



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.

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Finding Feature Information

Your software release may not support all the features documented in this module. For the latest caveats and feature information, see [Bug Search Tool](#) and 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 table.

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

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

Configuring the Virtual Auxiliary Port

Perform these steps to configure the virtual auxiliary port.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **line 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 or Action	Purpose
Step 1	enable	Enables privileged EXEC mode.
	Example: Router> enable	• Enter your password if prompted.

	Command or Action	Purpose
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. • <i>Decimal</i> 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. • <i>Integer</i> ranges from 2 dB to 14 dB with a granularity of 1 dB.

	Command or Action	Purpose
Step 10	end Example: Router(config-if)# end	Exits interface configuration mode and resets the ADSL subsystem.
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 <i>decimal</i> Example: Router(config-if)# dsl gain-setting tx-offset 0	Sets the transmit gain offset. • <i>Decimal</i> 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.

	Command or Action	Purpose
Step 18	interface atm0 Example: Router(config)# interface atm0	Enters interface configuration mode.
Step 19	dsl gain-setting rx-offset <i>decimal</i> Example: Router(config-if)# dsl gain-setting rx-offset 1	Sets the receive gain offset. • <i>Decimal</i> 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

```
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
Cisco IOS commands	Cisco IOS Master Command List, All Releases
Cisco IOS Broadband Access Aggregation and DSL commands	<i>Cisco IOS Broadband Access Aggregation and DSL Command Reference</i>
High Availability	"High Availability Overview" chapter in the Cisco ASR 1000 Series Aggregation Services Routers Software Configuration Guide

Related Topic	Document Title
Performing an ISSU	The following chapters in the Cisco ASR 1000 Series Aggregation Services Routers Software Configuration Guide : • "Cisco IOS XE Software Package Compatibility for ISSU" • "In Service Software Upgrade (ISSU)"
Broadband ISSU	"Broadband High Availability In Service Software Upgrade" module
Stateful switchover	"Stateful Switchover" module
Configuring nonstop forwarding	"Configuring Nonstop Forwarding" module
Layer 2 Tunnel Protocol	Layer 2 Tunnel Protocol Technology Brief" module

Standards

Standard	Title
No new or modified standards are supported by this feature, and support for existing standards has not been modified by this feature.	--

MIBs

MIB	MIBs Link
None	To locate and download MIBs for selected platforms, Cisco software releases, and feature sets, use Cisco MIB Locator found at the following URL: http://www.cisco.com/go/mibs

RFCs

RFC	Title
No new or modified RFCs are supported by this feature, and support for existing RFCs has not been modified by this feature.	--

Technical Assistance

Description	Link
The Cisco Support and Documentation website provides online resources to download documentation, software, and tools. Use these resources to install and configure the software and to troubleshoot and resolve technical issues with Cisco products and technologies. Access to most tools on the Cisco Support and Documentation website requires a Cisco.com user ID and password.	http://www.cisco.com/cisco/web/support/index.html

Feature Information for Configuring the DSL Settings

The following table provides release information about the feature or features described in this module. This table 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.

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

Table 1: 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 tx-offset, dsl noise-margin.

