1 VSU Commands

Command	Function
dad relay enable	Enable the forwarding of dual-active detection (DAD) packets based on aggregation port (AP).
dual-active bfd interface	Configure a BFD-based DAD port.
dual-active detection	Enable the DAD.
dual-active exclude interface	Configure an excluded port in Recovery mode for dual-active devices.
dual-active interface	Configure an AP-based DAD port.
port-member interface	Configure a VSL member port.
led-blink	Configure quick blinking location.
show switch id	Display the ID of the local device.
show switch virtual	Display the information summary of a device.
show switch virtual balance	Display the traffic balancing mode.
show switch virtual config	Display the VSU configurations.
show switch virtual dual-active	Display DAD information.
show switch virtual link	Display the VSL information.
show switch virtual role	Display the information about device roles.
show switch virtual topology	Display the information about the VSU device topology.
switch	Configure the device ID.
switch cfg_mode	Specify the manner of saving the VSU configuration file.
switch convert mode	Configure the standalone or VSU mode.
switch crc errors	Configure the CRC error detection parameter.
switch description	Configure a device name.
switch domain	Modify the domain ID of a device in VSU mode.
switch priority	Configure a device priority.

switch renumber	Modify a device ID.
switch virtual aggregateport-lff enable	Enable AP-based LFF.
switch virtual domain	Configure a VSU domain ID or enter the VSU domain configuration mode.
switch virtual ecmp-lff enable	Enable ECMP-based LFF.
vsl-port	Enter the VSL port configuration mode.
recovery auto-restart enable	Enable the automatic restart function of dual-active devices after a link fault is rectified in the recovery mode.

1.1 dad relay enable

Function

Run the **dad relay enable** command to enable the forwarding of dual-active detection (DAD) packets based on aggregation port (AP).

Run the **no** form of this command to disable the forwarding of AP-based DAD packets.

The forwarding of AP-based DAD packets is disabled by default.

Syntax

dad relay enable

no dad relay enable

Parameter Description

N/A

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

This command is used to enable the AP-based DAD in a VSU network and runs on a forwarding device connected to the VSU members.

Configure this command on an AP only.

Examples

The following example enables the forwarding of DAD packets on aggregate port 1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface aggregateport 1
Hostname(config-if-AggregatePort 1)# dad relay enable
```

Notifications

N/A

Common Errors

The DAD packets must be forwarded on an AP.

Platform Description

N/A

Related Commands

● **dual-active detection**

● **show switch virtual dual-active**

1.2 dual-active bfd interface

Function

Run the **dual-active bfd interface** command to configure a BFD-based DAD port.

Run the **no** form of this command to delete a BFD-based DAD port.

Syntax

dual-active bfd interface *interface-type interface-number*

no dual-active bfd interface *interface-type interface-number*

Parameter Description

interface-type interface-number: Type and number of the BFD-based detection port.

Command Modes

VSU domain configuration mode

Default Level

14

Usage Guidelines

This command is configured only in VSU mode.

The BFD-based detection port must be a directly connected physical port and be configured as a layer-3 routed port.

The BFD-based detection link must connect different devices (the active and standby devices only).

Examples

The following example configures the port GigabitEthernet 0/1 as the BFD-based DAD port.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# switch virtual domain 1
Hostname(config-vs-domain)# dual-active bfd interface GigabitEthernet 0/1
```

Notifications

N/A

Common Errors

The detection port is not a routed port.

Platform Description

N/A

Related Commands

● **show switch virtual dual-active**

1.3   dual-active detection

Function

Run the **dual-active detection** command to enable the DAD.

Run the **no** form of this command to disable the DAD.

The DAD is disabled by default.

Syntax

dual-active detection { **aggregateport** | **bfd** }

no dual-active detection { **aggregateport** | **bfd** }

Parameter Description

aggregateport: Enables AP-based DAD.

bfd: Enables BFD-based DAD.

Command Modes

VSU domain configuration mode

Default Level

14

Usage Guidelines

This command is configured only in VSU mode.

If the **aggregateport** parameter is specified**,** the forwarding of AP-based DAD packets must also be enabled.

Examples

The following example enables the BFD-based DAD.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# switch virtual domain 1
Hostname(config-vs-domain)# dual-active detection bfd
```
The following example enables the AP-based DAD.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# switch virtual domain 1
Hostname(config-vs-domain)# dual-active detection aggregateport
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

● **show switch virtual dual-active**

1.4 dual-active exclude interface

Function

Run the **dual-active exclude interface** command to configure an excluded port in Recovery mode for dual-active devices.

Run the **no** form of this command to delete an excluded port in Recovery mode for dual-active devices.

Syntax

dual-active exclude interface *interface-type interface-number*

no dual-active exclude interface *interface-type interface-number*

Parameter Description

interface-type interface-number: Type and number of an excluded port in Recovery mode for dual-active devices.

Command Modes

config-vs-domain configuration mode

Default Level

14

Usage Guidelines

This command is configured only in VSU mode.

Excluded ports must be routed ports but not VSL ports.

You can configure multiple excluded ports.

Examples

The following example configures the port GigabitEthernet 0/1 as an excluded port in Recovery mode for dual-active devices.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# switch virtual domain 1
Hostname(config-vs-domain)# dual-active exclude interface GigabitEthernet 0/1
```

Notifications

N/A

Common Errors

● A VSL port is configured as an excluded port.

● An excluded port is not a routed port.

Platform Description

N/A

Related Commands

● **show switch virtual dual-active**

1.5 dual-active interface

Function

Run the **dual-active interface** command to configure an AP-based DAD port.

Run the **no** form of this command to delete an AP-based DAD port.

Syntax

dual-active interface *interface-type interface-number* [**vlan** *vlan-id*]

no dual-active interface *interface-type interface-number* [**vlan** *vlan-id*]

Parameter Description

interface-type interface-number: Type and number of a port (which must be an AP).

vlan-id: VLAN ID (VID) of a used AP. The value range is from 1 to 4094.

Command Modes

VSU domain configuration mode

Default Level

14

Usage Guidelines

Only one AP-based DAD port is configured. You must create an AP before configuring it as a detection port. The latter detection port overwrites the previous one.

When the AP is a trunk port and the native VLAN is beyond the VLAN range allowed by the AP-based detection port, configure a detection VLAN for the AP-based detection port. The configured detection VLAN must fall within the VLAN range allowed by the trunk port and have been correctly created on the device.

Examples

The following example configures aggregate port 1 as a DAD port.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# switch virtual domain 1
Hostname(config-vs-domain)# dual-active interface aggregateport 1
```
The following example configures aggregate port 1 as a DAD port. This AP is a trunk port. The allowed VLAN range is from 2 to 10, and the detection VLAN is 10.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface aggregateport 1
```

```
Hostname(config-if-AggregatePort 1)# switchport mode trunk
Hostname(config-if-AggregatePort 1)# switchport trunk allowed vlan only 2-10
Hostname(config-if-AggregatePort 1)# exit
Hostname(config)# switch virtual domain 1
Hostname(config-vs-domain)# dual-active interface aggregateport 1 vlan 10
```

Notifications

N/A

Common Errors

● The detection port is not an AP.

● The AP is configured as a trunk port with an allowed VLAN range, but no VLAN is configured for the detection port.

Platform Description

N/A

Related Commands

● **show switch virtual dual-active**

1.6 port-member interface

Function

Run the **port-member interface** command to configure a VSL member port.

Run the **no** form of this command to delete a VSL member port.

Syntax

port-member interface *interface-type interface-number*

no port-member interface *interface-type interface-number*

Parameter Description

interface-type interface-number: Type and number of the port. The port type parameter must be a 10G port or above. The port name parameter is 2-dimensional in standalone mode, for example, the value is GigabitEthernet 0/1. It is 3-dimensional in VSU mode, for example, the value is GigabitEthernet 1/0/1.

Command Modes

VSL interface configuration mode

Default Level

14

Usage Guidelines

This command is available in both VSU and standalone modes. You must save the command configurations.

The VSL port type must be a 10G port or above.

The four 10G ports split from a 40G port cannot be configured as VSL ports.

If a common port is configured as an NLB reflex port, it can serve as a VSL port only after the service is deleted.

If the VSU topology is split when a VSL port is switched to a common port, the VSL port must not be deleted. You can disconnect the physical port and then delete the VSL port.

Examples

The following example adds/deletes the VSL member port TenGigabitEthernet 0/1 in standalone mode.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# vsl-port
Hostname(config-vsl-port)# port-member interface TenGigabitEthernet 0/1
Hostname(config-vsl-port)# no port-member interface TenGigabitEthernet 0/1
```

The following example adds/deletes the VSL member port TenGigabitEthernet 1/0/1 in VSU mode.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# vsl-port
Hostname(config-vsl-port)# port-member interface TenGigabitEthernet 1/0/1
Hostname(config-vsl-port)# no port-member interface TenGigabitEthernet 1/0/1
```

Notifications

N/A

Common Errors

- The VSL member ports must be 10G ports or ports with higher bandwidth for some models.
- If a port is configured as an NLB reflex port, this port can be switched to a VSL member port only after the NLB reflex port configuration is deleted.

Platform Description

The VSL port type must be a 10G port or above.

Related Commands

- **show switch virtual link**

1.7 led-blink

Function

Run the **led-blink** command to configure quick blinking location.

Quick blinking location is disabled by default.

Syntax

led-blink { **enable** | **disable** } [**device** *switch-id*]

Parameter Description

enable: Enables quick blinking location.

disable: Disables quick blinking location.

switch-id: ID of the device to be configured with quick blinking location. The value range is from 1 to 2.

Command Modes

Privileged EXEC mode

Default Level

14

Usage Guidelines

In standalone mode, you can enable or disable quick blinking location only, but not specify the **device** keyword.

In VSU mode, you can specify *switch-id* to enable/disable quick blinking location for a specified device. If **device** is not specified, quick blinking location of all devices in the VSU environment is enabled/disabled.

Quick blinking location is automatically disabled 30 minutes after it is started.

The configuration takes effect immediately and is not saved. If you perform an active/standby switch or restart the device, quick blinking location is disabled.

Examples

The following example enables quick blinking location for the local device in standalone mode.

```
Hostname> enable
Hostname# led-blink enable
```

The following example enables quick blinking location for device 2 in VSU mode.

```
Hostname> enable
Hostname# led-blink enable device 2
```

The following example enables quick blinking location for all devices in VSU mode.

```
Hostname> enable
Hostname# led-blink enable
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.8 show switch id

Function

Run the **show switch id** command to display the ID of the local device.

Syntax

> **show switch id**

Parameter Description

> N/A

Command Modes

> All modes except the user EXEC mode

Default Level

> 14

Usage Guidelines

> N/A

Examples

> The following example displays the ID of the local device in standalone mode.

```
Hostname> enable
Hostname# show switch id
Switch ID is 1
```

> The following example displays the ID of the local device in VSU mode.

```
Hostname> enable
Hostname# show switch id
Switch ID is 2
```

Notifications

> N/A

Common Errors

> N/A

Platform Description

> N/A

Related Commands

- **show switch virtual**
- **show switch virtual balance**
- **show switch virtual config**
- **show switch virtual dual-active**
- **show switch virtual link**
- **show switch virtual role**
- **show switch virtual topology**

1.9 show switch virtual

Function

Run the **show switch virtual** command to display the information summary of a device.

Syntax

show switch virtual

Parameter Description

N/A

Command Modes

All modes except the user EXEC mode

Default Level

14

Usage Guidelines

N/A

Examples

The following example displays the information summary of a device in standalone mode.

```
Hostname> enable
Hostname# show switch virtual
Current system is running in "STANDALONE" mode.
```

The following example displays the information summary of a device in VSU mode.

```
Hostname> enable
Hostname# show switch virtual
Switch_id  Domain_id   Priority   Position  Status     Role
Description
1(1)       1(1)        100(100)   LOCAL     OK         ACTIVE      switch-1
2(2)       1(1)        100(100)   REMOTE    OK         CANDIDATE   switch-2
3(3)       1(1)        100(100)   REMOTE    OK         STANDBY     switch-3
```

Table 1-1Output Fields of the show switch virtual Command

Field	Description
Switch_id	Device ID. The value in the brackets is the current configuration, which takes effect only after the device is restarted.
Domain_id	Device domain ID. The value in the brackets is the current configuration, which takes effect only after the device is restarted.
Priority	Priority. The value in the brackets is the current configuration, which takes effect only after the device is restarted.
Status	Device status. The available values include:

Field	Description
	● **OK**: normal state ● **Recovery**: recovered state ● **Leave**: on-leave state ● **Isolate**: isolated state
Role	Device roles. The available values include: ● **Active**: global active devices ● **Standby**: global standby devices ● **Candidate**: global candidate devices
Description	Device alias

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

- **show switch id**

- **show switch virtual balance**

- **show switch virtual config**

- **show switch virtual dual-active**

- **show switch virtual link**

- **show switch virtual role**

- **show switch virtual topology**

1.10 show switch virtual balance

Function

Run the **show switch virtual balance** command to display the traffic balancing mode.

Syntax

show switch virtual balance

Parameter Description

N/A

Command Modes

All modes except the user EXEC mode

Default Level

14

Usage Guidelines

N/A

Examples

The following example displays the traffic balancing mode of a device in standalone mode.

```
Hostname> enable
Hostname# show switch virtual balance
Current system is running in "STANDALONE" mode.
```

The following example displays the traffic balancing mode of a device in VSU mode.

```
Hostname> enable
Hostname# show switch virtual balance
Aggregate port LFF: enable
ECMP LFF: enable
```

Table 1-1 Output Fields of the show switch virtual balance Command

Field	Description
Aggregate port LFF	AP-based local forward first (LFF)
ECMP LFF	ECMP-based LFF

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

- **show switch id**
- **show switch virtual**
- **show switch virtual config**
- **show switch virtual dual-active**
- **show switch virtual link**
- **show switch virtual role**

- **show switch virtual topology**

1.11   show switch virtual config

Function

Run the **show switch virtual config** command to display the VSU configurations.

Syntax

show switch virtual config [*switch-id*]

Parameter Description

switch-id: ID of the device whose VSU configurations are to be displayed. The value range is from 1 to 2.

Command Modes

All modes except the user EXEC mode

Default Level

14

Usage Guidelines

N/A

Examples

The following example displays the VSU configurations in standalone mode.

```
Hostname> enable
Hostname# show switch virtual config
mac: 00d0.f810.3323
!
switch virtual domain 1
!
switch 1
switch 1 priority 100
!
!
switch convert mode standalone
!
```

The following example displays the VSU configurations in VSU mode.

```
Hostname> enable
Hostname# show switch virtual config
switch_id: 1 (mac: 00d0.f810.1111)
!
switch virtual domain 1
!
switch 1
switch 1 priority 200
switch 1 description switch1
```

```
!
vsl-port
port-member interface TenGigabitEthernet 0/1
port-member interface TenGigabitEthernet 0/2
!
Switch convert mode virtual
!
switch_id: 2 (mac: 00d0.f810.2222)
!
switch virtual domain 1
!
switch 2
switch 2 priority 100
switch 2 description switch2
!
vsl-port
port-member interface TenGigabitEthernet 0/1
port-member interface TenGigabitEthernet 0/2
!
Switch convert mode virtual
!
```

The following example displays the VSU configurations of device 1.

```
Hostname> enable
Hostname# show switch virtual config 1
switch_id: 1 (mac: 00d0.f810.1111)
!
switch virtual domain 1
!
switch 1
switch 1 priority 200
switch 1 description switch1
!
vsl-port
port-member interface TenGigabitEthernet 0/1
port-member interface TenGigabitEthernet 0/2
!
```

Table 1-1Output Fields of the show switch virtual config Command

Field	Description
switch_id	Device ID
switch virtual domain	Domain ID of a device
priority	Device priority
description	Device descriptor

Field	Description
vsl-port	VSL port configuration

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

- **show switch id**

- **show switch virtual**

- **show switch virtual balance**

- **show switch virtual dual-active**

- **show switch virtual link**

- **show switch virtual role**

- **show switch virtual topology**

1.12 show switch virtual dual-active

Function

Run the **show switch virtual dual-active** command to display DAD information.

Syntax

show switch virtual dual-active { **aggregateport** | **bfd** | **summary** }

Parameter Description

aggregateport: Indicates the AP-based DAD configuration information.

bfd: Indicates the BFD-based DAD configuration information.

summary: Indicates the information summary of the DAD.

Command Modes

All modes except the user EXEC mode

Default Level

14

Usage Guidelines

N/A

Examples

The following example displays the information summary of the DAD.

```
Hostname> enable
Hostname# show switch virtual dual-active summary
BFD dual-active detection enabled: Yes
Aggregateport dual-active detection enabled: No
Interfaces excluded from shutdown in recovery mode:
GigabitEthernet 1/0/3
GigabitEthernet 1/0/4
In dual-active recovery mode: No
```

The following example displays the BFD-based DAD configuration information.

```
Hostname> enable
Hostname# show switch virtual dual-active bfd
BFD dual-active detection enabled: Yes
BFD dual-active interface configured:
GigabitEthernet 1/0/1: UP
GigabitEthernet 2/0/2: UP
```

The following example displays the AP-based DAD configuration information.

```
Hostname> enable
Hostname# show switch virtual dual-active aggregateport
Aggregateport dual-active detection enabled: Yes
Aggregateport dual-active interface configured:
AggregatePort 1: UP
: GigabitEthernet 1/0/1: UP
: GigabitEthernet 2/0/1: UP
: GigabitEthernet 1/0/2: UP
: GigabitEthernet 2/0/2: UP
DAD relay enable AP list:
AggregatePort 1
```

Table 1-1Output Fields of the show switch virtual dual-active Command

Field	Description
BFD dual-active detection enabled	Indicates whether the BFD-based DAD is enabled.
Aggregateport dual-active detection enabled	Indicates whether the AP-based DAD is enabled.
Interfaces excluded from shutdown in recovery mode	Indicates excluded ports in Recovery mode for dual-active devices.
BFD dual-active interface configured	Configures the BFD-based DAD port.
Aggregateport dual-active interface configured	Configures the AP-based DAD port.
DAD relay enable AP list	Indicates the list of ports for forwarding DAD packets

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

- **show switch id**

- **show switch virtual**

- **show switch virtual balance**

- **show switch virtual config**

- **show switch virtual link**

- **show switch virtual role**

- **show switch virtual topology**

1.13   show switch virtual link

Function

Run the **show switch virtual link** command to display the VSL information.

Syntax

show switch virtual link [**port**]

Parameter Description

port: Checks the status of a VSL member port.

Command Modes

All modes except the user EXEC mode

Default Level

14

Usage Guidelines

N/A

Examples

The following example displays the VSL information.

```
Hostname> enable
Hostname# show switch virtual link
VSL-AP   State   Peer-VSL    Rx        Tx         Uptime
1/1      UP      2/1         100000    100000     1d,4h,29m
```

```
2/1     UP     1/1          100000   100000      1d,4h,29m
```

Table 1-1Output Fields of the show switch virtual link Command

Field	Description
VSL-AP	VSL AP list
State	Status of a member port. The available values include: ● **DOWN**: The port is in the link down state. ● **DISABLE**: A Cyclic Redundancy Check (CRC) error occurs on the port. ● **UP**: The port is in the link up state, but no valid VSL-AP member port is detected at the peer end. ● **OK**: The port is in the link up state, and a valid VSL-AP member port is detected at the peer end.
Peer-VSL	VSL-AP member port at the peer end.
Rx	Size of a received packet, in bytes.
Tx	Size of a transmitted packet, in bytes.
Uptime	AP connection duration

The following example displays the VSL port information.

```
Hostname> enable
Hostname# show switch virtual link port
switch 1:
Port                        AP  State  Peer-port              Rx     Tx
Uptime
TenGigabitEthernet 1/0/1   1   OK      TenGigabitEthernet 2/0/1 9000  9000
0d,0h,20m
TenGigabitEthernet 1/0/2   2   OK      TenGigabitEthernet 2/0/2 9000  9000
0d,0h,20m
Switch 2:
Port                        AP  State  Peer-port              Rx     Tx
Uptime
TenGigabitEthernet 2/0/1   1   OK      TenGigabitEthernet 1/0/1 9000  9000
0d,0h,20m
TenGigabitEthernet 2/0/2   2   OK      TenGigabitEthernet 1/0/2 9000  9000
0d,0h,20m
```

Table 1-2Output Fields of the show switch virtual link port Command

Field	Description
Port	Port list
State	Port status

Peer-port	Peer port
Rx	Size of a received packet, in bytes
Tx	Size of a transmitted packet, in bytes
Uptime	VSL port connection duration, in minutes

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

- **show switch id**
- **show switch virtual**
- **show switch virtual balance**
- **show switch virtual config**
- **show switch virtual dual-active**
- **show switch virtual role**
- **show switch virtual topology**

1.14   show switch virtual role

Function

Run the **show switch virtual role** command to display the information about device roles.

Syntax

show switch virtual role

Parameter Description

N/A

Command Modes

All modes except the user EXEC mode

Default Level

14

Usage Guidelines

This command has the same function as the **show switch virtual** command.

Examples

The following example displays device roles in standalone mode.

```
Hostname> enable
Hostname# show switch virtual role
Current system is running in "STANDALONE" mode.
```

The following example displays device roles in VSU mode.

```
Hostname> enable
Hostname# show switch virtual role
Switch_id  Domain_id   Priority    Position  Status     Role         Description
1(1)         1(1)       100(100)   LOCAL     OK         ACTIVE        switch-1
2(2)         1(1)       100(100)   REMOTE    OK         CANDIDATE     switch-2
3(3)         1(1)       100(100)   REMOTE    OK         STANDBY       switch-3
```

Table 1-1Output Fields of the show switch virtual role Command

Field	Description
Switch_id	Device ID. The value in the brackets is a modified value, which takes effect only after the device is restarted.
Domain_id	Device domain ID. The value in the brackets is a modified value, which takes effect only after the device is restarted.
Priority	Priority. The value in the brackets is a modified value, which takes effect only after the device is restarted.
Status	Device status. The available values include: ● **OK**: normal state ● **Recovery**: recovered state. ● **Leave**: on-leave state.. **Isolate**: isolated state.
Role	Device roles. The available values include: ● **Active**: global active devices ● **Standby**: global standby device **Candidate**: global candidate devices
Description	Device alias

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

- **show switch id**

- **show switch virtual**

- **show switch virtual balance**

- **show switch virtual config**

- **show switch virtual dual-active**

- **show switch virtual link**

- **show switch virtual topology**

1.15   show switch virtual topology

Function

Run the **show switch virtual topology** command to display the information about the VSU device topology.

Syntax

show switch virtual topology

Parameter Description

N/A

Command Modes

All modes except the user EXEC mode

Default Level

14

Usage Guidelines

N/A

Examples

The following example displays the information about the VSU device topology.

```
Hostname> enable
Hostname# show switch virtual topology
Introduction: '[num]' means switch num, '(num/num)' means vsl-aggregateport num.
Chain Topology:
[1](1/2)-(2/1)[2]
Switch[1]: master, MAC: 00d0.f822.33d6, Description: Switch1
Switch[2]: standby, MAC: 1234.5678.9003, Description: Switch2
```

Table 1-1Output Fields of the show switch virtual topology Command

Field	Description
Chain/Ring Topology	Topology shape, including chain topology and ring topology

Field	Description
Switch[-]	Information about a member device, including the role, MAC address, and device description

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

- **show switch id**
- **show switch virtual**
- **show switch virtual balance**
- **show switch virtual config**
- **show switch virtual dual-active**
- **show switch virtual link**
- **show switch virtual role**

1.16 switch

Function

Run the **switch** command to configure the device ID.

Run the **no** form of this command to restore the device ID to its default value.

The default device ID is 1.

Syntax

switch *switch-id*

no switch

Parameter Description

switch-id: ID of a device in VSU mode. The value range is from 1 to 2.

Command Modes

VSU domain configuration mode

Default Level

14

Usage Guidelines

A device ID is used to uniquely identify a member device of a VSU. In VSU mode, the name format of an interface is changed from "slot/port" to "switch/slot/port", where "switch" indicates the ID of the device to which the interface belongs.

If two active devices exist or if two devices are just started up with no role assigned and the devices share the same priority, the device with a smaller device ID is elected as the active one.

This command is used to modify the device ID in standalone mode only. In VSU mode, you need to run the **switch** *switch-id* **renumber** *new-switch-id* command to modify the device ID. The modified ID takes effect only after the device is restarted in both standalone mode and VSU mode.

Examples

The following example sets the ID of a device in VSU device domain 1 to 2 in standalone mode.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# switch virtual domain 1
Hostname(config-vs-domain)# switch 2
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

● **show switch id**

● **show switch virtual config**

1.17   switch cfg_mode

Function

Run the **switch cfg_mode** command to specify the manner of saving the VSU configuration file.

Run the **no** form of this command to restore the default configuration.

By default, the VSU configuration file of a device is separately saved and named **config_vsu.dat**.

Syntax

switch cfg_mode { **normal** | **single** }

no switch cfg_mode

Parameter Description

normal: Indicates that the VSU configuration file is separately saved and named as **config_vsu.dat**.

single: Indicates that the VSU configuration file is not separately saved and is named **config.text**.

Command Modes

VSU domain configuration mode

Default Level

14

Usage Guidelines

Examples

The following example saves the VSU configuration file to the **config.text** file in standalone mode.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# switch virtual domain 1
Hostname(config-vs-domain)# switch cfg_mode single
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

- **show switch virtual**

- **show switch virtual config**

1.18   switch convert mode

Function

Run the **switch convert mode** command to configure the standalone or VSU mode.

A device works in standalone mode by default.

Syntax

switch convert mode { **virtual** | **standalone** } [*switch-id*]

Parameter Description

virtual: Indicates the VSU mode.

standalone: Indicates the standalone mode.

switch-id: Device ID. The value range is from 1 to 2.

Command Modes

Privileged EXEC mode

Default Level

14

Usage Guidelines

After you run the **switch convert mode virtual** command, the device automatically backs up each VSD global configuration file in standalone mode into a file named **vsd.standalone.text.***VSD serial number.* Then, the device clears each VSD global configuration file **config.text**, prompts you to choose whether to overwrite the VSD global configuration file **config.text** with **vsd.standalone.text.***VSD serial number*, saves the VSU configurations and restarts.

After you run the **switch convert mode standalone** command, the active device backs up each VSD global configuration file in VSU mode into a file named **vsd.virtual_switch.text.***VSD serial number.* Then, the device clears each VSD global configuration file **config.text**, prompts you to choose whether to overwrite the VSD global configuration file **config.text** with **vsd.virtual_switch.text.***VSD serial number*, and finally restarts.

This command can be run in either standalone mode or VSU mode. When this command is run in standalone mode, the work mode of the local device is switched. When this command is run in VSU mode with *switch-id* specified, the work mode of the device corresponding to *switch-id* is switched; if *switch-id* is not specified, the work mode of the active device is switched. You are advised to switch the work mode of the standby device and that of the active device.

Examples

The following example switches to the VSU mode from the standalone mode.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# switch convert mode virtual
```

The following example switches standby device 2 and active device 1 to the standalone mode successively from the VSU mode.

```
Hostname> enable
Hostname# switch convert mode standalone 2
Hostname# switch convert mode standalone 1
```

Notifications

When you switch the VSU mode to the standalone mode:

The following notification will be displayed, asking you whether to back up **config.text** as **standalone.text**, delete **config.text**, and then restart the device:

```
Convert mode will backup and delete config file, and reload the switch. Are you
sure to continue[yes/no]
```

The following notification will be displayed, asking you whether to restore **config.text** from the backup file:

```
Do you want to recover config file from back file in standalong mode (press 'ctrl
+ c' to cancel) [yes/no]:n
```

When you switch the standalone mode to the VSU mode:

The following notification will be displayed, asking you whether to back up **config.text** as **virtual_switch.text**, delete **config.text**, and then restart the device:

```
Convert mode will backup and delete config file, and reload the switch. Are you
sure to continue[yes/no]
```

The following notification will be displayed, asking you whether to restore **config.text** from the backup file:

```
Do you want to recover config file from back file in standalong mode (press 'ctrl
+ c' to cancel) [yes/no]:
```

Common Errors

N/A

Platform Description

N/A

Related Commands

● **show switch virtual config**

1.19   switch crc errors

Function

Run the **switch crc errors** command to configure the CRC error detection parameter.

Run the **no** form of this command to restore the default configuration.

By default, one CRC error occurrence is recorded if the number of CRC errors incremented between two checks is 3 or more. If 10 consecutive CRC error occurrences is recorded, take actions.

Syntax

switch crc errors *error-number* **times** *time-number*

no switch crc

Parameter Description

error-number: Threshold of CRC errors incremented between two checks. One CRC error occurrence is recorded if the number of CRC errors exceeds this threshold.

time-number: Number of consecutive CRC error occurrences.

Command Modes

VSU domain configuration mode

Default Level

14

Usage Guidelines

N/A

Examples

The following example configures the CRC error detection rule as follows: One CRC error occurrence is recorded if the number of CRC errors incremented between two checks is 10 or more. If 5 consecutive CRC error occurrences are recorded, the port is considered abnormal.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# switch virtual domain 1
Hostname(config-vs-domain)# switch crc errors 10 times 5
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

● **show switch virtual config**

1.20   switch description

Function

Run the **switch description** command to configure a device name.

Run the **no** form of this command to delete a device name.

No device name is configured by default.

Syntax

switch *switch-id* **description** *device-name*

no switch *switch-id* **description**

Parameter Description

switch-id: ID of the device to be configured with a name. The value range is from 1 to 2.

device-name: Device name, containing up to 32 characters.

Command Modes

VSU domain configuration mode

Default Level

14

Usage Guidelines

This command is available in both the standalone mode and VSU mode. The configuration takes effect immediately.

Examples

The following example sets the name of device 1 to **buildingA**.

```
Hostname> enable
```

```
Hostname# configure terminal
Hostname(config)# switch virtual domain 1
Hostname(config-vs-domain)# switch 1 description buildingA
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

● **show switch virtual role**

● **show switch virtual config**

1.21   switch domain

Function

Run the **switch domain** command to modify the domain ID of a device in VSU mode.

Run the **no** form of this command to restore the domain ID of a device in VSU mode to its default value.

The default device domain ID is 100 in VSU mode.

Syntax

switch *switch-id* **domain** *new-domain-id*

no switch *switch-id* **domain**

Parameter Description

switch-id: ID of the running device in VSU mode. The value range is from 1 to 2.

new-domain-id: New domain ID. The value range is from 1 to 255.

Command Modes

VSU domain configuration mode

Default Level

14

Usage Guidelines

This command is available only in VSU mode and the configuration takes effect only after device restart.

Examples

The following example modifies the domain ID of device 1 to 10 in VSU mode.

```
Hostname> enable
Hostname# configure terminal
```

```
Hostname(config)# switch virtual domain 1
Hostname(config-vs-domain)# switch 1 domain 10
```

The following example restores the domain ID of device 2 to its default value (**100**) in VSU mode.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# switch virtual domain 1
Hostname(config-vs-domain)# no switch 2 domain
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

- **show switch virtual role**
- **show switch virtual config**

1.22   switch priority

Function

Run the **switch priority** command to configure a device priority.

Run the **no** form of this command to restore the device priority to its default value.

The default device priority is **100**.

Syntax

switch *switch-id* **priority** *priority*

no switch *switch-id* **priority**

Parameter Description

switch-id: ID of the device to be configured with a priority. The value range is from 1 to 2.

priority: Device priority. The value range is from 1 to 255.

Command Modes

VSU domain configuration mode

Default Level

14

Usage Guidelines

A larger value indicates a higher priority. The device with a higher priority is elected as the active device.

You can run this command in the standalone or VSU mode. The changed priority takes effect only after device restart.

This command does not change the value of *switch-id*. In VSU mode, *switch-id* indicates the ID of the running device. If the device ID does not exist, the configuration does not take effect.

Examples

The following example sets the priority of device 1 to 200 in standalone mode.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# switch virtual domain 1
Hostname(config-vs-domain)# switch 1 priority 200
```

The following example sets the priority of device 1 to 200 and restores the priority of device 2 to the default value (**100**) in VSU mode.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# switch virtual domain 1
Hostname(config-vs-domain)# switch 1 priority 200
Hostname(config-vs-domain)# no switch 2 priority
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

● **show switch virtual role**

● **show switch virtual config**

1.23   switch renumber

Function

Run the **switch renumber** command to modify a device ID.

Run the **no** form of this command to restore the device ID to its default value.

The default device ID is **1**.

Syntax

switch *switch-id* **renumber** *new-switch-id* [**force**]

no switch *switch-id*

Parameter Description

switch-id: ID of the running device in VSU mode. The value range is from 1 to 2.

new-switch-id: Modified device ID. The value range is from 1 to 2.

force: Specifies whether to forcibly modify the device ID.

🔴 **Warning**

A confirmation message is displayed when the **force** parameter is added. If you enter **yes**, the VSU

configuration is saved immediately and the device is restarted to validate the new device ID.

Command Modes

VSU domain configuration mode

Default Level

14

Usage Guidelines

This command is available only in VSU mode and the configuration takes effect only after device restart.

Examples

The following example changes the ID of the running device 1 to 2 in VSU mode.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# switch virtual domain 1
Hostname(config-vs-domain)# switch 1 renumber 2
```

The following example restores the ID of the running device 2 to its default value (**1**) in VSU mode.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# switch virtual domain 1
Hostname(config-vs-domain)# no switch 2
```

The following example forcibly modifies the ID of the running device 1 to 2 in VSU mode. Upon the modification, a confirmation message is displayed. You can enter **yes** to immediately save the configuration and restart the device.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# switch virtual domain 1
Hostname(config-vs-domain)# switch 1 renumber 2 force
```

Notifications

When the device ID is modified, the following notification will be displayed:

```
Renumber switch id may lead to loss of configuration and restart to connect other
VSU switch, do you want to continue? [no/yes]
```

Common Errors

N/A

Platform Description

N/A

Related Commands

● **show switch virtual role**

● **show switch virtual config**

1.24   switch virtual aggregateport-lff enable

Function

Run the **switch virtual aggregateport-lff enable** command to enable AP-based LFF.

Run the **no** form of this command to disable AP-based LFF.

AP-based LFF is enabled by default.

Syntax

switch virtual aggregateport-lff enable

no switch virtual aggregateport-lff enable

Parameter Description

N/A

Command Modes

VSU domain configuration mode

Default Level

14

Usage Guidelines

N/A

Examples

The following example disables AP-based LFF in VSU mode, that is, adopts the cross-device traffic balancing mode.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# switch virtual domain 1
Hostname(config-vs-domain)# no switch virtual aggregateport-lff enable
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

● **show switch virtual balance**

1.25   switch virtual domain

Function

Run the **switch virtual domain** command to configure a VSU domain ID or enter the VSU domain configuration mode.

Run the **no** form of this command to delete the VSU domain ID.

The default VSU domain ID is **100**.

Syntax

switch virtual domain *domain-id*

no switch virtual domain

Parameter Description

domain-id: VSU domain ID. The value range is from 1 to 255.

Command Modes

VSU domain configuration mode

Default Level

14

Usage Guidelines

Only devices with the same domain ID compose a VSU. The domain ID must be unique in the LAN.

Examples

The following example sets the VSU domain ID to 1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# switch virtual domain 1
Hostname(config-vs-domain)#
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

● **show switch virtual config**

● **show switch virtual role**

1.26   switch virtual ecmp-lff enable

Function

Run the **switch virtual ecmp-lff enable** command to enable ECMP-based LFF.

Run the **no** form of this command to disable ECMP-based LFF.

ECMP-based LFF is enabled by default.

Syntax

switch virtual ecmp-lff enable

no switch virtual ecmp-lff enable

Parameter Description

N/A

Command Modes

VSU domain configuration mode

Default Level

14

Usage Guidelines

N/A

Examples

The following examples disables ECMP-based LFF in VSU mode.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# switch virtual domain 1
Hostname(config-vs-domain)# no switch virtual ecmp-lff enable
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

● **show switch virtual balance**

1.27   vsl-port

Function

Run the **vsl-port** command to enter the VSL port configuration mode.

Syntax

vsl-port

Parameter Description

N/A

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

You can run this command in the standalone or VSU mode.

Examples

The following example enters the VSL port configuration mode in standalone/VSU mode.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# vsl-port
Hostname(config-vsl-port)#
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

● **show switch virtual config**

● **show switch virtual link**

1.28   recovery auto-restart enable

Function

Run the **recovery auto-restart enable** command to enable the automatic restart function of dual-active devices after a link fault is rectified in the recovery mode.

Run the **no** form of this command to disable the automatic restart function of dual-active devices after a link fault is rectified in the recovery mode.

By default, the automatic restart function of dual-active devices is enabled after the link fault is rectified in the Recovery mode.

Syntax

recovery auto-restart enable

no recovery auto-restart enable

Parameter Description

N/A

Command Modes

VSU domain configuration mode

Default Level

14

Usage Guidelines

This command is available in VSU mode.

Examples

The following example disables the automatic restart function of dual-active devices after a link fault is rectified in the Recovery mode.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# switch virtual domain 1
Hostname(config-vs-domain)# no recovery auto-restart enable
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A