Configuring the Cisco 675 for Use with the Cisco 6200

This appendix tells you how to configure the Cisco 675 ADSL customer premises equipment (CPE) for use with the Cisco 6200 advanced digital subscriber line access multiplexer (DSLAM). When the Cisco 675 is used with the Cisco 6200 DSLAM, the Cisco 675 requires bridging or Point-to-Point Protocol (PPP) configurations that vary from the typical Cisco 675 configuration.

The Cisco 675 was formerly known as the NetSpeed 204.

Note For complete installation and configuration information, see the *Cisco 675 Installation and Operation Manual* that shipped with your Cisco 675 CPE.

The Cisco Broadband Operating System (CBOS) has two interfaces that you can use to configure and operate the Cisco 675:

- Command line interface—Access this interface through the management (MGMT) port on the back of the device, using a terminal emulation program.
- Web browser interface—Use this interface if you are familiar with Web-based navigation.

Refer to the *Cisco 675 Installation and Operation Manual* for information regarding the use of these two interfaces.

After connecting all of the Cisco 675 cables, turn on the Cisco 675, start your terminal access program from your PC, and press the **Enter** key until the Cisco Broadband Operating System Welcome screen appears. When you see the Welcome screen, you can log in.

```
login: root
password:
<press Enter>
```

The Cisco Broadband Operating System prompt appears:

```
cbos>
```

Note Before proceeding, use the **version** command to check the version of the CBOS. To interoperate with the Cisco 6200, the Cisco 675 should be running firmware version 1.4.2.

```
cbos> version
```

B.1 Configuring the Cisco 675 as a Bridge

Follow these steps to configure the Cisco 675 to interoperate with a Cisco 6200 using bridging. This procedure tells you how to erase the configuration currently stored in NVRAM, create a new configuration with bridging enabled, and save the new configuration.

Step 1 Erase NVRAM:

```
cbos> set nvram erase
```

This command erases the stored configuration in NVRAM.

Step 2 Write the changes to NVRAM:

```
cbos> write
NVRAM written
```

Step 3 Enter these two commands to enable RFC 1483 bridging:

```
cbos> set bridging rfc1483 enabled
cbos> set bridging management enable
```

Step 4 To allow bridging to take effect, write the changes again and reboot the Cisco 675:

```
cbos> write
NVRAM written
cbos> reboot
```

Note If you do not save your changes with the **write** command and reboot your Cisco 675, you will lose any changes to the configuration file that you made during your last session.

Step 5 Enter these commands to assign VPI 0 and VCI 33 to the WAN interface:

```
cbos> ifconfig wan0-0 close
cbos> ifconfig wan0-0 vpi 0
cbos> ifconfig wan0-0 vci 33
cbos> ifconfig wan0-0 open
```

Step 6 Turn off ATM cell scrambling:

```
cbos> set nvram add ATM WAN Cell Scrambling = disabled
```

Step 7 Set the root password:

```
cbos> passwd root password
Root password change successful!
```

Step 8 Set the Ethernet interface active:

```
cbos> ifconfig eth0 up
```

Step 9 Save the new configuration:

```
cbos> write
NVRAM written
```

This completes the bridging configuration.

B.2 Configuring the Cisco 675 to Use PPP

Follow these steps to configure the Cisco 675 to interoperate with the Cisco 6200 using PPP. This procedure tells you how to erase the configuration currently stored in NVRAM, create a new configuration with PPP enabled, and save the new configuration.

Step 1 Erase NVRAM:

```
cbos> set nvram erase
```

This command erases the stored configuration in NVRAM.

Step 2 Write the changes to NVRAM:

```
cbos> write
NVRAM written
```

Step 3 Using the following example as a model, configure the IP address and subnet mask for the Ethernet port. Supply your own IP address and subnet mask.

```
cbos> ifconfig eth0 address 192.168.140.255 netmask 255.255.255.248
```

Step 4 Enter these commands to assign VPI 0 and VCI 33 to the WAN interface:

```
cbos> ifconfig wan0-0 close
cbos> ifconfig wan0-0 vpi 0
cbos> ifconfig wan0-0 vci 33
cbos> ifconfig wan0-0 open
```

Step 5 Enter these commands to assign PPP parameters to the WAN interface. The password and authentication (login) values must match those used on the device at the other end of the PPP connection. “Cisco” is used here; substitute the value(s) appropriate for your system.

```
cbos> set ppp restart enabled
cbos> set ppp wan0-0 password Cisco
cbos> set ppp wan0-0 login Cisco
```

Step 6 Turn off ATM cell scrambling:

```
cbos> set nvram add ATM WAN Cell Scrambling = disabled
```

Step 7 Set the root password:

```
cbos> passwd root password
Root password change successful!
```

Step 8 Set the Ethernet interface active:

```
cbos> ifconfig eth0 up
```

Step 9 Save the new configuration:

```
cbos> write
NVRAM written
```

Step 10 Reboot to start using the new configuration:

```
cbos> reboot

Hello!

Cisco Broadband Operating System v1.4.0  - Cisco 675 CPE
Build date and time: Apr 13 1998 11:39:27
Monitor build Apr  7 1998 15:36:59
Copyright (c) 1997,98 Cisco Systems,Inc. All rights reserved.

Login:
```

This completes the PPP configuration.

B.3 Verifying the Configuration

Use the **show nvram** command to verify the configuration for the Cisco 675. This example shows a bridging configuration:

```
cbos> sh nvram
[[ ATM WAN Device Driver = Section Start ]]
ATM WAN Virtual Connection Parms = 00, 0, 33, 0
atm wan cell scrambling = disabled
[[ Spanning Tree = Section Start ]]
MAC Bridge = enabled, rfc1483
MAC Bridge Management = enabled
[[ LSL Multiplex Layer = Section Start ]]
lsl port = 00, enabled
[[ CBOS = Section Start ]]
CBOS Root Password = j_‘
```

This example shows a PPP configuration:

```
cbos> sh nvram
[[ IP Routing = Section Start ]]
IP Port Address = 00, 192.168.140.255
IP Port Address Mask = 00, 255.255.255.248
[[ ATM WAN Device Driver = Section Start ]]
ATM WAN Virtual Connection Parms = 00, 0, 33, 0
atm wan cell scrambling = disabled
[[ Spanning Tree = Section Start ]]
[[ CBOS = Section Start ]]
CBOS Root Password = j_‘
```