


```

curl --location --request POST '10.12.26.59:12829/
restconf/operations/VNF-API:preload-vnf-topology-
operation' \

--header 'Authorization: Basic
YWRtaW46S3A4Yko0U1hzek0wV1hsaGFrM2VlbGNzZTJ
nQXc4NHZhb0dHbUp2VXkyVQ==' \

--header 'Content-Type: application/json' \

--data-raw '{

  "input": {

    "vnf-topology-information": {

      "vnf-topology-identifier": {

        "service-type":
"9e30ca9c-05d9-43b1-93d6-78fae39bccf1",

        "vnf-name": "vfs-ns-inst8_vpkg_01",

        "vnf-type":
"VfwclVpkgD37a49e107f7..base_vpkg..module-0",

        "generic-vnf-name":
"demoVFWCL_inst8_vnf_vpkg",

        "generic-vnf-type": "demoVFWCL/
vFWCL_vPKG d37a49e1-07f7 0"

      },

      "vnf-assignments": {

        "availability-zones": [],

        "vnf-networks": [],

        "vnf-vms": []

      },

    },

  },

}

```

```
"vnf-parameters": [  
    {  
      "vnf-parameter-name":  
"image_name",  
      "vnf-parameter-value":  
"ubuntu-14-04-cloud-amd64"  
    },  
    {  
      "vnf-parameter-name":  
"flavor_name",  
      "vnf-parameter-value":  
"m1.medium"  
    },  
    {  
      "vnf-parameter-name":  
"public_net_id",  
      "vnf-parameter-value":  
"d4bf28ad-d8e2-4333-9f32-569cb1bc3d97"  
    },  
    {  
      "vnf-parameter-name":  
"onap_private_subnet_id",  
      "vnf-parameter-value":  
"33ce782c-3a73-486d-a4f1-874ea9ef7d44"  
    },  
    {
```

```
        "vnf-parameter-name":  
"unprotected_private_net_cidr",  
  
        "vnf-parameter-value":  
"192.168.10.0/24"  
  
    },  
  
    {  
  
        "vnf-parameter-name":  
"protected_private_net_cidr",  
  
        "vnf-parameter-value":  
"192.168.20.0/24"  
  
    },  
  
    {  
  
        "vnf-parameter-name":  
"onap_private_net_cidr",  
  
        "vnf-parameter-value":  
"10.0.0.0/16"  
  
    },  
  
    {  
  
        "vnf-parameter-name":  
"vfw_private_ip_0",  
  
        "vnf-parameter-value":  
"192.168.10.100"  
  
    },  
  
    {  
  
        "vnf-parameter-name":  
"vfw_private_ip_1",
```

```
"192.168.20.100"
    "vnf-parameter-value":
    },
    {
    "vnf-parameter-name":
    "vfw_private_ip_2",
    "vnf-parameter-value":
    "10.0.100.1"
    },
    {
    "vnf-parameter-name":
    "vsn_private_ip_0",
    "vnf-parameter-value":
    "192.168.20.250"
    },
    {
    "vnf-parameter-name":
    "vsn_private_ip_1",
    "vnf-parameter-value":
    "10.0.100.4"
    },
    {
    "vnf-parameter-name":
    "vfw_name_0",
    "vnf-parameter-value":
    "vFWCL_vFW_yao"
    },
```

```
{  
  "vnf-parameter-name":  
    "vsn_name_0",  
  "vnf-parameter-value":  
    "vFWCL_vsink_yao"  
},  
{  
  "vnf-parameter-name":  
    "dcae_collector_ip",  
  "vnf-parameter-value":  
    "10.0.4.1"  
},  
{  
  "vnf-parameter-name":  
    "dcae_collector_port",  
  "vnf-parameter-value": "8081"  
},  
{  
  "vnf-parameter-name":  
    "repo_url_blob",  
  "vnf-parameter-value":  
    "https://nexus.onap.org/content/sites/raw"  
},  
{  
  "vnf-parameter-name":  
    "repo_url_artifacts",
```

```

        "vnf-parameter-value":
"https://nexus.onap.org/content/repositories/releases"
    },
    {
        "vnf-parameter-name":
"demo_artifacts_version",
        "vnf-parameter-value": "1.4.0"
    },
    {
        "vnf-parameter-name":
"install_script_version",
        "vnf-parameter-value": "1.4.0"
    },
    {
        "vnf-parameter-name":
"pub_key",
        "vnf-parameter-value": "ssh-
rsa
AAAAB3NzaC1yc2EAAAADAQABAAQDKXDgoo3+W
OqcUG8/5uUbk81+yczgwC4Y8ywTmuQqbNxiY1oQ0Yxd
MUqUnhitSXs5S/
yRuAVOYHwGg2mCs20oAINrP+mxBI544AMlb9itPjCtqqE
2EWo6MmnFGbHB4Sx3XioE7F4VPsh7japslwzOjbrQe+M
ua1TGQ5d4nfEOQaaglXLLPFfuc7WbhbJbK6Q7rHqZfRc
OwAMXgDoBqlyqKeiKwnumddo2RyNT8ljYmvB6buz7KnM
inzo7qB0uktVT05FH9Rg0CTWH5norlG5qXgP2aukL0gk1p
h8iAt7uYLf1ktp+LJI2gaF6L0/
qli9EmVCSLr1uJ38Q8CBflhkh"
    },

```

```

        {
            "vnf-parameter-name":
"cloud_env",
            "vnf-parameter-value":
"openstack"
        }
    ],
    "request-information": {
        "request-id": "robot9",
        "order-version": "1",
        "notification-url": "openecomp.org",
        "order-number": "1",
        "request-action": "PreloadVNFRequest"
    },
    "sdnc-request-header": {
        "svc-request-id": "robot9",
        "svc-notification-url": "http://openecomp.org:8080/
adapters/rest/SDNCNotify",
        "svc-action": "reserve"
    }
}
}'

```

- vSINK Preload Request CURL


```

curl --location --request POST '10.12.26.59:12829/
restconf/operations/VNF-API:preload-vnf-topology-
operation' \

--header 'Authorization: Basic
YWRtaW46S3A4Yko0U1hzek0wV1hsaGFrM2VlbGNzZTJ
nQXc4NHZhb0dHbUp2VXkyVQ==' \

--header 'Content-Type: application/json' \

--data-raw '{

  "input": {

    "vnf-topology-information": {

      "vnf-topology-identifier": {

        "service-type":
"9e30ca9c-05d9-43b1-93d6-78fae39bccf1",

        "vnf-name": "vfs-ns-inst8_vsink_01",

        "vnf-type":
"VfwclVfwsnk15a7ce1aC5d8..base_vfw..module-0",

        "generic-vnf-name":
"demoVFWCL_inst8_vnf_vsnk",

        "generic-vnf-type": "demoVFWCL/
vFWCL_vFWSNK 15a7ce1a-c5d8 0"

      },

      "vnf-assignments": {

        "availability-zones": [],

        "vnf-networks": [],

        "vnf-vms": []

      },

    },

  },

}

```

```
"vnf-parameters": [  
    {  
      "vnf-parameter-name":  
"image_name",  
      "vnf-parameter-value":  
"ubuntu-14-04-cloud-amd64"  
    },  
    {  
      "vnf-parameter-name":  
"flavor_name",  
      "vnf-parameter-value":  
"m1.medium"  
    },  
    {  
      "vnf-parameter-name":  
"public_net_id",  
      "vnf-parameter-value":  
"d4bf28ad-d8e2-4333-9f32-569cb1bc3d97"  
    },  
    {  
      "vnf-parameter-name":  
"onap_private_subnet_id",  
      "vnf-parameter-value":  
"33ce782c-3a73-486d-a4f1-874ea9ef7d44"  
    },  
    {
```

```
        "vnf-parameter-name":  
"unprotected_private_net_cidr",  
  
        "vnf-parameter-value":  
"192.168.10.0/24"  
  
    },  
  
    {  
  
        "vnf-parameter-name":  
"protected_private_net_cidr",  
  
        "vnf-parameter-value":  
"192.168.20.0/24"  
  
    },  
  
    {  
  
        "vnf-parameter-name":  
"onap_private_net_cidr",  
  
        "vnf-parameter-value":  
"10.0.0.0/16"  
  
    },  
  
    {  
  
        "vnf-parameter-name":  
"vfw_private_ip_0",  
  
        "vnf-parameter-value":  
"192.168.10.100"  
  
    },  
  
    {  
  
        "vnf-parameter-name":  
"vfw_private_ip_1",
```

```
"192.168.20.100"
    "vnf-parameter-value":
    },
    {
    "vnf-parameter-name":
    "vfw_private_ip_2",
    "vnf-parameter-value":
    "10.0.100.1"
    },
    {
    "vnf-parameter-name":
    "vsn_private_ip_0",
    "vnf-parameter-value":
    "192.168.20.250"
    },
    {
    "vnf-parameter-name":
    "vsn_private_ip_1",
    "vnf-parameter-value":
    "10.0.100.4"
    },
    {
    "vnf-parameter-name":
    "vfw_name_0",
    "vnf-parameter-value":
    "vFWCL_vFW_yao"
    },
```

```
{  
  "vnf-parameter-name":  
    "vsn_name_0",  
  "vnf-parameter-value":  
    "vFWCL_vsink_yao"  
},  
{  
  "vnf-parameter-name":  
    "dcae_collector_ip",  
  "vnf-parameter-value":  
    "10.0.4.1"  
},  
{  
  "vnf-parameter-name":  
    "dcae_collector_port",  
  "vnf-parameter-value": "8081"  
},  
{  
  "vnf-parameter-name":  
    "repo_url_blob",  
  "vnf-parameter-value":  
    "https://nexus.onap.org/content/sites/raw"  
},  
{  
  "vnf-parameter-name":  
    "repo_url_artifacts",
```

```

        "vnf-parameter-value":
"https://nexus.onap.org/content/repositories/releases"

    },

    {

        "vnf-parameter-name":
"demo_artifacts_version",

        "vnf-parameter-value": "1.4.0"

    },

    {

        "vnf-parameter-name":
"install_script_version",

        "vnf-parameter-value": "1.4.0"

    },

    {

        "vnf-parameter-name":
"pub_key",

        "vnf-parameter-value": "ssh-
rsa
AAAAB3NzaC1yc2EAAAADAQABAAQDKXDgoo3+W
OqcUG8/5uUbk81+yczgwC4Y8ywTmuQqbNxIY1oQ0Yxd
MUqUnhitSXs5S/
yRuAVOYHwGg2mCs20oAINrP+mxBI544AMlb9itPjCtqqE
2EWo6MmnFGbHB4Sx3XioE7F4VPsh7japslwzOjbrQe+M
ua1TGQ5d4nfEOQaaglXLLPFfuc7WbhbJbK6Q7rHqZfRc
OwAMXgDoBqlyqKeiKwnumddo2RyNT8ljYmvB6buz7KnM
inzo7qB0uktVT05FH9Rg0CTWH5norlG5qXgP2aukL0gk1p
h8iAt7uYLf1ktp+LJI2gaF6L0/
qli9EmVCSLr1uJ38Q8CBflhkh"

    },

```

```

        {
            "vnf-parameter-name":
"cloud_env",
            "vnf-parameter-value":
"openstack"
        }
    ],
    "request-information": {
        "request-id": "robot9",
        "order-version": "1",
        "notification-url": "openecomp.org",
        "order-number": "1",
        "request-action": "PreloadVNFRrequest"
    },
    "sdnc-request-header": {
        "svc-request-id": "robot9",
        "svc-notification-url": "http://openecomp.org:8080/
adapters/rest/SDNCNotify",
        "svc-action": "reserve"
    }
}
}'

```

vFWCL APPC Closed Loop Debug

After opening the network between vPKG → vFW → vSINK, observe the network traffic graph by accessing the DarkStat interface.

To log in, execute the following command through Terminal, enter the password, and after successful access to the browser visit <http://localhost:26667>

```
ssh -N -L 26667:172.31.178.154:667 -f root@172.29.167.173
```

When the vFWCL closed-loop policy does not take effect, the network traffic graph is as shown in the figure below



Verify section

```
curl -X GET \
```

```
    http://localhost:30227/events/  
unauthenticated.SEC_MEASUREMENT_OUTPUT/group1/C1 \
```

```
-H 'Accept: application/json' \
```

```
-H 'Content-Type: application/cambria'
```

```
curl -X GET \
```

```
    http://localhost:30227/events/unauthenticated.DCAE_CL_OUTPUT/  
group1/C1 \
```

```
-H 'Accept: application/json' \
```

```
-H 'Content-Type: application/cambria'
```

Query section

```
curl -X GET \  
    http://10.96.205.45:8443/aai/v16/network/generic-vnfs/ \  
    -H 'Accept: application/json' \  
    -H 'Authorization: Basic QUFJOkFBSQ==' \  
    -H 'Content-Type: application/json' \  
    -H 'X-FromAppld: Postman' \  
    -H 'X-TransactionId: get_generic_vnf' \  
    --insecure
```

Create a NETCONF mount point

- Approach 1

```
curl -X PUT \
```

```
    http://10.12.26.60:30230/restconf/config/network-  
topology:network-topology/topology/topology-netconf/node/9d8893f4-  
f158-451a-9828-46dfc610de71 \
```

```
    -H 'Accept: application/xml' \
```

```
    -H 'Authorization: Basic  
YWRtaW46S3A4Yko0U1hzek0wV1hsaGFrM2VlbGNzZTJnQXc4NHZ  
hb0dHbUp2VXkyVQ==' \
```

```
    -H 'Content-Type: text/xml' \
```

```
    -d '<node  
xmlns="urn:TBD:params:xml:ns:yang:network-topology">
```

```
    <node-id><vnf-id></node-id>
```

```
    <host xmlns="urn:opendaylight:netconf-node-  
topology">172.31.178.150</host>
```

```
    <port xmlns="urn:opendaylight:netconf-node-  
topology">2831</port>
```

```
    <username xmlns="urn:opendaylight:netconf-node-  
topology">admin</username>
```

```
    <password xmlns="urn:opendaylight:netconf-node-  
topology">admin</password>
```

```
    <tcp-only xmlns="urn:opendaylight:netconf-node-  
topology">false</tcp-only>
```

```
    </node>'
```

- Approach 2 (✅)

```
curl -v --noproxy '*' --user  
"admin":"Kp8bJ4SXszM0WXlhak3eHlcse2gAw84vaoGGm  
JvUy2U" -d @netconf-mount-template.xml -H "Accept:  
application/xml" -H "Content-type: application/xml" -X PUT  
--trace trace.out http://10.12.26.60:30230/restconf/config/  
network-topology:network-topology/topology/topology-  
netconf/node/9d8893f4-f158-451a-9828-46dfc610de71
```

Verify the NETCONF mount point

```
curl -X GET \
```

```
http://10.108.131.179:8282/restconf/operational/network-  
topology:network-topology/topology/topology-netconf/node/9d8893f4-  
f158-451a-9828-46dfc610de71 \
```

```
-H 'Accept: application/json' \
```

```
-H 'Authorization: Basic
```

```
YWRtaW46S3A4Yko0U1hzek0wV1hsaGFrM2VlbGNzZTJnQXc4NHZ  
hb0dHbUp2VXkyVQ== ' | python3 -m json.tool | less
```

Get the current streams being active in vPKG

```
curl -X GET \
```

```
http://10.108.131.179:8282/restconf/config/network-  
topology:network-topology/topology/topology-netconf/node/9d8893f4-  
f158-451a-9828-46dfc610de71/yang-ext:mount/stream-count:stream-  
count \
```

```
-H 'Accept: application/json' \
```



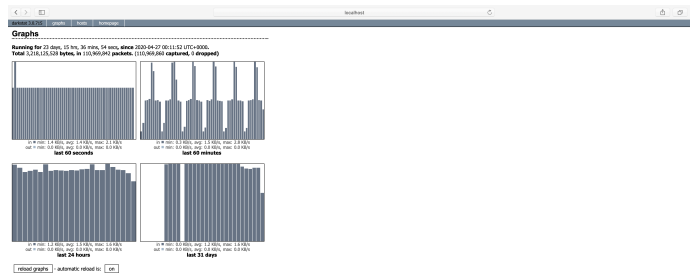
```
"active-streams": 5
```

```
}
```

```
}
```

```
}
```

When the vFWCL closed-loop policy is in effect, the network traffic graph should look like this



vFWCL Policy Debug

Steps of vFW test

The vFW test is divided into:

Create Policy type -> change Policy group to ACTIVE -> push policy -> match policy -> verify AAI query

Policy type creation

- Policy creation

```
curl -v --silent -k --user 'healthcheck:zb!XztG34' -X POST "https://10.105.52.228:6969/policy/api/v1/policytypes" -H "Accept: application/json" -H "Content-Type: application/json" -d @policy_type.json
```

```
root@k8s-node1:~/policy-debug# cat policy_type.json
```

```
{  
  "name": "ToscaServiceTemplateSimple",  
  "policy_types": {  
    "onap.policies.controlloop.Operational": {  
      "derived_from": "tosca.policies.Root:0.0.0",  
      "description": "Operational Policy for Control Loops",  
      "metadata": {},  
      "name": "onap.policies.controlloop.Operational",  
      "properties": {},  
      "version": "1.0.0"  
    }  
  },  
  "tosca_definitions_version": "tosca_simple_yaml_1_0_0",  
  "version": "1.0.0"  
}
```


- Policy query

```
curl -vvv --silent -k --user 'healthcheck:zb!XztG34' -X GET "https://
10.105.209.215:6969/policy/pap/v1/pdps" -H "Accept: application/
json" -H "Content-Type: application/json" lpython -m json.tool
```

```
{
  "groups": [
    {
      "description": "The default group that registers all
supported policy types and pdps.",
      "name": "defaultGroup",
      "pdpGroupState": "ACTIVE",
      "pdpSubgroups": [
        {
          "currentInstanceCount": 0,
          "desiredInstanceCount": 1,
          "pdpInstances": [],
          "pdpType": "apex",
          "policies": [],
          "properties": {},
          "supportedPolicyTypes": [
            {
              "name": "onap.policies.controlloop.operational.Apex",
              "version": "1.0.0"
```

```
}  
]  
},  
{  
  "currentInstanceCount": 0,  
  "desiredInstanceCount": 1,  
  "pdpInstances": [],  
  "pdpType": "drools",  
  "policies": [],  
  "properties": {},  
  "supportedPolicyTypes": [  
    {  
      "name": "onap.policies.controlloop.Operational",  
      "version": "1.0.0"  
    }  
  ]  
},  
{  
  "currentInstanceCount": 1,  
  "desiredInstanceCount": 1,  
  "pdpInstances": [  
    {  
      "healthy": "HEALTHY",
```

```

      "instanceId": "policy-policy-xacml-
pdp-77cf8dd467-2sdjq",

      "pdpState": "ACTIVE"

    },

  ],

  "pdpType": "xacml",

  "policies": [],

  "properties": {},

  "supportedPolicyTypes": [

    {

      "name":
"onap.policies.controlloop.guard.FrequencyLimiter",

      "version": "1.0.0"

    },

    {

      "name": "onap.policies.controlloop.guard.MinMax",

      "version": "1.0.0"

    },

    {

      "name": "onap.policies.controlloop.guard.Blacklist",

      "version": "1.0.0"

    },

    {

```

```
    "name":  
"onap.policies.controlloop.guard.coordination.FirstBlocksSecond",  
  
    "version": "1.0.0"  
  
  },  
  
  {  
  
    "name": "onap.Monitoring",  
  
    "version": "1.0.0"  
  
  },  
  
  {  
  
    "name": "onap.policies.monitoring.cdap.tca.hi.lo.app",  
  
    "version": "1.0.0"  
  
  },  
  
  {  
  
    "name":  
"onap.policies.monitoring.dcaegen2.collectors.datafile.datafile-app-  
server",  
  
    "version": "1.0.0"  
  
  },  
  
  {  
  
    "name":  
"onap.policies.monitoring.docker.sonhandler.app",  
  
    "version": "1.0.0"  
  
  },  
  
  {  
  
    "name": "onap.policies.optimization.AffinityPolicy",
```

```
"version": "1.0.0"
  },
  {
    "name": "onap.policies.optimization.DistancePolicy",
    "version": "1.0.0"
  },
  {
    "name": "onap.policies.optimization.HpaPolicy",
    "version": "1.0.0"
  },
  {
    "name":
"onap.policies.optimization.OptimizationPolicy",
    "version": "1.0.0"
  },
  {
    "name": "onap.policies.optimization.PciPolicy",
    "version": "1.0.0"
  },
  {
    "name": "onap.policies.optimization.QueryPolicy",
    "version": "1.0.0"
  },
  {
```

```
"name": "onap.policies.optimization.SubscriberPolicy",  
  "version": "1.0.0"  
},  
{  
  "name": "onap.policies.optimization.Vim_fit",  
  "version": "1.0.0"  
},  
{  
  "name": "onap.policies.optimization.VnfPolicy",  
  "version": "1.0.0"  
}  
]  
}  
],  
"properties": {}  
}  
]  
}
```

- Policy Create

```
curl -v --silent -k --user 'healthcheck:zb!XztG34' -X POST "https://  
10.105.52.228:6969/policy/api/v1/policytypes/  
onap.policies.controlloop.Operational/versions/1.0.0/policies" -H
```

```
"Accept: application/json" -H "Content-Type: application/json" -d
@vfwcl.policy.operational.input.json
```

```
{
  "policy-id" : "operational.modifyconfig",
  "content" : "controlLoop%3A%0A++++version%3A+2.0.0%0A+++
+controlLoopName%3A+ControlLoop-vFirewall-d0a1dfc6-94f5-4fd4-
a5b5-4630b438850a%0A++++trigger_policy%3A+unique-policy-id-1-
modifyConfig%0A++++timeout%3A+1200%0A+++
+abatement%3A+false%0A+policies%3A%0A+++++id%3A+unique-
policy-id-1-modifyConfig%0A+++++
+name%3A+modify_packet_gen_config%0A+++++
+description%3A%0A+++++actor%3A+APPC%0A+++++
+recipe%3A+ModifyConfig%0A+++++target%3A%0A+++++
+resourceID%3A+97ab88b8-afaa-4eaa-b575-4a29f7f8c0bb%0A++++
+++++type%3A+VNF%0A+++++payload%3A%0A+++++
+streams%3A+%27%7B%22active-streams%22%3A5%7D%27%0A+
+++++retry%3A+0%0A+++++timeout%3A+300%0A+++++
+success%3A+final_success%0A+++++
+failure%3A+final_failure%0A+++++
+failure_timeout%3A+final_failure_timeout%0A+++++
+failure_retries%3A+final_failure_retries%0A+++++
+failure_exception%3A+final_failure_exception%0A+++++
+failure_guard%3A+final_failure_guard%0A"
}
```

- Policy deploy

```
curl -vvv --silent -k --user 'healthcheck:zb!XztG34' -X POST "https://
10.105.209.215:6969/policy/pap/v1/pdps/policies" -H "Accept:
application/json" -H "Content-Type: application/json" -d
@vfwcl.push.json
```

```
vi vfwcl.push.json
```

```
{
  "policies": [
    {
      "policy-id": "operational.modifyconfig",
      "policy-version": "1.0.0"
    }
  ]
}
```

- AAI verification query

Policy will call the following AAI api to obtain the vserver's reducelink, and then call the corresponding connection to obtain the execution result.

Query the resource-link called by AAI:

```
curl --location --request GET 'https://
aai.api.sparky.simpledemo.onap.org:30233/aai/v16/search/nodes-
query?search-node-type=vserver&filter=vserver-
name:EQUALS:zdfw1fwl01fwl01' \
--header 'Content-Type: application/json' \
--header 'Authorization: Basic QUFJOKFBSQ==' \
--header 'X-FromAppId: jimmy-postman' \
--header 'Accept: application/json' \
--header 'X-TransactionId: 9999'
```


Return result should like:

```
{
  "result-data": [
    {
      "resource-type": "vserver",
      "resource-link": "/aai/v16/cloud-infrastructure/cloud-
regions/cloud-region/CMCC/RegionOne/tenants/tenant/
c39bad9117904e71b523c5f9ed012af4/vservers/vserver/8e15d696-
c36b-4512-9387-741dc02f552a"
    }
  ]
}
```

- Trouble-Shooting
- Certificate expiration problem

Exception information:

```
[2020-05-07T01:16:00.547+00:00|ERROR|
InlineBusTopicSinkIDMAAP-source-APPC-LCM-WRITE]
SingleThreadedDmaapTopicSource [userName=null,
password=-, getTopicCommInfrastructure()=DMAAP,
toString()=SingleThreadedBusTopicSource
[consumerGroup=05338d21-5e50-46b0-87d3-9ba32609d4
67, consumerInstance=policy-drools-0,
fetchTimeout=15000, fetchLimit=100,
consumer=CambriaConsumerWrapper
[fetchTimeout=15000], alive=true, locked=false,
uebThread=Thread[DMAAP-source-APPC-LCM-
WRITE,5,main], topicListeners=2,
toString()=BusTopicBase [apiKey=null, apiSecret=null,
```

```
useHttps=true, allowSelfSignedCerts=false,  
toString()=TopicBase [servers=[message-router],  
topic=APPC-LCM-WRITE, effectiveTopic=APPC-LCM-  
WRITE, #recentEvents=0, locked=false,  
#topicListeners=2]]]]: cannot fetch because of
```

```
javax.net.ssl.SSLHandshakeException:  
sun.security.validator.ValidatorException: PKIX path  
validation failed:  
java.security.cert.CertPathValidatorException: validity  
check failed  
  
        at  
sun.security.ssl.Alerts.getSSLException(Alerts.java:192)  
  
        at  
sun.security.ssl.SSLSocketImpl.fatal(SSLSocketImpl.java:  
1946)  
  
        at  
sun.security.ssl.Handshaker.fatalSE(Handshaker.java:316)  
  
        at  
sun.security.ssl.Handshaker.fatalSE(Handshaker.java:310)  
  
        at  
sun.security.ssl.ClientHandshaker.serverCertificate(Client  
Handshaker.java:1639)  
  
        at  
sun.security.ssl.ClientHandshaker.processMessage(Client  
Handshaker.java:223)  
  
        at  
sun.security.ssl.Handshaker.processLoop(Handshaker.jav  
a:1037)  
  
        at  
sun.security.ssl.Handshaker.process_record(Handshaker.j  
ava:965)
```

at
sun.security.ssl.SSLSocketImpl.readRecord(SSLSocketImpl.java:1064)

at
sun.security.ssl.SSLSocketImpl.performInitialHandshake(SSLSocketImpl.java:1367)

at
sun.security.ssl.SSLSocketImpl.startHandshake(SSLSocketImpl.java:1395)

at
sun.security.ssl.SSLSocketImpl.startHandshake(SSLSocketImpl.java:1379)

at
org.apache.http.conn.ssl.SSLConnectionSocketFactory.createLayeredSocket(SSLConnectionSocketFactory.java:436)

at
org.apache.http.conn.ssl.SSLConnectionSocketFactory.connectSocket(SSLConnectionSocketFactory.java:384)

at
org.apache.http.impl.conn.DefaultHttpClientConnectionOperator.connect(DefaultHttpClientConnectionOperator.java:142)

at
org.apache.http.impl.conn.PoolingHttpClientConnectionManager.connect(PoolingHttpClientConnectionManager.java:374)

at
org.apache.http.impl.execchain.MainClientExec.establishRoute(MainClientExec.java:393)

```
at
org.apache.http.impl.execchain.MainClientExec.execute(MainClientExec.java:236)

at
org.apache.http.impl.execchain.ProtocolExec.execute(ProtocolExec.java:186)

at
org.apache.http.impl.execchain.RetryExec.execute(RetryExec.java:89)

at
org.apache.http.impl.execchain.RedirectExec.execute(RedirectExec.java:110)

at
org.apache.http.impl.client.InternalHttpClient.doExecute(InternalHttpClient.java:185)

at
org.apache.http.impl.client.CloseableHttpClient.execute(CloseableHttpClient.java:83)

at
com.att.nsa.apiClient.http.HttpClient.runCall(HttpClient.java:708)

at
com.att.nsa.apiClient.http.HttpClient.get(HttpClient.java:384)

at
com.att.nsa.apiClient.http.HttpClient.get(HttpClient.java:368)

at
com.att.nsa.cambria.client.impl.CambriaConsumerImpl.fetch(CambriaConsumerImpl.java:87)
```

at
com.att.nsa.cambria.client.impl.CambriaConsumerImpl.fetch(CambriaConsumerImpl.java:64)

at
org.onap.policy.common.endpoints.event.commbus.internal.BusConsumer\$CambriaConsumerWrapper.fetch(BusConsumer.java:171)

at
org.onap.policy.common.endpoints.event.commbus.internal.SingleThreadedBusTopicSource.fetchAllMessages(SingleThreadedBusTopicSource.java:238)

at
org.onap.policy.common.endpoints.event.commbus.internal.SingleThreadedBusTopicSource.run(SingleThreadedBusTopicSource.java:228)

at java.lang.Thread.run(Thread.java:748)

Caused by: sun.security.validator.ValidatorException: PKIX path validation failed:
java.security.cert.CertPathValidatorException: validity check failed

at
sun.security.validator.PKIXValidator.doValidate(PKIXValidator.java:362)

at
sun.security.validator.PKIXValidator.engineValidate(PKIXValidator.java:270)

at
sun.security.validator.Validator.validate(Validator.java:262)

at
sun.security.ssl.X509TrustManagerImpl.validate(X509TrustManagerImpl.java:324)

at
sun.security.ssl.X509TrustManagerImpl.checkTrusted(X509TrustManagerImpl.java:229)

at
sun.security.ssl.X509TrustManagerImpl.checkServerTrusted(X509TrustManagerImpl.java:124)

at
sun.security.ssl.ClientHandshaker.serverCertificate(ClientHandshaker.java:1621)

... 27 common frames omitted

Caused by: java.security.cert.CertPathValidatorException: validity check failed

at
sun.security.provider.certpath.PKIXMasterCertPathValidator.validate(PKIXMasterCertPathValidator.java:135)

at
sun.security.provider.certpath.PKIXCertPathValidator.validate(PKIXCertPathValidator.java:233)

at
sun.security.provider.certpath.PKIXCertPathValidator.validate(PKIXCertPathValidator.java:141)

at
sun.security.provider.certpath.PKIXCertPathValidator.engineValidate(PKIXCertPathValidator.java:80)

at
java.security.cert.CertPathValidator.validate(CertPathValidator.java:292)

at
sun.security.validator.PKIXValidator.doValidate(PKIXValidator.java:357)

... 33 common frames omitted

Solution:

Replacing the certificate, the solution given by the community, replacing these configurations and repackaging, deployment can solve:

<https://gerrit.onap.org/r/c/oom/+/107265> <https://gerrit.onap.org/r/c/oom/+/105913>

- Policy DefaultGroup State

In the push strategy, the following error is reported. Finally, it is found that the DefaultGroup State state is incorrect, and the State state can be modified.

Executing an order:

```
curl -vvv --silent -k --user 'healthcheck:zb!XztG34' -X POST "https://10.105.209.215:6969/policy/pap/v1/pdps/policies" -H "Accept: application/json" -H "Content-Type: application/json" -d @vfwcl.push.json
```

[vi vfwcl.push.json](#)

```
{
  "policies": [
    {
      "policy-id": "operational.modifyconfig",
      "policy-version": "1.0.0"
    }
  ]
}
```

Response Error like:

```
{
  "errorDetails": "policy not supported by any PDP group:
operational.modifyconfig 1.0.0"
}
```

Querying the status of the PDP group is PASSIVE. According to the official documentation, he will refuse all implementation strategies.

Change PASSIVE to ACTIVE state:

```
curl -vvv --silent -k --user'healthcheck:zb!XztG34' -X PUT "https://
10.105.209.215:6969/policy/pap/v1/pdps/groups/defaultGroup?state=ACTIVE"
-H "Accept: application/json" -H "Content-Type: application/json"
```

- Policy mismatch

The actual findings received from the network.log DCAE that the closedLoopControlName and the configured Policy are inconsistent, resulting in a mismatch.

```
{"closedLoopEventClient":"DCAE_INSTANCE_ID.dcae-
tca","policyVersion":"v0.0.1","policyName":"DCAE.Config_tca-hi-
lo","policyScope":"DCAE","target_type":"VM","AAI":{"vserver.vserver-
name":"zdfw1fwl01fwl01"},"closedLoopAlarmStart":158892618519973
9,"closedLoopEventStatus":"ONSET","closedLoopControlName":"Con
trolLoop-vFirewall-d0a1dfc6-94f5-4fd4-
a5b5-4630b438850a","version":"1.0.2","target":"vserver.vserver-
name","requestID":"c1e58beb-a2b0-45bf-
b69d-758b91f91a79","from":"DCAE"}
```

From the telemetry query, we see:

```
{"closedLoopControlName": "ControlLoop-vFirewall-135835e3-
eed7-497a-83ab-8c315f37fa4a",...}
```


However, at this time, the closedLoopControlName of the Policy query result is inconsistent, so that subsequent Policy policies cannot be matched and triggered.

vFWCL DCAE Debug

TBD