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D Commands

The commands in this chapter apply to the Cisco MDS 9000 Family of multilayer directors and fabric switches. All commands are shown here in alphabetical order regardless of command mode. See the “Command Modes” section to determine the appropriate mode for each command. For more information, refer to the *Cisco MDS 9000 Family Configuration Guide*.

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data-pattern-file

To configure data pattern file for a SAN tuner extension N port, use the **data-pattern-file** command in interface configuration submode. To remove data pattern file, use the **no** form of the command.

data-pattern-file *filename*

no data-pattern-file

Syntax Description	<i>filename</i>	Specifies the data pattern file name.
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Defaults	All zero pattern.
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Command Modes	SAN extension N port configuration submode.
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Command History	Release	Modification
	2.0(1b)	This command was introduced.

Usage Guidelines	By default, an all-zero pattern is used as the pattern for data generated by the virtual N ports. You can optionally specify a file as the data pattern to be generated by selecting a data pattern file from one of three locations: the bootflash: directory, the volatile: directory, or the slot0: directory. This option is especially useful when testing compression over FCIP links. You can also use Canterbury corpus or artificial corpus files for benchmarking purposes.
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Examples	The following example configures the data pattern file for an N port.
----------	---

```
switch# san-ext-tuner
switch(san-ext)# nwwn 10:00:00:00:00:00:00
switch(san-ext)# nport pwwn 12:00:00:00:00:00:00:56 vsan 13 interface gigabitethernet 1/2
switch(san-ext-nport)# data-pattern-file bootflash://DataPatternFile
```

Related Commands	Command	Description
	nport pwwn	Configures SAN extension tuner N port pWWNs.
	san-ext-tuner	Enters SAN extension tuner configuration mode.
	show san-ext-tuner	Displays SAN extension tuner information.

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delete

To delete a specified file or directory on a Flash memory device, use the **delete** command in EXEC mode.

```
delete { bootflash:filename | debug:filename | log:filename | modflash:filename | slot0:filename | volatile:filename }
```

Syntax Description

bootflash:	Flash image that resides on the supervisor module.
debug:	Contains the debug files.
log:	Contains the two default logfiles. The file <code>dmesg</code> contains the kernel log-messages and the file <code>messages</code> contains the system application log-messages.
modflash:	Flash image that resides on a module.
slot0:	Flash image that resides on another module.
volatile:	Flash image that resides on the volatile file system.
<i>filename</i>	The name of the file to be deleted.

Defaults

None.

Command Modes

EXEC mode.

Command History

Release	Modification
1.0(2)	This command was introduced.
2.1(1a)	Added debug , log , and modflash keywords.

Usage Guidelines

When you delete a file, the software erases the file.

If you attempt to delete the configuration file or image specified by the `CONFIG_FILE` or `BOOTLDR` environment variable, the system prompts you to confirm the deletion. Also, if you attempt to delete the last valid system image specified in the `BOOT` environment variable, the system prompts you to confirm the deletion.



Caution

If you specify a directory, the **delete** command deletes the entire directory and all its contents.

Examples

The following example deletes the file named `test` from the Flash card inserted in slot 0.

```
switch# delete slot0:test
Delete slot0:test? [confirm]
```

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The following example deletes a file from a directory.

```
switch# delete dns_config.cfg
```

The following example deletes a file from an external CompactFlash (slot0).

```
switch# delete slot0:dns_config.cfg
```

The following example deletes the entire `my-dir` directory and all its contents:

```
switch# delete bootflash:my-dir
```

The following example deletes the entire user created `dk` log file on the active supervisor:

```
switch# delete log://sup-active/
log://sup-active/dk          log://sup-active/dmesg          log://sup-active/messages
switch# delete log://sup-active/dk
switch# dir log:
      31      Feb 04 18:22:03 2005  dmesg
  14223      Feb 04 18:25:30 2005  messages
```

Usage for log://sup-local

35393536 bytes used

174321664 bytes free

209715200 bytes total

```
switch#
```

Related Commands

Command	Description
<code>dir</code>	Displays the contents of the current or a specified directory.

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Related Commands	Command	Description
	cd	Changes the default directory or file system.
	dir	Displays a list of files on a file system.
	show boot	Displays the contents of the BOOT environment variable, the name of the configuration file pointed to by the CONFIG_FILE environment variable, the contents of the BOOTLDR environment variable, and the configuration register setting.

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destination interface

To configure a switched port analyzer (SPAN) destination interface, use the **destination interface** command in SPAN session configuration submode. To disable this feature, use the **no** form of the command.

```
destination interface {fc slot/port | fc-tunnel tunnel-id}
```

```
no destination interface {fc slot/port | fc-tunnel tunnel-id}
```

Syntax Description	Command	Description
	fc <i>slot/port</i>	Specifies the Fibre Channel interface ID at a slot and port.
	fc-tunnel <i>tunnel-id</i>	Specifies the Fibre Channel tunnel interface ID.

Defaults Disabled.

Command Modes SPAN session configuration submode.

Command History	Release	Modification
	1.0(2)	This command was introduced.
	1.2(1)	Added the fc-tunnel parameter.

Usage Guidelines The SPAN destination interface must be configured as SPAN destination port (SD port) mode using the **switchport** command before the interface can be associated with SPAN session as a destination interface.

Examples The following example shows how to configure an interface as a SPAN destination port (SD port), create a SPAN session, and then configure the interface fc3/13 as the SPAN destination interface.

```
switch# config terminal
Enter configuration commands, one per line. End with CNTL/Z.
switch(config)# interface fc3/13
switch(config-if)# switchport mode sd
switch(config)# span session 1
switch(config-span)# destination interface fc3/13
switch(config-span)# do show span session 1
switch(config-span)# show span session 1
Session 1 (inactive as destination is down)
  Destination is fc3/13
  No session filters configured
  No ingress (rx) sources
  No egress (tx) sources

switch(config-span)#
```

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Related Commands	Command	Description
	switchport	Configures the switchport mode on the Fibre Channel interface.
	span session	Selects or configures the SPAN session and changes to SPAN configuration submode.
	source	Configures a SPAN source.
	suspend	Suspends a SPAN session.
	show span session	Displays specific information about a SPAN session

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destination-profile

To configure the customer ID with the Call Home function, use the **destination-profile** command in Call Home configuration submode. To disable this feature, use the **no** form of the command.

```
destination-profile {profile-name | full-txt-destination | short-txt-destination | xml-destination}
  {alert-group {all | avanti | cisco-tac | environmental | inventory | license |
linecard-hardware | rmon | supervisor-hardware | syslog-group-port | system | test}}
```

```
no destination-profile {profile-name | full-txt-destination | short-txt-destination |
xml-destination} {alert-group {all | avanti | cisco-tac | environmental | inventory | license |
linecard-hardware | rmon | supervisor-hardware | syslog-group-port | system | test}}
```

Syntax Description

<i>profile-name</i>	Specifies a user-defined user profile with a maximum of 32 alphanumeric characters.
full-txt-destination	Configures destination profile for plain text message.
short-txt-destination	(Optional) Configures a destination for a short text message.
xml-destination	(Optional) Configures destination profile for XML message.
alert-group	Specifies one or more of the alert groups
all	Specifies an alert group consisting of all Call Home messages.
avanti	Specifies an alert group consisting of events that are meant only for Avanti.
cisco-tac	Specifies an alert group consisting of events that are meant only for Cisco TAC.
environmental	Specifies an alert group consisting of power, fan, temperature-related events.
inventory	Specifies an alert group consisting of inventory status events.
license	Specifies an alert group consisting of license status events.
linecard-hardware	Specifies an alert group consisting of module-related events.
rmon	Specifies an alert group consisting of RMON status events.
supervisor-hardware	Specifies an alert group consisting of supervisor related events.
syslog-port-group	Specifies an alert group consisting of syslog port group status events.
system	Specifies an alert group consisting of software related events.
test	Specifies an alert group consisting of user-generated test events.

Defaults

None.

Command Modes

Call Home configuration submode.

Command History

Release	Modification
1.0(2)	This command was introduced.

Send documentation comments to mdsfeedback-doc@cisco.com.**Usage Guidelines** None.**Examples** The following example configures full-text destination profiles.

```

switch# config terminal
Enter configuration commands, one per line. End with CNTL/Z.
switch(config)# callhome
switch(config-callhome)# destination-profile full-txt-destination email-addr person@place.com
switch(config-callhome)# destination-profile full-txt-destination message-size 1000000

```

The following example configures short-text destination profiles.

```

switch(config-callhome)# destination-profile short-txt-destination email-addr person@place.com
switch(config-callhome)# destination-profile short-txt-destination message-size 100000

```

Related Commands

Command	Description
callhome	Configures the Call Home function.
callhome test	Sends a dummy test message to the configured destination(s).
show callhome	Displays configured Call Home information.

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device-alias (IVR fcdomain database configuration submode)

To map a device alias to a persistent FC ID for IVR, use the **device-alias** command in IVR fcdomain database configuration submode. To remove the mapping for the device alias, use the **no** form of the command.

device-alias *device-name fc-id*

no device-alias *device-name*

Syntax Description

<i>device-name</i>	Specifies the device name. Maximum length is 64 characters.
<i>fc-id</i>	Specifies the FC ID for the device.

Defaults

None.

Command Modes

IVR fcdomain database configuration submode.

Command History

Release	Modification
2.1(2)	This command was introduced.

Usage Guidelines

Only one FC ID can be mapped to a device alias.

Examples

The following example shows how to map the device alias to the persistent FC ID.

```
switch# config t
switch(config)# ivr fcdomain database autonomous-fabric-num 10 vsan 20
switch(config-fcdomain)# native-autonomous-fabric-num 20 native-vsan 30 domain 15
switch(config-fcdomain-fcid)# device-alias SampleName 0x123456
```

The following example shows how to remove the mapping between the device alias and the FC ID.

```
switch# config t
switch(config)# ivr fcdomain database autonomous-fabric-num 10 vsan 20
switch(config-fcdomain)# native-autonomous-fabric-num 20 native-vsan 30 domain 15
switch(config-fcdomain-fcid)# no device-alias SampleName
```

Related Commands

Command	Description
ivr fcdomain database autonomous-fabric-num	Creates IVR persistent FC IDs.
native-autonomous-fabric-num	Creates an IVR persistent FC ID database entry.
show ivr fcdomain database	Displays IVR fcdomain database entry information.

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device-alias abort

To discard a Distributed Device Alias Services (device alias) Cisco Fabric Services (CFS) distribution session in progress, use the **device-alias abort** command in configuration mode.

device-alias abort

Syntax Description This command has no other arguments or keywords.

Defaults None.

Command Modes Configuration mode.

Command History	Release	Modification
	2.0(1b)	This command was introduced.

Usage Guidelines None.

Examples The following example shows how to discard a device alias CFS distribution session in progress.

```
switch# config terminal
switch(config)# device-alias abort
```

Related Commands	Command	Description
	device-alias database	Configures and activates the device alias database.
	device-alias distribute	Enables CFS distribution for device aliases.
	show device-alias	Displays device alias information.

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device-alias commit

To apply the pending configuration pertaining to the Distributed Device Alias Services (device alias) Cisco Fabric Services (CFS) distribution session in progress in the fabric, use the **device-alias commit** command in configuration mode.

device-alias commit

Syntax Description This command has no other arguments or keywords.

Defaults None.

Command Modes Configuration mode.

Command History	Release	Modification
	2.0(1b)	This command was introduced.

Usage Guidelines None.

Examples The following example shows how to commit pending changes to the active DPVM database.

```
switch# config terminal
switch(config)# device-alias commit
```

Related Commands	Command	Description
	device-alias database	Configures and activates the device alias database.
	device-alias distribute	Enables CFS distribution for device aliases.
	show device-alias	Displays device alias information.

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device-alias database

To initiate a Distributed Device Alias Services (device alias) session and configure device alias database, use the **device-alias database** command. To deactivate the device alias database, use the **no** form of the command.

device-alias database

no device-alias database

Syntax Description

This command has no other arguments or keywords.

Defaults

Deactivated.

Command Modes

Configuration mode.

Command History

Release	Modification
2.0(1b)	This command was introduced.

Usage Guidelines

The **device-alias database** command starts a device alias session that locks all the databases on all the switches in this fabrics. When you exit device alias database configuration submode, the device alias session ends and the locks are released.

You can only perform all modifications in the temporary device alias database. To make the changes permanent, use the **device-alias commit** command.

Examples

The following example shows how to activate a device alias session and enter device alias database configuration submode;

```
switch# config terminal
switch(config)# device-alias database
switch(config-device-alias-db)#
```

Related Commands

Command	Description
device-alias commit	Commits changes to the temporary device alias database to the active device alias database.
show device-alias	Displays device alias database information.

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device-alias distribute

To enable Cisco Fabric Services (CFS) distribution for Distributed Device Alias Services (device alias), use the **device-alias distribute** command. To disable this feature, use the **no** form of the command.

device-alias distribute

no device-alias distribute

Syntax Description This command has no other arguments or keywords.

Defaults Enabled.

Command Modes Configuration mode.

Command History	Release	Modification
	2.0(1b)	This command was introduced.

Usage Guidelines Use the **device-alias commit** command to apply pending changes to the CFS distribution session.

Examples The following example shows how to enable distribution for device alias information.

```
switch# config terminal
switch(config)# device-alias distribute
```

Related Commands	Command	Description
	device-alias commit	Commits changes to the active device alias database.
	device-alias database	Configures and activates the device alias database.
	show device-alias	Displays device alias information.

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device-alias import fcalias

To import device alias database information from another VSAN, use the **device-alias import fcalias** command. To revert to the default configuration or factory defaults, use the **no** form of the command.

```
device-alias import fcalias vsan vsan-id
```

```
no device-alias import fcalias vsan vsan-id
```

Syntax Description	vsan vsan-id	Specifies the VSAN ID. The range is 1 to 4093.
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Defaults	None.
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Command Modes	Configuration mode.
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Command History	Release	Modification
	2.0(1b)	This command was introduced.

Usage Guidelines	You can import legacy device name configurations using this feature without losing data, if they satisfy the following restrictions:
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- Each fcalias has only one member.
- The member type is supported by the device name implementation.

If any name conflict exists, the fcalias are not imported. The device name database is completely independent from the VSAN dependent fcalias database.

When the import operation is complete, the modified global fcalias table can distributed to all other switches in the physical fabric using the **device-alias distribute** command so that new definitions are available everywhere.

Examples	The following example shows how to import device alias information.
----------	---

```
switch# config terminal
switch#(config)# device-alias import fcalias vsan 10
```

Related Commands	Command	Description
	device-alias database	Configures and activates the device alias database.
	device-alias distribute	Distributes fcalias database changes to the fabric.
	show device-alias	Displays device alias database information.

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device-alias name

To configure device names in the device alias database, use the **device-alias name** command. To remove device names from the device alias database, use the **no** form of the command.

device-alias name *device-name* **pwwn** *pwwn-id*

no device-alias name *device-name*

Syntax Description		
	<i>device-name</i>	Specifies the device name. Maximum length is 64 characters.
	pwwn <i>pwwn-id</i>	Specifies the pWWN ID. The format is <i>hh:hh:hh:hh:hh:hh:hh:hh</i> , where <i>h</i> is a hexadecimal number.

Defaults None.

Command Modes Device alias database configuration submode.

Command History	Release	Modification
	2.0(1b)	This command was introduced.

Usage Guidelines None.

Examples The following example shows how to configure a device name alias entry in the device name database.

```
switch# config terminal
switch(config)# device-alias database
switch(config-device-alias-db)# device-alias name Device1 pwwn 21:00:00:20:37:6f:db:bb
```

Related Commands	Command	Description
	device-alias database	Enters device alias database configuration submode.
	show device-alias	Displays device alias database information.

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dir

To display the contents of the current directory or the specified directory, use the **dir** command in EXEC mode.

```
dir [bootflash:module | directory-or-filename | debug:directory-or-filename | log:module |
directory-or-filename | modflash:module | directory-or-filename | slot0:directory-or-filename |
volatile:module | directory-or-filename]
```

Syntax Description		
bootflash:	(Optional) Flash image that resides on the supervisor module.	
debug:	(Optional) Provides information about the debug capture directory.	
log:	(Optional) Provides information about the two default logfiles. The file <code>dmesg</code> contains the kernel log-messages and the file <code>messages</code> contains the system application log-messages.	
modflash:	(Optional) Provides information about the flash image that resides in a module flash file directory.	
slot0:	(Optional) Flash image that resides on another module.	
<i>module</i>	(Optional) Module name and number.	
<i>filename-or-directory</i>	(Optional) Name of the file or directory to display on a specified device. The files can be of any type. You can use wildcards in the filename. A wildcard character (*) matches all patterns. Strings after a wildcard are ignored.	
volatile:	Flash image on the volatile file system.	

Defaults The default file system is specified by the **cd** command.

Command Modes EXEC mode.

Command History	Release	Modification
	1.2(1)	This command was introduced.
	2.1(1a)	Added debug , log , and modflash keywords.

Usage Guidelines None.

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Examples

The following example shows how to list the files on the bootflash directory.

```
switch# dir bootflash:
40295206   Aug 05 15:23:51 1980  ilc1.bin
12456448   Jul 30 23:05:28 1980  kickstart-image1
12288      Jun 23 14:58:44 1980  lost+found/
27602159   Jul 30 23:05:16 1980  system-image1
12447232   Aug 05 15:08:30 1980  kickstart-image2
28364853   Aug 05 15:11:57 1980  system-image2
```

```
Usage for bootflash://sup-local
135404544 bytes used
49155072 bytes free
184559616 bytes total
```

The following example shows how to list the files in the debug directory.

```
switch# dir debug:
Usage for debug://sup-local
0 bytes used
2097152 bytes free
2097152 bytes total
switch#
```

The following example shows how to list the files in the log file directory.

```
switch# dir log:
31      Feb 05 05:00:57 2005  dmesg
8445    Feb 06 10:34:35 2005  messages
```

```
Usage for log://sup-local
35196928 bytes used
174518272 bytes free
209715200 bytes total
switch#
```

Related Commands

Command	Description
cd	Changes the default directory or file system.
delete	Deletes a file on a Flash memory device.

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disable

To disable the Call Home function, use the **disable** command in Call Home configuration submode.

disable

Syntax Description

This command has no other arguments or keywords.

Defaults

None.

Command Modes

Call Home configuration submode.

Command History

Release	Modification
1.0(2)	This command was introduced.

Usage Guidelines

To enable the Call Home function, use the **enable** command.

Examples

The following example shows how to disable the Call Home function.

```
switch# config terminal
Enter configuration commands, one per line. End with CNTL/Z.
switch(config)# callhome
switch(config-callhome)# disable
```

Related Commands

Command	Description
callhome	Configures the Call Home function.
callhome test	Sends a dummy test message to the configured destination(s).
show callhome	Displays configured Call Home information.

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discover custom-list

To selectively initiate discovery for specified domain IDs in a VSAN, use the **discover custom-list** command in EXEC mode.

```
discover custom-list {add | delete} vsan vsan-id fcid fc-id
```

Syntax	Description
add	Add a targets to the customized list.
delete	Deletes a target from the customized list.
vsan <i>vsan-id</i>	Discovers SCSI targets for the specified VSAN ID. The range is 1 to 4093.
fcip <i>fc-id</i>	Discovers SCSI targets for the specified FCID. The format is <i>0xhhhhhhh</i> , where <i>h</i> is a hexadecimal digit.

Defaults None.

Command Modes EXEC mode.

Command History This command was introduced in Cisco MDS SAN-OS Release 1.1(1).

Usage Guidelines None.

Examples The following example selectively initiates discovery for the specified VSAN and FCID.

```
switch# discover custom-list add vsan 1 fcid 0X123456
```

The following example deletes the specified VSAN and FCID from the customized list.

```
switch# discover custom-list delete vsan 1 fcid 0X123456
```

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discover scsi-target

To discover SCSI targets on local storage to the switch or remote storage across the fabric, use the **discover scsi-target** command in EXEC mode.

```
discover scsi-target { custom-list | local | remote | vsan vsan-id fcid fc-id } os { aix | all | hpux | linux | solaris | windows } [lun | target]
```

Syntax Description		
custom-list		Discovers SCSI targets from the customized list.
local		Discovers local SCSI targets.
remote		Discovers remote SCSI targets.
vsan <i>vsan-id</i>		Discovers SCSI targets for the specified VSAN ID. The range is 1 to 4093.
fcip <i>fc-id</i>		Discovers SCSI targets for the specified FCID. The format is <i>0xhhhhhhh</i> , where <i>h</i> is a hexadecimal digit.
os		Discovers the specified operating system.
aix		Discovers the AIX operating system
all		Discovers all operating systems
hpux		Discovers the HPUX operating system
linux		Discovers the Linux operating system
solaris		Discovers the Solaris operating system
windows		Discovers the Windows operating system
lun		Discovers SCSI targets and LUNs.
target		Discovers SCSI targets.

Defaults None.

Command Modes EXEC mode.

Command History This command was modified in Cisco MDS SAN-OS Release 1.3(2a).

Usage Guidelines On-demand discovery only discovers Nx ports present in the name server database that have registered a FC4 Type = SCSI_FCP.

Examples The following example shows how to discover local targets assigned to all OSs.

```
switch# discover scsi-target local os all
discovery started
```

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The following example shows how to discover remote targets assigned to the Windows OS.

```
switch# discover scsi-target remote os windows  
discovery started
```

The following example shows how to discover SCSI targets for the specified VSAN (1) and FCID (0x9c03d6).

```
switch# discover scsi-target vsan 1 fcid 0x9c03d6  
discover scsi-target vsan 1 fcid 0x9c03d6  
VSAN: 1 FCID: 0x9c03d6 PWWN: 00:00:00:00:00:00:00:00  
PRLI RSP: 0x01 SPARM: 0x0012...
```

The following example begins discovering targets from a customized list assigned to the Linux operating system.

```
switch# discover scsi-target custom-list os linux  
discovery started
```

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distribute

To enable distribution of the Call Home function using CFS, use the **distribute** command in Call Home configuration submode. To disable this feature, use the **no** form of the command.

distribute

no distribute

Syntax Description

This command has no other arguments or keywords.

Defaults

None.

Command Modes

Call Home configuration submode.

Command History

Release	Modification
2.0(1b)	This command was introduced.

Usage Guidelines

None.

Examples

The following example shows how to enable distribution of the Call Home function using CFS.

```
switch# config terminal
Enter configuration commands, one per line. End with CNTL/Z.
switch(config)# callhome
switch(config-callhome)# distribute
```

Related Commands

Command	Description
callhome	Configures the Call Home function.
callhome test	Sends a dummy test message to the configured destination(s).
show callhome	Displays configured Call Home information.

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do

Use the **do** command to execute an EXEC-level command from any configuration mode or submode.

do *command*

Syntax Description	<i>command</i> Specifies the EXEC command to be executed.
Defaults	None.
Command Modes	All configuration modes.
Command History	This command was introduced in Cisco MDS SAN-OS Release 1.1(1).
Usage Guidelines	Use this command to execute EXEC commands while configuring your switch. After the EXEC command is executed, the system returns to the mode from which you issued the do command.
Examples	<p>The following example disables the terminal session-timeout command using the do command in configuration mode.</p> <pre>switch(config)# do terminal session-timeout 0 switch(config)#</pre>

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The following example create, enables, and displays the interface from configuration mode.

```
switch(config)# int fc 3/1
switch(config-if)# no shut
switch(config-if)# do show interface fc 3/1
fc3/1 is trunking
  Hardware is Fibre Channel
  Port WWN is 20:81:00:05:32:00:4a:9e
  Peer port WWN is 20:43:00:0c:88:00:4a:e2
  Admin port mode is auto, trunk mode is on
  Port mode is TE
  Port vsan is 1
  Speed is 2 Gbps
  Transmit B2B Credit is 0
  Receive B2B Credit is 255
  Receive data field Size is 2112
  Beacon is turned off
  Trunk vsans (admin allowed and active) (1-10)
  Trunk vsans (up) (1-10)
  Trunk vsans (isolated) ()
  Trunk vsans (initializing) ()
  5 minutes input rate 504 bits/sec, 63 bytes/sec, 0 frames/sec
  5 minutes output rate 344 bits/sec, 43 bytes/sec, 0 frames/sec
  69390 frames input, 4458680 bytes
    0 discards, 0 errors
    0 CRC, 0 unknown class
    0 too long, 0 too short
  69458 frames output, 3086812 bytes
    0 discards, 0 errors
  2 input OLS, 1 LRR, 0 NOS, 2 loop inits
  1 output OLS, 1 LRR, 1 NOS, 1 loop inits
```

Send documentation comments to mdsfeedback-doc@cisco.com.

dpvm abort

To discard a dynamic port VSAN membership (DPVM) Cisco Fabric Services (CFS) distribution session in progress, use the **dpvm abort** command in configuration mode.

dpvm abort

Syntax Description This command has no other arguments or keywords.

Defaults None.

Command Modes Configuration mode.

Command History	Release	Modification
	2.0(1b)	This command was introduced.

Usage Guidelines To use this command, DPVM must be enabled using the **dpvm enable** command.

Examples The following example shows how to discard a DPVM CFS distribution session in progress.

```
switch# config terminal
switch(config)# dpvm abort
```

Related Commands	Command	Description
	dpvm database	Configures the DPVM database.
	dpvm distribute	Enables CFS distribution for DPVM.
	dpvm enable	Enables DPVM.
	show dpvm	Displays DPVM information.

Send documentation comments to mdsfeedback-doc@cisco.com.

dpvm activate

To activate the dynamic port VSAN membership (DPVM) configuration database, use the **dpvm activate** command. To deactivate the DPVM configuration database, use the **no** form of the command.

dpvm activate [force]

no dpvm activate [force]

Syntax Description	force	Forces the activation or deactivation if conflicts exist between the configured DPVM database and the active DPVM database.
--------------------	-------	---

Defaults	Deactivated.
----------	--------------

Command Modes	Configuration mode.
---------------	---------------------

Command History	Release	Modification
	2.0(1b)	This command was introduced.

Usage Guidelines	<p>To use this command, DPVM must be enabled using the dpvm enable command.</p> <p>Activation might fail if conflicting entries are found between the configured DPVM database and the currently activated DPVM database. You can ignore the conflicts using the force option.</p>
------------------	--

Examples	The following example shows how to activate the DPVM database.
----------	--

```
switch# config terminal
switch(config)# dpvm activate
```

The following example shows how to deactivate the DPVM database.

```
switch# config terminal
switch(config)# no dpvm activate
```

Related Commands	Command	Description
	dpvm database	Configures the DPVM database.
	dpvm enable	Enables DPVM.
	show dpvm	Displays DPVM database information.

[Send documentation comments to mdsfeedback-doc@cisco.com.](mailto:mdsfeedback-doc@cisco.com)

dpvm auto-learn

To enable the automatic learning feature (autolearn) for the active dynamic port VSAN membership (DPVM) database, use the **dpvm auto-learn** command. To disable this feature, use the **no** form of the command.

dpvm auto-learn

no dpvm auto-learn

Syntax Description This command has no other arguments or keywords.

Defaults Disabled.

Command Modes Configuration mode.

Command History	Release	Modification
	2.0(1b)	This command was introduced.

Usage Guidelines To use this command, DPVM must be enabled using the **dpvm enable** command. When autolearn is enabled, the system automatically creates the DPVM database by learning about devices currently logged or newly logged devices with a VSAN. This is a quick way to create the DPVM database, which can later be edited. Autolearn features include the following:

- An autolearned entry is created by adding the device PWWN and VSAN to the active DPVM database.
- The active DPVM database must be present when autolearning is enabled.
- Autolearned entries can be deleted from the active DPVM database by the user until autolearning is disabled. Autolearned entries are not permanent in the active DPVM database until autolearning is disabled.
- If a device logs out when autolearning is enabled, the device entry is deleted from the active DPVM database.
- If a particular device logs into the switch multiple times through different ports, then only the VSAN corresponding to last login is associated with the device.
- Autolearn entries do not override previously configured activate entries.

Examples The following example shows how to enable autolearning for the DPVM database.

```
switch# config terminal
switch(config)# dpvm auto-learn
```

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The following example shows how to disable autolearning for the DPVM database.

```
switch# config terminal  
switch(config)# no dpvm auto-learn
```

Related Commands

Command	Description
dpvm enable	Enables DPVM.
show dpvm	Displays DPVM database information.

Send documentation comments to mdsfeedback-doc@cisco.com.

dpvm commit

To apply the pending configuration pertaining to the dynamic port VSAN membership (DPVM) Cisco Fabric Services (CFS) distribution session in progress in the fabric, use the **dpvm commit** command.

dpvm commit

Syntax Description This command has no other arguments or keywords.

Defaults None.

Command Modes Configuration mode.

Command History	Release	Modification
	2.0(1b)	This command was introduced.

Usage Guidelines To use this command, DPVM must be enabled using the **dpvm enable** command.

Examples The following example shows how to commit changes to the DPVM database.

```
switch# config terminal
switch(config)# dpvm commit
```

Related Commands	Command	Description
	dpvm distribute	Enables CFS distribution for DPVM.
	dpvm enable	Enables DPVM.
	show dpvm	Displays DPVM information.

Send documentation comments to mdsfeedback-doc@cisco.com.

dpvm database

To activate and configure the dynamic port VSAN membership (DPVM) database, use the **dpvm database** command. To deactivate the database, use the **no** form of the command.

dpvm database

no dpvm database

Syntax Description

This command has no other arguments or keywords.

Defaults

Deactivated.

Command Modes

Configuration mode.

Command History

Release	Modification
2.0(1b)	This command was introduced.

Usage Guidelines

To use this command, DPVM must be enabled using the **dpvm enable** command.

The DPVM database consists of a series of device mapping entries. Each entry consists of device pWWN or nWWN along with the dynamic VSAN to be assigned. Use the **nwwn** command or **pwwn** command to add the entries to the DPVM database. This database is global to the whole switch (and fabric) and is not maintained for each VSAN.

Examples

The following example shows how to activate the DPVM database and enter DPVM database configuration submode.

```
switch# config terminal
switch(config)# dpvm database
switch(config-dpvm-db)#
```

Related Commands

Command	Description
dpvm enable	Enables DPVM.
nwwn (DPVM database configuration submode)	Adds entries to the DPVM database using the nWWN.
pwwn (DPVM database configuration submode)	Adds entries to the DPVM database using the pWWN.
show dpvm	Displays DPVM database information.

[Send documentation comments to mdsfeedback-doc@cisco.com.](mailto:mdsfeedback-doc@cisco.com)

dpvm database copy active

To copy the active dynamic port VSAN membership (DPVM) database to the config DPVM database, use the **dpvm database copy active** command.

dpvm database copy active

Syntax Description This command has no other arguments or keywords.

Defaults Disabled.

Command Modes EXEC mode.

Command History	Release	Modification
	2.0(1b)	This command was introduced.

Usage Guidelines To use this command, DPVM must be enabled using the **dpvm enable** command. The following circumstances may require the active database to be copied to the config database:

- When the autolearned entries are only added to the active database.
- When the config database or entries in the config database are accidentally deleted.



Note If you want to copy the DPVM database and fabric distribution is enabled, you must first commit the changes.

Examples The following example shows how to copy the active DPVM database to the config DPVM database.

```
switch# dpvm database copy active
```

Related Commands	Command	Description
	dpvm enable	Enables DPVM.
	show dpvm	Displays DPVM database information.

Send documentation comments to mdsfeedback-doc@cisco.com.

dpvm database diff

To display the active dynamic port VSAN membership (DPVM) database, use the **dpvm database diff** command.

dpvm database diff {active | config}

Syntax Description	active	config
	Displays differences in the DPVM active database compared to the DPVM config database.	Displays differences in the DPVM config database compared to the DPVM active database.

Defaults Deactivated.

Command Modes Configuration mode.

Command History	Release	Modification
	2.0(1b)	This command was introduced.

Usage Guidelines To use this command, DPVM must be enabled using the **dpvm enable** command.

Examples The following example displays the differences in the DPVM active database when compared with the DPVM config database.

```
switch# dpvm database diff active
Legend: "+" New Entry, "-" Missing Entry, "*" Possible Conflict Entry
-----
- pwnn 44:22:33:44:55:66:77:88 vsan 44
* pwnn 11:22:33:44:55:66:77:88 vsan 11
```

The following example displays the differences in the DPVM config database when compared with the DPVM active database.

```
switch# dpvm database diff config
Legend: "+" New Entry, "-" Missing Entry, "*" Possible Conflict Entry
-----
- pwnn 44:22:33:44:55:66:77:88 vsan 44
* pwnn 11:22:33:44:55:66:77:88 vsan 11
```

Send documentation comments to mdsfeedback-doc@cisco.com.

Related Commands	Command	Description
	dpvm enable	Enables DPVM.
	show dpvm	Displays DPVM database information.

Send documentation comments to mdsfeedback-doc@cisco.com.

dpvm distribute

To enable Cisco Fabric Services (CFS) distribution for dynamic port VSAN membership (DPVM), use the **dpvm distribute** command. To disable this feature, use the **no** form of the command.

dpvm distribute

no dpvm distribute

Syntax Description This command has no other arguments or keywords.

Defaults Enabled.

Command Modes Configuration mode.

Command History	Release	Modification
	2.0(1b)	This command was introduced.

Usage Guidelines To use this command, DPVM must be enabled using the **dpvm enable** command. Temporary changes to the DPVM database must be committed to the active DPVM database using the **dpvm commit** command before being distributed to the fabric.

Examples The following example shows how to disable distribution for the DPVM database.

```
switch# config terminal
switch(config)# no dpvm distribute
```

The following example shows how to enable distribution for the DPVM database.

```
switch# config terminal
switch(config)# dpvm distribute
```

Related Commands	Command	Description
	dpvm enable	Enables DPVM.
	show dpvm	Displays DPVM information.

Send documentation comments to mdsfeedback-doc@cisco.com.

dpvm enable

To enable dynamic port VSAN membership (DPVM), use to **dpvm enable** command. To disable DPVM, use the **no** form of the command.

dpvm enable

no dpvm enable

Syntax Description This command has no other arguments or keywords.

Defaults Disabled.

Command Modes Configuration mode.

Command History	Release	Modification
	2.0(1b)	This command was introduced.

Usage Guidelines The configuration and verification commands for DPVM are only available when DPVM is enabled on the switch. When you disable this feature, all related configurations are automatically discarded.

Examples The following example shows how to enable DPVM.

```
switch# config terminal
switch(config)# dpvm enable
```

Related Commands	Command	Description
	dpvm activate	Activates the DPVM database.
	dpvm database	Configures the DPVM database.
	show dpvm	Displays DPVM database information.

Send documentation comments to mdsfeedback-doc@cisco.com.

dscp

To configure a differentiated services code point (DSCP) in a QoS policy map class, use the **dscp** command in EXEC mode. To disable this feature, use the **no** form of the command.

dscp *value*

no dscp *value*

Syntax Description	<i>value</i>
	Configures the DSCP value. The range is 0 to 63. DSCP value 46 is reserved.

Defaults	The default DSCP value is 0.
----------	------------------------------

Command Modes	QoS policy map class configuration submode.
---------------	---

Command History	Release	Modification
	1.3(1)	This command was introduced.

Usage Guidelines	Before you can configure a QoS policy map class you must complete the following:
------------------	--

- Enable the QoS data traffic feature using the **qos enable** command.
- Configure a QoS class map using the **qos class-map** command.
- Configure a QoS policy map using the **qos policy-map** command.
- Configure a QoS policy map class using the **class** command.

Examples	The following example configures a DSCP value of 56 in QoS policy classMap1.
----------	--

```
switch(config-pmap)# class classMap1
switch(config-pmap-c)# dscp 56
switch(config-pmap-c)#
```

Related Commands	Command	Description
	qos enable	Enables the QoS data traffic feature on the switch.
	qos class-map	Configures a QoS class map.
	qos policy-map	Configure a QoS policy map.
	class	Configure a QoS policy map class.
	show qos	Displays the current QoS settings.

Send documentation comments to mdsfeedback-doc@cisco.com.

duplicate-message throttle

To enable throttling of duplicate Call Home alert messages, use the **duplicate-message throttle** command in Call Home configuration submode. To disable this feature, use the **no** form of the command.

duplicate-message throttle

no duplicate-message throttle

Syntax Description This command has no other arguments or keywords.

Defaults Enabled.

Command Modes Call Home configuration submode.

Command History	Release	Modification
	2.0(1b)	This command was introduced.

Usage Guidelines The rate of throttling is a maximum of thirty messages in 2 hours.

Examples The following example shows how to enable throttling of duplicate Call Home alert messages.

```
switch# config terminal
switch(config)# callhome
switch(config-callhome)# duplicate-message throttle
```

Related Commands	Command	Description
	callhome	Configures the Call Home function.
	callhome test	Sends a dummy test message to the configured destination(s).
	show callhome	Displays configured Call Home information.