



Creating Service Engine using Heat-Templates in no access OpenStack Cloud

Avi Technical Reference (v20.1)

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This article discusses creating Service Engines using heat templates in a no access OpenStack cloud.

Prerequisites

- Heat stack is installed on the OpenStack Controller node.
- Cloud is on no-orchestrator type.
- Avi Service Engine is downloaded as qcow2 and has been pushed into glance. For more details, refer to the figure at [Installing Avi Vantage into no access OpenStack Cloud](#).
- Heat template files are present on the OpenStack Controller node. You can download the files from this [location](#).

Deploying an Avi Vantage Service Engine

Edit the se-no-orc-env.yaml file and alter the following parameters as explained: * se_networks: avimgmt,client-network, webserver- network,provider1 - These are the networks that the SE can be a part of. * num_se_networks: 4 - These are the number of networks that the SE is a part of. * allowed_address_cidr: 12.10.0.0/24 - AAP entry. * avi_se_name: OS-SE- No-Orch - An arbitrary name for the SE. * auth_token: 4c7f5489-df57- 4f4d-a5b6- c6fa5fb88ea5 - Needs to be fetched from the Avi UI.



- controller_ip: 10.140.4.46
 - Avi Vantage Controller IP.
- avi_se_flavor: m1.small
 - The flavour needed to spin up the SE. Make sure that this flavour exists in the OpenStack Controller node.
- avi_se_image: Avi-SE- OS-No- Orch
 - The name of the SE image which is created from Horizon or using CLI.

Note:

1. If multi-tenancy has to be used then make sure that the token is used or fetched from the respective tenant in Avi Vantage UI and is populated in the yaml file.
2. In case more than one SE has to be spinned up, the YAML file has to run with a different token as Avi Vantage uses only one token per SE per tenant.

Using Heat-Templates

- heat stack-create -f se-no-orc.yaml -e ./se-no-orc-env.yaml ocata

- ocata is the name of the heat-stack that we are creating.
- Check the stack creation using the following command.
 - root@openstack-ocata:/root# openstack stack list

```

+-----+-----+-----+-----+-----+
| ID                | Stack Name | Stack Status | Creation Time   | Updated Time |
+-----+-----+-----+-----+-----+
| 45c44c59-7d24-4d41-ac93-0d6f4200d5b5 | ocata      | CREATE_COMPLETE | 2017-12-06T08:41:48Z | None         |
+-----+-----+-----+-----+-----+
    
```

- Check the server list using the following command.
 - root@openstack-ocata:/root# openstack server list

```

+-----+-----+-----+-----+-----+
| ID                | Name       | Status | Networks
+-----+-----+-----+-----+-----+
| 5ad18760-2475-41d6-ad59-855e1a8bcd5a | OS-SE-No-Orcgh | ACTIVE | client-network=192.168.10.4; avimgmt=172.16.0.
| baef34e9-2526-4965-9638-955616e8bd16 | Avi-test-server-2 | ACTIVE | webserver-network=192.168.11.6, 10.134.7.199
| 853b0591-2102-4d87-b713-ca726bd16e43 | Avi-test-server-1 | ACTIVE | webserver-network=192.168.11.4, 10.134.7.193
| 2023fcf5-ddd6-4c3d-afd0-826c5fab65c7 | Avi-test-client-1 | ACTIVE | client-network=192.168.10.8, 10.134.7.200
| e38e7992-305e-47c0-bb07-3bf6d58767a7 | Avi-Controller-Ocata | ACTIVE | avimgmt=172.16.0.11, 10.134.7.196
+-----+-----+-----+-----+-----+
    
```