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## CHAPTER 21

# Z Commands

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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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## zone copy

To copy the active zone set to the full zoneset, use the **zone copy** command in EXEC mode. Use the no form of the command to negate the command or revert to the factory defaults.

```
zone copy active -zoneset full-zoneset [vsan vsan-id]
```

Syntax Description	active-zoneset	Copies from the active zone set.
	full-zoneset	Copies active zone set to full zone set.
	vsan	Configures to copy active zone set on a VSAN to full zone set.
	vsan-id	The ID of the VSAN is from 1 to 4093.

**Defaults** None.

**Command Modes** EXEC.

**Command History** This command was introduced in Cisco MDS SAN-OS Release 1.0(2).

**Usage Guidelines** None.

**Examples** The following example copies the active zoneset to the full zoneset.

```
switch# zone copy active-zoneset full-zoneset vsan 1
```

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## zone default-zone

To define whether a default zone (nodes not assigned a created zone) permits or denies access to all in the default zone, use the **zone default-zone** command in configuration mode.

**zone default-zone permit vsan** *vsan-id*

Syntax Description	Command	Description
	<b>permit</b>	Permits access to all in the default zone.
	<b>vsan</b>	Sets default zoning behavior for the specified VSAN.
	<i>vsan-id</i>	The ID of the VSAN is from 1 to 4093.

**Defaults** All default zones are permitted access.

**Command Modes** Configuration mode.

**Command History** This command was introduced in Cisco MDS SAN-OS Release 1.0(2).

**Usage Guidelines** None.

**Examples** The following example permits default zoning in VSAN 2.

```
switch# config t
switch(config)# zone default-zone permit vsan 2
```

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## zone merge

To merge zone server databases, use the **zone merge** command.

```
zone merge interface [fc slot-number | port-channel port-number] import | export vsan vsan-id
```

Syntax	Description
<b>interface</b>	Configures the interface.
<b>fc</b>	Configures a Fibre Channel interface.
<i>slot-number</i>	Specifies a slot number and port number.
<b>port-channel</b>	A PortChannel interface.
<i>port-number</i>	Specifies the PortChannel number.
<b>export</b>	Exports the zone server database to the adjacent switch on the specified interface. The active zone set in this switch becomes the activated zone set of the merged SAN.
<b>import</b>	Imports the zone server database to the adjacent switch on the specified interface. The active zoneset in the adjacent switch becomes the activated zone set of the merged SAN.
<b>vsan</b>	Merges the zone server database of a VSAN on the specified interface.
<i>vsan-id</i>	The ID of the VSAN is from 1 to 4093.

**Defaults** None.

**Command Modes** EXEC mode.

**Command History** This command was introduced in Cisco MDS SAN-OS Release 1.0(2).

**Usage Guidelines** This command can be used to recover from link isolation due to zone merge failure.

**Examples** The following example merges zone server databases.

```
switch# zone merge interface port-channel 3 export vsan 3
```

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## zone name

To create a zone, use the **zone name** command in configuration mode.

```
zone name zone-name vsan vsan-id [exit] [member fcalias name | fcid fcid-value | fwwn
fwwn-value | pwwn pwwn-value] [no]
```

### Syntax Description

<i>zone-name</i>	Specifies the name of the zone. Maximum length is 64 characters.
<b>vsan</b>	Configures a zone on a VSAN.
<i>vsan-id</i>	The ID of the VSAN is from 1 to 4093.
<b>exit</b>	(Optional) Exits from this submode.
<b>member</b>	(Optional) Adds a member to zone.
<b>fcalias</b>	(Optional) Adds fcalias to zone.
<i>fcalias-name</i>	Specifies the name of fcalias (Max Size - 64).
<b>fcid</b>	Adds FCID member to zone.
<i>fcid-value</i>	Specifies the FCID in the format 0xhhhhhh.
<b>fwwn</b>	Adds fabric port WWN member to zone.
<i>fwwn-value</i>	Specifies fabric port WWN in the format hh:hh:hh:hh:hh:hh:hh:hh.
<b>pwwn</b>	Adds port WWN member to zone.
<i>pwwn-value</i>	Specifies port WWN in the format hh:hh:hh:hh:hh:hh:hh:hh.
<b>no</b>	Negates a command or sets its defaults.

### Defaults

None.

### Command Modes

Configuration mode.

### Command History

This command was introduced in Cisco MDS SAN-OS Release 1.0(2).

### Usage Guidelines

Zones are assigned to zone sets, zone sets are then activated from one switch and propagate across the fabric to all switches. Zones allow security by permitting and denying access between nodes (hosts and storage). **zone name** commands are issued from the configuration mode. Configure a zone for a VSAN from the config-zone submode.

### Examples

The following example configures a member for the specified zone (Zone1) based on the type (pWWN, fabric pWWN, FC ID, or FC alias) and value specified.

```
switch# config t
switch(config)# zone name Sample vsan 1
switch(config-zone)# member <type> <value>
pwwn example:
sswitch(config-zone)# member pwwn 10:00:00:23:45:67:89:ab
```

zone name

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```
Fabric pWWN example:  
switch(config-zone)# member fwwn 10:01:10:01:10:ab:cd:ef  
FC ID example:  
switch(config-zone)# member fcid 0xce00d1  
FC alias example:  
switch(config-zone)# member fcalias Payroll
```

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## zoneset

To group zones under one zoneset, use the **zoneset** command in configuration mode.

```
zoneset [activate name zoneset-name vsan vsan-id] [distribute full vsan vsan-id][name
zoneset-name vsan vsan-id]
```

Syntax Description		
<b>activate</b>		Activate a zoneset
<b>name</b>		Configures a zone set.
<i>zoneset-name</i>		Specifies a name for a zone set. Maximum length is 64 characters.
<b>distribute full</b>		Enables zone set propagation
<b>vsan</b>		Activates a zone set on the specified VSAN. The id of the VSAN (1-4096).
<i>vsan-id</i>		The ID of the VSAN is from 1 to 4093.

**Defaults** None.

**Command Modes** Configuration mode.

**Command History** This command was introduced in Cisco MDS SAN-OS Release 1.0(2).

**Usage Guidelines** Zones are activated by activating the parent zone set.

**Examples** The following example activates a zoneset named gottons in VSAN 333.

```
switch# conf t
Enter configuration commands, one per line. End with CNTL/Z.
switch(config)# zoneset ?
  activate  Activates a zoneset
  distribute Enable zoneset propagation
  name      Configures a zoneset

switch(config)# zoneset name gottons ?
  vsan      Configures a zoneset on a VSAN

switch(config)# zoneset activate name gottons vsan 333
Zoneset Activation initiated. check zone status
```

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