



**Hewlett Packard**  
Enterprise

# WB.15.18.0008 Release Notes

## **Abstract**

This document contains supplemental information for the WB.15.18.0008 release.

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# 1 WB.15.18.0008 Release Notes

## Description

This release note covers software versions for the WB.15.18 branch of the software.

Version WB.15.18.0006 was the initial build of Major version WB.15.18 software. WB.15.18.0006 includes all enhancements and fixes in the WB.15.17.0003 software, plus the additional enhancements and fixes in the WB.15.18.0006 enhancements and fixes sections of this release note.

Product series supported by this software:

- HPE 2920 Switch Series

## Important information

To avoid damage to your equipment, do not interrupt power to the switch during a software update.

## Version history

All released versions are fully supported by Hewlett Packard Enterprise, unless noted in the table.

Version number	Release date	Based on	Remarks
WB.15.18.0008	2016-01-19	WB.15.18.0007	Released, fully supported, and posted on the web.
WB.15.18.0007	2015-11-10	WB.15.18.0006	Released, fully supported, and posted on the web.
WB.15.18.0006	2015-08-15	WB.15.17.0003	Initial release of the WB.15.17 branch. Released, fully supported, and posted on the web.
WB.15.17.0009	2015-11-10	WB.15.17.0008	Please see the WB.15.17.0009 release note for detailed information on the WB.15.17 branch. Released, fully supported, and posted on the web.
WB.15.17.0008	2015-08-29	WB.15.17.0007	Released, fully supported, and posted on the web.
WB.15.17.0007	2015-06-22	WB.15.17.0006	Released, fully supported, and posted on the web.
WB.15.17.0006	n/a	WB.15.17.0005	Never released.
WB.15.17.0005	2015-05-11	WB.15.17.0004	Released, fully supported, but not posted on the web.
WB.15.17.0004	2015-04-23	WB.15.17.0003	Released, fully supported, but not posted on the web.
WB.15.17.0003	n/a	WB.15.16.0004	Initial release of the WB.15.17 branch. Never released.
WB.15.16.0011	2015-11-10	WB.15.16.0010	Please see the WB.15.16.0011 release note for detailed information on the WB.15.16 branch. Released, fully supported, and posted on the web.

Version number	Release date	Based on	Remarks
WB.15.16.0010	2015-08-28	WB.15.16.0009	Released, fully supported, and posted on the web.
WB.15.16.0009	2015-06-16	WB.15.16.0008	Released, fully supported, and posted on the web.
WB.15.16.0008	2015-04-17	WB.15.16.0007	Released, fully supported, and posted on the web.
WB.15.16.0007	n/a	WB.15.16.0006	Never released.
WB.15.16.0006	2015-02-06	WB.15.16.0005	Released, fully supported, and posted on the web.
WB.15.16.0005	2014-11-21	WB.15.16.0004	Released, fully supported, and posted on the web.
WB.15.16.0004	2014-10-30	WB.15.15.0006	Initial release of WB.15.16. Released, but never posted on the web.

## Products supported

This release applies to the following product models:

Product number	Description
J9726A	2920-24G Switch
J9728A	2920-48G Switch
J9727A	2920-24G-PoE+ Switch
J9729A	2920-48G-PoE+ Switch
J9836A	2920-48G-PoE+ 740W Switch

## Compatibility/interoperability

The switch web agent supports the following operating system and web browser combinations:

Operating System	Supported Web Browsers
Windows XP SP3	Internet Explorer 7, 8 Firefox 12
Windows 7	Internet Explorer 9, 10 Firefox 24 Chrome 30
Windows 8	Internet Explorer 9, 10 Firefox 24 Chrome 30
Windows Server 2008 SP2	Internet Explorer 8, 9 Firefox 24
Windows Server 2012	Internet Explorer 9, 10 Firefox 24
Macintosh OS	Firefox 24

## Minimum supported software versions

**NOTE:** If your switch or module is not listed in the below table, it runs on all versions of the software.

Product number	Product name	Minimum software version
J9805A	HPE 640 Redundant/External PS Shelf	WB.15.13.0003

## Enhancements

This section lists enhancements found in the WB.15.18 branch of the software. Software enhancements are listed in reverse-chronological order, with the newest on the top of the list. Unless otherwise noted, each software version listed includes all enhancements added in earlier versions.

**NOTE:** The number preceding the enhancement description is used for tracking purposes.

## Version WB.15.18.0008

### Event Log

**CR\_0000189525** Added audit log message to the system logging for the following events:

- Termination of a secure session
- Failure to negotiate the cipher suite due to cipher mismatch for SSL and SSH sessions

**CR\_0000190131** Added RMON audit log messages when SNTP is disabled from the `no sntp` command.

**CR\_0000190134** Added an audit log message regarding the console inactivity timer when the `console idle-timeout` command is used.

**CR\_0000190141** Added audit log messages when the default gateway IP address is configured or modified.

### Zeroization

**CR\_0000183856** Added CLI command `erase all [zeroize]` to enable zeroization of the switch file storage.

Example:

```
HP Switch(config)# erase all zeroize
```

The system will be rebooted and all management module files except software images will be erased and zeroized. This will take up to 60 minutes and the switch will not be usable during that time. Continue (y/n)? y

The zeroization feature removes and “zeroizes” all the files from flash storage except software images. Information removed includes the following:

- Switch configurations
- System generated private keys
- User installed private keys
- Legacy manager/operator password files
- Crypto-key files



- FDR logs
- Core dumps

Hewlett Packard Enterprise recommends that zeroization be performed from the serial console so that the status information can be viewed during the zeroization process.

## Version WB.15.18.0007

No enhancements are included in version WB.15.18.0007.

## Version WB.15.18.0006

### Instrumentation Monitor

**CR\_0000164159** This feature enhances switch instrumentation and diagnostic capability.

### IP DirectedBroadcast

**CR\_0000145338** This feature enhances the security of the "IP Directed Broadcast" feature by denying traffic that is not specified within the configured access list.

### Management

**CR\_0000166746** This feature enables zero touch provisioning for switch deployment.

\*Requires IMC/BIM

### OpenFlow

**CR\_0000173444** This feature allows the user to enable source and destination MAC Group tables in the OpenFlow pipeline.

**CR\_0000173447** This feature supports OpenFlow matching traffic based upon L4 information.

### Port Filters

**CR\_0000142989** This feature provides granularity beyond Source Port filtering by allowing traffic exclusive to a specific VLAN to be forwarded.

### Routing

**CR\_0000168848** This feature adds MD5 authentication to RIPv2 routing to enhance security.

### Rate Limiting

#### **CR\_0000158994**

Queue-based Rate Limiting for Egress Traffic & Guaranteed Minimum Bandwidth on Trunks

Two new features have been implemented:

#### 1. Guaranteed Minimum Bandwidth (GMB) on trunk interfaces

Up to now, it was not possible to configure GMB on aggregated interfaces ('trunks'). This has now been changed.

GMB allows a user to assign bandwidth percentages to a port's queues. The port queues will be serviced in descending order, up to the configured bandwidth percentage. When the configured limit has been reached, the software will service the next highest priority queue. When the queue has been fully serviced, but the limit has not yet been reached, remaining bandwidth will be offered to the next queue to be serviced. Any leftover bandwidth within a servicing window is then made available to the top priority queue.

It is also possible to configure 'strict priority queuing', which means that the highest priority queue may consume as much bandwidth as necessary, even if that will starve lower priority queues.

Note that even though GMB can now also be applied to a trunk, the actual GMB bandwidth percentages are applied to the physical ports that are a member of the trunk.

Configuring GMB on dynamic LACP trunks, Distributed Trunking interfaces, and Mesh ports will not be supported. The enhancement only applies to statically configured trunk ports.

## 2. Queue-based Rate Limiting for Egress Traffic

Rate Limiting percentages can now also be configured on a per-port queue basis and will be applied to the traffic exiting the port.

The following new CLI command has been implemented to configure the feature:

```
[no] interface [no] interface <port | trunk > rate-limit queues out
percent [<queue %> <queue %> <queue %> <queue %> <queue %> <queue
%> <queue %> <queue %> ]
```

The following objects have been added to the HP-ICF-RATE-LIMIT-MIB in order to support the feature in SNMP:

```
hpEgressRateLimitPortQueueControlMode
(.1.3.6.1.4.1.11.2.14.10.2.14.1.4.1.2.1.6)
hpEgressRateLimitPortQueueIndex
(.1.3.6.1.4.1.11.2.14.10.2.14.1.4.1.5.1.1)
hpEgressRateLimitPortQueueMax
(.1.3.6.1.4.1.11.2.14.10.2.14.1.4.1.5.1.2)
```

## Security Vulnerability

**CR\_0000161421** This feature provides support compliance for the cryptographic algorithm Suite B of US NIST (National Institute Standard and Technology).

## TFTP

**CR\_0000156362** This feature allows both TFTP and SSH to be enabled in a switch concurrently.

## Fixes

This section lists released builds that include fixes. Software fixes are listed in reverse-chronological order, with the newest on the top of the list. Unless otherwise noted, each software version listed includes all fixes added in earlier versions.

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**NOTE:** The number that precedes the fix description is used for tracking purposes.

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## Version WB.15.18.0008

### AAA

**CR\_0000180339 Symptom:** Users who are authenticated via a RADIUS server with permissions to execute default security group commands are not allowed to execute the default security group commands.

**Scenario:** Configure switch and RADIUS user profiles to authenticate with permissions to execute CLI commands from the default security group. Authenticated users with these permissions are not able to execute CLI commands assigned by default to the security group, such as `clear | copy | show security-logging`.

**Workaround:** Use locally-defined users for authentication in the default security group. Create a custom security group for RADIUS-authenticated users and associate these CLI commands to that group.

## ACLs

**CR\_0000181860 Symptom:** While ACL Grouping is enabled, applying an ACL with no rules to a mixed range of ports that includes ports with already applied ACLs might lead to a switch reboot.

**Scenario:** Configure and apply an ACL to individual ports. Enable ACL grouping feature and configure an ACL with no rules defined. The switch might reboot when the ACL with no rules defined is applied to a range of ports.

**Workaround:** Remove the already applied ACLs from the port before applying the ACL to a mixed group of ports with and without previously applied ACLs.

## CLI

**CR\_0000157943** When the CLI command `copy command-output 'show tech all'` is executed, it is possible that the switch will run out of free memory and trigger an unexpected reboot (crash) when memory allocation fails. The risk of this problem occurring is higher when other switch tasks have consumed a large portion of free memory.

Note that the first task or process to fail to allocate memory is the one that is displayed in the crash message, so the event log and crash messaging may vary. One example message is: `Software exception at svc_misc.c:858 -- in 'mCnfTrMgr', task ID = 0xa9f7c40 -> Failed to malloc 3032 bytes.` When insufficient resources are available to copy the requested output to a file, the process is terminated automatically. When this happens, the following message is displayed to the CLI and logged: `The command was terminated prematurely because the output exceeded the maximum memory limit.`

## DHCP

**CR\_0000182394 Symptom:** Adding or updating DHCP Snooping lease database transfer options after configuring the lease file URL to SFTP removes the authentication credentials included in the configuration file for the SFTP server.

**Scenario:** Configure the switch to include the authentication credentials in the configuration file using the command `include-credentials`. Configure the DHCP snooping database lease file URL for SFTP using the command `dhcp-snooping database file sftp://USERNAME@<IP-ADDR>/<FILENAME>`. When adding or updating other database lease options, such as delay or timeout, the SFTP authentication credentials are removed for the configuration.

## DHCP Snooping

**CR\_0000184104 Symptom:** When DHCP enabled clients are roaming between DHCP snooping protected ports and are requesting different IP addresses without releasing the unexpired and previously assigned IP address, some DHCP Snooping protected ports might drop DHCP client requests, leaving DHCP clients unable to obtain new IP address leases.

**Scenario:** A DHCP enabled client connected to a DHCP snooping protected port is requesting an IP address lease then moves to another port in the same DHCP snooping protected VLAN and requests to lease a different IP address without releasing the previously leased IP address. When the new lease expires on the new port, it deems the new port unable to accept new DHCP requests.

**Workaround:** Remove and re-add the affected port from/to the DHCP snooping protected VLAN.

## OpenFlow

**CR\_0000175735** Downloading a configuration file to the switch may fail when one or more OpenFlow instances that have a controller assigned are present in the configuration file.

**Scenario:** When attempting to download a configuration file to the switch that contains OpenFlow instances with a controller assigned, the download may fail with the following error: `A listen-port or a controller, and a member VLAN must be added to the named instance before enabling it.`

**Workaround:** Remove the OpenFlow configuration from the configuration file prior to download/restore, then restore the OpenFlow configuration from the CLI.

**CR\_0000177385 Symptom/Scenario:** Multiple updates of OpenFlow rules and meter configurations may lead to a switch crash with an error message similar to `Software exception at util.c:...`

**CR\_0000182988 Symptom:** Incorrect meter statistics are returned to the SDN controller.

**Scenario:** Statistics meter for matching traffic to the configured traffic flows is not correctly measured when sent to the SDN controller.

## OSPF

**CR\_0000177561 Symptom:** Incorrect interface priority value is displayed in the output of the `show ipv6 ospf3 neighbor` command for the tunnel interface.

**Scenario:** Enable OSPFv3 on a 6in4 tunnel interface and connect OSPF neighbor routes, then execute the `show ipv6 ospf3 neighbor` command. The incorrect priority value for tunnel interface is displayed.

## PIM

**CR\_0000177574 Symptom:** In a PIM-SM topology with redundant path from RP to Source, when topology changes also force changes in the shortest path to Source, some of the receivers might not receive multicast streams via an existing alternate path.

**Scenario:** When a unicast routing change occurs in a PIM-SM network that triggers PIM-SM election of a new next hop PIM neighbor router via the shortest path, some receivers might not receive multicast traffic from the alternate route.

**Workaround:** Rejoin the multicast group.

## Port Counters

**CR\_0000183662 Symptom:** When the flow mod statistics are queried from the controller, incorrect values are received from the controller for the packet and byte count on a switch.

**Scenario:** When querying the flow statistics from the controller, incorrect multi-part reply packets are sent for flow stats with unknown message types. This happens when the flow table includes over 400 entries. If the flow tables exceed 400 entries, the controller fails to pull more flows from the switch. This causes multipart reply packets to be sent to the controller with an unknown message type.

## QinQ

**CR\_0000177736 Symptom:** QinQ mode is not correctly removed when the switch is restored to a non-QinQ configuration.

**Scenario:** When a switch configured for QinQ mode is restored to factory-default configuration or to a non-QinQ mode configuration file, some residual QinQ configuration causes QinQ mode to be re-enabled.

**Workaround:** Disable QinQ mode via CLI prior to restoring the switch to another non-QinQ configuration or to factory default.

## RIP

**CR\_0000177096 Symptom:** RIP peering may not be properly established when a VLAN interface is reconfigured.

**Scenario:** After deleting a VLAN that is configured for RIP and then reconfiguring that same VLAN, RIP peers are not properly formed on that VLAN.

**Workaround:** Disabling and re-enabling the RIP router on the VLAN interface or at the global configuration level should result in a working peering with the RIP neighbor router.

## SNMP

**CR\_0000182311 Symptom:** If a switch is reconfigured from MSTP to RPVST, while spanning-tree traps are already enabled on the switch, none of the RPVST SNMP traps are sent.

**Scenario:** When the switch is configured for an IEEE mode of Spanning Tree and SNMP notifications are configured, changing the mode to RPVST also disables the configured Spanning Tree traps. Although the traps are displayed in the configuration as 'enabled' and the value of the object 'hpSwitchStpCntl' (.1.3.6.1.4.1.11.2.14.11.5.1.7.1.14.3) indicates that the traps are properly enabled, none of the configured notifications are sent to a trap receiver. When the traps are reconfigured or the switch is rebooted, the SNMP traps are transmitted again as expected.

**Workaround:** Re-enable SNMP Spanning Tree traps using CLI command `spanning-tree traps` or reboot the switch to restart the Spanning Tree SNMP traps transmission.

## Spanning Tree

**CR\_0000175721** When setting the RPVST mode for spanning tree, the switch continuously displays the erroneous error message: `WARNING: Reboot switch` and use CLI commands to configure MSTP parameters.

**Workaround:** The error message can be ignored.

## TFTP

**CR\_0000180230** TFTP transfer does not work with packet sizes other than 1416 bytes.

**Workaround:** Configure TFTP client to use a packet size of 1416 bytes.

## Version WB.15.18.0007

## ACLs

**CR\_0000178154** Configuring extended ACL with condition `gt`, `lt`, or `range` for source/destination port, reports an error message `Commit failed`.

## Authorization

**CR\_0000172174** Using AAA authentication, a security user could gain access to both `manager` and `security log` commands.

**CR\_0000175376** Users not part of a local authorization group can have access to default security commands.

## Certificate Manager

**CR\_0000172987** No warning or action confirmation message is provided at CLI while replacing CSR with a self-signed certificate.

**CR\_0000179330** Configuring `tls lowest-version` might cause the switch to crash with an error message similar to `Software exception at cli_crypto_action.c`.

## Classifier

**CR\_0000174198** Policy statistics are not cleared when no direction (in/out) is specified with `Clear Statistics` policy CLI.

**CR\_0000174199** The `show statistics policy` command does not return the correct information when no direction (in/out) is specified.

## CLI

**CR\_0000171261** A new CLI is introduced to enable resetting the PoE controller and restoring functionality on the affected ports: `power-over-ethernet poe-reset port <port name>`.

**CR\_0000178304** There is a potential memory leak caused by repetitive use of the CLI command `show crypto pki ta-profile`.

**CR\_0000180373** After removing the static-group joins and immediately adding IGMP static-group joins for the same group, the CLI routine gives an error message and the token for that group is not deleted or freed.

**Workaround:** Do not remove and immediately re-add the same IGMP static-group joins for the same group.

## Crash

**CR\_0000180705** In rare cases when attempting to configure the switch through the MENU or WEBUI interfaces or via a net management application, the switch might crash with the following signature:

```
.Active system went down: 09/10/15 12:55:32 K.15.18.0006 349 Health
Monitor: Invalid Instr Misaligned Mem Access HW Addr=0x00000000 IP=0x0
Task='mSnmpCtrl' Task ID=0xa995840 sp:0x4206ea8 lr:0x86400 msr:
0x02029200 xer: 0x00000000 cr: 0x24000400
```

**Workaround:** When configuring the switch, use only the CLI interface. Avoid using the MENU, WEBUI, or net management applications, such as IMC, to configure the switch.

**CR\_0000181774** The `show statistics policy` command might cause the switch to crash in certain configurations with maximum meters.

## DHCP

**CR\_0000180195** Fix applied to make the DHCPACK packet being sent by the DHCP Server in response to a DHCPINFROM use the MAC Address of the client as destination instead of a broadcast address.

## DCHP Snooping

**CR\_0000177144** There is a discrepancy between the DHCP-snooping binding database and the value reported by the dynamic binding counter.

## Event Log

**CR\_0000179527** Updated RIP syslog event IDs.

## File Transfer

**CR\_0000175506** In certain circumstances, a file transfer does not complete and causes the switch to get into the permanent `Download is in progress, you cannot reboot now!` state.

## IGMP

**CR\_0000157996** Removing and re-adding IGMP static groups could result in an `Inconsistent value` error message.

**Workaround:** After deleting the static group, wait for 3 seconds before re-adding it.

## MAC Authentication

**CR\_0000157903** With `mac-auth failure-redirect` feature configured as FQDN, loss of connectivity could be experienced at end points if DNS query is unable to resolve.

**CR\_0000176044** Updated Local Mac Authentication (LMA) OUIs list of Cisco IP-phones.

## Menu Interface

**CR\_0000179336** An `Invalid value` error message is received while switching from DHCP/Bootp to Manual IP address configuration via the Menu without editing the current IP address configured on a VLAN interface which already has a DHCP IP address.

## MLD

**CR\_0000135443** Node Local addresses in MLD Query/Report are not being dropped.

## OpenFlow

**CR\_0000174050** When OpenFlow and Service tunnels are configured, if interfaces are disabled and enabled while traffic is flowing, the system could crash with an error message similar to `Software exception at opflAccel.c`.

**CR\_0000175712** Custom pipeline modification with traffic could cause the switch to crash with an error message similar to `Software exception at ovsTables.c`.

**CR\_0000175907** OpenFlow rejects some flows while installing only flows with only `eth_src` in match list.

**CR\_0000176014** Deleting one flow deletes all previously created flows.

**CR\_0000177514** After a reboot with OpenFlow configuration, the switch might assume erroneous VLANs as OpenFlow member VLANs.

## PBR

**CR\_0000175896** Modifying an already applied Policy Based Routing (PBR), with an action configured for a tunnel interface, could lead to a switch crash.

**Workaround:** Un-apply the policy, modify the policy, then reapply the policy.

## PoE

**CR\_0000169265** After an electrical surge or ESD charge on a PoE port, the switch might exhibit BAD FET messages, which indicate a failure to deliver PoE on those ports. Event log messages appear similar to the following:

```
W 04/02/15 07:58:49 02562 ports: Port 1/1: ossible bad FET/PSE supplying PoE power - suggest configuring other end of link with "no power"
```

```
W 04/02/15 07:58:49 00567 ports: port 1/1 PD Other Fault indication.
```

**CR\_0000173739** When a powered PD is physically removed from a powered port, the PoE controller does not stop providing power to the port. This condition triggers when the PSE is under a heavy load involving 12 or more active PDs. A PoE Controller firmware update is provided to update the PoE controller to version 38. The upgrade executes automatically when the switch is booted for the first time. Because the upgrade process needs to run, the boot process takes approximately 40 seconds longer than normal. When the upgrade has successfully completed, the following event log message is recorded:

```
04753 Ports <port list>: PoE Software updated from version 04 to 38.
```

In the event that the POE controller firmware update is interrupted, an event log message similar to the following is recorded:

```
Ports 1-12: PoE Software update failed with error code 0x00000006.  
Contact support for assistance.
```

## Policy Based Routing

**CR\_0000173164** After a loss and restoration of connectivity between the switch and the PBR specified next-hop, the switch routes traffic conforming to match rules, as well as traffic conforming to the ignoring of rules to the PBR next-hop.

## Port Security

**CR\_0000148880** Switch fails to learn maximum MAC addresses on ports when port security is enabled.

## QoS

**CR\_0000175792** The `show class config` and `show policy config` commands do not display complete output when large numbers of QoS classes or policies are configured.

## RADIUS

**CR\_0000177823** During a RADIUS machine auth transition, the switch might incorrectly send the Class-ID of the user auth in the machine auth Accounting Stop packet. This results in the authentication-session of the user-auth getting cleared, so when we want to COA the client that there is no record of the session.

## RA-guard

**CR\_0000177104** The error message displayed when enabling IPv6 ra-guard on a dynamic trunk has been updated to display IPv6 RA-guard is not supported for dynamic trunks.

## Rate Limiting

**CR\_0000177775** Increased rate limiting values for ICMP traffic up to 100 GB, to accommodate interfaces with speed greater than 10 GB.

## Routing

**CR\_0000174012** Applying BPG route-map with set weight while there is more than one path could result in a switch crash with a message similar to `Software exception at bgp_med.c:597 -- in 'eRouteCtrl'`.

**Workaround:** The failure may be avoided by apply BPG route-map with set local-pref instead of using set weight.

## SNMP

**CR\_0000175683** The switch may not send "Cold start" traps after a reboot.

**CR\_0000177261** Non-default values (other than 0) configured for egress rate (transmission-interval) that generates the SNMP trap notifications for changes to running configurations are not applied. (Example: `logging notify running-config-change transmission-interval 10`).

**CR\_0000177848** Restoring backup configuration files with SNMPv3 enabled or QinQ SVLAN set, triggers an unexpected switch reboot even if the backup config is identical to the current config.

**CR\_0000181295** Running SNMP on `dot3StatsDuplexStatus` OID using an index of 0 causes the switch to crash.

## Stacking

**CR\_0000173162** The J number of stacked devices is not properly reported in `entPhysicalVendorType` OID.

## Supportability

**CR\_0000156177** Core dump files are still generated when the feature is disabled.

## Switch Initialization

**CR\_0000171369** When communicating with the switch (for example, via SCP, SSH, Telnet) over a connection with IP fragments, where some IP fragments are getting dropped, transfers stall or take an excessive amount of time.



## Syslog

**CR\_0000179328** A small subset of event IDs sent to the syslog server have different values between releases.

## Version WB.15.18.0006

### 802.1X

**CR\_0000164489** 802.1X re-authentication period works if the client connects after the switch is booted. If, however, the switch reboots while clients are connected, it authenticates initially, but no re-authentication occurs.

## Authentication

**CR\_0000156072** When generating a self-signed certificate or Certificate Sign Request (CSR) in the web interface, the software incorrectly allows the use of non-ANSI characters. When the CLI is used, the action is not allowed and an error message is displayed.

## Certificate Manager

**CR\_0000156165** Basic Constraint Extension `pathLenConstraint` support added to Certificate Manager. In software versions 15.14 and later, support was added for Trust Anchor (TA) certificates which allow a user to sign intermediate Trust Anchor certificates or an end entity certificate. In section 4.2.1.9, RFC 5280 defines a Basic Constraint Extension named `pathLenConstraint` as the field that defines "(...) the maximum number of non-self-issued intermediate certificates that may follow this certificate in a valid certification path. (...) A `pathLenConstraint` of zero indicates that no non-self-issued intermediate CA certificates may follow in a valid certification path. Where it appears, the `pathLenConstraint` field MUST be greater than or equal to zero. Where `pathLenConstraint` does not appear, no limit is imposed." Support for the `pathLenConstraint` has been added to the software. It can be set to the maximum value of 3 because the software supports up to 3 intermediate certificates. When it is set to 0, it can only sign an end entity certificate and not another intermediate certificate.

## 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.

**CR\_0000149525** The switch incorrectly allows a user to enable stacking when more than four MSTP instances are configured.

**CR\_0000156237** When a user has enabled Spanning Tree in the CLI and configured a protocol version other than the default MSTP, the CLI Menu does not allow the user to modify Spanning Tree parameters. The menu will indicate that the switch requires a reboot. When the switch is actually rebooted the same problem will be present after the reboot.

**CR\_0000161668** After a user has changed the Spanning Tree Protocol Version to RPVST in the CLI Menu, the switch will prompt the user to save the configuration and reboot the system to activate the changes. However, after saving and rebooting, those messages will continue to be displayed.

**CR\_0000170477** A user can successfully log in using the default username (manager/operator), even if a custom username is configured.

**CR\_0000172046** The commands `show lldp info local-device` and `show lldp info remote-device` may fail to display the correct information [Chassis ID] when the switch is standalone or connected to any remote device.

**CR\_0000174064** The Management and Configuration Guides shows a CLI command of (no) `lldp config <port-no> dot3TlvEnable poeplus_config`, but the CLI is using (no) `lldp config <port-no> dot3TlvEnable poe_config`. The CLI was changed to match the documentation, which better describes the action.

## Command Authorization

**CR\_0000160066** The listen-port help command has changed: `[no] listen-port <PORT-NUM>`  
Specify the TCP port on which the OpenFlow agent of the switch listens for incoming connections from an OpenFlow controller. Default port number is 6633.

**CR\_0000175601** After configuring the switch to deny writes to memory with the `aaa authorization group <group id> 6 match-command "write memory" deny` command, the user is still prompted to save configuration changes. If the user chooses to save the changes, they are saved to memory.

## Config

**CR\_0000167908** When stacking is enabled, manager and operator passwords are set, and mirror-port or switch-interconnect are configured, the output of the command `show running-config` displays garbage entries, instead of operator and manager password configuration.

## Counters

**CR\_0000141119** The output of `show ip counters` is incorrect when routing is enabled for IP, IPv6, or multicasts.

**CR\_0000149229** The "Route changes" counter in the output of `show ip rip` increments with every RIP update the router receives, even if there are no route changes.

## CPU Utilization

**CR\_0000153428** With high volumes of routed IPv6 traffic, switch CPU utilization might remain at high levels for long periods of time. This issue is most prevalent with v1 zl modules.

## Crash

**CR\_0000149153** When an exceptionally large amount of IP Address Manager (IPAM) output is generated by the output of `show tech all` and captured using the `copy command-output` CLI command, the system may crash with the following message: `NMI event SW:IP=0x00147168 MSR:0x02029200 LR:0x00120f7c cr: 0x44000400 sp:0x04d60f30 xer:0x00000000 Task='mSess3' Task ID=0x4d59728`

**CR\_0000155066** The switch may reboot unexpectedly with a Software Exception message similar to: `Software exception at stackingFile.c:2224 -- in 'mStackDatWriter', task ID = 0x3c953b00 -> Internal Error ID: 6382d706` when a lot of TFTP file transfers to an external TFTP server have occurred.

**CR\_0000159764** Due to an unknown trigger, a switch may reboot with a message similar to the following: `NMI event HW:IP=0x0151dec4 MSR:0x02029200 LR:0x0151e468 cr: 0x20000800 sp:0x02f01460 xer:0x20000000 Task='tDevPollRx' Task ID=0xaa28000`

**CR\_0000164064** When a free radius authenticated user attempts to HTTPS to the switch web management GUI of the 2530-24G, the switch reboots with `Health Monitor: Read Error Restr Mem Access Task='tHttpd'`.

**CR\_0000166340** An SNMP crash occurs during PCM discovery on 2620 and 2650, if an Avaya phone is connected to the switch that advertises an organizational OUI value 00-00-00 (all zeros), or any neighbor entry contains an all zero OUI type TLV, during walkmib on the switch.

**Workaround:** Change the lldp admin status to txOnly on the link that is connected to the specific Avaya phone.

**CR\_0000168194** The switch may restart with an error message similar to the following during a session logout, kill, or timeout: `Software exception crash at multMgmtUtil.c:151 -- in 'mOobmCtrl', task ID = 0x13b15e00-> Internal error.`

**CR\_0000170286** When a module is inserted into or removed from a switch with a large number of VLANs and ports, port configuration for every port is updated, leading to an unexpected switch reboot. To address this, the burst of logs is throttled.

**CR\_0000170693** Enabling HPE Network Protector on the VAN SDN Controller and receiving DNS traffic causes packet buffer depletion in the switch and eventually can lead to PIM module reboot.

## Crash Messaging

**CR\_0000150468** The crash message includes extraneous text about filing a CR (Change Request).

**CR\_0000153706** 2920 Stack - boot-history and event log crash signature records do not report the same event. The event log entry looks more like a standard reboot message reported from commander to slave due to lack of communication.

## 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`.

**CR\_0000167906** When the alert log is sorted by date/time, items are sorted (erroneously) alphabetically by day of the week, rather than day of the month.

## Distributed Trunking

**CR\_0000165004** If Distributed Trunking keep-alive has been configured, and later the switch is rebooted, the ISC link between the DT pair becomes unstable, or goes down. Symptoms include blocked traffic, layer 2 loops, or duplicate packets. A temporary workaround for this issue is to reconfigure the DT keep-alive (but not reboot).

## IPv6

**CR\_0000140467** The switch does not generate an event log message when IPv6 Neighbor Discovery (ND) detects a duplicate address.

**CR\_0000172573** Configuring a port for IPv6 ra-guard and adding the port to a new or existing trunk results in the generic error message `Operation failed on Port X##: General error`. The fix for this provides a more meaningful error message.

## Latency

**CR\_0000129743** When the switch receives a high volume of traffic for unknown destinations, the resulting ARPs sent by the switch in combination with other incoming traffic the switch must process can cause latency and dropped packets. In this situation, the event log might report `IpAddrMgr: IPAM Control task delayed due to slave message queues too full`.

## Link

**CR\_0000169819** When the switch is configured for Rapid-PVST (RPVST), any changes to port path cost takes effect properly. However, when the port is disabled and then re-enabled, the port path cost applied and also advertised to neighbors changes to the default path cost.

## LLDP

**CR\_0000157298** When a PD sends an LLDP-MED TLV to a switch port in which the PD uses the invalid value of 0 Watts, the switch software will actually apply the invalid 0 Watts. This will cause the PD to reboot every time it transmits the 0 Watts in the TLV. The switch may log overcurrent warnings (00562 ports: port <port ID> PD Overcurrent indication.) as the PD is already drawing power over the port when the software applies 0 Watts power. The value of 0 Watts in the TLV will henceforth be rejected with the error Invalid power value 0 deciWatts received from MED PD on port <port ID>.

## Logging

**CR\_0000149891** When a user disables layer 3 on a VLAN, the event log message might state that layer 3 was disabled for the wrong VLAN.

**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.

**CR\_0000155070** The Alert-Log filter criteria does not work as expected when a substring is used as a filter.

## 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.`

## 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.

## OOBM

**CR\_0000157738** The `show oobm discovery` command sometimes indicates `Active Stack Fragment(local only without Active Stack Fragment(discovered))`, even if `show stacking` indicates both commander and member correctly with normal stacking connection.

After a stack in chain topology is split, the least commander fragment and the equal split standby fragment stays active until it discovers the other fragment is active over OOBM. If there is no OOBM connected, there are multiple active fragments or active commanders on the network.

## OpenFlow

**CR\_0000163370** Violation of OpenFlow requirement that if the match field `OXM_OF_IP_DSCP` is used the `ETH TYPE` must be `0x0800` or `0x86dd`.

**CR\_0000170635** On the CLI, typing `openflow <tab>` shows the valid parameters and descriptions. The optional parameter `ip-control-table-mode help text` has been corrected to read `Include IP control table in the OpenFlow packet processing pipeline. [Deprecated]`. Please see `'openflow instance <INSTANCE-NAME> pipeline-model`.

**CR\_0000170688** When enabling NetworkProtector on the VAN SDN Controller, the switch loses packet buffers until they are depleted and eventually the switch stops functioning and loses management access

## Packet Buffers

**CR\_0000170693** Enabling Network Protector on the VAN SDN Controller and receiving DNS traffic causes packet buffer depletion in the switch and eventually can lead to PIM module reboot.

## Port Connectivity

**CR\_0000161856** If `ip igmp static-group <group-address>` is added to the switch configuration for any VLAN, then upon a warm or cold reboot of the switch, the switch does not establish a link on any Ethernet ports. This issue is also present on stand-alone 2920, with stacking disabled.

## QoS

**CR\_0000162179** When attempting to remove a configuration line from a QoS policy, the switch returns `commit failed`. The customer cannot delete the line and has to reload the configuration to recover. Occurs when multiple policies are configured.**CR\_0000172606** The Web UI can now display a port range when setting QoS. Previously the Web UI displayed only the first port in the range.

## RADIUS

**CR\_0000149657** Configuration of multiple RADIUS servers via SNMP fails if a 'create and wait' mechanism is used.

## Routing

**CR\_0000148889** The host cache list structure for certain routes has changed to improve lookup performance.

**CR\_0000160655** When a VACL is applied to VLAN X, if a host on VLAN X then pings the switch agent's IP address for VLAN Y, the agents response IP address is also applied to the VACL, and hosts will become unreachable.

**CR\_0000162176** Under stress conditions, the switch sometimes enters a state where it does not send an ARP to a particular destination and it becomes unreachable on the customer network.

**Workaround/Proof of issue:** Initiate a ping from the switch to the unreachable destination to restore connectivity to that destination through this switch.

**CR\_0000174881, CR\_0000176140** The switch does not initiate an ARP request to the next hop IPv4 address for routed IPv4 traffic entering a VLAN that has a Routed Access List (RACL) applied using the commands `vlan vid ip access-group identifier in` or `vlan vid ip access-group identifier out`. As a result, the IPv4 routed traffic will not reach its destination because the switch did not create an ARP entry in the switch ARP Table for the next hop IPv4 address which is required to route the traffic. The issue may be intermittent because there could be other sources trying to reach the same next hop IPv4 address which will result in creating an ARP entry. Due to the ARP age-out time of 20 minutes, the issue may reoccur after 20 minutes. For example, if the routed IPv4 traffic also enters the switch via a VLAN that does not have RACL or if you ping it from the affected switch. Pinging from the switch to the unreachable IPv4 destination address will temporarily resolve the reachability issue; however, the issue may reoccur after the APR age-out expire or after invoking the CLI command `clear arp`.

Example of an IPv4 inbound RACL configuration that could encounter this issue for packets routed through the switch:

```
ip access-list extended "102"
10 permit ip 0.0.0.0 255.255.255.255 0.0.0.0 255.255.255.255
exit
ip routing
```

```

ip route 0.0.0.0 0.0.0.0 192.168.0.1
vlan 10
name "VLAN10"
untagged A1
ip access-group "102" in
ip address 10.0.0.1 255.255.255.0
exit
vlan 20
name "VLAN20"
untagged A2
ip address 192.168.0.100 255.255.255.0
exit

```

Example of an IPv4 outbound RACL configuration that could encounter this issue for packets routed through the switch:

```

ip access-list extended "102"
10 permit ip 0.0.0.0 255.255.255.255 0.0.0.0 255.255.255.255
exit
ip routing
ip route 0.0.0.0 0.0.0.0 192.168.0.1
vlan 10
untagged A1
ip address 10.0.0.1 255.255.255.0
exit
vlan 20
name "VLAN20"
untagged A2
ip access-group "102" out
ip address 192.168.0.100 255.255.255.0
exit

```

## sFlow

**CR\_0000168606** The switch continues to send incorrect sFlow datagrams for non-existent ports after removing the module associated with these ports.

## SNMP

**CR\_0000156209** When a configuration file is downloaded to the switch in which the SNMP community name string for unrestricted access is something other than 'unrestricted', the software will reset the access-level to the default 'restricted.' Although it is expected behavior to default to 'restricted' when the string 'unrestricted' is not precisely matched, the software has been modified to allow the use of both lower and upper-case characters in the word 'unrestricted' when parsing a downloaded configuration file.

**CR\_0000160352** The string value for the temperature sensor's instance of the object entPhysicalName (.1.3.6.1.2.1.47.1.1.1.7) is incorrectly set to 'Chassis.' It should return 'Chassis Temperature.'

## SSH

**CR\_0000159714** The output of the `display device` command over SSH displays incorrectly as a misaligned single line of output, due to no carriage returns between multiple lines. This occurs more frequently if the terminal width is set > 80 characters, when SSH senses the terminal settings on Login.

**CR\_0000165393** When the SSH client has a keepalive mechanism configured that requires a response from the SSH server on the switch, the SSH client will terminate the session after the first keepalive packet is transmitted. This happens because the switch drops the client's keepalive packet due to an incorrect packet length calculation.

This issue has been observed using an openSSH client with the `ServerAliveInterval` configured and the parameter `'want_reply'` enabled.

## SSL

**CR\_0000162587** SSL Security vulnerability due to 56 bit DES-CBC-SHA. Due to security vulnerability the cipher DES-CBC-SHA is now unavailable.

## Stacking

**CR\_0000146890** When the stacking cable is removed from a two-switch stack, both switches show "Stack Status" of `Fragment Active`.

**CR\_0000152463** After updating Management Stack Members to some versions of X.15.08.0001 or newer software, the Member switches will mistakenly display an additional two configuration lines of SNMPv3 configuration in the running-config if `snmp-server host` is configured on the Commander.

**CR\_0000170433** In a stacked configuration, if the macauth password is set to a password of exactly 16 characters (max length) and configuration saved, when the stack reboots, the member switch hangs during reboot.

## Switch Initialization

**CR\_0000169998** VLAN port configuration changes made in the menu interface persist and cannot be reversed at the CLI. **Workaround:** Reset the switch, reset the module, or power cycle the switch.

## TACACS

**CR\_0000177904** When more than one TACAS server is configured and all are not reachable, failover to local authentication does not occur. **Workaround:** Configure single TACAS server with failover to local authentication. Use Radius servers and authentication.

## Transceivers

**CR\_0000163290** Some SR J9150A and LRM J9152A transceivers show as NON-HPE with K.15.07 and W.15.07 software.

## UDP Crash

**CR\_0000172405** When UDP broadcast traffic is sent to a switch with UDP forwarder configured, an unexpected reboot occurs with a message similar to `Software exception at alloc_free.c:825 -- in 'mUDPFctrl', task ID = 0x1deb0800 -> buf already freed by 0x1DEB0800, op=0x00160002Buffer:`

## Web GUI

**CR\_0000172729** When a VLAN is created with a name containing an apostrophe, the Web GUI troubleshooting pages appear to be blank.

## Web Management

**CR\_0000160654** When 51 or more VLANs are configured on the switch, the web interface does not display any VLAN under the **VLAN Management** and **Multicast IGMP** tabs.

## Issues and workarounds

### PoE

**CR\_0000177617** Some vendor powered devices (PDs) supporting the POE+ standard can issue non-standard POE+ packets or packets with invalid TLVs while negotiating for power from the switch (PSE). Strict interpretation of the standard forces power to be cut off to such devices and could cause the PD to reboot continuously.

**Workaround:** Configure the associated port to be `poe-allocated-by value` and `poe-value <required-watts>` on the switch to avoid reboot.

## Upgrade information

### Upgrading restrictions and guidelines

WB.15.18.0008 uses BootROM WB.15.05. If your switch has an older version of BootROM, the BootROM will be updated with this version of software.

For more information about BootROM, see the HPE Switch Software Management and Configuration Guide for your switch.

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- ① **IMPORTANT:** 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.
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## Support and other resources

### Accessing Hewlett Packard Enterprise Support

- For live assistance, go to the Contact Hewlett Packard Enterprise Worldwide website: [www.hpe.com/assistance](http://www.hpe.com/assistance)
- To access documentation and support services, go to the Hewlett Packard Enterprise Support Center website: [www.hpe.com/support/hpesc](http://www.hpe.com/support/hpesc)

### Information to collect

- Technical support registration number (if applicable)
- Product name, model or version, and serial number
- Operating system name and version
- Firmware version
- Error messages
- Product-specific reports and logs
- Add-on products or components
- Third-party products or components



## Accessing updates

- Some software products provide a mechanism for accessing software updates through the product interface. Review your product documentation to identify the recommended software update method.
- To download product updates, go to either of the following:
  - Hewlett Packard Enterprise Support Center Get **connected with updates** page:  
[www.hpe.com/support/e-updates](http://www.hpe.com/support/e-updates)
  - Software Depot website:  
[www.hpe.com/support/softwaredepot](http://www.hpe.com/support/softwaredepot)
  - To view and update your entitlements, and to link your contracts and warranties with your profile, go to the Hewlett Packard Enterprise Support Center **More Information on Access to Support Materials** page:  
[www.hpe.com/support/AccessToSupportMaterials](http://www.hpe.com/support/AccessToSupportMaterials)

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① **IMPORTANT:** Access to some updates might require product entitlement when accessed through the Hewlett Packard Enterprise Support Center. You must have an HPE Passport set up with relevant entitlements.

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## Hewlett Packard Enterprise security policy

A Security Bulletin is the first published notification of security vulnerabilities and is the only communication vehicle for security vulnerabilities.

- Fixes for security vulnerabilities are not documented in manuals, release notes, or other forms of product documentation.
- A Security Bulletin is released when all vulnerable products still in support life have publicly available images that contain the fix for the security vulnerability.

To find security bulletins:

1. Go to the HPE Support Center - Hewlett Packard Enterprise at [www.hpe.com/support/hpesc](http://www.hpe.com/support/hpesc).
2. Enter your product name or number and click **Go**.
3. Select your product from the list of results.
4. Click the **Top issues & solutions** tab.
5. Click the **Advisories, bulletins & notices** link.

To initiate a subscription to receive future Hewlett Packard Enterprise Security Bulletin alerts via email, sign up at:

[www4.hpe.com/signup\\_alerts](http://www4.hpe.com/signup_alerts)

## Documents

To find related documents, see the Hewlett Packard Enterprise Support Center website: [www/hpe.com/support/hpesc](http://www.hpe.com/support/hpesc). Enter your product name or number and click **Go**. If necessary, select your product from the resulting list.

## Related documents

The following documents provide related information:

- *HP Switch Software Advanced Traffic Management Guide WB.15.18*
- *HP Switch Software Access Security Guide WB.15.18*
- *HP Switch Software Basic Operation Guide*

- *HP Switch Software Feature and Commands Index*
- *HP Switch Software IPv6 Configuration Guide WB.15.18*
- *HP Switch Software Management and Configuration Guide WB.15.18*
- *HP Switch Software Multicast and Routing Guide WB.15.18*
- *HP OpenFlow 1.3 Administrator Guide K/KA/KB/WB.15.18*
- *HP Service Insertion Guide K/KA/KB/WB.15.18*

## Websites

Website	Link
<b>Networking websites</b>	
Hewlett Packard Enterprise Networking Information Library	<a href="http://www.hpe.com/networking/resourcefinder">www.hpe.com/networking/resourcefinder</a>
Hewlett Packard Enterprise Networking website	<a href="http://www.hpe.com/info/networking">www.hpe.com/info/networking</a>
Hewlett Packard Enterprise Networking My Support	<a href="http://www.hpe.com/networking/support">www.hpe.com/networking/support</a>
<b>General websites</b>	
Hewlett Packard Enterprise Information Library	<a href="http://www.hpe.com/info/enterprise/docs">www.hpe.com/info/enterprise/docs</a>
Hewlett Packard Enterprise Support Center	<a href="http://www.hpe.com/support/hpesc">www.hpe.com/support/hpesc</a>
Contact Hewlett Packard Enterprise Worldwide	<a href="http://www.hpe.com/assistance">www.hpe.com/assistance</a>
Subscription Service/Support Alerts	<a href="http://www.hpe.com/support/e-updates">www.hpe.com/support/e-updates</a>
Software Depot	<a href="http://www.hpe.com/support/softwaredepot">www.hpe.com/support/softwaredepot</a>
Customer Self Repair (not applicable to all devices)	<a href="http://www.hpe.com/support/selfrepair">www.hpe.com/support/selfrepair</a>
Insight Remote Support (not applicable to all devices)	<a href="http://www.hpe.com/info/insightremotesupport/docs">www.hpe.com/info/insightremotesupport/docs</a>

## Customer self repair

Hewlett Packard Enterprise customer self repair (CSR) programs allow you to repair your product. If a CSR part needs to be replaced, it will be shipped directly to you so that you can install it at your convenience. Some parts do not qualify for CSR. Your Hewlett Packard Enterprise authorized service provider will determine whether a repair can be accomplished by CSR.

For more information about CSR, contact your local service provider or go to the CSR website: [www.hpe.com/support/selfrepair](http://www.hpe.com/support/selfrepair)

## Remote support

Remote support is available with supported devices as part of your warranty or contractual support agreement. It provides intelligent event diagnosis, and automatic, secure submission of hardware event notifications to Hewlett Packard Enterprise, which will initiate a fast and accurate resolution based on your product's service level. Hewlett Packard Enterprise strongly recommends that you register your device for remote support.

For more information and device support details, go to the following website: [www.hpe.com/info/insightremotesupport/docs](http://www.hpe.com/info/insightremotesupport/docs)

## Documentation feedback

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title, part number, edition, and publication date located on the front cover of the document. For online help content, include the product name, product version, help edition, and publication date located on the legal notices page.