



Red Hat OpenStack Platform 12

Overcloud Parameters

Parameters for customizing the core template collection for a Red Hat OpenStack Platform overcloud

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Abstract

This guide provides parameters for customizing the overcloud in Red Hat OpenStack Platform. Use this guide in conjunction with the Advanced Overcloud Customization guide.

Table of Contents

CHAPTER 1. CORE OVERCLOUD PARAMETERS	3
CHAPTER 2. ROLE-BASED PARAMETERS	5
CHAPTER 3. DEBUG PARAMETERS	6
CHAPTER 4. POLICY PARAMETERS	8
CHAPTER 5. CEPH STORAGE PARAMETERS	10
CHAPTER 6. CEPH RADOSGW PARAMETERS	12
CHAPTER 7. BLOCK STORAGE (CINDER) PARAMETERS	13
CHAPTER 8. IMAGE STORAGE (GLANCE) PARAMETERS	14
CHAPTER 9. ORCHESTRATION (HEAT) PARAMETERS	15
CHAPTER 10. DASHBOARD (HORIZON) PARAMETERS	17
CHAPTER 11. BARE METAL (IRONIC) PARAMETERS	18
CHAPTER 12. IDENTITY (KEYSTONE) PARAMETERS	20
CHAPTER 13. SHARED FILE SERVICE (MANILA) PARAMETERS	23
CHAPTER 14. NETWORKING (NEUTRON) PARAMETERS	24
CHAPTER 15. COMPUTE (NOVA) PARAMETERS	28
CHAPTER 16. CLUSTERING (SAHARA) PARAMETERS	31
CHAPTER 17. OBJECT STORAGE (SWIFT) PARAMETERS	32
CHAPTER 18. TELEMETRY (CEILOMETER, GNOCCHI, AODH) PARAMETERS	34
CHAPTER 19. TIME PARAMETERS	37

CHAPTER 1. CORE OVERCLOUD PARAMETERS

Parameter	Description
AddVipsToEtcHosts	Set to true to append per network VIPs to /etc/hosts on each node. The default value is: True
CloudDomain	The DNS domain used for the hosts. This should match the dhcp_domain configured in the undercloud. The default value is: localdomain
CloudName	The DNS name of this cloud. The default value is: overcloud.localdomain
CloudNameCtlplane	The DNS name of this cloud's control plane endpoint. The default value is: overcloud.ctlplane.localdomain
CloudNameInternal	The DNS name of this cloud's internal API endpoint. The default value is: overcloud.internalapi.localdomain
CloudNameStorage	The DNS name of this cloud's storage endpoint. E.g. <i>ci-overcloud.storage.tripleo.org</i> . The default value is: overcloud.storage.localdomain
CloudNameStorageManagement	The DNS name of this cloud's storage management endpoint. The default value is: overcloud.storagemgmt.localdomain
ControlFixedIPs	Defines a fixed VIP for the Control Plane. Value uses the following format: [{ip_address: '1.2.3.4'}]
DeployIdentifier	Setting this to a unique value will re-run any deployment tasks that perform configuration on a Heat stack-update .
DeploymentServerBlacklist	List of server hostnames to blacklist from any triggered deployments.
ExtraConfig	Additional hiera configuration to inject into the cluster.
HypervisorNeutronPhysicalBridge	An Open vSwitch bridge to create on each hypervisor. This defaults to br-ex , which is the same as the control plane nodes. This ensures uniform configuration of the Open vSwitch agent. Typically should not need to be changed. The default value is: br-ex

Parameter	Description
HypervisorNeutronPublicInterface	What interface to add to the HypervisorNeutronPhysicalBridge . The default value is: nic1
InternalApiVirtualFixedIPs	Control the IP allocation for the InternalApiVirtualInterface port. Value uses the following format: [{ip_address: '1.2.3.4'}]
NeutronControlPlaneID	ID or name for Control Plane ctlplane network. The default value is: ctlplane
NeutronPublicInterface	The interface to attach to the external bridge. The default value is: nic1
NodeCreateBatchSize	Maximum batch size for creating nodes. It is recommended to not exceed a batch size of 32 nodes. The default value is: 30
PublicVirtualFixedIPs	Control the IP allocation for the PublicVirtualInterface port. Value uses the following format: [{ip_address: '1.2.3.4'}]
RabbitCookieSalt	Salt for the RabbitMQ cookie. Change to force the randomly generated RabbitMQ cookie to change. The default value is: unset
RedisVirtualFixedIPs	Control the IP allocation for the virtual IP used by Redis. Value uses the following format: [{ip_address: '1.2.3.4'}]
ServerMetadata	Extra properties or metadata passed to Nova for the created nodes in the overcloud. Accessible through the Nova metadata API.
StorageMgmtVirtualFixedIPs	Control the IP allocation for the StorageMgmtVirtualInterface port. Value uses the following format: [{ip_address: '1.2.3.4'}]
StorageVirtualFixedIPs	Control the IP allocation for the StorageVirtualInterface port. Value uses the following format: [{ip_address: '1.2.3.4'}]
UpdateIdentifier	Set to a previously unused value during stack-update triggers package update on all nodes.

CHAPTER 2. ROLE-BASED PARAMETERS

Substitute `_ROLE_` with the name of the role. For example, for `_ROLE_Count` use `ControllerCount`.

Parameter	Description
<code>_ROLE_Count</code>	The number of nodes to deploy in a role.
<code>_ROLE_ExtraConfig</code>	Role specific additional hiera configuration to inject into the cluster.
<code>_ROLE_HostnameFormat</code>	Format for node hostnames. Note that <code>%index%</code> is translated into the index of the node (e.g 0/1/2) and <code>%stackname%</code> is replaced with the stack name (e.g overcloud). The default value is: <code>%stackname%_-_ROLE_-%index%</code>
<code>_ROLE_Parameters</code>	Optional Role Specific parameters to be provided to service.
<code>_ROLE_ReovalPolicies</code>	List of resources to be removed from the role's ResourceGroup when doing an update that requires removal of specific resources.
<code>_ROLE_SchedulerHints</code>	Optional scheduler hints to pass to OpenStack Compute (nova).
<code>_ROLE_Services</code>	A list of service resources (configured in the OpenStack Orchestration (heat) resource_registry) which represent nested stacks for each service that should get installed on the <i>ROLE</i> role.

CHAPTER 3. DEBUG PARAMETERS

These parameters allow you to set debug mode on a per-service basis. The **Debug** parameter acts as a global parameter for all services and the per-service parameters can override the effects of global parameter on individual services.

Parameter	Description
AodhDebug	Set to True to enable debugging OpenStack Telemetry Alarming (aodh) services.
BarbicanDebug	Set to True to enable debugging OpenStack Key Manager (barbican) service.
CeilometerDebug	Set to True to enable debugging OpenStack Telemetry (ceilometer) services.
CinderDebug	Set to True to enable debugging on OpenStack Block Storage (cinder) services.
CongressDebug	Set to True to enable debugging for OpenStack Policy-as-a-Service (congress) service.
Debug	Set to True to enable debugging on all services.
GlanceDebug	Set to True to enable debugging OpenStack Image Storage (glance) service.
GnocchiDebug	Set to True to enable debugging OpenStack Telemetry Metrics (gnocchi) services.
HeatDebug	Set to True to enable debugging OpenStack Orchestration (heat) services.
HorizonDebug	Set to True to enable debugging OpenStack Dashboard (horizon) service.
IronicDebug	Set to True to enable debugging OpenStack Bare Metal (ironic) services.
KeystoneDebug	Set to True to enable debugging OpenStack Identity (keystone) service.
ManilaDebug	Set to True to enable debugging OpenStack Shared File Systems (manila) services.
MistralDebug	Set to True to enable debugging OpenStack Workflow (mistral) services.

Parameter	Description
NeutronDebug	Set to True to enable debugging OpenStack Networking (neutron) services.
NovaDebug	Set to True to enable debugging OpenStack Compute (nova) services.
OctaviaDebug	Set to True to enable debugging OpenStack Load Balancing-as-a-Service (octavia) services.
PankoDebug	Set to True to enable debugging OpenStack Telemetry Event Storage (panko) services.
SaharaDebug	Set to True to enable debugging OpenStack Clustering (sahara) services.
ZaqarDebug	Set to True to enable debugging OpenStack Messaging (zaqar) service.

CHAPTER 4. POLICY PARAMETERS

These parameters allow you to set policies on a per-service basis.

Parameter	Description
AodhApiPolicies	A hash of policies to configure for OpenStack Telemetry Alarming (aodh) API.
BarbicanPolicies	A hash of policies to configure for OpenStack Key Manager (barbican).
CeilometerApiPolicies	A hash of policies to configure for OpenStack Telemetry (ceilometer) API.
CinderApiPolicies	A hash of policies to configure for OpenStack Block Storage (cinder) API.
CongressPolicies	A hash of policies to configure for OpenStack Policy Framework (congress).
Ec2ApiPolicies	A hash of policies to configure for EC2-API.
GlanceApiPolicies	A hash of policies to configure for OpenStack Image Storage (glance) API.
GnocchiApiPolicies	A hash of policies to configure for OpenStack Telemetry Metrics (gnocchi) API.
HeatApiPolicies	A hash of policies to configure for OpenStack Orchestration (heat) API.
IronicApiPolicies	A hash of policies to configure for OpenStack Bare Metal (ironic) API.
KeystonePolicies	A hash of policies to configure for OpenStack Identity (keystone).
MistralApiPolicies	A hash of policies to configure for OpenStack Workflow (mistral) API.
NeutronApiPolicies	A hash of policies to configure for OpenStack Networking (neutron) API.
NovaApiPolicies	A hash of policies to configure for OpenStack Compute (nova) API.
OctaviaApiPolicies	A hash of policies to configure for OpenStack Load Balancing-as-a-Service (octavia) API.

Parameter	Description
PankoApiPolicies	A hash of policies to configure for OpenStack Telemetry Event Storage (panko) API.
SaharaApiPolicies	A hash of policies to configure for OpenStack Clustering (sahara) API.
ZaqarPolicies	A hash of policies to configure for OpenStack Messaging (zaqar).

CHAPTER 5. CEPH STORAGE PARAMETERS

Parameter	Description
CephAdminKey	The Ceph admin client key. Can be created with: ceph-authtool --gen-print-key
CephClientKey	The Ceph client key. Currently only used for external Ceph deployments to create the openstack user keyring. Can be created with: ceph-authtool -gen-print-key
CephClusterFSID	The Ceph cluster FSID. Must be a UUID.
CephIPv6	Enables Ceph daemons to bind to IPv6 addresses. The default is: false
CephManilaClientKey	The Ceph client key. Can be created with: ceph-authtool --gen-print-key
CephMonKey	The Ceph monitors key. Can be created with: ceph-authtool --gen-print-key
CephPoolDefaultSize	Default minimum replication for RBD copies. The default value is: 3
CephPools	Override settings for one of the predefined pools or to create additional ones. Example: { "volumes": { "size": 5, "pg_num": 128, "pgp_num": 128 } }
CephValidationDelay	Interval (in seconds) in between validation checks. The default value is: 30
CephValidationRetries	Number of retry attempts for Ceph validation. The default value is: 40
CinderBackupRbdPoolName	Pool to use if Block Storage (cinder) Backup is enabled. The default is: backups
CinderRbdPoolName	Pool to use for Block Storage (cinder) service. The default is: volumes
ControllerEnableCephStorage	Whether to deploy Ceph Storage (OSD) on the Controller. The default value is: False
GlanceRbdPoolName	Pool to use for Image Storage (glance) service. The default is: images

Parameter	Description
GnocchiRbdPoolName	Pool to use for Telemetry storage. The default is: metrics
IgnoreCephUpgradeWarnings	If enabled, Ceph upgrade will be forced even though cluster or PGs status is not clean. The default value is: False
ManilaCephFSDataPoolName	Pool to use for file share storage. The default is: manila_data
ManilaCephFSMetadataPoolName	Pool to use for file share metadata storage. The default is: manila_metadata
ManilaCephFSNativeCephFSAuthId	The Cephx user id for manila. The default is: manila
NovaRbdPoolName	Pool to use for Compute storage. The default is: vms

CHAPTER 6. CEPH RADOSGW PARAMETERS

Parameter	Description
CephRgwKey	The cephx key for the radosgw client. Can be created with: ceph-authtool --gen-print-key

CHAPTER 7. BLOCK STORAGE (CINDER) PARAMETERS

Parameter	Description
CinderCronDbPurgeAge	Cron to move deleted instances to another table - Age. The default value is: 0
CinderCronDbPurgeDestination	Cron to move deleted instances to another table - Log destination. The default value is: /var/log/cinder/cinder-rowsflush.log
CinderCronDbPurgeHour	Cron to move deleted instances to another table - Hour. The default value is: 0
CinderCronDbPurgeMinute	Cron to move deleted instances to another table - Minute. The default value is: 1
CinderCronDbPurgeMonth	Cron to move deleted instances to another table - Month. The default value is: *
CinderCronDbPurgeMonthday	Cron to move deleted instances to another table - Month Day. The default value is: *
CinderCronDbPurgeUser	Cron to move deleted instances to another table - User. The default value is: cinder
CinderCronDbPurgeWeekday	Cron to move deleted instances to another table - Week Day. The default value is: *
CinderEnableDBPurge	Whether to create cron job for purging soft deleted rows in OpenStack Block Storage (cinder) database. The default value is: True
CinderPassword	The password for the cinder service account, used by cinder-api.
CinderWorkers	Set the number of workers for the block storage service. The default value is equal to the number of CPU cores on the node. Note that more workers creates a larger number of processes on systems, which results in excess memory consumption. It is recommended to choose a suitable non-default value on systems with high CPU core counts.
NotificationDriver	Driver or drivers to handle sending notifications. The default value is: messagingv2

CHAPTER 8. IMAGE STORAGE (GLANCE) PARAMETERS

Parameter	Description
GlanceBackend	The short name of the backend to use. Should be one of swift , rbd , or file . The default value is: swift
GlanceImageMemberQuota	Maximum number of image members per image. Negative values evaluate to unlimited. The default value is: 128
GlanceLogFile	The filepath of the file to use for logging messages from OpenStack Image Storage (glance).
GlanceNfsEnabled	When using GlanceBackend: file , mount NFS share for image storage. The default value is: False
GlanceNfsOptions	NFS mount options for image storage when GlanceNfsEnabled is true. The default value is: intr,context=system_u:object_r:glance_var_lib_t:s0
GlanceNfsShare	NFS share to mount for image storage when GlanceNfsEnabled is true.
GlanceNotifierStrategy	Strategy to use for OpenStack Image Storage (glance) notification queue. The default value is: noop
GlancePassword	The password for the image storage service and database account.
GlanceWorkers	Set the number of workers for the image storage service. The default value is equal to the number of CPU cores on the node. Note that more workers creates a larger number of processes on systems, which results in excess memory consumption. It is recommended to choose a suitable non-default value on systems with high CPU core counts.
NotificationDriver	Driver or drivers to handle sending notifications. The default value is: messagingv2

CHAPTER 9. ORCHESTRATION (HEAT) PARAMETERS

Parameter	Description
HeatAuthEncryptionKey	Auth encryption key for heat-engine.
HeatConvergenceEngine	Enables the heat engine with the convergence architecture. The default value is: True
HeatCronPurgeDeletedAge	Cron to purge db entries marked as deleted and older than \$age - Age. The default value is: 30
HeatCronPurgeDeletedAgeType	Cron to purge db entries marked as deleted and older than \$age - Age type. The default value is: days
HeatCronPurgeDeletedDestination	Cron to purge db entries marked as deleted and older than \$age - Log destination. The default value is: /dev/null
HeatCronPurgeDeletedEnsure	Cron to purge db entries marked as deleted and older than \$age - Ensure. The default value is: present
HeatCronPurgeDeletedHour	Cron to purge db entries marked as deleted and older than \$age - Hour. The default value is: 0
HeatCronPurgeDeletedMaxDelay	Cron to purge db entries marked as deleted and older than \$age - Max Delay. The default value is: 3600
HeatCronPurgeDeletedMinute	Cron to purge db entries marked as deleted and older than \$age - Minute. The default value is: 1
HeatCronPurgeDeletedMonth	Cron to purge db entries marked as deleted and older than \$age - Month. The default value is: *
HeatCronPurgeDeletedMonthday	Cron to purge db entries marked as deleted and older than \$age - Month Day. The default value is: *
HeatCronPurgeDeletedUser	Cron to purge db entries marked as deleted and older than \$age - User. The default value is: heat
HeatCronPurgeDeletedWeekday	Cron to purge db entries marked as deleted and older than \$age - Week Day. The default value is: *
HeatEnableDBPurge	Whether to create cron job for purging soft deleted rows in the OpenStack Orchestration (heat) database. The default value is: True

Parameter	Description
HeatMaxJsonBodySize	Maximum raw byte size of the OpenStack Orchestration (heat) API JSON request body. The default value is: 1048576
HeatMaxResourcesPerStack	Maximum resources allowed per top-level stack. -1 stands for unlimited. The default value is: 1000
HeatPassword	The password for the Orchestration service and database account.
HeatStackDomainAdminPassword	The admin password for the OpenStack Orchestration (heat) domain in OpenStack Identity (keystone).
HeatWorkers	Number of workers for Heat service. The default value is: 0. Note that more workers creates a larger number of processes on systems, which results in excess memory consumption. It is recommended to choose a suitable non-default value on systems with high CPU core counts.
NotificationDriver	Driver or drivers to handle sending notifications. The default value is: messagingv2

CHAPTER 10. DASHBOARD (HORIZON) PARAMETERS

Parameter	Description
HorizonAllowedHosts	A list of IP/Hostname for the server OpenStack Dashboard (horizon) is running on. Used for header checks. The default value is: *
HorizonCustomizationModule	OpenStack Dashboard (horizon) has a global overrides mechanism available to perform customizations.
HorizonPasswordValidator	Regex for password validation.
HorizonPasswordValidatorHelp	Help text for password validation.
HorizonSecret	Secret key for the webserver.
HorizonSecureCookies	Set CSRF_COOKIE_SECURE / SESSION_COOKIE_SECURE in OpenStack Dashboard (horizon). The default value is: False
HorizonVhostExtraParams	Extra parameters for OpenStack Dashboard (horizon) vhost configuration. The default value is: <pre>{'priority': 10, 'access_log_format': '%a %l %u %t \\ "%r\\" %>s %b \\ "%%{} {Referer}i\\" \\ "%%{}{User- Agent}i\\"', 'options': ['FollowSymLinks', 'MultiViews']}</pre>
InternalTLSCAFile	Specifies the default CA cert to use if TLS is used for services in the internal network. The default value is: /etc/ipa/ca.crt
MemcachedIPv6	Enable IPv6 features in Memcached. The default value is: False

CHAPTER 11. BARE METAL (IRONIC) PARAMETERS

Parameter	Description
IronicCleaningDiskErase	Type of disk cleaning before and between deployments. full for full cleaning. metadata to clean only disk metadata (partition table). The default value is: full
IronicCleaningNetwork	Name or UUID of the overcloud network used for cleaning bare metal nodes. The default value of provisioning can be left during the initial deployment (when no networks are created yet) and should be changed to an actual UUID in a post-deployment stack update.
IronicDefaultBootOption	How to boot the bare metal instances. Set to local to use local bootloader (requires grub2 for partition images). Set to netboot to make the instances boot from controllers using PXE/iPXE. The default value is: local
IronicDefaultNetworkInterface	Network interface implementation to use by default. Set to flat to use one flat provider network. Set to neutron to make OpenStack Bare Metal (ironic) interact with the OpenStack Networking (neutron) ML2 driver to enable other network types and certain advanced networking features. Requires IronicProvisioningNetwork to be correctly set. The default value is: flat
IronicEnabledDrivers	Enabled OpenStack Bare Metal (ironic) drivers. The default value is: <code>['pxe_ipmitool', 'pxe_drac', 'pxe_ilo']</code>
IronicEnabledHardwareTypes	Enabled OpenStack Bare Metal (ironic) hardware types. The default value is: <code>['ipmi', 'redfish']</code>
IronicEnabledManagementInterfaces	Enabled management interface implementations. Each hardware type must have at least one valid implementation enabled. The default value is: <code>['ipmitool', 'redfish']</code>
IronicEnabledPowerInterfaces	Enabled power interface implementations. Each hardware type must have at least one valid implementation enabled. The default value is: <code>['ipmitool', 'redfish']</code>
IronicIPXEEnabled	Whether to use iPXE instead of PXE for deployment. The default value is: True

Parameter	Description
IronicIPXEPort	Port to use for serving images when iPXE is used. The default value is: 8088
IronicInspectorIPXEEnabled	Whether to use iPXE for inspection. The default value is: True
IronicInspectorInterface	Network interface on which inspection dnsmasq will listen. The default value is: br-ex
IronicInspectorIpRange	Temporary IP range that will be given to nodes during the inspection process. This should not overlap with any range that OpenStack Networking (neutron) DHCP allocates, but it has to be routeable back to ironic-inspector . This option has no meaningful defaults, and thus is required.
IronicInspectorUseSwift	Whether to use Swift for storing introspection data. The default value is: True
IronicPassword	The password for the Bare Metal service and database account.
IronicProvisioningNetwork	Name or UUID of the overcloud network used for provisioning of bare metal nodes if IronicDefaultNetworkInterface is set to neutron . The default value of provisioning can be left during the initial deployment (when no networks are created yet) and should be changed to an actual UUID in a post-deployment stack update. The default value is: provisioning

CHAPTER 12. IDENTITY (KEYSTONE) PARAMETERS

Parameter	Description
AdminEmail	The email for the OpenStack Identity (keystone) admin account. The default value is: admin@example.com
AdminPassword	The password for the OpenStack Identity (keystone) admin account.
AdminToken	The OpenStack Identity (keystone) secret and database password.
KeystoneCredential10	The first OpenStack Identity (keystone) credential key. Must be a valid key.
KeystoneCredential11	The second OpenStack Identity (keystone) credential key. Must be a valid key.
KeystoneCronTokenFlushDestination	Cron to purge expired tokens - Log destination. The default value is: /var/log/keystone/keystone-tokenflush.log
KeystoneCronTokenFlushEnsure	Cron to purge expired tokens - Ensure. The default value is: present
KeystoneCronTokenFlushHour	Cron to purge expired tokens - Hour. The default value is: *
KeystoneCronTokenFlushMaxDelay	Cron to purge expired tokens - Max Delay. The default value is: 0
KeystoneCronTokenFlushMinute	Cron to purge expired tokens - Minute. The default value is: 1
KeystoneCronTokenFlushMonth	Cron to purge expired tokens - Month. The default value is: *
KeystoneCronTokenFlushMonthday	Cron to purge expired tokens - Month Day. The default value is: *
KeystoneCronTokenFlushUser	Cron to purge expired tokens - User. The default value is: keystone
KeystoneCronTokenFlushWeekday	Cron to purge expired tokens - Week Day. The default value is: *

Parameter	Description
KeystoneEnableDBPurge	Whether to create cron job for purging soft deleted rows in OpenStack Identity (keystone) database. The default value is: True
KeystoneFernetKey0	The first OpenStack Identity (keystone) fernet key. Must be a valid key.
KeystoneFernetKey1	The second OpenStack Identity (keystone) fernet key. Must be a valid key.
KeystoneFernetKeys	Mapping containing OpenStack Identity (keystone) fernet keys and their paths.
KeystoneFernetMaxActiveKeys	The maximum active keys in the OpenStack Identity (keystone) fernet key repository. The default value is: 5
KeystoneLDAPBackendConfigs	Hash containing the configurations for the LDAP backends configured in keystone.
KeystoneLDAPDomainEnable	Trigger to call <code>Idap_backend puppet keystone define</code> . The default value is: False
KeystoneNotificationDriver	Comma-separated list of Oslo notification drivers used by Keystone. The default value is: ['messaging']
KeystoneNotificationFormat	The OpenStack Identity (keystone) notification format. The default value is: basic
KeystoneNotificationTopics	OpenStack Identity (keystone) notification topics to enable.
KeystoneSSLCertificate	Keystone certificate for verifying token validity.
KeystoneSSLCertificateKey	Keystone key for signing tokens.
KeystoneTokenProvider	The OpenStack Identity (keystone) token format. The default value is: fernet

Parameter	Description
KeystoneWorkers	Set the number of workers for the OpenStack Identity (keystone) service. The default value is equal to the number of CPU cores on the node. Note that more workers creates a larger number of processes on systems, which results in excess memory consumption. It is recommended to choose a suitable non-default value on systems with high CPU core counts.
ManageKeystoneFernetKeys	Whether director should manage the OpenStack Identity (keystone) fernet keys or not. If set to True, the fernet keys will get the values from the saved keys repository in OpenStack Workflow (mistral) from the KeystoneFernetKeys variable. If set to false, only the stack creation initializes the keys, but subsequent updates will not touch them. The default value is: True
NotificationDriver	Driver or drivers to handle sending notifications. The default value is: messagingv2

CHAPTER 13. SHARED FILE SERVICE (MANILA) PARAMETERS

Parameter	Description
ManilaPassword	The password for the shared file service account.
NotificationDriver	Driver or drivers to handle sending notifications. The default value is: messagingv2

CHAPTER 14. NETWORKING (NEUTRON) PARAMETERS

Parameter	Description
DatabaseSyncTimeout	Database synchronization timeout default. The default value is: 300
DhcpAgentNotification	Enables DHCP agent notifications. The default value is: True
EnableConfigPurge	Remove configuration that is not generated by the director. Used to avoid configuration remnants after upgrades. The default value is: False
NeutronAgentExtensions	Comma-separated list of extensions enabled for the OpenStack Networking (neutron) agents. The default value is: qos
NeutronAllowL3AgentFailover	Allow automatic l3-agent failover. The default value is: True
NeutronBridgeMappings	The logical to physical bridge mappings to use. The default (datacentre:br-ex) maps br-ex (the external bridge on hosts) to a physical name datacentre , which provider networks can use (for example, the default floating network). If changing this, either use different post-install network scripts or be sure to keep datacentre as a mapping network name.
NeutronCorePlugin	The core plugin for networking. The value should be the entrypoint to be loaded from neutron.core_plugins namespace. The default value is: m12
NeutronDBSyncExtraParams	String of extra command line parameters to append to the neutron-db-manage upgrade head command.
NeutronDhcpAgentDnsmasqDnsServers	List of servers to use as dnsmasq forwarders.
NeutronDhcpAgentsPerNetwork	The number of DHCP agents to schedule per network. The default value is: 0
NeutronDnsDomain	Domain to use for building the hostnames. The default value is: openstacklocal
NeutronEnableARPResponder	Enable ARP responder feature in the OVS Agent. The default value is: False

Parameter	Description
NeutronEnableDVR	Enable Distributed Virtual Router. The default value is: False
NeutronEnableForceMetadata	If True, DHCP always provides metadata route to VM. The default value is: False
NeutronEnableIsolatedMetadata	If True, DHCP allows metadata support on isolated networks. The default value is: False
NeutronEnableL2Pop	Enable/disable the L2 population feature in the OpenStack Networking (neutron) agents. The default value is: False
NeutronEnableMetadataNetwork	If True, DHCP provides metadata network. Requires either NeutronEnableIsolatedMetadata or NeutronEnableForceMetadata parameters to also be True. The default value is: False
NeutronExternalNetworkBridge	Name of bridge used for external network traffic. Usually L2 agent handles port wiring into external bridge, and hence the parameter should be unset.
NeutronFirewallDriver	Firewall driver for realizing OpenStack Networking (neutron) security group function. The default value is: openvswitch
NeutronFlatNetworks	Sets the flat network name to configure in plugins. The default value is: datacentre
NeutronGlobalPhysnetMtu	MTU of the underlying physical network. OpenStack Networking (neutron) uses this value to calculate MTU for all virtual network components. For flat and VLAN networks, OpenStack Networking uses this value without modification. For overlay networks such as VXLAN, OpenStack Networking automatically subtracts the overlay protocol overhead from this value. The default value is: 1500
NeutronL3AgentMode	Agent mode for L3 agent. Must be legacy or dvr_snat . The default value is: legacy
NeutronMechanismDrivers	The mechanism drivers for the tenant network. The default value is: openvswitch
NeutronMetadataProxySharedSecret	Shared secret to prevent spoofing.
NeutronNetworkType	The tenant network type. The default value is: vxlan

Parameter	Description
NeutronNetworkVLANRanges	The OpenStack Networking (neutron) ML2 and Open vSwitch VLAN mapping range to support. Defaults to permitting any VLAN on the datacentre physical network (See NeutronBridgeMappings). The default value is: datacentre:1:1000
NeutronOVSFirewallDriver	Configure the classname of the firewall driver to use for implementing security groups. Possible values depend on system configuration. Some examples are: noop , openvswitch , iptables_hybrid . The default value of an empty string results in a default supported configuration.
NeutronOverlayIPVersion	IP version used for all overlay network endpoints. The default value is: 4
NeutronPassword	The password for the OpenStack Networking (neutron) service and database account.
NeutronPluginExtensions	Comma-separated list of enabled extension plugins. The default value is: qos, port_security
NeutronServicePlugins	Comma-separated list of service plugin endpoints. The default value is: router, qos, trunk
NeutronTunnelIdRanges	Comma-separated list of <tun_min>:<tun_max> tuples enumerating ranges of GRE tunnel IDs that are available for tenant network allocation. The default value is: ['1:4094']
NeutronTunnelTypes	The tunnel types for the tenant network. The default value is: vxlan
NeutronTypeDrivers	Comma-separated list of network type driver endpoints to be loaded. The default value is: vxlan, vlan, flat, gre
NeutronVniRanges	Comma-separated list of <vni_min>:<vni_max> tuples enumerating ranges of VXLAN VNI IDs that are available for tenant network allocation. The default value is: ['1:4094']

Parameter	Description
NeutronWorkers	Sets the number of API and RPC workers for the OpenStack Networking service. The default value is equal to the number of CPU cores on the node. Note that more workers creates a larger number of processes on systems, which results in excess memory consumption. It is recommended to choose a suitable non-default value on systems with high CPU core counts.
NotificationDriver	Driver or drivers to handle sending notifications. The default value is: messagingv2

CHAPTER 15. COMPUTE (NOVA) PARAMETERS

Parameter	Description
DatabaseSyncTimeout	Database synchronization timeout default. The default value is: 300
EnableConfigPurge	Remove configuration that is not generated by the director. Used to avoid configuration remnants after upgrades. The default value is: False
InstanceNameTemplate	Template string to be used to generate instance names. The default value is: instance-%08x
InternalTLSCAFile	Specifies the default CA cert to use if TLS is used for services in the internal network. The default value is: /etc/ipa/ca.crt
LibvirtCACert	This specifies the CA certificate to use for TLS in libvirt. This file will be symlinked to the default CA path in libvirt, which is <code>/etc/pki/CA/cacert.pem</code> . Note that due to limitations GNU TLS, which is the TLS backend for libvirt, the file must be less than 65K (so we can't use the system's CA bundle). This parameter should be used if the default (which comes from the <code>InternalTLSCAFile</code> parameter) is not desired. The current default reflects TripleO's default CA, which is FreeIPA. It will only be used if internal TLS is enabled.
LibvirtEnabledPerfEvents	This is a performance event list which could be used as monitor. For example: cmt, mbml, mbmt . Make sure you are using Red Hat Enterprise Linux 7.4 as the base and libvirt version is 1.3.3 or above. Also ensure you have enabled the notifications and are using hardware with a CPU that supports the cmt flag.
LibvirtTLSPassword	The password for the libvirt service when TLS is enabled.
MigrationSshKey	SSH key for migration. Expects a dictionary with keys <code>public_key</code> and <code>private_key</code> . Values should be identical to SSH public/private key files. The default value is: {'public_key': '', 'private_key': ''}
MigrationSshPort	Target port for migration over ssh. The default value is: 2022
NeutronMetadataProxySharedSecret	Shared secret to prevent spoofing.

Parameter	Description
NotificationDriver	Driver or drivers to handle sending notifications. The default value is: messagingv2
NovaComputeLibvirtType	Libvirt domain type. Defaults to <i>kvm</i> .
NovaComputeLibvirtVifDriver	Libvirt VIF driver configuration for the network.
NovaCronArchiveDeleteRowsDestination	Cron to move deleted instances to another table - Log destination. The default value is: /var/log/nova/nova-rowsflush.log
NovaCronArchiveDeleteRowsHour	Cron to move deleted instances to another table - Hour. The default value is: 0
NovaCronArchiveDeleteRowsMaxRows	Cron to move deleted instances to another table - Max Rows. The default value is: 100
NovaCronArchiveDeleteRowsMinute	Cron to move deleted instances to another table - Minute. The default value is: 1
NovaCronArchiveDeleteRowsMonth	Cron to move deleted instances to another table - Month. The default value is: *
NovaCronArchiveDeleteRowsMonthday	Cron to move deleted instances to another table - Month Day. The default value is: *
NovaCronArchiveDeleteRowsUntilComplete	Cron to move deleted instances to another table - Until complete. The default value is: False
NovaCronArchiveDeleteRowsUser	Cron to move deleted instances to another table - User. The default value is: nova
NovaCronArchiveDeleteRowsWeekday	Cron to move deleted instances to another table - Week Day. The default value is: *
NovaDbSyncTimeout	Timeout for OpenStack Compute (nova) database synchronization in seconds. The default value is: 300
NovaDefaultFloatingPool	Default pool for floating IP addresses. The default value is: public
NovaEnableDBPurge	Whether to create cron job for purging soft deleted rows in OpenStack Compute (nova) database. The default value is: True

Parameter	Description
NovaIPv6	Enable IPv6 features for OpenStack Compute (nova). The default is: false
NovaOVSBridge	Name of integration bridge used by Open vSwitch. The default value is: br-int
NovaPCIPassthrough	YAML list of PCI passthrough whitelist parameters.
NovaPassword	The password for the OpenStack Compute (nova) service and database account.
NovaPlacementAPIInterface	Endpoint interface to be used for the placement API. The default value is: internal
NovaReservedHostMemory	Reserved RAM for host processes. The default value is: 4096
NovaSchedulerAvailableFilters	List of available filters for OpenStack Compute (nova) to use to filter nodes.
NovaSchedulerDefaultFilters	An array of filters OpenStack Compute (nova) uses to filter a node. OpenStack Compute applies these filters in the order they are listed. Place your most restrictive filters first to make the filtering process more efficient.
NovaSchedulerDiscoverHostsInCellsInterval	This value controls how often (in seconds) the scheduler should attempt to discover new hosts that have been added to cells. The default value of -1 disables the periodic task completely. It is recommended to set this parameter for deployments using OpenStack Bare Metal (ironic). The default value is: -1
NovaVcpuPinSet	A list or range of physical CPU cores to reserve for virtual machine processes. For example, NovaVcpuPinSet: [4-12, ^8] reserves cores from 4-12 excluding 8.
NovaWorkers	Number of workers for the Compute's Conductor service. The default value is: 0 . Note that more workers creates a larger number of processes on systems, which results in excess memory consumption.
UpgradeLevelNovaCompute	OpenStack Compute upgrade level. The default value is: auto

CHAPTER 16. CLUSTERING (SAHARA) PARAMETERS

Parameter	Description
NotificationDriver	Driver or drivers to handle sending notifications. The default value is: messagingv2
SaharaPassword	The password for the clustering service and database account.
SaharaPlugins	Clustering enabled plugin list. The default value is: ['ambari', 'cdh', 'mapr', 'vanilla', 'spark', 'storm']
SaharaWorkers	Set the number of workers for the clustering service. The default value is: 0 . Note that more workers creates a larger number of processes on systems, which results in excess memory consumption. It is recommended to choose a suitable non-default value on systems with high CPU core counts.

CHAPTER 17. OBJECT STORAGE (SWIFT) PARAMETERS

Parameter	Description
ControllerEnableSwiftStorage	Whether to enable object storage on Controller nodes. The default value is: True
SwiftCeilometerIgnoreProjects	Comma-separated list of project names to ignore. The default value is: ['service']
SwiftCeilometerPipelineEnabled	Set to False to disable the object storage proxy ceilometer pipeline. The default value is: True
SwiftHashSuffix	A random string to be used as a salt when hashing to determine mappings in the ring.
SwiftMinPartHours	The minimum time (in hours) before a partition in a ring can be moved following a rebalance. The default value is: 1
SwiftMountCheck	Check if the devices are mounted to prevent accidentally writing to the root device. The default value is: False
SwiftPartPower	Partition power to use when building object storage rings. The default value is: 10
SwiftPassword	The password for the object storage service account.
SwiftProxyNodeTimeout	Timeout for requests going from swift-proxy to account, container, and object services. The default value is: 60
SwiftRawDisks	Additional raw devices to use for the object storage backend. For example: {sdb: {}}
SwiftReplicas	Number of replicas to use in the object storage rings. The default value is: 3
SwiftRingBuild	Whether to manage object storage rings or not. The default value is: True
SwiftRingGetTempurl	A temporary Swift URL to download rings from.
SwiftRingPutTempurl	A temporary Swift URL to upload rings to.
SwiftUseLocalDir	Use a local directory for object storage services when building rings. The default value is: True

Parameter	Description
SwiftWorkers	Number of workers for object storage service. The default value is: 0 . Note that more workers creates a larger number of processes on systems, which results in excess memory consumption. It is recommended to choose a suitable non-default value on systems with high CPU core counts.

CHAPTER 18. TELEMETRY (CEILOMETER, GNOCCHI, AODH) PARAMETERS

Parameter	Description
AodhPassword	The password for the OpenStack Telemetry Alarming (aodh) services.
CeilometerApiEndpoint	Whether to create or skip legacy Telemetry API endpoint. The default value is: <code>False</code> . Set this parameter to <code>true</code> to enable legacy Telemetry API service.
CeilometerBackend	The Telemetry backend type. The default value is: mongodb
CeilometerEventDispatcher	Comma-separated list of Dispatchers to process events data. Note that the database option is deprecated and will not be supported in the future. The default value is: ['panko' , 'gnocchi']
CeilometerEventTTL	Number of seconds that events are kept in the database for (<code>= 0</code> means forever). The default value is: 86400
CeilometerMeterDispatcher	Comma-separated list of Dispatcher to process meter data. Note that the database option is deprecated and will not be supported in the future. The default value is: ['gnocchi']
CeilometerMeteringSecret	Secret shared by the Telemetry services.
CeilometerMeteringTTL	Number of seconds that samples are kept in the database for (<code>= 0</code> means forever). The default value is: 86400
CeilometerPassword	The password for the Telemetry service account.
CeilometerWorkers	Number of workers for the Telemetry service. The default value is: 0 . Note that more workers creates a larger number of processes on systems, which results in excess memory consumption. It is recommended to choose a suitable non-default value on systems with high CPU core counts.
GnocchiArchivePolicy	Archive policy to use with OpenStack Telemetry Metrics (gnocchi) backend. The default value is: low

Parameter	Description
GnocchiBackend	The short name of the OpenStack Telemetry Metrics (gnocchi) backend to use. Should be one of swift , rbd , or file . The default value is: swift
GnocchiExternalProject	Project name of resources creator in OpenStack Telemetry Metrics (gnocchi). The default value is: service
GnocchiIndexerBackend	The short name of the OpenStack Telemetry Metrics (gnocchi) indexer backend to use. The default value is: mysql
GnocchiMetricdWorkers	Number of workers for OpenStack Telemetry Metrics (gnocchi). The default value is equal to the number of CPU cores on the node. Note that more workers creates a larger number of processes on systems, which results in excess memory consumption. It is recommended to choose a suitable non-default value on systems with high CPU core counts.
GnocchiPassword	The password for the OpenStack Telemetry Metrics (gnocchi) service and database account.
InternalTLSCAFile	Specifies the default CA cert to use if TLS is used for services in the internal network. The default value is: /etc/ipa/ca.crt
ManageEventPipeline	Whether to manage event_pipeline.yaml. The default value is: True
ManagePipeline	Whether to manage pipeline.yaml. The default value is: False
ManagePolling	Whether to manage polling.yaml. The default value is: False
MetricProcessingDelay	Delay between processing metrics. The default value is: 30
MongoDbIPv6	Enable IPv6 if MongoDB VIP is IPv6. The default value is: False
MongoDbNoJournal	Should MongoDB journaling be disabled. The default value is: False

Parameter	Description
MongodbMemoryLimit	Limit the amount of memory mongodb uses with systemd. The default value is: 20G
NotificationDriver	Driver or drivers to handle sending notifications. The default value is: messagingv2
NumberOfStorageSacks	Number of storage sacks to create. The default value is: 128
PankoPassword	The password for the panko services.
PipelinePublishers	A list of publishers to put in pipeline.yaml. When the collector is used, override this with <code>notifier://publisher</code> . Set <code>ManagePipeline</code> to true for override to take effect. The default value is: ['gnocchi://']
SnmpdReadOnlyUserName	The user name for SNMPd with readonly rights running on all Overcloud nodes. The default value is: ro_snmp_user
SnmpdReadOnlyUserPassword	The user password for SNMPd with readonly rights running on all Overcloud nodes.

CHAPTER 19. TIME PARAMETERS

Parameter	Description
NtpIburstEnable	Specifies whether to enable the iburst option for every NTP peer. If iburst is enabled, when the NTP server is unreachable NTP will send a burst of eight packages instead of one. This is designed to speed up the initial synchronization. The default value is: True
NtpServer	NTP servers list. The default value is: ['pool.ntp.org']
TimeZone	The timezone to be set on the overcloud. The default value is: UTC