Omni Switch 6850E/ 6855 / 9000E

Release 6.4.6.440.R01

The following is a list of issues that have been identified and corrected 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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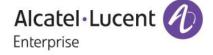
| <mark>Problems F</mark> | Fixed Between Builds 126 and 167 | | | |
|--------------------------------|--|--|--|--|
| PR Summary: Explanation: | 184858Build:6.4.6.126.R01DDM threshold temperature alarm.Code changes done to prevent warning message until SFP reads the exact DDM values. | | | |
| PR | 184393 Build: 6.4.6.126.R01 | | | |
| Summary: | After power cycle the snmp access is allow for few minutes without aaa | | | |
| Explanation: | authentication default I Fix done to disallow the access to the snmp server immediately after power cycle, when there is no aaa authentication snmp configuration. | | | |
| PR | 184016 Build: 6.4.6.126.R01 | | | |
| Summary: Explanation: | Unable to retrieve entire Mac-address table per port through SNMP Fix done to retrieve all the static mac entries on LPS port through the snmp. | | | |
| PR | 182223 Build: 6.4.6.127.R01 | | | |
| Summary: Explanation: | OS6850 stack switch has been crashed "tCS_PRB & talpni" task is suspended. changes done to drop the ARP packets received on high gig port | | | |
| PR | 187475 Build: 6.4.6.127.R01 | | | |
| Summary: Explanation: | Show interfaces link-monitoring statistics command not executing past interface 3/42 Fix done to handle the proper mip overflow condition to execute the "Show interfaces link-monitoring statistics command" correctly. | | | |
| PR | 182585 Build: 6.4.6.128.R01 | | | |
| Summary: Explanation: | Issue with DHCP-snooping | | | |
| | 1. When the NI is powered up, the Chassis supervision sends a NI_UP message to UDP relay application, after this, UDP relay initiates socket communication with the NI and, when this is successful we consider that the NI is ready. | | | |
| | 2. For incorrect linkagg port entry, we have implemented a method to automatically scan all trusted ports using a timer (runs 240 secs after the application is initialized and during takeover) which are a part of a linkagg and update the linkagg port details in UDP relay CMM context if they are not updated correctly. | | | |
| PR Summary: | 185616 Build:6.4.6.128.R01Traffic stops while the LED remains lit on OS9702E. | | | |
| Explanation: | Rectifying discrepancy in setting speed to 100 in a dual speed SFP | | | |
| PR | 185994 Build: 6.4.6.128.R01 | | | |
| Summary: Explanation: | Issues getting the SFP-DUAL-MM 100/1000 SFP to run at 100Mb in a 6850E setup Changes done to support 100 Mbps in SFP-DUAL-MM on combo ports | | | |



| PR | 184284 Build: | 6.4.6.128.R01 | |
|--|---|---|--|
| Summary: | Repeated crash on the stack. | | |
| Explanation: | | interrupts in such a way that it does not cause any | |
| | abnormal system hang. | | |
| PR | 187210 Build: | 6.4.6.129.R01 | |
| Summary: | OS6850E crashed with suspending tCS_PRB and talpni and rebooted however after rebooting OS6850E work | | |
| Explanation: | we introduce semaphore for the global structure with timeout value 2, to avoid simultaneous access by more than one task | | |
| PR | 188137 Build: | 6.4.6.129.R01 | |
| Summary: | OS6850E linkagg blocking iss | | |
| Explanation: | STP Ni and CMM task comm | unication optimised. | |
| PR | 186466 Build: | 6.4.6.129.R01 | |
| Summary: | Unable to generate the trap 2 | | |
| Explanation: | Added debug trap for chassis | backup power supply (BPS) state change | |
| PR | 185448 Build: | 6.4.6.130.R01 | |
| Summary: | ERP ring got blocked due to L PMD file with suspend. | JDLD flood and switch got crashed with generating | |
| Explanation: | | or aggregate port or tagged aggregate port | |
| PR | 187130 Build: | 6.4.6.131.R01 | |
| Summary: | | versed with port 1/44 and vice versa | |
| Explanation: | Code changes done to mappi | ng the phy port to device channel in proper order | |
| PR | 187370 Build: | 6.4.6.132.R01 | |
| Summary: | | report on MVRP-registered VLAN | |
| Explanation: | Updating dynamic vlans inforr | nation to IPMS. | |
| PR | 188541 Build: | 6.4.6.133.R01 | |
| Summary: | • | di TLV not advertised on OS6850E | |
| Explanation: | Fix done to retrieve correct port power and priority info for appropriate PoE controlle for 6850E and 6855 switches to perform power negotiation over lldp. | | |
| PR | 184369 Build: | 6.4.6.133.R01 | |
| Summary: | Interface Alias information in s | swlog event when link goes UP/DOWN | |
| · · · · · · · · · · · · · · · · · · · | for the all AOS product which | 1 | |
| Explanation: | Code changes for including the interface alias name information in the swlog | | |
| | messages. When port link sta | tus changes up/down. | |
| PR | 188695 Build: | 6.4.6.134.R01 | |
| Summary: | Issue with ip dos anti-spoofing clear command. | | |
| Explanation: | statistics command will not ch | ange the configuration status of the switch | |



| PR | 187156 Build: 6.4.6.134.R01 | | |
|--------------------------------|--|--|--|
| Summary: | Malformed BPDU (wrong length) for default VLAN in XNI modules- BPDU droppe | | |
| Explanation: | firewall Added a control variable to set the BPDU length on 10Gig ports, to force the length field of the BPDU to be equal the standard length 39. | | |
| PR | 185272 Build: 6.4.6.135.R01 | | |
| Summary: Explanation: | Port Monitoring Issue. Removal of ambiguous message, from show port monitoring file output. | | |
| PR | 188684 Build: 6.4.6.135.R01 | | |
| Summary: Explanation: | DHCP hanging issue Buffer is cleared if its failed to reach CMM socket | | |
| PR | 181508 Build: 6.4.6.135.R01 | | |
| Summary: | ntp server configuration does not store IP Address of NTP server, instead it resolves NTP server. | | |
| Explanation: | Controlling the snapshot of NTP configuration to store the IP address | | |
| PR | 187504 Build: 6.4.6.135.R01 | | |
| Summary: Explanation: | CPU at 97% with task bcmRx and taUdpRelay hogging the CPU DHCP ACK'sWill not be flodded in the network by the neighboring Relay agents | | |
| PR Summary: Explanation: | 190680Build:6.4.6.137.R01Specific "system contact" command raises boot.cfg.1.err on next rebootChanges has been made to store string in boot.cfg in double quotes irrespective ofspecial symbols (',' '?' '!', which will consider as delimiter) | | |
| PR | 189730 Build: 6.4.6.138.R01 | | |
| Summary: Explanation: | OS6855 allows the command to change mode to OS6850E. changes are done to not allow command to change stack mode in 6855. | | |
| PR | 190576 Build: 6.4.6.140.R01 | | |
| Summary: Explanation: | ip helper dhcp-snooping option-82 command not saved in boot.cfg error will be thrown if dhcp-snooping related configurations are done before enabling snooping | | |
| PR | 190971 Build: 6.4.6.146.R01 | | |
| | "zcSend" CODE 3997698 0x3d0002" error seen in logs and unable to save the | | |
| Summary: | configuration | | |
| Explanation: | Merge done in 645R02 for to avoid the webview permanent | | |
| | stuck due to temporary socket errors and hence webview | | |
| | | | |



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| PR | 181549 Build: 6.4.6.147.R01 | | |
|--------------|--|--|--|
| | SSH vulnerabilities in OS9800: SSL Version 2 (v2) Protocol Detection which | | |
| Summary: | reportedly suffers from s | | |
| Explanation: | Disabled the ssl-v2 support due to vulnerabilities | | |
| PR | 190230 Build: 6.4.6.148.R01 | | |
| Summary: | VRRP tracking commands getting cleared on a stack of OS6850E switches when primary unit reloads. Validation of slot availability is avoided during reload and takeover | | |
| Explanation: | | | |
| PR | 189881 Build: 6.4.6.149.R01 | | |
| Summary: | Issue with time synchronization with NTP on Layer 2 switch | | |
| Explanation: | Changes have been made to set the dispersion value to the sample dispersion value in the case of global variable "ntpAccept" enabled. | | |
| | | | |
| PR | 170503 Build: 6.4.6.150.R01 | | |
| Summary: | dshell is currently in use, try again later; CHASSIS warning unable to post | | |
| Explanation: | semaphore, 6250 over memo Recover dshell for debug purpose | | |
| PR | 190900 Build: 6.4.6.153.R01 | | |
| Summary: | SSH connection to 127.2.X.1 (NIX) is refused | | |
| Explanation: | dshell flag is introduced that will open up the telnet session to the NIs for some time by calling the function "debugTelnetEnable" in dshell, in case the telnet is disabled. | | |
| PR | 182755 Build: 6.4.6.154.R01 | | |
| Summary: | OV traps seen Vs switch logs events discrepancies. | | |
| Explanation: | Rectifying discrepancy of timestamp between OV and the switch. | | |
| PR | 192189 Build: 6.4.6.158.R01 | | |
| Summary: | UNP configuration issue (same command repeated twice in boot.cfg) with OS6850E Stack. | | |
| Explanation: | Stack. inIndex is updated with the correct ifIndex value from where the display has to be continued when there is a overflow | | |
| PR | 193861 Build: 6.4.6.166.R01 | | |
| Summary: | Power supply state of NI2 is not correct. | | |
| Explanation: | Code change is done to notify that there is a change in the status of the power supply when the power supply is pulled. | | |
| PR | 185998 Build: 6.4.6.152.R01 | | |
| Summary: | Finisar 10Gig SFP is not working with VFL link however same SFP transciever is | | |
| Explanation: | working with non-VFL Changes made to support VFLs on 1G/10G Finisar dual speed 1g/10g SFP | | |
| | (FTLX8571D3BCV-AF). | | |

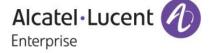
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| PR | 186908 Build: 6.4.6.147.R01 | | |
|--------------|--|--|--|
| Summary: | Switch crashing because of vlan name length. | | |
| Explanation: | The size of the data structure that holds the VLAN name was increased to avoid | | |
| | overflow. | | |
| PR | 190033 Build: 6.4.6.139.R01 | | |
| Summary: | NIs on 9700E down, Multiple PMDs generated. | | |
| Explanation: | Increase the slbProbe task priorty so that it can compete for CPU attention. | | |
| PR | 192062 Build: 6.4.6.154.R01 | | |
| Summary: | onex_process_aging(862): incoming msg for port 3007, reason 12, mac 0x336092f0, vlanld 0 | | |
| | onex_pro | | |
| Explanation: | Debug logs are now correctly controlled and will not dump on the screen. | | |
| PR | 191769 Build: 6.4.6.161.R01 | | |
| Summary: | IfConnectorPresent MIB (ifXTable) displays true value instead of False for LACP | | |
| - | aggregate links. | | |
| Explanation: | condition introduced to check for the linkagg and update the value of ifconnector present. | | |
| PR | 191795 Build: 6.4.6.144.R01 | | |
| Summary: | Static route not showing the snapshot but however throwing the message "Static | | |
| Explanation: | route already exists" Including the entry causing mip_overflow in show configuration snapshot ip-routing. | | |
| PR | 183591 Build: 6.4.6.129.R01 | | |
| Summary: | OS9802E: port mapping on port 22, 23, 24 is leaking broadcast into other ports on different NI. | | |
| Explanation: | Proper Port Mapping Validation for GNI-U24 / C-24 Boards in Hardware for specific ports has been modified | | |
| PR | 183948 Build: 6.4.6.149.R01 | | |
| Summary: | Stack crashed due to tCS_PRB and Qos task suspension when QOS is added or deleted | | |
| Explanation: | deleted. When qos is added or deleted switch wont crash. | | |
| PR | 184085 Build: 6.4.6.133.R01 | | |
| Summary: | OS6580 at Alcova ES crashed. | | |
| Explanation: | defense fix to avoid invalid memory access | | |
| PR | 185527 Build: 6.4.6.126.R01 | | |
| Summary: | IGMP general query packet creating loop. | | |
| Explanation: | Fixed the issue with IGMP query getting loopbacked when hash-control non-ucast is enabled. | | |



| PR | 185223 Build: 6.4.6.128.R01 | | |
|--------------|---|--|--|
| Summary: | DHCP Ip helper not working after upgrading the OS6400 to 6.4.5.474.R02. | | |
| Explanation: | cleared the buffer after processing the dying gasp message | | |
| PR | 185296 Build: 6.4.6.130.R01 | | |
| Summary: | TACACS Authorization not working properly when server becomes unreachable an | | |
| Explanation: | then becomes reachable Tacacs authorsiation will be handled properly during the change in server status from | | |
| 1 | | | |
| | unreachable to reachable. | | |
| PR | 188063 Build: 6.4.6.129.R01 | | |
| Summary: | A CLI debug command to control "bcmSwitchL3UcTtlErrToCpu" | | |
| Explanation: | A new debug cli command bcmSwitchL3UcTtlErrToCpu introduced. | | |
| | bcmSwitchL3UcTtlErrToCpu = 0 means IP error packets will not be sent to CPU | | |
| PR | 191069 Build: 6.4.6.149.R01 | | |
| Summary: | How to change the default DNS keyword list for 802.1x CP | | |
| Explanation: | Fix was done for proper handling of disabling the dns keyword list for 802.1x captive portal | | |
| PR | 193688 Build: 6.4.6.163.R01 | | |
| Summary: | ALU branded SFP-GIG-T (triple speed) is not working with 100Mbps / 10Mbps. | | |
| Explanation: | Code change done to accept the ALU Branded triple speed copper SFP part number as triple speed SFP. | | |
| PR | 192562 Build: 6.4.6.158.R01 | | |
| Summary: | OS9700 Console access is getting freeze when we do "debug show multi-chassis peer-linkagg port" | | |
| Explanation: | Changes are done such that session will not freeze after issuing the command "debug show multi-chassis peer-linkagg port" | | |
| PR | 191740 Build: 6.4.6.166.R01 | | |
| Summary: | High Memory issue on OS6850. | | |
| Explanation: | Code changes are done to free the allocated memory for HIC Svr monitoring packet. | | |
| PR | 192072 Build: 6.4.6.153.R01 | | |
| Summary: | SAA shows negative value for Max RTT & Max jitter | | |
| Explanation: | Do not update the aggregate record if the latest iteration value is -1. | | |
| PR | 179716 Build: 6.4.6.135.R01 | | |
| Summary: | Third party GBPTControl frames (DA mac 01:00:0c:cd:cd:d0) tunneled by software in | | |
| Explanation: | 6.6.3.R01 Implemented CLI command to enable and disable MAC tunneling as below: | | |
| | Ethernet-service mac-tunneling enable/disable (usage: To enable or disable the mac-tunneling feature). | | |



Show ethernet-service mac-tunneling (usage: To know the status of the mac-tunnel feature like whether the feature is enabled or disabled and applied or not).

In 6.6.X releases the uni profile treatment should be tunnel for following protocols in order to tunnel along with the above command in order to tunnel the DA MAC 01:00:0c:cd:cd:d0

PAGP

UDLD

CDP

VTP DTP

PVST

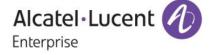
VLAN

UPLINK

| | 404704 | Duildi | C 4 C 400 D04 |
|----------------|--|---------------------|---|
| PR | 181724 Build: 6.4.6.129.R01 | | |
| Summary: | SrcLrn, tOddJob, tSlcAgeTimer, tSlcHgTimer, la_cmm_tick, stpTick & tahw_l2 | | |
| Explanation: | As per our analysis the RCA of the issue is currently we have not validating the | | |
| | | | or IPC transmission. This result in crash on the system |
| | | | Zero. We have done code changes for validating the |
| | length of the | buffer before se | nding to the destination Application. |
| PR | 188896 | Build: | 6.4.6.134.R01 |
| Summary: | High CPU on | distribution swit | ches and DHCP issue on OS9 core switches |
| Explanation: | | | ying to resolve the incomplete ARPs |
| | | | |
| PR | 187480 | Build: | 6.4.6.133.R01 |
| Summary: | OS6850E un | able to certify the | e switches after the daylight changes are applied. |
| Explanation: | Code change | es done to perfor | m CERTIFY process successfully when DST is enabled |
| | | | |
| PR | 186966 | Build: | 6.4.6.139.R01 |
| Summary: | Unable to issue command through GUI | | |
| | | | from chassis mib when the stacking is disabled-so that |
| | the copy wor | king certified from | m flash-sync applied successfully |
| PR | 191587 | Build: | 6.4.6.142.R01 |
| Summary: | IGMP traffic not received, when port security is disabled. | | |
| Explanation: | Receiving IGMP traffic with port-security disabled. | | |
| | 5 | | , |
| | | | |
| PR | 189534 | Build: | 6.4.6.137.R01 |
| PR Summary: | Reachability | issue with ERP s | setup with LACP Linkagg. |
| | Reachability | issue with ERP s | |



| PR | 183281 Build: 6.4.6.127.R01 | | |
|--------------------------|---|--|--|
| Summary: | Port status is showing as forwarding in spite there is no link connected on the | | |
| Explanation: | interface. When the port physically goes down it should not be displayed in "show spantree active ports" output | | |
| PR | 186157 Build: 6.4.6.137.R01 | | |
| Summary: Explanation: | Configuration of SHA+AES on OS 9702E to work with whatsup Gold. Code changes done to fix SHA/AES for snmpv3 | | |
| PR | 185058 Build: 6.4.6.136.R01 | | |
| Summary: Explanation: | tDvmrp0 ,tCsCSMtask2 and tCS_PRB. These are the tasks suspended and locked. Fix to avoid null pointer access | | |
| PR | 184739 Build: 6.4.6.134.R01 | | |
| Summary: Explanation: | Change the frequency of swlog messages. Code changes has been done for changing the frequency of printing low flash messages in swlog. | | |
| PR | 184689 Build: 6.4.6.149.R01 | | |
| Summary: Explanation: | qos trust Port got shutdown with protocol dhcp-server or dns-reply While processing for QOS shutdown, process only first packet of fragmented packet and not all the fragmented packets | | |
| PR | 189170 Build: 6.4.6.141.R01 | | |
| Summary: Explanation: | Gbic "type" information missing in the Inventory in OV for 6450 & 6850E Changes are done to display GBIC type information in OV. | | |
| PR | 191588 Build: 6.4.6.153.R01 | | |
| Summary: | BPDU Shutdown failure: qos user-port link-shutdown bpdu does not seem to shut down the ports | | |
| Explanation: | With this change port shutdown properly. | | |
| PR | 189848 Build: 6.4.6.149.R01 | | |
| Summary: Explanation: | SFP showing incorrect DDM value. Fix done to show proper DDM value | | |
| PR | 189990 Build: 6.4.6.165.R01 | | |
| Summary: Explanation: | ISFP is flapping in stack of OS6855-U24X. Changes done to avoid iSFP flapping in stack of OS6855-U24X. | | |
| PR | 192654 Build: 6.4.6.160.R01 | | |
| Summary: Explanation: | OS6850-802.1X users did not display in show command. Fix done to display all the onex clients information in global display when there are forced authorized ports present. | | |



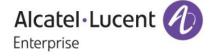
| Problems | s Fixed Between Builds 168 and 218 | | |
|--------------------------|---|----------------------|--|
| PR | 185794 Build: 6.4.6.168.R01 | | |
| Summary: | | | |
| Explanation: | Additional debug addition for crash issue. | | |
| PR | 193213 Build: 6.4.6.169.R01 | | |
| Summary: | port status trap regarding up/down is not working | | |
| Explanation: | Port status trap is set to display at swlog info level when trap is en | abled for that port. | |
| PR | 189124 Build: 6.4.6.169.R01 | | |
| Summary: | Permanent MAC cannot be changed from one vlan to another VL/ | | |
| Explanation: | Fix done to allow to change permanent MAC address from one vlan to another VLAN on the LPS port. And do not change tagged vlan of the LPS port during boot up. | | |
| PR | 187081 Build: 6.4.6.169.R01 | | |
| Summary: | OS 6850 crashed with Stp task suspended. | | |
| Explanation: | Defense validation while handling STP SNMP operations | | |
| PR | 191232 Build: 6.4.6.169.R01 | | |
| Summary: | OS6450: Device physically connected to port 1/4, however its Mac trunk port 1/23. M | c is shown on port | |
| Explanation: | Added a recovery mechanism to reopen malfunctioning IPC socke | et. | |
| PR | 193900 Build: 6.4.6.169.R01 | | |
| Summary: | LPS query on learn-trap-threshold in OS6850 and OS6400 | | |
| Explanation: | Fix done to display the trap-threshold configured value if its not 0. | | |
| PR | 180957 Build: 6.4.6.170.R01 | | |
| Summary: Explanation: | Duplicate primary and secondary switch were noticed after we reload the entire stack Fix done to unblock AOS tasks when unable to write output on to the tty driver's write buffer. | | |
| PR | 194186 Build: 6.4.6.170.R01 | | |
| Summary: | OS6850E: 802.1x issue for IP-Phones using mobile-tag rule. | | |
| Explanation: | Fix done to update the vlan tag in the mac-address table when m | obile tag is | |
| | enabled. | - | |
| PR | 194026 Build: 6.4.6.171.R01 | | |
| Summary: | Documentation issue with AoS 6.4.5.R02 & AoS 6.4.6.R01 release | e Cli guide for | |
| Explanation: | "session prompt default Added CLI for "session prompt default system-name" | | |
| PR | 194408 Build: 6.4.6.172.R01 | | |
| Summary: | OS9700: Core switch crashed without any apparent reason. | | |
| Explanation: | Defense fix added to avoid null pointer access | | |

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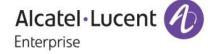
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| PR | 189784 Build: 6.4.6.174.R01 | | | |
|--------------------------|--|--|--|--|
| Summary: | Switch memory utilization increases and exceeds threshold. | | | |
| Explanation: | Code changes are done to prevent IPC congestion between STP CMM and STP NI | | | |
| | | | | |
| PR | 194004 Build: 6.4.6.175.R01 | | | |
| Summary: | Output of show interface link-monitoring statistics missing few interfaces in all chassis after 3rd input. | | | |
| Explanation: | Fix done to avoid MIP overflow | | | |
| PR | 193384 Build: 6.4.6.176.R01 | | | |
| Summary: | Removing the power from primary, reloaded the entire stack with crash files in few units. | | | |
| Explanation: | Code changes done to avoid the display issue in "show stack | | | |
| | topology" when stacking cable removed between primary and | | | |
| | its neighboring unit (issue only in stack of 8). When the | | | |
| | last iteration of neighbor list 1 is reached, ignore the | | | |
| | check for last neighbor existence i.e. neighbor [8].Hence | | | |
| | the link status for neighbor [8] will be set to link | | | |
| | DOWN. When the link state goes up, existing implementation | | | |
| | will take care that this gets updated when the reverse link | | | |
| | (neighbor list 2) is iterated. | | | |
| PR | 194636 Build: 6.4.6.178.R01 | | | |
| Summary: | OS9000E-synchronization issue after issuing the "interfaces clear-violation-all" | | | |
| | command in AoS 6.4. | | | |
| Explanation: | Modified the behavior of show configuration status to | | | |
| | sync with cmm configuration status | | | |
| PR | 193056 Build: 6.4.6.181.R01 | | | |
| Summary: | Issue with ARP inconsistency in MCLag | | | |
| Explanation: | To reduce the time taken in processing the ARP_DEL message. | | | |
| PR | 194353 Build: 6.4.6.181.R01 | | | |
| Summary: | OS6850E crashed with SNMPagt & tCS_PRB tasks | | | |
| Explanation: | Code changes done to ensure accessing valid varbind during bulk request | | | |
| | | | | |
| PR | 191728 Build: 6.4.6.182.R01 | | | |
| Summary: Explanation: | Issue with MC-Lag consistency Implementation of ToDo List to process MCM consistency | | | |
| | | | | |
| | TLVs. | | | |
| | | | | |

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| PR Summary: Explanation: | - | | 6.4.6.182.R01 one of the 2 OS9000E Core switches in MC-LAG onsistency in Mclag is resolved. |
|--------------------------------|---|--|--|
| PR Summary: Explanation: | | | 6.4.6.184.R01 without any apparent reason. for Ethernet service. |
| PR Summary: Explanation: | 195554 IP phone getting t Fix done to get th | | |
| PR Summary: Explanation: | 195392 Memory leak in 6 Buffer free is hand | | 6.4.6.186.R01 Ill error cases. |
| PR Summary: Explanation: | down | | 6.4.6.187.R01 ches, seeing newly added vlans as operational STG state properly for the linkagg's in ERP NI. |
| PR Summary: Explanation: | secondary when a creation etc) is do | e to propagate th a specific configu- one.Hence when reload status is o | e value of global variable from primary to iration change (like interface admin down or vlan PS is removed (or if primary unit goes down displayed as "ALL STACK" in show running- |
| PR Summary: Explanation: | 193396 Connectivity issue Depth Configuring | | 6.4.6.189.R01 g the QoS for ingress bandwidth in OS9702E. Iware. |
| PR Summary: Explanation: | | | 6.4.6.190.R01 arnt however authentication is successful. authenticated mac addresses in the mac address |
| PR Summary: Explanation: | | - | 6.4.6.194.R01 oad even LBD configuration is present in boot.cfg. enable the loopback detection in standalone OS97E |
| PR Summary: Explanation: | so it won't re | | 6.4.6.194.R01 0.1 (captive portal) when 802.1x is not configured, dress 10.123.0.1 is not sent out when 802.1x is not |



| PR | 196450 Build: 6.4.6.200.R01 | | |
|--------------|---|--|--|
| Summary: | OS6850-U24X-Mac learning on port instead of Linkagg ID. | | |
| Explanation: | made changes to avoid callback on ports part of linkagg | | |
| | | | |
| PR | 196448 Build: 6.4.6.201.R01 | | |
| Summary: | "ip helper dhcp-snooping option-82 policy" is not available in AOS 6.4.5.R02 | | |
| Explanation: | Implemented the "ip helper dhcp-snooping option-82 policy CLI. | | |
| PR | 191402 Build: 6.4.6.204.R01 | | |
| Summary: | mac-address not learnt by the switch due to I2 conflict | | |
| Explanation: | As a workaround, Dual hashing algorithm for better indexing can be enabled via AlcatelDebug.cfg. | | |
| PR | 197202 Build: 6.4.6.205.R01 | | |
| Summary: | Issue with " violation-recovery-time" of a specific port | | |
| Explanation: | Code merge done by correcting the index value for EISNAPPC datastructure with hybrid port value. | | |
| PR | 192200 Build: 6.4.6.213.R01 | | |
| Summary: | When we do flash synchro we notice error message in swlog | | |
| • | "CCM_CSM_FLASH_SYNCHRO_RS-appError 24" Fix to avoid internal ftp hung issue during flash-synchro causing CVM timeout | | |
| Explanation: | | | |
| PR | 199440 Build: 6.4.6.216.R01 | | |
| Summary: | Vulnerability in SSLv3 (POODLE / CVE20143566) | | |
| Explanation: | Disable SSLv3 to mitigate POODLE attack | | |
| PR | 200212 Build: 6.4.6.217.R01 | | |
| Summary: | OS6850E-Stack having issues with "copy working certified" | | |
| Explanation: | Code Changes done to avoid the time differences due to DST effect and due to | | |
| | timezone changes which will rectify the failure of certify process when DST is enabled. | | |
| PR | 193125 Build: 6.4.6.218.R01 | | |
| Summary: | New Dual Speed SFP from SOURCEPHOTONICS can't negotiate to speed of 100 | | |
| Explanation: | Fix done to correct the default speed while using Dual speed SFP in OS97E & OS6850E | | |
| PR | 193617 Build: 6.4.6.191.R01 | | |
| Summary: | OSPF routes are installed with delay into the routing table | | |
| Explanation: | first packet LSA handling and OSPF LSA length overflow handling | | |
| | | | |

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| PR Summary: Explanation: | 197425 Build:6.4.6.215.R01Randomly switches losses the SSH and Console access to the switchForcefully deleting sftp task after waiting for certain time at sshd task |
|--------------------------------|--|
| PR Summary: Explanation: | 195956Build:6.4.6.194.R01LACP configuration lost instead of UDLD after software updatingNow the configurations of LACP can be done prior to the UDLD configurations. |
| PR Summary: Explanation: | 195083Build:6.4.6.182.R01OpenSSL vulnerabilityCVE-2014-0224 and CVE-2014-0160OpenSSL vulnerabilityCVE-2014-0224 and CVE-2014-0160 has been handled. |
| PR Summary: Explanation: | 196326 Build:6.4.6.190.R01WCCP configuration get enabled after the reloadWCCP configuration are proper after reload |
| PR Summary: Explanation: | 199015 Build:6.4.6.211.R01BFD interfaces goes down due to high CPU; will not re-establish automatically.BFD sessions are getting re-established once the CPU usage becomes normal |
| PR Summary: Explanation: | 182718Build:6.4.6.194.R01Max command lengths are 250 for accounting and 259 for authorizationThe argument max length as per Tacacs+ packet format can support max of 255,thus if the argument length is more than 255, it is truncated to 255, so that accountingis succeeded. |
| PR Summary: Explanation: | 191570Build:6.4.6.180.R01L3 slow path CPU processed packets caused network instability (CPU running at 100% utilization)9By default ip packets with options won't be trapped to CPU. Only when IPV6 interface is present or ipv6 multicast is enabled, ip packets with options will be trapped to CPU. |
| PR Summary: Explanation: | 193117 Build:6.4.6.174.R01768 VPA limit is not enforced in CLICode changes done to log message while creating more than 768 VPA. |
| PR Summary: Explanation: | 191676 Build: 6.4.6.172.R01 OS6850 switch crashed with suspended tasks: tCS_PRB and talpni Defensive check added. |
| PR Summary: Explanation: | 193612Build:6.4.6.168.R01Write memory flash synchronization and show configuration snapshot command output issue with OS9700Sflow Display Commands will not increase memory utilization |



| PR | 194018 Build: 6.4.6.174.R01 |
|--------------------------|---|
| Summary: | Need to add? show qos statistics? and ? show qos config? Command in the show |
| Explanation: | tech-support files. Added ?show qos statistics? and ?show qos config? commands in tech-support (layer3) log files. |
| PR | 194646 Build: 6.4.6.181.R01 |
| Summary: Explanation: | Multiple issues with DHCP Snooping and IP helper If dhcp offer packet is received in client vlan by a relay agent, it will be dropped. In this specific customer scenario, since the gateway is made another switch instead of relay agent, offer packet is routed by that switch and sent to relay agent in client vlan. As a work around for this scenario, if allowRoutedReplyOnClientPort is set to 1, offer packet will not dropped if it is received on client vlan. |
| PR | 194549 Build: 6.4.6.179.R01 |
| Summary: Explanation: | "ip helper dhcp-snooping bypass option-82-check enable" is lost after a reload Added "ip helper dhcp-snooping bypass option-82-check |
| | enable" cli after dhcp snooping enable/disable in snapshot |
| PR | 199162 Build: 6.4.6.211.R01 |
| Summary: Explanation: | DHCP NAK packet not sent by switch acting as DHCP server On NAKing the client do subnet broadcast, when there is no relay agent. |
| PR | 181179 Build: 6.4.6.174.R01 |
| Summary: Explanation: | Reference PR# 173309: dhcpd server does not propagate global scope: DHCP options given in global scope will now be applied to local scope also. |
| PR | 185576 Build: 6.4.6.173.R01 |
| Summary: | OS 6850 crash observed (reference to PR#182942) |
| Explanation: | Defensive fix has been added to validate data portion of bcm packet. |
| PR | 190094 Build: 6.4.6.179.R01 |
| Summary: Explanation: | ARP packets dropped before reaching CPU on NI1 ARP Packets wont be dropped. |
| PR | 192263 Build: 6.4.6.190.R01 |
| Summary: Explanation: | End user policy is violated when port-security is configured on all the ports. End-user profile check is added in LPS source learning. |
| PR | 198536 Build: 6.4.6.210.R01 |
| Summary: Explanation: | IS-IS state is stuck in "INIT" between AOS and other device Changes made to bring Interoperability in isis |
| PR | 195257 Build: 6.4.6.183.R01 |
| Summary: Explanation: | DHCP offer packet is not forwarded by OS6450 udp relay Per vlan rtr mac destined changes |



| PR | 196307 | Build: | 6.4.6.189.R01 |
|--------------|---|--------------------|--|
| Summary: | XON-XOFF protocol gets enabled after reboot | | |
| Explanation: | Fix done to c | disabling the sess | sion XON-XOFF protocol by default. |
| PR | 194868 | Build: | 6.4.6.178.R01 |
| Summary: | OS6400 : La lpDumpData | | orking, no logs reported. Available watts shows 0 in |
| Explanation: | • • | · · | t watts available in lpDumpData(). |
| | | | |
| PR | 197568 | Build: | 6.4.6.214.R01 |
| Summary: | Multicent we | candidate issue v | |

| Explanation: | PIM-Bootsrap fragmentation issues fixed |
|--------------|---|
| | |

Problems Fixed Between Builds 219 and 278

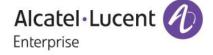
| PR | 188374 | Build: | 6.4.6.222.R01 |
|--------------|--|--------|---------------|
| Summary: | duplicate line appear in boot.cfg file | | |
| Explanation: | Changes done to prevent MIP overflow in ethernet service and interfaces modules. | | |

| PR | 197847 | Build: | 6.4.6.222.R01 | |
|--------------|-------------------|-------------------|--|---------|
| Summary: | OS9702E HIGH | CPU noticed du | e to SrcLrn Task. | |
| Explanation: | | cpu seen for th | e top task is 'SrcLrn' task increased the to | do |
| PR | 198586 | Build: | 6.4.6.224.R01 | |
| Summary: | OpenSSH versio | n upgrade query | /. OS6850E. | |
| Explanation: | • | | 0, CVE-2010-4755 : Vulnerabilities for Open | SSH 5.0 |
| PR | 201123 | Build: | 6.4.6.224.R01 | |
| Summary: | OS6850E: error I | NI[3/0]: Field 56 | in table config is NULL. | |
| Explanation: | Invalid Error won | t be thrown in Q | loS log. | |
| PR | 199983 | Build: | 6.4.6.224.R01 | |
| Summary: | OS9700 10G NI i | s not working p | roperly. | |
| Explanation: | Debug provided t | o track the ever | nts during the issue | |
| PR | 188382 | Build: | 6.4.6.224.R01 | |

| Summary: | Detach in HW in not re initializing the NI properly after a crash, vlan port bitmap is missing |
|--------------|--|
| Explanation: | Ni re-initialization is handled properly after a sudden crash . |



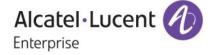
| PR | 199642 Build: 6.4.6.224.R01 | | |
|--------------------------|--|--|--|
| | OS9702E crashed when issued ?slcDumpEvtLog? and crash reason ?Exception in | | |
| Summary: | interrupt context? | | |
| Explanation: | Fix done to avoid the crash while dumping the "slcDumpEvtLog" from the dshell. | | |
| PR | 201124 Build: 6.4.6.225.R01 | | |
| Summary: Explanation: | OS6855 power supply trap not proper issue Changes done to send psOperable trap when we insert power supply to the unit and power supply is working. | | |
| PR | 200234 Build: 6.4.6.226.R01 | | |
| Summary: | LLDP traps are generated by the 6850E switches | | |
| Explanation: | Code changes has been done to avoid the traps which are generated by processing Special LLDP packets. | | |
| PR | 201367 Build: 6.4.6.227.R01 | | |
| Summary: | PIM SM routing stops after re-convergence in STP ring | | |
| Explanation: | Multicast Traffic loss during the STP convergence is fixed. Multicast source movement from one port to another port will create a proper h/w entry. | | |
| PR | 201241 Build: 6.4.6.228.R01 | | |
| Summary: Explanation: | OS6850E: Issue with ISSU upgrade from 6.4.6.167.R01 to 6.4.6.218.R01. During ISSU takeover happens successfully. | | |
| PR | 197294 Build: 6.4.6.229.R01 | | |
| Summary: | OS6850 crashed with Memory dump file | | |
| Explanation: | Code change to avoid NULL pointer access. | | |
| PR | 201431 Build: 6.4.6.229.R01 | | |
| Summary: Explanation: | Issue with assigning IPV6 static Route. IPV6 static route is configured with proper interface and works fine on reload. | | |
| PR | 198594 Build: 6.4.6.229.R01 | | |
| Summary: | Error while issuing "write-memory flash synchro" on stack of OS6850E. | | |
| Explanation: | Set longCommandStatus as complete after auto sync. | | |
| PR | 198572 Build: 6.4.6.230.R01 | | |
| Summary: | Error "ntpGetResponse: Error 4 (No data available), final pkt" | | |
| Explanation: | Bug fix for NTP peer creation and deletion issue. On NTP peer definition, if passive association exists already with peer, remove this association and instead create an active peering association with same peer. Also fixed the problem in passive peer deletion. | | |
| PR | 198801 Build: 6.4.6.230.R01 | | |
| Summary: | Loop back Detection feature is not working in OS9000E on Slot-8 | | |
| Explanation: | Fix done for proper slot check while configuring LBD | | |



| PR | 199609 Build: | 6.4.6.230.R01 |
|--------------------------|---|--|
| Summary: Explanation: | | command missing after the reboot issue s exists after reload. No Error will be thrown in |
| PR | 201269 Build: | 6.4.6.230.R01 |
| Summary: Explanation: | OS6850E VRRP IP address is not No ping loss for VRRP IP on takeo | |
| PR | 199127 Build: | 6.4.6.231.R01 |
| Summary: Explanation: | DHCP relay issue on MC-LAG with Relay agent takes the primary vip-a | - |
| PR | 191506 Build: | 6.4.6.232.R01 |
| Summary: Explanation: | u | ng needed due to issue faced under PR 190033 econnect the socket in case of broken pipe |
| PR | 192052 Build: | 6.4.6.233.R01 |
| Summary: Explanation: | OS6450: Need to know TACACS s Tacacs server down messages will | |
| PR | 201763 Build: | 6.4.6.237.R01 |
| Summary: Explanation: | OS6850E switch crashed tCS_PRE Check the pointer value is valid or r | 3 & SNMPagt task suspended. not while dumping last 10 SNMP traps to PMD. |
| PR | 201881 Build: | 6.4.6.238.R01 |
| Summary: | NTP Vulnerability query - CVE-201 2014-9296 CVE-2013-5211 | 4-9293 CVE-2014-9294 CVE-2014-9295 CVE- |
| Explanation: | Code changes done to fix NTP vulr | nerabilities CVE-2014-9295 & CVE-2013-5211. 93,CVE-2014-9294,CVE-2014-9296) do not affect |
| PR | 201931 Build: | 6.4.6.240.R01 |
| Summary: | Broadcast traffic from other vlans re default vlan restore is | eceived on the OS6850E mobile port where |
| Explanation: | | of the mobile vlan in the hardware when the port nobile port. |
| PR | 203188 Build: | 6.4.6.247.R01 |
| Summary: Explanation: | IGMP General Membership Querie Send IGMP General Membership (| s getting sent to queue 0 instead of 4. Queries to queue 4 |



| PR | 198476 Build: 6.4.6.250.R01 | | |
|--------------|---|--|--|
| Summary: | OS9702E HIGH CPU IPMEM | | |
| Explanation: | Fix high cpu in ipmem due to timers | | |
| | | | |
| PR | 203807 Build: 6.4.6.253.R01 | | |
| Summary: | IGMP group messages dropped on mobile/802.1x ports | | |
| Explanation: | After reload, IGMP report packet on mobile port will be learnt properly | | |
| PR | 204191 Build: 6.4.6.254.R01 | | |
| Summary: | boot.cfg.1.err is created after reboot when user password-policy cannot-contain- username enable is a | | |
| Explanation: | Fix the CLI save format for "user password-policy cannot-contain-username enable" | | |
| PR | 204064 Build: 6.4.6.255.R01 | | |
| Summary: | DHCP Server configuration modified after reload | | |
| Explanation: | Update boot.cfg when default vrf is removed from dhcp-server | | |
| PR | 204114 Build: 6.4.6.256.R01 | | |
| Summary: | The command "show ip bgp policy prefix-list" fails to display the output once in every 3 times. | | |
| Explanation: | Fix the display issue with "show ip bgp policy prefix-list" CLI output | | |
| | | | |
| PR | 203334 Build: 6.4.6.258.R01 | | |
| Summary: | 100% CPU with task vstkcmm after OS6850 NI takeover | | |
| Explanation: | Fix high CPU seen in vstkcmm on repeated takeover | | |
| PR | 204021 Build: 6.4.6.259.R01 | | |
| Summary: | "OID not increasing" error is noticed while SNMP walk is performed to fetch ERP port status. | | |
| Explanation: | Fix done to avoid the error "OID not increasing" noticed during SNMP walk to fetch | | |
| | ERP port status. | | |
| PR | 204275 Build: 6.4.6.260.R01 | | |
| Summary: | Multicast stream not forwarded after the firewall fail-over / Source Failover | | |
| Explanation: | Ensure multicast forwarding when source moves from agg to normal | | |
| PR | 204890 Build: 6.4.6.265.R01 | | |
| Summary: | [TYPE1] Ipv4 multicast traffic not forwarding after toggling static linkagg | | |
| Explanation: | Ensure multicast forwarding by updating L2MC bitmap when source movement from or to LINKAGG | | |
| PR | 203508 Build: 6.4.6.266.R01 | | |
| Summary: | I2 C error messages seen in OS 6855 switch | | |
| Explanation: | Fix high cpu by increase the read delay incrementally in steps when temperature sensor i2c read failures | | |
| | sonson izo i cau tallules | | |



| PR | 205339 Build: 6.4.6.268.R01 |
|--------------|--|
| Summary: | Unable to enable the loopback detection on the slot number 9 to 16 |
| Explanation: | Enable the loopback detection configuration on the slot number 9 to 16 |
| · | |
| PR | 202371 Build: 6.4.6.241.R01 |
| Summary: | DTLS Vulnerability query - CVE-2014-3571 CVE-2015-0206 |
| Explanation: | Fixed open ssl vulnerabilities CVE-2014-3571 CVE-2015-0206. |
| PR | 198323 Build: 6.4.6.232.R01 |
| Summary: | OS6850: LACP problem with hub in between LACP peers |
| Explanation: | Code changes done to attach the port properly when primary NI goes down (with hub in between links) |
| PR | 198473 Build: 6.4.6.231.R01 |
| Summary: | High Memory utilization seen on OS9000E with slcMsgHandler task holding the memory |
| Explanation: | Made the changes to free the allocated memory and added the debug to trace the |
| | places wherever memory is allocating and freeing. |
| PR | 198819 Build: 6.4.6.222.R01 |
| Summary: | MAC address learnt though 802.1x state is Captive-portal CP In-Progress. |
| Explanation: | Fix done to synchronize the onex and mac table during mac move on different ports with different vlan. |
| PR | 200620 Build: 6.4.6.222.R01 |
| Summary: | LLDPDU crashing the switch 6855-14 |
| Explanation: | Code changes done to avoid switch crashing while processing the LLDP packets. |
| PR | 202567 Build: 6.4.6.243.R01 |
| Summary: | OS6855 power supply trap is not proper when Power supply is removed |
| Explanation: | New trap for insertion and removal of power supply |
| PR | 199662 Build: 6.4.6.233.R01 |
| Summary: | Failover failed with "NI 2 DOWN, Excessive wait for Takeover Ack" and " |
| Explanation: | Code changes done to handle NI takeover timeout properly for primary NI. |
| PR | 197778 Build: 6.4.6.235.R01 |
| Summary: | OS6850E interface goes down and up when the other end switch is rebooting. |
| Explanation: | New FPGA version to avoid bringing PHY out of reset to prevent link flapping during switch reboot |
| PR | 197501 Build: 6.4.6.245.R01 |
| Summary: | OS6450 showing many lbdProcessMsg:459 messages in swlogs |
| Explanation: | Setting appropriate debug level for LDB switch log message |



| PR Summary: Explanation: | 204237Build:6.4.6.260.R01Unable to display serial number of external Power supply in stack from OV2500inventory page.Display serial number of Back up Power supply in secondary and idle units |
|--------------------------------|---|
| PR Summary: Explanation: | 204879Build:6.4.6.267.R016850E stack - ERP not convergingCode changes done to update the ERP ring id properly when NI went down in orderto converge the ERP. |
| PR Summary: Explanation: | 199151 Build:6.4.6.219.R01OS9702E running on the code 6.4.5.528 crashed.Dump lat 10 SNMP traps to PMD to aid crash debugging. |
| PR Summary: Explanation: | 200684Build:6.4.6.223.R01Link flapping noticed for the ports of OS6850E switches on NMS.Fix done to avoid high CPU in SAA |
| PR Summary: Explanation: | 198917 Build:6.4.6.224.R01high cpu noticed when we poll the device from OVIntroduction of debug variable to control the healthMonDeviceTrap generated fromswitch when CPU crosses threshold limits. |
| PR Summary: Explanation: | 201947Build:6.4.6.251.R01MAC movement in one VLAN flushing MAC in all VLANs when using 802.1xFix done to avoid the onex and SL table mismatch in case of client is getting movedfrom supplicant to non-supp and again non-supplicant with diff vlan on diff ports |
| PR Summary: Explanation: | 199092Build:6.4.6.224.R01OS9000E (6.4.5.569.R02), mac address displayed in two different ports in the CPtable (aaa-device alCode changes has been done to update the current timer correctly in case of CPauthentication |

Problems Fixed Between Builds 279 and 302

| PR | 205639 | Build: | 6.4.6.282.R01 |
|--------------|-----------|-----------------------|---------------|
| Summary: | OS6850E | - Port-Security issue | е |
| Explanation: | Changes t | o drop ARP based o | on LPS state |

| PR | 205761 | Build: | 6.4.6.288.R01 |
|--------------|-----------------|----------------|---|
| Summary: | code upgrade to | 6.4.6.218. | 8v Invalid" message seen on OS6855-14 after |
| Explanation: | | message on 48V | if proper POE PS is connected to OS6855- |

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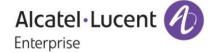


| PR | 205580 Build: | 6.4.6.288.R01 |
|--------------|---|--|
| Summary: | DHCP client not getting ip address tunnel. | from DHCP server when traffic is through GRE |
| Explanation: | Send GRE with DHCP packet to up | dp relay context in IPEDR |
| | | |
| | | |
| PR | 205756 Build: | 6.4.6.289.R01 |
| Summary: | Auth server down: 802.1x user-nar Server reachable fails | ne and MAC not updated on user authentication. |
| Explanation: | Fix the inconsistency between 802 context | .1x table and source learning when deleting |
| PR | 205524 Build: | 6.4.6.289.R01 |
| Summary: | | -supplicant when Auth-server Down UNP policy. |
| Explanation: | Do not reauthenticate non supplica | ints until server reachable when autheserv down |
| PR | 207966 Build: | 6.4.6.299.R01 |
| Summary: | Switch crashed with the task Onex | and tcs_prb suspended. |
| Explanation: | Code changes done to avoid onex devices classified under auth serve | crash during re-authentication of non-supplicant er timeout policy. |
| PR | 208280 Build: | 6.4.6.300.R01 |
| Summary: | | y time when `show saa statistics aggregate? |
| | command is used. | |

Problems Fixed Between Builds 303 and 339

| PR Summary: Explanation: | • | | 6.4.6.303.R01 tion in tech-support logs. np statistics' information in tech_support.log |
|--------------------------------|--------------------------------|--|---|
| PR | 208269 | Build: | 6.4.6.303.R01 |
| Summary: | 802.1x Auth-Ser unreachable | ver Dwn- server n | nay be reachable message seen though server is |
| Explanation: | Attempt reauther | ntication for suppli | cant only when server is reachable |
| PR Summary: Explanation: | Changes done to | Build: rs availability and o fix SLB TCP pro when server is sto | be issue. Server status will move from "In Service" |
| PR Summary: Explanation: | | Build: is not seen in OV one to display the | 6.4.6.307.R01 inventory report. XFP information in OV inventory report. |

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| PR Summary: Explanation: | 208997Build:6.4.6.308.R01OSPF status changes due to BFDBFD ECHO packets are dropped because enabling ?qos port monitor? sets wrongQOS flags. Because of this, OSPF neighbor ship breaks. |
|--------------------------------|--|
| PR Summary: Explanation: | 210227Build:6.4.6.309.R01OS6850E Learned Port Security Issue.Corrected error seen in sending LPS config on a stack of 8 |
| PR Summary: Explanation: | 210091Build:6.4.6.311.R01"NI 3 is not ready yet. Try it later!" message is appeared on console prompt.Code changes done to properly detect/report errors when IPC failure occurs in Multi-Chassis. |
| PR Summary: Explanation: | 210193Build:6.4.6.312.R01AOS forces to "flush" the mac-address of an authenticated successful user When moving between the 802 Code changes done to handle proper mac move |
| PR Summary: Explanation: | 210087Build:6.4.6.312.R013x6850E:802.1X High CPU and crash on Unit-1 of stackChanges done to prevent onex crash in case of congestion |
| PR Summary: Explanation: | 210402 Build:6.4.6.313.R01IPMS, delay between IGMP join and first multicast packet is very high Although PR description talks about the delay between the client sending report and the client getting the first source packet, issue can be narrowed down in a simpler way. Assume switch connected to a client and querier. The time taken for the multicast enabled switch to process the IPMS report packet from client and send it to the querier port is high.The introduction of reactor sockets changed the way a packet was handled in IPMS CMM. It was simple with 6.4.4 without reactor sockets, but in 6.4.6, we have 2 extra timers involved which was causing delay. With the current code, report packet is processed in CMM in the same tick as the Q-Disp, but the switch only sends out the |
| PR Summary: Explanation: | 209842 Build: 6.4.6.315.R01 OS6850E: High CPU in the switch due to tSrcLrn. Corrected issue seen in sending Bulk LPS config through TOdo list |
| PR Summary: Explanation: | 210917Build:6.4.6.316.R01RIPv1 packets trigger high CPU utilization even if MDC is enabledRIPV1 packets are not trapped to CPU when MDC drop-all enabled |

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Sensitivity: Internal & Restricted

| PR | | 6.4.6.316.R01 | |
|--------------|--|---|--|
| Summary: | qosipmsipv4rate variable setting is not working via AlcatelDebug.cfg | | |
| Explanation: | Changes done to use qosipmsipv4ra | ate in AlcatelDebug.cfg effectively. | |
| PR | 210836 Build: 6 | 6.4.6.316.R01 | |
| Summary: | NI ports are not ready due to mcmC | mm task in 9702 | |
| Explanation: | Code changes done to bring NI ports | s up after CMM goes through unexpected reboot. | |
| PR | 210157 Build: 6 | 6.4.6.317.R01 | |
| Summary: | High CPU due to source learning tas | sk. | |
| Explanation: | Corrected issue in todo list timer har | ndling | |
| PR | | 6.4.6.317.R01 | |
| Summary: | High CPU due to SaaCMM | | |
| Explanation: | Code changes done to correct high (| CPU due to todo list | |
| PR | | 6.4.6.317.R01 | |
| Summary: | High CPU due to 'SaaCmm' task. | | |
| Explanation: | Changes done to clean up reactor co | Dde | |
| PR | | 6.4.6.318.R01 | |
| Summary: | Accounting configuration are getting | | |
| Explanation: | After reboot, accounting configuratio | ns are displayed property. | |
| PR | | 6.4.6.319.R01 | |
| Summary: | OS6850E has LDAP crashed with th | | |
| Explanation: | Avoid switch crash by fixing the data | access exception in Idap authentication. | |
| PR | | 6.4.6.321.R01 | |
| Summary: | 802.1x authentication issue | | |
| Explanation: | Ensured PC MAC is removed from c | onex context when EAP LOGOFF is received. | |
| PR | | 6.4.6.322.R01 | |
| Summary: | Error file created when enable swlog appid <> level debug3 | | |
| Explanation: | "-VRF" is removed from the app-nan ospf,bgp,ipmrm,iprm,vrrp,pim and rip | | |
| PR | 211507 Build: 6 | 6.4.6.326.R01 | |
| Summary: | False traps after enabling the debug | | |
| Explanation: | | tch when the switch was reloaded with "no aaa figured with "aaa authentication default". | |
| PR | 207936 Build: 6 | 6.4.6.327.R01 | |
| Summary: | OSPF issue between OS9702E swit | | |
| Explanation: | | t 2 interfaces in active-standby and although only | |
| | | | |

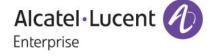


one interface is OSPF active, both interface addresses are sent in router LSA as TRANSIT routes.

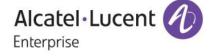
When the transit route which is not part of OSPF is the first entry in the router LSA, our switch compares this address with its own neighbor table and rejects the whole LSA because of which one of the routes is not installed in the routing table. If the transit route to which we have a neighbor entry is present as the first entry of the packet from neighbor, we parse the LSA correctly and install the route without any issues.

| PR | 212038 Bu | uild: | 6.4.6.328.R01 | | | |
|--------------|---|---|--|--|--|--|
| Summary: | Write memory flash | | | | | |
| Explanation: | | | on failure due to Daylight Savings Time settings. | | | |
| | | | | | | |
| PR | | uild: | 6.4.6.329.R01 | | | |
| Summary: | OS6450: info messa | | | | | |
| Explanation: | Handling DHCP pac | kets with no e | end options on trust ports | | | |
| PR | 212344 Bu | uild: | 6.4.6.331.R01 | | | |
| Summary: | Error file created wh | ien enable sw | log appid <802.1x> level debug3 | | | |
| Explanation: | 802.1x appid saved | as onex in sw | log | | | |
| | | | | | | |
| PR | 211780 Bu | uild: | 6.4.6.332.R01 | | | |
| Summary: | aaa authentication is | ssue since los | st the connectivity | | | |
| Explanation: | Code changes done | to prevent pa | acket drops in IPNI. | | | |
| | - | | | | | |
| PR | 208103 Bu | uild: | 6.4.6.335.R01 | | | |
| Summary: | Multicast group life t | ime expire iss | sue | | | |
| Explanation: | Audit and Reset the CPU/HighGig Ports to default in "asic" usage /Hardware if set | | | | | |
| | due to Port Mapping | g configuratior | 1. | | | |
| PR | 212653 Bu | uild: | 6.4.6.336.R01 | | | |
| Summary: | | | the upgrade the switch to OS_6.4.6.334.R01 | | | |
| Explanation: | | | e file ?userTable5? for saving user details in the | | | |
| · | | | userTable7. There is a difference in userTable | | | |
| | structures used in u | serTable5 and | d userTable7 as there were new features requiring | | | |
| | | | e. There was an issue in code while copying | | | |
| | | | loing an upgrade from 645 to 646.334.R01. This is | | | |
| | corrected and user of | details are nov | w copied correctly from userTable5 to userTable7. | | | |
| | While upgrading the | While upgrading the switch software from 645R02 to 646.334.R01, userTables(if | | | | |
| | any) in ?/flash/network? Directory other than userTable5 needs to be removed for | | | | | |
| | proper migration of | users from 64 | 5R02 to 646.334.R01. | | | |
| PR | 211954 Bu | uild: | 6.4.6.339.R01 | | | |
| Summary: | OS6850 show active | e policy list sh | owing empty lines | | | |

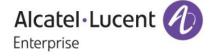
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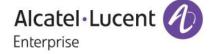
| Problems | Fixed Between Builds 340 and 361 |
|--------------------------------|---|
| PR Summary: Explanation: | 212714Build:6.4.6.340.R01OS6850E: stack crashed due to DHCP/UDP flooding.The splx() which frees the networking semaphore gets stuck with UdpRIy when the task tries to send out a packet, along with ARP activity in the switch. We make sure that splx() is called successfully in all cases thus ensuring system stability. |
| PR Summary: Explanation: | 212552 Build: 6.4.6.341.R01 Open SSL CVE-2015-1794, CVE-2015-3193, CVE-2015-3194, CVE-2015-3195, CVE-2015-3196 CVE-2015-3196 Code changes done to overcome the OpenSSL vulnerability - CVE-2015-3195. |
| PR Summary: Explanation: | 212954Build:6.4.6.342.R01"csCsmMainTimerSet : CmmState = 14 time = 15000" messages are seen in the swlog file. Info messages moved to systrace. |
| PR Summary: Explanation: | 213614Build:6.4.6.344.R01show aaa switch-access priv-maskresults in memory leak in AAAMemory is released in AAA module. |
| PR Summary: Explanation: | 210911Build:6.4.6.344.R01LACP BPDUs received on UNI trigger linkagg flappingCancelling rate limit for LACP packets in NNI ports. |
| PR Summary: Explanation: | 209640Build:6.4.6.347.R01static dhcp binding entry over written to dynamic entry when client receives an ip dynamically on the table.If the client can successfully acquire an IP address, and when the DHCP snooping enabled device writes a binding entry, if a static entry for the same client is already present, do not replace the static entry with the dynamic entry. |
| PR Summary: | 213908 Build: 6.4.6.349.R01 MIB polling to alaDot1xDeviceStatusVlan has no data retrieved for non-supplicant CF pass. |
| PR Summary: Explanation: | 214144Build:6.4.6.350.R01Debug commands effecting the running configuration statusCode changes done to display configuration status properly. |
| PR Summary: Explanation: | 213721Build:6.4.6.350.R01OS6855:False SFP alarms on down portsCode changes done to display SFP DDM values only when link is up. |



| PR | 212185 Build: 6.4.6.353.R01 | | | |
|--------------------------|--|-------------------------------------|--|--|
| Summary: | ClearPass Captive portal webpage loaded with delay due to concurrent ses | sions are | | |
| | not allowed. | | | |
| Explanation: | Avoided the delay in Web Page redirection for BYOD users. | | | |
| PR | 210741 Build: 6.4.6.353.R01 | | | |
| Summary: | IGMP General Membership Queries are sent on non-PRIMARY linkagg ports in non-unicast hashing enabled | | | |
| Explanation: | An IPMS enabled switch would trap IGMP query packets to CPU, save few parameters and flood the packet back in the same VLAN. When non-unicas is enabled, the same behavior applies except for the fact that packets going linkagg can also go through non-primary ports depending on the packet par using RAW mode. With current implementation, Q-Driver only supports sen unicast packets over primary ports of linkagg in RAW mode and this leads t problem where selective non-unicast packets are dropped | y out of a cameters ding non- | | |
| PR | 213699 Build: 6.4.6.354.R01 | | | |
| Summary: Explanation: | OS6850E: Unable to execute the ssh session from the codenomicon tool. Code changes to prevent system crash while processing malformed ssh pa | ckets. | | |
| PR | 213416 Build: 6.4.6.355.R01 | | | |
| Summary: Explanation: | clarification 9702e - info on UNP webview page Authentication timestamp is displayed in date and time format. | | | |
| | | | | |
| Problems | s Fixed Between Builds 362 and 380 | | | |
| PR | 215437 Build: 6.4.6.362.R01 | | | |
| Summary: Explanation: | OS6850E connected to OS6900 makes port moving into LIST state Now we won't delete the source port bit map of UNI profiles so that port doe move into LIST state. | ∍s not | | |
| PR | 216102 Build: 6.4.6.363.R01 | | | |
| Summary: | Need to know reason for the error message - STP error stpCMM_linkAggVpaUpdate – 6.4.6.340.R01 | | | |
| Explanation: | Now when configuring a ERP ring port as LACP port, the logged messages info type. | will be of | | |
| PR | 217337 Build: 6.4.6.364.R01 | | | |
| Summary: | Query on vulnerabilities CVE-2016-2107 and CVE-2016-2108 | | | |
| PR | 215625 Build: 6.4.6.365.R01 | | | |
| Summary: | PIM DENSE mode stop forwarding traffic after a few manual fiber link remo | ve and | | |
| Explanation: | reinsertion went to pause state Code changes done to prevent race condition when SFP is plugged in/ pulle 6855 | əd out in | | |



| PR | 218061 Build: 6.4.6.366.R01 |
|--------------------------|--|
| Summary: Explanation: | OS6850E: Query on "show running-directory" and "show configuration status" Changes made in the running configuration field from synchronized to not- synchronized when vlan commands are given. |
| PR | 217477 Build: 6.4.6.366.R01 |
| Summary: | IGMP not working on 6850E after reboot |
| Explanation: | Any failure in programming the rules should have been logged in QOS NI but the buffer for logging was filled with statistics information. So, made code changes to make sure the statistics information were not logged by default as INFO. Moved the logs to DEBUG1. We will have to increase logging level to DEBUG1 to check statistics logs. |
| PR | 218577 Build: 6.4.6.367.R01 |
| Summary: Explanation: | OS6850E: Query on "show running-directory" and "show configuration status" For all vrrp commands, "show running-directory" shows synchronized for 'running- configuration' eventhough "show configuration status" shows the configuration are different. Code changes has been done such that the configuration change will be reflected properly in show running-directory. |
| PR | 215727 Build: 6.4.6.368.R01 |
| Summary: | CMM Crashed in 9800 switch. |
| Explanation: | Code changes done to send Trap to NMS when CMM/NI crashes due to Processor parity error. |
| PR | 218252 Build: 6.4.6.369.R01 |
| Summary: Explanation: | OS6850E - Bad SAA statistics for the same destination IP over a linkagg Software improvising for handling SAA IP ping packets on different Nis |
| PR | 216404 Build: 6.4.6.369.R01 |
| Summary: Explanation: | OS9700 - loop not detected in MC-LAG and crashed. Defensive fix to avoid deadlock condition when primary of MCLAG tries to send the received ARP information to the peer chassis when the socket communication is not ready |
| PR | 217194 Build: 6.4.6.370.R01 |
| Summary: | OS6855 reboots when AlcatelDebug.cfg file is present in working and certified |
| Explanation: | directories. Code changes done to check the maximum cell limit for low water mark and dyncell. |
| PR | 219634 Build: 6.4.6.371.R01 |
| Summary: | OS6850E stack - IP service is not consistent after takeover |
| Explanation: | IP service is not consistent after takeover. Code changes are done in such a way to bring the IP service status back to its previous state, after takeover. |
| PR | 219567 Build: 6.4.6.372.R01 |
| Summary: | OS6855 switch crashed if bgp is configured |
| Explanation: | cli does not support the community option "no-adv" for the command "ip bgp policy route-map com-out 1 community no-adv". So cli regenerated after removing the community option "no-adv". |
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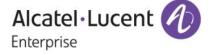
| PR | 219354 | Build: | 6.4.6.374.R01 | |
|--------------------------|---|--------------------|---|--|
| Summary: | | rface configurati | on of aclman are deleted when CMM takeover | |
| Explanation: | aclman.cfg w primary. | ill be parsed only | y by the primary CMM or when secondary becomes | |
| PR | 217478 | Build: | 6.4.6.375.R01 | |
| Summary: | ERP ring loop | o after switch reb | boot, probably RPL node | |
| Explanation: | Defense check switch(neight | | the ERP SIGNAL fail packet if it is coming from own | |
| PR | 220221 | Build: | 6.4.6.376.R01 | |
| Summary: | The OS6850-48X crashed due to Debug exception has occurred due to tNiSup&Prb PC : 0x37e5c4 task. | | | |
| Explanation: | Code change | s done to avoid | crash in NI Supervision and Prober module. | |
| PR | 218263 | Build: | 6.4.6.378.R01 | |
| Summary: Explanation: | 6850E - fiber hybrid port not coming up after reboot Fix for the fiber link issue on combo port. | | | |

Problems Fixed Between Builds 381 and 399

| PR | 221391 | Build: | 6.4.6.385.R01 | |
|--------------|---------------|------------------|---------------------------|--|
| Summary: | 4XOS6850E | switch crashed w | vith sftp task suspended. | |
| Explanation: | Defensive fix | done to avoid cr | ash. | |
| | | | | |
| PR | 221299 | Build: | 6.4.6.386.R01 | |

| PR | 221299 | Bulla: | 6.4.6.386.R01 |
|--------------|-------------------|--------------------|--|
| Summary: | OS6850E - Cras | h with tCsCSMtas | k2, tCS_PRB, UdpRly, taUdldNi suspended tasks. |
| Explanation: | Drop all the malf | ormed packets if i | t comes from same source mac consecutively |

| PR | 221683 | Build: | 6.4.6.387.R01 | | |
|--------------|--|--|-----------------------|--|--|
| Summary: | OS6850E: SNMP community map was getting lost upon reload | | | | |
| Explanation: | Restricting ch | Restricting character '%' in snmp community map string. | | | |
| PR | 221429 | Build: | 6.4.6.388.R01 | | |
| Summary: | | When a AP connected to OS6450 switch if the power of AP exceeds the configured power the AP reboots. | | | |
| Explanation: | Logging port (| OFF during over | load detection. | | |
| PR | 216292 | Build: | 6.4.6.389.R01 | | |
| Summary: | rmtCfgParse() |) has character | short string buffer. | | |
| Explanation: | Corrected stri | ng manipulation | | | |
| PR | 216291 | Build: | 6.4.6.390.R01 | | |
| Summary: | LGS: confSyn | taxOnlyParse() | buffer overflow risk. | | |
| Explanation: | Used strncpy as part of configuration file syntax parsing. | | | | |
| | | | | | |
| PR | 210780 | Build: | 6.4.6.390.R01 | | |
| Summary: | | LGS: HTTP cookies sent without HttpOnly flag Request to add flag. | | | |
| Explanation: | HttpOnly flag is added in set-cookie directive. | | | | |



| PR | 222462 | Build: | 6.4.6.392.R01 | | | | |
|--------------|---|--|---|--|--|--|--|
| Summary: | 4XOS6850E | 4XOS6850E switch crashed with tShell task suspended. | | | | | |
| Explanation: | Introduced new message to be logged in idle unit's swlog if telnet to idle unit is attempted. | | | | | | |
| PR | 222743 | Build: | 6.4.6.395.R01 | | | | |
| Summary: | Different NAS | 3 port are seen i | n the aaa accounting session. | | | | |
| Explanation: | nas-port set | nas-port set to 0 for ASA accounting. | | | | | |
| PR | 223001 | Build: | 6.4.6.395.R01 | | | | |
| Summary: | Incorrect ping | presentation af | fter upgrading firmware 6.4.6.380.R01. | | | | |
| Explanation: | Trip time valu | Trip time value precised to 2 decimal points. | | | | | |
| PR | 222973 | Build: | 6.4.6.396.R01 | | | | |
| Summary: | 6850E in 6.4 | .6.380 Crash of | the stack. | | | | |
| Explanation: | no mem leak | on takeover wit | h router guard port configuration. | | | | |
| PR | 221824 | Build: | 6.4.6.397.R01 | | | | |
| Summary: | | rmittent CPU sp | bike with tcs_PRB(1 to 2 minutes) and i2c error | | | | |
| | message. | | used by eaching the clobel flow | | | | |
| Explanation: | intermittent C | | uced by enabling the global flag | | | | |

Problems Fixed Between Builds 400 and 413

| PR | 223025 | Build: | 6.4.6.401.R01 | | |
|--------------|---|-------------------|---|--|--|
| Summary: | OS6850 IPTV channel is not streaming. captured packets shows it received multicast packets, but doesn't send it out | | | | |
| Explanation: | Removed the | | m hardware which is having zero index so that the | | |
| PR | 223581 | Build: | 6.4.6.403.R01 | | |
| Summary: | HTTP CP logo | out page is not s | served in the private image given. | | |
| PR | 223460 | Build: | 6.4.6.404.R01 | | |
| Summary: | OS6850E-P48 | X : Switch rebo | poted on 4th January. RCA requested. | | |
| Explanation: | Defensive fix o | lone to avoid W | /atchdog PMD. | | |
| PR | 224318 | Build: | 6.4.6.405.R01 | | |
| Summary: | OS6850E - M/ | AC learned on p | port mirroring destination port | | |
| Explanation: | Code changes done to flush MAC address in port mirroring destination ports during initial configuration. | | | | |
| PR | 224554 | Build: | 6.4.6.411.R01 | | |
| Summary: | | | in row error on the OV2500 while looking for the accession status of the OS6850E stack. | | |

Explanation: Removed the stale entries from hardware which is having zero index so that the source packets will not be dropped.

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Problems Fixed Between Builds 414 and 424

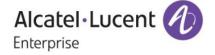
NOTE : All the 14 changes done for this release are pending verification update from support team. Hence the details for those CSPRs are placed below in "Under Verification" section.

Problems Fixed Between Builds 425 and 432

| PR | 227336 Bu | ıild: | 6.4.6.425.R01 |
|--------------|---|--------------------|---|
| Summary: | OS6850E VLAN-STACKING error message need explanation. | | |
| Explanation: | Update UNI profile d | etails for NI, th | nat have joined with delay. |
| PR | 226941 Bu | uild: | 6.4.6.426.R01 |
| Summary: | OS6850E: CP authe | nticated user's | Mac address is not learnt in MAC table. |
| Explanation: | if onexDebug=1, one | ex will be printir | ng into the console log and if onexDebug=2, it will |
| | be printing into the s | witch log. | |
| PR | 229087 Bu | uild: | 6.4.6.428.R01 |
| Summary: | | | equired to activate the configured SSH port" |
| - | | | he cli command "ssh tcp-port 2000". |
| PR | | uild: | 6.4.6.429.R01 |
| Summary: | | | wrong - raising alarms to NMS. Actual Low not |
| - | following data-sheets | | |
| Explanation: | | | ned accordingly with calibration particular sfp |
| | | | plemented for External calibration DDM SFP |
| | device, as suggested | | |
| PR | | uild: | 6.4.6.429.R01 |
| Summary: | | - | oshot is not showing any output. |
| Explanation: | Correct show configu | uration snapsh | ot issue |
| PR | 229130 Bu | uld: | 6.4.6.430.R01 |
| Summary: | OS6855: EBGP peer | rs not resetting | g when a link is disconnected |
| Explanation: | Ignore BFD_NBR_D | OWN message | e, if BGP neighbor is not established. |
| PR | 230490 Bu | uild: | 6.4.6.432.R01 |
| | 802.1X clients not re | authentcated b | by the switch after the authentication server |
| Summary: | became reachable | | - |
| | | | |

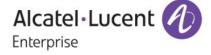
Problems Fixed Between Builds 433 and 440

| PR | 227004 | Build: | 6.4.6.433.R01 | | | |
|--------------|--|--|---|--|--|--|
| Summary: | OS9700E: O | OS9700E: OSPF and VRRP toggled because of 828 days uptime issue. | | | | |
| Explanation: | Fix is to conv | ert 32-bit tick ba | sed timer variables into 64-bit variables and | | | |
| | correspondin | g APIs to suppor | t the same in OSPF and VRRP modules. | | | |
| PR | 227004 | Build: | 6.4.6.434.R01 | | | |
| Summary: | Reverting the | Reverting the change number 232705(PR#227004) | | | | |
| Explanation: | Reverted bac | :k | | | | |
| PR | 231290 | Build: | 6.4.6.436.R01 | | | |
| Summary: | OS6850E: Packet drop for every 5 sec during ERP convergence. | | | | | |
| Explanation: | • | tion in flush logic and node ID pa | to check needtostore bit is set when we recognize a ir. | | | |



| PR | 229734 | Build: | 6.4.6.436.R01 |
|--------------------------|---|---------------|--|
| Summary: | Unable to do telnet or SSH to OS6850E-48X. | | |
| Explanation: | Code changes bind failure. | done to reset | the entry in session manager and socket address during |
| PR | 231256 | Build: | 6.4.6.436.R01 |
| Summary: | OS6850E-48 crashed need root cause analysis | | |
| Explanation: | Code changes block is deleted | | ade to mark a queued job as invalid if its MAC control |
| PR | 230376 | Build: | 6.4.6.436.R01 |
| Summary: | IP interface down after powering down the primary unit. | | |
| Explanation: | Code changes prevented is re | | ther processing of enabling vlan and activating IP is |
| PR | 210775 | Build: | 6.4.6.437.R01 |
| Summary: Explanation: | New CLI has b | een introduce | ation in clrtrap feature of ntpd d, when configured using the CLI it will restrict the and mode 7 packets. |

| <mark>Under Ver</mark> i | ification: | | |
|--------------------------|--------------------------|-------------------|--|
| PR | 198147 | Build: | 6.4.6.220.R01 |
| Summary: | | | client sends leave message in the IPMS. |
| Explanation: | Reduced dela | y in processing | and egressing out the IGMP Leave Packets in software |
| PR | 199875 | Build: | 6.4.6.249.R01 |
| Summary: | Power supply | Display issue- | show power shows AC instead of DC supply |
| Explanation: | Corrected the | power supply | type display issue |
| PR | 201216 | Build: | 6.4.6.251.R01 |
| Summary: | 802.1x having | g issues with R | andom clients |
| Explanation: | | | nd SL table mismatch in case of client is getting moved and vice versa with the same vlan. |
| PR | 184682 | Build: | 6.4.6.251.R01 |
| Summary: | Linkagg issue | in a Vlan stack | king configuration |
| Explanation: | Packets with I tag . | Double tags eg | ressing out of uni port acrsossNi will not be losing inner |
| PR | 203222 | Build: | 6.4.6.258.R01 |
| Summary: | 802.1x table e | entry is not dele | eted though MAC entry is deleted. |
| Explanation: | Fix to remove | non-supplican | t captive portal entry on timer expiry |
| PR | 203221 | Build: | 6.4.6.258.R01 |
| Summary: | Radius Accou | nting Interim u | pdates are not sent in irregular intervals. |
| Explanation: | Code changes | s done to send | the radius accounting packets properly for all clients. |
| PR | 202351 | Build: | 6.4.6.262.R01 |
| Summary: | OS6400 crash messages | n with 'memPar | tAlloc: block too big - 4136 in partition 0x5622c4' |
| Explanation: | Code change | done to fix higl | n memory issue in taSTP task |



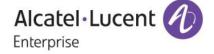
| PR Summary: Explanation: | 198350Build:6.4.6.277.R01High CPU noticed in UNIT 1 in the stack of 5 switches due to the task? UdpRly?Code change has been done to check the interface status before processing the dhcp packet. |
|--------------------------------|---|
| PR | 204988 Build: 6.4.6.279.R01 |
| Summary: Explanation: | Ping is not working when LPS is enabled. Fixed source learning IPC reactor socket communication failure |
| PR | 205239 Build: 6.4.6.280.R01 |
| Summary: | 6850E stack : DHCP clients are no longer able to get dhcp address after rebooting unit-2 |
| Explanation: | Revert back to default VRF when processing over on non-default VRF |
| PR | 204698 Build: 6.4.6.283.R01 |
| Summary: | "Trunk Destroy Failed!! Slot1 unit:0" were seen for the linkagg ports in swlog of OS6850E. |
| Explanation: | Code changes done to learn mac address properly without throwing the message "Trunk Destroy Failed!!". |
| PR | 205738 Build: 6.4.6.285.R01 |
| Summary: Explanation: | OS9000E: Crashed with AAA and tDrcIpmrm0 tasks suspended. Defensive check added to prevent IPMRM crash when deleting skip list |
| PR | 204755 Build: 6.4.6.285.R01 |
| Summary: Explanation: | Impact analysis on your products with CVE-2015-0291 t1_lib.c in OpenSSL 1.0.2. OpenSSL Vulnerability - CVE-2015-0287,CVE-2015-0289,CVE-2015-0292,CVE- 2015-0209,CVE-2015-0288 |
| PR | 205086 Build: 6.4.6.285.R01 |
| Summary: | ARP table is not getting updated. |
| Explanation: | (a) when ip loopback0 interface is removed it is not getting removed from ipni route list, |
| | (b) this is removed (b) while checking whether an ip is part of local interface, the AOS special condition of looback0 == interface ip is not taken care properly, modified the same. |
| PR | 205494 Build: 6.4.6.286.R01 |
| Summary: Explanation: | SLB is not working properly when we use TCP probe. Fixed SLB probe socket state issue |
| PR Summon <i>i</i> | 205223 Build: 6.4.6.289.R01 |
| Summary: Explanation: | MAC address table and 802.1x table inconsistency issue Code changes done to update the SL CMM data base properly when LPS enabled. |



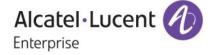
| PR | 207326 Build: 6.4.6.293.R01 | | | | |
|--------------|---|--|--|--|--|
| Summary: | System throws an error during bootup | | | | |
| Explanation: | Avoid Source learning bootup errors on console | | | | |
| PR | 207332 Build: 6.4.6.296.R01 | | | | |
| Summary: | AAA info AAA Unknown | | | | |
| Explanation: | Code changes done to update the Radius Interim-update messages properly in swlogs. | | | | |
| PR | 208318 Build: 6.4.6.304.R01 | | | | |
| Summary: | PSU LED turns Amber, when one of the PS is turned OFF/ON. | | | | |
| Explanation: | code changes done to avoid wrong PSU LED status on removal/insertion of PS. | | | | |
| PR | 209005 Build: 6.4.6.305.R01 | | | | |
| Summary: | Request to change the order of outputs in tech-support log file. | | | | |
| Explanation: | Added 'Show user' and 'Show snmp statistics' information to tech_support.log | | | | |
| PR | 209107 Build: 6.4.6.310.R01 | | | | |
| Summary: | OS6850E stack suspended with Ipmem (1226ec00) @ 100 SUSPEND lckd=0 ME DS stk 1226ec00-1226ad80 | | | | |
| Explanation: | Code changes done to fix Ipmem crash during double takeover. | | | | |
| PR | 210264 Build: 6.4.6.312.R01 | | | | |
| Summary: | Show mac-address table not showing correctly in Stack of 8 | | | | |
| Explanation: | Show mac address table command displays the correct output. | | | | |
| PR | 210580 Build: 6.4.6.313.R01 | | | | |
| Summary: | OS6850E LLDP messages in the logs | | | | |
| Explanation: | Code changes done so that the warning messages are not logged in the swlog when valid LLDP packets are send | | | | |
| PR | 211379 Build: 6.4.6.323.R01 | | | | |
| Summary: | OS6850E switch crashed with tOddJob task | | | | |
| Explanation: | Defensive fix done to avoid crash during buffer creation. | | | | |
| PR | 211443 Build: 6.4.6.327.R01 | | | | |
| Summary: | DHCP Snooping leaking issue on 6400 | | | | |
| Explanation: | AOS uses PROTOCOL_PKT_CONTROL register in third party to control behavior of | | | | |
| | DHCP packets. A DHCP packet when received by a snooping enabled switch should get trapped to CPU with the settings in this register, and without snooping enabled | | | | |
| | DHCP packets are mirrored to CPU. In the customers case, with DHCP snooping | | | | |
| | enabled, the hardware entries were not programmed for DHCP snooping so packets | | | | |
| | were being mirrored, as if snooping was not enabled in hardware. | | | | |
| PR | 212060 Build: 6.4.6.333.R01 | | | | |
| Summary: | OS6850E-P48: High CPU due to "tPim0" task | | | | |
| Explanation: | debugs added | | | | |
| | | | | | |



| PR Summary: Explanation: | 210609Build:6.4.6.338.R01OS6850E POE Restarts when powerdraw from the POE port exceeds the classificationFix done to disable the class setting by default. In case needed, it can be enabled by global variable in AlcatelDebug.cfg |
|--------------------------------|---|
| PR Summary: Explanation: | 212609Build:6.4.6.339.R01SNMP walk failure du to OID ordering failureCode changes done to fix OID ordering failure. |
| PR Summary: Explanation: | 212706 Build:6.4.6.339.R01.p priority is lost for IGMP frames in a QinQ envirovement setupWhen a IPMS Query packet is received in a multicast enabled switch, it is trapped toCPU and flooded back in the same VLAN. When received through a NNI port with a.1q priority stamped, it is trapped to the CPU and when flooding back to UNI ports(with SAP profile as TRANSLATE), Q-Driver does not copy the priority from theSVLAN to the CVLAN. |
| PR Summary: Explanation: | 210869Build:6.4.6.343.R01OS6850E: Switch crashMemory is freed in AAA module |
| PR Summary: | 210587 Build:6.4.6.345.R01OS6850E: Switch crashes for the codenomicon test case ID 3583. |
| PR Summary: Explanation: | 210239 Build:6.4.6.347.R01Bogus DHCP packet to customer dhcp server.Root Cause Analysis:When a DHCP client is enabled on a switch, the variable"dhcpInfoFromServer.serverIp" should hold the IP address of the server which leasedIP address to the switch. Assume DHCP snooping is enabled, and the DHCP clientinterface in switch gets IP from Server A, and other clients using the snooping servicefrom the switch gets IP from DHCP server B, after some time, the DHCP client in theswitch sends its own DHCP request to the Server B, instead of Server A whichoriginally leased the IP address to our switch.This is because, when any ACK packet (from any server) is received, we update the"dhcpInfoFromServer.serverIp", so the server IP address can change for any/alltransactions.Solution details:Code change to make sure that only the ACK received for the DHCPaddress of the switch is used to change the "dhcpInfoFromServer.serverIp". |
| PR Summary: Explanation: | 211453 Build:6.4.6.348.R01OS6850 ethernet-service nni command missing in configurationAll the commands are displayed properly in the configuration snapshot |
| PR Summary: Explanation: | 214760Build:6.4.6.358.R01OS6850E: Trap value decodingCode changes were done to add the missing bitmaps in the object syntax. |



| PR Summary: Explanation: | 211127 Build: 6.4.6.319.R01 OS6850 crashed with tCS_PRB and Stp task suspending. Defense fix while handling STP SNMP operations | | | | |
|--------------------------------|---|--|--|--|--|
| | | | | | |
| PR | 198841 Build: 6.4.6.238.R01 BGP route for multi-hop neighbor learnt correctly but IPRM shows incorrect gateway | | | | |
| Summary: | for this route. | | | | |
| Explanation: | BGP route for multi-hop neighbor learnt correctly and IPRM shows correct gateway for this route. | | | | |
| PR | 201948 Build: 6.4.6.251.R01 | | | | |
| Summary: | MAC address learnt though 802.1x state is Captive-portal CP In-Progress. | | | | |
| Explanation: | Fix the mac-address table inconsistency after continuous mac move | | | | |
| PR | 202046 Build: 6.4.6.238.R01 | | | | |
| Summary: | NTPD Vulnerability: ntpd version 4.2.7 and previous versions allow attackers to overflow several buses. | | | | |
| Explanation: | Code changes done to fix NTP vulnerabilities CVE-2014-9295 & CVE-2013-5211. Other vulnerabilities do not affect AOS. | | | | |
| PR | 203577 Build: 6.4.6.261.R01 | | | | |
| Summary: | Secondary unit of a stack is rebooting after a hard takeover. | | | | |
| Explanation: | Fix the flash sync flags between primary and secondary unit | | | | |
| PR | 214605 Build: 6.4.6.359.R01 | | | | |
| Summary: | OS6850E Switch restarting after enabling PIM-SM onThird party with suspended task tPim0 We prevent invalid memory access when a group in range of (232.0.0.0/8) SSM is received. | | | | |
| Explanation: | | | | | |
| PR | 181004 Build: 6.4.6.337.R01 | | | | |
| Summary: | Switch crash while enabling mobile tag. | | | | |
| Explanation: | Fix for preventing crash while enabling mobile tag | | | | |
| PR | 209400 Build: 6.4.6.324.R01 | | | | |
| • | OS6850E-48X 6.4.5.608.R02 standalone switch we are receiving the below error | | | | |
| Summary: | Error Couldo't got bu | | | | |
| Explanation: | Error: Couldn't get bu Errors were displayed because there were no available buffers in Q-Driver to send out LLDP context. These buffers were occupied by BCMrx task to send out STP | | | | |
| | packets through HiGig in a standalone box. | | | | |
| PR | 212850 Build: 6.4.6.339.R01 | | | | |
| Summary: | The command "gos port x/y default classification 802.1p" is not removed from the | | | | |
| Explanation: | configuration when By default the traffic classification is by dscp for the ports, and hence when the | | | | |
| | classification is changed to 802.1p/tos the config will be reflected in qos snapshot . When the same port is configured with svlan and tagged with a UNI/NNI , default classification will be 802.1p . However still the default config will be shown in 'show configuration snapshot qos' due to mismatch in the Return handling. | | | | |
| | | | | | |



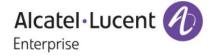
| PR Summary: Explanation: | 212652 Build:6.4.6.336.R01OS6850E: user got deleted after upgrade the switch to OS_6.4.6.334.R01Software version 645R02 uses the file ?userTable5? For saving user details in theflash, similarly 646.334.R01 uses userTable7. There is a difference in user Tablestructures used in userTable5 and userTable7 as there were new features requiringmodification in user Table structure. There was an issue in code while copyinguserTable5 to userTable7 when doing an upgrade from 645 to 646.334.R01. This iscorrected and user details are now copied correctly from userTable5 to userTable7.While upgrading the switch software from 645R02 to 646.334.R01, user Tables(ifany) in ?/flash/network? Directory other than userTable5 needs to be removed forproper migration of users from 645R02 to 646.334.R01. | | | | |
|--------------------------------|--|--|--|--|--|
| PR | 206012 Build: 6.4.6.282.R01 | | | | |
| Summary: | Port change resulting in ARP relearning, post which MAC not updated in | | | | |
| Explanation: | hardware. Refer Source learning LPS table to process ARP | | | | |
| PR | 205391 Build: 6.4.6.292.R01 | | | | |
| Summary: | 4xOS6850E-P48 Link flapping on stacks running code 6.4.6.218 R01 | | | | |
| Explanation: | Set appropriate debug level for link up/down message in swlog if trap is not enabled | | | | |
| PR | 222061 Build: 6.4.6.391.R01 | | | | |
| Summary: | PR#220140: OS6855: "power supply removed/inserted " traps on OV | | | | |
| Explanation: | Changes done not to log the power supply down message for 10 seconds | | | | |
| PR | 155409 Build: 6.4.6.393.R01 | | | | |
| Summary: | | | | | |
| Explanation: | tcp sync flood, smurf, pepsi, teardrop and anti-spoof attacks are removed from "show ip dos statistics" in cli and webview | | | | |
| PR | 222437 Build: 6.4.6.394.R01 | | | | |
| Summary: | Block CLI command for secure-http in enhanced mode | | | | |
| Explanation: | CLI command for secure-http is blocked in enhanced mode | | | | |
| PR | 219159 Build: 6.4.6.397.R01 | | | | |
| Summary: | clarification on dhcp relay when the dhcp reply interface is disabled | | | | |
| Explanation: | Do not relay DHCP discover packets if IP interface is disabled | | | | |
| PR | 223246 Build: 6.4.6.398.R01 | | | | |
| Summary: | Router Guard cosmetic bug | | | | |
| Explanation: | Cosmetic bug for router-guard port is fixed | | | | |
| PR | 223173 Build: 6.4.6.400.R01 | | | | |
| Summary: | source learning cmm and ni redirected to swlog | | | | |
| PR | 223230 Build: 6.4.6.401.R01 | | | | |
| Summary: | .1p Lost in QinQ translation for IGMP frames | | | | |
| | | | | | |



| PR | 224807 Build: 6.4.6.406.R01 | | |
|---|--|--|--|
| Summary: | .1p Lost in QinQ translation for IGMP frames | | |
| PR | 222061 Build: 6.4.6.408.R01 | | |
| Summary: | "power supply removed/inserted " traps on OV | | |
| Explanation: | Changes done not to log the power supply down message for 10 seconds, when two power supplies are available in Etna chassis. Provide psECFix=1 in dshell, to enable the fix. This fix works for all Etna chassis. You can change the 'psECFixTimer' to the no. of seconds you want to hold the error message. The default value is 10 seconds. Previously available fix for EtnaC14 chassis is now made available to all Etna chassis. Please note 'psEC14Fix' flag will not be available anymore. | | |
| PR | 224920 Build: 6.4.6.417.R01 | | |
| Summary: | The umac-64@openssh.com MAC is broken in VxWorks when trying to connect OS6450 via SSH. | | |
| Explanation: Removed unsupported MAC (umac-64@openssh.com,hmac-ripemd160 and ripemd160@openssh.com) from hash list | | | |
| PR | 224853 Build: 6.4.6.417.R01 | | |
| Summary: | AOS 6.7.1.108.R04 DHCP Decline sent by switch during RCL contains garbage in servername field. | | |
| Explanation: | Fix done so that no garbage value is seen for any of the DHCP parameters in the decline packet. The host name is now seen as not given in the packet capture. | | |
| PR | 224244 Build: 6.4.6.417.R01 | | |
| Summary: Explanation: | OS6850 topology age remains 00:00:00 when the switch up time is 828 days Do not reset the topology age in " show spantree [vlan] " when switch up time is 828.5 days. | | |
| PR | 225418 Build: 6.4.6.418.R01 | | |
| Summary: | 6xx webview : displaying OS9000 image in header and landing page | | |
| Explanation: | Fuji image removed in 6X webview login page and made similar to 7X | | |
| PR | 221808 Build: 6.4.6.418.R01 | | |
| Summary: | 6450 client MAC learnt on 802.1x and MAC table (connected by hub) though the | | |
| Output device is disconnected. Explanation: Check added to delete a Mac-address in OnexCmm | | | |
| | | | |
| PR | 226472 Build: 6.4.6.419.R01 | | |
| Summary: | DSCP values are getting striped by AOS switches | | |
| Explanation: | Code changes done to send qtagged configs to NI | | |
| PR | 227357 Build: 6.4.6.419.R01 | | |
| Summary: | OS6850E - ERP ring status shows as "Idle" though RPL is in Forwarding state | | |
| Explanation: | ERP ring is set to init state when ring is administratively disabled | | |



| PR | 227629 Build: 6.4.6.420.R01 | | | | |
|--------------------------|--|--|--|--|--|
| Summary: | SFP-DUAL-BX-U and SFP-DUAL-BX-D Optics works only as 1G Speed, but not in 100M speed on OS9702 | | | | |
| Explanation: | Added support for new dual speed SFP (SFP-DUAL-BX-U and SFP-DUAL-BX-D) | | | | |
| PR | 226671 Build: 6.4.6.421.R01 | | | | |
| Summary: Explanation: | OS6850E - Topology changes counter is incrementing when the ring is closed Code changes done to prevent STP BPDU drops in NNI port. | | | | |
| PR | 224354 Build: 6.4.6.422.R01 | | | | |
| Summary: | Debug changes are done to log the ERP debugs in swlog as a option | | | | |
| Explanation: | ERP debugs redirected to swlog | | | | |
| PR | 227739 Build: 6.4.6.422.R01 | | | | |
| Summary: | NTP mode 6 scanner vulnerability detected. | | | | |
| Explanation: | Changes done to avoid sending the NTP info packet to the restricted interface, | | | | |
| PR | 226634 Build: 6.4.6.423.R01 | | | | |
| Summary: | Redirecting the bfdNi debugs to swlogs | | | | |
| Explanation: | Redirecting the bfdNiDbg into the swlogs and condition is added as : if bfdNiDbg = 1 it will redirect the logs to console and if bfdNidbg = 2 the logs will be redirected to swlogs. To disable the bfdNi logs "bfdNiDbg = 0 " | | | | |
| PR | 227493 Build: 6.4.6.424.R01 | | | | |
| Summary: | EOAS timeout during reboot on an upgrade from 646.340R01 to 646.413R01. | | | | |
| Explanation: | Code changes done to avoid crash during OS9800E upgrade | | | | |
| PR | 227827 Build: 6.4.6.424.R01 | | | | |
| | Crash with Ktrace file generated in Ni1 and Ni2 respectively of OS6850E, while issue | | | | |
| Summary: | takeover | | | | |
| Explanation: | Changes done to avoid crash during xmap. | | | | |
| PR | 227934 Build: 6.4.6.427.R01 | | | | |
| Summary: | SFP-DUAL-BX-U and SFP-DUAL-BX-D Optics work at 100M even if the speed is set to 1G. | | | | |
| Explanation: | Code changes done to set proper speed for SFP TRBUG1CDBC000E2G and TRBUG1CUBC000E2G. | | | | |
| PR | 224350 Build: 6.4.6.428.R01 | | | | |
| Summary: | OS6450: SSH into OS6450, the password prompt is not displayed until 'Enter Key is | | | | |
| • | hit 5 times | | | | |
| Explanation: | Code changes have been done to include the password prompt information in the "prompt" field of the packet instead of "instruction" field | | | | |
| PR | 228612 Build: 6.4.6.428.R01 | | | | |
| Summary: | 3XOS6450: After the reload "show running-directory" command shows stack is not synchronized | | | | |
| Explanation: | Qos configs applied through OV are always reapplied after reload. A condition is added to check if qosConfigSet is called to load Idap initial configuration. If true then don't set cmm is out of sync. | | | | |
| PR | 230389 Build: 6.4.6.431.R01 | | | | |
| | OS6850E: Disconnecting stacking cable causes slave unit to crash | | | | |
| Summary: Explanation: | Defensive check to avoid crash. | | | | |



| PR | 228960 | Build: | 6.4.6.438.R01 | | |
|--------------|---|--------|--|--|--|
| Summary: | OS6855-Uplink SFPs are not coming up after upgrading the switch to the 6.4.6.399.R01 Code changes done to do port reinitialization whenever 100Base-FX SFPs are inserted. | | | | |
| Explanation: | | | | | |
| PR | 232332 | Build: | 6.4.6.438.R01 | | |
| Summary: | OS6400 switch crash when Ildp packets are received from Labris Network UTM devices | | | | |
| Explanation: | Fix done for crash, when malformed packets are received from Labris devices .Fix done to delete the MSAP node before freeing it. | | | | |
| PR | 231928 | Build: | 6.4.6.439.R01 | | |
| Summary: | CPU at 100%, suspect culprit may be multicast traffic. IPMS is configured but no local groups or sources Changes done to move VPA to blocking, if VLAN is disabled though they are ERP ports | | | | |
| Explanation: | | | | | |
| PR | 230676 | Build: | 6.4.6.435.R01 | | |
| Summary: | OS6850: Remote Denial of Service vulnerability in OS6850 | | e vulnerability in OS6850 | | |
| Explanation: | | | NULL validation and also changed strcpy to strncpy | | |

Known Issues:

| PR | 223750 | Build: | 6.4.6.409.R01 |
|----------|--|-----------|---|
| Summary: | 4xOS6850E: Copper Combo ports does not work when connecting a IP camera | | |
| CR | CRAOS6X-6 Hybrid Ports | | 6.4.6.440.R01 In after reload in OS6855-24 |
| Summary: | Hybrid Ports are not coming up after reload in OS6855-24. (Workaround – Toggling the port once will bring the port operationally up) | | |
| CR | CRAOS6X-6 | 91 Build: | 6.4.6.440.R01 |
| Summary: | After takeover vlan associated port is not getting displayed in "show vlan port "command even though configuration is present in switch | | |



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New Features:

1. Configuration File Management

Hosted AOS SW Release: 6.4.6.167.R01

Introduction:

The configuration file management feature is to modify the configuration file label corresponding to the directory it resides, without affecting any functionality. Earlier when configuration file is retrieved from working and certified directories of Omni switch, they all have the same label as in old directory in the beginning of file regardless if you retrieve the file in working or certified directory. So after retrieving, it's difficult to find from where the configuration file belongs. The operations of existing configuration file management system:

While performing certify and/or synchronization or restoration process in Omni switch the configuration file of source directory will be copied to the destination directory based on the below conditions.

- a) If the configuration file doesn't exist in the destination directory.
- b) The file exists but differs in size and/or time stamp.

If any of the above condition is true, the configuration file will be copied to the destination directory and the timestamp of source directory configuration file will be re-applied on the copied configuration file in destination directory.

After the source configuration file contents copied to destination configuration file, the label in destination configuration file will be modified and the time stamps of source configuration file will be re applied.

Platforms Supported:

Omni Switch 6850E, Omni Switch 6855, Omni Switch 9000E

Command Usage:

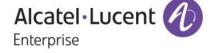
While executing the commands in the below table configuration file header should be updated showing the directory it is located and re-apply the source directory configuration file timestamp.

| Command | Process Involved |
|--------------------------------------|---|
| copy working certified | certify process |
| copy flash-synchro | certify and flash synchronization |
| copy working certified flash-synchro | certify and flash synchronization |
| write memory flash-synchro | Save configuration, certify and flash synchronization |
| copy certified working | Restoring process |
| show running-directory | Synchronization status |

Table 1 - Commands involved in verifying the implementation

Expected Outcome:





After issuing certify/synchronization commands mentioned in table 1, the process should complete without any errors and the label inside the boot.cfg file of certified directory should contain certified directory in the label.

Sample output:

| | ! File: /flash/certified/boot.cfg ! | |
|---|-------------------------------------|---|
| 1 | | ł |

After issuing commands for restoring the files (mentioned in table 1), the process should complete without any errors and the label inside the boot.cfg file of working directory should be remain unchanged.

Sample output:

| !====================================== | =! |
|---|----|
| ! File: /flash/working/boot.cfg | ! |
| !====================================== | =! |

There should not be any functional impact on existing synchronization status determining logic.

Sample output:

Topo (A1) _DUT1 - ->> show running-directory

| CONTIGUIATION STATUS | |
|---------------------------|-----------------|
| Running CMM | : PRIMARY, |
| CMM Mode | : DUAL CMMs, |
| Current CMM Slot | : 1, |
| Running configuration | : WORKING, |
| Certify/Restore Status | : CERTIFIED |
| SYNCHRONIZATION STATU | S |
| Flash between CMMs | : SYNCHRONIZED, |
| Running Configuration | : SYNCHRONIZED, |
| Stacks Reload on Takeover | : PRIMARY ONLY |
| | |

Limitations:

None

2. Multicast Dynamic Control (MDC)

Platforms: OS6850E, OS6855-U24X, OS9E

Hosted AOS SW Release: 6.4.6.218.R01

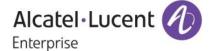
In AOS, IPv4 and IPv6 multicast protocols are by default always copied to CPU. The high CPU usually impacts the normal operations of the Omni Switch protocols such as LACP, ERP.

In Order to resolve this high CPU issue, this feature is introduced to control the processing of the IPv4 multicast protocols.

The processing of all IPv6 multicast protocols is globally controlled by the presence of an IPv6 Interface.

• If no IPv6 interface configured All protocols in the ff02:0: /32 ranges are transparently forwarded and not copied to CPU.

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• If at least one IPv6 interface configured

All protocol packets in the ff02:0: /32 ranges are copied to CPU on all vlans irrespective on which vlan IPV6 interface is enabled.

IGMP packets are copied to CPU based on the global ipms status. When IPMS is globally enabled, IGMP packets are copied to CPU. When IPMS is globally disabled, IGMP packets are not copied to CPU.

MLD packets are copied to CPU based on the global ipms status. When IPMS is globally enabled, MLD packets are copied to CPU. When IPMS is globally disabled, MLD packets are not copied to CPU. RIPV1 packets are not trapped to CPU when MDC drop-all enabled

Command Usage:

1. To enable/disable global multicast dynamic-control status ip multicast dynamic-control status [{enable|disable}]

Guidelines: By default this status is disabled. If it is enabled, IPv4 multicast well-known protocol packets alone will be trapped to CPU and the other multicast packets will be dropped. Well-known IPv4 protocols are given below in Note section

2. To enable/disable multicast dynamic-control drop-all status ip multicast dynamic-control drop-all status [{enable|disable}]

Guidelines: By default this status is disabled. If it is enabled, all ipv4 multicast packets including ipv4 multicast well-known protocol packets will be dropped.

Note:

- Drop-all status can be enabled only after enabling global dynamic control status.
- Below are the well-known IPv4 multicast protocol packets,

| OSPF: | 224.0.0.5/32 + IP protocol 89 |
|--------|---------------------------------|
| OSPF: | 224.0.0.6/32 + IP protocol 89 |
| VRRP: | 224.0.0.18/32 + IP protocol 112 |
| RIPv2: | 224.0.0.9 + UDP port 520 |
| PIM: | 224.0.0.13/32 |
| DVMRP: | 224.0.0.4/32 |

Examples

ip multicast dynamic-control status enable ip multicast dynamic-control status disable

ip multicast dynamic-control drop-all status enable ip multicast dynamic-control drop-all status disable ip multicast status enable ip multicast status disable ipv6 multicast status enable ipv6 multicast status disable

->show ip multicast Status Querying Proxying Spoofing

= enabled, = enabled, = disabled, = disabled,



Zapping = disabled, Querier Forwarding = disabled. Flood Unknown = disabled. Dynamic control status = disabled, Dynamic control drop-all status = disabled, **Buffer Packet** = disabled, Version = 2, Robustness = 7, Query Interval (seconds) = 125,Query Response Interval (tenths of seconds) = 100,Last Member Query Interval (tenths of seconds) = 10, Unsolicited Report Interval (seconds) = 1, Router Timeout (seconds) = 90,Source Timeout (seconds) = 30.Max-group = 0,Max-group action = none Helper-address = 0.0.0.0

->show configuration snapshot ipms ! IPMS:

ip multicast dynamic-control status enable ip multicast dynamic-control drop-all status enable

Limitations

- The proposed solution does not address the DOS attack concern
- Injecting a high rate of well-known protocol on a port will still cause a high CPU.
- Dynamic-Control "drop-all" feature should not be enabled if a routing protocol or VRRP is configured on the Omni-Switch as protocol packet will be dropped.

3. DHCP SERVER PER VRF

Platforms: OS6850E, OS6855-U24X, OS9E

Hosted AOS SW Release: 6.4.6.218.R01

The internal DHCP server was initially only supported on the default VRF. Now, the internal DHCP server can be supported on multiple VRFs, including the default VRF. The switch still supports a single instance for the internal DHCP server that is unaware of the VRFs. This means the DHCP scopes are common for all VRFs. A new command is implemented to configure the VRFs on which the internal DHCP server is active, also giving flexibility to include or exclude the default VRF.

By default, the internal DHCP server is only active on the default VRF.

Command Usage

1. To enable/disable/restart internal DHCP server

-> dhcp-server {enable | disable | restart}

Guidelines

This command controls the single internal DHCP server instance and impacts all configured VRFs.

- 2. To include a given VRF in the internal DHCP server
- -> dhcp-server vrf {default | vrfname}

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Guidelines

The command checks the given VRF name exists. To add multiple VRFs, invoke the command for each VRF. The command "dhcp-server vrf default" is optional as the internal DHCP server is by default active on the default VRF.

3. To exclude a given VRF from the internal DHCP server

-> dhcp-server no vrf {default |vrfname}

Guidelines

To add multiple VRFs, invoke the command for each VRF.

4. To display the configuration of Internal DHCP Server.

-> show dhcp-server config

Guidelines

The command displays:

- The global status of the internal DHCP server
- The list of VRFs on which the internal DHCP server is active

Examples

Enable Internal DHCP Server on Default VRF

-> dhcp-server enable -> show dhcp-server config DHCP-SERVER Status: Enabled VRF : default

Note: When DHCP server is disabled, the default VRF is not displayed. This will be displayed only if default VRF is explicitly configured

-> dhcp-server disable

-> show dhcp-server config DHCP-SERVER Status: Disabled VRF

-> dhcp-server vrf default

-> show dhcp-server config

DHCP-SERVER Status: Enabled VRF : default

Enable Internal DHCP Server on VRF "default" and "abc"

-> vrf abc

-> dhcp-server vrf abc

-> dhcp-server enable

-> show dhcp-server config DHCP-SERVER Status: Enabled VRF : default, abc

Enable Internal DHCP Server on VRF "default", "abc" and "xyz" -> vrf abc

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-> vrf xyz

- -> dhcp-server vrf abc
- -> dhcp-server vrf xyz
- -> dhcp-server enable
- -> show dhcp-server config DHCP-SERVER Status: Enabled VRF : default, abc, xyz

Enable Internal DHCP Server on VRF "abc" only

- -> vrf abc
- -> vrf xyz
- -> dhcp-server vrf abc
- -> dhcp-server no vrf default
- -> dhcp-server enable
- -> show dhcp-server config DHCP-SERVER Status: Enabled VRF : abc

Limitations

- The MAX_VRF count supported on hardware dictates the choice of VRF on which the Internal DHCP Server can be activated.
- Enabling Internal DHCP Server on VRF <vrfname> takes precedence over DHCP relay and hence DHCP relay would not work on this VRF

4. DHCP Snooping Global Mode

Platforms: OS6850E, OS6855, OS9000E

Hosted AOS SW Release: 646.278.R01

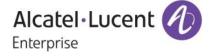
In order to have the DHCP snooping feature operational, the hardware must first identify DHCP packet and trap such packet to CPU for software processing.

- Currently, the hardware identifies a DHCP packet as follow:
 - Source UDP port = 67 and Destination UDP port = 68 Or
 - Source UDP port = 68 and Destination UDP port = 67

These hardware settings are optimized for all the DHCP snooping use cases, and have the property that any DHCP transactions between a Relay Agent Router and the DHCP Server using a source and destination UDP port 67 are transparently forwarded by hardware. This allows a L2 switch or L3 router in the path between the Relay Agent Router and the DHCP server to be configured with DHCP snooping and still forward the DHCP Relay message.

However, these settings do not allow the detection of a DHCP rogue server that may be connected on a DHCP snooping switch in the path between the Relay Agent Router and the actual DHCP server. One important function of the DHCP snooping feature is to discard DHCP Reply received on client ports.

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In this specific case, the rogue DHCP server will reply with both source and destination UDP port 67 to the Relay Agent and Reply will be transparently forwarded by hardware.

In this new AOS release, a new hardware mode is configurable to also identify DHCP packet with source and destination UDP port 67.

This is only configurable with a debug variable "debug set udpGblSbuturn 3" in the AlcatelDebug.cfg. In this mode, DHCP packet with source and destination UDP port 67 will be processed by software and bridged or routed accordingly.

Usage:

In AlcatelDebug.cfg debug set udpGblSbUturn { 0 | 3}

Recommendation:

It is still recommended to only use the default mode (udpGblSbUturn=0) as the new mode will add extra load on the system as all DHCP packets will be processed.

As workaround for the rogue DHCP rogue server issue, it is recommended to use the "qos user-port filter dhcp-server" or "qos user-port shutdown dhcp-server" feature to protect the switch against DHCP reply on the ports configured on the "qos port group UserPorts"

Limitations:

None

5. SSH PORT

Platforms: OS6850E, OS9000E, OS6855

Hosted AOS SW Release: 646.278.R01

In the existing implementation, AOS uses the default SSH TCP port (port 22) to establish an SSH session.

With the new implementation, when the user configures the TCP port number for SSH session, it will be saved in the switch file "/flash/network/sshConfig.cfg". In order to use the configured port number while establishing the SSH session, the switch must be rebooted.

While the switch boots up, if the file "/flash/network/sshConfig.cfg" exists, it will be parsed to read the TCP port number that should be used to establish the SSH session, otherwise the default SSH TCP port shall be used.

Usage

Command to configure TCP-PORT number for establishing SSH Session.

ssh tcp-port <port-number>

<port-number >in the range 0-65535

Example: ssh tcp-port 35



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Note: Well-known reserved TCP port numbers and the IP ports which are internally used in AOS are excluded in assigning to SSH TCP port.

Limitations

- Switch must be rebooted after configuring the TCP port number so as to use the configured TCP port number when establishing SSH sessions.
- Well-known reserved TCP port numbers(ports 20,21,23,25,69,80,161,389,443) and the IP ports which are internally used(defined in system_ipport.sh) are excluded in assigning to SSH TCP port. Error will be thrown when these ports are tried to be configured for SSH port.

6. Support for Telnet and SSH Clients within every VRF

Platforms: OS9702E, OS6850E, OS6855-U24X

Hosted AOS SW Release: 646.302.R01

This feature 'Support for Telnet and SSH clients in VRF' will allow telnet and SSH sessions from clients within every vrf instance to the reachable Telnet and SSH server. All the Telnet and SSH Clients should be configured in non-default VRF, while AOS will support Telnet and SSH server should be configured in default VRF.

Usage

To take telnet/ssh session from the VRF instance:

Maximum number of telnet session is 4 across the entire VRF instance at a time.

For Telnet:

Topo(A2)_DUT2-->> Topo(A2)_DUT2-->> vrf three1 three1::Topo(A2)_DUT2-->> telnet 3.3.3.2 Trying 3.3.3.2... Connected to 3.3.3.2. Escape character is '^]'. login : admin password :

Welcome to the Alcatel-Lucent OmniSwitch 6000 Software Version 6.4.6.290.R01 Service Release, June 25, 2015.

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OmniSwitch(TM) is a trademark of Alcatel-Lucent registered in the United States Patent and Trademark Office.

S1_stack_6850E-->



For SSH:

Maximum number of SSH session is 1 across the entire VRF instance at a time.

three1::Topo(A2)_DUT2-->> three1::Topo(A2)_DUT2-->> ssh 3.3.3.2 login as: admin admin's password for keyboard-interactive method:

Welcome to the Alcatel-Lucent OmniSwitch 6000 Software Version 6.4.6.290.R01 Service Release, June 25, 2015.

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S1_stack_6850E-->

To take telnet/ssh session by using the command vrf vrfname telnet/ssh x.x.x.x

For Telnet:

Maximum number of telnet session 4 across the entire VRF instance at a time.

Topo(A2)_DUT2-->> vrf three1 telnet 3.3.3.2 Trying 3.3.3.2... Connected to 3.3.3.2. Escape character is '^]'. login : admin password :

Welcome to the Alcatel-Lucent OmniSwitch 6000 Software Version 6.4.6.290.R01 Service Release, June 25, 2015.

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S1_stack_6850E-->

For SSH: Maximum number of SSH session 1 across all the VRF instance at a time

Topo(A2)_DUT2-->> Topo(A2)_DUT2-->> vrf three1 ssh 3.3.3.2 login as: admin admin's password for keyboard-interactive method:

Welcome to the Alcatel-Lucent OmniSwitch 6000 Software Version 6.4.6.290.R01 Service Release, June 25, 2015.

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S1_stack_6850E-->

7. Extended Support for 12 VRF sessions in OS6855-U24X

Platforms: OS6855-U24X

Hosted AOS SW Release: 646.302.R01

This Feature is to extend the parallel VRF sessions to 12 from current limit of 8 in an OS6855-U24x platform. Refer VRF in OS6850E network config or switch management guide for additional details about VRF and its detail.

Usage:

To create a non-default VRF vrf vrfname

To Configure interfaces on the created vrf ip interface interface_name address ip_address mask vlan vlan_id

To Display the created vrf and configuration show vrf

To Delete the created vrf no vrf vrfname

Examples:

cli>vrf one1 cli>vrf two2 2:cli>ip interface vrfone address 100.1.1.1/24 vlan 100 2:cli>ip interface vrftwo address 101.1.1.1/24 vlan 101 2:cli>show vrf

Virtual Routers Protocols

default one1 two2

-----RIP OSPF BGP

2:cli>no vrf one1 2:cli>no vrf two2

cli>show vrf



Virtual Routers Protocols

RIP OSPF BGP default

Limitation:

There will be a increase in memory usage after creating maximum vrfs and loading all the protocols while verifying for load testing.

8. Monitoring Inter-Stack Connections

Platforms: OS6850E,OS6855-U24X

Hosted AOS SW Release: 646.302.R01

In the existing implementation, there are no CLI commands to monitor the status and statistics of Stacking interfaces. The requirement is to provide the ability for the user to monitor the status and statistics/counters of the stacking links (if the product is stackable) in addition to normal user interfaces using the below CLI Commands

Following new CLI commands are introduced to store the stacking ports details.

show stacking interfaces show stacking interfaces status show stacking interfaces counters show stacking interfaces counters errors

Usage

To display general interface information for the stacking ports show stacking interfaces

To display interface counters information (for example, unicast, broadcast, and multi-cast packets received or transmitted) for the stacking ports show stacking interfaces counters

To display interface error frame information (for example, CRC errors, transit errors, and receive errors) for the stacking ports show stacking interfaces counters errors

To display the interface line settings (for example, speed, and mode) for the stacking ports show stacking interfaces status

To display the interface line settings (for example, speed, and mode) information for the specific stack port entered in the command show stacking interfaces <slot/port> status

To display interface counter information (for example, unicast, packets received/transmitted) for the specific stack port entered in the command

show stacking interfaces <slot/port> counters

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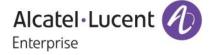
To display interface error frame information (for example, CRCerrors, transit errors, and receive errors) for the specific stack port entered in the command.

show stacking interfaces <slot/port> counters errors

This command will clear the counter statistics related to the stack port specified in the command stacking interfaces <slot/port> no l2 statistics

Examples

| -> show stacking interfaces Slot/Port 1/51 : Operational Status : dow Last Time Link Changed : | TUE JUL 28 19:04:01, | | |
|--|----------------------------|--------|--|
| Number of Status Change: | | | |
| Type : Stacking | | | |
| BandWidth (Megabits) : Rx : | -, Duplex :-, | | |
| Bytes Received : | 0, Unicast Frames : | 0, | |
| Broadcast Frames: | 0, M-cast Frames : | О, | |
| UnderSize Frames: | 0, OverSize Frames: | 0, | |
| Lost Frames : | 0, Error Frames : | 0, | |
| CRC Error Frames: | 0, Alignments Err : | 0, | |
| Tx : | - | | |
| Bytes Xmitted : | 0, Unicast Frames : | 0, | |
| Broadcast Frames: | 0, M-cast Frames : | 0, | |
| UnderSize Frames: | 0, OverSize Frames: | 0, | |
| Lost Frames : | 0, Collided Frames: | 0, | |
| Error Frames : | 0 | | |
| Slot/Port 1/52 : | | | |
| Operational Status : up, | | | |
| Last Time Link Changed : | TUE JUL 28 19:04:01, | | |
| Number of Status Change: | 0, | | |
| Type : Stacking | , | | |
| BandWidth (Megabits) : | 10000, Duplex | Full, | |
| Rx : | | | |
| Bytes Received : 10 | 03100016, Unicast Frames : | 85856, | |
| Broadcast Frames: | 0, M-cast Frames : | 12, | |
| UnderSize Frames: | 0, OverSize Frames: | 0, | |
| Lost Frames : | 0, Error Frames : | 0, | |
| CRC Error Frames: | 0, Alignments Err : | 0, | |
| Tx : | | · | |
| Bytes Xmitted : 38 | 383702, Unicast Frames : | 45872, | |
| Broadcast Frames: | 1948, M-cast Frames : | 813, | |
| UnderSize Frames: | 0, OverSize Frames: | 0, | |
| Lost Frames : | 0, Collided Frames: | 0, | |
| | - | - | |



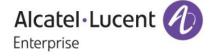
Error Frames : 0

| -> show stacking interfaces status Slot/ AutoNego Speed Duplex | | | | |
|---|---|--------|------|--|
| Port | | (Mbps) | | |
| + | | ++- | | |
| 1/51 | - | | | |
| 1/52 | - | 10000 | Full | |
| 3/27 | - | 10000 | Full | |
| 3/28 | - | | | |

| -> show | stacking | interfaces | counters | |
|---------|----------|------------|----------|--|
| 4/50 | | | | |

| 1/52, | | |
|----------------------|--------------------------|------------|
| InOctets = | 108040828, OutOctets = | 4065016, |
| InUcastPkts = | 89957, OutUcastPkts = | 48056, |
| InMcastPkts = | 12, OutMcastPkts = | 868, |
| InBcastPkts = | 0, OutBcastPkts = | 2006, |
| InPauseFrames = | 0, OutPauseFrames = | 0, |
| Sampling Interval 5 | seconds | |
| InPkts/s = | 28, OutPkts/s = | 16, |
| InBits/s = | 268016, OutBits/s = | 9720 |
| 3/27, | | |
| InOctets = | 4012826, OutOctets = | 108129633, |
| InUcastPkts = | 48045, OutUcastPkts = | 89945, |
| InMcastPkts = | 868, OutMcastPkts = | 12, |
| InBcastPkts = | 2006, OutBcastPkts = | 0, |
| InPauseFrames = | 0, OutPauseFrames = | 0, |
| Sampling Interval 5 | seconds | |
| InPkts/s = | 16, OutPkts/s = | 29, |
| InBits/s = | 9840, OutBits/s = | 270352 |
| -> show stacking in | terfaces counters errors | |
| 1/52, | | |
| IfInErrors = | 0, | |
| Undersize pkts = | 0, Oversize pkts = | 0 |
| ->stacking interface | s 1/27 no l2 statistics | |
| • | faces 1/27 counters | |
| 1/27, | | |
| InOctets = | 0, OutOctets = | 0, |

| InOctets = | 0, OutOctets = | 0, | |
|--------------------------|---------------------|----|----|
| InUcastPkts = | 0, OutUcastPkts = | 0, | |
| InMcastPkts = | 0, OutMcastPkts = | 0, | |
| InBcastPkts = | 0, OutBcastPkts = | 0, | |
| InPauseFrames = | 0, OutPauseFrames = | | 0, |
| Sampling Interval 5 seco | onds | | |



| InPkts/s | = | 0, OutPkts/s | = | 0, |
|----------|---|--------------|---|----|
| InBits/s | = | 0, OutBits/s | = | 0 |

Limitations

We cannot ideally verify the error count directly. For stacking links, error counters will increase only in scenarios where the packets transmitted internally are corrupted by chance.

9. Bypass DNS lookup by NTP on boot-up

Platforms Supported: OS9702E, OS6850E, OS6855

Hosted AOS SW Release: 6.4.6.302.R01

If DNS server is configured in the network, NTP will do a DNS lookup and convert the name into IP address. This allows NTP server to be configured as a name or IP address. Earlier, variable by name ntpSkipDNSLookUp was introduced that could be set using the AlcatelDebug.cfg which when set to "1" makes NTP to skip/bypass the DNS lookup and use the configured IP address. Currently this has been enhanced such that without requiring setting of any variable either through debug flag or through CLI NTP module ignores DNS lookup failure during boot up & retries once the system is ready.

Usage:

NA as this is the default behavior

Limitations:

None

10. SNMPv3 Dual Password – different auth and private passwords

Platforms Supported: OS6850E, OS9700E, OS6855

Hosted AOS SW Release: 646.331.R01

Introduction:

Existing AOS implementation allows configuration of only one password for any user created in the switch. For a SNMPv3 user with authentication/encryption enabled, hash key computed from this password is used for both authentication as well as encryption of SNMPv3 frames.

This new feature facilitates configuring a SNMPv3 user with different passwords for authentication and encryption of SNMPv3 frames.

User creation CLI command is enhanced such that there will be an additional option to configure privacy password for SNMPv3 users. The configured "password" will be used for authentication and "priv-password" will be used for encryption of SNMPv3 frames.

If SNMPv3 user is created without configuring "priv-password", then existing "password" parameter shall be used for both authentication and encryption of SNMPv3 frames.

The "priv-password" token shall be accepted only when SNMPv3 encryption is configured by the user in the same command. If SNMP encryption is not configured and "priv-password" is configured, then CLI command shall be rejected with error.

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A new file "userPrivPasswordTable "will be created in "/flash/network" directory to store the privacy password details of a user. When user creation is done with privacy password configured, the user name and hash key of this password will be updated in "/flash/network/userPrivPasswordTable" file. The password will be hashed with the hash algorithm chosen by the user during user configuration. SNMP Epilogue database will also be updated with user configured privacy password details.

When SNMPv3 user is created without privacy password configured, no entry will be made in the "userPrivPasswordTable". User password will be used for authentication and encryption of SNMPv3 frames.

<u>Usage:</u>

Command to configure privacy password for a user.

user <username> password <user_password> read-write all sha+aes priv-password <priv_password>

Minimum length for priv-password is 8 and Maximum length for priv-password is 30 characters.

Example:

user test password xxxxx read-write all md5+des **priv-password yyyyyy** user test1 password xxxxx read-write all md5+aes **priv-password yyyyy** user test2 password xxxxx read-write all sha+aes **priv-password yyyyy** user test3 password xxxxx read-write all sha+des **priv-password yyyyy**

Creates a SNMPv3 user with authentication/encryption. The configured 'password' shall be used for authentication and 'priv-password' shall be used for encryption of SNMPv3 frames sent/received in the switch. 'priv-password' will be an optional parameter and if user creation/modification is done without this optional key word, then existing "password" itself shall be used for authentication as well as encryption.

-> user test password alcatel123 read-write all sha priv-password alcatel123 ERROR: Priv Password configuration allowed only for users with SNMP encryption level.

Limitations:

- Password policy will not be applicable for the new optional parameter "priv-password"
- Password prompting with "password-prompt" option will not be available for "priv-password".
- Existing "auth password" will be used for both authentication and encryption, if the optional parameter "priv-password" is not configured for a user.
- Privacy encryption is applicable only for SNMP transactions. Other switch access methods such as telnet, ssh, ftp, webview etc uses only authentication.
- When the SNMP authentication/ encryption algorithm (security level) for an existing user with privacy
 password configured is changed, then previously configured privacy password will not be used with
 the new SNMP security level. Privacy password need to be re-configured when SNMP security level
 is changed for an existing user.
- NMS must use AOS supported encryption algorithm for successful encrypted transactions

11. Router-Guard



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Platforms Supported: OS6850E, OS9E, OS6855

Hosted AOS SW Release: 646.380.R01

Introduction:

The router-guard feature has been introduced as an enhancement to IPv4/v6 multicast switching. This enhancement is expected to address the issue which occurs when a client device sends a multicast group-specific query. In general when a group specific query is received, the packet is sent to the other customer ports and will reduce the member's life to limited interval and wait for a response. When switch sees no response and drops the specific multicast stream for all customers on the switch.

Normally client devices do not send group-specific queries, however this can occur when a customer incorrectly wires a LAN switch port on their Pace/Actiontec device running an IGMP Proxy. The requirement is to avoid processing the router packets.

The Router Guard feature allows you to designate a specified port only as a multicast host port and not as a multicast router port. Any port can become a multicast router port if the switch receives one of the multicast router control packets, such as IGMP general query, PIM hello, or CGMP hello. When a port becomes a multicast router port, all multicast traffic (both known and unknown source traffic) is sent to all multicast router ports. With router-guard feature enabled, multicast router control packets received on this port are not processed.

• A Router Guard command applies a user policy globally, to a vlan, to an access port or trunk port.

• The Router Guard feature does not require IGMP snooping to be enabled.

• Router Guard is typically used in access switches connected to end-user boxes in Ethernet-to-home deployment scenarios.

• The following packet types are not processed if they are received on a port that has Router Guard enabled: IGMP query messages, IPv4 PIMv2 messages, IGMP PIM messages (PIMv1), IGMP DVMRP messages

Usage:

Command to configure router-guard feature. *ip multicast router-guard {enable/disable} ip multicast router-guard {enable/disable} ip multicast port <port-num> router-guard {enable/disable} ipv6 multicast router-guard {enable/disable} ipv6 multicast port <port-num> router-guard {enable/disable} ipv6 multicast port <port-num> router-guard {enable/disable} show ip multicast vlan <vid>*

The command *"ip multicast router-guard"* resets back to the default configuration. By default, ip/ipv6 router-guard is disabled for a switch.

(Port level configuration takes higher priority, vlan level configuration takes second priority whereas global takes the least when global/vlan/port level configurations are combined)

Example 1:

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ip multicast router-guard enable ip multicat vlan 50 router-guard disable ip multicast port 1/1 router-guard enable

Consider port 1/1 belongs to vlan 50. At this case other ports belonging to vlan 50 excluding port 1/1 processes multicast control packets and port 1/1 do not process control packets like IP multicast group specific queries.

Example 2:

ipv6 multicast router-guard disable ipv6 multicast vlan 50 router-guard enable ipv6 multicast port 1/1 router-guard disable

Consider port 1/1 belongs to vlan 50. At this case other ports belonging to vlan 50 excluding port 1/1 does not process multicast control packets and port 1/1 processes control packets like IP multicast group specific queries

Limitations:

- Multicast routing configuration and router-guard feature are mutually exclusive and the feature works only for IP/IPv6 multicast switching
- Global level router-guard configuration can only be enabled in a switch where IPMS is disabled. This
 is because, the IGMP query packets from IGMP querying device fails to get processed when routerguard is enabled globally and thus IGMP membership reports fails to travel to querying device. Hence
 the router-guard feature has to be enabled at port level at each client connected port in case IPMS is
 enabled for the switch
- The above description applies for vlan level router-guard and IPMS combination. In multicast switching since router-guard configuration at vlan level applies to both client and source/ router connected port, the switch fails to forward the IGMP/ICMPv6 membership reports as it fails to process the query packet from the IGMP querying device. This can be tackled by disabling the router-guard at port level on the port connected to the querying device.
- The group specific queries through the other ports where router-guard is disabled can limit the lifetime of the group belonging to the router-guard enabled port (this happens when the router-guard enabled port and router-guard disabled port contains same multicast group)
- On CPU hike, when LACP port associated on the Linkagg flaps, router guard configuration may fail to act. In this case multicast configuration has to be toggled to retain functionality.

New Hardware:



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1. Dual-Speed Ethernet Transceivers

Platforms: OS6850E, OS9700E

Dual speed SFP optical transceiver with following specifications tested for support.

SFP-DUAL-MM

Dual-Speed SFP Optical Transceiver

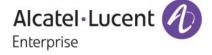
| Connector | Type LC |
|-----------------------|--|
| Standards Supported | 802.3z, 802.3ah, SFP MSA |
| Connections Supported | 100Base-FX, 1000Base-LX |
| Fiber Type | MMF |
| Wavelength | 1310 nm |
| Average Power Output | 100Base-FX: -20 to -14 dBm 1000Base-LX: -11.5 to -3 dBm |
| Receiver Sensitivity | 100Base-FX: -28 dBm 1000Base-LX: -22 dBm |
| Transmission Distance | 550 m at 1000 Mbps 2 km at 100 Mbps |
| Operating Temperature | 0°C to 70°C |
| | |

Digital Diagnostic Monitoring Not Supported.

OS6855 Memory Utilization for Routing

The below table details the memory utilization as a percentage of total memory on the OS6855 product range:

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| OS6855 / OS6855U24X Default Memory | 80% |
|---|-----|
| Standalone 6855-U24X with 100 VLAN + 100 802.1q VLAN + 10 LACP (Link Aggregation) with no Routing | 83% |
| Loading BGP, OSPF and PIM protocol | 85% |

The below table gives the additional memory utilization for various Routing Configurations:

| Each Additional VRF | 1% |
|--|----|
| Addition of Protocols (OSPF / BGP / PIM) | 1% |
| Addition of 1500 Routes | 1% |

Recommended System Limits:

| VRF | Routes | L2 MAC |
|-----|--------|--------|
| 12 | 1K | 2K |
| 10 | 2K | 2K |
| 8 | 4K | 2K |
| 6 | 6K | 4K |
| 4 | 8K | 4K |
| 2 | 10K | 8K |

Overall memory utilization: To be restricted below 94% to allow stable system operation.

Downgrade Instruction

As part of the 646.338.R01 Maintenance Release, format for storing Switch User Data has been modified. Existing user data will automatically be migrated to this new format upon upgrade. Any new user configuration or modification of existing user information is updated in this new format. Upon downgrade to earlier releases, any changes (addition or modification) of users done will be lost. There will be no impact on the user data which existed before the upgrade.



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