
Tripleoclient Documentation

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OpenStack Foundation

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ABOUT TRIPLEOCLIENT

1.1 General information

tripleoclient is an OpenStackClient (OSC) plugin implementation that implements commands useful for TripleO and the install and management of both an undercloud and an overcloud.

See the [TripleO Documentation](#) for details on using tripleoclient.

See the [Release Notes](#)

1.2 Team and repository tags

 openstack community project cii best practicespassing

CONTRIBUTING

If you would like to contribute to the development of OpenStack, you must follow the steps in the [If you're a developer, start here](#) section of [How To Contribute Guide](#).

Once those steps have been completed, changes to OpenStack should be submitted for review via the Gerrit tool, following the documented [Development Workflow](#).

Pull requests submitted through GitHub will be ignored.

Bugs should be filed on [TripleO at Launchpad](#) not GitHub.

INSTALLATION

At the command line:

```
$ pip install python-tripleoclient
```

Or, if you have virtualenvwrapper installed:

```
$ mkvirtualenv python-tripleoclient  
$ pip install python-tripleoclient
```

CHAPTER FOUR

USAGE

To use tripleoclient in a project:

```
import tripleoclient
```

ALL OVERCLOUD COMMANDS

5.1 overcloud admin authorize

Deploy the ssh keys needed by Mistral.

```
openstack overcloud admin authorize
  [--stack STACK]
  [--overcloud-ssh-user OVERCLOUD_SSH_USER]
  [--overcloud-ssh-key OVERCLOUD_SSH_KEY]
  [--overcloud-ssh-network OVERCLOUD_SSH_NETWORK]
  [--overcloud-ssh-enable-timeout OVERCLOUD_SSH_ENABLE_TIMEOUT]
  [--overcloud-ssh-port-timeout OVERCLOUD_SSH_PORT_TIMEOUT]
  [--static-inventory STATIC_INVENTORY]
  [--limit LIMIT_HOSTS]
```

--stack <STACK>

Name or ID of heat stack (default=Env: OVERCLOUD_STACK_NAME)

--overcloud-ssh-user <OVERCLOUD_SSH_USER>

User for ssh access to overcloud nodes

--overcloud-ssh-key <OVERCLOUD_SSH_KEY>

Key path for ssh access to overcloud nodes. When undefined the key will be autodetected.

--overcloud-ssh-network <OVERCLOUD_SSH_NETWORK>

Network name to use for ssh access to overcloud nodes.

--overcloud-ssh-enable-timeout <OVERCLOUD_SSH_ENABLE_TIMEOUT>

This option no longer has any effect.

--overcloud-ssh-port-timeout <OVERCLOUD_SSH_PORT_TIMEOUT>

Timeout for the ssh port to become active.

--static-inventory <STATIC_INVENTORY>

Path to an existing ansible inventory to use. If not specified, one will be generated in ~/tripleo-ansible-inventory.yaml

--limit <LIMIT_HOSTS>

Define which hosts or group of hosts to run the Admin Authorize tasks against.

This command is provided by the python-tripleoclient plugin.

5.2 overcloud backup

Backup the Overcloud

```

openstack overcloud backup
  [--init [INIT]]
  [--setup-nfs]
  [--setup-rear]
  [--setup-ironic]
  [--cron]
  [--inventory INVENTORY]
  [--storage-ip STORAGE_IP]
  [--extra-vars EXTRA_VARS]

```

--init <INIT>

Initialize environment for backup, using rear, nfs or ironic as args which will check for package install and configured ReaR or NFS server. Defaults to: rear. i.e. init rear. WARNING: This flag will be deprecated and replaced by setup-rear ,setup-nfs and setup-ironic.

--setup-nfs

Setup the NFS server on the backup node which will install required packages and configuration on the host BackupNode in the ansible inventory.

--setup-rear

Setup ReaR on the overcloud Controller hosts which will install and configure ReaR.

--setup-ironic

Setup ReaR on the overcloud Controller hosts which will install and configure ReaR with ironic

--cron

Sets up a new cron job that by default will execute a weekly backup at Sundays midnight, but that can be customized by using the tripleo_backup_and_restore_cron extra-var.

--inventory <INVENTORY>

Tripleo inventory file generated with tripleo-ansible-inventory command. Defaults to: /home/zuul/src/opev.org/openstack/python-tripleoclient/.tox/docs/config-download/overcloud/tripleo-ansible-inventory.yaml

--storage-ip <STORAGE_IP>

Storage IP is an optional parameter which allows for an ip of a storage server to be specified, overriding the default undercloud. WARNING: This flag will be deprecated in favor of extra-vars which will allow to pass this and other variables.

--extra-vars <EXTRA_VARS>

Set additional variables as Dict or as an absolute path of a JSON or YAML file type. i.e. extra-vars {key: val, key2: val2} i.e. extra-vars /path/to/my_vars.yaml i.e. extra-vars /path/to/my_vars.json. For more information about the variables that can be passed, visit: https://opev.org/openstack/tripleo-ansible/src/branch/master/tripleo_ansible/roles/backup_and_restore/defaults/main.yml.

5.3 overcloud backup snapshot

Takes and LVM snapshot ignoring all the rest of the parameters passed. To be able to take a snapshot, the following conditions must be met: - The disk must be configured to use LVM - There must be an lv called lv_snapshot - lv_snapshot must be 8GB or more This operation will destroy the lv_snapshot volume and replace it with snapshots of the disks.

```
openstack overcloud backup snapshot
  [--inventory INVENTORY]
  [--remove]
  [--revert]
  [--extra-vars EXTRA_VARS]
```

--inventory <INVENTORY>

Tripleo inventory file generated with tripleo-ansible-inventory command. Defaults to: /home/zuul/src/opevdev.org/openstack/python-tripleoclient/.tox/docs/config-download/overcloud/tripleo-ansible-inventory.yaml

--remove

Removes all the snapshot volumes that were created.

--revert

Reverts all the disks to the moment when the snapshot was created.

--extra-vars <EXTRA_VARS>

Set additional variables as Dict or as an absolute path of a JSON or YAML file type. i.e. extra-vars {key: val, key2: val2} i.e. extra-vars /path/to/my_vars.yaml i.e. extra-vars /path/to/my_vars.json. For more information about the variables that can be passed, visit: https://opevdev.org/openstack/tripleo-ansible/src/branch/master/tripleo_ansible/roles/backup_and_restore/defaults/main.yml.

5.4 overcloud cell export

Export cell information used as import of another cell

```
openstack overcloud cell export
  [--control-plane-stack <control plane stack>]
  [--cell-stack <cell stack>]
  [--output-file <output file>]
  [--working-dir WORKING_DIR]
  [--config-download-dir CONFIG_DOWNLOAD_DIR]
  [--force-overwrite]
```

--control-plane-stack <control plane stack>

Name of the environment main Heat stack to export information from. (default=Env: OVERCLOUD_STACK_NAME)

--cell-stack <cell stack>, **-e** <cell stack>

Name of the controller cell Heat stack to export information from. Used in case of: control plane stack -> cell controller stack -> multiple compute stacks

--output-file <output file>, **-o** <output file>

Name of the output file for the cell data export. It will default to <name>.yaml

- working-dir** <WORKING_DIR>
The working directory for the deployment where all input, output, and generated files are stored. Defaults to \$HOME/overcloud-deploy/<stack>
- config-download-dir** <CONFIG_DOWNLOAD_DIR>
Directory to search for config-download export data. Defaults to \$HOME/overcloud-deploy/<stack>/config-download
- force-overwrite, -f**
Overwrite output file if it exists.

This command is provided by the python-tripleoclient plugin.

5.5 overcloud ceph deploy

```
openstack overcloud ceph deploy
  -o <deployed_ceph
  .yaml>
  [-y]
  [--skip-user-create]
  [--skip-hosts-config]
  [--skip-container-registry-config]
  [--skip-ntp]
  [--cephadm-ssh-user CEPHADM_SSH_USER]
  [--stack STACK]
  [--working-dir WORKING_DIR]
  [--roles-data ROLES_DATA]
  [--network-data NETWORK_DATA]
  [--public-network-name PUBLIC_NETWORK_NAME]
  [--cluster-network-name CLUSTER_NETWORK_NAME]
  [--cluster CLUSTER]
  [--mon-ip MON_IP]
  [--config CONFIG]
  [--cephadm-extra-args CEPHADM_EXTRA_ARGS]
  [--force]
  [--ansible-extra-vars ANSIBLE_EXTRA_VARS]
  [--ceph-client-username CEPH_CLIENT_USERNAME]
  [--ceph-client-key CEPH_CLIENT_KEY]
  [--skip-cephx-keys]
  [--single-host-defaults]
  [--ntp-server NTP_SERVER | --ntp-heat-env-file NTP_HEAT_ENV_FILE]
  [--ceph-spec CEPH_SPEC | --osd-spec OSD_SPEC]
  [--crush-hierarchy CRUSH_HIERARCHY]
  [--tld TLD]
  [--standalone]
  [--container-image-prepare CONTAINER_IMAGE_PREPARE]
  [--cephadm-default-container]
  [--container-namespace CONTAINER_NAMESPACE]
  [--container-image CONTAINER_IMAGE]
  [--container-tag CONTAINER_TAG]
  [--registry-url REGISTRY_URL]
  [--registry-username REGISTRY_USERNAME]
  [--registry-password REGISTRY_PASSWORD]
  [<deployed_baremetal.yaml>]
```

-o <deployed_ceph.yaml>, **--output** <deployed_ceph.yaml>

The path to the output environment file describing the Ceph deployment to pass to the overcloud deployment.

-y, --yes

Skip yes/no prompt before overwriting an existing <deployed_ceph.yaml> output file (assume yes).

--skip-user-create

Do not create the cephadm SSH user. This user is necessary to deploy but may be created in a separate step via openstack overcloud ceph user enable.

--skip-hosts-config

Do not update /etc/hosts on deployed servers. By default this is configured so overcloud nodes can reach each other and the undercloud by name.

--skip-container-registry-config

Do not update /etc/containers/registries.conf on deployed servers. By default this is configured so overcloud nodes can pull containers from the undercloud registry.

--skip-ntp

Do not install/enable NTP chronyd service. By default time synchronization service chronyd is installed and enabled later by tripleo.

--cephadm-ssh-user <CEPHADM_SSH_USER>

Name of the SSH user used by cephadm. Warning: if this option is used, it must be used consistently for every openstack overcloud ceph call. Defaults to ceph-admin. (default=Env: CEPHADM_SSH_USER)

--stack <STACK>

Name or ID of heat stack (default=Env: OVERCLOUD_STACK_NAME)

--working-dir <WORKING_DIR>

The working directory for the deployment where all input, output, and generated files will be stored. Defaults to \$HOME/overcloud-deploy/<stack>

--roles-data <ROLES_DATA>

Path to an alternative roles_data.yaml. Used to decide which node gets which Ceph mon, mgr, or osd service based on the nodes role in <deployed_baremetal.yaml>.

--network-data <NETWORK_DATA>

Path to an alternative network_data.yaml. Used to define Ceph public_network and cluster_network. This file is searched for networks with name_lower values of storage and storage_mgmt. If none found, then search repeats but with service_net_map_replace in place of name_lower. Use public-network-name or cluster-network-name options to override name of the searched for network from storage or storage_mgmt to a customized name. If network_data has no storage networks, both default to ctlplane. If found network has >1 subnet, they are all combined (for routed traffic). If a network has ipv6 true, then the ipv6_subnet is retrieved instead of the ip_subnet, and the Ceph global ms_bind_ipv4 is set false and the ms_bind_ipv6 is set true. Use config to override these defaults if desired.

--public-network-name <PUBLIC_NETWORK_NAME>

Name of the network defined in network_data.yaml which should be used for the Ceph public_network. Defaults to storage.

--cluster-network-name <CLUSTER_NETWORK_NAME>

Name of the network defined in network_data.yaml which should be used for the Ceph cluster_network. Defaults to storage_mgmt.

- cluster** <CLUSTER>
Name of the Ceph cluster. If set to foo, then the files /etc/ceph/<FSID>/foo.conf and /etc/ceph/<FSID>/foo.client.admin.keyring will be created. Otherwise these files will use the name ceph. Changing this means changing command line calls too, e.g. ceph health will become ceph cluster foo health unless export CEPH_ARGS=cluster foo is used.
- mon-ip** <MON_IP>
IP address of the first Ceph monitor. If not set, an IP from the Ceph public_network of a server with the mon label from the Ceph spec is used. IP must already be active on server.
- config** <CONFIG>
Path to an existing ceph.conf with settings to be assimilated by the new cluster via cephadm bootstrap config
- cephadm-extra-args** <CEPHADM_EXTRA_ARGS>
String of extra parameters to pass cephadm. E.g. if cephadm-extra-args log-to-file skip-prepare-host, then cephadm bootstrap will use those options. Warning: requires force as not all possible options ensure a functional deployment.
- force**
Run command regardless of consequences.
- ansible-extra-vars** <ANSIBLE_EXTRA_VARS>
Path to an existing Ansible vars file which can override any variable in tripleo-ansible. If ansible-extra-vars vars.yaml is passed, then ansible-playbook -e @vars.yaml is used to call tripleo-ansible Ceph roles. Warning: requires force as not all options ensure a functional deployment.
- ceph-client-username** <CEPH_CLIENT_USERNAME>
Name of the cephx user. E.g. if openstack is used, then ceph auth get client.openstack will return a working user with key and capabilities on the deployed Ceph cluster. Ignored unless tripleo_cephadm_pools is set via ansible-extra-vars. If this parameter is not set and tripleo_cephadm_keys is set via ansible-extra-vars, then openstack will be used. Used to set CephClientUserName in output.
- ceph-client-key** <CEPH_CLIENT_KEY>
Value of the cephx key. E.g. AQC+vYNXgDAgAhAAc8UoYt+OTz5uhV7ItLdwUw==. Ignored unless tripleo_cephadm_pools is set via ansible-extra-vars. If this parameter is not set and tripleo_cephadm_keys is set via ansible-extra-vars, then a random key will be generated. Used to set CephClientKey in output.
- skip-cephx-keys**
Do not create cephx keys even if tripleo_cephadm_pools is set via ansible-extra-vars. If this option is used, then even the defaults of ceph-client-key and ceph-client-username are ignored, but the pools defined via ansible-extra-vars are still created.
- single-host-defaults**
Adjust configuration defaults to suit a single-host Ceph cluster.
- ntp-server** <NTP_SERVER>
NTP Servers to be used while configuring chronyd service.e.g. ntp-server 0.pool.ntp.org,1.pool.ntp.org,2.pool.ntp.org
- ntp-heat-env-file** <NTP_HEAT_ENV_FILE>
Path to existing heat environment file with NTP servers to be used while configuring chronyd service.NTP servers are extracted from NtpServer key

- ceph-spec** <CEPH_SPEC>
Path to an existing Ceph spec file. If not provided a spec will be generated automatically based on roles-data and <deployed_baremetal.yaml>. The <deployed_baremetal.yaml> parameter is optional only if ceph-spec is used.
- osd-spec** <OSD_SPEC>
Path to an existing OSD spec file. Mutually exclusive with ceph-spec. If the Ceph spec file is generated automatically, then the OSD spec in the Ceph spec file defaults to {data_devices: {all: true}} for all service_type osd. Use osd-spec to override the data_devices value inside the Ceph spec file.
- crush-hierarchy** <CRUSH_HIERARCHY>
Path to an existing crush hierarchy spec file.
- tld** <TLD>
postfix added to the hostname to represent canonical hostname
- standalone**
Use single host Ansible inventory. Used only for development or testing environments.
- container-image-prepare** <CONTAINER_IMAGE_PREPARE>
Path to an alternative container_image_prepare_defaults.yaml. Used to control which Ceph container is pulled by cephadm via the ceph_namespace, ceph_image, and ceph_tag variables in addition to registry authentication via ContainerImageRegistryCredentials.
- cephadm-default-container**
Use the default container defined in cephadm instead of container_image_prepare_defaults.yaml. If this is used, cephadm bootstrap is not passed the image parameter.
- container-namespace** <CONTAINER_NAMESPACE>
e.g. quay.io/ceph
- container-image** <CONTAINER_IMAGE>
e.g. ceph
- container-tag** <CONTAINER_TAG>
e.g. latest
- registry-url** <REGISTRY_URL>
- registry-username** <REGISTRY_USERNAME>
- registry-password** <REGISTRY_PASSWORD>
- deployed_baremetal.yaml**
Path to the environment file output from openstack overcloud node provision. This argument may be excluded only if ceph-spec is used.

This command is provided by the python-tripleoclient plugin.

5.6 overcloud ceph spec

```

openstack overcloud ceph spec
  -o <ceph_spec
  .yaml>
  [-y]
  [--stack STACK]
  [--working-dir WORKING_DIR]
  [--roles-data ROLES_DATA]
  [--mon-ip MON_IP]
  [--standalone]
  [--tld TLD]
  [--osd-spec OSD_SPEC | --crush-hierarchy CRUSH_HIERARCHY]
  [<deployed_baremetal.yaml>]

```

- o** <ceph_spec.yaml>, **--output** <ceph_spec.yaml>
The path to the output cephadm spec file to pass to the openstack overcloud ceph deploy ceph-spec <ceph_spec.yaml> command.
- y**, **--yes**
Skip yes/no prompt before overwriting an existing <ceph_spec.yaml> output file (assume yes).
- stack** <STACK>
Name or ID of heat stack (default=Env: OVERCLOUD_STACK_NAME)
- working-dir** <WORKING_DIR>
The working directory for the deployment where all input, output, and generated files will be stored. Defaults to \$HOME/overcloud-deploy/<stack>
- roles-data** <ROLES_DATA>
Path to an alternative roles_data.yaml. Used to decide which node gets which Ceph mon, mgr, or osd service based on the nodes role in <deployed_baremetal.yaml>.
- mon-ip** <MON_IP>
IP address of the first Ceph monitor. Only available with standalone.
- standalone**
Create a spec file for a standalone deployment. Used for single server development or testing environments.
- tld** <TLD>
postfix added to the hostname to represent canonical hostname
- osd-spec** <OSD_SPEC>
Path to an existing OSD spec file. When the Ceph spec file is generated its OSD spec defaults to {data_devices: {all: true}} for all service_type osd. Use osd-spec to override the data_devices value inside the Ceph spec file.
- crush-hierarchy** <CRUSH_HIERARCHY>
Path to an existing crush hierarchy spec file.
- deployed_baremetal.yaml**
Path to the environment file output from openstack overcloud node provision. This argument may be excluded only if standalone is used.

This command is provided by the python-tripleoclient plugin.

5.7 overcloud ceph user disable

```
openstack overcloud ceph user disable
  [-y]
  [--cephadm-ssh-user CEPHADM_SSH_USER]
  [--stack STACK]
  [--working-dir WORKING_DIR]
  --fsid <FSID>
  [--standalone]
  <ceph_spec.yaml>
```

-y, --yes

Skip yes/no prompt before disabling cephadm and its SSH user. (assume yes).

--cephadm-ssh-user <CEPHADM_SSH_USER>

Name of the SSH user used by cephadm. Warning: if this option is used, it must be used consistently for every openstack overcloud ceph call. Defaults to ceph-admin. (default=Env: CEPHADM_SSH_USER)

--stack <STACK>

Name or ID of heat stack (default=Env: OVERCLOUD_STACK_NAME)

--working-dir <WORKING_DIR>

The working directory for the deployment where all input, output, and generated files will be stored. Defaults to \$HOME/overcloud-deploy/<stack>

--fsid <FSID>

The FSID of the Ceph cluster to be disabled. Required for disable option.

--standalone

Use single host Ansible inventory. Used only for development or testing environments.

ceph_spec.yaml

Path to an existing Ceph spec file which describes the Ceph cluster where the cephadm SSH user will have their public and private keys removed and cephadm will be disabled. Spec file is necessary to determine which nodes to modify. WARNING: Ceph cluster administration or modification will no longer function.

This command is provided by the python-tripleoclient plugin.

5.8 overcloud ceph user enable

```
openstack overcloud ceph user enable
  [--fsid <FSID>]
  [--standalone]
  [--cephadm-ssh-user CEPHADM_SSH_USER]
  [--stack STACK]
  [--working-dir WORKING_DIR]
  <ceph_spec.yaml>
```

--fsid <FSID>

The FSID of the Ceph cluster to be (re-)enabled. If the user disable option has been used, the FSID may be passed to the user enable option so that cephadm will be re-enabled for the Ceph cluster identified by the FSID.

--standalone

Use single host Ansible inventory. Used only for development or testing environments.

--cephadm-ssh-user <CEPHADM_SSH_USER>

Name of the SSH user used by cephadm. Warning: if this option is used, it must be used consistently for every openstack overcloud ceph call. Defaults to ceph-admin. (default=Env: CEPHADM_SSH_USER)

--stack <STACK>

Name or ID of heat stack (default=Env: OVERCLOUD_STACK_NAME)

--working-dir <WORKING_DIR>

The working directory for the deployment where all input, output, and generated files will be stored. Defaults to \$HOME/overcloud-deploy/<stack>

ceph_spec.yaml

Path to an existing Ceph spec file which describes the Ceph cluster where the cephadm SSH user will be created (if necessary) and have their public and private keys installed. Spec file is necessary to determine which nodes to modify and if a public or private key is required.

This command is provided by the python-tripleoclient plugin.

5.9 overcloud container image build

Build overcloud container images with kolla-build.

```
openstack overcloud container image build
  [--config-file <yaml config file>]
  --kolla-config-file <config
  file>
  [--list-images]
  [--list-dependencies]
  [--exclude <container-name>]
  [--use-buildah]
  [--work-dir <container builds directory>]
  [--build-timeout <build timeout in seconds>]
```

--config-file <yaml config file>

YAML config file specifying the images to build. May be specified multiple times. Order is preserved, and later files will override some options in previous files. Other options will append. If not specified, the default set of containers will be built.

--kolla-config-file <config file>

Path to a Kolla config file to use. Multiple config files can be specified, with values in later files taking precedence. By default, tripleo kolla conf file `/home/zuul/src/opev.org/openstack/python-tripleoclient/.tox/docs/share/tripleo-common/container-images/tripleo_kolla_config_overrides.conf` is added.

--list-images

Show the images which would be built instead of building them.

--list-dependencies

Show the image build dependencies instead of building them.

- exclude** <container-name>
Name of a container to match against the list of containers to be built to skip. Can be specified multiple times.
- use-buildah**
Use Buildah instead of Docker to build the images with Kolla.
- work-dir** <container builds directory>
TripleO container builds directory, storing configs and logs for each image and its dependencies.
- build-timeout** <build timeout in seconds>
Build timeout in seconds.

This command is provided by the python-tripleoclient plugin.

5.10 overcloud container image prepare

Generate files defining the images, tags and registry.

```
openstack overcloud container image prepare
  [--template-file <yaml template file>]
  [--push-destination <location>]
  [--tag <tag>]
  [--tag-from-label <image label>]
  [--namespace <namespace>]
  [--prefix <prefix>]
  [--suffix <suffix>]
  [--set <variable=value>]
  [--exclude <regex>]
  [--include <regex>]
  [--output-images-file <file path>]
  [--environment-file <file path>]
  [--environment-directory <HEAT ENVIRONMENT DIRECTORY>]
  [--output-env-file <file path>]
  [--roles-file ROLES_FILE]
  [--modify-role MODIFY_ROLE]
  [--modify-vars MODIFY_VARS]
```

- template-file** <yaml template file>
YAML template file which the images config file will be built from. Default: `/home/zuul/src/opeudev.org/openstack/python-tripleoclient/.tox/docs/share/tripleo-common/container-images/tripleo_containers.yaml.j2`
- push-destination** <location>
Location of image registry to push images to. If specified, a `push_destination` will be set for every image entry.
- tag** <tag>
Override the default tag substitution. If `tag-from-label` is specified, start discovery with this tag. Default: `current-tripleo`
- tag-from-label** <image label>
Use the value of the specified label(s) to discover the tag. Labels can be combined in a template format, for example: `{version}-{release}`

- namespace** <namespace>
Override the default namespace substitution. Default: quay.io/tripleowallaby
- prefix** <prefix>
Override the default name prefix substitution. Default: openstack-
- suffix** <suffix>
Override the default name suffix substitution. Default:
- set** <variable=value>
Set the value of a variable in the template, even if it has no dedicated argument such as suffix.
- exclude** <regex>
Pattern to match against resulting imagename entries to exclude from the final output. Can be specified multiple times.
- include** <regex>
Pattern to match against resulting imagename entries to include in final output. Can be specified multiple times, entries not matching any include will be excluded. exclude is ignored if include is used.
- output-images-file** <file path>
File to write resulting image entries to, as well as stdout. Any existing file will be overwritten.
- environment-file** <file path>, **-e** <file path>
Environment files specifying which services are containerized. Entries will be filtered to only contain images used by containerized services. (Can be specified more than once.)
- environment-directory** <HEAT ENVIRONMENT DIRECTORY>
Environment file directories that are automatically added to the update command. Entries will be filtered to only contain images used by containerized services. Can be specified more than once. Files in directories are loaded in ascending sort order.
- output-env-file** <file path>
File to write heat environment file which specifies all image parameters. Any existing file will be overwritten.
- roles-file** <ROLES_FILE>, **-r** <ROLES_FILE>
Roles file, overrides the default roles_data.yaml in the t-h-t templates directory used for deployment. May be an absolute path or the path relative to the templates dir.
- modify-role** <MODIFY_ROLE>
Name of ansible role to run between every image upload pull and push.
- modify-vars** <MODIFY_VARS>
Ansible variable file containing variables to use when invoking the role modify-role.

This command is provided by the python-tripleoclient plugin.

5.11 overcloud container image tag discover

Discover the versioned tag for an image.

```
openstack overcloud container image tag discover
  --image <container
  image>
  [--tag-from-label <image label>]
```

--image <container image>

Fully qualified name of the image to discover the tag for (Including registry and stable tag).

--tag-from-label <image label>

Use the value of the specified label(s) to discover the tag. Labels can be combined in a template format, for example: {version}-{release}

This command is provided by the python-tripleoclient plugin.

5.12 overcloud container image upload

Push overcloud container images to registries.

```
openstack overcloud container image upload
  --config-file <yaml
  config
  file>
  [--cleanup <full, partial, none>]
```

--config-file <yaml config file>

YAML config file specifying the image build. May be specified multiple times. Order is preserved, and later files will override some options in previous files. Other options will append.

--cleanup <full, partial, none>

Cleanup behavior for local images left after upload. The default full will attempt to delete all local images. partial will leave images required for deployment on this host. none will do no cleanup.

This command is provided by the python-tripleoclient plugin.

5.13 overcloud credentials

Create the overcloudrc files

```
openstack overcloud credentials
  [--directory [DIRECTORY]]
  [--working-dir WORKING_DIR]
  stack
```

--directory <DIRECTORY>

The directory to create the rc files. Defaults to the current directory.

--working-dir <WORKING_DIR>

The working directory that contains the input, output, and generated files for the deployment. Defaults to \$HOME/overcloud-deploy/<stack>

stack

The name of the stack you want to create rc files for.

This command is provided by the python-tripleoclient plugin.

5.14 overcloud delete

Delete overcloud stack and plan

```
openstack overcloud delete
  [-y]
  [-s]
  [-b <baremetal_deployment.yaml>]
  [--networks-file <network_data.yaml>]
  [--network-ports]
  [--heat-type {installed,pod,container,native}]
  [stack]
```

-y, --yes

Skip yes/no prompt (assume yes).

-s, --skip-ipa-cleanup

Skip removing overcloud hosts, services, and DNS records from FreeIPA. This is particularly relevant for deployments using certificates from FreeIPA for TLS. By default, overcloud hosts, services, and DNS records will be removed from FreeIPA before deleting the overcloud. Using this option might require you to manually cleanup FreeIPA later.

-b <baremetal_deployment.yaml>, **--baremetal-deployment** <baremetal_deployment.yaml>
Configuration file describing the baremetal deployment

--networks-file <network_data.yaml>
Configuration file describing the network deployment to enable unprovisioning of networks.

--network-ports
Enable unprovisioning of network ports

--heat-type <HEAT_TYPE>
The type of Heat process that was used to executethe deployment. pod (Default): Use an ephemeral Heat pod. installed: Use the system installed Heat. container: Use an ephemeral Heat container. native: Use an ephemeral Heat process.

stack

Name or ID of heat stack to delete(default=Env: OVERCLOUD_STACK_NAME)

This command is provided by the python-tripleoclient plugin.

5.15 overcloud deploy

Deploy Overcloud

```

openstack overcloud deploy
  [--templates [TEMPLATES]]
  [--stack STACK]
  [--timeout <TIMEOUT>]
  [--libvirt-type {kvm,qemu}]
  [--ntp-server NTP_SERVER]
  [--no-proxy NO_PROXY]
  [--overcloud-ssh-user OVERCLOUD_SSH_USER]
  [--overcloud-ssh-key OVERCLOUD_SSH_KEY]
  [--overcloud-ssh-network OVERCLOUD_SSH_NETWORK]
  [--overcloud-ssh-enable-timeout OVERCLOUD_SSH_ENABLE_TIMEOUT]
  [--overcloud-ssh-port-timeout OVERCLOUD_SSH_PORT_TIMEOUT]
  [--environment-file <HEAT ENVIRONMENT FILE>]
  [--environment-directory <HEAT ENVIRONMENT DIRECTORY>]
  [--roles-file ROLES_FILE]
  [--networks-file NETWORKS_FILE]
  [--vip-file VIP_FILE]
  [--no-cleanup]
  [--update-plan-only]
  [--validation-errors-nonfatal]
  [--validation-warnings-fatal]
  [--disable-validations]
  [--inflight-validations]
  [--dry-run]
  [--run-validations]
  [--skip-postconfig]
  [--force-postconfig]
  [--skip-deploy-identifier]
  [--answers-file ANSWERS_FILE]
  [--disable-password-generation]
  [--deployed-server]
  [--provision-nodes]
  [--config-download]
  [--no-config-download]
  [--config-download-only]
  [--setup-only]
  [--config-dir CONFIG_DIR]
  [--config-type CONFIG_TYPE]
  [--no-preserve-config]
  [--output-dir OUTPUT_DIR]
  [--override-ansible-cfg OVERRIDE_ANSIBLE_CFG]
  [--config-download-timeout CONFIG_DOWNLOAD_TIMEOUT]
  [--deployment-python-interpretter DEPLOYMENT_PYTHON_INTERPRETER]
  [-b [<baremetal_deployment.yaml>]]
  [--network-config]
  [--limit LIMIT]
  [--tags TAGS]
  [--skip-tags SKIP_TAGS]
  [--ansible-forks ANSIBLE_FORKS]
  [--disable-container-prepare]
  [--working-dir WORKING_DIR]
  [--heat-type {pod,container,native}]

```

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```

[--heat-container-api-image <HEAT_CONTAINER_API_IMAGE>]
[--heat-container-engine-image <HEAT_CONTAINER_ENGINE_IMAGE>]
[--rm-heat]
[--skip-heat-pull]
[--disable-protected-resource-types]
[-y]
[--allow-deprecated-network-data]

```

- templates** <TEMPLATES>
The directory containing the Heat templates to deploy
- stack** <STACK>
Stack name to create or update
- timeout** <TIMEOUT>, **-t** <TIMEOUT>
Deployment timeout in minutes.
- libvirt-type** <LIBVIRT_TYPE>
Libvirt domain type.
- ntp-server** <NTP_SERVER>
The NTP for overcloud nodes.
- no-proxy** <NO_PROXY>
A comma separated list of hosts that should not be proxied.
- overcloud-ssh-user** <OVERCLOUD_SSH_USER>
User for ssh access to overcloud nodes
- overcloud-ssh-key** <OVERCLOUD_SSH_KEY>
Key path for ssh access to overcloud nodes. When undefined the key will be autodetected.
- overcloud-ssh-network** <OVERCLOUD_SSH_NETWORK>
Network name to use for ssh access to overcloud nodes.
- overcloud-ssh-enable-timeout** <OVERCLOUD_SSH_ENABLE_TIMEOUT>
This option no longer has any effect.
- overcloud-ssh-port-timeout** <OVERCLOUD_SSH_PORT_TIMEOUT>
Timeout for the ssh port to become active.
- environment-file** <HEAT ENVIRONMENT FILE>, **-e** <HEAT ENVIRONMENT FILE>
Environment files to be passed to the heat stack-create or heat stack-update command. (Can be specified more than once.)
- environment-directory** <HEAT ENVIRONMENT DIRECTORY>
Environment file directories that are automatically added to the heat stack-create or heat stack-update commands. Can be specified more than once. Files in directories are loaded in ascending sort order.
- roles-file** <ROLES_FILE>, **-r** <ROLES_FILE>
Roles file, overrides the default roles_data.yaml in the templates directory. May be an absolute path or the path relative to templates
- networks-file** <NETWORKS_FILE>, **-n** <NETWORKS_FILE>
Networks file, overrides the default network_data_default.yaml in the templates directory

- vip-file** <VIP_FILE>
Configuration file describing the network Virtual IPs.
- no-cleanup**
Dont cleanup temporary files, just log their location
- update-plan-only**
DEPRECATED: Only update the plan. Do not perform the actual deployment. NOTE: Will move to a discrete command in a future release. Not supported anymore.
- validation-errors-nonfatal**
Allow the deployment to continue in spite of validation errors. Note that attempting deployment while errors exist is likely to fail.
- validation-warnings-fatal**
Exit if there are warnings from the configuration pre-checks.
- disable-validations**
DEPRECATED. Disable the pre-deployment validations entirely. These validations are the built-in pre-deployment validations. To enable external validations from tripleo-validations, use the run-validations flag. These validations are now run via the external validations in tripleo-validations.
- inflight-validations**
Activate in-flight validations during the deploy. In-flight validations provide a robust way to ensure deployed services are running right after their activation. Defaults to False.
- dry-run**
Only run validations, but do not apply any changes.
- run-validations**
Run external validations from the tripleo-validations project.
- skip-postconfig**
Skip the overcloud post-deployment configuration.
- force-postconfig**
Force the overcloud post-deployment configuration.
- skip-deploy-identifier**
Skip generation of a unique identifier for the DeployIdentifier parameter. The software configuration deployment steps will only be triggered if there is an actual change to the configuration. This option should be used with Caution, and only if there is confidence that the software configuration does not need to be run, such as when scaling out certain roles.
- answers-file** <ANSWERS_FILE>
Path to a YAML file with arguments and parameters.
- disable-password-generation**
Disable password generation.
- deployed-server**
DEPRECATED: Use pre-provisioned overcloud nodes. Now the default and this CLI option has no effect.
- provision-nodes**
Provision overcloud nodes with heat.
- config-download**
DEPRECATED: Run deployment via config-download mechanism. This is now the default, and

this CLI options has no effect.

--no-config-download, --stack-only

Disable the config-download workflow and only create the stack and download the config. No software configuration, setup, or any changes will be applied to overcloud nodes.

--config-download-only

Disable the stack create and setup, and only run the config-download workflow to apply the software configuration. Requires that config-download setup was previously completed, either with stack-only and setup-only or a full deployment

--setup-only

Disable the stack and config-download workflow to apply the software configuration and only run the setup to enable ssh connectivity.

--config-dir <CONFIG_DIR>

The directory where the configuration files will be pushed

--config-type <CONFIG_TYPE>

Only used when setup-only is invoked. Type of object config to be extract from the deployment, defaults to all keys available

--no-preserve-config

Only used when setup-only is invoked. If specified, will delete and recreate the config-dir if it already exists. Default is to use the existing dir location and overwrite files. Files in config-dir not from the stack will be preserved by default.

--output-dir <OUTPUT_DIR>

Directory to use for saved output when using config-download. When not specified, <working-dir>/config-download will be used.

--override-ansible-cfg <OVERRIDE_ANSIBLE_CFG>

Path to ansible configuration file. The configuration in the file will override any configuration used by config-download by default.

--config-download-timeout <CONFIG_DOWNLOAD_TIMEOUT>

Timeout (in minutes) to use for config-download steps. If unset, will default to however much time is leftover from the timeout parameter after the stack operation.

--deployment-python-interpreter <DEPLOYMENT_PYTHON_INTERPRETER>

The path to python interpreter to use for the deployment actions. This may need to be used if deploying on a python2 host from a python3 system or vice versa.

-b <baremetal_deployment.yaml>, **--baremetal-deployment** <baremetal_deployment.yaml>

Deploy baremetal nodes, network and virtual IP addresses as defined in baremetal_deployment.yaml along with overcloud. If no baremetal_deployment YAML file is given, the tripleo-<stack_name>-baremetal-deployment.yaml file in the working-dir will be used.

--network-config

Apply network config to provisioned nodes. (Implies network-ports)

--limit <LIMIT>

A string that identifies a single node or comma-separatedlist of nodes the config-download Ansible playbook execution will be limited to. For example: limit compute-0,compute-1,compute-5.

--tags <TAGS>

A list of tags to use when running the the config-download ansible-playbook command.

- skip-tags** <SKIP_TAGS>
A list of tags to skip when running the the config-download ansible-playbook command.
- ansible-forks** <ANSIBLE_FORKS>
The number of Ansible forks to use for the config-download ansible-playbook command.
- disable-container-prepare**
Disable the container preparation actions to prevent container tags from being updated and new containers from being fetched. If you skip this but do not have the container parameters configured, the deployment action may fail.
- working-dir** <WORKING_DIR>
The working directory for the deployment where all input, output, and generated files will be stored. Defaults to \$HOME/overcloud-deploy/<stack>
- heat-type** <HEAT_TYPE>
The type of Heat process to use to execute the deployment. pod (Default): Use an ephemeral Heat pod. container (Experimental): Use an ephemeral Heat container. native (Experimental): Use an ephemeral Heat process.
- heat-container-api-image** <HEAT_CONTAINER_API_IMAGE>
The container image to use when launching the heat-api process. Only used when heat-type=pod. Defaults to: localhost/tripleo/openstack-heat-api:ephemeral
- heat-container-engine-image** <HEAT_CONTAINER_ENGINE_IMAGE>
The container image to use when launching the heat-engine process. Only used when heat-type=pod. Defaults to: localhost/tripleo/openstack-heat-engine:ephemeral
- rm-heat**
If specified and heat-type is container or pod any existing container or pod of a previous ephemeral Heat process will be deleted first. Ignored if heat-type is native.
- skip-heat-pull**
When heat-type is pod or container, assume the container image has already been pulled
- disable-protected-resource-types**
Disable protected resource type overrides. Resources types that are used internally are protected, and cannot be overridden in the user environment. Setting this argument disables the protection, allowing the protected resource types to be override in the user environment.
- y, --yes**
Use -y or yes to skip any confirmation required before the deploy operation. Use this with caution!
- allow-deprecated-network-data**
Set this to allow using deprecated network data YAML definition schema.

5.16 overcloud export

Export stack information used as import of another stack

```
openstack overcloud export
  [--stack <stack>]
  [--output-file <output file>]
  [--force-overwrite]
  [--working-dir WORKING_DIR]
```

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```
[--config-download-dir CONFIG_DOWNLOAD_DIR]
[--no-password-excludes]
```

- stack** <stack>
Name of the environment main Heat stack to export information from. (default=overcloud)
- output-file** <output file>, **-o** <output file>
Name of the output file for the stack data export. It will default to <name>.yaml
- force-overwrite, -f**
Overwrite output file if it exists.
- working-dir** <WORKING_DIR>
The working directory for the deployment where all input, output, and generated files are stored. Defaults to \$HOME/overcloud-deploy/<stack>
- config-download-dir** <CONFIG_DOWNLOAD_DIR>
Directory to search for config-download export data. Defaults to \$HOME/overcloud-deploy/<stack>/config-download
- no-password-excludes**
Dont exclude certain passwords from the password export. Defaults to False in that some passwords will be excluded that are not typically necessary.

This command is provided by the python-tripleoclient plugin.

5.17 overcloud export ceph

Export Ceph information used as import of another stack

Export Ceph information from one or more stacks to be used as input of another stack. Creates a valid YAML file with the CephExternalMultiConfig parameter populated.

```
openstack overcloud export ceph
  [--stack <stack>]
  [--cephx-key-client-name <cephx>]
  [--output-file <output file>]
  [--force-overwrite]
  [--config-download-dir CONFIG_DOWNLOAD_DIR]
```

- stack** <stack>
Name of the overcloud stack(s) to export Ceph information from. If a comma delimited list of stacks is passed, Ceph information for all stacks will be exported into a single file. (default=Env: OVERCLOUD_STACK_NAME)
- cephx-key-client-name** <cephx>, **-k** <cephx>
Name of the cephx client key to export. (default=openstack)
- output-file** <output file>, **-o** <output file>
Name of the output file for the Ceph data export. Defaults to ceph-export-<STACK>.yaml if one stack is provided. Defaults to ceph-export-<N>-stacks.yaml if N stacks are provided.
- force-overwrite, -f**
Overwrite output file if it exists.

--config-download-dir <CONFIG_DOWNLOAD_DIR>
Directory to search for config-download export data. Defaults to \$HOME/overcloud-deploy/<stack>/config-download

This command is provided by the python-tripleoclient plugin.

5.18 overcloud external-update run

Run external minor update Ansible playbook

This will run the external minor update Ansible playbook, executing tasks from the undercloud. The update playbooks are made available after completion of the overcloud update prepare command.

```
openstack overcloud external-update run
  [--static-inventory STATIC_INVENTORY]
  [--ssh-user SSH_USER]
  [--tags TAGS]
  [--skip-tags SKIP_TAGS]
  [--stack STACK]
  [-e EXTRA_VARS]
  [-y]
  [--limit LIMIT]
  [--ansible-forks ANSIBLE_FORKS]
  [--refresh]
```

--static-inventory <STATIC_INVENTORY>
DEPRECATED: tripleo-ansible-inventory.yaml in working dir will be used.

--ssh-user <SSH_USER>
DEPRECATED: Only tripleo-admin should be used as ssh user.

--tags <TAGS>
A string specifying the tag or comma separated list of tags to be passed as tags to ansible-playbook.

--skip-tags <SKIP_TAGS>
A string specifying the tag or comma separated list of tags to be passed as skip-tags to ansible-playbook.

--stack <STACK>
Name or ID of heat stack (default=Env: OVERCLOUD_STACK_NAME)

-e <EXTRA_VARS>, **--extra-vars** <EXTRA_VARS>
Set additional variables as key=value or yaml/json

-y, **--yes**
Use -y or yes to skip the confirmation required before any upgrade operation. Use this with caution!

--limit <LIMIT>
A string that identifies a single node or comma-separated list of nodes the config-download Ansible playbook execution will be limited to. For example: limit compute-0,compute-1,compute-5.

--ansible-forks <ANSIBLE_FORKS>
The number of Ansible forks to use for the config-download ansible-playbook command.

--refresh

DEPRECATED: Refresh the config-download playbooks. Use *overcloud update prepare* instead to refresh playbooks.

This command is provided by the python-tripleoclient plugin.

5.19 overcloud external-upgrade run

Run external major upgrade Ansible playbook

This will run the external major upgrade Ansible playbook, executing tasks from the undercloud. The upgrade playbooks are made available after completion of the overcloud upgrade prepare command.

```
openstack overcloud external-upgrade run
  [--static-inventory STATIC_INVENTORY]
  [--ssh-user SSH_USER]
  [--tags TAGS]
  [--skip-tags SKIP_TAGS]
  [--stack STACK]
  [-e EXTRA_VARS]
  [-y]
  [--limit LIMIT]
  [--ansible-forks ANSIBLE_FORKS]
```

--static-inventory <STATIC_INVENTORY>

DEPRECATED: tripleo-ansible-inventory.yaml in working dir will be used.

--ssh-user <SSH_USER>

DEPRECATED: Only tripleo-admin should be used as ssh user.

--tags <TAGS>

A string specifying the tag or comma separated list of tags to be passed as tags to ansible-playbook.

--skip-tags <SKIP_TAGS>

A string specifying the tag or comma separated list of tags to be passed as skip-tags to ansible-playbook.

--stack <STACK>

Name or ID of heat stack (default=Env: OVERCLOUD_STACK_NAME)

-e <EXTRA_VARS>, **--extra-vars** <EXTRA_VARS>

Set additional variables as key=value or yaml/json

-y, **--yes**

Use -y or yes to skip the confirmation required before any upgrade operation. Use this with caution!

--limit <LIMIT>

A string that identifies a single node or comma-separated list of nodes the config-download Ansible playbook execution will be limited to. For example: limit compute-0,compute-1,compute-5.

--ansible-forks <ANSIBLE_FORKS>

The number of Ansible forks to use for the config-download ansible-playbook command.

This command is provided by the python-tripleoclient plugin.

5.20 overcloud generate fencing

Generate fencing parameters

```
openstack overcloud generate fencing
  [-a FENCE_ACTION]
  [--delay DELAY]
  [--ipmi-lanplus]
  [--ipmi-no-lanplus]
  [--ipmi-cipher IPMI_CIPHER]
  [--ipmi-level IPMI_LEVEL]
  [--output OUTPUT]
instackenv
```

-a <FENCE_ACTION>, **--action** <FENCE_ACTION>
DEPRECATED: This option is ignored.

--delay <DELAY>
Wait DELAY seconds before fencing is started

--ipmi-lanplus
DEPRECATED: This is the default.

--ipmi-no-lanplus
Do not use Lanplus. Defaults to: false

--ipmi-cipher <IPMI_CIPHER>
Ciphersuite to use (same as ipmitool -C parameter).

--ipmi-level <IPMI_LEVEL>
Privileged level on IPMI device. Valid levels: callback, user, operator, administrator.

--output <OUTPUT>
Write parameters to a file

instackenv

This command is provided by the python-tripleoclient plugin.

5.21 overcloud image build

Build images for the overcloud

```
openstack overcloud image build
  [--config-file <yaml config file>]
  [--image-name <image name>]
  [--no-skip]
  [--output-directory OUTPUT_DIRECTORY]
  [--temp-dir TEMP_DIR]
```

--config-file <yaml config file>
YAML config file specifying the image build. May be specified multiple times. Order is preserved, and later files will override some options in previous files. Other options will append.

- image-name** <image name>
Name of image to build. May be specified multiple times. If unspecified, will build all images in given YAML files.
- no-skip**
Skip build if cached image exists.
- output-directory** <OUTPUT_DIRECTORY>
Output directory for images. Defaults to \$STRIPLEO_ROOT, or current directory if unset.
- temp-dir** <TEMP_DIR>
Temporary directory to use when building the images. Defaults to \$TMPDIR or current directory if unset.

This command is provided by the python-tripleoclient plugin.

5.22 overcloud image upload

Make existing image files available for overcloud deployment.

```

openstack overcloud image upload
  [--image-path IMAGE_PATH]
  [--os-image-name OS_IMAGE_NAME]
  [--ironic-python-agent-name IPA_NAME]
  [--http-boot HTTP_BOOT]
  [--update-existing]
  [--whole-disk]
  [--architecture ARCHITECTURE]
  [--platform PLATFORM]
  [--image-type {os,ironic-python-agent}]
  [--progress]
  [--local]
  [--no-local]
  [--local-path LOCAL_PATH]

```

- image-path** <IMAGE_PATH>
Path to directory containing image files
- os-image-name** <OS_IMAGE_NAME>
OpenStack disk image filename
- ironic-python-agent-name** <IPA_NAME>
OpenStack ironic-python-agent (agent) image filename
- http-boot** <HTTP_BOOT>
Root directory for the ironic-python-agent image. If uploading images for multiple architectures/platforms, vary this argument such that a distinct folder is created for each architecture/platform.
- update-existing**
Update images if already exist
- whole-disk**
When set, the overcloud-full image to be uploaded will be considered as a whole disk one

- architecture** <ARCHITECTURE>
Architecture type for these images, x86_64, i386 and ppc64le are common options. This option should match at least one arch value in instackenv.json
- platform** <PLATFORM>
Platform type for these images. Platform is a sub-category of architecture. For example you may have generic images for x86_64 but offer images specific to SandyBridge (SNB).
- image-type** <IMAGE_TYPE>
If specified, allows to restrict the image type to upload (os for the overcloud image or ironic-python-agent for the ironic-python-agent one)
- progress**
Show progress bar for upload files action
- local**
DEPRECATED: Copy files locally, even if there is an image service endpoint. The default has been changed to copy files locally.
- no-local**
Upload files to image service.
- local-path** <LOCAL_PATH>
Root directory for image file copy destination when there is no image endpoint, or when local is specified

This command is provided by the python-tripleoclient plugin.

5.23 overcloud netenv validate

Validate the network environment file.

```
openstack overcloud netenv validate [-f NETENV]
```

- f** <NETENV>, **--file** <NETENV>
Path to the network environment file

This command is provided by the python-tripleoclient plugin.

5.24 overcloud network extract

```
openstack overcloud network extract
  --stack STACK
  -o <network_deployment
  .yaml>
  [-y]
```

- stack** <STACK>
Name or ID of heat stack (default=Env: OVERCLOUD_STACK_NAME)
- o** <network_deployment.yaml>, **--output** <network_deployment.yaml>
The output file path describing the network deployment

-y, --yes

Skip yes/no prompt for existing files (assume yes).

This command is provided by the python-tripleoclient plugin.

5.25 overcloud network provision

```
openstack overcloud network provision
  -o <network_environment
  .yaml>
  [-y]
  [--templates TEMPLATES]
  [--stack STACK]
  [--working-dir WORKING_DIR]
  <network_data.yaml>
```

-o <network_environment.yaml>, **--output** <network_environment.yaml>
The output network environment file path.

-y, --yes

Skip yes/no prompt for existing files (assume yes).

--templates <TEMPLATES>

The directory containing the Heat templates to deploy

--stack <STACK>

Name or ID of heat stack, when set the networks file will be copied to the working dir.

--working-dir <WORKING_DIR>

The working directory for the deployment where all input, output, and generated files will be stored. Defaults to \$HOME/overcloud-deploy-<stack>

network_data.yaml

Configuration file describing the network deployment.

This command is provided by the python-tripleoclient plugin.

5.26 overcloud network unprovision

```
openstack overcloud network unprovision [-y] <network_data.yaml>
```

-y, --yes

Skip yes/no prompt (assume yes).

network_data.yaml

Configuration file describing the network deployment.

This command is provided by the python-tripleoclient plugin.

5.27 overcloud network vip extract

```
openstack overcloud network vip extract
  --stack STACK
  -o <vip_data
  .yaml>
  [-y]
```

- stack** <STACK>
Name of heat stack (default=Env: OVERCLOUD_STACK_NAME)
- o** <vip_data.yaml>, **--output** <vip_data.yaml>
The output file path describing the Virtual IP deployment
- y**, **--yes**
Skip yes/no prompt for existing files (assume yes).

This command is provided by the python-tripleoclient plugin.

5.28 overcloud network vip provision

```
openstack overcloud network vip provision
  --stack STACK
  -o <vip_environment
  .yaml>
  [-y]
  [--templates TEMPLATES]
  [--working-dir WORKING_DIR]
  <vip_data.yaml>
```

- stack** <STACK>
Name of heat stack (default=Env: OVERCLOUD_STACK_NAME)
- o** <vip_environment.yaml>, **--output** <vip_environment.yaml>
The output Virtual IP environment file path.
- y**, **--yes**
Skip yes/no prompt for existing files (assume yes).
- templates** <TEMPLATES>
The directory containing the Heat templates to deploy
- working-dir** <WORKING_DIR>
The working directory for the deployment where all input, output, and generated files will be stored. Defaults to \$HOME/overcloud-deploy-<stack>
- vip_data.yaml**
Configuration file describing the network Virtual IPs.

This command is provided by the python-tripleoclient plugin.

5.29 overcloud node bios configure

Apply BIOS configuration on given nodes

```
openstack overcloud node bios configure
  [--all-manageable]
  [--configuration <configuration>]
  [<node_uuid> [<node_uuid> ...]]
```

--all-manageable

Configure BIOS for all nodes currently in manageable state

--configuration <configuration>

BIOS configuration (YAML/JSON string or file name).

node_uuid

Baremetal Node UUIDs for the node(s) to configure BIOS

This command is provided by the python-tripleoclient plugin.

5.30 overcloud node bios reset

Reset BIOS configuration to factory default

```
openstack overcloud node bios reset
  [--all-manageable]
  [<node_uuid> [<node_uuid> ...]]
```

--all-manageable

Reset BIOS on all nodes currently in manageable state

node_uuid

Baremetal Node UUIDs for the node(s) to reset BIOS

This command is provided by the python-tripleoclient plugin.

5.31 overcloud node clean

Run node(s) through cleaning.

```
openstack overcloud node clean
  [--all-manageable]
  [--provide]
  [<node_uuid> [<node_uuid> ...]]
```

--all-manageable

Clean all nodes currently in manageable state

--provide

Provide (make available) the nodes once cleaned

node_uuid

Baremetal Node UUIDs for the node(s) to be cleaned

This command is provided by the python-tripleoclient plugin.

5.32 overcloud node configure

Configure Node boot options.

```
openstack overcloud node configure
  [--all-manageable]
  [--deploy-kernel DEPLOY_KERNEL]
  [--deploy-ramdisk DEPLOY_RAMDISK]
  [--instance-boot-option {local,netboot}]
  [--boot-mode {uefi,bios}]
  [--root-device ROOT_DEVICE]
  [--root-device-minimum-size ROOT_DEVICE_MINIMUM_SIZE]
  [--overwrite-root-device-hints]
  [<node_uuid> [<node_uuid> ...]]
```

--all-manageable

Configure all nodes currently in manageable state

--deploy-kernel <DEPLOY_KERNEL>

Image with deploy kernel.

--deploy-ramdisk <DEPLOY_RAMDISK>

Image with deploy ramdisk.

--instance-boot-option <INSTANCE_BOOT_OPTION>

Whether to set instances for booting from local hard drive (local) or network (netboot).

--boot-mode <BOOT_MODE>

Whether to set the boot mode to UEFI (uefi) or legacy BIOS (bios)

--root-device <ROOT_DEVICE>

Define the root device for nodes. Can be either a list of device names (without /dev) to choose from or one of two strategies: largest or smallest. For it to work this command should be run after the introspection.

--root-device-minimum-size <ROOT_DEVICE_MINIMUM_SIZE>

Minimum size (in GiB) of the detected root device. Used with root-device.

--overwrite-root-device-hints

Whether to overwrite existing root device hints when root-device is used.

node_uuid

Baremetal Node UUIDs for the node(s) to be configured

This command is provided by the python-tripleoclient plugin.

5.33 overcloud node delete

Delete overcloud nodes.

```
openstack overcloud node delete
  [-b <BAREMETAL DEPLOYMENT FILE>]
  [--stack STACK]
  [--timeout <TIMEOUT>]
  [--overcloud-ssh-port-timeout OVERCLOUD_SSH_PORT_TIMEOUT]
  [-y]
  [<node> [<node> ...]]
```

-b <BAREMETAL DEPLOYMENT FILE>, **--baremetal-deployment** <BAREMETAL DEPLOYMENT FILE>
Configuration file describing the baremetal deployment

--stack <STACK>
Name or ID of heat stack to scale (default=Env: OVERCLOUD_STACK_NAME)

--timeout <TIMEOUT>
Timeout in minutes to wait for the nodes to be deleted. Keep in mind that due to keystone session duration that timeout has an upper bound of 4 hours

--overcloud-ssh-port-timeout <OVERCLOUD_SSH_PORT_TIMEOUT>
Timeout for the ssh port to become active.

-y, --yes
Skip yes/no prompt (assume yes).

node
Node ID(s) to delete (otherwise specified in the baremetal-deployment file)

This command is provided by the python-tripleoclient plugin.

5.34 overcloud node discover

Discover overcloud nodes by polling their BMCs.

```
openstack overcloud node discover
  (--ip <ips> | --range <range>)
  --credentials <key
:value>
  [--port <ports>]
  [--introspect]
  [--run-validations]
  [--provide]
  [--no-deploy-image]
  [--instance-boot-option {local,netboot}]
  [--concurrency CONCURRENCY]
  [--node-timeout NODE_TIMEOUT]
  [--max-retries MAX_RETRIES]
  [--retry-timeout RETRY_TIMEOUT]
```

--ip <ips>
IP address(es) to probe

- range** <range>
IP range to probe
- credentials** <key:value>
Key/value pairs of possible credentials
- port** <ports>
BMC port(s) to probe
- introspect**
Introspect the imported nodes
- run-validations**
Run the pre-deployment validations. These external validations are from the TripleO Validations project.
- provide**
Provide (make available) the nodes
- no-deploy-image**
Skip setting the deploy kernel and ramdisk.
- instance-boot-option** <INSTANCE_BOOT_OPTION>
Whether to set instances for booting from local hard drive (local) or network (netboot).
- concurrency** <CONCURRENCY>
Maximum number of nodes to introspect at once.
- node-timeout** <NODE_TIMEOUT>
Maximum timeout for node introspection.
- max-retries** <MAX_RETRIES>
Maximum introspection retries.
- retry-timeout** <RETRY_TIMEOUT>
Maximum timeout between introspectionretries

This command is provided by the python-tripleoclient plugin.

5.35 overcloud node extract provisioned

```
openstack overcloud node extract provisioned
  [--stack STACK]
  [-o <baremetal_deployment.yaml>]
  [-y]
  [--roles-file ROLES_FILE]
  [--networks-file NETWORKS_FILE]
  [--working-dir WORKING_DIR]
```

- stack** <STACK>
Name or ID of heat stack (default=Env: OVERCLOUD_STACK_NAME)
- o** <baremetal_deployment.yaml>, **--output** <baremetal_deployment.yaml>
The output file path describing the baremetal deployment
- y, --yes**
Skip yes/no prompt for existing files (assume yes).

- roles-file** <ROLES_FILE>, **-r** <ROLES_FILE>
Role data definition file
- networks-file** <NETWORKS_FILE>, **-n** <NETWORKS_FILE>
Network data definition file
- working-dir** <WORKING_DIR>
The working directory for the deployment where all input, output, and generated files will be stored. Defaults to \$HOME/overcloud-deploy/<stack>

This command is provided by the python-tripleoclient plugin.

5.36 overcloud node import

Import baremetal nodes from a JSON, YAML or CSV file.

The node status will be set to manageable by default.

```
openstack overcloud node import
  [--introspect]
  [--run-validations]
  [--validate-only]
  [--provide]
  [--no-deploy-image]
  [--instance-boot-option {local,netboot}]
  [--boot-mode {uefi,bios}]
  [--http-boot HTTP_BOOT]
  [--concurrency CONCURRENCY]
  env_file
```

- introspect**
Introspect the imported nodes
- run-validations**
Run the pre-deployment validations. These external validations are from the TripleO Validations project.
- validate-only**
Validate the env_file and then exit without actually importing the nodes.
- provide**
Provide (make available) the nodes
- no-deploy-image**
Skip setting the deploy kernel and ramdisk.
- instance-boot-option** <INSTANCE_BOOT_OPTION>
Whether to set instances for booting from local hard drive (local) or network (netboot)
- boot-mode** <BOOT_MODE>
Whether to set the boot mode to UEFI (uefi) or legacy BIOS (bios)
- http-boot** <HTTP_BOOT>
Root directory for the ironic-python-agent image
- concurrency** <CONCURRENCY>
Maximum number of nodes to introspect at once.

env_file

This command is provided by the python-tripleoclient plugin.

5.37 overcloud node introspect

Introspect specified nodes or all nodes in manageable state.

```
openstack overcloud node introspect
  [--all-manageable]
  [--provide]
  [--run-validations]
  [--concurrency CONCURRENCY]
  [--node-timeout NODE_TIMEOUT]
  [--max-retries MAX_RETRIES]
  [--retry-timeout RETRY_TIMEOUT]
  [<node_uuid> [<node_uuid> ...]]
```

--all-manageable

Introspect all nodes currently in manageable state

--provide

Provide (make available) the nodes once introspected

--run-validations

Run the pre-deployment validations. These external validations are from the TripleO Validations project.

--concurrency <CONCURRENCY>

Maximum number of nodes to introspect at once.

--node-timeout <NODE_TIMEOUT>

Maximum timeout for node introspection.

--max-retries <MAX_RETRIES>

Maximum introspection retries.

--retry-timeout <RETRY_TIMEOUT>

Maximum timeout between introspectionretries

node_uuid

Baremetal Node UUIDs for the node(s) to be introspected

This command is provided by the python-tripleoclient plugin.

5.38 overcloud node provide

Mark nodes as available based on UUIDs or current manageable state.

```
openstack overcloud node provide
  [--all-manageable]
  [<node_uuid> [<node_uuid> ...]]
```

--all-manageable

Provide all nodes currently in manageable state

node_uuid

Baremetal Node UUIDs for the node(s) to be provided

This command is provided by the python-tripleoclient plugin.

5.39 overcloud node provision

Provision new nodes using Ironic.

```
openstack overcloud node provision
  [-o OUTPUT]
  [-y]
  [--stack STACK]
  [--overcloud-ssh-user OVERCLOUD_SSH_USER]
  [--overcloud-ssh-key OVERCLOUD_SSH_KEY]
  [--concurrency CONCURRENCY]
  [--timeout TIMEOUT]
  [--network-ports]
  [--network-config]
  [--templates TEMPLATES]
  [--working-dir WORKING_DIR]
  <baremetal_deployment.yaml>
```

-o <OUTPUT>, **--output** <OUTPUT>
The output environment file path

-y, **--yes**
Skip yes/no prompt for existing files (assume yes).

--stack <STACK>
Name or ID of heat stack (default=Env: OVERCLOUD_STACK_NAME)

--overcloud-ssh-user <OVERCLOUD_SSH_USER>
User for SSH access to newly deployed nodes

--overcloud-ssh-key <OVERCLOUD_SSH_KEY>
Key path for ssh access to overcloud nodes. When undefined the key will be autodetected.

--concurrency <CONCURRENCY>
Maximum number of nodes to provision at once. (default=20)

--timeout <TIMEOUT>
Number of seconds to wait for the node provision to complete. (default=3600)

--network-ports
DEPRECATED! Network ports will always be provisioned. Enable provisioning of network ports

--network-config
Apply network config to provisioned nodes. (Implies network-ports)

--templates <TEMPLATES>
The directory containing the Heat templates to deploy

--working-dir <WORKING_DIR>
The working directory for the deployment where all input, output, and generated files will be stored. Defaults to \$HOME/overcloud-deploy-<stack>

baremetal_deployment.yaml

Configuration file describing the baremetal deployment

This command is provided by the python-tripleoclient plugin.

5.40 overcloud node unprovision

Unprovisions nodes using Ironic.

```
openstack overcloud node unprovision
  [--stack STACK]
  [--all]
  [-y]
  [--network-ports]
  <baremetal_deployment.yaml>
```

--stack <STACK>

Name or ID of heat stack (default=Env: OVERCLOUD_STACK_NAME)

--all

Unprovision every instance in the deployment

-y, --yes

Skip yes/no prompt (assume yes)

--network-ports

DEPRECATED! Network ports will always be unprovisioned. Enable unprovisioning of network ports

baremetal_deployment.yaml

Configuration file describing the baremetal deployment

This command is provided by the python-tripleoclient plugin.

5.41 overcloud profiles list

List overcloud node profiles

```
openstack overcloud profiles list
  [-f {csv,json,table,value,yaml}]
  [-c COLUMN]
  [--quote {all,minimal,none,nonnumeric}]
  [--noindent]
  [--max-width <integer>]
  [--fit-width]
  [--print-empty]
  [--sort-column SORT_COLUMN]
  [--sort-ascending | --sort-descending]
  [--all]
  [--control-scale CONTROL_SCALE]
  [--compute-scale COMPUTE_SCALE]
  [--ceph-storage-scale CEPH_STORAGE_SCALE]
  [--block-storage-scale BLOCK_STORAGE_SCALE]
  [--swift-storage-scale SWIFT_STORAGE_SCALE]
```

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```

[--control-flavor CONTROL_FLAVOR]
[--compute-flavor COMPUTE_FLAVOR]
[--ceph-storage-flavor CEPH_STORAGE_FLAVOR]
[--block-storage-flavor BLOCK_STORAGE_FLAVOR]
[--swift-storage-flavor SWIFT_STORAGE_FLAVOR]

```

- f** <FORMATTER>, **--format** <FORMATTER>
the output format, defaults to table
- c** COLUMN, **--column** COLUMN
specify the column(s) to include, can be repeated to show multiple columns
- quote** <QUOTE_MODE>
when to include quotes, defaults to nonnumeric
- noindent**
whether to disable indenting the JSON
- max-width** <integer>
Maximum display width, <1 to disable. You can also use the CLIFF_MAX_TERM_WIDTH environment variable, but the parameter takes precedence.
- fit-width**
Fit the table to the display width. Implied if max-width greater than 0. Set the environment variable CLIFF_FIT_WIDTH=1 to always enable
- print-empty**
Print empty table if there is no data to show.
- sort-column** SORT_COLUMN
specify the column(s) to sort the data (columns specified first have a priority, non-existing columns are ignored), can be repeated
- sort-ascending**
sort the column(s) in ascending order
- sort-descending**
sort the column(s) in descending order
- all**
List all nodes, even those not available to Nova.
- control-scale** <CONTROL_SCALE>
New number of control nodes.
- compute-scale** <COMPUTE_SCALE>
New number of compute nodes.
- ceph-storage-scale** <CEPH_STORAGE_SCALE>
New number of ceph storage nodes.
- block-storage-scale** <BLOCK_STORAGE_SCALE>
New number of cinder storage nodes.
- swift-storage-scale** <SWIFT_STORAGE_SCALE>
New number of swift storage nodes.
- control-flavor** <CONTROL_FLAVOR>
Nova flavor to use for control nodes.

- compute-flavor** <COMPUTE_FLAVOR>
Nova flavor to use for compute nodes.
- ceph-storage-flavor** <CEPH_STORAGE_FLAVOR>
Nova flavor to use for ceph storage nodes.
- block-storage-flavor** <BLOCK_STORAGE_FLAVOR>
Nova flavor to use for cinder storage nodes
- swift-storage-flavor** <SWIFT_STORAGE_FLAVOR>
Nova flavor to use for swift storage nodes

This command is provided by the python-tripleoclient plugin.

5.42 overcloud profiles match

Assign and validate profiles on nodes

```
openstack overcloud profiles match
  [--dry-run]
  [--control-scale CONTROL_SCALE]
  [--compute-scale COMPUTE_SCALE]
  [--ceph-storage-scale CEPH_STORAGE_SCALE]
  [--block-storage-scale BLOCK_STORAGE_SCALE]
  [--swift-storage-scale SWIFT_STORAGE_SCALE]
  [--control-flavor CONTROL_FLAVOR]
  [--compute-flavor COMPUTE_FLAVOR]
  [--ceph-storage-flavor CEPH_STORAGE_FLAVOR]
  [--block-storage-flavor BLOCK_STORAGE_FLAVOR]
  [--swift-storage-flavor SWIFT_STORAGE_FLAVOR]
```

- dry-run**
Only run validations, but do not apply any changes.
- control-scale** <CONTROL_SCALE>
New number of control nodes.
- compute-scale** <COMPUTE_SCALE>
New number of compute nodes.
- ceph-storage-scale** <CEPH_STORAGE_SCALE>
New number of ceph storage nodes.
- block-storage-scale** <BLOCK_STORAGE_SCALE>
New number of cinder storage nodes.
- swift-storage-scale** <SWIFT_STORAGE_SCALE>
New number of swift storage nodes.
- control-flavor** <CONTROL_FLAVOR>
Nova flavor to use for control nodes.
- compute-flavor** <COMPUTE_FLAVOR>
Nova flavor to use for compute nodes.
- ceph-storage-flavor** <CEPH_STORAGE_FLAVOR>
Nova flavor to use for ceph storage nodes.

--block-storage-flavor <BLOCK_STORAGE_FLAVOR>

Nova flavor to use for cinder storage nodes

--swift-storage-flavor <SWIFT_STORAGE_FLAVOR>

Nova flavor to use for swift storage nodes

This command is provided by the python-tripleoclient plugin.

5.43 overcloud raid create

Create RAID on given nodes

```
openstack overcloud raid create --node NODE configuration
```

--node <NODE>

Nodes to create RAID on (expected to be in manageable state). Can be specified multiple times.

configuration

RAID configuration (YAML/JSON string or file name).

This command is provided by the python-tripleoclient plugin.

5.44 overcloud restore

Restore the Overcloud

```
openstack overcloud restore
  [--inventory INVENTORY]
  [--stack [STACK]]
  --node-name NODE_NAME
  [--extra-vars EXTRA_VARS]
```

--inventory <INVENTORY>

Tripleo inventory file generated with tripleo-ansible-inventory command. Defaults to: `/home/zuul/src/opev.org/openstack/python-tripleoclient/.tox/docs/config-download/overcloud/tripleo-ansible-inventory.yaml`

--stack <STACK>

Name or ID of the stack to be used(default=Env: OVERCLOUD_STACK_NAME)

--node-name <NODE_NAME>

Controller name is a required parameter which defines the controller node to be restored.

--extra-vars <EXTRA_VARS>

Set additional variables as Dict or as an absolute path of a JSON or YAML file type. i.e. `extra-vars {key: val, key2: val2}` i.e. `extra-vars /path/to/my_vars.yaml` i.e. `extra-vars /path/to/my_vars.json`. For more information about the variables that can be passed, visit: https://opev.org/openstack/tripleo-ansible/src/branch/master/tripleo_ansible/roles/backup_and_restore/defaults/main.yml.

5.45 overcloud role list

List available roles.

```
openstack overcloud role list [--roles-path <roles directory>]
```

--roles-path <roles directory>

Filesystem path containing the role yaml files. By default this is /usr/share/openstack-tripleo-heat-templates/roles

This command is provided by the python-tripleoclient plugin.

5.46 overcloud role show

Show information about a given role.

```
openstack overcloud role show [--roles-path <roles directory>] <role>
```

--roles-path <roles directory>

Filesystem path containing the role yaml files. By default this is /usr/share/openstack-tripleo-heat-templates/roles

role

Role to display more information about.

This command is provided by the python-tripleoclient plugin.

5.47 overcloud roles generate

Generate roles_data.yaml file

```
openstack overcloud roles generate
  [--roles-path <roles directory>]
  [-o <output file>]
  [--skip-validate]
  <role>
  [<role> ...]
```

--roles-path <roles directory>

Filesystem path containing the role yaml files. By default this is /usr/share/openstack-tripleo-heat-templates/roles

-o <output file>, **--output-file** <output file>

File to capture all output to. For example, roles_data.yaml

--skip-validate

Skip role metadata type validation when generating the roles_data.yaml

role

List of roles to use to generate the roles_data.yaml file for the deployment. NOTE: Ordering is important if no role has the primary and controller tags. If no role is tagged then the first role listed will be considered the primary role. This usually is the controller role.

This command is provided by the python-tripleoclient plugin.

5.48 overcloud status

Get deployment status

```
openstack overcloud status [--plan PLAN] [--working-dir WORKING_DIR]
```

--plan <PLAN>, **--stack** <PLAN>

Name of the stack/plan. (default: overcloud)

--working-dir <WORKING_DIR>

The working directory for the deployment where all input, output, and generated files are stored.
Defaults to \$HOME/overcloud-deploy/<stack>

This command is provided by the python-tripleoclient plugin.

5.49 overcloud support report collect

Run sosreport on selected servers.

```
openstack overcloud support report collect
  [--stack STACK]
  [-c CONTAINER]
  [-o DESTINATION]
  [--skip-container-delete]
  [-t TIMEOUT]
  [-n CONCURRENCY]
  [--collect-only]
  [--download-only]
  server_name
```

--stack <STACK>

Stack name to use for log collection.

-c <CONTAINER>, **--container** <CONTAINER>

This option no-longer has any effect.

-o <DESTINATION>, **--output** <DESTINATION>

Output directory for the report

--skip-container-delete

This option no-longer has any effect.

-t <TIMEOUT>, **--timeout** <TIMEOUT>

This option no-longer has any effect.

-n <CONCURRENCY>, **--concurrency** <CONCURRENCY>

This option no-longer has any effect.

--collect-only

This option no-longer has any effect.

--download-only

This option no-longer has any effect.

server_name

Server name, group name, or partial name to match. For example Controller will match all controllers for an environment.

This command is provided by the python-tripleoclient plugin.

5.50 overcloud update prepare

Use Heat to update and render the new Ansible playbooks based on the updated templates.

These playbooks will be rendered and used during the update run step to perform the minor update of the overcloud nodes.

```

openstack overcloud update prepare
  [--templates [TEMPLATES]]
  [--stack STACK]
  [--timeout <TIMEOUT>]
  [--libvirt-type {kvm,qemu}]
  [--ntp-server NTP_SERVER]
  [--no-proxy NO_PROXY]
  [--overcloud-ssh-user OVERCLOUD_SSH_USER]
  [--overcloud-ssh-key OVERCLOUD_SSH_KEY]
  [--overcloud-ssh-network OVERCLOUD_SSH_NETWORK]
  [--overcloud-ssh-enable-timeout OVERCLOUD_SSH_ENABLE_TIMEOUT]
  [--overcloud-ssh-port-timeout OVERCLOUD_SSH_PORT_TIMEOUT]
  [--environment-file <HEAT ENVIRONMENT FILE>]
  [--environment-directory <HEAT ENVIRONMENT DIRECTORY>]
  [--roles-file ROLES_FILE]
  [--networks-file NETWORKS_FILE]
  [--vip-file VIP_FILE]
  [--no-cleanup]
  [--update-plan-only]
  [--validation-errors-nonfatal]
  [--validation-warnings-fatal]
  [--disable-validations]
  [--inflight-validations]
  [--dry-run]
  [--run-validations]
  [--skip-postconfig]
  [--force-postconfig]
  [--skip-deploy-identifier]
  [--answers-file ANSWERS_FILE]
  [--disable-password-generation]
  [--deployed-server]
  [--provision-nodes]
  [--config-download]
  [--no-config-download]
  [--config-download-only]
  [--setup-only]
  [--config-dir CONFIG_DIR]
  [--config-type CONFIG_TYPE]
  [--no-preserve-config]
  [--output-dir OUTPUT_DIR]
  [--override-ansible-cfg OVERRIDE_ANSIBLE_CFG]
  [--config-download-timeout CONFIG_DOWNLOAD_TIMEOUT]

```

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```

[--deployment-python-interpreter DEPLOYMENT_PYTHON_INTERPRETER]
[-b [<baremetal_deployment.yaml>]]
[--network-config]
[--limit LIMIT]
[--tags TAGS]
[--skip-tags SKIP_TAGS]
[--ansible-forks ANSIBLE_FORKS]
[--disable-container-prepare]
[--working-dir WORKING_DIR]
[--heat-type {pod,container,native}]
[--heat-container-api-image <HEAT_CONTAINER_API_IMAGE>]
[--heat-container-engine-image <HEAT_CONTAINER_ENGINE_IMAGE>]
[--rm-heat]
[--skip-heat-pull]
[--disable-protected-resource-types]
[-y]
[--allow-deprecated-network-data]

```

--templates <TEMPLATES>

The directory containing the Heat templates to deploy

--stack <STACK>

Stack name to create or update

--timeout <TIMEOUT>, **-t** <TIMEOUT>

Deployment timeout in minutes.

--libvirt-type <LIBVIRT_TYPE>

Libvirt domain type.

--ntp-server <NTP_SERVER>

The NTP for overcloud nodes.

--no-proxy <NO_PROXY>

A comma separated list of hosts that should not be proxied.

--overcloud-ssh-user <OVERCLOUD_SSH_USER>

User for ssh access to overcloud nodes

--overcloud-ssh-key <OVERCLOUD_SSH_KEY>

Key path for ssh access to overcloud nodes. When undefined the key will be autodetected.

--overcloud-ssh-network <OVERCLOUD_SSH_NETWORK>

Network name to use for ssh access to overcloud nodes.

--overcloud-ssh-enable-timeout <OVERCLOUD_SSH_ENABLE_TIMEOUT>

This option no longer has any effect.

--overcloud-ssh-port-timeout <OVERCLOUD_SSH_PORT_TIMEOUT>

Timeout for the ssh port to become active.

--environment-file <HEAT ENVIRONMENT FILE>, **-e** <HEAT ENVIRONMENT FILE>

Environment files to be passed to the heat stack-create or heat stack-update command. (Can be specified more than once.)

--environment-directory <HEAT ENVIRONMENT DIRECTORY>

Environment file directories that are automatically added to the heat stack-create or heat stack-

update commands. Can be specified more than once. Files in directories are loaded in ascending sort order.

--roles-file <ROLES_FILE>, **-r** <ROLES_FILE>

Roles file, overrides the default roles_data.yaml in the templates directory. May be an absolute path or the path relative to templates

--networks-file <NETWORKS_FILE>, **-n** <NETWORKS_FILE>

Networks file, overrides the default network_data_default.yaml in the templates directory

--vip-file <VIP_FILE>

Configuration file describing the network Virtual IPs.

--no-cleanup

Dont cleanup temporary files, just log their location

--update-plan-only

DEPRECATED: Only update the plan. Do not perform the actual deployment. NOTE: Will move to a discrete command in a future release. Not supported anymore.

--validation-errors-nonfatal

Allow the deployment to continue in spite of validation errors. Note that attempting deployment while errors exist is likely to fail.

--validation-warnings-fatal

Exit if there are warnings from the configuration pre-checks.

--disable-validations

DEPRECATED. Disable the pre-deployment validations entirely. These validations are the built-in pre-deployment validations. To enable external validations from tripleo-validations, use the run-validations flag. These validations are now run via the external validations in tripleo-validations.

--inflight-validations

Activate in-flight validations during the deploy. In-flight validations provide a robust way to ensure deployed services are running right after their activation. Defaults to False.

--dry-run

Only run validations, but do not apply any changes.

--run-validations

Run external validations from the tripleo-validations project.

--skip-postconfig

Skip the overcloud post-deployment configuration.

--force-postconfig

Force the overcloud post-deployment configuration.

--skip-deploy-identifier

Skip generation of a unique identifier for the DeployIdentifier parameter. The software configuration deployment steps will only be triggered if there is an actual change to the configuration. This option should be used with Caution, and only if there is confidence that the software configuration does not need to be run, such as when scaling out certain roles.

--answers-file <ANSWERS_FILE>

Path to a YAML file with arguments and parameters.

--disable-password-generation

Disable password generation.

--deployed-server

DEPRECATED: Use pre-provisioned overcloud nodes. Now the default and this CLI option has no effect.

--provision-nodes

Provision overcloud nodes with heat.

--config-download

DEPRECATED: Run deployment via config-download mechanism. This is now the default, and this CLI options has no effect.

--no-config-download, --stack-only

Disable the config-download workflow and only create the stack and download the config. No software configuration, setup, or any changes will be applied to overcloud nodes.

--config-download-only

Disable the stack create and setup, and only run the config-download workflow to apply the software configuration. Requires that config-download setup was previously completed, either with stack-only and setup-only or a full deployment

--setup-only

Disable the stack and config-download workflow to apply the software configuration and only run the setup to enable ssh connectivity.

--config-dir <CONFIG_DIR>

The directory where the configuration files will be pushed

--config-type <CONFIG_TYPE>

Only used when setup-only is invoked. Type of object config to be extract from the deployment, defaults to all keys available

--no-preserve-config

Only used when setup-only is invoked. If specified, will delete and recreate the config-dir if it already exists. Default is to use the existing dir location and overwrite files. Files in config-dir not from the stack will be preserved by default.

--output-dir <OUTPUT_DIR>

Directory to use for saved output when using config-download. When not specified, <working-dir>/config-download will be used.

--override-ansible-cfg <OVERRIDE_ANSIBLE_CFG>

Path to ansible configuration file. The configuration in the file will override any configuration used by config-download by default.

--config-download-timeout <CONFIG_DOWNLOAD_TIMEOUT>

Timeout (in minutes) to use for config-download steps. If unset, will default to however much time is leftover from the timeout parameter after the stack operation.

--deployment-python-interpreter <DEPLOYMENT_PYTHON_INTERPRETER>

The path to python interpreter to use for the deployment actions. This may need to be used if deploying on a python2 host from a python3 system or vice versa.

-b <baremetal_deployment.yaml>, **--baremetal-deployment** <baremetal_deployment.yaml>

Deploy baremetal nodes, network and virtual IP addresses as defined in baremetal_deployment.yaml along with overcloud. If no baremetal_deployment YAML file is given, the tripleo-<stack_name>-baremetal-deployment.yaml file in the working-dir will be used.

- network-config**
Apply network config to provisioned nodes. (Implies network-ports)
- limit** <LIMIT>
A string that identifies a single node or comma-separated list of nodes the config-download Ansible playbook execution will be limited to. For example: limit compute-0,compute-1,compute-5.
- tags** <TAGS>
A list of tags to use when running the the config-download ansible-playbook command.
- skip-tags** <SKIP_TAGS>
A list of tags to skip when running the the config-download ansible-playbook command.
- ansible-forks** <ANSIBLE_FORKS>
The number of Ansible forks to use for the config-download ansible-playbook command.
- disable-container-prepare**
Disable the container preparation actions to prevent container tags from being updated and new containers from being fetched. If you skip this but do not have the container parameters configured, the deployment action may fail.
- working-dir** <WORKING_DIR>
The working directory for the deployment where all input, output, and generated files will be stored. Defaults to \$HOME/overcloud-deploy/<stack>
- heat-type** <HEAT_TYPE>
The type of Heat process to use to execute the deployment. pod (Default): Use an ephemeral Heat pod. container (Experimental): Use an ephemeral Heat container. native (Experimental): Use an ephemeral Heat process.
- heat-container-api-image** <HEAT_CONTAINER_API_IMAGE>
The container image to use when launching the heat-api process. Only used when heat-type=pod. Defaults to: localhost/tripleo/openstack-heat-api:ephemeral
- heat-container-engine-image** <HEAT_CONTAINER_ENGINE_IMAGE>
The container image to use when launching the heat-engine process. Only used when heat-type=pod. Defaults to: localhost/tripleo/openstack-heat-engine:ephemeral
- rm-heat**
If specified and heat-type is container or pod any existing container or pod of a previous ephemeral Heat process will be deleted first. Ignored if heat-type is native.
- skip-heat-pull**
When heat-type is pod or container, assume the container image has already been pulled
- disable-protected-resource-types**
Disable protected resource type overrides. Resources types that are used internally are protected, and cannot be overridden in the user environment. Setting this argument disables the protection, allowing the protected resource types to be override in the user environment.
- y, --yes**
Use -y or yes to skip any confirmation required before the deploy operation. Use this with caution!
- allow-deprecated-network-data**
Set this to allow using deprecated network data YAML definition schema.

5.51 overcloud update run

Run minor update ansible playbooks on Overcloud nodes

```
openstack overcloud update run
  --limit LIMIT
  [--playbook [PLAYBOOK [PLAYBOOK ...]]]
  [--ssh-user SSH_USER]
  [--static-inventory STATIC_INVENTORY]
  [--stack STACK]
  [--tags TAGS]
  [--skip-tags SKIP_TAGS]
  [-y]
  [--ansible-forks ANSIBLE_FORKS]
```

--limit <LIMIT>

A string that identifies a single node or comma-separated list of nodes the config-download Ansible playbook execution will be limited to. For example: limit compute-0,compute-1,compute-5. When DeploymentServerBlacklist is defined, excluded_overcloud group is added at the end of the string and nodes from the group will be skipped during the execution.

--playbook <PLAYBOOK>

Ansible playbook to use for the minor update. Can be used multiple times. Set this to each of those playbooks in consecutive invocations of this command if you prefer to run them manually. Note: make sure to run all playbooks so that all services are updated and running with the target version configuration.

--ssh-user <SSH_USER>

DEPRECATED: Only tripleo-admin should be used as ssh user.

--static-inventory <STATIC_INVENTORY>

DEPRECATED: tripleo-ansible-inventory.yaml in working dir will be used.

--stack <STACK>

Name or ID of heat stack (default=Env: OVERCLOUD_STACK_NAME)

--tags <TAGS>

A list of tags to use when running the the config-download ansible-playbook command.

--skip-tags <SKIP_TAGS>

A list of tags to skip when running the the config-download ansible-playbook command.

-y, --yes

Use -y or yes to skip the confirmation required before any update operation. Use this with caution!

--ansible-forks <ANSIBLE_FORKS>

The number of Ansible forks to use for the config-download ansible-playbook command.

This command is provided by the python-tripleoclient plugin.

5.52 overcloud upgrade converge

Major upgrade converge - reset Heat resources in the stored plan

This is the last step for completion of a overcloud major upgrade. The main task is updating the plan and stack to unblock future stack updates. For the major upgrade workflow we have set specific values for some stack Heat resources. This unsets those back to their default values.

```

openstack overcloud upgrade converge
  [--templates [TEMPLATES]]
  [--stack STACK]
  [--timeout <TIMEOUT>]
  [--libvirt-type {kvm,qemu}]
  [--ntp-server NTP_SERVER]
  [--no-proxy NO_PROXY]
  [--overcloud-ssh-user OVERCLOUD_SSH_USER]
  [--overcloud-ssh-key OVERCLOUD_SSH_KEY]
  [--overcloud-ssh-network OVERCLOUD_SSH_NETWORK]
  [--overcloud-ssh-enable-timeout OVERCLOUD_SSH_ENABLE_TIMEOUT]
  [--overcloud-ssh-port-timeout OVERCLOUD_SSH_PORT_TIMEOUT]
  [--environment-file <HEAT ENVIRONMENT FILE>]
  [--environment-directory <HEAT ENVIRONMENT DIRECTORY>]
  [--roles-file ROLES_FILE]
  [--networks-file NETWORKS_FILE]
  [--vip-file VIP_FILE]
  [--no-cleanup]
  [--update-plan-only]
  [--validation-errors-nonfatal]
  [--validation-warnings-fatal]
  [--disable-validations]
  [--inflight-validations]
  [--dry-run]
  [--run-validations]
  [--skip-postconfig]
  [--force-postconfig]
  [--skip-deploy-identifier]
  [--answers-file ANSWERS_FILE]
  [--disable-password-generation]
  [--deployed-server]
  [--provision-nodes]
  [--config-download]
  [--no-config-download]
  [--config-download-only]
  [--setup-only]
  [--config-dir CONFIG_DIR]
  [--config-type CONFIG_TYPE]
  [--no-preserve-config]
  [--output-dir OUTPUT_DIR]
  [--override-ansible-cfg OVERRIDE_ANSIBLE_CFG]
  [--config-download-timeout CONFIG_DOWNLOAD_TIMEOUT]
  [--deployment-python-interpreter DEPLOYMENT_PYTHON_INTERPRETER]
  [-b [<baremetal_deployment.yaml>]]
  [--network-config]
  [--limit LIMIT]
  [--tags TAGS]
  [--skip-tags SKIP_TAGS]
  [--ansible-forks ANSIBLE_FORKS]

```

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```

[--disable-container-prepare]
[--working-dir WORKING_DIR]
[--heat-type {pod,container,native}]
[--heat-container-api-image <HEAT_CONTAINER_API_IMAGE>]
[--heat-container-engine-image <HEAT_CONTAINER_ENGINE_IMAGE>]
[--rm-heat]
[--skip-heat-pull]
[--disable-protected-resource-types]
[-y]
[--allow-deprecated-network-data]

```

--templates <TEMPLATES>

The directory containing the Heat templates to deploy

--stack <STACK>

Stack name to create or update

--timeout <TIMEOUT>, **-t** <TIMEOUT>

Deployment timeout in minutes.

--libvirt-type <LIBVIRT_TYPE>

Libvirt domain type.

--ntp-server <NTP_SERVER>

The NTP for overcloud nodes.

--no-proxy <NO_PROXY>

A comma separated list of hosts that should not be proxied.

--overcloud-ssh-user <OVERCLOUD_SSH_USER>

User for ssh access to overcloud nodes

--overcloud-ssh-key <OVERCLOUD_SSH_KEY>

Key path for ssh access to overcloud nodes. When undefined the key will be autodetected.

--overcloud-ssh-network <OVERCLOUD_SSH_NETWORK>

Network name to use for ssh access to overcloud nodes.

--overcloud-ssh-enable-timeout <OVERCLOUD_SSH_ENABLE_TIMEOUT>

This option no longer has any effect.

--overcloud-ssh-port-timeout <OVERCLOUD_SSH_PORT_TIMEOUT>

Timeout for the ssh port to become active.

--environment-file <HEAT ENVIRONMENT FILE>, **-e** <HEAT ENVIRONMENT FILE>

Environment files to be passed to the heat stack-create or heat stack-update command. (Can be specified more than once.)

--environment-directory <HEAT ENVIRONMENT DIRECTORY>

Environment file directories that are automatically added to the heat stack-create or heat stack-update commands. Can be specified more than once. Files in directories are loaded in ascending sort order.

--roles-file <ROLES_FILE>, **-r** <ROLES_FILE>

Roles file, overrides the default roles_data.yaml in the templates directory. May be an absolute path or the path relative to templates

- networks-file** <NETWORKS_FILE>, **-n** <NETWORKS_FILE>
Networks file, overrides the default network_data_default.yaml in the templates directory
- vip-file** <VIP_FILE>
Configuration file describing the network Virtual IPs.
- no-cleanup**
Dont cleanup temporary files, just log their location
- update-plan-only**
DEPRECATED: Only update the plan. Do not perform the actual deployment. NOTE: Will move to a discrete command in a future release. Not supported anymore.
- validation-errors-nonfatal**
Allow the deployment to continue in spite of validation errors. Note that attempting deployment while errors exist is likely to fail.
- validation-warnings-fatal**
Exit if there are warnings from the configuration pre-checks.
- disable-validations**
DEPRECATED. Disable the pre-deployment validations entirely. These validations are the built-in pre-deployment validations. To enable external validations from tripleo-validations, use the run-validations flag. These validations are now run via the external validations in tripleo-validations.
- inflight-validations**
Activate in-flight validations during the deploy. In-flight validations provide a robust way to ensure deployed services are running right after their activation. Defaults to False.
- dry-run**
Only run validations, but do not apply any changes.
- run-validations**
Run external validations from the tripleo-validations project.
- skip-postconfig**
Skip the overcloud post-deployment configuration.
- force-postconfig**
Force the overcloud post-deployment configuration.
- skip-deploy-identifier**
Skip generation of a unique identifier for the DeployIdentifier parameter. The software configuration deployment steps will only be triggered if there is an actual change to the configuration. This option should be used with Caution, and only if there is confidence that the software configuration does not need to be run, such as when scaling out certain roles.
- answers-file** <ANSWERS_FILE>
Path to a YAML file with arguments and parameters.
- disable-password-generation**
Disable password generation.
- deployed-server**
DEPRECATED: Use pre-provisioned overcloud nodes. Now the default and this CLI option has no effect.
- provision-nodes**
Provision overcloud nodes with heat.

--config-download

DEPRECATED: Run deployment via config-download mechanism. This is now the default, and this CLI options has no effect.

--no-config-download, --stack-only

Disable the config-download workflow and only create the stack and download the config. No software configuration, setup, or any changes will be applied to overcloud nodes.

--config-download-only

Disable the stack create and setup, and only run the config-download workflow to apply the software configuration. Requires that config-download setup was previously completed, either with stack-only and setup-only or a full deployment

--setup-only

Disable the stack and config-download workflow to apply the software configuration and only run the setup to enable ssh connectivity.

--config-dir <CONFIG_DIR>

The directory where the configuration files will be pushed

--config-type <CONFIG_TYPE>

Only used when setup-only is invoked. Type of object config to be extract from the deployment, defaults to all keys available

--no-preserve-config

Only used when setup-only is invoked. If specified, will delete and recreate the config-dir if it already exists. Default is to use the existing dir location and overwrite files. Files in config-dir not from the stack will be preserved by default.

--output-dir <OUTPUT_DIR>

Directory to use for saved output when using config-download. When not specified, <working-dir>/config-download will be used.

--override-ansible-cfg <OVERRIDE_ANSIBLE_CFG>

Path to ansible configuration file. The configuration in the file will override any configuration used by config-download by default.

--config-download-timeout <CONFIG_DOWNLOAD_TIMEOUT>

Timeout (in minutes) to use for config-download steps. If unset, will default to however much time is leftover from the timeout parameter after the stack operation.

--deployment-python-interpreter <DEPLOYMENT_PYTHON_INTERPRETER>

The path to python interpreter to use for the deployment actions. This may need to be used if deploying on a python2 host from a python3 system or vice versa.

-b <baremetal_deployment.yaml>, **--baremetal-deployment** <baremetal_deployment.yaml>

Deploy baremetal nodes, network and virtual IP addresses as defined in baremetal_deployment.yaml along with overcloud. If no baremetal_deployment YAML file is given, the tripleo-<stack_name>-baremetal-deployment.yaml file in the working-dir will be used.

--network-config

Apply network config to provisioned nodes. (Implies network-ports)

--limit <LIMIT>

A string that identifies a single node or comma-separated list of nodes the config-download Ansible playbook execution will be limited to. For example: limit compute-0,compute-1,compute-5.

- tags** <TAGS>
A list of tags to use when running the the config-download ansible-playbook command.
- skip-tags** <SKIP_TAGS>
A list of tags to skip when running the the config-download ansible-playbook command.
- ansible-forks** <ANSIBLE_FORKS>
The number of Ansible forks to use for the config-download ansible-playbook command.
- disable-container-prepare**
Disable the container preparation actions to prevent container tags from being updated and new containers from being fetched. If you skip this but do not have the container parameters configured, the deployment action may fail.
- working-dir** <WORKING_DIR>
The working directory for the deployment where all input, output, and generated files will be stored. Defaults to \$HOME/overcloud-deploy/<stack>
- heat-type** <HEAT_TYPE>
The type of Heat process to use to execute the deployment. pod (Default): Use an ephemeral Heat pod. container (Experimental): Use an ephemeral Heat container. native (Experimental): Use an ephemeral Heat process.
- heat-container-api-image** <HEAT_CONTAINER_API_IMAGE>
The container image to use when launching the heat-api process. Only used when heat-type=pod. Defaults to: localhost/tripleo/openstack-heat-api:ephemeral
- heat-container-engine-image** <HEAT_CONTAINER_ENGINE_IMAGE>
The container image to use when launching the heat-engine process. Only used when heat-type=pod. Defaults to: localhost/tripleo/openstack-heat-engine:ephemeral
- rm-heat**
If specified and heat-type is container or pod any existing container or pod of a previous ephemeral Heat process will be deleted first. Ignored if heat-type is native.
- skip-heat-pull**
When heat-type is pod or container, assume the container image has already been pulled
- disable-protected-resource-types**
Disable protected resource type overrides. Resources types that are used internally are protected, and cannot be overridden in the user environment. Setting this argument disables the protection, allowing the protected resource types to be override in the user environment.
- y, --yes**
Use -y or yes to skip any confirmation required before the deploy operation. Use this with caution!
- allow-deprecated-network-data**
Set this to allow using deprecated network data YAML definition schema.

5.53 overcloud upgrade prepare

Run heat stack update for overcloud nodes to refresh heat stack outputs.

The heat stack outputs are what we use later on to generate ansible playbooks which deliver the major upgrade workflow. This is used as the first step for a major upgrade of your overcloud.

```

openstack overcloud upgrade prepare
  [--templates [TEMPLATES]]
  [--stack STACK]
  [--timeout <TIMEOUT>]
  [--libvirt-type {kvm,qemu}]
  [--ntp-server NTP_SERVER]
  [--no-proxy NO_PROXY]
  [--overcloud-ssh-user OVERCLOUD_SSH_USER]
  [--overcloud-ssh-key OVERCLOUD_SSH_KEY]
  [--overcloud-ssh-network OVERCLOUD_SSH_NETWORK]
  [--overcloud-ssh-enable-timeout OVERCLOUD_SSH_ENABLE_TIMEOUT]
  [--overcloud-ssh-port-timeout OVERCLOUD_SSH_PORT_TIMEOUT]
  [--environment-file <HEAT ENVIRONMENT FILE>]
  [--environment-directory <HEAT ENVIRONMENT DIRECTORY>]
  [--roles-file ROLES_FILE]
  [--networks-file NETWORKS_FILE]
  [--vip-file VIP_FILE]
  [--no-cleanup]
  [--update-plan-only]
  [--validation-errors-nonfatal]
  [--validation-warnings-fatal]
  [--disable-validations]
  [--inflight-validations]
  [--dry-run]
  [--run-validations]
  [--skip-postconfig]
  [--force-postconfig]
  [--skip-deploy-identifier]
  [--answers-file ANSWERS_FILE]
  [--disable-password-generation]
  [--deployed-server]
  [--provision-nodes]
  [--config-download]
  [--no-config-download]
  [--config-download-only]
  [--setup-only]
  [--config-dir CONFIG_DIR]
  [--config-type CONFIG_TYPE]
  [--no-preserve-config]
  [--output-dir OUTPUT_DIR]
  [--override-ansible-cfg OVERRIDE_ANSIBLE_CFG]
  [--config-download-timeout CONFIG_DOWNLOAD_TIMEOUT]
  [--deployment-python-interpreter DEPLOYMENT_PYTHON_INTERPRETER]
  [-b [<baremetal_deployment.yaml>]]
  [--network-config]
  [--limit LIMIT]
  [--tags TAGS]
  [--skip-tags SKIP_TAGS]
  [--ansible-forks ANSIBLE_FORKS]
  [--disable-container-prepare]

```

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```

[--working-dir WORKING_DIR]
[--heat-type {pod,container,native}]
[--heat-container-api-image <HEAT_CONTAINER_API_IMAGE>]
[--heat-container-engine-image <HEAT_CONTAINER_ENGINE_IMAGE>]
[--rm-heat]
[--skip-heat-pull]
[--disable-protected-resource-types]
[-y]
[--allow-deprecated-network-data]

```

--templates <TEMPLATES>

The directory containing the Heat templates to deploy

--stack <STACK>

Stack name to create or update

--timeout <TIMEOUT>, **-t** <TIMEOUT>

Deployment timeout in minutes.

--libvirt-type <LIBVIRT_TYPE>

Libvirt domain type.

--ntp-server <NTP_SERVER>

The NTP for overcloud nodes.

--no-proxy <NO_PROXY>

A comma separated list of hosts that should not be proxied.

--overcloud-ssh-user <OVERCLOUD_SSH_USER>

User for ssh access to overcloud nodes

--overcloud-ssh-key <OVERCLOUD_SSH_KEY>

Key path for ssh access to overcloud nodes. When undefined the key will be autodetected.

--overcloud-ssh-network <OVERCLOUD_SSH_NETWORK>

Network name to use for ssh access to overcloud nodes.

--overcloud-ssh-enable-timeout <OVERCLOUD_SSH_ENABLE_TIMEOUT>

This option no longer has any effect.

--overcloud-ssh-port-timeout <OVERCLOUD_SSH_PORT_TIMEOUT>

Timeout for the ssh port to become active.

--environment-file <HEAT ENVIRONMENT FILE>, **-e** <HEAT ENVIRONMENT FILE>

Environment files to be passed to the heat stack-create or heat stack-update command. (Can be specified more than once.)

--environment-directory <HEAT ENVIRONMENT DIRECTORY>

Environment file directories that are automatically added to the heat stack-create or heat stack-update commands. Can be specified more than once. Files in directories are loaded in ascending sort order.

--roles-file <ROLES_FILE>, **-r** <ROLES_FILE>

Roles file, overrides the default roles_data.yaml in the templates directory. May be an absolute path or the path relative to templates

--networks-file <NETWORKS_FILE>, **-n** <NETWORKS_FILE>

Networks file, overrides the default network_data_default.yaml in the templates directory

- vip-file** <VIP_FILE>
Configuration file describing the network Virtual IPs.
- no-cleanup**
Dont cleanup temporary files, just log their location
- update-plan-only**
DEPRECATED: Only update the plan. Do not perform the actual deployment. NOTE: Will move to a discrete command in a future release. Not supported anymore.
- validation-errors-nonfatal**
Allow the deployment to continue in spite of validation errors. Note that attempting deployment while errors exist is likely to fail.
- validation-warnings-fatal**
Exit if there are warnings from the configuration pre-checks.
- disable-validations**
DEPRECATED. Disable the pre-deployment validations entirely. These validations are the built-in pre-deployment validations. To enable external validations from tripleo-validations, use the run-validations flag. These validations are now run via the external validations in tripleo-validations.
- inflight-validations**
Activate in-flight validations during the deploy. In-flight validations provide a robust way to ensure deployed services are running right after their activation. Defaults to False.
- dry-run**
Only run validations, but do not apply any changes.
- run-validations**
Run external validations from the tripleo-validations project.
- skip-postconfig**
Skip the overcloud post-deployment configuration.
- force-postconfig**
Force the overcloud post-deployment configuration.
- skip-deploy-identifier**
Skip generation of a unique identifier for the DeployIdentifier parameter. The software configuration deployment steps will only be triggered if there is an actual change to the configuration. This option should be used with Caution, and only if there is confidence that the software configuration does not need to be run, such as when scaling out certain roles.
- answers-file** <ANSWERS_FILE>
Path to a YAML file with arguments and parameters.
- disable-password-generation**
Disable password generation.
- deployed-server**
DEPRECATED: Use pre-provisioned overcloud nodes. Now the default and this CLI option has no effect.
- provision-nodes**
Provision overcloud nodes with heat.
- config-download**
DEPRECATED: Run deployment via config-download mechanism. This is now the default, and

this CLI options has no effect.

--no-config-download, --stack-only

Disable the config-download workflow and only create the stack and download the config. No software configuration, setup, or any changes will be applied to overcloud nodes.

--config-download-only

Disable the stack create and setup, and only run the config-download workflow to apply the software configuration. Requires that config-download setup was previously completed, either with stack-only and setup-only or a full deployment

--setup-only

Disable the stack and config-download workflow to apply the software configuration and only run the setup to enable ssh connectivity.

--config-dir <CONFIG_DIR>

The directory where the configuration files will be pushed

--config-type <CONFIG_TYPE>

Only used when setup-only is invoked. Type of object config to be extract from the deployment, defaults to all keys available

--no-preserve-config

Only used when setup-only is invoked. If specified, will delete and recreate the config-dir if it already exists. Default is to use the existing dir location and overwrite files. Files in config-dir not from the stack will be preserved by default.

--output-dir <OUTPUT_DIR>

Directory to use for saved output when using config-download. When not specified, <working-dir>/config-download will be used.

--override-ansible-cfg <OVERRIDE_ANSIBLE_CFG>

Path to ansible configuration file. The configuration in the file will override any configuration used by config-download by default.

--config-download-timeout <CONFIG_DOWNLOAD_TIMEOUT>

Timeout (in minutes) to use for config-download steps. If unset, will default to however much time is leftover from the timeout parameter after the stack operation.

--deployment-python-interpreter <DEPLOYMENT_PYTHON_INTERPRETER>

The path to python interpreter to use for the deployment actions. This may need to be used if deploying on a python2 host from a python3 system or vice versa.

-b <baremetal_deployment.yaml>, **--baremetal-deployment** <baremetal_deployment.yaml>

Deploy baremetal nodes, network and virtual IP addresses as defined in baremetal_deployment.yaml along with overcloud. If no baremetal_deployment YAML file is given, the tripleo-<stack_name>-baremetal-deployment.yaml file in the working-dir will be used.

--network-config

Apply network config to provisioned nodes. (Implies network-ports)

--limit <LIMIT>

A string that identifies a single node or comma-separated list of nodes the config-download Ansible playbook execution will be limited to. For example: limit compute-0,compute-1,compute-5.

--tags <TAGS>

A list of tags to use when running the the config-download ansible-playbook command.

- skip-tags** <SKIP_TAGS>
A list of tags to skip when running the the config-download ansible-playbook command.
- ansible-forks** <ANSIBLE_FORKS>
The number of Ansible forks to use for the config-download ansible-playbook command.
- disable-container-prepare**
Disable the container preparation actions to prevent container tags from being updated and new containers from being fetched. If you skip this but do not have the container parameters configured, the deployment action may fail.
- working-dir** <WORKING_DIR>
The working directory for the deployment where all input, output, and generated files will be stored. Defaults to \$HOME/overcloud-deploy/<stack>
- heat-type** <HEAT_TYPE>
The type of Heat process to use to execute the deployment. pod (Default): Use an ephemeral Heat pod. container (Experimental): Use an ephemeral Heat container. native (Experimental): Use an ephemeral Heat process.
- heat-container-api-image** <HEAT_CONTAINER_API_IMAGE>
The container image to use when launching the heat-api process. Only used when heat-type=pod. Defaults to: localhost/tripleo/openstack-heat-api:ephemeral
- heat-container-engine-image** <HEAT_CONTAINER_ENGINE_IMAGE>
The container image to use when launching the heat-engine process. Only used when heat-type=pod. Defaults to: localhost/tripleo/openstack-heat-engine:ephemeral
- rm-heat**
If specified and heat-type is container or pod any existing container or pod of a previous ephemeral Heat process will be deleted first. Ignored if heat-type is native.
- skip-heat-pull**
When heat-type is pod or container, assume the container image has already been pulled
- disable-protected-resource-types**
Disable protected resource type overrides. Resources types that are used internally are protected, and cannot be overridden in the user environment. Setting this argument disables the protection, allowing the protected resource types to be override in the user environment.
- y, --yes**
Use -y or yes to skip any confirmation required before the deploy operation. Use this with caution!
- allow-deprecated-network-data**
Set this to allow using deprecated network data YAML definition schema.

5.54 overcloud upgrade run

Run major upgrade ansible playbooks on Overcloud nodes

This will run the major upgrade ansible playbooks on the overcloud. By default all playbooks are executed, that is the upgrade_steps_playbook.yaml then the deploy_steps_playbook.yaml and then the post_upgrade_steps_playbook.yaml. The upgrade playbooks are made available after completion of the overcloud upgrade prepare command. This overcloud upgrade run command is the second step in the major upgrade workflow.

```

openstack overcloud upgrade run
  --limit LIMIT
  [--playbook [PLAYBOOK [PLAYBOOK ...]]]
  [--static-inventory STATIC_INVENTORY]
  [--ssh-user SSH_USER]
  [--tags TAGS]
  [--skip-tags SKIP_TAGS]
  [--stack STACK]
  [-y]
  [--ansible-forks ANSIBLE_FORKS]

```

--limit <LIMIT>

A string that identifies a single node or comma-separated list of nodes the config-download Ansible playbook execution will be limited to. For example: limit compute-0,compute-1,compute-5.

--playbook <PLAYBOOK>

Ansible playbook to use for the minor update. Can be used multiple times. Set this to each of those playbooks in consecutive invocations of this command if you prefer to run them manually. Note: make sure to run all playbooks so that all services are updated and running with the target version configuration.

--static-inventory <STATIC_INVENTORY>

DEPRECATED: tripleo-ansible-inventory.yaml in working dir will be used.

--ssh-user <SSH_USER>

DEPRECATED: Only tripleo-admin should be used as ssh user.

--tags <TAGS>

A string specifying the tag or comma separated list of tags to be passed as tags to ansible-playbook.

--skip-tags <SKIP_TAGS>

A string specifying the tag or comma separated list of tags to be passed as skip-tags to ansible-playbook. The currently supported values are validation and pre-upgrade. In particular validation is useful if you must re-run following a failed upgrade and some services cannot be started.

--stack <STACK>

Name or ID of heat stack (default=Env: OVERCLOUD_STACK_NAME)

-y, --yes

Use -y or yes to skip the confirmation required before any upgrade operation. Use this with caution!

--ansible-forks <ANSIBLE_FORKS>

The number of Ansible forks to use for the config-download ansible-playbook command.

This command is provided by the python-tripleoclient plugin.

CONTAINER COMMANDS

6.1 tripleo container image build

Build tripleo container images with tripleo-ansible.

```
openstack tripleo container image build
  [--authfile <authfile>]
  [--base <base-image>]
  [--config-file <config-file>]
  [--config-path <config-path>]
  [--distro <distro>]
  [--tcib-extras <key=val>]
  [--exclude <container-name>]
  [--extra-config <extra-config>]
  [--namespace <registry-namespace>]
  [--registry <registry-url>]
  [--skip-build]
  [--tag <image-tag>]
  [--prefix <image-prefix>]
  [--push]
  [--label <label-data>]
  [--volume <volume-path>]
  [--repo-dir <repo-dir>]
  [--work-dir <work-directory>]
  [--rhel-modules <rhel-modules>]
  [--build-timeout <build timeout in seconds>]
```

--authfile <authfile>

Path of the authentication file. Use REGISTRY_AUTH_FILE environment variable to override. (default: %(default)s)

--base <base-image>

Base image name, with optional version. Can be centos:8, base name image will be centos but centos:8 will be pulled to build the base image. (default: %(default)s)

--config-file <config-file>

YAML config file specifying the images to build. (default: %(default)s)

--config-path <config-path>

Base configuration path. This is the base path for all container-image files. The defined containers must reside within a tcib folder that is in this path. If this option is set, the default path for <config-file> will be modified. (default: %(default)s)

- distro** <distro>
Distro name, if undefined the system will build using the host distro. (default: %(default)s)
- tcib-extras** <key=val>
TCIB extra variables you want to pass. They can be later used within TCIB files as conditionals.
Can be passed multiple times(default: %(default)s)
- exclude** <container-name>
Name of one container to match against the list of containers to be built to skip. Should be specified multiple times when skipping multiple containers. (default: %(default)s)
- extra-config** <extra-config>
Apply additional options from a given configuration YAML file. This will apply to all containers built. (default: %(default)s)
- namespace** <registry-namespace>
Container registry namespace (default: %(default)s)
- registry** <registry-url>
Container registry URL (default: %(default)s)
- skip-build**
Skip or not the build of the images (default: %(default)s)
- tag** <image-tag>
Image tag (default: %(default)s)
- prefix** <image-prefix>
Image prefix. (default: %(default)s)
- push**
Enable image push to a given registry. (default: %(default)s)
- label** <label-data>
Add labels to the containers. This option can be specified multiple times. Each label is a key=value pair.
- volume** <volume-path>
Container bind mount used when building the image. Should be specified multiple times if multiple volumes.(default: %(default)s)
- repo-dir** <repo-dir>
Define a custom directory containing the repo files. This is useful when building containers from a different OS release.
- work-dir** <work-directory>
TripleO container builds directory, storing configs and logs for each image and its dependencies. (default: %(default)s)
- rhel-modules** <rhel-modules>
A comma separated list of RHEL modules to enable with their version. Example: mariadb:10.3,virt:8.3.
- build-timeout** <build timeout in seconds>
Build timeout in seconds.

This command is provided by the python-tripleoclient plugin.

6.2 tripleo container image delete

Delete specified image from registry.

```
openstack tripleo container image delete
  [--registry-url <registry url>]
  [--username <username>]
  [--password <password>]
  [-y]
  <image
  to
  delete>
```

--registry-url <registry url>

URL of registry images are to be listed from in the form <fqdn>:<port>.

--username <username>

Username for image registry.

--password <password>

Password for image registry.

-y, --yes

Skip yes/no prompt (assume yes).

image to delete

Full URL of image to be deleted in the form <fqdn>:<port>/path/to/image

This command is provided by the python-tripleoclient plugin.

6.3 tripleo container image hotfix

Hotfix tripleo container images with tripleo-ansible.

```
openstack tripleo container image hotfix
  --image <images>
  --rpms-path <rpms-path>
  [--tag <image-tag>]
```

--image <images>

Fully qualified reference to the source image to be modified. Can be specified multiple times (one per image) (default: %(default)s).

--rpms-path <rpms-path>

Path containing RPMs to install (default: %(default)s).

--tag <image-tag>

Image hotfix tag (default: %(default)s)

This command is provided by the python-tripleoclient plugin.

6.4 tripleo container image list

List images discovered in registry.

```
openstack tripleo container image list
  [-f {csv,json,table,value,yaml}]
  [-c COLUMN]
  [--quote {all,minimal,none,nonnumeric}]
  [--noindent]
  [--max-width <integer>]
  [--fit-width]
  [--print-empty]
  [--sort-column SORT_COLUMN]
  [--sort-ascending | --sort-descending]
  [--registry-url <registry url>]
  [--username <username>]
  [--password <password>]
```

-f <FORMATTER>, **--format** <FORMATTER>
the output format, defaults to table

-c COLUMN, **--column** COLUMN
specify the column(s) to include, can be repeated to show multiple columns

--quote <QUOTE_MODE>
when to include quotes, defaults to nonnumeric

--noindent
whether to disable indenting the JSON

--max-width <integer>
Maximum display width, <1 to disable. You can also use the CLIFF_MAX_TERM_WIDTH environment variable, but the parameter takes precedence.

--fit-width
Fit the table to the display width. Implied if max-width greater than 0. Set the environment variable CLIFF_FIT_WIDTH=1 to always enable

--print-empty
Print empty table if there is no data to show.

--sort-column SORT_COLUMN
specify the column(s) to sort the data (columns specified first have a priority, non-existing columns are ignored), can be repeated

--sort-ascending
sort the column(s) in ascending order

--sort-descending
sort the column(s) in descending order

--registry-url <registry url>
URL of registry images are to be listed from in the form <fqdn>:<port>.

--username <username>
Username for image registry.

--password <password>
Password for image registry.

This command is provided by the python-tripleoclient plugin.

6.5 tripleo container image prepare

Prepare and upload containers from a single command.

```
openstack tripleo container image prepare
  [--environment-file <file path>]
  [--environment-directory <HEAT ENVIRONMENT DIRECTORY>]
  [--roles-file ROLES_FILE]
  [--output-env-file <file path>]
  [--dry-run]
  [--cleanup <full, partial, none>]
  [--log-file LOG_FILE]
```

--environment-file <file path>, **-e** <file path>

Environment file containing the ContainerImagePrepare parameter which specifies all prepare actions. Also, environment files specifying which services are containerized. Entries will be filtered to only contain images used by containerized services. (Can be specified more than once.)

--environment-directory <HEAT ENVIRONMENT DIRECTORY>

Environment file directories that are automatically added to the environment. Can be specified more than once. Files in directories are loaded in ascending sort order.

--roles-file <ROLES_FILE>, **-r** <ROLES_FILE>

Roles file, overrides the default roles_data.yaml in the t-h-t templates directory used for deployment. May be an absolute path or the path relative to the templates dir.

--output-env-file <file path>

File to write heat environment file which specifies all image parameters. Any existing file will be overwritten.

--dry-run

Do not perform any pull, modify, or push operations. The environment file will still be populated as if these operations were performed.

--cleanup <full, partial, none>

Cleanup behavior for local images left after upload. The default full will attempt to delete all local images. partial will leave images required for deployment on this host. none will do no cleanup.

--log-file <LOG_FILE>

Log file to be used for python logging. By default it would be logged to \$HOME/container_image_prepare.log.

This command is provided by the python-tripleoclient plugin.

6.6 tripleo container image prepare default

Generate a default ContainerImagePrepare parameter.

```
openstack tripleo container image prepare default
  [--output-env-file <file path>]
  [--local-push-destination]
  [--enable-registry-login]
```

--output-env-file <file path>

File to write environment file containing default ContainerImagePrepare value.

--local-push-destination

Include a push_destination to trigger upload to a local registry.

--enable-registry-login

Use this flag to enable the flag to have systems attempt to login to a remote registry prior to pulling their containers. This flag should be used when local-push-destination is *NOT* used and the target systems will have network connectivity to the remote registries. Do not use this for an overcloud that may not have network connectivity to a remote registry.

This command is provided by the python-tripleoclient plugin.

6.7 tripleo container image push

Push specified image to registry.

```
openstack tripleo container image push
  [--local]
  [--registry-url <registry url>]
  [--append-tag APPEND_TAG]
  [--username <username>]
  [--password <password>]
  [--source-username <source_username>]
  [--source-password <source_password>]
  [--dry-run]
  [--multi-arch]
  [--cleanup]
  <image
  to
  push>
```

--local

Use this flag if the container image is already on the current system and does not need to be pulled from a remote registry.

--registry-url <registry url>

URL of the destination registry in the form <fqdn>:<port>.

--append-tag <APPEND_TAG>

Tag to append to the existing tag when pushing the container.

--username <username>

Username for the destination image registry.

- password** <password>
Password for the destination image registry.
- source-username** <source_username>
Username for the source image registry.
- source-password** <source_password>
Password for the source image registry.
- dry-run**
Perform a dry run upload. The upload action is not performed, but the authentication process is attempted.
- multi-arch**
Enable multi arch support for the upload.
- cleanup**
Remove local copy of the image after uploading
- image** to push
Container image to upload. Should be in the form of <registry>/<namespace>/<name>:<tag>. If tag is not provided, then latest will be used.

This command is provided by the python-tripleoclient plugin.

6.8 tripleo container image show

Show image selected from the registry.

```
openstack tripleo container image show
  [-f {json,shell,table,value,yaml}]
  [-c COLUMN]
  [--noindent]
  [--prefix PREFIX]
  [--max-width <integer>]
  [--fit-width]
  [--print-empty]
  [--username <username>]
  [--password <password>]
  <image
  to
  inspect>
```

- f** <FORMATTER>, **--format** <FORMATTER>
the output format, defaults to json
- c** COLUMN, **--column** COLUMN
specify the column(s) to include, can be repeated to show multiple columns
- noindent**
whether to disable indenting the JSON
- prefix** <PREFIX>
add a prefix to all variable names

- max-width** <integer>
Maximum display width, <1 to disable. You can also use the CLIFF_MAX_TERM_WIDTH environment variable, but the parameter takes precedence.
- fit-width**
Fit the table to the display width. Implied if max-width greater than 0. Set the environment variable CLIFF_FIT_WIDTH=1 to always enable
- print-empty**
Print empty table if there is no data to show.
- username** <username>
Username for image registry.
- password** <password>
Password for image registry.
- image** to inspect
Image to be inspected, for example: `docker.io/library/centos:7` or `docker://docker.io/library/centos:7`

This command is provided by the python-tripleoclient plugin.

6.9 overcloud container image build

Build overcloud container images with kolla-build.

```
openstack overcloud container image build
  [--config-file <yaml config file>]
  --kolla-config-file <config
  file>
  [--list-images]
  [--list-dependencies]
  [--exclude <container-name>]
  [--use-buildah]
  [--work-dir <container builds directory>]
  [--build-timeout <build timeout in seconds>]
```

- config-file** <yaml config file>
YAML config file specifying the images to build. May be specified multiple times. Order is preserved, and later files will override some options in previous files. Other options will append. If not specified, the default set of containers will be built.
- kolla-config-file** <config file>
Path to a Kolla config file to use. Multiple config files can be specified, with values in later files taking precedence. By default, tripleo kolla conf file `/home/zuul/src/opendev.org/openstack/python-tripleoclient/.tox/docs/share/tripleo-common/container-images/tripleo_kolla_config_overrides.conf` is added.
- list-images**
Show the images which would be built instead of building them.
- list-dependencies**
Show the image build dependencies instead of building them.

- exclude** <container-name>
Name of a container to match against the list of containers to be built to skip. Can be specified multiple times.
- use-buildah**
Use Buildah instead of Docker to build the images with Kolla.
- work-dir** <container builds directory>
TripleO container builds directory, storing configs and logs for each image and its dependencies.
- build-timeout** <build timeout in seconds>
Build timeout in seconds.

This command is provided by the python-tripleoclient plugin.

6.10 overcloud container image tag discover

Discover the versioned tag for an image.

```
openstack overcloud container image tag discover
  --image <container
  image>
  [--tag-from-label <image label>]
```

- image** <container image>
Fully qualified name of the image to discover the tag for (Including registry and stable tag).
- tag-from-label** <image label>
Use the value of the specified label(s) to discover the tag. Labels can be combined in a template format, for example: {version}-{release}

This command is provided by the python-tripleoclient plugin.

6.11 overcloud container image upload

Push overcloud container images to registries.

```
openstack overcloud container image upload
  --config-file <yaml
  config
  file>
  [--cleanup <full, partial, none>]
```

- config-file** <yaml config file>
YAML config file specifying the image build. May be specified multiple times. Order is preserved, and later files will override some options in previous files. Other options will append.
- cleanup** <full, partial, none>
Cleanup behavior for local images left after upload. The default full will attempt to delete all local images. partial will leave images required for deployment on this host. none will do no cleanup.

This command is provided by the python-tripleoclient plugin.

UNDERCLOUD COMMANDS

7.1 undercloud backup

Backup the undercloud

```
openstack undercloud backup
  [--init [INIT]]
  [--setup-nfs]
  [--setup-rear]
  [--cron]
  [--db-only]
  [--inventory INVENTORY]
  [--add-path ADD_PATH]
  [--exclude-path EXCLUDE_PATH]
  [--save-swift]
  [--extra-vars EXTRA_VARS]
```

--init <INIT>

Initialize environment for backup, using rear or nfs as args which will check for package install and configured ReaR or NFS server. Defaults to: rear. i.e. init rear. WARNING: This flag will be deprecated and replaced by setup-rear and setup-nfs.

--setup-nfs

Setup the NFS server on the backup node which will install required packages and configuration on the host BackupNode in the ansible inventory.

--setup-rear

Setup ReaR on the Undercloud host which will install and configure ReaR.

--cron

Sets up a new cron job that by default will execute a weekly backup at Sundays midnight, but that can be customized by using the tripleo_backup_and_restore_cron extra-var.

--db-only

Perform a DB backup of the Undercloud host. The DB backup file will be stored in /home/stack with the name openstack-backup-mysql-<timestamp>.sql.

--inventory <INVENTORY>

Tripleo inventory file generated with tripleo-ansible-inventory command. Defaults to: /home/zuul/src/opev.org/openstack/python-tripleoclient/.tox/docs/config-download/overcloud/tripleo-ansible-inventory.yaml

--add-path <ADD_PATH>

Add additional files to backup. Defaults to: /home/stack/ i.e. add-path /this/is/a/folder/ add-path

/this/is/a/textfile.txt.

--exclude-path <EXCLUDE_PATH>

Exclude path when performing the Undercloud Backup, this option can be specified multiple times. Defaults to: none i.e. exclude-path /this/is/a/folder/ exclude-path /this/is/a/textfile.txt.

--save-swift

Save backup to swift. Defaults to: False Special attention should be taken that Swift itself is backed up if you call this multiple times the backup size will grow exponentially.

--extra-vars <EXTRA_VARS>

Set additional variables as Dict or as an absolute path of a JSON or YAML file type. i.e. extra-vars {key: val, key2: val2} i.e. extra-vars /path/to/my_vars.yaml i.e. extra-vars /path/to/my_vars.json. For more information about the variables that can be passed, visit: https://opendev.org/openstack/tripleo-ansible/src/branch/master/tripleo_ansible/roles/backup_and_restore/defaults/main.yml.

7.2 undercloud install

Install and setup the undercloud

```
openstack undercloud install
  [--force-stack-update]
  [--no-validations]
  [--inflight-validations]
  [--dry-run]
  [-y]
  [--disable-container-prepare]
  [--reproduce-command]
```

--force-stack-update

Do a virtual update of the ephemeral heat stack. New or failed deployments always have the stack_action=CREATE. This option enforces stack_action=UPDATE.

--no-validations

Do not perform undercloud configuration validations

--inflight-validations

Activate in-flight validations during the deploy. In-flight validations provide a robust way to ensure deployed services are running right after their activation. Defaults to False.

--dry-run

Print the install command instead of running it

-y, --yes

Skip yes/no prompt (assume yes).

--disable-container-prepare

Disable the container preparation actions to prevent container tags from being updated and new containers from being fetched. If you skip this but do not have the container parameters configured, the deployment action may fail.

--reproduce-command

Create a reproducer command with ansible commandline and all environments variables.

7.3 undercloud upgrade

Upgrade undercloud

```

openstack undercloud upgrade
  [--force-stack-update]
  [--no-validations]
  [--inflight-validations]
  [--dry-run]
  [-y]
  [--disable-container-prepare]
  [--reproduce-command]
  [--skip-package-updates]
  [--system-upgrade SYSTEM_UPGRADE]

```

--force-stack-update

Do a virtual update of the ephemeral heat stack. New or failed deployments always have the `stack_action=CREATE`. This option enforces `stack_action=UPDATE`.

--no-validations

Do not perform undercloud configuration validations

--inflight-validations

Activate in-flight validations during the deploy. In-flight validations provide a robust way to ensure deployed services are running right after their activation. Defaults to False.

--dry-run

Print the install command instead of running it

-y, --yes

Skip yes/no prompt (assume yes).

--disable-container-prepare

Disable the container preparation actions to prevent container tags from being updated and new containers from being fetched. If you skip this but do not have the container parameters configured, the deployment action may fail.

--reproduce-command

Create a reproducer command with ansible commandline and all environments variables.

--skip-package-updates

Flag to skip the package update when performing upgrades and updates

--system-upgrade <SYSTEM_UPGRADE>

Run system upgrade while using provided environment yaml file.

STANDALONE COMMANDS

8.1 tripleo deploy

Deploy containerized Undercloud

```
openstack tripleo deploy
  [--templates [TEMPLATES]]
  [--standalone]
  [--upgrade]
  [--system-upgrade]
  [-y]
  [--stack STACK]
  [--output-dir OUTPUT_DIR]
  [--output-only]
  [--standalone-role STANDALONE_ROLE]
  [-t <TIMEOUT>]
  [-e <HEAT ENVIRONMENT FILE>]
  [--roles-file ROLES_FILE]
  [--networks-file NETWORKS_FILE]
  [--plan-environment-file PLAN_ENVIRONMENT_FILE]
  [--heat-api-port <HEAT_API_PORT>]
  [--heat-user <HEAT_USER>]
  [--deployment-user DEPLOYMENT_USER]
  [--deployment-python-interpreter DEPLOYMENT_PYTHON_INTERPRETER]
  [--heat-container-image <HEAT_CONTAINER_IMAGE>]
  [--heat-native [HEAT_NATIVE]]
  [--local-ip <LOCAL_IP>]
  [--control-virtual-ip <CONTROL_VIRTUAL_IP>]
  [--public-virtual-ip <PUBLIC_VIRTUAL_IP>]
  [--local-domain <LOCAL_DOMAIN>]
  [--cleanup]
  [--hieradata-override [HIERADATA_OVERRIDE]]
  [--keep-running]
  [--inflight-validations]
  [--transport TRANSPORT]
  [--ansible-forks ANSIBLE_FORKS]
  [--disable-container-prepare]
  [--reproduce-command]
  [--force-stack-update | --force-stack-create]
```

--templates <TEMPLATES>
The directory containing the Heat templates to deploy

--standalone

DEPRECATED. The standalone argument is now deprecated. Standalone deployments can now be run without passing standalone.

--upgrade

Upgrade an existing deployment.

--system-upgrade

System-upgrade an existing deployment.

-y, --yes

Skip yes/no prompt (assume yes).

--stack <STACK>

Name for the ephemeral (one-time create and forget) heat stack.

--output-dir <OUTPUT_DIR>

Directory to output state, processed heat templates, ansible deployment files. Defaults to ~/tripleo-deploy/<stack>

--output-only

Do not execute the Ansible playbooks. By default the playbooks are saved to the output-dir and then executed.

--standalone-role <STANDALONE_ROLE>

The role to use for standalone configuration when populating the deployment actions.

-t <TIMEOUT>, --timeout <TIMEOUT>

Deployment timeout in minutes.

-e <HEAT ENVIRONMENT FILE>, --environment-file <HEAT ENVIRONMENT FILE>

Environment files to be passed to the heat stack-create or heat stack-update command. (Can be specified more than once.)

--roles-file <ROLES_FILE>, -r <ROLES_FILE>

Roles file, overrides the default roles_data_undercloud.yaml in the t-h-t templates directory used for deployment. May be an absolute path or the path relative to the templates dir.

--networks-file <NETWORKS_FILE>, -n <NETWORKS_FILE>

Roles file, overrides the default /dev/null in the t-h-t templates directory used for deployment. May be an absolute path or the path relative to the templates dir.

--plan-environment-file <PLAN_ENVIRONMENT_FILE>, -p <PLAN_ENVIRONMENT_FILE>

DEPRECATED: Plan Environment file, Not supported

--heat-api-port <HEAT_API_PORT>

Heat API port to use for the installers private Heat API instance. Optional. Default: 8006.)

--heat-user <HEAT_USER>

User to execute the non-privileged heat-all process. Defaults to the value of deployment-user.

--deployment-user <DEPLOYMENT_USER>

User who executes the tripleo deploy command. Defaults to \$SUDO_USER. If \$SUDO_USER is unset it defaults to stack.

--deployment-python-interpreter <DEPLOYMENT_PYTHON_INTERPRETER>

The path to python interpreter to use for the deployment actions. If not specified the python version of the openstackclient will be used. This may need to be used if deploying on a python2 host from a python3 system or vice versa.

- heat-container-image** <HEAT_CONTAINER_IMAGE>
The container image to use when launching the heat-all process. Defaults to: quay.io/tripleowallaby/openstack-heat-all:current-tripleo
- heat-native** <HEAT_NATIVE>
Execute the heat-all process natively on this host. This option requires that the heat-all binaries be installed locally on this machine. This option is enabled by default which means heat-all is executed on the host OS directly.
- local-ip** <LOCAL_IP>
Local IP/CIDR for undercloud traffic. Required.
- control-virtual-ip** <CONTROL_VIRTUAL_IP>
Control plane VIP. This allows the undercloud installer to configure a custom VIP on the control plane.
- public-virtual-ip** <PUBLIC_VIRTUAL_IP>
Public nw VIP. This allows the undercloud installer to configure a custom VIP on the public (external) NW.
- local-domain** <LOCAL_DOMAIN>
Local domain for standalone cloud and its API endpoints
- cleanup**
Cleanup temporary files. Using this flag will remove the temporary files used during deployment in after the command is run.
- hieradata-override** <HIERADATA_OVERRIDE>
Path to hieradata override file. When it points to a heat env file, it is passed in t-h-t via environment-file. When the file contains legacy instack data, it is wrapped with <role>ExtraConfig and also passed in for t-h-t as a temp file created in output-dir. Note, instack hiera data may be not t-h-t compatible and will highly likely require a manual revision.
- keep-running**
Keep the ephemeral Heat running after the stack operation is complete. This is for debugging purposes only. The ephemeral Heat can be used by openstackclient with: OS_AUTH_TYPE=none OS_ENDPOINT=http://127.0.0.1:8006/v1/admin openstack stack list where 8006 is the port specified by heat-api-port.
- inflight-validations**
Activate in-flight validations during the deploy. In-flight validations provide a robust way to ensure deployed services are running right after their activation. Defaults to False.
- transport** <TRANSPORT>
Transport mechanism to use for ansible. Use ssh for multinode deployments. Use local for standalone deployments. Defaults to local.
- ansible-forks** <ANSIBLE_FORKS>
The number of Ansible forks to use for the config-download ansible-playbook command.
- disable-container-prepare**
Disable the container preparation actions to prevent container tags from being updated and new containers from being fetched. If you skip this but do not have the container parameters configured, the deployment action may fail.
- reproduce-command**
Create a reproducer command with ansible commandline and all environments variables.

--force-stack-update

Do a virtual update of the ephemeral heat stack (it cannot take real updates). New or failed deployments always have the `stack_action=CREATE`. This option enforces `stack_action=UPDATE`.

--force-stack-create

Do a virtual create of the ephemeral heat stack. New or failed deployments always have the `stack_action=CREATE`. This option enforces `stack_action=CREATE`.

8.2 tripleo upgrade

Upgrade TripleO

```
openstack tripleo upgrade
  [--templates [TEMPLATES]]
  [--standalone]
  [--upgrade]
  [--system-upgrade]
  [-y]
  [--stack STACK]
  [--output-dir OUTPUT_DIR]
  [--output-only]
  [--standalone-role STANDALONE_ROLE]
  [-t <TIMEOUT>]
  [-e <HEAT ENVIRONMENT FILE>]
  [--roles-file ROLES_FILE]
  [--networks-file NETWORKS_FILE]
  [--plan-environment-file PLAN_ENVIRONMENT_FILE]
  [--heat-api-port <HEAT_API_PORT>]
  [--heat-user <HEAT_USER>]
  [--deployment-user DEPLOYMENT_USER]
  [--deployment-python-interpreter DEPLOYMENT_PYTHON_INTERPRETER]
  [--heat-container-image <HEAT_CONTAINER_IMAGE>]
  [--heat-native [HEAT_NATIVE]]
  [--local-ip <LOCAL_IP>]
  [--control-virtual-ip <CONTROL_VIRTUAL_IP>]
  [--public-virtual-ip <PUBLIC_VIRTUAL_IP>]
  [--local-domain <LOCAL_DOMAIN>]
  [--cleanup]
  [--hieradata-override [HIERADATA_OVERRIDE]]
  [--keep-running]
  [--inflight-validations]
  [--transport TRANSPORT]
  [--ansible-forks ANSIBLE_FORKS]
  [--disable-container-prepare]
  [--reproduce-command]
  [--force-stack-update | --force-stack-create]
```

--templates <TEMPLATES>

The directory containing the Heat templates to deploy

--standalone

DEPRECATED. The standalone argument is now deprecated. Standalone deployments can now be run without passing standalone.

--upgrade

Upgrade an existing deployment.

- system-upgrade**
System-upgrade an existing deployment.
- y, --yes**
Skip yes/no prompt (assume yes).
- stack <STACK>**
Name for the ephemeral (one-time create and forget) heat stack.
- output-dir <OUTPUT_DIR>**
Directory to output state, processed heat templates, ansible deployment files. Defaults to ~/tripleo-deploy/<stack>
- output-only**
Do not execute the Ansible playbooks. By default the playbooks are saved to the output-dir and then executed.
- standalone-role <STANDALONE_ROLE>**
The role to use for standalone configuration when populating the deployment actions.
- t <TIMEOUT>, --timeout <TIMEOUT>**
Deployment timeout in minutes.
- e <HEAT ENVIRONMENT FILE>, --environment-file <HEAT ENVIRONMENT FILE>**
Environment files to be passed to the heat stack-create or heat stack-update command. (Can be specified more than once.)
- roles-file <ROLES_FILE>, -r <ROLES_FILE>**
Roles file, overrides the default roles_data_undercloud.yaml in the t-h-t templates directory used for deployment. May be an absolute path or the path relative to the templates dir.
- networks-file <NETWORKS_FILE>, -n <NETWORKS_FILE>**
Roles file, overrides the default /dev/null in the t-h-t templates directory used for deployment. May be an absolute path or the path relative to the templates dir.
- plan-environment-file <PLAN_ENVIRONMENT_FILE>, -p <PLAN_ENVIRONMENT_FILE>**
DEPRECATED: Plan Environment file, Not supported
- heat-api-port <HEAT_API_PORT>**
Heat API port to use for the installers private Heat API instance. Optional. Default: 8006.)
- heat-user <HEAT_USER>**
User to execute the non-privileged heat-all process. Defaults to the value of deployment-user.
- deployment-user <DEPLOYMENT_USER>**
User who executes the tripleo deploy command. Defaults to \$SUDO_USER. If \$SUDO_USER is unset it defaults to stack.
- deployment-python-interpreter <DEPLOYMENT_PYTHON_INTERPRETER>**
The path to python interpreter to use for the deployment actions. If not specified the python version of the openstackclient will be used. This may need to be used if deploying on a python2 host from a python3 system or vice versa.
- heat-container-image <HEAT_CONTAINER_IMAGE>**
The container image to use when launching the heat-all process. Defaults to: quay.io/tripleowallaby/openstack-heat-all:current-tripleo
- heat-native <HEAT_NATIVE>**
Execute the heat-all process natively on this host. This option requires that the heat-all binaries

be installed locally on this machine. This option is enabled by default which means heat-all is executed on the host OS directly.

- local-ip** <LOCAL_IP>
Local IP/CIDR for undercloud traffic. Required.
- control-virtual-ip** <CONTROL_VIRTUAL_IP>
Control plane VIP. This allows the undercloud installer to configure a custom VIP on the control plane.
- public-virtual-ip** <PUBLIC_VIRTUAL_IP>
Public nw VIP. This allows the undercloud installer to configure a custom VIP on the public (external) NW.
- local-domain** <LOCAL_DOMAIN>
Local domain for standalone cloud and its API endpoints
- cleanup**
Cleanup temporary files. Using this flag will remove the temporary files used during deployment in after the command is run.
- hieradata-override** <HIERADATA_OVERRIDE>
Path to hieradata override file. When it points to a heat env file, it is passed in t-h-t via environment-file. When the file contains legacy instack data, it is wrapped with <role>ExtraConfig and also passed in for t-h-t as a temp file created in output-dir. Note, instack hiera data may be not t-h-t compatible and will highly likely require a manual revision.
- keep-running**
Keep the ephemeral Heat running after the stack operation is complete. This is for debugging purposes only. The ephemeral Heat can be used by openstackclient with: OS_AUTH_TYPE=none OS_ENDPOINT=http://127.0.0.1:8006/v1/admin openstack stack list where 8006 is the port specified by heat-api-port.
- inflight-validations**
Activate in-flight validations during the deploy. In-flight validations provide a robust way to ensure deployed services are running right after their activation. Defaults to False.
- transport** <TRANSPORT>
Transport mechanism to use for ansible. Use ssh for multinode deployments. Use local for standalone deployments. Defaults to local.
- ansible-forks** <ANSIBLE_FORKS>
The number of Ansible forks to use for the config-download ansible-playbook command.
- disable-container-prepare**
Disable the container preparation actions to prevent container tags from being updated and new containers from being fetched. If you skip this but do not have the container parameters configured, the deployment action may fail.
- reproduce-command**
Create a reproducer command with ansible commandline and all environments variables.
- force-stack-update**
Do a virtual update of the ephemeral heat stack (it cannot take real updates). New or failed deployments always have the stack_action=CREATE. This option enforces stack_action=UPDATE.
- force-stack-create**
Do a virtual create of the ephemeral heat stack. New or failed deployments always have the

stack_action=CREATE. This option enforces stack_action=CREATE.

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