Virtual Auxiliary Port Feature and Configuration of DSL Settings

The virtual auxiliary port feature provides support for dial backup and out-of-band management on Cisco 837 and Cisco 831 routers, and provides support for out-of-band management on Cisco SOHO 97 and Cisco SOHO 91 routers. On these routers, the console port and the auxiliary port share the same physical RJ-45 port. The console port must be changed to act as a virtual auxiliary port, using the command-line interface (CLI) before the dial backup and out-of-band management capabilities can be enabled.

In addition, digital subscriber line (DSL) settings can now be configured on the Cisco 837, Cisco 831, Cisco SOHO 97, and Cisco SOHO 91 routers by using the DSL settings commands.

Finding Feature Information

Your software release may not support all the features documented in this module. For the latest feature information and caveats, see the release notes for your platform and software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the "Feature Information for Configuring the DSL Settings" section on page 8.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to http://www.cisco.com/go/cfn. An account on Cisco.com is not required.

Contents

This document contains the following sections:

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Information About the Virtual Auxiliary Port

When the virtual auxiliary port is enabled, the signals directed from the RJ-45 pins are processed by the auxiliary port driver, and the console port is disabled. The virtual auxiliary port can be used to provide the standard Cisco IOS interactive user interface.

How to Configure the Virtual Auxiliary Port and the DSL Settings

This section contains the following procedures:

- Configuring the Virtual Auxiliary Port, page 2
- Configuring the DSL Settings, page 3

Configuring the Virtual Auxiliary Port

Perform these steps to configure the virtual auxiliary port.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **lin con0**
4. **modem enable**

DETAILED STEPS

	Command or Action	Purpose
Step 1	**enable** **Example:** `Router> enable`	Enables privileged EXEC mode. • Enter your password if prompted.
Step 2	**configure terminal** **Example:** `Router# configure terminal`	Enters global configuration mode.
Step 3	**line con0** **Example:** `Router(config)# line con0`	Enters line configuration mode for the console interface.
Step 4	**modem enable** **Example:** `Router(config-line)# modem enable`	Changes the console port to function as an auxiliary port.

Configuring the DSL Settings

Perform these steps to configure the DSL settings.

Note For each DSL setting to take effect, the asymmetric digital subscriber line (ADSL) driver resets the ADSL subsystem, which causes the firmware to be downloaded again.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **interface atm0**
4. **dsl noise-margin** *decimal*
5. **end**
6. **enable**
7. **configure terminal**
8. **interface atm0**
9. **dsl max-tone-bits** *integer*
10. **end**
11. **enable**
12. **configure terminal**
13. **interface atm0**
14. **dsl gain-setting tx-offset** *decimal*
15. **end**
16. **enable**
17. **configure terminal**
18. **interface atm0**
19. **dsl gain-setting rx-offset** *decimal*
20. **end**

DETAILED STEPS

	Command	Task
Step 1	**enable** **Example:** `Router> enable`	Enables privileged EXEC mode. • Enter your password if prompted.
Step 2	**configure terminal** **Example:** `Router# configure terminal`	Enters global configuration mode.
Step 3	**interface atm0** **Example:** `Router(config)# interface atm0`	Enters interface configuration mode.
Step 4	**dsl noise-margin** *decimal* **Example:** `Router(config-if)# dsl noise-margin 0.5`	Sets the noise margin offset. • *Decimal* ranges from -3 dB to 3 dB with a granularity of 0.5 dB.
Step 5	**end** **Example:** `Router(config-if)# end`	Exits interface configuration mode and resets the ADSL subsystem.
Step 6	**enable** **Example:** `Router> enable`	Enables privileged EXEC mode. • Enter your password if prompted.
Step 7	**configure terminal** **Example:** `Router# configure terminal`	Enters global configuration mode.
Step 8	**interface atm0** **Example:** `Router(config)# interface atm0`	Enters interface configuration mode.
Step 9	**dsl max-tone-bits** *integer* **Example:** `Router(config-if)# max-tone-bits 10`	Sets the maximum bits per tone limit. • *Integer* ranges from 2 dB to 14 dB with a granularity of 1 dB.
Step 10	**end** **Example:** `Router(config-if)# end`	Exits interface configuration mode and resets the ADSL subsystem.

	Command	Task
Step 11	**enable** **Example:** `Router> enable`	Enables privileged EXEC mode. • Enter your password if prompted.
Step 12	**configure terminal** **Example:** `Router# configure terminal`	Enters global configuration mode.
Step 13	**interface atm0** **Example:** `Router(config)# interface atm0`	Enters interface configuration mode.
Step 14	**dsl gain-setting tx-offset** *decimal* **Example:** `Router(config-if)# dsl gain-setting tx-offset 0`	Sets the transmit gain offset. • *Decimal* ranges from -10 dB to 3 dB with a granularity of 0.5 dB.
Step 15	**end** **Example:** `Router(config-if)# end`	Exits interface configuration mode and resets the ADSL subsystem.
Step 16	**enable** **Example:** `Router> enable`	Enables privileged EXEC mode. • Enter your password if prompted.
Step 17	**configure terminal** **Example:** `Router# configure terminal`	Enters global configuration mode.
Step 18	**interface atm0** **Example:** `Router(config)# interface atm0`	Enters interface configuration mode.
Step 19	**dsl gain-setting rx-offset** *decimal* **Example:** `Router(config-if)# dsl gain-setting rx-offset 1`	Sets the receive gain offset. • *Decimal* ranges from -5 dB to 3 dB with a granularity of 0.5 dB.
Step 20	**end** **Example:** `Router(config-if)# end`	Ends the configuration mode.

Configuration Example for Configuring the DSL Settings

This section provides an example for configuring the DSL settings.

```
interface atm0
no ip address
dsl noise-margin 0
dsl max-tone-bits 14
dsl gain-setting tx-offset 0
dsl gain-setting rx-offset 1
```

Additional References

Related Documents

Related Topic	Document Title
Configuring Dial Backup	*Cisco 826, 827, 828, 831, 836, and 837 and Cisco SOHO 76, 77, 78, 91, 96, and 97 Routers Software Configuration Guide*

Standards

Standards[1]	Title
No new or modified standards are supported by this feature. Support for existing standards has not been modified by this feature.	

1. Not all supported standards are listed.

MIBs

MIBs[1]	MIBs Link
No new or modified MIBs are supported by this feature. Support for existing MIBs has not been modified by this feature.	To locate and download MIBs for selected platforms, Cisco IOS releases, and feature sets, use Cisco MIB Locator available at the following URL: http://www.cisco.com/go/mibs

1. Not all supported MIBs are listed.

RFCs

RFCs[1]	Title
No new or modified RFCs are supported by this feature. Support for existing RFCs has not been modified by this feature.	

1. Not all supported RFCs are listed.

Technical Assistance

Description	Link
Technical Assistance Center (TAC) home page, containing 30,000 pages of searchable technical content, including links to products, technologies, solutions, technical tips, and tools. Registered Cisco.com users can log in from this page to access even more content.	http://www.cisco.com/public/support/tac/home.shtml

Feature Information for Configuring the DSL Settings

Table 26 lists the release history for this feature.

Use Cisco Feature Navigator to find information about platform support and software image support. Cisco Feature Navigator enables you to determine which software images support a specific software release, feature set, or platform. To access Cisco Feature Navigator, go to http://www.cisco.com/go/cfn. An account on Cisco.com is not required.

Note Table 26 lists only the software release that introduced support for a given feature in a given software release train. Unless noted otherwise, subsequent releases of that software release train also support that feature.

Table 26 Feature Information for <Phrase Based on Module Title>

Feature Name	Releases	Feature Information
Virtual Auxiliary Port Feature and Configuration of DSL Settings	12.2(8)YN 12.3(2)T	The virtual auxiliary port feature provides support for dial backup and out-of-band management on Cisco 837 and Cisco 831 routers, and provides support for out-of-band management on Cisco SOHO 97 and Cisco SOHO 91 routers. On these routers, the console port and the auxiliary port share the same physical RJ-45 port. The console port must be changed to act as a virtual auxiliary port, using the command-line interface (CLI) before the dial backup and out-of-band management capabilities can be enabled. In addition, digital subscriber line (DSL) settings can now be configured on the Cisco 837, Cisco 831, Cisco SOHO 97, and Cisco SOHO 91 routers by using the DSL settings commands. The following commands were introduced or modified: **modem enable**, **dsl max-tone-bits**, **dsl gain-setting rx-offset**, **dsl gain-setting rx-offset**, **dsl gain-setting tx-offset**, **dsl noise-margin**.