



# Cisco SD-Access

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# border

**border** *ip address*

<b>Syntax Description</b>	<i>ip address</i> Configures the IP address of the fabric border device.
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<b>Command Default</b>	None.
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<b>Command Modes</b>	Fabric-auto-domain configuration
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<b>Command History</b>	<b>Release</b>	<b>Modification</b>
		This command was introduced.

<b>Usage Guidelines</b>	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.
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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

<b>context name</b>	Creates a new layer 3 context in the fabric domain.
<b>id id</b>	Assigns an ID to the context.

## Command Default

None

## Command Modes

Fabric-auto-domain configuration mode

## Command History

### Release Modification

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* }

<b>Syntax Description</b>	<i>ip address</i>	Configures the IP address of the control-plane device.
	<b>auth-key</b> <i>key</i>	Configures the key to authenticate access to the control-plane device.
<b>Command Default</b>	None	
<b>Command Modes</b>	Fabric-auto-domain configuration mode	
<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	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

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

**Command Default** None.

**Command Modes** Privileged Exec

Command History	Release	Modification
		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

<b>Syntax Description</b>	<b>fabric auto</b> Enables automatic fabric provisioning and enters fabric-auto configuration mode.
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<b>Command Default</b>	None
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<b>Command Modes</b>	Global configuration
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<b>Command History</b>	<b>Release Modification</b>
	This command was introduced.

<b>Usage Guidelines</b>	The <b>fabric auto</b> 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 <b>show-running configuration</b> command shows the fabric domain configuration including the and auto-generated base line commands.
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## 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 ipv4 address }
```

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

**Command Default** None

**Command Modes** Fabric-auto-domain configuration mode

Command History	Release	Modification
		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
	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 }]
```

<b>Syntax Description</b>	<b>default</b> The default context
	<b>name</b> The name of a context in the fabric domain

**Command Default** Default context

**Command Modes** Privileged Exec

<b>Command History</b>	<b>Release Modification</b>
	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*

<b>Syntax Description</b>	<i>name</i> The name of the host-pool
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<b>Command Default</b>	None
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<b>Command Modes</b>	Privileged Exec
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<b>Command History</b>	<b>Release</b> <b>Modification</b>
	This command was introduced.

<b>Usage Guidelines</b>	Use the command to display a summary of the specified host-pool configuration.
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```

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

```