



# 56K CSU Support for the Cisco Signaling Link Terminal

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## Feature History

| Release  | Modification                 |
|----------|------------------------------|
| 12.2(2)T | This feature was introduced. |

This feature module verifies support for the WIC-1DSU-56K4 WAN interface card for support of DS-0 interconnect by the Cisco Signaling Link Terminal (SLT), which eliminates dependency upon external channel service units/data service units (CSU/DSUs).

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## Feature Overview

The WIC-1DSU-56K4 interface card is a single-port serial interface card providing a 4-wire 56/64 Kb/s interface with an integrated on-board CSU/DSU. The WIC-1DSU-56K4 interface card verifies Message Transfer Part Level 2 (MTP2) functionality and conformance. The addition of WIC-1DSU-56K4 support on the Cisco SLT also allows support for DS-0 interconnect to the Signaling System 7 (SS7) network without the need for an external CSU/DSU.

This card is a standard option for the Cisco 2611-based Cisco SLT and no software or hardware changes are necessary.

To configure the Cisco SLT, refer to the *Configuring the Cisco Signaling Link Terminal* document.

## Benefits

### No External CSU/DSU

Additional cost, space, and maintenance requirements previously experienced with having to use an external CSU/DSU have been eliminated for systems requiring DS-0 SS7 interfaces.

### Backward Compatibility

Current Cisco SLT functionality is supported including hardware Drop and Insert, the NTT SS7 protocol, and the Japan Telecom TTC SS7 protocol. This feature also works within the memory configuration specified in the current release of the Cisco SLT.

### Cisco SLT Performance Support

With the implementation of the WIC-1DSU-56K4, the Cisco 2611-based Cisco SLT continues to be capable of supporting up to two SS7 A-links or F-links.

## Related Features and Technologies

- Cisco Signaling Link Terminal

## Related Documents

- *Configuring the Cisco Signaling Link Terminal*
- *Cisco 2600 Series — Modular Access Routers*
- *Configuration Guides and Command References, Cisco IOS Release 12.2*
- *Cisco Signaling Link Terminal*
- Cisco SS7 Interconnect for Access Servers Solution Implementation

## Supported Platforms

- Cisco 2611

# Supported Standards, MIBs, and RFCs

## Standards

No new or modified standards are supported by this feature.

## MIBs

No new or modified MIBs are supported by this feature.

To obtain lists of supported MIBs by platform and Cisco IOS release, and to download MIB modules, go to the Cisco MIB web site on Cisco Connection Online (CCO) at

<http://www.cisco.com/public/sw-center/netmgt/cmtk/mibs.shtml>.

## RFCs

No new or modified RFCs are supported by this feature.

## Prerequisites

- 48 Mb D-RAM Core memory, 16 Mb Flash memory.
- Cisco IOS software release 12.2(2)T (c2600-ipss7-mz software image).

## Configuration Tasks

None

## Configuration Examples

None

## Command Reference

None

# Glossary

**CSU**—channel service unit. Digital interface device that connects end-user equipment to the local digital telephone loop. Often referred to together with DSU, as CSU/DSU. See also DSU.

**DS-0**—digital signal level 0. Framing specification used in transmitting digital signals over a single channel at 64-kbps on a T1 facility.

**DSU**—data service unit. Device used in digital transmission that adapts the physical interface on a DTE device to a transmission facility such as T1 or E1. The DSU is also responsible for such functions as signal timing. Often referred to together with CSU, as CSU/DSU.

**E1**—Wide-area digital transmission scheme used predominantly in Europe that carries data at a rate of 2.048 Mbps. E1 lines can be leased for private use from common carriers.

**MIB**—Management Information Base.

**MSU**—Message Signal Unit. SS7 message that carries call control, database traffic, network management, and network maintenance data in the signaling information field (SIF).

**MTP**—SS7 protocol layer consisting of three levels.

**MTP 1**—Message Transfer Part Level 1. SS7 architectural level that defines the physical, electrical, and functional characteristics of the digital signaling link.

**MTP 2**—Message Transfer Part Level 2. SS7 data link layer protocol. SS7 architectural level that exercises flow control, message sequence validation, error checking, and retransmission.

**MTP 3**—Message Transfer Part Level 3. SS7 architectural level that provides messages between signaling points in the network, helping control traffic when congestion or failures occur.

**RUDP**—Reliable User Datagram Protocol. Cisco proprietary signaling backhaul protocol.

**SLT**—Signaling Link Terminal for SS7.

**SS7**—Signaling System 7. Signaling System 7. Standard CCS system used with BISDN and ISDN. Developed by Bellcore (now Telcordia).

**T1**—Digital WAN carrier facility. T1 transmits DS-1-formatted data at 1.544 Mbps through the telephone-switching network, using AMI or B8ZS coding. Compare with E1.

**WAN**—Wide-area network.

**WIC**—WAN interface card.