Qumulo qq CLI Command Guide



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Table of Contents

ad

ad_cancel	14
ad_distinguished_name_to_account	15
ad_expand_groups	16
ad_get_advanced_settings	17
ad_gid_to_sids	18
ad_join	19
ad_leave	20
ad_list	21
ad_name_to_accounts	22
ad_poll	23
ad_reconfigure	24
ad_set_advanced_settings	25
ad_sid_to_account	26
ad_sid_to_gid	27
ad_sid_to_uid	28
ad_sid_to_username	29
ad_uid_to_sids	30
ad_username_to_sids	31
add	
add_nodes	32
audit	
audit_get_cloudwatch_config	33
audit_get_cloudwatch_status	
audit_get_syslog_config	
audit_get_syslog_status	
audit_set_cloudwatch_config	
audit set sysleg config	70

auth

auth_add_group	39
auth_add_user	40
auth_assign_role	41
auth_clear_cache	42
auth_create_access_token	43
auth_create_role	44
auth_delete_access_token	45
auth_delete_group	46
auth_delete_role	47
auth_delete_user	48
auth_expand_identity	49
auth_find_identity	51
auth_get_access_token	53
auth_get_user_defined_mappings	54
auth_list_access_tokens	55
auth_list_group	56
auth_list_groups	57
auth_list_privileges	58
auth_list_role	59
auth_list_roles	60
auth_list_user	61
auth_list_users	62
auth_mod_group	63
auth_mod_user	64
auth_modify_access_token	65
auth_modify_role	66
auth_set_password	67
auth_set_user_defined_mappings	68
auth_unassign_role	69
capacity	
	70
capacity_history_files_get	
capacity_history_get	
change	
chango nassword	72

checksumming

checksumming_get_status	73
cluster	
cluster_conf	74
cluster_create	75
cluster_slot_set_config	77
cluster_slots	78
current	
current_activity_get	79
dns	
dns_clear_cache	80
dns_get_lookup_overrides	81
dns_resolve_hostnames	82
dns_resolve_ips	83
dns_set_lookup_overrides	84
encryption	
encryption_get_key_store	85
encryption_get_status	86
encryption_set_key_store	87
floating	
floating_ip_allocation	88

fs

fs_acl_explain_chmod	89
fs_acl_explain_posix_mode	90
fs_acl_explain_rights	
fs_copy	92
fs_create_dir	93
fs_create_file	94
fs_create_link	95
fs_create_symlink	96
fs_create_unix_file	97
fs_delete	98
fs_delete_user_metadata	99
fs_file_get_attr	100
fs_file_samples	101
fs_file_set_attr	102
fs_file_set_smb_attrs	104
fs_get_acl	105
fs_get_atime_settings	106
fs_get_notify_settings	107
fs_get_permissions_settings	108
fs_get_stats	109
fs_get_user_metadata	110
fs_list_lock_waiters_by_client	111
fs_list_lock_waiters_by_file	112
fs_list_locks	113
fs_list_named_streams	114
fs_list_user_metadata	115
fs_modify_acl	116
fs_notify	121
fs_punch_hole	122
fs_read	123
fs_read_dir	124
fs_read_dir_aggregates	125
fs_release_nlm_lock	126
fs_release_nlm_locks_by_client	127
fs_remove_stream	128
fs rename	129

fs_resolve_paths	130
fs_security_add_key	131
fs_security_delete_key	132
fs_security_get_key	133
fs_security_get_key_replace_challenge	134
fs_security_get_key_usage	135
fs_security_list_keys	136
fs_security_modify_key	137
fs_security_replace_key	138
fs_set_acl	139
fs_set_atime_settings	140
fs_set_notify_settings	141
fs_set_permissions_settings	142
fs_set_user_metadata	143
fs_walk_tree	144
fs_write	147
ftp	
ftp_get_status	148
ftp_modify_settings	149
get	
get_vpn_keys	150
halt	
halt_cluster	151
help	
help	152
identity	
identity_attributes_get	153
identity_attributes_set	
install	
install_vpn_keys	155

kerberos

kerberos_delete_keytab	156
kerberos_get_keytab	157
kerberos_get_settings	158
kerberos_modify_settings	159
kerberos_set_keytab	160
ldap	
ldap_get_settings	16
ldap_get_status	162
ldap_login_name_to_gid_numbers	163
ldap_login_name_to_uid_numbers	164
ldap_set_settings	165
ldap_uid_number_to_login_name	167
ldap_update_settings	168
login	
login	170
logout	
	157
logout	
metrics	
metrics_get	172
monitoring	
monitoring_conf	173
monitoring status get	174

multitenancy

multitenancy_create_tenant	175
multitenancy_delete_tenant	177
multitenancy_get_tenant	178
multitenancy_list_tenants	179
multitenancy_modify_tenant	180
multitenancy_nfs_delete_settings	182
multitenancy_nfs_get_global_settings	183
multitenancy_nfs_get_settings	184
multitenancy_nfs_list_settings	185
multitenancy_nfs_modify_global_settings	186
multitenancy_nfs_modify_settings	187
multitenancy_smb_delete_settings	188
multitenancy_smb_get_global_settings	189
multitenancy_smb_get_settings	190
multitenancy_smb_list_settings	
multitenancy_smb_modify_global_settings	192
multitenancy_smb_modify_settings	194
network	
network_add_network	196
network_delete_network	198
network_get_interface	199
network_get_network	200
network_list_connections	201
network_list_interfaces	203
network_list_networks	204
network_mod_interface	205
network_mod_network	206
notwork noll	208

nfs

nfs_add_export	209
nfs_delete_export	211
nfs_get_export	212
nfs_get_settings	213
nfs_list_exports	214
nfs_mod_export	215
nfs_mod_export_host_access	217
nfs_modify_settings	218
node	
node_chassis_status_get	219
node_state_get	220
nodes	
nodes_list	
protection	
protection_status_get	222
quota	
quota_create_quota	223
quota_delete_quota	224
quota_get_quota	225
quota_list_quotas	226
quota_update_quota	227
raw	
raw	228
reboot	
reboot_pause	229
reboot_resume	230
reboot_start	231
reboot_status	232
replace	
replace_nodes	233

replication

replication_abort_object_replication	234
replication_abort_replication	235
replication_add_blackout_window	236
replication_authorize	237
replication_create_object_relationship	238
replication_create_source_relationship	240
replication_delete_blackout_windows	241
replication_delete_object_relationship	242
replication_delete_source_relationship	243
replication_delete_target_relationship	244
replication_get_object_relationship	245
replication_get_object_relationship_status	246
replication_get_source_relationship	247
replication_get_source_relationship_status	248
replication_get_target_relationship_status	249
replication_link_snapshot_policy	250
replication_list_object_relationship_statuses	251
replication_list_object_relationships	252
replication_list_queued_snapshots	253
replication_list_source_relationship_statuses	254
replication_list_source_relationships	255
replication_list_target_relationship_statuses	256
replication_make_target_writable	257
replication_modify_source_relationship	258
replication_reconnect_target_relationship	259
replication_release_queued_snapshot	260
replication_replicate	261
replication_reverse_target_relationship	262
replication_set_snapshot_policy_replication_mode	263
replication_set_target_relationship_lock	264
replication_start_object_relationship	265
replication_unlink_snapshot_policy	266
restriper	
rectriner status	267

rotate

rotate_encryption_keys	268
53	
s3_abort_upload	269
s3_add_bucket	270
s3_bucket_policy_explain_access	271
s3_create_access_key	272
s3_delete_access_key	273
s3_delete_bucket	274
s3_delete_bucket_policy	275
s3_get_bucket	276
s3_get_bucket_policy	277
s3_get_settings	278
s3_list_access_keys	279
s3_list_buckets	280
s3_list_uploads	281
s3_modify_bucket_policy	282
s3_modify_settings	284
s3_set_bucket_policy	285
saml	
saml_get_settings	286
saml_modify_settings	287
set	
set_cluster_conf	288
set_monitoring_conf	289
set node identify light	291

smb

smb_add_share	292
smb_close_file_handle	295
smb_close_sessions	296
smb_delete_share	297
smb_get_settings	298
smb_list_file_handles	299
smb_list_sessions	300
smb_list_share	301
smb_list_shares	302
smb_mod_share	303
smb_mod_share_permissions	305
smb_modify_settings	306
snapshot	
snapshot_calculate_used_capacity	308
snapshot_create_policy	
snapshot_create_snapshot	
snapshot_delete_policy	
snapshot_delete_snapshot	
snapshot_diff	313
snapshot_file_diff	314
snapshot_get_capacity_used_per_snapshot	315
snapshot_get_policy	316
snapshot_get_policy_status	317
snapshot_get_snapshot	318
snapshot_get_status	319
snapshot_get_total_used_capacity	320
snapshot_get_unlock_challenge	321
snapshot_list_policies	322
snapshot_list_policy_statuses	323
snapshot_list_snapshots	324
snapshot_list_statuses	325
snapshot_lock_snapshot	326
snapshot_modify_policy	327
snapshot_modify_snapshot	328
snapshot_unlock_snapshot	329

ssl

ssl_delete_ca_certificate	330
ssl_get_ca_certificate	
ssl_modify_ca_certificate	332
ssl_modify_certificate	333
SSO	
sso_login	334
static	
static_ip_allocation	335
time	
time_get	336
time_list_timezones	337
time_series_get	338
time_set	339
time_status	340
tree	
tree_delete_cancel	341
tree_delete_create	342
tree_delete_get	343
tree_delete_list	344
unconfigured	
unconfigured_nodes_list	345
unconfigured_upgrade_config	346
unconfigured_upgrade_config_set	347
unconfigured_upgrade_status	348
upgrade	
upgrade_blocked	349
upgrade_cluster	35C
upgrade_status	35
upgrade_verify_image	352
version	
version	353

web

web_ui_get_settings	 	354
web_ui_modify_settings		355
who		
who am i		756

qq ad_cancel

This section explains how to use the qq ad_cancel command.

Description

Cancel current AD join/leave operation and clear errors

Usage

qq ad_cancel [-h]

qq ad_distinguished_name_to_account

This section explains how to use the qq ad_distinguished_name_to_account command.

Description

Get all account info for a distinguished name

Usage

qq ad_distinguished_name_to_account [-h] -d DISTINGUISHED_NAME

Flag Name	Required	Description
-d	Yes	Get the account with this DN (e.g. CN=user,DC=example,DC=com

qq ad_expand_groups

This section explains how to use the qq ad_expand_groups command.

Description

Get the SIDs of all the groups that the given SID is a member of (including nested groups).

Usage

qq ad_expand_groups [-h] -s SID

Flag Name	Required	Description
- S	Yes	Get the SIDS of all the groups this SID belongs (including all nested groups).

qq ad_get_advanced_settings

This section explains how to use the qq ad_get_advanced_settings command.

Description

Get advanced Active Directory settings

Usage

qq ad_get_advanced_settings [-h]

qq ad_gid_to_sids

This section explains how to use the qq ad_gid_to_sids command.

Description

Get SIDs from GID

Usage

qq ad_gid_to_sids [-h] -g GID

Flag Name	Required	Description
- g	Yes	Get the SIDs that corresponds to this GID

qq ad_join

This section explains how to use the qq ad_join command.

Description

Join an Active Directory Domain

Usage

```
qq ad_join [-h] -d DOMAIN -u USERNAME [-p PASSWORD] [--domain-netbios DOMAIN_NETBIO
S] [-o OU] [--disable-search-trusted-domains] [--use-ad-posix-attributes]
       [--base-dn BASE_DN]
```

Flag Name	Required	Description
-d	Yes	Fully-qualified name of Active Directory Domain
-u	Yes	Domain user to perform the operation, e.g., Administrator
- p	No	Domain password (insecure, visible via ps)
domain- netbios	No	NetBIOS name of the domain. By default, the first part of the domain name is used.
-0	No	Organizational Unit to join to
disable- search- trusted-do- mains	No	Disallows the cluster from using trusted domains for user information. Disabling may prevent the cluster from finding all relevant user and group membership data for authenticated users.
use-ad- posix-at- tributes	No	Use AD POSIX attributes.
base-dn	No	When using LDAP POSIX extensions, query using this base DN

qq ad_leave

This section explains how to use the qq ad_leave command.

Description

Leave an Active Directory Domain

Usage

```
qq ad_leave [-h] -d DOMAIN [-u USERNAME] [-p PASSWORD]
```

Flag Name	Required	Description
-d	Yes	Fully-qualified name of Active Directory Domain
-u	No	Domain user to perform the operation, e.g., Administrator
- p	No	Domain password (insecure, visible via ps)

qq ad_list

This section explains how to use the qq ad_list command.

Description

Get Active Directory configuration and connection status

Usage

qq ad_list [-h]

qq ad_name_to_accounts

This section explains how to use the qq ad_name_to_accounts command.

Description

Get all account info for a sAMAccountName

Usage

```
qq ad_name_to_accounts [-h] -n NAME
```

Flag Name	Required	Description
-n	Yes	Get account info for this sAMAccountName

qq ad_poll

This section explains how to use the qq ad_poll command.

Description

Get details on a join or leave operation

Usage

qq ad_poll [-h]

qq ad_reconfigure

This section explains how to use the qq ad_reconfigure command.

Description

Reconfigure Active Directory POSIX Attributes

Usage

```
qq ad_reconfigure [-h] [--enable-search-trusted-domains | --disable-search-trusted-d
omains] [--enable-ad-posix-attributes | --disable-ad-posix-attributes]
    [--base-dn BASE_DN]
```

Flag Name	Required	Description
enable- search- trusted-do- mains	No	Allows the cluster to search trusted domains for user information.
disable- search- trusted-do- mains	No	Disallows the cluster from using trusted domains for user information. Disabling may prevent the cluster from finding all relevant user and group membership data for authenticated users.
enable- ad-posix- attributes	No	Use AD POSIX attributes.
disable- ad-posix- attributes	No	Do not use AD POSIX attributes.
base-dn	No	When using AD POSIX extensions, query using this base DN

qq ad_set_advanced_settings

This section explains how to use the qq ad_set_advanced_settings command.

Description

Modify advanced Active Directory settings

Usage

qq ad_set_advanced_settings [-h] [--signing {off,prefer,require}] [--sealing {off,pr
efer,require}] [--crypto {off,prefer,require}]

Flag Name	Required	Description
sign- ing	No	Configure DCERPC signing to be off, prefer signing, or require signing. The default is to prefer signing.
seal- ing	No	Configure DCERPC sealing to be off, prefer sealing, or require sealing. The default is to prefer sealing.
cryp-	No	Configure DCERPC to not use encryption, prefer AES encryption, or require AES encryption. The default is to prefer AES encryption.

qq ad_sid_to_account

This section explains how to use the qq ad_sid_to_account command.

Description

Get all account info for a SID

Usage

qq ad_sid_to_account [-h] -s SID

Flag Name	Required	Description
- S	Yes	Get the GID that corresponds to this SID

qq ad_sid_to_gid

This section explains how to use the qq ad_sid_to_gid command.

Description

Get GID from SID

Usage

qq ad_sid_to_gid [-h] -s SID

Flag Name	Required	Description
- S	Yes	Get the GID that corresponds to this SID

qq ad_sid_to_uid

This section explains how to use the qq ad_sid_to_uid command.

Description

Get UID from SID

Usage

qq ad_sid_to_uid [-h] -s SID

Flag Name	Required	Description
- S	Yes	Get the UID that corresponds to this SID

qq ad_sid_to_username

This section explains how to use the qq ad_sid_to_username command.

Description

Get AD username from SID

Usage

qq ad_sid_to_username [-h] -s SID

Flag Name	Required	Description
- S	Yes	Get the AD username that corresponds to this SID

qq ad_uid_to_sids

This section explains how to use the qq ad_uid_to_sids command.

Description

Get SIDs from UID

Usage

qq ad_uid_to_sids [-h] -u UID

Flag Name	Required	Description
-u	Yes	Get the SIDs that correspond to this UID

qq ad_username_to_sids

This section explains how to use the qq ad_username_to_sids command.

Description

Get SIDs from an AD username

Usage

qq ad_username_to_sids [-h] -u USERNAME

Flag Name	Required	Description
- u	Yes	Get the SIDs that correspond to this username

qq add_nodes

This section explains how to use the qq add_nodes command.

Description

Add unconfigured nodes to a Qumulo cluster

Usage

```
qq add_nodes [-h] (--node-uuids NODE_UUIDS [NODE_UUIDS ...] | --node-ips NODE_IPS [N
ODE_IPS ...] | --all-unconfigured)
    [--target-stripe-config BLOCKS_PER_STRIPE DATA_BLOCKS_PER_STRIPE] [--target-max-
node-failures TARGET_MAX_NODE_FAILURES] [--dry-run] [--batch]
```

Flag Name	Required	Description
node- uuids	No	The UUIDs of the unconfigured nodes to add to the cluster. The system adds nodes to the cluster in the same order that you list them after this flag.
node-ips	No	The IP addresses of the unconfigured nodes to add to the cluster. The system adds nodes to the cluster in the same order that you list them after this flag.
all-uncon- figured	No	Add all network-connected, unconfigured nodes to the cluster. This flag does not allow specifying the order of the nodes and does not apply to cloud clusters.
target- stripe-con- fig	No	The stripe configuration to use
target- max-node- failures	No	The minimum node fault tolerance level for the resulting cluster configuration. Note: In certain cases, a lower node fault tolerance level can result in higher usable capacity
dry-run	No	Validate the node-add operation and calculate the resulting usable cluster capacity. When you use this flag, Qumulo Core does not add nodes or begin to change data protection configuration
batch	No	Begin the node-add operation without asking for confirmation.

qq audit_get_cloudwatch_config

This section explains how to use the qq audit_get_cloudwatch_config command.

Description

Get audit CloudWatch configuration

Usage

qq audit_get_cloudwatch_config [-h]

qq audit_get_cloudwatch_status

This section explains how to use the qq audit_get_cloudwatch_status command.

Description

Get audit CloudWatch status

Usage

qq audit_get_cloudwatch_status [-h]

qq audit_get_syslog_config

This section explains how to use the qq audit_get_syslog_config command.

Description

Get audit syslog server configuration

Usage

qq audit_get_syslog_config [-h]

qq audit_get_syslog_status

This section explains how to use the qq audit_get_syslog_status command.

Description

Get audit syslog server status

Usage

qq audit_get_syslog_status [-h]

qq audit_set_cloudwatch_config

This section explains how to use the qq audit_set_cloudwatch_config command.

Description

Change audit CloudWatch configuration

Usage

```
qq audit_set_cloudwatch_config [-h] [--enable | --disable] [-l LOG_GROUP_NAME] [-r R
EGION]
```

Flag Name	Required	Description
enable	No	Enable audit log.
disable	No	Disable audit log.
-1	No	The group name in CloudWatch Logs to send logs to.
- r	No	The AWS region to send logs to.

qq audit_set_syslog_config

This section explains how to use the qq audit_set_syslog_config command.

Description

Change audit syslog server configuration

Usage

```
qq audit_set_syslog_config [-h] [--enable | --disable] [--csv | --json] [--local-ena
ble | --local-disable] [--server-address SERVER_ADDRESS] [--server-port SERVER_PORT]
```

Flag Name	Required	Description	
enable	No	Enable audit log.	
disable	No	Disable audit log.	
CSV	No	Output audit log as CSV.	
json	No	Output audit log as JSON.	
local-en- able	No	Enable per-node local audit log.	
local-dis- able	No	Disable per-node local audit log.	
server-ad- dress	No	The IP address, hostname, or fully qualified domain name of your remote syslog server.	
server- port	No	The port to connect to on your remote syslog server.	

qq auth_add_group

This section explains how to use the qq auth_add_group command.

Description

Add a new group

Usage

```
qq auth_add_group [-h] --name NAME [--gid GID]
```

Flag Name	Required	Description
name	Yes	New group's name (windows style)
gid	No	Optional NFS gid

qq auth_add_user

This section explains how to use the qq auth_add_user command.

Description

Add a new user

Usage

Flag Name	Required	Description	
name	Yes	New user's name (windows style)	
primary-group	No	name or id of primary group (default is Users)	
uid	No	optional NFS uid	
home-directory	No	optional home directory	
- p	No	Set user password; reads password from terminal if omitted	

qq auth_assign_role

This section explains how to use the qq auth_assign_role command.

Description

Assign a user to a role

Usage

```
qq auth_assign_role [-h] -r ROLE -t TRUSTEE
```

Flag Name	Required	Description
-r	Yes	Name of the role to assign
-t	Yes	Assign the role to this trustee. e.g. Everyone, uid:1000, gid:1001, sid:S-1-5-2-3-4, or auth_id:500

qq auth_clear_cache

This section explains how to use the qq auth_clear_cache command.

Description

Clear all cached authorization information

Usage

qq auth_clear_cache [-h]

qq auth_create_access_token

This section explains how to use the qq auth_create_access_token command.

Description

Create a long-lived access token

Usage

qq auth_create_access_token [-h] [--expiration-time EXPIRATION_TIME] [--file PATH] i
dentifier

Flags

Flag Name	Required	Description
expira- tion-time	No	The expiration time of the access token. After this time, the token will no longer be usable for authentication. For example, "Jan 20 2024", "1/20/2024", or "2024-01-20 12:00", with times interpreted in UTC timezone.
file	No	File to store the access token credential. That file can be passed to thecredentials-store argument to authenticate using the created access token.

Positional Options

Option Name	Description
identifier	An auth_id, SID, or name optionally qualified with a domain prefix (e.g "local:name", "ad:name", "AD\name") or an ID type (e.g. "auth_id:513", "SID:S-1-1-0"). Groups are not supported for access tokens, must be a user.

qq auth_create_role

This section explains how to use the qq auth_create_role command.

Description

Create a custom role.

Usage

qq auth_create_role [-h] -r ROLE [-d DESCRIPTION] [-p PRIVILEGES_FILE]

Flag Name	Required	Description	
- r	Yes	Name of the role to create	
-d	No	Description of the new role	
- p	No	File with privileges for the role (see auth_list_privileges)	

qq auth_delete_access_token

This section explains how to use the qq auth_delete_access_token command.

Description

Delete the specified access token

Usage

```
qq auth_delete_access_token [-h] id
```

Positional Options

Option Name	Description	
id	The unique ID of the access token to be deleted.	

qq auth_delete_group

This section explains how to use the qq auth_delete_group command.

Description

Delete a group

Usage

qq auth_delete_group [-h] --id ID

Flag Name	Required	Description
id	Yes	Name or ID of group to delete

qq auth_delete_role

This section explains how to use the qq auth_delete_role command.

Description

Delete a custom role.

Usage

qq auth_delete_role [-h] -r ROLE

Flag Name	Required	Description
-r	Yes	Name of the role to delete

qq auth_delete_user

This section explains how to use the qq auth_delete_user command.

Description

Delete a user

Usage

```
qq auth_delete_user [-h] --id ID
```

Flag Name	Required	Description
id	Yes	Name or ID of user to delete

qq auth_expand_identity

This section explains how to use the qq auth_expand_identity command.

Description

Find equivalent identities and full group membership.

Usage

```
qq auth_expand_identity [-h] [--auth-id AUTH_ID] [--uid UID] [--gid GID] [--sid SI
D] [--name NAME] [--domain {LOCAL,WORLD,POSIX_USER,POSIX_GROUP,ACTIVE_DIRECTORY}]
    [--json]
    [identifier]
```

Flag Name	Required	Description	
 auth- id	No	The canonical identifier used internally by QumuloFS.	
uid	No	An NFS UID	
gid	No	An NFS GID	
sid	No	An SMB SID	
 name	No	A local, AD, or LDAP name. AD names may be unqualified, qualified with NetBIOS name (e.g. DOMAIN\user), or a universal principal name (e.g. user@domain.example.com). LDAP names may be either login names, or distinguished names (e.g. CN=John Doe,OU=users,DC=example,DC=com). Names of cluster-local users and groups may qualified with the cluster name (e.g. cluster\user).	
do- main	No	Specify which auth_id domain is sought. This can be useful when looking up a duplicated name (e.g. if there is an AD user and cluster-local user with the same name) to specify which of the identifiers is meant.	
 json	No	Print result as JSON object.	

Positional Options

Option Name	Description
identifier	A name or a SID, optionally qualified with a domain prefix (e.g "local:name", "world:Everyone", "ldap_user:name", "ldap_group:name", or "ad:name") or an ID type (e.g. "uid:1001", "gid:2001", "auth_id:513", "SID:S-1-1-0").

qq auth_find_identity

This section explains how to use the qq auth_find_identity command.

Description

Find all representations of an auth_id.

Usage

```
qq auth_find_identity [-h] [--auth-id AUTH_ID] [--uid UID] [--gid GID] [--sid SID]
[--name NAME] [--domain {LOCAL,WORLD,POSIX_USER,POSIX_GROUP,ACTIVE_DIRECTORY}] [--js
on]
    [identifier]
```

Flag Name	Required	Description	
 auth- id	No	Find all external representations for an internal QumuloFS identifier.	
uid	No	Find the auth_id that will be used internally when a UID is written over NFS, and any other representations that would produce that auth_id.	
gid	No	Find the auth_id that will be used internally when a GID is written over NFS, and any other representations that would produce that auth_id.	
sid	No	Find the auth_id that will be used internally when a SID is written over SMB, and any other representations that would produce that auth_id.	
name	No	Find an auth_id that is uniquely identified by the given name. Names of Active Directory users and groups will produce the auth_id that is a representation of that principal's SID. AD names may be unqualified, qualified with NetBIOS name (e.g. DOMAIN\user), or a universal principal name (e.g. user@domain.example.com). Names of LDAP users or groups will produce the auth_id that is a representation of that principal's UID or GID. LDAP names may be either login names, or distinguished names (e.g. CN=John Doe,OU=users,DC=example,DC=com). Names of cluster-local users and groups will produce the auth_id assigned to that user or group.	

do- main	No	Specify which auth_id domain is sought. This can be useful when looking up a duplicated name (e.g. if there is an AD user and cluster-local user with the same name) to specify which of the identifiers is meant.
json	No	Print result as JSON object.

Positional Options

Option Name	Description
identifier	A name or a SID, optionally qualified with a domain prefix (e.g "local:name", "world:Everyone", "ldap_user:name", "ldap_group:name", or "ad:name") or an ID type (e.g. "uid:1001", "gid:2001", "auth_id:513", "SID:S-1-1-0").

qq auth_get_access_token

This section explains how to use the qq auth_get_access_token command.

Description

Get metadata for the specified access token

Usage

qq auth_get_access_token [-h] id

Positional Options

Option Name	Description
id	The unique ID of the access token.

qq auth_get_user_defined_mappings

This section explains how to use the qq auth_get_user_defined_mappings command.

Description

Get the configured set of AD/LDAP static user defined mappings.

Usage

qq auth_get_user_defined_mappings [-h]

qq auth_list_access_tokens

This section explains how to use the qq auth_list_access_tokens command.

Description

List metadata for all access tokens

Usage

```
qq auth_list_access_tokens [-h] [--json] [--user USER]
```

Flag Name	Required	Description
 json	No	Output JSON instead of table.
user	No	Show access tokens belonging to a specific user. Use an auth_id, SID, or name optionally qualified with a domain prefix (e.g "local:name", "ad:name", "AD\name") or an ID type (e.g. "auth_id:513", "SID:S-1-1-0"). Groups are not supported for access tokens, must be a user.

qq auth_list_group

This section explains how to use the qq auth_list_group command.

Description

List a group

Usage

```
qq auth_list_group [-h] --id ID
```

Flag Name	Required	Description
id	Yes	Name or ID of group to list

qq auth_list_groups

This section explains how to use the qq auth_list_groups command.

Description

List all groups

Usage

qq auth_list_groups [-h]

qq auth_list_privileges

This section explains how to use the qq auth_list_privileges command.

Description

List all privileges or privileges associated with a role.

Usage

```
qq auth_list_privileges [-h] [-r ROLE] [-v] [--json]
```

Flag Name	Required	Description	
- r	No	List privileges associated with a role.	
- V	No	Show granted and denied privileges withrole.	
json	No	Print JSON representation of the privileges.	

qq auth_list_role

This section explains how to use the qq auth_list_role command.

Description

List a role.

Usage

```
qq auth_list_role [-h] -r ROLE [--json]
```

Flag Name	Required	Description
-r	Yes	Name of the role to lookup
json	No	Print JSON representation of auth role.

qq auth_list_roles

This section explains how to use the qq auth_list_roles command.

Description

List all of the roles.

Usage

```
qq auth_list_roles [-h] [--json]
```

Flag Name	Required	Description
json	No	Print JSON representation of auth roles.

qq auth_list_user

This section explains how to use the qq auth_list_user command.

Description

List a user

Usage

```
qq auth_list_user [-h] --id ID
```

Flag Name	Required	Description
id	Yes	Name or ID of user to lookup

qq auth_list_users

This section explains how to use the qq auth_list_users command.

Description

List all users

Usage

qq auth_list_users [-h]

qq auth_mod_group

This section explains how to use the qq auth_mod_group command.

Description

Modify a group

Usage

```
qq auth_mod_group [-h] --id ID [--name NAME] [--gid GID]
```

Flag Name	Required	Description
id	Yes	Name or ID of group to modify
name	No	Change group's name
gid	No	Change the user's NFS gid (or specify "none" to remove)

qq auth_mod_user

This section explains how to use the qq auth_mod_user command.

Description

Modify a user

Usage

```
qq auth_mod_user [-h] --id ID [--name NAME] [--primary-group PRIMARY_GROUP] [--uid U
ID] [--add-group ADD_GROUP] [--remove-group REMOVE_GROUP]
    [--home-directory HOME_DIRECTORY] [-p [PASSWORD]]
```

Flag Name	Required	Description
id	Yes	Name or ID of user to modify
name	No	Change user's name
primary- group	No	Change the user's primary group
uid	No	Change the user's NFS uid (or specify "none" to remove)
add-group	No	Add this user to a group
remove-group	No	Remove this user from a group
home-directo- ry	No	Change the user's home directory path (or specify "none" to remove)
- p	No	Change the user password

qq auth_modify_access_token

This section explains how to use the qq auth_modify_access_token command.

Description

Modify the specified access token

Usage

 $\label{thm:condition} $$ qq auth_modify_access_token $$ [-h] $$ [--expiration-time EXPIRATION_TIME] $$ [--enable] $$ [--disable] id $$ $$$

Flags

Flag Name	Required	Description
expira- tion-time	No	The expiration time of the access token. After this time, the token will no longer be usable for authentication. For example, "Jan 20 2024", "1/20/2024", or "2024-01-20 12:00", with times interpreted in UTC timezone.
enable	No	Enable the access token.
disable	No	Disable the access token. It can no longer be used to authenticate until it is enabled.

Positional Options

Option Nar	ne Description
id	The unique ID of the access token to be modified.

qq auth_modify_role

This section explains how to use the qq auth_modify_role command.

Description

Modify a custom role.

Usage

```
qq auth_modify_role [-h] -r ROLE [-d DESCRIPTION] [-p PRIVILEGES_FILE] [-G PRIVILEG
E [PRIVILEGE ...]]
```

Flag Name	Required	Description
-r	Yes	Name of the role to modify
-d	No	New description of the role
-p	No	Overwrite the role's privileges with output from auth_list_privileges, cannot be used with -G or -R
-G	No	Privilege to add to this role (may be repeated)
-R	No	Privilege to remove from this role (may be repeated)

qq auth_set_password

This section explains how to use the qq auth_set_password command.

Description

Set a user's password

Usage

```
qq auth_set_password [-h] --id ID [-p PASSWORD]
```

Flag Name	Required	Description
id	Yes	Name or ID of user to modify
- p	No	The user's new password (insecure, visible via ps)

qq auth_set_user_defined_mappings

This section explains how to use the qq auth_set_user_defined_mappings command.

Description

Replace the configured set of AD/LDAP static identity mappings.

Usage

```
qq auth_set_user_defined_mappings [-h] (--file FILE | --stdin)
```

Flag Name	Required	Description
file	No	JSON-encoded file containing mappings.
stdin	No	Read JSON-encoded mappings from stdin

qq auth_unassign_role

This section explains how to use the qq auth_unassign_role command.

Description

Unassign a user from a role

Usage

```
qq auth_unassign_role [-h] -r ROLE -t TRUSTEE
```

Flag Name	Required	Description
- r	Yes	Name of the role to unassign
-t	Yes	Unassign the role from this trustee. e.g. Everyone, uid:1000, gid:1001, sid:S-1-5-2-3-4, or auth_id:500

qq capacity_history_files_get

This section explains how to use the qq capacity_history_files_get command.

Description

Get historical largest file data.

Usage

qq capacity_history_files_get [-h] --timestamp TIMESTAMP

Flag Name	Required	Description
timestamp	Yes	Time period to retrieve, in epoch seconds.

qq capacity_history_get

This section explains how to use the qq capacity_history_get command.

Description

Get capacity history data.

Usage

```
qq capacity_history_get [-h] --begin-time BEGIN_TIME [--end-time END_TIME] [--interv al \{\text{hourly,daily,weekly}\}\]
```

Flag Name	Required	Description
begin- time	Yes	Lower bound on history returned, in epoch seconds.
end- time	No	Upper bound on history returned, in epoch seconds. Defaults to the most recent period for which data is available.
inter- val	No	The interval at which to sample

qq change_password

This section explains how to use the qq change_password command.

Description

Change your password

Usage

qq change_password [-h] [-o OLD_PASSWORD] [-p NEW_PASSWORD]

Flag Name	Required	Description
- 0	No	Your old password (insecure, visible via ps)
- p	No	Your new password (insecure, visible via ps)

qq checksumming_get_status

This section explains how to use the qq checksumming_get_status command.

Description

Get the checksumming status of the cluster.

Usage

qq checksumming_get_status [-h]

qq cluster_conf

This section explains how to use the qq cluster_conf command.

Description

Get the cluster config

Usage

qq cluster_conf [-h]

qq cluster_create

This section explains how to use the qq cluster_create command.

A Important

To ensure that the Qumulo Core Web UI displays the nodes in your cluster in the same order that they are racked, enter the node UUIDs in the same order when you run the qq cluster_create command.

Description

Creates a Qumulo Cluster

Usage

```
qq cluster_create [-h] --cluster-name CLUSTER_NAME [--admin-password ADMIN_PASSWOR
D] [--blocks-per-stripe BLOCKS_PER_STRIPE] [--max-drive-failures MAX_DRIVE_FAILURES]
        [--max-node-failures MAX_NODE_FAILURES] [--accept-eula] [--reject-eula] [--host-instance-id HOST_INSTANCE_ID]
        (--node-uuids NODE_UUIDS [NODE_UUIDS ...] | --node-ips NODE_IPS [NODE_IPS ...]
| --all-unconfigured)
```

Flag Name	Required	Description
cluster-name	Yes	Cluster Name
admin-password	No	Administrator Password
blocks-per-stripe	No	Erasure coding stripe width
max-drive-failures	No	Maximum allowable drive failures
max-node-failures	No	Maximum allowable node failures
accept-eula	No	Accept the EULA
reject-eula	No	Reject the EULA
host-instance-id	No	EC2 Instance ID of node receiving this request. AWS only.
node-uuids	No	Cluster node UUIDs

node-ips	No	Cluster node IPv4 addresses
all-unconfigured	No	Use all discoverable unconfigured nodes to make cluster

qq cluster_slot_set_config

This section explains how to use the qq cluster_slot_set_config command.

Description

Set the attributes for the given cluster slot. Currently only led_pattern may be set.

Usage

```
qq cluster_slot_set_config [-h] --slot SLOT [--locate | --no-locate]
```

Flag Name	Required	Description
slot	Yes	Slot ID
locate	No	Turn on the slot's locate LED.
no-locate	No	Turn off the slot's locate LED.

qq cluster_slots

This section explains how to use the qq cluster_slots command.

Description

Get the cluster disk slots status

Usage

```
qq cluster_slots [-h] [--slot SLOT]
```

Flag Name	Required	Description
slot	No	Slot ID

qq current_activity_get

This section explains how to use the qq current_activity_get command.

Description

Get the current sampled IOP and throughput rates

Usage

qq current_activity_get [-h] [-t {file-iops-read,file-iops-write,metadata-iops-rea
d,metadata-iops-write,file-throughput-read,file-throughput-write}]

Flag Name	Required	Description
-t	No	The specific type of throughput to get

qq dns_clear_cache

This section explains how to use the qq dns_clear_cache command.

Description

Clear the local DNS cache

Usage

```
qq dns_clear_cache [-h] [--skip-reverse-cache | --skip-forward-cache]
```

Flag Name	Required	Description
skip-reverse- cache	No	When this flag is set, the reverse lookup cache is not cleared.
skip-forward- cache	No	When this flag is set, the forward lookup cache is not cleared.

qq dns_get_lookup_overrides

This section explains how to use the qq dns_get_lookup_overrides command.

Description

List the configured set of DNS lookup overrides.

Usage

qq dns_get_lookup_overrides [-h]

qq dns_resolve_hostnames

This section explains how to use the qq dns_resolve_hostnames command.

Description

Resolve hostnames to IP addresses

Usage

```
qq dns_resolve_hostnames [-h] --hosts HOSTS [HOSTS ...]
```

Flag Name	Required	Description
hosts	Yes	Hostnames to resolve

qq dns_resolve_ips

This section explains how to use the qq dns_resolve_ips command.

Description

Resolve IP addresses to hostnames

Usage

```
qq dns_resolve_ips [-h] --ips IPS [IPS ...]
```

Flag Name	Required	Description
ips	Yes	IP addresses to resolve

qq dns_set_lookup_overrides

This section explains how to use the qq dns_set_lookup_overrides command.

Description

Replace the configured set of DNS lookup overrides.

Usage

```
qq dns_set_lookup_overrides [-h] (--file FILE | --stdin)
```

Flag Name	Required	Description
file	No	JSON-encoded file containing overrides.
stdin	No	Read JSON-encoded overrides from stdin

qq encryption_get_key_store

This section explains how to use the qq encryption_get_key_store command.

Description

Get the active at-rest encryption configuration.

Usage

qq encryption_get_key_store [-h]

qq encryption_get_status

This section explains how to use the qq encryption_get_status command.

Description

Get the status of at-rest encryption.

Usage

qq encryption_get_status [-h]

qq encryption_set_key_store

This section explains how to use the qq encryption_set_key_store command.

Description

Set the active at-rest encryption configuration.

Usage

qq encryption_set_key_store [-h] {kms,local} ...

qq floating_ip_allocation

This section explains how to use the qq floating_ip_allocation command.

Description

Get cluster-wide floating IP allocation

Usage

qq floating_ip_allocation [-h]

qq fs_acl_explain_chmod

This section explains how to use the qq fs_acl_explain_chmod command.

Description

Explain how setting a POSIX mode would affect a file's ACL

Usage

```
qq fs_acl_explain_chmod [-h] (--path PATH | --id ID) --mode MODE [-v] [--json]
```

Flag Name	Required	Description
path	No	File or directory path
id	No	File or directory ID
mode	Yes	POSIX mode to hypothetically apply (e.g., 0744, rwxrr)
- V	No	Print more information in output
json	No	Print JSON representation of POSIX mode derivation

qq fs_acl_explain_posix_mode

This section explains how to use the qq fs_acl_explain_posix_mode command.

Description

Explain the derivation of POSIX mode from a file's ACL

Usage

```
qq fs_acl_explain_posix_mode [-h] (--path PATH | --id ID) [--json]
```

Flag Name	Required	Description
path	No	File or directory path
id	No	File or directory ID
json	No	Print JSON representation of POSIX mode derivation

qq fs_acl_explain_rights

This section explains how to use the qq fs_acl_explain_rights command.

Description

Explain how rights are granted to a user for a file.

Usage

```
qq fs_acl_explain_rights [-h] (--path PATH | --id ID) -u ID [ID ...] [-g [ID [ID
...]]] [--no-expand] [-v] [--json]
```

Flag Name	Required	Description
 path	No	File or directory path
id	No	File or directory ID
-u	Yes	User for whom to explain rights. e.g. Alice, uid:1000, sid:S-1-5-2-3-4, or auth_id:500. If multiple are given, they will be considered equivalent for the purpose of the explanation.
- g	No	Groups that the user should be considered a member of for the purpose of the explanation.
no- expand	No	Don't expand the given user and group IDs. This can be useful if you want to test a hypothetical (e.g 'what happens if I add/remove a user to some group?')
- V	No	Prints the credential that will be used for the explanation, after it has been expanded.
 json	No	Print JSON representation of rights explanation.

qq fs_copy

This section explains how to use the qq fs_copy command.

Description

Server-side copy a file.

Usage

```
qq fs_copy [-h] [--source-snapshot SOURCE_SNAPSHOT] [--overwrite] [--quiet] [--no-at tributes] [--no-named-streams] source target
```

Flags

Flag Name	Required	Description
source-snapshot	No	Snapshot ID to copy from
overwrite	No	Overwrite an existing target file
quiet	No	Do not show progress bar
no-attributes	No	Do not copy file attributes and ACLs in addition to data
no-named-streams	No	Do not copy named streams

Positional Options

Option Name	Description
source	Source file absolute path
target	Target file absolute path

qq fs_create_dir

This section explains how to use the qq fs_create_dir command.

Description

Create a new directory

Usage

```
qq fs_create_dir [-h] (--path PATH | --id ID) --name NAME
```

Flag Name	Required	Description
path	No	Parent directory path
id	No	Parent directory ID
name	Yes	New directory name

qq fs_create_file

This section explains how to use the qq fs_create_file command.

Description

Create a new file

Usage

```
qq fs_create_file [-h] (--path PATH | --id ID) --name NAME
```

Flag Name	Required	Description
path	No	Parent directory path
id	No	Parent directory ID
name	Yes	New file name

qq fs_create_link

This section explains how to use the qq fs_create_link command.

Description

Create a new link

Usage

```
qq fs_create_link [-h] (--path PATH | --id ID) --target TARGET --name NAME
```

Flag Name	Required	Description
path	No	Parent directory path
id	No	Parent directory ID
target	Yes	Link target
name	Yes	New link name

qq fs_create_symlink

This section explains how to use the qq fs_create_symlink command.

Description

Create a new symbolic link

Usage

qq fs_create_symlink [-h] (--path PATH | --id ID) --target TARGET [--target-type {F
S_FILE_TYPE_UNKNOWN,FS_FILE_TYPE_FILE,FS_FILE_TYPE_DIRECTORY}] --name NAME

Flag Name	Required	Description
 path	No	Parent directory path
id	No	Parent directory ID
tar- get	Yes	Link target (relative path recommended)
tar- get- type	No	Symlink target's type. If this is unspecified or FS_FILE_TYPE_UNKNOWN, the effect is the same as using 'ln -s' on a Unix NFS client. If this is FS_FILE_TYPE_FILE or FS_FILE_TYPE_DIRECTORY, the effect is the same as using 'mklink' or 'mklink /D' on a Windows SMB client.
 name	Yes	New symlink name

qq fs_create_unix_file

This section explains how to use the qq fs_create_unix_file command.

Description

Create a new pipe, character device, block device or socket

Usage

```
qq fs_create_unix_file [-h] (--path PATH | --id ID) [--major-minor-numbers MAJOR_MIN OR_NUMBERS] --name NAME --type TYPE
```

Flag Name	Required	Description
path	No	Parent directory path
id	No	Parent directory ID
major-minor-numbers	No	Major and minor numbers
name	Yes	New file name
type	Yes	type of UNIX file to create

qq fs_delete

This section explains how to use the qq fs_delete command.

Description

Delete a file system object

Usage

```
qq fs_delete [-h] (--path PATH | --id ID)
```

Flag Name	Required	Description
path	No	File system object path
id	No	File system object ID

qq fs_delete_user_metadata

This section explains how to use the qq fs_delete_user_metadata command.

Description

Delete the user metadata for a file by using the specified metadata key

Usage

```
qq fs_delete_user_metadata [-h] (--path PATH | --id ID) [--s3] --key KEY
```

Flag Name	Required	Description
 path	No	File path
id	No	File ID
s3	No	In Qumulo Core, there are two types of user metadata, generic and S3. By default, qq CLI commands manipulate generic metadata. When you use thes3 flag, Qumulo Core makes user metadata visible to the S3 protocol as object metadata.
 key	Yes	Metadata key

qq fs_file_get_attr

This section explains how to use the qq fs_file_get_attr command.

Description

Get file attributes

Usage

```
qq fs_file_get_attr [-h] (--path PATH | --id ID) [--snapshot SNAPSHOT] [--stream-id STREAM_ID | --stream-name STREAM_NAME]
```

Flag Name	Required	Description
path	No	File path
id	No	File ID
snapshot	No	Snapshot ID to read from
stream-id	No	Stream ID
stream-name	No	Stream name

qq fs_file_samples

This section explains how to use the qq fs_file_samples command.

Description

Get a number of sample files from the file system

Usage

```
qq fs_file_samples [-h] (--path PATH | --id ID) --count COUNT [--sample-by {capacit y,data,file,named_streams}]
```

Flag Name	Required	Description
 path	No	Query root path
id	No	Query root ID
sam- ple-by	No	Weight the sampling by the value specified: capacity (total bytes used for data and metadata), data (total bytes used for data only), file (file count), named_streams (named stream count)

qq fs_file_set_attr

This section explains how to use the qq fs_file_set_attr command.

Description

Set file attributes

Usage

```
qq fs_file_set_attr [-h] (--path PATH | --id ID) [--stream-id STREAM_ID | --stream-n
ame STREAM_NAME] [--mode MODE] [--size SIZE] [--creation-time CREATION_TIME]
        [--access-time ACCESS_TIME] [--modification-time MODIFICATION_TIME] [--change-ti
me CHANGE_TIME]
        [--owner OWNER | --owner-local OWNER_LOCAL | --owner-sid OWNER_SID | --owner-ui
d OWNER_UID]
        [--group GROUP | --group-local GROUP_LOCAL | --group-sid GROUP_SID | --group-gi
d GROUP_GID]
```

Flag Name	Required	Description
path	No	File path
id	No	File ID
stream-id	No	Stream ID
stream-name	No	Stream name
mode	No	Posix-style file mode (octal)
size	No	File size
creation-time	No	File creation time (as RFC 3339 string)
access-time	No	File access time (as RFC 3339 string)
modification-time	No	File modification time (as RFC 3339 string)
change-time	No	File change time (as RFC 3339 string)
owner	No	File owner as auth_id

owner-local	No	File owner as local user name
owner-sid	No	File owner as SID
owner-uid	No	File owner as NFS UID
group	No	File group as auth_id
group-local	No	File group as local group name
group-sid	No	File group as SID
group-gid	No	File group as NFS GID

qq fs_file_set_smb_attrs

This section explains how to use the qq fs_file_set_smb_attrs command.

Description

Change SMB extended attributes on the file

Usage

```
qq fs_file_set_smb_attrs [-h] (--path PATH | --id ID) [--archive B00L] [--compresse
d B00L] [--hidden B00L] [--not-content-indexed B00L] [--read-only B00L] [--system B0
0L]
    [--temporary B00L] [--offline B00L]
```

Flag Name	Required	Description
path	No	File path
id	No	File ID
archive	No	Set ARCHIVE to a boolean-like value (e.g. true, false, yes, no, 1, 0).
compressed	No	Set COMPRESSED to a boolean-like value (e.g. true, false, yes, no, 1, 0).
hidden	No	Set HIDDEN to a boolean-like value (e.g. true, false, yes, no, 1, 0).
not-content- indexed	No	Set NOT_CONTENT_INDEXED to a boolean-like value (e.g. true, false, yes, no, 1, 0).
read-only	No	Set READ_ONLY to a boolean-like value (e.g. true, false, yes, no, 1, 0).
system	No	Set SYSTEM to a boolean-like value (e.g. true, false, yes, no, 1, 0).
temporary	No	Set TEMPORARY to a boolean-like value (e.g. true, false, yes, no, 1, 0).
offline	No	Set OFFLINE to a boolean-like value (e.g. true, false, yes, no, 1, 0).

qq fs_get_acl

This section explains how to use the qq fs_get_acl command.

Description

Get file ACL

Usage

```
qq fs_get_acl [-h] (--path PATH | --id ID) [--snapshot SNAPSHOT] [--json]
```

Flag Name	Required	Description
path	No	File path
id	No	File ID
snapshot	No	Snapshot ID to read from
json	No	Print raw response JSON

qq fs_get_atime_settings

This section explains how to use the qq fs_get_atime_settings command.

Description

Get access time (atime) settings.

Usage

qq fs_get_atime_settings [-h]

qq fs_get_notify_settings

This section explains how to use the qq fs_get_notify_settings command.

Description

Get FS notify settings.

Usage

qq fs_get_notify_settings [-h]

qq fs_get_permissions_settings

This section explains how to use the qq fs_get_permissions_settings command.

Description

Get permissions settings

Usage

qq fs_get_permissions_settings [-h]

qq fs_get_stats

This section explains how to use the qq fs_get_stats command.

Description

Get file system statistics

Usage

qq fs_get_stats [-h]

qq fs_get_user_metadata

This section explains how to use the qq fs_get_user_metadata command.

Description

Retrieve a user metadata value for a file by using the specified metadata key

Usage

```
qq fs_get_user_metadata [-h] (--path PATH | --id ID) [--s3] --key KEY [--snapshot SN APSHOT] [--hex | --base64]
```

Flag Name	Required	Description
path	No	File path
id	No	File ID
53	No	In Qumulo Core, there are two types of user metadata, generic and S3. By default, qq CLI commands manipulate generic metadata. When you use thes3 flag, Qumulo Core makes user metadata visible to the S3 protocol as object metadata.
key	Yes	Metadata key
snap- shot	No	Snapshot ID to read user metadata from
hex	No	Print binary values as hex
 base64	No	Print binary values as base64

qq fs_list_lock_waiters_by_client

This section explains how to use the qq fs_list_lock_waiters_by_client command.

Description

List waiting lock requests for a particular client machine

Usage

```
qq fs_list_lock_waiters_by_client [-h] --protocol {nlm} --lock-type {byte-range} [-name NAME] [--address ADDRESS]
```

Flag Name	Required	Description
protocol	Yes	The protocol whose lock waiters should be listed
lock-type	Yes	The type of lock whose waiters should be listed
name	No	Client hostname
address	No	Client IP address

qq fs_list_lock_waiters_by_file

This section explains how to use the qq fs_list_lock_waiters_by_file command.

Description

List waiting lock requests for a particular file

Usage

```
qq fs_list_lock_waiters_by_file [-h] (--path PATH | --id ID) --protocol nlm --loc k-type {byte-range} [--snapshot SNAPSHOT]
```

Flag Name	Required	Description
path	No	File path
id	No	File ID
protocol	Yes	The protocol whose lock waiters should be listed
lock-type	Yes	The type of lock whose waiters should be listed
snapshot	No	Snapshot id of the specified file.

qq fs_list_locks

This section explains how to use the qq fs_list_locks command.

Description

List file locks held by clients.

Usage

```
qq fs_list_locks [-h] --protocol {nfs4,nlm,smb} --lock-type {share-mode,byte-range}
[--path PATH | --id ID | --ip IP | --hostname HOSTNAME] [--snapshot SNAPSHOT]
        [--no-resolve] [--json] [--sort {file,client}]
```

Flag Name	Required	Description
proto- col	Yes	The protocol whose locks should be listed
lock- type	Yes	The type of lock to list.
path	No	File path
id	No	File ID
ip	No	List all locks held by the client with this IP address.
host- name	No	List all locks held by the client with this hostname. Only available for NLM locks.
snap- shot	No	When a file is specified, list locks held on a specific snapshot.
no-re- solve	No	Don't execute additional API calls to obtain file paths and client host- names for results.
json	No	Print a raw JSON response.
sort	No	Sort results by this attribute.

qq fs_list_named_streams

This section explains how to use the qq fs_list_named_streams command.

Description

List all named streams on file or directory

Usage

```
qq fs_list_named_streams [-h] (--path PATH | --id ID) [--snapshot SNAPSHOT]
```

Flag Name	Required	Description
path	No	File or directory path
id	No	File or directory ID
snapshot	No	Snapshot ID to read from

qq fs_list_user_metadata

This section explains how to use the qq fs_list_user_metadata command.

Description

Retrieve user metadata of the specified type for a file

Usage

```
qq fs_list_user_metadata [-h] (--path PATH \mid --id ID) [--s3] [--json] [--snapshot SN APSHOT] [--hex \mid --base64]
```

Flag Name	Required	Description
path	No	File path
id	No	File ID
s3	No	In Qumulo Core, there are two types of user metadata, generic and S3. By default, qq CLI commands manipulate generic metadata. When you use thes3 flag, Qumulo Core makes user metadata visible to the S3 protocol as object metadata.
json	No	Output the response in json. Without this option, keys and values will only show the first 50 characters.
snap- shot	No	Snapshot ID to read user metadata from
hex	No	Print binary values as hex
 base64	No	Print binary values as base64

qq fs_modify_acl

This section explains how to use the qq fs_modify_acl command.

Examples

The following examples show how to use the qq fs_modify_acl command to work with access control lists (ACLs).

▲ Important

Before deploying permissions changes in a production environment, we strongly recommend performing a dry run on a test directory.

To Create a New ACL

Run the qq fs_modify_acl command and use the --path flag to specify the path for the ACL. For the add_entry subcommand:

- · Use the -t flag to specify a trustee.
- Use the -y flag to specify Allowed or Denied.
- Use the -r flag to specify the rights.

```
☑ Tip
For full control, specify - r All.
```

Use the -f flag to specify ACL flags.

O Note

To ensure that the ACL applies to newly created files automatically, specify "Object inherit" "Container inherit".

For example:

```
qq fs_modify_acl --path /my_path \
  add_entry -t "MYDOMAIN\\my_username" \
  -y Allowed \
  -r "Execute/Traverse" "Read" \
  -f "Object inherit" "Container inherit"
```

```
qq fs_modify_acl --path /my_path \
  add_entry -t "uid:5005" \
    -y Allowed \
    -r "Execute/Traverse" "Read" \
    -f "Object inherit" "Container inherit"
```

```
qq fs_modify_acl --path /my_path \
  add_entry -t "gid:5005" \
  -y Allowed \
  -r "Execute/Traverse" "Read" \
  -f "Object inherit" "Container inherit"
```

To Modify an Existing ACL

Run the qq fs_modify_acl command and use the --path flag to specify the path for the ACL. For the modify_entry subcommand:

- Use the --old-trustee flag to specify the existing trustee.
- Use the --new-rights flag to specify new rights to assign to the trustee.

For example:

```
qq fs_modify_acl --path /my_path \
  modify_entry --old-trustee Everyone \
  --new-rights=Read
```

```
qq fs_modify_acl --path=/my_path \
  modify_entry --old-trustee Everyone \
  --new-rights=All
```

To Remove an Existing ACL or Its Elements

Run the qq fs_modify_acl command and use the --path flag to specify the path for the ACL.

• To remove a single trustee from an ACL, for the remove_entry subcommand use the --trustee flag to specify the trustee to remove. For example:

```
qq fs_modify_acl --path /my_path \
  remove_entry --trustee="DOMAIN\\myusername"
```

To remove a specific position from an ACL, for the remove_entry subcommand use the
 -p flag to specify the position number. For example:

```
qq fs_modify_acl --path /my_path \
  remove_entry -p 42
```

• To remove all ACLs, for the remove entry subcommand use the -a flag.

To Recursively Add a New ACL with Multithreading

For this operation, you must use the qq fs_walk_tree and qq fs_modify_acl commands.

O Note

For very large directories, we recommend running the following command in a screen session.

- 1. Ensure that the jq utility is installed on your system.
- 2. Run the qq fs_walk_tree command and use the --path flag to specify the path for the ACL. To extract the path for each item into an array, pipe the command to jq. To modify the ACL for each path, pipe the command to xargs which in turn runs the qq fs_set_acl command on each path. For example:

```
qq fs_walk_tree --path /my_path | \
   jq -r '.tree_nodes[].path' | \
    xargs -d '\n' -I % -n1 -P 4 \
     qq fs_modify_acl --path '%' \
      add_entry -t "DOMAIN\my_username" \
      -y Allowed \
      -r "Read" "Execute/Traverse" \
      -f "Object inherit" "Container inherit"
```

To Recursively Apply a Permissions Template

For this operation, you must use the qq fs walk tree and qq fs modify acl commands.

- 1. Ensure that the jq utility is installed on your system.
- 2. Use a new or existing file with the necessary permissions to capture the ACL and save it in JSON format by using the qq fs_get_acl command. For example:

```
qq fs_get_acl --path /path_to_acl_source \
    --json >/history/new_permissions.json
```

3. To apply the captured ACL, run the qq fs_walk_tree command and use the --path flag to specify the path for the ACL. To extract the path for each item into an array, pipe the command to jq. To modify the ACL for each path, pipe the command to xargs which in turn runs the qq fs_set_acl command on each path.

```
qq fs_walk_tree --path /my_target_path | \
  jq -r '.tree_nodes[].path' | \
  xargs -I % -n1 -P 4 \
   qq fs_set_acl --path '%' \
   --file /history/new_permissions.json >> &>/dev/null
```

To Recursively Modify SMB Attributes

For this operation, you must use the qq fs_walk_tree and qq fs_modify_acl commands.

Run the qq fs_walk_tree command and use the --path flag to specify the path for the ACL. To extract the path for each item into an array, pipe the command to jq. To modify the ACL for each path, pipe the command to xargs which in turn runs the qq fs_set_acl command on each path.

```
qq fs_walk_tree --path /my_path | \
   jq -r '.tree_nodes[].path' | \
    xargs -I % -n1 -P 4 \
      qq fs_file_set_smb_attrs --path % \
      --hidden false
```

Description

Modify file ACL

Usage

```
qq fs_modify_acl [-h] (--path PATH | --id ID) [--json] {add_entry,remove_entry,modif
y_entry,set_posix_special_permissions} ...
```

Flag Name	Required	Description
path	No	File path
id	No	File ID
json	No	Print the raw JSON response.

qq fs_notify

This section explains how to use the qq fs notify command.

Description

Notify on changes to files and directories under the specified directory. To cancel the listener, send a SIGQUIT signal (press CTRL+D).

Usage

Flag Name	Required	Description
path	No	Directory path
id	No	Directory ID
recursive	No	Listen for changes recursively.
filter	No	Specific notify types to filter to.
file	No	File to receive data
json	No	Output results as a json stream.

qq fs_punch_hole

This section explains how to use the qq fs_punch_hole command.

Description

Create a hole in a region of a file. Destroys all data within the hole.

Usage

```
qq fs_punch_hole [-h] (--path PATH | --id ID) [--stream-id STREAM_ID | --stream-nam e STREAM_NAME] --offset OFFSET --size SIZE
```

Flag Name	Required	Description
path	No	File path
id	No	File ID
stream-id	No	Stream ID
stream-name	No	Stream name
offset	Yes	Offset in bytes specifying the start of the hole to create
size	Yes	Size in bytes of the hole to create

qq fs_read

This section explains how to use the qq fs_read command.

Description

Read an object

Usage

```
qq fs_read [-h] (--path PATH | --id ID) [--stream-id STREAM_ID | --stream-name STREA
M_NAME] [--snapshot SNAPSHOT] [--offset OFFSET] [--length LENGTH] [--file FILE]
        [--force] [--stdout]
```

Flag Name	Required	Description
path	No	File path
id	No	File ID
stream- id	No	Stream ID
stream- name	No	Stream name
snapshot	No	Snapshot ID to read from
offset	No	Offset at which to read data. If not specified, read from the beginning of the file.
length	No	Amount of data to read. If not specified, read the entire file.
file	No	File to receive data
force	No	Overwrite an existing file
stdout	No	Output data to standard out

qq fs_read_dir

This section explains how to use the qq fs_read_dir command.

Description

Read directory

Usage

```
qq fs_read_dir [-h] (--path PATH | --id ID) [--page-size PAGE_SIZE] [--snapshot SNAP SHOT] [--smb-pattern SMB_PATTERN]
```

Flag Name	Required	Description
path	No	Directory path
id	No	Directory ID
page- size	No	REST API pagination size to use. This affects the number of API calls made, and the structure of the resulting JSON output, but does not affect what entries are returned. Note that the system may impose an upper limit on the page size.
snap- shot	No	Snapshot ID to read from
smb- pattern	No	SMB style match pattern.

qq fs_read_dir_aggregates

This section explains how to use the qq fs_read_dir_aggregates command.

Description

Read directory aggregation entries

Usage

```
qq fs_read_dir_aggregates [-h] --path PATH [--recursive] [--max-entries MAX_ENTRIE
S] [--max-depth MAX_DEPTH]
    [--order-by {total_blocks,total_datablocks,total_named_stream_datablocks,total_m
etablocks,total_files,total_directories,total_symlinks,total_other,total_named_strea
ms}]
    [--snapshot SNAPSHOT]
```

Flag Name	Required	Description
path	Yes	Directory path
recursive	No	Fetch recursive aggregates
max-entries	No	Maximum number of entries to return
max-depth	No	Maximum depth to recurse whenrecursive is set
order-by	No	Specify field used for top N selection and sorting
snapshot	No	Snapshot ID to read from

qq fs_release_nlm_lock

This section explains how to use the qq fs_release_nlm_lock command.

Description

Release an arbitrary NLM byte-range lock range. This is dangerous, and should only be used after confirming that the owning process has leaked the lock, and only if there is a very good reason why the situation should not be resolved by terminating that process.

Usage

```
qq fs_release_nlm_lock [-h] (--path PATH \mid --id ID) --offset OFFSET --size SIZE --ow ner-id OWNER_ID [--force] [--snapshot SNAPSHOT]
```

Flag Name	Required	Description
path	No	File path
id	No	File ID
offset	Yes	NLM byte-range lock offset
size	Yes	NLM byte-range lock size
owner-id	Yes	Owner id
force	No	This command can cause corruption, add this flag to release lock
snapshot	No	Snapshot ID of the specified file

qq fs_release_nlm_locks_by_client

This section explains how to use the qq fs_release_nlm_locks_by_client command.

Description

Release NLM byte range locks held by client. This method releases all locks held by a particular client. This is dangerous, and should only be used after confirming that the client is dead.

Usage

```
qq fs_release_nlm_locks_by_client [-h] [--force] [--name NAME] [--address ADDRESS]
```

Flag Name	Required	Description
force	No	This command can cause corruption, add this flag to release lock
name	No	Client hostname
address	No	Client IP address

qq fs_remove_stream

This section explains how to use the qq fs_remove_stream command.

Description

Remove a stream from file or directory

Usage

```
qq fs_remove_stream [-h] (--path PATH \mid --id ID) (--stream-id STREAM_ID \mid --stream-n ame STREAM_NAME)
```

Flag Name	Required	Description
path	No	File or directory path
id	No	File or directory ID
stream-id	No	Stream id to remove
stream-name	No	Stream name to remove

qq fs_rename

This section explains how to use the qq fs_rename command.

Description

Rename a file system object

Usage

```
qq fs_rename [-h] (--path PATH | --id ID) --source SOURCE --name NAME [--clobber]
```

Flag Name	Required	Description
path	No	Destination parent directory path
id	No	Destination parent directory ID
source	Yes	Source file path
name	Yes	New name in destination directory
clobber	No	Clobber destination if exists

qq fs_resolve_paths

This section explains how to use the qq fs_resolve_paths command.

Description

Resolve file IDs to paths

Usage

```
qq fs_resolve_paths [-h] --ids [IDS [IDS ...]] [--snapshot SNAPSHOT]
```

Flag Name	Required	Description
ids	Yes	File IDs to resolve
snapshot	No	Snapshot ID to read from

qq fs_security_add_key

This section explains how to use the qq fs_security_add_key command.

Description

Add a key to the file system key-store.

Usage

```
qq fs_security_add_key [-h] --name NAME [--private-key-file PRIVATE_KEY_FILE] [--pub
lic-key PUBLIC_KEY] [--verification-signature VERIFICATION_SIGNATURE]
    [--comment COMMENT] [--json]
```

Flag Name	Required	Description
name	Yes	The unique name to associate with the key to add to the key store. The name must not contain only numbers.
private- key-file	No	The ECDSA private key file for the key to add to the key store.
public-key	No	The ECDSA public key for the key to add to the key store.
verifica- tion-signa- ture	No	A signature generated by signing the key name with the ECDSA private key.
comment	No	An optional comment that the system stores alongside the key to add to the key store.
json	No	Print the output in JSON format. The default output is in a table.

qq fs_security_delete_key

This section explains how to use the qq fs_security_delete_key command.

Description

Delete a key from the file system key store.

Usage

qq fs_security_delete_key [-h] -k KEY

Flag Name	Required	Description
-k	Yes	The identifier or name of the key to delete from the key store.

qq fs_security_get_key

This section explains how to use the qq fs_security_get_key command.

Description

Get information for a key in the file system key store.

Usage

```
qq fs_security_get_key [-h] -k KEY [--json]
```

Flag Name	Required	Description
-k	Yes	The identifier or name of the key for which to show information.
json	No	Print the output in JSON format. By default, the output is in a table.

qq fs_security_get_key_replace_challenge

This section explains how to use the qq fs_security_get_key_replace_challenge command.

Description

Get a security challenge for replacing the specified key without affecting the snapshots and snapshot policies associated with it.

Usage

qq fs_security_get_key_replace_challenge [-h] -k KEY

Flag Name	Required	Description	
-k	Yes	The identifier or name of the key for which to get a security challenge.	

qq fs_security_get_key_usage

This section explains how to use the qq fs_security_get_key_usage command.

Description

Show information about snapshot and snapshot policy usage for a key from the file system key store.

Usage

```
qq fs_security_get_key_usage [-h] -k KEY [--json]
```

Flag Name	Required	Description
-k	Yes	The key identifier or name for which to show usage information.
json	No	Print the output in JSON format. By default, the output is in a table.

qq fs_security_list_keys

This section explains how to use the qq fs_security_list_keys command.

Description

List information for all keys in the file system key store.

Usage

```
qq fs_security_list_keys [-h] [--json]
```

Flag Name	Required	Description
json	No	Print the output in JSON format. By default, the output is in a table.

qq fs_security_modify_key

This section explains how to use the qq fs_security_modify_key command.

Description

Modify the name or comment of a key in the file system key store. Enable or disable a key.

Usage

```
qq fs_security_modify_key [-h] -k KEY [--new-name NEW_NAME] [--comment COMMENT] [--e nable | --disable] [--json]
```

Flag Name	Required	Description
-k	Yes	The identifier or name of the key to modify.
new- name	No	The new name for the specified key.
com- ment	No	The comment for the specified key.
en- able	No	Enable the specified key. You can use an enabled key to lock snapshots. You can also associate an enabled key with policies that take snapshots. Note: The system enables keys upon creation.
dis- able	No	Disable the specified key. You cannot use a disabled key to lock new snapshots. Existing snapshots which use the disabled key remain locked. However, you can still use a disabled key to unlock the snapshots that it locked. Important: You cannot disable a key if any snapshot policy uses it.
json	No	Print the output in JSON format. By default, the output is in a table.

qq fs_security_replace_key

This section explains how to use the qq fs_security_replace_key command.

Description

Replace the specified key without affecting the snapshots and snapshot policies associated with it.

Usage

```
qq fs_security_replace_key [-h] -k KEY [--old-private-key-file OLD_PRIVATE_KEY_FIL
E] [--replacement-private-key-file REPLACEMENT_PRIVATE_KEY_FILE]
        [--replacement-public-key REPLACEMENT_PUBLIC_KEY] [--old-key-verification-signat
ure OLD_KEY_VERIFICATION_SIGNATURE]
        [--replacement-key-verification-signature REPLACEMENT_KEY_VERIFICATION_SIGNATUR
E] [--json]
```

Flag Name	Required	Description
-k	Yes	The identifier or name of the key to replace in the key store.
old-private-key- file	No	The ECDSA private key file that corresponds to the existing public key.
replacement-private- key-file	No	The ECDSA private key file with which to replace the existing key.
replacement-public- key	No	The ECDSA public key with which to replace the existing key.
old-key-verifica- tion-signature	No	A signature that you generate when you sign the challenge with the existing ECDSA private key.
replacement-key-ver- ification-signature	No	A signature that you generate when you sign the challenge with the replacement ECDSA private key.
json	No	Print the output in JSON format. By default, the output is in a table.

qq fs_set_acl

This section explains how to use the qq fs_set_acl command.

Description

Set file ACL

Usage

```
qq fs_set_acl [-h] (--path PATH | --id ID) [--file FILE]
```

Flag Name	Required	Description
 path	No	File path
id	No	File ID
 file	No	Local file containing ACL JSON with control flags, ACEs, and optionally special POSIX permissions (sticky, setgid, setuid)

qq fs_set_atime_settings

This section explains how to use the qq fs_set_atime_settings command.

Description

Set access time (atime) settings.

Usage

```
qq fs_set_atime_settings [-h] [--enable | --disable] [--granularity {HOUR,DAY,WEEK}]
```

Flag Name	Required	Description
enable	No	Enable access time (atime) updates.
disable	No	Disable access time (atime) updates.
granularity	No	Specify granularity for access time (atime) updates.

qq fs_set_notify_settings

This section explains how to use the qq fs_set_notify_settings command.

Description

Set FS notify settings

Usage

qq fs_set_notify_settings [-h] [--recursive-mode RECURSIVE_MODE]

Flag Name	Required	Description
recursive-	No	Notify recursive mode to set (ENABLED, DISABLED_ERROR, DISABLED_IGNORE)

qq fs_set_permissions_settings

This section explains how to use the qq fs_set_permissions_settings command.

Description

Set permissions settings

Usage

qq fs_set_permissions_settings [-h] mode

Positional Options

Option Name	Description
mode	Permissions mode to set (NATIVE or CROSS_PROTOCOL)

qq fs_set_user_metadata

This section explains how to use the qq fs_set_user_metadata command.

Description

Set or update a user metadata value for a file by using the specified metadata key and value

Usage

```
qq fs_set_user_metadata [-h] (--path PATH | --id ID) [--s3] --key KEY (--value VALU
E | --hex-value HEX_VALUE | --base64-value BASE64_VALUE)
```

Flag Name	Required	Description
path	No	File path
id	No	File ID
s3	No	In Qumulo Core, there are two types of user metadata, generic and S3. By default, qq CLI commands manipulate generic metadata. When you use thes3 flag, Qumulo Core makes user metadata visible to the S3 protocol as object metadata.
key	Yes	Metadata key
value	No	Plaintext metadata value
hex-value	No	Hex-encoded metadata value
 base64-value	No	Base64-encoded metadata value

qq fs_walk_tree

This section explains how to use the qq fs walk tree command.

Examples

To Recursively Add a New ACL with Multithreading

For this operation, you must use the qq fs_walk_tree and qq fs_modify_acl commands.

1 Note

For very large directories, we recommend running the following command in a screen session.

- 1. Ensure that the jq utility is installed on your system.
- 2. Run the qq fs_walk_tree command and use the --path flag to specify the path for the ACL. To extract the path for each item into an array, pipe the command to jq. To modify the ACL for each path, pipe the command to xargs which in turn runs the qq fs_set_acl command on each path. For example:

```
qq fs_walk_tree --path /my_path | \
   jq -r '.tree_nodes[].path' | \
   xargs -d '\n' -I % -n1 -P 4 \
      qq fs_modify_acl --path '%' \
      add_entry -t "DOMAIN\my_username" \
      -y Allowed \
      -r "Read" "Execute/Traverse" \
      -f "Object inherit" "Container inherit"
```

To Recursively Apply a Permissions Template

For this operation, you must use the qq fs walk tree and qq fs modify acl commands.

- 1. Ensure that the jq utility is installed on your system.
- 2. Use a new or existing file with the necessary permissions to capture the ACL and save it in JSON format by using the qq fs_get_acl command. For example:

```
qq fs_get_acl --path /path_to_acl_source \
    --json >/history/new_permissions.json
```

3. To apply the captured ACL, run the qq fs_walk_tree command and use the --path flag to specify the path for the ACL. To extract the path for each item into an array, pipe the command to jq. To modify the ACL for each path, pipe the command to xargs which in turn runs the qq fs_set_acl command on each path.

```
qq fs_walk_tree --path /my_target_path | \
  jq -r '.tree_nodes[].path' | \
    xargs -I % -n1 -P 4 \
    qq fs_set_acl --path '%' \
    --file /history/new_permissions.json >> &>/dev/null
```

To Recursively Modify SMB Attributes

For this operation, you must use the qq fs_walk_tree and qq fs_modify_acl commands.

Run the qq fs_walk_tree command and use the --path flag to specify the path for the ACL. To extract the path for each item into an array, pipe the command to jq. To modify the ACL for each path, pipe the command to xargs which in turn runs the qq fs_set_acl command on each path.

```
qq fs_walk_tree --path /my_path | \
   jq -r '.tree_nodes[].path' | \
    xargs -I % -n1 -P 4 \
     qq fs_file_set_smb_attrs --path % \
     --hidden false
```

Description

Walk file system tree

Usage

```
qq fs_walk_tree [-h] [--path PATH] [--snapshot SNAPSHOT] [--file-only | --directory-
only | --symlink-only] [--display-ownership | --display-all-attributes]
    [--output-file OUTPUT_FILE] [--max-depth MAX_DEPTH]
```

Flag Name	Required	Description
path	No	Tree root path

snap- shot	No	Snapshot ID to read from	
file-on- ly	No	Only display files	
directo- ry-only	No	Only display directories	
symlink- only	No	Only display symlinks	
display- ownership	No	Display detailed owner and group information	
display- all-at- tributes	No	Display all attributes	
output- file	No	Output a file at the specified path instead of stdout	
max- No depth		The maximum layers to traverse down the tree, starting from the path specified. For example, if the file tree is /dir/file, running the command with max-depth of 1 from root will yield / and /dir	

qq fs_write

This section explains how to use the qq fs_write command.

Description

Write data to an object

Usage

```
qq fs_write [-h] (--path PATH \mid --id ID) [--stream-id STREAM_ID \mid --stream-name STRE AM_NAME \mid --create] [--offset OFFSET] [--file FILE] [--stdin]
```

Flag Name	Required	Description			
path	No	File path			
id	No	File ID			
stream-	No	Stream ID			
stream-	No	Stream name			
cre- ate	No	Create file before writing. Fails if exists or is used with stream identifiers.			
off- set	No	Offset at which to write data. If not specified, the existing contents of the file will be replaced with the given contents.			
file	No	File data to send			
 stdin	No	Write file from stdin			

qq ftp_get_status

This section explains how to use the qq ftp_get_status command.

Description

Get FTP server settings and status

Usage

qq ftp_get_status [-h]

qq ftp_modify_settings

This section explains how to use the qq ftp_modify_settings command.

Description

Set FTP server settings

Usage

```
qq ftp_modify_settings [-h] [--enabled {true,false}] [--check-remote-host {true,fals
e}] [--log-operations {true,false}] [--chroot-users {true,false}]
        [--allow-unencrypted-connections {true,false}] [--expand-wildcards {true,false}]
        [--anonymous-user-as-local-user ANONYMOUS_USER_AS_LOCAL_USER | --anonymous-user-
none | --greeting GREETING]
```

qq get_vpn_keys

This section explains how to use the qq get_vpn_keys command.

Description

Get VPN keys stored in the cluster.

Usage

qq get_vpn_keys [-h]

qq halt_cluster

This section explains how to use the qq halt_cluster command.

Description

Halt the cluster

Usage

```
qq halt_cluster [-h] [--force]
```

Flag Name	Required	Description
force	No	Do not prompt

qq help

This section explains how to use the qq help command.

Description

QQ documentation

Usage

qq help [-h]

qq identity_attributes_get

This section explains how to use the qq identity_attributes_get command.

Description

Get attributes related to the given identity.

Usage

qq identity_attributes_get [-h] identifier

Positional Options

Option Name	Description
identifier	A name or a SID, optionally qualified with a domain prefix (e.g "local:name", "world:Everyone", "ldap_user:name", "ldap_group:name", or "ad:name") or an ID type (e.g. "uid:1001", "gid:2001", "auth_id:513", "SID:S-1-1-0").

qq identity_attributes_set

This section explains how to use the qq identity_attributes_set command.

Description

Set attributes related to the given identity.

Usage

qq identity_attributes_set [-h] --home-directory HOME_DIRECTORY identifier

Flags

Flag Name	Required	Description
home-directory	Yes	The home directory for the identity.

Positional Options

Option Name	Description
identifier	A name or a SID, optionally qualified with a domain prefix (e.g "local:name", "world:Everyone", "ldap_user:name", "ldap_group:name", or "ad:name") or an ID type (e.g. "uid:1001", "gid:2001", "auth_id:513", "SID:S-1-1-0").

qq install_vpn_keys

This section explains how to use the qq install_vpn_keys command.

Description

Install VPN keys.

Usage

qq install_vpn_keys [-h] directory

Positional Options

Option Name	Description	
directory	Directory with mqvpn-client.crt, mqvpn-client.key, and qumulo-ca.crt files.	

qq kerberos_delete_keytab

This section explains how to use the qq kerberos_delete_keytab command.

Description

Delete the Kerberos keytab

Usage

qq kerberos_delete_keytab [-h]

qq kerberos_get_keytab

This section explains how to use the qq kerberos_get_keytab command.

Description

Get the Kerberos keytab

Usage

qq kerberos_get_keytab [-h]

qq kerberos_get_settings

This section explains how to use the qq kerberos_get_settings command.

Description

Get the Kerberos settings

Usage

qq kerberos_get_settings [-h]

qq kerberos_modify_settings

This section explains how to use the qq kerberos_modify_settings command.

Description

Modify the Kerberos settings

Usage

qq kerberos_modify_settings [-h] -a USE_ALT_SECURITY_IDENTITIES_MAPPING

Flag Name	Required	Description		
-a	Yes	When enabled, map kerberos-authenticated users to LDAP records via the altSecurityIdentities field		

qq kerberos_set_keytab

This section explains how to use the qq kerberos_set_keytab command.

Description

Set the Kerberos keytab

Usage

```
qq kerberos_set_keytab [-h] -k KEYTAB_FILE
```

Flag Name	Required	Description
-k	Yes	The Kerberos keytab file to set

qq ldap_get_settings

This section explains how to use the qq ldap_get_settings command.

Description

Get settings for LDAP interaction

Usage

qq ldap_get_settings [-h]

qq ldap_get_status

This section explains how to use the qq ldap_get_status command.

Description

Get LDAP client connection states

Usage

qq ldap_get_status [-h]

qq ldap_login_name_to_gid_numbers

This section explains how to use the qq ldap_login_name_to_gid_numbers command.

Description

Query the LDAP server for the gid numbers for all the groups of which the given login name is a member. This returns a vector of results in the case that the given login name maps to multiple uid numbers.

Usage

qq ldap_login_name_to_gid_numbers [-h] --login-name LOGIN_NAME

qq ldap_login_name_to_uid_numbers

This section explains how to use the qq ldap_login_name_to_uid_numbers command.

Description

Get the uidNumbers from a login name using the LDAP server

Usage

qq ldap_login_name_to_uid_numbers [-h] --login-name LOGIN_NAME

qq ldap_set_settings

This section explains how to use the qq ldap_set_settings command.

Description

Set settings for LDAP interaction

Usage

```
qq ldap_set_settings [-h] --use-ldap {false,true} --bind-uri BIND_URI --base-dn BAS
E_DN [--bind-username BIND_USERNAME] [--bind-password BIND_PASSWORD]
        [--encrypt-connection {false,true}] [--rfc2307] [--custom-group-member-attribut
e CUSTOM_GROUP_MEMBER_ATTRIBUTE]
        [--custom-user-group-identifier-attribute CUSTOM_USER_GROUP_IDENTIFIER_ATTRIBUT
E] [--custom-login-name-attribute CUSTOM_LOGIN_NAME_ATTRIBUTE]
        [--custom-group-name-attribute CUSTOM_GROUP_NAME_ATTRIBUTE] [--custom-user-objec
t-class CUSTOM_USER_OBJECT_CLASS]
        [--custom-group-object-class CUSTOM_GROUP_OBJECT_CLASS] [--custom-uid-number-attribute CUSTOM_UID_NUMBER_ATTRIBUTE]
        [--custom-gid-number-attribute CUSTOM_GID_NUMBER_ATTRIBUTE]
```

Flag Name	Required	Description
use-ldap	Yes	Whether or not to enable the use of the LDAP server on the cluster.
bind-uri	Yes	LDAP URI used to bind. Example: ldap://ldap-server.exam-ple.com
base-dn	Yes	Base DNs (Distinguished Names). Separate multiple DNs using semicolons. Example: dc=account,dc=example,dc=com
bind-username	No	Binding users's DN. Default is empty.
bind-password	No	Password for simple authentication against LDAP server. If not specified, will use password that is currently stored on disk.
encrypt-connec- tion	No	If true, LDAP connection must be encrypted using TLS. Default is true.

rfc2307	No	Use the standard schema defined in RFC2307. Cannot be combined with any custom schema arguments.
custom-group-mem- ber-attribute	No	The attribute on a group object which contains references to the members in that group.
custom-user- group-identifier- attribute	No	The attribute on a user that the value of the group_member_attribute on a group refers to.
custom-login- name-attribute	No	The attribute on a user that identifies their login name.
custom-group- name-attribute	No	The attribute on a group that identifies their name.
custom-user-ob- ject-class	No	The class of user objects.
custom-group-ob- ject-class	No	The class of group objects.
custom-uid-num- ber-attribute	No	The attribute on a user that identifies their uid number.
custom-gid-num- ber-attribute	No	The attribute on an object that identifies their gid number.

qq ldap_uid_number_to_login_name

This section explains how to use the qq ldap_uid_number_to_login_name command.

Description

Get login name from uidNumber using LDAP server

Usage

qq ldap_uid_number_to_login_name [-h] --uid-number UID_NUMBER

qq ldap_update_settings

This section explains how to use the qq ldap_update_settings command.

Description

Update settings for LDAP interaction

Usage

```
qq ldap_update_settings [-h] [--use-ldap {false,true}] [--bind-uri BIND_URI] [--bas
e-dn BASE_DN] [--bind-username BIND_USERNAME] [--bind-password BIND_PASSWORD]
        [--encrypt-connection {false,true}] [--rfc2307] [--custom-group-member-attribut
e CUSTOM_GROUP_MEMBER_ATTRIBUTE]
        [--custom-user-group-identifier-attribute CUSTOM_USER_GROUP_IDENTIFIER_ATTRIBUT
E] [--custom-login-name-attribute CUSTOM_LOGIN_NAME_ATTRIBUTE]
        [--custom-group-name-attribute CUSTOM_GROUP_NAME_ATTRIBUTE] [--custom-user-objec
t-class CUSTOM_USER_OBJECT_CLASS]
        [--custom-group-object-class CUSTOM_GROUP_OBJECT_CLASS] [--custom-uid-number-attribute CUSTOM_UID_NUMBER_ATTRIBUTE]
        [--custom-gid-number-attribute CUSTOM_GID_NUMBER_ATTRIBUTE]
```

Flag Name	Required	Description	
use-ldap	No	Enable or disable the use of standalone LDAP.	
bind-uri	No	LDAP URI used to bind. Example: Idap://ldap-server.ex-ample.com	
base-dn	No	Base DNs (Distinguished Names). Example: dc=ac-count,dc=example,dc=com	
bind-username	No	Binding users's DN.	
bind-password	No	Password for simple authentication against LDAP server.	
encrypt-connection	No	If true, LDAP connection must be encrypted using TLS.	
rfc2307	No	Use the standard schema defined in RFC2307. Cannot be combined with any custom schema arguments.	
custom-group-mem- ber-attribute	No	The attribute on a group object which contains references to the members in that group.	

custom-user-group- identifier-attribute	No	The attribute on a user that the value of the group_member_attribute on a group refers to.
custom-login-name- attribute	No	The attribute on a user that identifies their login name.
custom-group-name- attribute	No	The attribute on a group that identifies their name.
custom-user-object- class	No	The class of user objects.
custom-group-ob- ject-class	No	The class of group objects.
custom-uid-number- attribute	No	The attribute on a user that identifies their uid number.
custom-gid-number- attribute	No	The attribute on an object that identifies their gid number.

qq login

This section explains how to use the qq login command.

Description

Log in to qfsd to get REST credentials

Usage

```
qq login [-h] -u USERNAME [-p PASSWORD]
```

Flag Name	Required	Description
- u	Yes	User name
- p	No	Password (insecure, visible via ps)

qq logout

This section explains how to use the qq logout command.

Description

Remove qfsd REST credentials

Usage

qq logout [-h]

qq metrics_get

This section explains how to use the qq metrics_get command.

Description

Get all system metrics.

Usage

qq metrics_get [-h]

qq monitoring_conf

This section explains how to use the qq monitoring_conf command.

Description

Get monitoring configuration.

Usage

qq monitoring_conf [-h]

qq monitoring_status_get

This section explains how to use the qq monitoring_status_get command.

Description

Get current monitoring status.

Usage

qq monitoring_status_get [-h]

qq multitenancy_create_tenant

This section explains how to use the qq multitenancy_create_tenant command.

Description

Create a tenant

Usage

```
qq multitenancy_create_tenant [-h] --name NAME [--network-id [NETWORK_ID [NETWORK_I
D ...]]] [--enable-web-ui | --disable-web-ui] [--enable-rest-api | --disable-rest-ap
i]
    [--enable-ssh | --disable-ssh] [--enable-replication | --disable-replication]
[--enable-nfs | --disable-nfs] [--enable-smb | --disable-smb]
```

Flag Name	Required	Description	
name	Yes	Unique name of the tenant chosen by the user.	
network- id	No	List of zero or more network IDs associated with this tenant, as returned by the `network_list_networks` command. Each network ID may be assigned to at most one tenant.	
enable- web-ui	No	Web UI is accessible from this tenant.	
disable- web-ui	No	Web UI is not accessible from this tenant. This is the default.	
enable- rest-api	No	REST API is accessible from this tenant.	
disable- rest-api	No	REST API is not accessible from this tenant. This is the default.	
enable- ssh	No	SSH is accessible from this tenant.	
disable- ssh	No	SSH is not accessible from this tenant. This is the default.	

enable- replication	No	Replication is accessible from this tenant.
disable- replication	No	Replication is not accessible from this tenant. This is the default.
enable- nfs	No	NFS is accessible from this tenant.
disable- nfs	No	NFS is not accessible from this tenant. This is the default.
enable-	No	SMB is accessible from this tenant.
disable-	No	SMB is not accessible from this tenant. This is the default.

qq multitenancy_delete_tenant

This section explains how to use the qq multitenancy_delete_tenant command.

Description

Delete a tenant

Usage

```
qq multitenancy_delete_tenant [-h] --id ID [--force]
```

Flag Name	Required	Description
id	Yes	The unique ID of the tenant to delete.
force	No	Do not prompt

qq multitenancy_get_tenant

This section explains how to use the qq multitenancy_get_tenant command.

Description

Get a tenant

Usage

```
qq multitenancy_get_tenant [-h] --id ID
```

Flag Name	Required	Description
id	Yes	The unique ID of the tenant to retrieve.

qq multitenancy_list_tenants

This section explains how to use the qq multitenancy_list_tenants command.

Description

List all tenants

Usage

qq multitenancy_list_tenants [-h] [-j]

Flag Name	Required	Description
- j	No	Output in JSON format

qq multitenancy_modify_tenant

This section explains how to use the qq multitenancy_modify_tenant command.

Description

Modify a tenant

Usage

```
qq multitenancy_modify_tenant [-h] --id ID [--name NAME] [--enable-web-ui | --disabl
e-web-ui] [--enable-rest-api | --disable-rest-api] [--enable-ssh | --disable-ssh]
        [--enable-replication | --disable-replication] [--enable-nfs | --disable-nfs]
[--enable-smb | --disable-smb]
        [--network-id [NETWORK_ID [NETWORK_ID ...]]]
```

Flag Name	Required	Description
id	Yes	The unique ID of the tenant to modify.
name	No	Unique name of the tenant chosen by the user. If not specified, the existing name will be preserved.
enable- web-ui	No	Web UI is accessible from this tenant. If neitherenable-web-ui nordisable-web-ui is specified, the existing setting will be preserved.
disable- web-ui	No	Web UI is not accessible from this tenant. If neitherenable-web-ui nordisable-web-ui is specified, the existing setting will be preserved.
enable- rest-api	No	REST API is accessible from this tenant. If neitherenable-rest-api nordisable-rest-api is specified, the existing setting will be preserved.
disable- rest-api	No	REST API is not accessible from this tenant. If neitherenable-restapi nordisable-rest-api is specified, the existing setting will be preserved.
enable- ssh	No	SSH is accessible from this tenant. If neitherenable-ssh nordis- able-ssh is specified, the existing setting will be preserved.

disable- ssh	No	SSH is not accessible from this tenant. If neitherenable-ssh nor disable-ssh is specified, the existing setting will be preserved.
enable- replication	No	Replication is accessible from this tenant. If neitherenable-replication nordisable-replication is specified, the existing setting will be preserved.
disable- replication	No	Replication is not accessible from this tenant. If neitherenable-replication nordisable-replication is specified, the existing setting will be preserved.
enable- nfs	No	NFS is accessible from this tenant. If neitherenable-nfs nordis-able-nfs is specified, the existing setting will be preserved.
disable- nfs	No	NFS is not accessible from this tenant. If neitherenable-nfs nor disable-nfs is specified, the existing setting will be preserved.
enable-	No	SMB is accessible from this tenant. If neitherenable-smb nordis-able-smb is specified, the existing setting will be preserved.
disable-	No	SMB is not accessible from this tenant. If neitherenable-smb nor disable-smb is specified, the existing setting will be preserved.
network- id	No	List of zero or more network IDs associated with this tenant, as returned by the `network_list_networks` command. Each network ID may be assigned to at most one tenant. If specified, this must contain a complete list of all network IDs to be assigned to the tenant. Any already-assigned networks not present will be unassigned and services will be disabled on those networks. If not specified, the existing networks will be preserved.

qq multitenancy_nfs_delete_settings

This section explains how to use the qq multitenancy_nfs_delete_settings command.

Description

Delete NFS settings for a tenant

Usage

```
qq multitenancy_nfs_delete_settings [-h] --tenant-id TENANT_ID
```

Flag Name	Required	Description
tenant-id	Yes	ID of the tenant to delete settings for

qq multitenancy_nfs_get_global_settings

This section explains how to use the qq multitenancy_nfs_get_global_settings command.

Description

Retrieve global default NFS settings

Usage

qq multitenancy_nfs_get_global_settings [-h]

qq multitenancy_nfs_get_settings

This section explains how to use the qq multitenancy_nfs_get_settings command.

Description

Retrieve NFS settings for a tenant

Usage

```
qq multitenancy_nfs_get_settings [-h] --tenant-id TENANT_ID
```

Flag Name	Required	Description
tenant-id	Yes	ID of tenant to get settings for

qq multitenancy_nfs_list_settings

This section explains how to use the qq multitenancy_nfs_list_settings command.

Description

Retrieve NFS settings for all tenant that have tenant-specific settings configured

Usage

qq multitenancy_nfs_list_settings [-h]

qq multitenancy_nfs_modify_global_settings

This section explains how to use the qq multitenancy_nfs_modify_global_settings command.

Description

Modify global default NFS settings

Usage

```
qq multitenancy_nfs_modify_global_settings [-h] [--enable-v4 | --disable-v4] [--enab
le-krb5 | --disable-krb5] [--enable-krb5p | --disable-krb5p]
        [--enable-krb5i | --disable-krb5i] [--enable-auth-sys | --disable-auth-sys]
```

Flag Name	Required	Description
enable-v4	No	Enables mounting with the NFSv4.1 protocol
disable-v4	No	Disables mounting with the NFSv4.1 protocol
enable-krb5	No	Enables mounting with KRB5 security
disable-krb5	No	Disables mounting with KRB5 security
enable-krb5p	No	Enables mounting with KRB5p security
disable-krb5p	No	Disables mounting with KRB5p security
enable-krb5i	No	Enables mounting with KRB5i security
disable-krb5i	No	Disables mounting with KRB5i security
enable-auth-sys	No	Enables mounting with AUTH_SYS security
disable-auth-sys	No	Disables mounting with AUTH_SYS security

qq multitenancy_nfs_modify_settings

This section explains how to use the qq multitenancy_nfs_modify_settings command.

Description

Modify NFS settings for a tenant

Usage

```
qq multitenancy_nfs_modify_settings [-h] --tenant-id TENANT_ID [--enable-v4 | --disa
ble-v4] [--enable-krb5 | --disable-krb5] [--enable-krb5p | --disable-krb5p]
        [--enable-krb5i | --disable-krb5i] [--enable-auth-sys | --disable-auth-sys]
```

Flag Name	Required	Description
tenant-id	Yes	ID of tenant to modify settings for
enable-v4	No	Enables mounting with the NFSv4.1 protocol
disable-v4	No	Disables mounting with the NFSv4.1 protocol
enable-krb5	No	Enables mounting with KRB5 security
disable-krb5	No	Disables mounting with KRB5 security
enable-krb5p	No	Enables mounting with KRB5p security
disable-krb5p	No	Disables mounting with KRB5p security
enable-krb5i	No	Enables mounting with KRB5i security
disable-krb5i	No	Disables mounting with KRB5i security
enable-auth-sys	No	Enables mounting with AUTH_SYS security
disable-auth-sys	No	Disables mounting with AUTH_SYS security

qq multitenancy_smb_delete_settings

This section explains how to use the qq multitenancy_smb_delete_settings command.

Description

Delete SMB settings for a tenant

Usage

```
qq multitenancy_smb_delete_settings [-h] --tenant-id TENANT_ID
```

Flag Name	Required	Description
tenant-id	Yes	ID of the tenant to delete settings for

qq multitenancy_smb_get_global_settings

This section explains how to use the qq multitenancy_smb_get_global_settings command.

Description

Retrieve global default SMB settings

Usage

qq multitenancy_smb_get_global_settings [-h]

qq multitenancy_smb_get_settings

This section explains how to use the qq multitenancy_smb_get_settings command.

Description

Retrieve SMB settings for a tenant

Usage

```
qq multitenancy_smb_get_settings [-h] --tenant-id TENANT_ID
```

Flag Name	Required	Description
tenant-id	Yes	ID of tenant to get settings for

qq multitenancy_smb_list_settings

This section explains how to use the qq multitenancy_smb_list_settings command.

Description

Retrieve SMB settings for all tenant that have tenant-specific settings configured

Usage

qq multitenancy_smb_list_settings [-h]

qq multitenancy_smb_modify_global_settings

This section explains how to use the qq multitenancy_smb_modify_global_settings command.

Description

Modify global default SMB settings

Usage

```
qq multitenancy_smb_modify_global_settings [-h] [-e {none,preferred,required}] [-d d
ialect_1 [dialect_2 ...]] [--hide-shares-from-unauthorized-hosts {true,false}]
        [--hide-shares-from-unauthorized-users {true,false}] [--snapshot-directory-mode
{visible,hidden,disabled}]
        [--bypass-traverse-checking {true,false}] [--signing-required {true,false}]
```

Flag Name	Required	Description
- e	No	Server encryption mode to set
-d	No	Specify a space-separated list of SMB dialects that clients are permitted to negotiate. To disable SMB, specify -d "". Available dialects: smb2_dialect_2_002, smb2_dialect_2_1, smb2_dialect_3_0, smb2_dialect_3_11. Alternatively, use -d ALL to allow all supported dialects.
hide- shares-from- unauthorized- hosts	No	Configure share listing to omit shares to which the requesting host isn't authorized to connect.
hide- shares-from- unauthorized- users	No	Configure share listing to omit shares to which the requesting user isn't authorized to connect. Important: Clients which don't have passwordless authentication typically list shares by using guest privileges. This flag typically hides all shares from this client type.

snapshot- directory- mode	No	When you set this flag to visible, the .snapshot directory appears at the root of shares during directory listing operations. The .snapshot directory is also accessible by name in any directory. When you set this flag to hidden, .snapshot directories do not appear in directory listings but remains accessible by name. When you set this flag to disabled, .snapshot directories are not accessible and snapshots are available only through the Restore Previous Versions dialog box on Windows.
bypass- traverse- checking	No	Enables bypass traverse checking for all users and directories. For example, a user who tries to access directory /x/y and has permissions to the /x directory but not to the /x/y directory can access the /x/y directory. A user still requires permissions to the /x directory to view its contents.
signing- required	No	If the user is not a guest, require all messages to be signed. This flag applies to all SMB shares.

qq multitenancy_smb_modify_settings

This section explains how to use the qq multitenancy_smb_modify_settings command.

Description

Modify SMB settings for a tenant

Usage

```
qq multitenancy_smb_modify_settings [-h] --tenant-id TENANT_ID [-e {none,preferred,r
equired}] [-d dialect_1 [dialect_2 ...]]
    [--hide-shares-from-unauthorized-hosts {true,false}] [--hide-shares-from-unautho
rized-users {true,false}]
    [--snapshot-directory-mode {visible,hidden,disabled}] [--bypass-traverse-checkin
g {true,false}] [--signing-required {true,false}]
```

Flag Name	Required	Description
tenant-id	Yes	ID of tenant to modify settings for
-е	No	Server encryption mode to set
-d	No	Specify a space-separated list of SMB dialects that clients are permitted to negotiate. To disable SMB, specify -d "". Available dialects: smb2_dialect_2_002, smb2_dialect_2_1, smb2_dialect_3_0, smb2_dialect_3_11. Alternatively, use -d ALL to allow all supported dialects.
hide- shares-from- unauthorized- hosts	No	Configure share listing to omit shares to which the requesting host isn't authorized to connect.
hide- shares-from- unauthorized- users	No	Configure share listing to omit shares to which the requesting user isn't authorized to connect. Important: Clients which don't have passwordless authentication typically list shares by using guest privileges. This flag typically hides all shares from this client type.

snapshot- directory- mode	No	When you set this flag to visible, the .snapshot directory appears at the root of shares during directory listing operations. The .snapshot directory is also accessible by name in any directory. When you set this flag to hidden, .snapshot directories do not appear in directory listings but remains accessible by name. When you set this flag to disabled, .snapshot directories are not accessible and snapshots are available only through the Restore Previous Versions dialog box on Windows.
bypass- traverse- checking	No	Enables bypass traverse checking for all users and directories. For example, a user who tries to access directory /x/y and has permissions to the /x directory but not to the /x/y directory can access the /x/y directory. A user still requires permissions to the /x directory to view its contents.
signing- required	No	If the user is not a guest, require all messages to be signed. This flag applies to all SMB shares.

qq network_add_network

This section explains how to use the qq network_add_network command.

Description

Add network configuration

Usage

```
qq network_add_network [-h] --name NAME --netmask <netmask-or-subnet> --ip-ranges <a
ddress-or-range> [<address-or-range> ...]
    [--floating-ip-ranges <address-or-range> [<address-or-range> ...]] [--dns-server
s <address-or-range> [<address-or-range> ...]]
    [--dns-search-domains <search-domain> [<search-domain> ...]] [--mtu MTU] [--vla
n-id VLAN_ID] [--tenant-id TENANT_ID]
```

Flag Name	Required	Description
name	Yes	Network name
net- mask	Yes	(if STATIC) IPv4 or IPv6 Netmask or Subnet CIDR eg. 255.255.255.0 or 10.1.1.0/24
ip- ranges	Yes	(if STATIC) List of persistent IP ranges to replace the current ranges. Can be single addresses or ranges, comma separated. eg. 10.1.1.20-21 or 10.1.1.20,10.1.1.21
float- ing-ip- ranges	No	(if STATIC) List of floating IP ranges to replace the current ranges. Can be single addresses or ranges, comma separated. eg. 10.1.1.20-21 or 10.1.1.20,10.1.1.21
dns- servers	No	List of DNS Server IP addresses. Can be a single address or multiple comma separated addresses. eg. 10.1.1.10 or 10.1.1.10,10.1.1.15
dns- search- domains	No	List of DNS Search Domains to use. Can be a single domain or multiple comma separated domains. eg. my.domain.com or my.domain.com,your.domain.com

mtu	No	(if STATIC) The Maximum Transfer Unit (MTU) in bytes of a tagged STATIC network. The MTU of an untagged STATIC network needs to be specified through interface MTU.
vlan- id	No	(if STATIC) User assigned VLAN tag for network configuration. 1-4094 are valid VLAN IDs and 0 is used for untagged networks.
ten- ant-id	No	The tenant that the network will be assigned to. If only one tenant exists, the network will default to that tenant. Otherwise, not specifying the tenant will create the network unassigned.

qq network_delete_network

This section explains how to use the qq network_delete_network command.

Description

Delete network configuration

Usage

```
qq network_delete_network [-h] --network-id NETWORK_ID
```

Flag Name	Required	Description	
network-id	Yes	The unique ID of the network on the interface	

qq network_get_interface

This section explains how to use the qq network_get_interface command.

Description

Get configuration for the specified interface

Usage

```
qq network_get_interface [-h] [--interface-id INTERFACE_ID]
```

Flag Name	Required	Description
interface-id	No	The unique ID of the interface

qq network_get_network

This section explains how to use the qq network_get_network command.

Description

Get configuration for the specified network

Usage

```
qq network_get_network [-h] --network-id NETWORK_ID
```

Flag Name	Required	Description	
network-id	Yes	The unique ID of the network on the interface	

qq network_list_connections

This section explains how to use the qq network_list_connections command.

Examples

To ensure the optimal performance of your cluster, its client connections must be distributed evenly.

To View Client Connections in JSON Format

Run the qq network_list_connections command to list the IP address and protocol for each client.

The following is example output.

```
[{
    "connections": [{
        "network_address": "203.0.113.0",
        "type": "CONNECTION_TYPE_SMB"
},{
        "network_address": "203.0.113.1",
        "type": "CONNECTION_TYPE_NFS"
}],
    "id": 1
},
...
]
```

To View the Client Connection Counts

Run the qq network_list_connections command and use the --counts flag to view the balance of client connections.

Note

Using the --counts flag returns only the SMB and NFS connections without the client IP addresses.

The following is example output.

```
Total: SMB 70 NFS 30
Node1: SMB 17 NFS 8
Node2: SMB 17 NFS 7
Node3: SMB 18 NFS 6
Node4: SMB 18 NFS 9
```

Description

Get the list of SMB and NFS protocol connections per node.

Usage

```
qq network_list_connections [-h] [-c | --json]
```

Flag Name	Required	Description
- C	No	Pretty-print connection counts for the cluster and each node
json	No	Print json instead of default pretty-printed connection table

qq network_list_interfaces

This section explains how to use the qq network_list_interfaces command.

Description

List configurations for interfaces on the cluster

Usage

qq network_list_interfaces [-h]

qq network_list_networks

This section explains how to use the qq network_list_networks command.

Description

List network configurations

Usage

qq network_list_networks [-h]

qq network_mod_interface

This section explains how to use the qq network_mod_interface command.

Description

Modify interface configuration

Usage

```
qq network_mod_interface [-h] [--interface-id INTERFACE_ID] [--default-gateway DEFAU
LT_GATEWAY] [--default-gateway-ipv6 DEFAULT_GATEWAY_IPV6]
      [--bonding-mode {ACTIVE_BACKUP,IEEE_8023AD}] [--mtu MTU]
```

Flag Name	Required	Description
interface-id	No	The unique ID of the interface
default- gateway	No	The default IPv4 gateway address
default- gateway-ipv6	No	The default IPv6 gateway address
bonding-mode	No	Ethernet bonding mode
mtu	No	The maximum transfer unit (MTU) in bytes of the interface and any untagged STATIC network.

qq network_mod_network

This section explains how to use the qq network_mod_network command.

Description

Modify network configuration

Usage

```
qq network_mod_network [-h] --network-id NETWORK_ID [--name NAME] [--assigned-by {DH
CP,STATIC}] [--netmask <netmask-or-subnet>]
     [--ip-ranges <address-or-range> [<address-or-range> ...]] [--floating-ip-ranges
<address-or-range> [<address-or-range> ...]]
     [--clear-floating-ip-ranges] [--dns-servers <address-or-range> [<address-or-range
e> ...]] [--clear-dns-servers]
     [--dns-search-domains <search-domain> [<search-domain> ...]] [--clear-dns-searc
h-domains] [--mtu MTU] [--vlan-id VLAN_ID]
     [--tenant-id TENANT_ID | --clear-tenant-id]
```

Flag Name	Required	Description
net- work-id	Yes	The unique ID of the network on the interface
name	No	Network name
as- signed- by	No	How to assign IP address, either DHCP or STATIC
net- mask	No	(if STATIC) IPv4 or IPv6 Netmask or Subnet CIDR eg. 255.255.255.0 or 10.1.1.0/24
ip- ranges	No	(if STATIC) List of persistent IP ranges to replace the current ranges. Can be single addresses or ranges, comma separated. eg. 10.1.1.20-21 or 10.1.1.20,10.1.1.21
float- ing-ip- ranges	No	(if STATIC) List of floating IP ranges to replace the current ranges. Can be single addresses or ranges, comma separated. eg. 10.1.1.20-21 or 10.1.1.20,10.1.1.21

clear- floating- ip- ranges	No	(if STATIC) Clear the floating IP address ranges
dns- servers	No	List of DNS Server IP addresses to replace the current ranges. Can be a single address or multiple comma separated addresses. eg. 10.1.1.10 or 10.1.1.10,10.1.1.15
clear- dns- servers	No	Clear the DNS servers
dns- search- domains	No	List of DNS Search Domains to replace the current domains. Can be a single domain or multiple comma separated domains. eg. my.domain.com or my.domain.com,your.domain.com
clear- dns- search- domains	No	Clear the DNS search domains
mtu	No	(if STATIC) The Maximum Transfer Unit (MTU) in bytes of a tagged STATIC network. The MTU of an untagged STATIC network needs to be specified through interface MTU.
vlan- id	No	(if STATIC) User assigned VLAN tag for network configuration. 1-4094 are valid VLAN IDs and 0 is used for untagged networks.
ten- ant-id	No	The tenant that the network is assigned to. If only one tenant exists, this will default to that tenant.
clear- tenant- id	No	Clear the tenant from the network, making the network unassigned

qq network_poll

This section explains how to use the qq network_poll command.

Description

Poll network status

Usage

```
qq network_poll [-h] [--node-id NODE_ID]
```

Flag Name	Required	Description
node-id	No	Node ID

qq nfs_add_export

This section explains how to use the qq nfs_add_export command.

Description

Add a new NFS export

Usage

```
qq nfs_add_export [-h] --export-path EXPORT_PATH --fs-path FS_PATH [--tenant-id TENA
NT_ID] [--description DESCRIPTION] (--no-restrictions | --restrictions JSON_FILE_PAT
H)
    [--create-fs-path] [--fields-to-present-as-32-bit FIELD [FIELD ...]]
```

Flag Name	Required	Description
export- path	Yes	NFS Export path
fs-path	Yes	File system path
tenant-id	No	ID of the tenant to add the export to
descrip- tion	No	Description of this export
no-re- strictions	No	Specify no restrictions for this export.

restric- tions	No	Path to local file containing the restrictions in JSON format. host_restrictions is a comma separated list of IPs/ IP ranges/ host-names/ wildcarded hostnames/ and the strings KRB5@, KRB5I@, and KRB5P@ for the 3 kerberos security flavors: basic auth, Integrity, and Privacy. user_mapping can be "none" "root" "all". map_to_user may be "{ "id_type": "LOCAL_USER", "id_value": "" }" or "{ "id_type": "NFS_UID", "id_value": "" }". map_to_group may be "{ "id_type": "NFS_GID", "id_value": "". If user_mapping is not "none", then either specify map_to_user as a local user or specify both map_to_user and map_to_group as NFS user/group. ==Example JSON=: { "restrictions": [{ "read_only": true, "host_restrictions": ["1.2.3.1", "1.100.0.0/24"], "user_mapping": "root", "map_to_user": { "id_type": "LOCAL_USER", "id_value": "500" }, { "read_only": true, "host_restrictions": ["KRB5@"], "user_mapping": "none" }, { "read_only": true, "host_restrictions": [], "user_mapping": "all", "map_to_user": { "id_type": "NFS_UID", "id_value": "500" }, "map_to_group": { "id_type": "NFS_UID", "id_value": "500" }, "map_to_group": { "id_type": "NFS_UID", "id_value": "500" }, "map_to_group": { "id_type": "NFS_UID", "id_value": "500" }, "
create-fs- path	No	Creates the specified file system path if it does not exist
fields-to- present- as-32-bit	No	Fields that should be forced to fit in 32 bits for this export, to support legacy clients and applications. FILE_IDS will hash file IDs (inode numbers), which can be observed by "stat", and is also necessary for some deprecated linux system calls (e.g. to list a directory) to work. FS_SIZE saturates the available, used, and total capacity reported to tools like "df" to 4GiB. FILE_SIZES saturates the reported size of individual files to 4GiB, and should be used with caution as it could cause application misbehavior in the handling of larger files. NONE explicitly specifies no 32 bit mapping.

qq nfs_delete_export

This section explains how to use the qq nfs_delete_export command.

Description

Delete an export

Usage

```
qq nfs_delete_export [-h] (--export-id EXPORT_ID \mid --export-path EXPORT_PATH) [--ten ant-id TENANT_ID]
```

Flag Name	Required	Description
export- id	No	ID of export to delete
export- path	No	Path of export to delete
tenant- id	No	ID of the tenant the export is in. Only used if using theexport-path argument.

qq nfs_get_export

This section explains how to use the qq nfs_get_export command.

Description

Get an export

Usage

```
qq nfs_get_export [-h] (--export-id EXPORT_ID | --export-path EXPORT_PATH) [--tenan
t-id TENANT_ID] [--json]
```

Flag Name	Required	Description
export- id	No	ID of export to modify
export- path	No	Path of export to modify
tenant- id	No	ID of the tenant to get the export from. Only used if using theexport-path argument.
json	No	Print raw response JSON.

qq nfs_get_settings

This section explains how to use the qq nfs_get_settings command.

Description

Retrieve current NFS server configuration.

Usage

qq nfs_get_settings [-h]

qq nfs_list_exports

This section explains how to use the qq nfs_list_exports command.

Description

List all NFS exports

Usage

```
qq nfs_list_exports [-h] [--json]
```

Flag Name	Required	Description
json	No	Print raw response JSON.

qq nfs_mod_export

This section explains how to use the qq nfs_mod_export command.

Description

Modify an export

Usage

```
qq nfs_mod_export [-h] (--export-id EXPORT_ID | --export-path EXPORT_PATH) [--tenan
t-id TENANT_ID] [--new-export-path NEW_EXPORT_PATH] [--new-tenant-id NEW_TENANT_ID]
        [--fs-path FS_PATH] [--description DESCRIPTION] [--no-restrictions | --restricti
ons JSON_FILE_PATH] [--create-fs-path]
        [--fields-to-present-as-32-bit FIELD [FIELD ...]]
```

Flag Name	Required	Description
export-id	No	ID of export to modify
export- path	No	Path of export to modify
tenant-id	No	ID of the tenant the export is in. Only used if using theexport-path argument.
new-ex- port-path	No	Change NFS export path
new-ten- ant-id	No	Change tenant that export is in
fs-path	No	Change file system path
descrip- tion	No	Description of this export
no-re- strictions	No	Specify no restrictions for this export.

restric- tions	host_restrictions names/ wildcarde and KRB5P@ for ty, and Privacy. us map_to_user may "id_type": "NFS_U "id_type": "NFS_G then either specif map_to_user and JSON==: { "restrict "1.2.3.1", "1.100.0.0/2 "id_type" : "LOCAL "host_restrictions "read_only" : true, "map_to_user" : { " "map_to_group":	Path to local file containing the restrictions in JSON format. host_restrictions is a comma separated list of IPs/ IP ranges/ host-names/ wildcarded hostnames/ and the strings KRB5@, KRB5I@, and KRB5P@ for the 3 kerberos security flavors: basic auth, Integrity, and Privacy. user_mapping can be "none" "root" "all". map_to_user may be "{ "id_type": "LOCAL_USER", "id_value": "" }" or "{ "id_type": "NFS_UID", "id_value": "" }". map_to_group may be "{ "id_type": "NFS_GID", "id_value": "" }! fuser_mapping is not "none", then either specify map_to_user as a local user or specify both map_to_user and map_to_group as NFS user/group. ==Example JSON=: { "restrictions": [{ "read_only": true, "host_restrictions": ["1.2.3.1", "1.100.0.0/24"], "user_mapping": "root", "map_to_user": { "id_type": "LOCAL_USER", "id_value": "500" } }, { "read_only": true, "host_restrictions": [], "user_mapping": "all", "map_to_user": { "id_type": "NFS_UID", "id_value": "500" }, "map_to_group": { "id_type": "NFS_UID", "id_value": "500" }, "map_to_group": { "id_type": "NFS_UID", "id_value": "501" } }]
create-fs- path	No	Creates the specified file system path if it does not exist
fields-to- present- as-32-bit	No	Fields that should be forced to fit in 32 bits for this export, to support legacy clients and applications. FILE_IDS will hash file IDs (inode numbers), which can be observed by "stat", and is also necessary for some deprecated linux system calls (e.g. to list a directory) to work. FS_SIZE saturates the available, used, and total capacity reported to tools like "df" to 4GiB. FILE_SIZES saturates the reported size of individual files to 4GiB, and should be used with caution as it could cause application misbehavior in the handling of larger files. NONE explicitly specifies no 32 bit mapping.

qq nfs_mod_export_host_access

This section explains how to use the qq nfs_mod_export_host_access command.

Description

Modify the access hosts are granted to an export

Usage

```
qq nfs_mod_export_host_access [-h] (--export-id EXPORT_ID | --export-path EXPORT_PAT
H) [--tenant-id TENANT_ID] [--json] {add_entry,modify_entry,remove_entry} ...
```

Flag Name	Required	Description
export- id	No	ID of export to modify
export- path	No	Path of export to modify
tenant- id	No	ID of the tenant the export is in. Only used if using theexport-path argument
json	No	Print raw response JSON

qq nfs_modify_settings

This section explains how to use the qq nfs_modify_settings command.

Description

Modify current NFS server configuration.

Usage

```
qq nfs_modify_settings [-h] [--enable-v4 | --disable-v4] [--enable-krb5 | --disable-krb5] [--enable-krb5p | --disable-krb5p] [--enable-krb5i | --disable-krb5i]
        [--enable-auth-sys | --disable-auth-sys]
```

Flag Name	Required	Description
enable-v4	No	Enables mounting with the NFSv4.1 protocol
disable-v4	No	Disables mounting with the NFSv4.1 protocol
enable-krb5	No	Enables mounting with KRB5 security
disable-krb5	No	Disables mounting with KRB5 security
enable-krb5p	No	Enables mounting with KRB5p security
disable-krb5p	No	Disables mounting with KRB5p security
enable-krb5i	No	Enables mounting with KRB5i security
disable-krb5i	No	Disables mounting with KRB5i security
enable-auth-sys	No	Enables mounting with AUTH_SYS security
disable-auth-sys	No	Disables mounting with AUTH_SYS security

qq node_chassis_status_get

This section explains how to use the qq node_chassis_status_get command.

Description

Get the status of node chassis

Usage

```
qq node_chassis_status_get [-h] [--node NODE]
```

Flag Name	Required	Description
node	No	Node ID

qq node_state_get

This section explains how to use the qq node_state_get command.

Description

Get the operational state of the node

Usage

qq node_state_get [-h]

qq nodes_list

This section explains how to use the qq nodes_list command.

Description

List nodes

Usage

```
qq nodes_list [-h] [--node NODE]
```

Flag Name	Required	Description
node	No	Node ID

qq protection_status_get

This section explains how to use the qq protection_status_get command.

Description

Get cluster protection status

Usage

qq protection_status_get [-h]

qq quota_create_quota

This section explains how to use the qq quota_create_quota command.

Description

Create a directory quota

Usage

```
qq quota_create_quota [-h] [--path PATH] [--id ID] --limit LIMIT
```

Flag Name	Required	Description
 path	No	Path name
id	No	File ID
 limit	Yes	Quota limit in bytes. Both base-10 and base-2 shorthand names are accepted: GB or GiB, TB or TiB (e.g. 50GB)

qq quota_delete_quota

This section explains how to use the qq quota_delete_quota command.

Description

Delete a directory quota

Usage

```
qq quota_delete_quota [-h] [--path PATH] [--id ID]
```

Flag Name	Required	Description
path	No	Path name
id	No	File ID

qq quota_get_quota

This section explains how to use the qq quota_get_quota command.

Description

Get a directory quota

Usage

```
qq quota_get_quota [-h] [--path PATH] [--id ID]
```

Flag Name	Required	Description
path	No	Path name
id	No	File ID

qq quota_list_quotas

This section explains how to use the qq quota_list_quotas command.

Description

List all directory quotas

Usage

```
qq quota_list_quotas [-h] [--page-size PAGE_SIZE]
```

Flag Nar	ne	Required	Description
page-s	size	No	Max quota entries to return per request

qq quota_update_quota

This section explains how to use the qq quota_update_quota command.

Description

Update a directory quota

Usage

```
qq quota_update_quota [-h] [--path PATH] [--id ID] --limit LIMIT
```

Flag Name	Required	Description
 path	No	Path name
id	No	File ID
 limit	Yes	Quota limit in bytes. Both base-10 and base-2 shorthand names are accepted: GB or GiB, TB or TiB (e.g. 50GB)

qq raw

This section explains how to use the qq raw command.

Description

Issue an HTTP request to a Qumulo REST endpoint. Content for modifying requests (i.e. PATCH, POST, and PUT) can be provided on stdin. Output is provided on stdout.

Usage

qq raw [-h] [--content-type {application/json,application/octet-stream}] {DELETE,GE
T,PATCH,POST,PUT} url

Flags

F	-lag Name	Required	Description
	content- type	No	Content MIME type. Use application/octet-stream for binary input. (Default: application/json)

Positional Options

Option Name	Description
method	HTTP method. PATCH, POST, and PUT accept input on stdin
url	REST endpoint (e.g. /v1/ad/join)

qq reboot_pause

This section explains how to use the qq reboot_pause command.

Description

Pause a cluster-wide reboot

Usage

qq reboot_pause [-h]

qq reboot_resume

This section explains how to use the qq reboot_resume command.

Description

Resume a cluster-wide reboot

Usage

qq reboot_resume [-h]

qq reboot_start

This section explains how to use the qq reboot_start command.

Description

Start a cluster-wide reboot

Usage

```
qq reboot_start [-h] [--rolling] [--num-nodes NUM_NODES_TO_REBOOT] [--force]
```

Flag Name	Required	Description
 rolling	No	Reboot nodes one set at a time, depending on the number of node failures configured in the protection system
num- nodes	No	Using therolling flag lets you specify the number of nodes to reboot at a time. The number of nodes must be greater than 0 and less than or equal to the number of node failures that your cluster permits. By default, this value is the number of permitted node failures minus 1 (1 node minimum).
 force	No	Do not prompt

qq reboot_status

This section explains how to use the qq reboot_status command.

Description

Retrieve status of reboot manager

Usage

qq reboot_status [-h]

qq replace_nodes

This section explains how to use the qq replace_nodes command.

Description

Replace configured nodes by adding nodes to a Qumulo cluster.

Usage

qq replace_nodes [-h] {register_plan,add_nodes_and_replace,get_plan,cancel_plan} \dots

qq replication_abort_object_replication

This section explains how to use the qq replication_abort_object_replication command.

Description

Abort any ongoing replication job for the specified object replication relationship.

Usage

qq replication_abort_object_replication [-h] --id ID

Flag Name	Required	Description
id	Yes	Unique identifier of the object replication relationship

qq replication_abort_replication

This section explains how to use the qq replication_abort_replication command.

Description

Abort ongoing replication work for the specified source replication relationship.

Usage

```
qq replication_abort_replication [-h] --id ID [--skip-active-policy-snapshot {true,f
alse}]
```

Flag Name	Required	Description
id	Yes	Unique identifier of the source replication relationship
skip- active- policy- snapshot	No	If set to true and the currently replicating snapshot was created by a policy, the next replication job will use the next queued snapshot instead of retrying the current one (default: false).

qq replication_add_blackout_window

This section explains how to use the qq replication_add_blackout_window command.

Description

Add a blackout window to the specified source replication relationship.

Usage

```
qq replication_add_blackout_window [-h] --id ID --start-time START_TIME --end-time E ND_TIME --days-of-week DAYS_OF_WEEK
```

Flag Name	Required	Description
id	Yes	Unique identifier of the source replication relationship.
 start- time	Yes	The 24 hour time of day start time for the blackout window (e.g. 15:30). Time is always in the timezone configured on the specified source replication relationship.
end- time	Yes	The 24 hour time of day end time for the blackout window (e.g. 18:30) on the following day if earlier than thestart-time parameter.
days- of- week	Yes	Days of the week the window applies to. Comma separated list (e.g. MON,TUE,WED,THU,FRI,SAT,SUN) or ALL.

qq replication_authorize

This section explains how to use the qq replication_authorize command.

Description

Authorize the specified replication relationship, establishing this cluster as the target of replication.

Usage

qq replication_authorize [-h] --id ID [--allow-non-empty-directory] [--allow-fs-pat h-create]

Flag Name	Required	Description
id	Yes	Unique identifier of the target replication relationship
allow- non-emp- ty-direc- tory	No	Allow the replication relationship to be authorized on a target directory containing existing data. Existing data in the target directory may be deleted or overwritten. If you wish to preserve this data, consider taking a snapshot before authorizing.
allow- fs-path- create	No	Allow the target directory to be created with inherited permissions if it does not already exist

qq replication_create_object_relationship

This section explains how to use the qq replication_create_object_relationship command.

Description

Create an object replication relationship that initiates a copy of file data to or from S3.

Usage

```
qq replication_create_object_relationship [-h] (--local-directory-id LOCAL_DIRECTOR
Y_ID | --local-directory-path LOCAL_DIRECTORY_PATH) --direction
        {COPY_TO_OBJECT,COPY_FROM_OBJECT} [--object-store-address OBJECT_STORE_ADDRESS]
--object-folder OBJECT_FOLDER
        [--use-port USE_PORT] [--ca-certificate CA_CERTIFICATE] --bucket BUCKET
        [--bucket-addressing-style {BUCKET_STYLE_PATH,BUCKET_STYLE_VIRTUAL_HOSTED}] --re
gion REGION --access-key-id ACCESS_KEY_ID
        [--secret-access-key SECRET_ACCESS_KEY]
```

Flag Name	Required	Description
local-di- rectory-id	No	File ID of the qumulo directory
local-di- rectory- path	No	Path of the qumulo directory
direc- tion	Yes	Whether data is to be copied to, or from, the object store.
object- store-ad- dress	No	S3-compatible server address. If omitted, Amazon S3 address s3amazonaws.com will be used.

object- folder	Yes	Folder to use in the object store bucket. A slash separator is automatically used to specify a folder. For example, a folder "example" and a file path (relative to the directory_path) "dir/file" results in key "example/dir/file". Use empty value "" or "/" to replicate with the root of the bucket.
use-port	No	HTTPS port to use when communicating with the object store (default: 443)
ca-cer- tificate	No	Path to a file containing the public certificate of the certificate authority to trust for connections to the object store, in PEM format. If not specified, the built-in trusted public CAs are used.
bucket	Yes	Bucket in the object store to use for this relationship
bucket- addressing- style	No	Addressing style for requests to the bucket. Set to BUCK-ET_STYLE_PATH for path-style addressing or BUCKET_STYLE_VIRTU-AL_HOSTED for virtual hosted-style (the default). For Amazon S3, virtual hosted-style is recommended as path-style will be deprecated. Bucket names containing dots (".") or characters that are not valid in domain names may require path-style. The object-store-address should not include the bucket name, regardless of addressing style.
region	Yes	Region the bucket is located in, e.g., us-west-2
access- key-id	Yes	Access key ID to use when communicating with the object store
secret- access-key	No	Secret access key to use when communicating with the object store

qq replication_create_source_relationship

This section explains how to use the qq replication_create_source_relationship command.

Description

Create a new replication relationship.

Usage

```
qq replication_create_source_relationship [-h] (--source-id SOURCE_ID | --source-pat
h SOURCE_PATH) --target-path TARGET_PATH --target-address TARGET_ADDRESS
     [--target-port TARGET_PORT] [--enable-replication {true, false}] [--set-source-di
rectory-read-only {true, false}]
     [--map-local-ids-to-nfs-ids {true, false}]
```

Flag Name	Required	Description
source-id	No	File ID of the source directory
source-path	No	Path to the source directory
target-path	Yes	Path to the target directory
target-address	Yes	The target IP address
target-port	No	Network port to replicate to on the target (overriding default)

qq replication_delete_blackout_windows

This section explains how to use the qq replication_delete_blackout_windows command.

Description

Delete blackout windows of the specified source replication relationship.

Usage

qq replication_delete_blackout_windows [-h] --id ID

Flag Name	Required	Description
id	Yes	Unique identifier of the source replication relationship

qq replication_delete_object_relationship

This section explains how to use the qq replication_delete_object_relationship command.

Description

Delete the specified object replication relationship, which must not be running a job.

Usage

qq replication delete object relationship [-h] --id ID

Flag Name	Required	Description
id	Yes	Unique identifier of the object replication relationship

qq replication_delete_source_relationship

This section explains how to use the qq replication_delete_source_relationship command.

Description

Delete the specified source replication relationship.

Usage

```
qq replication delete source relationship [-h] --id ID [--force]
```

Flag Name	Required	Description
id	Yes	Unique identifier of the source replication relationship
force	No	Do not prompt

qq replication_delete_target_relationship

This section explains how to use the qq replication_delete_target_relationship command.

Description

Delete the specified target replication relationship.

Usage

```
qq replication_delete_target_relationship [-h] --id ID [--force]
```

Flag Name	Required	Description
id	Yes	Unique identifier of the target replication relationship
force	No	Do not prompt

qq replication_get_object_relationship

This section explains how to use the qq replication_get_object_relationship command.

Description

Get the configuration of the specified object replication relationship.

Usage

qq replication_get_object_relationship [-h] --id ID

Flag Name	Required	Description
id	Yes	Unique identifier of the object replication relationship

qq replication_get_object_relationship_status

This section explains how to use the qq replication_get_object_relationship_status command.

Description

Get current status of the specified object replication relationship.

Usage

qq replication_get_object_relationship_status [-h] --id ID

Flag Name	Required	Description
id	Yes	Unique identifier of the object replication relationship

qq replication_get_source_relationship

This section explains how to use the qq replication_get_source_relationship command.

Description

Get information about the specified source replication relationship.

Usage

qq replication_get_source_relationship [-h] --id ID

Flag Name	Required	Description
id	Yes	Unique identifier of the source replication relationship

qq replication_get_source_relationship_status

This section explains how to use the qq replication_get_source_relationship_status command.

Description

Get current status of the specified source replication relationship.

Usage

qq replication_get_source_relationship_status [-h] --id ID

Flag Name	Required	Description
id	Yes	Unique identifier of the source replication relationship

qq replication_get_target_relationship_status

This section explains how to use the qq replication_get_target_relationship_status command.

Description

Get current target of the specified source replication relationship.

Usage

qq replication_get_target_relationship_status [-h] --id ID

Flag Name	Required	Description
id	Yes	Unique identifier of the target replication relationship

qq replication_link_snapshot_policy

This section explains how to use the qq replication_link_snapshot_policy command.

Description

Link a snapshot policy to a source replication relationship.

Usage

qq replication_link_snapshot_policy [-h] --relationship-id RELATIONSHIP_ID --snapsho
t-policy-id SNAPSHOT_POLICY_ID [-t TARGET_EXPIRATION]

Flag Name	Required	Description
relation- ship-id	Yes	Unique identifier of the source replication relationship.
snapshot- policy-id	Yes	Identifier of the snapshot policy to link.
-t	No	Duration after which to expire snapshots on the target cluster that were replicated from this snapshot policy, in format, where is a positive integer less than 100 and is one of [months, weeks, days, hours, minutes], e.g. 5days or 1hours. 'never' indicates snapshots should never expire and 'same_as_policy' indicates snapshots should expire at the same time as the snapshot policy specifies. (default: same_as_policy)

qq replication_list_object_relationship_statuses

This section explains how to use the qq replication_list_object_relationship_statuses command.

Description

List the statuses for all existing object replication relationships.

Usage

qq replication_list_object_relationship_statuses [-h]

qq replication_list_object_relationships

This section explains how to use the qq replication_list_object_relationships command.

Description

List all the existing object replication relationships.

Usage

qq replication_list_object_relationships [-h]

qq replication_list_queued_snapshots

This section explains how to use the qq replication_list_queued_snapshots command.

Description

List information for all snapshots awaiting replication by the specified source replication relationship.

Usage

```
qq replication_list_queued_snapshots [-h] --id ID
```

Flag Name Required		Description
id	Yes	Unique identifier of the source replication relationship.

qq replication_list_source_relationship_statuses

This section explains how to use the qq replication_list_source_relationship_statuses command.

Description

List statuses for all existing source replication relationships.

Usage

qq replication_list_source_relationship_statuses [-h]

qq replication_list_source_relationships

This section explains how to use the qq replication_list_source_relationships command.

Description

List existing source replication relationships.

Usage

qq replication_list_source_relationships [-h]

qq replication_list_target_relationship_statuses

This section explains how to use the qq replication_list_target_relationship_statuses command.

Description

List statuses for all existing target replication relationships.

Usage

qq replication_list_target_relationship_statuses [-h]

qq replication_make_target_writable

This section explains how to use the qq replication_make_target_writable command.

Description

Revert target directory to the latest recovery point.

Usage

```
qq replication_make_target_writable [-h] --id ID [--force]
```

Flag Name	Required	Description
id	Yes	Unique identifier of the target replication relationship
force	No	Do not prompt

qq replication_modify_source_relationship

This section explains how to use the qq replication_modify_source_relationship command.

Description

Modify an existing source replication relationship.

Usage

```
qq replication_modify_source_relationship [-h] --id ID [--new-target-address NEW_TAR
GET_ADDRESS] [--new-target-port NEW_TARGET_PORT] [-z TIMEZONE]
       [--enable-replication {true,false}] [--set-source-directory-read-only {true,false}]
[--map-local-ids-to-nfs-ids {true,false}]
```

Flag Name	Required	Description
id	Yes	Unique identifier of the source replication relationship
new- target- address	No	The target IP address
new- target- port	No	Network port to replicate to on the target
- Z	No	The timezone for the relationship's blackout windows (e.g. America/Los_Angeles or UTC). See the time_list_timezones qq command for a complete list of supported timezones.

qq replication_reconnect_target_relationship

This section explains how to use the qq replication_reconnect_target_relationship command.

Description

Make the target directory read-only and revert any changes made to the target directory since the latest recovery point. Then reconnect the specified target replication relationship with its source directory. The revert action may take some time to complete before replication is resumed.

Usage

qq replication reconnect target relationship [-h] --id ID [--force]

Flag Name	Required	Description
id	Yes	Unique identifier of the target replication relationship
force	No	Do not prompt

qq replication_release_queued_snapshot

This section explains how to use the qq replication_release_queued_snapshot command.

Description

Release a snapshot queued for replication from the queue of the specified source replication relationship.

Usage

 $\label{lem:continuous} \begin{tabular}{ll} $\tt qq$ replication_release_queued_snapshot [-h] --relationship-id RELATIONSHIP_ID --snap shot-id SNAPSHOT_ID \\ \end{tabular}$

Flag Name	Required	Description
relationship-id	Yes	Unique identifier of the source replication relationship.
snapshot-id	Yes	Unique identifier of the snapshot to release.

qq replication_replicate

This section explains how to use the qq replication_replicate command.

Description

Replicate from the source to the target of the specified relationship.

Usage

```
qq replication_replicate [-h] --id ID
```

Flag Name Required		Description
id	Yes	Unique identifier of the source replication relationship

qq replication_reverse_target_relationship

This section explains how to use the qq replication_reverse_target_relationship command.

Description

Reverse source and target for a replication relationship.

Usage

qq replication_reverse_target_relationship [-h] --id ID --source-address SOURCE_ADDR
ESS [--source-port SOURCE_PORT]

Flag Name	Required	Description
id	Yes	Unique identifier of the target replication relationship
source-address	Yes	The IP address of the current source cluster
source-port	No	Network port of the current source cluster (defaults to 3712)

qq replication_set_snapshot_policy_replication_mod

This section explains how to use the qq replication_set_snapshot_policy_replication_mode command.

Description

Set the replication mode of the specified source replication relationship. This command is only for a relationship that has linked snapshot policies.

Usage

qq replication_set_snapshot_policy_replication_mode [-h] --id ID --mode {REPLICATIO N SNAPSHOT POLICY,REPLICATION SNAPSHOT POLICY WITH CONTINUOUS}

Flag Name Requir		Description	
id	Yes	Unique identifier of the source replication relationship.	
mode	Yes	Replication mode to set.	

qq replication_set_target_relationship_lock

This section explains how to use the qq replication set target relationship lock command.

Description

The key that locks policy-created snapshots for a target replication relationship. Consider the following system behavior: If you don't set a key, the system does not lock the snapshots that the specified target replication relationship creates. The system locks only policy-created snapshots, unless you configure an expiration for the snapshot policy on the target cluster. If you reverse the relationship by switching the source and target, the new target cannot use this lock key and you must set a key for the new target. However, if you revert the relationship by returning the source and target to their original assignments, the system lets you use lock key from the original source-target relationship. If a target replication relationship uses a lock key, you cannot disable or delete the key, unless you reverse the relationship. If you disable or delete a lock key while a target replication relationship is reversed and then return the source and target to their original assignments, you must set a new key.

Usage

qq replication_set_target_relationship_lock [-h] --relationship-id RELATIONSHIP_ID
(-k LOCK KEY | --clear-lock-key)

Flag Name	Required	Description	
relation- ship-id	Yes	The unique identifier of the target replication relationship.	
-k	No	The identifier or name of the lock key to associate with the specified target replication relationship.	
clear- lock-key	No	Disassociate the lock key from this target relationship	

qq replication_start_object_relationship

This section explains how to use the qq replication_start_object_relationship command.

Description

Start a new replication job for an existing object replication relationship

Usage

qq replication_start_object_relationship [-h] --id ID

Flag Name Required		Description
id	Yes	Unique identifier of the object replication relationship

qq replication_unlink_snapshot_policy

This section explains how to use the qq replication_unlink_snapshot_policy command.

Description

Unlink a snapshot policy from a source replication relationship.

Usage

 $\label{lem:continuous} $$qq$ replication_unlink_snapshot_policy [-h] --relationship-id RELATIONSHIP_ID --snapshot_policy-id SNAPSHOT_POLICY_ID$

Flag Name	Required	Description
relationship-id	Yes	Unique identifier of the source replication relationship.
snapshot-policy-id	Yes	Identifier of the snapshot policy to unlink.

qq restriper_status

This section explains how to use the qq restriper_status command.

Description

Get restriper status

Usage

qq restriper_status [-h]

qq rotate_encryption_keys

This section explains how to use the qq rotate_encryption_keys command.

Description

Rotate the at-rest encryption master keys.

Usage

```
qq rotate_encryption_keys [-h] [--key-id KEY_ID | --create-key-with-name KEY_NAME]
```

Flag Name	Required	Description
key-id	No	The unique ID of the master key for at-rest encryption.
create-key-with- name	No	The name of the key that will be created and used for at-rest encryption.

qq s3_abort_upload

This section explains how to use the qq s3_abort_upload command.

Description

Aborts an in-progress S3 upload. This can be applied to both user initiated multi-part uploads, and system initiated uploads that are used in PutObject and CopyObject actions.

Usage

```
qq s3_abort_upload [-h] --bucket BUCKET --upload-id UPLOAD_ID
```

Flag Name	Required	Description
bucket	Yes	The bucket in which the upload was initiated.
upload-id	Yes	The upload to abort.

qq s3_add_bucket

This section explains how to use the qq s3_add_bucket command.

Description

Create an S3 bucket

Usage

```
qq s3_add_bucket [-h] --name NAME [--fs-path FS_PATH] [--create-fs-path]
```

Flag Name	Required	Description	
name	Yes	The name of the bucket to be created	
fs-path	No	The absolute path to be used as the root of the bucket. The user must have permissions to read the directory.	
create- fs-path	No	Creates the bucket root if it does not exist. The user must have permission to create the directory.	

qq s3_bucket_policy_explain_access

This section explains how to use the qq s3_bucket_policy_explain_access command. For more information, see:

- Managing Access Policies for an S3 Bucket in a Qumulo Cluster in the Azure Native Qumulo Administrator Guide
- Managing Access Policies for an S3 Bucket in a Qumulo Cluster in the Qumulo On-Premises Administrator Guide

Description

Details a users access as allowed by the bucket policy

Usage

qq s3_bucket_policy_explain_access [-h] --bucket BUCKET [--auth-id AUTH_ID] [--anony
mous] [identifier]

Flags

Flag Name	Required	Description
bucket	Yes	The bucket for which the access policy will be explained.
auth-id	No	Auth ID of the qumulo user
anonymous	No	An unauthenticated S3 user

Positional Options

Option Name	Description
identifier	An auth_id, SID, or name optionally qualified with a domain prefix (e.g "local:name", "ad:name", "AD\name") or an ID type (e.g. "auth_id:513", "SID:S-1-1-0"). Groups are not supported for access keys, must be a user.

qq s3_create_access_key

This section explains how to use the qq s3_create_access_key command.

Description

Create S3 access key

Usage

```
qq s3_create_access_key [-h] [--auth-id AUTH_ID] [identifier]
```

Flags

Flag Name	Required	Description
auth-id	No	Auth ID of the qumulo user

Positional Options

Option Name	Description
identifier	An auth_id, SID, or name optionally qualified with a domain prefix (e.g "local:name", "ad:name", "AD\name") or an ID type (e.g. "auth_id:513", "SID:S-1-1-0"). Groups are not supported for access keys, must be a user.

qq s3_delete_access_key

This section explains how to use the qq s3_delete_access_key command.

Description

Delete an S3 access key

Usage

```
qq s3_delete_access_key [-h] --id ID
```

Flag Name	Required	Description
id	Yes	The ID of the access key to be deleted

qq s3_delete_bucket

This section explains how to use the qq s3_delete_bucket command.

Description

Delete an S3 bucket

Usage

```
qq s3_delete_bucket [-h] --name NAME [--delete-root-dir]
```

Flag Name	Required	Description
 name	Yes	The name of the bucket to be deleted
delete- root- dir	No	If set to true, the operation will only succeed if the bucket root directory is empty, and the caller has the necessary permissions to unlink it. Otherwise, the directory need not be empty.

qq s3_delete_bucket_policy

This section explains how to use the qq s3_delete_bucket_policy command. For more information, see:

- Managing Access Policies for an S3 Bucket in a Qumulo Cluster in the Azure Native Qumulo Administrator Guide
- Managing Access Policies for an S3 Bucket in a Qumulo Cluster in the Qumulo On-Premises Administrator Guide

Examples

To Delete an Access Policy for an S3 Bucket

A Important

This command removes any existing access policy restrictions.

Run the qq s3_delete_bucket_policy command and use the --bucket flag to specify the name of your S3 bucket. For example:

qq s3_delete_bucket_policy --bucket MyBucket

Description

Remove the access policy stored at **BUCKET**.

Usage

qq s3_delete_bucket_policy [-h] --bucket BUCKET

Flag Name	Required	Description	
bucket	Yes	The target bucket for which the access policy will be removed.	

qq s3_get_bucket

This section explains how to use the qq s3_get_bucket command.

Description

Get details for an S3 bucket

Usage

```
qq s3_get_bucket [-h] --name NAME
```

Flag Name	Required	Description
name	Yes	The name of the bucket to retrieve

qq s3_get_bucket_policy

This section explains how to use the qq s3_get_bucket_policy command. For more information, see:

- Managing Access Policies for an S3 Bucket in a Qumulo Cluster in the Azure Native Qumulo Administrator Guide
- Managing Access Policies for an S3 Bucket in a Qumulo Cluster in the Qumulo On-Premises Administrator Guide

Examples

To Retrieve an Access Policy for an S3 Bucket

Run the qq s3_get_bucket_policy command, and use the --bucket flag to specify the name of your bucket. For example:

qq s3 get bucket policy --bucket MyBucket

Description

Retrieve entries of the access policy json stored at **BUCKET**.

Usage

qq s3_get_bucket_policy [-h] [--bucket BUCKET] [--example]

Flag Name	Required	Description
bucket	No	The target bucket for which the access policy will be retrieved
example	No	Print an example Policy.

qq s3_get_settings

This section explains how to use the qq s3_get_settings command.

Description

Get S3 server settings

Usage

qq s3_get_settings [-h]

qq s3_list_access_keys

This section explains how to use the qq s3_list_access_keys command.

Description

List S3 access keys

Usage

```
qq s3_list_access_keys [-h] [--json]
```

Flag Name	Required	Description
json	No	Output JSON instead of table.

qq s3_list_buckets

This section explains how to use the qq s3_list_buckets command.

Description

List all S3 buckets

Usage

```
qq s3_list_buckets [-h] [--json]
```

Flag Name	Required	Description
json	No	Output JSON instead of table

qq s3_list_uploads

This section explains how to use the qq s3_list_uploads command.

Description

List in-progress S3 uploads. This includes user initiated multi-part uploads, and system initiated uploads that are used in PutObject and CopyObject actions.

Usage

```
qq s3_list_uploads [-h] --bucket BUCKET [--starts-with STARTS_WITH]
```

Flag Name	Required	Description
bucket	Yes	The bucket for which uploads should be listed.
starts-with	No	Only output uploads for keys that start with the given string

qq s3_modify_bucket_policy

This section explains how to use the qq s3_modify_bucket_policy command. For more information, see:

- Managing Access Policies for an S3 Bucket in a Qumulo Cluster in the Azure Native Qumulo Administrator Guide
- Managing Access Policies for an S3 Bucket in a Qumulo Cluster in the Qumulo On-Premises Administrator Guide

Examples

To Modify a Statement in an Access Policy for an S3 Bucket

Run the qq s3_modify_bucket_policy command and use the --bucket flag to specify the name of the S3 bucket. For the modify_statement subcommand:

- Use the --index flag to specify the index of the statement to modify.
- Use the --type flag to specify the statement type.
- Use the --sid flag to specify the security identifier.
- Use the --new-principals flag to specify a comma-separated list of principals (with which to replace the existing ones), enclosed in quotation marks (").
- Use the --new-actions flag to specify a comma-separated list of S3 API actions (wih which to replace the existing ones), enclosed in quotation marks (").

For example:

```
qq s3_modify_bucket_policy --bucket AnotherBucket \
    modify_statement --index 1 \
    --type Deny \
    --sid DenyGuest \
    --new-principals "Authenticated Users" \
    --new-actions "s3:PutBucketPolicy"
```

To Append a Statement to an Access Policy for an S3 Bucket

Run the qq s3_modify_bucket_policy command and use the --bucket flag to specify the name of the S3 bucket. For the append_statement subcommand:

- · Use the --type flag to specify the statement type.
- Use the --sid flag to specify the security identifier.
- Use the --principals flag to specify a comma-separated list of principals, enclosed in quotation marks (").

• Use the --actions flag to specify a comma-separated list of S3 API actions, enclosed in quotation marks (").

For example:

```
qq s3_modify_bucket_policy --bucket MyBucket \
    append_statement --type Allow \
    --sid AllowGuest \
    --principals "local:guest,local:Mary" \
    --actions "s3:GetBucketPolicy,s3:AbortMultipartUpload"
```

To Delete a Statement from an Access Policy for an S3 Bucket

Run the qq s3_modify_bucket_policy command and use the --bucket flag to specify the name of the S3 bucket. For the delete_statement subcommand, use the --index flag to specify the index of the statement to delete. For example:

```
qq s3_modify_bucket_policy --bucket MyBucket \
  delete_statement --index 2
```

Description

Modify the access policy for -bucket.

Usage

```
qq s3_modify_bucket_policy [-h] --bucket BUCKET [--allow-remove-self] {delete_statem
ent,append_statement,modify_statement} ...
```

Flag Name	Required	Description
bucket	Yes	The bucket whose policy will be modified.
allow-remove- self	No	Allow the policy set to remove the ability for this user to change the policy.

qq s3_modify_settings

This section explains how to use the qq s3_modify_settings command.

Description

Modify S3 server settings

Usage

```
qq s3_modify_settings [-h] [--disable | --enable] [--base-path BASE_PATH] [--multipa
rt-upload-expiry-interval MULTIPART_UPLOAD_EXPIRY_INTERVAL] [--secure | --insecure]
```

Flag Name	Required	Description
dis- able	No	Disable S3 server
enable	No	Enable S3 server
base- path	No	The directory which will be the parent of all buckets created without an explicitly specified path.
multi- part-up- load-ex- piry-in- terval	No	If a multipart upload is not modified in this amount of time, it is considered stale and may be cleaned up automatically. The duration must be in the format where is a positive integer less than 100 and is one of [months, weeks, days, hours] (e.g. 5days). To disable automatic cleanup, specify 'never' for the duration.
secure	No	Configure the S3 server to only accept HTTPS connections
inse- cure	No	Configure the S3 server to only accept HTTP connections

qq s3_set_bucket_policy

This section explains how to use the qq s3_set_bucket_policy command. For more information, see:

- Managing Access Policies for an S3 Bucket in a Qumulo Cluster in the Azure Native Qumulo Administrator Guide
- Managing Access Policies for an S3 Bucket in a Qumulo Cluster in the Qumulo On-Premises Administrator Guide

Examples

To Configure an Access Policy for an S3 Bucket

Run the qq s3_set_bucket_policy command, use the --bucket flag to specify the name of your bucket and the --file flag to specify the JSON file with the access policy. For example:

```
qq s3 set bucket policy --bucket MyBucket --file mypolicy.json
```

Description

Upload the access policy json stored at -file to -bucket.

Usage

```
qq s3_set_bucket_policy [-h] --bucket BUCKET --file FILE [--allow-remove-self]
```

Flag Name	Required	Description
bucket	Yes	The target bucket who's policy will be set.
file	Yes	The policy file to upload. Use s3_get_bucket_policyexample to get a policy template.
allow-re- move-self	No	Allow the policy set to remove the ability for this user to change the policy.

qq saml_get_settings

This section explains how to use the qq saml_get_settings command.

Description

Get cluster SAML configuration

Usage

qq saml_get_settings [-h]

qq saml_modify_settings

This section explains how to use the qq saml_modify_settings command.

Description

Modify cluster SAML configuration

Usage

```
qq saml_modify_settings [-h] [--disable | --enable] [--idp-sso-url IDP_SSO_URL] [--i
dp-certificate IDP_CERTIFICATE | --idp-certificate-file IDP_CERTIFICATE_FILE]
        [--idp-entity-id IDP_ENTITY_ID] [--cluster-dns-name CLUSTER_DNS_NAME] [--requir
e-sso {true, false}]
```

Flag Name	Required	Description
disable	No	Disable authentication via SAML
enable	No	Enable authentication via SAML
idp-sso- url	No	Sets the cluster's configured IDP SSO URL.
idp-cer- tificate	No	Sets the cluster's configured IDP public key with the given value in PEM format.
idp-cer- tificate- file	No	Sets the cluster's configured IDP public key from a PEM file.
idp-enti- ty-id	No	Sets the URI for the IDP this cluster trusts to authenticate users via SAML.
cluster- dns-name	No	Sets the cluster's configured DNS name (must be FQDN).
require- sso	No	If set, requires SSO for Active Directory (AD) users to be able to manage this cluster. The cluster rejects password-based authentication from AD users of the Qumulo Core Web UI, qq CLI, and REST API. This setting does not restrict access over file protocols such as SMB.

qq set_cluster_conf

This section explains how to use the qq set_cluster_conf command.

Description

Set the cluster config

Usage

```
qq set_cluster_conf [-h] --cluster-name CLUSTER_NAME
```

Flag Name	Required	Description
cluster-name	Yes	Cluster Name

qq set_monitoring_conf

This section explains how to use the qq set_monitoring_conf command.

Description

Update monitoring configuration.

Usage

```
qq set_monitoring_conf [-h] [--enabled | --disabled] [--vpn-enabled | --vpn-disable
d] [--mq-host MQ_HOST] [--mq-port MQ_PORT] [--mq-proxy-host MQ_PROXY_HOST]
        [--mq-proxy-port MQ_PROXY_PORT] [--s3-proxy-host S3_PROXY_HOST] [--s3-proxy-por
t S3_PROXY_PORT] [--s3-proxy-disable-https] [--all-proxy-host HOST]
        [--all-proxy-port PORT] [--period PERIOD] [--vpn-host VPN_HOST] [--nexus-enable
d | --nexus-disabled] [--nexus-host NEXUS_HOST]
        [--nexus-port NEXUS_PORT] [--nexus-interval NEXUS_INTERVAL]
```

Flag Name	Required	Description
enabled	No	Enable monitoring service.
disabled	No	Disable monitoring service.
vpn-enabled	No	Enable support VPN.
vpn-disabled	No	Disable support VPN.
mq-host	No	Specify MQ host name or IP.
mq-port	No	Optional MQ service port.
mq-proxy-host	No	Optional MQ proxy host.
mq-proxy-port	No	Optional MQ proxy port.
s3-proxy-host	No	Optional S3 proxy host.
s3-proxy-port	No	Optional S3 proxy port.
s3-proxy-disable-https	No	Optional S3 proxy disable HTTPS.
all-proxy-host	No	Optional Set both MQ and S3 proxy host to HOST.

all-proxy-port	No	Optional Set both MQ and S3 proxy port to PORT.
period	No	Monitoring poll interval in seconds.
vpn-host	No	Support VPN host name or IP.
nexus-enabled	No	Enable Nexus monitoring.
nexus-disabled	No	Disable Nexus monitoring.
nexus-host	No	Optional nexus host.
nexus-port	No	Optional nexus port.
nexus-interval	No	Nexus poll interval in seconds.

qq set_node_identify_light

This section explains how to use the qq set_node_identify_light command.

Description

Turn node identification light on or off

Usage

```
qq set_node_identify_light [-h] --node NODE {on,off}
```

Flags

Flag Name	Required	Description
node	Yes	Node ID

Positional Options

Option Name	Description
light_state	Should light be visible

qq smb_add_share

This section explains how to use the qq smb_add_share command.

Description

Add a new SMB share

Usage

```
qq smb_add_share [-h] [--tenant-id TENANT_ID] --name NAME --fs-path FS_PATH [--descr
iption DESCRIPTION] [--access-based-enumeration-enabled {true,false}]
    [--create-fs-path] [--default-file-create-mode DEFAULT_FILE_CREATE_MODE] [--defa
ult-directory-create-mode DEFAULT_DIRECTORY_CREATE_MODE]
    [--require-encryption {true,false}] [--json] [--no-access | --read-only | --all-
access] [--grant-read-access TRUSTEE [TRUSTEE ...]]
    [--grant-read-write-access TRUSTEE [TRUSTEE ...]] [--grant-all-access TRUSTEE [T
RUSTEE ...]] [--deny-access TRUSTEE [TRUSTEE ...]]
    [--full-control-hosts IP/RANGE [IP/RANGE ...]] [--read-only-hosts IP/RANGE [IP/R
ANGE ...]] [--deny-hosts IP/RANGE [IP/RANGE ...]] [--deny-all-hosts]
```

Flag Name	Required	Description
tenant- id	No	The ID of the tenant to which to add the share.
name	Yes	Name of share.
fs-path	Yes	File system path.
descrip- tion	No	Description of this share.
access- based-enu- meration-en- abled	No	Enable Access-Based Enumeration for this share.
create- fs-path	No	Creates the specified file system path if the path does not exist already.

default- file-create- mode	No	Change the default POSIX file create mode bits (octal) for the specified SMB share. These mode bits are applied to new files as they are created. Note: If an inheritable ACE is present in the permissions ACL, this flag has no effect.
default- directory- create-mode	No	Change the default POSIX directory create mode bits (octal) for the specified SMB share. These mode bits are applied to new directories as they are created. Note: If an inheritable ACE is present in the permissions ACL, this flag has no effect.
require- encryption	No	Require encryption for all traffic for the specified share. When set to true, clients without encryption capability cannot connect to this share.
json	No	Print the raw JSON response.
no-ac- cess	No	Grant no access.
read-on- ly	No	Grant everyone except guest read-only access.
all-ac- cess	No	Grant everyone except guest full access.
grant- read-access	No	Grant read access to the specified trustees. For example: Everyone, uid:1000, gid:1001, sid:S-1-5-2-3-4, auth_id:500
grant- read-write- access	No	Grant read-write access to these trustees.
grant- all-access	No	Grant all access to these trustees.
deny-ac- cess	No	Deny all access to these trustees.
full-con- trol-hosts	No	The host addresses or subnet ranges for which access to to this share are not limited by network permissions. Access may still be limited by share and file permissions.
read-on- ly-hosts	No	Address ranges which should be permitted read-only access at most.

deny- hosts	No	The host addresses or subnet ranges for which access to the specified share is denied, regardless of other permissions. Important: Because using this flag alone results in all hosts being denied, use the correctfull-control-hosts orread-only-hosts flags as necessary.
deny-all- hosts	No	Deny all access to this share. Important: To avoid configuration issues, do not apply this flag alongside any others.

qq smb_close_file_handle

This section explains how to use the qq smb_close_file_handle command.

Description

Force-close the specified SMB file handle

Usage

```
qq smb_close_file_handle [-h] --location LOCATION
```

Flag Name	Required	Description
loca- tion	Yes	The location of the file handle to close as returned from smb_list_file_handles.

qq smb_close_sessions

This section explains how to use the qq smb_close_sessions command.

Description

Force close SMB sessions matching one or more of a set of filters.

Usage

```
qq smb_close_sessions [-h] [--identity IDENTITY] [--location LOCATION] [--ip IP]
```

Flag Name	Required	Description
iden- tity	No	Close only the sessions that match the specified user's identity in one of the following forms: a name or a SID optionally qualified with a domain prefix (for example, "local:name", "S-1-1-0", "name", "world:Everyone", "ldap_user:name", "ad:name"), or an ID type (for example, "uid:1001", "auth_id:513", "SID:S-1-1-0").
loca- tion	No	Use the list of sessions from the smb_list_sessions command to close only the session with the specified location.
ip	No	Close only the sessions that originate from the specified IP address.

qq smb_delete_share

This section explains how to use the qq smb_delete_share command.

Description

Delete a share

Usage

```
qq smb_delete_share [-h] (--id ID | --name NAME) [--tenant-id TENANT_ID]
```

Flag Name	Required	Description
id	No	ID of share to delete.
name	No	Name of share to delete.
ten- ant-id	No	The ID of the tenant from which to delete the share. Use this flag only if you also use thename flag.

qq smb_get_settings

This section explains how to use the qq smb_get_settings command.

Description

Get SMB settings

Usage

qq smb_get_settings [-h]

qq smb_list_file_handles

This section explains how to use the qq smb_list_file_handles command.

Description

List SMB open file handles

Usage

```
qq smb_list_file_handles [-h] [--page-size PAGE_SIZE] [--file-number FILE_NUMBER]
[-p] [--path PATH]
```

Flag Name	Required	Description
page- size	No	Max files to return per request.
file- number	No	Limits results to the specified file, as returned from a command like fs_file_get_attr or fs_read_dir.
- p	No	Returns the primary path of the opened file.
path	No	Path to file

qq smb_list_sessions

This section explains how to use the qq smb_list_sessions command.

Description

List SMB open sessions

Usage

```
qq smb_list_sessions [-h] [--page-size PAGE_SIZE] [--identity IDENTITY]
```

Flag Name	Required	Description
page- size	No	Max sessions to return per request
iden- tity	No	List only the sessions that match the specified user's identity in one of the following forms: a name or a SID optionally qualified with a domain prefix (for example, "local:name", "S-1-1-0", "name", "world:Everyone", "ldap_user:name", "ad:name"), or an ID type (for example, "uid:1001", "auth_id:513", "SID:S-1-1-0").

qq smb_list_share

This section explains how to use the qq smb_list_share command.

Description

List a share

Usage

```
qq smb_list_share [-h] (--id ID | --name NAME) [--tenant-id TENANT_ID] [--json]
```

Flag Name	Required	Description
id	No	ID of share to list.
name	No	Name of share to list.
tenant- id	No	ID of the tenant to get the share from. Only used if using thename argument.
json	No	Print the raw JSON response.

qq smb_list_shares

This section explains how to use the qq smb_list_shares command.

Description

List all SMB shares

Usage

```
qq smb_list_shares [-h] [--json] [--populate-trustee-names]
```

Flag Name	Required	Description
json	No	Print JSON representation of shares.
populate-trustee-names	No	Populate trustee names in the response.

qq smb_mod_share

This section explains how to use the qq smb_mod_share command.

Description

Modify a share

Usage

```
qq smb_mod_share [-h] (--id ID | --name NAME) [--tenant-id TENANT_ID] [--new-name NE
W_NAME] [--new-tenant-id NEW_TENANT_ID] [--fs-path FS_PATH]
        [--description DESCRIPTION] [--access-based-enumeration-enabled {true,false}]
[--create-fs-path] [--default-file-create-mode DEFAULT_FILE_CREATE_MODE]
        [--default-directory-create-mode DEFAULT_DIRECTORY_CREATE_MODE] [--require-encry
ption {true,false}] [--json]
        [--full-control-hosts IP/RANGE [IP/RANGE ...]] [--read-only-hosts IP/RANGE [IP/RANGE ...]]
```

Flag Name	Required	Description
id	No	The ID of the share to modify.
name	No	The name of the share to modify.
tenant- id	No	ID of the tenant the share is in. Only used if using thename argument.
new-name	No	Change SMB share name.
new-ten- ant-id	No	Change the tenant that the share is in.
fs-path	No	Change file system path.
descrip- tion	No	Change share description.
access- based-enu- meration-en- abled	No	Enable Access-Based Enumeration for this share.

No	
	Creates the specified file system path if the path does not exist already.
No	Change the default POSIX file create mode bits (octal) for the specified SMB share. These mode bits are applied to new files as they are created. Note: If an inheritable ACE is present in the permissions ACL, this flag has no effect.
No	Change the default POSIX directory create mode bits (octal) for the specified SMB share. These mode bits are applied to new directories as they are created. Note: If an inheritable ACE is present in the permissions ACL, this flag has no effect.
No	Require all traffic for this share to be encrypted. If true, clients without encryption capabilities will not be able to connect.
No	Print the raw JSON response.
No	The host addresses or subnet ranges for which access to to this share are not limited by network permissions. Access may still be limited by share and file permissions.
No	Address ranges which should be permitted read-only access at most.
No	The host addresses or subnet ranges for which access to the specified share is denied, regardless of other permissions. Important: Because using this flag alone results in all hosts being denied, use the correctfull-control-hosts orread-only-hosts flags as necessary.
No	Deny all access to this share. Important: To avoid configuration issues, do not apply this flag alongside any others.
	No No No No No No

qq smb_mod_share_permissions

This section explains how to use the qq smb_mod_share_permissions command.

Description

Modify a share's permissions

Usage

```
qq smb_mod_share_permissions [-h] (--id ID | --name NAME) [--tenant-id TENANT_ID]
[--json] {add_entry,remove_entry,modify_entry,replace} ...
```

Flag Name	Required	Description
id	No	The ID of the share to modify.
name	No	The name of the share to modify.
ten- ant-id	No	The ID of the tenant from which to delete the share. Use this flag only if you also use thename flag.
json	No	Print the raw JSON response.

qq smb_modify_settings

This section explains how to use the qq smb_modify_settings command.

Description

Set SMB server settings

Usage

```
qq smb_modify_settings [-h] [-e {none,preferred,required}] [-d dialect_1 [dialect_2
...]] [--hide-shares-from-unauthorized-hosts {true,false}]
    [--hide-shares-from-unauthorized-users {true,false}] [--snapshot-directory-mode
{visible,hidden,disabled}]
    [--bypass-traverse-checking {true,false}] [--signing-required {true,false}]
```

Flag Name	Required	Description
-e	No	Server encryption mode to set
- d	No	Specify a space-separated list of SMB dialects that clients are permitted to negotiate. To disable SMB, specify -d "". Available dialects: smb2_dialect_2_002, smb2_dialect_2_1, smb2_dialect_3_0, smb2_dialect_3_11. Alternatively, use -d ALL to allow all supported dialects.
hide- shares-from- unauthorized- hosts	No	Configure share listing to omit shares to which the requesting host isn't authorized to connect.
hide- shares-from- unauthorized- users	No	Configure share listing to omit shares to which the requesting user isn't authorized to connect. Important: Clients which don't have passwordless authentication typically list shares by using guest privileges. This flag typically hides all shares from this client type.

snapshot- directory- mode	No	When you set this flag to visible, the .snapshot directory appears at the root of shares during directory listing operations. The .snapshot directory is also accessible by name in any directory. When you set this flag to hidden, .snapshot directories do not appear in directory listings but remains accessible by name. When you set this flag to disabled, .snapshot directories are not accessible and snapshots are available only through the Restore Previous Versions dialog box on Windows.
bypass- traverse- checking	No	Enables bypass traverse checking for all users and directories. For example, a user who tries to access directory /x/y and has permissions to the /x directory but not to the /x/y directory can access the /x/y directory. A user still requires permissions to the /x directory to view its contents.
signing- required	No	If the user is not a guest, require all messages to be signed. This flag applies to all SMB shares.

qq snapshot_calculate_used_capacity

This section explains how to use the qq snapshot_calculate_used_capacity command.

Description

Get the space used by the snapshots specified.

Usage

qq snapshot_calculate_used_capacity [-h] [-i IDS]

Flag Name	Required	Description
-i	No	Identifiers of the snapshots for which to calculate capacity usage (as a comma separated list).

qq snapshot_create_policy

This section explains how to use the qq snapshot_create_policy command.

Description

Create a new snapshot scheduling policy.

Usage

qq snapshot_create_policy [-h] {hourly_or_less,daily,monthly} ...

qq snapshot_create_snapshot

This section explains how to use the qq snapshot_create_snapshot command.

Description

Create a new snapshot

Usage

```
qq snapshot_create_snapshot [-h] [--source-file-id SOURCE_FILE_ID | --path PATH]
[-e EXPIRATION] [-n NAME]
```

Flag Name	Required	Description
source- file- id	No	ID of directory to snapshot
path	No	Path of directory to snapshot
-е	No	Time of snapshot expiration. An empty string indicates that the snapshot never expires. The time format follows RFC 3339, a normalized subset of ISO 8601.
-n	No	Snapshot name

qq snapshot_delete_policy

This section explains how to use the qq snapshot_delete_policy command.

Description

Delete a single scheduling policy

Usage

qq snapshot_delete_policy [-h] -i ID

Flag Name	Required	Description
-i	Yes	Identifier of the snapshot policy to delete.

qq snapshot_delete_snapshot

This section explains how to use the qq snapshot_delete_snapshot command.

Description

Delete a single snapshot

Usage

```
qq snapshot_delete_snapshot [-h] -i ID
```

Flag Name	Required	Description
-i	Yes	Snapshot ID

qq snapshot_diff

This section explains how to use the qq snapshot_diff command.

Description

List the changed files and directories between two snapshots.

Usage

```
qq snapshot_diff [-h] --newer-snapshot NEWER_SNAPSHOT --older-snapshot OLDER_SNAPSHO
T [--page-size PAGE_SIZE]
```

Flag Name	Required	Description
newer-snapshot	Yes	Snapshot ID of the newer snapshot
older-snapshot	Yes	Snapshot ID of the older snapshot
page-size	No	Max snapshot diff entries to return per request

qq snapshot_file_diff

This section explains how to use the qq snapshot_file_diff command.

Description

List changed byte ranges of a file between two snapshots.

Usage

```
qq snapshot_file_diff [-h] --newer-snapshot NEWER_SNAPSHOT --older-snapshot OLDER_SN APSHOT (--path PATH \mid --file-id FILE_ID) [--page-size PAGE_SIZE]
```

Flag Name	Required	Description
newer-snapshot	Yes	Snapshot ID of the newer snapshot
older-snapshot	Yes	Snapshot ID of the older snapshot
path	No	Path to file
file-id	No	File ID
page-size	No	Maximum number of entries to return per request

qq snapshot_get_capacity_used_per_snapshot

This section explains how to use the qq snapshot_get_capacity_used_per_snapshot command.

Description

Get the approximate amount of space for each snapshot that would be reclaimed if that snapshot were deleted.

Usage

qq snapshot_get_capacity_used_per_snapshot [-h] [-i ID]

Flag Name	Required	Description
-i	No	If set, will return capacity usage of the snapshot with the specified id. If omitted, will return capacity usage of all snapshots.

qq snapshot_get_policy

This section explains how to use the qq snapshot_get_policy command.

Description

Get a single policy

Usage

qq snapshot_get_policy [-h] -i ID

Flag Name	Required	Description
-i	Yes	Identifier of the snapshot policy to list.

qq snapshot_get_policy_status

This section explains how to use the qq snapshot_get_policy_status command.

Description

Get a single snapshot policy status

Usage

qq snapshot_get_policy_status [-h] -i ID

Flag Name	Required	Description
-i	Yes	Identifier of the snapshot policy.

qq snapshot_get_snapshot

This section explains how to use the qq snapshot_get_snapshot command.

Description

==SUPPRESS==

Usage

qq snapshot_get_snapshot [-h] -i ID

Flag Name	Required	Description
-i	Yes	The identifier of the snapshot to list.

qq snapshot_get_status

This section explains how to use the qq snapshot_get_status command.

Description

Get the information for a single snapshot.

Usage

qq snapshot_get_status [-h] -i ID

Flag Name	Required	Description
-i	Yes	The identifier of the snapshot to list.

qq snapshot_get_total_used_capacity

This section explains how to use the qq snapshot_get_total_used_capacity command.

Description

Get the total space consumed by all snapshots.

Usage

qq snapshot_get_total_used_capacity [-h]

qq snapshot_get_unlock_challenge

This section explains how to use the qq snapshot_get_unlock_challenge command.

Description

Get a security challenge for unlocking a snapshot.

Usage

qq snapshot_get_unlock_challenge [-h] -i ID

Flag Name	Required	Description
-i	Yes	The identifier of the snapshot to unlock.

qq snapshot_list_policies

This section explains how to use the qq snapshot_list_policies command.

Description

List all policies

Usage

qq snapshot_list_policies [-h]

qq snapshot_list_policy_statuses

This section explains how to use the qq snapshot_list_policy_statuses command.

Description

List all snapshot policy statuses

Usage

qq snapshot_list_policy_statuses [-h]

qq snapshot_list_snapshots

This section explains how to use the qq snapshot_list_snapshots command.

Description

==SUPPRESS==

Usage

```
qq snapshot_list_snapshots [-h] [--exclude-in-delete | --only-in-delete]
```

Flag Name	Required	Description
exclude-in- delete	No	Exclude all snapshots in process of being deleted from the list
only-in-delete	No	Display only snapshots in process of being deleted.

qq snapshot_list_statuses

This section explains how to use the qq snapshot_list_statuses command.

Description

List the information for every snapshot.

Usage

```
qq snapshot_list_statuses [-h] [--exclude-in-delete | --only-in-delete] [--exclude-l
ocked | --only-locked]
```

Flag Name	Required	Description
ex- clude-in- delete	No	Exclude all snapshots in process of being deleted from the list. You can use this flag together with theexclude-locked oronly-locked flag.
only- in- delete	No	Display only snapshots in process of being deleted. You can use this flag together with theexclude-locked oronly-locked flag.
ex- clude- locked	No	Exclude all locked snapshots from the list. You can use this flag together with theexclude-in-delete oronly-in-delete flag.
only- locked	No	List only locked snapshots. You can use this flag together with theex-clude-in-delete oronly-in-delete flag.

qq snapshot_lock_snapshot

This section explains how to use the qq snapshot_lock_snapshot command.

Description

Lock a snapshot.

Usage

```
qq snapshot_lock_snapshot [-h] -i ID [-f] -k LOCK_KEY
```

Flag Name	Required	Description
-i	Yes	The identifier of the snapshot to lock.
- f	No	Do not prompt for confirmation. The default setting is "false".
-k	Yes	The identifier or name of the key in the file system key store that protects the snapshot. Important: You must specify either the name or the identifier of the key.

qq snapshot_modify_policy

This section explains how to use the qq snapshot_modify_policy command.

Description

Modify an existing snapshot scheduling policy.

Usage

qq snapshot_modify_policy [-h] {modify_non_schedule_fields,change_to_hourly_or_les s,change_to_daily,change_to_monthly} ...

qq snapshot_modify_snapshot

This section explains how to use the qq snapshot_modify_snapshot command.

Description

Modify an existing snapshot

Usage

```
qq snapshot_modify_snapshot [-h] -i ID [-e EXPIRATION] [-f]
```

Flag Name	Required	Description
-i	Yes	Identifier of the snapshot to modify.
-e	No	Time of snapshot expiration. An empty string indicates that the snapshot never expires. The time format follows RFC 3339, a normalized subset of ISO 8601.
-f	No	Do not prompt for confirmation. The default setting is "false".

qq snapshot_unlock_snapshot

This section explains how to use the qq snapshot_unlock_snapshot command.

Description

Unlock a snapshot.

Usage

```
qq snapshot_unlock_snapshot [-h] -i ID (-s SIGNATURE | -k PRIVATE_KEY_FILE)
```

Flag Name	Required	Description
-i	Yes	The identifier of the snapshot to unlock.
- S	No	The verification signature of the security challenge from the output of the qq snapshot_get_unlock_challenge command.
-k	No	The location of the private key file that locks the snapshot.

qq ssl_delete_ca_certificate

This section explains how to use the qq ssl_delete_ca_certificate command.

Description

Delete SSL CA certificate. This certificate is used to authenticate connections to external LDAP servers.

Usage

qq ssl_delete_ca_certificate [-h]

qq ssl_get_ca_certificate

This section explains how to use the qq ssl_get_ca_certificate command.

Description

Get SSL CA certificate. This certificate is used to authenticate connections to external LDAP servers.

Usage

qq ssl_get_ca_certificate [-h]

qq ssl_modify_ca_certificate

This section explains how to use the qq ssl_modify_ca_certificate command.

Description

Set SSL CA certificate. This certificate is used to authenticate connections to external LDAP servers.

Usage

qq ssl_modify_ca_certificate [-h] -c CERTIFICATE

Flag Name	Required	Description
- C	Yes	SSL CA certificate file in PEM format

qq ssl_modify_certificate

This section explains how to use the qq ssl_modify_certificate command.

Description

Set the SSL certificate chain and private key for the Qumulo Core Web UI and REST servers

Usage

qq ssl_modify_certificate [-h] -c CERTIFICATE -k PRIVATE_KEY

Flag Name	Required	Description
- C	Yes	SSL certificate chain in PEM format. Must contain entire certificate chain up to the root CA
-k	Yes	RSA private key file in PEM format

qq sso_login

This section explains how to use the qq sso_login command.

Description

Perform an interactive SAML single sign-on (SSO) authentication process for the cluster.

Usage

qq sso_login [-h]

qq static_ip_allocation

This section explains how to use the qq static_ip_allocation command.

Description

Get cluster-wide static IP allocation

Usage

```
qq static_ip_allocation [-h] [--try-ranges TRY_RANGES] [--try-netmask TRY_NETMASK]
[--try-floating-ranges TRY_FLOATING_RANGES]
```

Flag Name	Required	Description
try-ranges	No	Specify ip range list to try (e.g. '1.1.1.10-12,10.20.5.0/24'
try-netmask	No	Specify netmask to apply when usingtry-range option
try-floating- ranges	No	Specify floating ip range list to try (e.g. '1.1.1.10-12,10.20.5.0/ 24'

qq time_get

This section explains how to use the qq time_get command.

Description

Get time configuration.

Usage

qq time_get [-h]

qq time_list_timezones

This section explains how to use the qq time_list_timezones command.

Description

List timezones supported by QC

Usage

qq time_list_timezones [-h]

qq time_series_get

This section explains how to use the qq time_series_get command.

Description

Get specified time series data.

Usage

```
qq time_series_get [-h] [-b BEGIN_TIME] [--csv]
```

Flag Name	Required	Description
-b	No	Begin time for time series intervals, in epoch seconds
CSV	No	Format output as Comma Separated Values

qq time_set

This section explains how to use the qq time_set command.

Description

Set time configuration.

Usage

```
qq time_set [-h] [--set-use-ad] [--unset-use-ad] [--ntp-servers NTP_SERVERS]
```

Flag Name	Required	Description
set-use-ad	No	Use Active Directory controller for NTP.
unset-use-ad	No	Don't use Active Directory controller for NTP.
ntp-servers	No	Set of NTP servers specified as comma delimited list.

qq time_status

This section explains how to use the qq time_status command.

Description

Get time configuration status.

Usage

qq time_status [-h]

qq tree_delete_cancel

This section explains how to use the qq tree_delete_cancel command.

Description

Cancel delete job

Usage

```
qq tree_delete_cancel [-h] id
```

Positional Options

Option Name	Description
id	Directory id

qq tree_delete_create

This section explains how to use the qq tree_delete_create command.

Description

Create delete job

Usage

```
qq tree_delete_create [-h] [--force] id
```

Flags

Flag Name		Description
 force	No	Bypass path confirmation. WARNING! Tree delete can be canceled with tree_delete_cancel, but already deleted items cannot be recovered.

Positional Options

Option Name	Description	
id	Directory id or path	

qq tree_delete_get

This section explains how to use the qq tree_delete_get command.

Description

Get information about one delete job

Usage

```
qq tree_delete_get [-h] [--json] id
```

Flags

Flag Name	Required	Description
json	No	Output JSON instead of table.

Positional Options

Option Name	Description
id	Directory id

qq tree_delete_list

This section explains how to use the qq tree_delete_list command.

Description

Get information about all tree delete jobs

Usage

```
qq tree_delete_list [-h] [--json]
```

Flag Name	Required	Description
json	No	Output JSON instead of table.

qq unconfigured_nodes_list

This section explains how to use the qq unconfigured_nodes_list command.

Description

Get the list of unconfigured nodes

Usage

qq unconfigured_nodes_list [-h] [--table]

Flag Name	Required	Description
table	No	Print output as a table, instead of JSON

qq unconfigured_upgrade_config

This section explains how to use the qq unconfigured_upgrade_config command.

Description

List current upgrade prepare config for an unconfigured node

Usage

qq unconfigured_upgrade_config [-h]

qq unconfigured_upgrade_config_set

This section explains how to use the qq unconfigured_upgrade_config_set command.

Description

Upgrade on an unconfigured node with the FS path to an upgrade image

Usage

```
qq unconfigured_upgrade_config_set [-h] --path PATH [--target TARGET]
```

Flag Name	Required	Description
path	Yes	FS path to upgrade image
target	No	Target: idle, prepare, arm.

qq unconfigured_upgrade_status

This section explains how to use the qq unconfigured_upgrade_status command.

Description

List the current upgrade status for an unconfigured node

Usage

```
qq unconfigured_upgrade_status [-h] [--wait-until-prepared]
```

Flag Name	Required	Description
wait-until-pre- pared	No	Monitor the upgrade status until the PREPARING state is complete.

qq upgrade_blocked

This section explains how to use the qq upgrade_blocked command.

Description

Get information on whether and for what reason an upgrade is blocked

Usage

qq upgrade_blocked [-h]

qq upgrade_cluster

This section explains how to use the qq upgrade_cluster command.

Description

Run a cluster upgrade to the image specified by the provided path

Usage

```
qq upgrade_cluster [-h] [--path PATH] [--no-monitor] [--rolling] [--num-nodes-to-reb
oot NO_COMMAND_NUM_NODES_TO_REBOOT] {prepare,commit} ...
```

Flag Name	Required	Description
path	No	FS path to upgrade image
no- monitor	No	Skip monitoring the upgrade
num- nodes- to-re- boot	No	Using therolling flag lets you specify the number of nodes to reboot at a time. The number of nodes must be greater than 0 and less than or equal to the number of node failures that your cluster permits. By default, this value is the number of permitted node failures minus 1 (1 node minimum).

qq upgrade_status

This section explains how to use the qq upgrade_status command.

Description

Get the status of the upgrade system

Usage

```
qq upgrade_status [-h] [--raw]
```

Flag Name	Required	Description
raw	No	Skip montoring an in-flight upgrade and just return the raw status

qq upgrade_verify_image

This section explains how to use the qq upgrade_verify_image command.

Description

Verify an image path for upgrade

Usage

```
qq upgrade_verify_image [-h] --path PATH
```

Flag Name	Required	Description
path	Yes	FS path to upgrade image

qq version

This section explains how to use the qq version command.

Description

Print version information

Usage

qq version [-h]

qq web_ui_get_settings

This section explains how to use the qq web_ui_get_settings command.

Description

Get configuration options for the Qumulo Core Web UI

Usage

```
qq web_ui_get_settings [-h] [--inactivity-timeout | --login-banner]
```

Flag Name	Required	Description	
inactivity-timeout	No	Gets the inactivity timeout	
login-banner	No	Gets the configuration for the login banner	

qq web_ui_modify_settings

This section explains how to use the qq web_ui_modify_settings command.

Description

Modify configuration options for the Qumulo Core Web UI

Usage

```
qq web_ui_modify_settings [-h] [--inactivity-timeout MINUTES | --disable-inactivity-timeout] [--login-banner BANNER_MARKDOWN_FILE | --disable-login-banner]
```

Flag Name	Required	Description
inactivity-timeout	No	Sets the inactivity timeout
disable-inactivity-timeout	No	Disables the inactivity timeout
login-banner	No	Sets the login banner
disable-login-banner	No	Disables the login banner

qq who_am_i

This section explains how to use the qq who_am_i command.

Description

Get information on the current user

Usage

qq who_am_i [-h]