1-Port ADSL WAN Interface Card

This feature module describes the 1-port Asymmetric Digital Subscriber Line (ADSL) Wide Area Network (WAN) Interface Card (WIC) feature. It describes the benefits of the feature, supported platforms, configuration, related documents, and provides command reference information.

The Cisco ADSL WAN interface cards are 1-port WAN interface cards (WIC) for Cisco modular access routers. These cards provide high-speed ADSL digital data transfer between a single customer premises equipment (CPE) subscriber and a central office.

Note ADSL is a last-mile access technology that uses an asymmetrical data rate over a single copper wire pair.

The ADSL WICs are available in two variations: ADSL over POTS (WIC-1ADSL), and ADSL over ISDN WAN with Dying Gasp support (WIC-1ADSL-I-DG). The following bullets summarize the features of each card:

- Cisco WIC-1ADSL—Provides ADSL services over ordinary telephone lines. It is compatible with the Alcatel Digital Subscriber Loop Access Multiplexer (DSLAM), the Cisco 6260 DSLAM with Flexi-line cards, and the Cisco 6130 DSLAM with Flexi-line cards.

- Cisco WIC-1ADSL-I-DG—Provides ADSL services in areas of the world that have extensive ISDN backbones already in place. It is compatible with ECI, Siemens, Alcatel, and Cisco DSLAMs that support ISDN.

All Cisco ADSL WICs support Asynchronous Transfer Mode (ATM) Adaptation Layer 2 (AAL2) for the Cisco 2600, Cisco 3600, and Cisco 3700 series only, and AAL5 for the those models as well as for the Cisco 1700. The cards support various classes of Quality of Service (QoS) for both voice and data.

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 .

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.

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Restrictions for 1-Port ADSL WAN Interface Card

The Cisco ADSL WAN interface cards do not support dual latency, ADSL2, or ADSL2plus. When the ADSL link is intended to support both voice and data traffic simultaneously, the link should be configured for either all fast-path data or all interleave data, with an interleave depth of zero to ensure that latency is minimized. In addition, the total supported data rate must be reduced to adjust for the reduced coding gain, which is usually present with high-latency traffic.

Information About 1-Port ADSL WAN Interface Card

Benefits

Both Cisco ADSL WAN interface cards provide the following benefits:

- Enable business-class broadband service with voice integration, scalable performance, flexibility, and security

- Aggregate both ADSL and other transport options into a single box

- Provide ADSL high-speed digital data transmissions between CPE and the central office (CO)

- Support ATM AAL5 services and applications, ATM class of service (constant bit rate [CBR], variable bit rate-nonreal time [VBR-NRT], variable bit rate–real time [VBR–rt], and unspecified bit rate [UBR]), as well as up to 23 virtual circuits on a WIC in Cisco routers

- Provide ATM traffic management and QoS features to enable service providers to manage their core ATM network infrastructure.

The following benefits are specific to each card:

- Cisco WIC-1ADSL—Supports and complies with ANSI T1.413 Issue 2, and ITU G.992.1, Annex A (G.DMT for full-rate ADSL over POTS)

- Cisco WIC-1ADSL-I-DG—Allows the coexistence of ADSL and ISDN on the same local loop; supports and complies with ITU G.992.1, Annex B (G.DMT for full-rate ADSL over ISDN), ETSI 101-388, and the Deutsche Telekom U-R2 specification

How to Configure 1-Port ADSL WAN Interface Card

This section documents the new or changed Cisco IOS commands for configuring the Cisco ADSL WAN Interface Card feature. All other commands used to configure that feature are documented in the following publications:

- Configuring an ADSL WAN Interface Card on Cisco 1700 Series Routers
- The "Configuring ATM" section of the *Cisco IOS Wide-Area Networking Configuration Guide*
- The "ATM Commands" section of the *Cisco IOS Wide-Area Networking Command Reference*

See the following sections for configuration information:

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Configuration Examples for 1-Port ADSL WAN Interface Card

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Example: Configuring Bridging on the ATM Interface with a Cisco ADSL WIC

The following sample shows a Cisco 1700 series router configured for bridging on the ATM interface with a Cisco ADSL WIC:

```
Current configuration:
!
version 12.2
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname meltrack
!
no ip routing
!
interface ATM0
no ip address
atm vc-per-vp 256
    pvc 8/35
    encapsulation aal5snap
!
dsl operating-mode auto
bridge-group 1
!
interface FastEthernet0
no ip address
speed auto
bridge-group 1
!
ip classless
no ip http server
!
bridge 1 protocol ieee
!
line con 0
transport input none
line aux 0
line vty 0 4
```

```
login
!
end
```

Additional References

Related Documents

Related Topic	Document Title
Cisco IOS commands	*Cisco IOS Master Commands List, All Releases*
ADSL WAN interface card on Cisco 1700 series routers	*Configuring an ADSL WAN Interface Card on Cisco 1700 Series Routers*
Release Notes	• *Release Notes for the Cisco 1700 Series Routers for Cisco IOS Release 12.3(4)T* • *Caveats for Cisco IOS Release 12.3 T*
Interface card installation	*Cisco Interface Cards Hardware Installation Guide*
Configuring an ADSL WAN Interface Card	*Configuring an ADSL WAN Interface Card on Cisco 1700 Series Routers*
Enhanced Voice and QoS for ADSL and G.SHDSL	*Enhanced Voice and QoS for ADSL and G.SHDSL on Cisco 1700 Series, Cisco 2600 Series, and Cisco 3600 Series Routers*

Standards

Standard	Title
None	—

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
None	—

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 1-Port ADSL WAN Interface Card

Table 1 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 1 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 1   Feature Information for 1-Port ADSL WAN Interface Card

Feature Name	Releases	Feature Information
1-Port ADSL WAN Interface Card	12.1(3)XJ 12.2(2)T 12.2(13)ZH 12.2(15)ZJ 12.3(4)T	The Cisco ADSL WAN interface cards are 1-port WAN interface cards (WIC) for Cisco modular access routers. These cards provide high-speed ADSL digital data transfer between a single customer premises equipment (CPE) subscriber and a central office. Cisco WIC-1ADSL is supported on the following platforms: Cisco 1720, Cisco 1721, Cisco 1751, Cisco 1760, Cisco 2600, Cisco 2600XM, Cisco 2691, Cisco 3600, Cisco 3700 Cisco WIC-1ADSL-I-DG is supported on the following platforms: Cisco 1721, Cisco 1751, Cisco 1760, Cisco 2600XM, Cisco 2691, Cisco 3700 The following commands were introduced or modified: **dsl operating-mode.**