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# **OpenStack-Ansible Documentation:** **os\_mistral role** *Release 0.1.0.dev134*

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This role installs the following Systemd services:

- mistral-api
- mistral-engine
- mistral-executor
- mistral-notifier

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



## DEFAULT VARIABLES

```
# Installation method
mistral_install_method: "{{ service_install_method | default('source') }}"
mistral_venv_python_executable: "{{ openstack_venv_python_executable |
↳default('python3') }}"

# Operating system user & groups
mistral_system_user_name: mistral
mistral_system_group_name: mistral
mistral_system_shell: /sbin/nologin
mistral_system_comment: Mistral Daemons
mistral_system_user_home: /var/lib/mistral

# Distribution deployment
mistral_package_state: "{{ package_state | default('latest') }}"

# Source package builds
mistral_git_repo: https://opendev.org/openstack/mistral
mistral_git_install_branch: master
mistral_extra_git_repo: https://opendev.org/openstack/mistral-extra
mistral_extra_git_install_branch: master
mistral_upper_constraints_url: "{{ requirements_git_url | default('https://
↳releases.openstack.org/constraints/upper/' ~ requirements_git_install_
↳branch | default('master')) }}"
mistral_git_constraints:
  - "--constraint {{ mistral_upper_constraints_url }}"
mistral_pip_packages:
  - "git+{{ mistral_git_repo }}@{{ mistral_git_install_branch }}#egg=mistral"
  - "git+{{ mistral_extra_git_repo }}@{{ mistral_extra_git_install_branch }}
↳#egg=mistral-extra"
  - PyMySQL
  - pymemcache
  - python-memcached
  - systemd-python

mistral_optional_oslomsg_amqp1_pip_packages:
  - oslo.messaging[amqp1]
mistral_venv_tag: "{{ venv_tag | default('untagged') }}"
mistral_bin: "{{ _mistral_bin }}"
```

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

mistral_memcached_servers: "{{ memcached_servers }}"

mistral_api_use_uwsgi: true

# Services
mistral_services:
  mistral-notifier:
    group: mistral_notifier
    service_name: mistral-notifier
    init_config_overrides: "{{ mistral_notifier_init_overrides }}"
    start_order: 1
    execstarts: "{{ _mistral_bin }}/mistral-server --server notifier"
  mistral-executor:
    group: mistral_executor
    service_name: mistral-executor
    init_config_overrides: "{{ mistral_executor_init_overrides }}"
    start_order: 1
    execstarts: "{{ _mistral_bin }}/mistral-server --server executor"
  mistral-engine:
    group: mistral_engine
    service_name: mistral-engine
    init_config_overrides: "{{ mistral_engine_init_overrides }}"
    start_order: 1
    execstarts: "{{ _mistral_bin }}/mistral-server --server engine"
  mistral-api:
    group: mistral_api
    service_name: mistral-api
    init_config_overrides: "{{ mistral_api_init_overrides }}"
    start_order: 2
    execstarts: "{{ _mistral_bin }}/mistral-server --server api"
    wsgi_app: "{{ mistral_api_use_uwsgi }}"
    wsgi_name: mistral-wsgi-api
    uwsgi_overrides: "{{ mistral_api_uwsgi_ini_overrides }}"
    uwsgi_bind_address: "{{ mistral_bind_address }}"
    uwsgi_port: "{{ mistral_service_port }}"
    uwsgi_tls: "{{ mistral_backend_ssl | ternary(mistral_uwsgi_tls, {}) }}"

# UWSGI settings
mistral_wsgi_processes_max: 16
mistral_wsgi_processes: "{{ [(ansible_facts['processor_vcpus']//ansible_
↪facts['processor_threads_per_core'])|default(1), 1] | max * 2, mistral_wsgi_
↪processes_max] | min }}"
mistral_wsgi_threads: 1
mistral_uwsgi_tls:
  crt: "{{ mistral_ssl_cert }}"
  key: "{{ mistral_ssl_key }}"

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# RPC
mistral_oslomsg_rpc_host_group: "{{ oslomsg_rpc_host_group | default(
  ↪'rabbitmq_all') }}"
mistral_oslomsg_rpc_setup_host: "{{ (mistral_oslomsg_rpc_host_group in_
  ↪groups) | ternary(groups[mistral_oslomsg_rpc_host_group][0], 'localhost') }}"
↪"
mistral_oslomsg_rpc_transport: "{{ oslomsg_rpc_transport | default('rabbit') }
  ↪}"
mistral_oslomsg_rpc_servers: "{{ oslomsg_rpc_servers | default('127.0.0.1') }}"
↪"
mistral_oslomsg_rpc_port: "{{ oslomsg_rpc_port | default('5672') }}"
mistral_oslomsg_rpc_use_ssl: "{{ oslomsg_rpc_use_ssl | default(False) }}"
mistral_oslomsg_rpc_userid: mistral
mistral_oslomsg_rpc_vhost: /mistral
mistral_oslomsg_rpc_ssl_version: "{{ oslomsg_rpc_ssl_version | default('TLSv1_
  ↪2') }}"
mistral_oslomsg_rpc_ssl_ca_file: "{{ oslomsg_rpc_ssl_ca_file | default('') }}"

# Notify
mistral_oslomsg_notify_host_group: "{{ oslomsg_notify_host_group | default(
  ↪'rabbitmq_all') }}"
mistral_oslomsg_notify_setup_host: "{{ (mistral_oslomsg_notify_host_group in_
  ↪groups) | ternary(groups[mistral_oslomsg_notify_host_group][0], 'localhost
  ↪') }}"
mistral_oslomsg_notify_transport: "{{ oslomsg_notify_transport | default(
  ↪'rabbit') }}"
mistral_oslomsg_notify_servers: "{{ oslomsg_notify_servers | default('127.0.0.
  ↪1') }}"
mistral_oslomsg_notify_port: "{{ oslomsg_notify_port | default('5672') }}"
mistral_oslomsg_notify_use_ssl: "{{ oslomsg_notify_use_ssl | default(False) }}"
↪"
mistral_oslomsg_notify_userid: "{{ mistral_oslomsg_rpc_userid }}"
mistral_oslomsg_notify_password: "{{ mistral_oslomsg_rpc_password }}"
mistral_oslomsg_notify_vhost: "{{ mistral_oslomsg_rpc_vhost }}"
mistral_oslomsg_notify_ssl_version: "{{ oslomsg_notify_ssl_version | default(
  ↪'TLSv1_2') }}"
mistral_oslomsg_notify_ssl_ca_file: "{{ oslomsg_notify_ssl_ca_file | default('
  ↪') }}"

# (Qdrouterd) integration
mistral_oslomsg_amqp1_enabled: "{{ mistral_oslomsg_rpc_transport == 'amqp' }}"

# Database
mistral_db_setup_host: "{{ openstack_db_setup_host | default('localhost') }}"
mistral_db_setup_python_interpreter: "{{ openstack_db_setup_python_
  ↪interpreter | default((mistral_db_setup_host == 'localhost') |_
  ↪ternary(ansible_playbook_python, ansible_facts['python']['executable'])) }}"
mistral_galera_address: "{{ galera_address | default('127.0.0.1') }}"

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mistral_galera_database: mistral
mistral_galera_user: mistral
mistral_galera_use_ssl: "{{ galera_use_ssl | default(False) }}"
mistral_galera_ssl_ca_cert: "{{ galera_ssl_ca_cert | default('') }}"
mistral_galera_port: "{{ galera_port | default('3306') }}"
mistral_db_max_overflow: "{{ openstack_db_max_overflow | default('50') }}"
mistral_db_max_pool_size: "{{ openstack_db_max_pool_size | default('5') }}"
mistral_db_pool_timeout: "{{ openstack_db_pool_timeout | default('30') }}"
mistral_db_connection_recycle_time: "{{ openstack_db_connection_recycle_time_
↳| default('600') }}"

# Configuration options
mistral_debug: "{{ debug | default(false) }}"
mistral_bind_address: "{{ openstack_service_bind_address | default('0.0.0.0')_
↳ }}"
mistral_service_port: 8989

# Overrides
mistral_notifier_init_overrides: {}
mistral_executor_init_overrides: {}
mistral_engine_init_overrides: {}
mistral_api_init_overrides: {}
mistral_api_uwsgi_ini_overrides: {}
mistral_mistral_conf_overrides: {}
mistral_policy_overrides: {}

# Service setup
mistral_service_setup_host: "{{ openstack_service_setup_host | default(
↳ 'localhost') }}"
mistral_service_setup_host_python_interpreter: "{{ openstack_service_setup_
↳ host_python_interpreter | default((mistral_service_setup_host == 'localhost
↳ ') | ternary(ansible_playbook_python, ansible_facts['python']['executable
↳ '])) }}"
mistral_service_name: mistral
mistral_service_type: workflowv2
mistral_service_description: OpenStack Workflow service
mistral_service_in_ldap: "{{ service_ldap_backend_enabled | default(False) }}"
mistral_service_user_domain_id: default
mistral_service_user_name: mistral
mistral_service_project_domain_id: default
mistral_service_project_name: service
mistral_service_role_names:
  - admin
  - service
mistral_service_token_roles:
  - service
mistral_service_token_roles_required: "{{ openstack_service_token_roles_
↳ required | default(True) }}"
mistral_service_region: "{{ service_region | default('RegionOne') }}"

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mistral_service_proto: http
mistral_service_publicuri_proto: "{{ openstack_service_publicuri_proto |
↳ default(mistral_service_proto) }}"
mistral_service_publicurl: "{{ mistral_service_publicuri_proto }}://{{
↳ external_lb_vip_address }}:{{ mistral_service_port }}/v2"
mistral_service_internaluri_proto: "{{ openstack_service_internaluri_proto |
↳ default(mistral_service_proto) }}"
mistral_service_internalurl: "{{ mistral_service_internaluri_proto }}://{{
↳ internal_lb_vip_address }}:{{ mistral_service_port }}/v2"
mistral_service_adminuri_proto: "{{ openstack_service_adminuri_proto |
↳ default(mistral_service_proto) }}"
mistral_service_adminurl: "{{ mistral_service_adminuri_proto }}://{{ internal_
↳ lb_vip_address }}:{{ mistral_service_port }}/v2"

# Specific pip packages provided by the user
mistral_user_pip_packages: []

###
### Backend TLS
###

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

# Storage location for SSL certificate authority
mistral_pki_dir: "{{ openstack_pki_dir | default('/etc/openstack_deploy/pki')
↳ }}"

# Delegated host for operating the certificate authority
mistral_pki_setup_host: "{{ openstack_pki_setup_host | default('localhost')
↳ }}"

# mistral server certificate
mistral_pki_keys_path: "{{ mistral_pki_dir ~ '/certs/private/' }}"
mistral_pki_certs_path: "{{ mistral_pki_dir ~ '/certs/certs/' }}"
mistral_pki_intermediate_cert_name: "{{ openstack_pki_service_intermediate_
↳ cert_name | default('ExampleCorpIntermediate') }}"
mistral_pki_regen_cert: ''
mistral_pki_san: "{{ openstack_pki_san | default('DNS:' ~ ansible_facts[
↳ 'hostname'] ~ ',IP:' ~ management_address) }}"
mistral_pki_certificates:
  - name: "mistral-{{ ansible_facts['hostname'] }}"
    provider: ownca
    cn: "{{ ansible_facts['hostname'] }}"
    san: "{{ mistral_pki_san }}"
    signed_by: "{{ mistral_pki_intermediate_cert_name }}"

# mistral destination files for SSL certificates

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```
mistral_ssl_cert: /etc/mistral/mistral.pem
mistral_ssl_key: /etc/mistral/mistral.key

# Installation details for SSL certificates
mistral_pki_install_certificates:
  - src: "{{ mistral_user_ssl_cert | default(mistral_pki_certs_path ~
↪ 'mistral_' ~ ansible_facts['hostname'] ~ '-chain.crt') }}"
    dest: "{{ mistral_ssl_cert }}"
    owner: "{{ mistral_system_user_name }}"
    group: "{{ mistral_system_user_name }}"
    mode: "0644"
  - src: "{{ mistral_user_ssl_key | default(mistral_pki_keys_path ~ 'mistral_'
↪ '~ ansible_facts['hostname'] ~ '.key.pem') }}"
    dest: "{{ mistral_ssl_key }}"
    owner: "{{ mistral_system_user_name }}"
    group: "{{ mistral_system_user_name }}"
    mode: "0600"

# Define user-provided SSL certificates
#mistral_user_ssl_cert: <path to cert on ansible deployment host>
#mistral_user_ssl_key: <path to cert on ansible deployment host>
```

## EXAMPLE PLAYBOOK

```
---  
- name: Install mistral server  
  hosts: mistral_all  
  user: root  
  roles:  
    - { role: "os_mistral", tags: [ "os-mistral" ] }
```



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**CHAPTER  
THREE**

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**TAGS**

This role supports two tags: `mistral-install` and `mistral-config`. The `mistral-install` tag can be used to install and upgrade. The `mistral-config` tag can be used to manage configuration.