

Contents

MVRP commands	1
display mvrp running-status	1
display mvrp state	2
display mvrp statistics	3
mrp timer join	5
mrp timer leave	6
mrp timer leaveall	7
mrp timer periodic	8
mvrp enable	8
mvrp global enable	9
mvrp gvrp-compliance enable	10
mvrp registration	10
reset mvrp statistics	11

MVRP commands

display mvrp running-status

Use **display mvrp running-status** to display MVRP running status.

Syntax

```
display mvrp running-status [ interface interface-list ]
```

Views

Any view

Predefined user roles

network-admin
network-operator

Parameters

interface *interface-list*: Specifies a range of Ethernet interfaces in the form of *interface-type interface-number1* [**to** *interface-type interface-number2*]. The *interface-type interface-number* argument represents the interface type and interface number. The value for the *interface-number2* argument must be greater than or equal to the value for the *interface-number1* argument. If the specified interfaces are not enabled with MVRP, this command displays global MVRP information. If you do not specify this option, the command displays global MVRP information and MVRP running status for all MVRP-enabled ports.

Examples

Display global MVRP information and MVRP running status for all MVRP-enabled ports.

```
<Sysname> display mvrp running-status
-----[MVRP Global Info]-----
Global Status      : Enabled
Compliance-GVRP   : False

----[Ten-GigabitEthernet1/0/1]----
Config Status      : Enabled
Running Status     : Enabled
Join Timer         : 20 (centiseconds)
Leave Timer        : 60 (centiseconds)
Periodic Timer     : 100 (centiseconds)
LeaveAll Timer     : 1000 (centiseconds)
Registration Type  : Normal
Registered VLANs  :
  1(default), 2-10
Declared VLANs   :
  1(default), 2-10
Propagated VLANs :
  1(default), 2-10

----[Ten-GigabitEthernet1/0/2]----
Config Status      : Enabled
Running Status     : Disabled
```

```

Join Timer                : 20 (centiseconds)
Leave Timer                : 60 (centiseconds)
Periodic Timer            : 100 (centiseconds)
LeaveAll Timer             : 1000 (centiseconds)
Registration Type          : Normal
Registered VLANs :
  None
Declared VLANs :
  None
Propagated VLANs :
  None

```

Table 1 Command output

Field	Description
MVRP Global Info	Global MVRP information.
Global Status	Global MVRP status: <ul style="list-style-type: none"> Enabled. Disabled.
Compliance-GVRP	GVRP compatibility status: <ul style="list-style-type: none"> True—Compatible. False—Incompatible.
Config Status	Whether MVRP is enabled on the port: <ul style="list-style-type: none"> Enabled. Disabled.
Running Status	Whether MVRP takes effect on the port: <ul style="list-style-type: none"> Enabled—MVRP takes effect on the port. Disabled—MVRP does not take effect on the port. Whether MVRP takes effect on a port is determined by the following items: <ul style="list-style-type: none"> Global and port-specific MVRP enabling status. Physical link state of the port. Port link type. Whether the port is a member of an aggregation group.
Registration Type	MVRP registration mode: <ul style="list-style-type: none"> Normal. Fixed. Forbidden.
Registered VLANs	VLANs that the port has registered.
Declared VLANs	VLANs that the port has declared to its peer participant.
Propagated VLANs	VLANs that the port has learned and notified other participants on the same device to declare to their respective peer participants.

display mvrp state

Use **display mvrp state** to display the MVRP state of a port in a VLAN.

Syntax

display mvrp state interface *interface-type interface-number* **vlan** *vlan-id*

Views

Any view

Predefined user roles

network-admin

network-operator

Parameters

interface *interface-type interface-number*: Specifies a port by its type and number.

vlan *vlan-id*: Specifies a VLAN by its VLAN ID in the range of 1 to 4094.

Examples

Display the MVRP state of Ten-GigabitEthernet 1/0/1 in VLAN 2.

```
<Sysname> display mvrp state interface ten-gigabitethernet 1/0/1 vlan 2
MVRP state of VLAN 2 on port XGE1/0/1:
Port                VLAN   App-state   Reg-state
-----
XGE1/0/1           2      VP          IN
```

Table 2 Command output

Field	Description
MVRP state of VLAN 2 on port XGE1/0/1	MVRP state of Ten-GigabitEthernet 1/0/1 in VLAN 2.
App-state	State of the attribute that the local participant declares to its peer participant: <ul style="list-style-type: none">• VO—Very anxious observer.• VP—Very anxious passive.• VN—Very anxious new.• AN—Anxious new.• AA—Anxious active.• QA—Quiet active.• LA—Leaving active.• AO—Anxious observer.• QO—Quiet observer.• AP—Anxious passive.• QP—Quiet passive.• LO—Leaving observer.
Reg-state	Registration state of the attribute declared by the peer participant on the local participant: <ul style="list-style-type: none">• IN—The attribute is registered.• LV—The attribute is previously registered, but now it is being deregistered.• MT—The attribute is not registered.

display mvrp statistics

Use **display mvrp statistics** to display MVRP statistics.

Syntax

display mvrp statistics [**interface** *interface-list*]

Views

Any view

Predefined user roles

network-admin

network-operator

Parameters

interface *interface-list*. Specifies a range of Ethernet interfaces in the form of *interface-type interface-number1* [**to** *interface-type interface-number2*]. The *interface-type interface-number* argument represents the interface type and interface number. The value for the *interface-number2* argument must be greater than or equal to the value for the *interface-number1* argument. If you do not specify this option, the command displays MVRP statistics of all MVRP-enabled ports.

Usage guidelines

If MVRP is disabled on the specified ports, this command does not provide any output.

Examples

Display MVRP statistics of all ports.

```
<Sysname> display mvrp statistics
```

```
----[Ten-GigabitEthernet1/0/1]----
Failed Registrations      : 1
Last PDU Origin          : 000f-e200-0010
Frames Received          : 201
  New Event Received      : 0
  JoinIn Event Received   : 1167
  In Event Received       : 0
  JoinMt Event Received   : 22387
  Mt Event Received       : 31
  Leave Event Received    : 210
  LeaveAll Event Received : 63
Frames Transmitted       : 120
  New Event Transmitted   : 0
  JoinIn Event Transmitted : 311
  In Event Transmitted    : 0
  JoinMt Event Transmitted : 873
  Mt Event Transmitted    : 11065
  Leave Event Transmitted : 167
  LeaveAll Event Transmitted : 4
Frames Discarded         : 0

----[Ten-GigabitEthernet1/0/2]----
Failed Registrations      : 0
Last PDU Origin          : 0000-0000-0000
Frames Received          : 0
  New Event Received      : 0
  JoinIn Event Received   : 0
  In Event Received       : 0
  JoinMt Event Received   : 0
  Mt Event Received       : 0
```

```

Leave Event Received      : 0
LeaveAll Event Received  : 0
Frames Transmitted      : 0
New Event Transmitted   : 0
JoinIn Event Transmitted : 0
In Event Transmitted    : 0
JoinMt Event Transmitted : 0
Mt Event Transmitted    : 0
Leave Event Transmitted  : 0
LeaveAll Event Transmitted : 0
Frames Discarded        : 0

```

Table 3 Command output

Field	Description
Failed Registrations	Number of VLAN registration failures through MVRP on the local participant.
Last PDU Origin	Source MAC address of the last MVRPDU.
Frames Received	Number of MVRP frames received.
New Event Received	Number of New events received.
JoinIn Event Received	Number of JoinIn events received.
In Event Received	Number of In events received.
JoinMt Event Received	Number of JoinMt events received.
Mt Event Received	Number of Mt events received.
Leave Event Received	Number of Leave events received.
LeaveAll Event Received	Number of LeaveAll events received.
Frames Transmitted	Number of MVRP frames sent.
New Event Transmitted	Number of New events sent.
JoinIn Event Transmitted	Number of JoinIn events sent.
In Event Transmitted	Number of In events sent.
JoinMt Event Transmitted	Number of JoinMt events sent.
Mt Event Transmitted	Number of Mt events sent.
Leave Event Transmitted	Number of Leave events sent.
LeaveAll Event Transmitted	Number of LeaveAll events sent.
Frames Discarded	Number of MVRP frames dropped.

mrp timer join

Use **mrp timer join** to set the Join timer.

Use **undo mrp timer join** to restore the default.

Syntax

mrp timer join *timer-value*

undo mrp timer join

Default

The Join timer is 20 centiseconds.

Views

Layer 2 Ethernet interface view

Layer 2 aggregate interface view

Predefined user roles

network-admin

Parameters

timer-value: Specifies the Join timer value (in centiseconds). The Join timer must meet the following requirements:

- Not less than 20 centiseconds.
- Less than half the Leave timer.
- Divisible by 20 centiseconds.

Examples

Set the Join timer to 40 centiseconds. (In this example, the Leave timer is 100 centiseconds.)

```
<Sysname> system-view
```

```
[Sysname] interface ten-gigabitethernet 1/0/1
```

```
[Sysname-Ten-GigabitEthernet1/0/1] mrp timer join 40
```

Related commands

display mvrp running-status

mrp timer leave

mrp timer leave

Use **mrp timer leave** to set the Leave timer.

Use **undo mrp timer leave** to restore the default.

Syntax

mrp timer leave *timer-value*

undo mrp timer leave

Default

The Leave timer is 60 centiseconds.

Views

Layer 2 Ethernet interface view

Layer 2 aggregate interface view

Predefined user roles

network-admin

Parameters

timer-value: Specifies the Leave timer value (in centiseconds). The Leave timer must meet the following requirements:

- Greater than two times the Join timer.
- Less than the LeaveAll timer.

- Divisible by 20 centiseconds.

Examples

Set the Leave timer to 100 centiseconds. (In this example, the Join timer and LeaveAll timer use their default settings.)

```
<Sysname> system-view
[Sysname] interface ten-gigabitethernet 1/0/1
[Sysname-Ten-GigabitEthernet1/0/1] mrp timer leave 100
```

Related commands

display mvrp running-status

mrp timer join

mrp timer leaveall

mrp timer leaveall

Use **mrp timer leaveall** to set the LeaveAll timer.

Use **undo mrp timer leaveall** to restore the default.

Syntax

mrp timer leaveall *timer-value*

undo mrp timer leaveall

Default

The LeaveAll timer is 1000 centiseconds.

Views

Layer 2 Ethernet interface view

Layer 2 aggregate interface view

Predefined user roles

network-admin

Parameter

timer-value: Specifies the LeaveAll timer value (in centiseconds). The LeaveAll timer must meet the following requirements:

- Greater than any Leave timer on each port.
- Not greater than 32760 centiseconds.
- Divisible by 20 centiseconds.

Usage guidelines

Each time the LeaveAll timer of a port expires, all attributes of the MSTIs on the port are deregistered throughout the network. To prevent this type of deregistration from affecting the network, do not set the LeaveAll timer to less than its default value.

To keep the dynamic VLANs learned through MVRP stable, do not set the LeaveAll timer less than its default value.

The device randomly changes the LeaveAll timer within a certain range when an MRP participant restarts its LeaveAll timer. This prevents the LeaveAll timer of a particular participant from always expiring first.

Examples

Set the LeaveAll timer to 1500 centiseconds. (In this example, the Leave timer on each port uses the default setting.)

```
<Sysname> system-view
[Sysname] interface ten-gigabitethernet 1/0/1
[Sysname-Ten-GigabitEthernet1/0/1] mrp timer leaveall 1500
```

Related commands

display mvrp running-status

mrp timer leave

mrp timer periodic

Use **mrp timer periodic** to set the Periodic timer.

Use **undo mrp timer periodic** to restore the default.

Syntax

mrp timer periodic *timer-value*

undo mrp timer periodic

Default

The Periodic timer is 100 centiseconds.

Views

Layer 2 Ethernet interface view

Layer 2 aggregate interface view

Predefined user roles

network-admin

Parameters

timer-value: Specifies the Periodic timer, which can be 0 or 100 centiseconds.

Usage guidelines

Setting the Periodic timer to 0 disables the Periodic timer.

Setting the Periodic timer to 100 enables the Periodic timer. The participant then sends MRP frames at an interval of 100 centiseconds.

Examples

Disable the Periodic timer.

```
<Sysname> system-view
[Sysname] interface ten-gigabitethernet 1/0/1
[Sysname-Ten-GigabitEthernet1/0/1] mrp timer periodic 0
```

Related commands

display mvrp running-status

mvrp enable

Use **mvrp enable** to enable MVRP on a port.

Use **undo mvrp enable** to disable MVRP on a port.

Syntax

mvrp enable
undo mvrp enable

Default

MVRP is disabled on a port.

Views

Layer 2 Ethernet interface view
Layer 2 aggregate interface view

Predefined user roles

network-admin

Usage guidelines

For MVRP to take effect on a port, make sure the following requirements are met:

- MVRP is enabled both globally and on the port.
- The port is physically up.
- The port link type is trunk.
- The port is not a member of an aggregation group.

Examples

```
# Enable MVRP on Ten-GigabitEthernet 1/0/1.  
<Sysname> system-view  
[Sysname] mvrp global enable  
[Sysname] interface ten-gigabitethernet 1/0/1  
[Sysname-Ten-GigabitEthernet1/0/1] port link-type trunk  
[Sysname-Ten-GigabitEthernet1/0/1] mvrp enable
```

Related commands

display mvrp running-status

mvrp global enable

Use **mvrp global enable** to enable MVRP globally.

Use **undo mvrp global enable** to disable MVRP globally.

Syntax

mvrp global enable
undo mvrp global enable

Default

MVRP is disabled globally.

Views

System view

Predefined user roles

network-admin

Usage guidelines

For MVRP to take effect on a port, enable MVRP both on the port and globally.

Examples

```
# Enable MVRP globally.  
<Sysname> system-view  
[Sysname] mvrp global enable
```

Related commands

display mvrp running-status

mvrp gvrp-compliance enable

Use **mvrp gvrp-compliance enable** to enable GVRP compatibility for MVRP.

Use **undo mvrp gvrp-compliance enable** to restore the default.

Syntax

```
mvrp gvrp-compliance enable  
undo mvrp gvrp-compliance enable
```

Default

MVRP is incompatible with GVRP.

Views

System view

Predefined user roles

network-admin

Usage guidelines

When you enable GVRP compatibility for MVRP, the device can receive and send both MVRP and GVRP frames.

Examples

```
# Enable GVRP compatibility for MVRP.  
<Sysname> system-view  
[Sysname] mvrp gvrp-compliance enable
```

Related commands

display mvrp running-status

mvrp registration

Use **mvrp registration** to set the MVRP registration mode on a port.

Use **undo mvrp registration** to restore the default.

Syntax

```
mvrp registration { fixed | forbidden | normal }  
undo mvrp registration
```

Default

The MVRP registration mode is normal.

Views

Layer 2 Ethernet interface view

Layer 2 aggregate interface view

Predefined user roles

network-admin

Parameters

fixed: Specifies the fixed registration mode.

forbidden: Specifies the forbidden registration mode.

normal: Specifies the normal registration mode.

Examples

```
# Set the MVRP registration mode to fixed on Ten-GigabitEthernet 1/0/1.
```

```
<Sysname> system-view
```

```
[Sysname] interface ten-gigabitethernet 1/0/1
```

```
[Sysname-Ten-GigabitEthernet1/0/1] mvrp registration fixed
```

Related commands

display mvrp running-status

reset mvrp statistics

Use **reset mvrp statistics** to clear MVRP statistics for ports.

Syntax

```
reset mvrp statistics [ interface interface-list ]
```

Views

User view

Predefined user roles

network-admin

Parameters

interface *interface-list*: Specifies a range of Ethernet interfaces in the form of *interface-type interface-number1* [**to** *interface-type interface-number2*]. The *interface-type interface-number* argument represents the interface type and interface number. The value for the *interface-number2* argument must be greater than or equal to the value for the *interface-number1* argument. If you do not specify this option, the command clears MVRP statistics of all ports.

Examples

```
# Clear MVRP statistics for all ports.
```

```
<Sysname> reset mvrp statistics
```

Related commands

display mvrp statistics