



Ethernet Routing Switch 8300

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INTELLIGENT COMMUNICATIONS

Ethernet Routing Switch 8300

Software Release 4.2.3.4

1. Release Summary

Release Date : Oct 14, 2011

Purpose : Software maintenance release to address customer found software issues.

2. Important Notes before Upgrading to This Release

None

3. Platforms Supported

Ethernet Routing Switch 8300 modules in 8010 and 8006 chassis.

Ethernet Routing Switch 8300 modules in 8306 and 8310 chassis.

4. Notes for Upgrade

File Names for This Release

File Name	Module or File Type	File Size (bytes)
p83b4234.img	Boot monitor image	1092681
p83a4234.img	Runtime image	9406808
p83r4234.dld	Run-time image for R modules	2325204
p83c4234.img	3DES	52424
p83c4234.aes	AES (this image includes the DES image)	26960
p83a4234.mib	MIB	3684013
p83a4234.mib.zip	MIB (zip file)	578961
p83a4234.md5	md5 checksum file	477
p83f4234.img	Pre-Boot monitor image **See IMPORTANT Note below	230786

** Avaya recommends that the Pre-Boot Image ONLY be upgraded if the system is currently running a Pre-Boot Monitor Software Rel 3.6. Systems running a Pre-Boot image Rel 3.7 should not be upgraded as there have been no changes to the Pre Boot Image for this release. The following CLI command can be used to help determine the version of the Pre-Boot Monitor Software:

show sys sw

5. Version of Previous Release

Software Version 4.2.3.3

6. Compatibility

This software release is managed with Java Device Manager (JDM) release v6.2.1.5ER or greater.

7. Changes in This Release

New Features in This Release

None

Old Features Removed From This Release

None

Problems Resolved in This Release

- Modules POE port “P” showing green on wrong port is now resolved. This issue is specific to 8348GTX FrontHwVersion 50 card. The FrontHwVersion can be identified by using the CLI command “show sys info card”. [wi00700770]
- The ERS8300 may stop forwarding traffic over the SMLT links due to resource contention. This issue has been resolved. [wi00826020]
- An abnormal behavior of ERS8300 using a default static route with ECMP enabled has been resolved. [wi00828280]
- An excessive number of HAL messages: NPAL_AddNHToCreateBulkList: could not allocate next hop. status = 19 are seen in the log. The behavior of the NextHop table functions as designed, but the log messages displayed are excessive. This fix addresses the excessive log messages issue. [wi00879699]
- The 8300 may log warnings and errors when enabling DHCP-Snooping globally which on rare occasions can cause a crash. This issue has been resolved. [wi00898338]

- Setting the "Discard-Untagged-Frames" Parameter on the 8300 discards STP BPDUs. [wi00899666]
- After Upgrading the 8300 From 4.2.1.0 to 4.2.3.3 IP Scrutinizer IPFIX Software Receives Traffic With Checksum Errors and No Longer Receives Interface Data. [wi00930995]

9. Known Limitations

- Same as in 4.2.3.0, please refer to the 4.2.3.0 "Known Limitations" section.

10. Documentation Corrections

wi00888206 – The documentation recommending RSMLT L2 Edge configuration has been removed.

wi00928243 – A password is no longer needed to enter in the PRIVILEGED EXEC mode from GLOBAL CONFIG EXEC mode as of 4.2.3.3. The documentation has been changed.



Software

Ethernet Routing Switch 8300

Software Release 4.2.3.3

1. Release Summary

Release Date : June 8, 2011

Purpose : Software maintenance release to address customer found software issues.

2. Important Notes before Upgrading to This Release

None

3. Platforms Supported

Ethernet Routing Switch 8300 modules in 8010 and 8006 chassis.
Ethernet Routing Switch 8300 modules in 8306 and 8310 chassis.

4. Notes for Upgrade

File Names for This Release

File Name	Module or File Type	File Size (bytes)
p83b4233.img	Boot monitor image	1092693
p83a4233.img	Runtime image	9406821
p83r4233.dld	Run-time image for R modules	2325000
p83c4233.img	3DES	52424
p83c4233.aes	AES (this image includes the DES image)	26960
p83a4233.mib	MIB	3684013
p83a4233.mib.zip	MIB (zip file)	578961
p83a4233.md5	md5 checksum file	477
p83f4233.img	Pre-Boot monitor image **See IMPORTANT Note below	230786

** Avaya recommends that the Pre-Boot Image ONLY be upgraded if the system is currently running a Pre-Boot Monitor Software Rel 3.6. Systems running a Pre-Boot image Rel 3.7 should not be upgraded as there have been no changes to the Pre Boot Image for this release. The following CLI command can be used to help determine the version of the Pre-Boot Monitor Software:

show sys sw

5. Version of Previous Release

Software Version 4.2.3.2

6. Compatibility

This software release is managed with Java Device Manager (JDM) release v6.2.1.5ER or greater.

7. Changes in This Release

New Features in This Release

None

Old Features Removed From This Release

None

Problems Resolved in This Release

- “show cli who” command is may not display the active SSH and Telnet user sessions due to a data initialization problem. This issue is resolved [wi00852930]
- The following error message is seen when using the “show log file category” command. “Invalid category: MSTP” Error messages are seen when using show log file category command. This issue is resolved. [wi00840206]
- The changes made to the ip_frag_flag in ACLI not correctly saved after the 8300 is restarted This issue is resolved [wi00857800]
- The copy command from the active CP to the standby CP will not work if the “host” account is used for authentication. This issue is resolved [wi00731942]
- IPFIX ExporterIP is not used as SourceIP in the flow This issue is resolved [wi00734190]
- When an active port is toggled, the adjacent active port’s LEDturns orange. This issue is resolved [wi00828166]
- VLACP PDUs not transmitted at the configured interval. This issue is resolved. [wi00876958]
- In MSTP/RSTP mode, non-active MLT port addition, or deletion would result in traffic loss. This issue is resolved [wi00564851]
- PCMCIA log file size exceeding the configured value may hang the ERS 8300 switch upon reboot, or CP switchover.. This issue is resolved [wi00857796]
- Logging the events to PCMCIA would some times hang the ERS 8300 Switch or may cause a silent reset when PCMCIA card is removed when logging task is trying to write to PCMCIA card when CPU is at 100% utilization. This issue is resolved [wi00891037]

8. Outstanding Issues

NA

10. Known Limitations

- Same as in 4.2.3.0, please refer to the 4.2.3.0 "Known Limitations" section.

10. Documentation Corrections

None

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INTELLIGENT COMMUNICATIONS

Ethernet Routing Switch 8300

Software Release 4.2.3.2

1. Release Summary

Release Date: March 4, 2011

Purpose: Software maintenance release to address customer found software issues.

2. Important Notes before Upgrading to This Release

None

3. Platforms Supported

Ethernet Routing Switch 8300 modules in 8010 and 8006 chassis.
Ethernet Routing Switch 8300 modules in 8306 and 8310 chassis.

4. Notes for Upgrade

File Names for This Release

File Name	Module or File Type	File Size (bytes)
p83b4232.img	Boot monitor image	1092177
p83a4232.img	Runtime image	9404537
p83r4232.dld	Run-time image for R modules	2324652
p83c4232.img	3DES	52424
p83c4232.aes	AES (this image includes the DES image)	26960
p83a4232.mib	MIB	3684013
p83a4232.mib.zip	MIB (zip file)	578961
p83a4232.md5	md5 checksum file	477
p83f4232.img	Pre-Boot monitor image **See IMPORTANT Note below	230786

** Avaya recommends that the Pre-Boot Image ONLY be upgraded if the system is currently running a Pre-Boot Monitor Software Rel 3.6. Systems running a Pre-Boot image Rel 3.7 should not be upgraded as there have been no changes to the Pre Boot Image for this release. The following CLI command can be used to help determine the version of the Pre-Boot Monitor Software:

show sys sw

5. Version of Previous Release

Software Version 4.2.3.0

6. Compatibility

This software release is managed with Java Device Manager (JDM) release 6.1.9.0 or greater.

7. Changes in This Release

New Features in This Release

None

Old Features Removed From This Release

None

Problems Resolved in This Release

CLI/ACLI

- The command “boot config flags qos” does not exist under ACLI but is available under regular CLI [wi00823950]
- The command “save boot” in dual CPU environments will not always update both the boot.cfg files on the /flash and the /pcmcia directories. The version on the /flash directory is not always updated. [wi00731960]

Filters

- Unable to permanently remove any fragmentation restrictions. Once the config is saved, the fragmentation setting is still there. [wi00564378]

SNMP

- On dual CPU system, the rcSysGrpDoSaveConfigData MIB object will cause a crash when saving configuration via JDM [wi00733215]

L2

- Enabling UDP forwarding on 4.2.2.3 causes connectivity issues via IST.[wi00774196]

Platform

- NTP server usage may cause silent reset to happen. This specific silent reset problem was found at a customer site and determined to be caused by the NTP feature support. [wi00829453]

8. Outstanding Issues

NA

11. Known Limitations

- Same as in 4.2.3.0, please refer to the 4.2.3.0 9. Known Limitations” on page 15

10. Documentation Corrections

None



INTELLIGENT COMMUNICATIONS

Software Release 4.2.3.0

Ethernet Routing Switch 8300

1. Release Summary

Release Date: October 15, 2010

Purpose: Software maintenance release to address customer found software issues.

2. Important Notes before Upgrading to This Release

None

3. Platforms Supported

Ethernet Routing Switch 8300 modules in 8010 and 8006 chassis.
Ethernet Routing Switch 8300 modules in 8306 and 8310 chassis.

4. Notes for Upgrade

File Names for This Release

File Name	Module or File Type	File Size (bytes)
p83b4230.img	Boot monitor image	1091944
p83a4230.img	Runtime image	9403809
p83r4230.dld	Run-time image for R modules	2324652
p83c4230.img	3DES	52424
p83c4230.aes	AES (this image includes the DES image)	26960
p83a4230.mib	MIB	3684013
p83a4230.mib.zip	MIB (zip file)	578961
p83a4230.md5	md5 checksum file	477
p83f4230.img	Pre-Boot monitor image **See IMPORTANT Note below	230786

** Avaya recommends that the Pre-Boot Image ONLY be upgraded if the system is currently running a Pre-Boot Monitor Software Rel 3.6. Systems running a Pre-Boot image Rel 3.7 should not be upgraded as there have been no changes to the Pre Boot Image for this release. The following CLI command can be used to help determine the version of the Pre-Boot Monitor Software:

show sys sw

5. Version of Previous Release

Software Version 4.2.2.2

6. Compatibility

This software release is managed with Java Device Manager (JDM) release 6.1.9.0 or greater.

7. Changes in This Release

New Features in This Release

- Auto configuration of IP phones is possible with LLDP-MED feature.
The new CLI and ACLI commands: added to support the feature

CLI :

Config ethernet (slot/port) lldp tx-tlv med med-network-policy add | del app-type
<value> [vlan <value>] [dscp <value>] [priority <value>

ACLI :

Interface gigabitEthernet/fastEthernet [slot/port] lldp tx-tlv med med-network-policies

- For details on MIB object changes and new CLI/ACLI commands refer to section 11

Old Features Removed From This Release

None

Problems Resolved in This Release

CLI/ACLI

- The two CLI commands shown below have been extended to filter on port number. [Q01977336]
 - show port info fdb-entry [vlan <value>] [port <value>]
 - show vlan info fdb-entry [<vid>] [mac <value>] [port <value>].
- Nortel to Avaya rebranding done, All the show commands in CLI/ACLI along with the banner would display Avaya. [Q02146140]
- The new banner is shown below:

```
*****  
* Copyright (c) 1996-2010 Avaya, Inc.      *  
* All Rights Reserved                      *  
* Ethernet Routing Switch 8006            *  
* Software Release 4.2.3.0                *  
*****
```

 - MIB description is still maintained as Nortel.

Layer 2

- RSTP port config was not saved while running in ACLI mode, this is resolved [Q02156871]
- RSTP port role/state not correct after link break on MLT is resolved. [Q01845973]
- SLPP default Ethertype is now Avaya owned 0x8102 (from Nortel owned 0x8104) – 0x8104 still processed for backward compatibility [Q01845973]
- VLACP transitions when display a large file and quit is resolved. [Q02154476]

Layer 3

- Trace route failing in full mesh RSMLT is resolved. [Q02133826]
- Ping on VRRP virtual IP failing with data packet size more then 1472 is resolved. [Q02163855]
- OSPF value md5-key was getting stored in the config file, this is resolved. [Q02133043]

Platform

- The situation of POE cards going down during failovers is resolved. [Case ID: 100902-97554]
- Data loss on GBIC [AA1419013-E5] for 5-10 seconds is resolved. To be noted if a link is connected both sides with SFP AA1419013-E5 and are in half-Duplex state, we may have one side disabled and other side forwarding. [Q02130626]

- In ACLI: Switch was getting factory defaulted in verbose mode, this is resolved. [Q02124517]
- Switch resets on continuous login and exits is resolved.[Q02150788]
- HW WARNING Wrong dev type 15111ab - error message on stand-by is resolved. [Q02151936]
- The switch was getting factory defaulted on reboot after swapping IO cards. This is resolved now, we see the configurations getting loaded without getting factory [Q02060208]

MLT / SMLT

- When the fdb-entry ages out on IST boxes, one of the boxes makes an ARP request for the Mac entry, but due to hashing algorithm the reply is coming on the peer IST box. Since the Arp is aged out on one box, it requests the other to delete it too. As a result, the entry is getting lost on both the boxes. This issue is resolved. [Q02057910]

SNMP

- Filter Crash SNMP task was resolved. [Q02158463]

8. Outstanding Issues

NA

9. Known Limitations

- JDM support for LLDP-MED is not available
- Log File Transfer with RSTP Fails.
- Configuring ACL mode – from the bootconfig sub-context still uses the nncli syntax instead of ACL
 “config bootconfig flags nncli <true | false>”

10. Documentation Corrections

None

11. LLDP-MED Feature

The purpose of this feature is to allow an IP Phones to get *voice_VLAN*, DSCP and priority, tagged/untagged traffic type's information through LLDP MED Network Policy TLV.

LLDP-MED functionality is configured on a per port basis.

When an IP Phone sends a LLDP PDU with MED capabilities the switch will notice that it has a MED endpoint device on that port and will reply with a PDU containing the Network Policies TLVS together with the other non-LLDP-MED TLVs already set for transmission.

The LLDP-MED standard specifies that if the MED capability TLV is not received from an endpoint device on a port than no other MED TLVs except med-capabilities will be sent to the user in a PDU.

The VLAN information is sent to the IP Phone through LLDP-Med Network Policy TLV. Multiple Network Policy TLVs can be sent in one LLDP PDU, each for a distinct application type.

CLI Command

```
config ethernet (slot/port) lldp tx-tlv med med-network-policy
add | del app-type <value> [vlan <value>] [dscp <value>] [priority <value>]
```

CLI Examples

PURPOSE: LLDP-MED: app-type Voice
PROCEDURE: Execute command **config ethernet [slot/port] lldp tx-tlv med med-network-policy add app-type 1**
This command is used to enable IP voice traffic to flow.

PURPOSE: LLDP-MED: app-type Voice-Signaling
PROCEDURE: Execute command **config ethernet [slot/port] lldp tx-tlv med med-network-policy add app-type 2**
This command is used to enable Voice-Signaling for connection establishment with the IP phone.

PURPOSE: LLDP-MED: Vlan ID set
PROCEDURE: Execute command **config ethernet [slot/port] lldp tx-tlv med med-network-policy add app-type [1/2] vlan [Value]**
This command is send the vlan id in the LLDP MED network policy TLV. Default value of Zero is sent, if not configured.

PURPOSE: LLDP-MED: dscp set
PROCEDURE: Execute command **config ethernet [slot/port] lldp tx-tlv med med-network-policy add app-type [1/2] dscp [Value]**
This command is send the dscp in the LLDP MED network policy TLV. Default value of Zero is sent, if not configured.

PURPOSE: LLDP-MED: priority set
PROCEDURE: Execute command **config ethernet [slot/port] lldp tx-tlv med med-network-policy add app-type [1/2] priority [Value]**
This command is send the priority in the LLDP MED network policy TLV. Default value of Zero is sent, if not configured.

PURPOSE: LLDP-MED: Add Voice and Voice Signaling and then delete both Voice and Voice-Signaling
PROCEDURE: Execute command **config ethernet [slot/port] lldp tx-tlv med med-network-policy add app-type 1**
config ethernet [slot/port] lldp tx-tlv med med-network-policy add app-type 2
config ethernet [slot/port] lldp tx-tlv med med-network-policy del app-type 1
config ethernet [slot/port] lldp tx-tlv med med-network-policy del app-type 2

PURPOSE: LLDP-MED: Show Info
PROCEDURE: Execute all the commands under med-network-policy and execute the command **show lldp local-sys-data type med**

ACLI Command

Interface gigabitEthernet/fastEthernet [slot/port] lldp tx-tlv med med-network-policies app-type

ACLI Examples

PURPOSE: ACLI LLDP-MED: app-type voice
PROCEDURE: Execute the command
Interface gigabitEthernet/fastEthernet [slot/port] lldp tx-tlv med med-network-policies app-type voice

PURPOSE: ACLI LLDP-MED: app-type Voice-signaling
PROCEDURE: Execute the command
Interface gigabitEthernet/fastEthernet [slot/port] lldp tx-tlv med med-network-policies app-type voice-signalling

PURPOSE: ACLI LLDP-MED: Vlan ID set
PROCEDURE: Execute the command
Interface gigabitEthernet/fastEthernet [slot/port] lldp tx-tlv med med-network-policies app-type [voice/voice-signalling] vlan [Value]

PURPOSE: ACLI LLDP-MED: dscp set
PROCEDURE: Execute the command
Interface gigabitEthernet/fastEthernet [slot/port] lldp tx-tlv med med-network-policies app-type [voice/voice-signalling] dscp [Value]

PURPOSE: ACLI LLDP-MED: priority set
PROCEDURE: Execute the command
**Interface gigabitEthernet/fastEthernet [slot/port]
lldp tx-tlv med med-network-policies app-type
[voice/voice-signalling] priority [Value]**

PURPOSE: ACLI LLDP-MED: Add Voice and Voice Signaling and then delete
Voice and Voice-Signaling
PROCEDURE: Execute the command
**Interface gigabitEthernet/fastEthernet [slot/port]
lldp tx-tlv med med-network-policies app-type voice
lldp tx-tlv med med-network-policies app-type voice-signalling
no lldp tx-tlv med med-network-policies app-type voice
no lldp tx-tlv med med-network-policies app-type voice-signalling**

PURPOSE: LLDP-MED: Show Info
PROCEDURE: Execute the command **show lldp local-sys-data med**

MIB Object Summary

The following MIB objects are added to provide the SNMP support.

rcLldpXMedLocMediaPolicyTable
rcLldpXMedLocMediaPolicyEntry
rcLldpXMedLocMediaPolicyPortNum
rcLldpXMedLocMediaPolicyAppType
rcLldpXMedLocMediaPolicyPriority
rcLldpXMedLocMediaPolicyDscp
rcLldpXMedLocMediaPolicyUnknown
rcLldpXMedLocMediaPolicyTagged
rcLldpXMedLocMediaPolicyRowStatus

MIB Object Details

File: rapid_city.mib.head

In the Import section:

```
PolicyAppType  
FROM LLDP-MED-MIB
```

Under rcport Node:

```
-----  
---  
-- LLDP-MED - Local Device Information  
-----
```


--- rcLldpXMedLocMediaPolicyTable: Local Media Policy
--- Information Table

rcLldpXMedLocMediaPolicyTable OBJECT-TYPE
SYNTAX SEQUENCE OF RcLldpXMedLocMediaPolicyEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
"This table contains one row per policy type per port
of media policy information (as a part of the MED
organizational extension) on the local system known
to this agent."
 ::= { rcPort 12 }

rcLldpXMedLocMediaPolicyEntry OBJECT-TYPE
SYNTAX RcLldpXMedLocMediaPolicyEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
"Information about a particular policy on a specific
port component."
INDEX { rcLldpXMedLocMediaPolicyPortNum, rcLldpXMedLocMediaPolicyAppType }
 ::= { rcLldpXMedLocMediaPolicyTable 1 }

RcLldpXMedLocMediaPolicyEntry ::=
SEQUENCE {
rcLldpXMedLocMediaPolicyPortNum InterfaceIndex,
rcLldpXMedLocMediaPolicyAppType PolicyAppType,
rcLldpXMedLocMediaPolicyVlanID Integer32,
rcLldpXMedLocMediaPolicyPriority Integer32,
rcLldpXMedLocMediaPolicyDscp Integer32,
rcLldpXMedLocMediaPolicyUnknown TruthValue,
rcLldpXMedLocMediaPolicyTagged TruthValue,
rcLldpXMedLocMediaPolicyRowStatus RowStatus
}

rcLldpXMedLocMediaPolicyPortNum OBJECT-TYPE
SYNTAX InterfaceIndex
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
"."
 ::= { rcLldpXMedLocMediaPolicyEntry 1 }

rcLldpXMedLocMediaPolicyAppType OBJECT-TYPE
SYNTAX PolicyAppType
MAX-ACCESS not-accessible

STATUS current
DESCRIPTION
"The media type that defines the primary function of the application for the policy advertised by an endpoint."
REFERENCE
"ANSI/TIA-1057, Section 10.2.3.1"
::= { rcLldpXMedLocMediaPolicyEntry 2 }

rcLldpXMedLocMediaPolicyVlanID OBJECT-TYPE
SYNTAX Integer32 (0 | 1..4094 | 4095)

MAX-ACCESS read-create
STATUS current
DESCRIPTION
"An extension of the VLAN Identifier for the port, as defined in IEEE 802.1P-1998.
A value of 1 through 4094 is used to define a valid PVID.
A value of 0 shall be used if the device is using priority tagged frames, meaning that only the 802.1p priority level is significant and the default VID of the ingress port is being used instead.
A value of 4095 is reserved for implementation use."
REFERENCE
" ANSI/TIA-1057, Section 10.2.3.5"
::= { rcLldpXMedLocMediaPolicyEntry 3 }

rcLldpXMedLocMediaPolicyPriority OBJECT-TYPE
SYNTAX Integer32 (0..7)
MAX-ACCESS read-create
STATUS current
DESCRIPTION
"This object contains the value of the 802.1p priority which is associated with the given port on the local system."
REFERENCE
" ANSI/TIA-1057, Section 10.2.3.6 "
::= { rcLldpXMedLocMediaPolicyEntry 4 }

rcLldpXMedLocMediaPolicyDscp OBJECT-TYPE
SYNTAX Integer32(0..63)
MAX-ACCESS read-create
STATUS current
DESCRIPTION
"This object contains the value of the Differentiated Service Code Point (DSCP) as defined in IETF RFC 2474 and RFC 2475 which is associated with the given port on the local system."
REFERENCE
" ANSI/TIA-1057, Section 10.2.3.7"
::= { rcLldpXMedLocMediaPolicyEntry 5 }

rcLldpXMedLocMediaPolicyUnknown OBJECT-TYPE

SYNTAX TruthValue
MAX-ACCESS read-create
STATUS current
DESCRIPTION

"A value of 'true' indicates that the network policy for the specified application type is currently unknown. In this case, the VLAN ID, the layer 2 priority and the DSCP value fields are ignored. A value of 'false' indicates that this network policy is defined "

REFERENCE

" ANSI/TIA-1057, Section 10.2.3.2"
::= { rcLldpXMedLocMediaPolicyEntry 6 }

rcLldpXMedLocMediaPolicyTagged OBJECT-TYPE

SYNTAX TruthValue
MAX-ACCESS read-create
STATUS current
DESCRIPTION

"A value of 'true' indicates that the application is using a tagged VLAN. A value of 'false' indicates that for the specific application the device either is using an untagged VLAN or does not support port based VLAN operation. In this case, both the VLAN ID and the Layer 2 priority fields are ignored and only the DSCP value has relevance "

REFERENCE

" ANSI/TIA-1057, Section 10.2.3.3"
::= { rcLldpXMedLocMediaPolicyEntry 7 }

rcLldpXMedLocMediaPolicyRowStatus OBJECT-TYPE

SYNTAX RowStatus
MAX-ACCESS read-create
STATUS current
DESCRIPTION

"Used to create/delete entries."

::= { rcLldpXMedLocMediaPolicyEntry 8 }