Configuring SDM Templates

Finding Feature Information

Your software release may not support all the features documented in this module. For the latest caveats and feature information, see Bug Search Tool and the release notes for your platform and software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the feature information table at the end of this module.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to http://www.cisco.com/go/cfn. An account on Cisco.com is not required.

Information About Configuring SDM Templates

Restrictions for SDM Templates

The following are restrictions when using SDM templates:

- The default template is the only template supported.

SDM Templates

You can use Switch Database Management (SDM) templates to configure system resources to optimize support for specific features, depending on how your device is used in the network.

To allocate ternary content addressable memory (TCAM) resources for different usages, the switch SDM templates prioritize system resources to optimize support for certain features. The templates supported on your device:

- Default—The default template gives balance to all functions.

Default Templates for Catalyst 2960-CX

The templates for Catalyst 2960-CX switches are applicable for the LAN Base license.

Table 1: Approximate Number of Feature Resources Allowed by Templates

Resource	Default
Unicast MAC addresses	16K
Active VLANs/VLAN IDs	255/4096
NetFlow entries	16K
Etherchannel groups per stack	6
IPv4 IGMP or IPv6 groups	1K IPv4 1K IPv6
Direct routes	2K IPv4 2K IPv6
Indirect routes	1K IPv4 1K IPv6 (16 static routes only)
IPv4 or IPv6 policy-based routing ACEs	0 (IPv4 PBR) 0 (IPv6 PBR)
IPv4 or IPv6 MAC QoS ACEs	0.375K (IPv4 QoS) 0.25K (IPv6 QoS)
IPv4 or IPv6 port or MAC security ACEs	0.375K (IPv4 ACL) 0.375K (IPv6 ACL)

Related Topics

Default Templates for Catalyst 3560-CX

The templates for Catalyst 3560-CX switches are applicable for IP Base and IP Services licenses.

Table 2: Approximate Number of Feature Resources Allowed by Templates

Resource	Default
Unicast MAC addresses	16K
Active VLANs/VLAN IDs	1K/4096

Resource	Default
Etherchannel groups per stack	6
IPv4 IGMP or IPv6 groups	1K IPv4 1K IPv6
Direct routes	4K IPv4 4K IPv6
Indirect routes	1K IPv4 1K IPv6
IPv4 or IPv6 policy-based routing ACEs	0.25K (IPv4 PBR) 0.25K (IPv6 PBR)
IPv4 or IPv6 QoS ACEs	0.375K (IPv4 QoS) 0.25K (IPv6 QoS)
IPv4 or IPv6 port or MAC security ACEs	0.375K (IPv4 ACL) 0.375K (IPv6 ACL)

Related Topics

How to Configure SDM Templates

Setting the SDM Template

Follow these steps to use the SDM template to maximize feature usage:

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **sdm prefer** { **default** }
4. **end**
5. **reload**

DETAILED STEPS

	Command or Action	Purpose
Step 1	**enable** **Example:**	Enables privileged EXEC mode. Enter your password if prompted.

	Command or Action	Purpose
	SwitchDevice> **enable**	
Step 2	**configure terminal** **Example:** SwitchDevice# **configure terminal**	Enters the global configuration mode.
Step 3	**sdm prefer** { **default** } **Example:** SwitchDevice(config)# **sdm prefer lanbase-routing**	Specifies the SDM template to be used on the switch. The keywords have these meanings: • **default**—The default template provides balance for all Layer 2, IPv4 and IPv6 functionality. Use the **no sdm prefer** command to set the switch to the default template, The default template balances the use of system resources.
Step 4	**end** **Example:** SwitchDevice(config)# **end**	Returns to privileged EXEC mode.
Step 5	**reload** **Example:** SwitchDevice# **reload**	Reloads the operating system.

Configuration Examples for SDM Templates

Examples: Displaying SDM Templates

This is an example output showing the default template information.

Example output showing the default template information on a Catalyst 3560-CX switch.

```
SwitchDevice# show sdm prefer

The current template is "default" template.
The selected template optimizes the resources in
the switch to support this level of features for
8 routed interfaces and 1024 VLANs.

  number of unicast mac addresses:                16K
  number of IPv4 IGMP groups + multicast routes:  1K
  number of IPv4 unicast routes:                  5K
  number of directly-connected IPv4 hosts:        4K
```

```
number of indirect IPv4 routes:              1K
number of IPv6 multicast groups:             1K
number of IPv6 unicast routes:               5K
number of directly-connected IPv6 addresses: 4K
number of indirect IPv6 unicast routes:      1K
number of IPv4 policy based routing aces:    0.25K
number of IPv4/MAC qos aces:                 0.375k
number of IPv4/MAC security aces:            0.375k
number of IPv6 policy based routing aces:    0.25K
number of IPv6 qos aces:                     0.25K
number of IPv6 security aces:                0.375k
```

Example output showing the default template information on a Catalyst 2960-CX switch.

```
SwitchDevice# show sdm prefer

The current template is "default" template.
 The selected template optimizes the resources in
 the switch to support this level of features for
 0 routed interfaces and 255 VLANs.

 number of unicast mac addresses:             16K
 number of IPv4 IGMP groups + multicast routes: 1K
 number of IPv4 unicast routes:               3K
 number of directly-connected IPv4 hosts:     2K
 number of indirect IPv4 routes:              1K
 number of IPv6 multicast groups:             1K
 number of IPv6 unicast routes:               3K
 number of directly-connected IPv6 addresses: 2K
 number of indirect IPv6 unicast routes:      1K
 number of IPv4 policy based routing aces:    0
 number of IPv4/MAC qos aces:                 0.375k
 number of IPv4/MAC security aces:            0.375k
 number of IPv6 policy based routing aces:    0
 number of IPv6 qos aces:                     0.25K
 number of IPv6 security aces:                0.375k
```

Examples: Configuring SDM Templates

This example shows how to configure the VLAN template:

```
SwitchDevice(config)# sdm prefer lanbase-routing
SwitchDevice(config)# exit
SwitchDevice# reload
  Proceed with reload? [confirm]
```