

Object-Group Commands

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continent

To add a continent to a geo object group, use the **continent** command in configuration geo group mode. To remove a continent from a geo object group, use the **no** form of this command.

continent *continent-code*

no continent *continent-code*

Syntax Description

continent *continent-code*	Specifies the two-letter continent codes: • **AF**: Africa • **AN**: Antarctica • **AS**: Asia • **EU**: Europe • **NA**: North America • **OC**: Oceania • **SA**: South America

Command Default

No continent is added to a geo object group.

Command Modes

Configuration geo group (config-geo-group)

Command History

Release	Modification
Cisco IOS XE Catalyst SD-WAN Release 17.5.1a	Command qualified for use in Cisco SD-WAN Manager CLI templates.

Usage Guidelines

When you configure the **object-group geo** command, the command mode changes to geo group configuration mode (config-geo-group), which allows you to add a continent to a geo object group.

Examples

The following example shows how to add the continent EU to a geo object group:

```
Device(config-geo-group)# continent EU
```

country

To configure a country in a geo object group, use the **country** command in configuration geo group mode. To remove a country from a geo object group, use the **no** form of this command.

country *country-code*

no country *country-code*

Syntax Description

country *country-code*	Specifies the three-letter ISO-3166 country codes.

Command Default

No country is added to a geo object group.

Command Modes

Configuration geo group (config-geo-group)

Command History

Release	Modification
Cisco IOS XE Catalyst SD-WAN Release 17.5.1a	Command qualified for use in Cisco SD-WAN Manager CLI templates.

Usage Guidelines

When you configure the **object-group geo** command, the command mode changes to geo group configuration mode (config-geo-group), which allows you to configure a country for a geo object group.

Examples

The following example shows how to add the country GBR to a geo object group:

```
Device(config-geo-group)# country GBR
```

description (fqdn-group)

To add a description to an object group, use the **description** command in fqdn group configuration mode. To remove a description from an object group, use the **no** form of this command.

description *description-text*

no description *description-text*

Syntax Description

description *description-text*	Specifies a description for a fully qualified domain name (FQDN) object group. You can use up to 200 characters.

Command Default

No description is added to an FQDN object group.

Command Modes

fqdn group configuration mode (config-fqdn-group)

Command History

Release	Modification
Cisco IOS XE Catalyst SD-WAN Release 17.5.1a	Command qualified for use in Cisco SD-WAN Manager CLI templates.

Usage Guidelines

When you configure the **object-group fqdn** command, the command mode changes to fqdn group configuration mode (config-fqdn-group), which allows you to add a description to an FQDN object.

Examples

The following example shows how to add a description to an FQDN object group:

```
Device(config-fqdn-group)# description Source FQDN
```

description (geo-group)

To add a description to an object group, use the **description** command in geo group configuration mode. To remove a description from an object group, use the **no** form of this command.

description *description-text*

no description *description-text*

Syntax Description

description *description-text*	Specifies a description for a geo object group. You can use up to 200 characters.

Command Default No description is added to a geo object group.

Command Modes geo group configuration mode (config-geo-group)

Command History

Release	Modification
Cisco IOS XE Catalyst SD-WAN Release 17.5.1a	Command qualified for use in Cisco SD-WAN Manager CLI templates.

Usage Guidelines When you configure the **object-group geo** command, the command mode changes to geo group configuration mode (config-geo-group), which allows you to add a description to a geo object.

Examples The following example shows how to add a description to a geo object group:

```
Device(config-geo-group)# description GEO_1
```

geo database

To enable a geo database, use the **geo database** command in global configuration mode. To remove a geo database from the configuration, use the **no** form of this command.

geo database

no geo database

Syntax Description This command has no arguments or keywords.

Command Default A geodatabase is not enabled.

Command Modes Global configuration (config)

Command History

Release	Modification
Cisco IOS XE Catalyst SD-WAN Release 17.5.1a	Command qualified for use in Cisco SD-WAN Manager CLI templates.

Usage Guidelines After executing the **geo database** command, you must commit your changes to enable the geolocation database.

Examples The following example shows how to configure the **geo database** command:

```
Device(config)# geo database
```

The following is a sample output from the **show geo status** command.

```
Device# show geo status
Geo-Location Database is enabled
File in use       : Device default
```

geo database revert

To revert the geolocation database file back to the default if the geolocation database is corrupted, use the **geo database revert** command in privileged EXEC mode.

geo database revert default

Syntax Description This command has no arguments or keywords.

Command Default The geolocation database file is not reverted to the default.

Command Modes Privileged EXEC (#)

Command History

Release	Modification
Cisco IOS XE Catalyst SD-WAN Release 17.5.1a	Command qualified for use in Cisco SD-WAN Manager CLI templates.

Usage Guidelines Use the **geo database revert** command to revert the geolocation database file to its default if the geolocation database is corrupted.

Examples

The following example shows a sample output from the **geo database revert default** command:

```
Device# geo database revert default
```

geo database update

To update the geolocation database file, use the **geo database update** command in privileged EXEC mode.

geo database update file [**bootflash:** | **crashinfo:** | **flash:**]

Syntax Description

file	Specifies the full directory path to the geolocation database file within one of the following folders: • bootflash **Note** The default file location for the geodatabase is in the bootflash folder. • crashinfo • flash

Command Default

The geolocation database is not updated.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
Cisco IOS XE Catalyst SD-WAN Release 17.5.1a	Command qualified for use in Cisco SD-WAN Manager CLI templates.

Usage Guidelines

To ensure that you are using up-to-date geographical location data, we recommend that you update the geolocation database.

Examples

The following example shows how to update the geo database in the bootflash folder:

```
Device# geo database update bootflash:geo_ip4_db
```

group-object (fqdn-group)

To view existing fully qualified domain name (FQDN) objects, or to create a new FQDN object, use the **group-object** command in configuration fqdn group mode. To remove an FQDN group object, use the **no** form of this command.

group-object *group-object-name*

no group-object *group-object-name*

Syntax Description

group-object *group-object-name*	Displays the existing FQDN objects you previously created. You can also create a new FQDN object.

Command Default

No group object is displayed or created.

Command Modes

Configuration fqdn group (config-fqdn-group)

Command History

Release	Modification
Cisco IOS XE Catalyst SD-WAN Release 17.5.1a	Command qualified for use in Cisco SD-WAN Manager CLI templates.

Usage Guidelines

You can view existing FQDN objects, or you can create a new FQDN object using the **group-object** command.

Examples

The following example shows how to create a group object called FQDN-1:

```
Device(config-fqdn-group)# group-object FQDN-1
```

group-object (geo-group)

To view existing geo objects, or to create a new geo object, use the **group-object** command in configuration geo group mode. To remove a group object, use the **no** form of this command.

group-object *group-object-name*

no group-object *group-object-name*

Syntax Description

group-object *group-object-name*	Specifies an existing geo object (child) to be included in the current object group (parent).

Command Default

No group object is added to a geo object group.

Command Modes

Configuration geo group (config-geo-group)

Command History

Release	Modification
Cisco IOS XE Catalyst SD-WAN Release 17.5.1a	Command qualified for use in Cisco SD-WAN Manager CLI templates.

Usage Guidelines

You can create nested geo objects using the **group-object** command.

Examples

The following example shows how to create a geo object called GEO_1:

```
Device(config-geo-group)# group-object GEO_1
```

object-group fqdn

To create a fully-qualified domain name (FQDN) object group for use in object-group-based access control lists (ACLs), use the **object-group fqdn** command in global configuration mode. To remove an FQDN object group from the configuration, use the **no** form of this command.

object-group fqdn *object-group-name*

no object-group fqdn *object-group-name*

Syntax Description

object-group-name	Specifies the name of a FQDN object group. A sequence of 1 to 64 characters consisting of letters, digits, underscores (_), dashes (-), or periods. The *object-group-name* must start with a letter.

Command Default

No FQDN object group is created.

Command Modes

Global configuration (config)

Command History

Release	Modification
Cisco IOS XE Catalyst SD-WAN Release 17.5.1a	Command qualified for use in Cisco SD-WAN Manager CLI templates.

Usage Guidelines

When Access Control Lists (ACLs) are configured using an FQDN, ACLs can be applied based on the destination domain name. The destination domain name is then resolved to an IP address, which is provided to the client as part of the DNS response.

Note When defining a firewall rule in a security policy, avoid configuring an **fqdn** in both the source data prefix and the destination data prefix in the same firewall rule.

Create two different rules containing the following:

- 1st rule: Use **fqdn** in the source data prefix only.
- 2nd rule: Use **fqdn** in the destination data prefix only.

Examples

The following example shows how to create a new FQDN object group, obj.example.com:

```
Device (config)# object-group obj.example.com
object-group fqdn TEST
pattern ".*\.cisco\.com" "test.cisco.com" and "test.test.cisco.com"
object group obj-talosintelligence.com
 fqdn talosintelligence.com id 268434436
```

object-group geo

To create a geolocation object group for use in object group-based access control lists (ACLs), use the **object-group geo** command in global configuration mode. To remove a geolocation object group from the configuration, use the **no** form of this command.

object-group geo *object-group-name*

no object-group geo *object-group-name*

Syntax Description

object-group-name	Specifies the name of the geo object group. A sequence of 1 to 64 characters consisting of letters, digits, underscores (_), dashes (-), or periods. The *object-group-name* must start with a letter.

Command Default

No geolocation object group is created.

Command Modes

Global configuration (config)

Command History

Release	Modification
Cisco IOS XE Catalyst SD-WAN Release 17.5.1a	Command qualified for use in Cisco SD-WAN Manager CLI templates.

Usage Guidelines

Add object groups to use in Access Control Lists (ACLs) to enable geolocation-based firewall rules.

Note When defining a firewall rule in a security policy, avoid configuring a **geo** in both the source data prefix and the destination data prefix in the same firewall rule.

Create two different rules containing the following:

- 1st rule: Use **geo** in the source data prefix only.
- 2nd rule: Use **geo** in the destination data prefix only.

Examples

The following example shows how to create a new object group GEO_1:

```
Device(config)# object-group geo GEO_1
```

object-group network

To define network object groups for use in object group-based access control lists (ACLs) and enter network group configuration mode, use the **object-group network** command in global configuration mode. To remove network object groups from the configuration, use the **no** form of this command.

object-group network *object-group-name*
no object-group network *object-group-name*

Syntax Description

object-group-name	Name for a network type of object group. *object-group-name* is a sequence of 1 to 64 characters consisting of letters, digits, underscores (_), dashes (-), or periods (.). The *object-group-name* must start with a letter.

Command Default

No network object groups are created.

Command Modes Global configuration (config)

Command History

Release	Modification
Cisco IOS XE Catalyst SD-WAN Release 17.2.1v	Command qualified for use in Cisco vManage CLI templates.

Usage Guidelines When you configure the **object-group network** command, the command mode changes to network group configuration mode (config-network-group) and allows you to populate or modify a network object-group ACL. The following command is available in network group configuration mode:

host {*host-address*}—Specifies the host object. You must use an IPv4 address for the host address.

Note the following restrictions:

- You cannot associate an empty object group with an access control list (ACL).
- If you use an object group with an ACL, you cannot empty or delete the object group. You can use Cisco SD-WAN Manager add-on feature templates to delete an attached ACL and its object group in the same template push, as long as there are no other references to the object group in the configuration. However, the commands will fail on the device. To avoid this, do not delete or empty an object group that is associated with an ACL.

For further usage guidelines, see the Cisco IOS XE `object-group network` command.

Examples

```
object-group network Auth-Servers
 host 10.16.137.22
 !
```

object-group security

To create an object group to identify the traffic coming from a specific user or endpoint, use the **object-group security** command in global configuration mode. To remove the object group, use the **no** form of this command.

object-group security *name*

no object-group security *name*

Syntax Description

name	Object group name.

Command Default No object group is defined.

Command Modes Global configuration (config)

Command History

Release	Modification
Cisco IOS XE Catalyst SD-WAN Release 17.5.1a	Command qualified for use in Cisco SD-WAN Manager CLI templates.

Usage Guidelines

For usage guidelines, see the Cisco IOS XE `object-group security` command.

Examples

The following example shows how the **object-group security** command is used in the class map configuration of the Security Group Access (SGA) zone-based firewall:

```
Device(config)# object-group security myobject1
Device(config-object-group)# security-group tag-id 1
Device(config-object-group)# exit
Device(config)# class-map type inspect xmatch-any myclass1
Device(config-cmap)# match group-object security source myobject1
Device(config-cmap)# end
```

object-group service

To define service object groups for use in object-group-based access control lists (ACLs), use the **object-group service** command in global configuration mode. To remove service object groups from the configuration, use the **no** form of this command.

object-group service *object-group-name*
no object-group service *object-group-name*

Syntax Description

object-group-name	Name of a service type of object group.

Command Default

No service object groups are created.

Command Modes

Global configuration (config)

Command History

Release	Modification
Cisco IOS XE Catalyst SD-WAN Release 17.2.1v	Command qualified for use in Cisco vManage CLI templates.

Usage Guidelines

When you configure the **object-group service** command, configuration mode changes to service group configuration mode (config-service-group) allows you to populate or modify a service-object-group ACL. The following commands are available in service group configuration mode:

- {**tcp** | **udp** | **tcp-udp**} [**source** {*source-port-number* | **range** *minimum-port maximum-port*}] [*destination-port-number* | **range** *minimum-port maximum-port*]—Specifies a TCP or UDP protocol port number or a range of port numbers.
- **ip**—Specifies any protocol.
- *number*— Specifies a specific protocol number
- **icmp**—Specifies the ICMP protocol.

Note the following restrictions:

- You cannot associate an empty object group with an access control list (ACL).

- If you use an object group with an ACL, you cannot empty or delete the object group. You can use Cisco SD-WAN Manager add-on feature templates to delete an attached ACL and its object group in the same template push, as long as there are no other references to the object group in the configuration. However, the commands will fail on the device. To avoid this, do not delete or empty an object group that is associated with an ACL.

For more usage guidelines, see the Cisco IOS XE `object-group service` command.

Examples

```
object-group service ZBF-DIA-External
 tcp 80
 udp
 tcp range 1024 65535
 tcp source 23
 ip
 icmp
!
```

pattern

To add a pattern for finding valid fully qualified domain names (FQDN), use the **pattern** command in fqdn group configuration mode. To remove a pattern from the configuration, use the **no** form of this command.

pattern *match-pattern*

no pattern *match-pattern*

Syntax Description

match-pattern	Specifies a pattern for finding valid FQDNs.

Command Default

No pattern is matched.

Command Modes

fqdn group configuration mode (config-fqdn-group)

Command History

Release	Modification
Cisco IOS XE Catalyst SD-WAN Release 17.5.1a	Command qualified for use in Cisco SD-WAN Manager CLI templates.

Usage Guidelines

When you configure the **object-group fqdn** command, the command mode changes to fqdn group configuration mode (config-fqdn-group), which allows you to add a pattern for finding valid FQDNs.

Examples

The following example shows how to add a pattern of example.com:

```
Device(config-fqdn-group)# pattern example.com
```