

## HOW TO CONFIGURE AN INTERFACE DESCRIPTION FOR A SWITCH IN ACI MODE?

The following technote is written against Application Policy Infrastructure Controller Version **2.2(1o)**. The following information may not apply to earlier versions of the Application Policy Infrastructure Controller but methods mentioned in this technote should work with the most recent ACI releases.

Adding a description to an interface on a switch in ACI mode can be accomplished using various methods. Each method will add the description to interface in a slightly different way and may present a different expected result.

Glossary of nodes and interfaces used for the following examples:

ID	Pod	Version	Name
121	1	n9000-12.2(1o)	rtp-f1-p2-leaf1
121	1	n9000-12.2(1o)	rtp-f1-p2-leaf2

- **Interface Ethernet 1/81** on the above switches
- Port 1/81 is a member of the Access Block of the Interface Selector "**deadbeef-ospf99-intSel**"

### iNOS APIC CLI Method

The APIC CLI method is the most common and easiest way to add an "**unique**" description to a particular interface.

#### Steps to add a description using the CLI:

- SSH to the APIC as an admin user.
- Use the iNOS CLI commands to add the desired "description" for the desired physical interface(s).
- Use the CLI & the APIC Admin UI to verify the description was successfully added to the desired physical interface(s).

For example:

```
apic1# show running-config leaf 121 interface ethernet 1/81
# Command: show running-config leaf 121 interface ethernet 1/81
# Time: Thu Mar 16 15:42:00 2017
leaf 121
  interface ethernet 1/81
    # channel-group deadbeef-ospf99-intSel_PolGrp vpc
    exit
exit
```

```
apic1# show running-config leaf 122 interface ethernet 1/81
# Command: show running-config leaf 122 interface ethernet 1/81
# Time: Thu Mar 16 15:42:19 2017
leaf 122
  interface ethernet 1/81
    # channel-group deadbeef-ospf99-intSel_PolGrp vpc
    exit
  exit

apic1# configure
apic1(config)# leaf 121
apic1(config-leaf)# interface ethernet 1/81
apic1(config-leaf-if)# description 'leaf 121 description added-by-cli'
apic1(config-leaf-if)# show running-config
# Command: show running-config leaf 121 interface ethernet 1 / 81
# Time: Thu Mar 16 15:46:19 2017
leaf 121
  interface ethernet 1/81
    description 'leaf 121 description added-by-cli'
    # channel-group deadbeef-ospf99-intSel_PolGrp vpc
    exit
  exit

apic1(config)# leaf 122
apic1(config-leaf)# interface ethernet 1/81
apic1(config-leaf-if)# description 'leaf 122 description added-by-cli'
apic1(config-leaf-if)# show running-config
# Command: show running-config leaf 122 interface ethernet 1 / 81
# Time: Thu Mar 16 15:47:48 2017
leaf 122
  interface ethernet 1/81
    description 'leaf 122 description added-by-cli'
    # channel-group deadbeef-ospf99-intSel_PolGrp vpc
    exit
  exit
```

**Note:** The above configuration commands only adds the DESCRIPTION to the INTERFACE NOT to the ACCESS PORT BLOCK Interface description in the Access Policies Interface Selector for these interfaces.

From the Leaf nodes:

```
rtp-f1-p2-leaf1# show interface ethernet 1/81 | grep description  
Port description is leaf 121 description added-by-cli
```

```
rtp-f1-p2-leaf2# show interface ethernet 1/81 | grep description  
Port description is leaf 122 description added-by-cli
```

From the APIC Admin UI:

Inventory

- Quick Start
- Topology
- Pod 1
- Pod 2
  - rtp-f1-p2-leaf1 (Node-121)
    - Chassis
    - Fabric Extenders
    - Interfaces
      - Physical Interfaces

Layer 1 Physical Interface Configuration - 121/eth1/81

Properties

Interface: eth1/81  
Description: leaf 121 description added-by-cli  
Admin State: up  
Usage: EPG

Inventory

- Quick Start
- Topology
- Pod 1
- Pod 2
  - rtp-f1-p2-leaf1 (Node-121)
  - rtp-f1-p2-leaf2 (Node-122)
    - Chassis
    - Fabric Extenders
    - Interfaces
      - Physical Interfaces

Layer 1 Physical Interface Configuration - 122/eth1/81

Properties

Interface: eth1/81  
Description: leaf 122 description added-by-cli  
Admin State: up  
Usage: EPG  
Bandwidth (kb): 0

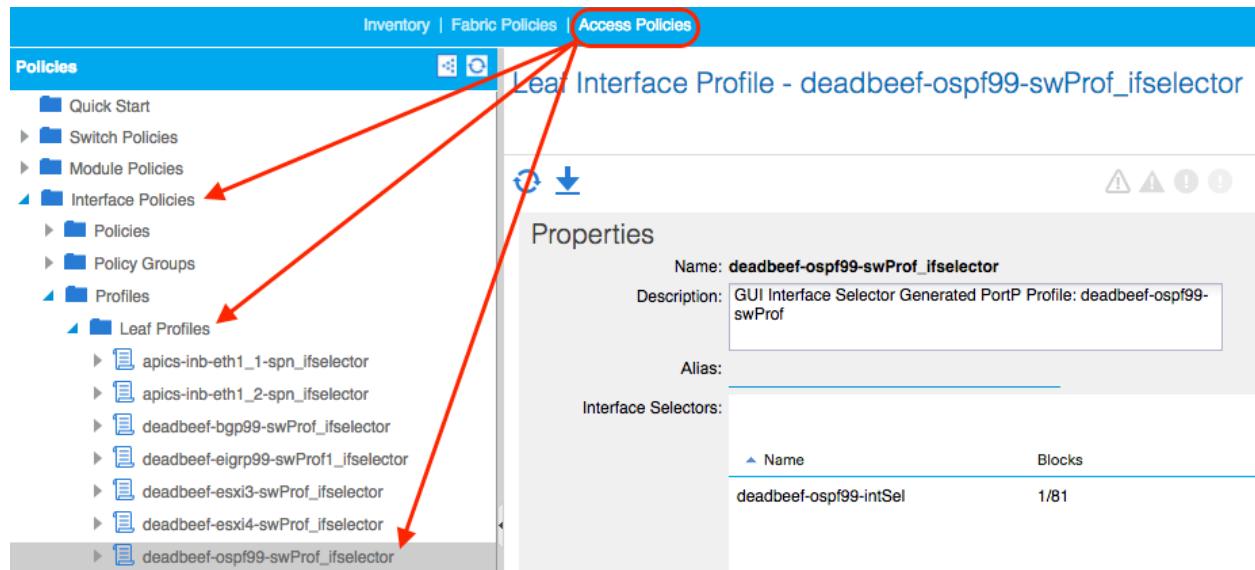
## APIC ADMIN UI Method

The APIC Admin UI method can be used to add an “**group**” description to interfaces which are a member of an Access Port Block. The Access Port Block is configured in the Interface Selector of the desired Interface Profile.

### Steps to add a description using the APIC Admin UI:

- HTTP or HTTPS to the APIC UI and login as an admin user.
- Navigate to desire Interface Profile & desired Interface Selector. FABRIC-> ACCESS POLICIES-> INTERFACE POLICIES-> PROFILES-> LEAF PROFILES-> “Target Interface Selector Profile”.
- Expand the “Target Interface Selector Profile” and double click on the ACCESS PORT SELECTOR.
- Highlight & double click on the desire ACCESS PORT BLOCK. Add the desired "description" for the interface(s) in the Access Port Block.
- Click SUBMIT to save changes.
- Use the CLI & the APIC Admin UI to verify the description was successfully added to the desired physical interface(s).

### Sample Screenshots:



**Access Port Selector - deadbeef-ospf99-intSel**

Interfaces	Override Policy Group	Interface Description
1/81		optional

**Access Port Block - 1/81 - 1/81**

From Module:	1
From Port:	81
To Module:	1
To Port:	81
Description:	Access Port Block des
Override Policy Group:	select an option

**Access Port Selector - deadbeef-ospf99-intSel**

Interfaces	Override Policy Group	Interface Description
1/81		Access Port Block description added-by-ui

From the Leaf nodes:

```
rtp-f1-p2-leaf1# show interface ethernet 1/81 | grep description
Port description is Access Port Block description added-by-ui
```

```
rtp-f1-p2-leaf2# show interface ethernet 1/81 | grep description
Port description is Access Port Block description added-by-ui
```

From the APIC Admin UI:

Inventory

- Quick Start
- Topology
- Pod 1
- Pod 2
  - rtp-f1-p2-leaf1 (Node-121) ←
  - Chassis
  - Fabric Extenders
  - Interfaces
  - Physical Interfaces

Layer 1 Physical Interface Configuration - 121/eth1/81

Operational		Stats	Health	Fault
100	↓	⚠️ ⚠️ ⚠️ ⚠️		
<b>Properties</b> Interface: eth1/81 Description: Access Port Block description added-by-ui <span style="border: 2px solid red; border-radius: 10px; padding: 2px;"> </span> Admin State: up Usage: EPG				

Inventory

- Quick Start
- Topology
- Pod 1
- Pod 2
  - rtp-f1-p2-leaf1 (Node-121)
  - rtp-f1-p2-leaf2 (Node-122) ←
  - Chassis
  - Fabric Extenders
  - Interfaces
  - Physical Interfaces

Layer 1 Physical Interface Configuration - 122/eth1/81

Operational		Stats	Health	Fault
100	↓	⚠️ ⚠️ ⚠️ ⚠️		
<b>Properties</b> Interface: eth1/81 Description: Access Port Block description added-by-ui <span style="border: 2px solid red; border-radius: 10px; padding: 2px;"> </span> Admin State: up Usage: EPG Bandwidth (kb): 0				

## REST API Method

The REST API method can be used to add an “**group**” description to interfaces which are a member of an Access Port Block. The Access Port Block is configured in the Interface Selector of the desired Interface Profile. Using the REST API application like POSTMAN, you can post a description to an Access Port Block.

### Sample POST Syntax:

APIC IP Address = 1.2.3.4

POST

<https://1.2.3.4/api/node/mo/uni.xml>

#### PAYLOAD

```
<?xml version="1.0" encoding="UTF-8"?><imdata totalCount="1"><infraPortBlk descr="Access Port Block description added-by-rest-api" dn="uni/infra/accportprof-deadbeef-ospf99-swProf_ifselector/hports-deadbeef-ospf99-intSel-typ-range/portblk-block1" fromCard="1" fromPort="81" name="block1" nameAlias="" toCard="1" toPort="81"/></imdata>
```

#### RESPONSE

200 OK

```
<?xml version="1.0" encoding="UTF-8"?>
<imdata totalCount="0"></imdata>
```

The screenshot shows the POSTMAN interface with the following details:

- Method:** POST
- URL:** https://1.2.3.4/api/node/mo/uni.xml
- Body:** Raw XML (text/xml)
- XML Payload:**

```
<?xml version="1.0" encoding="UTF-8"?><imdata totalCount="1"><infraPortBlk descr="Access Port Block description added-by-rest-api" dn="uni/infra/accportprof-deadbeef-ospf99-swProf_ifselector/hports-deadbeef-ospf99-intSel-typ-range/portblk-block1" fromCard="1" fromPort="81" name="block1" nameAlias="" toCard="1" toPort="81"/></imdata>
```

The screenshot shows the POSTMAN interface with the following details:

- Status:** 200 OK
- Time:** 186 ms
- Body:** Raw XML (text/xml)
- XML Response:**

```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <imdata totalCount="0"></imdata>
```

From the Leaf nodes:

```
rtp-f1-p2-leaf1# show interface ethernet 1/81 | grep description
Port description is Access Port Block description added-by-rest-api
```

```
rtp-f1-p2-leaf2# show interface ethernet 1/81 | grep description
Port description is Access Port Block description added-by-rest-api
```

From the APIC Admin UI:

The figure consists of three vertically stacked screenshots of the Cisco APIC Admin UI. Each screenshot shows a navigation tree on the left and a configuration panel on the right.

- Screenshot 1: Access Port Selector - deadbeef-ospf99-intSel**  
 Left pane: Policies > Interface Policies > Leaf Profiles > deadbeef-ospf99-intSel (highlighted with a red arrow).  
 Right pane: Properties for 'deadbeef-ospf99-intSel'. Description: optional. Type: range. Policy Group: deadbeef-ospf99-intSel. Port Blocks: 1/81 (highlighted with a red box). Interface Description: Access Port Block description added-by-rest-api (highlighted with a red box).
- Screenshot 2: Layer 1 Physical Interface Configuration - 121/eth1/81**  
 Left pane: Inventory > Pod 1 > rtp-f1-p2-leaf1 (Node-121) (highlighted with a red arrow).  
 Right pane: Properties for 'eth1/81'. Interface: eth1/81. Description: Access Port Block description added-by-rest-api (highlighted with a red box). Admin State: up. Usage: EPG.
- Screenshot 3: Layer 1 Physical Interface Configuration - 122/eth1/81**  
 Left pane: Inventory > Pod 2 > rtp-f1-p2-leaf2 (Node-122) (highlighted with a red arrow).  
 Right pane: Properties for 'eth1/81'. Interface: eth1/81. Description: Access Port Block description added-by-rest-api (highlighted with a red box). Admin State: up. Usage: EPG. Bandwidth (kb): 0.

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## RESOURCES

**Using the APIC CLI**

[http://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/1-x/cli/nx/cfg/b\\_APIC\\_NXOS\\_CLI\\_User\\_Guide/b\\_APIC\\_NXOS\\_CLI\\_User\\_Guide\\_chapter\\_010.html](http://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/1-x/cli/nx/cfg/b_APIC_NXOS_CLI_User_Guide/b_APIC_NXOS_CLI_User_Guide_chapter_010.html)

**Cisco APIC NX-OS Style CLI Command Reference, Release 2.2(1)**

[http://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/2-x/cli/nx/cr221/b\\_APIC\\_NXOS\\_CLI\\_Cmd\\_Reference\\_221/b\\_APIC\\_NXOS\\_CLI\\_Cmd\\_Reference\\_chapter\\_01.html](http://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/2-x/cli/nx/cr221/b_APIC_NXOS_CLI_Cmd_Reference_221/b_APIC_NXOS_CLI_Cmd_Reference_chapter_01.html)

**Cisco APIC REST API Configuration Guide**

[http://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/2-x/rest\\_cfg/2\\_1\\_x/b\\_Cisco\\_APIC\\_REST\\_API\\_Configuration\\_Guide.html](http://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/2-x/rest_cfg/2_1_x/b_Cisco_APIC_REST_API_Configuration_Guide.html)