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Release Notes – Rev. A

OmniSwitch 2260, 2360

Release 5.2R5

These release notes accompany AOS Release 5.2R5. These release notes provide important information on individual software features and hardware modules. Since much of the information in these release notes is not included in the hardware and software user manuals, it is important that you read all sections of this document before installing new hardware or loading new software.

Contents

Related Documentation

These release notes should be used in conjunction with OmniSwitch AOS Release 5.2R5 User Guides. The following are the titles of the user guides that apply to this release.

- OmniSwitch 2260/2360 Hardware User Guide

- OmniSwitch 2260/2360 AOS Release 5.2R5 CLI Reference Guide

- OmniSwitch 2260/2360 AOS Release 5.2R5 WebView Guide

System Requirements

Memory Requirements

The following are the standard shipped memory configurations. Configuration files and the compressed software image, including web management software images, are stored in the flash memory.

Platform	SDRAM	Flash
OS2260	512 MB	512 MB
OS2360	1 GB	512 MB

UBoot and FPGA Requirements

The software versions listed below are the MINIMUM required, except where otherwise noted. Switches running the minimum versions, as listed below, do not require any UBoot or FPGA upgrades. Use the **'show hardware-info'** command to determine the current versions.

Switches not running the minimum version required should upgrade to the latest UBoot or FPGA that is available with this release available from Service & Support.

OmniSwitch 2260/2360 – AOS Release 5.2.25.R05 (GA)

Hardware	Minimum UBoot	Current UBoot	Minimum FPGA
OS2260	5.1.8.R01	5.2.3.R03	0.6
OS2360	5.1.8.R01	5.2.3.R03	0.7
OS2360-U24X/U48X	5.2.8.R01	5.2.3.R03	0.2
OS2360-P24M	5.2.1.R03	5.2.3.R03	0.8
Notes:			
- Uboot 5.2.2.R02 is optional to support Gowin CPLD firmware upgrade.			
- Uboot 5.2.3.R03 is optional to support Winbond/MXIC flash chip.			

Prerequisites

The OmniSwitch 2260/2360 products do not contain a real-time clock.

- It is recommended to use NTP to ensure time synchronization.

- When the switch is reset, the switch will boot up from an approximation of the last known good time.

- When the switch is powered off it cannot detect the time left in the powered off state. When it boots up it will have the same time as when the switch was last powered off.

New Supported Hardware

There is no new hardware in this release.

Supported Transceivers

Supported Transceivers	OS2260	OS2360
SFP-1G-T Fixed speed 1000Base-T Gigabit Ethernet Transceiver (SFP). Supports category 5, 5E, and 6 copper cabling up to 100m. SFP works only at 1000 Mbit/s speed and full-duplex mode.	Supported	Supported
SFP-GIG-T - 1000BaseT Gigabit Ethernet Transceiver (SFP MSA). SFP works at 1000 Mb/s speed and full duplex mode.	Supported	Supported
SFP-GIG-SX - 1000Base SX Gigabit Ethernet optical transceiver (SFP MSA).	Supported	Supported
SFP-GIG-LX - 1000Base LX Gigabit Ethernet optical transceiver (SFP MSA).	Supported	Supported
SFP-GIG-LH40 - 1000Base LH Gigabit Ethernet optical transceiver (SFP MSA). Typical reach of 40 km on 9/125 µm SMF.	Supported	Supported
SFP-GIG-LH70 - 1000Base LH Gigabit Ethernet optical transceiver (SFP MSA). Typical reach of 70 km on 9/125 µm SMF.	Supported	Supported
SFP-10G-T 10-Gigabit copper transceiver (SFP+). Supports category 6a/7 cabling copper cabling up to 30m.	Supported (X-models)	Supported
SFP-10G-SR - 10 Gigabit optical transceiver (SFP+). Supports multimode fiber over 850 nm wavelength (nominal) with an LC connector. Typical reach of 300 m.	Supported (X-models)	Supported
SFP-10G-LR - 10 Gigabit optical transceiver (SFP+). Supports single mode fiber over 1310 nm wavelength (nominal) with an LC connector. Typical reach of 10 km.	Supported (X-models)	Supported
OS2x60-CBL-60CM - 1/10G direct attached uplink copper cable (60 cm, SFP+).	Supported	Supported

Supported Transceivers	OS2260	OS2360
OS2x60-CBL-1M - 1/10G direct attached uplink copper cable (1 m, SFP+).	Supported	Supported
OS2x60-CBL-3M - 1/10G direct attached uplink copper cable (3 m, SFP+)	Supported	Supported
SFP-100-BXLC-D – 100Base BX Bi-Direction SFP optical transceiver. Typical reach of 20 km. Designed for use with SFP-100-BXLC-U.	Not Supported	Supported (OS2360-U24X/U48X only)
SFP-100-BXLC-U -100Base BX Bi-Direction SFP optical transceiver. Typical reach of 20 km. Designed for use with SFP-100-BXLC-D.	Not Supported	Supported (OS2360-U24X/U48X only)
SFP-100-LC-SM15 - 100Base FX SFP optical transceiver. Typical reach of 15 km.	Not Supported	Supported (OS2360-U24X/U48X only)
SFP-100-LC-MM – 100Base FX SFP optical transceiver. Typical reach of 2 km.	Not Supported	Supported (OS2360-U24X/U48X only)
SFP-100-LC-SM40 – 100Base FX SFP optical transceiver. Typical reach of 40 km.	Not Supported	Supported (OS2360-U24X/U48X only)
SFP-DUAL-BX-D – 1000Base BX10 Dual speed optical transceiver. Typical reach of 10 km.	Not Supported	Supported (OS2360-U24X/U48X only)
SFP-DUAL-BX-U – 1000Base BX10 Dual speed optical transceiver. Typical reach of 10 km.	Not Supported	Supported (OS2360-U24X/U48X only)
SFP-10G-BX-D – 10GBase LR Bi-Directional SFP+ optical transceiver. Typical reach of 10 km. Designed for use with SFP-10G-BX-U.	Supported (X-models)	Supported
SFP-10G-BX-U – 10GBase LR Bi-Directional SFP+ optical transceiver. Typical reach of 10 km. Designed for use with SFP-10G-BX-D.	Supported (X-models)	Supported
SFP-10G-LR – 10GBase LR SFP+ optical transceiver. Typical reach of 10 km.	Supported (X-models)	Supported
SFP-GIG-BX-D – 1000Base BX10 Bi-Directional SFP optical transceiver. Typical reach of 10 km. Designed for use with SFP-GIG-BX-U.	Not Supported	Supported (OS2360-U24X/U48X only)
SFP-GIG-BX-U – 1000Base BX10 Bi-Directional SFP optical transceiver. Typical reach of 10 km. Designed for use with SFP-GIG-BX-D.	Not Supported	Supported (OS2360-U24X/U48X only)
SFP-GIG-BX-D20 – 1000Base BX20 Bi-Directional SFP optical transceiver. Typical reach of 20 km. Designed for use with SFP-GIG-BX-U20.	Not Supported	Supported (OS2360-U24X/U48X only)

Supported Transceivers	OS2260	OS2360
SFP-GIG-BX-U20 – 1000Base BX20 Bi-Directional SFP optical transceiver. Typical reach of 20 km. Designed for use with SFP-GIG-BX-D20.	Not Supported	Supported (OS2360-U24X/U48X only)
SFP-GIG-BX-D40 – 1000Base BX20 Bi-Directional SFP optical transceiver. Typical reach of 40 km. Designed for use with SFP-GIG-BX-U40.	Not Supported	Supported (OS2360-U24X/U48X only)
SFP-GIG-BX-U40 – 1000Base BX20 Bi-Directional SFP optical transceiver. Typical reach of 40 km. Designed for use with SFP-GIG-BX-D40.	Not Supported	Supported (OS2360-U24X/U48X only)
Note: SFP-GIG-T is not supported on SFP+ ports.		

New Supported Software Features

The following software features are being introduced in this release, subject to the feature exceptions and problem reports described later in these release notes.

5.2R5 Feature Summary

Feature	Platform
DHCP server	OS2360

DHCP server

The DHCP (Dynamic Host Configuration Protocol) server process is a client-server communication protocol used to dynamically assign IP addresses and network configuration parameters to DHCP clients on a network.

The following CLI commands are associated with this feature.

- dhcp-server
- dhcp-server restart
- show dhcp-server leases
- show dhcp-server statistics
- clear dhcp-server statistics

Unsupported Software Features

Commands for these features may exist on the switch but are currently not supported. Support in an upcoming release is planned.

5.2R5 Unsupported Feature Summary

Feature	Platform
N/A	N/A

Open Problem Reports and Feature Exceptions

The problems listed here include problems known at the time of the product's release.

System / General / Display

CR	Description	Workaround
CRAOS5X-72	SFP-10G-T transceiver has a single sided link (link down switch side and link up peer end side) when peer end is 1G, not auto-negotiating to peer end speed.	Manually configure the SFP-10G-T to 1G speed.
CRAOS5X-65	A fake link-up will be observed when inserting the SFP-GIG-T/SFP-1G-T transceiver without a cable on SFP+ port.	Manually configure the SPF+ port to 1G speed when the SFP-GIG-T/SFP-1G-T inserted.
CRAOS5X-142	When any user MAC is learned as Filtering on an UNP port, if traffic for the same MAC is received on another port then the MAC on the second port gets learned without being trapped to software.	To avoid learning of a Filtering MAC on another UNP port, disable the default VLAN configured on the UNP port.
CRAOS5X-162	When any client MAC is learned on a LPS enabled port, if the same MAC is received on a non-LPS port on another chassis in a VC, the MAC gets learned as expected, but the previous MAC entry on the LPS port is not deleted until the next aging cycle occurs.	There is no known workaround at this time.
CRAOS5X-307	CLI timeout due to "update fpga-cpld cmm all" take long time.	If fpga/cpld firmware upgrade is needed, use "update fpga-cpld cmm 1/x" command to upgrade fpga/cpld by single chassis.

<u>Technical Support</u>

Alcatel-Lucent technical support is committed to resolving our customer's technical issues in a timely manner. Customers with inquiries should contact us at:

Region	Phone Number
North America	800-995-2696
Latin America	877-919-9526
European Union	+800 00200100 (Toll Free) or +1(650)385-2193
Asia Pacific	+65 6240 8484

Email: ale.welcomecenter@al-enterprise.com

Internet: Customers with service agreements may open cases 24 hours a day via the support web page at: myportal.al-enterprise.com. Upon opening a case, customers will receive a case number and may review, update, or escalate support cases on-line. Please specify the severity level of the issue per the definitions below. For fastest resolution, please have hardware configuration, module types and version by slot, software version, and configuration file available for each switch.

Severity 1 - Production network is down resulting in critical impact on business—no workaround available.

Severity 2 - Segment or Ring is down or intermittent loss of connectivity across network.

Severity 3 - Network performance is slow or impaired—no loss of connectivity or data.

Severity 4 - Information or assistance on product feature, functionality, configuration, or installation.

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Appendix A - Specifications

Login Specifications		
	OS2260	OS2360
Login Methods	Telnet, SSH, HTTP, SNMP	
Number of concurrent Telnet sessions	6	
Number of concurrent SSH sessions	8	
Number of concurrent HTTP (WebView) sessions	4	
CMM Specifications		
	OS2260	OS2360
Compact Flash Memory	512MB	512MB
RAM Memory	512MB	1GB
Maximum Length of File Names (in Characters)	255	
Maximum Length of Directory Names (in Characters)	255	
Maximum Length of System Name (in Characters)	32	
User Database Specifications		
	OS2260	OS2360
Maximum number of alphanumeric characters in a username	63	
Maximum number of alphanumeric characters in a user password	30	
Maximum number of local user accounts	50	
NTP Specifications		
	OS2260	OS2360
Maximum number of NTP servers per client	12	
Maximum number of associations	512	
Source Learning Specifications		
	OS2260	OS2360
Maximum number of learned MAC addresses	16K	32K
VLAN Specifications		
	OS2260	OS2360
Maximum VLANs per Switch	64	4000
Spanning Tree Specifications		
	OS2260	OS2360

Maximum VLAN Spanning Tree instances	100	100
Maximum VLAN Spanning Tree instances (MSTI)	4	8

Static / Dynamic Link Aggregation Specifications		
	OS2260	OS2360
Maximum number of link aggregation groups	8	64
Maximum number of ports per link aggregate group	4	8

IPv4 Specifications		
	OS2260	OS2360
Maximum ARP entries	1K	
Maximum router interfaces per system	8	24
Maximum router interfaces per VLAN	8	8
Maximum Static Routes	2	32

UNP Specifications		
	OS2260	OS2360
Number of 802.1x or UNP users per chassis	128	

Learned Port Security		
	OS2260	OS2360
Minimum number of learned MAC addresses allowed per LPS port	1	
Maximum number of learned MAC addresses allowed per LPS port	1000	
Maximum number of filtered MAC addresses allowed per LPS port	100	
Maximum number of configurable MAC address ranges per LPS port	1	

Port Mirroring / Monitoring		
	OS2260	OS2360
Mirroring Sessions Supported	3	
Monitoring Sessions Supported	1	

Virtual Chassis		
	OS2260	OS2360
Maximum number of physical switches in a Virtual Chassis	1	8
Valid chassis identifier	1	1-8
Maximum number of Virtual Fabric Link peers per chassis	0	2
VFL Supported Port Types	N/S	SFP/SFP+

Sflow		
	OS2260	OS2360
Receiver/Sampler/Polling Instances	2	2
QOS		
	OS2260	OS2360
Maximum number of policy rules hardware	256	256
Max. number of policy conditions hardware	256	256
Maximum number of policy actions hardware	256	256
Maximum number of Class of Service (CoS) queues per port.	8	8
Queue Set Profiles (QSP)	2	2
DHCP Server		
	OS2260	OS2360
Maximum number of leases		8000
Maximum number of subnet		128
DHCP Server Implementation		BOOTP/DHCP

Appendix B – Upgrade Instructions

These instructions document how to upgrade the AOS images on an OmniSwitch. The steps should be performed in order:

1. **Download the Upgrade Files** - Go to the Service and Support website and download and unzip the upgrade files for the appropriate model and release. The archives contain the following:
   - OS2260 – Aros.img
   - OS2360 – Taos.img

2. **FTP the Upgrade Files to the Switch** - FTP the image files to the *Running* directory of the switch you are upgrading. The image files and directory will differ depending on your switch and configuration.

3. **Upgrade the Image File** - Follow the steps below to upgrade the image files by reloading the switch from the Running directory.

   ```
   OS2360-> reload from working no rollback-timeout

   Confirm Activate (Y/N) : y

   This operation will verify and copy images before reloading.

   It may take several minutes to complete....
   ```

4. **Verify the Software Upgrade** - Log in to the switch to confirm it is running on the new software. This can be determined from the **show microcode** command.

   ```
   OS2360-> show microcode
   /flash/working
   Package          Release                 Size      Description
   ----------------+--------------------+----------+--------------------------------
   Taos.img         5.2.25.R05              75355896  Alcatel-Lucent OS


   OS2360-> show running-directory
   CONFIGURATION STATUS
   Running CMM             : MASTER-PRIMARY,
   CMM Mode                : VIRTUAL-CHASSIS MONO CMM,
   Current CMM Slot        : CHASSIS-1 A,
   Running configuration   : WORKING,
   Certify/Restore Status  : CERTIFY NEEDED
   SYNCHRONIZATION STATUS
   Running Configuration   : NOT SYNCHRONIZED
   ```

Note: If there are any issues after upgrading the switch can be rolled back to the previous certified version by issuing the **reload from certified no rollback-timeout** command.

5. **Certify the Software Upgrade** - After verifying the software and that the network is stable, use the following commands to certify the new software by copying the Running directory to the Certified directory.

   ```
   OS2360-> copy running certified flash-synchro
   ```

Optional Uboot Upgrade

Note: AOS must be upgraded prior to performing a Uboot upgrade.

1. Download and extract the upgrade archive from the Service & Support website. In addition to the AOS images, the archive may also contain a Uboot file, for example.

- u-boot.5.2R03.3.tar.gz

2. FTP (Binary) the file to the **/flash** directory on the primary CMM.

3. If desired, a Uboot upgrade can then be performed, for example:

```
-> update uboot cmm all file /flash/u-boot.5.2R03.3.tar.gz

Starting CMM ALL UBOOT Upgrade

Please wait...

CMM 1/1

u-boot-mips-rtl9310.bin: OK

update file match

U-boot successfully updated

Successfully updated
```

4. Once complete, a reboot is required.

Appendix C – Fixed Problem Reports

The following problem reports were closed in this release.

CR/PR NUMBER	Description
CRAOS5X-407	**Summary:** The device bound to the MAC cannot work properly when other devices are connected to this port. **Explanation:** When the bound device reconnects to the interface, its MAC is learned again, causing conflicts. Fix is available in AOS 5.2R5 GA.
CRAOS5X-410	**Summary:** PC cannot ping the IP interface of the switch when the IP interface is configured with the <no forward> parameter. **Explanation:** The interface route was not created when creating a new IP interface with "no forward". Fix is available in AOS 5.2R5 GA.
CRAOS5X-411	**Summary:** IP Multicast configuration commands not take effect if execution if after IP Multicast admin-state enable(config then state) **Explanation:** The module only configure the hardware when user executes "admin-state enable" command. Changed the code logic to fix this issue.Fix is available in AOS 5.2R5 GA.
CRAOS5X-395	**Summary:** Inaccurate OverSize Frames statistics on the interface **Explanation:** The incorrect chip configuration results in errors in the statistical functions. Fix is available in AOS 5.2R5 GA.
CRAOS5X-439	**Summary:** Multicast issue with OS2260. **Explanation:** The main cause is that OS2x60 does not flood IGMP querying message. Fix is available in AOS 5.2R5 GA.
CRAOS5X-471	**Summary:** DDM information displayed incorrectly on OS2260 switches **Explanation:** The software cannot read correct date from the transceiver under the hardware interface drive. Modify the driver to fix this issue. Fix is available in AOS 5.2R5 GA.
CRAOS5X-488	**Summary:** OS2360 cannot configure admin-state timeout for LinkAgg LACP Actor. **Explanation:** The command 'no linkagg lacp port actor admin-state timeout' does not take effect when configured by user. Fix is available in AOS 5.2R5 GA.

CRAOS5X-492	**Summary:** QoS rules cannot filter partial ipv6 ND · dhcpv6 Relay packets **Explanation:** When a packet is hit by both the system application rule and the User Policy rule, the action of the corresponding system application rule takes precedence because the system application rule has a higher priority, and the action of the User Policy rule becomes invalid. To avoid this problem, if ipv6 ND, dhcpv6 Relay is disabled, related system application rules are disabled, and only User Policy rules take effect. If the ipv6 ND and dhcpv6 Relay function is enabled, related system application rules are enabled. The system application rules have a higher priority. Fix is available in AOS 5.2R5 GA.
CRAOS5X-503	**Summary:** Crontab jobs in su mode on OS 2360 switchs **Explanation:** The customer needs a permanent crontab job working even after reboot. To implement it, a file with crontab job is needed, and reloading switch is need. Fix is available in AOS 5.2R5 GA.
CRAOS5X-491	**Summary:** Support a command to show Brief Information PER of LLDP **Explanation:** Add a command "Show lldp remote system status" to show the brief information PER of LLDP, including Local Port, Local interface, Neighbor System Name, Neighbor Host Name, Chassis ID, Neighbor Chassis ID, Neighbor Port ID, Neighbor Port ID. Fix is available in AOS 5.2R5 GA.