Release Notes for VDSL CPE PHY Release VA_A_39m_B_38u_24o_rc1_SDK_4.14L.04A-J.bin.V2

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Contents

Introduction

These release notes describe new enhancements and fixed caveats for the VDSL CPE PHY using firmware release VA_A_39m_B_38u_24o_rc1_SDK_4.14L.04A-J.bin.V2. This firmware has modem PHY version A2pv6C039m for Annex A and Annex M and modem PHY version B2pvC038u for Annex B. Broadcom DSL driver version 24o_rc1 is used by both A2pv6C039m and B2pvC038u. <mark>**This firmware is compiled with latest Broadcom SDK version 4.14L.04A and is supported with IOS release with fix of CSCvn31630**</mark>. In this firmware ,the bit setting and support of Annex J mode is enabled.

These release notes are updated as needed.

System Requirements

- [Memory and IOS Software Requirements](#)
- [Determining the Firmware Version](#)
- [Upgrading to a New Firmware Release](#)

Memory and IOS Software Requirements

[Table 1](#) lists the supported Cisco 88xVA Series Routers and Cisco 89xVA Series Routers with their respective memory and IOS requirements while using firmware release VA_A_39m_B_38u_24o_rc1_SDK_4.14L.04A-J.bin.V2

Table 1 Supported Cisco 886 Routers and Cisco 896 Routers with Memory Requirements

Platform	Flash	DRAM	IOS version
C887VA series ISR	128 MB	256 MB	15.8(03)M02 or later
C886VA series ISR			15.7(03)M04 or later
C897VA series ISR	256 MB	512 MB	15.6(03)M07 or later
C896VA series ISR			

The following EHWIC is supported with VA_A_39m_B_38u_24o_rc1_SDK_4.14L.04A-J.bin.V2:

- Cisco EHWIC-VA-DSL-A
- Cisco EHWIC-VA-DSL-M
- Cisco EHWIC-VA-DSL-B

Important Note: This firmware package is compiled with latest Broadcom SDK version 4.14L.04A and should not be loaded with IOS released before 15.6(3)M.

Determining the Firmware Version

To determine the version of firmware currently running on your Cisco 88xVA Series Router, issue the following IOS command and look for the output entries shown in bold in this example:

```
 Router#sh controller vdsl 0
Controller VDSL 0 is UP

Daemon Status:          Up

                  XTU-R (DS)          XTU-C (US)
Chip Vendor ID:        'BDCM'               'BDCM'
Chip Vendor Specific:  0x0000              0xA41B
Chip Vendor Country:   0xB500              0xB500
Modem Vendor ID:       'CSCO'               '   '
Modem Vendor Specific: 0x4602              0x0000
Modem Vendor Country:  0xB500              0x0000
Serial Number Near:    FGL17412466 C897VAM- 15.6(201701
Serial Number Far:
Modem Version Near:    15.6(20170120:115729) [ragvasud
Modem Version Far:     0xa41b

Modem Status:          TC Sync (Showtime!)

DSL Config Mode:       AUTO
Trained Mode:   G.992.5 (ADSL2+) Annex M
TC Mode:               ATM
Selftest Result:       0x00
DELT configuration:     disabled
```

DELT state: not running

Full inits: 4
Failed full inits: 0
Short inits: 0
Failed short inits: 0

Firmware   Source   File Name
--------   ------   ----------
VDSL   user config   flash: VA_A_39m_B_38u_24o_rc1_SDK_4.14L.04A-J.bin.V2

Modem FW Version: 4.14L.04A
Modem PHY Version: A2pv6C039m.d24o_rc1
Trellis: ON   ON
SRA: disabled   disabled
 SRA count: 0   0
Bit swap: enabled   enabled
 Bit swap count: 0   0
Line Attenuation: 0.0 dB   2.4 dB
Signal Attenuation: 0.0 dB   1.6 dB
Noise Margin: 10.1 dB   6.4 dB
Attainable Rate: 25992 kbits/s   808 kbits/s
Actual Power: 6.0 dBm   10.3 dBm
Total FECC: 0   0
Total ES: 0   0
Total SES: 0   0
Total LOSS: 0   0
Total UAS: 37   37
Total LPRS: 0   0
Total LOFS: 0   0
Total LOLS: 0   0

	DS Channel1	DS Channel0	US Channel1	US Channel0
Speed (kbps):	0	26003	0	808
SRA Previous Speed:	0	0	0	0
Previous Speed:	0	26007	0	819

Upgrading to a New Firmware Release

Perform the following steps to upgrade to a new firmware release:

1. Download the new firmware from Cisco.com Software Center at:
   http://www.cisco.com/cisco/software/navigator.html

   Choose Products -> Routers -> Branch Routers -> Cisco 800 Series Routers -> Cisco 886VA Integrated Services Router (or Cisco 896 VA Integrated Services Router) -> Very High Bitrate DSL (VDSL) Firmware >VA_A_39m_B_38u_24o_rc1_SDK_4.14L.04A-J.bin.V2

2. Copy the B2pvC038u firmware to a designated location; for example, router flash or a TFTP server.

3. Configure the router to load the new firmware from a designated location.

```
Router# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.

Router(config)# controller vdsl 0
Router(config-controller)# firmware filename ?
archive: Download fw file name
cns: Download fw file name
flash: Download fw file name
ftp: Download fw file name
http: Download fw file name
```

```
https: Download fw file name
null: Download fw file name
nvram: Download fw file name
rcp: Download fw file name
scp: Download fw file name
system: Download fw file name
tar: Download fw file name
tftp: Download fw file name
tmpsys: Download fw file name
xmodem: Download fw file name
ymodem: Download fw file name


Router(config-controller)# firmware filename flash:
```

Note   Controller VDSL 0 should not be turned off.

---

4. Enter the **copy running-config startup-config** command to save your configuration.

5. Enter the **reload** command to restart the router.

New and Changed Information

This section contains changes introduced with firmware release A2pv6C039m.d24o_rc1.

- Improved kl0 measurement in G.993.2 for Bridged Tap loops
- Improve showtime stability of G.993.2 during SRA upshift
- Fixed G.992.5 BER issue in TR-100 CPE margin verification tests
- Removed G.993.2 DS rate cap against non-BRCM COs
- Improved G.HS IOP against NVLT-D card
- Fixed G.INP parameters reporting issue in G.992.[35]

This section contains changes introduced with firmware release B2pvC038u.d24o_rc1.

- Fix issue with G.993.2 SRA when block interleaver is used in G.INP [FW-7174]
- Fix G.993.2 training issues when ROC tones have low PSD [FW-7176]
- Fix G.993.2 Annex Y negotiation issue [FW-7152]
- Fix G.998.4 LEFTRS threshold update issue after SRA [FW-7227]
- Fix no connect issue in G.993.2 against ADTRAN DSLAM [FW-7299]

- Improve ATTNDR computation in G.993.2 Showtime [FW-7231]
- Improve G.INP+SRA upshift behavior in G.993.2 [FW-7249]
- Fix O-TPS parsing issue in G.993.2 when G.INP is enabled [FW-7256]
- Fix minDelay initialization issue in G.993.2 G.INP [FW-7286]
- Fix issue in disabling DS and US SRA separately in G.993.2 when G.INP is enabled [FW-7302]
- Improve LOS detection in G.993.2 [FW-7257]
- Improve G.993.2 G.INP DS rates when SOS is not negotiated [FW-7334]
- Improved ATTNDR computation in G992.[35] [FW-7302]
- Fixed false triggering of DS SOS in G.993.2 [FW-7389]
- Fix no-connect in certain fixed rate profiles in G.992.[35] when nitro is enabled [FW-7454]
- Fix G.Vector training issue in high cross-talk condition [FW-7465]
- Fix G.993.2 sync issues in long loops [FW-7480]
- Fix connect issue in G.993.2 for low fixed rate profiles when PhyR is enabled [FW-7426]

Known Issues and Limitations

- G.INP supports DTU framing type 1 only

Related Documentation

- Release-Specific Documents
- Platform-Specific Documents
- Other Firmware Code

Release-Specific Documents

For detailed information about the release-specific platforms, see the following documentations:

- *Cisco Multimode VDSL2 and ADSL2/ADSL2+ High-Speed WAN Interface Card*
- *Cisco 800 Series Integrated Services Router Hardware Installation Guide*
- *Cisco 800 Series Integrated Services Routers Software Configuration Guide*

Platform-Specific Documents

For more information about the supported platforms, see the following documentations:

- *Cisco 800 Series Integrated Services Router Hardware Installation Guide*

- *[Cisco 800 Series Integrated Services Routers Software Configuration Guide](#)*

Other Firmware Code

For information on the firmware used prior to this release, see *[Release Notes for Cisco 860VA Series Multimode VDSL2/ADSL2/2+ DSL Router with Firmware Release](#) A2pv6F039d.*

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, using the Cisco Bug Search Tool (BST), submitting a service request, and gathering additional information, see *What's New in Cisco Product Documentation* at: http://www.cisco.com/c/en/us/td/docs/general/whatsnew/whatsnew.html.

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