

WB.15.15.0008 Software Fix List

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Description

This fix list covers software versions beginning with WB.15.15.0006.

Version WB.15.15.0006 was the initial release of Major version WB.15.15 software. WB.15.15.0006 software was built from the same source as WB.15.14.0002. WB.15.15.0006 includes all enhancements and fixes in WB.15.14.0002 software, plus the additional enhancements and fixes in the WB.15.15.0006 fix list (below).

Here is a visual depiction of the software sequence, showing how each Major version (for example WB.15.13) is based on the previous Major version - and then additional fixes are added to Minor versions (for example WB.15.13.0004). This depiction shows the three most recent Major versions and all the Minor versions that have been built at the time of this publication.

```
WB.15.13.0003 --> WB.15.13.0004 --> WB.15.13.0005 --> WB.15.13.0006 --> WB.15.13.0007 -->
    |      WB.15.13.0008 --> WB.15.13.0009 --> WB.15.13.0010 --> WB.15.13.0011 -->
    |      WB.15.13.0012 --> WB.15.13.0013
    v
WB.15.14.0002 --> WB.15.14.0006 --> WB.15.14.0007 --> WB.15.14.0008 --> WB.15.14.0009
    |      (WB.15.14.0003, .0004, and .0005 were never built)
    v
WB.15.15.0006 --> WB.15.15.0007 --> WB.15.15.0008
```

These documents are included in the WB.15.15.0008 software zip file:

- Release Notes Basic Information Guide
- WB.15.12.0006 Release Notes
- WB.15.13.0003 Fix List
- WB.15.14.0002 Fix List
- WB.15.15.0008 Fix List

Product Models

HP 2920-24G Switch	(J9726A)
HP 2920-48G Switch	(J9728A)
HP 2920-24G-PoE+ Switch	(J9727A)
HP 2920-48G-PoE+ Switch	(J9729A)
HP 2920-48G-PoE+ 740W Switch	(J9836A)

Enhancements

Version WB.15.15.0006 Enhancements

Enhancement (CR_0000132845) - Additional Debug Capability. This enhancement adds tracking to identify possible switch hang situations during switch boot.

Enhancement (CR_0000140258) - All Task Core Dump. The core dump file now includes all tasks that are operating when the switch crashes.

Enhancement (CR_0000138477) - Audit Logging. Audit logging captures information including date, time, and outcome of an event, user identity, event start and stop timestamps, firmware versions, and begin and end of self tests, and includes that information in event log messages. For more information, see the *Management and Configuration Guide* for your switch.

Enhancement (CR_0000142449) - Disable Username Prompts For Management Interface Authentication. This option allows the user to provide only the Manager or Operator password when logging into the switch, without first being prompted for username. When set, this option applies only if the switch uses default usernames for both Manager and Operator logins. For more information, see "Secure Shell (SSH)" in the *Access Security Guide* for your switch.

Enhancement (CR_0000141040) - Hostname In Syslog Messages. The switch can be configured to include its hostname as the source or "origin" for messages sent to a syslog server. For more information, see "Troubleshooting" in the *Management and Configuration Guide* for your switch.

Enhancement (CR_0000128426) - Minimum Password Length. Adds a command to set the minimum password length for Manager, Operator, and Port-Access passwords. The minimum password length is enforced when passwords are added or updated. For more information, see the *Access Security Guide* for your switch.

Enhancement (CR_0000126535) - Port Shutdown With Broadcast Storm. Adds the **fault-finder broadcast-storm** command, with the option to disable the port for a configurable interval when a broadcast storm is detected. For more information, see "Port Trunking" in the *Management and Configuration Guide* for your switch.

Enhancement (CR_0000145084) - Service Insertion. This feature adds a programmatic interface (MIB) that allows SDN controllers to create a tunnel and direct traffic into the tunnel using OpenFlow rules. The tunneled packets can then be inspected and processed by external services, and may be returned to the switch via the tunnel for normal forwarding. For more information, see the *Service Insertion User's Guide*. (This enhancement was inadvertently omitted from the original WB.15.15.0006 list.)

Enhancement (CR_0000139306) - Syslog Over TLS. This enhancement to the existing Syslog feature enables the use of the Transport Layer Security (TLS) protocol to deliver Syslog messages. For more information, see the *Management and Configuration Guide* for your switch.

Enhancement (CR_0000139639) - Task Usage Reporting. The task usage reporting feature provides the ability to collect and display CPU usage data (with a refresh rate of 5 seconds) of running tasks on the switch. For more information, see "Task Usage Reporting" in Appendix A of the *Management and Configuration Guide* for your switch.

Enhancement (CR_0000128427) - Web User Interface Inactivity Timer. This new configuration command enables the administrator to set the idle timeout for the Web user interface, and provides a session timeout page to the user when the Web user interface session ends. For more information, see the *Management and Configuration Guide* for your switch.

Prerequisites

BootROM Update Included!

BootROM updates are needed to be able to boot specified switch software versions. In most cases, selected software versions are used to automatically update the BootROM.

This software includes an update to BootROM version WB.15.05. If your switch has an older version of BootROM, the BootROM will be updated with this WB.15.15.0008 software.

During the software update, the switch will automatically boot twice. The switch will update the primary BootROM, then reboot, and then update the secondary BootROM. After the switch flash memory is updated and the final boot is initiated, no additional user intervention is needed. **Do not interrupt power to the switch during this important update.**

Minimum Software Versions

Product Number	Product Name	Minimum Supported Software Version
J9805A	HP 640 Redundant/External PS Shelf	WB.15.13.0003

Fixes

Software fixes are listed in chronological order, from oldest to newest software version. Unless otherwise noted, each software version listed below includes all the software fixes and enhancements added in previous versions listed below.

WB.15.11.0003 was the first software version for the HP 2920 switches.

Version WB.15.15.0006 Fix List

Status: Released and fully supported, and posted on the web.

BPDU Protection (CR_0000144148) - If VLAN 1 is not enabled on the link between a switch running rapid PVST and a switch running any Spanning Tree version, a rapid PVST switch configured for BPDU protection does not shut down the port when it receives a BPDU from the neighboring switch. However, the BPDUs are correctly dropped.

CLI (CR_0000143576) - The switch does not allow users to configure a port with the setting **speed-duplex auto-10-100**.

CLI (CR_0000143652) - The switch does not allow the **lockout-mac** command to be configured for a MAC address that is all zeros (000000-000000).

Config (CR_0000142393) - Upgrading software from WB.15.11.xxxx to a newer version changes the **console inactivity-timer** from the configured value in minutes to that same value in seconds. Also, if the **console idle-timeout** value is set, after reboot the configured value is used for a console connection but not a TELNET connection.

Config (CR_0000145562) - A switch with an active radio port and configured with the command **lldp auto-provision radio-ports auto-vlan 2100** will move the radio ports into VLAN 2101 after a reboot. Similar errors occur for other **auto-vlan** numbers; after reboot the switch creates and uses a new VLAN instead of using the configured VLAN for radio ports.

Console (CR_0000140941) - The **console inactivity-timer** setting is applied even if the user is typing on the console, when the console physical connection is to a stack member instead of the commander.

Counters (CR_0000141119) - The output of **show ip counters** is incorrect when routing is enabled for IP, IPv6, or multicasts.

Counters (CR_0000142198) - When a trunk configured for sFlow polling is simultaneously queried via SNMP, all counter values for the trunk are zero.

Counters (CR_0000143860) - On a switch configured with rapid PVST and BPDU protection, the output of the command **show spanning-tree bpduprotection** shows zero errant BPDUs received, even when the switch has disabled a port due to receiving a BPDU. This is a display issue only, both rapid PVST and BPDU protection function properly.

Crash (CR_0000136407) - Entering the command **show tech all** or **show log -a** might cause the switch to reboot unexpectedly with a message similar to `Software exception at multMgmtUtil.c:88 -- in 'mLoopPTx', task ID = 0x3c8efa00 -> Internal error.`

Crash (CR_0000142238) - From the menu, after selecting "Status and Counters" and "Port Address Table" for an active port, the switch might reboot unexpectedly with a message similar to `Read Error Restr Mem Access HW Addr=0x2020201c IP=0x4ee7ce8 Task='mSess1' Task ID=0xe087cc0 fp: 0x06ceffc48 sp:0x06ceffc20 cpsr: 0x2000001f dfsr: 0x00000005.`

Crash (CR_0000144879) - The switch might reboot unexpectedly in these situations:

1) The switch is running 15.08 or earlier software, is configured to drop frames that have a destination address of 01:00:0c:cc:cc:cd, and has PVST filtering or PVST protection enabled. Then the switch is updated to 15.09 or later software.

2) The switch is running 15.09 or later software, is configured to drop frames that have a destination address of 01:00:0c:cc:cc:cd, and then PVST filtering or PVST protection is enabled.

The switch reboots unexpectedly with a message similar to `Software exception at btLLearn.c:2616 -- in 'mLpmgrCtrl', task ID = 0xa98a9c0 -> Mac Table Error.`

Crash (CR_0000145024) - With local MAC authentication enabled, issuing the **show run** command causes a small decrease in the switch's available memory. Over time if memory becomes depleted, the switch might reboot unexpectedly with a message similar to `Software exception at cli_show_config.c:667 -- in 'mSess6', task ID = 0xa965540.`

Crash (CR_0000146306) - The switch uses TCP connections internally for inter-process communication. In a situation where an internal loopback TCP socket pair receives stimulus after an extended period of idle time, the switch might reboot unexpectedly with a message similar to `NMI event SW:IP=0x00e20c1c MSR:0x02029200 LR:0x00e077d0 cr: 0x44000400 sp:0x02b03c58 xer:0x00000000 Task='InetServer' Task ID=0xab31000.`

Crash (CR_0000147367) - After a PoE switch is removed from the stack, issuing the command **show power-over-ethernet brief** from the Commander might cause the Commander to reboot unexpectedly with a message similar to Health Monitor: Read Error Restr Mem Access HW Addr=0x9f6a5cf8 IP=0x7d27d78 Task='mSess1' Task ID=0x13ac6900 fp: 0x0d8544d8 sp:0x0d8544cc cpsr: 0xa000001f.

Display Issue (CR_0000140830) - When **terminal length** is changed from the default of 24, the config file display is truncated, and the outputs of **show logging** and **show interfaces** might be interleaved in the output of **show tech all**.

Enhancement (CR_0000132845) - Additional Debug Capability. This enhancement adds tracking to identify possible switch hang situations during switch boot.

Enhancement (CR_0000140258) - All Task Core Dump. The core dump file now includes all tasks that are operating when the switch crashes.

Enhancement (CR_0000138477) - Audit Logging. Audit logging captures information including date, time, and outcome of an event, user identity, event start and stop timestamps, firmware versions, and begin and end of self tests, and includes that information in event log messages. For more information, see the *Management and Configuration Guide* for your switch.

Enhancement (CR_0000142449) - Disable Username Prompts For Management Interface Authentication. This option allows the user to provide only the Manager or Operator password when logging into the switch, without first being prompted for username. When set, this option applies only if the switch uses default usernames for both Manager and Operator logins. For more information, see "Secure Shell (SSH)" in the *Access Security Guide* for your switch.

Enhancement (CR_0000141040) - Hostname In Syslog Messages. The switch can be configured to include its hostname as the source or "origin" for messages sent to a syslog server. For more information, see "Troubleshooting" in the *Management and Configuration Guide* for your switch.

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Enhancement (CR_0000139306) - Syslog Over TLS. This enhancement to the existing Syslog feature enables the use of the Transport Layer Security (TLS) protocol to deliver Syslog messages. For more information, see the *Management and Configuration Guide* for your switch.

Enhancement (CR_0000139639) - Task Usage Reporting. The task usage reporting feature provides the ability to collect and display CPU usage data (with a refresh rate of 5 seconds) of running tasks on the switch. For more information, see "Task Usage Reporting" in Appendix A of the *Management and Configuration Guide* for your switch.

Enhancement (CR_0000128427) - Web User Interface Inactivity Timer. This new configuration command enables the administrator to set the idle timeout for the Web user interface, and provides a session timeout page to the user when the Web user interface session ends. For more information, see the *Management and Configuration Guide* for your switch.

Event Log (CR_0000136882) - Several different "chassis" events use the same event ID = 374. With this fix, a unique event ID is used for each type of "chassis" event.

Fastboot (CR_0000141043) - If the fastboot setting is changed by the user, and the switch experiences a power interruption or reboot while the new setting is being written to flash, upon bootup the MAC address on a switch or stack member might be erased. Note that this fix has a side effect: If the fastboot setting is changed by the user and the switch software is downgraded (changed to an earlier version), upon bootup the fastboot setting might revert to what it was before the user-initiated change, even though the switch reports that it has been changed. Workaround: Change the fastboot setting twice - first change it back to what it was before the user-initiated change, then change fastboot to the desired setting.

IGMP (CR_0000138408) - Joins sent by clients in response to a Group Specific Query are not forwarded by the Querier, causing the clients to lose the stream.

IGMP (CR_0000140514) - After disabling IGMP forwarding on a port, multicast traffic incorrectly continues to flow from that port.

IPv6 (CR_0000140467) - The switch does not generate an event log message when IPv6 Neighbor Discovery (ND) detects a duplicate address.

LLDP (CR_0000140297) - The PortID information is truncated at 25 characters, in the output of **show lldp info remote-device**.

Logging (CR_0000143781) - When some events occur on a stack, if the event happens on the Standby switch, the switch fails to generate an event log entry, a syslog entry, or an SNMP trap. Examples are disconnecting the RPS cable, and removing a module from the back of the switch.

Logging (CR_0000144926) - When some events occur on a stack, if the event happens on the Standby switch, the switch fails to generate an event log entry, a syslog entry, or an SNMP trap. This fix adds additional events to those included in the original Logging fix (CR_0000143781), also in 15.15 software.

Meshing (CR_0000143068) - Multicast traffic and unicast traffic with unknown destination addresses are not routed over the mesh.

Mirroring (CR_0000144479) - After copying a config file from an external device to the switch and booting with that config, the output of **show monitor** does not display any of the configured Network Monitoring sessions.

MSTP (CR_0000134194) - With Spanning Tree enabled, configuring a live port as an **admin-edge-port** causes the output of **show run** to display a fixed path-cost for that port in the IST (for example, `spanning-tree instance ist 5 path-cost 20000`). Note that this is a display issue only, the switch uses the automatic path-cost based on the link speed.

Multicast (CR_0000138817) - When a multicast stream is sent to a reserved multicast address, a General Query might not be forwarded by the switch, causing clients to be dropped from the multicast stream.

OpenFlow (CR_0000142663) - The switch sends an error message to the controller in response to a multipart flow statistics request.

RADIUS (CR_0000138258) - In some situations, the switch response to Change of Authorization and Disconnect Messages from the RADIUS server is sent from an incorrect source IP address, which the RADIUS server therefore ignores.

SNMP (CR_0000143599) - The switch does not allow users to configure RMON alarms via SNMP. This issue was introduced with CR_0000112411.

SNMP (CR_0000147370) - After using SNMP to configure a RADIUS server on the switch, the switch does not allow a login until the switch is rebooted.

Spanning Tree (CR_0000143817) - With a switch configured for MSTP, if the spanning tree mode is changed to **force-version rstp-operation** and then a second management module (or stack member) is inserted, the switch might reboot unexpectedly with a message similar to Health Monitor: Read Error Restr Mem Access HW Addr=0xe59ff10c IP=0x779004c Task='mMstpCtrl' Task ID=0x13af9740 fp: 0x0d372620 sp:0x0d372604 cpsr: 0x6000001f.

Stacking (CR_0000145211) - The output of **show tech statistics** gives incorrect information for stack members.

Switch Hang (CR_0000146247) - With both authentication and accounting enabled, the switch might become unresponsive to management, requiring a reboot to recover.

TELNET (CR_0000142571) - While a user is being authenticated by a RADIUS server, issuing the **show access-list radius all** command from a TELNET session might cause the TELNET session to hang.

Web Management (CR_0000137933) - When connecting to a switch via HTTPS across a slow link, after the user logs in the screen freezes and does not display the switch management page. This issue has been observed across a 512 kbps WAN link, using several different Web browsers.

Version WB.15.15.0007 Fix List

Status: Released and fully supported, but not posted on the web.

Authentication (CR_0000148832) - A switch configured with RADIUS authentication for primary login, and local authentication for secondary login fails to use local authentication when RADIUS servers do not respond. In that situation, the switch console is not accessible to valid users.

IP Phones (CR_0000137652) - An IP phone that uses the "Automatic Port Synchronization" feature loses its IP address and possibly drops the current call. This has been observed when the switch is configured with the command **cdp mode pre-standard-voice**, and the PC to which the phone is connected goes into hibernation. In that situation the "Automatic Port Synchronization" feature causes the phone to drop and then re-establish link with the switch.

IP Phones (CR_0000147849) - Alcatel phones might reboot unexpectedly when connected to a switch configured for IP phones to use MAC authentication and for PCs to use 802.1X authentication.

IPv6 (CR_0000148594) - IPv6 Router Advertisements that indicate an off-link prefix are not set as "preferred" in the switch, which causes incorrect information in the output of **show ipv6**, and can affect connectivity to hosts that use IPv6 Stateless Address Autoconfiguration. This issue also causes the sFlow "Agent Address" to be listed as 0.0.0.0.

Logging (CR_0000146773) - In an IPv4 plus IPv6 environment, upon switch bootup the event log displays the set of source IP policy ("srcip") messages twice. With this fix, IPv6 policy messages are distinguished from IPv4 policy messages.

sFlow (CR_0000147660) - In an IPv6-only environment with Stateless Address Autoconfiguration, sFlow incorrectly uses the link-local address as the agent ID.

Version WB.15.15.0008 Fix List

Status: Released and fully supported, and posted on the web.

802.1X (CR_0000149780) - Already-authenticated clients that send an EAPOL-Start message are de-authenticated by the switch. This situation happens if the client runs Windows Vista and later operating systems that are set to "include learning".

CLI (CR_0000145812) - A new command **tcp-push-preserve** is added. This command is enabled by default, and causes TCP packets with the "push" flag to be sent before other packets in the queue. Note that high concentrations of TCP packets with push flags under certain conditions can destabilize your network. Use the **no** form of this command to disable the feature.

CLI (CR_0000148661) - When the output of **show power-over-ethernet brief** displays a Detection Status of either Searching or Delivering for a port, the **show tech all** "poe_status_port all" section displays Other Fault as the "Detect Stat".

CLI (CR_0000149525) - The switch incorrectly allows a user to enable stacking when more than four MSTP instances are configured.

CLI (CR_0000150144) - The output of **show dhcp-relay bootp-gateway vlan <VLAN_number>** gives an incorrect BOOTP Gateway address for VLANs that are not configured for DHCP relay.

CLI (CR_0000152440) - The output of **show tech all** halts while displaying **ImaDbUtil traverseLmaProfTbl**, with the message `=== The command has completed with errors. ===`.

Config (CR_0000149526) - Enabling stacking on a switch that has a trunk configured creates an invalid entry for the trunk in the config file. The resulting configuration file cannot be downloaded to the switch.

Console (CR_0000148468) - With a console cable connected to a stack member, if the user issues the **show tech all** command and then attempts to cancel the output by entering **<CTRL-C>**, the output pauses but then continues for a long time (up to 30 minutes for a five-member stack). Note that the fix has a small side-effect: Entering **<CTRL-C>** will cause a short delay before the console prompt returns.

Logging (CR_0000150244) - Some RMON events are not correctly defined for fault-finder (FFI), SSL, and virus throttling, which causes the switch to report an error such as `system: Unknown Event ID 776` when those events occur.

Management (CR_0000149528) - In some situations with multiple TELNET and/or SSH sessions established, the switch does not accept additional management sessions even if some of the existing ones are killed, responding with the message `Sorry, the maximum number of sessions are active. Try again later.`

PoE (CR_0000147518) - After reboot, pre-standard detection of PoE devices does not function correctly on a 2920 or 3800 stack, if the stack commander is a non-PoE switch.

PoE (CR_0000148808) - After disabling PoE on one or more ports, the output of **show cpu slot <slot-number>** shows an increase in CPU utilization of 15% or more.

sFlow (CR_0000152330) - sFlow samples of packets transmitted by the switch have an incorrect value (0x3ffffff) for the output port.

SNMP (CR_0000149657) - When using the "createAndWait" mode to set parameters via SNMP, multiple RADIUS servers cannot be configured.

SNMP (CR_0000151035) - The switch incorrectly reports that MIB object `entPhysicalIsFRU = False` for removable fantrays, power supplies, and transceivers.

SNMP (CR_0000152809) - The switch accepts incorrect values in an SNMPv1 query, instead of generating an error message.

SNMP (CR_0000154463) - The switch incorrectly reports that MIB object entPhysicalIsFRU = False for transceivers for some switches. This improves the original SNMP fix (CR_0000151035).

Stacking (CR_0000146890) - When the stacking cable is removed from a two-switch stack, both switches show "Stack Status" of Fragment Active.

Switch Hang (CR_0000154152) - If the switch is sending output to the console at the time the switch is rebooted, the switch might hang and not boot properly.

Switch Hang (CR_0000154477) - Attempting to apply a 32-character **local-mac profile** name to a 32-character **local-mac mac-group** name causes the switch to become unresponsive, requiring a reboot to recover.

Web Management (CR_0000149099) - When Spanning Tree Protocol (STP) is enabled via the Web user interface, "mstp" is shown as the default STP mode, and "mstp" is displayed as the operational mode after the user enables STP and saves the change. However, the command line interface shows that the switch operates in "rpvst" mode. Workaround: From the Web user interface, use the dropdown menu to explicitly select "mstp" from the dropdown options, then save the change.

Web Management (CR_0000149777) - After a failover to the Standby Management Module (SMM) or the stack's standby switch, the Web user interface is not accessible via the Out of Band Management (OOBM) port.

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