



Release Notes for VDSL CPE PHY Release B2pvC038u

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Introduction

These release notes describe new enhancements and fixed caveats for the VDSL CPE PHY using firmware release B2pvC038u. This firmware is used for Cisco CPEs and certified by Deutsch Telekom with its Digital Subscriber Line Access Multiplexers (DSLAMs). Cisco does not support any CPE interoperability issues if the CPEs are not tested with the DSLAMs by Deutsch Telekom. In this firmware Annex J mode is enabled.

These release notes are updated as needed.

System Requirements

- [Memory and IOS Software Requirements, page 2](#)
- [Determining the Firmware Version, page 2](#)
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Memory and IOS Software Requirements

Table 1 lists the supported Cisco 886VA Series Routers and Cisco 896VA Series Routers with their respective memory and IOS requirements while using firmware release B2pvC038u.



Note

This firmware version is compiled with the SDK version 4.02L.03 and supports IOS release 15.6(2)T and earlier releases up to the supported version mentioned in the firmware release note. This firmware is not supported with Cisco IOS 15.6(3)M and later releases.

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

Platform	Flash	DRAM	IOS version
C886VA-K9	128 MB	256 MB	15.2(4) M or later
C886VAJ-K9			
C886VA-W-E-K9			
C896VA-K9	256 MB	1 GB DRAM	
C896VAG-LTE-GA-K9			

The following EHWIC is supported with B2pvC038u:

- C1900/C2900/C3900/C3900e Series router with Cisco EHWIC-VA-DSL-B

Determining the Firmware Version

To determine the version of firmware currently running on your Cisco 886VA Series Router, issue the following IOS command and look for the output entries shown in bold in this example:

```
C886VA# show 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                0x939B
Chip Vendor Country:          0xB500                0xB500
Modem Vendor ID:              'CSCO'                ' '
Modem Vendor Specific:        0x4602                0x0000
Modem Vendor Country:         0xB500                0x0000
Serial Number Near:           FHK141975T1 886VA-K9 15.5(3)M
Serial Number Far:
Modem Version Near:           15.5(3)M
Modem Version Far:            0x939b

Modem Status:                  TC Sync (Showtime!)

DSL Config Mode:              AUTO
Trained Mode:                 G.992.5 (ADSL2+) Annex J
TC Mode:                       ATM
Selftest Result:              0x00
DELT configuration:           disabled
DELT state:                    not running
```

```

Full inits:          10
Failed full inits:  1
Short inits:        1
Failed short inits: 1

```

```

Firmware      Source      File Name
-----
VDSL          user config  flash:VA_A_39m_B_38u_24h.bin

```

```

Modem FW Version:  151214_0008-4.02L.03.B2pvC038u.d24h
Modem PHY Version: B2pvC038u.d24h
Trellis:           ON
SRA:               disabled      disabled
  SRA count:       0              0
Bit swap:          enabled       enabled
  Bit swap count:  0              0
Line Attenuation:  0.0 dB         1.2 dB
Signal Attenuation: 0.9 dB         0.2 dB
Noise Margin:      5.9 dB         6.9 dB
Attainable Rate:   27521 kbits/s  2393 kbits/s
Actual Power:      6.9 dBm        11.9 dBm
Total FECC:        0              0
Total ES:          0              0
Total SES:         0              0
Total LOSS:        0              0
Total UAS:         73             73
Total LPRS:        0              0
Total LOFS:        0              0
Total LOLS:        0              0

```

	DS Channel1	DS Channel0	US Channel1	US Channel0
Speed (kbps):	0	27515	0	2392
SRA Previous Speed:	0	0	0	0
Previous Speed:	0	27662	0	1567
Total Cells:	0	1562068	0	114878
User Cells:	0	16	0	0
Reed-Solomon EC:	0	0	0	0
CRC Errors:	0	0	0	0
Header Errors:	0	4	0	0
Interleave (ms):	0.00	0.08	0.00	7.23
Actual INP:	0.00	0.00	0.00	0.22

```

Training Log : Stopped
Training Log Filename : flash:vdslllog.bin

```

```
C886VA#
```

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 > 800 Series Routers > Cisco 886VA Integrated Services Router > Very High Bitrate DSL (VDSL) Firmware > B2pvC038u**
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.

Features

B2pvC038u supports the following features:

- G.993.2 (VDSL2) protocol
 - PTM and ATM mode
 - Annex B over ISDN band plans
 - Profiles supported: 8a/b/c/d, 12a/b and 17a
 - US0
 - Diagnostics mode/DELT
 - Bitswaps, SRA and SOS/ROC
 - FEXT Equalized UPBO
 - Dying Gasp
 - INM
 - PhyR and G.INP (Framing Type 1)
 - SRA/SoS+G.INP
 - Virtual Noise
 - G.Vector (G.993.5) and G.Vector Friendly (G.993.2 Annex Y)
 - Alternate Electrical Length Measurement

- ADSL protocols
 - G.992.5 (ADSL2+), G.992.3 (ADSL2), G.992.1 (G.DMT)
 - ATM/PTM mode
 - Annex B/J
 - L2 power management
 - Diagnostics mode/DELT
 - Bitswaps and SRA
 - INM
 - PhyR and G.INP (Framing Type 1)
 - SRA+G.INP
 - Virtual Noise

New and Changed Information

This section contains changes introduced with firmware release B2pvC038u.

- Fixed issue with G.993.2 SRA when block interleaver is used in G.INP
- Fixed G.993.2 training issues when ROC tones have low PSD
- Fixed G.993.2 Annex Y negotiation issue
- Fixed G.998.4 LEFTRS threshold update issue after SRA
- Fixed no connect issue in G.993.2 against ADTRAN DSLAM
- Improved ATTNDR computation in G.993.2 Showtime
- Improved G.INP+SRA upshift behavior in G.993.2
- Fixed O-TPS parsing issue in G.993.2 when G.INP is enabled
- Fixed minDelay initialization issue in G.993.2 G.INP
- Fixed issue in disabling DS and US SRA separately in G.993.2 when G.INP is enabled
- Improved LOS detection in G.993.2
- Improved G.993.2 G.INP DS rates when SOS is not negotiated
- Improved ATTNDR computation in G992.[35]
- Fixed false triggering of DS SOS in G.993.2
- Fixed no-connect in certain fixed rate profiles in G.992.[35] when nitro is enabled
- Fixed G.Vector training issue in high cross-talk condition
- Fixed G.993.2 sync issues in long loops
- Fixed connect issue in G.993.2 for low fixed rate profiles when PhyR is enabled
- Adjusted B43 G.HS PSD

Known Issues and Limitations

- G.INP supports DTU framing type 1 only

Related Documentation

- [Release-Specific Documents, page 7](#)
- [Platform-Specific Documents, page 7](#)
- [Other Firmware Code, page 7](#)

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 the [Release Notes for VDSL CPE PHY Release B2pvC038h3_J](#).

Obtain Documentation and Submit 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](#).

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