



Intermediate Release Notes

Omni Switch 9xxx, 6850, 6855 & 6400

Release 6.4.3.930.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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Problems Fixed Between Builds 520 and 575

PR	142769	Build: 6.4.3.527.R01
Summary:	OS 9700 swlogs flooded with mBlkCIFree -- Invalid mBlk	
Explanation:	Double free of a memory block is avoided.	

PR	144249	Build: 6.4.3.527.R01
Summary:	ssh session exits with error: server unexpectedly closed network connection	
Explanation:	Modified the software internals conflicting message id's for vrf support in ssh	

PR	145131	Build: 6.4.3.530.R01
Summary:	Need software implementation of flushing CP status when domain user log off	
Explanation:	Delete old mac control block and create a new mac control block, when EAPOL START packet is received from a client who is already in authenticated state.	

PR	145058	Build: 6.4.3.530.R01
Summary:	dot1dBasePortTable (1.3.6.1.2.1.17.1.4) entries disappear in snmpwalk when NIs are removed	
Explanation:	Port index calculation error as part of dot1dBasePortTable objects has been rectified.	

PR	145146	Build: 6.4.3.533.R01
Summary:	show configuration snapshot not working --" Unable to retrieve XIP configuration " message seen	
Explanation:	Increase the network data cluster pool size to prevent connection oriented sockets getting stuck in sbwait() call.	

PR	146766	Build: 6.4.3.534.R01
Summary:	IP interface DHCP-client does not accept the assigned hostname (option-12)	
Explanation:	Host Name received as part of option-12 will be installed as the switch system name, if the Omini-Switch does not carry any system name by default. NOTE: Write memory will save the obtained system name in the configuration. And only the first option-12 received in ACK will be installed other will not be processed.	

PR	146771	Build: 6.4.3.534.R01
Summary:	8KB OSPF MTU handling instead of 10KB	
Explanation:	OSPF Buffering of IP Packets is increased to 10K to accommodate Jumbo OSPF Frames	

PR	146607	Build: 6.4.3.535.R01
Summary:	show qos port monitor doesnt return any output	

PR	143271	Build: 6.4.3.535.R01
Summary:	qosSetupFB 2488:qosFBSetAction failed (qos port <slot/port> maximum ingress-bandwidth >128M)	
Explanation:	Range check the qos max ingress-bandwidth and maximum depth configured from the qos CLIs.	

PR	144626	Build: 6.4.3.536.R01
Summary:	OS6850 crash with exception 768	
Explanation:	Increased the buffer size to accommodate Large values in Hmon task	

PR	146277	Build: 6.4.3.544.R01
Summary:	"Matches" field in "show active policy rule" is always equal 0 for egress rules	
Explanation:	Correcting the show active policy rule to display only the default list type rules	

PR	147396	Build: 6.4.3.545.R01
Summary:	Unable to Ethoam loopback egress port mac of an linkagg	

PR	146091	Build: 6.4.3.550.R01
Summary:	DHCP client is not pinging the DHCP server in the routing environment after the switch power down	
Explanation:	Synchronize NI and CMM configuration of interfaces after takeover and remove in-active routes/arp from new primary.	

PR	143224	Build: 6.4.3.551.R01
Summary:	OS-6850 crash with memPartAlloc: block too big - 4120 in partition 0x4bfa74 error	
Explanation:	Discard UDP packets with incorrect or corrupted UDP Header length. For every such packet that is received by the switch the counter "dhcpSnoopingCorrUDPHdrLen" will get incremented. The counter "dhcpSnoopingCorrUDPHdrLen" will also get dumped in PMD incase of a crash.	

PR	146428	Build: 6.4.3.551.R01
Summary:	malformed upd relay DHCP directed broadcast packets flooded instead of being blocked	

PR	147444	Build: 6.4.3.553.R01
Summary:	OS6800 - Unresolved ARP never age out	
Explanation:	CMM to remove unresolved ARP entries once the entries are timed out in NI.	

PR	147914	Build: 6.4.3.555.R01
Summary:	Webview task crashing in 9000	

- PR **147438** Build: 6.4.3.559.R01
Summary: Unable boot the switch 6.4.3.520R01 after upgrade.
Explanation: STP object is checked for NULL before applying stp configuration changes during bootup
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- PR **147985** Build: 6.4.3.562.R01
Summary: Incorrect value in SNMP Response
Explanation: Removed Junk character at the end of string data type for LinkAggName and LinkAggDecription
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- PR **147361** Build: 6.4.3.562.R01
Summary: Fan Failure traps and messages are not seen on 6400 running 6.4.3.520R01 code
Explanation: Fan traps enabled for OS6400 platform
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- PR **147678** Build: 6.4.3.562.R01
Summary: DHL does not converged correctly after primary link is disconnected -- arp on linkagg is 0/-1
Explanation: Clear ARP entries in IPEDR if DHL port goes down
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- PR **114746** Build: 6.4.3.564.R01
Summary: 6200 :: %BRG_AMAP-N-AMAP_STATUS: AMAP status: Port g1 data changed.
Explanation: Initialize the buffer used for filling system name so that AMAP status change messages are not displayed wrongly.
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- PR **147129** Build: 6.4.3.566.R01
Summary: 8800 advertising route with higher cost to ospf neighbor
Explanation: Install the lowest metric LSA, even if both the LSA forwarding address are same, but originating ASBRs are different in NSSA area
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- PR **147176** Build: 6.4.3.568.R01
Summary: Request to have another optional flag for Access policy in CP web page
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Problems Fixed Between Builds 576 and 609

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- PR **148542** Build: 6.4.3.578.R01
Summary: OSPF/BFD over MPLS convergence issue
Explanation: To trigger OSPF SPF when BFD NBR_DOWN Event is received by OSPF. This is controlled by variable gOspfBfdSubSecond, which is disabled by default
- SubSecond convergence variables to be used in AlcatelDebug.cfg
debug set gOspfSubSecondd 1
This will enable immediate trigger of SPF when Interface Down event is received by OSPF
- debug set gOspfBfdSubSecond 1
This will enable immediate trigger of SPF when NBR DOWN detection is informed by BFD. This will work only when BFD is enabled and NBR DOWN detection is done by BFD
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- PR **148181** Build: 6.4.3.580.R01
Summary: Unable to write memory w/ 9000 CMM only -- Cannot do a write memory as Remote Config is Enabled!!
Explanation: Enable write memory on Automatic Remote Config Failure due to NI Timeout
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- PR **148114** Build: 6.4.3.581.R01
Summary: Stack of 2x6850 switches reported continuous 100% CPU utilization with sftp_s0 task showing highest
Explanation: Code changes to eliminate CPU spike by stale SFTP tasks after an abnormal SFTP session termination.
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- PR **148512** Build: 6.4.3.581.R01
Summary: Ethoam memory pool leak issue
Explanation: Code changes to prevent Ethoam memory pool leak when handling Organizational specific TLVs
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- PR **148257** Build: 6.4.3.581.R01
Summary: NAS port number assigned randomly for ASA authentication radius requests.
Explanation: Update Nas port value as 0 for asa authentication
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- PR **148958** Build: 6.4.3.581.R01
Summary: HIC allowed-name list does not accept ip-address with bit masks other than 32,24,16,8,...
Explanation: Fix done to accept all valid bit mask pairs while configuring allowed list IP addresses for HIC.
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PR	145332	Build: 6.4.3.581.R01
Summary:	same mac being learned twice at LPS-RBT tree on port 1/17 and port 1/19	

PR	146186	Build: 6.4.3.581.R01
Summary:	confSnapConfigGet(74:5): mip_msg_done failed (errno= 25) - show configuration snapshot	
Explanation:	1) Next Hop Sync data structure corrected. 2) Avoiding PIM crash.	

PR	148474	Build: 6.4.3.583.R01
Summary:	Arp Issue in L2 communication between switches	
Explanation:	Ping on ip interface with no forward option fixed	

PR	147776	Build: 6.4.3.583.R01
Summary:	NI crashed with PMD generation	
Explanation:	To enable cache for link aggs greater than thirty two, set flag ala_l1_cache_linkAgg_mode flag in Alcatel-debug.cfg	

PR	148926	Build: 6.4.3.584.R01
Summary:	OS9 - Lost Frame counter is continuously increasing in Tx on STP BLK 10Gig port (XNI cards)	
Explanation:	Calucating correct value for Tx Lost Frames in case of STP blocked port	

PR	149379	Build: 6.4.3.584.R01
Summary:	Routed traffic via XNI-U12 failed	

PR	149283	Build: 6.4.3.585.R01
Summary:	NAS ip address used in the radius request is not same as the ip managed-interface	
Explanation:	The address of NAS IP field is controlled in sync with source interface of the Radius Packets 1) If IP Managed Interface is configured, the physical address of the Managed Interface (or) 2) If Loopback0 is configured, Loopback0 address (or) 3) If Primary Radius Server is reachable, the physical address of the interface through which it can be reached (or) 4) If Secondary Radius Server is reachable, the physical address of the interface through which it can be reached	

PR	145763	Build: 6.4.3.589.R01
Summary:	Unable to remove single port from port groups configured in QoS	
Explanation:	Single port removal from policy port group command is facilitated	

PR	149310	Build: 6.4.3.590.R01
Summary:	QoS port disable does not work under 643 code	
Explanation:	Qos policy applied for amap destination mac packets working properly	

PR	149328	Build: 6.4.3.593.R01
Summary:	IP helper relays DHCP Discovery with source UDP port 68 in 6.4.3.R01 (UDP checksum incorrect too)	
Explanation:	Use source port as 67 when we are relaying the Dhcp packet.	

PR	148586	Build: 6.4.3.596.R01
Summary:	"Error: OID not increasing" when Saa is active and do snmpwalk	
Explanation:	Display the IpHistoryEntry for all the iterations, for all SAAs	

PR	149099	Build: 6.4.3.597.R01
Summary:	FAN failure#3 on 6400	
Explanation:	The Number of FAN modules supported on 24 Port OS6400 corrected.	

PR	149381	Build: 6.4.3.597.R01
Summary:	QoS rules not applied on RIP update packets when unrelated allow rule has higher precedence.	

PR	144501	Build: 6.4.3.598.R01
Summary:	Issues when enable the flag of webMgtBugFix	
Explanation:	Debug cli's have been introduced to cleanup the Emweb buffers	

PR	149577	Build: 6.4.3.599.R01
Summary:	Issue with automatic remote configuration scripts	
Explanation:	Remote config with dhcp client command in the script to work fine	

PR	149584	Build: 6.4.3.599.R01
Summary:	Unit-1 [Primary] in a stack of 2x6850 switches crashed and generated PMD. sshd_ct0 shows suspended	
Explanation:	While establishing a SSH session, validated a check if the password is assigned NULL before accessing it.	

PR	146300	Build: 6.4.3.601.R01
Summary:	ETHOAM MIP doesn't work in QinQ domain for MEPs outside domain	
Explanation:	ETHOAM Link trace message reply issue with MIP configuration in QinQ domain is resolved	

PR **148701** Build: 6.4.3.604.R01
Summary: xgs3_mem_dma error

PR **149588** Build: 6.4.3.604.R01
Summary: 6850: pmd analysis needed
Explanation: To prevent NI resets for recoverable MMU parity errors happening over long periods of time

PR **148313** Build: 6.4.3.608.R01
Summary: need to use regular gigabit SFP instead of SFP+ on OS9-XNI-U12E
Explanation: 1G SFP support added on OS9-XNI-U12E

Problems Fixed Between Builds 610 and 640

PR **149912** Build: 6.4.3.613.R01
Summary: UDLD over OS9-XNI-U12E is not working

PR **150062** Build: 6.4.3.615.R01
Summary: To disable the VRRP trap for IPV4 we need use "no vrrp3 trap"

PR **150184** Build: 6.4.3.616.R01
Summary: IP managed-interface command does not retain the interface name after reboot.
Explanation: code changes to handle blank space in ip-managed-interface name across reboot

PR **150767** Build: 6.4.3.616.R01
Summary: No VRRP transition from Master to Initialize state when Shutdown event is received on VRF ports
Explanation: IP interface events not handled in vrrp when a some other vrf is deleted

PR **127606** Build: 6.4.3.616.R01
Summary: OS6850-48X crash with "tTrapReplay" task suspension after a full backing up through OV
Explanation: Code changes to prevent false alarms

PR **150449** Build: 6.4.3.616.R01
Summary: Neighbor tracking issue for BFD based VRRP

PR **147754** Build: 6.4.3.621.R01
Summary: PC did not get ip adds after "IpsViolationTrap - learnWindowExpired violation occurred "
Explanation: Fix for EAPOL packet over a LPS enabled and onex disabled port

PR	147005	Build: 6.4.3.623.R01
Summary:	Soruce learning does not happen when dhcp snooping and port-security enabled on mobile port	
Explanation:	Fix for LLDP buffer depletion issue in case of LLDP VLAN name change event	

PR	150207	Build: 6.4.3.623.R01
Summary:	display issue: fan infomation displayed incorrectly on 6400 when running in stacked mode	

PR	150770	Build: 6.4.3.625.R01
Summary:	AOS 6.4.3 out-of-the-box config: path for config file add "/"	
Explanation:	Fix for the boot config path in remote config	

PR	149966	Build: 6.4.3.625.R01
Summary:	DST is disabled when switch is poweroff for 1h+	
Explanation:	System daylight savings time command included in boot configuration file	

PR	149789	Build: 6.4.3.626.R01
Summary:	6250 Model Name and description dispays wrong	
Explanation:	Workaround to display proper Model name and Description	

PR	150505	Build: 6.4.3.629.R01
Summary:	non-suppllicant user MAC-address will not learn on 802.1x port with mobile tag enabled	
Explanation:	Classify a non-supplicante based on incoming packet	

PR	150601	Build: 6.4.3.629.R01
Summary:	After upgrade to 642954 from 631871, the switch is not reachable. Need to disable QoS to make it wor	

PR	149780	Build: 6.4.3.631.R01
Summary:	IPv6 static route returns error : Route and gateway must differ	
Explanation:	Restriction to add route matching local interface, via same local interface is removed for ipv6 static routes	

PR	149796	Build: 6.4.3.631.R01
Summary:	lease time is taken as 0 in dhcp-snooping binding if option 51 lease time is infinity in DHCP server	

PR	151327	Build: 6.4.3.633.R01
Summary:	Need to enable the VRRP3 trap even to get the VRRP trap	
Explanation:	Check the vrrp trap status based on the vrrp type enabled	

PR **149343** Build: 6.4.3.633.R01
Summary: 6850 does not send correct snmp value for "last change" field of interface
Explanation: Corrected last change for hybrid ports

PR **150143** Build: 6.4.3.638.R01
Summary: Basic lldp-pdu may hang the third party phone from downloading the firmware after a reboot

PR **148057** Build: 6.4.3.640.R01
Summary: "ERROR: Authorization failed" when giving "configuration apply xxx verbose" with TACACS+
Explanation: Fix done to send the configuration file commands to remote authorization for tacacs authentication enabled sessions.

PR **129512** Build: 6.4.3.640.R01
Summary: pre banner for HTTP session not working properly as expected
Explanation: Pre_banner is made to work properly in Webview

PR **130342** Build: 6.4.3.640.R01
Summary: port is filtering vs blocking
Explanation: Set Linkagg ports to blocking on disabled vlans

Problems Fixed Between Builds 641 and 668

PR **152116** Build: 6.4.3.641.R01
Summary: HIC allowed-name list does not accept ip-address 0.0.0.0
Explanation: Fix done to accept the IP addresses starting from 0.0.0.0 as valid HIC allowed IP address.

PR **150980** Build: 6.4.3.641.R01
Summary: OSPF Type 1 LSA / Stub and transit networks not displayed with the "show ip ospf lsdb rtr" command
Explanation: Debug APIs introduced to display the OSPF Router LSA's in detail usage in dshell:
ospfDbgShowRtrLsa (vrfid, Routerid)
ospfDbgShowAllRtrLsa (vrfid)

PR **151958** Build: 6.4.3.642.R01
Summary: need ip or server name with log message aaa server unreachable
Explanation: Print the server ip if radius server is not reachable

PR	152424	Build: 6.4.3.643.R01
Summary:	A stack crashed after executing "command-log enable"	
Explanation:	Preventing ssh crash, when a session runs out of memory	

PR	151024	Build: 6.4.3.644.R01
Summary:	802.1x authentication fails when redundant radius server is used	
Explanation:	Authentication challenge responses to be sent to the last replied radius server for onex authentication.	

PR	152051	Build: 6.4.3.644.R01
Summary:	6850 crashed with crash1.pmd file no info on logs "data access trap " occurred.	

PR	152236	Build: 6.4.3.645.R01
Summary:	OS9 sends wrong ip adds to OV when "ip managed interface" command is used.	
Explanation:	Preferred IP (Managed / Source) for Certain Applications will follow the following order 1) Configured IP Interface for applications using IP MANAGED-INTERFACE Command 2) Outgoing interface 3) Loopback0 for SYSLOG & LDAP Server if configured	
	Exception a) Telnet / FTP / SSH means its Client Application and Not Server Application b) Any transmission on EMP for Chassis product will use only the EMP as its source c) CMM & NI Communications (Telnet / rcp)	

PR	151986	Build: 6.4.3.645.R01
Summary:	6850: ip managed-interface command is enabled - unable to use internal loopback 127.2.x.x	
Explanation:	Preferred IP (Managed / Source) for Certain Applications will follow the following order 1) Configured IP Interface for applications using IP MANAGED-INTERFACE Command 2) Outgoing interface 3) Loopback0 for SYSLOG & LDAP Server if configured	
	Exception a) Telnet / FTP / SSH means its Client Application and Not Server Application b) Any transmission on EMP for Chassis product will use only the EMP as its source c) CMM & NI Communications (Telnet / rcp)	

PR	151604	Build: 6.4.3.645.R01
Summary:	UserPorts configuration is missing on 6850 switch.	
Explanation:	LDAP policy request will not flush UserPorts config created from CLI	

PR	145652	Build: 6.4.3.647.R01
Summary:	To avoid multicast packet drops due to forwarding entry update	
Explanation:	Avoid multicast packet drops due to forwarding entry update	

PR	148924	Build: 6.4.3.647.R01
Summary:	OS9700 crashed with PMD	

PR	153068	Build: 6.4.3.648.R01
Summary:	qdsErrHelp need update	

PR	148569	Build: 6.4.3.650.R01
Summary:	running and saved configuration are different even when no changes made	
Explanation:	Modified the behaviour of Show Configuration Status to sync with CMM Configuration Status	

PR	149839	Build: 6.4.3.650.R01
Summary:	OS 6850 primary crashed with error"tCsCSMtask Comments : error opening /flash/working/."	

PR	148799	Build: 6.4.3.651.R01
Summary:	Ping losses, CPU spikes, ports in "disputed" state when linkagg configured between two 6850s	
Explanation:	STP Bpdu looping when static multicast arp enabled is avoided	

PR	153200	Build: 6.4.3.652.R01
Summary:	NI reset and PMD due to same sequence number	
Explanation:	Release the software lock up during an error condition while handling source learning	

PR	152950	Build: 6.4.3.653.R01
Summary:	After a bad C24 is removed, the rest of the C24 NI still not come up	

PR	152991	Build: 6.4.3.653.R01
Summary:	cannot open CP page on 802.1x port when enabled ip-source filter	

PR	150963	Build: 6.4.3.654.R01
Summary:	"ip helper traffic-suppression" doesn't work, UDP Rel, the client and server reside in the same vlan	
Explanation:	DHCP Request packets needs to be sent unicast when snooping and iphelper are configured in the same vlan	

PR	153213	Build: 6.4.3.654.R01
Summary:	OS_9000 IPMS error 985:18 cmm error primary(4301) primary if 13600001	

PR	152715	Build: 6.4.3.655.R01
Summary:	LACP Flapping and intermittently high CPU	
PR	151943	Build: 6.4.3.655.R01
Summary:	NI status down in 6850 stacking when power off/on the NI several times	
PR	153209	Build: 6.4.3.656.R01
Summary:	6850 CPU increases when QoS enabled. Task "talpms" and "taQoS"	
PR	152575	Build: 6.4.3.657.R01
Summary:	The auth-server-down feature is not working	
Explanation:	Classify client based on auth serv down policy if server is not reachable	
PR	153792	Build: 6.4.3.659.R01
Summary:	debug qos internal "slice <slot>/0 dhcppps 4096" does not work in 643.R01	
PR	153900	Build: 6.4.3.659.R01
Summary:	port monitoring not save to flash if it was paused	
Explanation:	Allow the port mirroring to continue the file capture even in case of pause scenario	
PR	142624	Build: 6.4.3.659.R01
Summary:	ERROR: Write memory is not permitted during file system modification	
PR	148628	Build: 6.4.3.659.R01
Summary:	Issue with VLAN assignment after MAC authentication	
PR	153487	Build: 6.4.3.659.R01
Summary:	SSH Crashed due to invalid SSH2_MSG_NEWKEYS RTR	
PR	150780	Build: 6.4.3.659.R01
Summary:	Client not moved to vlan 20 after captive portal auth after upgrade from 6.3.1.999.R01 to 6.4.2.968	
Explanation:	Captive portal web page should be accessible only for clients who got classified based on captive-portal policy	
PR	152933	Build: 6.4.3.659.R01
Summary:	OS_6850 stack crashed with task "taLLDPAgent" trapped	
PR	152819	Build: 6.4.3.663.R01
Summary:	Port 5/1 fiber is listed twice in the "show interfaces status" output	

PR	152757	Build: 6.4.3.666.R01
Summary:	OSPF ECMP routes not seen in NSSA	
Explanation:	Support for ecmp routes in NSSA area	
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PR	153794	Build: 6.4.3.666.R01
Summary:	Memory depletion by the UdpRly task	
Explanation:	Avoid memory leak in dhcp snooping offer/ack packets received	
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PR	151420	Build: 6.4.3.666.R01
Summary:	Ping to an IP interface fails periodically if a static route points to this interface	
Explanation:	Static route with gateway address same as local ip interface address not allowed	
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PR	153544	Build: 6.4.3.662.R01
Summary:	OS9700E Switch crashed after attempting second SSH session.	
Explanation:	Accessing NULL pointer is prevented when ssh dss key size is greater than 256k	
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PR	153443	Build: 6.4.3.659.R01
Summary:	After removing Port Monitoring while it is paused, the switch starts to experience packet drops	
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PR	152760	Build: 6.4.3.663.R01
Summary:	Default route not injected into the NSSA totally stub area as a type 3 summary LSA	
Explanation:	Generate type 3 default summary lsa when nssa summary is disabled	
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PR	151899	Build: 6.4.3.647.R01
Summary:	IP phone will fail everyday from 6pm to 8am.	
Explanation:	Connectivity issue fixed on Userports when qos spoofing is enabled	
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PR	151359	Build: 6.4.3.644.R01
Summary:	aaa authentication ssh radius getting blocked after reboot. Need to type the key in cli to resolve	
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PR	153944	Build: 6.4.3.659.R01
Summary:	NI crash when port receive multicast traffic configured as qos port monitor	

Problems Fixed Between Builds 669 and 716

PR	153001	Build: 6.4.3.669.R01
Summary:	DHCP packets not forwarded through certain NIs in OS9800	
Explanation:	Address validated before access in I2C Interrupt	

PR	154179	Build: 6.4.3.670.R01
Summary:	Ports are not visible in GUI under accessguardian->configuration->portmobility	
Explanation:	Display ports which are non-mobile candidates in webview while seeing mobile port properties.	

PR	153965	Build: 6.4.3.670.R01
Summary:	SNMP authentication falls into TACAS when default is configured.	
Explanation:	SNMP authentication should use either LDAP or LOCAL server.	

PR	154467	Build: 6.4.3.670.R01
Summary:	OS6400 - taSLNEvent hogging high CPU when Reauthentication is processing	
Explanation:	Fix done to avoid flush and re-addition of client MAC in Source Learning Table during re-authentication process	

PR	152900	Build: 6.4.3.671.R01
Summary:	NAS-Port-Type incorrect in RADIUS Access-Request	
Explanation:	NAS Port type set to 15 for ethernet in the radius request packet	

PR	147781	Build: 6.4.3.671.R01
Summary:	6400 getting Error while doing snmpwalk for alaEServiceNNiSvlanTable	

PR	154288	Build: 6.4.3.671.R01
Summary:	No Ping,telnet, traffic and ports going disputed between 9000E	
Explanation:	Memory not freed when special multicast control packets dropped due to qos policies	

PR	154667	Build: 6.4.3.672.R01
Summary:	unable to configure non-supp auth policy without enabling "Supplicant Bypass" via Webview	

PR	153516	Build: 6.4.3.672.R01
Summary:	Unknown application seen in the swlogs for VRRP messages	

PR	149969	Build: 6.4.3.673.R01
Summary:	6400 crashed with "Crash2.pmd" from dump "Excep in task: RADIUS Cli PC : 0x222cf20"	
Explanation:	Preventing AAA crash during server deletion	

PR	151611	Build: 6.4.3.673.R01
Summary:	No write commands possible on OS 6850 "ERROR System Busy Please try again"	

PR **154426** Build: 6.4.3.674.R01
Summary: IAS sends hex value as "00000014" (works fine) and "14" (does not work fine). Auth fails.
Explanation: Corrected logic to copy AUTH_GROUP information from radius packet irrespective of length

PR **152369** Build: 6.4.3.675.R01
Summary: 802.1x reauthentication
Explanation: Delayed sending EAP success to give some time for hardware to set for the new vlan

PR **152631** Build: 6.4.3.675.R01
Summary: A stack of 6 OS6850s crashed (Crash1.5.pmd)
Explanation: Fix for ESM Driver crash on Takeover

PR **154605** Build: 6.4.3.676.R01
Summary: SSH is seeing funny characters

PR **153854** Build: 6.4.3.677.R01
Summary: OS6400 crash with exception in CLISHELL task

PR **153726** Build: 6.4.3.678.R01
Summary: +++ == FRMW:CMM == Param error (tx msg to ni:0x0029000c, l:263, v:0x3e9)

PR **154646** Build: 6.4.3.678.R01
Summary: switch crashed after initiate a OMA loopback ping

PR **153880** Build: 6.4.3.680.R01
Summary: OS 6850 stack split messages with incompatible neighbor error seen

PR **152826** Build: 6.4.3.680.R01
Summary: "RxTx: crossedAboveThreshold" in OmniVista traps
Explanation: Set Rx./Tx value to 0 when port goes down

PR **154312** Build: 6.4.3.686.R01
Summary: EFM-OAM change state from operational to activeSendLocal when it lost PDU from remote.

PR **154675** Build: 6.4.3.686.R01
Summary: OS6850 WebView - Source Learning UNP MAC Addresses displays wrong "operation" display issue

PR	140176	Build: 6.4.3.692.R01
Summary:	Issue with port-security shutdown feature.	
Explanation:	LPS no-aging feature	
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PR	154885	Build: 6.4.3.692.R01
Summary:	802.1x Timer configuration apply on a non mobile port is applied	
Explanation:	check introduced to validate 802.1x port before applying its configuration commands	
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PR	155037	Build: 6.4.3.695.R01
Summary:	Getting on show log swlog "SAA error Cutils(3307):3307:Eth SAA lter completion trap sending... "	
Explanation:	Log "SAA lter completion trap sending" messages in swlog at lower severity level.	
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PR	154853	Build: 6.4.3.696.R01
Summary:	ethoam loopback getting timed-out	
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PR	154905	Build: 6.4.3.698.R01
Summary:	When using tunnel-group-private-id for 802.1x, hex tag fails but string value succeeds	
Explanation:	Corrected logic to copy TUNNEL_PRIVATE_GP_ID information from radius packet irrespective of length	
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PR	153746	Build: 6.4.3.698.R01
Summary:	LPS static to convert behavior changes	
Explanation:	Fix for lps no-aging feature on admin down/link down scenarios	
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PR	148098	Build: 6.4.3.698.R01
Summary:	Flash synchro failure: CCM_CSM_FLASH_SYNCHRO_RS-appError 35	
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PR	155006	Build: 6.4.3.698.R01
Summary:	cannot open cp logout page	
Explanation:	Fix for PR150780 done to block the HTTP traffic for Captive-portal address if onex policy is not captvie portal,corrected port state chcek condition, when captive portal logout page is requested to support the fix.	
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PR	154870	Build: 6.4.3.698.R01
Summary:	IP source filtering function for duplicate IP/MAC-address entry	
Explanation:	Log creation of duplicate binding entry on console and delete the irrelevant binding entry after dhcp timeout.	
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PR	155370	Build: 6.4.3.706.R01
Summary:	NLB in a routed environment does not work in 6.4.3	

PR **154917** Build: 6.4.3.706.R01
Summary: DHCP discover packet is dropped when "dhcp-snooping" is enabled when connected to telco.

PR **154766** Build: 6.4.3.710.R01
Summary: Fan traps being received on OV for OS6855-24.
Explanation: Avoid false fan inoperational traps in OS6855-24 due to any other hardware failure

Problems Fixed Between Builds 717 and 751

PR **155273** Build: 6.4.3.717.R01
Summary: A stack of 8 switches hanged with PMD file in the morning today

PR **154988** Build: 6.4.3.719.R01
Summary: Need to classify port number when non-suplicant user MAC-address will be flushed
Explanation: Added port number check while deleting mobile mac from table

PR **155082** Build: 6.4.3.719.R01
Summary: OS6850/6400: show qos config contains a typo at the DEI section.
Explanation: Typo mistake in the output of "show qos config" is corrected

PR **155143** Build: 6.4.3.720.R01
Summary: 9000 CMM reboot with cs_system1.pmd file when ip interface is deleted with no Nis in the chassis
Explanation: Defense check introduced while deleting a interface in OS9 which has no Nis

PR **155132** Build: 6.4.3.720.R01
Summary: No: of resets not displayed in show chassis of 9000 switches.
Explanation: Chnages done to display no. of resets in show chassis

PR **153204** Build: 6.4.3.720.R01
Summary: Retry and session limit option missing in dot1x webview page.
Explanation: Added a retry count and session limit parameter in webview for 802.1x module configuration

PR **123159** Build: 6.4.3.721.R01
Summary: 6850 reboots after scanning it using Qualys
Explanation: To fix Emweb server crash when the QualysScan tool is used to scan the switch.

PR **155814** Build: 6.4.3.722.R01
Summary: OS-9000 getting crashed whenever we enable/disable the stp status via WEB GUI on port basis.
Explanation: Reset stp pointer to initial value after changing admin status for all mstp instances

PR **154673** Build: 6.4.3.722.R01
Summary: OS6850 Captive portal authentication goes directly to CP-Blk state for non existing VLAN ID
Explanation: When radius server returns non-exist vlan id, the client should get classified based on authentication pass classification policies

PR **155936** Build: 6.4.3.725.R01
Summary: Oversize frames Clarification between sh int & sh int accounting
Explanation: The Hardware register extraction is changed so that the retrieval of oversized frames are done and there is no mismatch in oversize frames

PR **155784** Build: 6.4.3.726.R01
Summary: QOS not applied on OS-6400 when assigning priority in QinQ configuration
Explanation: Do not configure FFP for bandwidth NA and priority NA profile

PR **156047** Build: 6.4.3.727.R01
Summary: No reply to ICMP request through static agg when "no forward" option set
Explanation: Forward ICMP request to CMM when ARP is not resolved and "no forwarding" is enabled.

PR **156231** Build: 6.4.3.727.R01
Summary: STG status goes BLK when receive BPDU and if bpdu ignore is enabled on mobile
Explanation: Use global port to fetch Mobile Port Ignore Bpdu configuration in stpni context

PR **155153** Build: 6.4.3.728.R01
Summary: DHCP Process difference between OS6850 and OS7000.
Explanation: DHCP Request packets not handled in software when routed in hardware

PR **156009** Build: 6.4.3.728.R01
Summary: ICMP reply with checksum error
Explanation: Checksum is calculated properly for an SAA ICMP packet received from different vendors.

PR **156204** Build: 6.4.3.728.R01
Summary: OS6850 - 802.1x EAP Failure after switch reboot
Explanation: Fix done to handle supp authentication on bootup

PR	155981	Build: 6.4.3.729.R01
Summary:	Stack crash after failed ssh session authentication attempts.	
Explanation:	Defense check added to check double free in ssh.	

PR	155243	Build: 6.4.3.729.R01
Summary:	switch will not flush MAC entry whenever 802.1x session timeout or the user logout	
Explanation:	CP logged out clients, shd not be associated to auth vlan after logout or CP session expires	

PR	156356	Build: 6.4.3.730.R01
Summary:	OS6850 gives internal error when trying to add same ip for snmp station as the loopback0	
Explanation:	SNMP Station address configuration restricted only to Pure Loopback0 address (not same as physical ip interface address)	

PR	155285	Build: 6.4.3.731.R01
Summary:	Issue in "auth-server-down" with the UNP profile.	

PR	155507	Build: 6.4.3.733.R01
Summary:	DHCP discover packets drooped when discover has different client and source MAC addresses	
Explanation:	When the mac-address verification is disabled And if the source mac address and Hardware mac-address are different, Source mac is replaced with Hardware mac address in the software mac-address list available in udp-relay module.	

PR	156720	Build: 6.4.3.734.R01
Summary:	qos policy condition is not displayed properly in config	
Explanation:	Display the default ethertype in qos policy	

PR	156504	Build: 6.4.3.734.R01
Summary:	CMM crashed with tCs_Probe task suspended: Analysis required	
Explanation:	Defence check added to prevent the Crash on an access of Invalid node in the IPV6 router List	

PR	153100	Build: 6.4.3.735.R01
Summary:	Exchange the CP default browser	
Explanation:	Set cpLoginFromFlash to 1 for accessing cp login page from /flash/switch directory. Login file stored in flash should be named as "cpLogin.html"	

PR	156572	Build: 6.4.3.737.R01
Summary:	Too many port based ISF command will remove dhcp snooping trust port command	
Explanation:	Code changes to handle MIP overflow in UDP Relay	

PR **156542** Build: 6.4.3.737.R01
Summary: PCs are not able to get IP address until we disable the DHCP-snooping

PR **157078** Build: 6.4.3.738.R01
Summary: stack set slot 1 saved slot 2 command not working
Explanation: Fix to write the boot.slot.cfg to the flash.

PR **157434** Build: 6.4.3.741.R01
Summary: arp is not flushing on CMM on link agg down
Explanation: Inform CMM during the arp flush in IPNI when the linkagg port leave is recieved.

PR **155533** Build: 6.4.3.745.R01
Summary: BCM show BLK state for mobile port

Problems Fixed Between Builds 752 and 779

PR **156049** Build: 6.4.3.752.R01
Summary: OS9 - Subnet broadcast in Bootp Packets are not relayed to the relay address configured.
Explanation: Bootp buffer handling size increased from 1024 to 1400 to handle pxe discover packets
NOTE: BOOTP Packets of Max Size 1400 Bytes only will be handled by AOS 64x Devices

PR **156609** Build: 6.4.3.752.R01
Summary: info === HSM === Power Supply 1 has been REMOVED message coming frequently on os6855
Explanation: Changes to hold the power supply down message on 6855 C14

PR **156618** Build: 6.4.3.754.R01
Summary: "ethernet-service uni-profile I2-protocol stp peer" is not applied on UNI port
Explanation: Added a check not to allow peer option support in ethernet-services I2-protocol

PR **149830** Build: 6.4.3.755.R01
Summary: Unable to login after changing the admin user password to xxxxxxxx"!
Explanation: Check for Password with special symbol

PR **157451** Build: 6.4.3.755.R01
Summary: OS9800 qos log clarification.
Explanation: Issue with destination port display in "show qos log" output has been fixed

PR	156602	Build: 6.4.3.755.R01
Summary:	unit 2 in a stack of 6 crash with dump file.	
Explanation:	Code changes done to display the assembly instructions in pmd around both PC and Link Register	

PR	157631	Build: 6.4.3.757.R01
Summary:	How to disable the gratuitous ARP.	
Explanation:	Introduced control over sending of gratuitous arps for ips configured for interfaces in the switch. This is done by help of existing variable "ipedrArpPoisonLrn", when set to 0 will stop the sending of gratuitous arps over the network.	

PR	157438	Build: 6.4.3.757.R01
Summary:	OS 9E NTP date , year with time not showing correctly.	
Explanation:	Couple of year back DST For AEST has changed corrected in Code also.	

PR	156360	Build: 6.4.3.758.R01
Summary:	OS6400 doesn t forward option-82 information to another switch (Telco) when DHCP snooping is enabled	
Explanation:	The DHCP packet will be forwarded without stripping opt82 format from the packet if POLICY_KEEP is enabled.	

PR	157396	Build: 6.4.3.758.R01
Summary:	OS6850: Latency of approx 1 Sec in authorisation with TACACS.	
Explanation:	Reduced delay in tacacs+ command authorization to 100 ms.	

PR	156321	Build: 6.4.3.758.R01
Summary:	UNP policy group doesn't work on 9700	
Explanation:	More appropriate error message has been given while configuring UNP rule for not supported Hardware's.	

PR	155961	Build: 6.4.3.759.R01
Summary:	issue were static routes added on fly are going inactive and after a reboot few will come up.	
Explanation:	Allow host specific static route, if the gateway is on different subnet	

PR	157814	Build: 6.4.3.760.R01
Summary:	NI reset and PMD generated at 8:30hrs. Ni monitoring timeout seen in log	
Explanation:	Fix to Drop ND6 packets when there is no ipv6 interface configured on the router	

PR	157245	Build: 6.4.3.761.R01
Summary:	OSPF neighbor goes down after changing system clock back by one hour or more	
Explanation:	OSPF MD5 Sequence Number is modified to a static counter initialised to system time during ospf restart	

PR	158147	Build: 6.4.3.762.R01
Summary:	tCS_PRB and taIPni task suspended on OS6850 stack.	
Explanation:	ICMP Request is processed in CMM only for packets which are destined to one of the configured interface.	

PR	158236	Build: 6.4.3.763.R01
Summary:	ERROR: Authorization failed. No functional privileges for this command	
Explanation:	Added check for syntax check mode for tacacs authorisation	

PR	157912	Build: 6.4.3.764.R01
Summary:	LACP port with non-default admin key is joining the LACP group with default admin key	
Explanation:	port should join the linkagg with matched actor admin key, no default actor admin keys will be entertained	

PR	157273	Build: 6.4.3.765.R01
Summary:	Stack of 6850 not able to issue some CLI command.	
Explanation:	Clear the buffers after the processing of MIP messages from an Invalid session	

PR	156341	Build: 6.4.3.766.R01
Summary:	Random link toggle onU24E board with Picolight SFP	
Explanation:	Handle the I2c read failure gracefully	

PR	156623	Build: 6.4.3.766.R01
Summary:	NI CPU high taIP6NI and bcmRx task are going high.	
Explanation:	Nd6 Unreach control mechanism in ipv6	

PR	155432	Build: 6.4.3.766.R01
Summary:	Need trap implementation when MAC movement happens	
Explanation:	Trap is implemented for a MAC movement under UDP Relay binding context.	

PR	157954	Build: 6.4.3.767.R01
Summary:	OS6850- Crash with UDLD task "taUldNI"	
Explanation:	UDLD NI Crash on TTL timer expiry is resolved	

PR	158283	Build: 6.4.3.768.R01
Summary:	Switches susceptible to Denial of Service attack on UDP port 123 (ntp)	
Explanation:	A node receiving an error response should not be responded automatically to it with it's own error response.	

PR	155410	Build: 6.4.3.768.R01
Summary:	huge netsec configuration result in no output when issue show config snapshot	
Explanation:	Correcting the Previous group name passed to avoid MIP OVERFLOW in NETSEC	

PR	158104	Build: 6.4.3.769.R01
Summary:	The port speed of the 10 gig port is showing wrong value with OV.	
Explanation:	Changes done to display the correct port speed for stacking ports	
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PR	154357	Build: 6.4.3.772.R01
Summary:	OS6850 - QoS user-port shutdown bpdu does not work properly	
Explanation:	Prevent lockup due to ESM reactor semaphore during port shutdown processing	
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PR	157953	Build: 6.4.3.772.R01
Summary:	Need to redefine the MAC range in alaPhones mac group	
Explanation:	Addition of mac range to the existing alaPhones mac group	
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PR	158131	Build: 6.4.3.772.R01
Summary:	OS9: ERP ring rpl port in forwarding state for some vlans.	
Explanation:	Vlan manager should not change the port status based on STP status for ERP ring ports.	
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PR	158169	Build: 6.4.3.773.R01
Summary:	Port stuck in mirroring configuration. Unable to change the port configuration.	
Explanation:	Added check to throw error when remote port mirroring vlan enabled on default mirroring session	
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PR	158447	Build: 6.4.3.774.R01
Summary:	Qos not getting applied after reboot of the switch	
Explanation:	Huge QOS config retained after reload when IP_ARP spoofing feature is enabled	
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PR	158373	Build: 6.4.3.776.R01
Summary:	sshd_ct0 and tCS_PRB tasks suspended on OS9800 running 6.4.3.717.R01	
Explanation:	Added NULL check before calculating the PADDING length in the SSH packet	
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PR	157697	Build: 6.4.3.778.R01
Summary:	OS6850 Sensitive delay in TV zapping	
Explanation:	Code changes to handle when static querier ports enabled in multicasting	

Problems Fixed Between Builds 780 and 810

PR	158505	Build: 6.4.3.780.R01
Summary:	OS9800: Issue in OSPF interface advertisement in redistribution.	
Explanation:	LSA pretraining to old route (with different mask) with age 3600 is flooded on the interface before processing further	

PR	158326	Build: 6.4.3.781.R01
Summary:	tCS_PRB, tIPrm0 and tPim0 tasks suspended on OS9800 running 6.4.3.668.R01	
Explanation:	Inter module message size limit is checked for a remote probability occurrence	

PR	158692	Build: 6.4.3.781.R01
Summary:	OS 6850 stack crash with error "== CSM == Excep in task: LnkAgg PC : 0x19a78b4 "	
Explanation:	Added defense fix as port index pointer validation check	

PR	158769	Build: 6.4.3.782.R01
Summary:	Crash in Vstk after issueing few show commands	
Explanation:	Added defense check to prevent Crash in VSTK show commands	

PR	159157	Build: 6.4.3.782.R01
Summary:	OS6850 dosnt seem to generate alarm/trap when a remote endpoint is down.	
Explanation:	Changed the Priority behavior of the Fault Notification of ethoam	

PR	156000	Build: 6.4.3.783.R01
Summary:	The Interval Start time in the history page of rmon tool doesnt relate to the PC system time.	
Explanation:	Rmon timer display issue has been fixed	

PR	158621	Build: 6.4.3.785.R01
Summary:	2nd unit in stack 2*6850 crashed "APPLICATION_FATAL STR for: ErpCmm - >suspended"	
Explanation:	Debug Dump of ERP CMM Connections added in PMD	

PR	158812	Build: 6.4.3.785.R01
Summary:	IPv4 and IPv6 ACL is causing CPU to go to 100%	
Explanation:	Corrected configuring of QoS rule in hardware for IPV6 traffic.	

PR	159704	Build: 6.4.3.787.R01
Summary:	OS6850: nisup_sounderHealthMonitor +1cc: nisup_sounderSendTaskSuspendedTrouble()	
Explanation:	Code changes done for preventing memory leak in wrong LDAP configuration in switch.	

PR	159062	Build: 6.4.3.788.R01
Summary:	OS6855 - stack unit 3 or 4 is rebooting without any reason	
Explanation:	To assign previously allocated module ids for stack slots and it units.	

PR	158234	Build: 6.4.3.789.R01
Summary:	Transparent-bridging works only after a reload	
Explanation:	Added taskDelay of 5 ticks between vstk port creation and tunnel bind	

PR	159619	Build: 6.4.3.791.R01
Summary:	qos port maximum bandwidth command limitation	
Explanation:	Configure maximum egress-bandwidth/ingress-bandwidth along with q1 minbw/q0 minbw via same CLI	

PR	159833	Build: 6.4.3.791.R01
Summary:	Unable to disable STP on the router port with bridge mode flat.	
Explanation:	Notify stp for cist instance on creation or deletion of router port	

PR	158212	Build: 6.4.3.792.R01
Summary:	"depth" in a sap-profile is not applied on OS6400 platform	
Explanation:	Value configured in the depth field of sap-profiles is properly programmed in the hardware counter-Bucket Size	

PR	155356	Build: 6.4.3.794.R01
Summary:	Vista PC goes to filtering mode when binding is enabled as there is no reply for first 4 ARP request	
Explanation:	Ignore arp request,probe packet with sender ip address as 0 on mobile port	

PR	160221	Build: 6.4.3.795.R01
Summary:	Is it possible to have NTP server DNS name in boot.cfg instead of ip address of NTP server	
Explanation:	DNS name will be displayed in configuration snapshot if NTP server is configured with DNS name.	

PR	159987	Build: 6.4.3.795.R01
Summary:	BGP not showing the route in kernel table	
Explanation:	Reset Peer when interface comes up and neighbor ship is already established	

PR	159498	Build: 6.4.3.797.R01
Summary:	Show commands not working after switch was upgarded.	
Explanation:	Handled the MIP OVERFLOW condition in lldp during the execution of the cli show configuration snapshot.	

PR	160600	Build: 6.4.3.798.R01
Summary:	DHCP_client not changing to discovery after link down/up.	
Explanation:	Discover process to be started, if any port of the dhcp-client interface vlan comes up	

PR	160463	Build: 6.4.3.799.R01
Summary:	dshell cd "/flash/worrrking" cause Synchronization commands will not be accepted due to low flash	
Explanation:	From dshell, "cd" will validate if the the operation is done for a vaild directory, else returns error.	

PR	160039	Build: 6.4.3.800.R01
Summary:	After upgrade to 6.4.3.779.R01, vlan 1 traffic is not passing through tagged port	
Explanation:	Clear untagged port bitmap alone for all vlans while initialising stp task	
PR	160528	Build: 6.4.3.802.R01
Summary:	OS6850 is duplicating 802.1x commands line under show configuration snapshot output.	
Explanation:	Handle MIP overflow errors in aaa snapshot	
PR	158241	Build: 6.4.3.802.R01
Summary:	"show qos queue" showing wrong values	
Explanation:	Design change for resetting the qos hardware counters, No clear on read. show qos queue command showing wrong values corrected.	
PR	158888	Build: 6.4.3.802.R01
Summary:	The default (blt) network group Switch cannot be used via OmniVista.	
Explanation:	Policy Switch Network group can be used from LDAP for QOS configuration	
PR	158233	Build: 6.4.3.804.R01
Summary:	Automatic SNMP reconfiguration generate communication drop on LPS port	
PR	158399	Build: 6.4.3.804.R01
Summary:	OS6850 crashed:tUfiCInt (edd2560) @ 5 PEND lckd=0 ME DS stk edd2560-edcd740	
Explanation:	Debug added in PMD to dump Swlog and Console FD details	
PR	161011	Build: 6.4.3.805.R01
Summary:	DVMRP not switching back to the primary path	
PR	159692	Build: 6.4.3.808.R01
Summary:	OS_9000 unexpected CMM take over	

Problems Fixed Between Builds 811 and 835

PR	160902	Build: 6.4.3.811.R01
Summary:	Stack of 3xOS6850 - synchronization failure in an environment with a non-default timezone	
Explanation:	Increase taskDelay to make sure HSM date/time update is done before flash synchro	
PR	160791	Build: 6.4.3.812.R01
Summary:	OS6850:Problem in QoS no trusted port.	
Explanation:	Changed mechanism to copy webhostname from http request header	

PR	161099	Build: 6.4.3.812.R01
Summary:	On web gui view the system uptime is showing 000 after 365 days.	
Explanation:	Display year field in system up time for webview display	

PR	160997	Build: 6.4.3.814.R01
Summary:	OS6850-48X switch crashed by suspending tCsCSMtask2 & QoS tasks	
Explanation:	Debug statement modified not to carry unwanted string	

PR	160497	Build: 6.4.3.816.R01
Summary:	802.1X not connecting all users after reboot of 6850 (ref PR#156204)	
Explanation:	Ignore packet received on dot1x port for ip task to be ready after reload	

PR	160721	Build: 6.4.3.817.R01
Summary:	OS6850stack: tSLNAdrLrn (c570570) @ 100 SUSPEND lckd=0 ME DS stk c570570-c56d690	
Explanation:	Avoided crash while accessing per vlan table list	

PR	161451	Build: 6.4.3.818.R01
Summary:	A few stacks of 6850 MAC address not able to age off properly	

PR	159585	Build: 6.4.3.819.R01
Summary:	"show power supply" show type AC instead of DC.	
Explanation:	PoE register values has updated based on the type of board	

PR	152163	Build: 6.4.3.821.R01
Summary:	Issue in accessing switch using SSH client running OpenSSH 3.9p1	
Explanation:	Changed the socket Level MTU in SSH to reflect the Client MTU configuration	

The Fix is controlled using an Global Variable tcpMSSLimit .

We need to set this value with the same as specified in the Interface MTU for the SSH client.

The Same MTU will remain valid for any other SSH session established on the DUT.

PR	157326	Build: 6.4.3.821.R01
Summary:	show temperature , Upper threshold and Temperature status	
Explanation:	Temperature status will update based on threshold change.	

PR **159993** Build: 6.4.3.822.R01
 Summary: 802.1x issue after upgrade to 6.4.3
 Explanation: Pass message to all Nis when mobile entry is deleted

PR **161551** Build: 6.4.3.823.R01
 Summary: NTP Server address configuring with the unicast address ending with ".255" address is not working.
 Explanation: Corrected the Validation for bcast address in ntp client/server

PR **158694** Build: 6.4.3.826.R01
 Summary: bcm_switch_control_set(x,19,0) in AlcatelDebug.cfg
 Explanation: debug cli to disable unknown multicast packets to CPU is introduced. By default it is enabled.
 To disable the following Command can be used
 debug ip set ipv4ControlProtocolDisable 0

 NOTE: disabling this flag will modify switch not to accept any multicast control packets
 224.x.x.x
 So protocols using these Mutlicast control address will not work

PR **160928** Build: 6.4.3.827.R01
 Summary: OS6400 - New error message needed when TACAS server unreachable

PR **161347** Build: 6.4.3.828.R01
 Summary: crash on radius server nt reachble message "Excep in task: RADIUS Cli PC : 0x2607b78 "
 Explanation: We did fix to restrict the typecasting only for authentication requests. So accouting requests will not have any chance to go and access the wrong location.

PR **160626** Build: 6.4.3.830.R01
 Summary: tac_plus/TACACS+:ERROR: Authorization failed. No functional privileges for this command
 Explanation: Retry mechanism for TACACS server communication time errors

Problems Fixed Between Builds 836 and 861

PR **162981** Build: 6.4.3.836.R01
 Summary: Not able to change password on secondary unit of 6850 stack
 Explanation: Enabling the change in password on Primary to reflect on secondary CMM also

PR	163003	Build: 6.4.3.837.R01
Summary:	Radius cli task suspended on OS9800 running 6.4.3.717.R01	
PR	161110	Build: 6.4.3.838.R01
Summary:	High memory on OS6850 running 6.4.3.717.R01	
PR	161418	Build: 6.4.3.838.R01
Summary:	ERP loop once the switch is rebooted within a ring.	
PR	163167	Build: 6.4.3.839.R01
Summary:	ICMP reply with checksum error	
Explanation:	Checksum is calculated properly for an SAA ICMP packet received from different vendors.	
PR	161713	Build: 6.4.3.840.R01
Summary:	Not all SG entries are pruned in PIM-DM (stale entries)	
PR	162757	Build: 6.4.3.841.R01
Summary:	PIM-DM have to reenable status when we add a dense group	
Explanation:	Deleting static dense group needs to delete corresponding sg/forwarding entries.	
PR	163667	Build: 6.4.3.842.R01
Summary:	Query on trap "Trap OID: .1.3.6.1.4.1.6486.800.1.3.2.15.1.0.1"and packetDroptype 13	
PR	160756	Build: 6.4.3.844.R01
Summary:	Decrementing Counter values for the OID (.1.3.6.1.2.1.2.2.1.11.13600002)	
Explanation:	total packet counter incremented when packet is received	
PR	163336	Build: 6.4.3.846.R01
Summary:	PIM-SM higher priority candidate-rp does not work correctly when it comes up back	
Explanation:	Control variables introduced to rate limit egress of pim join / prune pim_jp_limit, this variable specifies the number of packets that need to be send out per sec (Existing one) pim_jp_delay_reset, this variable specifies the maximum seconds of introduced delay before a pakcet is sent out (Introudced one). Defatul values, pim_jp_limit = 0 (Disabled by default), pim_jp_delay_reset = 255	
PR	163492	Build: 6.4.3.847.R01
Summary:	Os 6850 cmmLldpProcessEvent:FSM error 0 messages flooded in swlogs	
Explanation:	To Avoid timer over flow (to neagtive values), timer range has increased.	

PR	164425	Build: 6.4.3.850.R01
Summary:	High CPU on OS9800, tPim0 hogging maximum CPU.	
Explanation:	Dump Function Introduced to dump the RP List contents	

PR	163998	Build: 6.4.3.853.R01
Summary:	OS6850 stack failure Error -5 is thrown due to temporary congestion in the IPC.	
Explanation:	tt of top three CPU hog tasks added in stackDebug.log	

PR	165232	Build: 6.4.3.854.R01
Summary:	802.1x non supplicant device group mobility rule not applying correctly.	
Explanation:	Ignore ARP probe packet on AAA port	

PR	160807	Build: 6.4.3.857.R01
Summary:	topology view issue between in OV for fiber links between 9800 switches	
Explanation:	Added needed validation to the PortID ifIndex of LLDP	

PR	164297	Build: 6.4.3.858.R01
Summary:	DHCP Server database updation failed - 6400 switch running 6.4.3.520.R01 release code	
Explanation:	File Descriptor is handled properly while updating DHCP SERVER Database.	

PR	165230	Build: 6.4.3.859.R01
Summary:	OS9700 Switch crashed while executing the command rls cmm: b	
Explanation:	Corrected NULL Pointer access while executing rls command on Dual CMM	

PR	164814	Build: 6.4.3.859.R01
Summary:	MSTI instance 5 missing after reload.	
Explanation:	Handling mip overflow issue in MSTP config	

PR	166151	Build: 6.4.3.860.R01
Summary:	When VRRP is enabled for NLB server vlan, client loses connectivity to VIP for NLB.	
Explanation:	Care taken to retain the Static Arp entries in both H/W and S/W when VRRP is enabled/disabled.	

PR	162043	Build: 6.4.3.861.R01
Summary:	SFP on alcatel link down and other end link is half 1000Mbps	
Explanation:	Auto-Slave detection registers disabled for 1000-Fx(SX/LX/LH) for BCM 5482 phy chips.	

Problems Fixed Between Builds 862 and 884

PR **167257** Build: 6.4.3.862.R01
 Summary: Cli fails to parse the command : aaa authentication 802.1x "server1" "server2" "server3"

PR **166417** Build: 6.4.3.863.R01
 Summary: Switching bootup time increased after upgrade to 6.4.4.441
 Explanation: Reduced the bootup time by removing delay in case EOIC is not received for VSTK module.

PR **162121** Build: 6.4.3.864.R01
 Summary: 100% CPU hike in 6400 unit 1 due to talpni
 Explanation: Semaphore lock in 802.1x to prevent task lockup

PR **168834** Build: 6.4.3.868.R01
 Summary: OS 9700 BGP configured with AS-prepend issues.
 Explanation: Update the queued attribute structure to 0 if an attribute already exists and peer's send policy is sent for re-evaluation

PR **167944** Build: 6.4.3.869.R01
 Summary: SLB Cluster IP is not able to ping from Secondary unit of the 6850 stack
 Explanation: Flush old proxy arp for SLB cluster ip after takeover

PR **167979** Build: 6.4.3.870.R01
 Summary: Warning message to be displayed if an SNMP station is configured with a non-existent user
 Explanation: A warning message displayed when SNMP station is configured with non-existent user

PR **169172** Build: 6.4.3.871.R01
 Summary: ERP issue
 Explanation: Sent proper vlan parameters to dot1q NI on NI plugout and plugin scenarios

PR **170018** Build: 6.4.3.873.R01
 Summary: OS9702 dhcp offer dropped when dhcp snooping is enabled
 Explanation: Don t drop Dhcp-Offer when received on client port but not on client vlan. This behavior is controlled by debug flag "allowRoutedReplyOnClientPort". When it is set to 1: Then we allow switch to receive Bootp-Reply packet in the client port under the condition that the Vlan is different.

PR **158840** Build: 6.4.3.873.R01
 Summary: XFP information is not seen in OV inventory report.
 Explanation: Corrected the module IDs for XFP's and modified the description in mib file

PR **166633** Build: 6.4.3.875.R01
Summary: Missing link after polling switch in Omnivista 3.5.2 version.
Explanation: Prevent mismatch of chassis ID on CMM and NI after takeover

PR **165198** Build: 6.4.3.876.R01
Summary: PVST+ is not converging for the default vlan with OAW
Explanation: VLAN 1 sends IEEE BPDU irrespective of PVST Mode set

PR **167100** Build: 6.4.3.877.R01
Summary: show power x does not shows the complete information till we reboot the switch.
Explanation: Corrected the EEPROM read to re-update the details of the power supply during Operational Status up/Down

Problems Fixed Between Builds 885 and 893

PR **171051** Build: 6.4.3.885.R01
Summary: Issue with (SFP-100-BX20LT) which are 100MB SFP are displayed as 1000 by default
Explanation: Support for 100-FX SOURCE PHOTONICS SFP

PR **172537** Build: 6.4.3.889.R01
Summary: Multicast forwarding entry missing due to RPF check failure - next hop router none
Explanation: Corrected the Multicast forwarding entry miss after reboot

PR **172644** Build: 6.4.3.890.R01
Summary: talPMS stucked at 100% due to hardware write failure

PR **172210** Build: 6.4.3.892.R01
Summary: Switch crashed due to suspension of bcmRX and tCsCSMtask2
Explanation: Added A Null check to Prevent the crash

PR **171610** Build: 6.4.3.892.R01
Summary: OS9800 crash with onex task being suspended.
Explanation: Fixed crash seen when onex sends message to secondary

PR **170080** Build: 6.4.3.892.R01
Summary: Issue with "show aaa-device all-users" output.
Explanation: show aaa-device all-users will display all the clients in the switch.

PR **171720** Build: 6.4.3.892.R01
Summary: OS9-XNI-C24 crashed when qos port monitor is enable
Explanation: Enabling port monitoring Support on Revision "A" NI boards of OS97.

Problems Fixed Between Builds 894 and 902

PR **168946** Build: 6.4.3.894.R01
Summary: Switch rebooted and PMD file generated. Task "taSLNEvent" suspended

PR **173649** Build: 6.4.3.895.R01
Summary: Swlog logging messages on high CPU status for CMM / NI. Reference PR# 162618
Explanation: Additional Changes added to the current swlog to display if CMM/NI side task is affected while during an CPU spike

PR **175082** Build: 6.4.3.895.R01
Summary: OS9700/9600 NI reset with PMDs when trying to test the hotswap.
Explanation: Fix done not to send ERP_CONFIG_NOT_CERTIFIED or any message to Ni while takeover is in progress.

PR **175323** Build: 6.4.3.896.R01
Summary: Switch crashed with tCS_PRB and NtpDaemon tasks suspended. Logs observed with error link_oam_get_nex
Explanation: Null pointer check handled for NTP peer destination address.

PR **175179** Build: 6.4.3.898.R01
Summary: OS9700/9800 Telnet not working
Explanation: Added debug API's to recover the opened TELNET sessions and also to dump the state information of all opened sessions.

PR **176624** Build: 6.4.3.901.R01
Summary: OS9700 - CMM takeover happened and found NI-2 was RESET.

PR **169401** Build: 6.4.3.902.R01
Summary: Clients not getting the IP address when NAP is enabled
Explanation: Allowed Bootp length in Udp-Relay is 1464

Problems Fixed Between Builds 903 and 907

PR **157566** Build: 6.4.3.906.R01
 Summary: OS9700 - IPv6 neighbors seen as 49710 days
 Explanation: In the ND6 implementation, for each neighbor entry, In_expire variable specifies when the next state transition should take place. The value in In_expire should always point to a time (in seconds) in the future but somehow it gets reset to a wrong value. This affects the amount of time a neighbor entry spends in STALE state and shows wrong values in "show ipv6 neighbors" output.

Problems Fixed Between Builds 907 and 930

PR **179918** Build: 6.4.3.908.R01
 Summary: Switch crashed with tCsCSMtask2,tCS_CCM,tCS_PRB tasks suspended
 Explanation: Defensive check added to avoid null pointer access

PR **180263** Build: 6.4.3.909.R01
 Summary: vstkCmm_sendPortTunnelUnbindMsg with Linkagg flapping.
 Explanation: Increased the delay between consecutive retries to send messages between vlan stacking CMM & NI

PR **179239** Build: 6.4.3.909.R01
 Summary: OS9800 Ni 8,7,9,11 and 16 rebooted in the 2 core switch. ipcTech logs and NI.pmd and cmm.Ni.pmd file
 Explanation: Third party fix to speed up flush API

PR **181064** Build: 6.4.3.910.R01
 Summary: OS 6400 unable to boot from certified, crashing with tCS_PRB & lpmem task suspended.

PR **179971** Build: 6.4.3.911.R01
 Summary: Stack of 6850 crashed due to the suspension of the task "taLnkAgg "
 Explanation: As per the customer request defence check have been made not to access invalid memory pointer and also debugs has been added to track the task which corrupts the pointer

PR **182219** Build: 6.4.3.915.R01
 Summary: DHCP server showing the lease time as 0 while configured as infinity.
 Explanation: Changes done to display the lease time correctly when infinite lease time is set in server

PR **182457** Build: 6.4.3.918.R01
Summary: Ni 1 CPU was constantly high and switch crashed and takeover happened.

PR **185552** Build: 6.4.3.919.R01
Summary: Issue with NI display in web view

PR **187156** Build: 6.4.3.926.R01
Summary: Malformed BPDU (wrong length) for default VLAN in XNI modules- BPDU dropped in firewall
Explanation: 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 lenght 39.

Under Verification:

PR **129943** Build: 6.4.3.360.R01
Summary: 6850 does not display the complete ip addr when using the complete 4 octets of ip addr in ipms logs
Explanation: Swlog message is updated to print information continusly (maximum of two lines)

PR **142787** Build: 6.4.3.387.R01
Summary: Mac adds not learned on port 1/23 and 1/24 after upgrade to 6.3.4.443.R01 from 6.3.1.975.R01
Explanation: UNI/NNI status updated properly in hardware during stack reload with huge Vlan stacking configuration

PR **141708** Build: 6.4.3.394.R01
Summary: INTERFACE info Bad SFP on port 4/6 on XFP LR

PR **140921** Build: 6.4.3.404.R01
Summary: NI Monitoring timeout on OS9 ni. Follow-up of PR#135476//136077
Explanation: Fix the bug in the Hardware chip which caused the cell drain error and NI monitoring timeout

PR **136835** Build: 6.4.3.421.R01
Summary: Using 6.3.1.1124.R01 on 6800 devices, an STP blocked port sends an AMAP trap (add/remove) to its SNM
Explanation: Fix to avoid generation of amap traps on STP blocked ports from 541R01(97746)

PR **144097** Build: 6.4.3.426.R01
Summary: vlan mac-range mobile port in filtering
Explanation: Allow packets with vlan id 0 to be classified based on vlan-mac rule

PR	144464	Build: 6.4.3.429.R01
Summary:	SLB task error when upgrading from 6.3.1 to 6.4.2	
Explanation:	Increase SLB snapshot command storage array size to prevent overflow	

PR	144819	Build: 6.4.3.447.R01
Summary:	BGP configuration command recognized correctly but stored in wrong format	
Explanation:	BGP configuration stored in correct format in snapshot and boot.cfg.	

PR	144702	Build: 6.4.3.469.R01
Summary:	ARP flushing on link agg is taking excessive CPU resources	
Explanation:	IPNI Linkagg handling changes and cleanup	

PR	144773	Build: 6.4.3.529.R01
Summary:	Unable to SSH (re-open of PR#141384) error "buffer_get_string_ret: bad string length 2914692538"	
Explanation:	Prevent SFTP-server and SFTP-client from freeing unused FD	

PR	144204	Build: 6.4.3.529.R01
Summary:	Sflow samples doesn't report crc error info. Errors seen in interface counter.	
Explanation:	Fix to display the receive Error statistics in the sflow tool.	

PR	144814	Build: 6.4.3.531.R01
Summary:	OS6400: LPS Violation shutdown not working correctly	
Explanation:	Prevent deletion of static mac when lps port is shutdown	

PR	145294	Build: 6.4.3.533.R01
Summary:	Dump BCM CRC Parity error details to PMD	
Explanation:	Reset NI only when non recoverable BCM MMU parity error occurs.	

PR	144468	Build: 6.4.3.537.R01
Summary:	Clients losses Intervlan access if per vlan DHCP snooping is enabled on the switch	
Explanation:	Handling of packets that are switched from the software across different NI without modifications with proper flag settings	

PR	144434	Build: 6.4.3.543.R01
Summary:	PMD file generated when ERP configured along with VRRP	
Explanation:	Crash in vrrp task when configured erp on that vlan is resolved using a defense fix.	

PR	131919	Build: 6.4.3.543.R01
Summary:	Static linkagg and MST not working correctly when spanning-tree is disabled on the aggregate link	
Explanation:	Spanning tree will be disabled for all MSTI instances when its disabled on CIST. All the ports in the CIST and MSTI will be in forwarding state	

PR	140231	Build: 6.4.3.546.R01
Summary:	BBUS resets during the takeover and it is affecting the comm between the CMMs	
Explanation:	False suspension alarm for tasks handled, preventing switch crash	

PR	125322	Build: 6.4.3.552.R01
Summary:	Configured system daylight savings cannot be reconfigured & dates are not calculating correctly.	
Explanation:	The code has been changed to display the daylight savings time as per the command given in the site.	

PR	144811	Build: 6.4.3.555.R01
Summary:	Default value for historyControlInterval for rmon is different from its MIB definition	
Explanation:	Implemented new CLI commands to configure history control interval value.	

PR	141405	Build: 6.4.3.558.R01
Summary:	Units reboot in OS6400 stacks - no pmd, SM superv msg losses seen in neighbor slots	
Explanation:	Increasing impedance on the power line to 45 Ohms, did not produce any processor freezes. Would have to update uboot to have the right impedance.	

PR	141259	Build: 6.4.3.563.R01
Summary:	ARP entries are not learned	
Explanation:	Loopback0 not included in interface skiplist of NI for proper connectivity. If the loopback0 is configured in the same subnet of a local interface.	

PR	147311	Build: 6.4.3.566.R01
Summary:	No default route is generated when OSPF area is configured as NSSA.	

PR	147610	Build: 6.4.3.566.R01
Summary:	Low path cost routes not preferred in OSPF route selection	
Explanation:	Forwarding address for an area is selected based on the ospf interface cost. The interface which is active and with lowest metric is selected as the forwarding address for the NSSA area	

PR	131418	Build: 6.4.3.567.R01
Summary:	unable to synchronize CMMs due to Due to SIMPLEX CMM	
Explanation:	Debugs to track CVM states and new cli to recover the switch during flash-syncho failure	

PR	145478	Build: 6.4.3.567.R01
Summary:	Wrong rem_addr value in the TACACS+ authorization START packet body	
Explanation:	Correct remote address in TACACS authorization START packet body	

PR	141539	Build: 6.4.3.581.R01
Summary:	pmd analysis needed	
Explanation:	Prevent crash when radius shared secret key is greater than 32	

PR	147020	Build: 6.4.3.590.R01
Summary:	OS6850 reboots and crashing continuously after establishing of OSPF3	
Explanation:	Fixed external AS LSA size issue	

PR	145451	Build: 6.4.3.595.R01
Summary:	synchronization causing second unit of reboot	
Explanation:	Manual flash-syncho will not reload units	

PR	147084	Build: 6.4.3.595.R01
Summary:	AOS 6850 number 3 unable to join the stack	
Explanation:	Reloading entire stack when there are multiple NI failures simultaneously on a ring topology	

PR	149519	Build: 6.4.3.598.R01
Summary:	In case of dual HIC failure the reconnect timer should be bypassed	
Explanation:	Fix done to bypass reconnect timer during HIC Complete failure.	

PR	143088	Build: 6.4.3.612.R01
Summary:	OS6400-24: When pc is connected to port, wrong led port glows	
Explanation:	OS6400 displaying its connectivity LED lights incorrectly. Issue is applies to these two models only OS6400-C24 and OS6400-P24.	

PR	125329	Build: 6.4.3.631.R01
Summary:	Clients connected to 6850 as Edge Switches(layer2) not able to pass the Authentication (avlan issues)	
Explanation:	The frames with Destination mac address(00:20:da:00:00:02) i.e, aaa special mac is processed by the cmm software only when the 802.1x or avlan is enabled in the switch else the frames are just flooded by the hardware itself. Also the frames with the Destination mac address (01:80:c2:00:00:03) i.e,802.1x special mac is processed by the cmm software only when 802.1x is enabled in the switch else it just flooded by the hardware itself.	

PR	148668	Build: 6.4.3.650.R01
Summary:	DHCP	

PR	149980	Build: 6.4.3.725.R01
Summary:	OS 9800E linkagg port join leave message on swlog.	
Explanation:	Added a LACP Debug code changes for the various reasons of linkagg port leave failure	

PR	162439	Build: 6.4.3.913.R01
Summary:	RADIUS Cli task crashed when interfaces 1 admin down with 1000 suppl were authenticad.	
Explanation:	Checks added to aviod unwanted crash when the server becme not reachable.	

PR	152128	Build: 6.4.3.727.R01
Summary:	6850 combo port: coper LED blink instead of fiber and esmDumpPort show "ledCtl=0"	

PR	155306	Build: 6.4.3.706.R01
Summary:	sftp crashed	

PR	158097	Build: 6.4.3.930.R01
Summary:	Warning message for duplicate static MAC configured on LPS port	
Explanation:	Warning message for duplicate LPS mac	

PR	157326	Build: 6.4.3.856.R01
Summary:	show temperature , Upper threshold and Temperature status	
Explanation:	Temperature status will update based on threshold change.	

PR	160586	Build: 6.4.3.863.R01
Summary:	Jumbo MTU size setting loss on 10MB port setting when port bounces	
Explanation:	Code fix done to retain the max frame size configured when port bounces	

PR	132164	Build: 6.4.3.631.R01
Summary:	Dump additional parameters regards to taskStack, inorder to debug the Stack Overflow issue in future	
Explanation:	Dumped additional parameters in PMD to debug the stack overflow issue	

PR	139633	Build: 6.4.3.357.R01
Summary:	OS6850 crashed when command "copy working certified " with "error reading /flash/working/ entr	
Explanation:	Retry mechanism introduced which calculating the checksum of image files	

PR	148420	Build: 6.4.3.596.R01
Summary:	6.4.2 and 6.4.3: Autonegotiation bug for 100base-FX	
Explanation:	Code changes to generic phy driver to program the internal phy for autoneg configurations.	

PR	155200	Build: 6.4.3.800.R01
Summary:	need to preserve TCAM space by using software rules (no-cache option)	
Explanation:	Display issue with "show qos statistics" for no-cache option has been fixed	

PR	176279	Build: 6.4.3.900.R01
Summary:	Bidirectional port mirroring not working as expected	
Explanation:	The problem in setting the hardware registers for egress mirroring is fixed and provided with a official debug image.	

PR	172495	Build: 6.4.3.888.R01
Summary:	AOS 6850 is dropping PIM DM State Refresh Message when running with 2000 S,G routes and 4 PIM DM Nei	
Explanation:	Flush old proxy arp for SLB cluster ip after takeover	

PR	174272	Build: 6.4.3.914.R01
Summary:	OS9000E 100% CPU due to pim3 task	
Explanation:	Fix done for PIM task crash due to route delete in IPRM context	

PR	109140	Build: 6.4.3.526.R01
Summary:	7700 uptime reset after 497 days	
Explanation:	sysUpTime is not wrapped up after 497 days.	

PR	131963	Build: 6.4.3.534.R01
Summary:	OS6600 stack split with duplicate slot condition/ No PMD files generated	
Explanation:	Generate the stackDebug.log file during supervisory msg loss scenarios	

PR **140452** Build: 6.4.3.540.R01
Summary: Static routes not redistributed if ospf is disabled on the vlan interface with gateway IP for the st
Explanation: Proper Updation of Ext LSA if any of the ospf interfaces go down

PR **143052** Build: 6.4.3.401.R01
Summary: snmp oldest trap replay value in CLI vanishes after an SNMP SET update from OV (NMS)
Explanation: Display the replay count even when the snmp trap station in sync with switch

PR **146120** Build: 6.4.3.531.R01
Summary: Type 10 LSA handling issue
Explanation: Drop, without processing Type-10 and Type-11 OSPF LSA

PR **146508** Build: 6.4.3.536.R01
Summary: alcateldebug.cfg has no effect in 6.4.2 for ignoring vrid errors
Explanation: In order to ignore a specific VRID, execute the vrrplgnoreVrid (VRID) in dshell and apply the debug set <> <> displayed.

NOTE: Using this command on OS97/98E (VRF Implemented Platform) will ignore VRID in each and every VRF configured

PR **149598** Build: 6.4.3.600.R01
Summary: Unable to remove mac-address from mac-address table on a port-security enabled port
Explanation: Fixed lps mac deletion issue seen when "no mac-address-table <mac> <slot/port> <vlan>" is issued

PR **148542** Build: 6.4.3.604.R01
Summary: OSPF/BFD over MPLS convergence issue
Explanation: To trigger OSPF SPF when BFD NBR_DOWN Event is received by OSPF. This is controlled by variable gOspfBfdSubSecond, which is disabled by default
SubSecond convergence variables to be used in AlcatelDebug.cfg
debug set gOspfSubSecondd 1
This will enable immediate trigger of SPF when Interface Down event is received by OSPF
debug set gOspfBfdSubSecond 1
This will enable immediate trigger of SPF when NBR DOWN detection is informed by BFD. This will work only when BFD is enabled and NBR DOWN detection is done by BFD

PR **149166** Build: 6.4.3.600.R01
Summary: ERP interop issue with IPD 7750

PR	148972	Build: 6.4.3.666.R01
Summary:	Delay on mac mouvement in a routed environnement	

PR	148191	Build: 6.4.3.675.R01
Summary:	OS 9700E changed year to 2016	
Explanation:	Moving to two digit BCD (00-99) format of setting year in the system clock of OS9 and OS9E products. Restrictions are in place to allow setting of year only between 2000-2099. Upgrading to this build would require the date to be reset after first reload.	

PR	151944	Build: 6.4.3.803.R01
Summary:	running and saved config status shown as identical for any Qos related configurations	
Explanation:	QOS mip handled properly	

PR	154485	Build: 6.4.3.675.R01
Summary:	Arp Delay in the event of link failure on ERP ring	
Explanation:	When ARP reply is dropped due to Layer2 Layer3 consistency check, do a re-arp and not wait until Re-xmit Time	

PR	154325	Build: 6.4.3.685.R01
Summary:	Relay-agent(switch) forwards only the first offer pkt with snooping enable	
Explanation:	Accept all DHCP-OFFERS when multiple offers are received,when dhcp-snooping is enabled	

PR	154363	Build: 6.4.3.673.R01
Summary:	AOS 6580 primary unit crashed - Swlog FD Corruption	

PR	155932	Build: 6.4.3.731.R01
Summary:	ACLMAN:+++ memPartAlloc: block too big - 67108864 in partition 0x4f3454.	

PR	155301	Build: 6.4.3.720.R01
Summary:	Need to know when we get "alert Mac not available..." messages.	
Explanation:	Reduced the severity level of the alert message "MAC not available HIC db return" message keep printing these message in the console	

PR	155064	Build: 6.4.3.725.R01
Summary:	ethoam loopback ping getting leaked out on UP MEP port	

PR	159302	Build: 6.4.3.851.R01
Summary:	OS6400 crash when creating banner from CLI	
Explanation:	Memory allocated for the SLOP value (which is used for indentation purpose) needs to be memset with NUL.	

PR	175424	Build: 6.4.3.909.R01
Summary:	OS9700 crashed with taSLNEvent task in locked state.	
Explanation:	Third party fix to speed up flush API	

PR	172374	Build: 6.4.3.893.R01
Summary:	Issue with QoS command "show policy classify I3" on OS6850.	
Explanation:	Added an option to view the pending policies in the show policy classify CLI command	

PR	174567	Build: 6.4.3.904.R01
Summary:	VU-091113-1: Vulnerability in the SSL/TLS protocol.	
Explanation:	Disabling Renegotiation in open SSL	

PR	174571	Build: 6.4.3.905.R01
Summary:	VU-080718-1: Vulnerability in various IPv6 protocol implementations.	
Explanation:	Vulnerability Fix based on the openbsd patch	

PR	188341	Build: 6.4.3.929.R01
Summary:	Mac address not seen on show mac-address table, however its mac entry is present in software and ha	
Explanation:	Supplicant users on a LPS enabled onex Ports will be authenticated properly .	

PR	94488	Build: 6.4.3.468.R01
Summary:	"Show health <slot/port>" displays transmit/receive at twice the rate of rx/tx	
Explanation:	This is to fix the incorrect calculation of RxTx (RxTx output of 'show health' command) for Full-duplex ports. It was calculated by considering only Tx, so fixed to consider both Tx and Rx.	

PR	133599	Build: 6.4.3.358.R01
Summary:	OV 3.4.1 sends warm startup traps after ssh authentication fails.	
Explanation:	Avoiding replayed traps with different seqid.	

PR	140961	Build: 6.4.3.583.R01
Summary:	ip-source-filter getting disabled while changing the vlan port.	
Explanation:	Get IP source filtering status of the port if the snooping is VLAN level and apply the configuration to the new VLAN if snooping is enabled on the new VLAN also.	

PR	141229	Build: 6.4.3.535.R01
Summary:	EtherOAM CCM frames send with pbit 0	
Explanation:	Donot modify the priority bit in the packets generated from the switch, when egressing on a NNI port	

PR	141718	Build: 6.4.3.367.R01
Summary:	Log issue for "IP Multicast" rules	
Explanation:	Applied qos rule logging to Multicast rules taking effect from software	

PR	142347	Build: 6.4.3.437.R01
Summary:	dynamic vlan propagation stops randomly when using GVRP	
Explanation:	Changed default gvrp join and leave timer to 200 and 600 ms respectively.	

PR	145107	Build: 6.4.3.530.R01
Summary:	MAC/PHY information is not showing in the "show lldp remote system" output so some port randomly.	
Explanation:	"MAU type updation issue for some GBIC ports is resolved	
	"	

PR	143782	Build: 6.4.3.554.R01
Summary:	6850 - Crashed need analysis	
Explanation:	Functional addition for NI Supervision to confirm task suspension	

PR	147539	Build: 6.4.3.601.R01
Summary:	show interface slot/port capability output displays incorrect output	
Explanation:	Corrected the cli output of show interface slot/port capability	

PR	146866	Build: 6.4.3.549.R01
Summary:	very slow QoS memory leak causes switch to reboot	
Explanation:	Fixed QoS memory leak	

PR	148504	Build: 6.4.3.641.R01
Summary:	RX error frames	

PR	154067	Build: 6.4.3.756.R01
Summary:	Powersupply error comming for power supply which is not present	
Explanation:	Check for the presence bit whenever the operational bit of the power supply is changed.	

PR	152580	Build: 6.4.3.646.R01
Summary:	" ip ospf area 0.0.0.1 default-metric 0 type type2" command not working	
Explanation:	OSPF default type 7 lsa to generate type 1/type 2 based on the configuration done	

PR	155136	Build: 6.4.3.701.R01
Summary:	burst of traffic from 10 1 gigabit ports to 1 10 gigabit ports not going through	

PR	160578	Build: 6.4.3.813.R01
Summary:	OS6855-14 - LANPOWER error 181 Invalid Slot	
Explanation:	The severity level of error messages when validating a lanpower slot which is not present is reduced to Debug1	

PR	160522	Build: 6.4.3.828.R01
Summary:	OS9702E:entConfigChange,Entity configuration change traps for power supply down.	
Explanation:	Bypass the presence Bit check for 9700 as present bit and operational bit behaves the same.	

PR	166896	Build: 6.4.3.865.R01
Summary:	A script is not executed if SW images are downloaded in Automatic Remote Config Download...	
Explanation:	Script is executed even after downloading new SW images and boot.cfg using Automatic Remote Config Download	

PR	131242	Build: 6.4.3.629.R01
Summary:	OS9700 crash due to tIprm and tPim tasks: Follow up of PR#130246.	
Explanation:	More debugs added into PMD in case of memory corruption issues	

PR	174371	Build: 6.4.3.904.R01
Summary:	VU-101208-2: Vulnerabilities in OpenSSL	
Explanation:	Work around for using older Netscape browser and servers is not available now	

PR	110473	Build: 6.4.3.601.R01
Summary:	Many "LANPOWER error IpSocketSend: zcBufCreate Failed!" followed by a crash with dumps	
Explanation:	Found 256 byte memory leak in health monitor task	

PR	140766	Build: 6.4.3.409.R01
Summary:	OS6850 console lock-up	
Explanation:	Prevent SSH client's console/telnet window due to inactivity from server side	

PR	142686	Build: 6.4.3.530.R01
Summary:	Improper telnet rejection message	
Explanation:	TCP flags to be checked correctly	

PR	142263	Build: 6.4.3.401.R01
Summary:	Huge number of Error and Lost frames on 6850P48L ports	
Explanation:	Fix for huge error frame and lost frame counters	

PR	141702	Build: 6.4.3.504.R01
Summary:	OS6400 - After rebooting primary unit, the stack is unreachble after a couple of min	
Explanation:	Prevented the configuration of Loopback0 address IP as the same as Physical Interface IP	

PR	141752	Build: 6.4.3.575.R01
Summary:	"ingress-bandwidth" in "sap-profile" not accurate for TCP/IP	
Explanation:	Introduce a CLI option to configure depth for the ingress-bandwidth of a sap profile	

PR	145523	Build: 6.4.3.531.R01
Summary:	Dump analysis following an upgrade to 6.4.2.933	

PR	144080	Build: 6.4.3.528.R01
Summary:	ACL to block illegal dhcp server is not working when dhcp-snooping enabled	
Explanation:	Dropping illegal dhcp packets in software	

PR	143742	Build: 6.4.3.402.R01
Summary:	Duplicate entries created for vlan stacking configurations when loading boot.cfg.	
Explanation:	Fix to avoid duplicate entries in configuration snapshot for vlan stacking	

PR	152363	Build: 6.4.3.659.R01
Summary:	6850 primary crashed with CSM == Excep in task: SsApp PC : 0x3904cc	
Explanation:	Preventing ssApp crash due to corrupted image list	

PR	153014	Build: 6.4.3.698.R01
Summary:	Same ip address as loopback ip and ip interface	
Explanation:	Ability to configure Loopback0 address as same as one of the configured physical ip interface is introduced.	

PR	167148	Build: 6.4.3.874.R01
Summary:	AOS Switch does not responds to MS Windows 7 ARP with APIPA source IP.	
Explanation:	Policy Switch Network group can be used from LDAP for QOS configuration	

PR	142878	Build: 6.4.3.589.R01
Summary:	Tacacs server not working after upgarde.	
Explanation:	Added systrace messages for enhanced debugging of tacacs server.	

PR	133834	Build: 6.4.3.436.R01
Summary:	port seen in STP blocking state in HW but in forwarding in Software	
Explanation:	Update the SpanningTreeGroup(STG) properly for the vlans in an MSTI when the MSTI is removed.	

PR	139534	Build: 6.4.3.630.R01
Summary:	OIDs - dot1dTpFdbPort & dot1qTpFdbPort shows index number instead of port number for OS6602	
Explanation:	Display port number instead of index value for Port Mib objects	

PR	143532	Build: 6.4.3.431.R01
Summary:	OS98 crashed with dump error "error ETHOAM CMM : Timer closed skt for ETHOAM NI on ni 4 @ 1263797"	
Explanation:	Validate UDP length field of a UDP packet before treating it as a BFD packet.	

PR	142989	Build: 6.4.3.398.R01
Summary:	6400-supplciant is not moved to a correct Vlan after un-succesful authentication	
Explanation:	Handle supplicant failure authentication appropriately.	

PR	143651	Build: 6.4.3.530.R01
Summary:	Showing ERROR Invalid parameter 802. Valid range '1-1'" with the command ! 802.1x :&! 802.1q :	
Explanation:	Fix to display the appropriate cli command from the history buffer	

PR	143471	Build: 6.4.3.363.R01
Summary:	Qos user port causes complete packet drop on certain ports	

PR	142204	Build: 6.4.3.362.R01
Summary:	Multicast Storm on stack cable reconnection in a ERP environnement	
Explanation:	Fix done to avoid loop during stacking of two standalone units.	

PR	141922	Build: 6.4.3.540.R01
Summary:	Loopback0 interface not used as source address when it is configured	
Explanation:	For backward compatibility, code changes have been for radius packets to use Loopback0 IP address, if one configured, as the Source IP address when Auth port is 1645 and Account Port is 1646.	

PR	142306	Build: 6.4.3.640.R01
Summary:	UDLD default setting to shutdown the port in normal mode	
Explanation:	Not shutting down a port due to surge of ECHO message in normal UDLD mode.	

PR	141541	Build: 6.4.3.430.R01
Summary:	Certain TCP frames not considered for 802.1x authentication and source learning.	
Explanation:	If VRRP is not configured in the switch, allow VRRP packets on 802.1x ports for classifying as non-supplciant.After authentication, the VRRP packets will be dropped.	

PR	145247	Build: 6.4.3.533.R01
Summary:	OS9800 Crashed - tCS_PRB (c8b8710) @ 40 SUSPEND lckd=0	
Explanation:	Validate the address range check while accessing the i2c registers	

PR	143810	Build: 6.4.3.539.R01
Summary:	onex' task takes cpu to 100% even when nothing is connected on OS6400 switch	
Explanation:	Prevent loop in onex task	

PR	144092	Build: 6.4.3.436.R01
Summary:	PoE negotiated class in CLI (IpGetPortPowerClass doesn't show correct class)	
Explanation:	Fix for POE power calculation when checking PoE class	

PR	144125	Build: 6.4.3.427.R01
Summary:	TACACS reads the caller id IP address as 127.2.65.1	
Explanation:	Fix done to store the correct IpAddress for rem_addr for tacacs.	

PR	144477	Build: 6.4.3.468.R01
Summary:	Delay in Flash Synchro with log "NO HEART BEAT FOR 4 Time"	
Explanation:	Fixed the Delay in Flash Synchro with log "NO HEART BEAT FOR 4 Time" issue	

PR	147296	Build: 6.4.3.563.R01
Summary:	2 of the 6400 switch running 6.4.2.807R01 rebooted with crash.pmd file. Need analysis	
Explanation:	Code changes to handle realloc failure in ssh and added debugs to pmd for investigating memory corruption	

PR	147128	Build: 6.4.3.554.R01
Summary:	Tri color metering error and display questions	

PR	151831	Build: 6.4.3.666.R01
Summary:	9800: SSH connection refused : no more SSH session available	

PR	150761	Build: 6.4.3.636.R01
Summary:	OSPF Type2 LSA not properly flushed	
Explanation:	OSPF network lsa refreshing frequently when we have a related ospf interface which is down already	

PR	150576	Build: 6.4.3.625.R01
Summary:	SCP crash - Dump analysis.	

PR	154080	Build: 6.4.3.666.R01
Summary:	6850: tcs_prb task suspended multiple times	

PR	156247	Build: 6.4.3.732.R01
Summary:	show 10gig slot command wrongly mention that XNI-U2 is not a 10Gig card	
Explanation:	The command is blocked at CLI level by printing an error message as command not supported in this platform. "show 10gig slot <num>" "10gig slot <num>"	

PR	156663	Build: 6.4.3.780.R01
Summary:	Authentication failure trap sent after snmpv3 session establishment	
Explanation:	Authentication failure Trap not required for snmpv3 timewindow errors.	

PR	156329	Build: 6.4.3.772.R01
Summary:	Certification / flash syncro failure after electrical take over in a stack	
Explanation:	Change the Flash synchronisation process on non primary units to start after the time and date sync	

PR	159223	Build: 6.4.3.781.R01
Summary:	"ALL NIs (License expired, CMM Config OUT-OF-SYNC)" Seen in "show running directory output.	
Explanation:	Don't check for MPLS license while executing 'show running-directory'	

PR	153468	Build: 6.4.3.678.R01
Summary:	OS6250 - Reauthentication does not work properly	
Explanation:	Enable proper reauthentication for captive portal users	

PR	102616	Build: 6.4.3.525.R01
Summary:	BGP How to configure a in-prefix list only to permit the default route	
Explanation:	BGP Prefix-list handled properly to accept/deny a particular route if configured	

PR	108701	Build: 6.4.3.390.R01
Summary:	Static ARP entries are automatically added to the running configuration after a takeover on LA	
Explanation:	Not to store bogus arp entries in configuration file.	

PR	140954	Build: 6.4.3.675.R01
Summary:	6400 - Crash dump analysis	
Explanation:	Radius crash fixed by correcting transaction id match in radius packets	

PR	142482	Build: 6.4.3.315.R01
Summary:	Password Change Not Saved in Os6850 running 6.4.2 GA. Works Fine With 6.3.4 Code Version.	
Explanation:	Allow the user to change password using "password" command from cli.	

PR	145480	Build: 6.4.3.567.R01
Summary:	Fields wrongly filled in for TACACS+ frames through console connection	
Explanation:	Send remote address as "async" in case the access type is console	

PR	144835	Build: 6.4.3.533.R01
Summary:	Show configuration snapshot command does not display running config	
Explanation:	MIP overflow issue handled properly to avoid the memPartAlloc error issues after show configuration snapshot.	

PR	145703	Build: 6.4.3.527.R01
Summary:	show interfaces hybrid fiber counters errors displays copper port statistics	
Explanation:	Corrected the mipObject access for the hybrid counters errors CLI for fiber and copper ports	

PR	143831	Build: 6.4.3.392.R01
Summary:	6400 crashes with PMD while assigning ip static route in GUI	
Explanation:	Enabling BFD status for OS6400 is not allowed, as BFD is not supported in OS6400	

PR	144511	Build: 6.4.3.487.R01
Summary:	SLB TCP probes not working on some particular ports.	
Explanation:	Tcp socket connect using loopback0 address for ldap packets	

PR	147540	Build: 6.4.3.675.R01
Summary:	Stack of two 6850 Rebooted with "workQPanic"	
Explanation:	Preventing double free of IPC buffer by AAA task	

PR	149797	Build: 6.4.3.601.R01
Summary:	NI stop L2 and L3 traffic after running for a while	
Explanation:	Release buffers back to queue dispatcher, when we drop the dhcp packet due to qos configuration.	

PR	150291	Build: 6.4.3.630.R01
Summary:	OS6850 has an extra space before the hostname when writing log messages to the syslog server.	
Explanation:	Corrected the display behaviour with proper space indentation	

PR	153174	Build: 6.4.3.720.R01
Summary:	6250 sends a traps "Reason:mcastmismatch!! Detected" to HPOV	
Explanation:	Generating multicast mismatch trap properly	

PR **153216** Build: 6.4.3.672.R01
Summary: OS6250 - After reboot/crash 6250 does not send "EAP Request Identity" when "EAPOL start" is received
Explanation: EAPOL packets should be considered for reauthentication during CP-in progress case if reauthentication is enabled.

PR **156059** Build: 6.4.3.728.R01
Summary: Stack of 7: "show spanningtree ports configured" command is not showing all 7ni ports.
Explanation: Handle the MIP overflow for STP show CLI

PR **155254** Build: 6.4.3.732.R01
Summary: RADIUS Accounting - multiple messages with Acct-Status-Type - Accounting-On
Explanation: No processing for Radius Accounting On response as no action required for this message

PR **157541** Build: 6.4.3.766.R01
Summary: inserted new CMM B and swith crashed on CMM A
Explanation: Handle the improper insertion of CMM-B into the chassis graciously.

PR **160662** Build: 6.4.3.866.R01
Summary: BFD with VRRP does not work
Explanation: Link-Agg events processed in BFD is synced with BFD session state in NI

PR **159452** Build: 6.4.3.789.R01
Summary: OS6855 :: Temperature sensor error messages
Explanation: Recover the I2c Bus from lockup when a bad SFP is inserted.

PR **162788** Build: 6.4.3.855.R01
Summary: 6850 crashed and caused stack split
Explanation: Block further I2C access on 6850 after an I2CLock up , preventing CPU spike

PR **161203** Build: 6.4.3.847.R01
Summary: Multicast traffic stopped for some streams after takeover
Explanation: Multicast forwarding problem on takeover resolved

PR **140883** Build: 6.4.3.536.R01
Summary: Option82 field is not preserved if we have dhcp-snooping and ip-filtering enabled.
Explanation: DHCP Option 82 insertion based on agent information policy configured.

PR	144279	Build: 6.4.3.521.R01
Summary:	High CPU seen after reboot of any remote switch connected to the core with LINKAGG active.	
Explanation:	qDriver - corrected port bitmap calculation	

PR	150103	Build: 6.4.3.675.R01
Summary:	OS 9000 switch crashed after debug ipc active socket command.	
Explanation:	debug ipc active sockets slot <slot-num> command is not handled in 6x products	

PR	174370	Build: 6.4.3.904.R01
Summary:	VU-110617-3: Vulnerability in OpenSSL	
Explanation:	Add protection against ECDSA timing attacks	

PR	181508	Build: 6.4.3.925.R01
Summary:	ntp server configuration does not store IP Address of NTP server, instead it resolves NTP server to	
Explanation:	Controlling the snapshot of NTP configuration to store the IP address	

PR	138797	Build: 6.4.3.362.R01
Summary:	First ARP response is ignored in OS6850 stack and first packet lost when ping source is on Primary	
Explanation:	IPNI to handle messages from NI before handling ARP replies.	

PR	140784	Build: 6.4.3.521.R01
Summary:	CSM == APPLICATION_FATAL STR for: Elpc / TiPrm->suspended - switch crashed - analysis needed	
Explanation:	Code changes to prevent PIM message overflow when large route list are to be sent	

PR	143556	Build: 6.4.3.544.R01
Summary:	communication loss on tagged vlan 1 after reboot.	
Explanation:	Fix to avoid communication loss when port is tagged to vlan 1	

PR	142093	Build: 6.4.3.409.R01
Summary:	Packet fragmentation issue in 6.4.2	
Explanation:	Fragmentation of IP packets failing because of different Max mtu configured for ingress and egress ports is resolved.	

PR	141570	Build: 6.4.3.533.R01
Summary:	Program exception in windTickAnnounce API	
Explanation:	Have introduced a defense check for the linkAgg task crash	

PR	145479	Build: 6.4.3.567.R01
Summary:	"aaa authentication xxx SERVER local" not working properly	
Explanation:	Server authentication is used for console access, when configured.	

PR	145557	Build: 6.4.3.562.R01
Summary:	CMM-Takeover with task tCS_PRB and sshd_ct1 suspension	
Explanation:	Enhancing PMD to include device header information	

PR	148070	Build: 6.4.3.590.R01
Summary:	Need flag to disable qds check for own router packets	
Explanation:	Allowing Qos port-disable for packets with SA MAC as Router Mac under Controlled environment. To enable this, need to set "acceptSrcMacPkt" flag in AlcatelDebug.cfg	

PR	148109	Build: 6.4.3.675.R01
Summary:	SNMP engine not rebooted even after the engine time crossed the limit.	
Explanation:	Reset SNMP engine when the time limit exceeds for snmp engine time.	

PR	148601	Build: 6.4.3.675.R01
Summary:	Rack server switch 6850 crash	
Explanation:	Resetting proper select delete hook flags for select system call failures to prevent system hanging on SSH attack scripts	

PR	148724	Build: 6.4.3.641.R01
Summary:	ipedrArpUnreachAge does not exist (needed for AlcatelDebug.cfg)	
Explanation:	Added dshell flag ipedrArpUnreachAge to control unreachable ARP age.	

PR	150463	Build: 6.4.3.675.R01
Summary:	AOS slot 2 rebooted and issuing flash synchro	

PR	153061	Build: 6.4.3.675.R01
Summary:	OS6250 - PMD analysis requested, few stack units crashed and 100% CPU reported on primary	
Explanation:	Re-authentication is shortened and a check is made before local re-authentication.	

PR	152764	Build: 6.4.3.646.R01
Summary:	Type 5 LSA flushed when "ip ospf area 0.0.0.1 summary disable" given	
Explanation:	Code fix not to flush type 5 lsas when ospf nssa area summary is disabled	

PR	159788	Build: 6.4.3.788.R01
Summary:	ERP RPL block un-protected VLAN	

PR **173598** Build: 6.4.3.895.R01
Summary: Issue with a special character and ssh session
Explanation: While parse the tty modes to the terminal fd, set all of the option bits and disable the special ROM monitor trap character CTRL+X and CTRL+C

PR **185549** Build: 6.4.3.921.R01
Summary: LPS command "port-security <slot/port> no mac all" does not work correctly on 6.4.3.907. Ref-PR# 184

Known Issues:

PR **154177**
Summary: show mac address table takes several minutes to display the correct count/entries
Explanation: Fix to sync Mac-address table in CMM immediately after "no mac-address table" command issued

PR **145589**
Summary: Auto-neg configuration needs to be replicated in both fiber and copper mediums for combo ports.
Explanation: On an OS6850 auto-negotiation configuration needs to be replicated on both fiber and copper mediums for combo ports.
Workaround: Use the following commands to duplicate the auto-negotiation configuration:
-> interfaces <slot/port> hybrid fiber autoneg {enable | disable}
-> interfaces <slot/port> hybrid copper autoneg {enable | disable}

PR **156967**
Summary: VRF specific IP address information, not displayed in AOS
Workaround: This can be done using an SNMPv3 user in the following manner:

Read the contents of alaVirtualRouterNameTable. The value in each row for alaVirtualRouterNameIndex specifies the VRFId and corresponding alaVirtualRouterName provides you the SNMPv3ContextName for the VRF. If SNMPv3 requests are made for each contextId in this table then you will get all enotries for the table across all VRF Id's.

PR **93114**
Summary: Oversized L2 Multicast packets are counted as InUcastPkts
Explanation: Oversized L2 multicast packets are counted as InUcastPkts with the 'show interface counters' command.
Workaround: There is no known workaround at this time.

PR	140359
Summary:	OS6850 - IP check sum fails when DSCP value is changed in IGMP
Explanation:	Fix for incorrect checksum calculation in IGMP Report packet
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PR	147444
Summary:	OS6800 - Unresolved ARP never age out
Explanation:	CMM to remove unresolved ARP entries once the entries are timed out in NI.
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PR	151490
Summary:	ssh error: IPC MIP Exit zcRecvfrom failed, ret=0, WRPcli_msg_done:1483
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PR	120915
Summary:	Slow avlan authentication, ip reassigning using window vista client
Explanation:	We currently Support Java- SE Runtime Environment 6 update 3. Java version 1.6.0_03 jre-6u3-windows-i586-p-s.exe Notes: Other Java versions may not have been tested and nor supported.
Workaround:	Please use Java version 1.6.0_03
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PR	142038
Summary:	IP multicast hardware/software table out-of-sync on 6850 Stacks
Explanation:	1) IPMNI to send port info in the source ageout message to IPMS-CMM. 2) IPMS-CMM removes the source only if source agesout in the slot on which it was learnt
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PR	152479
Summary:	OS 9700 DHCP-SERVER not configured no file found , Errors alarm cannot open QDHCP configuration fil
Explanation:	On bootup, the DHCP Server task will look for the dhcpd.conf file in the /flash/switch directory. If the file is not available, it will try to load the config from the dhcpd.conf.last good file. If both these files are not available, the above error messages are thrown.
Workaround:	create the dhcpd.conf file using vi editor or obtain from customer support website.
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PR	144434
Summary:	PMD file generated when ERP configured along with VRRP
Explanation:	Crash in vrrp task when configured erp on that vlan is resolved using a defense fix.
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PR	149696
Summary:	show spantree counters are not reset when stp is disabled

PR **160259**
Summary: Finisar SFP-10G-ER is not working on OS9-XNI-U12E - require Level 2 Power up sequence

New Software Features:

1. Control Over Access Guardian

'Control Over Access Guardian' is a port level feature, acting as an additional filter for Access Guardian. This feature is implemented to control the authentication capabilities of clients who wish to log in to a switch through 802.1x enabled ports. With the feature in place, the visibility of a client can be restricted to being a supplicant/non-suppliant as per the administered configurations.

A Suppliant Client will be forced to undergo MAC authentication initially, even if the packet sent be an EAPOL packet. Subsequently after MAC authentication, the client can undergo Suppliant authentication if the rule has been stated so.

Release & Build :

The feature will be available in 6.4.3.R01 from build 560 onwards.

Platforms Supported:

This feature will be supported in OS6400, OS6850, OS6855 and OS9x00.

CLI Command Usage Guidelines:

The following two commands have been included for this feature:

- (i) **802.1x <slot/port> supplicant bypass enable/disable**
This command enables/disables supplicant bypass so as to force a client to undergo MAC authentication before proceeding for Suppliant authentication.

- (ii) **802.1x <slot/port> non-suppliant allow-eap pass/fail/noauth/none**
This command configures the type of client to be allowed for supplicant authentication. Eg -> If configured as 'pass', only the clients which pass their mac authentication will be processed for supplicant authentication.
Here, 'none' refers to disabling supplicant authentication on the port completely. Any client (EAP/Non-EAP) can only undergo MAC authentication with this configuration.

Limitations & Restrictions:

- (i) Force-authorization/ Unauthorisation, Supp-polling retry 0 cannot be configured on a supplicant bypass enabled 802.1x port.

- (ii) COAG cannot be enabled on a 802.1x port where port-control is force authorized/unauthorized, and/or where supp-polling retry value is 0.

Basic Scenarios:

Definitions of Table Headers:

1. MAC Credentials:

- a. Valid – MAC profile configured in RADIUS Server, for authentication success.
- b. Invalid – MAC profile not configured in RADIUS Server, for authentication failure.
- c. No mac authentication configured – No MAC authentication configured in the switch, thus disabling any client’s MAC to be authenticated by the RADIUS Server.

2. MAC Authentication: Yes/No refers to only the process of MAC authentication taking place, and not the result of MAC Authentication.

3. 802.1x Authentication: Yes/No refers to only the process of 802.1x authentication taking place, and not the result of 802.1x Authentication.

Client	MAC Credentials	Allow-EAP configured	MAC Authentication	802.1x Authentication
Supplicant	Valid	Pass	Yes	Yes
		Fail	Yes	No
		Noauth	No	No
		None	Yes	No
Non-Supplicant	Valid	Pass	Yes	No
		Fail	Yes	No
		Noauth	No	No
		None	Yes	No
Supplicant	Invalid	Pass	Yes	No
		Fail	Yes	Yes
		Noauth	No	No
		None	Yes	No
Non-Supplicant	Invalid	Pass	Yes	No
		Fail	Yes	No
		Noauth	No	No
		None	Yes	No

Supplicant	No mac authentication configured	Pass	No	No
		Fail	No	No
		Noauth	No	Yes
		None	No	No
Non-Supplicant	No mac authentication configured	Pass	No	No
		Fail	No	No
		Noauth	No	No
		None	No	No

2. 802.1x Non-Supplicant Accounting Behavior

This feature allows the Omni Switch to enable accounting for Onex non-supplicant users. Accounting is the action of recording what the user is attempting to do or what the user has done. The actions are login / logout / auth failure/ and updation of client ip-address. This feature will impact only the AAA, CLI and Web View modules. Counters are maintained to show the respective events for non-supplicant.

Release & Build:

This feature is supported in 6.4.3.R01 from build <xxx>

Platforms Supported:

OS6850, OS6400, OS6855, OS9xxx

CLI Commands:

```
show aaa accounting mac
show aaa accounting mac statistics
```

Software Limitation:

1. Any means of mac-flush will be considered as a logout, since there is no explicit logout for a non-supplicant.
2. The statistics collected from ESM driver is for per port and not per MAC
3. The statistics can be reset only when the images are loaded or when switch came up.

Hardware Limitation:

N/A

3. LLDP Security mechanism for rogue device restriction

LLDP security mechanism allows the Omni Switch to secure the access to the network by detecting rogue devices by having only one trusted LLDP agent on a port. User shall be provided an option to configure the chassis id sub type with which will be used in validating the chassis id type in the incoming LLDP PDU. When more than one LLDP remote agent is learned on a port or if no LLDP

PDU is received within 3 times the LLDP transmit interval (30 seconds) after link up on which there is no trusted remote agent or if same chassis id and port id of the remote agent already exists in the trusted remote agent database but on different port, in these cases the port will be moved to violation state. User can configure the Violation action as trap or shutdown the port or generate a trap and shutdown the port

Release & Build:

This feature is supported in 6.4.3.R01 from build 579

Platforms Supported:

OS6850, OS6400, OS6855, OS9xxx

CLI Commands:

```
lldp {chassis | <slot> | <slot/port>} trust-agent {enable |disable} [chassis-id-type {chassis-component |  
Interface-alias | Port-Component |MAC-Address | Network-Address | Interface-name |Locally-  
assigned|any }]
```

```
lldp {chassis | <slot> | <slot/port>} trust-agent violation-action {trap | shutdown}  
interfaces <slot>/<port> clear-violation-all
```

```
show lldp {chassis | <num> | <slot/port>} config
```

```
show lldp trusted remote-agent
```

```
show lldp <slot/port> trusted remote-agent
```

```
show lldp trust agent
```

```
show configuration snapshot aip
```

Software Limitation

1. For the current release any learned/validated LLDP Remote agent will be declared as a valid user and user will not have a provision for configuring a trusted agent statically.
2. User will not have any option to convert the trusted database into a permanent trusted database in this release.

Hardware Limitation

None

4. Stack MIB enhancement - Phase II

Including ifAlias and ifSpeed for stack ports like the normal physical ports. Hence we will be able to configure the ifAlias for stack ports via CLI, SNMP and Web view. And the same can be retrieved also. ifSpeed for stack ports is assigned as the default value for 10 G.

Release & Build:

This feature is supported in 6.4.3.R01 from build 601

Platforms Supported:

Stackable products only - OS6850, OS6855-U24X, OS6400

CLI Commands:

```
show interface port
interface <slot>/<port#> alias "string"
interface <slot>/<A/B> alias "string"
```

Software Limitation:

A and B notation for stack ports is applicable only in configuring alias via CLI. ifSpeed value for 10G cannot be holded in unsigned int 32 as its range is exceeded. So as per the existing feature, the max value of uint32 will be returned.

Hardware Limitation:

Applicable only for stack ports and if they are in stacked mode

5. IP Multicast Replication

Using IP Multicast Replication, the IPMC_VLAN table utilization can be optimized. The idea is to share an IPMC_ENTRY in scenarios where two ports are forwarding to the same set of vlans. There by increasing the number of flows supported across different platforms when forwarding take places in the same set of vlans. With this approach, it is possible to have more flows with the same set of tables, because we could have more room in IPMC_VLAN table which could be used by other flows. We could have maximum of 1021 flows in all 24 ports, in all vlans.

Release & Build:

This feature is supported in 6.4.3.R01 from build 594

Platforms Supported:

OS6850, OS6855, OS6400, OS9xxx

CLI Commands:

This feature is enabled by default and CLI configuration not applicable.

Software Limitation:

N/A

Hardware Limitation:

N/A

6. Vlan Based Ingress Source Filtering

In AOS, Ingress Source Filtering (ISF) is currently supported only on per port basis/per linkagg and it is disabled by default. When ISF is enabled at port level switch shall accept packets only if the packet matches IP/MAC/PORT combination which is obtained from the DHCP snooping binding table entry. All other non-matching packet shall be dropped in the ingress port irrespective of the vlan.

The requirement is to provide the ability for the user to configure ISF at Vlan level. When ISF enabled at vlan level AOS, switch shall try to match the VLAN of the packet received along with matching IP/MAC/Port. Thus when ISF is enabled at vlan level, the packets from all the ports on that vlan are subjected to ISF. Note that ISF shall be enabled at vlan level only when DHCP snooping is enabled either on switch level or VLAN level, When DHCP snooping is enabled in VLAN, ISF shall be enabled only on the VLAN in which DHCP snooping is enabled.

Release & Build:

This feature is supported in 6.4.3.R01 from build 594

Platforms Supported:

OS6850, OS6855, OS6400, OS9xxx

CLI Commands:

```
ip helper dhcp-snooping ip-source-filter port <slot/port|slot/port1-port2> {enable | disable}
ip helper dhcp-snooping ip-source-filter linkagg <num> {enable | disable}
ip helper dhcp-snooping ip-source-filter vlan <num> {enable | disable}
show ip helper dhcp-snooping ip-source-filter port
show ip helper dhcp-snooping ip-source-filter vlan
```

Software Limitation:

None

Hardware Limitation:

We can configure to the maximum of 128 entries per slice. Since we have only 2 slices reserved for this feature, the ISF configuration shall be supported on a maximum of only 32 vlans

7. Telnet Port

This feature will allow the AOS switch to act as a telnet client and connect to external telnet servers running on non-default TCP port (i.e. other than port 23). This feature will support telnet over both IPv4 and IPv6. This is only applicable when the switch is acting as a Telnet Client. The Telnet Server running on the AOS will still be listening on TCP port 23

Release & Build:

This feature is supported in 6.4.3.R01 from build 594

Platforms Supported:

OS9, OS6850, OS6855, OS6400

CLI Command:

```
telnet6 3ffe:0501:0008:0000:0260:97ff:fe40:efab port 1122
telnet 1.1.1.1 port 1122
```

Software/ Hardware Limitation:

None

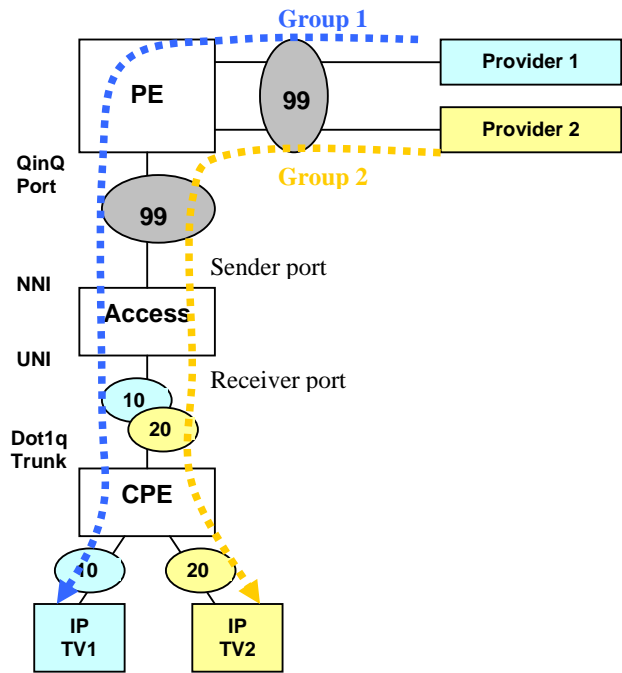
8. IPMVLAN Replication

Overview

IPMVLAN Replication feature is to allow several subscribers from different VLANs on a trunk interface to subscribe and unsubscribe to a single IPMVLAN. This feature is supported on Ethernet-Service mode and Enterprise mode. QinQ service is provided using E-Service mode. Pure dot1q service is provided by Enterprise mode.

E-Service

The typical setup which the customer is going to have is as below.



Service Details

- Internet service is provided using QinQ.
- Multicast service is provided using dot1q.

Setup Details

- 2 providers share the same IPMVLAN 99.
- The PE is connected to the Access switch on QinQ port.
- The PE acts as the querier.
- Ethernet-Service is configured in the Access switch. The Access switch is connected to the PE on NNI and connected to the CPE on UNI.
- In Access switch, CVLAN 10 and 20 configured on the UNI.
- In Access switch, Sender port and Receiver port is configured. Receiver VLANs (RVLANS) 10 and 20 are configured on the Receiver port.
- The CPE is connected to the Access switch on a qtagged trunk.
- Each provider deploy their own STB in customer premises.
- Each STB uses its own VLAN. In this case, VLAN 10 and VLAN 20.

Working

- The Access switch snoops the IGMP membership messages from the STB and maintains the membership on multicast VLAN 99 for Receiver VLANs 10 and 20.
- Multicast source traffic is forwarded from sender port to group members on the receiver port tagged with RVLANS.

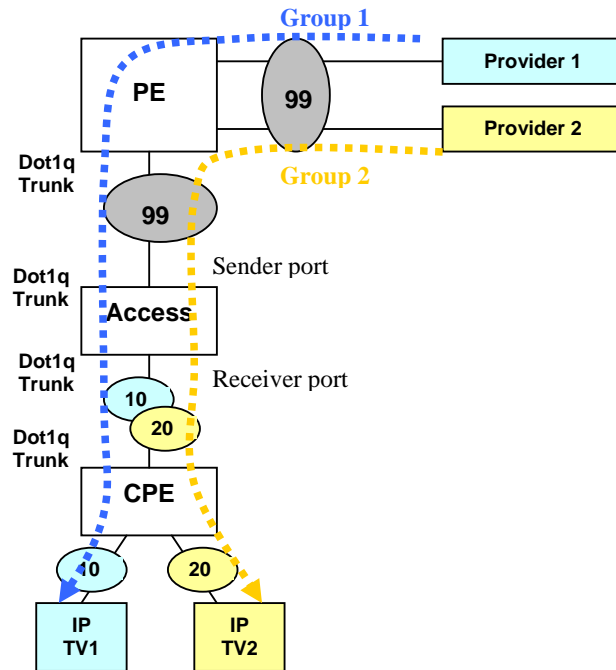
Configuration in Access switch

```

! IPMS :
ip multicast status enable
! VLAN :
vlan 1 enable name "VLAN 1"
ethernet-service ipmvlan 99 name "VLAN 99"
ethernet-service svlan 1000 name "VLAN 1000"
! VLAN SL:
! VLAN AGG:
! VLAN STACKING:
ethernet-service svlan 1000 nni 1/1
ethernet-service service-name "customer1" svlan 1000
ethernet-service sap 10 service-name "customer1"
ethernet-service sap 10 uni 1/2
ethernet-service sap 10 cvlan 10
ethernet-service sap 10 cvlan 20
vlan ipmvlan 99 sender-port port 1/1
vlan ipmvlan 99 receiver-port port 1/2 receiver-vlan 10
vlan ipmvlan 99 receiver-port port 1/2 receiver-vlan 20
vlan ipmvlan 99 address 227.0.0.7

```

Enterprise



Service Details

- Internet service is provided using dot1q.
- Multicast service is provided using dot1q.

Setup Details

- 2 providers share the same IPM VLAN 99.
- The PE is connected to the Access switch on a qtagged trunk.
- The PE acts as the querier.
- In Access switch, VLAN 10 and 20 are created as regular tagged VLANs.
- In Access switch, Sender port and Receiver port is configured. Receiver VLANs (RVLANS) 10 and 20 are configured on the Receiver port.
- The CPE is connected to the Access switch on a qtagged trunk.
- Each provider deploy their own STB in customer premises.
- Each STB uses its own VLAN. In this case, VLAN 10 and VLAN 20.

Working

- The Access switch snoops the IGMP membership messages from the STB and maintains the membership on multicast VLAN 99 for Receiver VLANs 10 and 20.
- Multicast source traffic is forwarded from sender port to group members on the receiver port tagged with RVLANS.

Configuration in Access switch

```
! IPMS :
ip multicast status enable

! 802.1Q :
vlan 10 802.1q 1/2 "TAG PORT 1/2 VLAN 10"
vlan 20 802.1q 1/2 "TAG PORT 1/2 VLAN 20"

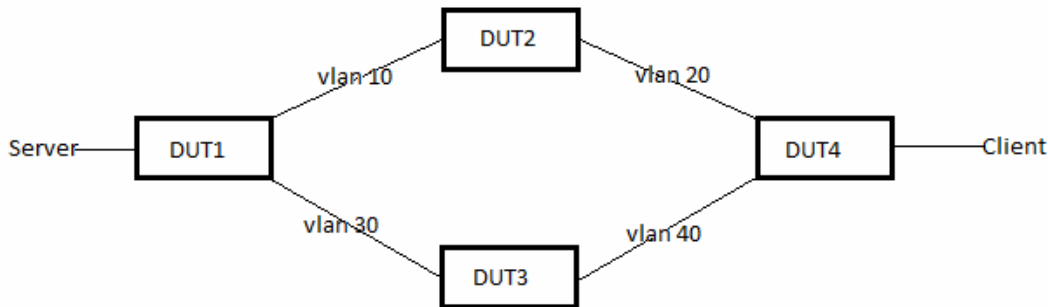
! VLAN :
vlan 1 enable name "VLAN 1"
vlan ipmvlan 99 name "VLAN 99"
! VLAN SL:
! VLAN AGG:
! VLAN STACKING:
vlan ipmvlan 99 sender-port port 1/1
vlan ipmvlan 99 receiver-port port 1/2 receiver-vlan 10
vlan ipmvlan 99 receiver-port port 1/2 receiver-vlan 20
vlan ipmvlan 99 address 227.0.0.7
```

9. PIM Sub-second Convergence

Description:

This feature is to minimize the delay at the time of failure in the primary path forwarding multicast data packets by deploying BFD in Multicast Routing Protocols – in both PIM DM and PIM SM. On intimation from BFD about the primary link (neighbor) failure, sub second convergence could be achieved by a redundant path to carry forward the source traffic immediately. And also to minimize the delay in resuming the data packet flow in the alternate path by deploying the redundant path functionality.

Use Case Diagram:



Platforms Supported: OS6850, OS9800, OS9700, OS9700E, OS9800E

Guidelines

With this feature BFD can be enabled for PIM neighbors (this is similar to the existing feature available for OSPF). BFD needs to be enabled on the PIM interfaces and also a global control to enable BFD on PIM SM/DM is also available. This feature will reduce the time delay in reduction of PIM neighbor timeout detection.

To get sub-second convergence for Multicast in PIM, both flags `gOspfSubSecond` and `gOspfBfdSubSecond` should be set to 1, apart from enabling BFD for unicast and multicast routing protocol. Currently sub-second convergence can be achieved in PIM only if the unicast protocol is OSPF and BFD is enabled on OSPF.

The two paths which are available for the Multicast data path are through

- 1) DUT1 <-> DUT2 <-> DUT4
- 2) DUT2 <-> DUT3 <-> DUT4

In order to achieve sub-second convergence for failover between path 1 and path 2 (or vice versa) in the use case diagram, BFD should be enabled on the OSPF and PIM interfaces on `vlan10`, `vlan20`, `vlan30` & `vlan40`.

Further improvement in convergence can be achieved by redundant path functionality, which can be used only in PIM-DM. This is controlled by a CLI where it is disabled by default. Here the data packets are forwarded across on the various redundant paths available in the network.

CLI commands:

1. `ip pim interface <intf> bfd-std {enable | disable }`

2. *ip pim sparse bfd-std status {enable | disable}*
3. *ip pim dense bfd-std status {enable | disable}*
4. *ip pim dense redundant-path status {enable | disable}*
5. *show ip pim dense*
6. *show ip pim sparse*
7. *show ip pim interface*

intf - interface on which PIM is enabled.

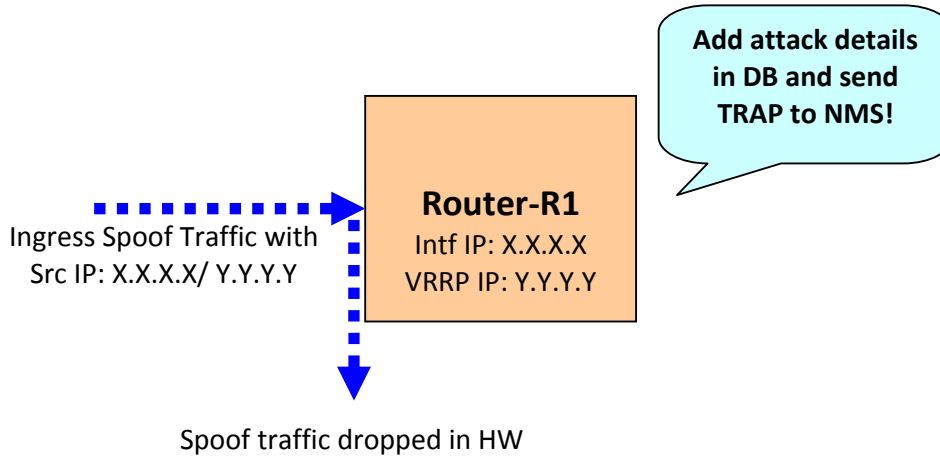
Performance and Limitations:

- With default timer values of BFD in simple networks resembling the use case diagram results in convergence time between 300ms to 800ms depending upon type of failure (plugging out of physical interface, a port goes down in across NI Linkagg etc.,)
- Redundant-path feature will result in additional bandwidth usage as the data streams are also forwarded on back up path, where in normal cases is not done so.
- The performance may vary depending upon the number of BFD session established on a DUT.
- The performance may vary depending upon the number of alternate path available.

10. IP and ARP Spoof Protection

IP and ARP spoof detection feature will allow the network administrator to block and know the originator of spoof traffic coming from front panel ports with Source IP as IP-addresses configured internal to the router. Once IP spoof-detection is enabled, all data and control packets ingress on the switch with Vlan and internal IP-address of that Vlan as source information will be dropped. The details of dropped spoof packets will be maintained in the attack database. For any new attack event (source ip, source mac, source vlan) combination, a TRAP will be generated to NMS station if configured. The router will send gratuitous ARP request for each and every attack attempt. CLI options provided to enable IP and ARP Spoof detection at the Global level, per IP interface level and per VRRP IP address level

Sl. No.	Global Status	Per Interface IP Anti-Spoof Status	Per IP Interface Arp-Only Spoof Status	Per Virtual Router IP Anti-Spoof Status	Per Virtual Router IP Arp-Only Spoof Status
1.	Anti-Spoof Enabled	Enabled	Enabled	Enabled	Enabled
2	Anti-Spoof Disabled	Disabled	Disabled	Disabled	Disabled
3	Arp-Only Spoof Enabled	Disabled	Enabled	Disabled	Enabled
4.	Arp-only Spoof Disabled	Enabled	Enabled	Enabled	Enabled

Use Case Diagram:**Platforms Supported:**

OS6850, OS6855, OS6400, OS9000, OS6855 –U24X and OS9000E.

Guidelines

This feature is enabled by default, which will have any IP traffic with Src IP similar to Router's configured IP interface or VRRP IP interface address to be dropped and details will be logged as part of the feature's CLI output.

CLI commands:

1. *ip dos anti-spoofing {enable | disable}*
2. *ip dos anti-spoofing arp-only {enable | disable}*
3. *ip dos anti-spoofing address <ip-address> {enable | disable}*
4. *ip dos anti-spoofing address <ip-address> arp-only {enable | disable}*
5. *ip dos anti-spoofing clear stats*
6. *ip dos anti-spoofing address <ip-address> clear stats*
7. *show ip dos anti-spoofing*
8. *show ip dos anti-spoofing <ip-address>*

```
-> show ip dos anti-spoofing
```

Global Status:

IP Spoof Status - Enabled
 ARP-only spoof status - Disabled

*- VRRP IP Address

IP Address	Anti-Spoofing	Attacks	Last Attempted Source VLAN,MAC,PORT
10.10.10.1	IP	200	10,00:00:00:00:DB:DB,1/1
*20.20.10.1	ARP	100	20,00:00:00:00:DE:DE,1/4
30.30.30.1	IN	300	30,00:00:00:00:DC:DC,1/3

IP – Anti-spoofing for IP Pkts
 ARP - Anti-spoofing for ONLY ARP Pkts
 IN - Inactive

-> show ip dos anti-spoofing 10.10.10.1

Global Status:
 IP Spoof Status - Enabled
 ARP-only spoof status - Disabled

*- VRRP IP Address

IP Address	Anti-Spoofing	Attacks	Last Attempted Source VLAN, MAC, PORT
10.10.10.1	IP	200	10,00:00:00:00:DB:DB,1/1

IP – Anti-spoofing for IP Pkts
 ARP - Anti-spoofing for ONLY ARP Pkts
 IN - Inactive

Hardware Limitations

Total number of IPs/VRRP IPs where this feature can be enabled is aligned to one slice quantity of corresponding BCM CHIP. OS6850/OS9700/OS9800 will support 128 entries.OS6855-U24X and OS6400 will support 256 entries.OS9702E will support 512 entries

11. Routed IP Port

AOS currently supports addition of an IP interface on a particular VLAN. The device type is set to VLAN and the physical ports are attached to the particular VLAN. The current IP interface is not directly associated with the physical port and the underlying VLAN can support a host of L2 protocols and also VLAN switching.

A routed port is a physical port on which we supporting L3 functionality. To achieve this we also support an IP interface of new device type “RTR-PORT” and specify the rtr-vlan, rtr-port and the type (tagged/ untagged VLAN frames) in one go. The user shall not be able to modify any of these 3 parameters once specified, but will have to delete and recreate the IP interface to change the association. The user will however be allowed to administratively disable the IP interface. The underlying rtr-vlan will not switch in L2 as there is only one port associated with the VLAN.

Platforms supported:

OS6850, OS6855, OS6400, OS9000, OS6855 –U24X and OS9000E.

CLI commands:

The following new CLI options will be added for the IP interface command to support the IP interface with device type “RTR-PORT”.

```
[no] ip interface <name> {vlan <num> | { rtr-port [<agg_num>| <slot/port>] rtr-vlan <num>
[type {tagged | untagged}}] }
```

rtr-port: The physical port associated with the IP interface (device type “RTR-PORT”). This can be the “slot/ port” to identify the port or the “agg-num” in the case of a link aggregation port. This parameter is mandatory for a RTR-PORT IP interface.

rtr-vlan: An unused vlan on the system to be associated with this IP interface. This parameter is mandatory for a RTR-PORT IP interface.

type: Tagged or untagged specifying whether to handle 802.1q frames or untagged frames on the specified port. This parameter is optional and defaults to type “untagged” if not specified.

Examples :-

```
ip interface IP1 rtr-port 1/2 rtr-vlan 20 type untagged
ip interface IP2 rtr-port 3 rtr-vlan 40 type tagged
```

The IP interface needs to be associated with the rtr-port, rtr-vlan (an unused vlan) and the type (tagged for handling 802.1q frames on the port or untagged to handle untagged frames) for setting this to be a RTR-PORT IP interface. The options vlan / rtr-port are mutually exclusive - the device type will be set to VLAN or RTR-PORT accordingly. Note that the other existing parameters like address/ mask for an IP interface remain as they are as for a VLAN IP interface.

```

Welcome to the Alcatel-Lucent OmniSwitch 6000
Software Version 6.4.3.749.R01 Service Release, April 15, 2011.

Copyright(c), 1994-2010 Alcatel-Lucent. All Rights reserved.

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

172.25.50.41-> show ip interface
Total 4 interfaces

```

Name	IP Address	Subnet Mask	Status	Forward	Device
Loopback	127.0.0.1	255.0.0.0	UP	NO	Loopback
MGMT	172.25.50.41	255.255.255.0	UP	YES	vlan 172
intf1	10.10.10.1	255.255.255.0	UP	YES	Rtr-Port 1/3 vlan 10 UNTAGGED
intf2	30.30.30.1	255.255.255.0	UP	YES	Rtr-Port 1/1 vlan 30 TAGGED

```

172.25.50.41-> show vlan
Vlan type: std => Standard Vlan
Vlan type: rtr => Router Vlan, reserved for rtr-port IP Interface

```

vlan	type	admin	oper	stree			ip	ipx	tag	mble	src	name
				1x1	flat	auth						
1	std	on	on	on	on	off	off	NA	off	on	on	VLAN 1
10	rtr	on	on	off	off	off	on	NA	off	on	on	Router VLAN: 10
30	rtr	on	on	off	off	off	on	NA	off	on	on	Router VLAN: 30
172	std	on	on	on	on	off	on	NA	off	on	on	VLAN 172

```

172.25.50.41-> show vlan 30
Name : Router VLAN: 30,
Administrative State: enabled,
Operational State : enabled,
1x1 Spanning Tree State : disabled,
Flat Spanning Tree State : disabled,
Authentication : disabled,
IP Router Port : on,
IPX Router Port : none,
Mobile Tag : off,
Source Learning : enabled
Router Vlan : yes

```

Software limitation:

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- IP interface of device type “Rtr-port” can be configured only on unused VLAN & port.
- Once configured, IP interface can't be modified unless the interface is deleted and created as a new one.
- Once configured, we can't use the “rtr-port” as well as “rtr-vlan” in any other configuration.
- STP can't be enabled on the rtr-port or rtr-vlan across mode/ configuration changes.
- 802.1x/ bridge/ ethernet-service/ port-security commands can't be used with “rtr-port” or “rtr-vlan”.
- All functionality that involves more than one port in a vlan - L2 switching for example is not applicable for the rtr-port and rtr-vlan.
- Once the rtr-vlan is created (internally) it can't be associated to any other IP interface.
- MVRP/ GVRP commands shouldn't be used with “rtr-port”/ “rtr-vlan”.

12. Captive Portal Enhancement

Introduction:

Captive Portal is enhanced with four features.

Captive portal public certificate support (CN name change)

When users log into the captive portal, most browsers will alert the end user that the certificates are not valid. This is due to the fact that the certificate does not match the current name of the captive portal website and is pre-loaded. With this feature, when http redirection takes place, the redirect url will hold the configured name instead of the default name “captive-portal”.

Captive portal public certificate support (certificate password)

This allows user to configure a password through cli, this password should be same as the passphrase which was used during certificate creation. The switch will use this password to read the certificate instead of the default password “alcatel”.

Captive-portal Inactivity logout timer

The captive portal retains user information for a predetermined amount of time (session-limit time). A user may disconnect/reconnect during this time without being challenged for authentication information. This feature will enable a second mode where the user information will be flushed based on inactivity. Inactivity is defined as equal to the MAC aging timer.

Captive-portal Custom Proxy Support

The captive portal IP interface (10.123.0.1) will only accept connections from port 80, 443 and 8080. This feature allows users to configure a user defined proxy port other than 80, 443 or 8080 through CLI.

Platforms Supported:

Omni Switch 6400, 6850, 6855, 9000E, 9000



Commands usage:

1. **802.1x captive-portal name <cp_url_name>**
802.1x captive-portal no name

Syntax Definitions

cp_url_name: The name to be used for the redirect URL.

Defaults

By default, the name of the redirect URL is set to “captive-portal”.

Platforms supported:

Omni Switch 6400, 6850, 6855, 9000E, 9000.

Usage Guidelines

- Use this command to change the Captive Portal redirect URL name (captive-portal) to match the Common name (cn) used by the public certificate on the switch. Matching these two names prevents a Certificate warning message caused when these names do not match.
- Use the no form of this command to remove the configured Captive Portal redirect URL name. This reverts the URL name back to the default of “captive-portal”.
- This feature is not supported on HTTPS sessions

Examples

```
->802.1x captive-portal name certname  
-> 802.1x captive-portal no name
```

Limitations

This feature is not supported for https sessions as https-https redirection is not allowed, we cannot modify the url with the name configured through cli command.

2. **aaa certificate-password<password>**
no aaa certificate-password password



Syntax Definitions

password: The password required to access the certificate.

Defaults

By default, the certificate password is set to “alcatel”.

Platforms supported:

Omni Switch 6400, 6850, 6855, 9000E, 9000.

Usage Guidelines

- Use the **no** form of this command to remove the configured password from the switch configuration.
- This command is used with the Captive Portal feature to allow public certificate support.
- The password should match the passphrase used when the certificate was created.

Examples

```
->aaa certificate-password certpass  
->no aaa certificate-password
```

3. 802.1x *slot/port* captive-portal inactivity-logout {enable | disable}

Syntax Definitions

slot/port: The slot and port number of the 802.1x port.

enable: Enables inactivity logout.

disable: Disables inactivity logout.

Defaults

By default, Inactivity logout is disabled.



Platforms supported:

Omni Switch 6400, 6850, 6855, 9000E, 9000.

Usage Guidelines

- This timer is based on the MAC address aging timer. If a user is flushed from the MAC address table due to inactivity, the user MAC address is also flushed from the Captive Portal user table.

Examples

- > 802.1x 3/1 captive-portal inactivity-logout enable
- > 802.1x 3/1 captive-portal inactivity-logout disable

4. **802.1x captive-portal proxy-server-port <proxy_port>**
802.1x captive-portal no proxy-server-port

Syntax Definitions

proxy_port : The configured port for the proxy server. Valid range is between 1024 - 49151.

Defaults

N/A

Platforms supported:

Omni Switch 6400, 6850, 6855, 9000E, 9000.

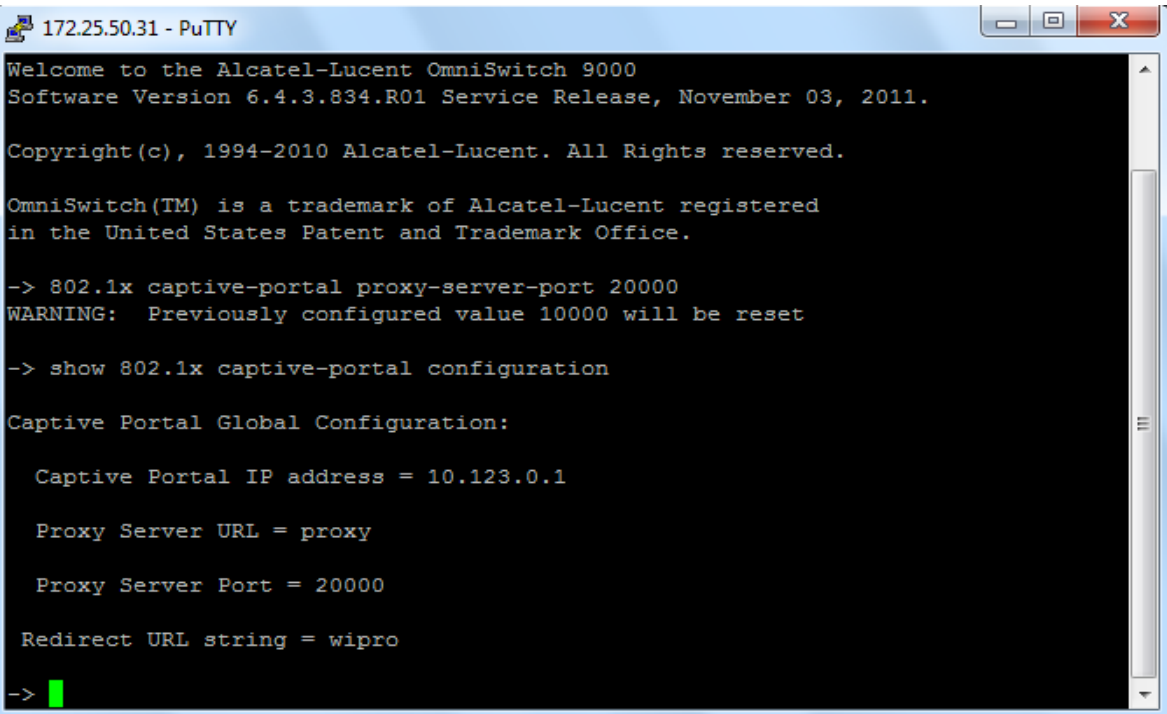
Usage Guidelines

- This command is only necessary if the port required is not 80 or 8080.

Examples

- >802.1x captive-portal proxy-server-port 20000
- > 802.1x captive-portal no proxy-server-port

Show 802.1x captive-portal configuration



```
172.25.50.31 - PuTTY
Welcome to the Alcatel-Lucent OmniSwitch 9000
Software Version 6.4.3.834.R01 Service Release, November 03, 2011.

Copyright (c), 1994-2010 Alcatel-Lucent. All Rights reserved.

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

-> 802.1x captive-portal proxy-server-port 20000
WARNING: Previously configured value 10000 will be reset

-> show 802.1x captive-portal configuration

Captive Portal Global Configuration:

  Captive Portal IP address = 10.123.0.1

  Proxy Server URL = proxy

  Proxy Server Port = 20000

  Redirect URL string = wipro

-> █
```

Show 802.1x slot/port

```
172.25.50.31 - PuTTY
in the United States Patent and Trademark Office.
-> show 802.1x

802.1x configuration for slot 2 port 1:

direction                = both,
operational directions   = both,
port-control              = auto,
quiet-period (seconds)   = 60,
tx-period (seconds)      = 30,
supp-timeout (seconds)   = 30,
server-timeout (seconds) = 30,
max-req                   = 2,
re-authperiod (seconds)  = 3600,
reauthentication         = no,
Supplicant polling retry count = 2,
Captive Portal Session Limit (hrs) = 12,
Captive Portal Login Retry Count = 3,
Supplicant Bypass        = disable,
Supplicant Bypass allow-eap Branch = none
Captive Portal Inactivity Logout = Enabled

-> █
```

13. Increased number of Passive OSPF Interfaces

Introduction:

This enhancement feature helps AOS switches for creating more than 100 OSPF interface per Area. By default, we can create only 100 OSPF interfaces per area. In this enhancement, “**gOspfAreaMaxIntfs**” variable is set to the required number of OSPF interfaces. This variable should be declared in the config file “AlcatelDebug.cfg”. An Optimization has also been introduced with this enhancement.

Before this enhancement, a passive OSPF interface was created with 4 lines of configuration in boot.cfg. This would be a tedious one when there is more number of passive OSPF interfaces created in an Area. To optimize this difficulty, route map is used. A route map with set action of route-type internal needs to be created for the local interface (routes) on which passive OSPF interface needs to be created. Using this route-map in redistribution of local into OSPF, the passive OSPF interfaces will be learned as intra routes. Thus those interfaces will act as passive OSPF interfaces. The OSPF interfaces created by the route-map command can be accessed in all the OSPF display commands. This passive OSPF interface will not be written into boot.cfg and will not be visible in snapshot.

Example: Include all IP interfaces which need to be configured as passive ospf interface, in a route map and then use the below commands to have them as passive ospf interface without configuring those IP interfaces as ospf interface.

```
ip route-map "R1" sequence-number 50 action permits
ip route-map "R1" sequence-number 50 set metric-type internal
ip redistrib local into ospf route-map R1 status enable
```

Platforms Supported:

OS6855, OS6855-U24X, OS6850E, OS6850, OS9000E.

Commands usage:

No new commands introduced

Limitations:

If there is local to OSPF redistribution route-map along with passive interface creation route map. Administrator has to take care that the match criteria is clearly defined

If there are multiple areas configured in the OSPF domain. The OSPF interface would be created in backbone area.

14. LPS Sticky mode

Introduction:

This feature Enhancement provides the facility to configure the learning window to learn all mac as static and to allow the mac- movement within it.

Earlier, The LPS feature limits the number of MACs that can be learned, up to a pre-determined number, plus supports a learning time window, and provides logging and notification if a rule violation occurs. This feature is enhanced to support the static learning, mac-move (within the learning window) and infinite learning window.

Platforms Supported:

Omni Switch 9600/9700

Commands usage:

1. **port-security shutdown <num> [no-aging {enable|disable}] [convert-to-static {enable|disable}] [boot-up {enable|disable}] [learn-as-static {enable|disable}]**

Syntax Definitions

Learn-as-static : this option is used for learning a MAC as static during learning window.

Enable : Enables LAS functionality on this port.

Disable configuration. : Disables LAS feature on this port without removing LPS

Learning is unrestricted.

Usage Guidelines

- By default, LAS admin-status is N/A.
- When disabled, all filtered MAC addresses on the port are removed and all bridged and static MAC addresses stay “forwarding”. The LPS static mac configuration is preserved. The source learning mode is set the hardware mode for the port and all new MAC addresses are learnt and not visible in the LPS context. The port-security configuration is still allowed but not applied, but configuration of LPS static mac is refused. Reducing the “maximum” to a lower value than the number of static mac is also refused.

2. **port-security shutdown <num> [no-aging {enable|disable}] [convert-to-static {enable|disable}] [boot-up {enable|disable}] [mac-move {enable|disable}]**

Syntax Definitions

Mac-move : Allows the movement of pseudo static/static mac when enabled.

Usage Guidelines

- By default, the option is N/A.

3. **port-security shutdown <0> [{ no-aging <enable|disable> } | {convert-to-static <enable | disable> } | {boot-up <enable|disable> } | {learn-as-static <enable|disable> } | {mac-move <enable|disable> }]**

Configuration will enable user to use all the options for learning window when the shut down time is zero.

Syntax Definitions:

Num : Learning window time in minutes (Max value ->65535)

No-aging : When enabled, MAC-address are learnt during learning window will not Be flushed.

Convert-to-static: When enabled, MAC-address are learnt during learning window

Are converted into static MAC address.

Boot-up : When enabled, Learning window should occur at boot-up time when box restarts.

Mac-move : Allows the movement of pseudo static/static mac when enabled.

Learn-as-static : this option is used for learning a MAC as static during learning window.

Usage Guidelines:

- User can use all, any or none of flags with “port-security shutdown 0 command now.

1. **Show commands are same as in previous feature.**

```

172.25.50.200 - PuTTY
DUT1--> show port-security

Legend: Mac Address: * = Duplicate Static
        Mac Address: # = Pseudo Static

Port: 1/3
Operation Mode :          ENABLED,
Max MAC bridged :          1,
Trap Threshold  :          DISABLED,
Max MAC filtered :          5,
Low MAC Range   :          00:00:00:00:00:00,
High MAC Range  :          ff:ff:ff:ff:ff:ff,
Violation       :          RESTRICT,
Violating MAC   :          NULL

MAC Address      VLAN  TYPE
-----+-----+-----
00:00:00:00:00:05  1  STATIC

Port: 2/13
Operation Mode :          ENABLED,
Max MAC bridged :          1,
Trap Threshold  :          DISABLED,
Max MAC filtered :          5,
Low MAC Range   :          00:00:00:00:00:00,
High MAC Range  :          ff:ff:ff:ff:ff:ff,
Violation       :          RESTRICT,
Violating MAC   :          NULL

MAC Address      VLAN  TYPE
-----+-----+-----
00:00:00:00:00:05  1  STATIC (*)

```

Limitations:

None

15. Flash lock across reboot of the switch**Introduction:**

This Enhancement enables the lock in the device memory even after reboot, which in turn states that no modification will be allowed to the device memory .Hence any changes or modifications to the persistent memory can be prevented such as SW functionalities user/profile management, DHCP configuration cannot , runtime changes of switching and routing configurations and software logs. This feature is mainly used in security sensitive networks.

With the implementation of this feature, the following will be the changes on the behavior of the switch:

- The mini boot of the Device is locked during reload so that no modifications can be done.
- The flash information is internally stored in the boot.params before locking the file.
- The lock will retain even after reboot and takeover hence no configuration changes will be saved on the switch.
- Telnet sessions will be allowed but ftp sessions will not be allowed once the memory is locked.

In the earlier implementation the lock was doesn't retain after reboot or takeover and user has to manually lock the memory each and every time after reboot.

Platforms Supported:

Omni Switch 6850
Omni Switch 6855-U24X
Omni Switch 6855-14

Commands usage:

No new commands were introduced in this feature and all the system storage commands will work in the same manner. But the following command alone shall be stored in the boot.cfg as plain text if it is configured before locking the flash file system and saved.

System storage server-ip <x.x.x.x> user <name> password <password> port <port-number>

- Server-ip is ip-address of a server which stores the extracted memory contents.

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- User and password is the user name and password required to connect to the server.
- Port number is the port number of the Ssh session.

-> System storage server-ip 172.65.200.20 user lkuppan password lk#
47597 port 22

-> write memory

File /flash/working/boot.cfg replaced.

Limitations:

Hardware Limitations:

None.

Software Limitations:

- Updating mini boot is mandatory for this feature to work.
- User must do certify and synchronization process before locking the system in stack so that there is no auto-synchronization failure after the system is locked.
- After locking the flash file system, No write operation on the /flash will be allowed. So any operation involving /flash write such as but not limited to DHCP server operation, DHCP binding table creation, user name/table updating, flash-synchronization, saving configuration, shall fail/impacted.
- If the user configures/stores the system storage server-ip user name and password, password shall be stored as plain text formation. So user MUST not store any secured information in the configuration, it shall be configured dynamically.
- The user has to manually certify and synchronize the system before executing the storage lock, fetch, program and clear command.