1 IP Event Dampening Commands

Command	Function
dampening	Enable the function of IP Event Dampening.
show dampening interface	Display the statistics about interfaces with IP Event Dampening.
show interfaces dampening	Display IP Event Dampening configurations on an interface.

1.1 dampening

Function

Run the **dampening** command to enable the function of IP Event Dampening.

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

Run the **default** form of this command to restore the default configuration.

The function of IP Event Dampening is disabled for a routing interface by default.

Syntax

dampening [*half-life-period* [*reuse-threshold suppress-threshold max-suppress* [**restart** [*restart-penalty*]]]]

no dampening

default dampening

Parameter Description

half-life-period: Half-life period in seconds. The value range is from 1 to 30. The default value is **5**.

reuse-threshold: Reuse threshold. The value range is from 1 to 20000. The default value is **1000**.

suppress-threshold: Suppress threshold. The value range is from 1 to 20000. The default value is **2000**.

max-suppress: Maximum suppress time. The value range is 1 to 255. The default value is four times that of *half-life-period*.

restart *restart-penalty*: Specifies the initial penalty. The value range is from 1 to 20000. The default value is **2000**.

Command Modes

Interface configuration mode

Default Level

2

Usage Guidelines

Configuring the function of IP Event Dampening affects the functions of associated modules (direct routes, host routes, static routes, dynamic routes, and Virtual Router Redundancy Protocol (VRRP)).

When an interface is suppressed based on the configured criteria of the command, the associated modules determine the interface as Down and thus delete corresponding routes. This interface does not receive and send any data.

When the **dampening** command is reconfigured on an interface configured with this command, the dampening information on the interface is cleared, but the flap count is retained, unless you run the **clear counters** command to clear the interface statistics.

Examples

The following example enables IP Event Dampening on interface GigabitEthernet0/1, and sets the half-time period to 30s, the reuse threshold to 1500, the suppress threshold to 10,000, and the maximum suppress time to 100s.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface gigabitEthernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# dampening 30 1500 10000 100
```

Notifications

When the configured maximum suppress time (*max-suppress*) is so small that the maximum penalty is smaller than the suppress threshold, the interface is never suppressed. When such a configuration error occurs, the following notification will be displayed:

```
% Maximum penalty (10) is less than suppress penalty (2000). Increase maximum
suppress time
```

When the **damening** command is configured and the available system memory is insufficient to save the configuration, the following notification will be displayed:

```
% No memory, configure dampening fail!
```

Common Errors

● The configured maximum suppress time (*max-suppress*) is too small.

● IP Event Dampening is configured on an non-L3 interface.

Platform Description

This command is supported on only L3 devices.

When a routed interface is converted into a switching interface, the **dampening** command configured on the interface is deleted.

IP Event Dampening cannot be configured on **virtual templates**.

Related Commands

● **show dampening interface**

● **show interfaces dampening**

1.2   show dampening interface

Function

Run the **show dampening interface** command to display the statistics about interfaces with IP Event Dampening.

Syntax

show dampening interface

Parameter Description

N/A

Command Modes

All modes except the user EXEC mode

Default Level

2

Usage Guidelines

This command is used to display statistics about interfaces with IP Event Dampening.

Examples

The following example displays statistics about interfaces with IP Event Dampening.

```
Hostname> enable
Hostname# show dampening interface
1 interfaces are configured with dampening.
No interface is being suppressed.
```

Table 1-1Output Fields of the show dampening interface Command

Field	Description
interfaces are configured with dampening	Number of interface configured with Event Dampening
interface is being suppressed	Number of the suppressed interfaces

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

● **show interfaces dampening**

1.3 show interfaces dampening

Function

Run the **show interfaces dampening** command to display IP Event Dampening configurations on an interface.

Syntax

show interfaces [*interface-type interface-number*] **dampening**

Parameter Description

interface-type interface-number: Interface type and interface number. If this parameter is not specified, information about all interfaces is displayed.

Command Modes

All modes except the user EXEC mode

Default Level

2

Usage Guidelines

N/A

Examples

The following example displays IP Event Dampening configurations.

```
Hostname> enable
Hostname# show interfaces dampening
GigabitEthernet 0/1
  Flaps Penalty Supp    ReuseTm HalfL   ReuseV  SuppV   MaxSTm  MaxP    Restart
  0     0       FALSE   0       30      1500    10000   100     15119   0
```

Table 1-1 Output Fields of the show interfaces dampening Command

Field	Description
Flaps	Number of flaps of an interface
Penalty	Current penalty value
Supp	Whether an interface is suppressed
ReuseTm	Remaining time for an interface to be reused in seconds
HalfL	Half-life period
ReuseV	Reuse threshold
SuppV	Suppress threshold
MaxSTm	Maximum suppress time
MaxP	Maximum penalty
Restart	Initial penalty

Notifications

N/A

Common Errors

N/A

Platform Description

    N/A

Related Commands

- **show dampening interface**