

## Omni Switch 6450 / 6350

### Release 6.7.2.178.R08

The following is a list of issues and new features that have been corrected and added in AOS software release. This document is intended to be used as a pre-upgrade guide and does not replace the Release Notes which are created for every GA release of software.

**Important Notice:** For a copy of software release not posted on the Web or if you have any question or concern, please contact Alcatel’s Technical Support Department.

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### Problems Fixed Between 672.123.R08 to 672.160.R08

PR Reference	Build	Summary	Explanation
CRAOS6X-3606	672.125.R08	Problem with Radius connection when using MD5 authentication	Issue observed is that "aaa test-radius-server" command with md5 method fails and server does not send any response. Request is getting timed out. From server logs, it is seen that server is not responding since it has received a malformed packet i.e. Access-Request not in proper format where the 'state' attribute length is modified to 6 but actual length sent by server is 38

CRAOS6X-3614	672.125.R08	Unable to delete "lcap agg <port num> actor system id" if set once via CLI	When resetting actor system id for a lacp port to default using no command, it is being assigned to all zeroes (00:00:00:00:00:00) and is being displayed in configuration snapshot. Customer wants to reset to chassis mac address since it is being assigned with chassis mac by default when not configured explicitly.
CRAOS6X-3583	672.127.R08	802.1x users are failing to authenticate and crash.PMD file on many switches.	This issue was noted during an instability in network. Crash analysis points to malloc failure in Onex leading to null pointer access This null pointer handling issue was fixed with code changes.
CRAOS6X-3759	672.129.R08	OS6450 802.1x EAP-TLS fragments issue for a specific end-point (Alcatel-S series phone).	Issue was noted when the EAP fragment length was a specific value. At this time a field value used in AAA was getting corrupted. This issue was addressed via code-fix.
CRAOS6X-3686	672.156.R08	OS6450 - Write memory flash-synchro command throws an error "FLASH SYNCHRO Aborted. Due to previous errors in flash-synchro/file"	The issue arises when NMS is trying to apply some changes and executes write memory and at the same time write memory flash-synchro is tried via CLI. Parallel execution of write mem and write mem flash-sync from NMS and switch CLI is causes the issue. This is fixed to allow only one instance of write-memory flash syncro execution.
CRAOS6X-3690	672.156.R08	OS6450 lost 802.1x config after AP provisioning via NFM-P and after restore discrepancy of config between running config and boot.cfg	Parallel execution of write mem and write mem flash-sync from NMS and switch CLI is causes the issue. This is fixed to allow only one instance of write-memory flash syncro execution through CRAOS6X-3686.
CRAOS6X-3782	672.139.R08	OS6350-10 aborts autoconfiguration	Changes done to avoid auto-configuration termination after pre-configured number of retries.
CRAOS6X-3807	672.130.R08	Issue when using ALCATEL SFP DUAL RATE 100 / 1000 not allowing to change the speed to 100M	Oplink ALCATEL DUAL RATE SFP was not allowing to change the speed to 100M from 1000M, as the part number was SFP was present/supported in switch database. Same is added now.
CRAOS6X-3552	672.134.R08	OS6350 "does not assign IP address to IP Phone Avaya 1608 by DHCP"	Mentioned Avaya phone was sending a DHCP packet with a packet size larger than what was allowed in the switch. Changes done to accept such bigger DHCP-Discover packets upto 1500 bytes.
CRAOS6X-3853	672.130.R08	OS6450: LLDP packets sent by switch has MAC address value in Port ID field	Debug variable is introduced in AlcatelDebug.cfg file which when set and upon reload would modify the PORT ID TLV to carry the ifindex of the port (instead of mac-address), even if end device is a MED. Also the SNMP response of lldpLocChassisId MIB will not have ":" delimiter in chassis mac.

CRAOS6X-3811	672.139.R08	OS6450: NTP vulnerability & version	Code changes done to handle applicable NTP Vulnerability CVE-2015-7853.
CRAOS6X-3835	672.139.R08	Trap generated for DuplicateSlotNiNumber has wrong index value	Code changes done to pass correct slot number for the duplicate slot trap condition in stack.
CRAOS6X-3831	672.135.R08	00538734:OS6450 Stack Issue:OS6450:SOFTWARE AG - Darmstadt	Issue is seen specifically when access point is classified as AP and then sends tagged packet with its own MAC. When this mac ages out, switch was not releasing the buffer as needed causing buffer depletion over a period of time. This is fixed by code changes.
CRAOS6X-3857	672.139.R08	OS6350 switch config unsaved in OV2500 due to file "copy of boot.cfg"	To support a OV backup function which involves creation of copy_of_boot config, the mentioned file is restricted from the scope of calculating running checksum for certify process.
CRAOS6X-3890	672.139.R08	OS6450: issues with MVRP	Added the changes to send message to Spanning Tree manager on the CMM during the removal of dynamic VPA.
CRAOS6X-3496	672.139.R08	Packet loss - OS6350 UNCOMPETE ARP entries filling the HW table.	Changes done to handle incomplete arp entries in switch IPNI ARP table.
CRAOS6X-3748	672.139.R08	DHCP packets are not forwarded to the uplinks- OS6450-48L	Changes done to process DHCP first frame for mac-learning and forwarding on mobile port
CRAOS6X-3727	672.139.R08	OS6350 : Loss of some 802.1x config and noticing wrong auth failures	Same as above i.e. fix for CRAOS6X-3748 applies to this PR.
CRAOS6X-3933	672.139.R08	Port 9 is not coming up in latest build but working fine with same SFP in 6.7.2.R05.113.	Code changes done for 6350-P10 hybrid-fiber port auto-negotiation failure after a cold boot process and link does not come up automatically
CRAOS6X-3871	672.142.R08	Xframe Options Needed in Http Webview Headers	Introduced new response header in switch's web server to support X-Frame-Options to address & prevent clickjacking attacks.
CRAOS6X-3875	672.141.R08	The Req Id Trap number is not generated continuously.	Code changes to fix the issue noted in organizing trap replay sequence numbers.
CRAOS6X-3912	672.154.R08	Cloud-agent error messages	Code changes done to fix unnecessary error message by verifying that OpenVPN task exists before terminating it.
CRAOS6X-4012	672.146.R08	OpenSSL CVE-2021-3711 and CVE-2021-3712 for 6450	Changes done to handle the vulnerability CVE-2021-3712
CRAOS6X-4000	672.154.R08	OS6450: Primary Switch of 8 individual stacks crashed and reloaded with the task "sshd_ct0".	Defensive fix to avoid crash in SSH task

CRAOS6X-3900	672.150.R08	Device 6x need response vlanType in vlanTable as device 8x.	Changes done to introduce new OID for this vlanType in vlanTable.
CRAOS6X-4017	672.160.R08	AOS should support "Secure" AP-Mode	Supported via AP Secure mode change. New secure AP mode introduced which mandates supplicant authentication for AP for AP-mode to kick in.
CRAOS6X-4048 (CRAOS6X-4039)	672.154.R08	OS6860 ERP connection issue with OS6450	ARP entries were getting flushed in the issue scenario which led to ping loss and the same was address via code fix.
CRAOS6X-4037 (CRAOS6X-4042)	672.151.R08	OS6350 DSCP rewriting issue	Required checks on QoS source port group & port group mapping index are added to address the issue seen during a specific QoS config.
CRAOS6X-4015	672.154.R08	OS6450: wrong speed 1000Mb/s displayed for SFP-GIG-T instead of 100Mb/s	The detected speed details were not updated properly and the same was fixed.
CRAOS6X-4056	672.153.R08	CRAOS6X-4056: OS6350 and OS6450 Unable to use special character in key of AAA Radius-server	Changes done to support "!" in AAA server key while still restricting it for "salt" and "hash-salt" parameters.
CRAOS6X-4027	672.154.R08	OIDs For New Aruba Products	Added the new OIDs for Aruba products
CRAOS6X-4065	672.155.R08	ovCloudAgentDeviceState OID missing two values - pkiUpdate, Troubleshooting	Code changes are done to update the required MIB with two more OIDs to further support OVC troubleshooting feature.
CRAOS6X-3943 (CRAOS6X-3947) (CRAOS6X-3987)	672.147.R08	OS6450: Need to disable SSH server CBC Mode ciphers & SSH weak MAC Algorithms	Disabled the "diffie-hellman-group1-sha1" using the new macro KEX_DEFAULT_STRONG_HASH
CRAOS6X-4031	672.135.R08	OS 6450:Switch Reboot Issue	Changes done to address the buffer deletion occurrence during a specific scenario.
CRAOS6X-4104	672.157.R08	OS6350 openSSH 5.0 Vulnerability check [CVE:2018-15473]	Changes done to fix openSSH vulnerability CVE-2018-15473

### Problems Fixed Between 672.161.R08 to 672.178.R08

PR Reference	Build	Summary	Explanation
CRAOS6X-3907	OS_6_7_2_173_R08	OS6450: PCs & IP phones are randomly not getting their IP address	The issue was seen when the IP phones didn't get the IP address randomly. Issue was with the socket communication, for which improvements has been done in code to avoid such socket issue possibilities.

CRAOS6X-3910	OS_6_7_2_161_R08	High CPU with Task RADIUS Cli and Access-Request in loop on OS6450	High CPU was noticed due of too many message exchanges between the server and the client that led to a loop. Changes has been done to match the reply node properly in radCli while handling packets from server. This avoids sending wrong packets to the client and subsequent loop situation.
CRAOS6X-4016	OS_6_7_2_167_R08	Issue when a script is applied and write memory flash synchro is done	When any configuration involving NI update and write memory flash-synchro commands are given almost at same time from CLI/Script, running configuration status in 'show running-directory' output shows NOT SYNCHRONIZED instead of SYNCHRONIZED. There was a common timer used for updating config change in NI and for health monitoring, and the duration of this timer was high finally resulting in the issue. Changes are done so that config update handling is done using a separate timer.
CRAOS6X-4047, CRAOS6X-4115, CRAOS6X-4327	OS_6_7_2_173_R08	The cloud services leading to dump files on 6450/6350	When using the ovc as the swlog server, then open vpn message queue buffer is filled up due to excessive logging. In case of maximum queue capacity scenario, there was a double free of the buffer happening which led t other crash. Code changes done to remove the second free in case of max queue capacity. With this fix crash dump are not seen.
CRAOS6X-4085	OS_6_7_2_171_R08	OS6450 unit 1 reboot in a stack-required RCA	The switch got crashed due to exception in onex task. Defensive check has been added while trying to access macCntBlk list from port's context to avoid crash.
CRAOS6X-4137	OS_6_7_2_162_R08	OID needed to read out LAG packet counters	Linkagg counter values were not giving proper output when queried via Interface MIB object. Correction done to retrieve proper counter values.
CRAOS6X-4140	OS_6_7_2_166_R08	No difference between 'default' and 'no default-list' Policy Rules created with OmniVista	The policies configured for non-default unpr ports from ldap are getting applied to non unpr ports as well after reload. During boot up time, as part of config parsing qos objects are created for adding the policies. Later this gets into conflict with the object created after ldap server reachability. Code changes done to remove the conflicting objects.
CRAOS6X-4166	OS_6_7_2_173_R08	OS6450 SSH Weak KEX algorithm	Customer reported Weak KEX algorithm is seen in the OS6450(diffie-hellman-group-exchange-sha1). Correction done to disable weak algorithms from supported KEX algorithms in strong cipher mode.

CRAOS6X-4171	OS_6_7_2_164_R08	OS6450 - NTP keys are not updated after doing takeover	In customer case, ntp.keys file is updated, loaded in primary and stack is synced. After takeover changes done in ntp.keys file are not reflected in 'show ntp keys' output in new primary unit. 'ntp key load' command only updates keys database in Primary unit. Secondary doesn't know about the 'ntp key load' as it is not present in boot.cfg. Code changes done to load ntp.keys file on receiving takeover event in secondary.
CRAOS6X-4185	OS_6_7_2_167_R08	OS6450 - All NTP servers are unreachable and one of the AAA servers is unreachable	Customer reported random issue in loopback0 interface reachability. In the issue state, the required L3 table entries were corrupted in hardware tables. Correction done such that, during overlapping of the subnet and the loopback interface routes, subnet routes shall be used to match and take the packets to cpu. Also when the loopback interface is non overlapping, subnet the loopback interface routes will be always used to take the packet to the cpu.
CRAOS6X-4208, CRAOS6X-4160, CRAOS6X-4165	OS_6_7_2_168_R08	Need RCA for the OS6450 switch crash.	SSH task was crashing when customer does a security scan from third-party tool "Tenable". There was a potential issue in the string copy done during the authentication flow. This issue is corrected with proper checks.
CRAOS6X-4235	OS_6_7_2_163_R08	Wrong error message shown while configuring the user lockout-duration	While configuring the user lockout wrong error message was displayed. Code changes done to display proper error message.
CRAOS6X-4245	OS_6_7_2_167_R08	OS6450: querying auth-status shows all ports as unauthorized with IEEE_8021_pae_MIB	snmpwalk show port status as Unauthorized even if port is authenticated. Issue occurred as the data structure used was incorrect. Code changes done to use proper data structures.
CRAOS6X-4252, CRAOS6X-4353	OS_6_7_2_169_R08	OS6450: Unit2 power supply type detected as DC DOWN -External though AC BPS attached was removed.	When removing external AC PSU from non-primary unit, PSU entry is still shown in 'show power' output with default values. In case of secondary unit in stack set up, the data used for updating the display content was not updated correctly when PSU is plugged out. Code changes done to address this.

CRAOS6X-4265, CRAOS6X-4360	OS_6_7_2_176_R08	OS6350-P48 - 802.1x Stellar AP MAC filtering	In customer case, when a mac-address is learnt as filtering and if the same mac in the same vlan is learnt as bridging in onex context, then the onex and source learning database were not in sync. Hence mac is displayed as filtering in show mac-address table. Code changes have been done to keep the involved databases in sync, when the mac previously learnt as filtering , gets learnt as bridging later.
CRAOS6X-4290	OS_6_7_2_175_R08	Avaya IP phone is assigned with VLAN 101 and 104	In this customer scenario, LLDP packets are suspected to trigger re-classification. The solution for CRAOS6X-4322 is extended to support for LLDP packets as well.
CRAOS6X-4294	OS_6_7_2_166_R08	NTP Status not Updated in 6450 MIB on Switch	The NTP server details of several OS6450 switches were not reflected correctly in NMS. This data is retrieved from a cache table which needs to be updated periodically. There was an issue in the timer which updates the cache table which caused data to be not in sync. Correction done so that the timer logic is handled properly.
CRAOS6X-4302	OS_6_7_2_174_R08	OS6450: SNMP-get for Object "dot1xAuthAuthControlledPortControl" is not complete on few of the switches.	SNMP walk output for displays data only for first few ports instead of all configured ports. hashkey value used for identifying 802.1x configs on a port is having garbage value, hence SNMP output was not proper. Code changes done to use the ifIndex to iterate through the 802.1x configs in case the hash key is incorrect.
CRAOS6X-4320	OS_6_7_2_172_R08	Need to have LLDP advertise port number instead of MAC address of the port.	Requirement is to have the port number advertised in the LLDP PDU instead of the mac address. This is implemented by enabling an option in AlcatelDebug.cfg file, such that when enabled then port id will be sent in slot/port format in PORT_ID TLV of LLDP frame.
CRAOS6X-4322	OS_6_7_2_175_R08	6450: Switch sending too many Radius-Request for a single client to Radius server.	In customer set-up, there was an issue seen randomly where in there are too many Radius Request packets sent to server for a single user. We see Switch is performing repeated re-authentication for the corresponding user. Correction done to drop the multicast frame which comes with unknown source bit set in code, if there is an existing non-suppllicant block in authenticated state and classified into valid vlan. This would avoid unnecessary re-authentication requests being sent.

CRAOS6X-4323	OS_6_7_2_165_R08	OS6450:NI 2 stopped working	In stack set up, high memory due to onex task was seen in non-primary units. This occurs when AP clients are deleted frequently in the system. There was an issue in freeing the memory in secondary units which resulted in the issue. Correction done to free the memory properly in this scenario.
CRAOS6X-4347	OS_6_7_2_166_R08	OS6450-P48 sends invalid Chassis ID in LLDPdu	In random cases, it was seen that the chassis MAC sent in the LLDP TLV was invalid. There was a corruption in the buffer which is used to send the chassis MAC from CMM to NI. Code changes has been made to properly allocate buffer size in CMM so that data is sent properly.
CRAOS6X-4365	OS_6_7_2_170_R08	OS6450: issue with DHCP snooping.	When the trusted port is linkagg 0, dhcp request packets received from the client ports are dropped by the dhcp relay and not sent to the server. Correction done for validation of the DHCP client requests from client ports.
CRAOS6X-4374	OS_6_7_2_177_R08	OS6450 - tagged VLANs lost in configuration	In the customer scenario, at times some of the vlans were missing in the snapshot. Due to this, when write memory reload is done, configuration was getting lost. Implemented a defensive correction which prevents potential corruptions in vlan snapshot database.
CRAOS6X-4403	OS_6_7_2_178_R08	Automatic configuration manager not taking place based on the instruction file after removal of boot.cfg and reload of switch	RCL process was having write-memory flash synchro command, boot.cfg file creation was getting failed. This was due to incorrect update of a field used to avoid conflicting command executions. Correction done to handle the field properly during RCL scenario.

## Known Issues

<i>PR Reference</i>	<i>Build</i>	<i>Summary</i>	<i>Remarks</i>
CRAOS6X-4394	6.7.2.178.R08	NI-1 goes down due to high CPU usage in 6450 stack	NI1 goes down with high CPU during a specific sequential execution of system commands using automated script. This could not be recreated when tested manually. Issue is also noted in 672.122.R08 GA as well. This is being investigated further.





## New Features

### 1. OS6450-U24 Fan Status Enhancement

Platforms Supported: Omni Switch 6450-U24

Hosted AOS SW Release: 672.129.R08

Objective of this feature is to enhance below options for seeing the fans status for 6450-U24 variants.

- Provide a clear fan failure status in MIB & CLI when failure is detected.
- Enable active polling with MIB for fan status in OS6450-U24, add/update MIB.

Presently the “show fan” output displays only below options to know the fan condition.

running => fan is present and running

not running => when fan is not present or not running.

no status => fan is not present

When in high temperature (where fan is expected to run with high speed), if the fan status changes from running to not running, then syslog will log a “Fan #x failure” message and trap message is triggered. The log and trap is sent only once to inform the network administrator about the fan failure & will not get triggered again for the same failure. This is to avoid flooding as per earlier requirements.

The current implementation enhances this output so that it reflects correctly whether a fan is not present or is not running (applicable for other OS6450 models) as per algorithm or is faulty/failed running. The same status is made available in the MIB and Webview as well.

Below are the fan new status options for 6450-U24 variants.

Not Present      Fan is not present.

Not Running     Temp is low it should not run (expected).

Running          Fan is running

Fan Failure      Newly added. This will be set if fan unexpectedly stops. Fan Failure trap is also sent.

The MIB object alaChasEntPhysFanStatus is now available to check the physical fan status.