Ethernet Routing Switch 4900 and 5900 Series
Software Release 7.2.0.213

1. Release Summary

Release Date: August 12, 2016
Purpose: Software maintenance release to address customer and internally found software issues. Support the ERS 59100 models by adding feature equivalency with the 7.2.0.009 release for two features: half-duplex support and NNI-NNI.

2. Important Notes before Upgrading to This Release

This Software release addresses a number of known issues from the 7.2.0.009 Software release for the Avaya ERS 4900 and 5900 series. Please see the "Problems Resolved in this Release" section for a complete list. This Software release is the recommended version to be loaded on the ERS 59100GTS and ERS59100GTS-PWR+ switches.

3. Platforms Supported

Ethernet Routing Switch 5900 Series
- 5928GTS
- 5928GTS-PWR+
- 5828GTS-uPWR
- 5952GTS
- 5952GTS-PWR+
- 59100GTS
- 59100GTS-PWR+

Ethernet Routing Switch 4900 Series
- 4926GTS
- 4926GTS-PWR+
- 4950GTS
- 4950GTS-PWR+

4. Notes for Upgrade

Please see "Release Notes for Avaya Ethernet Routing Switch 4900 and 5900 Series, Release 7.2.0", available at http://support.avaya.com for details on how to upgrade your switch.

File Names for This Release

File Name	Module or File Type	File Size (bytes)
4900_720213s.img	Agent code image for ERS 4900	17,027,876

| 5900_720213s.img | Agent code image for ERS 5900 | 17,542,116 |
| 5900_72005_diags.bin | Diagnostic software version 7.2.0.5 | 6,409,424 |

5. Version of Previous Release

Software Version 7.2.0.009

6. Compatibility

This software release is managed with Enterprise Device Manager.

7. Changes in This Release

7.1. New Features in This Release

No features were added.

7.2 Old Features Removed From This Release

No features were removed.

7.3 Problems Resolved in This Release

ERS495900-2540 – The IP address configuration for the last configured L3 VLAN interface was lost on a stack of three or more if IP Shortcuts and the maximum number of L3 VLAN interfaces were configured.

ERS495900-2546 – Half duplex was not supported on ERS 59100 GTS and ERS 59100GTS-PWR.

ERS495900-2577 – NNI to NNI did not work correctly on 59100.

ERS495900-2634 – In the case of a base unit reboot in a stack configured with SPBM, IP Shortcuts, and DHCP Relay, the DHCP Relay settings on the management VLAN interface could be lost.

ERS495900-2637 – Default username did not default the password aging time, inactive period, SSH and telnet access for a username.

ERS495900-2685 – IP Shortcuts could be enabled without setting ip-source-address, which is not a valid configuration.

ERS495900-2686 – If IP Shortcuts was enabled in an SPBM instance, it remained enabled after deleting the SPBM instance.

ERS495900-2687 – In very rare cases the switch could reboot with a software exception in task tMemFreePo.

ERS495900-2692 – In a stack with IP Shortcuts configured, ISIS settings of NNI uplink ports were lost after powering down a non base unit which did not had a valid license, even though the ISIS settings did not need a license.

ERS495900-2788 – When SPBM was enabled and IS-IS overload was not set, ARP requests were not forwarded by the switch/stack to a non-SPBM device in the management VLAN.

ERS495900-2802 – Download image from USB failed if the file was marked as read only with the error message "% Error accessing image file, file missing or can't access USB device".

7.4 Problems Resolved in Firmware updates available via the Diagnostics image

ERS495900-2689 – SDN port LED is green with no active connection on ERS5928GTS(-PWR+) and ERS5952GTS(-PWR+) switches with hardware revision 04.

The problem is addressed with a CPLD firmware update. In order to perform the update, first upgrade the Diagnostic image on the switch to version 7.2.0.5 then follow the steps detailed below.

- Power up or reset the system.
- Wait for the Sign-on then type control-C to break into the Diagnostics:

```
5928 GTS-PWR+  Boot-Loader 7.0.0.5

Testing main memory - PASSED


>> Diag Break Recognized - Wait..


5928 GTS-PWR+  Boot-Loader 7.0.0.5
Serial Number:  XLIR724P500003
MAC    Address: 00-1B-4F-FC-CC-00
Resets:         63.

Starting Diagnostic Code Vers:  7.2.0.5


5928 GTS-PWR+  Diagnostics 7.2.0.5

DIAGNOSTIC BREAK MENU


5928 GTS-PWR+  Diagnostics 7.2.0.5  Jun 28 2016, 18:26:53

 1 - Launch Primary   Agent-1   Vers: 7.2.0.213
 2 - Launch Secondary Agent-2   Vers: (unknown)
 3 - Toggle Primary   Agent Selection
 4 - Download         Agent/ Diag
 5 - Reinitialize     Agent Configuration Files
 6 - Display  Error   Log
 7 - Display  System  Information
```

```
8 - Continue Boot     Sequence
9 - Reset
A - Power-Cycle
B - Toggle Do-POST    Selection [ DISABLED ]
C - Run POST tests

Select:
Booting Agent in 60 seconds..
```

- Type the 'F' command (capital letter) while in the main Diagnostics menu as seen above
- The command will be accepted only on switches which need the update and you will be prompted to type 'Y' to accept the update
- Please do not power down the system while the update is being performed!

```
Update CPLD to Fix Back Panel Port LEDs:

Program? (Yes/No):

 11 - CPLD_MB    - 15   System_A0951599.jbc    5928P-ABCDEFGH

Jam STAPL ByteCode Player Version 2.2
Copyright (C) 1998-2001 Altera Corporation

CRC matched: CRC value = 0A5C
File format is Jam STAPL ByteCode format
NOTE "CREATOR" = "QUARTUS II JAM COMPOSER 14.1"
NOTE "DATE" = "2016/06/13"
NOTE "DEVICE" = "5M1270ZF324, 5M1270Z"
NOTE "FILE" = "ERS5700_System_A_95.pof, -"
NOTE "TARGET" = "1"
NOTE "IDCODE" = "020A40DD, 020A30DD"
NOTE "USERCODE" = "A0951599, -"
NOTE "CHECKSUM" = "00965F8F, -"
NOTE "SAVE_DATA" = "DEVICE_DATA"
NOTE "SAVE_DATA_VARIABLES" = "V0, A12, A13, A25, A43, A92, A94, A95, A99, A100,
A105, A109, A111"
NOTE "STAPL_VERSION" = "JESD71"
NOTE "JAM_VERSION" = "2.0"
NOTE "ALG_VERSION" = "63"

Actions available in this file:
PROGRAM
    DO_BLANK_CHECK (optional)
    DO_VERIFY (recommended)
    DO_SECURE (optional)
    DO_DISABLE_ISP_CLAMP (optional)
    DO_BYPASS_CFM (optional)
    DO_BYPASS_UFM (optional)
    DO_REAL_TIME_ISP (optional)
    DO_FORCE_SRAM_DOWNLOAD (optional)
    DO_READ_USERCODE (optional)
    DO_INIT_CONFIGURATION (optional)
```

```
BLANKCHECK
    DO_DISABLE_ISP_CLAMP (optional)
    DO_BYPASS_CFM (optional)
    DO_BYPASS_UFM (optional)
    DO_REAL_TIME_ISP (optional)
    DO_FORCE_SRAM_DOWNLOAD (optional)
VERIFY
    DO_DISABLE_ISP_CLAMP (optional)
    DO_BYPASS_CFM (optional)
    DO_BYPASS_UFM (optional)
    DO_REAL_TIME_ISP (optional)
    DO_FORCE_SRAM_DOWNLOAD (optional)
    DO_READ_USERCODE (optional)
ERASE
    DO_BLANK_CHECK (optional)
    DO_DISABLE_ISP_CLAMP (optional)
    DO_BYPASS_CFM (optional)
    DO_BYPASS_UFM (optional)
    DO_REAL_TIME_ISP (optional)
    DO_FORCE_SRAM_DOWNLOAD (optional)
READ_USERCODE
CHECK_IDCODE

Device #1 Silicon ID is ALTERA10(05)
erasing MAXII device(s)...
erasing MAXII UFM block...
erasing MAXII CFM block...
programming CFM block...
programming UFM block...
verifying CFM block...
verifying UFM block...
Export: key = "DEVICE", value
```

- The system will reboot itself

8. Outstanding Issues

There are no outstanding issues specific to the 7.2.0.213 release. Please see "Release Notes for Avaya Ethernet Routing Switch 4900 and 5900 Series, Release 7.2.0" and Documentation Corrections.

9. Known Limitations

See "Release Notes for Avaya Ethernet Routing Switch 4900 and 5900 Series, Release 7.2.0".

10. Documentation Corrections

ERS495900-2708 – Document the procedure of using TLS 1.2 after upgrading from the 7.0/7.1 release. The certificatate stored in NVRAM before the upgrade is based on 1024 bit RSA key and signed using SHA1 hash algorithm which does not match the current security standars.

The following information is added to the „Increase Web Server SSL key size" feature description in the "Release Notes for Avaya Ethernet Routing Switch 4900 and 5900 Series, Release 7.2.0" document.

Upgrade consideration

To use TLS1.2 after upgrade, perform the following procedure to use the new certificate and reset the SSL server:

```
Switch(config)#ssl certificate
Certificate already exists. Create it anyway (y/n) ? y
Switch(config)#ssl reset
```

The following issues are added to **Chapter 4: Resolved issues** of the "Release Notes for Avaya Ethernet Routing Switch 4900 and 5900 Series, Release 7.2.0" document:

ERS495900-2709 – Upon reboot of a standalone unit, EAPOL could get in a state where RADIUS requests did not get sent to the RADIUS server for authenticating NEAP devices and toggling the EAPOL global enable state was needed for recovery.

The following issues are added to the **Issues found in Release 7.2** list in **Chapter 5: Known issues and limitations** of the "Release Notes for Avaya Ethernet Routing Switch 4900 and 5900 Series, Release 7.2.0" document:

ERS495900-2685 – IP Shortcuts can be enabled without setting ip-source-address, which is not a valid configuration. Workaround: configure IP source address before enabling IP Shortcuts.

ERS495900-2686 – If IP Shortcuts is enabled in an SPBM instance, it remains enabled after deleting the SPBM instance.

ERS495900-2711 – SFP Port LED: EDM shows green when actual front panel light is amber for a 1GB SFP module in 10 GB SFP+ port.

ERS495900-2712 – Issuing the blink-leds command causes 1G SFP links to bounce. A link down event will be noticed, followed immediately by a link up event.

ERS495900-2713 – If both in-band and out-of-band management address are configured, with RADIUS use-management-ip enabled, the source IP address in RADIUS packets sent by the switch will be the one associated with the interface through which the packet will be sent. If the RADIUS server is reachable through both interfaces, it may not be always predictable which one will be selected for the source IP. If the source IP address is not known in the RADIUS server configuration, request packets are dropped.
Workaround: Configure the RADIUS server to allow both addresses, both should be added as RADIUS clients.

ERS495900-2728 – IP Shortcuts: the switch will appear to be unreachable through NNI in traceroute if it is the first hop because TTL in IP pacekts is internally decremented twice

ERS495900-2788 – When SPBM is enabled and IS-IS overload is not set, ARP requests are not forwarded by the switch/stack to a non-SPBM device in the management VLAN.
Workaround: If IS-IS overload must be disabled (NNI to NNI scenario) do not use the management VLAN for the devices which need to have IP connectivity.

ERS495900-2802 – Download image from USB fails if the file is marked as read only with the error message "% Error accessing image file, file missing or can't access USB device".
Workaround: Insert the USB drive in a PC and remove the read-only attribute of the file.

For other known issues, please refer to the product release notes and technical documentation available from the Avaya Technical Support web site at: http://www.avaya.com/support .

11. Troubleshooting

As good practices of help for troubleshooting various issues, AVAYA recommends:
- configuring the device to use the Simple Network Time Protocol to synchronize the device clock;
- Setting a remote logging server to capture all level logs, including informational ones. (#logging remote level informational).

To access more technical documentation, search our knowledge base, or open a service request online, please visit Avaya Technical Support on the web at: http://www.avaya.com/support.