AX3800S
AX3600S

AX3800S/AX3650S
Software Manual Corrections
(For Version 11.10 and later)

May 14, 2013 (Edition 2)

■ Preface

This document contains corrections that have been made to the AX3800S/AX3650S software manuals (All Rights Reserved, Copyright(C), 2011, 2012, ALAXALA Networks, Corp.). When you read a manual listed in the following table, please also read this document. The table below lists the software manuals to which the corrections in this document apply.

No.	Manual name	Manual number	Editions history
1	AX3800S/AX3650S Software Manual Configuration Guide Vol. 1 (for Version 11.10)	AX38S-S001X-40	December 2012
2	AX3800S/AX3650S Software Manual Configuration Guide Vol. 2 (for Version 11.10)	AX38S-S002X-40	December 2012
3	AX3800S/AX3650S Software Manual Configuration Guide Vol. 3 (for Version 11.10)	AX38S-S003X-40	December 2012
4	AX3800S/AX3650S Software Manual Configuration Command Reference Vol. 1 (for Version 11.10)	AX38S-S004X-40	December 2012
5	AX3800S/AX3650S Software Manual Configuration Command Reference Vol. 2 (for Version 11.10)	AX38S-S005X-40	December 2012
6	AX3800S/AX3650S Software Manual Operation Command Reference Vol. 1 (for Version 11.10)	AX38S-S006X-40	December 2012
7	AX3800S/AX3650S Software Manual Operation Command Reference Vol. 2 (for Version 11.10)	AX38S-S007X-40	December 2012
8	AX3800S/AX3650S Software Manual Message and Log Reference (for Version 11.10)	AX38S-S008X-40	December 2012
9	AX3800S/AX3650S Software Manual MIB Reference (for Version 11.10)	AX38S-S009X-40	December 2012

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■ Editions history

May 14, 2013 (Edition 2)

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History of Amendments

Changes in Edition 2

Item	Changes
1. Configuration Guide Vol. 1 (For Version 11.10) (AX38S-S001X-40)	3.2.8 High reliability function based on redundant configurations [Change]
	3.2.9 High reliability function based on network failure detection [Change]
	3.2.10Managing information about neighboring devices (LLDP/OADP) [Change]
	7.1.3 Support functionality [Change]
	7.7.2 Notes on stacks [Addition]
	16.12.1 Functionality [Change]
	16.16.1 Functionality [Change]
2. Configuration Guide Vol. 2 (For Version 11.10) (AX38S-S002X-40)	1.2.1 List of configuration commands [Change]
	2.3.1 List of configuration commands [Change]
	3.4.1 Bandwidth monitoring [Change]
	3.10 Description of priority determination [Change]
	3.10.1 Frames subject to priority determination [Change]
	3.10.2 CoS values and queuing priority [Change]
	3.10.4 Note on using priority determination [Change]
	3.13.1 Operation performed when a frame matches multiple QoS entries [Change]
	14.4.1 Overview [Change]
	14.6 Notes on using GSRP [Change]
	15.1.1 List of configuration commands [Change]
	15.1.4 Configuring Layer 3 redundancy switching [Change]
	15.2.2 Checking the GSRP state [Change]
	23.1 Description [Change]
3. Configuration Guide Vol. 3 (For Version 11.10) (AX38S-S003X-40)	7.4.2 Load balancing specifications [Change]
	7.4.3 Notes on using load balancing [Addition]
	7.6.1 Checking the maximum number of multipaths handled by the Switch [Change]
	14.4.2 IPv4 PIM-SM [Addition]
	15.1.1 List of configuration commands [Change]
	23.4.2 Load balancing specifications [Change]
	23.4.3 Notes on using load balancing [Addition]
	23.6.1 Checking the maximum number of multipaths handled by the Switch [Change]
4. Configuration Command Reference Vol. 1 (For Version 11.10) (AX38S-S004X-40)	[4] switch provision [Change]
	18. Flow Detection Mode [Change]
	[18] flow action-change cos [Addition]
	[28] virtual-mac-learning-interval [Addition]
	41.1.3 Stack information [Change]
	41.1.11 VLAN information [Change]
	41.1.16 Information about flow detection mode [Change] [Addition]
	41.1.17 Access list information [Change]
5. Configuration Command Reference Vol. 2 (For Version 11.10) (AX38S-S005X-40)	[15] ip pim accept-bootstrap [Addition]
6. Operation Command Reference Vol.1 (For Version 11.10) (AX38S-S006X-40)	[5] show switch [Change]
	[9] show version [Change]
	[9] show system [Change]
	[16] show interfaces (40GBASE-R) [AX3800S] [Change]

Item	Changes
	[16] show port [Change]
	[16] no test interfaces [Change]
	[30] show gsrp [Change]
7. Operation Command Reference Vol.2 (For Version 11.10) (AX38S-S007X-40)	[7] show ip pim interface [Change]
	[9] traceroute ipv6 [Change]
8. Message and Log Reference (For Version 11.10) (AX38S-S008X-40)	3.4.4 Event location = VLAN (GSRP) [Addition]
	3.7.1 Event location = PS [Addition]
9. MIB Reference (For Version 11.10) (AX38S-S009X-40)	3.20 ax3830sSwitch group (System device model information MIB) [Change]
	3.21.1 ax3830sChassis group implementation specifications (Chassis information) [Change]
	3.21.6 ax3830sPhysLine group implementation specifications (Interface information) [Change]

Contents

For information that is not included in this document, information for AX3830S-44X4QS is the same as that for AX3830S-44X4QW. For such information, read the descriptions for AX3830S-44X4QW in the software manuals as the descriptions for AX3830S-44X4QS.

For details about devices, see the *Hardware Instruction Manual*.

1. Changes in Configuration Guide Vol. 1 (For Version 11.10) (AX38S-S001X-40)

3. Capacity Limit

(1) 3.2.8 High reliability function based on redundant configurations [Change]

(1) GSRP has been changed.

Change:

Corrected → The following table describes the capacity limits for GSRP.

Table 3-73 Capacity limits for GSRP

Model	Maximum number of VLAN groups	Maximum number of VLANs per VLAN group
All models	64	1024

Added

Also, when using Layer 3 redundancy switching functionality, the maximum total number of VLAN ports that belong to VLAN group must not exceed 5000. Each channel group is counted as one VLAN port.

Table 3-75 Capacity limits for uplink redundancy has been changed.

Change:

Table 3-75 Capacity limits for uplink redundancy

Model	Number of uplink ports	Number of interfaces allowed per uplink port
All models	25# ← Corrected	2

Added

Each channel group is counted as one port.

(2) 3.2.9 High reliability function based on network failure detection [Change]

Table 3-78 L2 loop detection frame transmission rate has been changed.

Change:

Table 3-78 L2 loop detection frame transmission rate

Model	L2 loop detection frame transmission rate (per switch)#1	
	When using Spanning Tree Protocols, GSRP, or Ring Protocol	When not using Spanning Tree Protocols, GSRP, or Ring Protocol
All models	30 pps (recommended)#2	200 pps (maximum)#3

- Formula for calculating L2 loop detection frame transmission rate:

number-of-VLAN-ports-subject-to-L2-loop-detection#4 / *frame-transmission-rate-(pps)* ≤ *sending-interval-(sec.)*

Corrected

#1

The transmission rate is automatically adjusted to within 200 pps in accordance with the above equation.

#2

When using either Spanning Tree Protocols, GSRP, or Ring Protocol, set the transmission rate to no more than 30 pps. If the transmission rate is any higher, normal operation of the functionality is not guaranteed.

#3

Frames that exceed 200 pps will not be sent. Loop failures cannot be detected on target ports or VLANs from which frames have not been sent. Make sure that you set the sending interval to achieve a transmission rate of no more than 200 pps.

Added

#4

Each channel group is counted as one port.

(3) 3.2.10 Managing information about neighboring devices (LLDP/OADP) [Change]

Table 3-83 Capacity limits for storing neighboring device information (LLDP/OADP) has been changed.

Change:

Table 3-83 Capacity limits for storing neighboring device information (LLDP/OADP)

Item	Maximum capacity
LLDP neighboring device information	52
OADP neighboring device information	100# ← Corrected

Added

#

Each channel group is counted as one.

7. Description of Stack Functionality

(1) 7.1.3 Support functionality [Change]

Table 7-1 Support status in the stack has been changed. [Version 11.11 and later]

Change:

Table 7-1 Support status in the stack

Item		Support status	Remark
...	...	...	...
High reliability based on network failure detection	IEEE 802.3ah/UDLD	Y	None
	Storm control	Y ← Corrected	
	Layer 2 loop detection	Y	
	CFM	--	
...	...	...	...

(2) 7.7.2 Notes on stacks [Addition]

In *Notes*, the following has been added. [Version 11.11 and later]

Addition:

(10) Time until the added member switch starts up when storm control is used

If you add a member switch when storm control is used with a stack and the number of frames to be received is set as the threshold, it takes a few minutes longer for the switch to start up, compared to when adding a member switch when storm control is not used. The addition of a member switch includes the cases where one member switch is restarted in a stack configuration with two member switches and where software is updated, in addition to cases where a member switch is added to a stack configuration with one member switch.

13. Device Management

(1) 13.1.3 Checking the switch status [Change]

Figure 13-2 Checking the switch status has been changed.

Before change:

<omitted>

```
  Flash :
            user area   config area     dump area    area total
      used  114,175kB          74kB       3,306kB     117,555kB
      free   91,381kB     120,597kB      62,084kB     274,062kB
      total 205,556kB     120,671kB      65,390kB     391,617kB
```

<omitted>

After change:

<omitted>

```
  Flash :
            user area   config area     dump area    area total
      used  121,161kB         289kB           0kB     121,450kB
      free   14,619kB      75,117kB      65,390kB     155,126kB
      total 135,780kB      75,406kB      65,390kB     276,576kB
```

<omitted>

(2) 13.1.4 Checking the switch's internal memory [Change]

Figure 13-5 Checking flash memory capacity has been changed.

Before change:

<omitted>

```
Flash :
          user area   config area     dump area    area total
    used  114,175kB          74kB       3,306kB     117,555kB
    free   91,381kB     120,597kB      62,084kB     274,062kB
    total 205,556kB     120,671kB      65,390kB     391,617kB
>
```

After change:

<omitted>

```
Flash :
          user area   config area     dump area    area total
    used  121,161kB         289kB           0kB     121,450kB
    free   14,619kB      75,117kB      65,390kB     155,126kB
    total 135,780kB      75,406kB      65,390kB     276,576kB
>
```

16. Ethernet

(1) 16.12.1 Functionality [Change]

(1) Connection interface (a) 40GBASE-R has been changed. [Version 11.11 and later]

Change:

(a) 40GBASE-R

Corrected →

The 40GBASE-SR4, 40GBASE-LR4, and 40GBASE-CR4 interfaces are supported. The line speed is set to 40 Gbit/s, and fixed full-duplex connections or connections via auto-negotiation are supported. Note that half-duplex connections are not supported.

40GBASE-SR4:

Used for short-distance connections.

Connections via auto-negotiation are not supported, and only fixed full-duplex connections are supported.

(150 m max.# in multi-mode).

Added

40GBASE-LR4:

Used for medium-distance connections.

Connections via auto-negotiation are not supported, and only fixed full-duplex connections are supported.

(10 km max.# in single-mode).

40GBASE-CR4:

Used for short-distance connections.

Fixed full-duplex connections are not supported, and only connections via auto-negotiation are supported.

(7 m max.# in multi-mode).

(2) 16.16.1 Functionality [Change]

(1) Connection interface (a) 40GBASE-R has been changed. [Version 11.11 and later]

Change:

(a) 40GBASE-R

Corrected →

QSFP+ for 40GBASE-SR and 40GBASE-LR is supported. For details on the interface, see *16.12 Description of the 40GBASE-R interface [AX3800S]*.

Note that when a QSFP+ for 40GBASE-R is used, it takes three to five seconds to determine the line type for the `show interfaces` operation command from when the transceiver is inserted.

2. Changes in Configuration Guide Vol. 2 (For Version 11.10) (AX38S-S002X-40)

1. Filters

(1) 1.2.1 List of configuration commands [Change]

The footnote (#) for *Table 1-19 List of configuration command* has been changed. [Version 11.11 and later]

Before change:

#

See *18. Flow Detection Mode* in the manual *Configuration Command Reference Vol. 1 For Version 11.10*.

After change:

#

See *18. Flow Detection Modes and Flow Operations* in the manual *Configuration Command Reference Vol. 1 For Version 11.10*.

2. Overview of QoS Control

(1) 2.3.1 List of configuration commands [Change]

Table 2-3 List of configuration commands has been changed. [Version 11.11 and later]

Change:

Table 2-3 List of configuration commands

Command name	Description
ip qos-flow-group	Applies an IPv4 QoS flow list to an Ethernet interface or VLAN and enables IPv4 QoS control.
ip qos-flow-list	Sets the QoS flow list used for IPv4 QoS flow detection.
ip qos-flow-list resequence	Resets the sequence number for the order in which the conditions in the IPv4 QoS flow list are applied.
ipv6 qos-flow-group	Applies an IPv6 QoS flow list to an Ethernet interface or VLAN and enables IPv6 QoS control.
ipv6 qos-flow-list	Sets the QoS flow list used for IPv6 QoS flow detection.
ipv6 qos-flow-list resequence	Resets the sequence number for the order in which the conditions in the IPv6 QoS flow list are applied.
mac qos-flow-group	Applies a MAC QoS flow list to an Ethernet interface or VLAN and enables MAC QoS control.
mac qos-flow-list	Sets the QoS flow list used for MAC QoS flow detection.
mac qos-flow-list resequence	Resets the sequence number for the order in which the conditions in the MAC QoS flow list are applied.
qos	Sets the flow detection condition and operation to be performed in the QoS flow list.
qos-queue-group	Applies QoS queue list information to an Ethernet interface and enables the legacy shaper.
qos-queue-list	Sets the scheduling mode in QoS queue list information.
remark	Specifies supplementary information for QoS.
traffic-shape rate	Sets port bandwidth control for an Ethernet interface.
flow action-change cos[#]	Sets the functionality for changing which frames are subject to priority determination of the QoS functionality.
flow detection mode[#]	Sets the receiving-side flow detection mode for the filter and QoS control.

Added →

#

Corrected → See *18. Flow Detection Modes and Flow Operations* in the manual *Configuration Command Reference Vol. 1 For Version 11.10*.

3. Flow Control

(1) 3.4.1 Bandwidth monitoring [Change]

Description after *Table 3-10* has been changed.

Before change:

Changing the queuing priority and updating DSCP do not work for the following frames:
- IPv4 and IPv6 packets exceeding the MTU
- Frames whose TTL is set to 1
- Frames whose hop limit is set to 1
- Frames with an IP option
- Frames with an IPv6 extension header
- IPv4 or IPv6 packets with an unknown receiver address

After change:

Penalties for updating DSCP do not work for the following frames:
- IPv4 and IPv6 packets exceeding the MTU
- Frames whose TTL is set to 1
- Frames whose hop limit is set to 1
- Frames with an IP option
- Frames with an IPv6 extension header
- IPv4 or IPv6 packets with an unknown receiver address

(2) 3.10 Description of priority determination [Change]

Description of priority determination has been changed. [Version 11.11 and later]

Before change:

Priority determination is functionality that uses CoS values to specify the priority of frames detected by flow detection in order to determine the send queue. Frames to which this functionality applies differ depending on the switch configuration.
The following figure shows the positioning of the priority determination block described in this section.

After change:

Priority determination is functionality that uses CoS values to specify the priority of frames detected by flow detection in order to determine the send queue. Frames to which this functionality applies differ depending on the switch configuration and the setting for changing which frames are subject to priority determination. For details, see *3.10.1 Frames subject to priority determination*.
The following figure shows the positioning of the priority determination block described in this section.

(3) 3.10.1 Frames subject to priority determination [Change]

3.10.1 Frames subject to priority determination has been changed. [Version 11.11 and later]

Before change:

The following table describes switch configurations and their corresponding frames subject to priority determination.

Table3-15 Switch configuration and frames subject to priority determination

Switch configuration	Frame type	
	Frames sent to the Switch	Frames forwarded by the Switch
All models (in standalone mode)	N	Y
All models (in stack mode)	Y	Y

Legend: Y: Becomes subject to priority determination, N: Does not become subject to priority determination

After change:

The table below describes switch configurations, the setting for changing which frames are subject to priority determination, and the corresponding frames subject to priority determination. The functionality for changing which frames are subject to priority determination is used to make the frames that are sent to the Switch and are not subject to priority determination, subject to priority determination. By default, only frames forwarded by the Switch are subject to priority determination.

Table3-15 Switch configuration and frames subject to priority determination

Switch configuration	Setting for changing which frames are subject to priority determination	Frame type	
		Frames sent to the Switch	Frames forwarded by the Switch
All models (in standalone mode)	Not set	N	Y
	Set	Y	Y
All models (in stack mode)	Not set	Y	Y
	Set		

Legend: Y: Becomes subject to priority determination, N: Does not become subject to priority determination

(4) 3.10.2 CoS values and queuing priority [Change]

Table 3-18 Frames whose values cannot be changed by priority determination has been changed.

Change:

Table 3-18 Frames whose values cannot be changed by priority determination

Frame type	CoS value	Queuing priority
Frames spontaneously sent by the Switch	7	3
The following frames received by the Switch: • ARP frames • Frames used for line test	5	--
The following frames received by the Switch: • Incoming frames for which the learned sender MAC addresses are determined to have been moved	2	--
Of the frames received by the Switch by Layer 3 forwarding, the following packets and frames: • IPv4 and IPv6 packets exceeding the MTU • Frames whose TTL is set to 1 • Frames whose hop limit is set to 1 • Frames with an IP option • Frames with an IPv6 extension header	2	--
Of the frames received on the Switch by Layer 3 forwarding, the following packets: • IPv4 or IPv6 packets with an unknown receiver address	2	--
The following frames for which the Switch perform Layer 3 forwarding: • Fragmented frames on the Switch • Frames with an IP option • Frames with an IPv6 extension header • Forwarding frames that are temporarily retained on the Switch due to unresolved ARP or NDP	3	--

Corrected

Added →

Legend: --: Can be changed according to the priority determination for flow control.

(5) 3.10.4 Note on using priority determination [Change]

(1) Priority determination for frames has been changed. [Version 11.11 and later]

Change:

If an operation that raises the priority of the frame is specified, communication might be disabled because protocol control frames sent to the Switch cannot be received, or frames originated by the Switch cannot be sent. In particular, IP multicast packets are packets sent to the Switch and also are frames to be relayed. Therefore, be careful when raising the priority of the frames. If such a problem occurs, perform the following:

- When the stack is configured, if communication with protocol control frames sent to the Switch is disconnected, lower the priority of the frames.

Added

- In a standalone configuration, if communication with protocol control frames sent to the Switch is disconnected, specify the setting for changing which frames are subject to priority determination.

- If communication with frames originated by the Switch is disconnected, lower the priority of the frames.

(6) 3.13.1 Operation performed when a frame matches multiple QoS entries [Change]

Table 3-22 High and low priority entries that are exceptions and the resulting operation has been changed. [Version 11.11 and later]

Before change:

Table3-22 High and low priority entries that are exceptions and the resulting operation

Switch configuration	High priority entry	Low priority entry	Operation
Standalone	copy-user-priority	cos	The user priority and the CoS value of the frame sent to the Switch are applied to the operation of `copy-user-priority`, and the priority of the frame relayed by the Switch is applied to the CoS value specified for low priority entry.

After change:

Table 3-22 High and low priority entries that are exceptions and the resulting operation

Switch configuration	Setting for changing which frames are subject to priority determination	High priority entry	Low priority entry	Operation
Standalone	Not set	copy-user-priority	cos	The user priority and the CoS value of the frame sent to the Switch are applied to the operation of `copy-user-priority`, and the priority of the frame relayed by the Switch is applied to the CoS value specified for low priority entry.

14. Description of GSRP

(1) 14.4.1 Overview [Change]

(2) MAC address of the default gateway has been changed. [Version 11.11 and later]

Before change:

(2) MAC address of the default gateway

When you use GSRP to provide redundancy for the default gateway, a GSRP-specific virtual MAC address is used as the MAC address of the default gateway. A different virtual MAC address is assigned to each VLAN group ID.

The master switch periodically sends a GSRP control frame containing its virtual MAC address as the source MAC address to the lower-level LAN switches so that they can learn the virtual MAC address of the master switch.

After change:

(2) MAC address of the default gateway

When you use GSRP to provide redundancy for the default gateway, a GSRP-specific virtual MAC address is used as the MAC address of the default gateway. A different virtual MAC address is assigned to each VLAN group ID.

The master switch periodically sends a GSRP control frame (a frame for virtual MAC address learning) containing its virtual MAC address as the source MAC address to the lower-level LAN switches so that they can learn the virtual MAC address of the master switch.

(3) Sending VLAN ports and sending interval of frames for virtual MAC address learning has been added. [Version 11.11 and later]

Addition:

(3) *Sending VLAN ports and sending interval of frames for virtual MAC address learning*

Frames for virtual MAC address learning are sent to each VLAN port belonging to the master VLAN group, at the specified interval. The number of frames (sending rate) that can be sent per second is determined so that the frames can be sent to the target VLAN port at the specified interval. The sending rate is calculated by the following equation, and changes automatically in a range that is less than or equal to 100 pps. When the sending rate is calculated to be more than or equal to 100 pps, take caution because this means a VLAN port that does not send frames for virtual MAC address learning exists.

- Equation for calculating the sending rate for frames for virtual MAC address learning:

Sending rate (pps) [#] = *number of VLAN ports that are to be sent* / *sending interval* (seconds)

If the sending rate exceeds the maximum value (100 pps), no frames are sent.

Example: If there are 200 VLAN ports to be sent and if the sending interval is set to 5 seconds, the sending rate will be 40 pps.

(2) 14.6 Notes on using GSRP [Change]

(16) Learning virtual MAC addresses has been changed. [Version 11.11 and later]

Before change:

(16) Learning virtual MAC addresses

When you use Layer 3 redundancy switching, the MAC address of the default gateway for which GSRP is providing redundancy is a virtual MAC address. Conversely, the source MAC addresses in forwarded IP packets or frames that are voluntarily sent by the Switch are not virtual MAC addresses. Instead, a source MAC address is the MAC address of a switch or a VLAN.

GSRP periodically sends GSRP control frames to the devices that use a GSRP switch as the default gateway to allow them to learn the virtual MAC address of the default gateway. GSRP control frames are non-IP unicast frames with virtual MAC addresses as the source MAC addresses.

After change:

(16) Learning virtual MAC addresses

When you use Layer 3 redundancy switching, the MAC address of the default gateway for which GSRP is providing redundancy is a virtual MAC address. Conversely, the source MAC addresses in forwarded IP packets or frames that are voluntarily sent by the Switch are not virtual MAC addresses. Instead, a source MAC address is the MAC address of a switch or a VLAN.

GSRP periodically sends frames for virtual MAC address learning to the devices that use a GSRP switch as the default gateway to allow them to learn the virtual MAC address of the default gateway. Frames for virtual MAC address learning are non-IP unicast frames with virtual MAC addresses as the source MAC addresses.

15. Settings and Operation for GSRP

(1) 15.1.1 List of configuration commands [Change]

Table 15-1 List of configuration commands has been changed. [Version 11.11 and later]

Change:

Table 15-1 List of configuration commands

Command name	Description
advertise-holdtime	Sets the retention time for GSRP Advertise frames.
advertise-interval	Sets the sending interval for GSRP Advertise frames.
backup-lock	Enables backup locking.
flush-request-count	Sets the number of times that GSRP Flush request frames are sent.
gsrp	Enables GSRP.
gsrp-vlan	Configures a GSRP-managed VLAN.
gsrp direct-link	Configures a direct link.
gsrp exception-port	Configures a port not under GSRP control.
gsrp limit-control	Enables the GSRP VLAN group-only control functionality.
gsrp no-flush-port	Configures a port that does not send GSRP Flush request frames.
gsrp reset-flush-port	Configures a port on which port resetting is used.
layer3-redundancy	Enables Layer 3 redundancy switching.
no-neighbor-to-master	Sets the switchover method to be used when a switch is in the backup (neighbor unknown) state.
port-up-delay	Enables the prevention of repeated switchover when links are unstable.
reset-flush-time	Sets the length of the link-down time when port resetting is used.
selection-pattern	Sets the priority for selecting the master and backup switches.
vlan-group disable	Disables a VLAN group. The VLANs belonging to a disabled VLAN group stop sending and receiving traffic.
vlan-group priority	Configures the priority of a VLAN group.
vlan-group vlan	Assigns VLANs to a VLAN group.
Added → virtual-mac-learning-interval	Sets the sending interval for frames for virtual MAC address learning.

(2) 15.1.4 Configuring Layer 3 redundancy switching [Change]

Points to note and *Command examples* have been changed. [Version 11.11 and later]

Change:

Points to note

Added

Enable Layer 3 redundancy switching on both GSRP Switches. Layer 3 redundancy switching can be used only when the GSRP group ID is 1, 2, 3, or 4. When Layer 3 redundancy switching is used, the Switch under GSRP learns the virtual MAC address for GSRP by receiving the frame for virtual MAC address learning. The Switch under GSRP becomes flooded when aging occurs on the learned MAC address. Also, when a device is added to the network below, this device becomes flooded until the device receives a frame for virtual MAC address learning. Set the sending interval for frames for virtual MAC address learning by taking into account the amount of time flooding will occur.

When you use Layer 3 redundancy switching, assign the same IP addresses to VLANs on both GSRP switches. For details about how to assign IP addresses to VLANs, see *20.9 VLAN interfaces* in the manual *Configuration Guide Vol. 1 For Version 11.10*. In addition, when you use Layer 3 redundancy switching, you must configure a special path to continue communication with the upstream network even if a GSRP switch fails. For details, see *14.5.3 Switchover due to a failure in the upstream network when Layer 3 redundancy switching is used*.

Command examples

1. `(config)# gsrp 1`

   Switches to GSRP configuration mode.

2. `(config-gsrp)# layer3-redundancy`

   Enables Layer 3 redundancy switching.

Added

3. `(config-gsrp)# virtual-mac-learning-interval 100`

   Sets the sending interval for frames for virtual MAC address learning to 100 seconds.

(3) 15.2.2 Checking the GSRP state [Change]

Figure 15-1 Results of executing the show gsrp detail command has been changed. [Version 11.11 and later]

Change:

Figure 15-1 Results of executing the show gsrp detail command

```
> show gsrp detail
Date 20XX/11/07 22:24:36 UTC

GSRP ID: 1
 Local MAC Address       : 0012.e205.0000
 Neighbor MAC Address    : 0012.e205.0011
 Total VLAN Group Counts : 2
 GSRP VLAN ID            : 105
 Direct Port             : 0/10-11
 Limit Control           : Off
 GSRP Exception Port     : 0/1-5
 No Neighbor To Master   : manual
 Backup Lock             : disable
 Port Up Delay           : 0
 Last Flush Receive Time : -
 Forced Shift Time       : -
 Layer 3 Redundancy      : On
 Virtual MAC Learning    : Interval 120  (Output rate 30pps)
 VLAN Port Counts        : Configuration    15,  Capacity 3600
 Virtual Link ID         : 100(VLAN ID : 20)

                           Local              Neighbor
 Advertise Hold Time     : 5                  5
 Advertise Hold Timer    : 4                  -
 Advertise Interval      : 1                  1
 Selection Pattern       : ports-priority-mac  ports-priority-mac

 VLAN Group ID      Local State         Neighbor State
 1                  Backup              Master
 8                  Master              Backup
>
```

Added

Figure 15-2 Results of executing the show gsrp vlan-group command has been changed. [Version 11.11 and later]

Change:

Figure 15-2 Results of executing the show gsrp vlan-group command

```
> show gsrp 1 vlan-group 1
Date 20XX/11/07 22:25:13 UTC

GSRP ID: 1
 Local MAC Address       : 0012.e205.0000
 Neighbor MAC Address    : 0012.e205.0011
 Total VLAN Group Counts : 1
 Layer 3 Redundancy      : On
 Virtual MAC Learning    : Interval 120  (Output rate 30pps)
 VLAN Port Counts        : Configuration    15,  Capacity 3600
```

Added

```
 VLAN Group ID : 1
  VLAN ID                 : 110,200-210
  Member Port             : 0/6-8
  Last Transition         : 20XX/11/07 22:20:11  (Master to Backup)
  Transition by reason    : Priority was lower than neighbor's
  Master to Backup Counts : 4
  Backup to Master Counts : 4
  Virtual MAC Address     : 0000.8758.1307

                            Local               Neighbor
  State                   : Backup              Master
  Acknowledged State      : Backup              -
  Advertise Hold Timer    : 3                   -
  Priority                : 100                 101
  Active Ports            : 3                   3
  Up Ports                : 3                   -
>
```

Figure 15-3 Results of executing the show gsrp command has been changed. [Version 11.11 and later]

Change:

Figure 15-3 Results of executing the show gsrp command

```
> show gsrp
Date 20XX/11/07 22:28:38 UTC

GSRP ID: 10
 Local MAC Address       : 0012.e205.0000
 Neighbor MAC Address    : 0012.e205.0011
 Total VLAN Group Counts : 2
 Layer 3 Redundancy      : On
 Virtual MAC Learning    : Interval 120  (Output rate 30pps)
 VLAN Port Counts        : Configuration    15,  Capacity 3600

 VLAN Group ID      Local State         Neighbor State
 1                  Backup              Master
 8                  Master              Backup
>
```

Added

23. Log Data Output Functionality

(1) 23.1 Description [Change]

Description has been changed. [Version 11.11 and later]

Change:

<omitted>

Log information collected on a Switch can be sent[#1] to other devices (such as UNIX workstations) with the syslog functionality on the network by using the syslog interface[#2, #3]. ← Corrected
Also, log information can be sent to other devices on the network via email. This functionality means logs can be managed centrally even when multiple devices are being managed. Also, log information can be sent via email.

#1

Functionality to receive syslog messages from other devices is not supported.

#2

In syslog messages generated on the Switch, the `HOSTNAME` field of the `HEADER` part defined in RFC 3164 is not set.

Added

#3

Messages to the syslog server might not be sent to and logged in the server because IP packets temporarily cannot be sent to the syslog server immediately after a member switch switches from the backup switch to the master switch.
To view log information when the switch state changes, use the `show logging` operation command.

3. Changes in Configuration Guide Vol. 3 (For Version 11.10) (AX38S-S003X-40)

7. IPv4 Routing Protocol Overview

(1) 7.4.2 Load balancing specifications [Change]

Table 7-6 Maximum number of multipath routes has been changed. [Version 11.11 and later]

Before change:

Table 7-6 Maximum number of multipath routes

Model	Maximum number of multipaths specified in switch configuration#1	Maximum number of multipaths handled by the switch#2	Maximum number of multipath routes the switch can handle#2, #3
AX3800S	1 to 4	4	1024#4
	5 to 8	8	512
	9 to 16, or multipath disabled#5	16	256
AX3650S	1 to 2	2	1024#4
	3 to 4	4	512
	5 to 8	8	256
	9 to 16, or multipath disabled#5	16	128

#3

The maximum number of multipath routes applies to the combined total of IPv4 and IPv6 routes.

#4

For a single path, the maximum number of paths is determined by the capacity limit for the number of table entries. For multipath, the values in the table apply.

After change:

Table 7-6 Maximum number of multipath routes

Model	Maximum number of multipaths specified in switch configuration#1	Maximum number of multipaths handled by the switch#2	Maximum number of multipath routes the switch can handle#2, #3, #4
AX3800S	1 to 4	4	1024
	5 to 8	8	512
	9 to 16, or multipath disabled#5	16	256
AX3650S	1 to 2	2	1024
	3 to 4	4	512
	5 to 8	8	256
	9 to 16, or multipath disabled#5	16	128

#3

The maximum number of multipath routes applies to the combined total of IPv4 and IPv6 routes.
Note that multipath routes that have the same next hop IP address and VRF are counted as the same multipath route.

#4

The maximum number of paths is determined by the capacity limit for the number of table entries. However, the number of capacity for multipath is determined by the capacity limit indicated in the table.

(2) 7.4.3 Notes on using load balancing [Addition]

A note has been added. [Version 11.11 and later]

Addition:

10. The same multipath route might be divided into multiple multipath routes when the route is changed. Also, when the multipath route is switched due to, for example, a failure, and if a new multipath route is registered, resources for the total number of new and old multipath routes will be used temporarily because the new multipath keeps the status of the old multipath route when being registered. Make sure to operate the Switch with the number of multipath routes at a level which ensures that the number of multipath routes does not exceed the capacity limit when switching the route.

(3) 7.6.1 Checking the maximum number of multipaths handled by the Switch [Change]

The section title has been changed. [Version 11.11 and later]

Before change:

7.6.1 Checking the maximum number of multipaths handled by the Switch

After change:

7.6.1 Checking the status of multipaths handled by the Switch

Figure 7-14 Checking the maximum number of multipaths handled by the Switch has been changed. [Version 11.11 and later]

Before change:

Figure 7-14 Checking the maximum number of multipaths handled by the Switch

```
>show system
            :
            :
    Device resources
        Current selected swrt_table_resource: l3switch-2
        Current selected swrt_multicast_table: On
        Current selected unicast multipath number: 8
            :
            :
>
```

After change:

Figure 7-14 Checking the status of multipaths handled by the Switch

```
>show system
            :
            :
    Device resources
        Current selected swrt_table_resource: l3switch-2
        Current selected swrt_multicast_table: On
        Current selected unicast multipath number: 8
            :
```

```
                Multipath table entry: current number=1   , max number=512
                MAC-Address table entry : current number=7 , max number=32768
                   :
        >
```

14. Description of IPv4 Multicasting

(1) 14.4.2 IPv4 PIM-SM [Addition]

(9) Additional functionality for PIM-SM has been added. [Version 11.11 and later]

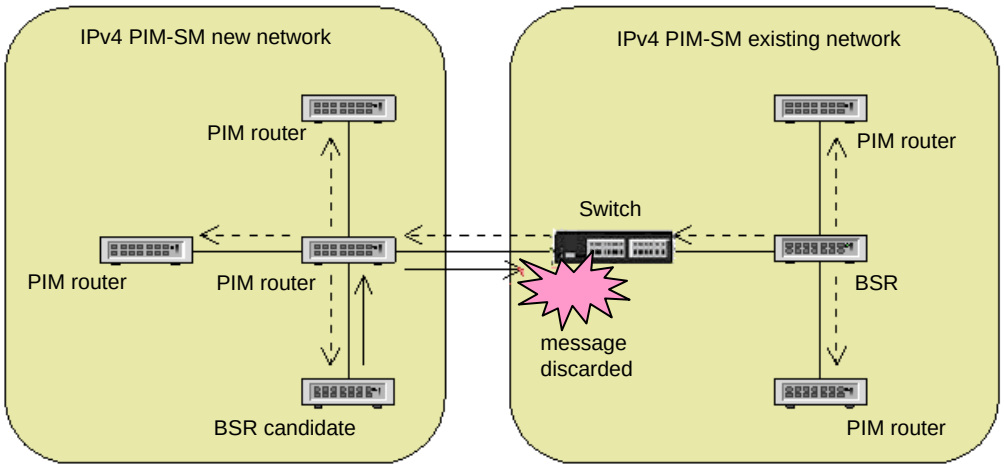
Addition:

(9) Additional functionality for PIM-SM

(a) Suppression functionality for receiving bootstrap messages

When a new network is configured in the multicast network that is in operation and when the BSR candidate is incorrectly set, the BSR candidate becomes the main BSR and might stop the multicast communication in the entire connected multicast network.
This functionality discards the PIM-Bootstrap message that was sent from the newly configured network with an invalid setting, by setting the `ip pim accept-bootstrap` configuration command on the interface that is connected to the new network. This enables protection of the multicast network that is currently in operation. The following figure shows the operation of this functionality.

Figure 14-17 Operation of suppression functionality for receiving bootstrap messages



Legend: – – – → : PIM-Bootstrap message sent from the BSR on the existing network.
——→ : PIM-Bootstrap message sent from the BSR candidate on the new network.

The Switch on the network boundary discards the PIM-Bootstrap message sent from the BSR candidate on the newly configured network. This allows you to prevent forwarding the PIM-Bootstrap message from the new network to the existing network. On the other hand, the PIM-Bootstrap message sent from the existing network will be forwarded to the new network.

15. Settings and Operation for IPv4 Multicasting

(1) 15.1.1 List of configuration commands [Change]

Table 15-1 List of configuration commands has been changed. [Version 11.11 and later]

Change:

Table15-1 List of configuration commands

Command name	Description
ip igmp group-limit	Specifies the maximum number of groups that can run on an interface.
ip igmp router	Runs IGMP on the interface.
ip igmp source-limit	Specifies the maximum number of sources during group participation.
ip igmp ssm-map enable	Enables IPv4 PIM-SSM mapping operation to be used with IGMPv2 or IGMPv3 (EXCLUDE mode).
ip igmp ssm-map static	Sets the group address and source address for which PIM-SSM runs.
ip igmp static-group	Enables static additions to IGMP groups.
ip igmp version	Changes the IGMP version.
ip multicast-routing	Enables the IPv4 multicast functionality to be used.
ip pim accept-bootstrap	Sets the received bootstrap message sent from the applicable interface to be discarded.
ip pim bsr-candidate	Sets the BSR.
ip pim deletion-delay-time	Changes the deletion delay time.
ip pim keep-alive-time	Changes the keep-alive time.
ip pim max-interface	Changes the maximum number of interfaces that can run IPv4 PIM.
ip pim mcache-limit	Specifies the maximum number of multicast forwarding entries.
ip pim message-interval	Changes the sending interval for join or prune messages.
ip pim mroute-limit	Specifies the maximum number of multicast routing information entries.
ip pim multiple-negative-cache	Specifies that the same (S, G) multiple negative cache entries can be created for each VLAN.
ip pim negative-cache-time	Changes the negative cache time.
ip pim query-interval	Changes the sending interval for Hello messages.
ip pim register-checksum	Changes the checksum range for PIM-Register messages.
ip pim register-probe-time	Specifies the register probe time.
ip pim rp-address	Sets the static rendezvous point.
ip pim rp-candidate	Sets a rendezvous point candidate.
ip pim rp-mapping-algorithm	Specifies the rendezvous point selection algorithm.
ip pim sparse-mode	Sets the IPv4 PIM-SM.
ip pim ssm	Sets the IPv4 PIM-SSM address.
ip pim vrf-gateway	Sets the PIM-SM VRF gateway.

Added

23. IPv6 Routing Protocol Overview

(1) 23.4.2 Load balancing specifications [Change]

Table 23-6 Maximum number of multipath routes has been changed. [Version 11.11 and later]

Before change:

Table 23-6 Maximum number of multipath routes

Model	Maximum number of multipaths specified in switch configuration#1	Maximum number of multipaths handled by the switch#2	Maximum number of multipath routes the switch can handle#2, #3
AX3800S	1 to 4	4	1024#4
	5 to 8	8	512
	9 to 16, or multipath disabled#5	16	256
AX3650S	1 to 2	2	1024#4
	3 to 4	4	512
	5 to 8	8	256
	9 to 16, or multipath disabled#5	16	128

#3

The maximum number of multipath routes applies to the combined total of IPv4 and IPv6 routes.

#4

For a single path, the maximum number of paths is determined by the capacity limit for the number of table entries. For multipath, the values in the table apply.

After change:

Table 23-6 Maximum number of multipath routes

Model	Maximum number of multipaths specified in switch configuration#1	Maximum number of multipaths handled by the switch#2	Maximum number of multipath routes the switch can handle#2, #3, #4
AX3800S	1 to 4	4	1024
	5 to 8	8	512
	9 to 16, or multipath disabled#5	16	256
AX3650S	1 to 2	2	1024
	3 to 4	4	512
	5 to 8	8	256
	9 to 16, or multipath disabled#5	16	128

#3

The maximum number of multipath routes applies to the combined total of IPv4 and IPv6 routes.
Note that multipath routes that have the same next hop IP address and VRF are counted as the same multipath route.

#4

The maximum number of paths is determined by the capacity limit for the number of table entries. The number of accommodated multipath routes is determined by the capacity limit shown as the values in the table.

(2) 23.4.3 Notes on using load balancing [Addition]

A note has been added. [Version 11.11 and later]

Addition:

10. The same multipath route might be divided into multiple multipath routes when the route is changed. Also, when the multipath route is switched due to, for example, a failure, and if a new multipath route is registered, resources for the total number of new and old multipath routes will be used temporarily because the new multipath keeps the status of the old multipath route when being registered. Make sure to operate the Switch with the number of multipath routes at a level which ensures that the number of multipath routes does not exceed the capacity limit when switching the route.

(3) 23.6.1 Checking the maximum number of multipaths handled by the Switch [Change]

The section title has been changed. [Version 11.11 and later]

Before change:

23.6.1 Checking the maximum number of multipaths handled by the Switch

After change:

23.6.1 Checking the status of multipaths handled by the Switch

Figure 23-4 Checking the maximum number of multipaths handled by the Switch has been changed. [Version 11.11 and later]

Before change:

Figure 23-4 Checking the maximum number of multipaths handled by the Switch

```
>show system
            :
            :
    Device resources
        Current selected swrt_table_resource: l3switch-2
        Current selected swrt_multicast_table: On
        Current selected unicast multipath number: 8
            :
            :
>
```

After change:

Figure 23-4 Checking the status of multipaths handled by the Switch

```
>show system
            :
            :
    Device resources
        Current selected swrt_table_resource: l3switch-2
        Current selected swrt_multicast_table: On
        Current selected unicast multipath number: 8
            :
```

```
                Multipath table entry: current number=1   , max number=512
                MAC-Address table entry : current number=7 , max number=32768
                   :
          >
```

4. Changes in Configuration Command Reference Vol. 1 (For Version 11.10) (AX38S-S004X-40)

4. Stack

(1) switch provision [Change]

Parameters has been changed. [Version 11.11 and later]

Change:

<*switch no.*>

Specifies a switch number.

1. Default value when this parameter is omitted:

This parameter cannot be omitted.

2. Range of values:

See *Specifiable values for parameters*.

{ 3830-44xw | 3830-44x4qw } [AX3800S]

3830-44xw

Sets the AX3830S-44XW model.

3830-44x4qw

Sets the AX3830S-44X4QW and AX3830S-44X4QS models. ← Corrected

1. Default value when this parameter is omitted:

This parameter cannot be omitted.

2. Range of values:

3830-44xw, 3830-44x4qw

18. Flow Detection Mode

(1) 18. Flow Detection Mode [Change]

The chapter title has been changed. [Version 11.11 and later]

Before change:

18. Flow Detection Mode

After change:

18. Flow Detection Mode s and Flow Operations

(2) flow action-change cos [Addition]

The description for *flow action-change cos* has been added. [Version 11.11 and later]

Addition:

flow action-change cos

Changes the QoS priority determination operation for the switch.

By setting this command, frames sent to the Switch become subject to priority determination.

Because this command is used to change the priority determination operation, make sure you set this command during the first stage of actual operation. We recommend that you do not make any changes during operation.

If you do not set this command or if you have deleted information, operation proceeds as described in *Default behavior*.

Syntax

To set information:
flow action-change cos

To delete information:
no flow action-change cos

Input mode

(config)

Default behavior

The priority determination operation is not changed.
Only frames forwarded by the Switch become subject to priority determination.

Parameters

None

Impact on communication

None

When the change is applied

The change is applied immediately after setting values are changed.

Notes

1. To change the priority determination operation, you need to delete all QoS flow detection conditions and operation information entries applied to the interface.

Related commands

ip qos-flow-group
ipv6 qos-flow-group
mac qos-flow-group

28. GSRP

(1) virtual-mac-learning-interval [Addition]

The description for *virtual-mac-learning-interval* has been added. [Version 11.11 and later]

Addition:

virtual-mac-learning-interval

Sets the sending interval for frames for virtual MAC address learning to be sent when using Layer 3 redundancy switching functionality.

Syntax

To set or change information:
virtual-mac-learning-interval <*seconds*>

To delete information:
no virtual-mac-learning-interval

Input mode

```
(config-gsrp)
```

Parameters

<*seconds*>
Specifies the sending interval (in seconds) for frames for virtual MAC address learning.
1. Default value when this parameter is omitted:
This parameter cannot be omitted.
2. Range of values:
4 to 120

Default behavior

The sending interval for frames for virtual MAC address learning is 120 seconds.

Impact on communication

None

When the change is applied

The change is applied immediately after setting values are changed.

Notes

If the sending interval is set to a short interval by using this command, there might be VLAN ports that cannot send frames depending on the number of VLAN ports where the frames for virtual MAC address learning is sent. In such cases, set the sending interval to a longer interval.

Related commands

layer3-redundancy

41. Error Messages Displayed When Editing the Configuration

(1) 41.1.3 Stack information [Change]

Table 41-3 Stack functionality error messages has been changed. [Version 11.11 and later]

Change:

Table 41-3 Stack functionality error messages

Message	Description
...	...
Relations between stack enable and spanning-tree configuration are inconsistent.	`stack enable` and Spanning Tree Protocols cannot be set simultaneously.
Deleted: Relations between stack enable and storm-control are inconsistent.	`stack enable` and the storm control functionality cannot be set simultaneously.
Relations between stack enable and swrt_multicast_table are inconsistent.	`stack enable` and `swrt_multicast_table` cannot be set simultaneously.
...	...
Relations between switchport mode stack and web-authentication configuration are inconsistent.	`switchport mode stack` and Web authentication cannot be set on the same port.
Added: Relations between switchport mode stack and storm-control are inconsistent.	`switchport mode stack` and `storm-control` cannot be set on the same port.
...	...

(2) 41.1.11 VLAN information [Change]

Table 41-11 VLAN error messages has been changed.

Before change:

Table 41-11 VLAN error messages

Message	Description
...	...
Relations between access-list and vlan mapping are inconsistent.	Tag translation cannot be set for the Ethernet interface because an access list that contains a VLAN ID as a detection condition is set on the outbound side. Tag translation cannot be set if an access list that contains a VLAN ID as a detection condition is applied to the outbound side. Delete the tag translation setting or specify an access list that does not contain a VLAN ID as a detection condition.
Relations between access-list and vlan mapping are inconsistent.	Tag translation cannot be set for the Ethernet interface because an access list is set on the outbound side. Tag translation cannot be set if an access list is applied to the outbound side. Delete the tag translation setting, or do not apply an access list to the outbound side.
...	...

After change:

Table 41-11 VLAN error messages

Message	Description
...	...
Relations between access-list and vlan mapping are inconsistent.	Tag translation cannot be set for the Ethernet interface because an access list that contains a VLAN ID as a detection condition is set on the outbound side of the Ethernet interface. Tag translation cannot be set if an access list that contains a VLAN ID as a detection condition is applied to the outbound side. Delete the tag translation setting or specify an access list that does not contain a VLAN ID as a detection condition.
	Tag translation cannot be set for the Ethernet interface because an access list is set on the outbound side of the VLAN interface. Tag translation cannot be set if an access list is applied to the outbound side. Delete the tag translation setting, or do not apply an access list to the outbound side.
...	...

(3) 41.1.16 Information about flow detection mode [Change] [Addition]

The section title has been changed. [Version 11.11 and later]

Before change:

41.1.16 Information about flow detection mode

After change:

41.1.16 Information about flow detection modes and flow operations

The title of *Table 41-16 Error messages related to flow detection mode* has been changed. [Version 11.11 and later]

Before change:

Table 41-16 Error messages related to flow detection mode

After change:

Table 41-16 Error messages related to flow detection modes and flow operations

In *Table 41-16 Error messages related to flow detection mode*, the following item has been added. [Version 11.11 and later]

Addition:

Table 41-16 Error messages related to flow detection modes and flow operations

Message	Description
Cannot change the flow action-change cos.	The priority determination operation cannot be changed because QoS flow detection conditions and operation information entries are applied to the interface. To change the priority determination operation, delete all QoS flow detection conditions and operation information entries applied to the interface. Note that you can use the `show system` operation command to check the number of QoS entries used by this configuration file.

(4) 41.1.17 Access list information [Change]

Table 41-17 Access list error messages has been changed.

Before change:

Table 41-17 Access list error messages

Message	Description
...	...
Relations between access-list and vlan mapping are inconsistent.	An access list that contains a VLAN ID as a detection condition cannot be set on the outbound side because tag translation is set for the Ethernet interface. Tag translation cannot be set if an access list that contains a VLAN ID as a detection condition is applied to the outbound side. Delete the tag translation setting or specify an access list that does not contain a VLAN ID as a detection condition.
Relations between access-list and vlan mapping are inconsistent.	An access list cannot be set on the outbound side because tag translation is set for the Ethernet interface. Tag translation cannot be set if an access list is applied to the outbound side. Delete the tag translation setting, or do not apply an access list to the outbound side.
...	...

After change:

Table 41-17 Access list error messages

Message	Description
...	...
Relations between access-list and vlan mapping are inconsistent.	An access list that contains a VLAN ID as a detection condition cannot be set on the outbound side of the Ethernet interface because tag translation is set for the Ethernet interface. Tag translation cannot be set if an access list that contains a VLAN ID as a detection condition is applied to the outbound side. Delete the tag translation setting or specify an access list that does not contain a VLAN ID as a detection condition.
	An access list cannot be set on the outbound side of the VLAN interface because tag translation is set for the Ethernet interface. Tag translation cannot be set if an access list is applied to the outbound side. Delete the tag translation setting, or do not apply an access list to the outbound side.
...	...

5. Changes in Configuration Command Reference Vol. 2 (For Version 11.10) (AX38S-S005X-40)

15. IPv4 Multicast Routing Protocol Information

(1) ip pim accept-bootstrap [Addition]

The description for *ip pim accept-bootstrap* has been added. [Version 11.11 and later]

Addition:

ip pim accept-bootstrap

Discards the received bootstrap message sent from the applicable interface, and suppresses the forwarding of the message to the local network.

Syntax

To set or change information:
no ip pim accept-bootstrap

To delete information:
ip pim accept-bootstrap

Input mode

(config-if)

Parameters

None

Default behavior

Forwards the received bootstrap message sent from the interface to the local network.

Impact on communication

None

When the change is applied

The change is applied immediately after the setting value is changed.

Notes

None

Related commands

ip pim sparse-mode

6. Changes in Operation Command Reference Vol. 1 (For Version 11.10) (AX38S-S006X-40)

5. Stack

(1) show switch [Change]

Table 5-3 Display items for the summary information about member switches has been changed. [Version 11.11 and later]

Change:

Table 5-3 Display items for the summary information about member switches

Item	Meaning	Displayed detailed information
...	...	...
Model	Member switch model Added →	3830-44xw: AX3830S-44XW 3830-44x4qw: AX3830S-44X4QW or AX3830S-44X4QS 3650-24t6xw: AX3650S-24T6XW 3650-48t4xw: AX3650S-48T4XW 3650-20s6xw: AX3650S-20S6XW
...	...	...

Table 5-4 Display items for detailed information about member switches has been changed. [Version 11.11 and later]

Change:

Table 5-4 Display items for detailed information about member switches

Item		Meaning	Displayed detailed information
...		...	...
Model		Member switch model Added →	3830-44xw: AX3830S-44XW 3830-44x4qw: AX3830S-44X4QW or AX3830S-44X4QS 3650-24t6xw: AX3650S-24T6XW 3650-48t4xw: AX3650S-48T4XW 3650-20s6xw: AX3650S-20S6XW
...		...	...
Neighbor	...	...	...
	Model	Model of the neighboring member switch Added →	3830-44xw: AX3830S-44XW 3830-44x4qw: AX3830S-44X4QW or AX3830S-44X4QS 3650-24t6xw: AX3650S-24T6XW 3650-48t4xw: AX3650S-48T4XW 3650-20s6xw: AX3650S-20S6XW -: Unknown
	...	...	...

9. Checking Software Versions and Device Statuses

(1) show version [Change]

Table 9-1 Information displayed by the show version command has been changed. [Version 11.11 and later]

Change:

Table 9-1 Information displayed by the show version command

Item	Display format	Meaning
Model	...	...
	AX3830S-44X4QW	AX3830S-44X4QW (L3 switch) • Redundant power model • Gigabit Ethernet x 4 (10/100/1000BASE-T) • 10 gigabit Ethernet x 44 (10GBASE-R (SFP+) or 1000BASE-X (SFP)) • 40 gigabit Ethernet x 4 (40GBASE-R (QSFP+))
Added	AX3830S-44X4QS	AX3830S-44X4QS (L3 switch) • Redundant power model • Gigabit Ethernet x 4 (10/100/1000BASE-T) • 10 gigabit Ethernet x 44 (10GBASE-R (SFP+) or 1000BASE-X (SFP)) • 40 gigabit Ethernet x 4 (40GBASE-R (QSFP+))
S/W[#1]	OS-L3SA-A/OS-L3SA Ver.*vv.v*[#2]	L3S advanced software with OSPF, BGP, VRF, and policy-based routing
	OS-L3SL-A/OS-L3SL Ver.*vv.v*	L3S light software without OSPF, BGP, VRF, or policy-based routing
H/W[#3]		
Main board		
	...	...
	AX-3830-44X4QW-L [*ssss....ssss*]	AX3830S-44X4QW (L3 switch) • Redundant power model • Gigabit Ethernet x 4 (10/100/1000BASE-T) • 10 gigabit Ethernet x 44 (10GBASE-R (SFP+) or 1000BASE-X (SFP)) • 40 gigabit Ethernet x 4 (40GBASE-R (QSFP+)) • L3S light software (with SSH)
Added	AX-3830-44X4QS-A [*ssss....ssss*]	AX3830S-44X4QS (L3 switch) • Redundant power model • Gigabit Ethernet x 4 (10/100/1000BASE-T) • 10 gigabit Ethernet x 44 (10GBASE-R (SFP+) or 1000BASE-X (SFP)) • 40 gigabit Ethernet x 4 (40GBASE-R (QSFP+)) • L3S advanced software (with SSH)
Added	AX-3830-44X4QS-L [*ssss....ssss*]	AX3830S-44X4QS (L3 switch) • Redundant power model • Gigabit Ethernet x 4 (10/100/1000BASE-T) • 10 gigabit Ethernet x 44 (10GBASE-R (SFP+) or 1000BASE-X (SFP)) • 40 gigabit Ethernet x 4 (40GBASE-R (QSFP+)) • L3S light software (with SSH)
Power slot		
PS-M[#4]	...	...
	AX-F2430-PSD03R[*ssss....ssss*]	DC power supply for AX3830S series switches. Designated for rear-side air intake and front-side air exhaust.
Added	AX-F2430-PSA05[*ssss....ssss*]	AC power supply for AX3650S series switches. 100/200V AC. Designated for front-side air intake and rear-side air exhaust.
Fan slot		

Item	Display format	Meaning
FAN-M[#4]	AX-F2430-FAN 03[*ssss....ssss*]	Fan unit common to AX3650S series switches. Designated for front-side air intake and rear-side air exhaust.
	AX-F2430-FAN 04[*ssss....ssss*]	Fan unit for AX3830S series switches. Designated for front-side air intake and rear-side air exhaust.
Added	AX-F2430-FAN 04S[*ssss....ssss*]	
	AX-F2430-FAN 04R[*ssss....ssss*]	Fan unit for AX3830S series switches. Designated for rear-side air intake and front-side air exhaust.

(2) show system [Change]

Figure 9-4 Example showing the result of executing the show system command [AX3650S] has been changed.

Before change:

<omitted>

```
  Flash :
            user area   config area     dump area    area total
       used  114,175kB          74kB       3,306kB     117,555kB
       free   91,381kB     120,597kB      62,084kB     274,062kB
       total 205,556kB     120,671kB      65,390kB     391,617kB
```

<omitted>

After change:

<omitted>

```
  Flash :
            user area   config area     dump area    area total
       used  121,161kB         289kB           0kB     121,450kB
       free   14,619kB      75,117kB      65,390kB     155,126kB
       total 135,780kB      75,406kB      65,390kB     276,576kB
```

<omitted>

Figure 9-5 Example of displaying resource Information [AX3800S] has been changed. [Version 11.11 and later]

Change:

Figure 9-5 Example of displaying resource Information [AX3800S]

```
> show system
Date 20XX/3/1 06:35:27 JST
System: AX3830S-44XW, OS-L3SA Ver. 11.11          <-- Corrected
Node : Name=System Name
:
:
:
    Device resources
        Current selected swrt_table_resource: l3switch-2
        Current selected swrt_multicast_table: On
        Current selected unicast multipath number: 8
        IP routing entry :
            Unicast : current number=6 , max number=8192
            Multicast : current number=0 , max number=256
            ARP : current number=1 , max number=5120
        IPv6 routing entry :
            Unicast : current number=1 , max number=2048
            Multicast : current number=0 , max number=128
            NDP : current number=0 , max number=1024
        Multipath table entry : current number=1 , max number=512   <-- Added
        MAC-Address table entry : current number=7 , max number=131072
        System Layer2 Table Mode : auto (mode=1)
        Flow detection mode : layer3-1
          Used resources for filter inbound(Used/Max)
                    MAC      IPv4      IPv6
                  0/ 512   30/ 512       n/a
          Used resources for QoS(Used/Max)
                    MAC      IPv4      IPv6
                  0/ 128   26/ 128       n/a
          Used resources for UPC(Used/Max)
                    MAC      IPv4      IPv6
                  0/ 128   26/ 128       n/a
          Used resources for TCP/UDP port detection pattern
            Resources(Used/Max):  3/32
              Source Port
                10-20          :   filter/  -
              Destination Port
                1-2            :        -/QoS
                65534-65535    :   filter/QoS
        Flow detection out mode : layer3-1-out
          Used resources for filter outbound(Used/Max)
                    MAC      IPv4      IPv6
                    n/a    0/1024       n/a
        Flow action change                    } Added
            cos                : enable
>
```

Figure 9-6 Example of displaying resource Information [AX3650S] has been changed. [Version 11.11 and later]

Change:

Figure 9-6 Example of displaying resource Information [AX3650S]

```
> show system
Date 20XX/3/1 06:35:27 JST
System: AX3650S-48T4XW, OS-L3SA Ver. 11.11 <-- Corrected
Node : Name=System Name
:
:
:
    Device resources
        Current selected swrt_table_resource: l3switch-2
        Current selected swrt_multicast_table: On
        Current selected unicast multipath number: 8
        IP routing entry :
            Unicast : current number=6 , max number=8192
            Multicast : current number=0 , max number=1024
            ARP : current number=1 , max number=2048
        IPv6 routing entry :
            Unicast : current number=1 , max number=4096
            Multicast : current number=0 , max number=256
            NDP : current number=0 , max number=2048
        Multipath table entry : current number=1 , max number=256 <-- Added
        MAC-Address table entry : current number=7 , max number=32768
        System Layer2 Table Mode : auto (mode=1)
        Flow detection mode : layer3-1
          Used resources for filter inbound(Used/Max)
                                      MAC     IPv4     IPv6
            Port 0/ 1-24       :   0/512   30/512      n/a
            Port 0/25-48       :   0/512   24/512      n/a
            Port 0/49-52       :   0/512   24/512      n/a
            VLAN               :   0/512    2/512      n/a
          Used resources for QoS(Used/Max)
                                      MAC     IPv4     IPv6
            Port 0/ 1-52       :   0/256   26/256      n/a
            VLAN               :   0/256    2/256      n/a
          Used resources for UPC(Used/Max)
                                      MAC     IPv4     IPv6
            Port 0/ 1-52       :   0/256   26/256      n/a
            VLAN               :   0/256    2/256      n/a
          Used resources for TCP/UDP port detection pattern
            Resources(Used/Max):  4/64
              Source Port
                10-20          :   filter/  -
              Destination Port
                1-2            :        -/QoS
                65534-65535    :   filter/QoS
        Flow detection out mode : layer3-3-out
          Used resources for filter outbound(Used/Max)
                                      MAC     IPv4     IPv6
            Port 0/ 1-52       :     n/a      n/a      n/a
            VLAN               : 256/256  256/256  256/256
        Flow action change
            cos                : enable      } Added
>
```

Table 9-5 Information displayed by the show system command has been changed. [Version 11.11 and later]

Change:

Table 9-5 Information displayed by the show system command (resource information)

Item	Displayed information	Displayed detailed information
...	...	...
IPv6 routing entry NDP	Number of NDP entries set on the hardware	`current number`: Number of NDP entries currently set on the hardware. `max number`: Maximum number of NDP entries that can be set on the hardware. Note: A hyphen (`-`) is displayed if the status of the main board is `Fault`.
Multipath table entry	Number of multipath table entries set on the hardware	`current number`: Number of multipath table entries currently set on the hardware. `max number`: Maximum number of multipath table entries that can be set on the hardware. Note: A hyphen (`-`) is displayed if the status of the main board is `Fault`.
MAC-Address table entry	Number of MAC address table entries set on the hardware	`current number`: Number of MAC address table entries currently set on the hardware. `max number`: Maximum number of MAC address table entries that can be set on the hardware. Note: A hyphen (`-`) is displayed if the status of the main board is `Fault`.
System Layer2 Table Mode	Search method for the Layer 2 hardware table	`auto(mode=`*x*`)`: Mode selected automatically. `mode=` *x*: Value set by the `system l2-table mode` configuration command If the mode is not set by using the `system l2-table mode` configuration command, 0 is displayed for *x*. (For details, see *8. Device Management* in the manual *Configuration Command Reference Vol. 1 For Version 11.10*.)
Flow detection mode	Receiving-side flow detection mode for the filters and QoS functionality	layer3-1 layer3-2 layer3-5 layer3-6 layer3-dhcp-1 (For details, see *18. Flow Detection Modes and Flow Operations* in the manual *Configuration Command Reference Vol. 1 For Version 11.10*.)
...	...	...
Flow detection out mode	Sending-side flow detection mode for filtering	For AX3800S series switches: layer3-1-out layer3-2-out For AX3650S series switches: layer3-1-out layer3-2-out

Added

Corrected

Item	Displayed information	Displayed detailed information
		layer3-3-out (For details, see *18. Flow Detection Modes and Flow Operations* in the manual *Configuration Command Reference Vol. 1 For Version 11.10.*) ← Corrected
Flow action change	Status of the functionality for changing which frames are subject to priority determination	Status of the functionality for changing which frames are subject to priority determination. (If this functionality is enabled, `enable` is displayed. If this functionality is disabled, nothing is displayed.) `cos`: Priority

Added

11. Checking Internal Memory and Memory Cards

(1) show flash [Change]

Example has been changed.

Before change:

```
<omitted>
Flash :
           user area   config area     dump area    area total
    used  114,175kB          74kB       3,306kB     117,555kB
    free   91,381kB     120,597kB      62,084kB     274,062kB
    total 205,556kB     120,671kB      65,390kB     391,617kB
>
```

After change:

```
<omitted>
Flash :
           user area   config area     dump area    area total
    used  121,161kB         289kB           0kB     121,450kB
    free   14,619kB      75,117kB      65,390kB     155,126kB
    total 135,780kB      75,406kB      65,390kB     276,576kB
>
```

16. Ethernet

(1) show interfaces (40GBASE-R) [AX3800S] [Change]

Table 16-24 Summary information about 40GBASE-R interfaces has been changed. [Version 11.11 and later]

Change:

Table 16-24 Summary information about 40GBASE-R interfaces

Item	Displayed information	
	Detailed information	Meaning
...	...	...
<line type>	40GBASE-SR4 full	40GBASE-SR4
Added →	40GBASE-LR4 full	40GBASE-LR4
	40GBASE-CU35CM full(auto)	40GBASE-CR4 (35cm) (Line type determined by auto-negotiation.)
	40GBASE-CU1M full(auto)	40GBASE-CR4 (1m) (Line type determined by auto-negotiation.)
	40GBASE-CU3M full(auto)	40GBASE-CR4 (3m) (Line type determined by auto-negotiation.)
	40GBASE-CU5M full(auto)	40GBASE-CR4 (5m) (Line type determined by auto-negotiation.)
	-	The line type is unknown. A hyphen is displayed in the following cases: • A port is in the `initialize` status. • A port is in the `fault` status. • The transceiver status is not `connect`.
<MAC address>	MAC address of the port	
...	...	

(2) show port [Change]

Table 16-28 Explanation of the display of the link information list for ports has been changed. [Version 11.11 and later]

Change:

Table 16-28 Explanation of the display of the link information list for ports

Item	Meaning	Displayed information
...	...	...
Speed	Line speed	10BASE-T: 10BASE-T 100BASE-TX: 100BASE-TX 1000BASE-T: 1000BASE-T 100BASE-FX: 100BASE-FX [AX3650S] 1000BASE-LX: 1000BASE-LX 1000BASE-SX: 1000BASE-SX 1000BASE-SX2: 1000BASE-SX2 [AX3650S] 1000BASE-LH: 1000BASE-LH 1000BASE-BX10-D: 1000BASE-BX10-D 1000BASE-BX10-U: 1000BASE-BX10-U 1000BASE-BX40-D: 1000BASE-BX40-D 1000BASE-BX40-U: 1000BASE-BX40-U 1000BASE-LHB: 1000BASE-LHB 10GBASE-SR: 10GBASE-SR 10GBASE-LR: 10GBASE-LR 10GBASE-ER: 10GBASE-ER 10GBASE-CU30CM: 10GBASE-CU (30cm) 10GBASE-CU1M: 10GBASE-CU (1m) 10GBASE-CU3M: 10GBASE-CU (3m) 10GBASE-CU5M: 10GBASE-CU (5m) 40GBASE-SR4: 40GBASE-SR4 [AX3800S] Added → 40GBASE-LR4: 40GBASE-LR4 [AX3800S] 40GBASE-CU35CM: 40GBASE-CR4 (35cm) [AX3800S] 40GBASE-CU1M: 40GBASE-CR4 (1m) [AX3800S] 40GBASE-CU3M: 40GBASE-CR4 (3m) [AX3800S] 40GBASE-CU5M: 40GBASE-CR4 (5m) [AX3800S] -: The speed is unknown (If auto-negotiation is enabled for a 10BASE-T/100BASE-TX/1000BASE-T port and `Status` is neither `up` nor `test`, if `Status` is `init` or `fault`, or if the transceiver status is not connect, a hyphen (-) is displayed.)
...	...	...

Table 16-32 Display of the transceiver information list (QSFP+ port) has been changed. [Version 11.11 and later]

Change:

Table 16-32 Display of the transceiver information list (QSFP+ port)

Item	Meaning	Displayed information
Port Counts	Number of target ports	-
Port	Port	NIF number/port number
Status	Status of the transceiver	`connect`: A transceiver is installed. `notconnect`: Not installed `not support`: An unsupported transceiver is installed. -: The status of the transceiver is unknown (- is displayed if the port status is `init` or `fault`).
Type	Type of transceiver	`QSFP+`: QSFP+
Speed	Line speed Added →	40GBASE-SR4: 40GBASE-SR4 40GBASE-LR4: 40GBASE-LR4 40GBASE-CU35CM: 40GBASE-CR4 (35cm) 40GBASE-CU1M: 40GBASE-CR4 (1m) 40GBASE-CU3M: 40GBASE-CR4 (3m) 40GBASE-CU5M: 40GBASE-CR4 (5m) -: Unknown line speed (- is displayed if the port status is `init` or `fault`, or if the transceiver state is not `connect`).
Vendor name	Vendor name	Displays the vendor's name.[#1#2]
Vendor SN	Vendor serial number	Displays the serial number added by the vendor.[#1#2]
Vendor PN	Vendor part number	Displays the part number added by the vendor.[#1#2]
Vendor rev	Vendor revision	Displays a part number revision added by the vendor.[#1#2]
Tx1 power	Lane 1 sending optical power	Displays the sending optical power of Lane 1 in dBm.[#1#2#3#4]
Rx1 power	Lane 1 receiving optical power	Displays the receiving optical power of Lane 1 in dBm.[#1#2#3#4]
Tx2 power	Lane 2 sending optical power	Displays the sending optical power of Lane 2 in dBm.[#1#2#3#4]
Rx2 power	Lane 2 receiving optical power	Displays the receiving optical power of Lane 2 in dBm.[#1#2#3#4]
Tx3 power	Lane 3 sending optical power	Displays the sending optical power of Lane 3 in dBm.[#1#2#3#4]
Rx3 power	Lane 3 receiving optical power	Displays the receiving optical power of Lane 3 in dBm.[#1#2#3#4]
Tx4 power	Lane 4 sending optical power	Displays the sending optical power of Lane 4 in dBm.[#1#2#3#4]
Rx4 power	Lane 4 receiving optical power	Displays the receiving optical power of Lane 4 in dBm.[#1#2#3#4]

(3) no test interfaces [Change]

Table 16-41 Items displayed as line test results has been changed. [Version 11.11 and later]

Change:

Table 16-41 Items displayed as line test results

Item	Meaning	Presumed cause	Measures
Interface type	Line type • 10BASE-T • 100BASE-TX • 1000BASE-T • 100BASE-FX [AX3650S] • 1000BASE-LX • 1000BASE-SX • 1000BASE-SX2 [AX3650S] • 1000BASE-LH • 1000BASE-BX10-D • 1000BASE-BX10-U • 1000BASE-BX40-D • 1000BASE-BX40-U • 1000BASE-LHB • 10GBASE-SR • 10GBASE-LR • 10GBASE-ER • 10GBASE-CU30CM • 10GBASE-CU1M • 10GBASE-CU3M • 10GBASE-CU5M • 40GBASE-SR4 [AX3800S] Added → • 40GBASE-LR4 [AX3800S] • 40GBASE-CU35CM [AX3800S] • 40GBASE-CU1M [AX3800S] • 40GBASE-CU3M [AX3800S] • 40GBASE-CU5M [AX3800S] • ----#1	--	--
Test count	Number of times a test was conducted	--	--
Send-OK	Number of times data was sent normally	--	--
...	...	...	...

30. GSRP

(1) show gsrp [Change]

Figure 30-1 Example of displaying GSRP summary information has been changed. [Version 11.11 and later]

Change:

Figure 30-1 Example of displaying GSRP summary information

```
> show gsrp
Date 20XX/07/14 12:00:00 UTC

GSRP ID: 3
 Local MAC Address       : 0012.e2a8.2527
 Neighbor MAC Address    : 0012.e2a8.2505
 Total VLAN Group Counts : 3
 Layer 3 Redundancy      : On
 Virtual MAC Learning    : Interval 120  (Output Rate 30pps)
 VLAN Port Counts        : Configuration    15,  Capacity 3600

 VLAN Group ID      Local State         Neighbor State
 1                  Backup              Master
 2                  (disable)           -
 8                  Master              -

>
```

Added

Table 30-1 Items displayed for GSRP summary information has been changed. [Version 11.11 and later]

Change:

Table 30-1 Items displayed for GSRP summary information

Item	Meaning	Displayed information
...	...	...
Layer 3 Redundancy	Layer 3 redundancy switching	`Off`: Not set. `On`: The Layer 3 redundancy switching functionality is enabled.
Virtual MAC Learning	Number of frames for virtual MAC address learning	--
Interval	Sending interval	4-120 (seconds)
(Output Rate)	Sending rate (packet/s)	Displays the current sending rate for frames for virtual MAC address learning. This item is not displayed when Layer 3 redundancy switching is not used in the configuration.
VLAN Port Counts	Number of sending ports for frames for virtual MAC address learning	This item is not displayed when Layer 3 redundancy switching is not used in the configuration.
Configuration	Number of target ports where frames for virtual MAC address learning are sent to	Displays the number of VLAN ports# where the frames for virtual MAC address learning are sent to. If this value is greater than the number of ports enabled for sending frames for virtual MAC address learning, it means that the differentials of frames for virtual MAC address learning were not sent.
Capacity	Number of ports enabled for sending frames for virtual MAC address learning	Displays the number of VLAN ports that can be sent in the sending interval for frames for virtual MAC address learning.
VLAN Group ID	VLAN Group ID	1-64
...	...	...

Added

Added

Total number of member ports among VLAN ports that belong to the master VLAN group. Each channel group is counted as one port.

Figure 30-2 Example of displaying GSRP information when a VLAN group ID is specified has been changed. [Version 11.11 and later]

Change:

Figure 30-2 Example of displaying GSRP information when a VLAN group ID is specified

```
> show gsrp 3 vlan-group 1,2,8
Date 20XX/07/14 12:00:00 UTC

GSRP ID: 3
 Local MAC Address       : 0012.e2a8.2527
 Neighbor MAC Address    : 0012.e2a8.2505
 Total VLAN Group Counts : 3
 Layer 3 Redundancy      : On
 Virtual MAC Learning    : Interval 120  (Output Rate 30pps)
 VLAN Port Counts        : Configuration    15,  Capacity 3600

 VLAN Group ID : 1
  VLAN ID                 : 110,200-2169
  Member Port             : 0/6-8
  Active Port             : 0/6-8
  Last Transition         : 20XX/07/14 10:00:00  (Master to Backup)
  Transition by reason    : Priority was lower than neighbor's
  Master to Backup Counts : 4
  Backup to Master Counts : 4
  Virtual MAC Address     : 0000.8758.1387

    <omitted>
```

Added

Table 30-2 Items displayed for GSRP information when a VLAN group ID is specified has been changed. [Version 11.11 and later]

Change:

Table 30-2 Items displayed for GSRP information when a VLAN group ID is specified

Item	Meaning	Displayed information
...	...	...
Layer 3 Redundancy	Layer 3 redundancy switching	`Off`: Not set. `On`: The Layer 3 redundancy switching functionality is enabled.
Virtual MAC Learning	Number of frames for virtual MAC address learning	--
Interval	Sending interval	4-120 (seconds)
(Output Rate)	Sending rate (packet/s)	Displays the current sending rate for frames for virtual MAC address learning. This item is not displayed when Layer 3 redundancy switching is not used in the configuration.
VLAN Port Counts	Number of sending ports for frames for virtual MAC address learning	This item is not displayed when Layer 3 redundancy switching is not used in the configuration.
Configuration	Number of target ports where frames for virtual MAC address learning are sent to	Displays the number of VLAN ports# where the frames for virtual MAC address learning are sent to. If this value is greater than the number of ports enabled for sending frames for virtual MAC address learning, it means that the differentials of frames for virtual MAC address learning were not sent.
Capacity	Number of ports enabled for sending frames for virtual MAC address learning	Displays the number of VLAN ports that can be sent in the sending interval for frames for virtual MAC address learning.
VLAN Group ID	VLAN group ID	1-64
VLAN ID	VLAN ID	1-4094 When used in combination with Ring Protocol, VLANs that do not belong to the VLAN group are not included.
Member Port	Ports belonging to a VLAN which is configured for a VLAN group	- is displayed if no active ports belong to a VLAN group, or if the VLAN group is disabled. A channel group is expanded to a list of aggregated ports and then displayed.
Active Port	Active port	- is displayed if no active ports belong to a VLAN group, or if the VLAN group is disabled. A channel group is expanded to a list of aggregated ports and then displayed. Note, however, that a ring port is not counted as an active port.
Last Transition	Last state transition time	*yyyy*/*mm*/*dd hh*:*mm*:*ss* year/month/day hour:minute:second The state transition is shown within parentheses. - is displayed if no state transitions have been performed, or if the VLAN group is disabled.
...	...	...
Priority	Priority information	0-255 (The greater the value, the higher the priority.)

Added

Corrected

Corrected

Item	Meaning	Displayed information
Active Ports	Number of active ports	0 to the maximum number of ports per switch. Each channel group is counted as one port. - is displayed if the VLAN group is disabled. Note, however, that a ring port is not counted as an active port.
Up Ports	Number of enabled ports belonging to a VLAN that is configured to be in a VLAN group	0 to the maximum number of ports per switch. Each channel group is counted as one port. - is displayed if the VLAN group is disabled. (- is displayed for information about the partner switch.)

Corrected

Corrected

Added # Total number of member ports among VLAN ports that belong to the master VLAN group. Each channel group is counted as one port.

Figure 30-3 Example of displaying detailed GSRP information has been changed. [Version 11.11 and later]

Change:

Figure 30-3 Example of displaying detailed GSRP information

```
> show gsrp detail
Date 20XX/11/07 12:00:00 UTC

GSRP ID: 3
 Local MAC Address       : 0012.e2a8.2527
 Neighbor MAC Address    : 0012.e2a8.2505
 Total VLAN Group Counts : 3
 GSRP VLAN ID            : 105
 Direct Port             : 0/10-11
 Limit Control           : Off
 GSRP Exception Port     : 0/1-5
 No Neighbor To Master   : manual
 Backup Lock             : disable
 Port Up Delay           : 0
 Last Flush Receive Time : -
 Forced Shift Time       : -
 Layer 3 Redundancy      : On
 Virtual MAC Learning    : Interval 120  (Output Rate 30pps)
 VLAN Port Counts        : Configuration    15,  Capacity 3600
 Virtual Link ID         : 100(VLAN ID : 20)

                           Local               Neighbor
 Advertise Hold Time     : 5                   5
 Advertise Hold Timer    : 4                   -
 Advertise Interval      : 1                   1
 Selection Pattern       : ports-priority-mac  ports-priority-mac

 VLAN Group ID      Local State         Neighbor State
 1                  Backup              Master
 2                  (disable)           -
 8                  Master              -
>
```

Added

Table 30-3 Items displayed for detailed GSRP information has been changed. [Version 11.11 and later]

Change:

Table 30-3 Items displayed for detailed GSRP information

Item	Meaning	Displayed information
...	...	...
Layer 3 Redundancy	Layer 3 redundancy switching	`Off`: Not set. `On`: The Layer 3 redundancy switching functionality is enabled.
Virtual MAC Learning	Number of frames for virtual MAC address learning	--
Interval	Sending interval	4-120 (seconds)
(Output Rate)	Sending rate (packet/s)	Displays the current sending rate for frames for virtual MAC address learning. This item is not displayed when Layer 3 redundancy switching is not used in the configuration.
VLAN Port Counts	Number of sending ports for frames for virtual MAC address learning	This item is not displayed when Layer 3 redundancy switching is not used in the configuration.
Configuration	Number of target ports where frames for virtual MAC address learning are sent to	Displays the number of VLAN ports# where the frames for virtual MAC address learning are sent to. If this value is greater than the number of ports enabled for sending frames for virtual MAC address learning, it means that the differentials of frames for virtual MAC address learning were not sent.
Capacity	Number of ports enabled for sending frames for virtual MAC address learning	Displays the number of VLAN ports that can be sent in the sending interval for frames for virtual MAC address learning.
Virtual Link ID	Virtual link ID	1-250 - is displayed if no virtual link IDs are set. Information enclosed in parentheses indicates the virtual link VLAN ID.
...	...	...

Added

Added

Total number of member ports among VLAN ports that belong to the master VLAN group. Each channel group is counted as one port.

Table 30-4 Items displayed for GSRP information when a port is specified has been changed. [Version 11.11 and later]

Change:

Table 30-4 Items displayed for GSRP information when a port is specified

Item	Meaning	Displayed information
...	...	...
TxFrame	Number of sent GSRP Advertise frames (statistics)	0-4294967295 The same value is displayed for all ports in the same channel group. ← Corrected
RxFrame	Number of received GSRP Advertise frames (statistics)	0-4294967295 The same value is displayed for all ports in the same channel group. ← Corrected
Discard Frame	Number of GSRP Advertise frames discarded when they are received (statistics)	0-262140 (The maximum value is 65535 (the maximum number by reason why the frame is discarded) times 4 (the number of components).) The same value is displayed for all ports in the same channel group. ← Corrected

Table 30-5 Items displayed for GSRP information when a port is specified has been changed. [Version 11.11 and later]

Change:

Table 30-5 Items displayed for GSRP information when a port is specified

Item	Meaning	Displayed information
...	...	...
TxFrame	Number of sent GSRP Advertise frames (statistics)	0-4294967295 The same value is displayed for all ports in the same channel group. ← Corrected
RxFrame	Number of received GSRP Advertise frames (statistics)	0-4294967295 The same value is displayed for all ports in the same channel group. ← Corrected
Discard Frame	Number of GSRP Advertise frames discarded when they are received (statistics)	0-262140 (The maximum value is 65535 (the maximum number by reason why the frame is discarded) times 4 (the number of components).) The same value is displayed for all ports in the same channel group. ← Corrected
...	...	...

7. Changes in Operation Command Reference Vol. 2 (For Version 11.10) (AX38S-S007X-40)

7. IPv4 Multicast Routing Protocols

(1) show ip pim interface [Change]

Figure 7-3 Displaying the status of a PIM-SM or PIM-SSM interface has been changed. [Version 11.11 and later]

Change:

Figure 7-3 Displaying the status of a PIM-SM or PIM-SSM interface

```
> show ip pim interface
Date 20XX/12/10 15:08:10 UTC
Address           Interface  Component  Vif    Nbr     Hello   DR           Notice
                                           Count   Intvl   Address
192.10.10.1       VLAN0011   PIM-SM       1        4      30   This system  B
192.10.20.1       VLAN0012   PIM-SM       9       10      30   192.10.20.2  B
192.10.30.1       VLAN0014   PIM-SM      10       11      30   This system
>
> show ip pim interface detail
Date 20XX/12/10 15:09:10 UTC
Address      Interface  Component  Vif  Nbr    Hello  GenID      DR           Notice
                                       Count  Intvl             Address
192.10.10.1  VLAN0011   PIM-SM       1     4     30  3503c645   This system  B
192.10.20.1  VLAN0012   PIM-SM       9    10     30  42278152   192.10.20.2  B
192.10.30.1  VLAN0014   PIM-SM      10    11     30  29ba460b   This system
>
> show ip pim vrf 2 interface detail
Date 20XX/12/10 15:10:10 UTC
VRF: 2
Address      Interface  Component  Vif  Nbr    Hello  GenID      DR           Notice
                                       Count  Intvl             Address
192.10.50.1  VLAN0015   PIM-SM      12     4     30  3503c645   This system  B
192.10.60.1  VLAN0016   PIM-SM      13    10     30  42278152   192.10.60.2  B
192.10.70.1  VLAN0017   PIM-SM      14    11     30  29ba460b   This system
>
```

Table 7-5 Items displayed by the show ip pim interface command has been changed. [Version 11.11 and later]

Change:

Table 7-5 Items displayed by the show ip pim interface command

Item	Meaning	Displayed information
...	...	...
DR Address	DR address	If the specified interface is down, - is displayed. If the Switch is the DR, `This system` is displayed.
Notice	Warning information	`B`: The PIM-Bootstrap message was discarded because the `no ip pim accept-bootstrap` configuration command was specified. From the time an event occurred until PIM-Bootstrap message retention time (Bootstrap-Timeout) passes, this item is displayed when the command is executed.

Added

9. IPv6, NDP, and ICMPv6

(1) traceroute ipv6 [Change]

The `numeric` parameter has been changed.

Before change:

numeric

Displays the gateway address by the IPv6 address alone, not by the host name and IPv6 address.

Operation when this parameter is omitted:

Displays the name converted from the host IPv6 address.

After change:

numeric

Displays the gateway address by the IPv6 address alone, not by the host name.

Operation when this parameter is omitted:

Displays the name converted from the host IPv6 address.

8. Changes in Message and Log Reference (For Version 11.10) (AX38S-S008X-40)

3. Device Failure and Event Information

(1) 3.4.4 Event location = VLAN (GSRP) [Addition]

In *Table 3-7 Device failure and event information when the event location is VLAN (GSRP)*, the following item has been added. [Version 11.11 and later]

Addition:

Table 3-7 Device failure and event information when the event location is VLAN (GSRP)

#	Event level	Event location	Message ID	Added info Highest 4 digits	Message text
	Description				
18	E4	VLAN	20130020	0700	GSRP : Virtual MAC address learning frame cannot be sent in the port where capacity was exceeded.
	The number of VLAN ports that can send the frames for virtual MAC address learning exceeded the capacity limit. Control frames cannot be sent from VLAN ports whose capacity limit is exceeded. [Explanation of message variables] None. [Action] Decrease the number of sending ports for frames for virtual MAC address learning. Alternatively, set the sending interval to a longer interval.				

(2) 3.7.1 Event location = PS [Addition]

In *Table 3-15 Device failure and event information when the event location is PS*, the following item has been added. [Version 11.11 and later]

Addition:

Table 3-15 Device failure and event information when the event location is PS

#	Event level	Event location	Message ID	Added info Highest 4 digits	Message text
	Description				
10	E8	PS	00000009	2200	Combination of power supply units is incorrect.
	The combination of mounted power supply units is incorrect. [Explanation of message variables] None. [Action] 1. The combination of mounted power supply units is incorrect. Remove PS1 or PS2. 2. To configure power supply redundancy, mount power supply units in the correct combination.				
11	R8	PS	00000009	2200	Incorrect combination of power supply units was recovered.
	Recovery was made from the combination of power supply units being incorrect. [Explanation of message variables] None. [Action] None.				

9. Changes in MIB Reference (For Version 11.10) (AX38S-S009X-40)

3. Private MIBs

(1) 3.20 ax3830sSwitch group (System device model information MIB) [Change]

Table 3-75 ax3830sSwitch group implementation specifications has been changed. [Version 11.11 and later]

Change:

Table 3-75 ax3830sSwitch group implementation specifications

#	Object identifier	SYNTAX	Access	Implementation specifications	Support?
1	ax3830sModelType {ax3830sSwitch 1}	INTEGER	R/O	System device model information (numeric value): AX3830S-44XW (1700) AX3830S-44X4QW (1701) AX3830S-44X4QS (1702) ← Added	Y

(2) 3.21.1 ax3830sChassis group implementation specifications (Chassis information) [Change]

Table 3-76 ax3830sChassis group implementation specifications (chassis information) has been changed. [Version 11.11 and later]

Change:

Table 3-76 ax3830sChassis group implementation specifications (chassis information)

#	Object identifier	SYNTAX	Access	Implementation specifications	Support?
5	ax3830sChassisType {ax3830sChassisEntry 2}	INTEGER	R/O	Chassis type: AX3830S-44XW (1700) AX3830S-44X4QW (1701) AX3830S-44X4QS (1702) ← Added	Y

(3) 3.21.6 ax3830sPhysLine group implementation specifications (Interface information) [Change]

Table 3-81 ax3830sPhysLine group implementation specifications (interface information) has been changed. [Version 11.11 and later]

Change:

Table 3-81 ax3830sPhysLine group implementation specifications (interface information)

#	Object identifier	SYNTAX	Access	Implementation specifications	Support?
4	ax3830sPhysLineConnectorType {ax3830sPhysLineEntry 2}	INTEGER	R/O	Type of interface on the interchangeable transceiver: - other(1) - type1000BASE-LX (301) - type1000BASE-SX (302) - type1000BASE-LH (303) - type1000BASE-BX10-D (304) - type1000BASE-BX10-U (305) - type1000BASE-BX40-D (306) - type1000BASE-BX40-U (307) - type1000BASE-UTP (309)# - type1000BASE-LHB (310) - type10GBASE-SR (401) - type10GBASE-LR (402) - type10GBASE-ER (403) - type10GBASE-CU1M (405) - type10GBASE-CU3M (406) - type10GBASE-CU5M (407) - type10GBASE-CU30CM (408) - type40GBASE-SR4 (501) - type40GBASE-CU35CM (502) - type40GBASE-CU1M (503) - type40GBASE-CU3M (504) - type40GBASE-CU5M (505) - type40GBASE-LR4 (506) ← Added Returns other (1) if either of the following conditions is met: - The transceiver type is unknown or the transceiver is not interchangeable - The physical line is in the initializing or the failure status	Y