
OpenStack-Ansible Documentation:

os_designate role

Release 18.1.0.dev241

OpenStack-Ansible Contributors

Jan 08, 2025

CONTENTS

1	Default variables	3
2	Dependencies	11
3	Example playbook	13
4	Tags	15

This Ansible role installs and configures OpenStack Designate.

This role will install the following services:

- designate-api
- designate-central
- designate-worker
- designate-producer
- designate-mdns
- designate-sink

The DNS servers Designate will interface with can be defined in the `designate_pools_yaml` variable. This is eventually written to the Designate `pools.yaml` file.

To clone or view the source code for this repository, visit the role repository for [os_designate](#).

DEFAULT VARIABLES

```
## Verbosity Options
debug: False

# Enable/Disable Ceilometer
designate_ceilometer_enabled: "{{ (groups['ceilometer_all'] is defined) and_
↳(groups['ceilometer_all'] | length > 0) }}"

# Set the host which will execute the shade modules
# for the service setup. The host must already have
# clouds.yaml properly configured.
designate_service_setup_host: "{{ openstack_service_setup_host | default(
↳'localhost') }}"
designate_service_setup_host_python_interpreter: >-
  {{
    openstack_service_setup_host_python_interpreter | default(
      (designate_service_setup_host == 'localhost') | ternary(ansible_
↳playbook_python, ansible_facts['python']['executable']))
  }}

# Set the package install state for distribution packages
# Options are 'present' and 'latest'
designate_package_state: "{{ package_state | default('latest') }}"

# Set installation method.
designate_install_method: "{{ service_install_method | default('source') }}"
designate_venv_python_executable: "{{ openstack_venv_python_executable |_
↳default('python3') }}"

## The git source/branch
designate_git_repo: https://opendev.org/openstack/designate
designate_git_install_branch: master
designate_upper_constraints_url: >-
  {{ requirements_git_url | default('https://releases.openstack.org/
↳constraints/upper/' ~ requirements_git_install_branch | default('master')) }
↳}
designate_git_constraints:
  - "--constraint {{ designate_upper_constraints_url }}"
```

(continues on next page)

(continued from previous page)

```

designate_pip_install_args: "{{ pip_install_options | default('') }}"

# Name of the virtual env to deploy into
designate_venv_tag: "{{ venv_tag | default('untagged') }}"
designate_bin: "{{ _designate_bin }}"

# Set the etc dir path where designate is installed.
# This is used for role access to the db migrations.
# Example:
# designate_etc_dir: "/usr/local/etc/designate"
designate_etc_dir: "{{ _designate_etc }}/designate"

## System info
designate_system_user_name: designate
designate_system_group_name: designate
designate_system_shell: /bin/false
designate_system_comment: designate system user
designate_system_user_home: "/var/lib/{{ designate_system_user_name }}"

## Coordination info
designate_coordination_driver: "{{ coordination_driver | default('zookeeper') |
  ↪ }}"
designate_coordination_group: "{{ coordination_host_group | default(
  ↪ 'zookeeper_all') }}"
designate_coordination_enable: "{{ designate_coordination_group in groups and
  ↪ groups[designate_coordination_group] | length > 0 }}"
designate_coordination_namespace: designate
designate_coordination_client_ssl: "{{ coordination_client_ssl |
  ↪ default(False) }}"
designate_coordination_verify_cert: "{{ coordination_verify_cert |
  ↪ default(True) }}"
designate_coordination_port: "{{ coordination_port | default(designate_
  ↪ coordination_client_ssl | ternary('2281', '2181')) }}"
designate_coordination_url: "{{ _designate_coordination_url | default() }}"

## Database info
designate_db_setup_host: "{{ openstack_db_setup_host | default('localhost') |
  ↪ }}"
designate_db_setup_python_interpreter: >-
  {{
    openstack_db_setup_python_interpreter | default(
      (designate_db_setup_host == 'localhost') | ternary(ansible_playbook_
  ↪ python, ansible_facts['python']['executable']))
  }}
designate_galera_address: "{{ galera_address | default('127.0.0.1') }}"
designate_galera_user: designate
designate_galera_database: designate
designate_galera_use_ssl: "{{ galera_use_ssl | default(False) }}"
designate_galera_ssl_ca_cert: "{{ galera_ssl_ca_cert | default('') }}"

```

(continues on next page)

(continued from previous page)

```

designate_galera_port: "{{ galera_port | default('3306') }}"
designate_db_max_overflow: "{{ openstack_db_max_overflow | default('50') }}"
designate_db_max_pool_size: "{{ openstack_db_max_pool_size | default('5') }}"
designate_db_pool_timeout: "{{ openstack_db_pool_timeout | default('30') }}"
designate_db_connection_recycle_time: "{{ openstack_db_connection_recycle_
↪time | default('600') }}"

## Oslo Messaging
# RPC
designate_oslomsg_rpc_host_group: "{{ oslomsg_rpc_host_group | default(
↪'rabbitmq_all') }}"
designate_oslomsg_rpc_setup_host: "{{ (designate_oslomsg_rpc_host_group in
↪groups) | ternary(groups[designate_oslomsg_rpc_host_group][0], 'localhost')
↪ }}"
designate_oslomsg_rpc_transport: "{{ oslomsg_rpc_transport | default('rabbit
↪') }}"
designate_oslomsg_rpc_servers: "{{ oslomsg_rpc_servers | default('127.0.0.1')
↪ }}"
designate_oslomsg_rpc_port: "{{ oslomsg_rpc_port | default('5672') }}"
designate_oslomsg_rpc_use_ssl: "{{ oslomsg_rpc_use_ssl | default(False) }}"
designate_oslomsg_rpc_userid: designate-rpc
# vhost name depends on value of oslomsg_rabbit_quorum_queues. In case quorum
↪queues
# are not used - vhost name will be prefixed with leading `/.
designate_oslomsg_rpc_vhost:
  - name: /designate
    state: "{{ designate_oslomsg_rabbit_quorum_queues | ternary('absent',
↪'present') }}"
  - name: designate
    state: "{{ designate_oslomsg_rabbit_quorum_queues | ternary('present',
↪'absent') }}"
designate_oslomsg_rpc_ssl_version: "{{ oslomsg_rpc_ssl_version | default(
↪'TLSv1_2') }}"
designate_oslomsg_rpc_ssl_ca_file: "{{ oslomsg_rpc_ssl_ca_file | default('') }
↪ }}"
designate_oslomsg_rpc_policies: []

# Notify
designate_oslomsg_notify_configure: "{{ oslomsg_notify_configure |
↪default(designate_ceilometer_enabled) }}"
designate_oslomsg_notify_host_group: "{{ oslomsg_notify_host_group | default(
↪'rabbitmq_all') }}"
designate_oslomsg_notify_setup_host: >-
  {{ (designate_oslomsg_notify_host_group in groups) |
↪ternary(groups[designate_oslomsg_notify_host_group][0], 'localhost') }}
designate_oslomsg_notify_transport: "{{ oslomsg_notify_transport | default(
↪'rabbit') }}"
designate_oslomsg_notify_servers: "{{ oslomsg_notify_servers | default('127.0.
↪0.1') }}"

```

(continues on next page)

(continued from previous page)

```

designate_oslomsg_notify_port: "{{ oslomsg_notify_port | default('5672') }}"
designate_oslomsg_notify_use_ssl: "{{ oslomsg_notify_use_ssl | default(False) |
  ↪ }}"
designate_oslomsg_notify_userid: "{{ designate_oslomsg_rpc_userid }}"
designate_oslomsg_notify_password: "{{ designate_oslomsg_rpc_password }}"
designate_oslomsg_notify_vhost: "{{ designate_oslomsg_rpc_vhost }}"
designate_oslomsg_notify_ssl_version: "{{ oslomsg_notify_ssl_version |
  ↪ default('TLSv1_2') }}"
designate_oslomsg_notify_ssl_ca_file: "{{ oslomsg_notify_ssl_ca_file |
  ↪ default('') }}"
designate_oslomsg_notify_policies: []

## RabbitMQ integration
designate_oslomsg_rabbit_quorum_queues: "{{ oslomsg_rabbit_quorum_queues |
  ↪ default(True) }}"
designate_oslomsg_rabbit_stream_fanout: "{{ oslomsg_rabbit_stream_fanout |
  ↪ default(designate_oslomsg_rabbit_quorum_queues) }}"
designate_oslomsg_rabbit_transient_quorum_queues: "{{ oslomsg_rabbit_
  ↪ transient_quorum_queues | default(designate_oslomsg_rabbit_stream_fanout) }}"
  ↪ ""
designate_oslomsg_rabbit_qos_prefetch_count: "{{ oslomsg_rabbit_qos_prefetch_
  ↪ count | default(designate_oslomsg_rabbit_stream_fanout | ternary(10, 0)) }}"
designate_oslomsg_rabbit_queue_manager: "{{ oslomsg_rabbit_queue_manager |
  ↪ default(designate_oslomsg_rabbit_quorum_queues) }}"
designate_oslomsg_rabbit_quorum_delivery_limit: "{{ oslomsg_rabbit_quorum_
  ↪ delivery_limit | default(0) }}"
designate_oslomsg_rabbit_quorum_max_memory_bytes: "{{ oslomsg_rabbit_quorum_
  ↪ max_memory_bytes | default(0) }}"

## DNS Backend Configuration
# Configuration for the DNS backend that Designate will talk to, Designate
# supports lots of backends, bind9, powerdns, nsd, djbdns, dyn, akamai, etc.
# DNS Backends are configured via a YAML file that Designate reads. The DNS
# server need not be in the actual Designate container, but for development,
# or for some internal addressing use cases, it may make sense.

# YAML to use for the Designate pools.yaml file. If this variable is defined,
# a pools.yaml file will be written to /etc/designate/pools.yaml with the
# provided YAML data.
#
# This is some example pools.yaml information that will work with a
# simple bind9 installation in the same container as Designate.
# designate_pools_yaml:
#   - name: "default"
#     description: Default BIND9 Pool
#     attributes: {}
#     ns_records:
#       - hostname: ns1.example.org.
#         priority: 1

```

(continues on next page)

(continued from previous page)

```
# nameservers:
#   - host: 127.0.0.1
#     port: 53
# targets:
#   - type: bind9
#     description: BIND9 Server
#     masters:
#       - host: 127.0.0.1
#         port: 5354
#     options:
#       host: 127.0.0.1
#       port: 53
#       rndc_host: 127.0.0.1
#       rndc_port: 953

## rndc keys for authenticating with bind9
# define this to create as many key files as are required
# designate_rndc_keys
#   - name: "rndc-key"
#     file: /etc/designate/rndc.key
#     algorithm: "hmac-md5"
#     secret: "<key>"

# Owner of all managed resources - like auto-created records etc.
designate_managed_resource_project_name: "{{ designate_service_project_name }}"
↪

## Service Type and Data
designate_service_region: "{{ service_region | default('RegionOne') }}"
designate_service_endpoint_type: internalURL
designate_service_name: designate
designate_bind_address: "{{ openstack_service_bind_address | default('0.0.0.0
↪') }}"
designate_service_port: 9001
designate_service_proto: http
designate_service_type: dns
designate_service_description: "Designate DNS as a Service"
designate_service_project_domain_id: default
designate_service_user_domain_id: default
designate_service_user_name: designate
designate_keystone_auth_type: password
designate_service_project_name: service
designate_service_role_names:
  - admin
  - service
designate_service_token_roles:
  - service
designate_service_token_roles_required: "{{ openstack_service_token_roles_
↪required | default(True) }}"
```

(continues on next page)

(continued from previous page)

```

designate_service_publicuri_proto: "{{ openstack_service_publicuri_proto |
↳ default(designate_service_proto) }}"
designate_service_internaluri_proto: "{{ openstack_service_internaluri_proto |
↳ default(designate_service_proto) }}"
designate_service_adminuri_proto: "{{ openstack_service_adminuri_proto |
↳ default(designate_service_proto) }}"

designate_service_publicuri: "{{ designate_service_publicuri_proto }}://{{
↳ external_lb_vip_address }}:{{ designate_service_port }}"
designate_service_internaluri: "{{ designate_service_internaluri_proto }}://{{
↳ internal_lb_vip_address }}:{{ designate_service_port }}"
designate_service_adminuri: "{{ designate_service_adminuri_proto }}://{{
↳ internal_lb_vip_address }}:{{ designate_service_port }}"

designate_service_in_ldap: "{{ service_ldap_backend_enabled | default(False) }
↳ }"

# memcache override
designate_memcached_servers: "{{ memcached_servers }}"

# Common pip packages
designate_pip_packages:
- cryptography
- "git+{{ designate_git_repo }}@{{ designate_git_install_branch }}"
↳ "#egg=designate"
- osprofiler
- python-designateclient
- PyMySQL
- pymemcache
- python-memcached
- systemd-python
- "tooz[{{ designate_coordination_driver }}"
- warlock
designate_user_pip_packages: []

designate_central_init_overrides: {}
designate_worker_init_overrides: {}
designate_producer_init_overrides: {}
designate_mdns_init_overrides: {}
designate_sink_init_overrides: {}
designate_api_init_overrides: {}

## Service Name-Group Mapping
designate_services:
  designate-central:
    group: designate_central
    service_name: designate-central
    init_config_overrides: "{{ designate_central_init_overrides }}"

```

(continues on next page)

(continued from previous page)

```

    execstarts: "{{ designate_bin }}/designate-central"
    start_order: 3
  designate-worker:
    group: designate_worker
    service_name: designate-worker
    init_config_overrides: "{{ designate_worker_init_overrides }}"
    execstarts: "{{ designate_bin }}/designate-worker"
    start_order: 2
  designate-producer:
    group: designate_producer
    service_name: designate-producer
    init_config_overrides: "{{ designate_producer_init_overrides }}"
    execstarts: "{{ designate_bin }}/designate-producer"
    start_order: 5
  designate-mdns:
    group: designate_mdns
    service_name: designate-mdns
    init_config_overrides: "{{ designate_mdns_init_overrides }}"
    execstarts: "{{ designate_bin }}/designate-mdns"
    start_order: 4
  designate-sink:
    group: designate_sink
    service_name: designate-sink
    init_config_overrides: "{{ designate_sink_init_overrides }}"
    execstarts: "{{ designate_bin }}/designate-sink"
    start_order: 6
  designate-api:
    group: designate_api
    service_name: designate-api
    init_config_overrides: "{{ designate_api_init_overrides }}"
    execstarts: "{{ designate_bin }}/designate-api"
    start_order: 1

## Tunable overrides
designate_policy_overrides: {}
designate_designate_conf_overrides: {}
designate_api_paste_ini_overrides: {}
designate_rootwrap_conf_overrides: {}

###
### Backend TLS
###

# Define if communication between haproxy and service backends should be
# encrypted with TLS.
designate_backend_ssl: "{{ openstack_service_backend_ssl | default(False) }}"

# Storage location for SSL certificate authority
designate_pki_dir: "{{ openstack_pki_dir | default('/etc/openstack_deploy/pki

```

(continues on next page)

(continued from previous page)

```

↪') }]"

# Delegated host for operating the certificate authority
designate_pki_setup_host: "{{ openstack_pki_setup_host | default('localhost')_
↪ }}"

# designate server certificate
designate_pki_keys_path: "{{ designate_pki_dir ~ '/certs/private/' }}"
designate_pki_certs_path: "{{ designate_pki_dir ~ '/certs/certs/' }}"
designate_pki_intermediate_cert_name: "{{ openstack_pki_service_intermediate_
↪ cert_name | default('ExampleCorpIntermediate') }}"
designate_pki_regen_cert: ''
designate_pki_san: "{{ openstack_pki_san | default('DNS:' ~ ansible_facts[
↪ 'hostname'] ~ ',IP:' ~ management_address) }}"
designate_pki_certificates:
  - name: "designate-{{ ansible_facts['hostname'] }}"
    provider: ownca
    cn: "{{ ansible_facts['hostname'] }}"
    san: "{{ designate_pki_san }}"
    signed_by: "{{ designate_pki_intermediate_cert_name }}"

# designate destination files for SSL certificates
designate_ssl_cert: /etc/designate/designate.pem
designate_ssl_key: /etc/designate/designate.key

# Installation details for SSL certificates
designate_pki_install_certificates:
  - src: "{{ designate_user_ssl_cert | default(designate_pki_certs_path ~
↪ 'designate_' ~ ansible_facts['hostname'] ~ '-chain.crt') }}"
    dest: "{{ designate_ssl_cert }}"
    owner: "{{ designate_system_user_name }}"
    group: "{{ designate_system_user_name }}"
    mode: "0644"
  - src: "{{ designate_user_ssl_key | default(designate_pki_keys_path ~
↪ 'designate_' ~ ansible_facts['hostname'] ~ '.key.pem') }}"
    dest: "{{ designate_ssl_key }}"
    owner: "{{ designate_system_user_name }}"
    group: "{{ designate_system_user_name }}"
    mode: "0600"

# Define user-provided SSL certificates
# designate_user_ssl_cert: <path to cert on ansible deployment host>
# designate_user_ssl_key: <path to cert on ansible deployment host>

```

DEPENDENCIES

This role needs pip \geq 7.1 installed on the target host.

This role needs the following variables defined:

```
designate_galera_address  
designate_galera_password  
designate_service_password  
designate_oslmsg_rpc_password  
designate_oslmsg_notify_password
```


EXAMPLE PLAYBOOK

```
---
- name: Install Designate Server
  hosts: designate_all
  user: root
  roles:
    - role: "os_designate"
      tags:
        - "os-designate"
  vars:
    external_lb_vip_address: 172.16.24.1
    internal_lb_vip_address: 192.168.0.1
    designate_galera_address: "{{ internal_lb_vip_address }}"
    designate_galera_password: "SuperSecretePassword1"
    designate_service_password: "SuperSecretePassword3"
    designate_oslmsg_rpc_password: "SuperSecretePassword4"
```

**CHAPTER
FOUR**

TAGS

This role supports two tags: `designate-install` and `designate-config`. The `designate-install` tag can be used to install and upgrade. The `designate-config` tag can be used to maintain configuration of the service.