

SDNC Component

Credentials

SDNC API URL: HEAT <http://sdnc:8282/apidoc/explorer/index.html>, OOM: http://cluster_node_ip:30267/apidoc/explorer/index.html

credential: admin/Kp8bJ4SXszM0WXlhak3eHlcse2gAw84vaoGGmJvUy2U

DGBuilder URL: http://{{sdnc_ip}}:3000/# with dguser/test123

MySQL:

```
ubuntu@onap-sdnc:~$ sudo docker exec -it sdnc_db_container bash

bash-4.2# mysql -u sdnctl -p sdnctl

Enter password: gamma
```

Overlay DG: GENERIC-RESOURCE-API(Module), dci-connects-network-topology-operation-activate(RPC)

Underlay DG: GENERIC-RESOURCE-API(Module), network-topology-operation-create

Log file for directed graph:

```
ubuntu@onap-sdnc:~$ sudo docker exec -it sdnc_controller_container bash

root@d135452786ee:cd /var/log/onap/sdnc
root@d135452786ee:tail -f karaf.log
```

Log file for ueb_listener:

```
root@ac761f8e8c33:/# cd /opt/app/ueb-listener/logs/
```

Disable Replica

```
root@sb00-rancher:~/oom# kubectl -n onap edit StatefulSet/dev-sdnc-sdnc

spec:
  podManagementPolicy: Parallel
  replicas: 1
  ...

- name: SDNC_REPLICAS
  value: "1"
```

Steps to check DG

- http://{{cluster_ip}}:30203/# with dguser/test123

DB builder port				
root@sb00-nfs:/opt/http_test_server/http_test_server/htdocs# kubectl get svc grep 3000				
appc-dgbuilder		NodePort	10.43.133.199	
<none>	3000:30228/TCP			19d
cds-ui		NodePort	10.43.177.249	
<none>	3000:30497/TCP			23d
sdnc-dgbuilder		NodePort	10.43.14.68	
<none>	3000:30203/TCP			23d

- ## DG Tutorial

Tutorial: VoLTE Example: Adding REST Node

- namespace change
- FileRecorder plugin path change
- RestapiCallNode path change

```

[{"id": "1c91b4f1.e45473", "type": "service-logic", "name": "VOLTE-API 0.0.2-DEMO", "module": "VOLTE-API", "version": "0.0.2-DEMO", "comments": "", "xml": "<service-logic xmlns='http://www.onap.org/sdnc/svclogic' xmlns:xsi='http://www.w3.org/2001/XMLSchema-instance' xsi:schemaLocation='http://www.openecomp.org/sdnc/svclogic ./svclogic.xsd' module='VOLTE-API' version='0.0.2-DEMO'>", "outputs": "1, \"x\": 317.1666564941406, \"y\": 106.16667175292969, \"z\": \"30ac5fe5.ab4d2\", \"wires\": [[\"a28ec6bd.3832d8\"]], {\"id\": \"40983a09.90a524\", \"type\": \"dgstart\", \"name\": \"DGSTART\", \"outputs\": \"1, \"x\": 111, \"y\": 81, \"z\": \"30ac5fe5.ab4d2\", \"wires\": [[\"1c91b4f1.e45473\"]], {\"id\": \"a28ec6bd.3832d8\", \"type\": \"method\", \"name\": \"method volte-wan-activate\", \"xml\": \"<method rpc='volte-wan-activate' mode='sync'>\\n\", \"comments\": \"\", \"outputs\": \"1, \"x\": 181.16668701171875, \"y\": 170.16665649414062, \"z\": \"30ac5fe5.ab4d2\", \"wires\": [[\"e53e6cd.afc3f1\"]], {\"id\": \"e53e6cd.afc3f1\", \"type\": \"block\", \"name\": \"block : atomic\", \"xml\": \"<block atomic='true'>\", \"atomic\": \"true\", \"outputs\": \"1, \"x\": 389, \"y\": 258, \"z\": \"30ac5fe5.ab4d2\", \"wires\": [[\"cdeda8e3.1218f\", \"9794fca5.9de488\", \"cd5f5503.b9f128\", \"19f372e1.31b345\", \"8ff8c47.cd19b38\", \"edd83200.432db8\"]], {\"id\": \"cdeda8e3.1218f\", \"type\": \"set\", \"name\": \"set: order-status = Active\", \"xml\": \"<set>\\n\\t<parameter name='service-data.oper-status.order-status' value='Active'>\", \"comments\": \"\", \"x\": 597, \"y\": 603, \"z\": \"30ac5fe5.ab4d2\", \"wires\": [], {\"id\": \"19f372e1.31b345\", \"type\": \"returnSuccess\", \"name\": \"return success\", \"xml\": \"<return status='success'>\\n\\t<parameter name='error-code' value='200'>\", \"comments\": \"\", \"x\": 591, \"y\": 748, \"z\": \"30ac5fe5.ab4d2\", \"wires\": [], {\"id\": \"9794fca5.9de488\", \"type\": \"set\", \"name\": \"set: service-data = input\", \"xml\": \"<set>\\n\\t<parameter name='service-data.' value='volte-wan-activate.'>\", \"comments\": \"\", \"x\": 596, \"y\": 704, \"z\": \"30ac5fe5.ab4d2\", \"wires\": [], {\"id\": \"cd5f5503.b9f128\", \"type\": \"set\", \"name\": \"Set final indicator to Y\", \"xml\": \"<set>\\n<parameter name='ack-final' value='Y'>\", \"comments\": \"\", \"x\": 591, \"y\": 748, \"z\": \"30ac5fe5.ab4d2\", \"wires\": [], {\"id\": \"8ff8c47.cd19b38\", \"type\": \"record\", \"name\": \"record\", \"xml\": \"<record plugin='org.onap.ccsdk.sli.core.sli.recording.FileRecorder'>\\n<parameter name='file' value='/opt/opendaylight/current/data/log/svclogic.log'>\\n<parameter name='field1' value='__TIMESTAMP__'>\\n<parameter name='field2' value='volte-wan-activate'>\\n<parameter name='field3' value='volte-wan-activate.dca-wanip'>\\n<parameter name='field4' value='volte-wan-activate.dcz-wanip'>\\n<parameter name='field5' value='volte-wan-activate.route_target'>\\n<parameter name='field6' value='volte-wan-activate.route_distinguisher'>\", \"comments\": \"\", \"outputs\": \"1, \"x\": 559, \"y\": 301, \"z\": \"30ac5fe5.ab4d2\", \"wires\": [], {\"id\": \"c2486391.d9417\", \"type\": \"execute\", \"name\": \"excute REST DC-Connect-Create-A\", \"xml\": \"<execute plugin='org.onap.ccsdk.sli.plugins.restapicall.RestapiCallNode' method='sendRequest'>\\n<parameter name='templateFileName' value='prop.restapi.templateDir + '/13-dci-connect.json'>\\n<parameter name='restapiUrl' value='prop.controller_A_RestApi.url + '/v2.0/13-dci-connects'>\\n\\t-->\\n<parameter name='restapiUrl' value='prop.controller_A_RestApi.url + '/13-dci-connect.php'>\\n<parameter name='restapiUser' value='prop.controller_A_RestApi.user'>\\n<parameter name='restapiPassword' value='prop.controller_A_RestApi.password'>\\n\\t<parameter name='format' value='xml'>\\n\\t<parameter name='httpMethod' value='post'>\\n\\t<parameter name='responsePrefix' value='restapi-result'>\\n\\t\\n\\t\", \"comments\": \"\", \"outputs\": \"1, \"x\": 998, \"y\": 727, \"z\": \"30ac5fe5.ab4d2\", \"wires\": [], {\"id\": \"852c391a.a7d2b\", \"type\": \"execute\", \"name\": \"excute REST DC-Connect-Create-B\", \"xml\": \"<execute plugin='org.onap.ccsdk.sli.plugins.restapicall.RestapiCallNode'

```

```
method='sendRequest' >\n\t<parameter name=\"templateFileName\" value=\"`$prop.restapi.templateDir + '/l3-dci-connect.json'\`\"/>\n\t<!-- \n\t<parameter name=\"restapiUrl\" value=\"`$prop.controller_A_RestApi.url + '/v2.0/l3-dci-connects'\`\"/>\n\t-->\n\t<parameter name=\"restapiUrl\" value=\"`$prop.controller_A_RestApi.url + '/l3-dci-connect.php'\`\"/>
\n\t<parameter name=\"restapiUser\" value=\"`$prop.controller_B_RestApi.user\"\`"/>\n\t<parameter name=\"restapiPassword\" value=\"`$prop.controller_B_RestApi.password\"\`\"/>\n\t<parameter name=\"format\" value=\"xml\" />\n\t<parameter name=\"httpMethod\" value=\"post\" />\n\t<parameter name=\"responsePrefix\" value=\"restapi-result\" />\n\t<n>\n\t\t,\"comments\":\"\", \"outputs\":1, \"x\":998, \"y\":830, \"z\":\"30ac5fe5.ab4d2\", \"wires\":[[]], {\"id\":\"edd83200.432db8\", \"type\":\"block\", \"name\":\"block\", \"xml\":\"<block>\n\t\t\t,\"atomic\":\"false\", \"comments\":\"\", \"outputs\":1, \"x\":560, \"y\":370, \"z\":\"30ac5fe5.ab4d2\", \"wires\":[[\"f3cc8b33.0516c\", \"6a3b097e.b896d8\", \"a67a46fc.946838\", \"c2486391.d9417\", \"fbd78797.a6d598\", \"852c391a.a7d2b\", \"de93e82.c1dc1a8\"]]}, {\"id\":\"f3cc8b33.0516c\", \"type\":\"set\", \"name\":\"set A controller data (http emulator)\", \"xml\":\"<set>\n\t\t\t<parameter name='prop.controller_A_RestApi.url' value='http://10.0.7.1:9000' />\n\t\t<!-- 8181 when doing localhost -->\n\t\t<parameter name='prop.restapi.templateDir' value='/opt/onap/sdn/data'/>\n\t\t<parameter name='prop.controller_A_RestApi.user' value='admin'/>\n\t\t<parameter name='prop.controller_A_RestApi.password' value='Kp8bJ4SXszMOWXlhak3eHlcse2gAw84vaOGmJvUy2U'\n\t\t\t/>\n\t\t<n>\n\t\t\t,\"comments\":\"\", \"x\":994, \"y\":455, \"z\":\"30ac5fe5.ab4d2\", \"wires\":[[]], {\"id\":\"6a3b097e.b896d8\", \"type\":\"set\", \"name\":\"set WAN data (l3_vni=5001)\", \"xml\":\"<set>\n\t\t\t\t<parameter name='device.wan.l3_vni' value='5001' />\n\t\t\t\t,"comments":"", "x":976, "y":556, "z":"30ac5fe5.ab4d2", "wires":[[]], {\"id\":\"a67a46fc.946838\", \"type\":\"set\", \"name\":\"set DC A network data\", \"xml\":\"<set>\n\t\t\t\t<!-- example uses device.\n\t\t\t\treal adapter might use device.l3_connection. or something else -->\n\t\t\t\t<!-- ARRAY parameters could be comma separated lists or leaf lists depending on adaptor -->\n\t\t\t\t<parameter name='device.evpn_irts' value='1:5000'\n\t\t\t\t/>\n\t\t\t\t<parameter name='device.local_subnet' value='\\\"\\\"\\\"8a41319d-87cf-4cd6-8957-00000000000A\\\"\\\"\\\"'\n\t\t\t\t/>\n\t\t\t\t<parameter name='device.id' value='CDD702C3-7719-4FE6-A5AD-3A9C9E265309'\n\t\t\t\t/>\n\t\t\t\t<parameter name='device.name' value='PODX-routerY'\n\t\t\t\t/>\n\t\t\t\t<parameter name='device.description' value='VPC A connect VPC B'\n\t\t\t\t/>\n\t\t\t\t<parameter name='device.router_id' value='CBB702C3-6789-1234-A5AD-00000000000A'\n\t\t\t\t/>\n\t\t\t\t,"comments":"", "x":958, "y":675, "z":"30ac5fe5.ab4d2", "wires":[[]], {\"id\":\"fbd78797.a6d598\", \"type\":\"set\", \"name\":\"set DC B network data\", \"xml\":\"<set>\n\t\t\t\t<!-- example uses device.\n\t\t\t\treal adapter might use device.l3_connection. or something else -->\n\t\t\t\t<!-- ARRAY parameters could be comma separated lists or leaf lists depending on adaptor -->\n\t\t\t\t<parameter name='device.evpn_irts' value='1:5001'\n\t\t\t\t/>\n\t\t\t\t<parameter name='device.evpn_erts' value='1:5001'\n\t\t\t\t/>\n\t\t\t\t<parameter name='device.local_subnet' value='\\\"\\\"\\\"8a41319d-87cf-4cd6-8957-00000000000B\\\"\\\"\\\"'\n\t\t\t\t/>\n\t\t\t\t<parameter name='device.id' value='CDD702C3-7719-4FE6-A5AD-3A9C9E265309'\n\t\t\t\t/>\n\t\t\t\t<parameter name='device.name' value='PODW-routerZ'\n\t\t\t\t/>\n\t\t\t\t<parameter name='device.description' value='VPC B connect VPC A'\n\t\t\t\t/>\n\t\t\t\t<parameter name='device.router_id' value='CBB702C3-6789-1234-A5AD-00000000000B'\n\t\t\t\t/>\n\t\t\t\t,"comments":"", "x":955, "y":782, "z":"30ac5fe5.ab4d2\", \"wires\":[[]], {\"id\":\"d5a70b78.3a1\", \"type\":\"comment\", \"name\":\"Test block to describe logic - template uses \\\"device.\" for parameters\", \"info\":\"\", \"comments\":\"\", \"x":1054, \"y":378, \"z":"30ac5fe5.ab4d2\", \"wires":[[]], {\"id\":\"a5a8ce82.7fa0d\", \"type\":\"comment\", \"name":"DC Set Nodes should map from Input parameters\", \"info":"", \"comments":"", \"x":1043, \"y":618, \"z":"30ac5fe5.ab4d2\", \"wires":[[]], {\"id":"de93e82.c1dc1a8\", \"type":"set\", \"name":"set B controller data (http emulator)\", \"xml":"<set>\n\t\t\t\t\t<parameter name='prop.controller_B_RestApi.url' value='http://10.0.7.1:9000' />\n\t\t\t\t\t<!-- 8181 when doing localhost -->\n\t\t\t\t\t<parameter name='prop.restapi.templateDir' value='/opt/onap/sdn/data'/>\n\t\t\t\t\t<parameter name='prop.controller_B_RestApi.user' value='admin'\n\t\t\t\t\t/>\n\t\t\t\t\t<parameter name='prop.controller_B_RestApi.password' value='Kp8bJ4SXszMOWXlhak3eHlcse2gAw84vaOGmJvUy2U'\n\t\t\t\t\t/>\n\t\t\t\t\t<n>\n\t\t\t\t\t\t,"comments":"", "x":998, "y":503, "z":"30ac5fe5.ab4d2\", \"wires":[[]]}
```

DB operation

```
mysql> show tables;
mysql> show columns from SERVICE_MODEL;
mysql> select name, service_uuid, invariant_uuid from SERVICE_MODEL;
```

name	service_uuid	invariant_uuid
NULL	0	NULL
vBNG_0202	00e50cbd-ef0f-4b28-821e-f2b583752dd3	dbf9288d-18ef-4d28-82cb-29373028f367
BK-012317-UUID-Service	0a92fd9c-baab-4c03-b4e2-827e2cb9bcc7	083b57cd-4b76-4924-a64c-610445528063
vEPC	2c02b479-905f-4b6d-bd03-a2c8a8cdfae4	6dd6969c-b75c-4146-8a96-0cb9c0af19a7
VoLTE e2e Service	96a01eb8-1538-40a6-a9ab-0f6bf8e0d877	e9b5654e-6627-4590-9a54-a39b4d85955e
vIMS	de3dc33a-799a-48fe-aef2-9a7e93631a4c	970177ab-40d9-4ab7-9a9b-aa2d08c9ca91

VF Model

```
mysql> select * from VF_MODEL where nf_role is not null;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| customization_uuid | model_yaml | invariant_uuid | |
uuid | version | name |
naming_policy | ecomp_generated_naming | avail_zone_max_count |
nf_function | nf_code | nf_type | nf_role |
vendor | vendor_version |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 232972fe-4ee2-4056-b23a-73c5052eb791 | null | af94e0b5-454c-4fd8-b62b-ef27632afd22 | 71b87384-8e60-4d0b-
9ed0-757245996fc3 | 1.0 | VID-PCRF-05-15-17 | NULL |
NULL | 1 | function_2 | code_1 |
Type_1 | role_1 | null | null |
| 53ed3b2b-4225-45da-bf21-ebb5abdc9000 | null | 15b244fa-a9e2-4f68-a978-05184d78b911 | 028c08dd-56c6-42e3-
ae6d-84f98ca09f37 | 2.0 | 06e7a3b5-f81c-4f99-b33d | SDNC_Policy.Config_MS_ONAP_VFW_NAMING_TIMESTAMP |
Y | 1 | ONAP-TRAFFIC-GEN | vpg |
TRAFFIC-GEN | vPG | 8f64125f-125a-40b4-b882 | 1.0 |
```

Set karaf log level

```
root@dev-appc-appc-0:/opt/opendaylight/current/data/log# /opt/opendaylight/bin/client
Logging in as karaf
```

```

____ _ _ _ _ . _ . _ _ _
\____ \____ _ _ _ \____ \____ _ _ _ . _ _ _ _ _ | | | | | _ _ _ | | _ / | _
/ | \____ \ / _ _ \ / | | \____ \< | | | | | / _ _ \ | | \ _ \
/ | \ | _> > _ / | | \ | \ / _ _ \ | | | | / / _ / > Y \ |
\____ / _ / \ _ > _ | / _ _ ( _ _ / _ _ | | _ _ / _ _ / | _ _ / _ _
\ / | _ | \ / \ / \ / \ / \ / _ _ / \ /
```

```
Hit '<tab>' for a list of available commands
and '[cmd] --help' for help on a specific command.
Hit '<ctrl-d>' or type 'system:shutdown' or 'logout' to shutdown OpenDaylight.
```

```
opendaylight-user@root>log
opendaylight-user@root>get
Logger | Level
-----+-----
ROOT | INFO
org.apache.aries.spifly | WARN
org.apache.karaf.jaas.modules.audit | INFO
opendaylight-user@root>set DEBUG org.onap
opendaylight-user@root>
```

List karaf features

List karaf features

```
bash-4.4# /opt/opendaylight/bin/client
opendaylight-user@root> feature:list
Name      Version  Required  State  Repository  Description
odl-lispflowmapping-mappingservice-shell 1.8.1    Uninstalled  odl-lispflowmapping-mappingservice-shell  ODL ::
lispflowmapping :: odl-lispflowmapping-map
```

Preconfiguration for VoLTE SDNC: [ONAP VoLTE SDNC Integration Test.docx](#)