

# Release Notes for VDSL CPE PHY Release VA\_A\_39m\_B\_38u\_24o\_rc1\_SDK\_4.14L.04A -J

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Release Notes for VDSL CPE PHY Release  
VA\_A\_39m\_B\_38u\_24o\_rc1\_SDK\_4.14L.04A-J

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Release: Cisco IOS Release 15.6(3)M

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## 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. 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. **This firmware is compiled with latest Broadcom SDK version 4.14L.04A and is supported with IOS version 15.6(3)M and above only.** In this firmware ,the bit setting and support of Annex J mode is enabled.

These release notes are updated as needed.

## System Requirements

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## 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.

**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	15.6(3) M or later
C886VA series ISR			

C897VA series ISR	256 MB	512 MB	
C896VA series ISR			

The following EHWIC is supported with VA\_A\_39m\_B\_38u\_24o\_rc1\_SDK\_4.14L.04A-J:

- 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

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
Total Cells:	0	1707008	0	46246
User Cells:	0	52	0	21
Reed-Solomon EC:	0	0	0	0
CRC Errors:	0	0	0	0
Header Errors:	0	0	0	0
Interleave (ms):	0.00	0.07	0.00	16.29
Actual INP:	0.00	0.00	0.00	2.05

Training Log : Stopped

Training Log Filename : flash:vdsllog.bin

Router#

## 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](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.

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:



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**Note** Controller VDSL 0 should not be turned off.

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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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