



Using a Service Graph Template

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Associating Service Graph Templates with Contracts and EPGs Using the GUI

See [Using the GUI](#) for the procedure for associating service graph templates with contracts and EPGs.

Creating a Service Graph Template Using the NX-OS-Style CLI

The following procedure creates a service graph template.

Step 1 Enter the configure mode.

Example:

```
apic1# configure
```

Step 2 Enter the configure mode for a tenant.

```
tenant tenant_name
```

Example:

```
apic1(config)# tenant t1
```

Step 3 Associate a service graph to the template.

```
l4l7 graph graph_name contract contract_name
```

Parameter	Description
graph	The name of the service graph template.
contract	The name of the contract to use with the service graph template.

Example:

```
apicl(config-tenant)# 1417 graph GraphL3asa contract ContractL3ASA
```

Step 4 Add a function node.

```
service node_name [device-cluster-tenant tenant_name] [device-cluster device_name] [mode deployment_mode]
```

Parameter	Description
service	The name of the service node to add.
device-cluster-tenant	The tenant from which to import the device cluster. Specify this only if the device-cluster is not in the same tenant in which the graph is being configured.
device-cluster	Name of the device cluster to use for this service node.
mode	<p>The deployment mode. Possible values are:</p> <ul style="list-style-type: none"> • ADC_ONE_ARM—Specifies one-arm mode. • ADC_TWO_ARM—Specifies two-arm mode. • FW_ROUTED—Specifies routed (GoTo) mode. • FW_TRANS—Specifies transparent (GoThrough) mode. • OTHERS <p>If the mode is not specified, then a deployment mode is not used.</p>

Example:

```
apicl(config-graph)# service Node1 device-cluster-tenant common device-cluster ifav108-asa-2 mode FW_ROUTED
```

Step 5 Add the consumer connector.

```
connector connector_type [cluster-interface interface_type]
```

Parameter	Description
connector	<p>The type of the connector in the service graph. Possible values are:</p> <ul style="list-style-type: none"> • provider • consumer
cluster-interface	<p>The type of the device cluster interface. Possible values are:</p> <ul style="list-style-type: none"> • provider • consumer <p>Do not specify this parameter if you are a service graph template in tenant <code>Common</code>.</p>

Example:

```
apicl(config-service)# connector consumer cluster-interface consumer
```

Step 6 Associate a tenant with the connector and then exit the connector configuration mode.

```

1417-peer tenant tenant_name out L3OutExternal epg epg_name
    redistribute redistribute_property
exit

```

Parameter	Description
tenant	The name of the tenant to associate with the connector.
out	The name of the Layer 3 outside.
epg	The name of the endpoint group.
redistribute	The properties of the redistribute protocol.

Example:

```

apicl(config-connector)# 1417-peer tenant t1 out L3OutExternal epg L3ExtNet
    redistribute connected,ospf
apicl(config-connector)# exit

```

Step 7 Repeat steps 5 and 6 for the provider.

Example:

```

apicl(config-service)# connector provider cluster-interface provider
apicl(config-connector)# 1417-peer tenant t1 out L3OutInternal epg L3IntNet
    redistribute connected,ospf
apicl(config-connector)# exit

```

Step 8 (Optional) Add a router and then exit the node configuration mode.

```

rtr-cfg router_ID
exit

```

Parameter	Description
rtr-cfg	The ID of the router.

Skip this step if you are creating a service graph template in tenant `Common`.

Example:

```

apicl(config-service)# rtr-cfg router-id1
apicl(config-service)# exit

```

Step 9 Associate a connection with a consumer connector and another with a provider connector, and then exit the service graph configuration mode.

```

connection connection_name terminal terminal_type service node_name
    connector connector_type
exit

```

Parameter	Description
connection	The name of the connection to associate with the connector.
terminal	The type of the terminal. Possible values are: <ul style="list-style-type: none"> • provider • consumer

Parameter	Description
service	The name of the node of the service graph.
connector	The type of the connector. Possible values are: <ul style="list-style-type: none"> • provider • consumer

Example:

```
apic1(config-graph)# connection C1 terminal consumer service Node1 connector consumer
apic1(config-graph)# connection C2 terminal provider service Node1 connector provider
apic1(config-graph)# exit
```

Step 10

Exit the configuration mode.

Example:

```
apic1(config-tenant)# exit
apic1(config)# exit
```

Configuring a Service Graph Template Using the REST APIs

You can configure a service graph template using the following REST API:

```
<polUni>
  <fvTenant dn="uni/tn-acme" name="acme">
    <!--L3 Network-->
    <fvCtx name="MyNetwork"/>
    <!-- Bridge Domain for MySrvr EPG -->
    <fvBD name="MySrvrBD">
      <fvRsCtx tnFvCtxName="MyNetwork" />
      <fvSubnet ip="10.10.10.10/24">
      </fvSubnet>
    </fvBD>
    <!-- Bridge Domain for MyClnt EPG -->
    <fvBD name="MyClntBD">
      <fvRsCtx tnFvCtxName="MyNetwork" />
      <fvSubnet ip="20.20.20.20/24">
      </fvSubnet>
    </fvBD>
    <fvAp dn="uni/tn-acme/ap-MyAP" name="MyAP">
      <fvAEPg dn="uni/tn-acme/ap-MyAP/epg-MyClnt" name="MyClnt">
        <fvRsBd tnFvBDName="MySrvrBD" />
        <fvRsDomAtt tDn="uni/vmmp-Vendor1/dom-MyVMs" />
        <fvRsProv tnVzBrCPName="webCtrct">
        </fvRsProv>
        <fvRsPathAtt tDn="topology/pod-1/paths-17/pathep-[eth1/21]" encap="vlan-202"/>

        <fvRsPathAtt tDn="topology/pod-1/paths-18/pathep-[eth1/21]" encap="vlan-202"/>

      </fvAEPg>
      <fvAEPg dn="uni/tn-acme/ap-MyAP/epg-MySRVR" name="MySRVR">
        <fvRsBd tnFvBDName="MyClntBD" />
        <fvRsDomAtt tDn="uni/vmmp-Vendor1/dom-MyVMs" />
        <fvRsCons tnVzBrCPName="webCtrct">
```

```
        </fvRsCons>
        <fvRsPathAtt tDn="topology/pod-1/paths-17/pathep-[eth1/21]" encap="vlan-203"/>
        <fvRsPathAtt tDn="topology/pod-1/paths-18/pathep-[eth1/21]" encap="vlan-203"/>
    </fvAEPg>
</fvAp>
</fvTenant>
</polUni>
```

Creating a Security Policy Using the REST APIs

You can create a security policy using the following REST API:

```
<polUni>
  <fvTenant dn="uni/tn-acme" name="acme">
    <vzFilter name="HttpIn">
      <vzEntry name="e1" prot="6" dToPort="80"/>
    </vzFilter>
    <vzBrCP name="webCtrct">
      <vzSubj name="http">
        <vzRsSubjFiltAtt tnVzFilterName="HttpIn"/>
      </vzSubj>
    </vzBrCP>
  </fvTenant>
</polUni>
```

