

Release Notes - Rev. A

OmniSwitch 2260, 2360

Release 5.2R4

These release notes accompany AOS Release 5.2R4. 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.

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Related Documentation

These release notes should be used in conjunction with OmniSwitch AOS Release 5.2R4 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 5.2R4 CLI Reference Guide
- OmniSwitch 2260/2360 AOS Release 5.2R4 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 5.2.102.R04 (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

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 μ m SMF.	Supported	Supported
SFP-GIG-LH70 - 1000Base LH Gigabit Ethernet optical transceiver (SFP MSA). Typical reach of 70 km on 9/125 μ m 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
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

Supported Transceivers	OS2260	OS2360
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.

5.2R4 Feature Summary

Increased scalability	OS2360
Fiber port default configuration change	OS2360-P24X/P48X

Increased scalability

- Support up to 4K VLANs
- Support up to 64 link aggregation groups

Fiber port default configuration change

Original fiber port default configuration:

	SFP Port	SFP+ Port	VFL Port	Mode
OS2360-P24X	Port 27,28	Port 25,26		Standalone
		Port 25,26	Port 27,28	Stacking
OS2360-P48X	Port 49,50,53,54	Port 51,52		Standalone
	Port 49,50	Port 51,52	Port 53,54	Stacking

Current fiber port default configuration in AOS 5.2R4:

	SFP Port	SFP+ Port	VFL Port	Mode
OS2360-P24X		Port 25,26,27,28		Standalone
		Port 25,26	Port 27,28	Stacking
OS2360-P48X		Port 49,50,51,52,53,54		Standalone
		Port 49,50,51,52	Port 53,54	Stacking

Unsupported Software Features

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

5.2R4 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 SFP+ 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.

Technical Support

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

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          5.2.102.R04      67068288      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.5.1R02.1.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.5.1R02.1.tar.gz
Starting CMM ALL UBOOT Upgrade
Please wait...
CMM 1/1
u-boot-ppc_2040.bin: OK
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-409	<p>Summary:</p> <p>OS2x60 cannot delivery power for Symetrix Bluetooth devices.</p> <p>Explanation:</p> <p>This PD product exhibits a periodic phenomenon of alternating high and low currents, with a longer duration of low current (close to 0mA). Realtek modified MCU firmware to extend the MPS identification time and increase the number of current identifications. If a higher current is identified within the MPS identification time, power will continue to be supplied to the PD. If only low current is identified during this period, MCU will proceed with the power-off process. PoE MCU firmware V2.0.1.6 is required for fixing this issue.</p>
CRAOS5X-410	<p>Summary:</p> <p>PC cannot ping the IP interface of the switch when the IP interface is configured with the <no forward> parameter.</p> <p>Explanation:</p> <p>The interface route was not created when creating a new IP interface with “no forward”. Fix is available in AOS 5.2R4 GA.</p>
CRAOS5X-423	<p>Summary:</p> <p>During two consecutive MCU firmware upgrades, the second upgrade failed.</p> <p>Explanation:</p> <p>Previous MCU firmware upgrade process is not entirely correct. The process has been improved in AOS 5.2R4 according to Realtek’s guidance.</p>
CRAOS5X-435	<p>Summary:</p> <p>SFP issue on OS2360-U48X, the 33rd SFP stop being active.</p> <p>Explanation:</p> <p>When DDM is enabled, the software and the CPU were busy for reading all DDM data in transceivers though I2C interface. The software can hardly handle the new-inserted transceivers. In AOS 5.2R4 GA, the process has been optimized.</p>