



Cisco APIC Configuration Zones

[New and Changed Information](#) 2

New and Changed Information

The following table provides an overview of the significant changes to this article up to this current release. The table does not provide an exhaustive list of all changes or of the new features up to this release.

Table 1: New Features and Changed Behavior in Cisco APIC Configuration Zones

Cisco APIC Release Version	New Feature	Description
Release 3.2(1)	Graphical display of configuration zones	In GUI topology diagrams, configuration zones can be displayed with color coding.
Release 2.0(2f)	Initial release	This article was released.

Configuration Zones

Configuration zones divide the ACI fabric into different zones that can be updated with configuration changes at different times. This limits the risk of deploying a faulty fabric-wide configuration that might disrupt traffic or even bring the fabric down. An administrator can deploy a configuration to a non-critical zone, and then deploy it to critical zones when satisfied that it is suitable.

The following policies specify configuration zone actions:

- `infraczone:ZoneP` is automatically created upon system upgrade. It cannot be deleted or modified.
- `infraczone:Zone` contains one or more pod groups (`PodGrp`) or one or more node groups (`NodeGrp`).



Note

You can only choose `PodGrp` or `NodeGrp`; both cannot be chosen.

A node can be part of only one zone (`infraczone:Zone`). `NodeGrp` has two properties: name, and deployment mode. The deployment mode property can be:

- `enabled` - Pending updates are sent immediately.
- `disabled` - New updates are postponed.



Note

- Do not upgrade, downgrade, commission, or decommission nodes in a disabled configuration zone.
 - Do not do a clean reload or an uplink/downlink port conversion reload of nodes in a disabled configuration zone.
-

- `triggered` - pending updates are sent immediately, and the deployment mode is automatically reset to the value it had before the change to `triggered`.

When a policy on a given set of nodes is created, modified, or deleted, updates are sent to each node where the policy is deployed. Based on policy class and `infraczone` configuration the following happens:

- For policies that do not follow `infraczone` configuration, the APIC sends updates immediately to all the fabric nodes.
- For policies that follow `infraczone` configuration, the update proceeds according to the `infraczone` configuration:
 - If a node is part of an `infraczone:Zone`, the update is sent immediately if the deployment mode of the zone is set to enabled; otherwise the update is postponed.
 - If a node is not part of an `infraczone:Zone`, the update is done immediately, which is the ACI fabric default behavior.

Creating Configuration Zones Using the GUI

This procedure explains how to create a configuration zone using the GUI.

Before you begin

You must have access to the APIC GUI.

Procedure

-
- Step 1** From the **Systems** tab, click **Config Zones**.
The **Config Zones** window appears.
- Step 2** From the **Select Zone** drop-down list, choose **Create Zone**.
The **Create Zone** dialog appears.
- Step 3** Enter the appropriate values in the **Create Zone** dialog fields as described in the *Create Zone Dialog Fields* table below then continue to Step 4.

Table 2: Create Zone Dialog Fields

Field	Description
Name	Enter a name for your zone.
Description	(Optional) Enter a description.
Deployment Mode	Choose from the following options: <ul style="list-style-type: none">• Open—(Default) Pending updates are sent immediately.• Locked—New updates are postponed. <p>Note The Deployment Mode can be changed from the Config Zones window in Step 5.</p>

- Step 4** Click **Submit**.
You return to the **Config Zones** window.
- Step 5** From the **Deployment Mode** field, choose from the following:
- **Open**—(Default) Pending updates are sent immediately.
 - **Locked**—New updates are postponed.

Step 6 Choose either **Pods** or **Leaf Switches** for your zone.

Note You can only choose **Pods** or **Leaf Switches**; both cannot be chosen for a config zone.

- If choosing **Pods** for your config zone:
 - a. From the **Pods** table, click the + (plus) symbol. The **Create Pod Block** dialog appears.
 - b. Enter a single pod ID or a range of pod IDs.
 - c. Click **Submit**.
- If choosing **Leaf Switches** for your config zone:
 - a. From the **Leaf Switches** table, click the + (plus) symbol. The **Create Node Block** dialog appears.
 - b. Enter a single switch ID or a range of switch IDs.
 - c. Click **Submit**.

Step 7 The **Pending Changes** table lists policies that are pending on the nodes within the selected zone and provides the following options:

- **Deploy Now** – Click to deploy pending policy changes to all the nodes within the selected zone.
- **Refresh** – Click to refresh the list of policies.

Note We now support policies that can be configured in the following GUI locations:

- **Fabric > Access Policies**
- **Fabric > Fabric Policies**

Also see [Configuration Zone Supported Policies, on page 6](#).

Viewing Configuration Zones Using the GUI

In an APIC GUI page where a topology diagram displays pods or switches, you can enable a color-coded overlay indicating which components belong to configuration zones. Each zone is represented by a distinct color, and a table of configuration zones and their colors is displayed.

This procedure explains how to view configuration zones in the Fabric Inventory topology diagram. The procedure is similar for other topology diagrams throughout the APIC GUI.

Before you begin

You must have access to the APIC GUI.



Note This feature is available in Cisco APIC Release 3.2(1) and later releases.

Procedure

Step 1 On the menu bar, choose **Fabric > Inventory**.

Step 2 In the **Navigation** pane, click **Topology**.

Step 3 In the **Work** pane, click the **Topology** tab.

The current topology diagram displays.

Step 4 In the upper right corner of the topology diagram, locate the **Configuration Zones** switch.

Step 5 Slide the **Configuration Zones** switch from **Hide** to **Show**.

If configuration zones are configured, a colored outline appears on components that are members of a configuration zone, and a color-keyed zones table appears beneath the **Configuration Zones** switch.

Creating Configuration Zones Using the NX-OS Style CLI

This procedure explains how to create or delete a configuration zone using the NX-OS style CLI.

Procedure

Create or delete a configuration zone using the NX-OS style CLI as shown in the leaf switch or pod examples below.

Example:

Creating a Config Zone with Leaf Switches

```
apicl# configure
apicl(config)# zones
apicl(config-zones)# zone testZone
apicl(config-zone)# description testZone-Description
apicl(config-zone)# deployment-mode enabled
apicl(config-zone)# switch 101-102 , 103
apicl(config-zone)# exit
apicl(config-zones)# exit
apicl(config)# exit
```

Example:

Creating a Config Zone with Pods

```
apicl# configure
apicl(config)# zones
apicl(config-zones)# zone testZone
apicl(config-zone)# description testZone-Description
apicl(config-zone)# deployment-mode enabled
apicl(config-zone)# pod 101-102 , 103
apicl(config-zone)# exit
apicl(config-zones)# exit
apicl(config)# exit
```

Example:

Deleting a Config Zone

```
apicl# configure
apicl(config)# zones
apicl(config-zones)# no zone testZone
apicl(config-zone)# exit
apicl(config-zones)# exit
apicl(config)# exit
```

Creating Configuration Zones Using the REST API

Before you begin

This procedure explains how to create a configuration zone using the REST API.

Procedure

Create a configuration zone using the REST API leaf switch or pod examples below.

Example:

Creating a Config Zone with Leaf Switches

```
<infraInfra>
<infrazoneZoneP name="default">
<infrazoneZone name="Group1" deplMode="disabled">
<infrazoneNodeGrp name="nodeGroup">
<infraNodeBlk name="nodeblk1" from_=101 to_=101/>
<infraNodeBlk name="nodeblk2" from_=103 to_=103/>
</infrazoneNodeGrp>
</infrazoneZone>
<infrazoneZone name="Group2" deplMode="enabled">
<infrazoneNodeGrp name="nodeGroup2">
<infraNodeBlk name="nodeblk" from_=102 to_=102/>
</infrazoneNodeGrp>
</infrazoneZone>
</infrazoneZoneP>
</infraInfra>
```

Example:

Creating a Config Zone with Pods

```
<infraInfra>
  <infrazoneZoneP name="default">
    <infrazoneZone name="testZone" descr="testZone-Description" deplMode="enabled">
      <infrazonePodGrp name="podGroup1">
        <infraPodBlk name="group1" from_=101 to_=101/>
        <infraPodBlk name="group2" from_=103 to_=103/>
      </infrazonePodGrp>
      <infrazonePodGrp name="podGroup2">
        <infraPodBlk name="group" from_=102 to_=102/>
      </infrazonePodGrp>
    </infrazoneZone>
  </infrazoneZoneP>
</infraInfra>
```

Configuration Zone Supported Policies

The following policies are supported for configuration zones:

```
analytics:CfgSrv
bgp:InstPol
callhome:Group
callhome:InvP
callhome:QueryGroup
cdp:IfPol
```

cdp:InstPol
comm:Pol
comp:DomP
coop:Pol
datetime:Pol
dbgexp:CoreP
dbgexp:TechSupP
dhcp:NodeGrp
dhcp:PodGrp
edr:ErrDisRecoverPol
ep:ControlP
ep:LoopProtectP
eqptdiagp:TsOdFabP
eqptdiagp:TsOdLeafP
fabric:AutoGEp
fabric:ExplicitGEp
fabric:FuncP
fabric:HIIfPol
fabric:L1IfPol
fabric:L2IfPol
fabric:L2InstPol
fabric:L2PortSecurityPol
fabric:LeCardP
fabric:LeCardPGrp
fabric:LeCardS
fabric:LeNodePGrp
fabric:LePortP
fabric:LePortPGrp
fabric:LFPoS
fabric:NodeControl
fabric:OLeafS
fabric:OSpineS
fabric:PodPGrp
fabric:PortBlk
fabric:ProtGEp
fabric:ProtPol
fabric:SFPoS
fabric:SpCardP
fabric:SpCardPGrp
fabric:SpCardS
fabric:SpNodePGrp
fabric:SpPortP
fabric:SpPortPGrp
fc:DomP
fc:FabricPol
fc:IfPol
fc:InstPol
file:RemotePath
fvns:McastAddrInstP
fvns:VlanInstP
fvns:VsanInstP
fvns:VxlanInstP
infra:AccBaseGrp
infra:AccBndlGrp
infra:AccBndlPolGrp
infra:AccBndlSubgrp
infra:AccCardP
infra:AccCardPGrp
infra:AccNodePGrp
infra:AccPortGrp
infra:AccPortP
infra:AttEntityP
infra:CardS
infra:ConnFexBlk

infra:ConnFexS
infra:ConnNodeS
infra:DomP
infra:FexBlk
infra:FexBndlGrp
infra:FexGrp
infra:FexP
infra:FuncP
infra:HConnPortS
infra:HPathS
infra:HPortS
infra:LeafS
infra:NodeBlk
infra:NodeGrp
infra:NodeP
infra:OLeafS
infra:OSpineS
infra:PodBlk
infra:PodGrp
infra:PodP
infra:PodS
infra:PolGrp
infra:PortBlk
infra:PortP
infra:PortS
infra:PortTrackPol
infra:Profile
infra:SHPathS
infra:SHPortS
infra:SpAccGrp
infra:SpAccPortGrp
infra:SpAccPortP
infra:SpineP
infra:SpineS
isis:DomPol
l2ext:DomP
l2:IfPol
l2:InstPol
l2:PortSecurityPol
l3ext:DomP
lacp:IfPol
lacp:LagPol
lldp:IfPol
lldp:InstPol
mcp:IfPol
mcp:InstPol
mgmt:NodeGrp
mgmt:PodGrp
mon:FabricPol
mon:InfraPol
phys:DomP
psu:InstPol
qos:DppPol
snmp:Pol
span:Dest
span:DestGrp
span:SpanProv
span:SrcGrp
span:SrcTargetShadow
span:SrcTargetShadowBD
span:SrcTargetShadowCtx
span:TaskParam
span:VDest
span:VDestGrp

span:VSpanProv
span:VSrcGrp
stormctrl:IfPol
stp:IfPol
stp:InstPol
stp:MstDomPol
stp:MstRegionPol
trig:SchedP
vmm:DomP
vpc:InstPol
vpc:KAPol

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS REFERENCED IN THIS DOCUMENTATION ARE SUBJECT TO CHANGE WITHOUT NOTICE. EXCEPT AS MAY OTHERWISE BE AGREED BY CISCO IN WRITING, ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS DOCUMENTATION ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED.

The Cisco End User License Agreement and any supplemental license terms govern your use of any Cisco software, including this product documentation, and are located at: <http://www.cisco.com/go/softwareterms>. Cisco product warranty information is available at <http://www.cisco.com/go/warranty>. US Federal Communications Commission Notices are found here <http://www.cisco.com/c/en/us/products/us-fcc-notice.html>.

IN NO EVENT SHALL CISCO OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF CISCO OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Any products and features described herein as in development or available at a future date remain in varying stages of development and will be offered on a when-and if-available basis. Any such product or feature roadmaps are subject to change at the sole discretion of Cisco and Cisco will have no liability for delay in the delivery or failure to deliver any products or feature roadmap items that may be set forth in this document.

Any Internet Protocol (IP) addresses and phone numbers used in this document are not intended to be actual addresses and phone numbers. Any examples, command display output, network topology diagrams, and other figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses or phone numbers in illustrative content is unintentional and coincidental.

The documentation set for this product strives to use bias-free language. For the purposes of this documentation set, bias-free is defined as language that does not imply discrimination based on age, disability, gender, racial identity, ethnic identity, sexual orientation, socioeconomic status, and intersectionality. Exceptions may be present in the documentation due to language that is hardcoded in the user interfaces of the product software, language used based on RFP documentation, or language that is used by a referenced third-party product.

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: [www.cisco.com go trademarks](http://www.cisco.com/go/trademarks). Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1721R)

© 2016–2018 Cisco Systems, Inc. All rights reserved.



Americas Headquarters
Cisco Systems, Inc.
San Jose, CA 95134-1706
USA

Asia Pacific Headquarters
CiscoSystems(USA)Pte.Ltd.
Singapore

Europe Headquarters
CiscoSystemsInternationalBV
Amsterdam,TheNetherlands

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at www.cisco.com/go/offices.