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PBB commands

bvlan

Use **bvlan** to specify a B-VLAN for a PBB VSI.

Use **undo bvlan** to remove the B-VLAN of a PBB VSI.

Syntax

bvlan *vlan-id*

undo bvlan

Default

No B-VLAN is specified for a PBB VSI.

Views

PBB VSI view

Predefined user roles

network-admin

Parameters

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

Usage guidelines

You can assign only one B-VLAN to a PBB VSI, but different PBB VSIs can use the same B-VLAN.

For a PBB VSI, you must specify the same I-SID and B-VLAN across all BEBs.

Examples

Create PBB VSI **web** with I-SID 100. Specify B-VLAN 100 for the PBB VSI.

```
<Sysname> system-view
[Sysname] l2vpn enable
[Sysname] vsi web
[Sysname-vsi-web] pbb i-sid 100
[Sysname-vsi-web-100] bvlan 100
```

Related commands

vsi

display l2vpn minm connection

Use **display l2vpn minm connection** to display MAC-in-MAC connections.

Syntax

display l2vpn minm connection [**vsi** *vsi-name*]

Views

Any view

Predefined user roles

network-admin

network-operator

Parameters

vsi *vsi-name*: Specifies a VSI by its name, a case-sensitive string of 1 to 31 characters. If you do not specify a VSI, this command displays MAC-in-MAC connections for all VSIs.

Examples

Display MAC-in-MAC connections for all VSIs.

```
<Sysname> display l2vpn minm connection
Total number of MinM connections: 2
Types: MC - multicast, UC - unicast

VSI name: 1
Link ID  I-SID     BMAC            BVLAN  Owner   Type  Interface
68       1         00e0-3948-0100  4001   PBB     UC    XGE1/0/1
-        1         011e-8300-0001  4001   PBB     MC    XGE1/0/1

VSI name: 2
Link ID  I-SID     BMAC            BVLAN  Owner   Type  Interface
69       2         00e0-3948-0300  4002   PBB     UC    XGE1/0/2
-        2         011e-8300-0002  4002   PBB     MC    XGE1/0/2
```

Table 1 Command output

Field	Description
Link ID	Link ID of the MAC-in-MAC connection.
I-SID	Backbone service instance identifier.
BMAC	Backbone MAC address.
BVLAN	Backbone VLAN.
Owner	Entry source: **PBB** or **SPB**.
Type	Type of the MAC-in-MAC connection: • **MC**—The connection is for multicast. • **UC**—The connection is for unicast.
Interface	Outgoing interface.

display l2vpn minm forwarding

Use **display l2vpn minm forwarding** to display MAC-in-MAC forwarding entries.

Syntax

display l2vpn minm forwarding [**vsi** *vsi-name*] [**slot** *slot-number*]

Views

Any view

Predefined user roles

network-admin

network-operator

Parameters

vsi *vsi-name*: Specifies a VSI by its name, a case-sensitive string of 1 to 31 characters. If you do not specify a VSI, this command displays MAC-in-MAC forwarding entries for all VSIs.

slot *slot-number*: Specifies an IRF member device by its ID. If you do not specify a member device, this command displays MAC-in-MAC forwarding entries for the master device.

Examples

Display all MAC-in-MAC forwarding entries.

```
<Sysname> display l2vpn minm forwarding
Total number of MinM connections: 4
Types: MC - multicast, UC – unicast
Status Flag: * - inactive

VSI name: 1
Link ID I-SID     BMAC            BVLAN Owner Type Interface
68      1         00e0-3948-0100  4001  PBB   UC   XGE1/0/1
-       1         011e-8300-0001  4001  PBB   MC   XGE1/0/1

VSI name: 2
Link ID I-SID     BMAC            BVLAN Owner Type Interface
69      2         00e0-3948-0300  4002  PBB   UC   XGE1/0/2
-       2         011e-8300-0002  4002  PBB   MC   XGE1/0/2
                                                    XGE1/0/3
                                                    XGE1/0/4
```

Table 2 Command output

Field	Description
Link ID	Link ID of the MAC-in-MAC connection.
I-SID	Backbone service instance identifier.
BMAC	Backbone MAC address.
BVLAN	Backbone VLAN.
Owner	Entry source: **PBB** or **SPB**.
Type	Type of the MAC-in-MAC connection: • **MC**—The connection is for multicast. • **UC**—The connection is for unicast.
Interface	Outgoing interface. An asterisk (*) indicates that the MAC-in-MAC forwarding entry is ineffective.

display l2vpn vsi

Use **display l2vpn vsi** to display VSI information.

Syntax

display l2vpn vsi [**name** *vsi-name*] [**verbose**]

Views

Any view

Predefined user roles

network-admin

network-operator

Parameters

name *vsi-name*: Specifies a VSI by its name, a case-sensitive string of 1 to 31 characters. If you do not specify a VSI, this command displays information for all VSIs.

verbose: Displays detailed VSI information. If you do not specify this keyword, the command displays brief VSI information.

Examples

Display detailed information for all VSIs.

```
<Sysname> display l2vpn vsi verbose
VSI Name: 1
  VSI Index               : 0
  VSI State               : Up
  MTU                     : 1500
  Bandwidth               : -
  Broadcast Restrain      : Unlimited
  Multicast Restrain      : Unlimited
  Unknown Unicast Restrain: Unlimited
  MAC Learning            : Enabled
  MAC Table Limit         : -
  Drop Unknown            : -
  PBB I-SID               : 1
  PBB Connections:
    BMAC            BVLAN            Link ID    Type
    00e0-3948-0100  4001             68         Unicast
    011e-8300-0001  4001             -          Multicast
  ACs:
    AC                               Link ID    State    Type
    BAGG1 srv1                       0          Down     Manual

VSI Name: 2
  VSI Index               : 1
  VSI State               : Up
  MTU                     : 1500
  Bandwidth               : -
  Broadcast Restrain      : Unlimited
  Multicast Restrain      : Unlimited
  Unknown Unicast Restrain: Unlimited
  MAC Learning            : Enabled
  MAC Table Limit         : -
  Drop Unknown            : -
  PBB I-SID               : 2
  PBB Connections:
    BMAC            BVLAN            Link ID    Type
    00e0-3948-0300  4002             69         Unicast
    011e-8300-0002  4002             -          Multicast
```

Table 3 Command output

Field	Description
VSI Description	VSI description. This field appears only when you have configured a description for the VSI.
VSI State	VSI state: • **Up**. • **Down**. • **Administratively down**—The VSI has been manually shut down by using the **shutdown** command.
MTU	MTU for the VSI.
Bandwidth	This field is not supported in the current software version. Maximum bandwidth in kbps for the VSI.
Broadcast Restrain	Broadcast restraint bandwidth (in kbps).
Multicast Restrain	Multicast restraint bandwidth (in kbps).
Unknown Unicast Restrain	Unknown unicast restraint bandwidth (in kbps).
MAC Learning	MAC learning state: **Enabled** or **Disabled**.
MAC Table Limit	This field is not supported in the current software version. Maximum number of MAC address entries on the VSI. If the value is set to **Unlimited**, the number of MAC address entries is not limited.
Drop Unknown	This field is not supported in the current software version. Whether the VSI drops packets with unknown source MAC addresses after the maximum number of MAC entries is reached: • **Enabled**—Drops these packets. • **Disabled**—Forwards these packets.
BMAC	Backbone MAC address.
BVLAN	Backbone VLAN.
Type	Entry type: • **Multicast**—The entry is used for multicast forwarding. • **Unicast**—The entry is used for unicast forwarding.
ACs	Attachment circuits (ACs) that are bound to the VSI.
AC	AC type: • Layer 3 interface such as XGE1/0/4. • Layer 2 interface and service instance, such as XGE1/0/3 srv1.
Link ID	Link ID in the VSI for the AC.
State	AC state: **Up** or **Down**.
Type	Type and traffic match mode of the Ethernet service instance. **Manual** represents an Ethernet service instance in VLAN-based traffic match mode.

display pbb connection

Use **display pbb connection** to display PBB VSI connections.

Syntax

display pbb connection

Views

Any view

Predefined user roles

network-admin

network-operator

Examples

Display connections for all PBB VSIs.

```
<Sysname> display pbb connection
BMAC            BVLAN  Port       Type  Aging
011e-8300-0001  4001   XGE1/0/1   MC    N
00e0-3948-0100  4001   XGE1/0/1   UC    Y
011e-8300-0002  4002   XGE1/0/2   MC    N
00e0-3948-0300  4002   XGE1/0/2   UC    Y
```

Table 4 Command output

Field	Description
BMAC	Backbone MAC address.
BVLAN	Backbone VLAN ID.
Port	Outgoing interface.
Type	Entry type: • **UC**—The connection is for unicast. • **MC**—The connection is for multicast.
Aging	Support for aging: • **Y**—The entry supports aging. • **N**—The entry does not age.

Related commands

reset pbb connection

encapsulation

Use **encapsulation** to specify a data encapsulation type for a PBB VSI.

Use **undo encapsulation** to restore the default.

Syntax

encapsulation { **ethernet** | **vlan** }

undo encapsulation

Default

The data encapsulation type is VLAN for a PBB VSI.

Views

PBB VSI view

Predefined user roles

network-admin

Parameters

ethernet: Specifies Ethernet encapsulation.

vlan: Specifies VLAN encapsulation.

Examples

Configure the Ethernet encapsulation type.

```
<Sysname> system-view
[Sysname] l2vpn enable
[Sysname] vsi web
[Sysname-vsi-web] pbb i-sid 100
[Sysname-vsi-web-100] encapsulation ethernet
```

Related commands

pbb i-sid

vsi

l2vpn enable

Use **l2vpn enable** to enable L2VPN.

Use **undo l2vpn enable** to disable L2VPN.

Syntax

l2vpn enable

undo l2vpn enable

Default

L2VPN is disabled.

Views

System view

Predefined user roles

network-admin

Examples

Enable L2VPN.

```
<Sysname> system-view
[Sysname] l2vpn enable
```

pbb i-sid

Use **pbb i-sid** to configure a VSI as a PBB VSI and enter its view, or enter the view of an existing PBB VSI.

Use **undo pbb i-sid** to restore the default.

Syntax

pbb i-sid *i-sid*

undo pbb i-sid

Default

No PBB VSIs exist.

Views

VSI view

Predefined user roles

network-admin

Parameters

i-sid: Specifies a PBB I-SID for the VSI, in the range of 1 to 16777215.

Usage guidelines

For a VSI, the PBB I-SID cannot be the same as the SPB I-SID. For more information about SPB, see *SPB Configuration Guide*.

The name of a PBB VSI can be different on different PBB nodes, but its I-SID must be the same across the PBBN.

As a best practice, specify the same name for a PBB VSI on different PBB nodes.

Examples

Specify PBB I-SID 100 for VSI **vpn1** and enter PBB VSI view.

```
<Sysname> system-view
[Sysname] vsi vpn1
[Sysname-vsi-vpn1] pbb i-sid 100
[Sysname-vsi-vpn1-100]
```

Related commands

display l2vpn minm connection

display l2vpn minm forwarding

pbb uplink

Use **pbb uplink** to configure an interface as an uplink port for PBB VSIs.

Use **undo pbb uplink** to remove an uplink port of PBB VSIs.

Syntax

pbb uplink { **all** | **vsi** *vsi-name-list* }

undo pbb uplink { **all** | **vsi** *vsi-name-list* }

Default

An interface is not configured as the uplink port of any PBB VSI.

Views

Layer 2 aggregate interface view

Layer 2 Ethernet interface view

Predefined user roles

network-admin

Parameters

all: Specifies all VSIs.

vsi *vsi-name-list*: Specifies a space-separated list of up to 10 VSI names. A VSI name is a case-sensitive string of 1 to 31 characters.

Usage guidelines

For a PBB VSI to operate correctly, you must specify a minimum of one uplink port for it.

You can create VSIs before or after you configure the **pbb uplink** command. The uplink port configuration takes effect after you create the VSIs.

The **pbb uplink all** command can override the **pbb uplink vsi** command on an interface. However, the **pbb uplink vsi** command cannot override the **pbb uplink all** command.

- If an interface has been an uplink port for a list of PBB VSIs, you can use the **pbb uplink all** command to specify it for all PBB VSIs.
- If an interface has been an uplink port for all PBB VSIs, the **pbb uplink vsi** command cannot take effect. To specify the interface as an uplink port only for a list of PBB VSIs, you must first execute the **undo pbb uplink all** command.

To configure the **pbb uplink** command successfully on an aggregate interface, you must make sure all its member ports support PBB.

After the command is configured on an aggregate interface, you can add PBB-incapable ports to the aggregate interface. The system will generate a log message that the member port does not support PBB. This situation does not affect the operations of the aggregate interface or PBB.

Examples

Specify Ten-GigabitEthernet 1/0/1 and Ten-GigabitEthernet 1/0/2 as the uplink ports of the **web** and **mail** PBB VSIs.

```
<Sysname> system-view
[Sysname] l2vpn enable
[Sysname] vsi web
[Sysname-vsi-web] pbb i-sid 100
[Sysname-vsi-web-100] bvlan 100
[Sysname-vsi-web-100] quit
[Sysname-vsi-web] quit
[Sysname] vsi mail
[Sysname-vsi-mail] pbb i-sid 200
[Sysname-vsi-mail-200] bvlan 200
[Sysname-vsi-mail-200] quit
[Sysname-vsi-mail] quit
[Sysname] interface range ten-gigabitethernet 1/0/1 to ten-gigabitethernet 1/0/2
[Sysname-if-range] pbb uplink vsi web mail
```

Related commands

vsi

reset pbb connection

Use **reset pbb connection** to clear PBB VSI connections.

Syntax

reset pbb connection [**bvlan** *vlan-id* | **interface** *interface-type interface-number*] *

Views

User view

Predefined user roles

network-admin

Parameters

bvlan *vlan-id*: Specifies a B-VLAN by its ID in the range of 1 to 4094. If you do not specify a B-VLAN, this command clears PBB VSI connections for all B-VLANs.

interface *interface-type interface-number*: Specifies an interface by its type and number. If you do not specify an interface, this command clears PBB VSI connections for all interfaces.

Usage guidelines

The command clears only unicast-type PBB VSI connections.

Examples

Clear PBB VSI connections.

```
<Sysname> reset pbb connection
```

Related commands

display pbb connection

vsi

Use **vsi** to create a VSI and enter its view, or enter the view of an existing VSI.

Use **undo vsi** to delete a VSI.

Syntax

vsi *vsi-name*

undo vsi *vsi-name*

Default

No VSIs exist.

Views

System view

Predefined user roles

network-admin

Parameters

vsi *vsi-name*: Specifies a VSI name, a case-sensitive string of 1 to 31 characters.

Examples

Create a VSI and enter VSI view.

```
<Sysname> system-view
[Sysname] vsi test
[Sysname-vsi-test]
```

Related commands

display l2vpn vsi