

在Cisco 800系列路由器上配置非常高比特率的数字用户线路固件

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简介

本文档介绍如何在Cisco 800系列路由器上升级超高比特率数字用户线路(VDSL)固件。

先决条件

要求

思科建议您在完成此升级过程之前检查固件版本的发行说明。

使用的组件

本文档中的信息基于Cisco 897VAB路由器。但是，本文档不限于特定软件和硬件版本。

本文档中的信息都是基于特定实验室环境中的设备编写的。本文档中使用的所有设备最初均采用原始（默认）配置。如果您使用的是真实网络，请确保您已经了解所有命令的潜在影响。

配置

注意：使用[命令查找工具（仅限注册用户）](#)可获取有关本部分所使用命令的详细信息。

确定路由器上的当前固件版本

输入**show controller vdsl**命令以确定Cisco 800系列路由器上当前的固件版本。查找此示例输出中以粗体显示的输出条目：

```
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

注意：默认固件放置在**flash:/firmware/<filename>**中。如果在VDSL控制器下未提供固件路径，并且VDSL控制器已重置(关闭/不关闭)或路由器已重新加载；VDSL控制器采用此默认固件。请勿从**flash:/firmware/<filename>**中删除基本固件。

升级VDSL固件

1. 从Cisco.com软 [件中心](#) 下载新的VDSL2固件。
2. 选择Routers > Branch Routers > Cisco 800系列路由器 > Cisco 887V集成多业务路由器 > Very High Bitrate DSL(VDSL)Firmware。
3. 将固件复制到指定位置。例如，路由器闪存或TFTP服务器。本示例显示如何将VDSL2固件从TFTP服务器10.76.76.160复制到路由器闪存：

```
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，您可以输入**copy ftp://usernamepassword@TFTP-Server-IPAddress flash:VDSL-Firmware-Name**命令。此输出提供一个示例：

```
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. 将路由器配置为从指定位置加载新的VDSL2固件。

```
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
```

```
nvrpm: 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. 重新启动控制器接口，使新固件生效：

```
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
```

验证

使用本部分可确认配置能否正常运行。

[命令输出解释程序工具（仅限注册用户）支持某些 show 命令。](#) 使用输出解释器工具来查看 show 命令输出的分析。

```
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

故障排除

目前没有针对此配置的故障排除信息。