

在Cisco 800系列路由器上配置超高位元率數字使用者線路韌體

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簡介

本檔案介紹如何在Cisco 800系列路由器上升級超高位速率數位使用者線路(VDSL)韌體。

必要條件

需求

思科建議您在完成此升級過程之前檢視韌體版本的發行說明。

採用元件

本檔案中的資訊是根據Cisco 897VAB路由器。但是本檔案所述內容不限於特定軟體和硬體版本。

本文中的資訊是根據特定實驗室環境內的裝置所建立。文中使用到的所有裝置皆從已清除 (預設) 的組態來啟動。如果您的網路正在作用，請確保您已瞭解任何指令可能造成的影響。

設定

附註：使用[命令查詢工具](#)(僅供[已註冊](#)客戶使用)可獲取本節中使用的命令的更多資訊。

確定路由器上的當前韌體版本

輸入**show controller vdsl**命令以確定Cisco 800系列路由器上當前韌體的版本。在此示例輸出中查詢以粗體顯示的輸出條目：

```
Router# 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 0xA31E
Chip Vendor Country: 0xB500 0xB500
Modem Vendor ID: 'CSCO' ' '
Modem Vendor Specific: 0x4602 0x0000
Modem Vendor Country: 0xB500 0x0000
Serial Number Near: FHK144672GQ 886VA-K 15.2(4)M
Serial Number Far:
Modem Version Near: 15.2(4)M
Modem Version Far: 0xa31e

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
Trellis: ON ON
SRA: disabled disabled
SRA count: 0 0
Bit swap: enabled enabled
Bit swap count: 0 1
Line Attenuation: 0.0 dB 4.9 dB
Signal Attenuation: 3.3 dB 4.4 dB
Noise Margin: 9.8 dB 6.3 dB
Attainable Rate: 26332 kbits/s 2952 kbits/s
Actual Power: 7.1 dBm 11.9 dBm
Total FECC: 0 0
Total ES: 9721 42
Total SES: 9714 4
Total LOSS: 1086 0
Total UAS: 2670101 2670101
Total LPRS: 0 0
Total LOFS: 8342 0
Total LOLS: 0 0

Full inits: 2511
Failed full inits: 815
Short inits: 174
Failed short inits: 1353

Firmware Source File Name (version)
-----
VDSL user config flash:VA_A_39h_B_38h3_24h_j.bin (10)
```

Modem FW Version: 140305_1531-4.02L.03.B2pvC038h3_J.d24h
Modem PHY Version: **B2pvC038h3_J.d24h**
Vendor Version: Bpv38h3.24h 68

DS Channel1 DS Channel0 US Channel1 US Channel0
Speed (kbps): 0 25346 0 2832
SRA Previous Speed: 0 0 0 0
Previous Speed: 0 25866 0 1264
Total Cells: 0 35481077 0 3942410
User Cells: 0 0 0 0
Reed-Solomon EC: 0 0 0 0
CRC Errors: 0 220155 0 0
Header Errors: 0 0 0 0
Interleave (ms): 0.00 0.08 0.00 11.11
Actual INP: 0.00 0.00 0.00 0.69

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

附註：預設韌體放在flash:/firmware/<filename>中。如果VDSL控制器下沒有給定韌體路徑，並且重置VDSL控制器(shut/no-shut)或重新載入路由器；vdsl控制器採用此預設韌體。請勿從flash:/firmware/<filename>中刪除基本韌體。

升級VDSL韌體

1. 從Cisco.com軟體[中心下載](#)新的VDSL2韌體。
2. 選擇Routers > Branch Routers > Cisco 800 Series Routers > Cisco 887V Integrated Services Router > Very High Bitrate DSL(VDSL)Firmware。
3. 將韌體複製到指定位置。例如，路由器快閃記憶體或TFTP伺服器。以下示例展示如何將VDSL2韌體從10.76.76.160上的TFTP伺服器複製到路由器快閃記憶體中：

```
Router#copy tftp flash:  
Address or name of remote host []? 10.76.76.160 [Address of the TFTP Server]  
Source filename []? vdsl_bond.bin_39p1 [Name of the downloaded VDSL Firmware]  
Destination filename [vdsl_bond.bin_39p1]? [Name of the VDSL firmware on the router flash]
```

或者，您可以輸入copy ftp://usernamepassword@TFTP-Server-IPAddress flash:VDSL-Firmware-Name命令。以下輸出提供範例：

```
Router#copy ftp://test:test@10.76.76.160 flash:vdsl_bond.bin_39p1
```

```
Source filename []? vdsl_bond.bin_39p1  
Destination filename [vdsl_bond.bin_39p1]?  
Accessing ftp://test:test@10.76.76.160/vdsl_bond.bin_39p1...  
Loading vdsl_bond.bin_39p1 !!!!!!!!!!!!!!!  
[OK - 2660422/4096 bytes]
```

4. 將路由器配置為從指定位置載入新的VDSL2韌體。

```
Router#conf t  
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:vdsl_bond.bin_39p1
```

5. 重新啟動控制器介面以使新韌體生效：

```
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#controller vdsl 0
Router(config-controller)#shut
Router(config-controller)#no shut
Router(config-controller)#end
```

驗證

使用本節內容，確認您的組態是否正常運作。

[輸出直譯器工具](#)(僅供已註冊客戶使用)支援某些show命令。使用輸出直譯器工具來檢視show命令輸出的分析。

```
Router#show controller vdsl 0
Controller VDSL 0 is DOWN
```

```
Daemon Status:           Establishing Link
```

	XTU-R (DS)	XTU-C (US)
Chip Vendor ID:	'BDCM'	'BDCM'
Chip Vendor Specific:	0x0000	0xA39A
Chip Vendor Country:	0xB500	0xB500
Modem Vendor ID:	'CSCO'	'BDCM'
Modem Vendor Specific:	0x4602	0xA39A
Modem Vendor Country:	0xB500	0xB500
Serial Number Near:	FGL18212393 C897VAB- 15.4(201503	
Serial Number Far:		
Modem Version Near:	15.4(20150325:160033) [ragvasud	
Modem Version Far:	0xa39a	

```
Modem Status:           Unknown
```

```
DSL Config Mode:       ADSL2+
```

```
Trained Mode:
```

```
TC Mode:               UNKNOWN
Selftest Result:       0x00
DELT configuration:    disabled
DELT state:            not running
Bonded Status:         PTM Bonded<
Number of Ports:       2
Port ID:               0                1
Link Status:           DOWN             DOWN
Aggr US Rate(kbps):    0
Aggr DS Rate(kbps):    0
```

Full inits: 3
Failed full inits: 14
Short inits: 2
Failed short inits: 2

Firmware	Source	File Name
-----	-----	-----
VDSL	user config	flash: vdsl_bond.bin_39p1

Modem FW Version: 4.14L.04
Modem PHY Version: **A2pv6F039p1.d24m**

Line:

	XTU-R (DS)	XTU-C (US)
Trellis:	OFF	OFF
SRA:	disabled	disabled
SRA count:	0	0
Bit swap:	enabled	enabled

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

疑難排解

目前尚無適用於此組態的具體疑難排解資訊。