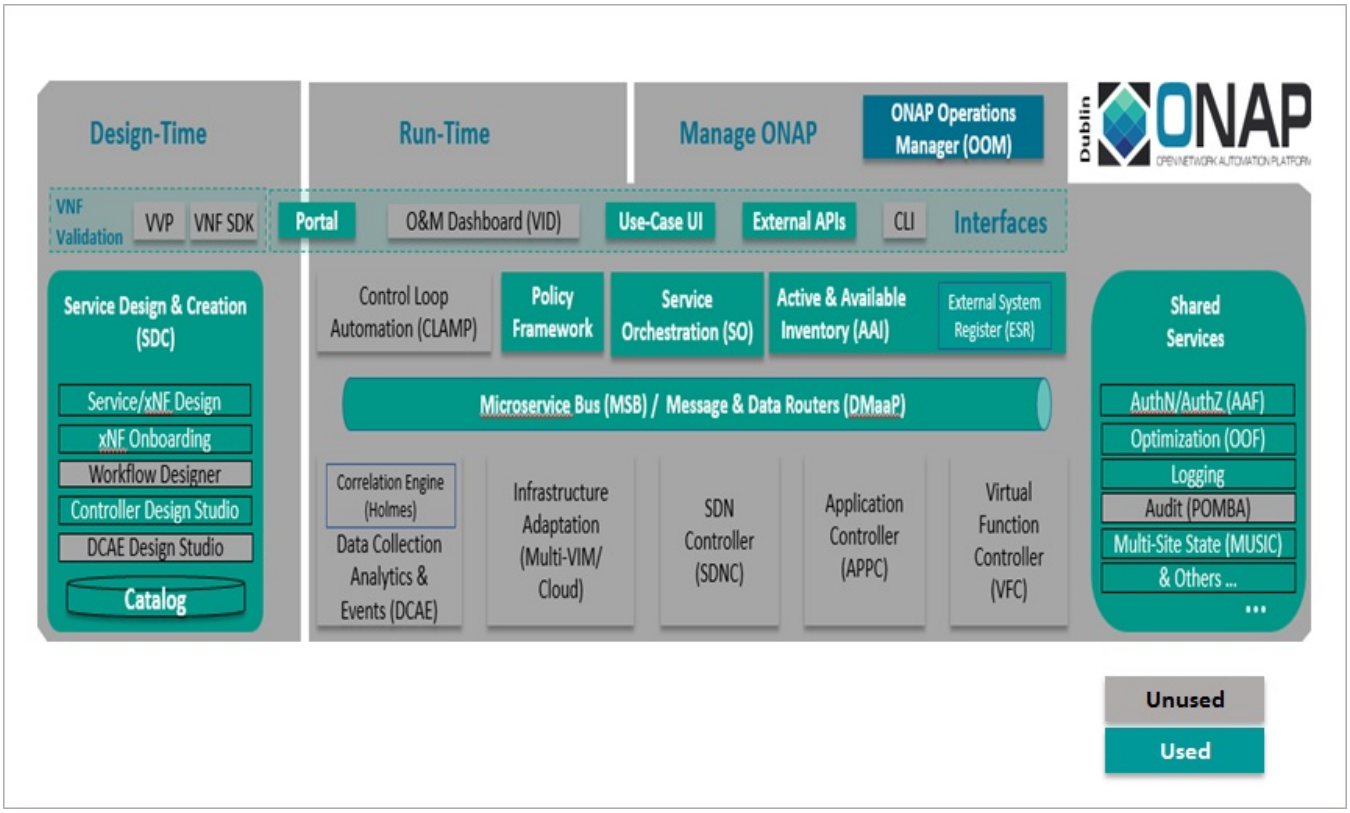
Install Minimum Scope ONAP for 5G Network Slicing

If you already have the Full ONAPFrankfurt Release environment, You can use it for 5G network slicing experience.

To reduce the resource requirements of ONAP ,you can install a minmum scope ONAP to test the 5G Network scling.

17/32 modules are used in 5G network slicing usecase(refer to oom repo: kubernetes/onap/resources/overrides/onap-5g-network-slicing.yaml). and some charts of some modules are not used.



Please find the details:

Module	Contained in the customization version(Yes /No)	removed chartsWhich is not used in the module	Description
aaf	Yes		
aai	Yes		Required image version: aai-traversal:1.6.3aai-schema-service:1.6.8aai-graphadmin:1.6.3
appc	No		
cassandra	Yes		
cds	Yes	cds-command-cexecuter	
clamp	No		
cli	No		
consul	No		
contrib	No		
dmaap	Yes		
dcaegen2	No		
pnda	No		
esr	Yes		
log	Yes		
sniro-smulator	No		

oof	Yes		Required image version: optf-osdf:2.0.4optf-has:2.0.4
mariadb-galera	Yes		
msb	Yes		
multicloud	No		
nbi	Yes		Required image version: 6.0.3
policy	Yes		Required image version: policy-pe:1.6.4
pomba	No		
portal	Yes		
robot	Yes		
sdc	Yes	sdc-dcae-be;sdc-dcae-fe;sdc-dcae-dt;sdc-dcae-tosca-lab;sdc-wfd-be;sdc-wfd-fe	
sdnc	No		
so	Yes	so-openstack-adapter;so-sdnc-adapter;so-vfc-adapter;so-vnfm-adapter;so-ve-vnfm-adapter	Required image version: 1.6.3
uui	Yes		Required image version: 3.0.4
vfc	No		
vid	No		
vnfsdk	No		
Modeling	No		

Request resources:

Option	CPU	Memory
Full ONAP	112	224G
Customization Version	64	128G

The following is the recommended component version.

Software	Version
Kubernetes	1.13.5
Helm	2.12.3
kubectl	1.13.5
Docker	18.09.5

Installation Steps:

Please refer to the following link for the 1-3 steps:

https://docs.onap.org/en/elalto/submodules/oom.git/docs/oom_setup_kubernetes_rancher.html

1.Install kubectl

2.Instal helm

3.Set up NFS

4.Clone the OOM repository from ONAP gerrit:

```
> git clone http://gerrit.onap.org/r/oom --recurse -submodules
```

5.Install Helm Plugins required to deploy ONAP:

```
> cd oom/kubernetes
> sudo cp -R ./helm/plugins/ ~/.helm
```

6.Currently OOM does not support the chart config , So remove the charts manually. Will work with OOM team to make the chart level configable.

Customize the helm charts to suit use case(from the kubernetes directory):

```
> rm -rf cds/charts/cds-command-executor/
> rm -rf sdc/charts/sdc-dcae-be/
> rm -rf sdc/charts/sdc-dcae-dt/
> rm -rf sdc/charts/sdc-dcae-fe/
> rm -rf sdc/charts/sdc-dcae-tosca-lab/
> rm -rf sdc/charts/sdc-wfd-be/
> rm -rf sdc/charts/sdc-wfd-fe/
> rm -rf so/charts/so-openstack-adapter/
> rm -rf so/charts/so-sdnc-adapter/
> rm -rf so/charts/so-vfc-adapter/
> rm -rf so/charts/so-vnfm-adapter/
> rm -rf so/charts/so-ve-vnfm-adapter/
```

7.To setup a local Helm server to server up the ONAP charts:

```
> helm serve &
```

Note the port number that is listed and use it in the Helm repo add as follows:

```
> helm repo add local http://127.0.0.1:8879
```

8.Build a local Helm repository(from the kubernetes directory):

```
> make all &
```

9.To deploy ONAP applications use this command:

```
> helm deploy dev local/onap --namespace onap -f onap/resources/overrides/onap-5g-network-slicing.yaml -f onap/resources/environments/public-cloud.yaml --set global.masterPassword=onap --verbose --timeout 2000 &
```

10.Check the pod status after install:

```
> kubectl get pods -n onap
```

11.Health check:

```
> bash oom/kubernetes/robot/ete-k8s.sh onap health
```