Show information of a given network.
<b>net-update</b>	Update network's information.
<b>nuage-netpartition-create</b>	Create a netpartition for a given tenant.
<b>nuage-netpartition-delete</b>	Delete a given netpartition.
<b>nuage-netpartition-list</b>	List netpartitions that belong to a given tenant.
<b>nuage-netpartition-show</b>	Show information of a given netpartition.
<b>port-create</b>	Create a port for a given tenant.
<b>port-delete</b>	Delete a given port.
<b>port-list</b>	List ports that belong to a given tenant.
<b>port-show</b>	Show information of a given port.
<b>port-update</b>	Update port's information.
<b>queue-create</b>	Create a queue.
<b>queue-delete</b>	Delete a given queue.
<b>queue-list</b>	List queues that belong to a given tenant.
<b>queue-show</b>	Show information of a given queue.
<b>quota-delete</b>	Delete defined quotas of a given tenant.
<b>quota-list</b>	List quotas of all tenants who have non-default quota values.
<b>quota-show</b>	Show quotas of a given tenant.
<b>quota-update</b>	Define tenant's quotas not to use defaults.
<b>router-create</b>	Create a router for a given tenant.
<b>router-delete</b>	Delete a given router.
<b>router-gateway-clear</b>	Remove an external network gateway from a router.
<b>router-gateway-set</b>	Set the external network gateway for a router.
<b>router-interface-add</b>	Add an internal network interface to a router.
<b>router-interface-delete</b>	Remove an internal network interface from a router.
<b>router-list</b>	List routers that belong to a given tenant.

---

<b>router-list-on-l3-agent</b>	List the routers on a L3 agent.
<b>router-port-list</b>	List ports that belong to a given tenant, with specified router.
<b>router-show</b>	Show information of a given router.
<b>router-update</b>	Update router's information.
<b>security-group-create</b>	Create a security group.
<b>security-group-delete</b>	Delete a given security group.
<b>security-group-list</b>	List security groups that belong to a given tenant.
<b>security-group-rule-create</b>	Create a security group rule.
<b>security-group-rule-delete</b>	Delete a given security group rule.
<b>security-group-rule-list</b>	List security group rules that belong to a given tenant.
<b>security-group-rule-show</b>	Show information of a given security group rule.
<b>security-group-show</b>	Show information of a given security group.
<b>security-group-update</b>	Update a given security group.
<b>service-provider-list</b>	List service providers.
<b>subnet-create</b>	Create a subnet for a given tenant.
<b>subnet-delete</b>	Delete a given subnet.
<b>subnet-list</b>	List subnets that belong to a given tenant.
<b>subnet-show</b>	Show information of a given subnet.
<b>subnet-update</b>	Update subnet's information.
<b>subnetpool-create</b>	Create a subnetpool for a given tenant.
<b>subnetpool-delete</b>	Delete a given subnetpool.
<b>subnetpool-list</b>	List subnetpools that belong to a given tenant.
<b>subnetpool-show</b>	Show information of a given subnetpool.
<b>subnetpool-update</b>	Update subnetpool's information.
<b>vpn-ikepolicy-create</b>	Create an IKE policy.
<b>vpn-ikepolicy-delete</b>	Delete a given IKE policy.
<b>vpn-ikepolicy-list</b>	List IKE policies that belong to a tenant.
<b>vpn-ikepolicy-show</b>	Show information of a given IKE policy.

<b>vpn-ikepolicy-update</b>	Update a given IKE policy.
<b>vpn-ipsecpolicy-create</b>	Create an IPsec policy.
<b>vpn-ipsecpolicy-delete</b>	Delete a given IPsec policy.
<b>vpn-ipsecpolicy-list</b>	List IPsec policies that belong to a given tenant connection.
<b>vpn-ipsecpolicy-show</b>	Show information of a given IPsec policy.
<b>vpn-ipsecpolicy-update</b>	Update a given IPsec policy.
<b>vpn-service-create</b>	Create a VPN service.
<b>vpn-service-delete</b>	Delete a given VPN service.
<b>vpn-service-list</b>	List VPN service configurations that belong to a given tenant.
<b>vpn-service-show</b>	Show information of a given VPN service.
<b>vpn-service-update</b>	Update a given VPN service.

## 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.

## neutron agent-list

```
usage: neutron agent-list [-h] [-f {csv,html,json,table,yaml}] [-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.

<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.
<b>--sort-key FIELD</b>	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.
<b>--sort-dir {asc,desc}</b>	Sorts the list in the specified direction. You can repeat this option.

## neutron agent-show

```
usage: neutron agent-show [-h] [-f {html,json,shell,table,value,yaml}]
                          [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## neutron agent-update

```
usage: neutron agent-update [-h] [--request-format {json,xml}]
                             [--admin-state-down] [--description DESCRIPTION]
                             AGENT
```

Updates the admin status and description for a specified agent.

### Positional arguments

**AGENT** ID of agent to update.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
-------------------	---------------------------------



<b>-request-format {json,xml}</b>	The XML or JSON request format.
<b>-admin-state-down</b>	Set admin state up of the agent to false.
<b>-description DESCRIPTION</b>	Description for the agent.

## neutron cisco-credential-create

```
usage: neutron cisco-credential-create [-h]
                                       [-f {html,json,shell,table,value,yaml}]
                                       [-c COLUMN] [--max-width <integer>]
                                       [--prefix PREFIX]
                                       [--request-format {json,xml}]
                                       [--tenant-id TENANT_ID]
                                       [--username USERNAME]
                                       [--password PASSWORD]
                                       credential_name credential_type
```

Create a credential.

### Positional arguments

<b>credential_name</b>	Name/IP address for credential.
<b>credential_type</b>	Type of the credential.

### Optional arguments

<b>-h, -help</b>	show this help message and exit
<b>-request-format {json,xml}</b>	The XML or JSON request format.
<b>-tenant-id TENANT_ID</b>	The owner tenant ID.
<b>-username USERNAME</b>	Username for the credential.
<b>-password PASSWORD</b>	Password for the credential.

## 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

<b>-h, -help</b>	show this help message and exit
<b>-request-format {json,xml}</b>	The XML or JSON request format.

## neutron cisco-credential-list

```
usage: neutron cisco-credential-list [-h] [-f {csv,html,json,table,yaml}]
                                     [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## neutron cisco-credential-show

```
usage: neutron cisco-credential-show [-h]
                                     [-f {html,json,shell,table,value,yaml}]
                                     [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## neutron cisco-network-profile-create

```
usage: neutron cisco-network-profile-create [-h]
                                     [-f {html,json,shell,table,value,
                                     yaml}]
                                     [-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}

```

Create 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.

## 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**

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## neutron cisco-network-profile-list

```
usage: neutron cisco-network-profile-list [-h] [-f {csv,html,json,table,yaml}]
                                         [-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**

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## neutron cisco-network-profile-show

```
usage: neutron cisco-network-profile-show [-h]
                                         [-f {html,json,shell,table,value,
yaml}]
                                         [-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**

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## 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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--remove-tenant REMOVE_TENANTS</b>	Remove tenant from the network profile. You can repeat this option.
<b>--add-tenant ADD_TENANTS</b>	Add tenant to the network profile. You can repeat this option.

## neutron cisco-policy-profile-list

```
usage: neutron cisco-policy-profile-list [-h] [-f {csv,html,json,table,yaml}]
                                         [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## neutron cisco-policy-profile-show

```
usage: neutron cisco-policy-profile-show [-h]
                                         [-f {html,json,shell,table,value,
yaml}]
                                         [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## 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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## neutron dhcp-agent-list-hosting-net

```
usage: neutron dhcp-agent-list-hosting-net [-h]
[-f {csv,html,json,table,yaml}]
[-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## 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

<b>dhcp_agent</b>	ID of the DHCP agent.
<b>network</b>	Network to add.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## 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

<b>dhcp_agent</b>	ID of the DHCP agent.
<b>network</b>	Network to remove.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## neutron ext-list

```
usage: neutron ext-list [-h] [-f {csv,html,json,table,yaml}] [-c COLUMN]
                        [--max-width <integer>]
```

```
[--quote {all,minimal,none,nonnumeric}]
[--request-format {json,xml}] [-D] [-F FIELD]
```

List all extensions.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## neutron ext-show

```
usage: neutron ext-show [-h] [-f {html,json,shell,table,value,yaml}]
                        [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## neutron firewall-create

```
usage: neutron firewall-create [-h] [-f {html,json,shell,table,value,yaml}]
                               [-c COLUMN] [--max-width <integer>]
                               [--prefix PREFIX] [--request-format {json,xml}]
                               [--tenant-id TENANT_ID] [--name NAME]
                               [--description DESCRIPTION] [--shared]
                               [--admin-state-down] [--router ROUTER]
                               POLICY
```

Create a firewall.

### Positional arguments

**POLICY** Firewall policy name or ID.



### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--tenant-id TENANT_ID</b>	The owner tenant ID.
<b>--name NAME</b>	Name for the firewall.
<b>--description DESCRIPTION</b>	Description for the firewall rule.
<b>--shared</b>	Set shared to True (default is False).
<b>--admin-state-down</b>	Set admin state up to false.
<b>--router ROUTER</b>	Firewall associated router names or IDs (requires FWaaS router insertion extension, this option can be repeated)

## 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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## neutron firewall-list

```
usage: neutron firewall-list [-h] [-f {csv,html,json,table,yaml}] [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.

<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.
<b>-P SIZE, --page-size SIZE</b>	Specify retrieve unit of each request, then split one request to several requests.
<b>--sort-key FIELD</b>	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.
<b>--sort-dir {asc,desc}</b>	Sorts the list in the specified direction. You can repeat this option.

## neutron firewall-policy-create

```
usage: neutron firewall-policy-create [-h]
                                     [-f {html,json,shell,table,value,yaml}]
                                     [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--tenant-id TENANT_ID</b>	The owner tenant ID.
<b>--description DESCRIPTION</b>	Description for the firewall policy.
<b>--shared</b>	Create a shared policy.
<b>--firewall-rules FIREWALL_RULES</b>	Ordered list of whitespace-delimited firewall rule names or IDs; e.g., --firewall-rules "rule1 rule2"
<b>--audited</b>	Sets audited to True.

## 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.

## 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.

## neutron firewall-policy-list

```
usage: neutron firewall-policy-list [-h] [-f {csv,html,json,table,yaml}]
                                     [-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

<b>-request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, -show-details</b>	Show detailed information.
<b>-F FIELD, -field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.
<b>-P SIZE, -page-size SIZE</b>	Specify retrieve unit of each request, then split one request to several requests.
<b>-sort-key FIELD</b>	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.
<b>-sort-dir {asc,desc}</b>	Sorts the list in the specified direction. You can repeat this option.

## 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.

## neutron firewall-policy-show

```
usage: neutron firewall-policy-show [-h]
                                     [-f {html,json,shell,table,value,yaml}]
                                     [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## neutron firewall-policy-update

```
usage: neutron firewall-policy-update [-h] [--request-format {json,xml}]
                                     [--firewall-rules FIREWALL_RULES]
                                     FIREWALL_POLICY
```

Update a given firewall policy.

### Positional arguments

**FIREWALL\_POLICY** ID or name of firewall\_policy to update.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--firewall-rules FIREWALL_RULES</b>	Ordered list of whitespace-delimited firewall rule names or IDs; e.g., --firewall-rules "rule1 rule2"

## neutron firewall-rule-create

```
usage: neutron firewall-rule-create [-h]
                                    [-f {html,json,shell,table,value,yaml}]
                                    [-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
                                    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

<b>-h, --help</b>	show this help message and exit
-------------------	---------------------------------

<b>-request-format {json,xml}</b>	The XML or JSON request format.
<b>-tenant-id TENANT_ID</b>	The owner tenant ID.
<b>-name NAME</b>	Name for the firewall rule.
<b>-description DESCRIPTION</b>	Description for the firewall rule.
<b>-shared</b>	Set shared to True (default is False).
<b>-source-ip-address SOURCE_IP_ADDRESS</b>	Source IP address or subnet.
<b>-destination-ip-address DESTINATION_IP_ADDRESS</b>	Destination IP address or subnet.
<b>-source-port SOURCE_PORT</b>	Source port (integer in [1, 65535] or range in a:b).
<b>-destination-port DESTINATION_PORT</b>	Destination port (integer in [1, 65535] or range in a:b).
<b>-enabled {True,False}</b>	Whether to enable or disable this rule.
<b>-protocol {tcp,udp,icmp,any}</b>	Protocol for the firewall rule.
<b>-action {allow,deny}</b>	Action for the firewall rule.

## 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

<b>-h, -help</b>	show this help message and exit
<b>-request-format {json,xml}</b>	The XML or JSON request format.

## neutron firewall-rule-list

```
usage: neutron firewall-rule-list [-h] [-f {csv,html,json,table,yaml}]
                                  [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.
<b>-P SIZE, --page-size SIZE</b>	Specify retrieve unit of each request, then split one request to several requests.
<b>--sort-key FIELD</b>	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.
<b>--sort-dir {asc,desc}</b>	Sorts the list in the specified direction. You can repeat this option.

## neutron firewall-rule-show

```
usage: neutron firewall-rule-show [-h] [-f {html,json,shell,table,value,yaml}]
                                  [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## 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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--protocol {tcp,udp,icmp,any}</b>	Protocol for the firewall rule.

## neutron firewall-show

```
usage: neutron firewall-show [-h] [-f {html,json,shell,table,value,yaml}]
                             [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## neutron firewall-update

```
usage: neutron firewall-update [-h] [--request-format {json,xml}]
                               [--policy POLICY]
                               [--router ROUTER | --no-routers]
                               FIREWALL
```

Update a given firewall.

### Positional arguments

**FIREWALL** ID or name of firewall to update.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
-------------------	---------------------------------



<b>-request-format {json,xml}</b>	The XML or JSON request format.
<b>-policy POLICY</b>	Firewall policy name or ID.
<b>-router ROUTER</b>	Firewall associated router names or IDs (requires FWaaS router insertion extension, this option can be repeated)
<b>-no-routers</b>	Associate no routers with the firewall (requires FWaaS router insertion extension)

## 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).

## neutron floatingip-create

```
usage: neutron floatingip-create [-h] [-f {html,json,shell,table,value,yaml}]
                                  [-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-ip-address FLOATING_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.

<b>-tenant-id</b> TENANT_ID	The owner tenant ID.
<b>-port-id</b> PORT_ID ID	of the port to be associated with the floating IP.
<b>-fixed-ip-address</b> FIXED_IP_ADDRESS	IP address on the port (only required if port has multiple IPs).
<b>-floating-ip-address</b> FLOATING_IP_ADDRESS	IP address of the floating IP

## 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

<b>-h, -help</b>	show this help message and exit
<b>-request-format</b> {json,xml}	The XML or JSON request format.

## 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

<b>-h, -help</b>	show this help message and exit
<b>-request-format</b> {json,xml}	The XML or JSON request format.

## neutron floatingip-list

```
usage: neutron floatingip-list [-h] [-f {csv,html,json,table,yaml}]  
                                [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.
<b>-P SIZE, --page-size SIZE</b>	Specify retrieve unit of each request, then split one request to several requests.
<b>--sort-key FIELD</b>	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.
<b>--sort-dir {asc,desc}</b>	Sorts the list in the specified direction. You can repeat this option.

## neutron floatingip-show

```
usage: neutron floatingip-show [-h] [-f {html,json,shell,table,value,yaml}]
                               [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## neutron gateway-device-create

```
usage: neutron gateway-device-create [-h]
                                      [-f {html,json,shell,table,value,yaml}]
                                      [-c COLUMN] [--max-width <integer>]
                                      [--prefix PREFIX]
```

```

[--request-format {json,xml}]
[--tenant-id TENANT_ID]
[--connector-type {stt,gre,ipsecre,
ipsecrestt,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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--tenant-id TENANT_ID</b>	The owner tenant ID.
<b>--connector-type {stt,gre,ipsecre,ipsecrestt,bridge}</b>	Type of the transport zone connector to use for this device. Valid values are gre, stt, ipsecre, ipsecrestt, and bridge. Defaults to stt.
<b>--connector-ip CONNECTOR_IP</b>	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.
<b>--client-certificate CERT_DATA</b>	PEM certificate used by the NSX gateway transport node to authenticate with the NSX controller.
<b>--client-certificate-file CERT_FILE</b>	File containing the PEM certificate used by the NSX gateway transport node to authenticate with the NSX controller.

## 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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## neutron gateway-device-list

```
usage: neutron gateway-device-list [-h] [-f {csv,html,json,table,yaml}]
                                   [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## neutron gateway-device-show

```
usage: neutron gateway-device-show [-h]
                                   [-f {html,json,shell,table,value,yaml}]
                                   [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## neutron gateway-device-update

```
usage: neutron gateway-device-update [-h] [--request-format {json,xml}]
                                     [--name NAME]
                                     [--connector-type {stt,gre,ipsecre,
                                     ipsecstt,bridge}]
```

```

client-certificate-file CERT_FILE]
                                [--connector-ip CONNECTOR_IP]
                                [--client-certificate CERT_DATA | --
                                GATEWAY_DEVICE

```

Update a network gateway device.

## Positional arguments

**GATEWAY\_DEVICE** ID or name of gateway\_device to update.

## Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--name NAME</b>	New name for network gateway device.
<b>--connector-type {stt,gre,ipsecgre,ipsecestt,bridge}</b>	Type of the transport zone connector to use for this device. Valid values are gre, stt, ipsecgre, ipsecestt, and bridge. Defaults to stt.
<b>--connector-ip CONNECTOR_IP</b>	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.
<b>--client-certificate CERT_DATA</b>	PEM certificate used by the NSX gateway transport node to authenticate with the NSX controller.
<b>--client-certificate-file CERT_FILE</b>	File containing the PEM certificate used by the NSX gateway transport node to authenticate with the NSX controller.

# neutron ipsec-site-connection-create

```

usage: neutron ipsec-site-connection-create [-h]
                                           [-f {html,json,shell,table,value,
yaml}]
                                           [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--tenant-id TENANT_ID</b>	The owner tenant ID.
<b>--admin-state-down</b>	Set admin state up to false.
<b>--name NAME</b>	Set friendly name for the connection.
<b>--description DESCRIPTION</b>	Set a description for the connection.
<b>--mtu MTU MTU</b>	size for the connection, default:1500
<b>--initiator {bi-directional,response-only}</b>	Initiator state in lowercase, default:bi-directional
<b>--dpd</b>	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.
<b>--vpnservice-id VPNSERVICE</b>	VPN service instance ID associated with this connection.
<b>--ikepolicy-id IKEPOLICY</b>	IKE policy ID associated with this connection.
<b>--ipsecpolicy-id IPSECPOLICY</b>	IPsec policy ID associated with this connection.
<b>--peer-address PEER_ADDRESS</b>	Peer gateway public IPv4/IPv6 address or FQDN.
<b>--peer-id PEER_ID</b>	Peer router identity for authentication. Can be IPv4/IPv6 address, e-mail address, key id, or FQDN.
<b>--peer-cidr PEER_CIDRS</b>	Remote subnet(s) in CIDR format.
<b>--psk PSK</b>	Pre-shared key string.

## 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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## neutron ipsec-site-connection-list

```
usage: neutron ipsec-site-connection-list [-h] [-f {csv,html,json,table,yaml}]
                                         [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.
<b>-P SIZE, --page-size SIZE</b>	Specify retrieve unit of each request, then split one request to several requests.
<b>--sort-key FIELD</b>	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.
<b>--sort-dir {asc,desc}</b>	Sorts the list in the specified direction. You can repeat this option.

## neutron ipsec-site-connection-show

```
usage: neutron ipsec-site-connection-show [-h]
                                         [-f {html,json,shell,table,value,
yaml}]
                                         [-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.

## 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  
Ipssec 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.

## neutron l3-agent-list-hosting-router

```
usage: neutron l3-agent-list-hosting-router [-h]
                                           [-f {csv,html,json,table,yaml}]
                                           [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## 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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## 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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## neutron lb-agent-hosting-pool

```
usage: neutron lb-agent-hosting-pool [-h] [-f {csv,html,json,table,yaml}]
                                     [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## 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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## neutron lb-healthmonitor-create

```
usage: neutron lb-healthmonitor-create [-h]
                                         [-f {html,json,shell,table,value,yaml}]
                                         [-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 health monitor.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--tenant-id TENANT_ID</b>	The owner tenant ID.
<b>--admin-state-down</b>	Set admin state up to false.
<b>--expected-codes EXPECTED_CODES</b>	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".
<b>--http-method HTTP_METHOD</b>	The HTTP method used for requests by the monitor of type HTTP.
<b>--url-path URL_PATH</b>	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).
<b>--delay DELAY</b>	The time in seconds between sending probes to members.
<b>--max-retries MAX_RETRIES</b>	Number of permissible connection failures before changing the member status to INACTIVE. [1..10]
<b>--timeout TIMEOUT</b>	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.
<b>--type {PING,TCP,HTTP,HTTPS}</b>	One of the predefined health monitor types.

## neutron lb-healthmonitor-delete

```
usage: neutron lb-healthmonitor-delete [-h] [--request-format {json,xml}]
HEALTH_MONITOR
```

Delete a given health monitor.

### Positional arguments

**HEALTH\_MONITOR** ID of health\_monitor to delete.

**Optional arguments**

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## 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**

<b>HEALTH_MONITOR_ID</b>	Health monitor to associate.
<b>POOL</b>	ID of the pool to be associated with the health monitor.

**Optional arguments**

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## neutron lb-healthmonitor-list

```
usage: neutron lb-healthmonitor-list [-h] [-f {csv,html,json,table,yaml}]
                                     [-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 health monitors that belong to a given tenant.

**Optional arguments**

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.
<b>-P SIZE, --page-size SIZE</b>	Specify retrieve unit of each request, then split one request to several requests.
<b>--sort-key FIELD</b>	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.

## neutron lb-healthmonitor-show

```
usage: neutron lb-healthmonitor-show [-h]
                                     [-f {html,json,shell,table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--prefix PREFIX]
                                     [--request-format {json,xml}] [-D]
                                     [-F FIELD]
                                     HEALTH_MONITOR
```

Show information of a given health monitor.

### Positional arguments

**HEALTH\_MONITOR** ID of health\_monitor to look up.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## neutron lb-healthmonitor-update

```
usage: neutron lb-healthmonitor-update [-h] [--request-format {json,xml}]
                                         HEALTH_MONITOR
```

Update a given health monitor.

### Positional arguments

**HEALTH\_MONITOR** ID of health\_monitor to update.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## neutron lb-member-create

```
usage: neutron lb-member-create [-h] [-f {html,json,shell,table,value,yaml}]
                                [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--tenant-id TENANT_ID</b>	The owner tenant ID.
<b>--admin-state-down</b>	Set admin state up to false.
<b>--weight WEIGHT</b>	Weight of pool member in the pool (default:1, [0..256]).
<b>--address ADDRESS IP</b>	address of the pool member on the pool network.
<b>--protocol-port PROTOCOL_PORT</b>	Port on which the pool member listens for requests or connections.

## 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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## neutron lb-member-list

```
usage: neutron lb-member-list [-h] [-f {csv,html,json,table,yaml}] [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.
<b>-P SIZE, --page-size SIZE</b>	Specify retrieve unit of each request, then split one request to several requests.
<b>--sort-key FIELD</b>	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.
<b>--sort-dir {asc,desc}</b>	Sorts the list in the specified direction. You can repeat this option.

## neutron lb-member-show

```
usage: neutron lb-member-show [-h] [-f {html,json,shell,table,value,yaml}]
                             [-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 of member to look up.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## 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.

## neutron lb-pool-create

```
usage: neutron lb-pool-create [-h] [-f {html,json,shell,table,value,yaml}]
                             [-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.

## 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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## neutron lb-pool-list

```
usage: neutron lb-pool-list [-h] [-f {csv,html,json,table,yaml}] [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.
<b>-P SIZE, --page-size SIZE</b>	Specify retrieve unit of each request, then split one request to several requests.
<b>--sort-key FIELD</b>	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.
<b>--sort-dir {asc,desc}</b>	Sorts the list in the specified direction. You can repeat this option.

## neutron lb-pool-list-on-agent

```
usage: neutron lb-pool-list-on-agent [-h] [-f {csv,html,json,table,yaml}]
                                       [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## neutron lb-pool-show

```
usage: neutron lb-pool-show [-h] [-f {html,json,shell,table,value,yaml}]
                             [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## neutron lb-pool-stats

```
usage: neutron lb-pool-stats [-h] [-f {html,json,shell,table,value,yaml}]
                              [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## 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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## neutron lb-vip-create

```
usage: neutron lb-vip-create [-h] [-f {html,json,shell,table,value,yaml}]
                             [-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

<b>-h, --help</b>	show this help message and exit
-------------------	---------------------------------

<b>-request-format {json,xml}</b>	The XML or JSON request format.
<b>-tenant-id TENANT_ID</b>	The owner tenant ID.
<b>-address ADDRESS IP</b>	address of the vip.
<b>-admin-state-down</b>	Set admin state up to false.
<b>-connection-limit CONNECTION_LIMIT</b>	The maximum number of connections per second allowed for the vip. Positive integer or -1 for unlimited (default).
<b>-description DESCRIPTION</b>	Description of the vip.
<b>-name NAME</b>	Name of the vip.
<b>-protocol-port PROTOCOL_PORT</b>	TCP port on which to listen for client traffic that is associated with the vip address.
<b>-protocol {TCP,HTTP,HTTPS}</b>	Protocol for balancing.
<b>-subnet-id SUBNET</b>	The subnet on which to allocate the vip address.

## 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

<b>-h, -help</b>	show this help message and exit
<b>-request-format {json,xml}</b>	The XML or JSON request format.

## neutron lb-vip-list

```
usage: neutron lb-vip-list [-h] [-f {csv,html,json,table,yaml}] [-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

<b>-h, -help</b>	show this help message and exit
------------------	---------------------------------

<b>-request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.
<b>-P SIZE, --page-size SIZE</b>	Specify retrieve unit of each request, then split one request to several requests.
<b>--sort-key FIELD</b>	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.
<b>--sort-dir {asc,desc}</b>	Sorts the list in the specified direction. You can repeat this option.

## neutron lb-vip-show

```
usage: neutron lb-vip-show [-h] [-f {html,json,shell,table,value,yaml}]
                           [-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

<b>-h, --help</b>	show this help message and exit
<b>-request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## 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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## neutron lbaas-agent-hosting-loadbalancer

```
usage: neutron lbaas-agent-hosting-loadbalancer [-h]
                                                [-f {csv,html,json,table,
yaml}]
                                                [-c COLUMN]
                                                [--max-width <integer>]
                                                [--quote {all,minimal,none,
nonnumeric}]
                                                [--request-format {json,xml}]
                                                [-D] [-F FIELD]
loadbalancer
```

Get lbaas v2 agent hosting a loadbalancer. Deriving from ListCommand though server will return only one agent to keep common output format for all agent schedulers

### Positional arguments

**loadbalancer** LoadBalancer to query.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## neutron lbaas-healthmonitor-create

```
usage: neutron lbaas-healthmonitor-create [-h]
                                           [-f {html,json,shell,table,value,
yaml}]
                                           [-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}
                                           --pool POOL
```

LBaaS v2 Create a healthmonitor.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--tenant-id TENANT_ID</b>	The owner tenant ID.
<b>--admin-state-down</b>	Set admin state up to false.
<b>--expected-codes EXPECTED_CODES</b>	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".
<b>--http-method HTTP_METHOD</b>	The HTTP method used for requests by the monitor of type HTTP.
<b>--url-path URL_PATH</b>	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).
<b>--delay DELAY</b>	The time in seconds between sending probes to members.
<b>--max-retries MAX_RETRIES</b>	Number of permissible connection failures before changing the member status to INACTIVE. [1..10].
<b>--timeout TIMEOUT</b>	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.
<b>--type {PING,TCP,HTTP,HTTPS}</b>	One of the predefined health monitor types.
<b>--pool POOL ID</b>	or name of the pool that this healthmonitor will monitor.

## neutron lbaas-healthmonitor-delete

```
usage: neutron lbaas-healthmonitor-delete [-h] [--request-format {json,xml}]
                                           HEALTHMONITOR
```

LBaaS v2 Delete a given healthmonitor.

### Positional arguments

**HEALTHMONITOR** ID or name of healthmonitor to delete.

### Optional arguments

**-h, --help** show this help message and exit



**-request-format {json,xml}**      The XML or JSON request format.

## neutron lbaas-healthmonitor-list

```
usage: neutron lbaas-healthmonitor-list [-h] [-f {csv,html,json,table,yaml}]
                                         [-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}]
```

LBaaS v2 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.

## neutron lbaas-healthmonitor-show

```
usage: neutron lbaas-healthmonitor-show [-h]
                                         [-f {html,json,shell,table,value,
yaml}]
                                         [-c COLUMN] [--max-width <integer>]
                                         [--prefix PREFIX]
                                         [--request-format {json,xml}] [-D]
                                         [-F FIELD]
                                         HEALTHMONITOR
```

LBaaS v2 Show information of a given healthmonitor.

### Positional arguments

**HEALTHMONITOR**      ID or name of healthmonitor to look up.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## neutron lbaas-healthmonitor-update

```
usage: neutron lbaas-healthmonitor-update [-h] [--request-format {json,xml}]
                                           HEALTHMONITOR
```

LBaaS v2 Update a given healthmonitor.

### Positional arguments

**HEALTHMONITOR** ID of healthmonitor to update.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## neutron lbaas-listener-create

```
usage: neutron lbaas-listener-create [-h]
                                     [-f {html,json,shell,table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--prefix PREFIX]
                                     [--request-format {json,xml}]
                                     [--tenant-id TENANT_ID]
                                     [--admin-state-down]
                                     [--connection-limit CONNECTION_LIMIT]
                                     [--description DESCRIPTION] [--name NAME]
                                     [--default-tls-container-id
                                     DEFAULT_TLS_CONTAINER_ID]
                                     [--sni-container-ids SNI_CONTAINER_IDS
                                     [SNI_CONTAINER_IDS ...]]
                                     --loadbalancer LOADBALANCER --protocol
                                     {TCP,HTTP,HTTPS,TERMINATED_HTTPS}
                                     --protocol-port PORT
```

LBaaS v2 Create a listener.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

<b>-tenant-id TENANT_ID</b>	The owner tenant ID.
<b>-admin-state-down</b>	Set admin state up to false.
<b>-connection-limit CONNECTION_LIMIT</b>	The maximum number of connections per second allowed for the vip. Positive integer or -1 for unlimited (default).
<b>-description DESCRIPTION</b>	Description of the listener.
<b>-name NAME</b>	The name of the listener.
<b>-default-tls-container-id DEFAULT_TLS_CONTAINER_ID</b>	Default TLS container ID to retrieve TLS information.
<b>-sni-container-ids SNI_CONTAINER_IDS [SNI_CONTAINER_IDS ...]</b>	List of TLS container IDs for SNI.
<b>-loadbalancer LOADBALANCER</b>	ID or name of the load balancer.
<b>-protocol {TCP,HTTP,HTTPS,TERMINATED_HTTPS}</b>	Protocol for the listener.
<b>-protocol-port PORT</b>	Protocol port for the listener.

## neutron lbaas-listener-delete

```
usage: neutron lbaas-listener-delete [-h] [--request-format {json,xml}]
                                     LISTENER
```

LBaaS v2 Delete a given listener.

### Positional arguments

**LISTENER** ID or name of listener to delete.

### Optional arguments

**-h, -help** show this help message and exit

**-request-format {json,xml}** The XML or JSON request format.

## neutron lbaas-listener-list

```
usage: neutron lbaas-listener-list [-h] [-f {csv,html,json,table,yaml}]
                                   [-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}]
```

LBaaS v2 List listeners that belong to a given tenant.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.
<b>-P SIZE, --page-size SIZE</b>	Specify retrieve unit of each request, then split one request to several requests.
<b>--sort-key FIELD</b>	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.
<b>--sort-dir {asc,desc}</b>	Sorts the list in the specified direction. You can repeat this option.

## neutron lbaas-listener-show

```
usage: neutron lbaas-listener-show [-h]
                                   [-f {html,json,shell,table,value,yaml}]
                                   [-c COLUMN] [--max-width <integer>]
                                   [--prefix PREFIX]
                                   [--request-format {json,xml}] [-D]
                                   [-F FIELD]
                                   LISTENER
```

LBaaS v2 Show information of a given listener.

### Positional arguments

**LISTENER** ID or name of listener to look up.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## neutron lbaas-listener-update

```
usage: neutron lbaas-listener-update [-h] [--request-format {json,xml}]
                                      LISTENER
```

LBaaS v2 Update a given listener.

### Positional arguments

**LISTENER** ID of listener to update.

### Optional arguments

**-h, --help** show this help message and exit

**--request-format {json,xml}** The XML or JSON request format.

## neutron lbaas-loadbalancer-create

```
usage: neutron lbaas-loadbalancer-create [-h]
                                         [-f {html,json,shell,table,value,
                                         yaml}]
                                         [-c COLUMN] [--max-width <integer>]
                                         [--prefix PREFIX]
                                         [--request-format {json,xml}]
                                         [--tenant-id TENANT_ID]
                                         [--description DESCRIPTION]
                                         [--admin-state-down] [--name NAME]
                                         [--provider PROVIDER]
                                         [--vip-address VIP_ADDRESS]
                                         VIP_SUBNET
```

LBaaS v2 Create a loadbalancer.

### Positional arguments

**VIP\_SUBNET** Load balancer VIP subnet.

### 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 load balancer.

**--admin-state-down** Set admin state up to false.

**--name NAME** Name of the load balancer.

**--provider PROVIDER** Provider name of load balancer service.

**--vip-address VIP\_ADDRESS** VIP address for the load balancer.

## neutron lbaas-loadbalancer-delete

```
usage: neutron lbaas-loadbalancer-delete [-h] [--request-format {json,xml}]
                                         LOADBALANCER
```

LBaaS v2 Delete a given loadbalancer.

### Positional arguments

**LOADBAL-  
ANCER** ID or name of loadbalancer to delete.

### Optional arguments

**-h, --help** show this help message and exit

**--request-format {json,xml}** The XML or JSON request format.

## neutron lbaas-loadbalancer-list

```
usage: neutron lbaas-loadbalancer-list [-h] [-f {csv,html,json,table,yaml}]
                                         [-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}]
```

LBaaS v2 List loadbalancers 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.

## neutron lbaas-loadbalancer-list-on-agent

```
usage: neutron lbaas-loadbalancer-list-on-agent [-h]
                                                  [-f {csv,html,json,table,
yaml}]
                                                  [-c COLUMN]
                                                  [--max-width <integer>]
```

```

nonnumeric}}
                                [--quote {all,minimal,none,
                                [--request-format {json,xml}}]
                                [-D] [-F FIELD]
                                lbaas_agent

```

List the loadbalancers on a loadbalancer v2 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.

## neutron lbaas-loadbalancer-show

```

usage: neutron lbaas-loadbalancer-show [-h]
                                         [-f {html,json,shell,table,value,yaml}]
                                         [-c COLUMN] [--max-width <integer>]
                                         [--prefix PREFIX]
                                         [--request-format {json,xml}] [-D]
                                         [-F FIELD]
                                         LOADBALANCER

```

LBaaS v2 Show information of a given loadbalancer.

### Positional arguments

**LOADBAL- ID or name of loadbalancer to look up.**  
**ANCER**

### 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.

## neutron lbaas-loadbalancer-update

```

usage: neutron lbaas-loadbalancer-update [-h] [--request-format {json,xml}]
                                         LOADBALANCER

```

LBaaS v2 Update a given loadbalancer.

### Positional arguments

**LOADBAL-  
ANCER** ID or name of loadbalancer to update.

### Optional arguments

**-h, --help** show this help message and exit

**--request-format {json,xml}** The XML or JSON request format.

## neutron lbaas-member-create

```
usage: neutron lbaas-member-create [-h]
                                   [-f {html,json,shell,table,value,yaml}]
                                   [-c COLUMN] [--max-width <integer>]
                                   [--prefix PREFIX]
                                   [--request-format {json,xml}]
                                   [--tenant-id TENANT_ID]
                                   [--admin-state-down] [--weight WEIGHT]
                                   --subnet SUBNET --address ADDRESS
                                   --protocol-port PROTOCOL_PORT
                                   POOL
```

LBaaS v2 Create a member.

### Positional arguments

**POOL** ID or name of the pool that this member 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 member in the pool (default:1, [0..256]).

**--subnet SUBNET** Subnet ID or name for the member.

**--address ADDRESS IP** address of the pool member in the pool.

**--protocol-port  
PROTOCOL\_PORT** Port on which the pool member listens for requests or connections.

## neutron lbaas-member-delete

```
usage: neutron lbaas-member-delete [-h] [--request-format {json,xml}]
```



## MEMBER POOL

LBaaS v2 Delete a given member.

### Positional arguments

**MEM-  
BER** ID or name of member to delete.

**POOL** ID or name of the pool that this member belongs to.

### Optional arguments

**-h, --help** show this help message and exit

**--request-format {json,xml}** The XML or JSON request format.

## neutron lbaas-member-list

```
usage: neutron lbaas-member-list [-h] [-f {csv,html,json,table,yaml}]
                                  [-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}]
                                  POOL
```

LBaaS v2 List members that belong to a given tenant.

### Positional arguments

**POOL** ID or name of the pool that this member belongs to.

### 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.

## neutron lbaas-member-show

```
usage: neutron lbaas-member-show [-h] [-f {html,json,shell,table,value,yaml}]
                                  [-c COLUMN] [--max-width <integer>]
                                  [--prefix PREFIX]
                                  [--request-format {json,xml}] [-D] [-F FIELD]
                                  MEMBER POOL
```

LBaaS v2 Show information of a given member.

### Positional arguments

**MEM-BER** ID or name of member to look up.

**POOL** ID or name of the pool that this member belongs to.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## neutron lbaas-member-update

```
usage: neutron lbaas-member-update [-h] [--request-format {json,xml}]
                                     [--admin-state-down] [--weight WEIGHT]
                                     MEMBER POOL
```

LBaaS v2 Update a given member.

### Positional arguments

**MEM-BER** ID or name of member to update.

**POOL** ID or name of the pool that this member belongs to

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--admin-state-down</b>	Set admin state up to false
<b>--weight WEIGHT</b>	Weight of member in the pool (default:1, [0..256])

## neutron lbaas-pool-create

```
usage: neutron lbaas-pool-create [-h] [-f {html,json,shell,table,value,yaml}]
                                  [-c COLUMN] [--max-width <integer>]
                                  [--prefix PREFIX]
                                  [--request-format {json,xml}]
                                  [--tenant-id TENANT_ID] [--admin-state-down]
                                  [--description DESCRIPTION]
                                  [--session-persistence type=TYPE[,
cookie_name=COOKIE_NAME]]
                                  [--name NAME] --lb-algorithm
                                  {ROUND_ROBIN,LEAST_CONNECTIONS,SOURCE_IP}
                                  --listener LISTENER --protocol
                                  {HTTP,HTTPS,TCP}
```

LBaaS v2 Create a pool.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--tenant-id TENANT_ID</b>	The owner tenant ID.
<b>--admin-state-down</b>	Set admin state up to false.
<b>--description DESCRIPTION</b>	Description of the pool.
<b>--session-persistence</b>	type=TYPE[,cookie_name=COOKIE_NAME] The type of session persistence to use and associated cookie name
<b>--name NAME</b>	The name of the pool.
<b>--lb-algorithm {ROUND_ROBIN,LEAST_CONNECTIONS,SOURCE_IP}</b>	The algorithm used to distribute load between the members of the pool.
<b>--listener LISTENER</b>	The listener to associate with the pool
<b>--protocol {HTTP,HTTPS,TCP}</b>	Protocol for balancing.

## neutron lbaas-pool-delete

```
usage: neutron lbaas-pool-delete [-h] [--request-format {json,xml}] POOL
```

LBaaS v2 Delete a given pool.

### Positional arguments

**POOL** ID or name of pool to delete.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
-------------------	---------------------------------

**-request-format {json,xml}** The XML or JSON request format.

## neutron lbaas-pool-list

```
usage: neutron lbaas-pool-list [-h] [-f {csv,html,json,table,yaml}]
                               [-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}]
```

LBaaS v2 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.

## neutron lbaas-pool-show

```
usage: neutron lbaas-pool-show [-h] [-f {html,json,shell,table,value,yaml}]
                               [-c COLUMN] [--max-width <integer>]
                               [--prefix PREFIX] [--request-format {json,xml}]
                               [-D] [-F FIELD]
                               POOL
```

LBaaS v2 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

<b>-request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## neutron lbaas-pool-update

```
usage: neutron lbaas-pool-update [-h] [--request-format {json,xml}] POOL
```

LBaaS v2 Update a given pool.

### Positional arguments

**POOL** ID or name of pool to update.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>-request-format {json,xml}</b>	The XML or JSON request format.

## neutron meter-label-create

```
usage: neutron meter-label-create [-h] [-f {html,json,shell,table,value,yaml}]
                                  [-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

<b>-h, --help</b>	show this help message and exit
<b>-request-format {json,xml}</b>	The XML or JSON request format.
<b>--tenant-id TENANT_ID</b>	The owner tenant ID.
<b>--description DESCRIPTION</b>	Description of metering label to create.
<b>--shared</b>	Set the label as shared.

## 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.

## neutron meter-label-list

```
usage: neutron meter-label-list [-h] [-f {csv,html,json,table,yaml}]
                                [-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.

## neutron meter-label-rule-create

```
usage: neutron meter-label-rule-create [-h]
                                         [-f {html,json,shell,table,value,yaml}]
                                         [-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.

## 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.

## neutron meter-label-rule-list

```

usage: neutron meter-label-rule-list [-h] [-f {csv,html,json,table,yaml}]
                                       [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.
<b>-P SIZE, --page-size SIZE</b>	Specify retrieve unit of each request, then split one request to several requests.
<b>--sort-key FIELD</b>	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.
<b>--sort-dir {asc,desc}</b>	Sorts the list in the specified direction. You can repeat this option.

## neutron meter-label-rule-show

```
usage: neutron meter-label-rule-show [-h]
                                     [-f {html,json,shell,table,value,yaml}]
                                     [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## neutron meter-label-show

```
usage: neutron meter-label-show [-h] [-f {html,json,shell,table,value,yaml}]
```



```
[-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## neutron nec-packet-filter-create

```
usage: neutron nec-packet-filter-create [-h]
                                         [-f {html,json,shell,table,value,
yaml}]
                                         [-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

**NET-WORK** network to which this packet filter is applied

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

<b>-tenant-id TENANT_ID</b>	The owner tenant ID.
<b>-admin-state-down</b>	Set Admin State Up to false
<b>-name NAME</b>	Name of this packet filter
<b>-in-port PORT</b>	Name or ID of the input port
<b>-src-mac SRC_MAC</b>	Source MAC address
<b>-dst-mac DST_MAC</b>	Destination MAC address
<b>-eth-type ETH_TYPE</b>	Ether Type. Integer [0:65535] (hex or decimal). E.g., 0x0800 (IPv4), 0x0806 (ARP), 0x86DD (IPv6)
<b>-protocol PROTOCOL IP</b>	Protocol. Protocol name or integer. Recognized names are icmp, tcp, udp, arp (case insensitive). Integer should be [0:255] (decimal or hex).
<b>-src-cidr SRC_CIDR</b>	Source IP address CIDR
<b>-dst-cidr DST_CIDR</b>	Destination IP address CIDR
<b>-src-port SRC_PORT</b>	Source port address
<b>-dst-port DST_PORT</b>	Destination port address
<b>-priority PRIORITY</b>	Priority of the filter. Integer of [0:65535]. Default: 30000.
<b>-action {allow,drop}</b>	Action of the filter. Default: allow

## 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.

## neutron nec-packet-filter-list

```
usage: neutron nec-packet-filter-list [-h] [-f {csv,html,json,table,yaml}]
                                       [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.
<b>-P SIZE, --page-size SIZE</b>	Specify retrieve unit of each request, then split one request to several requests.
<b>--sort-key FIELD</b>	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.
<b>--sort-dir {asc,desc}</b>	Sorts the list in the specified direction. You can repeat this option.

## neutron nec-packet-filter-show

```

usage: neutron nec-packet-filter-show [-h]
                                     [-f {html,json,shell,table,value,yaml}]
                                     [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## 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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--admin-state {True,False}</b>	Set a value of Admin State Up
<b>--name NAME</b>	Name of this packet filter
<b>--src-mac SRC_MAC</b>	Source MAC address
<b>--dst-mac DST_MAC</b>	Destination MAC address
<b>--eth-type ETH_TYPE</b>	Ether Type. Integer [0:65535] (hex or decimal). E.g., 0x0800 (IPv4), 0x0806 (ARP), 0x86DD (IPv6)
<b>--protocol PROTOCOL IP</b>	Protocol. Protocol name or integer. Recognized names are icmp, tcp, udp, arp (case insensitive). Integer should be [0:255] (decimal or hex).
<b>--src-cidr SRC_CIDR</b>	Source IP address CIDR
<b>--dst-cidr DST_CIDR</b>	Destination IP address CIDR
<b>--src-port SRC_PORT</b>	Source port address
<b>--dst-port DST_PORT</b>	Destination port address
<b>--priority PRIORITY</b>	Priority of the filter. Integer of [0:65535].
<b>--action {allow,drop}</b>	Action of the filter.

## neutron net-create

```
usage: neutron net-create [-h] [-f {html,json,shell,table,value,yaml}]
                        [-c COLUMN] [--max-width <integer>]
                        [--prefix PREFIX] [--request-format {json,xml}]
                        [--tenant-id TENANT_ID] [--admin-state-down]
                        [--shared] [--router:external]
                        [--provider:network_type <network_type>]
                        [--provider:physical_network
<physical_network_name>]
                        [--provider:segmentation_id <segmentation_id>]
                        [--vlan-transparent {True,False}]
                        NAME
```

Create a network for a given tenant.

### Positional arguments

**NAME** Name of network to create.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--tenant-id TENANT_ID</b>	The owner tenant ID.
<b>--admin-state-down</b>	Set admin state up to false.
<b>--shared</b>	Set the network as shared.
<b>--router:external</b>	Set network as external, it is only available for admin
<b>--provider:network_type &lt;network_type&gt;</b>	The physical mechanism by which the virtual network is implemented.
<b>--provider:physical_network &lt;physical_network_name&gt;</b>	Name of the physical network over which the virtual network is implemented.
<b>--provider:segmentation_id &lt;segmentation_id&gt;</b>	VLAN ID for VLAN networks or tunnel-id for GRE/VXLAN networks.
<b>--vlan-transparent {True,False}</b>	Create a vlan transparent network.

## neutron net-delete

```
usage: neutron net-delete [-h] [--request-format {json,xml}] NETWORK
```

Delete a given network.

### Positional arguments

**NET-  
WORK** ID or name of network to delete.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## neutron net-external-list

```
usage: neutron net-external-list [-h] [-f {csv,html,json,table,yaml}]
                                [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.
<b>-P SIZE, --page-size SIZE</b>	Specify retrieve unit of each request, then split one request to several requests.
<b>--sort-key FIELD</b>	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.
<b>--sort-dir {asc,desc}</b>	Sorts the list in the specified direction. You can repeat this option.

## 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

<b>NET-GATEWAY-ID</b>	ID of the network gateway.
<b>NETWORK-ID</b>	ID of the internal network to connect on the gateway.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--segmentation-type SEGMENTATION_TYPE</b>	L2 segmentation strategy on the external side of the gateway (e.g.: VLAN, FLAT).
<b>--segmentation-id SEGMENTATION_ID</b>	Identifier for the L2 segment on the external side of the gateway.

## neutron net-gateway-create

```
usage: neutron net-gateway-create [-h] [-f {html,json,shell,table,value,yaml}]
                                  [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--tenant-id TENANT_ID</b>	The owner tenant ID.
<b>--device</b>	id=ID,interface_name=NAME_OR_ID Device info for this gateway. You can repeat this option for multiple devices for HA gateways.

## 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

<b>-h, --help</b>	show this help message and exit
-------------------	---------------------------------

**-request-format {json,xml}**      The XML or JSON request format.

## 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.

## neutron net-gateway-list

```
usage: neutron net-gateway-list [-h] [-f {csv,html,json,table,yaml}]
                                [-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.

## neutron net-gateway-show

```
usage: neutron net-gateway-show [-h] [-f {html,json,shell,table,value,yaml}]
                                [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## 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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## neutron net-list

```
usage: neutron net-list [-h] [-f {csv,html,json,table,yaml}] [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.

<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.
<b>-P SIZE, --page-size SIZE</b>	Specify retrieve unit of each request, then split one request to several requests.
<b>--sort-key FIELD</b>	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.
<b>--sort-dir {asc,desc}</b>	Sorts the list in the specified direction. You can repeat this option.

## neutron net-list-on-dhcp-agent

```
usage: neutron net-list-on-dhcp-agent [-h] [-f {csv,html,json,table,yaml}]
                                     [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.
<b>-P SIZE, --page-size SIZE</b>	Specify retrieve unit of each request, then split one request to several requests.
<b>--sort-key FIELD</b>	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.
<b>--sort-dir {asc,desc}</b>	Sorts the list in the specified direction. You can repeat this option.

## neutron net-show

```
usage: neutron net-show [-h] [-f {html,json,shell,table,value,yaml}]
                        [-c COLUMN] [--max-width <integer>] [--prefix PREFIX]
                        [--request-format {json,xml}] [-D] [-F FIELD]
                        NETWORK
```

Show information of a given network.

### Positional arguments

**NET-  
WORK** ID or name of network to look up.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## neutron net-update

```
usage: neutron net-update [-h] [--request-format {json,xml}] NETWORK
```

Update network's information.

### Positional arguments

**NET-  
WORK** ID or name of network to update.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## neutron nuage-netpartition-create

```
usage: neutron nuage-netpartition-create [-h]
                                         [-f {html,json,shell,table,value,
                                         yaml}]
                                         [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--tenant-id TENANT_ID</b>	The owner tenant ID.

## 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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## neutron nuage-netpartition-list

```
usage: neutron nuage-netpartition-list [-h] [-f {csv,html,json,table,yaml}]
                                         [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## neutron nuage-netpartition-show

```
usage: neutron nuage-netpartition-show [-h]
```

```
[-f {html,json,shell,table,value,yaml}]
[-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## neutron port-create

```
usage: neutron port-create [-h] [-f {html,json,shell,table,value,yaml}]
                           [-c COLUMN] [--max-width <integer>]
                           [--prefix PREFIX] [--request-format {json,xml}]
                           [--tenant-id TENANT_ID] [--name NAME]
                           [--fixed-ip subnet_id=SUBNET,ip_address=IP_ADDR]
                           [--device-id DEVICE_ID]
                           [--device-owner DEVICE_OWNER] [--admin-state-down]
                           [--mac-address MAC_ADDRESS]
                           [--vnic-type <direct | macvtap | normal>]
                           [--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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--tenant-id TENANT_ID</b>	The owner tenant ID.
<b>--name NAME</b>	Name of this port.

<b>-fixed-ip</b>	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.
<b>-device-id DEVICE_ID</b>	Device ID of this port.
<b>-device-owner DEVICE_OWNER</b>	Device owner of this port.
<b>-admin-state-down</b>	Set admin state up to false.
<b>-mac-address MAC_ADDRESS</b>	MAC address of this port.
<b>-vnic-type &lt;direct   macvtap   normal&gt;</b>	VNIC type for this port.
<b>-security-group SECURITY_GROUP</b>	Security group associated with the port. You can repeat this option.
<b>-no-security-groups</b>	Associate no security groups with the port.
<b>-extra-dhcp-opt EXTRA_DHCP_OPTS</b>	Extra dhcp options to be assigned to this port: opt_name=<dhcp_option_name>,opt_value=<value>,ip_version={4, 6}. You can repeat this option.

## 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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## neutron port-list

```
usage: neutron port-list [-h] [-f {csv,html,json,table,yaml}] [-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

<b>-h, --help</b>	show this help message and exit
-------------------	---------------------------------

<b>-request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.
<b>-P SIZE, --page-size SIZE</b>	Specify retrieve unit of each request, then split one request to several requests.
<b>--sort-key FIELD</b>	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.
<b>--sort-dir {asc,desc}</b>	Sorts the list in the specified direction. You can repeat this option.

## neutron port-show

```
usage: neutron port-show [-h] [-f {html,json,shell,table,value,yaml}]
                        [-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

<b>-h, --help</b>	show this help message and exit
<b>-request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## neutron port-update

```
usage: neutron port-update [-h] [--request-format {json,xml}] [--name NAME]
                        [--fixed-ip subnet_id=SUBNET,ip_address=IP_ADDR]
                        [--device-id DEVICE_ID]
                        [--device-owner DEVICE_OWNER]
                        [--admin-state-up {True,False}]
                        [--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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--name NAME</b>	Name of this port.
<b>--fixed-ip</b>	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.
<b>--device-id DEVICE_ID</b>	Device ID of this port.
<b>--device-owner DEVICE_OWNER</b>	Device owner of this port.
<b>--admin-state-up {True,False}</b>	Set admin state up for the port.
<b>--security-group SECURITY_GROUP</b>	Security group associated with the port. You can repeat this option.
<b>--no-security-groups</b>	Associate no security groups with the port.
<b>--extra-dhcp-opt EXTRA_DHCP_OPTS</b>	Extra dhcp options to be assigned to this port: opt_name=<dhcp_option_name>,opt_value=<value>,ip_version={4,6}. You can repeat this option.

## neutron queue-create

```
usage: neutron queue-create [-h] [-f {html,json,shell,table,value,yaml}]
                             [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.



<b>-tenant-id TENANT_ID</b>	The owner tenant ID.
<b>-min MIN</b>	Minimum rate.
<b>-max MAX</b>	Maximum rate.
<b>-qos-marking QOS_MARKING</b>	QOS marking as untrusted or trusted.
<b>-default DEFAULT</b>	If true all created ports will be the size of this queue, if queue is not specified
<b>-dscp DSCP</b>	Differentiated Services Code Point.

## 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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## neutron queue-list

```
usage: neutron queue-list [-h] [-f {csv,html,json,table,yaml}] [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## neutron queue-show

```
usage: neutron queue-show [-h] [-f {html,json,shell,table,value,yaml}]
                        [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## 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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--tenant-id</b>	tenant-id The owner tenant ID.

## neutron quota-list

```
usage: neutron quota-list [-h] [-f {csv,html,json,table,yaml}] [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## neutron quota-show

```
usage: neutron quota-show [-h] [-f {html,json,shell,table,value,yaml}]
```

```
[ -c COLUMN] [--max-width <integer>]
[--prefix PREFIX] [--request-format {json,xml}]
[--tenant-id tenant-id]
```

Show quotas of a given tenant.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--tenant-id</b>	tenant-id The owner tenant ID.

## neutron quota-update

```
usage: neutron quota-update [-h] [-f {html,json,shell,table,value,yaml}]
                             [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--tenant-id</b>	tenant-id The owner tenant ID.
<b>--network</b>	networks The limit of networks.
<b>--subnet</b>	subnets The limit of subnets.
<b>--port</b>	ports The limit of ports.
<b>--router</b>	routers The limit of routers.
<b>--floatingip</b>	floatingips The limit of floating IPs.
<b>--security-group</b>	security_groups The limit of security groups.
<b>--security-group-rule</b>	security_group_rules The limit of security groups rules.
<b>--vip</b>	vips The limit of vips.
<b>--pool</b>	pools The limit of pools.
<b>--member</b>	members The limit of pool members.

**-health-monitor**

health\_monitors The limit of health monitors.

## neutron router-create

```
usage: neutron router-create [-h] [-f {html,json,shell,table,value,yaml}]
                             [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--tenant-id TENANT_ID</b>	The owner tenant ID.
<b>--admin-state-down</b>	Set admin state up to false.
<b>--distributed {True,False}</b>	Create a distributed router.
<b>--ha {True,False}</b>	Create a highly available router.

## 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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## neutron router-gateway-clear

```
usage: neutron router-gateway-clear [-h] [--request-format {json,xml}] ROUTER
```

Remove an external network gateway from a router.

### Positional arguments

**ROUTER** ID or name of the router.

### Optional arguments

**-h, --help** show this help message and exit

**--request-format {json,xml}** The XML or JSON request format.

## neutron router-gateway-set

```
usage: neutron router-gateway-set [-h] [--request-format {json,xml}]
                                   [--disable-snat]
                                   ROUTER EXTERNAL-NETWORK
```

Set the external network gateway for a router.

### Positional arguments

**ROUTER** ID or name of the router.

**EXTERNAL-NET-  
WORK** ID or name 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.

## neutron router-interface-add

```
usage: neutron router-interface-add [-h] [--request-format {json,xml}]
                                     ROUTER INTERFACE
```

Add an internal network interface to a router.

### Positional arguments

**ROUTER** ID or name 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.

## neutron router-interface-delete

```
usage: neutron router-interface-delete [-h] [--request-format {json,xml}]
                                         ROUTER INTERFACE
```

Remove an internal network interface from a router.

### Positional arguments

**ROUTER** ID or name 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.

## neutron router-list

```
usage: neutron router-list [-h] [-f {csv,html,json,table,yaml}] [-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.

## neutron router-list-on-l3-agent

```
usage: neutron router-list-on-l3-agent [-h] [-f {csv,html,json,table,yaml}]
                                         [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## neutron router-port-list

```
usage: neutron router-port-list [-h] [-f {csv,html,json,table,yaml}]
                                  [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.
<b>-P SIZE, --page-size SIZE</b>	Specify retrieve unit of each request, then split one request to several requests.

<b>-sort-key FIELD</b>	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.
<b>-sort-dir {asc,desc}</b>	Sorts the list in the specified direction. You can repeat this option.

## neutron router-show

```
usage: neutron router-show [-h] [-f {html,json,shell,table,value,yaml}]
                           [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## 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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## neutron security-group-create

```
usage: neutron security-group-create [-h]
```



```
[ -f {html,json,shell,table,value,yaml}]
[ -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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--tenant-id TENANT_ID</b>	The owner tenant ID.
<b>--description DESCRIPTION</b>	Description of security group.

## 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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## neutron security-group-list

```
usage: neutron security-group-list [-h] [-f {csv,html,json,table,yaml}]
                                   [-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

<b>-h, --help</b>	show this help message and exit
-------------------	---------------------------------

<b>-request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.
<b>-P SIZE, --page-size SIZE</b>	Specify retrieve unit of each request, then split one request to several requests.
<b>--sort-key FIELD</b>	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.
<b>--sort-dir {asc,desc}</b>	Sorts the list in the specified direction. You can repeat this option.

## neutron security-group-rule-create

```
usage: neutron security-group-rule-create [-h]
                                         [-f {html,json,shell,table,value,
yml}]
                                         [-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

<b>-h, --help</b>	show this help message and exit
<b>-request-format {json,xml}</b>	The XML or JSON request format.
<b>--tenant-id TENANT_ID</b>	The owner tenant ID.
<b>--direction {ingress,egress}</b>	Direction of traffic: ingress/egress.
<b>--ethertype ETHERTYPE</b>	IPv4/IPv6

<b>-protocol</b> PROTOCOL	Protocol of packet.
<b>-port-range-min</b> PORT_RANGE_MIN	Starting port range.
<b>-port-range-max</b> PORT_RANGE_MAX	Ending port range.
<b>-remote-ip-prefix</b> REMOTE_IP_PREFIX	CIDR to match on.
<b>-remote-group-id</b> REMOTE_GROUP	Remote security group name or ID to apply rule.

## 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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## neutron security-group-rule-list

```
usage: neutron security-group-rule-list [-h] [-f {csv,html,json,table,yaml}]
                                         [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

<b>-P SIZE, --page-size SIZE</b>	Specify retrieve unit of each request, then split one request to several requests.
<b>--sort-key FIELD</b>	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.
<b>--sort-dir {asc,desc}</b>	Sorts the list in the specified direction. You can repeat this option.
<b>--no-nameconv</b>	Do not convert security group ID to its name.

## neutron security-group-rule-show

```
usage: neutron security-group-rule-show [-h]
                                         [-f {html,json,shell,table,value,
yaml}]
                                         [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## neutron security-group-show

```
usage: neutron security-group-show [-h]
                                   [-f {html,json,shell,table,value,yaml}]
                                   [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## 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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--name NAME</b>	Name of security group.
<b>--description DESCRIPTION</b>	Description of security group.

## neutron service-provider-list

```
usage: neutron service-provider-list [-h] [-f {csv,html,json,table,yaml}]
                                     [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.

<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.
<b>-P SIZE, --page-size SIZE</b>	Specify retrieve unit of each request, then split one request to several requests.
<b>--sort-key FIELD</b>	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.
<b>--sort-dir {asc,desc}</b>	Sorts the list in the specified direction. You can repeat this option.

## neutron subnet-create

```
usage: neutron subnet-create [-h] [-f {html,json,shell,table,value,yaml}]
                             [-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]
                             [--ip-version {4,6}]
                             [--ipv6-ra-mode {dhcpv6-stateful,dhcpv6-
stateless,slaac}]
                             [--ipv6-address-mode {dhcpv6-stateful,dhcpv6-
stateless,slaac}]
                             [--subnetpool SUBNETPOOL]
                             [--prefixlen PREFIX_LENGTH]
                             NETWORK [CIDR]
```

Create a subnet for a given tenant.

### Positional arguments

**NET-  
WORK**      Network ID or name this subnet belongs to.

**CIDR**      CIDR of subnet to create.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--tenant-id TENANT_ID</b>	The owner tenant ID.
<b>--name NAME</b>	Name of this subnet.
<b>--gateway GATEWAY_IP</b>	Gateway IP of this subnet.

<b>-no-gateway</b>	No distribution of gateway.
<b>-allocation-pool</b>	start=IP_ADDR,end=IP_ADDR Allocation pool IP addresses for this subnet (This option can be repeated).
<b>-host-route</b>	destination=CIDR,nexthop=IP_ADDR Additional route (This option can be repeated).
<b>-dns-nameserver DNS_NAMESERVER</b>	DNS name server for this subnet (This option can be repeated).
<b>-disable-dhcp</b>	Disable DHCP for this subnet.
<b>-enable-dhcp</b>	Enable DHCP for this subnet.
<b>-ip-version {4,6} IP</b>	version to use, default is 4.
<b>-ipv6-ra-mode {dhcpv6- stateful,dhcpv6-stateless,slaac}</b>	IPv6 RA (Router Advertisement) mode.
<b>-ipv6-address-mode {dhcpv6- stateful,dhcpv6-stateless,slaac}</b>	IPv6 address mode.
<b>-subnetpool SUBNETPOOL</b>	ID or name of subnetpool from which this subnet will obtain a CIDR.
<b>-prefixlen PREFIX_LENGTH</b>	Prefix length for subnet allocation from subnetpool.

## neutron subnet-delete

```
usage: neutron subnet-delete [-h] [--request-format {json,xml}] SUBNET
```

Delete a given subnet.

### Positional arguments

**SUB-  
NET** 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.

## neutron subnet-list

```
usage: neutron subnet-list [-h] [-f {csv,html,json,table,yaml}] [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.
<b>-P SIZE, --page-size SIZE</b>	Specify retrieve unit of each request, then split one request to several requests.
<b>--sort-key FIELD</b>	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.
<b>--sort-dir {asc,desc}</b>	Sorts the list in the specified direction. You can repeat this option.

## neutron subnet-show

```
usage: neutron subnet-show [-h] [-f {html,json,shell,table,value,yaml}]
                           [-c COLUMN] [--max-width <integer>]
                           [--prefix PREFIX] [--request-format {json,xml}]
                           [-D] [-F FIELD]
                           SUBNET
```

Show information of a given subnet.

### Positional arguments

**SUB-  
NET** ID or name of subnet to look up.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## 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]
SUBNET
```

Update subnet's information.

### Positional arguments

**SUB-** ID or name of subnet to update.  
**NET**

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--name NAME</b>	Name of this subnet.
<b>--gateway GATEWAY_IP</b>	Gateway IP of this subnet.
<b>--no-gateway</b>	No distribution of gateway.
<b>--allocation-pool</b>	start=IP_ADDR,end=IP_ADDR Allocation pool IP addresses for this subnet (This option can be repeated).
<b>--host-route</b>	destination=CIDR,nexthop=IP_ADDR Additional route (This option can be repeated).
<b>--dns-nameserver DNS_NAMESERVER</b>	DNS name server for this subnet (This option can be repeated).
<b>--disable-dhcp</b>	Disable DHCP for this subnet.
<b>--enable-dhcp</b>	Enable DHCP for this subnet.

## neutron subnetpool-create

```
usage: neutron subnetpool-create [-h] [-f {html,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--prefix PREFIX]
                                [--request-format {json,xml}]
                                [--tenant-id TENANT_ID]
                                [--min-prefixlen MIN_PREFIXLEN]
                                [--max-prefixlen MAX_PREFIXLEN]
                                [--default-prefixlen DEFAULT_PREFIXLEN]
                                [--pool-prefix PREFIXES] [--shared]
                                name
```

Create a subnetpool for a given tenant.

### Positional arguments

**name** Name of subnetpool to create.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--tenant-id TENANT_ID</b>	The owner tenant ID.
<b>--min-prefixlen MIN_PREFIXLEN</b>	Subnetpool minimum prefix length.
<b>--max-prefixlen MAX_PREFIXLEN</b>	Subnetpool maximum prefix length.
<b>--default-prefixlen DEFAULT_PREFIXLEN</b>	Subnetpool default prefix length.
<b>--pool-prefix PREFIXES</b>	Subnetpool prefixes (This option can be repeated).
<b>--shared</b>	Set the subnetpool as shared.

## neutron subnetpool-delete

```
usage: neutron subnetpool-delete [-h] [--request-format {json,xml}] SUBNETPOOL
```

Delete a given subnetpool.

### Positional arguments

**SUBNET-POOL** ID or name of subnetpool to delete.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## neutron subnetpool-list

```
usage: neutron subnetpool-list [-h] [-f {csv,html,json,table,yaml}]
                               [-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 subnetpools that belong to a given tenant.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.
<b>-P SIZE, --page-size SIZE</b>	Specify retrieve unit of each request, then split one request to several requests.
<b>--sort-key FIELD</b>	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.
<b>--sort-dir {asc,desc}</b>	Sorts the list in the specified direction. You can repeat this option.

## neutron subnetpool-show

```
usage: neutron subnetpool-show [-h] [-f {html,json,shell,table,value,yaml}]
                               [-c COLUMN] [--max-width <integer>]
                               [--prefix PREFIX] [--request-format {json,xml}]
                               [-D] [-F FIELD]
                               SUBNETPOOL
```

Show information of a given subnetpool.

### Positional arguments

**SUBNET-POOL** ID or name of subnetpool to look up.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## neutron subnetpool-update

```
usage: neutron subnetpool-update [-h] [--request-format {json,xml}]
                                  [--min-prefixlen MIN_PREFIXLEN]
                                  [--max-prefixlen MAX_PREFIXLEN]
                                  [--default-prefixlen DEFAULT_PREFIXLEN]
                                  [--pool-prefix PREFIXES] [--name NAME]
                                  SUBNETPOOL
```

Update subnetpool's information.

## Positional arguments

**SUBNET-POOL** ID or name of subnetpool to update.

## Optional arguments

**-h, --help** show this help message and exit

**--request-format {json,xml}** The XML or JSON request format.

**--min-prefixlen MIN\_PREFIXLEN** Subnetpool minimum prefix length.

**--max-prefixlen MAX\_PREFIXLEN** Subnetpool maximum prefix length.

**--default-prefixlen DEFAULT\_PREFIXLEN** Subnetpool default prefix length.

**--pool-prefix PREFIXES** Subnetpool prefixes (This option can be repeated).

**--name NAME** Name of subnetpool to update.

# neutron vpn-ikepolicy-create

```
usage: neutron vpn-ikepolicy-create [-h]
                                     [-f {html,json,shell,table,value,yaml}]
                                     [-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

<b>-auth-algorithm {sha1}</b>	Authentication algorithm in lowercase. Default:sha1
<b>-encryption-algorithm ENCRYPTION_ALGORITHM</b>	Encryption algorithm in lowercase, default:aes-128
<b>-phase1-negotiation-mode {main}</b>	IKE Phase1 negotiation mode in lowercase, default:main
<b>-ike-version {v1,v2}</b>	IKE version in lowercase, default:v1
<b>-pfs {group2,group5,group14}</b>	Perfect Forward Secrecy in lowercase, default:group5
<b>-lifetime</b>	units=UNITS,value=VALUE IKE lifetime attributes. 'units'- seconds, default:seconds. 'value'-non negative integer, default:3600.

## 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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## neutron vpn-ikepolicy-list

```
usage: neutron vpn-ikepolicy-list [-h] [-f {csv,html,json,table,yaml}]
                                  [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can re- peat this option.

<b>-P SIZE, --page-size SIZE</b>	Specify retrieve unit of each request, then split one request to several requests.
<b>--sort-key FIELD</b>	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.
<b>--sort-dir {asc,desc}</b>	Sorts the list in the specified direction. You can repeat this option.

## neutron vpn-ikepolicy-show

```
usage: neutron vpn-ikepolicy-show [-h] [-f {html,json,shell,table,value,yaml}]
                                  [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## 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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

**-lifetime** units=UNITS,value=VALUE IKE lifetime attributes. 'units'-seconds, default:seconds. 'value'-non negative integer, default:3600.

## neutron vpn-ipsecpolicy-create

```
usage: neutron vpn-ipsecpolicy-create [-h]
                                     [-f {html,json,shell,table,value,yaml}]
                                     [-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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--tenant-id TENANT_ID</b>	The owner tenant ID.
<b>--description DESCRIPTION</b>	Description of the IPsec policy.
<b>--transform-protocol {esp,ah,ah-esp}</b>	Transform protocol in lowercase, default:esp
<b>--auth-algorithm {sha1}</b>	Authentication algorithm in lowercase, default:sha1
<b>--encryption-algorithm ENCRYPTION_ALGORITHM</b>	Encryption algorithm in lowercase, default:aes-128
<b>--encapsulation-mode {tunnel,transport}</b>	Encapsulation mode in lowercase, default:tunnel
<b>--pfs {group2,group5,group14}</b>	Perfect Forward Secrecy in lowercase, default:group5
<b>-lifetime</b>	units=UNITS,value=VALUE IPsec lifetime attributes. 'units'-seconds, default:seconds. 'value'-non negative integer, default:3600.

## 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.

## neutron vpn-ipsecpolicy-list

```
usage: neutron vpn-ipsecpolicy-list [-h] [-f {csv,html,json,table,yaml}]
                                     [-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 policies that belong 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.

## neutron vpn-ipsecpolicy-show

```
usage: neutron vpn-ipsecpolicy-show [-h]
```



```
[ -f {html,json,shell,table,value,yaml}]
[ -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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## 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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--lifetime</b>	units=UNITS,value=VALUE IPsec lifetime attributes. 'units'-seconds, default:seconds. 'value'-non negative integer, default:3600.

## neutron vpn-service-create

```
usage: neutron vpn-service-create [-h] [-f {html,json,shell,table,value,yaml}]
                                   [-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.

**SUB-NET** Subnet unique identifier for the VPN service deployment.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.
<b>--tenant-id TENANT_ID</b>	The owner tenant ID.
<b>--admin-state-down</b>	Set admin state up to false.
<b>--name NAME</b>	Set a name for the VPN service.
<b>--description DESCRIPTION</b>	Set a description for the VPN service.

## 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

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## neutron vpn-service-list

```
usage: neutron vpn-service-list [-h] [-f {csv,html,json,table,yaml}]
                                [-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

<b>-h, --help</b>	show this help message and exit
-------------------	---------------------------------

<b>-request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.
<b>-P SIZE, --page-size SIZE</b>	Specify retrieve unit of each request, then split one request to several requests.
<b>--sort-key FIELD</b>	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.
<b>--sort-dir {asc,desc}</b>	Sorts the list in the specified direction. You can repeat this option.

## neutron vpn-service-show

```
usage: neutron vpn-service-show [-h] [-f {html,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--prefix PREFIX]
                                [--request-format {json,xml}] [-D] [-F FIELD]
                                VPSERVICE
```

Show information of a given VPN service.

### Positional arguments

**VPSERVICE** ID or name of vpnservice to look up.

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>-request-format {json,xml}</b>	The XML or JSON request format.
<b>-D, --show-details</b>	Show detailed information.
<b>-F FIELD, --field FIELD</b>	Specify the field(s) to be returned by server. You can repeat this option.

## neutron vpn-service-update

```
usage: neutron vpn-service-update [-h] [--request-format {json,xml}]
                                VPSERVICE
```

Update a given VPN service.

### Positional arguments

**VPSERVICE** ID or name of vpnservice to update.

**Optional arguments**

<b>-h, --help</b>	show this help message and exit
<b>--request-format {json,xml}</b>	The XML or JSON request format.

## 9. neutron-debug command-line client

neutron-debug usage .....	287
neutron-debug optional arguments .....	287
neutron-debug probe-create command .....	288
neutron-debug probe-list command .....	289
neutron-debug probe-clear command .....	289
neutron-debug probe-delete command .....	289
neutron-debug probe-exec command .....	289
neutron-debug ping-all command .....	289
neutron-debug example .....	289

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
```

### 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

<b>probe-create</b>	Create probe port - create port and interface within a network namespace.
<b>probe-list</b>	List all probes.
<b>probe-clear</b>	Clear all probes.
<b>probe-delete</b>	Delete probe - delete port then delete the namespace.
<b>probe-exec</b>	Execute commands in the namespace of the probe.
<b>ping-all</b>	ping-all is an all-in-one command to ping all fixed IPs in a specified network.

### neutron-debug optional arguments

<b>-version</b>	Show version number and exit.
-----------------	-------------------------------

<b>-v, --verbose, --debug</b>	Increase verbosity of output and show tracebacks on errors. Can be repeated.
<b>-q, --quiet</b>	Suppress output except warnings and errors
<b>-h, --help</b>	Show this help message and exit
<b>--os-auth-strategy &lt;auth-strategy&gt;</b>	Authentication strategy (Env: OS_AUTH_STRATEGY, default keystone). For now, any other value will disable the authentication
<b>--os-auth-url &lt;auth-url&gt;</b>	Authentication URL (Env: OS_AUTH_URL)
<b>--os-tenant-name &lt;auth-tenant-name&gt;</b>	Authentication tenant name (Env: OS_TENANT_NAME)
<b>--os-tenant-id &lt;auth-tenant-id&gt;</b>	Authentication tenant name (Env: OS_TENANT_ID)
<b>--os-username &lt;auth-username&gt;</b>	Authentication username (Env: OS_USERNAME)
<b>--os-password &lt;auth-password&gt;</b>	Authentication password (Env: OS_PASSWORD)
<b>--os-region-name &lt;auth-region-name&gt;</b>	Authentication region name (Env: OS_REGION_NAME)
<b>--os-token &lt;token&gt;</b>	Defaults to env[OS_TOKEN]
<b>--endpoint-type &lt;endpoint-type&gt;</b>	Defaults to env[OS_ENDPOINT_TYPE] or public URL.
<b>--os-url &lt;url&gt;</b>	Defaults to env[OS_URL]
<b>--os-cacert &lt;ca-certificate&gt;</b>	Specify a CA bundle file to use in verifying a TLS (HTTPS) server certificate. Defaults to env[OS_CACERT]
<b>--insecure</b>	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.
<b>--config-file CONFIG_FILE</b>	Config file for interface driver (You may also use l3_agent.ini)

## 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.

## neutron-debug probe-list command

```
usage: neutron-debug probe-list
```

List probes.

## neutron-debug probe-clear command

```
usage: neutron-debug probe-clear
```

Clear all probes.

## 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.

## neutron-debug probe-exec command

```
usage: neutron-debug probe-exec <port-id> <command>
```

Execute commands in the namespace of the probe

## neutron-debug ping-all command

```
usage: neutron-debug ping-all <port-id> --timeout <number>
```

All-in-one command to ping all fixed IPs in a specified network. A probe creation is not needed for this command. A new probe is created automatically. It will, however, need to be deleted manually when it is no longer needed. When there are multiple networks, the newly created probe will be attached to a random network and thus the ping will take place from within that random network.

### Positional arguments

**<port-id>** ID of the port to use.

### Optional arguments

**--timeout <timeout in seconds>** Optional ping timeout.

## 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.



## 10. Object Storage command-line client

swift usage .....	291
swift examples .....	292
swift optional arguments .....	292
swift capabilities .....	293
swift delete .....	293
swift download .....	293
swift list .....	294
swift post .....	295
swift stat .....	295
swift tempurl .....	295
swift upload .....	296

The **swift** client is the command-line interface (CLI) for the OpenStack Object Storage API and its extensions. This chapter documents **swift** version 2.4.0.

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

```
$ swift COMMAND --help
```

### swift usage

```
[--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

<b>delete</b>	Delete a container or objects within a container.
<b>download</b>	Download objects from containers.
<b>list</b>	Lists the containers for the account or the objects for a container.
<b>post</b>	Updates meta information for the account, container, or object; creates containers if not present.

<b>stat</b>	Displays information for the account, container, or object.
<b>upload</b>	Uploads files or directories to the given container.
<b>capabilities</b>	List cluster capabilities.
<b>tempurl</b>	Create a temporary URL

## 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

```

## swift optional arguments

<b>-version</b>	show program's version number and exit
<b>-h, -help</b>	show this help message and exit
<b>-os-help</b>	Show OpenStack authentication options.
<b>-s, -snet</b>	Use SERVICENET internal network.
<b>-v, -verbose</b>	Print more info.
<b>-debug</b>	Show the curl commands and results of all http queries regardless of result status.
<b>-info</b>	Show the curl commands and results of all http queries which return an error.
<b>-q, -quiet</b>	Suppress status output.
<b>-A AUTH, -auth=AUTH URL</b>	for obtaining an auth token.
<b>-V AUTH_VERSION, -auth-version=AUTH_VERSION</b>	Specify a version for authentication. Defaults to 1.0.
<b>-U USER, -user=USER</b>	User name for obtaining an auth token.
<b>-K KEY, -key=KEY</b>	Key for obtaining an auth token.

<b>-R RETRIES, --retries=RETRIES</b>	The number of times to retry a failed connection.
<b>--insecure</b>	Allow swiftclient to access servers without having to verify the SSL certificate. Defaults to <code>env[SWIFTCLIENT_INSECURE]</code> (set to 'true' to enable).
<b>--no-ssl-compression</b>	This option is deprecated and not used anymore. SSL compression should be disabled by default by the system SSL library.

## swift capabilities

Usage: swift capabilities

Retrieve capability of the proxy. Optional positional arguments: <proxy\_url> Proxy URL of the cluster to retrieve capabilities.

## swift delete

Usage: swift delete

Delete a container or objects within a container.

### Positional arguments

<b>&lt;container&gt;</b>	Name of container to delete from.
<b>[object]</b>	Name of object to delete. Specify multiple times for multiple objects.

### Optional arguments

<b>--all</b>	Delete all containers and objects.
<b>--leave-segments</b>	Do not delete segments of manifest objects.
<b>--object-threads &lt;threads&gt;</b>	Number of threads to use for deleting objects. Default is 10.
<b>--container-threads &lt;threads&gt;</b>	Number of threads to use for deleting containers. Default is 10.

## swift download

Usage: swift download

Download objects from containers.

### Positional arguments

<b>&lt;container&gt;</b>	Name of container to download from. To download a whole account, omit this and specify <code>--all</code> .
--------------------------	---

**<object>** Name of object to download. Specify multiple times for multiple objects. Omit this to download all objects from the container.

### Optional arguments

<b>-all</b>	Indicates that you really want to download everything in the account.
<b>-marker</b>	Marker to use when starting a container or account download.
<b>-prefix &lt;prefix&gt;</b>	Only download items beginning with <prefix>
<b>-output &lt;out_file&gt;</b>	For a single file download, stream the output to <out_file>. Specifying "-" as <out_file> will redirect to std-out.
<b>-object-threads &lt;threads&gt;</b>	Number of threads to use for downloading objects. Default is 10.
<b>-container-threads &lt;threads&gt;</b>	Number of threads to use for downloading containers. Default is 10.
<b>-no-download</b>	Perform download(s), but don't actually write anything to disk.
<b>-header &lt;header_name:header_value&gt;</b>	Adds a customized request header to the query, like "Range" or "If-Match". This argument is repeatable. Example <b>-header "content-type:text/plain"</b>
<b>-skip-identical</b>	Skip downloading files that are identical on both sides.

## 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

<b>-long</b>	Long listing format, similar to <b>ls -l</b> .
<b>-lh</b>	Report sizes in human readable format similar to <b>ls -lh</b> .
<b>-totals</b>	Used with <b>-l</b> or <b>-lh</b> , only report totals.
<b>-prefix</b>	Only list items beginning with the prefix.
<b>-delimiter</b>	Roll up items with the given delimiter. For containers only. See OpenStack Swift API documentation for what this means.

## 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.

### 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"

## 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.

## swift tempurl

Usage: swift tempurl

Generates a temporary URL for a Swift object. Positions arguments: [method] An HTTP method to allow for this temporary URL. Usually 'GET' or 'PUT'. [seconds] The amount of

time in seconds the temporary URL will be valid for. [path] The full path to the Swift object. Example: /v1/AUTH\_account/c/o. [key] The secret temporary URL key set on the Swift cluster. To set a key, run 'swift post -m "Temp-URL-Key:b3968d0207b54ece87cccc06515a89d4"'

## 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.

**-ignore-checksum**

Turn off checksum validation for uploads.

## 11. Orchestration command-line client

heat usage .....	299
heat optional arguments .....	301
heat action-check .....	302
heat action-resume .....	302
heat action-suspend .....	303
heat build-info .....	303
heat config-create .....	303
heat config-delete .....	303
heat config-show .....	303
heat deployment-create .....	304
heat deployment-delete .....	304
heat deployment-metadata-show .....	305
heat deployment-output-show .....	305
heat deployment-show .....	305
heat event-list .....	305
heat event-show .....	306
heat hook-clear .....	306
heat output-list .....	307
heat output-show .....	307
heat resource-list .....	307
heat resource-metadata .....	307
heat resource-show .....	308
heat resource-signal .....	308
heat resource-type-list .....	308
heat resource-type-show .....	308
heat resource-type-template .....	309
heat service-list .....	309
heat snapshot-delete .....	309
heat snapshot-list .....	309
heat snapshot-show .....	309
heat stack-abandon .....	310
heat stack-adopt .....	310
heat stack-cancel-update .....	311
heat stack-create .....	311
heat stack-delete .....	312
heat stack-list .....	312
heat stack-preview .....	312
heat stack-restore .....	313
heat stack-show .....	313
heat stack-snapshot .....	314
heat stack-update .....	314
heat template-show .....	315
heat template-validate .....	315

The **heat** client is the command-line interface (CLI) for the Orchestration API and its extensions. This chapter documents **heat** version 0.5.0.

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



```
$ heat help COMMAND
```

## 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]
           <subcommand> ...
```

### Subcommands

<b>action-check</b>	Check that stack resources are in expected states.
<b>action-resume</b>	Resume the stack.
<b>action-suspend</b>	Suspend the stack.
<b>build-info</b>	Retrieve build information.
<b>config-create</b>	Create a software configuration.
<b>config-delete</b>	Delete software configurations.
<b>config-show</b>	View details of a software configuration.
<b>deployment-create</b>	
<b>deployment-delete</b>	Delete software deployments.
<b>deployment-metadata-show</b>	Get deployment configuration metadata for the specified server.
<b>deployment-output-show</b>	Show a specific stack output.
<b>deployment-show</b>	Show the details of a software deployment.
<b>event</b>	<i>DEPRECATED!</i> Use event-show instead.
<b>event-list</b>	List events for a stack.
<b>event-show</b>	Describe the event.
<b>hook-clear</b>	Clear hooks on a given stack.

---

<b>output-list</b>	Show available outputs.
<b>output-show</b>	Show a specific stack output.
<b>resource-list</b>	Show list of resources belonging to a stack.
<b>resource-metadata</b>	List resource metadata.
<b>resource-show</b>	Describe the resource.
<b>resource-signal</b>	Send a signal to a resource.
<b>resource-template</b>	<i>DEPRECATED!</i> Use resource-type-template instead.
<b>resource-type-list</b>	List the available resource types.
<b>resource-type-show</b>	Show the resource type.
<b>resource-type-template</b>	Generate a template based on a resource type.
<b>service-list</b>	List the Heat engines.
<b>snapshot-delete</b>	Delete a snapshot of a stack.
<b>snapshot-list</b>	List the snapshots of a stack.
<b>snapshot-show</b>	Show a snapshot of a stack.
<b>stack-abandon</b>	Abandon the stack.
<b>stack-adopt</b>	Adopt a stack.
<b>stack-cancel-update</b>	Cancel currently running update of the stack.
<b>stack-create</b>	Create the stack.
<b>stack-delete</b>	Delete the stack(s).
<b>stack-list</b>	List the user's stacks.
<b>stack-preview</b>	Preview the stack.
<b>stack-restore</b>	Restore a snapshot of a stack.
<b>stack-show</b>	Describe the stack.
<b>stack-snapshot</b>	Make a snapshot of a stack.
<b>stack-update</b>	Update the stack.
<b>template-show</b>	Get the template for the specified stack.
<b>template-validate</b>	Validate a template with parameters.
<b>bash-completion</b>	Prints all of the commands and options to stdout.

---

**help** Display help about this program or one of its subcommands.

## heat optional arguments

<b>-version</b>	Shows the client version and exits.
<b>-d, -debug</b>	Defaults to <code>env[HEATCLIENT_DEBUG]</code> .
<b>-v, -verbose</b>	Print more verbose output.
<b>-api-timeout API_TIMEOUT</b>	Number of seconds to wait for an API response, defaults to system socket timeout
<b>-os-no-client-auth</b>	Do not contact keystone for a token. Defaults to <code>env[OS_NO_CLIENT_AUTH]</code> .
<b>-heat-url HEAT_URL</b>	Defaults to <code>env[HEAT_URL]</code> .
<b>-heat-api-version HEAT_API_VERSION</b>	Defaults to <code>env[HEAT_API_VERSION]</code> or 1.
<b>-include-password</b>	Send os-username and os-password to heat.
<b>-k, -insecure</b>	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.
<b>-os-cert OS_CERT</b>	Path of certificate file to use in SSL connection. This file can optionally be prepended with the private key.
<b>-cert-file OS_CERT</b>	<i>DEPRECATED!</i> Use <code>-os-cert</code> .
<b>-os-key OS_KEY</b>	Path of client key to use in SSL connection. This option is not necessary if your key is prepended to your cert file.
<b>-key-file OS_KEY</b>	<i>DEPRECATED!</i> Use <code>-os-key</code> .
<b>-os-cacert &lt;ca-certificate-file&gt;</b>	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.
<b>-ca-file OS_CACERT</b>	<i>DEPRECATED!</i> Use <code>-os-cacert</code> .
<b>-os-username OS_USERNAME</b>	Defaults to <code>env[OS_USERNAME]</code> .
<b>-os-user-id OS_USER_ID</b>	Defaults to <code>env[OS_USER_ID]</code> .
<b>-os-user-domain-id OS_USER_DOMAIN_ID</b>	Defaults to <code>env[OS_USER_DOMAIN_ID]</code> .
<b>-os-user-domain-name OS_USER_DOMAIN_NAME</b>	Defaults to <code>env[OS_USER_DOMAIN_NAME]</code> .

<b>-os-project-id OS_PROJECT_ID</b>	Another way to specify tenant ID. This option is mutually exclusive with <b>-os-tenant-id</b> . Defaults to <code>env[OS_PROJECT_ID]</code> .
<b>-os-project-name OS_PROJECT_NAME</b>	Another way to specify tenant name. This option is mutually exclusive with <b>-os-tenant-name</b> . Defaults to <code>env[OS_PROJECT_NAME]</code> .
<b>-os-project-domain-id OS_PROJECT_DOMAIN_ID</b>	Defaults to <code>env[OS_PROJECT_DOMAIN_ID]</code> .
<b>-os-project-domain-name OS_PROJECT_DOMAIN_NAME</b>	Defaults to <code>env[OS_PROJECT_DOMAIN_NAME]</code> .
<b>-os-password OS_PASSWORD</b>	Defaults to <code>env[OS_PASSWORD]</code> .
<b>-os-tenant-id OS_TENANT_ID</b>	Defaults to <code>env[OS_TENANT_ID]</code> .
<b>-os-tenant-name OS_TENANT_NAME</b>	Defaults to <code>env[OS_TENANT_NAME]</code> .
<b>-os-auth-url OS_AUTH_URL</b>	Defaults to <code>env[OS_AUTH_URL]</code> .
<b>-os-region-name OS_REGION_NAME</b>	Defaults to <code>env[OS_REGION_NAME]</code> .
<b>-os-auth-token OS_AUTH_TOKEN</b>	Defaults to <code>env[OS_AUTH_TOKEN]</code> .
<b>-os-service-type OS_SERVICE_TYPE</b>	Defaults to <code>env[OS_SERVICE_TYPE]</code> .
<b>-os-endpoint-type OS_ENDPOINT_TYPE</b>	Defaults to <code>env[OS_ENDPOINT_TYPE]</code> .

## 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.

## 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.

## 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.

## heat build-info

```
usage: heat build-info
```

Retrieve build information.

## heat config-create

```
usage: heat config-create [-f <FILE or URL>] [-c <FILE or URL>]
                        [-g <GROUP_NAME>]
                        <CONFIG_NAME>
```

Create a software configuration.

### Positional arguments

**<CONFIG\_NAME>** Name of the configuration to create.

### Optional arguments

<b>-f &lt;FILE or URL&gt;, --definition-file &lt;FILE or URL&gt;</b>	Path to JSON/YAML containing map defining <inputs>, <outputs>, and <options>.
<b>-c &lt;FILE or URL&gt;, --config-file &lt;FILE or URL&gt;</b>	Path to configuration script/data.
<b>-g &lt;GROUP_NAME&gt;, --group &lt;GROUP_NAME&gt;</b>	Group name of configuration tool expected by the config.

## heat config-delete

```
usage: heat config-delete <ID> [<ID> ...]
```

Delete software configurations.

### Positional arguments

**<ID>** IDs of the configurations to delete.

## heat config-show

```
usage: heat config-show [-c] <ID>
```

View details of a software configuration.

### Positional arguments

**<ID>** ID of the config.

### Optional arguments

**-c, --config-only** Only display the value of the <config> property.

## heat deployment-create

```
usage: heat deployment-create [-i <KEY=VALUE>] [-a <ACTION>] [-c <CONFIG>]
                             [-s <SERVER>] [-t <TRANSPORT>]
                             [--container <CONTAINER_NAME>]
                             [--timeout <TIMEOUT>]
                             <DEPLOY_NAME>
```

### Positional arguments

**<DEPLOY\_NAME>** Name of the derived config associated with this deployment. This is used to apply a sort order to the list of configurations currently deployed to the server.

### Optional arguments

<b>-i &lt;KEY=VALUE&gt;, --input-value &lt;KEY=VALUE&gt;</b>	Input value to set on the deployment. This can be specified multiple times.
<b>-a &lt;ACTION&gt;, --action &lt;ACTION&gt;</b>	Name of action for this deployment. Can be a custom action, or one of: CREATE, UPDATE, DELETE, SUSPEND, RESUME
<b>-c &lt;CONFIG&gt;, --config &lt;CONFIG&gt;</b>	ID of the configuration to deploy.
<b>-s &lt;SERVER&gt;, --server &lt;SERVER&gt;</b>	ID of the server being deployed to.
<b>-t &lt;TRANSPORT&gt;, --signal-transport &lt;TRANSPORT&gt;</b>	How the server should signal to heat with the deployment output values. TEMP_URL_SIGNAL will create a Swift TempURL to be signaled via HTTP PUT. NO_SIGNAL will result in the resource going to the COMPLETE state without waiting for any signal.
<b>--container &lt;CONTAINER_NAME&gt;</b>	Optional name of container to store TEMP_URL_SIGNAL objects in. If not specified a container will be created with a name derived from the DEPLOY_NAME
<b>--timeout &lt;TIMEOUT&gt;</b>	Deployment timeout in minutes.

## heat deployment-delete

```
usage: heat deployment-delete <ID> [<ID> ...]
```

Delete software deployments.

### Positional arguments

**<ID>** IDs of the deployments to delete.

## heat deployment-metadata-show

```
usage: heat deployment-metadata-show <ID>
```

Get deployment configuration metadata for the specified server.

### Positional arguments

**<ID>** ID of the server to fetch deployments for.

## heat deployment-output-show

```
usage: heat deployment-output-show [-a] [-F <FORMAT>] <ID> [<OUTPUT NAME>]
```

Show a specific stack output.

### Positional arguments

**<ID>** ID deployment to show the output for.

**<OUTPUT NAME>** Name of an output to display.

### Optional arguments

**-a, --all** Display all deployment outputs.

**-F <FORMAT>, --format <FORMAT>** The output value format, one of: raw, json

## heat deployment-show

```
usage: heat deployment-show <ID>
```

Show the details of a software deployment.

### Positional arguments

**<ID>** ID of the deployment.

## 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.

## 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.

## heat hook-clear

```
usage: heat hook-clear [--pre-create] [--pre-update]
                     <NAME or ID> <RESOURCE> [<RESOURCE> ...]
```

Clear hooks on a given stack.

### Positional arguments

**<NAME or ID>** Name or ID of the stack these resources belong to.

**<RESOURCE>** Resource names with hooks to clear. Resources in nested stacks can be set using slash as a separator: nested\_stack/another/my\_resource. You can use wildcards to match multiple stacks or resources: nested\_stack/an\*/\*\_resource

### Optional arguments

**--pre-create** Clear the pre-create hooks



**-pre-update** Clear the pre-update hooks

## 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.

## heat output-show

```
usage: heat output-show [-a] [-F <FORMAT>] <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.

### Optional arguments

**-a, -all** Display all stack outputs.

**-F <FORMAT>, -format <FORMAT>** The output value format, one of: json, raw

## 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.

## 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.

## 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.

## 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.

## heat resource-type-list

```
usage: heat resource-type-list
```

List the available resource types.

## 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.

## 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.

## heat service-list

```
usage: heat service-list
```

List the Heat engines.

## heat snapshot-delete

```
usage: heat snapshot-delete <NAME or ID> <SNAPSHOT>
```

Delete a snapshot of a stack.

### Positional arguments

**<NAME or ID>** Name or ID of the stack containing the snapshot.

**<SNAPSHOT>** The ID of the snapshot to delete.

## heat snapshot-list

```
usage: heat snapshot-list <NAME or ID>
```

List the snapshots of a stack.

### Positional arguments

**<NAME or ID>** Name or ID of the stack containing the snapshots.

## heat snapshot-show

```
usage: heat snapshot-show <NAME or ID> <SNAPSHOT>
```

Show a snapshot of a stack.

### Positional arguments

**<NAME or ID>** Name or ID of the stack containing the snapshot.

**<SNAPSHOT>** The ID of the snapshot to show.

## 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>.

## 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

<b>-e &lt;FILE or URL&gt;, --environment-file &lt;FILE or URL&gt;</b>	Path to the environment, it can be specified multiple times.
<b>-c &lt;TIMEOUT&gt;, --create-timeout &lt;TIMEOUT&gt;</b>	Stack creation timeout in minutes. <i>DEPRECATED</i> use --timeout instead.
<b>-t &lt;TIMEOUT&gt;, --timeout &lt;TIMEOUT&gt;</b>	Stack creation timeout in minutes.
<b>-a &lt;FILE or URL&gt;, --adopt-file &lt;FILE or URL&gt;</b>	Path to adopt stack data file.
<b>-r, --enable-rollback</b>	Enable rollback on create/update failure.
<b>-P &lt;KEY1=VALUE1;KEY2=VALUE2...&gt;, --parameters &lt;KEY1=VALUE1;KEY2=VALUE2...&gt;</b>	Parameter values used to create the stack. This can be specified multiple times, or once with parameters separated by a semicolon.

## 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.

## heat stack-create

```
usage: heat stack-create [-f <FILE>] [-e <FILE or URL>]
                        [--pre-create <RESOURCE>] [-u <URL>] [-o <URL>]
                        [-c <TIMEOUT>] [-t <TIMEOUT>] [-r]
                        [-P <KEY1=VALUE1;KEY2=VALUE2...>] [-Pf <KEY=VALUE>]
                        <STACK_NAME>
```

Create the stack.

### Positional arguments

**<STACK\_NAME>** Name of the stack to create.

### Optional arguments

<b>-f &lt;FILE&gt;, --template-file &lt;FILE&gt;</b>	Path to the template.
<b>-e &lt;FILE or URL&gt;, --environment-file &lt;FILE or URL&gt;</b>	Path to the environment, it can be specified multiple times.
<b>--pre-create &lt;RESOURCE&gt;</b>	Name of a resource to set a pre-create hook to. Resources in nested stacks can be set using slash as a separator: nested_stack/another/my_resource. You can use wildcards to match multiple stacks or resources: nested_stack/an*/*_resource. This can be specified multiple times
<b>-u &lt;URL&gt;, --template-url &lt;URL&gt;</b>	URL of template.
<b>-o &lt;URL&gt;, --template-object &lt;URL&gt;</b>	URL to retrieve template object (e.g. from swift).
<b>-c &lt;TIMEOUT&gt;, --create-timeout &lt;TIMEOUT&gt;</b>	Stack creation timeout in minutes. <i>DEPRECATED</i> use --timeout instead.
<b>-t &lt;TIMEOUT&gt;, --timeout &lt;TIMEOUT&gt;</b>	Stack creation timeout in minutes.
<b>-r, --enable-rollback</b>	Enable rollback on create/update failure.
<b>-P &lt;KEY1=VALUE1;KEY2=VALUE2...&gt;</b>	Parameter values used to create the stack. This can be specified multiple times, or once with parameters separated by a semicolon.

**-parameters**  
**<KEY1=VALUE1;KEY2=VALUE2...>**

**-Pf <KEY=VALUE>, -parameter-file <KEY=VALUE>**

Parameter values from file used to create the stack. This can be specified multiple times. Parameter value would be the content of the file

## 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.

## heat stack-list

```
usage: heat stack-list [-s] [-n] [-f <KEY1=VALUE1;KEY2=VALUE2...>]
                        [-l <LIMIT>] [-m <ID>] [-g] [-o]
```

List the user's stacks.

### Optional arguments

<b>-s, --show-deleted</b>	Include soft-deleted stacks in the stack listing.
<b>-n, --show-nested</b>	Include nested stacks in the stack listing.
<b>-f</b> <b>&lt;KEY1=VALUE1;KEY2=VALUE2...&gt;</b> <b>-filters</b> <b>&lt;KEY1=VALUE1;KEY2=VALUE2...&gt;</b>	Filter parameters to apply on returned stacks. This can be specified multiple times, or once with parameters separated by a semicolon.
<b>-l &lt;LIMIT&gt;, --limit &lt;LIMIT&gt;</b>	Limit the number of stacks returned.
<b>-m &lt;ID&gt;, --marker &lt;ID&gt;</b>	Only return stacks that appear after the given stack ID.
<b>-g, --global-tenant</b>	Display stacks from all tenants. Operation only authorized for users who match the policy in heat's policy.json.
<b>-o, --show-owner</b>	Display stack owner information. This is automatically enabled when using <b>--global-tenant</b> .

## 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...>] [-Pf <KEY=VALUE>]
                        <STACK_NAME>
```

Preview the stack.

## Positional arguments

**<STACK\_NAME>** Name of the stack to preview.

## Optional arguments

<b>-f &lt;FILE&gt;, --template-file &lt;FILE&gt;</b>	Path to the template.
<b>-e &lt;FILE or URL&gt;, --environment-file &lt;FILE or URL&gt;</b>	Path to the environment, it can be specified multiple times.
<b>-u &lt;URL&gt;, --template-url &lt;URL&gt;</b>	URL of template.
<b>-o &lt;URL&gt;, --template-object &lt;URL&gt;</b>	URL to retrieve template object (e.g. from swift)
<b>-t &lt;TIMEOUT&gt;, --timeout &lt;TIMEOUT&gt;</b>	Stack creation timeout in minutes. This is only used during validation in preview.
<b>-r, --enable-rollback</b>	Enable rollback on failure. This option is not used during preview and exists only for symmetry with stack-create.
<b>-P &lt;KEY1=VALUE1;KEY2=VALUE2...&gt; --parameters &lt;KEY1=VALUE1;KEY2=VALUE2...&gt;</b>	Parameter values used to preview the stack. This can be specified multiple times, or once with parameters separated by semicolon.
<b>-Pf &lt;KEY=VALUE&gt;, --parameter-file &lt;KEY=VALUE&gt;</b>	Parameter values from file used to create the stack. This can be specified multiple times. Parameter value would be the content of the file

# heat stack-restore

```
usage: heat stack-restore <NAME or ID> <SNAPSHOT>
```

Restore a snapshot of a stack.

## Positional arguments

**<NAME or ID>** Name or ID of the stack containing the snapshot.

**<SNAPSHOT>** The ID of the snapshot to restore.

# 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.

## heat stack-snapshot

```
usage: heat stack-snapshot [-n <NAME>] <NAME or ID>
```

Make a snapshot of a stack.

### Positional arguments

**<NAME or ID>** Name or ID of stack to snapshot.

### Optional arguments

**-n <NAME>, --name <NAME>** If specified, the name given to the snapshot.

## heat stack-update

```
usage: heat stack-update [-f <FILE>] [-e <FILE or URL>]
                        [--pre-update <RESOURCE>] [-u <URL>] [-o <URL>]
                        [-t <TIMEOUT>] [-r] [--rollback <VALUE>]
                        [-P <KEY1=VALUE1;KEY2=VALUE2...>] [-Pf <KEY=VALUE>]
                        [-x] [-c <PARAMETER>]
                        <NAME or ID>
```

Update the stack.

### Positional arguments

**<NAME or ID>** Name or ID of stack to update.

### Optional arguments

<b>-f &lt;FILE&gt;, --template-file &lt;FILE&gt;</b>	Path to the template.
<b>-e &lt;FILE or URL&gt;, --environment-file &lt;FILE or URL&gt;</b>	Path to the environment, it can be specified multiple times.
<b>--pre-update &lt;RESOURCE&gt;</b>	Name of a resource to set a pre-update hook to. Resources in nested stacks can be set using slash as a separator: nested_stack/another/my_resource. You can use wildcards to match multiple stacks or resources: nested_stack/an*/*_resource. This can be specified multiple times
<b>-u &lt;URL&gt;, --template-url &lt;URL&gt;</b>	URL of template.
<b>-o &lt;URL&gt;, --template-object &lt;URL&gt;</b>	URL to retrieve template object (e.g. from swift).
<b>-t &lt;TIMEOUT&gt;, --timeout &lt;TIMEOUT&gt;</b>	Stack update timeout in minutes.
<b>-r, --enable-rollback</b>	<i>DEPRECATED!</i> Use <code>--rollback</code> argument instead. Enable rollback on stack update failure. NOTE: default behavior is now to use the rollback value of existing stack.



<b>-rollback &lt;VALUE&gt;</b>	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.
<b>-P &lt;KEY1=VALUE1;KEY2=VALUE2...&gt; -parameters &lt;KEY1=VALUE1;KEY2=VALUE2...&gt;</b>	Parameter values used to create the stack. This can be specified multiple times, or once with parameters separated by a semicolon.
<b>-Pf &lt;KEY=VALUE&gt;, -parameter-file &lt;KEY=VALUE&gt;</b>	Parameter values from file used to create the stack. This can be specified multiple times. Parameter value would be the content of the file
<b>-x, -existing</b>	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.
<b>-c &lt;PARAMETER&gt;, -clear-parameter &lt;PARAMETER&gt;</b>	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.

## 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.

## heat template-validate

```
usage: heat template-validate [-u <URL>] [-f <FILE>] [-e <FILE or URL>]
                             [-o <URL>]
```

Validate a template with parameters.

### Optional arguments

<b>-u &lt;URL&gt;, -template-url &lt;URL&gt;</b>	URL of template.
<b>-f &lt;FILE&gt;, -template-file &lt;FILE&gt;</b>	Path to the template.
<b>-e &lt;FILE or URL&gt;, -environment-file &lt;FILE or URL&gt;</b>	Path to the environment, it can be specified multiple times.
<b>-o &lt;URL&gt;, -template-object &lt;URL&gt;</b>	URL to retrieve template object (e.g. from swift).

## 12. Telemetry command-line client

ceilometer usage .....	316
ceilometer optional arguments .....	318
ceilometer alarm-combination-create .....	320
ceilometer alarm-combination-update .....	321
ceilometer alarm-delete .....	322
ceilometer alarm-gnocchi-aggregation-by-metrics-threshold-create .....	322
ceilometer alarm-gnocchi-aggregation-by-metrics-threshold-update .....	324
ceilometer alarm-gnocchi-aggregation-by-resources-threshold-create .....	325
ceilometer alarm-gnocchi-aggregation-by-resources-threshold-update .....	327
ceilometer alarm-gnocchi-resources-threshold-create .....	328
ceilometer alarm-gnocchi-resources-threshold-update .....	330
ceilometer alarm-history .....	332
ceilometer alarm-list .....	332
ceilometer alarm-show .....	332
ceilometer alarm-state-get .....	333
ceilometer alarm-state-set .....	333
ceilometer alarm-threshold-create .....	333
ceilometer alarm-threshold-update .....	335
ceilometer capabilities .....	336
ceilometer event-list .....	336
ceilometer event-show .....	337
ceilometer event-type-list .....	337
ceilometer meter-list .....	337
ceilometer query-alarm-history .....	337
ceilometer query-alarms .....	337
ceilometer query-samples .....	338
ceilometer resource-list .....	338
ceilometer resource-show .....	338
ceilometer sample-create .....	338
ceilometer sample-list .....	339
ceilometer sample-show .....	339
ceilometer statistics .....	340
ceilometer trait-description-list .....	340
ceilometer trait-list .....	340

The **ceilometer** client is the command-line interface (CLI) for the Telemetry API and its extensions. This chapter documents **ceilometer** version 1.2.0.

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

```
$ ceilometer help COMMAND
```

### 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-project-domain-id <project-domain-id>]
[--os-project-domain-name <project-domain-name>]
[--os-user-id <user-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

<b>alarm-combination-create</b>	Create a new alarm based on state of other alarms.
<b>alarm-combination-update</b>	Update an existing alarm based on state of other alarms.
<b>alarm-create</b>	Create a new alarm (Deprecated). Use alarm- threshold-create instead.
<b>alarm-delete</b>	Delete an alarm.
<b>alarm-gnocchi-aggregation-by-metrics-threshold-create</b>	Create a new alarm based on computed statistics.
<b>alarm-gnocchi-aggregation-by-metrics-threshold-update</b>	Update an existing alarm based on computed statistics.
<b>alarm-gnocchi-aggregation-by-resources-threshold-create</b>	Create a new alarm based on computed statistics.
<b>alarm-gnocchi-aggregation-by-resources-threshold-update</b>	Update an existing alarm based on computed statistics.
<b>alarm-gnocchi-resources-threshold-create</b>	Create a new alarm based on computed statistics.
<b>alarm-gnocchi-resources-threshold-update</b>	Update an existing alarm based on computed statistics.
<b>alarm-history</b>	Display the change history of an alarm.
<b>alarm-list</b>	List the user's alarms.
<b>alarm-show</b>	Show an alarm.
<b>alarm-state-get</b>	Get the state of an alarm.
<b>alarm-state-set</b>	Set the state of an alarm.

---

<b>alarm-threshold-create</b>	Create a new alarm based on computed statistics.
<b>alarm-threshold-update</b>	Update an existing alarm based on computed statistics.
<b>alarm-update</b>	Update an existing alarm (Deprecated).
<b>capabilities</b>	Print Ceilometer capabilities.
<b>event-list</b>	List events.
<b>event-show</b>	Show a particular event.
<b>event-type-list</b>	List event types.
<b>meter-list</b>	List the user's meters.
<b>query-alarm-history</b>	Query Alarm History.
<b>query-alarms</b>	Query Alarms.
<b>query-samples</b>	Query samples.
<b>resource-list</b>	List the resources.
<b>resource-show</b>	Show the resource.
<b>sample-create</b>	Create a sample.
<b>sample-list</b>	List the samples (return OldSample objects if -m/--meter is set).
<b>sample-show</b>	Show an sample.
<b>statistics</b>	List the statistics for a meter.
<b>trait-description-list</b>	List trait info for an event type.
<b>trait-list</b>	List all traits with name <trait_name> for Event Type <event_type>.
<b>bash-completion</b>	Prints all of the commands and options to stdout.
<b>help</b>	Display help about this program or one of its subcommands.

## ceilometer optional arguments

<b>-version</b>	show program's version number and exit
<b>-d, --debug</b>	Defaults to <code>env[CEILOMETERCLIENT_DEBUG]</code> .
<b>-v, --verbose</b>	Print more verbose output.
<b>-timeout TIMEOUT</b>	Number of seconds to wait for a response.

---

<b>-ceilometer-url &lt;CEILOMETER_URL&gt;</b>	<i>DEPRECATED</i> , use <b>-os-endpoint</b> instead. Defaults to <code>env[CEILOMETER_URL]</code> .
<b>-ceilometer-api-version CEILOMETER_API_VERSION</b>	Defaults to <code>env[CEILOMETER_API_VERSION]</code> or 2.
<b>-os-tenant-id &lt;tenant-id&gt;</b>	Defaults to <code>env[OS_TENANT_ID]</code> .
<b>-os-region-name &lt;region-name&gt;</b>	Defaults to <code>env[OS_REGION_NAME]</code> .
<b>-os-auth-token &lt;auth-token&gt;</b>	Defaults to <code>env[OS_AUTH_TOKEN]</code> .
<b>-os-service-type &lt;service-type&gt;</b>	Defaults to <code>env[OS_SERVICE_TYPE]</code> .
<b>-os-endpoint-type &lt;end- point-type&gt;</b>	Defaults to <code>env[OS_ENDPOINT_TYPE]</code> .
<b>-os-cacert &lt;cacert&gt;</b>	Defaults to <code>env[OS_CACERT]</code> .
<b>-os-insecure &lt;insecure&gt;</b>	Defaults to <code>env[OS_INSECURE]</code> .
<b>-os-cert-file &lt;cert-file&gt;</b>	Defaults to <code>env[OS_CERT_FILE]</code> .
<b>-os-key-file &lt;key-file&gt;</b>	Defaults to <code>env[OS_KEY_FILE]</code> .
<b>-os-cert &lt;cert&gt;</b>	Defaults to <code>env[OS_CERT]</code> .
<b>-os-key &lt;key&gt;</b>	Defaults to <code>env[OS_KEY]</code> .
<b>-os-project-name &lt;project- name&gt;</b>	Defaults to <code>env[OS_PROJECT_NAME]</code> .
<b>-os-project-id &lt;project-id&gt;</b>	Defaults to <code>env[OS_PROJECT_ID]</code> .
<b>-os-project-domain-id &lt;project- domain-id&gt;</b>	Defaults to <code>env[OS_PROJECT_DOMAIN_ID]</code> .
<b>-os-project-domain-name &lt;project-domain-name&gt;</b>	Defaults to <code>env[OS_PROJECT_DOMAIN_NAME]</code> .
<b>-os-user-id &lt;user-id&gt;</b>	Defaults to <code>env[OS_USER_ID]</code> .
<b>-os-user-domain-id &lt;user-do- main-id&gt;</b>	Defaults to <code>env[OS_USER_DOMAIN_ID]</code> .
<b>-os-user-domain-name &lt;us- er-domain-name&gt;</b>	Defaults to <code>env[OS_USER_DOMAIN_NAME]</code> .
<b>-os-endpoint &lt;endpoint&gt;</b>	Defaults to <code>env[OS_ENDPOINT]</code> .
<b>-os-auth-system &lt;auth-system&gt;</b>	Defaults to <code>env[OS_AUTH_SYSTEM]</code> .
<b>-os-username &lt;username&gt;</b>	Defaults to <code>env[OS_USERNAME]</code> .
<b>-os-password &lt;password&gt;</b>	Defaults to <code>env[OS_PASSWORD]</code> .

---

<b>-os-tenant-name &lt;tenant-name&gt;</b>	Defaults to env[OS_TENANT_NAME].
<b>-os-token &lt;token&gt;</b>	Defaults to env[OS_TOKEN].
<b>-os-auth-url &lt;auth-url&gt;</b>	Defaults to env[OS_AUTH_URL].

## ceilometer alarm-combination-create

```
usage: ceilometer alarm-combination-create --name <NAME>
                                           [--project-id <ALARM_PROJECT_ID>]
                                           [--user-id <ALARM_USER_ID>]
                                           [--description <DESCRIPTION>]
                                           [--state <STATE>]
                                           [--severity <SEVERITY>]
                                           [--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

<b>-name &lt;NAME&gt;</b>	Name of the alarm (must be unique per tenant). Required.
<b>-project-id &lt;ALARM_PROJECT_ID&gt;</b>	Tenant to associate with alarm (only settable by admin users).
<b>-user-id &lt;ALARM_USER_ID&gt;</b>	User to associate with alarm (only settable by admin users).
<b>-description &lt;DESCRIPTION&gt;</b>	Free text description of the alarm.
<b>-state &lt;STATE&gt;</b>	State of the alarm, one of: ['ok', 'alarm', 'insufficient data']
<b>-severity &lt;SEVERITY&gt;</b>	Severity of the alarm, one of: ['low', 'moderate', 'critical']
<b>-enabled {True False}</b>	True if alarm evaluation/actioning is enabled.
<b>-alarm-action &lt;Webhook URL&gt; URL</b>	to invoke when state transitions to alarm. May be used multiple times. Defaults to None.
<b>-ok-action &lt;Webhook URL&gt; URL</b>	to invoke when state transitions to OK. May be used multiple times. Defaults to None.
<b>-insufficient-data-action &lt;Webhook URL&gt;</b>	URL to invoke when state transitions to insufficient data. May be used multiple times. Defaults to None.

<b>-time-constraint &lt;Time Constraint&gt;</b>	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.
<b>-alarm_ids &lt;ALARM_IDS&gt;</b>	List of alarm IDs. Required.
<b>-operator &lt;OPERATOR&gt;</b>	Operator to compare with, one of: ['and', 'or'].
<b>-repeat-actions {True False}</b>	True if actions should be repeatedly notified while alarm remains in target state. Defaults to False.

## ceilometer alarm-combination-update

```
usage: ceilometer alarm-combination-update [--name <NAME>]
                                           [--project-id <ALARM_PROJECT_ID>]
                                           [--user-id <ALARM_USER_ID>]
                                           [--description <DESCRIPTION>]
                                           [--state <STATE>]
                                           [--severity <SEVERITY>]
                                           [--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

<b>-name &lt;NAME&gt;</b>	Name of the alarm (must be unique per tenant).
<b>-project-id &lt;ALARM_PROJECT_ID&gt;</b>	Tenant to associate with alarm (only settable by admin users).
<b>-user-id &lt;ALARM_USER_ID&gt;</b>	User to associate with alarm (only settable by admin users).
<b>-description &lt;DESCRIPTION&gt;</b>	Free text description of the alarm.

<b>-state &lt;STATE&gt;</b>	State of the alarm, one of: ['ok', 'alarm', 'insufficient data']
<b>-severity &lt;SEVERITY&gt;</b>	Severity of the alarm, one of: ['low', 'moderate', 'critical']
<b>-enabled {True False}</b>	True if alarm evaluation/actioning is enabled.
<b>-alarm-action &lt;Webhook URL&gt; URL</b>	to invoke when state transitions to alarm. May be used multiple times. Defaults to None.
<b>-ok-action &lt;Webhook URL&gt; URL</b>	to invoke when state transitions to OK. May be used multiple times. Defaults to None.
<b>-insufficient-data-action &lt;Webhook URL&gt;</b>	URL to invoke when state transitions to insufficient data. May be used multiple times. Defaults to None.
<b>-time-constraint &lt;Time Constraint&gt;</b>	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.
<b>-remove-time-constraint &lt;Constraint names&gt;</b>	Name or list of names of the time constraints to remove.
<b>-alarm_ids &lt;ALARM IDS&gt;</b>	List of alarm IDs.
<b>-operator &lt;OPERATOR&gt;</b>	Operator to compare with, one of: ['and', 'or'].
<b>-repeat-actions {True False}</b>	True if actions should be repeatedly notified while alarm remains in target state.

## ceilometer alarm-delete

```
usage: ceilometer alarm-delete [<ALARM_ID>]
```

Delete an alarm.

### Positional arguments

**<ALARM\_ID>** ID of the alarm to delete.

## ceilometer alarm-gnocchi-aggregation-by-metrics-threshold-create

```
usage: ceilometer alarm-gnocchi-aggregation-by-metrics-threshold-create
--name <NAME> [--project-id <ALARM_PROJECT_ID>]
[--user-id <ALARM_USER_ID>] [--description <DESCRIPTION>]
[--state <STATE>] [--severity <SEVERITY>] [--enabled {True|False}]
[--alarm-action <Webhook URL>] [--ok-action <Webhook URL>]
```



```
[--insufficient-data-action <Webhook URL>]
[--time-constraint <Time Constraint>] [--granularity <GRANULARITY>]
[--evaluation-periods <COUNT>] [--aggregation-method <AGGREATION>]
[--comparison-operator <OPERATOR>] --threshold <THRESHOLD>
[--repeat-actions {True|False}] -m <METRICS>
```

Create a new alarm based on computed statistics.

### Optional arguments

<b>-name &lt;NAME&gt;</b>	Name of the alarm (must be unique per tenant). Required.
<b>-project-id &lt;ALARM_PROJECT_ID&gt;</b>	Tenant to associate with alarm (only settable by admin users).
<b>-user-id &lt;ALARM_USER_ID&gt;</b>	User to associate with alarm (only settable by admin users).
<b>-description &lt;DESCRIPTION&gt;</b>	Free text description of the alarm.
<b>-state &lt;STATE&gt;</b>	State of the alarm, one of: ['ok', 'alarm', 'insufficient data']
<b>-severity &lt;SEVERITY&gt;</b>	Severity of the alarm, one of: ['low', 'moderate', 'critical']
<b>-enabled {True False}</b>	True if alarm evaluation/actioning is enabled.
<b>-alarm-action &lt;Webhook URL&gt; URL</b>	to invoke when state transitions to alarm. May be used multiple times. Defaults to None.
<b>-ok-action &lt;Webhook URL&gt; URL</b>	to invoke when state transitions to OK. May be used multiple times. Defaults to None.
<b>-insufficient-data-action &lt;Webhook URL&gt;</b>	URL to invoke when state transitions to insufficient data. May be used multiple times. Defaults to None.
<b>-time-constraint &lt;Time Constraint&gt;</b>	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.
<b>-granularity &lt;GRANULARITY&gt;</b>	Length of each period (seconds) to evaluate over.
<b>-evaluation-periods &lt;COUNT&gt;</b>	Number of periods to evaluate over.
<b>-aggregation-method &lt;AGGREATION&gt;</b>	Aggregation method to use, one of: ['max', 'min', 'avg', 'sum', 'count'].
<b>-comparison-operator &lt;OPERATOR&gt;</b>	Operator to compare with, one of: ['lt', 'le', 'eq', 'ne', 'ge', 'gt'].

<b>-threshold &lt;THRESHOLD&gt;</b>	Threshold to evaluate against. Required.
<b>-repeat-actions {True False}</b>	True if actions should be repeatedly notified while alarm remains in target state. Defaults to False.
<b>-m &lt;METRICS&gt;, --metrics &lt;METRICS&gt;</b>	Metric to evaluate against. Required.

## ceilometer alarm-gnocchi-aggregation-by-metrics-threshold-update

```
usage: ceilometer alarm-gnocchi-aggregation-by-metrics-threshold-update
  [--name <NAME>] [--project-id <ALARM_PROJECT_ID>]
  [--user-id <ALARM_USER_ID>] [--description <DESCRIPTION>]
  [--state <STATE>] [--severity <SEVERITY>] [--enabled {True|False}]
  [--alarm-action <Webhook URL>] [--ok-action <Webhook URL>]
  [--insufficient-data-action <Webhook URL>]
  [--time-constraint <Time Constraint>] [--granularity <GRANULARITY>]
  [--evaluation-periods <COUNT>] [--aggregation-method <AGGREGATION>]
  [--comparison-operator <OPERATOR>] [--threshold <THRESHOLD>]
  [--repeat-actions {True|False}] [-m <METRICS>]
  [--remove-time-constraint <Constraint names>]
  [<ALARM_ID>]
```

Update an existing alarm based on computed statistics.

### Positional arguments

**<ALARM\_ID>** ID of the alarm to update.

### Optional arguments

<b>-name &lt;NAME&gt;</b>	Name of the alarm (must be unique per tenant).
<b>-project-id &lt;ALARM_PROJECT_ID&gt;</b>	Tenant to associate with alarm (only settable by admin users).
<b>-user-id &lt;ALARM_USER_ID&gt;</b>	User to associate with alarm (only settable by admin users).
<b>-description &lt;DESCRIPTION&gt;</b>	Free text description of the alarm.
<b>-state &lt;STATE&gt;</b>	State of the alarm, one of: ['ok', 'alarm', 'insufficient data']
<b>-severity &lt;SEVERITY&gt;</b>	Severity of the alarm, one of: ['low', 'moderate', 'critical']
<b>-enabled {True False}</b>	True if alarm evaluation/actioning is enabled.
<b>-alarm-action &lt;Webhook URL&gt; URL</b>	to invoke when state transitions to alarm. May be used multiple times. Defaults to None.
<b>-ok-action &lt;Webhook URL&gt; URL</b>	to invoke when state transitions to OK. May be used multiple times. Defaults to None.

<b>-insufficient-data-action &lt;Webhook URL&gt;</b>	URL to invoke when state transitions to insufficient data. May be used multiple times. Defaults to None.
<b>-time-constraint &lt;Time Constraint&gt;</b>	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.
<b>-granularity &lt;GRANULARITY&gt;</b>	Length of each period (seconds) to evaluate over.
<b>-evaluation-periods &lt;COUNT&gt;</b>	Number of periods to evaluate over.
<b>-aggregation-method &lt;AGGREGATION&gt;</b>	Aggregation method to use, one of: ['max', 'min', 'avg', 'sum', 'count'].
<b>-comparison-operator &lt;OPERATOR&gt;</b>	Operator to compare with, one of: ['lt', 'le', 'eq', 'ne', 'ge', 'gt'].
<b>-threshold &lt;THRESHOLD&gt;</b>	Threshold to evaluate against.
<b>-repeat-actions {True False}</b>	True if actions should be repeatedly notified while alarm remains in target state. Defaults to False.
<b>-m &lt;METRICS&gt;, --metrics &lt;METRICS&gt;</b>	Metric to evaluate against.
<b>-remove-time-constraint &lt;Constraint names&gt;</b>	Name or list of names of the time constraints to remove.

## ceilometer alarm-gnocchi-aggregation-by-resources-threshold-create

```
usage: ceilometer alarm-gnocchi-aggregation-by-resources-threshold-create
       --name <NAME> [--project-id <ALARM_PROJECT_ID>]
       [--user-id <ALARM_USER_ID>] [--description <DESCRIPTION>]
       [--state <STATE>] [--severity <SEVERITY>] [--enabled {True|False}]
       [--alarm-action <Webhook URL>] [--ok-action <Webhook URL>]
       [--insufficient-data-action <Webhook URL>]
       [--time-constraint <Time Constraint>] [--granularity <GRANULARITY>]
       [--evaluation-periods <COUNT>] [--aggregation-method <AGGREGATION>]
       [--comparison-operator <OPERATOR>] --threshold <THRESHOLD>
       [--repeat-actions {True|False}] -m <METRIC> --resource-type
       <RESOURCE_TYPE> --query <QUERY>
```

Create a new alarm based on computed statistics.

### Optional arguments

<b>-name &lt;NAME&gt;</b>	Name of the alarm (must be unique per tenant). Required.
---------------------------	--

<b>-project-id &lt;ALARM_PROJECT_ID&gt;</b>	Tenant to associate with alarm (only settable by admin users).
<b>-user-id &lt;ALARM_USER_ID&gt;</b>	User to associate with alarm (only settable by admin users).
<b>-description &lt;DESCRIPTION&gt;</b>	Free text description of the alarm.
<b>-state &lt;STATE&gt;</b>	State of the alarm, one of: ['ok', 'alarm', 'insufficient data']
<b>-severity &lt;SEVERITY&gt;</b>	Severity of the alarm, one of: ['low', 'moderate', 'critical']
<b>-enabled {True False}</b>	True if alarm evaluation/actioning is enabled.
<b>-alarm-action &lt;Webhook URL&gt; URL</b>	to invoke when state transitions to alarm. May be used multiple times. Defaults to None.
<b>-ok-action &lt;Webhook URL&gt; URL</b>	to invoke when state transitions to OK. May be used multiple times. Defaults to None.
<b>-insufficient-data-action &lt;Webhook URL&gt;</b>	URL to invoke when state transitions to insufficient data. May be used multiple times. Defaults to None.
<b>-time-constraint &lt;Time Constraint&gt;</b>	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.
<b>-granularity &lt;GRANULARITY&gt;</b>	Length of each period (seconds) to evaluate over.
<b>-evaluation-periods &lt;COUNT&gt;</b>	Number of periods to evaluate over.
<b>-aggregation-method &lt;AGGREGATION&gt;</b>	Aggregation method to use, one of: ['max', 'min', 'avg', 'sum', 'count'].
<b>-comparison-operator &lt;OPERATOR&gt;</b>	Operator to compare with, one of: ['lt', 'le', 'eq', 'ne', 'ge', 'gt'].
<b>-threshold &lt;THRESHOLD&gt;</b>	Threshold to evaluate against. Required.
<b>-repeat-actions {True False}</b>	True if actions should be repeatedly notified while alarm remains in target state. Defaults to False.
<b>-m &lt;METRIC&gt;, -metric &lt;METRIC&gt;</b>	Metric to evaluate against. Required.
<b>-resource-type &lt;RESOURCE_TYPE&gt;</b>	Resource_type to evaluate against. Required.
<b>-query &lt;QUERY&gt;</b>	Gnocchi resources search query filter Required.

## ceilometer alarm-gnocchi-aggregation-by-resources-threshold-update

```
usage: ceilometer alarm-gnocchi-aggregation-by-resources-threshold-update
  [--name <NAME>] [--project-id <ALARM_PROJECT_ID>]
  [--user-id <ALARM_USER_ID>] [--description <DESCRIPTION>]
  [--state <STATE>] [--severity <SEVERITY>] [--enabled {True|False}]
  [--alarm-action <Webhook URL>] [--ok-action <Webhook URL>]
  [--insufficient-data-action <Webhook URL>]
  [--time-constraint <Time Constraint>] [--granularity <GRANULARITY>]
  [--evaluation-periods <COUNT>] [--aggregation-method <AGGREGATION>]
  [--comparison-operator <OPERATOR>] [--threshold <THRESHOLD>]
  [--repeat-actions {True|False}] [-m <METRIC>]
  [--resource-type <RESOURCE_TYPE>] [--query <QUERY>]
  [--remove-time-constraint <Constraint names>]
  [<ALARM_ID>]
```

Update an existing alarm based on computed statistics.

### Positional arguments

**<ALARM\_ID>** ID of the alarm to update.

### Optional arguments

<b>-name &lt;NAME&gt;</b>	Name of the alarm (must be unique per tenant).
<b>-project-id &lt;ALARM_PROJECT_ID&gt;</b>	Tenant to associate with alarm (only settable by admin users).
<b>-user-id &lt;ALARM_USER_ID&gt;</b>	User to associate with alarm (only settable by admin users).
<b>-description &lt;DESCRIPTION&gt;</b>	Free text description of the alarm.
<b>-state &lt;STATE&gt;</b>	State of the alarm, one of: ['ok', 'alarm', 'insufficient data']
<b>-severity &lt;SEVERITY&gt;</b>	Severity of the alarm, one of: ['low', 'moderate', 'critical']
<b>-enabled {True False}</b>	True if alarm evaluation/actioning is enabled.
<b>-alarm-action &lt;Webhook URL&gt; URL</b>	to invoke when state transitions to alarm. May be used multiple times. Defaults to None.
<b>-ok-action &lt;Webhook URL&gt; URL</b>	to invoke when state transitions to OK. May be used multiple times. Defaults to None.
<b>-insufficient-data-action &lt;Webhook URL&gt;</b>	URL to invoke when state transitions to insufficient data. May be used multiple times. Defaults to None.
<b>-time-constraint &lt;Time Constraint&gt;</b>	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 mul-

	<p>tiple times for multiple time constraints, format is: name=&lt;CONSTRAINT_NAME&gt;;start=&lt;CRON&gt;;duration=&lt;SECONDS&gt;;[description=&lt;DESCRIPTION&gt;;[timezone=&lt;IANA Timezone&gt;]] Defaults to None.</p>
<b>-granularity &lt;GRANULARITY&gt;</b>	Length of each period (seconds) to evaluate over.
<b>-evaluation-periods &lt;COUNT&gt;</b>	Number of periods to evaluate over.
<b>-aggregation-method &lt;AGGREGATION&gt;</b>	Aggregation method to use, one of: ['max', 'min', 'avg', 'sum', 'count'].
<b>-comparison-operator &lt;OPERATOR&gt;</b>	Operator to compare with, one of: ['lt', 'le', 'eq', 'ne', 'ge', 'gt'].
<b>-threshold &lt;THRESHOLD&gt;</b>	Threshold to evaluate against.
<b>-repeat-actions {True False}</b>	True if actions should be repeatedly notified while alarm remains in target state. Defaults to False.
<b>-m &lt;METRIC&gt;, -metric &lt;METRIC&gt;</b>	Metric to evaluate against.
<b>-resource-type &lt;RESOURCE_TYPE&gt;</b>	Resource_type to evaluate against.
<b>-query &lt;QUERY&gt;</b>	Gnocchi resources search query filter
<b>-remove-time-constraint &lt;Constraint names&gt;</b>	Name or list of names of the time constraints to remove.

## ceilometer alarm-gnocchi-resources-threshold-create

```
usage: ceilometer alarm-gnocchi-resources-threshold-create --name <NAME>
                                [--project-id <ALARM_PROJECT_ID>]
                                [--user-id <ALARM_USER_ID>]
                                [--description <DESCRIPTION>]
                                [--state <STATE>]
                                [--severity <SEVERITY>]
                                [--enabled {True|False}]
                                [--alarm-action <Webhook URL>]
                                [--ok-action <Webhook URL>]
                                [--insufficient-data-action <Webhook URL>]
                                [--time-constraint <Time Constraint>]
                                [--granularity <GRANULARITY>]
```

```

periods <COUNT>]
method <AGGREGATION>]
operator <OPERATOR>]

{True|False}]

[--evaluation-
[--aggregation-
[--comparison-
--threshold
<THRESHOLD>
[--repeat-actions
-m <METRIC>
--resource-type
<RESOURCE_TYPE>
--resource-id
<RESOURCE_ID>

```

Create a new alarm based on computed statistics.

### Optional arguments

<b>-name &lt;NAME&gt;</b>	Name of the alarm (must be unique per tenant). Required.
<b>-project-id &lt;ALARM_PROJECT_ID&gt;</b>	Tenant to associate with alarm (only settable by admin users).
<b>-user-id &lt;ALARM_USER_ID&gt;</b>	User to associate with alarm (only settable by admin users).
<b>-description &lt;DESCRIPTION&gt;</b>	Free text description of the alarm.
<b>-state &lt;STATE&gt;</b>	State of the alarm, one of: ['ok', 'alarm', 'insufficient data']
<b>-severity &lt;SEVERITY&gt;</b>	Severity of the alarm, one of: ['low', 'moderate', 'critical']
<b>-enabled {True False}</b>	True if alarm evaluation/actioning is enabled.
<b>-alarm-action &lt;Webhook URL&gt; URL</b>	to invoke when state transitions to alarm. May be used multiple times. Defaults to None.
<b>-ok-action &lt;Webhook URL&gt; URL</b>	to invoke when state transitions to OK. May be used multiple times. Defaults to None.
<b>-insufficient-data-action &lt;Webhook URL&gt;</b>	URL to invoke when state transitions to insufficient data. May be used multiple times. Defaults to None.
<b>-time-constraint &lt;Time Constraint&gt;</b>	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.

<b>-granularity &lt;GRANULARITY&gt;</b>	Length of each period (seconds) to evaluate over.
<b>-evaluation-periods &lt;COUNT&gt;</b>	Number of periods to evaluate over.
<b>-aggregation-method &lt;AGGREGATION&gt;</b>	Aggregation method to use, one of: ['max', 'min', 'avg', 'sum', 'count'].
<b>-comparison-operator &lt;OPERATOR&gt;</b>	Operator to compare with, one of: ['lt', 'le', 'eq', 'ne', 'ge', 'gt'].
<b>-threshold &lt;THRESHOLD&gt;</b>	Threshold to evaluate against. Required.
<b>-repeat-actions {True False}</b>	True if actions should be repeatedly notified while alarm remains in target state. Defaults to False.
<b>-m &lt;METRIC&gt;, -metric &lt;METRIC&gt;</b>	Metric to evaluate against. Required.
<b>-resource-type &lt;RESOURCE_TYPE&gt;</b>	Resource_type to evaluate against. Required.
<b>-resource-id &lt;RESOURCE_ID&gt;</b>	Resource id to evaluate against Required.

## ceilometer alarm-gnocchi-resources-threshold-update

```
usage: ceilometer alarm-gnocchi-resources-threshold-update [--name <NAME>]
                  [--project-id <ALARM_PROJECT_ID>]
                  [--user-id <ALARM_USER_ID>]
                  [--description <DESCRIPTION>]
                  [--state <STATE>]
                  [--severity <SEVERITY>]
                  [--enabled {True|False}]
                  [--alarm-action <Webhook URL>]
                  [--ok-action <Webhook URL>]
                  [--insufficient-data-action <Webhook URL>]
                  [--time-constraint <Time Constraint>]
                  [--granularity <GRANULARITY>]
                  [--evaluation-periods <COUNT>]
                  [--aggregation-method <AGGREGATION>]
                  [--comparison-operator <OPERATOR>]
                  [--threshold <THRESHOLD>]
```



```

{True|False}]
[--repeat-actions
[ -m <METRIC>]
[--resource-type
[--resource-id
[--remove-time-
constraint <Constraint names>]
[<ALARM_ID>]

```

Update an existing alarm based on computed statistics.

### Positional arguments

**<ALARM\_ID>** ID of the alarm to update.

### Optional arguments

<b>-name &lt;NAME&gt;</b>	Name of the alarm (must be unique per tenant).
<b>-project-id &lt;ALARM_PROJECT_ID&gt;</b>	Tenant to associate with alarm (only settable by admin users).
<b>-user-id &lt;ALARM_USER_ID&gt;</b>	User to associate with alarm (only settable by admin users).
<b>-description &lt;DESCRIPTION&gt;</b>	Free text description of the alarm.
<b>-state &lt;STATE&gt;</b>	State of the alarm, one of: ['ok', 'alarm', 'insufficient data']
<b>-severity &lt;SEVERITY&gt;</b>	Severity of the alarm, one of: ['low', 'moderate', 'critical']
<b>-enabled {True False}</b>	True if alarm evaluation/actioning is enabled.
<b>-alarm-action &lt;Webhook URL&gt; URL</b>	to invoke when state transitions to alarm. May be used multiple times. Defaults to None.
<b>-ok-action &lt;Webhook URL&gt; URL</b>	to invoke when state transitions to OK. May be used multiple times. Defaults to None.
<b>-insufficient-data-action &lt;Webhook URL&gt; URL</b>	URL to invoke when state transitions to insufficient data. May be used multiple times. Defaults to None.
<b>-time-constraint &lt;Time Constraint&gt;</b>	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.
<b>-granularity &lt;GRANULARITY&gt;</b>	Length of each period (seconds) to evaluate over.

<b>-evaluation-periods &lt;COUNT&gt;</b>	Number of periods to evaluate over.
<b>-aggregation-method &lt;AGGREGATION&gt;</b>	Aggregation method to use, one of: ['max', 'min', 'avg', 'sum', 'count'].
<b>-comparison-operator &lt;OPERATOR&gt;</b>	Operator to compare with, one of: ['lt', 'le', 'eq', 'ne', 'ge', 'gt'].
<b>-threshold &lt;THRESHOLD&gt;</b>	Threshold to evaluate against.
<b>-repeat-actions {True False}</b>	True if actions should be repeatedly notified while alarm remains in target state. Defaults to False.
<b>-m &lt;METRIC&gt;, -metric &lt;METRIC&gt;</b>	Metric to evaluate against.
<b>-resource-type &lt;RESOURCE_TYPE&gt;</b>	Resource_type to evaluate against.
<b>-resource-id &lt;RESOURCE_ID&gt;</b>	Resource id to evaluate against
<b>-remove-time-constraint &lt;Constraint names&gt;</b>	Name or list of names of the time constraints to remove.

## 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.

## 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.

## ceilometer alarm-show

```
usage: ceilometer alarm-show [<ALARM_ID>]
```

Show an alarm.

**Positional arguments**

**<ALARM\_ID>** ID of the alarm to show.

## 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.

## 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.

## ceilometer alarm-threshold-create

```
usage: ceilometer alarm-threshold-create --name <NAME>
      [--project-id <ALARM_PROJECT_ID>]
      [--user-id <ALARM_USER_ID>]
      [--description <DESCRIPTION>]
      [--state <STATE>]
      [--severity <SEVERITY>]
      [--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.

<b>-project-id &lt;ALARM_PROJECT_ID&gt;</b>	Tenant to associate with alarm (only settable by admin users).
<b>-user-id &lt;ALARM_USER_ID&gt;</b>	User to associate with alarm (only settable by admin users).
<b>-description &lt;DESCRIPTION&gt;</b>	Free text description of the alarm.
<b>-state &lt;STATE&gt;</b>	State of the alarm, one of: ['ok', 'alarm', 'insufficient data']
<b>-severity &lt;SEVERITY&gt;</b>	Severity of the alarm, one of: ['low', 'moderate', 'critical']
<b>-enabled {True False}</b>	True if alarm evaluation/actioning is enabled.
<b>-alarm-action &lt;Webhook URL&gt; URL</b>	to invoke when state transitions to alarm. May be used multiple times. Defaults to None.
<b>-ok-action &lt;Webhook URL&gt; URL</b>	to invoke when state transitions to OK. May be used multiple times. Defaults to None.
<b>-insufficient-data-action &lt;Webhook URL&gt;</b>	URL to invoke when state transitions to insufficient data. May be used multiple times. Defaults to None.
<b>-time-constraint &lt;Time Constraint&gt;</b>	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.
<b>-m &lt;METRIC&gt;, -meter-name &lt;METRIC&gt;</b>	Metric to evaluate against. Required.
<b>-period &lt;PERIOD&gt;</b>	Length of each period (seconds) to evaluate over.
<b>-evaluation-periods &lt;COUNT&gt;</b>	Number of periods to evaluate over.
<b>-statistic &lt;STATISTIC&gt;</b>	Statistic to evaluate, one of: ['max', 'min', 'avg', 'sum', 'count'].
<b>-comparison-operator &lt;OPERATOR&gt;</b>	Operator to compare with, one of: ['lt', 'le', 'eq', 'ne', 'ge', 'gt'].
<b>-threshold &lt;THRESHOLD&gt;</b>	Threshold to evaluate against. Required.
<b>-q &lt;QUERY&gt;, -query &lt;QUERY&gt;</b>	key[op]data_type::value; list. data_type is optional, but if supplied must be string, integer, float, or boolean.
<b>-repeat-actions {True False}</b>	True if actions should be repeatedly notified while alarm remains in target state. Defaults to False.

## ceilometer alarm-threshold-update

```
usage: ceilometer alarm-threshold-update [--name <NAME>]
                                         [--project-id <ALARM_PROJECT_ID>]
                                         [--user-id <ALARM_USER_ID>]
                                         [--description <DESCRIPTION>]
                                         [--state <STATE>]
                                         [--severity <SEVERITY>]
                                         [--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

<b>-name &lt;NAME&gt;</b>	Name of the alarm (must be unique per tenant).
<b>-project-id &lt;ALARM_PROJECT_ID&gt;</b>	Tenant to associate with alarm (only settable by admin users).
<b>-user-id &lt;ALARM_USER_ID&gt;</b>	User to associate with alarm (only settable by admin users).
<b>-description &lt;DESCRIPTION&gt;</b>	Free text description of the alarm.
<b>-state &lt;STATE&gt;</b>	State of the alarm, one of: ['ok', 'alarm', 'insufficient data']
<b>-severity &lt;SEVERITY&gt;</b>	Severity of the alarm, one of: ['low', 'moderate', 'critical']
<b>-enabled {True False}</b>	True if alarm evaluation/actioning is enabled.
<b>-alarm-action &lt;Webhook URL&gt; URL</b>	to invoke when state transitions to alarm. May be used multiple times. Defaults to None.
<b>-ok-action &lt;Webhook URL&gt; URL</b>	to invoke when state transitions to OK. May be used multiple times. Defaults to None.

<b>-insufficient-data-action &lt;Webhook URL&gt;</b>	URL to invoke when state transitions to insufficient data. May be used multiple times. Defaults to None.
<b>-time-constraint &lt;Time Constraint&gt;</b>	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.
<b>-remove-time-constraint &lt;Constraint names&gt;</b>	Name or list of names of the time constraints to remove.
<b>-m &lt;METRIC&gt;, -meter-name &lt;METRIC&gt;</b>	Metric to evaluate against.
<b>-period &lt;PERIOD&gt;</b>	Length of each period (seconds) to evaluate over.
<b>-evaluation-periods &lt;COUNT&gt;</b>	Number of periods to evaluate over.
<b>-statistic &lt;STATISTIC&gt;</b>	Statistic to evaluate, one of: ['max', 'min', 'avg', 'sum', 'count'].
<b>-comparison-operator &lt;OPERATOR&gt;</b>	Operator to compare with, one of: ['lt', 'le', 'eq', 'ne', 'ge', 'gt'].
<b>-threshold &lt;THRESHOLD&gt;</b>	Threshold to evaluate against.
<b>-q &lt;QUERY&gt;, -query &lt;QUERY&gt;</b>	key[op]data_type::value; list. data_type is optional, but if supplied must be string, integer, float, or boolean.
<b>-repeat-actions {True False}</b>	True if actions should be repeatedly notified while alarm remains in target state.

## ceilometer capabilities

```
usage: ceilometer capabilities
```

Print Ceilometer capabilities.

## ceilometer event-list

```
usage: ceilometer event-list [-q <QUERY>] [--no-traits]
```

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.

**-no-traits** If specified, traits will not be printed.

## 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.

## ceilometer event-type-list

```
usage: ceilometer event-type-list
```

List event types.

## 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.

## 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.

## ceilometer query-alarms

```
usage: ceilometer query-alarms [-f <FILTER>] [-o <ORDERBY>] [-l <LIMIT>]
```

Query Alarms.

### Optional arguments

<b>-f &lt;FILTER&gt;, --filter &lt;FILTER&gt;</b>	{complex_op: [{simple_op: {field_name: value}}]} The complex_op is one of: ['and', 'or'], simple_op is one of: ['=', '!=', '<', '<=', '>', '>='].
<b>-o &lt;ORDERBY&gt;, --orderby &lt;ORDERBY&gt;</b>	[[field_name: direction], {field_name: direction}] The direction is one of: ['asc', 'desc'].
<b>-l &lt;LIMIT&gt;, --limit &lt;LIMIT&gt;</b>	Maximum number of alarms to return.

## ceilometer query-samples

```
usage: ceilometer query-samples [-f <FILTER>] [-o <ORDERBY>] [-l <LIMIT>]
```

Query samples.

### Optional arguments

<b>-f &lt;FILTER&gt;, --filter &lt;FILTER&gt;</b>	{complex_op: [{simple_op: {field_name: value}}]} The complex_op is one of: ['and', 'or'], simple_op is one of: ['=', '!=', '<', '<=', '>', '>='].
<b>-o &lt;ORDERBY&gt;, --orderby &lt;ORDERBY&gt;</b>	[[field_name: direction], {field_name: direction}] The direction is one of: ['asc', 'desc'].
<b>-l &lt;LIMIT&gt;, --limit &lt;LIMIT&gt;</b>	Maximum number of samples to return.

## ceilometer resource-list

```
usage: ceilometer resource-list [-q <QUERY>]
```

List the resources.

### Optional arguments

<b>-q &lt;QUERY&gt;, --query &lt;QUERY&gt;</b>	key[op]data_type::value; list. data_type is optional, but if supplied must be string, integer, float, or boolean.
--	---

## ceilometer resource-show

```
usage: ceilometer resource-show <RESOURCE_ID>
```

Show the resource.

### Positional arguments

**<RESOURCE\_ID>** ID of the resource to show.

## ceilometer sample-create

```
usage: ceilometer sample-create [--project-id <SAMPLE_PROJECT_ID>]
```



```
[--user-id <SAMPLE_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

<b>-project-id</b> <b>&lt;SAMPLE_PROJECT_ID&gt;</b>	Tenant to associate with sample (only settable by admin users).
<b>-user-id &lt;SAMPLE_USER_ID&gt;</b>	User to associate with sample (only settable by admin users).
<b>-r &lt;RESOURCE_ID&gt;, -resource-id</b> <b>&lt;RESOURCE_ID&gt;</b>	ID of the resource. Required.
<b>-m &lt;METER_NAME&gt;, -meter-name</b> <b>&lt;METER_NAME&gt;</b>	The meter name. Required.
<b>-meter-type &lt;METER_TYPE&gt;</b>	The meter type. Required.
<b>-meter-unit &lt;METER_UNIT&gt;</b>	The meter unit. Required.
<b>-sample-volume</b> <b>&lt;SAMPLE_VOLUME&gt;</b>	The sample volume. Required.
<b>-resource-metadata</b> <b>&lt;RESOURCE_METADATA&gt;</b>	Resource metadata. Provided value should be a set of key-value pairs e.g. {"key": "value"}.
<b>-timestamp &lt;TIMESTAMP&gt;</b>	The sample timestamp.

## ceilometer sample-list

```
usage: ceilometer sample-list [-q <QUERY>] [-m <NAME>] [-l <NUMBER>]
```

List the samples (return OldSample objects if -m/-meter is set).

### Optional arguments

<b>-q &lt;QUERY&gt;, -query &lt;QUERY&gt;</b>	key[op]data_type::value; list. data_type is optional, but if supplied must be string, integer, float, or boolean.
<b>-m &lt;NAME&gt;, -meter &lt;NAME&gt;</b>	Name of meter to show samples for.
<b>-l &lt;NUMBER&gt;, -limit &lt;NUMBER&gt;</b>	Maximum number of samples to return.

## ceilometer sample-show

```
usage: ceilometer sample-show <SAMPLE_ID>
```

Show an sample.

### Positional arguments

**<SAMPLE\_ID>** ID (aka message ID) of the sample to show.

## ceilometer statistics

```
usage: ceilometer statistics [-q <QUERY>] -m <NAME> [-p <PERIOD>] [-g <FIELD>]
                             [-a <FUNC>[<-<PARAM>]]
```

List the statistics for a meter.

### Optional arguments

<b>-q &lt;QUERY&gt;, --query &lt;QUERY&gt;</b>	key[op]data_type::value; list. data_type is optional, but if supplied must be string, integer, float, or boolean.
<b>-m &lt;NAME&gt;, --meter &lt;NAME&gt;</b>	Name of meter to list statistics for. Required.
<b>-p &lt;PERIOD&gt;, --period &lt;PERIOD&gt;</b>	Period in seconds over which to group samples.
<b>-g &lt;FIELD&gt;, --groupby &lt;FIELD&gt;</b>	Field for group by.
<b>-a &lt;FUNC&gt;[&lt;-&lt;PARAM&gt;], --aggregate &lt;FUNC&gt;[&lt;-&lt;PARAM&gt;]</b>	Function for data aggregation. Available aggregates are: count, cardinality, min, max, sum, stddev, avg. Defaults to [].

## ceilometer trait-description-list

```
usage: ceilometer trait-description-list -e <EVENT_TYPE>
```

List trait info for an event type.

### Optional arguments

<b>-e &lt;EVENT_TYPE&gt;, --event_type &lt;EVENT_TYPE&gt;</b>	Type of the event for which traits will be shown. Required.
---	---

## ceilometer trait-list

```
usage: ceilometer trait-list -e <EVENT_TYPE> -t <TRAIT_NAME>
```

List all traits with name <trait\_name> for Event Type <event\_type>.

### Optional arguments

<b>-e &lt;EVENT_TYPE&gt;, --event_type &lt;EVENT_TYPE&gt;</b>	Type of the event for which traits will listed. Required.
<b>-t &lt;TRAIT_NAME&gt;, --trait_name &lt;TRAIT_NAME&gt;</b>	The name of the trait to list. Required.

## 13. Database service command-line client

trove usage .....	342
trove optional arguments .....	345
trove backup-copy .....	347
trove backup-create .....	347
trove backup-delete .....	347
trove backup-list .....	348
trove backup-list-instance .....	348
trove backup-show .....	348
trove cluster-create .....	348
trove cluster-delete .....	349
trove cluster-instances .....	349
trove cluster-list .....	349
trove cluster-show .....	349
trove configuration-attach .....	349
trove configuration-create .....	350
trove configuration-default .....	350
trove configuration-delete .....	350
trove configuration-detach .....	351
trove configuration-instances .....	351
trove configuration-list .....	351
trove configuration-parameter-list .....	351
trove configuration-parameter-show .....	351
trove configuration-patch .....	352
trove configuration-show .....	352
trove configuration-update .....	352
trove create .....	353
trove database-create .....	354
trove database-delete .....	354
trove database-list .....	354
trove datastore-list .....	354
trove datastore-show .....	354
trove datastore-version-list .....	355
trove datastore-version-show .....	355
trove delete .....	355
trove detach-replica .....	355
trove eject-replica-source .....	356
trove flavor-list .....	356
trove flavor-show .....	356
trove limit-list .....	356
trove list .....	356
trove metadata-create .....	357
trove metadata-delete .....	357
trove metadata-edit .....	357
trove metadata-list .....	357
trove metadata-show .....	358
trove metadata-update .....	358
trove promote-to-replica-source .....	358
trove resize-instance .....	358

trove resize-volume .....	359
trove restart .....	359
trove root-enable .....	359
trove root-show .....	359
trove secgroup-add-rule .....	359
trove secgroup-delete-rule .....	360
trove secgroup-list .....	360
trove secgroup-list-rules .....	360
trove secgroup-show .....	360
trove show .....	360
trove update .....	360
trove user-create .....	361
trove user-delete .....	361
trove user-grant-access .....	362
trove user-list .....	362
trove user-revoke-access .....	362
trove user-show .....	362
trove user-show-access .....	363
trove user-update-attributes .....	363

The **trove** client is the command-line interface (CLI) for the Database API and its extensions. This chapter documents **trove** version 1.1.0.

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

```
$ trove help COMMAND
```

## trove usage

```
usage: trove [--version] [--debug] [--os-auth-system <auth-system>]
             [--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>]
             [--retries <retries>] [--json] [--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] [--os-tenant-name <auth-tenant-name>]
             [--os-tenant-id <tenant-id>] [--os-auth-token OS_AUTH_TOKEN]
             [--os-region-name <region-name>]
             <subcommand> ...
```

### Subcommands

#### backup-copy

Creates a backup from another backup.

---

<b>backup-create</b>	Creates a backup of an instance.
<b>backup-delete</b>	Deletes a backup.
<b>backup-list</b>	Lists available backups.
<b>backup-list-instance</b>	Lists available backups for an instance.
<b>backup-show</b>	Shows details of a backup.
<b>cluster-create</b>	Creates a new cluster.
<b>cluster-delete</b>	Deletes a cluster.
<b>cluster-instances</b>	Lists all instances of a cluster.
<b>cluster-list</b>	Lists all the clusters.
<b>cluster-show</b>	Shows details of a cluster.
<b>configuration-attach</b>	Attaches a configuration group to an instance.
<b>configuration-create</b>	Creates a configuration group.
<b>configuration-default</b>	Shows the default configuration of an instance.
<b>configuration-delete</b>	Deletes a configuration group.
<b>configuration-detach</b>	Detaches a configuration group from an instance.
<b>configuration-instances</b>	Lists all instances associated with a configuration group.
<b>configuration-list</b>	Lists all configuration groups.
<b>configuration-parameter-list</b>	Lists available parameters for a configuration group.
<b>configuration-parameter-show</b>	Shows details of a configuration parameter.
<b>configuration-patch</b>	Patches a configuration group.
<b>configuration-show</b>	Shows details of a configuration group.
<b>configuration-update</b>	Updates a configuration group.
<b>create</b>	Creates a new instance.
<b>database-create</b>	Creates a database on an instance.
<b>database-delete</b>	Deletes a database from an instance.
<b>database-list</b>	Lists available databases on an instance.
<b>datastore-list</b>	Lists available datastores.
<b>datastore-show</b>	Shows details of a datastore.

---

---

<b>datastore-version-list</b>	Lists available versions for a datastore.
<b>datastore-version-show</b>	Shows details of a datastore version.
<b>delete</b>	Deletes an instance.
<b>detach-replica</b>	Detaches a replica instance from its replication source.
<b>eject-replica-source</b>	Ejects a replica source from its set.
<b>flavor-list</b>	Lists available flavors.
<b>flavor-show</b>	Shows details of a flavor.
<b>limit-list</b>	Lists the limits for a tenant.
<b>list</b>	Lists all the instances.
<b>metadata-create</b>	Creates metadata in the database for instance <id>.
<b>metadata-delete</b>	Deletes metadata for instance <id>.
<b>metadata-edit</b>	Replaces metadata value with a new one, this is non-destructive.
<b>metadata-list</b>	Shows all metadata for instance <id>.
<b>metadata-show</b>	Shows metadata entry for key <key> and instance <id>.
<b>metadata-update</b>	Updates metadata, this is destructive.
<b>promote-to-replica-source</b>	Promotes a replica to be the new replica source of its set.
<b>resize-flavor</b>	[ <i>DEPRECATED</i> ] Please use resize-instance instead.
<b>resize-instance</b>	Resizes an instance with a new flavor.
<b>resize-volume</b>	Resizes the volume size of an instance.
<b>restart</b>	Restarts an instance.
<b>root-enable</b>	Enables root for an instance and resets if already exists.
<b>root-show</b>	Gets status if root was ever enabled for an instance.
<b>secgroup-add-rule</b>	Creates a security group rule.
<b>secgroup-delete-rule</b>	Deletes a security group rule.
<b>secgroup-list</b>	Lists all security groups.
<b>secgroup-list-rules</b>	Lists all rules for a security group.
<b>secgroup-show</b>	Shows details of a security group.

---

<b>show</b>	Shows details of an instance.
<b>update</b>	Updates an instance: Edits name, configuration, or replica source.
<b>user-create</b>	Creates a user on an instance.
<b>user-delete</b>	Deletes a user from an instance.
<b>user-grant-access</b>	Grants access to a database(s) for a user.
<b>user-list</b>	Lists the users for an instance.
<b>user-revoke-access</b>	Revokes access to a database for a user.
<b>user-show</b>	Shows details of a user of an instance.
<b>user-show-access</b>	Shows access details of a user of an instance.
<b>user-update-attributes</b>	Updates a user's attributes on an instance.
<b>bash-completion</b>	Prints arguments for bash_completion.
<b>help</b>	Displays help about this program or one of its subcommands.

## trove optional arguments

<b>-version</b>	show program's version number and exit
<b>-debug</b>	Print debugging output.
<b>-os-auth-system &lt;auth-system&gt;</b>	Defaults to env[ OS_AUTH_SYSTEM ].
<b>-service-type &lt;service-type&gt;</b>	Defaults to database for most actions.
<b>-service-name &lt;service-name&gt;</b>	Defaults to env[ TROVE_SERVICE_NAME ].
<b>-bypass-url &lt;bypass-url&gt;</b>	Defaults to env[ TROVE_BYPASS_URL ].
<b>-database-service-name &lt;database-service-name&gt;</b>	Defaults to env[ TROVE_DATABASE_SERVICE_NAME ].
<b>-endpoint-type &lt;endpoint-type&gt;</b>	Defaults to env[ TROVE_ENDPOINT_TYPE ] or publicURL.
<b>-os-database-api-version &lt;database-api-ver&gt;</b>	Accepts 1, defaults to env[ OS_DATABASE_API_VERSION ].
<b>-retries &lt;retries&gt;</b>	Number of retries.
<b>-json, -os-json-output</b>	Output JSON instead of prettyprint. Defaults to env[ OS_JSON_OUTPUT ].

<b>-insecure</b>	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.
<b>-os-cacert &lt;ca-certificate&gt;</b>	Specify a CA bundle file to use in verifying a TLS (https) server certificate. Defaults to <code>env[OS_CACERT]</code> .
<b>-os-cert &lt;certificate&gt;</b>	Defaults to <code>env[OS_CERT]</code> .
<b>-os-key &lt;key&gt;</b>	Defaults to <code>env[OS_KEY]</code> .
<b>-timeout &lt;seconds&gt;</b>	Set request timeout (in seconds).
<b>-os-auth-url OS_AUTH_URL</b>	Authentication URL
<b>-os-domain-id OS_DOMAIN_ID</b>	Domain ID to scope to
<b>-os-domain-name OS_DOMAIN_NAME</b>	Domain name to scope to
<b>-os-project-id OS_PROJECT_ID</b>	Project ID to scope to
<b>-os-project-name OS_PROJECT_NAME</b>	Project name to scope to
<b>-os-project-domain-id OS_PROJECT_DOMAIN_ID</b>	Domain ID containing project
<b>-os-project-domain-name OS_PROJECT_DOMAIN_NAME</b>	Domain name containing project
<b>-os-trust-id OS_TRUST_ID</b>	Trust ID
<b>-os-user-id OS_USER_ID</b>	User ID
<b>-os-user-name OS_USERNAME, -os-username OS_USERNAME</b>	Username
<b>-os-user-domain-id OS_USER_DOMAIN_ID</b>	User's domain id
<b>-os-user-domain-name OS_USER_DOMAIN_NAME</b>	User's domain name
<b>-os-password OS_PASSWORD</b>	User's password
<b>-os-tenant-name &lt;auth-tenant-name&gt;</b>	Tenant to request authorization on. Defaults to <code>env[OS_TENANT_NAME]</code> .
<b>-os-tenant-id &lt;tenant-id&gt;</b>	Tenant to request authorization on. Defaults to <code>env[OS_TENANT_ID]</code> .
<b>-os-auth-token OS_AUTH_TOKEN</b>	Defaults to <code>env[OS_AUTH_TOKEN]</code>



**-os-region-name <region-name>** Specify the region to use. Defaults to `env[OS_REGION_NAME]`.

## 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.

## trove backup-create

```
usage: trove backup-create <instance> <name>
       [--description <description>] [--parent <parent>]
```

Creates a backup of an instance.

### Positional arguments

**<instance>** ID or name 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.

## trove backup-delete

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

Deletes a backup.

### Positional arguments

**<backup>** ID of the backup.

## 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.

## trove backup-list-instance

```
usage: trove backup-list-instance [--limit <limit>] <instance>
```

Lists available backups for an instance.

### Positional arguments

**<instance>** ID or name of the instance.

### Optional arguments

**-limit <limit>** Return up to N number of the most recent backups.

## trove backup-show

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

Shows details of a backup.

### Positional arguments

**<backup>** ID of the backup.

## 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** Create an instance for the cluster. Specify multiple times  
**<flavor\_id=flavor\_id,volume=volume>** to create multiple instances.

## trove cluster-delete

```
usage: trove cluster-delete <cluster>
```

Deletes a cluster.

### Positional arguments

**<cluster>** ID of the cluster.

## trove cluster-instances

```
usage: trove cluster-instances <cluster>
```

Lists all instances of a cluster.

### Positional arguments

**<cluster>** ID or name of the cluster.

## 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.

## trove cluster-show

```
usage: trove cluster-show <cluster>
```

Shows details of a cluster.

### Positional arguments

**<cluster>** ID or name of the cluster.

## trove configuration-attach

```
usage: trove configuration-attach <instance> <configuration>
```

Attaches a configuration group to an instance.

### Positional arguments

**<instance>** ID or name of the instance.

**<configuration>** ID of the configuration group to attach to the instance.

## 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. Required if default datastore is not configured.

**--datastore\_version <datastore\_version>** Datastore version ID assigned to the configuration group.

**--description <description>** An optional description for the configuration group.

## trove configuration-default

```
usage: trove configuration-default <instance>
```

Shows the default configuration of an instance.

### Positional arguments

**<instance>** ID or name of the instance.

## trove configuration-delete

```
usage: trove configuration-delete <configuration_group>
```

Deletes a configuration group.

### Positional arguments

**<configuration\_group>** ID of the configuration group.

## trove configuration-detach

```
usage: trove configuration-detach <instance>
```

Detaches a configuration group from an instance.

### Positional arguments

**<instance>** ID or name of the instance.

## 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.

## trove configuration-list

```
usage: trove configuration-list
```

Lists all configuration groups.

## 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.

## 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.

## 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.

## trove configuration-show

```
usage: trove configuration-show <configuration_group>
```

Shows details of a configuration group.

### Positional arguments

**<configuration\_group>** ID of the configuration group.

## 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.

## 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_instance>] [--replica_count <count>]
```

Creates a new instance.

### Positional arguments

**<name>** Name of the instance.

**<flavor\_id>** Flavor of the instance.

### Optional arguments

<b>-size &lt;size&gt;</b>	Size of the instance disk volume in GB. Required when volume support is enabled.
<b>-databases &lt;databases&gt; [&lt;databases&gt; ...]</b>	Optional list of databases.
<b>-users &lt;users&gt; [&lt;users&gt; ...]</b>	Optional list of users in the form user:password.
<b>-backup &lt;backup&gt; A</b>	backup ID.
<b>-availability_zone &lt;availability_zone&gt;</b>	The Zone hint to give to nova.
<b>-datastore &lt;datastore&gt; A</b>	datastore name or ID.
<b>-datastore_version &lt;datastore_version&gt;</b>	A datastore version name or ID.
<b>-nic &lt;net-id=net-uuid,v4-fixed-ip=ip-addr,port-id=port-uuid&gt;</b>	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).
<b>-configuration &lt;configuration&gt;</b>	ID of the configuration group to attach to the instance.
<b>-replica_of &lt;source_instance&gt; ID</b>	or name of an existing instance to replicate from.

**-replica\_count <count>**      Number of replicas to create (defaults to 1).

## 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 or name 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.

## trove database-delete

```
usage: trove database-delete <instance> <database>
```

Deletes a database from an instance.

### Positional arguments

**<instance>**      ID or name of the instance.

**<database>**      Name of the database.

## trove database-list

```
usage: trove database-list <instance>
```

Lists available databases on an instance.

### Positional arguments

**<instance>**      ID or name of the instance.

## trove datastore-list

```
usage: trove datastore-list
```

Lists available datastores.

## trove datastore-show

```
usage: trove datastore-show <datastore>
```



Shows details of a datastore.

### Positional arguments

**<datastore>** ID of the datastore.

## 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.

## 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.

## trove delete

```
usage: trove delete <instance>
```

Deletes an instance.

### Positional arguments

**<instance>** ID or name of the instance.

## trove detach-replica

```
usage: trove detach-replica <instance>
```

Detaches a replica instance from its replication source.

### Positional arguments

**<instance>** ID or name of the instance.

## trove eject-replica-source

```
usage: trove eject-replica-source <instance>
```

Ejects a replica source from its set.

### Positional arguments

**<instance>** ID or name of the instance.

## trove flavor-list

```
usage: trove flavor-list [--datastore_type <datastore_type>]
                        [--datastore_version_id <datastore_version_id>]
```

Lists available flavors.

### Optional arguments

**--datastore\_type <datastore\_type>** Type of the datastore. For eg: mysql.

**--datastore\_version\_id <datastore\_version\_id>** ID of the datastore version.

## trove flavor-show

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

Shows details of a flavor.

### Positional arguments

**<flavor>** ID or name of the flavor.

## trove limit-list

```
usage: trove limit-list
```

Lists the limits for a tenant.

## 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.

<b>-marker &lt;ID&gt;</b>	Begin displaying the results for IDs greater than the specified marker. When used with <b>-limit</b> , set this to the last ID displayed in the previous run.
<b>-include-clustered</b>	Include instances that are part of a cluster (default false).

## trove metadata-create

```
usage: trove metadata-create <instance_id> <key> <value>
```

Creates metadata in the database for instance <id>.

### Positional arguments

<b>&lt;instance_id&gt;</b>	UUID for instance
<b>&lt;key&gt;</b>	Key for assignment
<b>&lt;value&gt;</b>	Value to assign to <key>

## trove metadata-delete

```
usage: trove metadata-delete <instance_id> <key>
```

Deletes metadata for instance <id>.

### Positional arguments

<b>&lt;instance_id&gt;</b>	UUID for instance
<b>&lt;key&gt;</b>	Metadata key to delete

## trove metadata-edit

```
usage: trove metadata-edit <instance_id> <key> <value>
```

Replaces metadata value with a new one, this is non-destructive.

### Positional arguments

<b>&lt;instance_id&gt;</b>	UUID for instance
<b>&lt;key&gt;</b>	Key to replace
<b>&lt;value&gt;</b>	New value to assign to <key>

## trove metadata-list

```
usage: trove metadata-list <instance_id>
```

Shows all metadata for instance <id>.

**Positional arguments**

**<instance\_id>**      UUID for instance

## 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

## 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>

## trove promote-to-replica-source

```
usage: trove promote-to-replica-source <instance>
```

Promotes a replica to be the new replica source of its set.

**Positional arguments**

**<instance>**      ID or name of the instance.

## trove resize-instance

```
usage: trove resize-instance <instance> <flavor_id>
```

Resizes an instance with a new flavor.

**Positional arguments**

**<instance>**      ID or name of the instance.

**<flavor\_id>**      New flavor of the instance.

## trove resize-volume

```
usage: trove resize-volume <instance> <size>
```

Resizes the volume size of an instance.

### Positional arguments

**<instance>** ID or name of the instance.

**<size>** New size of the instance disk volume in GB.

## trove restart

```
usage: trove restart <instance>
```

Restarts an instance.

### Positional arguments

**<instance>** ID or name of the instance.

## trove root-enable

```
usage: trove root-enable <instance>
```

Enables root for an instance and resets if already exists.

### Positional arguments

**<instance>** ID or name of the instance.

## trove root-show

```
usage: trove root-show <instance>
```

Gets status if root was ever enabled for an instance.

### Positional arguments

**<instance>** ID or name of the instance.

## 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.

## 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.

## trove secgroup-list

```
usage: trove secgroup-list
```

Lists all security groups.

## 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.

## trove secgroup-show

```
usage: trove secgroup-show <security_group>
```

Shows details of a security group.

### Positional arguments

**<security\_group>**      Security group ID

## trove show

```
usage: trove show <instance>
```

Shows details of an instance.

### Positional arguments

**<instance>**      ID or name of the instance.

## 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>** ID or name of the instance.

### Optional arguments

<b>-name &lt;name&gt;</b>	Name of the instance.
<b>-configuration &lt;configuration&gt;</b>	ID of the configuration reference to attach.
<b>-detach-replica-source</b>	Detach the replica instance from its replication source.
<b>-remove_configuration</b>	Drops the current configuration reference.

## 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 or name of the instance.

**<name>** Name of user.

**<password>** Password of user.

### Optional arguments

<b>-host &lt;host&gt;</b>	Optional host of user.
<b>-databases &lt;databases&gt; [&lt;databases&gt; ...]</b>	Optional list of databases.

## trove user-delete

```
usage: trove user-delete [--host <host>] <instance> <name>
```

Deletes a user from an instance.

### Positional arguments

**<instance>** ID or name of the instance.

**<name>** Name of user.

### Optional arguments

<b>-host &lt;host&gt;</b>	Optional host of user.
---------------------------	------------------------

## 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 or name of the instance.

**<name>** Name of user.

**<databases>** List of databases.

### Optional arguments

**-host <host>** Optional host of user.

## trove user-list

```
usage: trove user-list <instance>
```

Lists the users for an instance.

### Positional arguments

**<instance>** ID or name of the instance.

## 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 or name of the instance.

**<name>** Name of user.

**<database>** A single database.

### Optional arguments

**-host <host>** Optional host of user.

## trove user-show

```
usage: trove user-show [--host <host>] <instance> <name>
```

Shows details of a user of an instance.



### Positional arguments

<instance> ID or name of the instance.

<name> Name of user.

### Optional arguments

-host <host> Optional host of user.

## 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 or name of the instance.

<name> Name of user.

### Optional arguments

-host <host> Optional host of user.

## 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 or name 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.

## 14. Database Service Management command-line client

trove-manage usage .....	364
trove-manage optional arguments .....	364
trove-manage datastore_update command .....	365
trove-manage datastore_version_update command .....	366
trove-manage db_downgrade command .....	366
trove-manage db_recreate command .....	367
trove-manage db_sync command .....	367
trove-manage db_upgrade command .....	367

The **trove-manage** client is the command-line interface (CLI) for the Database Management Utility and its extensions. This chapter documents **trove-manage** version 2014.2.

For help on a specific **trove-manage** command, enter:

```
$ trove-manage COMMAND --help
```

### trove-manage usage

```
usage: trove-manage [-h] [--config-dir DIR] [--config-file PATH] [--debug]
                  [--log-config-append PATH] [--log-date-format DATE_FORMAT]
                  [--log-dir LOG_DIR] [--log-file PATH]
                  [--log-format FORMAT] [--nodebug] [--nouse-syslog]
                  [--nouse-syslog-rfc-format] [--noverbose]
                  [--syslog-log-facility SYSLOG_LOG_FACILITY] [--use-syslog]
                  [--use-syslog-rfc-format] [--verbose] [--version]

                  {db_sync,db_upgrade,db_downgrade,datastore_update,
datastore_version_update,db_recreate}
                  ...
```

### trove-manage optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--config-dir DIR</b>	Path to a config directory to pull *.conf files from. This file set is sorted, so as to provide a predictable parse order if individual options are over-riden. The set is parsed after the file(s) specified via previous <b>--config-file</b> , arguments hence over-riden options in the directory take precedence.
<b>--config-file PATH</b>	Path to a config file to use. Multiple config files can be specified, with values in later files taking precedence. The default files used are: None.
<b>--debug, -d</b>	Print debugging output (set logging level to DEBUG instead of default WARNING level).

<b>-log-config-append PATH, --log_config PATH</b>	The name of a logging configuration file. This file is appended to any existing logging configuration files. For details about logging configuration files, see the Python logging module documentation.
<b>-log-date-format DATE_FORMAT</b>	Format string for %(asctime)s in log records. Default: None .
<b>-log-dir LOG_DIR, --logdir LOG_DIR</b>	(Optional) The base directory used for relative -log- file paths.
<b>-log-file PATH, --logfile PATH</b>	(Optional) Name of log file to output to. If no default is set, logging will go to stdout.
<b>-log-format FORMAT</b>	<i>DEPRECATED</i> . A logging.Formatter log message format string which may use any of the available logging.LogRecord attributes. This option is deprecated. Please use logging_context_format_string and logging_default_format_string instead.
<b>-nodebug</b>	The inverse of -debug
<b>-nouse-syslog</b>	The inverse of -use-syslog
<b>-nouse-syslog-rfc-format</b>	The inverse of -use-syslog-rfc-format
<b>-noverbose</b>	The inverse of -verbose
<b>-syslog-log-facility SYSLOG_LOG_FACILITY</b>	Syslog facility to receive log lines.
<b>-use-syslog</b>	Use syslog for logging. Existing syslog format is <i>DEPRECATED</i> during I, and will change in J to honor RFC5424.
<b>-use-syslog-rfc-format</b>	(Optional) Enables or disables syslog rfc5424 format for logging. If enabled, prefixes the MSG part of the syslog message with APP-NAME (RFC5424). The format without the APP-NAME is deprecated in I, and will be removed in J.
<b>-verbose, -v</b>	Print more verbose output (set logging level to INFO instead of default WARNING level).
<b>-version</b>	show program's version number and exit

## trove-manage datastore\_update command

```
usage: trove-manage datastore_update [-h] datastore_name default_version
```

Add or update a datastore. If the datastore already exists, the default version will be updated.

### Positional arguments

**datastore\_name**      Name of the datastore.

**default\_version** Name or ID of an existing datastore version to set as the default. When adding a new datastore, use an empty string.

### Optional arguments

**-h, --help** show this help message and exit

## trove-manage datastore\_version\_update command

```
usage: trove-manage datastore_version_update [-h]
                                             datastore version_name manager
                                             image_id packages active
```

Add or update a datastore version. If the datastore version already exists, all values except the datastore name and version will be updated.

### Positional arguments

**datastore** Name of the datastore.

**version\_name** Name of the datastore version.

**manager** Name of the manager that will administer the datastore version.

**image\_id** ID of the image used to create an instance of the datastore version.

**packages** Packages required by the datastore version that are installed on the guest image.

**active** Whether the datastore version is active or not. Accepted values are 0 and 1.

### Optional arguments

**-h, --help** show this help message and exit

## trove-manage db\_downgrade command

```
usage: trove-manage db_downgrade [-h] [--repo_path REPO_PATH] version
```

Downgrade the database to the specified version.

### Positional arguments

**version** Target version.

### Optional arguments

**-h, --help** show this help message and exit

**--repo\_path REPO\_PATH** SQLAlchemy Migrate repository path.

## trove-manage db\_recreate command

```
usage: trove-manage db_recreate [-h] repo_path
```

Drop the database and recreate it.

### Positional arguments

**repo\_path**      SQLAlchemy Migrate repository path.

### Optional arguments

**-h, --help**      show this help message and exit

## trove-manage db\_sync command

```
usage: trove-manage db_sync [-h] [--repo_path REPO_PATH]
```

Populate the database structure

### Optional arguments

**-h, --help**      show this help message and exit

**--repo\_path REPO\_PATH**      SQLAlchemy Migrate repository path.

## trove-manage db\_upgrade command

```
usage: trove-manage db_upgrade [-h] [--version VERSION]
                                [--repo_path REPO_PATH]
```

Upgrade the database to the specified version.

### Optional arguments

**-h, --help**      show this help message and exit

**--version VERSION**      Target version. Defaults to the latest version.

**--repo\_path REPO\_PATH**      SQLAlchemy Migrate repository path.

## 15. Data processing command-line client

sahara usage .....	369
sahara optional arguments .....	371
sahara cluster-create .....	372
sahara cluster-delete .....	372
sahara cluster-list .....	372
sahara cluster-show .....	373
sahara cluster-template-create .....	373
sahara cluster-template-delete .....	373
sahara cluster-template-list .....	373
sahara cluster-template-show .....	373
sahara data-source-create .....	374
sahara data-source-delete .....	374
sahara data-source-list .....	374
sahara data-source-show .....	374
sahara image-add-tag .....	375
sahara image-list .....	375
sahara image-register .....	375
sahara image-remove-tag .....	375
sahara image-show .....	376
sahara image-unregister .....	376
sahara job-binary-create .....	376
sahara job-binary-data-create .....	376
sahara job-binary-data-delete .....	377
sahara job-binary-data-list .....	377
sahara job-binary-delete .....	377
sahara job-binary-list .....	377
sahara job-binary-show .....	377
sahara job-create .....	378
sahara job-delete .....	378
sahara job-list .....	378
sahara job-show .....	378
sahara job-template-create .....	379
sahara job-template-delete .....	379
sahara job-template-list .....	379
sahara job-template-show .....	379
sahara job-type-list .....	379
sahara node-group-template-create .....	380
sahara node-group-template-delete .....	380
sahara node-group-template-list .....	380
sahara node-group-template-show .....	380
sahara plugin-list .....	381
sahara plugin-show .....	381

The **sahara** client is the command-line interface (CLI) for the Data processing API and its extensions. This chapter documents **sahara** version 0.9.0.

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

```
$ sahara help COMMAND
```

## sahara usage

```
usage: sahara [--version] [--debug] [--os-cache] [--region-name <region-name>]
              [--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

<b>cluster-create</b>	Create a cluster.
<b>cluster-delete</b>	Delete a cluster.
<b>cluster-list</b>	Print a list of available clusters.
<b>cluster-show</b>	Show details of a cluster.
<b>cluster-template-create</b>	Create a cluster template.
<b>cluster-template-delete</b>	Delete a cluster template.
<b>cluster-template-list</b>	Print a list of available cluster templates.
<b>cluster-template-show</b>	Show details of a cluster template.
<b>data-source-create</b>	Create a data source that provides job input or receives job output.
<b>data-source-delete</b>	Delete a data source.
<b>data-source-list</b>	Print a list of available data sources.
<b>data-source-show</b>	Show details of a data source.
<b>image-add-tag</b>	Add a tag to an image.
<b>image-list</b>	Print a list of available images.
<b>image-register</b>	Register an image from the Image index.

---

<b>image-remove-tag</b>	Remove a tag from an image.
<b>image-show</b>	Show details of an image.
<b>image-unregister</b>	Unregister an image.
<b>job-binary-create</b>	Record a job binary.
<b>job-binary-data-create</b>	Store data in the internal DB. Use 'swift upload' instead of this command. Use this command only if Swift is not available.
<b>job-binary-data-delete</b>	Delete an internally stored job binary data.
<b>job-binary-data-list</b>	Print a list of internally stored job binary data.
<b>job-binary-delete</b>	Delete a job binary.
<b>job-binary-list</b>	Print a list of job binaries.
<b>job-binary-show</b>	Show details of a job binary.
<b>job-create</b>	Create a job.
<b>job-delete</b>	Delete a job.
<b>job-list</b>	Print a list of jobs.
<b>job-show</b>	Show details of a job.
<b>job-template-create</b>	Create a job template.
<b>job-template-delete</b>	Delete a job template.
<b>job-template-list</b>	Print a list of job templates.
<b>job-template-show</b>	Show details of a job template.
<b>job-type-list</b>	Show supported job types.
<b>node-group-template-create</b>	Create a node group template.
<b>node-group-template-delete</b>	Delete a node group template.
<b>node-group-template-list</b>	Print a list of available node group templates.
<b>node-group-template-show</b>	Show details of a node group template.
<b>plugin-list</b>	Print a list of available plugins.
<b>plugin-show</b>	Show details of a plugin.
<b>bash-completion</b>	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.



<b>help</b>	Display help about this program or one of its subcommands.
-------------	--

## sahara optional arguments

<b>-version</b>	show program's version number and exit
<b>-debug</b>	Print debugging output.
<b>-os-cache</b>	Use the auth token cache. Defaults to False if env[ OS_CACHE ] is not set.
<b>-region-name &lt;region-name&gt;</b>	Defaults to env[ OS_REGION_NAME ].
<b>-service-type &lt;service-type&gt;</b>	Defaults to data-processing for all actions.
<b>-endpoint-type &lt;endpoint-type&gt;</b>	Defaults to env[ SAHARA_ENDPOINT_TYPE ] or publicURL.
<b>-sahara-api-version &lt;sahara-api-ver&gt;</b>	Accepts "api", defaults to env[ SAHARA_API_VERSION ].
<b>-bypass-url &lt;bypass-url&gt;</b>	Use this API endpoint instead of the Service Catalog.
<b>-os-tenant-name OS_TENANT_NAME</b>	Defaults to env[ OS_TENANT_NAME ].
<b>-os-tenant-id OS_TENANT_ID</b>	Defaults to env[ OS_TENANT_ID ].
<b>-os-auth-system OS_AUTH_SYSTEM</b>	Defaults to env[ OS_AUTH_SYSTEM ].
<b>-os-auth-token OS_AUTH_TOKEN</b>	Defaults to env[ OS_AUTH_TOKEN ].
<b>-insecure</b>	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.
<b>-os-cacert &lt;ca-certificate&gt;</b>	Specify a CA bundle file to use in verifying a TLS (https) server certificate. Defaults to env[ OS_CACERT ].
<b>-os-cert &lt;certificate&gt;</b>	Defaults to env[ OS_CERT ].
<b>-os-key &lt;key&gt;</b>	Defaults to env[ OS_KEY ].
<b>-timeout &lt;seconds&gt;</b>	Set request timeout (in seconds).
<b>-os-auth-url OS_AUTH_URL</b>	Authentication URL
<b>-os-domain-id OS_DOMAIN_ID</b>	Domain ID to scope to
<b>-os-domain-name OS_DOMAIN_NAME</b>	Domain name to scope to

<b>-os-project-id OS_PROJECT_ID</b>	Project ID to scope to
<b>-os-project-name OS_PROJECT_NAME</b>	Project name to scope to
<b>-os-project-domain-id OS_PROJECT_DOMAIN_ID</b>	Domain ID containing project
<b>-os-project-domain-name OS_PROJECT_DOMAIN_NAME</b>	Domain name containing project
<b>-os-trust-id OS_TRUST_ID</b>	Trust ID
<b>-os-user-id OS_USER_ID</b>	User ID
<b>-os-user-name OS_USERNAME, -os-username OS_USERNAME</b>	Username
<b>-os-user-domain-id OS_USER_DOMAIN_ID</b>	User's domain id
<b>-os-user-domain-name OS_USER_DOMAIN_NAME</b>	User's domain name
<b>-os-password OS_PASSWORD</b>	User's password

## sahara cluster-create

```
usage: sahara cluster-create [--json JSON]
```

Create a cluster.

### Optional arguments

**-json JSON JSON** representation of cluster.

## 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.

## sahara cluster-list

```
usage: sahara cluster-list
```

Print a list of available clusters.

## sahara cluster-show

```
usage: sahara cluster-show [--name NAME] [--id <cluster_id>]
                           [--show-progress SHOW_PROGRESS] [--json]
```

Show details of a cluster.

### Optional arguments

<b>-name NAME</b>	Name of the cluster.
<b>-id &lt;cluster_id&gt; ID</b>	of the cluster to show.
<b>-show-progress SHOW_PROGRESS</b>	Show provision progress events of the cluster.
<b>-json</b>	Print JSON representation of the cluster.

## sahara cluster-template-create

```
usage: sahara cluster-template-create [--json JSON]
```

Create a cluster template.

### Optional arguments

<b>-json JSON JSON</b>	representation of cluster template.
------------------------	-------------------------------------

## sahara cluster-template-delete

```
usage: sahara cluster-template-delete [--name NAME] [--id <template_id>]
```

Delete a cluster template.

### Optional arguments

<b>-name NAME</b>	Name of the cluster template.
<b>-id &lt;template_id&gt; ID</b>	of the cluster template to delete.

## sahara cluster-template-list

```
usage: sahara cluster-template-list
```

Print a list of available cluster templates.

## sahara cluster-template-show

```
usage: sahara cluster-template-show [--name NAME] [--id <template_id>]
                                     [--json]
```

Show details of a cluster template.

### Optional arguments

<b>-name NAME</b>	Name of the cluster template.
<b>-id &lt;template_id&gt; ID</b>	of the cluster template to show.
<b>-json</b>	Print JSON representation of cluster template.

## 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

<b>-name NAME</b>	Name of the data source.
<b>-type TYPE</b>	Type of the data source.
<b>-url URL URL</b>	for the data source.
<b>-description DESCRIPTION</b>	Description of the data source.
<b>-user USER</b>	Username for accessing the data source URL.
<b>-password PASSWORD</b>	Password for accessing the data source URL.

## sahara data-source-delete

```
usage: sahara data-source-delete [--name NAME] [--id ID]
```

Delete a data source.

### Optional arguments

<b>-name NAME</b>	Name of the data source.
<b>-id ID ID</b>	of data source to delete.

## sahara data-source-list

```
usage: sahara data-source-list
```

Print a list of available data sources.

## 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.

## 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.

## sahara image-list

```
usage: sahara image-list
```

Print a list of available images.

## 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.

## 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.

## 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.

## 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.

## 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.

## sahara job-binary-data-create

```
usage: sahara job-binary-data-create [--file FILE] [--name NAME]
```

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.
- name NAME**     Name of the job binary internal.

## 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.

## sahara job-binary-data-list

```
usage: sahara job-binary-data-list
```

Print a list of internally stored job binary data.

## 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.

## sahara job-binary-list

```
usage: sahara job-binary-list
```

Print a list of job binaries.

## 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.

## 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

<b>-job-template</b> JOB_TEMPLATE	ID of the job template to run.
<b>-cluster</b> CLUSTER ID	of the cluster to run the job in.
<b>-input-data</b> INPUT_DATA	ID of the input data source.
<b>-output-data</b> OUTPUT_DATA	ID of the output data source.
<b>-param</b>	name=value Parameters to add to the job, repeatable.
<b>-arg</b> ARG	Arguments to add to the job, repeatable.
<b>-config</b>	name=value Config parameters to add to the job, repeatable.

## sahara job-delete

```
usage: sahara job-delete --id ID
```

Delete a job.

### Optional arguments

**-id** ID ID of a job.

## sahara job-list

```
usage: sahara job-list
```

Print a list of jobs.

## sahara job-show

```
usage: sahara job-show --id ID
```

Show details of a job.

### Optional arguments

**-id** ID ID of the job.



## 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

<b>-name NAME</b>	Name of the job template.
<b>-type TYPE</b>	Type of the job template.
<b>-main MAIN ID</b>	for job's main job-binary.
<b>-lib LIB ID</b>	of job's lib job-binary, repeatable.
<b>-description DESCRIPTION</b>	Description of the job template.

## sahara job-template-delete

```
usage: sahara job-template-delete [--name NAME] [--id ID]
```

Delete a job template.

### Optional arguments

<b>-name NAME</b>	Name of the job template.
<b>-id ID ID</b>	of the job template.

## sahara job-template-list

```
usage: sahara job-template-list
```

Print a list of job templates.

## sahara job-template-show

```
usage: sahara job-template-show [--name NAME] [--id ID]
```

Show details of a job template.

### Optional arguments

<b>-name NAME</b>	Name of the job template.
<b>-id ID ID</b>	of the job template.

## sahara job-type-list

```
usage: sahara job-type-list [--type <job_type>] [--plugin <plugin>]
```

```
[--plugin-version <plugin_version>]
```

Show supported job types.

### Optional arguments

<b>-type &lt;job_type&gt;</b>	Report only on this job type
<b>-plugin &lt;plugin&gt;</b>	Report only job types supported by this plugin.
<b>-plugin-version &lt;plugin_version&gt;</b>	Report only on job types supported by this version of a specified plugin. Only valid with -plugin.

## sahara node-group-template-create

```
usage: sahara node-group-template-create [--json JSON]
```

Create a node group template.

### Optional arguments

<b>-json JSON JSON</b>	representation of node group template.
------------------------	--

## sahara node-group-template-delete

```
usage: sahara node-group-template-delete [--name NAME] [--id <template_id>]
```

Delete a node group template.

### Optional arguments

<b>-name NAME</b>	Name of the node group template.
<b>-id &lt;template_id&gt; ID</b>	of the node group template to delete.

## sahara node-group-template-list

```
usage: sahara node-group-template-list
```

Print a list of available node group templates.

## 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

<b>-name NAME</b>	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.

## sahara plugin-list

```
usage: sahara plugin-list
```

Print a list of available plugins.

## sahara plugin-show

```
usage: sahara plugin-show --name <plugin>
```

Show details of a plugin.

### Optional arguments

- name <plugin>** Name of the plugin.

## 16. OpenStack client

openstack usage .....	385
openstack optional arguments .....	385
openstack aggregate add host .....	389
openstack aggregate create .....	389
openstack aggregate delete .....	389
openstack aggregate list .....	390
openstack aggregate remove host .....	390
openstack aggregate set .....	390
openstack aggregate show .....	391
openstack availability zone list .....	391
openstack backup create .....	391
openstack backup delete .....	392
openstack backup list .....	392
openstack backup restore .....	392
openstack backup show .....	393
openstack catalog list .....	393
openstack catalog show .....	393
openstack command list .....	394
openstack compute agent create .....	394
openstack compute agent delete .....	394
openstack compute agent list .....	395
openstack compute agent set .....	395
openstack compute service list .....	395
openstack compute service set .....	396
openstack console log show .....	396
openstack console url show .....	397
openstack container create .....	397
openstack container delete .....	397
openstack container list .....	398
openstack container save .....	398
openstack container show .....	398
openstack ec2 credentials create .....	399
openstack ec2 credentials delete .....	399
openstack ec2 credentials list .....	399
openstack ec2 credentials show .....	400
openstack endpoint create .....	400
openstack endpoint delete .....	401
openstack endpoint list .....	401
openstack endpoint show .....	401
openstack extension list .....	401
openstack flavor create .....	402
openstack flavor delete .....	403
openstack flavor list .....	403
openstack flavor set .....	403
openstack flavor show .....	404
openstack flavor unset .....	404
openstack host list .....	404
openstack host show .....	405

openstack hypervisor list .....	405
openstack hypervisor show .....	405
openstack hypervisor stats show .....	406
openstack image create .....	406
openstack image delete .....	407
openstack image list .....	407
openstack image save .....	408
openstack image set .....	408
openstack image show .....	409
openstack ip fixed add .....	409
openstack ip fixed remove .....	410
openstack ip floating add .....	410
openstack ip floating create .....	410
openstack ip floating delete .....	411
openstack ip floating list .....	411
openstack ip floating pool list .....	411
openstack ip floating remove .....	411
openstack keypair create .....	412
openstack keypair delete .....	412
openstack keypair list .....	412
openstack keypair show .....	413
openstack limits show .....	413
openstack module list .....	413
openstack network create .....	414
openstack network delete .....	414
openstack network list .....	415
openstack network set .....	415
openstack network show .....	415
openstack object create .....	416
openstack object delete .....	416
openstack object list .....	416
openstack object save .....	417
openstack object show .....	417
openstack project create .....	418
openstack project delete .....	418
openstack project list .....	419
openstack project set .....	419
openstack project show .....	419
openstack project usage list .....	420
openstack quota set .....	420
openstack quota show .....	421
openstack role add .....	422
openstack role create .....	422
openstack role delete .....	422
openstack role list .....	423
openstack role remove .....	423
openstack role show .....	423
openstack security group create .....	424
openstack security group delete .....	424
openstack security group list .....	424
openstack security group rule create .....	425

openstack security group rule delete .....	425
openstack security group rule list .....	426
openstack security group set .....	426
openstack security group show .....	426
openstack server add security group .....	427
openstack server add volume .....	427
openstack server create .....	427
openstack server delete .....	429
openstack server image create .....	429
openstack server list .....	429
openstack server lock .....	430
openstack server migrate .....	430
openstack server pause .....	431
openstack server reboot .....	431
openstack server rebuild .....	432
openstack server remove security group .....	432
openstack server remove volume .....	432
openstack server rescue .....	433
openstack server resize .....	433
openstack server resume .....	434
openstack server set .....	434
openstack server show .....	434
openstack server ssh .....	435
openstack server suspend .....	435
openstack server unlock .....	436
openstack server unpause .....	436
openstack server unrescue .....	436
openstack server unset .....	436
openstack service create .....	437
openstack service delete .....	437
openstack service list .....	437
openstack service show .....	438
openstack snapshot create .....	438
openstack snapshot delete .....	439
openstack snapshot list .....	439
openstack snapshot set .....	439
openstack snapshot show .....	440
openstack snapshot unset .....	440
openstack token issue .....	440
openstack token revoke .....	440
openstack usage list .....	441
openstack usage show .....	441
openstack user create .....	441
openstack user delete .....	442
openstack user list .....	442
openstack user role list .....	443
openstack user set .....	443
openstack user show .....	444
openstack volume create .....	444
openstack volume delete .....	445
openstack volume list .....	445

openstack volume set .....	446
openstack volume show .....	446
openstack volume type create .....	446
openstack volume type delete .....	447
openstack volume type list .....	447
openstack volume type set .....	447
openstack volume type unset .....	448
openstack volume unset .....	448

The **openstack** client is a common OpenStack command-line interface (CLI). This chapter documents **openstack** version 1.2.0.

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

```
$ openstack help COMMAND
```

## openstack usage

```
usage: openstack [--version] [-v] [--log-file LOG_FILE] [-q] [-h] [--debug]
               [--os-cloud <cloud-config-name>]
               [--os-region-name <auth-region-name>]
               [--os-cacert <ca-bundle-file>] [--verify | --insecure]
               [--os-default-domain <auth-domain>] [--timing]
               [--os-compute-api-version <compute-api-version>]
               [--os-network-api-version <network-api-version>]
               [--os-image-api-version <image-api-version>]
               [--os-volume-api-version <volume-api-version>]
               [--os-identity-api-version <identity-api-version>]
               [--os-auth-type <auth-type>] [--os-username <auth-username>]
               [--os-identity-provider <auth-identity-provider>]
               [--os-project-domain-name <auth-project-domain-name>]
               [--os-project-domain-id <auth-project-domain-id>]
               [--os-project-name <auth-project-name>]
               [--os-auth-url <auth-auth-url>]
               [--os-identity-provider-url <auth-identity-provider-url>]
               [--os-trust-id <auth-trust-id>]
               [--os-service-provider-endpoint <auth-service-provider-
endpoint>]
               [--os-user-domain-id <auth-user-domain-id>]
               [--os-url <auth-url>] [--os-token <auth-token>]
               [--os-domain-name <auth-domain-name>]
               [--os-user-domain-name <auth-user-domain-name>]
               [--os-domain-id <auth-domain-id>]
               [--os-user-id <auth-user-id>] [--os-password <auth-password>]
               [--os-endpoint <auth-endpoint>]
               [--os-project-id <auth-project-id>]
               [--os-object-api-version <object-api-version>]
```

## openstack optional arguments

<b>-version</b>	show program's version number and exit
<b>-v, --verbose</b>	Increase verbosity of output. Can be repeated.
<b>-log-file LOG_FILE</b>	Specify a file to log output. Disabled by default.

---

<b>-q, --quiet</b>	suppress output except warnings and errors
<b>-h, --help</b>	show this help message and exit
<b>--debug</b>	show tracebacks on errors
<b>--os-cloud &lt;cloud-config-name&gt;</b>	Cloud name in clouds.yaml (Env: OS_CLOUD)
<b>--os-region-name &lt;auth-region-name&gt;</b>	Authentication region name (Env: OS_REGION_NAME)
<b>--os-cacert &lt;ca-bundle-file&gt;</b>	CA certificate bundle file (Env: OS_CACERT)
<b>--verify</b>	Verify server certificate (default)
<b>--insecure</b>	Disable server certificate verification
<b>--os-default-domain &lt;auth-domain&gt;</b>	Default domain ID, default=default (Env: OS_DEFAULT_DOMAIN)
<b>--timing</b>	Print API call timing info
<b>--os-compute-api-version &lt;compute-api-version&gt;</b>	Compute API version, default=2 (Env: OS_COMPUTE_API_VERSION)
<b>--os-network-api-version &lt;network-api-version&gt;</b>	Network API version, default=2 (Env: OS_NETWORK_API_VERSION)
<b>--os-image-api-version &lt;image-api-version&gt;</b>	Image API version, default=1 (Env: OS_IMAGE_API_VERSION)
<b>--os-volume-api-version &lt;volume-api-version&gt;</b>	Volume API version, default=1 (Env: OS_VOLUME_API_VERSION)
<b>--os-identity-api-version &lt;identity-api-version&gt;</b>	Identity API version, default=2 (Env: OS_IDENTITY_API_VERSION)
<b>--os-auth-type &lt;auth-type&gt;</b>	Select an authentication type. Available types: osc_password, token_endpoint, v2token, v2password, v3password, v3scopedsaml, v3unscopedadfs, token, v3token, password, v3unscopedsaml. Default: selected based on --os-username/--os-token (Env: OS_AUTH_TYPE)
<b>--os-username &lt;auth-username&gt;</b>	With osc_password: Username With v2password: Username to login with With v3password: Username With v3unscopedadfs: Username With password: Username With v3unscopedsaml: Username (Env: OS_USERNAME)
<b>--os-identity-provider &lt;auth-identity-provider&gt;</b>	With v3unscopedadfs: Identity Provider's name With v3unscopedsaml: Identity Provider's name (Env: OS_IDENTITY_PROVIDER)
<b>--os-project-domain-name &lt;auth-project-domain-name&gt;</b>	With osc_password: Domain name containing project With v3password: Domain name containing project With v3scopedsaml: Domain name containing project

---



	With v3unscopedadfs: Domain name containing project With token: Domain name containing project With v3token: Domain name containing project With password: Domain name containing project With v3unscopedsaml: Domain name containing project (Env: OS_PROJECT_DOMAIN_NAME)
<b>-os-project-domain-id &lt;auth-project-domain-id&gt;</b>	With osc_password: Domain ID containing project With v3password: Domain ID containing project With v3scopedsaml: Domain ID containing project With v3unscopedadfs: Domain ID containing project With token: Domain ID containing project With v3token: Domain ID containing project With password: Domain ID containing project With v3unscopedsaml: Domain ID containing project (Env: OS_PROJECT_DOMAIN_ID)
<b>-os-project-name &lt;auth-project-name&gt;</b>	With osc_password: Project name to scope to With v3password: Project name to scope to With v3scopedsaml: Project name to scope to With v3unscopedadfs: Project name to scope to With token: Project name to scope to With v3token: Project name to scope to With password: Project name to scope to With v3unscopedsaml: Project name to scope to (Env: OS_PROJECT_NAME)
<b>-os-auth-url &lt;auth-auth-url&gt;</b>	With osc_password: Authentication URL With v2token: Authentication URL With v2password: Authentication URL With v3password: Authentication URL With v3scopedsaml: Authentication URL With v3unscopedadfs: Authentication URL With token: Authentication URL With v3token: Authentication URL With password: Authentication URL With v3unscopedsaml: Authentication URL (Env: OS_AUTH_URL)
<b>-os-identity-provider-url &lt;auth-identity-provider-url&gt;</b>	With v3unscopedadfs: Identity Provider's URL With v3unscopedsaml: Identity Provider's URL (Env: OS_IDENTITY_PROVIDER_URL)
<b>-os-trust-id &lt;auth-trust-id&gt;</b>	With osc_password: Trust ID With v2token: Trust ID With v2password: Trust ID With v3password: Trust ID With v3scopedsaml: Trust ID With v3unscopedadfs: Trust ID With token: Trust ID With v3token: Trust ID With password: Trust ID With v3unscopedsaml: Trust ID (Env: OS_TRUST_ID)
<b>-os-service-provider-endpoint &lt;auth-service-provider-endpoint&gt;</b>	With v3unscopedadfs: Service Provider's Endpoint (Env: OS_SERVICE_PROVIDER_ENDPOINT)
<b>-os-user-domain-id &lt;auth-user-domain-id&gt;</b>	With osc_password: User's domain id With v3password: User's domain id With password: User's domain id (Env: OS_USER_DOMAIN_ID)

<b>-os-url &lt;auth-url&gt;</b>	With token_endpoint: Specific service endpoint to use (Env: OS_URL)
<b>-os-token &lt;auth-token&gt;</b>	With token_endpoint: The token that will always be used With token_endpoint: Authentication token to use With v2token: Token With v3scopedsaml: Token to authenticate with With token: Token to authenticate with With v3token: Token to authenticate with (Env: OS_TOKEN)
<b>-os-domain-name &lt;auth-domain-name&gt;</b>	With osc_password: Domain name to scope to With v3password: Domain name to scope to With v3scopedsaml: Domain name to scope to With v3unscopedadfs: Domain name to scope to With token: Domain name to scope to With v3token: Domain name to scope to With password: Domain name to scope to With v3unscopedsaml: Domain name to scope to (Env: OS_DOMAIN_NAME)
<b>-os-user-domain-name &lt;auth-user-domain-name&gt;</b>	With osc_password: User's domain name With v3password: User's domain name With password: User's domain name (Env: OS_USER_DOMAIN_NAME)
<b>-os-domain-id &lt;auth-domain-id&gt;</b>	With osc_password: Domain ID to scope to With v3password: Domain ID to scope to With v3scopedsaml: Domain ID to scope to With v3unscopedadfs: Domain ID to scope to With token: Domain ID to scope to With v3token: Domain ID to scope to With password: Domain ID to scope to With v3unscopedsaml: Domain ID to scope to (Env: OS_DOMAIN_ID)
<b>-os-user-id &lt;auth-user-id&gt;</b>	With osc_password: User id With v2password: User ID to login with With v3password: User ID With password: User id (Env: OS_USER_ID)
<b>-os-password &lt;auth-password&gt;</b>	With osc_password: User's password With v2password: Password to use With v3password: User's password With v3unscopedadfs: Password With password: User's password With v3unscopedsaml: Password (Env: OS_PASSWORD)
<b>-os-endpoint &lt;auth-endpoint&gt;</b>	With token_endpoint: The endpoint that will always be used (Env: OS_ENDPOINT)
<b>-os-project-id &lt;auth-project-id&gt;</b>	With osc_password: Project ID to scope to With v3password: Project ID to scope to With v3scopedsaml: Project ID to scope to With v3unscopedadfs: Project ID to scope to With token: Project ID to scope to With v3token: Project ID to scope to With password: Project ID to scope to With v3unscopedsaml: Project ID to scope to (Env: OS_PROJECT_ID)
<b>-os-object-api-version &lt;object-api-version&gt;</b>	Object API version, default=1 (Env: OS_OBJECT_API_VERSION)

## openstack aggregate add host

```
usage: openstack --os-auth-type token aggregate add host [-h]
        [-f {html,json,shell,table,value,yaml}]
        [-c COLUMN] [--max-width <integer>]
        [--prefix PREFIX]
        <aggregate> <host>
```

Add host to aggregate

### Positional arguments

**<aggregate>** Aggregate (name or ID)

**<host>** Host to add to <aggregate>

### Optional arguments

**-h, --help** show this help message and exit

## openstack aggregate create

```
usage: openstack --os-auth-type token aggregate create [-h] [-f {html,json,
shell,table,value,yaml}]
        [-c COLUMN] [--max-width <integer>]
        [--prefix PREFIX]
        [--zone <availability-zone>]
        [--property <key=value>]
        <name>
```

Create a new aggregate

### Positional arguments

**<name>** New aggregate name

### Optional arguments

**-h, --help** show this help message and exit

**--zone <availability-zone>** Availability zone name

**--property <key=value>** Property to add to this aggregate (repeat option to set multiple properties)

## openstack aggregate delete

```
usage: openstack --os-auth-type token aggregate delete [-h] <aggregate>
```

Delete an existing aggregate

### Positional arguments

**<aggregate>** Aggregate to delete (name or ID)

### Optional arguments

**-h, --help** show this help message and exit

## openstack aggregate list

```
usage: openstack --os-auth-type token aggregate list [-h] [-f {csv,html,json,
table,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--quote {all,minimal,none,nonnumeric}]
                                [--long]
```

List all aggregates

### Optional arguments

**-h, --help** show this help message and exit

**--long** List additional fields in output

## openstack aggregate remove host

```
usage: openstack --os-auth-type token aggregate remove host [-h]
                                [-f {html,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--prefix PREFIX]
                                <aggregate> <host>
```

Remove host from aggregate

### Positional arguments

**<aggregate>** Aggregate (name or ID)

**<host>** Host to remove from <aggregate>

### Optional arguments

**-h, --help** show this help message and exit

## openstack aggregate set

```
usage: openstack --os-auth-type token aggregate set [-h] [-f {html,json,shell,
table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--prefix PREFIX] [--name <name>]
                                [--zone <availability-zone>]
                                [--property <key=value>]
                                <aggregate>
```

Set aggregate properties

### Positional arguments

**<aggregate>** Aggregate to modify (name or ID)

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--name &lt;name&gt;</b>	Set aggregate name
<b>--zone &lt;availability-zone&gt;</b>	Set availability zone name
<b>--property &lt;key=value&gt;</b>	Property to set on <aggregate> (repeat option to set multiple properties)

## openstack aggregate show

```
usage: openstack --os-auth-type token aggregate show [-h] [-f {html,json,shell,table,value,yaml}]
                                                    [-c COLUMN] [--max-width <integer>]
                                                    [--prefix PREFIX]
                                                    <aggregate>
```

Display aggregate details

### Positional arguments

**<aggregate>** Aggregate to display (name or ID)

### Optional arguments

**-h, --help** show this help message and exit

## openstack availability zone list

```
usage: openstack --os-auth-type token availability zone list [-h] [-f {csv,html,json,table,yaml}]
                                                    [-c COLUMN] [--max-width <integer>]
                                                    [--quote {all,minimal,none,nonnumeric}]
                                                    [--long]
```

List availability zones and their status

### Optional arguments

**-h, --help** show this help message and exit

**--long** List additional fields in output

## openstack backup create

```
usage: openstack --os-auth-type token backup create [-h] [-f {html,json,shell,table,value,yaml}]
                                                    [-c COLUMN] [--max-width <integer>]
                                                    [--prefix PREFIX] [--container <container>]
                                                    [--name <name>] [--description <description>]
```

```
<volume>
```

Create new backup

### Positional arguments

**<volume>** Volume to backup (name or ID)

### Optional arguments

**-h, --help** show this help message and exit

**--container <container>** Optional backup container name

**--name <name>** Name of the backup

**--description <description>** Description of the backup

## openstack backup delete

```
usage: openstack --os-auth-type token backup delete [-h] <backup> [<backup> ..  
.]
```

Delete backup(s)

### Positional arguments

**<backup>** Backup(s) to delete (ID only)

### Optional arguments

**-h, --help** show this help message and exit

## openstack backup list

```
usage: openstack --os-auth-type token backup list [-h] [-f {csv,html,json,  
table,yaml}] [-c COLUMN] [--max-width <integer>]  
[--quote {all,minimal,none,nonnumeric}] [--long]
```

List backups

### Optional arguments

**-h, --help** show this help message and exit

**--long** List additional fields in output

## openstack backup restore

```
usage: openstack --os-auth-type token backup restore [-h] <backup> <volume>
```

Restore backup

### Positional arguments

**<backup>** Backup to restore (ID only)

**<volume>** Volume to restore to (name or ID)

### Optional arguments

**-h, --help** show this help message and exit

## openstack backup show

```
usage: openstack --os-auth-type token backup show [-h] [-f {html,json,shell,
table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--prefix PREFIX]
                                     <backup>
```

Display backup details

### Positional arguments

**<backup>** Backup to display (ID only)

### Optional arguments

**-h, --help** show this help message and exit

## openstack catalog list

```
usage: openstack --os-auth-type token catalog list [-h] [-f {csv,html,json,
table,yaml}] [-c COLUMN]
                                     [--max-width <integer>]
                                     [--quote {all,minimal,none,nonnumeric}]
```

List services in the service catalog

### Optional arguments

**-h, --help** show this help message and exit

## openstack catalog show

```
usage: openstack --os-auth-type token catalog show [-h] [-f {html,json,shell,
table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--prefix PREFIX]
                                     <service>
```

Display service catalog details

**Positional arguments**

**<service>**      Service to display (type or name)

**Optional arguments**

**-h, --help**      show this help message and exit

## openstack command list

```
usage: openstack --os-auth-type token command list [-h] [-f {csv,html,json,
table,yaml}] [-c COLUMN]
                                [--max-width <integer>]
                                [--quote {all,minimal,none,nonnumeric}]
```

List recognized commands by group

**Optional arguments**

**-h, --help**      show this help message and exit

## openstack compute agent create

```
usage: openstack --os-auth-type token compute agent create [-h]
                                [-f {html,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--prefix PREFIX]
                                <os> <architecture> <version> <url>
                                <md5hash> <hypervisor>
```

Create compute agent command

**Positional arguments**

**<os>**              Type of OS

**<architecture>**      Type of architecture

**<version>**          Version

**<url>**              URL

**<md5hash>**          MD5 hash

**<hypervisor>**      Type of hypervisor

**Optional arguments**

**-h, --help**      show this help message and exit

## openstack compute agent delete

```
usage: openstack --os-auth-type token compute agent delete [-h] <id>
```



Delete compute agent command

### Positional arguments

<id> ID of agent to delete

### Optional arguments

-h, --help show this help message and exit

## openstack compute agent list

```
usage: openstack --os-auth-type token compute agent list [-h] [-f {csv,html,
json,table,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--quote {all,minimal,none,nonnumeric}]
                                [--hypervisor <hypervisor>]
```

List compute agent command

### Optional arguments

-h, --help show this help message and exit

--hypervisor <hypervisor> Type of hypervisor

## openstack compute agent set

```
usage: openstack --os-auth-type token compute agent set [-h]
                                [-f {html,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--prefix PREFIX]
                                <id> <version> <url> <md5hash>
```

Set compute agent command

### Positional arguments

<id> ID of the agent

<version> Version of the agent

<url> URL

<md5hash> MD5 hash

### Optional arguments

-h, --help show this help message and exit

## openstack compute service list

```
usage: openstack --os-auth-type token compute service list [-h] [-f {csv,html,
json,table,yaml}]
```

```
[ -c COLUMN] [--max-width <integer>]
[--quote {all,minimal,none,nonnumeric}]
[--host <host>] [--service <service>]
```

List service command

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--host &lt;host&gt;</b>	Name of host
<b>--service &lt;service&gt;</b>	Name of service

## openstack compute service set

```
usage: openstack --os-auth-type token compute service set [-h] [-f {csv,html,
json,table,yaml}]
```

```
[ -c COLUMN] [--max-width <integer>]
[--quote {all,minimal,none,nonnumeric}]
[--enable | --disable]
<host> <service>
```

Set service command

### Positional arguments

<b>&lt;host&gt;</b>	Name of host
<b>&lt;service&gt;</b>	Name of service

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--enable</b>	Enable a service
<b>--disable</b>	Disable a service

## openstack console log show

```
usage: openstack --os-auth-type token console log show [-h] [--lines <num-
lines>] <server>
```

Show server's console output

### Positional arguments

<b>&lt;server&gt;</b>	Server to show console log (name or ID)
-----------------------	---

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--lines &lt;num-lines&gt;</b>	Number of lines to display from the end of the log (default=all)

## openstack console url show

```
usage: openstack --os-auth-type token console url show [-h] [-f {html,json,shell,table,value,yaml}]
                                                    [-c COLUMN] [--max-width <integer>]
                                                    [--prefix PREFIX]
                                                    [--novnc | --xvpvnc | --spice]
                                                    <server>
```

Show server's remote console URL

### Positional arguments

**<server>**      Server to show URL (name or ID)

### Optional arguments

**-h, --help**      show this help message and exit

**--novnc**          Show noVNC console URL (default)

**--xvpvnc**        Show xpvnc console URL

**--spice**          Show SPICE console URL

## openstack container create

```
usage: openstack --os-auth-type token container create [-h] [-f {csv,html,json,table,yaml}]
                                                    [-c COLUMN] [--max-width <integer>]
                                                    [--quote {all,minimal,none,nonnumeric}]
                                                    <container-name> [<container-name> ...]
```

Create new container

### Positional arguments

**<container-name>**      New container name(s)

### Optional arguments

**-h, --help**      show this help message and exit

## openstack container delete

```
usage: openstack --os-auth-type token container delete [-h] <container>
[<container> ...]
```

Delete container

### Positional arguments

**<container>**      Container(s) to delete

**Optional arguments**

**-h, --help** show this help message and exit

## openstack container list

```
usage: openstack --os-auth-type token container list [-h] [-f {csv,html,json,
table,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--quote {all,minimal,none,nonnumeric}]
                                [--prefix <prefix>] [--marker <marker>]
                                [--end-marker <end-marker>] [--limit <limit>]
                                [--long] [--all]
```

List containers

**Optional arguments**

**-h, --help** show this help message and exit

**--prefix <prefix>** Filter list using <prefix>

**--marker <marker>** Anchor for paging

**--end-marker <end-marker>** End anchor for paging

**--limit <limit>** Limit the number of containers returned

**--long** List additional fields in output

**--all** List all containers (default is 10000)

## openstack container save

```
usage: openstack --os-auth-type token container save [-h] <container>
```

Save container contents locally

**Positional arguments**

**<container>** Container to save

**Optional arguments**

**-h, --help** show this help message and exit

## openstack container show

```
usage: openstack --os-auth-type token container show [-h] [-f {html,json,
shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--prefix PREFIX]
                                <container>
```

Display container details

### Positional arguments

**<container>** Container to display

### Optional arguments

**-h, --help** show this help message and exit

## openstack ec2 credentials create

```
usage: openstack --os-auth-type token ec2 credentials create [-h]
                        [-f {html,json,shell,table,value,
                        yaml}]
                        [-c COLUMN] [--max-width <integer>]
                        [--prefix PREFIX]
                        [--project <project>] [--user <user>]
```

Create EC2 credentials

### Optional arguments

**-h, --help** show this help message and exit

**--project <project>** Specify an alternate project (default: current authenticated project)

**--user <user>** Specify an alternate user (default: current authenticated user)

## openstack ec2 credentials delete

```
usage: openstack --os-auth-type token ec2 credentials delete [-h] [--user
<user>] <access-key>
```

Delete EC2 credentials

### Positional arguments

**<access-key>** Credentials access key

### Optional arguments

**-h, --help** show this help message and exit

**--user <user>** Specify a user

## openstack ec2 credentials list

```
usage: openstack --os-auth-type token ec2 credentials list [-h] [-f {csv,html,
json,table,yaml}]
                        [-c COLUMN] [--max-width <integer>]
                        [--quote {all,minimal,none,nonnumeric}]
                        [--user <user>]
```

List EC2 credentials

### Optional arguments

- h, --help** show this help message and exit
- user <user>** Specify a user

## openstack ec2 credentials show

```
usage: openstack --os-auth-type token ec2 credentials show [-h]
                        [-f {html,json,shell,table,value,yaml}]
                        [-c COLUMN] [--max-width <integer>]
                        [--prefix PREFIX] [--user <user>]
                        <access-key>
```

Display EC2 credentials details

### Positional arguments

- <access-key>** Credentials access key

### Optional arguments

- h, --help** show this help message and exit
- user <user>** Specify a user

## openstack endpoint create

```
usage: openstack --os-auth-type token endpoint create [-h] [-f {html,json,
shell,table,value,yaml}]
                        [-c COLUMN] [--max-width <integer>]
                        [--prefix PREFIX] --publicurl <url>
                        [--adminurl <url>] [--internalurl <url>]
                        [--region <region-id>]
                        <service>
```

Create new endpoint

### Positional arguments

- <service>** New endpoint service (name or ID)

### Optional arguments

- h, --help** show this help message and exit
- publicurl <url>** New endpoint public URL (required)
- adminurl <url>** New endpoint admin URL
- internalurl <url>** New endpoint internal URL
- region <region-id>** New endpoint region ID

## openstack endpoint delete

```
usage: openstack --os-auth-type token endpoint delete [-h] <endpoint-id>
```

Delete endpoint

### Positional arguments

**<endpoint-id>**      Endpoint ID to delete

### Optional arguments

**-h, --help**          show this help message and exit

## openstack endpoint list

```
usage: openstack --os-auth-type token endpoint list [-h] [-f {csv,html,json,
table,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--quote {all,minimal,none,nonnumeric}]
                                     [--long]
```

List endpoints

### Optional arguments

**-h, --help**          show this help message and exit

**--long**              List additional fields in output

## openstack endpoint show

```
usage: openstack --os-auth-type token endpoint show [-h] [-f {html,json,shell,
table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--prefix PREFIX]
                                     <endpoint-id>
```

Display endpoint details

### Positional arguments

**<endpoint-id>**      Endpoint ID to display

### Optional arguments

**-h, --help**          show this help message and exit

## openstack extension list

```
usage: openstack --os-auth-type token extension list [-h] [-f {csv,html,json,
table,yaml}]
```

```
[ -c COLUMN] [--max-width <integer>]
[--quote {all,minimal,none,nonnumeric}]
[--compute] [--identity] [--network]
[--volume] [--long]
```

List API extensions

### Optional arguments

**-h, --help** show this help message and exit

**--compute** List extensions for the Compute API

**--identity** List extensions for the Identity API

**--network** List extensions for the Network API

**--volume** List extensions for the Volume API

**--long** List additional fields in output

## openstack flavor create

```
usage: openstack --os-auth-type token flavor create [-h] [-f {html,json,shell,
table,value,yaml}]
```

```
[ -c COLUMN] [--max-width <integer>]
[--prefix PREFIX] [--id <id>] [--ram <size-mb>]
[--disk <size-gb>] [--ephemeral <size-gb>]
[--swap <size-gb>] [--vcpus <vcpus>]
[--rxtx-factor <factor>] [--public | --private]
<flavor-name>
```

Create new flavor

### Positional arguments

**<flavor-name>** New flavor name

### Optional arguments

**-h, --help** show this help message and exit

**--id <id>** Unique flavor ID; 'auto' creates a UUID (default: auto)

**--ram <size-mb>** Memory size in MB (default 256M)

**--disk <size-gb>** Disk size in GB (default 0G)

**--ephemeral <size-gb>** Ephemeral disk size in GB (default 0G)

**--swap <size-gb>** Swap space size in GB (default 0G)

**--vcpus <vcpus>** Number of vcpus (default 1)

**--rxtx-factor <factor>** RX/TX factor (default 1)



- public** Flavor is available to other projects (default)
- private** Flavor is not available to other projects

## openstack flavor delete

```
usage: openstack --os-auth-type token flavor delete [-h] <flavor>
```

Delete flavor

### Positional arguments

**<flavor>** Flavor to delete (name or ID)

### Optional arguments

**-h, --help** show this help message and exit

## openstack flavor list

```
usage: openstack --os-auth-type token flavor list [-h] [-f {csv,html,json,
table,yaml}] [-c COLUMN]
                        [--max-width <integer>]
                        [--quote {all,minimal,none,nonnumeric}]
                        [--public | --private | --all] [--long]
```

List flavors

### Optional arguments

- h, --help** show this help message and exit
- public** List only public flavors (default)
- private** List only private flavors
- all** List all flavors, whether public or private
- long** List additional fields in output

## openstack flavor set

```
usage: openstack --os-auth-type token flavor set [-h] [-f {html,json,shell,
table,value,yaml}]
                        [-c COLUMN] [--max-width <integer>]
                        [--prefix PREFIX] [--property <key=value>]
                        <flavor>
```

Set flavor properties

### Positional arguments

**<flavor>** Flavor to modify (name or ID)

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--property &lt;key=value&gt;</b>	Property to add or modify for this flavor (repeat option to set multiple properties)

## openstack flavor show

```
usage: openstack --os-auth-type token flavor show [-h] [-f {html,json,shell,
table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--prefix PREFIX]
                                <flavor>
```

Display flavor details

### Positional arguments

**<flavor>** Flavor to display (name or ID)

### Optional arguments

**-h, --help** show this help message and exit

## openstack flavor unset

```
usage: openstack --os-auth-type token flavor unset [-h] [-f {html,json,shell,
table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--prefix PREFIX] [--property <key>]
                                <flavor>
```

Unset flavor properties

### Positional arguments

**<flavor>** Flavor to modify (name or ID)

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--property &lt;key&gt;</b>	Property to remove from flavor (repeat option to unset multiple properties)

## openstack host list

```
usage: openstack --os-auth-type token host list [-h] [-f {csv,html,json,table,
yaml}] [-c COLUMN]
                                [--max-width <integer>]
                                [--quote {all,minimal,none,nonnumeric}]
```

```
[--zone <zone>]
```

List host command

### Optional arguments

- h, --help** show this help message and exit
- zone <zone>** Only return hosts in the availability zone.

## openstack host show

```
usage: openstack --os-auth-type token host show [-h] [-f {csv,html,json,table,
yaml}] [-c COLUMN]
                                     [--max-width <integer>]
                                     [--quote {all,minimal,none,nonnumeric}]
                                     <host>
```

Show host command

### Positional arguments

**<host>** Name of host

### Optional arguments

- h, --help** show this help message and exit

## openstack hypervisor list

```
usage: openstack --os-auth-type token hypervisor list [-h] [-f {csv,html,json,
table,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--quote {all,minimal,none,nonnumeric}]
                                     [--matching <hostname>]
```

List hypervisors

### Optional arguments

- h, --help** show this help message and exit
- matching <hostname>** Filter hypervisors using <hostname> substring

## openstack hypervisor show

```
usage: openstack --os-auth-type token hypervisor show [-h] [-f {html,json,
shell,table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--prefix PREFIX]
                                     <hypervisor>
```

Display hypervisor details

**Positional arguments**

**<hypervisor>** Hypervisor to display (name or ID)

**Optional arguments**

**-h, --help** show this help message and exit

## openstack hypervisor stats show

```
usage: openstack --os-auth-type token hypervisor stats show [-h]
                    [-f {html,json,shell,table,value,yaml}]
                    [-c COLUMN] [--max-width <integer>]
                    [--prefix PREFIX]
```

Display hypervisor stats details

**Optional arguments**

**-h, --help** show this help message and exit

## openstack image create

```
usage: openstack --os-auth-type token image create [-h] [-f {html,json,shell,
table,value,yaml}]
                    [-c COLUMN] [--max-width <integer>]
                    [--prefix PREFIX] [--id <id>] [--store <store>]
                    [--container-format <container-format>]
                    [--disk-format <disk-format>]
                    [--owner <project>] [--size <size>]
                    [--min-disk <disk-gb>] [--min-ram <ram-mb>]
                    [--location <image-url>]
                    [--copy-from <image-url>] [--file <file>]
                    [--volume <volume>] [--force]
                    [--checksum <checksum>]
                    [--protected | --unprotected]
                    [--public | --private] [--property <key=value>]
                    <image-name>
```

Create/upload an image

**Positional arguments**

**<image-name>** New image name

**Optional arguments**

**-h, --help** show this help message and exit

**--id <id>** Image ID to reserve

**--store <store>** Upload image to this store

**--container-format <container-format>** Image container format (default: bare)

<b>-disk-format &lt;disk-format&gt;</b>	Image disk format (default: raw)
<b>-owner &lt;project&gt;</b>	Image owner project name or ID
<b>-size &lt;size&gt;</b>	Image size, in bytes (only used with -location and -copy-from)
<b>-min-disk &lt;disk-gb&gt;</b>	Minimum disk size needed to boot image, in gigabytes
<b>-min-ram &lt;ram-mb&gt;</b>	Minimum RAM size needed to boot image, in megabytes
<b>-location &lt;image-url&gt;</b>	Download image from an existing URL
<b>-copy-from &lt;image-url&gt;</b>	Copy image from the data store (similar to -location)
<b>-file &lt;file&gt;</b>	Upload image from local file
<b>-volume &lt;volume&gt;</b>	Create image from a volume
<b>-force</b>	Force image creation if volume is in use (only meaningful with -volume)
<b>-checksum &lt;checksum&gt;</b>	Image hash used for verification
<b>-protected</b>	Prevent image from being deleted
<b>-unprotected</b>	Allow image to be deleted (default)
<b>-public</b>	Image is accessible to the public
<b>-private</b>	Image is inaccessible to the public (default)
<b>-property &lt;key=value&gt;</b>	Set a property on this image (repeat option to set multiple properties)

## openstack image delete

```
usage: openstack --os-auth-type token image delete [-h] <image> [<image> ...]
```

Delete image(s)

### Positional arguments

**<image>** Image(s) to delete (name or ID)

### Optional arguments

**-h, -help** show this help message and exit

## openstack image list

```
usage: openstack --os-auth-type token image list [-h] [-f {csv,html,json,table,yaml}] [-c COLUMN]
```

```
[--max-width <integer>]
[--quote {all,minimal,none,nonnumeric}]
[--public | --private] [--property <key=value>]
[--long] [--sort <key>[:<direction>]]
```

List available images

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--public</b>	List only public images
<b>--private</b>	List only private images
<b>--property &lt;key=value&gt;</b>	Filter output based on property
<b>--long</b>	List additional fields in output
<b>--sort &lt;key&gt;[:&lt;direction&gt;]</b>	Sort output by selected keys and directions(asc or desc) (default: asc), multiple keys and directions can be specified separated by comma

## openstack image save

```
usage: openstack --os-auth-type token image save [-h] [--file <filename>]
<image>
```

Save an image locally

### Positional arguments

**<image>** Image to save (name or ID)

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--file &lt;filename&gt;</b>	Downloaded image save filename (default: stdout)

## openstack image set

```
usage: openstack --os-auth-type token image set [-h] [-f {html,json,shell,
table,value,yaml}]
```

```
[-c COLUMN] [--max-width <integer>]
[--prefix PREFIX] [--name <name>]
[--owner <project>] [--min-disk <disk-gb>]
[--min-ram <disk-ram>]
[--protected | --unprotected]
[--public | --private] [--property <key=value>]
<image>
```

Set image properties

### Positional arguments

**<image>** Image to modify (name or ID)

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--name &lt;name&gt;</b>	New image name
<b>--owner &lt;project&gt;</b>	New image owner project (name or ID)
<b>--min-disk &lt;disk-gb&gt;</b>	Minimum disk size needed to boot image, in gigabytes
<b>--min-ram &lt;disk-ram&gt;</b>	Minimum RAM size needed to boot image, in megabytes
<b>--protected</b>	Prevent image from being deleted
<b>--unprotected</b>	Allow image to be deleted (default)
<b>--public</b>	Image is accessible to the public
<b>--private</b>	Image is inaccessible to the public (default)
<b>--property &lt;key=value&gt;</b>	Set a property on this image (repeat option to set multiple properties)

## openstack image show

```
usage: openstack --os-auth-type token image show [-h] [-f {html,json,shell,
table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--prefix PREFIX]
                                <image>
```

Display image details

### Positional arguments

**<image>** Image to display (name or ID)

### Optional arguments

**-h, --help** show this help message and exit

## openstack ip fixed add

```
usage: openstack --os-auth-type token ip fixed add [-h] <network> <server>
```

Add fixed-ip command

### Positional arguments

**<network>** Name of the network to fetch an IP address from

**<server>**      Name of the server to receive the IP address

### Optional arguments

**-h, --help**      show this help message and exit

## openstack ip fixed remove

```
usage: openstack --os-auth-type token ip fixed remove [-h] <ip-address>
       <server>
```

Remove fixed-ip command

### Positional arguments

**<ip-address>**      IP address to remove from server

**<server>**          Name of the server to remove the IP address from

### Optional arguments

**-h, --help**      show this help message and exit

## openstack ip floating add

```
usage: openstack --os-auth-type token ip floating add [-h] <ip-address>
       <server>
```

Add floating-ip to server

### Positional arguments

**<ip-address>**      IP address to add to server

**<server>**          Server to receive the IP address (name or ID)

### Optional arguments

**-h, --help**      show this help message and exit

## openstack ip floating create

```
usage: openstack --os-auth-type token ip floating create [-h]
               [-f {html,json,shell,table,value,yaml}]
               [-c COLUMN] [--max-width <integer>]
               [--prefix PREFIX]
               <pool>
```

Create new floating-ip

### Positional arguments

**<pool>**      Pool to fetch floating IP from



### Optional arguments

**-h, --help** show this help message and exit

## openstack ip floating delete

```
usage: openstack --os-auth-type token ip floating delete [-h] <ip-address>
```

Delete a floating-ip

### Positional arguments

**<ip-address>** IP address to delete

### Optional arguments

**-h, --help** show this help message and exit

## openstack ip floating list

```
usage: openstack --os-auth-type token ip floating list [-h] [-f {csv,html,
json,table,yaml}]
                        [-c COLUMN] [--max-width <integer>]
                        [--quote {all,minimal,none,nonnumeric}]
```

List floating-ips

### Optional arguments

**-h, --help** show this help message and exit

## openstack ip floating pool list

```
usage: openstack --os-auth-type token ip floating pool list [-h] [-f {csv,
html,json,table,yaml}]
                        [-c COLUMN] [--max-width <integer>]
                        [--quote {all,minimal,none,nonnumeric}]
```

List floating-ip-pools

### Optional arguments

**-h, --help** show this help message and exit

## openstack ip floating remove

```
usage: openstack --os-auth-type token ip floating remove [-h] <ip-address>
<server>
```

Remove floating-ip from server

### Positional arguments

**<ip-address>** IP address to remove from server

**<server>** Server to remove the IP address from (name or ID)

### Optional arguments

**-h, --help** show this help message and exit

## openstack keypair create

```
usage: openstack --os-auth-type token keypair create [-h] [-f {html,json,
shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--prefix PREFIX] [--public-key <file>]
                                <name>
```

Create new public key

### Positional arguments

**<name>** New public key name

### Optional arguments

**-h, --help** show this help message and exit

**--public-key <file>** Filename for public key to add

## openstack keypair delete

```
usage: openstack --os-auth-type token keypair delete [-h] <key>
```

Delete public key

### Positional arguments

**<key>** Public key to delete

### Optional arguments

**-h, --help** show this help message and exit

## openstack keypair list

```
usage: openstack --os-auth-type token keypair list [-h] [-f {csv,html,json,
table,yaml}] [-c COLUMN]
                                [--max-width <integer>]
                                [--quote {all,minimal,none,nonnumeric}]
```

List public key fingerprints

### Optional arguments

**-h, --help** show this help message and exit

## openstack keypair show

```
usage: openstack --os-auth-type token keypair show [-h] [-f {html,json,shell,
table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--prefix PREFIX] [--public-key]
                                <key>
```

Display public key details

### Positional arguments

**<key>**      Public key to display

### Optional arguments

**-h, --help**            show this help message and exit

**--public-key**        Show only bare public key

## openstack limits show

```
usage: openstack --os-auth-type token limits show [-h] [-f {csv,html,json,
table,yaml}] [-c COLUMN]
                                [--max-width <integer>]
                                [--quote {all,minimal,none,nonnumeric}]
                                [--absolute | --rate] [--reserved]
                                [--project <project>] [--domain <domain>]
```

Show compute and volume limits

### Optional arguments

**-h, --help**            show this help message and exit

**--absolute**           Show absolute limits

**--rate**               Show rate limits

**--reserved**           Include reservations count [only valid with --absolute]

**--project <project>**   Show limits for a specific project (name or ID) [only valid with --absolute]

**--domain <domain>**    Domain that owns --project (name or ID) [only valid with --absolute]

## openstack module list

```
usage: openstack --os-auth-type token module list [-h] [-f {html,json,shell,
table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--prefix PREFIX] [--all]
```

List module versions

### Optional arguments

- h, --help** show this help message and exit
- all** Show all modules that have version information

## openstack network create

```
usage: openstack --os-auth-type token network create [-h] [-f {html,json,shell,table,value,yaml}]
                                                    [-c COLUMN] [--max-width <integer>]
                                                    [--prefix PREFIX] [--enable | --disable]
                                                    [--share | --no-share] [--project <project>]
                                                    [--domain <domain>]
                                                    <name>
```

Create new network

### Positional arguments

**<name>** New network name

### Optional arguments

- h, --help** show this help message and exit
- enable** Enable network (default)
- disable** Disable network
- share** Share the network between projects
- no-share** Do not share the network between projects
- project <project>** Owner's project (name or ID)
- domain <domain>** Owner's domain (name or ID)

## openstack network delete

```
usage: openstack --os-auth-type token network delete [-h] <network>
[<network> ...]
```

Delete network(s)

### Positional arguments

**<network>** Network to delete (name or ID)

### Optional arguments

- h, --help** show this help message and exit

## openstack network list

```
usage: openstack --os-auth-type token network list [-h] [-f {csv,html,json,
table,yaml}] [-c COLUMN]
                                [--max-width <integer>]
                                [--quote {all,minimal,none,nonnumeric}]
                                [--external] [--dhcp <dhcp-id>] [--long]
```

List networks

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--external</b>	List external networks
<b>--dhcp &lt;dhcp-id&gt; DHCP</b>	agent ID
<b>--long</b>	List additional fields in output

## openstack network set

```
usage: openstack --os-auth-type token network set [-h] [--name <name>] [--
enable | --disable]
                                [--share | --no-share]
                                <network>
```

Set network properties

### Positional arguments

**<network>** Network to modify (name or ID)

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--name &lt;name&gt;</b>	Set network name
<b>--enable</b>	Enable network
<b>--disable</b>	Disable network
<b>--share</b>	Share the network between projects
<b>--no-share</b>	Do not share the network between projects

## openstack network show

```
usage: openstack --os-auth-type token network show [-h] [-f {html,json,shell,
table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--prefix PREFIX]
                                <network>
```

Show network details

### Positional arguments

**<network>** Network to display (name or ID)

### Optional arguments

**-h, --help** show this help message and exit

## openstack object create

```
usage: openstack --os-auth-type token object create [-h] [-f {csv,html,json,
table,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--quote {all,minimal,none,nonnumeric}]
                                     <container> <filename> [<filename> ...]
```

Upload object to container

### Positional arguments

**<container>** Container for new object

**<filename>** Local filename(s) to upload

### Optional arguments

**-h, --help** show this help message and exit

## openstack object delete

```
usage: openstack --os-auth-type token object delete [-h] <container> <object>
[<object> ...]
```

Delete object from container

### Positional arguments

**<container>** Delete object(s) from <container>

**<object>** Object(s) to delete

### Optional arguments

**-h, --help** show this help message and exit

## openstack object list

```
usage: openstack --os-auth-type token object list [-h] [-f {csv,html,json,
table,yaml}] [-c COLUMN]
                                     [--max-width <integer>]
                                     [--quote {all,minimal,none,nonnumeric}]
```

```
[--prefix <prefix>] [--delimiter <delimiter>]  
[--marker <marker>] [--end-marker <end-marker>]  
[--limit <limit>] [--long] [--all]  
<container>
```

List objects

### Positional arguments

**<container>**      Container to list

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--prefix &lt;prefix&gt;</b>	Filter list using <prefix>
<b>--delimiter &lt;delimiter&gt;</b>	Roll up items with <delimiter>
<b>--marker &lt;marker&gt;</b>	Anchor for paging
<b>--end-marker &lt;end-marker&gt;</b>	End anchor for paging
<b>--limit &lt;limit&gt;</b>	Limit the number of objects returned
<b>--long</b>	List additional fields in output
<b>--all</b>	List all objects in container (default is 10000)

## openstack object save

```
usage: openstack --os-auth-type token object save [-h] [--file <filename>]  
        <container> <object>
```

Save object locally

### Positional arguments

**<container>**      Download <object> from <container>

**<object>**        Object to save

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--file &lt;filename&gt;</b>	Destination filename (defaults to object name)

## openstack object show

```
usage: openstack --os-auth-type token object show [-h] [-f {html,json,shell,  
table,value,yaml}]  
        [-c COLUMN] [--max-width <integer>]  
        [--prefix PREFIX]  
        <container> <object>
```

Display object details

### Positional arguments

**<container>**      Display <object> from <container>

**<object>**          Object to display

### Optional arguments

**-h, --help**        show this help message and exit

## openstack project create

```
usage: openstack --os-auth-type token project create [-h] [-f {html,json,shell,table,value,yaml}]
                                                    [-c COLUMN] [--max-width <integer>]
                                                    [--prefix PREFIX]
                                                    [--description <description>]
                                                    [--enable | --disable]
                                                    [--property <key=value>] [--or-show]
                                                    <project-name>
```

Create new project

### Positional arguments

**<project-name>**      New project name

### Optional arguments

**-h, --help**                show this help message and exit

**--description <description>**      Project description

**--enable**                  Enable project (default)

**--disable**                Disable project

**--property <key=value>**      Add a property to <name> (repeat option to set multiple properties)

**--or-show**                Return existing project

## openstack project delete

```
usage: openstack --os-auth-type token project delete [-h] <project>
[<project> ...]
```

Delete project(s)

### Positional arguments

**<project>**          Project(s) to delete (name or ID)



### Optional arguments

**-h, --help** show this help message and exit

## openstack project list

```
usage: openstack --os-auth-type token project list [-h] [-f {csv,html,json,
table,yaml}] [-c COLUMN]
                                [--max-width <integer>]
                                [--quote {all,minimal,none,nonnumeric}] [--long]
```

List projects

### Optional arguments

**-h, --help** show this help message and exit

**--long** List additional fields in output

## openstack project set

```
usage: openstack --os-auth-type token project set [-h] [--name <name>]
                                [--description <description>]
                                [--enable | --disable] [--property <key=value>]
                                <project>
```

Set project properties

### Positional arguments

**<project>** Project to modify (name or ID)

### Optional arguments

**-h, --help** show this help message and exit

**--name <name>** Set project name

**--description <description>** Set project description

**--enable** Enable project

**--disable** Disable project

**--property <key=value>** Set a project property (repeat option to set multiple properties)

## openstack project show

```
usage: openstack --os-auth-type token project show [-h] [-f {html,json,shell,
table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--prefix PREFIX]
                                <project>
```

Display project details

### Positional arguments

**<project>**      Project to display (name or ID)

### Optional arguments

**-h, --help**      show this help message and exit

## openstack project usage list

```
usage: openstack --os-auth-type token project usage list [-h] [-f {csv,html,
json,table,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--quote {all,minimal,none,nonnumeric}]
                                [--start <start>] [--end <end>]
```

List resource usage per project

### Optional arguments

**-h, --help**      show this help message and exit

**--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)

## openstack quota set

```
usage: openstack --os-auth-type token quota set [-h] [--class] [--properties
<properties>]
                                [--ram <ram>] [--secgroup-rules <secgroup-rules>]
                                [--instances <instances>] [--key-pairs <key-pairs>]
                                [--fixed-ips <fixed-ips>] [--secgroups <secgroups>]
                                [--injected-file-size <injected-file-size>]
                                [--floating-ips <floating-ips>]
                                [--injected-files <injected-files>]
                                [--cores <cores>]
                                [--injected-path-size <injected-path-size>]
                                [--gigabytes <gigabytes>] [--volumes <volumes>]
                                [--snapshots <snapshots>]
                                [--volume-type <volume-type>]
                                <project/class>
```

Set quotas for project or class

### Positional arguments

**<project/class>**      Set quotas for this project or class (name/ID)

### Optional arguments

**-h, --help**      show this help message and exit

<b>-class</b>	Set quotas for <class>
<b>-properties &lt;properties&gt;</b>	New value for the properties quota
<b>-ram &lt;ram&gt;</b>	New value for the ram quota
<b>-secgroup-rules &lt;sec-group-rules&gt;</b>	New value for the secgroup-rules quota
<b>-instances &lt;instances&gt;</b>	New value for the instances quota
<b>-key-pairs &lt;key-pairs&gt;</b>	New value for the key-pairs quota
<b>-fixed-ips &lt;fixed-ips&gt;</b>	New value for the fixed-ips quota
<b>-secgroups &lt;secgroups&gt;</b>	New value for the secgroups quota
<b>-injected-file-size &lt;injected-file-size&gt;</b>	New value for the injected-file-size quota
<b>-floating-ips &lt;floating-ips&gt;</b>	New value for the floating-ips quota
<b>-injected-files &lt;injected-files&gt;</b>	New value for the injected-files quota
<b>-cores &lt;cores&gt;</b>	New value for the cores quota
<b>-injected-path-size &lt;injected-path-size&gt;</b>	New value for the injected-path-size quota
<b>-gigabytes &lt;gigabytes&gt;</b>	New value for the gigabytes quota
<b>-volumes &lt;volumes&gt;</b>	New value for the volumes quota
<b>-snapshots &lt;snapshots&gt;</b>	New value for the snapshots quota
<b>-volume-type &lt;volume-type&gt;</b>	Set quotas for a specific <volume-type>

## openstack quota show

```
usage: openstack --os-auth-type token quota show [-h] [-f {html,json,shell,
table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--prefix PREFIX] [--class | --default]
                                <project/class>
```

Show quotas for project or class

### Positional arguments

**<project/class>** Show this project or class (name/ID)

### Optional arguments

**-h, -help** show this help message and exit

**-class** Show quotas for <class>

**-default** Show default quotas for <project>

## openstack role add

```
usage: openstack --os-auth-type token role add [-h] [-f {html,json,shell,
table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--prefix PREFIX] --project <project> --user <user>
                                     <role>
```

Add role to project:user

### Positional arguments

**<role>** Role to add to <project>:<user> (name or ID)

### Optional arguments

**-h, --help** show this help message and exit

**--project <project>** Include <project> (name or ID)

**--user <user>** Include <user> (name or ID)

## openstack role create

```
usage: openstack --os-auth-type token role create [-h] [-f {html,json,shell,
table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--prefix PREFIX] [--or-show]
                                     <name>
```

Create new role

### Positional arguments

**<name>** New role name

### Optional arguments

**-h, --help** show this help message and exit

**--or-show** Return existing role

## openstack role delete

```
usage: openstack --os-auth-type token role delete [-h] <role> [<role> ...]
```

Delete role(s)

### Positional arguments

**<role>** Role(s) to delete (name or ID)

### Optional arguments

**-h, --help** show this help message and exit

## openstack role list

```
usage: openstack --os-auth-type token role list [-h] [-f {csv,html,json,table,
yaml}] [-c COLUMN]
                                     [--max-width <integer>]
                                     [--quote {all,minimal,none,nonnumeric}]
                                     [--project <project>] [--user <user>]
```

List roles

### Optional arguments

**-h, --help** show this help message and exit

**--project <project>** Filter roles by <project> (name or ID)

**--user <user>** Filter roles by <user> (name or ID)

## openstack role remove

```
usage: openstack --os-auth-type token role remove [-h] --project <project> --
user <user> <role>
```

Remove role from project : user

### Positional arguments

**<role>** Role to remove (name or ID)

### Optional arguments

**-h, --help** show this help message and exit

**--project <project>** Include <project> (name or ID)

**--user <user>** Include <user> (name or ID)

## openstack role show

```
usage: openstack --os-auth-type token role show [-h] [-f {html,json,shell,
table,value,yaml}]
                                     [-c COLUMN] [--max-width <integer>]
                                     [--prefix PREFIX]
                                     <role>
```

Display role details

### Positional arguments

**<role>** Role to display (name or ID)

### Optional arguments

**-h, --help** show this help message and exit

## openstack security group create

```
usage: openstack --os-auth-type token security group create [-h]
                    [-f {html,json,shell,table,value,yaml}]
                    [-c COLUMN] [--max-width <integer>]
                    [--prefix PREFIX]
                    [--description <description>]
                    <name>
```

Create a new security group

### Positional arguments

**<name>** New security group name

### Optional arguments

**-h, --help** show this help message and exit

**--description <description>** Security group description

## openstack security group delete

```
usage: openstack --os-auth-type token security group delete [-h] <group>
```

Delete a security group

### Positional arguments

**<group>** Name or ID of security group to delete

### Optional arguments

**-h, --help** show this help message and exit

## openstack security group list

```
usage: openstack --os-auth-type token security group list [-h] [-f {csv,html,
json,table,yaml}]
                    [-c COLUMN] [--max-width <integer>]
                    [--quote {all,minimal,none,nonnumeric}]
                    [--all-projects]
```

List all security groups

### Optional arguments

**-h, --help** show this help message and exit

**-all-projects**      Display information from all projects (admin only)

## openstack security group rule create

```
usage: openstack --os-auth-type token security group rule create [-h]
                                                                    [-f {html,json,shell,table,value,
                                                                    yaml}]
                                                                    [-c COLUMN]
                                                                    [--max-width <integer>]
                                                                    [--prefix PREFIX]
                                                                    [--proto <proto>]
                                                                    [--src-ip <ip-address>]
                                                                    [--dst-port <port-range>]
                                                                    <group>
```

Create a new security group rule

### Positional arguments

**<group>**      Create rule in this security group

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--proto &lt;proto&gt; IP</b>	protocol (icmp, tcp, udp; default: tcp)
<b>--src-ip &lt;ip-address&gt;</b>	Source IP (may use CIDR notation; default: 0.0.0.0/0)
<b>--dst-port &lt;port-range&gt;</b>	Destination port, may be a range: 137:139 (default: 0; only required for proto tcp and udp)

## openstack security group rule delete

```
usage: openstack --os-auth-type token security group rule delete [-h] [--proto
<proto>]
                                                                    [--src-ip <ip-address>]
                                                                    [--dst-port <port-range>]
                                                                    <group>
```

Delete a security group rule

### Positional arguments

**<group>**      Security group rule to delete (name or ID)

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--proto &lt;proto&gt; IP</b>	protocol (icmp, tcp, udp; default: tcp)
<b>--src-ip &lt;ip-address&gt;</b>	Source IP (may use CIDR notation; default: 0.0.0.0/0)

**-dst-port <port-range>**

Destination port, may be a range: 137:139 (default: 0; only required for proto tcp and udp)

## openstack security group rule list

```
usage: openstack --os-auth-type token security group rule list [-h] [-f {csv,html,json,table,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--quote {all,minimal,none,nonnumeric}]
                                <group>
```

List all security group rules

### Positional arguments

**<group>** List all rules in this security group

### Optional arguments

**-h, --help** show this help message and exit

## openstack security group set

```
usage: openstack --os-auth-type token security group set [-h]
                                [-f {html,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--prefix PREFIX] [--name <new-name>]
                                [--description <description>]
                                <group>
```

Set security group properties

### Positional arguments

**<group>** Name or ID of security group to change

### Optional arguments

**-h, --help** show this help message and exit**--name <new-name>** New security group name**--description <description>** New security group name

## openstack security group show

```
usage: openstack --os-auth-type token security group show [-h]
                                [-f {html,json,shell,table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--prefix PREFIX]
                                <group>
```

Show a specific security group



### Positional arguments

**<group>**      Name or ID of security group to change

### Optional arguments

**-h, --help**      show this help message and exit

## openstack server add security group

```
usage: openstack --os-auth-type token server add security group [-h] <server>
<group>
```

Add security group to server

### Positional arguments

**<server>**      Server (name or ID)

**<group>**      Security group to add (name or ID)

### Optional arguments

**-h, --help**      show this help message and exit

## openstack server add volume

```
usage: openstack --os-auth-type token server add volume [-h] [--device
<device>] <server> <volume>
```

Add volume to server

### Positional arguments

**<server>**      Server (name or ID)

**<volume>**      Volume to add (name or ID)

### Optional arguments

**-h, --help**      show this help message and exit

**--device <device>**      Server internal device name for volume

## openstack server create

```
usage: openstack --os-auth-type token server create [-h] [-f {html,json,shell,
table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--prefix PREFIX]
                                (--image <image> | --volume <volume>) --flavor
                                <flavor>
```

```

[--security-group <security-group-name>]
[--key-name <key-name>]
[--property <key=value>]
[--file <dest-filename=source-filename>]
[--user-data <user-data>]
[--availability-zone <zone-name>]
[--block-device-mapping <dev-name=mapping>]
[--nic <net-id=net-uuid,v4-fixed-ip=ip-addr,v6-
fixed-ip=ip-addr,port-id=port-uuid>]
[--hint <key=value>]
[--config-drive <config-drive-volume>|True]
[--min <count>] [--max <count>] [--wait]
<server-name>

```

Create a new server

## Positional arguments

**<server-name>**      New server name

## Optional arguments

<b>-h, -help</b>	show this help message and exit
<b>-image &lt;image&gt;</b>	Create server from this image
<b>-volume &lt;volume&gt;</b>	Create server from this volume
<b>-flavor &lt;flavor&gt;</b>	Create server with this flavor
<b>-security-group &lt;security-group-name&gt;</b>	Security group to assign to this server (repeat for multiple groups)
<b>-key-name &lt;key-name&gt;</b>	Keypair to inject into this server (optional extension)
<b>-property &lt;key=value&gt;</b>	Set a property on this server (repeat for multiple values)
<b>-file &lt;dest-filename=source-filename&gt;</b>	File to inject into image before boot (repeat for multiple files)
<b>-user-data &lt;user-data&gt;</b>	User data file to serve from the metadata server
<b>-availability-zone &lt;zone-name&gt;</b>	Select an availability zone for the server
<b>-block-device-mapping &lt;dev-name=mapping&gt;</b>	Map block devices; map is <id>:<type>:<size(GB)>:<delete_on_terminate> (optional extension)
<b>-nic &lt;net-id=net-uuid,v4-fixed-ip=ip-addr,v6-fixed-ip=ip-addr,port-id=port-uuid&gt;</b>	Create a NIC on the server. Specify option multiple times to create multiple NICs. Either net-id or port-id must be provided, but not both. net-id: attach NIC to network with this UUID, port-id: attach NIC to port with this UUID, v4-fixed-ip: IPv4 fixed address for NIC (optional), v6-fixed-ip: IPv6 fixed address for NIC (optional).
<b>-hint &lt;key=value&gt;</b>	Hints for the scheduler (optional extension)

<b>-config-drive &lt;config-drive-volume&gt; True</b>	Use specified volume as the config drive, or 'True' to use an ephemeral drive
<b>-min &lt;count&gt;</b>	Minimum number of servers to launch (default=1)
<b>-max &lt;count&gt;</b>	Maximum number of servers to launch (default=1)
<b>-wait</b>	Wait for build to complete

## openstack server delete

```
usage: openstack --os-auth-type token server delete [-h] <server> [<server> ..
.]
```

Delete server(s)

### Positional arguments

**<server>**      Server(s) to delete (name or ID)

### Optional arguments

**-h, --help**      show this help message and exit

## openstack server image create

```
usage: openstack --os-auth-type token server image create [-h]
                    [-f {html,json,shell,table,value,yaml}]
                    [-c COLUMN] [--max-width <integer>]
                    [--prefix PREFIX] [--name <image-name>]
                    [--wait]
                    <server>
```

Create a new disk image from a running server

### Positional arguments

**<server>**      Server (name or ID)

### Optional arguments

**-h, --help**      show this help message and exit

**-name <image-name>**      Name of new image (default is server name)

**-wait**      Wait for image create to complete

## openstack server list

```
usage: openstack --os-auth-type token server list [-h] [-f {csv,html,json,
table,yaml}] [-c COLUMN]
                    [--max-width <integer>]
                    [--quote {all,minimal,none,nonnumeric}]
```

```
[--reservation-id <reservation-id>]
[--ip <ip-address-regex>]
[--ip6 <ip-address-regex>] [--name <name-regex>]
[--instance-name <server-name>]
[--status <status>] [--flavor <flavor>]
[--image <image>] [--host <hostname>]
[--all-projects] [--long]
```

List servers

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--reservation-id &lt;reservation-id&gt;</b>	Only return instances that match the reservation
<b>-ip &lt;ip-address-regex&gt;</b>	Regular expression to match IP addresses
<b>-ip6 &lt;ip-address-regex&gt;</b>	Regular expression to match IPv6 addresses
<b>--name &lt;name-regex&gt;</b>	Regular expression to match names
<b>--instance-name &lt;server-name&gt;</b>	Regular expression to match instance name (admin only)
<b>--status &lt;status&gt;</b>	Search by server status
<b>--flavor &lt;flavor&gt;</b>	Search by flavor
<b>--image &lt;image&gt;</b>	Search by image
<b>--host &lt;hostname&gt;</b>	Search by hostname
<b>--all-projects</b>	Include all projects (admin only)
<b>--long</b>	List additional fields in output

## openstack server lock

```
usage: openstack --os-auth-type token server lock [-h] <server>
```

Lock a server. A non-admin user will not be able to execute actions

### Positional arguments

**<server>**      Server (name or ID)

### Optional arguments

**-h, --help**      show this help message and exit

## openstack server migrate

```
usage: openstack --os-auth-type token server migrate [-h] [--live <hostname>]
[--shared-migration | --block-migration]
```

```
[--disk-overcommit | --no-disk-overcommit]
[--wait]
<server>
```

Migrate server to different host

### Positional arguments

**<server>**      Server (name or ID)

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--live &lt;hostname&gt;</b>	Target hostname
<b>--shared-migration</b>	Perform a shared live migration (default)
<b>--block-migration</b>	Perform a block live migration
<b>--disk-overcommit</b>	Allow disk over-commit on the destination host
<b>--no-disk-overcommit</b>	Do not over-commit disk on the destination host (default)
<b>--wait</b>	Wait for resize to complete

## openstack server pause

```
usage: openstack --os-auth-type token server pause [-h] <server>
```

Pause server

### Positional arguments

**<server>**      Server (name or ID)

### Optional arguments

**-h, --help**      show this help message and exit

## openstack server reboot

```
usage: openstack --os-auth-type token server reboot [-h] [--hard | --soft] [--wait] <server>
```

Perform a hard or soft server reboot

### Positional arguments

**<server>**      Server (name or ID)

### Optional arguments

**-h, --help**      show this help message and exit

<b>-hard</b>	Perform a hard reboot
<b>-soft</b>	Perform a soft reboot
<b>-wait</b>	Wait for reboot to complete

## openstack server rebuild

```
usage: openstack --os-auth-type token server rebuild [-h] [-f {html,json,shell,table,value,yaml}]  
                                [-c COLUMN] [--max-width <integer>]  
                                [--prefix PREFIX] --image <image>  
                                [--password <password>] [--wait]  
                                <server>
```

Rebuild server

### Positional arguments

**<server>**     Server (name or ID)

### Optional arguments

<b>-h, -help</b>	show this help message and exit
<b>-image &lt;image&gt;</b>	Recreate server from this image
<b>-password &lt;password&gt;</b>	Set the password on the rebuilt instance
<b>-wait</b>	Wait for rebuild to complete

## openstack server remove security group

```
usage: openstack --os-auth-type token server remove security group [-h]  
    <server> <group>
```

Remove security group from server

### Positional arguments

**<server>**     Name or ID of server to use

**<group>**     Name or ID of security group to remove from server

### Optional arguments

**-h, -help**     show this help message and exit

## openstack server remove volume

```
usage: openstack --os-auth-type token server remove volume [-h] <server>  
    <volume>
```

Remove volume from server

### Positional arguments

**<server>**     Server (name or ID)

**<volume>**    Volume to remove (name or ID)

### Optional arguments

**-h, --help**        show this help message and exit

## openstack server rescue

```
usage: openstack --os-auth-type token server rescue [-h] [-f {html,json,shell,
table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--prefix PREFIX]
                                <server>
```

Put server in rescue mode

### Positional arguments

**<server>**     Server (name or ID)

### Optional arguments

**-h, --help**        show this help message and exit

## openstack server resize

```
usage: openstack --os-auth-type token server resize [-h] [--flavor <flavor> |
--confirm | --revert]
                                [--wait]
                                <server>
```

Scale server to a new flavor

### Positional arguments

**<server>**     Server (name or ID)

### Optional arguments

**-h, --help**                show this help message and exit

**--flavor <flavor>**        Resize server to specified flavor

**--confirm**                Confirm server resize is complete

**--revert**                 Restore server state before resize

**-wait** Wait for resize to complete

## openstack server resume

```
usage: openstack --os-auth-type token server resume [-h] <server>
```

Resume server

### Positional arguments

**<server>** Server (name or ID)

### Optional arguments

**-h, -help** show this help message and exit

## openstack server set

```
usage: openstack --os-auth-type token server set [-h] [--name <new-name>] [--root-password]
                                                [--property <key=value>]
                                                <server>
```

Set server properties

### Positional arguments

**<server>** Server (name or ID)

### Optional arguments

**-h, -help** show this help message and exit

**-name <new-name>** New server name

**-root-password** Set new root password (interactive only)

**-property <key=value>** Property to add/change for this server (repeat option to set multiple properties)

## openstack server show

```
usage: openstack --os-auth-type token server show [-h] [-f {html,json,shell,table,value,yaml}]
                                                [-c COLUMN] [--max-width <integer>]
                                                [--prefix PREFIX] [--diagnostics]
                                                <server>
```

Show server details

### Positional arguments

**<server>** Server (name or ID)



### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--diagnostics</b>	Display server diagnostics information

## openstack server ssh

```
usage: openstack --os-auth-type token server ssh [-h] [--login <login-name>]
        [--port <port>]
        [--identity <keyfile>] [--option <config-options>]
        [-4 | -6]
        [--public | --private | --address-type <address-
type>]
        <server>
```

Ssh to server

### Positional arguments

**<server>**     Server (name or ID)

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--login &lt;login-name&gt;</b>	Login name (ssh -l option)
<b>--port &lt;port&gt;</b>	Destination port (ssh -p option)
<b>--identity &lt;keyfile&gt;</b>	Private key file (ssh -i option)
<b>--option &lt;config-options&gt;</b>	Options in ssh_config(5) format (ssh -o option)
<b>-4</b>	Use only IPv4 addresses
<b>-6</b>	Use only IPv6 addresses
<b>--public</b>	Use public IP address
<b>--private</b>	Use private IP address
<b>--address-type &lt;address-type&gt;</b>	Use other IP address (public, private, etc)

## openstack server suspend

```
usage: openstack --os-auth-type token server suspend [-h] <server>
```

Suspend server

### Positional arguments

**<server>**     Server (name or ID)

### Optional arguments

**-h, --help** show this help message and exit

## openstack server unlock

```
usage: openstack --os-auth-type token server unlock [-h] <server>
```

Unlock server

### Positional arguments

**<server>** Server (name or ID)

### Optional arguments

**-h, --help** show this help message and exit

## openstack server unpause

```
usage: openstack --os-auth-type token server unpause [-h] <server>
```

Unpause server

### Positional arguments

**<server>** Server (name or ID)

### Optional arguments

**-h, --help** show this help message and exit

## openstack server unrescue

```
usage: openstack --os-auth-type token server unrescue [-h] <server>
```

Restore server from rescue mode

### Positional arguments

**<server>** Server (name or ID)

### Optional arguments

**-h, --help** show this help message and exit

## openstack server unset

```
usage: openstack --os-auth-type token server unset [-h] [--property <key>]
<server>
```

Unset server properties

### Positional arguments

**<server>**      Server (name or ID)

### Optional arguments

**-h, --help**                      show this help message and exit

**--property <key>**              Property key to remove from server (repeat to unset multiple values)

## openstack service create

```
usage: openstack --os-auth-type token service create [-h] [-f {html,json,shell,table,value,yaml}]
                                         [-c COLUMN] [--max-width <integer>]
                                         [--prefix PREFIX] [--name <name>]
                                         [--description <description>]
                                         <type>
```

Create new service

### Positional arguments

**<type>**      New service type (compute, image, identity, volume, etc)

### Optional arguments

**-h, --help**                      show this help message and exit

**--name <name>**                      New service name

**--description <description>**      New service description

## openstack service delete

```
usage: openstack --os-auth-type token service delete [-h] <service>
```

Delete service

### Positional arguments

**<service>**      Service to delete (name or ID)

### Optional arguments

**-h, --help**                      show this help message and exit

## openstack service list

```
usage: openstack --os-auth-type token service list [-h] [-f {csv,html,json,table,yaml}] [-c COLUMN]
                                         [--max-width <integer>]
```

```
[--quote {all,minimal,none,nonnumeric}] [--long]
```

List services

### Optional arguments

**-h, --help** show this help message and exit

**--long** List additional fields in output

## openstack service show

```
usage: openstack --os-auth-type token service show [-h] [-f {html,json,shell,
table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--prefix PREFIX] [--catalog]
                                <service>
```

Display service details

### Positional arguments

**<service>** Service to display (type, name or ID)

### Optional arguments

**-h, --help** show this help message and exit

**--catalog** Show service catalog information

## openstack snapshot create

```
usage: openstack --os-auth-type token snapshot create [-h] [-f {html,json,
shell,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--prefix PREFIX] --name <name>
                                [--description <description>] [--force]
                                <volume>
```

Create new snapshot

### Positional arguments

**<volume>** Volume to snapshot (name or ID)

### Optional arguments

**-h, --help** show this help message and exit

**--name <name>** Name of the snapshot

**--description <description>** Description of the snapshot

**--force** Create a snapshot attached to an instance. Default is False

## openstack snapshot delete

```
usage: openstack --os-auth-type token snapshot delete [-h] <snapshot>
[<snapshot> ...]
```

Delete snapshot(s)

### Positional arguments

**<snapshot>** Snapshot(s) to delete (name or ID)

### Optional arguments

**-h, --help** show this help message and exit

## openstack snapshot list

```
usage: openstack --os-auth-type token snapshot list [-h] [-f {csv,html,json,
table,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--quote {all,minimal,none,nonnumeric}]
                                [--long]
```

List snapshots

### Optional arguments

**-h, --help** show this help message and exit

**--long** List additional fields in output

## openstack snapshot set

```
usage: openstack --os-auth-type token snapshot set [-h] [--name <name>]
                                [--description <description>]
                                [--property <key=value>]
                                <snapshot>
```

Set snapshot properties

### Positional arguments

**<snapshot>** Snapshot to modify (name or ID)

### Optional arguments

**-h, --help** show this help message and exit

**--name <name>** New snapshot name

**--description <description>** New snapshot description

**--property <key=value>** Property to add/change for this snapshot (repeat option to set multiple properties)

## openstack snapshot show

```
usage: openstack --os-auth-type token snapshot show [-h] [-f {html,json,shell,
table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--prefix PREFIX]
                                <snapshot>
```

Display snapshot details

### Positional arguments

**<snapshot>** Snapshot to display (name or ID)

### Optional arguments

**-h, --help** show this help message and exit

## openstack snapshot unset

```
usage: openstack --os-auth-type token snapshot unset [-h] [--property <key>]
<snapshot>
```

Unset snapshot properties

### Positional arguments

**<snapshot>** Snapshot to modify (name or ID)

### Optional arguments

**-h, --help** show this help message and exit

**--property <key>** Property to remove from snapshot (repeat to remove multiple values)

## openstack token issue

```
usage: openstack --os-auth-type token token issue [-h] [-f {html,json,shell,
table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--prefix PREFIX]
```

Issue new token

### Optional arguments

**-h, --help** show this help message and exit

## openstack token revoke

```
usage: openstack --os-auth-type token token revoke [-h] <token>
```

Revoke existing token

### Positional arguments

**<token>** Token to be deleted

### Optional arguments

**-h, --help** show this help message and exit

## openstack usage list

```
usage: openstack --os-auth-type token usage list [-h] [-f {csv,html,json,
table,yaml}] [-c COLUMN]
                [--max-width <integer>]
                [--quote {all,minimal,none,nonnumeric}]
                [--start <start>] [--end <end>]
```

List resource usage per project

### Optional arguments

**-h, --help** show this help message and exit

**--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)

## openstack usage show

```
usage: openstack --os-auth-type token usage show [-h] [-f {html,json,shell,
table,value,yaml}]
                [-c COLUMN] [--max-width <integer>]
                [--prefix PREFIX] [--project <project>]
                [--start <start>] [--end <end>]
```

Show resource usage for a single project

### Optional arguments

**-h, --help** show this help message and exit

**--project <project>** Name or ID of project to show usage for

**--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)

## openstack user create

```
usage: openstack --os-auth-type token user create [-h] [-f {html,json,shell,
table,value,yaml}]
                [-c COLUMN] [--max-width <integer>]
```

```
[--prefix PREFIX] [--project <project>]
[--password <password>] [--password-prompt]
[--email <email-address>] [--enable | --disable]
[--or-show]
<name>
```

Create new user

### Positional arguments

**<name>**    New user name

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--project &lt;project&gt;</b>	Default project (name or ID)
<b>--password &lt;password&gt;</b>	Set user password
<b>--password-prompt</b>	Prompt interactively for password
<b>--email &lt;email-address&gt;</b>	Set user email address
<b>--enable</b>	Enable user (default)
<b>--disable</b>	Disable user
<b>--or-show</b>	Return existing user

## openstack user delete

```
usage: openstack --os-auth-type token user delete [-h] <user> [<user> ...]
```

Delete user(s)

### Positional arguments

**<user>**    User(s) to delete (name or ID)

### Optional arguments

**-h, --help**        show this help message and exit

## openstack user list

```
usage: openstack --os-auth-type token user list [-h] [-f {csv,html,json,table,
yaml}] [-c COLUMN]
                                     [--max-width <integer>]
                                     [--quote {all,minimal,none,nonnumeric}]
                                     [--project <project>] [--long]
```

List users



### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--project &lt;project&gt;</b>	Filter users by project (name or ID)
<b>--long</b>	List additional fields in output

## openstack user role list

```
usage: openstack --os-auth-type token user role list [-h] [-f {csv,html,json,
table,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--quote {all,minimal,none,nonnumeric}]
                                [--project <project>]
                                [<user>]
```

List user-role assignments

### Positional arguments

**<user>**     User to list (name or ID)

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--project &lt;project&gt;</b>	Filter users by <project> (name or ID)

## openstack user set

```
usage: openstack --os-auth-type token user set [-h] [--name <name>] [--project
<project>]
                                [--password <user-password>] [--password-prompt]
                                [--email <email-address>] [--enable | --disable]
                                <user>
```

Set user properties

### Positional arguments

**<user>**     User to change (name or ID)

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--name &lt;name&gt;</b>	Set user name
<b>--project &lt;project&gt;</b>	Set default project (name or ID)
<b>--password &lt;user-password&gt;</b>	Set user password
<b>--password-prompt</b>	Prompt interactively for password

<b>-email &lt;email-address&gt;</b>	Set user email address
<b>-enable</b>	Enable user (default)
<b>-disable</b>	Disable user

## openstack user show

```
usage: openstack --os-auth-type token user show [-h] [-f {html,json,shell,
table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--prefix PREFIX]
                                <user>
```

Display user details

### Positional arguments

**<user>** User to display (name or ID)

### Optional arguments

**-h, --help** show this help message and exit

## openstack volume create

```
usage: openstack --os-auth-type token volume create [-h] [-f {html,json,shell,
table,value,yaml}]
                                [-c COLUMN] [--max-width <integer>]
                                [--prefix PREFIX] --size <size>
                                [--snapshot <snapshot>]
                                [--description <description>]
                                [--type <volume-type>] [--user <user>]
                                [--project <project>]
                                [--availability-zone <availability-zone>]
                                [--image <image>] [--source <volume>]
                                [--property <key=value>]
                                <name>
```

Create new volume

### Positional arguments

**<name>** New volume name

### Optional arguments

<b>-h, --help</b>	show this help message and exit
<b>--size &lt;size&gt;</b>	New volume size in GB
<b>--snapshot &lt;snapshot&gt;</b>	Use <snapshot> as source of new volume
<b>--description &lt;description&gt;</b>	New volume description

<b>-type &lt;volume-type&gt;</b>	Use <volume-type> as the new volume type
<b>-user &lt;user&gt;</b>	Specify an alternate user (name or ID)
<b>-project &lt;project&gt;</b>	Specify an alternate project (name or ID)
<b>-availability-zone &lt;availability-zone&gt;</b>	Create new volume in <availability-zone>
<b>-image &lt;image&gt;</b>	Use <image> as source of new volume (name or ID)
<b>-source &lt;volume&gt;</b>	Volume to clone (name or ID)
<b>-property &lt;key=value&gt;</b>	Set a property on this volume (repeat option to set multiple properties)

## openstack volume delete

```
usage: openstack --os-auth-type token volume delete [-h] [--force] <volume>
[<volume> ...]
```

Delete volume(s)

### Positional arguments

**<volume>** Volume(s) to delete (name or ID)

### Optional arguments

**-h, --help** show this help message and exit

**-force** Attempt forced removal of volume(s), regardless of state (defaults to False)

## openstack volume list

```
usage: openstack --os-auth-type token volume list [-h] [-f {csv,html,json,
table,yaml}] [-c COLUMN]
                                     [--max-width <integer>]
                                     [--quote {all,minimal,none,nonnumeric}]
                                     [--status <status>] [--name <name>]
                                     [--all-projects] [--long]
```

List volumes

### Optional arguments

**-h, --help** show this help message and exit

**-status <status>** Filter results by status

**-name <name>** Filter results by name

**-all-projects** Include all projects (admin only)

**-long** List additional fields in output

## openstack volume set

```
usage: openstack --os-auth-type token volume set [-h] [--name <name>] [--description <description>]
                                                [--size <size>] [--property <key=value>]
                                                <volume>
```

Set volume properties

### Positional arguments

**<volume>** Volume to change (name or ID)

### Optional arguments

<b>-h, -help</b>	show this help message and exit
<b>-name &lt;name&gt;</b>	New volume name
<b>-description &lt;description&gt;</b>	New volume description
<b>-size &lt;size&gt;</b>	Extend volume size in GB
<b>-property &lt;key=value&gt;</b>	Property to add or modify for this volume (repeat option to set multiple properties)

## openstack volume show

```
usage: openstack --os-auth-type token volume show [-h] [-f {html,json,shell,table,value,yaml}]
                                                [-c COLUMN] [--max-width <integer>]
                                                [--prefix PREFIX]
                                                <volume>
```

Show volume details

### Positional arguments

**<volume>** Volume to display (name or ID)

### Optional arguments

**-h, -help** show this help message and exit

## openstack volume type create

```
usage: openstack --os-auth-type token volume type create [-h]
                                                           [-f {html,json,shell,table,value,yaml}]
                                                           [-c COLUMN] [--max-width <integer>]
                                                           [--prefix PREFIX] [--property <key=value>]
                                                           <name>
```

Create new volume type

### Positional arguments

**<name>** New volume type name

### Optional arguments

**-h, --help** show this help message and exit

**--property <key=value>** Property to add for this volume type (repeat option to set multiple properties)

## openstack volume type delete

```
usage: openstack --os-auth-type token volume type delete [-h] <volume-type>
```

Delete volume type

### Positional arguments

**<volume-type>** Volume type to delete (name or ID)

### Optional arguments

**-h, --help** show this help message and exit

## openstack volume type list

```
usage: openstack --os-auth-type token volume type list [-h] [-f {csv,html,
json,table,yaml}]
                        [-c COLUMN] [--max-width <integer>]
                        [--quote {all,minimal,none,nonnumeric}]
                        [--long]
```

List volume types

### Optional arguments

**-h, --help** show this help message and exit

**--long** List additional fields in output

## openstack volume type set

```
usage: openstack --os-auth-type token volume type set [-h] [--property <key=
value>] <volume-type>
```

Set volume type properties

### Positional arguments

**<volume-type>** Volume type to modify (name or ID)

### Optional arguments

<b>-h, -help</b>	show this help message and exit
<b>-property &lt;key=value&gt;</b>	Property to add or modify for this volume type (repeat option to set multiple properties)

## openstack volume type unset

```
usage: openstack --os-auth-type token volume type unset [-h] [--property <key>] <volume-type>
```

Unset volume type properties

### Positional arguments

**<volume-type>** Volume type to modify (name or ID)

### Optional arguments

<b>-h, -help</b>	show this help message and exit
<b>-property &lt;key&gt;</b>	Property to remove from volume type (repeat option to remove multiple properties)

## openstack volume unset

```
usage: openstack --os-auth-type token volume unset [-h] [--property <key>] <volume>
```

Unset volume properties

### Positional arguments

**<volume>** Volume to modify (name or ID)

### Optional arguments

<b>-h, -help</b>	show this help message and exit
<b>-property &lt;key&gt;</b>	Property to remove from volume (repeat option to remove multiple properties)

# Appendix A. Community support

## Table of Contents

Documentation .....	449
ask.openstack.org .....	450
OpenStack mailing lists .....	450
The OpenStack wiki .....	450
The Launchpad Bugs area .....	451
The OpenStack IRC channel .....	452
Documentation feedback .....	452
OpenStack distribution packages .....	452

The following resources are available to help you run and use OpenStack. The OpenStack community constantly improves and adds to the main features of OpenStack, but if you have any questions, do not hesitate to ask. Use the following resources to get OpenStack support, and troubleshoot your installations.

## Documentation

For the available OpenStack documentation, see [docs.openstack.org](https://docs.openstack.org).

To provide feedback on documentation, join and use the `<openstack-docs@lists.openstack.org>` mailing list at [OpenStack Documentation Mailing List](#), or [report a bug](#).

The following books explain how to install an OpenStack cloud and its associated components:

- [Installation Guide for openSUSE 13.2 and SUSE Linux Enterprise Server 12](#)
- [Installation Guide for Red Hat Enterprise Linux 7, CentOS 7, and Fedora 21](#)
- [Installation Guide for Ubuntu 14.04 \(LTS\)](#)

The following books explain how to configure and run an OpenStack cloud:

- [Architecture Design Guide](#)
- [Cloud Administrator Guide](#)
- [Configuration Reference](#)
- [Operations Guide](#)
- [Networking Guide](#)
- [High Availability Guide](#)
- [Security Guide](#)

- [Virtual Machine Image Guide](#)

The following books explain how to use the OpenStack dashboard and command-line clients:

- [API Quick Start](#)
- [End User Guide](#)
- [Admin User Guide](#)
- [Command-Line Interface Reference](#)

The following documentation provides reference and guidance information for the OpenStack APIs:

- [OpenStack API Complete Reference \(HTML\)](#)
- [API Complete Reference \(PDF\)](#)

The [Training Guides](#) offer software training for cloud administration and management.

## ask.openstack.org

During the set up or testing of OpenStack, you might have questions about how a specific task is completed or be in a situation where a feature does not work correctly. Use the [ask.openstack.org](http://ask.openstack.org) site to ask questions and get answers. When you visit the <http://ask.openstack.org> site, scan the recently asked questions to see whether your question has already been answered. If not, ask a new question. Be sure to give a clear, concise summary in the title and provide as much detail as possible in the description. Paste in your command output or stack traces, links to screen shots, and any other information which might be useful.

## OpenStack mailing lists

A great way to get answers and insights is to post your question or problematic scenario to the OpenStack mailing list. You can learn from and help others who might have similar issues. To subscribe or view the archives, go to <http://lists.openstack.org/cgi-bin/mailman/listinfo/openstack>. You might be interested in the other mailing lists for specific projects or development, which you can find [on the wiki](#). A description of all mailing lists is available at <http://wiki.openstack.org/MailingLists>.

## The OpenStack wiki

The [OpenStack wiki](#) contains a broad range of topics but some of the information can be difficult to find or is a few pages deep. Fortunately, the wiki search feature enables you to search by title or content. If you search for specific information, such as about networking or OpenStack Compute, you can find a large amount of relevant material. More is being added all the time, so be sure to check back often. You can find the search box in the upper-right corner of any OpenStack wiki page.



## The Launchpad Bugs area

The OpenStack community values your set up and testing efforts and wants your feedback. To log a bug, you must sign up for a Launchpad account at <https://launchpad.net/+login>. You can view existing bugs and report bugs in the Launchpad Bugs area. Use the search feature to determine whether the bug has already been reported or already been fixed. If it still seems like your bug is unreported, fill out a bug report.

Some tips:

- Give a clear, concise summary.
- Provide as much detail as possible in the description. Paste in your command output or stack traces, links to screen shots, and any other information which might be useful.
- Be sure to include the software and package versions that you are using, especially if you are using a development branch, such as, "Juno release" vs `git commit bc79c3ecc55929bac585d04a03475b72e06a3208`.
- Any deployment-specific information is helpful, such as whether you are using Ubuntu 14.04 or are performing a multi-node installation.

The following Launchpad Bugs areas are available:

- [Bugs: OpenStack Block Storage \(cinder\)](#)
- [Bugs: OpenStack Compute \(nova\)](#)
- [Bugs: OpenStack Dashboard \(horizon\)](#)
- [Bugs: OpenStack Identity \(keystone\)](#)
- [Bugs: OpenStack Image service \(glance\)](#)
- [Bugs: OpenStack Networking \(neutron\)](#)
- [Bugs: OpenStack Object Storage \(swift\)](#)
- [Bugs: Bare metal service \(ironic\)](#)
- [Bugs: Data processing service \(sahara\)](#)
- [Bugs: Database service \(trove\)](#)
- [Bugs: Orchestration \(heat\)](#)
- [Bugs: Telemetry \(ceilometer\)](#)
- [Bugs: Message Service \(zaqar\)](#)
- [Bugs: OpenStack API Documentation \(developer.openstack.org\)](#)
- [Bugs: OpenStack Documentation \(docs.openstack.org\)](#)

## The OpenStack IRC channel

The OpenStack community lives in the #openstack IRC channel on the Freenode network. You can hang out, ask questions, or get immediate feedback for urgent and pressing issues. To install an IRC client or use a browser-based client, go to <https://webchat.freenode.net/>. You can also use Colloquy (Mac OS X, <http://colloquy.info/>), mIRC (Windows, <http://www.mirc.com/>), or XChat (Linux). When you are in the IRC channel and want to share code or command output, the generally accepted method is to use a Paste Bin. The OpenStack project has one at <http://paste.openstack.org>. Just paste your longer amounts of text or logs in the web form and you get a URL that you can paste into the channel. The OpenStack IRC channel is #openstack on irc.freenode.net. You can find a list of all OpenStack IRC channels at <https://wiki.openstack.org/wiki/IRC>.

## Documentation feedback

To provide feedback on documentation, join and use the <openstack-docs@lists.openstack.org> mailing list at [OpenStack Documentation Mailing List](#), or [report a bug](#).

## OpenStack distribution packages

The following Linux distributions provide community-supported packages for OpenStack:

- **Debian:** <http://wiki.debian.org/OpenStack>
- **CentOS, Fedora, and Red Hat Enterprise Linux:** <https://www.rdoproject.org/>
- **openSUSE and SUSE Linux Enterprise Server:** <http://en.opensuse.org/Portal:OpenStack>
- **Ubuntu:** <https://wiki.ubuntu.com/ServerTeam/CloudArchive>