Release Notes for Cisco 860VAE-W Series Multimode VDSL2/ADSL2/2+ DSL Routers using Firmware Release A2pv6F039t

Contents

Introduction

These release notes describe new enhancements and fixed caveats for the Cisco 860VAE-W Series Multimode VDSL2/ADSL2/2+ DSL routers using firmware release A2pv6F039t. This firmware is used for Cisco CPEs and recommended for Australia's National Broadband Network (NBN).

These release notes are updated as needed.

System Requirements

Memory and IOS Software Requirements

Table 1 lists the supported Cisco 860VAE Series Multimode VDSL2/ADSL2/2+ DSL routers and also the memory and IOS requirements while using firmware release A2pv6F039t.

Table 1 Supported Cisco 860VAE-W Series Multimode VDSL2/ADSL2/2+ DSL and Memory Requirements

Platform	Flash (MB)	DRAM (MB)	IOS version
C866VAE-W-E-K9			
C867VAE-W-A-K9			
C867VAE-W-E-K9			
C867VAE-POE-W-A-K9	128	512	15.5(3) M or later

Determining the Firmware Version

To determine the version of firmware currently running on your Cisco 860VAE-W series router, issue the following IOS command and look for the output entries shown in bold in this example:

```
C867VAE-K9#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                  0xA450
Chip Vendor Country:    0xB500                  0xB500
Modem Vendor ID:        'CSCO'                  'BDCM'
Modem Vendor Specific:  0x4602                  0x0000
Modem Vendor Country:   0xB500                  0xB500
Serial Number Near:     GMK172801HR C867VAE 15.5(3)
Serial Number Far:
Modem Version Near:     15.5(3)
Modem Version Far:      0xa450

Modem Status:           TC Sync (Showtime!)

DSL Config Mode:        VDSL2
Trained Mode:   G.993.2 (VDSL2) Profile 17a
TC Mode:                PTM
Selftest Result:        0x00
DELT configuration:     disabled
DELT state:             not running

Full inits:             1
Failed full inits:      0
Short inits:            0
Failed short inits:     12

Modem FW  Version:      4.12L.08
Modem PHY Version:      A2pv6F039t.d24m
Trellis:                ON                      ON
SRA:                    disabled                disabled
 SRA count:             0                       0
Bit swap:               enabled                 enabled
 Bit swap count:        8                       1
Line Attenuation:        0.3 dB                  0.0 dB
Signal Attenuation:      0.0 dB                  0.0 dB
Noise Margin:           18.8 dB                  6.8 dB
```

System Requirements

```
Attainable Rate:        150631 kbits/s          60284 kbits/s
Actual Power:            14.5 dBm               - 4.3 dBm
Per Band Status:        D1      D2      D3      U0      U1      U2      U3
Line Attenuation(dB):   0.0     0.4     0.6     N/A     0.0     0.0     N/A
Signal Attenuation(dB): 0.0     0.4     0.6     N/A     0.0     0.0     N/A
Noise Margin(dB):       19.2    18.6    18.6    N/A     7.1     6.6     N/A
Total FECC:             0                       0
Total ES:               0                       0
Total SES:              0                       0
Total LOSS:             0                       0
Total UAS:              1292                    1292
Total LPRS:             0                       0
Total LOFS:             0                       0
Total LOLS:             0                       0


                DS Channel1     DS Channel0   US Channel1       US Channel0
Speed (kbps):           0          100014             0            60015
SRA Previous Speed:     0               0             0                0
Previous Speed:         0               0             0                0
Reed-Solomon EC:        0               0             0                0
CRC Errors:             0               0             0                0
Header Errors:          0               0             0                0
Interleave (ms):     0.00            7.00          0.00             0.00
Actual INP:          0.00            1.01          0.00             0.00

Training Log :  Stopped
Training Log Filename : flash:vdsllog.bin
```

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 866VAE-W Integrated
   Services Router (or Cisco 867 VAE-W Integrated Services Router)** -> **Very High Bitrate DSL (VDSL) Firmware** >
   VAEW_A_39f1_B_39d_24g1.SSA.bin

2. Copy the **VAEW_A_39f1_B_39d_24g1.SSA.bin** 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.

Supported Features

This section contains information about various features supported by firmware release A2pv6F039t:

- G.993.2 (VDSL2) protocol.

- PTM and ATM mode

- Annex A and Annex B band plans

- Profiles supported: 8a/b/c/d, 12a/b, 17a and 30a (BCM6306 required)

- 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

- G.vector and G.vector friendly mode (G.993.2 Annex Y)

- Virtual Noise

- Alternate Electrical Length Measurement

- ADSL protocols

- G.992.5 (ADSL2+), G.992.3 (ADSL2), G.992.2 (G.LITE), G.992.1 (G.DMT), ANSI T1.413

- ATM/PTM mode

- Annex A/L/M

- 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 A2pv6F039t.

- Improve G.992.1 Showtime Stability against ALU 7350 [FW-8502]
- Provide driver bit control to use AELEM of 0 in G.993.2 [FW-8509]
- Remove the CPE side work around for US PSD against NVLT-D to avoid no-connects in G.993.2 [FW-8471]

Known Issues and Limitations

- ANSI T1.413 is not supported with AFE A.12.40
- G.INP supports DTU framing type 1 only
- G.993.2 ATM mode testing is limited due to lack of DSLAM support

Related Documentation

- Release-Specific Documents, page 5
- Platform-Specific Documents, page 5
- Other Firmware Code, page 5

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*.

To receive new and revised Cisco technical content directly to your desktop, you can subscribe to the What's New in Cisco Product Documentation RSS feed. The RSS feeds are a free service.