

Install guide for Private LTE/5G R3

Step 1: install.sh <IP address of node where the stack needs to be deployed>

Manual:

Pre-requisites :

CentOS 7.4 (kernel >= 3.10.0-693.17.1)

Ansible (==2.7.18)

docker engine (tested with 17.03.1-ce)

docker-compose (tested with 1.17.0) installed

docker-compose python library (tested with 1.9.0)

Tungsten fabric version - R5 (<https://github.com/tungstenfabric>)

Dockerized free5GC - (<https://github.com/sumichaaan/free5gc-k8s>)

Install Ansible:

1. Before installing Ansible we need to install the supporting packages and libraries.
%> curl https://bootstrap.pypa.io/2.7/get-pip.py -o get-pip.py
%> chmod +x ./get-pip.py
%> ./get-pip.py
2. Install Ansible:
%> pip install ansible==2.7.18
3. Install requests:
%> pip install requests
4. Install git to pull ansible plays:
%> yum install git
5. Pull the ansible plays from git hub:
%> git clone <http://github.com/tungstenfabric/tf-ansible-deployer>
%> cd tf-ansible-deployer
6. Configure the instances in tf-ansible-deployer/config/instances.yaml file.
Note: Configure the instance/node IP, Container registry & conrail version as highlighted below.

```
provider_config:  
  bms:  
instances:  
  bms1:
```

```

    provider: bms
    ip: 10.128.0.9
    roles: # Optional. If roles is not defined, all below roles
will be created
    config_database: # Optional.
    config: # Optional.
    control: # Optional.
    analytics_database: # Optional.
    analytics: # Optional.
    webui: # Optional.
    k8s_master: # Optional.
    k8s_node: # Optional.
    vrouter: # Optional.
global_configuration:
    CONTAINER_REGISTRY: tungstenfabric
contrail_configuration:
    CONTRAIL_VERSION: R2011-2021-01-27

```

7. Run the ansible plays to deploy TF:

```
%> ansible-playbook -i inventory/ -e orchestrator=kubernetes -e
'{"instances":{"bms1":{"ip":"$1","provider":"bms"}}}' playbooks/configure_instances.yml
```

```
%> ansible-playbook -i inventory/ -e orchestrator=kubernetes -e
'{"instances":{"bms1":{"ip":"$1","provider":"bms"}}}' playbooks/install_contrail.yml
```

```
%> ansible-playbook -i inventory/ -e orchestrator=kubernetes -e
'{"instances":{"bms1":{"ip":"$1","provider":"bms"}}}' playbooks/install_k8s.yml
```

8. Install helm:

```
%> curl -fsSL -o get_helm.sh
```

```
https://raw.githubusercontent.com/helm/helm/master/scripts/get-helm-3
```

```
%> chmod 700 get_helm.sh
```

```
%> ./get_helm.sh
```