Intermediate Release Notes

Omni Switch 9xxx, 6850, 6855 & 6400

Release 6.4.3.949.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 mBlkClFree -- 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 doesn’t 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 in case 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:	Web view 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 boot-up		

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 LinkAgg Name and LinkAgg Description		

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		

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		

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.		

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 orginating ASBRs are different in NSSA area		

PR	**147176**	Build:	6.4.3.568.R01
Summary:	Request to have another optional flag for Access policy in CP web page		

Problems Fixed Between Builds 576 and 609

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		

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		

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.		

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		

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		

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.		

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 agg 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:	Calculating 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 clean-up the Emweb buffers		

PR	**149577**	Build:	6.4.3.599.R01
Summary:	Issue with automatic remote configuration scripts		
Explanation:	Remote configuration 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 "lpsViolationTrap - 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:	Sorce 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 power off 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 displays wrong		
Explanation:	Workaround to display proper Model name and Description		

PR	**150505**	Build:	6.4.3.629.R01
Summary:	non-supplicant user MAC-address will not learn on 802.1x port with mobile tag enabled		
Explanation:	Classify a non-supplicant 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 may hang the third party device 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 Web view		

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 transimission 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 looback 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 transimission 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 User Ports configuration 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 behavior 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 ipherlper 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 "taIpms" 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		

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		

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		

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		

PR	**153443**	Build:	6.4.3.659.R01
Summary:	After removing Port Monitoring while it is paused, the switch starts to experience packet drops		

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		

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		

PR	**151899**	Build:	6.4.3.647.R01
Summary:	IP phone will fail every day from 6pm to 8am.		
Explanation:	Connectivity issue fixed on Userports when qos spoofing is enabled		

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 web view 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 Re-authentication 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 snmp walk 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 re-authentication		
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 Omni Vista 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 Web View - 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		

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		

PR	**155037**	Build:	6.4.3.695.R01
Summary:	Getting on show log swlog "SAA error Cutils(3307):3307:Eth SAA Iter completion trap sending... "		
Explanation:	Log "SAA Iter completion trap sending" messages in swlog at lower severity level.		

PR	**154853**	Build:	6.4.3.696.R01
Summary:	ethoam loopback getting timed-out		

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		

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		

PR	**148098**	Build:	6.4.3.698.R01
Summary:	Flash synchro failure: CCM_CSM_FLASH_SYNCHRO_RS-appError 35		

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.		

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 captive portal, corrected port state check condition, when captive portal logout page is requested to support the fix.		

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 in-operational 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-supplicant 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 OS9700 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:	Changes 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 web view page.		
Explanation:	Added a retry count and session limit parameter in web view 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 boot-up		

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 ether type in qos policy		

PR	**156504**	Build:	6.4.3.734.R01
Summary:	CMM crashed with tCs_Probe task suspended: Analysis required		
Explanation:	Defense 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		
Explanation:	UDP-Relay Retry Mechanism introduced for Cfg Socket. Retry Mechanism is applicable only if Socket is in DISCONNECTED.		

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 received.		

PR	**155533**	Build:	6.4.3.745.R01
Summary:	BCM show BLK state for mobile port		
Explanation:	Retry Mechanism in GM and debugs added in GM and STPNI.		

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 l2-protocol stp peer" is not applied on UNI port		
Explanation:	Added a check not to allow peer option support in ethernet-services l2-protocol		

PR	**149830**	Build:	6.4.3.755.R01
Summary:	Unable to login after changing the admin user password to xxxxxxx"!"		
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 authorization 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.		

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 initialized 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 authorization		

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 Un-reach 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 "taUdldNi"		
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 its 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		

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		

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		

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.		

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		

PR	**158447**	Build:	6.4.3.774.R01
Summary:	Qos not getting applied after reboot of the switch		
Explanation:	Huge QOS configuration retained after reload when IP_ARP spoofing feature is enabled		

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		

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 pertaining to old route (with different mask) with age 3600 is flooded on the interface before processing further		

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

PR	**159157**	Build:	6.4.3.782.R01
Summary:	OS6850 doesn’t 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 upgraded.		
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/working" cause Synchronization commands will not be accepted due to low flash		
Explanation:	From dshell, "cd" will validate if 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 initalising 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:tUfiClnt (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		
Explanation:	Fix is provided when dvmrp fails to switchback on primary path.		

PR	**159692**	Build:	6.4.3.808.R01
Summary:	OS_9000 unexpected CMM take over		
Explanation:	Code changes done to add few more information in PMD.		

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 time zone		
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 web hostname 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 web view 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		
Explanation:	New error message has been introduced for TACAS server unreachable issue.		

PR	**161347**	Build:	6.4.3.828.R01
Summary:	crash on radius server not reachable message "Excep in task: RADIUS Cli PC : 0x2607b78 "		
Explanation:	We did fix to restrict the typecasting only for authentication requests. So accounting 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		
Explanation:	Radius cli task suspension issue is fixed		

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 re-enable 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 OID "Trap OID: .1.3.6.1.4.1.6486.800.1.3.2.15.1.0.1" and packetDroptype 13		
Explanation:	Added Proper string while Query from NMS is sent for the following packet types dhcpserver, pim , dvmrp , isis , dns-reply		

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 packet is sent out (Introduced 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 negative 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 boot-up time increased after upgrade to 6.4.4.441		
Explanation:	Reduced the boot-up 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 taIpni		
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 plug out 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 Omni vista 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 SOURCEPHOTONICS SFP (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:	taIPMS stucked at 100% due to hardware write failure		
Explanation:	Fix done for CPU 100% when hardware write failed in bcm_freeze function.		

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		
Explanation:	Code changes done to fix this crash.		

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, ln_expire variable specifies when the next state transition should take place. The value in ln_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	**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	**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 & Ipmem 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 defense 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 length 39.		

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.		

Problems Fixed Between Builds 931 and 949

PR	**190303**	Build:	6.4.3.934.R01
Summary:	OS9800 switch crashed while issuing copy working certified command		
Explanation:	Iterative debugs for TCP/UDP packets is added in PMD to find out what kind of packets was handled during that time		

PR	**193358**	Build:	6.4.3.936.R01
Summary:	OS9700 MAC address is not getting flush.		
Explanation:	MAC aging will be triggered from S/W.		

PR	**193180**	Build:	6.4.3.937.R01
Summary:	Interface statistics does not increment		
Explanation:	Fix done Reset the statistics pause flag whenever the IPC connection to CMM is restored		

PR	**193612**	Build:	6.4.3.938.R01
Summary:	Write memory flash synchronization and show configuration snapshot command output issue with OS9700		
Explanation:	Sflow Display Commands will not increase memory utilization		

PR	**194381**	Build:	6.4.3.939.R01
Summary:	OS9800 NI crash analysis required.		
Explanation:	Defensive fix provided to avoid crash while accessing null pointer.		

PR	**194657**	Build:	6.4.3.940.R01
Summary:	OS9000 running on the code 6.4.3.930R01 crashed generating pmds.		
Explanation:	Defensive fix to check the pointer as valid or not		

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 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 don’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-synchro 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 supplicant were authenticated.		
Explanation:	Checks added to avoid unwanted crash when the server become 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	**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	**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	**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	**132164**	Build:	6.4.3.631.R01
Summary:	Dump additional parameters regards to taskStack, in-order 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: Auto negotiation 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	**197994**	Build:	6.4.3.947.R01
Summary:	SR#1-165025886:OS9700:DOS Attack Traps analysis		
Explanation:	The no. of connection attempts is now sent only for the last 15s of the trap.		

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

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	**148972**	Build:	6.4.3.666.R01
Summary:	Delay on mac movement in a routed environment		

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 configuration status shown as identical for any Qos related configurations		
Explanation:	QOS mip handled properly		

PR	**154325**	Build:	6.4.3.685.R01
Summary:	Relay-agent(switch) forwards only the first offer packet 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	**155064**	Build:	6.4.3.725.R01
Summary:	ethoam loopback ping getting leaked out on UP MEP port		

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	**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	**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	**172374**	Build:	6.4.3.893.R01
Summary:	Issue with QoS command "show policy classify l3" 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	**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	**141229**	Build:	6.4.3.535.R01
Summary:	EtherOAM CCM frames send with pbit 0		
Explanation:	Do not modify the priority bit in the packets generated from the switch, when egressing on a NNI port		

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	**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:	Power supply error coming 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	**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	**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 lan-power slot which is not present is reduced to Debug1		

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	**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	**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	**110473**	Build:	6.4.3.601.R01
Summary:	Many "LANPOWER error lpSocketSend: 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	**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	**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 unreachable after a couple of min		
Explanation:	Prevented the configuration of Loopback0 address IP as the same as Physical Interface IP		

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

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	**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	**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 respond 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 upgrade.		
Explanation:	Added systrace messages for enhanced debugging of tacacs server.		

PR	**197425**	Build:	6.4.3.946.R01
Summary:	Randomly switches losses the SSH and Console access to the switch		
Explanation:	Forcefully deleting sftp task after waiting for certain time at sshd task		

PR	**190029**	Build:	6.4.3.949.R01
Summary:	NI crash due to high amount of SLN flushes.		
Explanation:	Fix is done optimized the message size to reduce the number flush message needed from stp to source leaning.		

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

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

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

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

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	**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-supplicants. 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	**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	**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 (lpGetPortPowerClass doesn't show correct class)		
Explanation:	Fix for POE power calculation when checking PoE class		

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	**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	**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	**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	**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	**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 – Re-authentication does not work properly		
Explanation:	Enable proper re-authentication for captive portal users		

PR	**193617**	Build:	6.4.3.941.R01
Summary:	OSPF routes are installed with delay into the routing table		
Explanation:	first packet LSA handling and OSPF LSA length overflow handling		

PR	**199440**	Build:	6.4.3.947.R01
Summary:	Vulnerability in SSLv3 (POODLE / CVE -2014- 3566)		
Explanation:	Disable SSLv3 to mitigate POODLE attack		

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	**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	**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	**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	**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	**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	**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 behavior 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 re-authentication during CP-in progress case if re-authentication is enabled.		

PR	**156059**	Build:	6.4.3.728.R01
Summary:	Stack of 7: "show spanning tree 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 switch 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	**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	**174370**	Build:	6.4.3.904.R01
Summary:	VU-110617-3: Vulnerability in OpenSSL		
Explanation:	Add protection against ECDSA timing attacks		

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	**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: EIpc / 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	**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	**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	**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	**188628**	Build:	6.4.3.931.R01
Summary:	Soft reset PMD analysis		
Explanation:	soft rese- IPedr interface socket reset		

PR	**192200**	Build:	6.4.3.943.R01
Summary:	When we do flash synchro we notice error message in swlog "CCM_CSM_FLASH_SYNCHRO_RS-appError 24"		
Explanation:	Fix to avoid internal ftp hung issue during flash-synchro causing CVM timeout		

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 context Id in this table then you will get all entries 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

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

PR	**151490**
Summary:	ssh error: IPC MIP Exit zcRecvfrom failed, ret=0, WRPcli_msg_done:1483

PR	**142038**
Summary:	IP multicast hardware/software table out-of-sync on 6850 Stacks
Explanation:	1) IPMNI to send port info in the source age out message to IPMS-CMM. 2) IPMS-CMM removes the source only if source ages out in the slot on which it was learnt

PR	**152479**
Summary:	OS 9700 DHCP-SERVER not configured no file found , Errors alarm cannot open QDHCP configuration fil
Explanation:	On boot-up, 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.

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.

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-supplicant as per the administered configurations.

A Supplicant 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 Supplicant 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 Supplicant authentication.

(ii) 802.1x <slot/port> non-supplicant 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	MAC	802.1x

		configured	Authentication	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

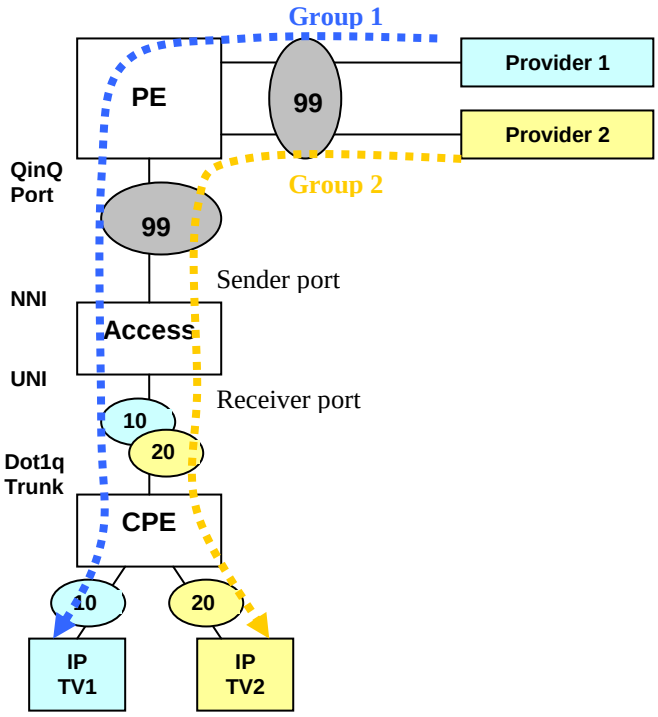
CLI Command:
telnet6 3ffe:0501:0008:0000:0260:97ff:fe40:efab port 1122
telnet 1.1.1.1 port 1122

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.

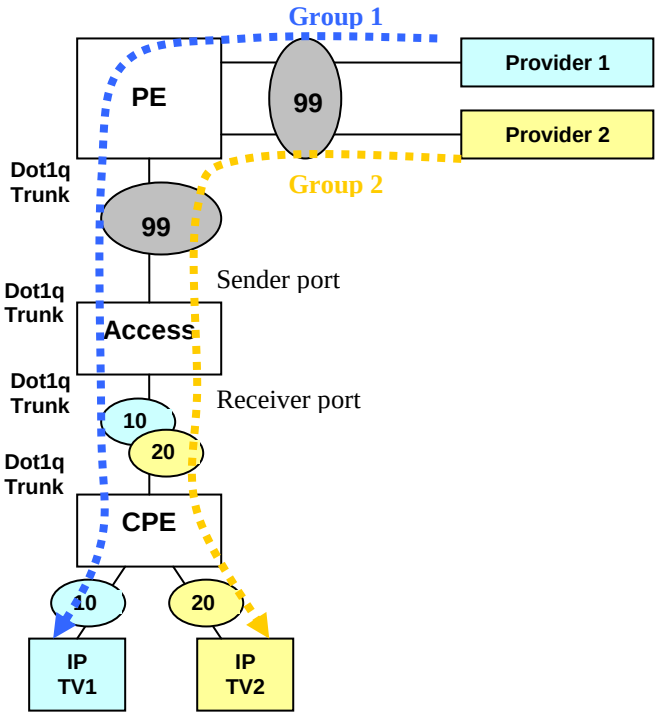
Working

- 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 IPMVLAN 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.

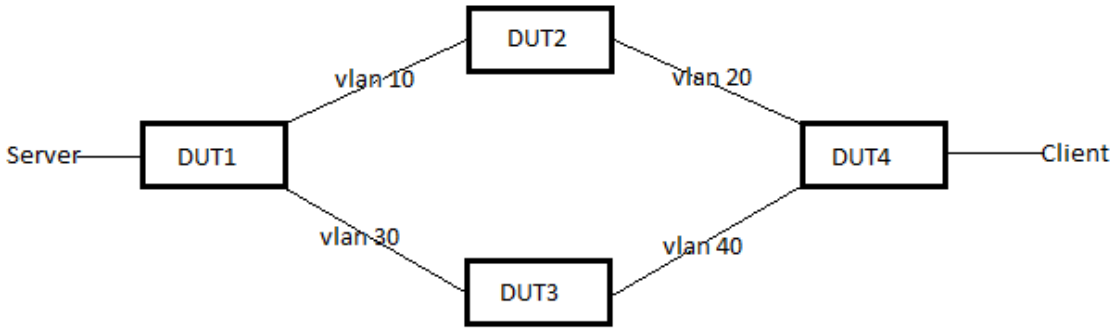
Configuration in Access switch

```
! 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 OPSF). BFD needs to enable 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 of the unicast protocol is OSPF and BFD is enabled on OSPF.

The two paths which is available for the Multicast data path is through
1) DUT1 <-> DUT2 <-> DUT4
2) DUT2 <-> DUT3 <-> DUT4

In order to achieve sub-second convergence for failover between path 1 and path2 (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:

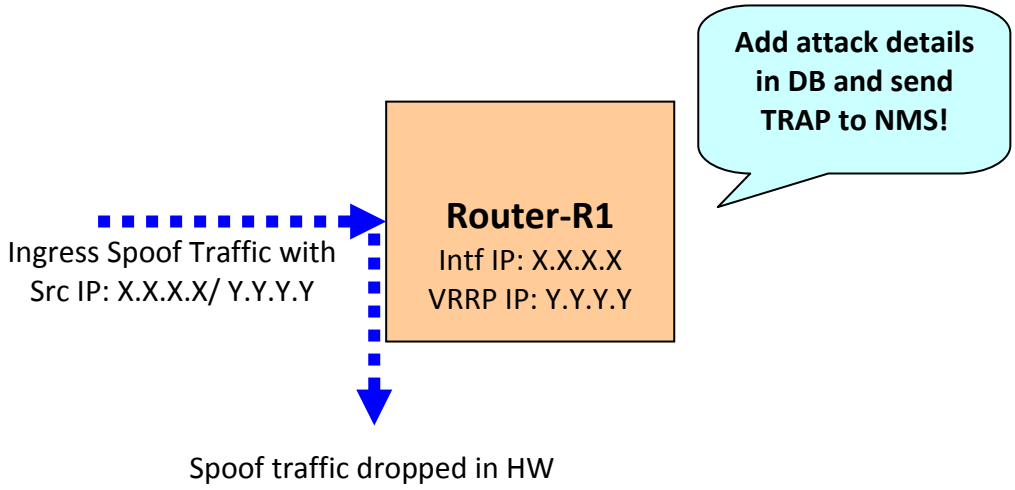
- With default timer values of BFD in simple networks resembling the use case diagram results in convergence time between 300ms to 800ms depending upon type of failure (plugging out of physical interface, a port goes down in across NI Linkagg etc,.)
- Redundant-path feature will result in additional 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
                                stree                          mble    src
 vlan  type  admin   oper    1x1    flat    auth    ip    ipx    tag    lrn    name
-----+------+------+------+------+------+------+-----+-----+------+------+--------------------
   1    std   on     on      on     on     off    off   NA    off      on    VLAN 1
  10    rtr   on     on     off    off     off     on   NA    off      on    Router VLAN: 10
  30    rtr   on     on     off    off     off     on   NA    off      on    Router VLAN: 30
 172    std   on     on      on     on     off     on   NA    off      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:

- 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.

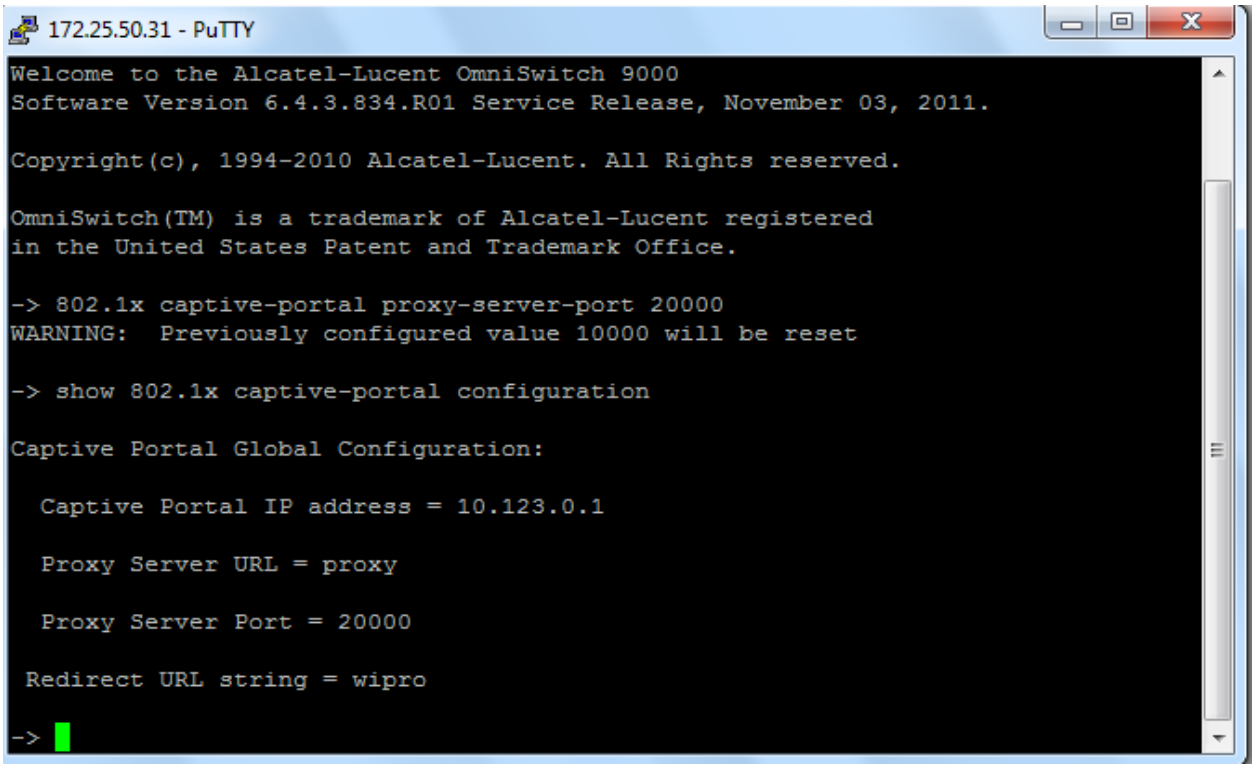
Usage Guidelines

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

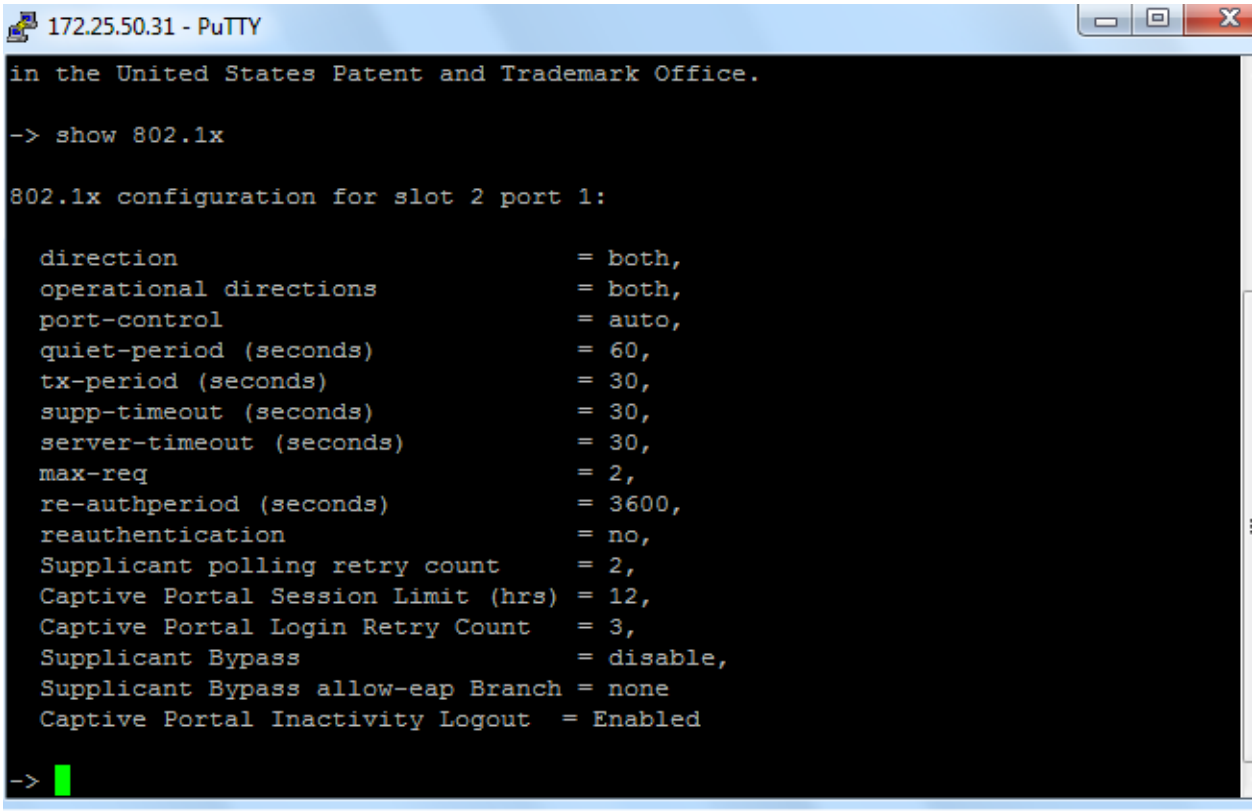
Examples

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

Show 802.1x captive-portal configuration



Show 802.1x slot/port



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

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.

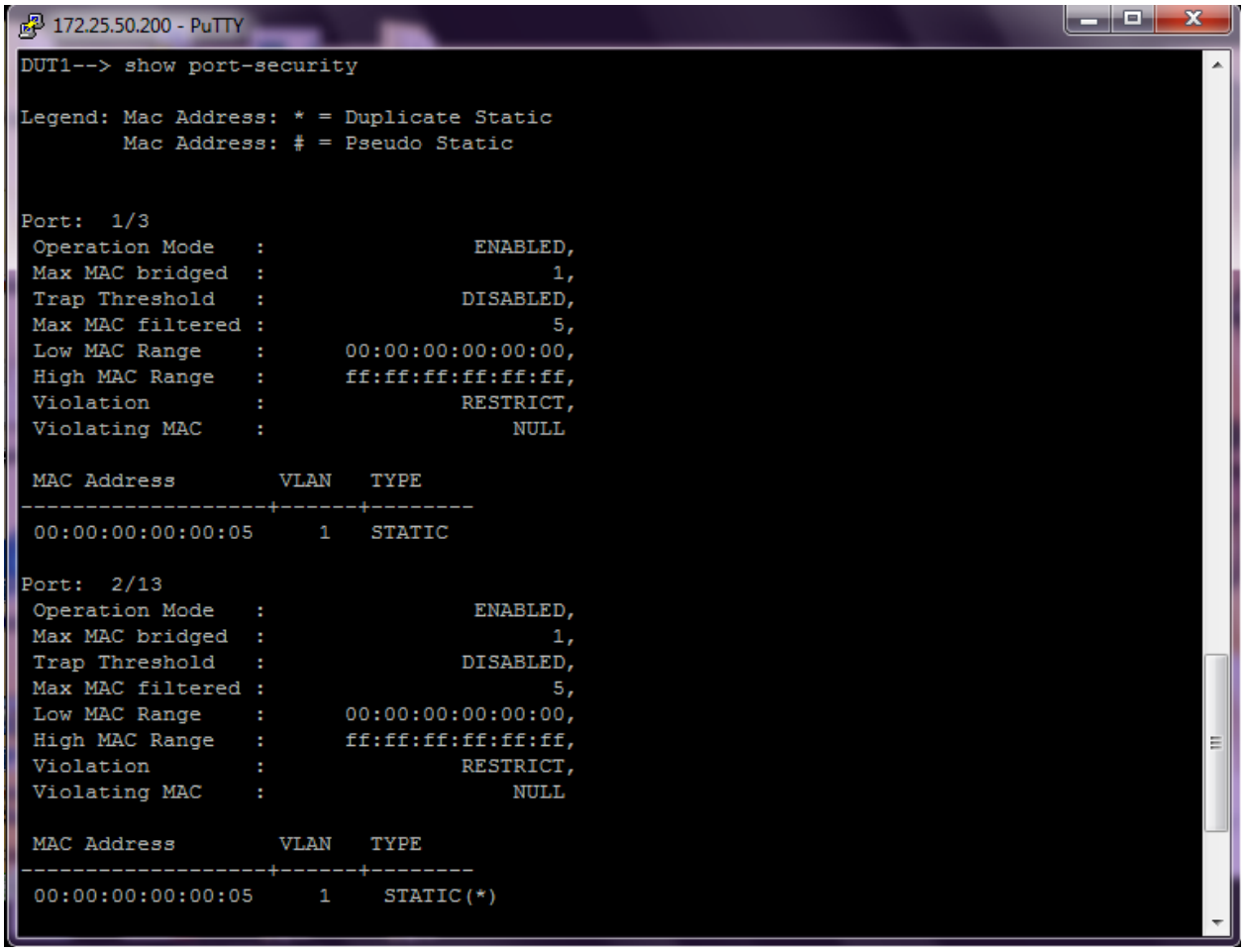
Mac-move : Allows the movement of pseudo static/static mac when enabled.

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.**



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.

- 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.