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V 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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vsan (iSCSI initiator mode)

To assign an iSCSI initiator into VSANs other than the default VSAN, use the **vsan** command in iSCSI initiator configuration submode. To disable this feature, use the **no** form of the command.

vsan *vsan-id*

no vsan *vsan-id*

Syntax Description	<i>vsan-id</i>	Specifies a VSAN ID. The range 1 to 4093.
Defaults	None.	
Command Modes	iSCSI initiator configuration submode.	
Command History	Release	Modification
	1.3(2)	This command was introduced.
Usage Guidelines	None.	
Examples	<p>The following example assigns an iSCSI initiator into a VSAN other than the default VSAN.</p> <pre>switch# config terminal Enter configuration commands, one per line. End with CNTL/Z. switch(config)# iscsi initiator name iqn.1987-02.com.cisco.initiator → switch(config-iscsi-init)# vsan 40 switch(config-iscsi-init)#</pre>	
Related Commands	Command	Description
	iscsi initiator name	Assigns an iSCSI name and changes to iSCSI initiator configuration submode.
	show iscsi initiator	Displays information about configured iSCSI initiators.

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vsan database

To create multiple fabrics sharing the same physical infrastructure, to assign which ports are in which VSAN, whether Interop mode is on or off, and whether load balancing is per exchange or src-dest ID., use the **vsan** command.

vsan database

```
vsan vsan-id [interface fc slot/port | fcip fcip-id | fv slot/dpp-number/fv-port | iscsi slot/port |
port-channel portchannel-number.subinterface-number] |
interop [mode] [loadbalancing {src-dst-id | src-dst-ox-id}] |
loadbalancing {src-dst-id | src-dst-ox-id} |
name name [interop [mode] [loadbalancing {src-dst-id | src-dst-ox-id}] | loadbalancing
{src-dst-id | src-dst-ox-id} | suspend [interop [mode] [loadbalancing {src-dst-id |
src-dst-ox-id}] | loadbalancing {src-dst-id | src-dst-ox-id}] |
suspend [interop [mode] [loadbalancing {src-dst-id | src-dst-ox-id}] | loadbalancing
{src-dst-id | src-dst-ox-id}]
```

vsan database

```
no vsan vsan-id [interface {fc slot/port | fcip fcip-id | fv slot/dpp-number/fv-port | iscsi
slot/port | port-channel portchannel-number.subinterface-number} |
interop [mode] [loadbalancing {src-dst-id | src-dst-ox-id}] |
loadbalancing {src-dst-id | src-dst-ox-id} |
name name [interop [mode] [loadbalancing {src-dst-id | src-dst-ox-id}] | loadbalancing
{src-dst-id | src-dst-ox-id} | suspend [interop [mode] [loadbalancing {src-dst-id |
src-dst-ox-id}] | loadbalancing {src-dst-id | src-dst-ox-id}] |
suspend [interop [mode] [loadbalancing {src-dst-id | src-dst-ox-id}] | loadbalancing
{src-dst-id | src-dst-ox-id}]
```

Syntax Description

vsan <i>vsan-id</i>	Specifies the VSAN ID. The range is 1 to 4093.
interface	Adds interfaces to VSAN.
fc <i>slot/port</i>	Specifies the Fibre Channel interface slot/port.
fcip <i>fcip-id</i>	Specifies the FCIP interface.
fv <i>slot/dpp-number/fv-port</i>	Configures the virtual F port (FV port) interface in the specified slot along with the data path processor (DPP) number and the FV port number.
iscsi <i>slot/port</i>	Configures the iSCSI interface in the specified slot/port.
port-channel <i>portchannel-number.subinterface-number</i>	Configures the PortChannel interface specified by the PortChannel number followed by a dot (.) indicator and the subinterface number.
interop	Turns on interoperability mode.
<i>mode</i>	Specifies the interoperability mode. The range is 1 to 3.
loadbalancing	Configures loadbalancing scheme.
src-dst-id	Sets src-id/dst-id for loadbalancing.
src-dst-ox-id	Sets ox-id/src-id/dst-id for loadbalancing (default).
name <i>name</i>	Assigns a name to the VSAN. Maximum length is 32 characters.
suspend	Suspends the VSAN.

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Defaults	None.
Command Modes	Configuration mode.
Command History	This command was modified in Cisco MDS SAN-OS Release 1.2(2).
Usage Guidelines	<p>Change to the VSAN database submode to issue this command.</p> <p>The interface range must be in ascending order and non-overlapping. You can specify a range using a hyphen and several interfaces using commas:</p> <ul style="list-style-type: none"> • The interface range format for a FC interface range is fcslot/port - port , fcslot/port , fcslot/port (For example, show int fc1/1 - 3 , fc1/5 , fc2/5) • The interface range format for a FV interface range is fvslot/dpplfvport - fvport , fvslot/dppl/port , fvslot/dppl/port (For example, show int fv2/1/1 - 3 , fv2/1/5 , fv2/2/5) • The format for a PortChannel is port-channel portchannel-number.subinterface-number (For example, show int port-channel 5.1)
Examples	<p>The following examples show how to create multiple fabrics sharing the same physical infrastructure and to assign which ports are in which VSAN.</p> <pre> switch# config terminal switch(config)# vsan database switch(config-db)# switch-config-db# vsan 2 switch(config-vsan-db)# vsan 2 name TechDoc updated vsan 2 switch(config-vsan-db)# vsan 2 loadbalancing src-dst-id switch(config-vsan-db)# vsan 2 loadbalancing src-dst-ox-id switch(config-vsan-db)# vsan 2 suspend switch(config-vsan-db)# no vsan 2 suspend switch(config-vsan-db)# vsan 2 interface fv2/8/2 switch(config-vsan-db)# vsan 2 interface iscsi 2/1 switch(config-vsan-db)# end switch# </pre>

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vsan policy deny

To configure a vsan-based role, use the **vsan policy deny** command in configuration mode. Use the **no** form of this command to delete a configured role.

```
vsan policy deny
  permit vsan vsan-id
```

```
vsan policy deny
  no permit vsan vsan-id
```

```
no vsan policy deny
```

Syntax Description	Command	Description
	permit	Remove commands from the role.
	vsan vsan-id	Specifies the VSAN ID. The range is 1 to 4093.

Defaults Permit.

Command Modes Configuration mode—role name submode.

Command History This command was introduced in Cisco MDS SAN-OS Release 1.2(1).

Usage Guidelines You can configure a role so that it only allows commands to be performed for a selected set of VSANs. By default, the VSAN policy of a role is **permit**. In other words, the role can perform commands configured by the **rule** command in all VSANs. In order to selectively allow VSANs for a role, the VSAN policy needs to be set to **deny** and then the appropriate VSANs need to be permitted.

Examples The following example places you in sangroup role submode.

```
switch# config t
switch(config)# role name sangroup
switch(config-role)#
```

The following example changes the VSAN policy of this role to deny and places you in a submode where VSANs can be selectively permitted.

```
switch(config)# vsan policy deny
switch(config-role-vsan)
```

The following example deletes the configured VSAN role policy and reverts to the factory default (permit).

```
switch(config-role)# no vsan policy deny
```

The following example permits this role to perform the allowed commands for VSANs 10 through 30.

```
switch(config-role)# permit vsan 10-30
```

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The following example removes the permission for this role to perform commands for vsan 15 to 20.

```
switch(config-role-vsan)# no permit vsan 15-20
```

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vrrp

To enable VRRP, use the **vrrp** command in configuration mode. Use the **no** form of the command to revert to the factory defaults or to negate a command.

```
vrrp vrrp-number
  address ip-address [secondary] |
  advertisement-interval seconds |
  authentication {md5 keyname spi index | text password}|
  preempt |
  priority value |
  shutdown |
  track interface {mgmt 0 | vsan vsan-id}}
```

```
vrrp vrrp-number
  no address ip-address [secondary] |
  no advertisement-interval |
  no authentication |
  no preempt |
  no priority |
  no shutdown |
  no track }
```

```
no vrrp vrrp-number
```

Syntax Description

address <i>ip-address</i>	Adds or removes an IP address to the virtual router.
secondary	Specifies a virtual IP address without an owner.
advertisement-interval <i>seconds</i>	Sets the time interval between advertisements. The range is 1 to 255.
authentication	Configures the authentication method.
md5 <i>keyname</i>	Sets the MD5 authentication key. Maximum length is 16 characters.
spi <i>index</i>	Sets the security parameter index. The range is 0x0 to 0xfffff.
text <i>password</i>	Sets an authentication password. Maximum length is 8 characters.
preempt	Enables preemption of lower priority master.
priority <i>value</i>	Configures the virtual router priority. The range is 1 to 254.
shutdown	Disables the VRRP configuration.
track	Tracks the availability of another interface.
interface	Select an interface to track.
mgmt 0	Specifies the management interface.
vsan <i>vsan-id</i>	Specifies a VSAN ID. The range is 1 to 4093.

Defaults

Disabled.

Command Modes

Interface configuration mode.

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

Usage Guidelines Enter the Virtual Router configuration submode to access the options for this command. From the VSAN or mgmt0 (management) interface configuration submode, enter **vrrp number** to enter the `switch(config-if-vrrp)#` prompt. By default, a virtual router is always disabled (**shutdown**). VRRP can be configured only if this state is disabled. Be sure to configure at least one IP address before attempting to enable a VR.

Refer to the Cisco MDS 9000 Family Configuration Guide.

Examples The following example enables VRRP configuration.

```
switch(config-if-vrrp)# no shutdown
```

The following example disables VRRP configuration.

```
switch(config-if-vrrp)# shutdown
```

The following example configures an IP address for the selected VRRP.

```
switch# config terminal
switch(config)# interface vsan 1
switch(config-if)# vrrp 250
switch(config-if-vrrp)# address 10.0.0.10
```