Campus Fabric

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border

border *ip address*

Syntax Description

ip address	Configures the IP address of the fabric border device.

Command Default

None.

Command Modes

Fabric-auto-domain configuration

Command History

Release	Modification
Cisco IOS XE Denali 16.3.1	This command was introduced.

Usage Guidelines

Use this command to configure the IP address of the fabric border device. Border devices in the fabric domain connect traditional Layer 3 networks or different fabric domains to the local domain, and translate reachability and policy (VRF and SGT) information from one domain to another. Fabric border devices correspond to proxy egress tunnel routers in LISP.

This command auto-generates LISP configuration, to orchestrate the fabric overlay. The **show-running configuration** command shows the fabric domain configuration including the auto-generated commands.

Example

The following configuration is auto-generated when this command is run on your device:

```
Device(config-fabric-auto-domain)#border 198.51.100.4

    ipv4 use-petr 198.51.100.4 priority 10 weight 10
```

For information about the **ipv4 proxy etr** command, see LISP Command Reference..

context

context name *name* **id** *id*

Syntax Description

context name	Creates a new layer 3 context in the fabric domain.
id *id*	Assigns an ID to the context.

Command Default

None

Command Modes

Fabric-auto-domain configuration mode

Command History

Release	Modification
Cisco IOS XE Denali 16.3.1	This command was introduced.

Usage Guidelines

A virtual context provides virtualization at the device level, using virtual routing and forwarding (VRF), to create multiple instances of Layer 3 routing tables. Contexts or VRFs provide segmentation across IP addresses, allowing for overlapped address space and traffic separation. \

This command enables the auto-generation of LISP (Locator ID Separation Protocol) and VRF (Virtual Routing and Forwarding) configuration, to orchestrate the fabric overlay. The **show-running configuration** command shows the virtual context configuration including the auto-generated base line commands.

Example

```
Device(config-fabric-auto-domain)#context name guest
id 10
```

The following configuration is auto-generated when this command is run on your device:

```
ip vrf  guest
    description Auto-provisioned vrf  for context example-context (source – fabric auto)
router lisp
     eid-table vrf  guest instance-id 10
```

control-plane

control-plane { *ip address* | **auth-key** *key* }

Syntax Description		
	ip address	Configures the IP address of the control-plane device.
	auth-key *key*	Configures the key to authenticate access to the control-plane device.

Command Default

None

Command Modes

Fabric-auto-domain configuration mode

Command History

Release	Modification
Cisco IOS XE Denali 16.3.1	This command was introduced.

Usage Guidelines

Use the command to configure the control-plane device IP address and the authentication key, to allow fabric edge devices to communicate with the control-plane device.

This command auto-generates LISP configuration, to orchestrate the fabric overlay. The **show-running configuration** command shows the fabric domain configuration including the auto-generated commands.

Example

The following configuration is auto-generated when this command is run on your device:

```
Device(config-fabric-auto-domain)#control-plane 2.2.2.2
auth_key examplekey123

router lisp
locator-set default.RLOC
ipv4-interface Loopback0 priority 10 weight 10
exit

disable-ttl-propagate
ipv4 sgt
eid-table default instance-id 0
exit

loc-reach-algorithm lsb-reports ignore
ipv4 itr map-resolver 2.2.2.2
ipv4 itr
ipv4 etr map-server 2.2.2.2 key examplekey123
ipv4 etr
```

For information about the**ipv4 map-server** and **ipv4 map-resolver** commands, see LISP Command Reference..

domain

Configures the fabric domain and enters fabric-auto-domain configuration mode. The **no** version of this command deletes the fabric domain.

domain { **default** | **name** *name* }
no domain

Syntax Description

default	Configures the default fabric domain and enters fabric-auto domain configuration mode.
name *name*	Configures a new fabric domain and enters fabric-auto domain configuration mode.

Command Default

None

Command Modes

Fabric-auto configuration mode

Command History

Release	Modification
Cisco IOS XE Denali 16.3.1	This command was introduced.

Usage Guidelines

We recommend that you use the default domain, unless your network requires you to create a new domain. This command allows you to enter fabric-auto domain configuration mode where you can configure edge, control-plane and border devices in the fabric domain.

Example

```
Device(config-fabric-auto)#domain default
Device(config-fabric-auto)#domain name exampledomain
```

debug fabric auto

debug fabric auto{**trace** | **level** | {**error** | **verbose**}}

Syntax Description

trace	Enables the tracing for the commands auto-generated when the fabric-auto command is executed.
level error	Displays the errors encountered during Fabric Overlay provisioning.
level verbose	Displays the maximum number of messages encountered during Fabric Overlay provisioning.

Command Default

None.

Command Modes

Privileged Exec

Command History

Release	Modification
Cisco IOS XE Denali 16.3.1	This command was introduced.

Usage Guidelines

Use these debug commands to troubleshoot your fabric domain configuration, and trace the commands auto-generated by the **fabric auto** command, and display the errors encountered.

The no **debug fabric auto level verbose** command disables the display of all the messages encountered during fabric provisioning.

fabric auto

To enable automatic fabric provisioning and enter automatic fabric configuration mode, use the **fabric auto** command in global configuration mode.

fabric auto

Syntax Description

fabric auto	Enables automatic fabric provisioning and enters fabric-auto configuration mode.

Command Default

None

Command Modes

Global configuration

Command History

Release	Modification
Cisco IOS XE Denali 16.3.1	This command was introduced.

Usage Guidelines

The **fabric auto** command allows you to configure all the elements in your fabric domain automatically. Additionally, this command enables the auto-generation LISP, VLAN, VRF configuration, to orchestrate the fabric overlay. The **show-running configuration** command shows the fabric domain configuration including the and auto-generated base line commands.

Example

```
Device(config)#fabric auto
```

host-pool name

Creates an IP pool to group endpoints in the fabric domain, and enters host-pool configuration mode.

host-pool name *name* { **vlan** *ID* | **gateway** *ipv4 -address/subnet mask* | **context name** *name* | **use-dhcp** *ip4 address* }

Syntax Description

vlan *ID*	Configures a VLAN ID to associate with the host-pool.
context name *name*	Associates a context or a VRF with the host-pool.
gateway *ipv4 address/subnet mask*	Configures the routing gateway IP address and subnet mask for the host-pool.
use-dhcp *ipv4 address*	Configures a DHCP server for the host-pool.

Command Default

None

Command Modes

Fabric-auto-domain configuration mode

Command History

Release	Modification
Cisco IOS XE Denali 16.3.1	This command was introduced.

Usage Guidelines

Use the host-pool command to group endpoints in the fabric domain into IP pools, and identify them with a VLAN ID and an IP subnet.

This command auto-generates LISP configuration, to orchestrate the fabric overlay. The **show-running configuration** command shows the fabric domain configuration including the auto-generated commands.

Example

This example configures a host-pool in your fabric domain.

```
device(config-fabric-auto-domain)#host-pool name VOICE_DOMAIN
device(config-fabric-auto-domain-host-pool)#vlan 10
device(config-fabric-auto-domain-host-pool)#context name example-context
device(config-fabric-auto-domain-host-pool)#gateway 192.168.1.254/24
device(config-fabric-auto-domain-host-pool)#use-dhcp 172.10.1.1
device(config-fabric-auto-domain-host-pool)#exit
```

This configuration is auto-generated when you configure a host-pool:

```
ip dhcp relay information option vpn
ip dhcp relay information option
ip dhcp snooping vlan 10
ip dhcp snooping
vlan 10
name VOICE_DOMAIN
interface Vlan10
ip vrf forwarding example-context
ip dhcp relay source-interface Loopback0
```

```
ip address 192.168.1.254 255.255.255.0
ip helper-address global 209.65.201.6
no ip redirects
ip local-proxy-arp
ip route-cache same-interface
no lisp mobility liveness test
lisp mobility example-context.EID.VOICE_DOMAIN
!
router lisp
eid-table vrf example-context
dynamic-eid example-context.EID.VOICE_DOMAIN
database-mapping 192.168.1.0/24 locator-set default.RLOC
```

show fabric domain

show fabric domain

Command Default Default domain and default context

Command Modes Privileged Exec

Command History

Release	Modification
Cisco IOS XE Denali 16.3.1	This command was introduced.

Usage Guidelines Use the command to display a summary of the fabric domain. The following is sample output for an edge device.

```
device#show fabric domain
Fabric Domain : "default"
Role : Edge
Control-Plane Service: Disabled
Number of "Control-Plane" node(s): 2
IP Address           Auth-key
---------------------------------
192.168.1.4          example-key1
192.168.1.5          example-key2

Number of "Border" node(s): 1
 IP Address
---------------
 192.168.1.6

Number of context(s): 2
 Codes: * - Not Configured

 Name                ID        Host-pools
-----------------------------------------------
default              0          *
example-context      10         1
```

show fabric context

show fabric context [{ **default** *name* }]

Syntax Description

default	The default context
name	The name of a context in the fabric domain

Command Default

Default context

Command Modes

Privileged Exec

Command History

Release	Modification
Cisco IOS XE Denali 16.3.1	This command was introduced.

Usage Guidelines

Use the command to display a summary of the context configuration in your fabric domain.

```
device#show fabric context
Fabric-domain: default
Number of context(s): 2
 Name                ID        Host-pools
-----------------------------------------------
default              0          *
example-context      10         1

* - Not Configured
```

show fabric host-pool

show fabric host-pool*name*

Syntax Description

name	The name of the host-pool

Command Default

None

Command Modes

Privileged Exec

Command History

Release	Modification
Cisco IOS XE Denali 16.3.1	This command was introduced.

Usage Guidelines

Use the command to display a summary of the specified host-pool configuration.

```
device# show fabric host-pool
Fabric Domain : "default"
 context: default
   Number of host-pools : 0
   name            vlan    prefix               gateway           use-dhcp
 ------------------------------------------------------------------------------

 context: example-context
   Number of host-pools : 1
   name            vlan    prefix               gateway           use-dhcp
 ------------------------------------------------------------------------------
  VOICE_DOMAIN     10      192.168.1.0/24        192.168.1.254     209.65.201.6
```