X.28 Configurable PAD Options

The X.28 Configurable Packet Assembler Disassembler (PAD) Options feature provides a configurable option to prevent the padding character from being sent to the Point of Sale (POS) terminal. The ability to not to send the padding character is required as there are some POS terminals that are incompatible with X.28 padding as specified by the ITU-T standard. ITU-T standard section 3.5.2 specifies that the padding character is sent when the terminal operates at a speed below 9600 bps.

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 X.28 Configurable PAD Options

X.28 Configurable PAD Options Overview

X.28 enables Packet Assembler Disassembler (PAD) system administrators to dial in to X.25 networks or set PAD parameters using the X.28 standard user interface. X.28 adheres to the X.28 ITU-T standards.

The X.28 interface is designed for asynchronous devices that require X.25 transport to access a remote or native asynchronous or synchronous host application. For example, dialup applications can use the X.28 interface to access a remote X.25 host. X.28 PAD calls are often used by banks to support applications in the back office such as ATM machines, Point of Sale (POS) authorization devices, and alarm systems. An ATM machine may have an asynchronous connection to an alarm host and a Cisco device. When the connection is broken, the alarm host sends a distress call to the authorities through the Cisco device using an X.28 PAD call.

The X.28 PAD Configurable PAD Options feature provides an option to prevent the padding character from being sent when an asynchronous device connects at any access speed below 9600 bps. The ITU X.28 recommends different padding character combinations depending on the speed. The option prevents the padding character from being added to a POS terminal that accepts 0 padding at a lower speed. The **x28** command is enhanced to support this feature.

How to Configure X.28 PAD Options

The X.28 Configurable Packet Assembler Disassembler (PAD) options feature provides a configurable option to prevent the padding character from being sent to the Point of Sale (POS) terminal. This section describes how to configure the X.28 PAD options. You can configure X.28 PAD options in privileged EXEC mode or in line configuration mode.

Configuring X.28 PAD Options in Privileged EXEC Mode

SUMMARY STEPS

1. **enable**
2. **x28 no-padding**

DETAILED STEPS

	Command or Action	**Purpose**
Step 1	**enable** **Example:** `Device> enable`	Enables privileged EXEC mode. • Enter your password if prompted.
Step 2	**x28 no-padding** **Example:** `Device# x28 no-padding`	Ignores X.28 ITU-T section 3.5.2 for padding and prevents the padding character from being sent to the Point of Sale (POS) terminal.

Configuring X.28 PAD Options in Line Configuration Mode

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **line aux 0**
4. **modem InOut**
5. **autocomand x28 no-padding**
6. **speed** *data-rates*
7. **end**

DETAILED STEPS

	Command or Action	Purpose
Step 1	**enable** **Example:** Device> enable	Enables privileged EXEC mode. • Enter your password if prompted.
Step 2	**configure terminal** **Example:** Device# configure terminal	Enters global configuration mode.
Step 3	**line aux 0** **Example:** Device(config)# line aux 0	Configures the auxiliary line with the line number and enters line configuration mode.
Step 4	**modem InOut** **Example:** Device(config-line)# modem InOut	Configures the auxiliary line for incoming and outgoing use of modem.
Step 5	**autocomand x28 no-padding** **Example:** Device(config-line)# autocommand x28 no-padding	Ignores X.28 ITU-T section 3.5.2 for padding and prevents the padding character being sent to the Point of Sale POS (POS) terminal.

	Command or Action	Purpose
Step 6	**speed** *data-rates* **Example:** `Device(config-line)# speed 1200`	(Optional) Specifies the speed in megabits per second (Mbps) for the packets on the auxiliary line.
Step 7	**end** **Example:** `Device(config-line)# end`	Exits line configuration mode and returns to privileged EXEC mode.

Configuration Examples for X.28 Configurable PAD Options

Example: Configuring the X.28 PAD Options

The following example shows how to configure X.28 PAD options in line configuration mode:

```
Device> enable
Device# configure terminal
Device(config)# line aux 0
Device(config-line)# modem InOut
Device(config-line)# autocommand x28 no-padding
Device(config-line)# speed 1200
Device(config-line)# end
```

The following example shows how to configure X.28 PAD options in privileged EXEC mode:

```
Device> enable
Device# x28 no-padding
```

Additional References for X.28 Configurable PAD Options

Related Documents

Related Topic	Document Title
Cisco IOS commands	Cisco IOS Master Command List, All Releases
Wide-Area Networking commands	Cisco IOS Wide-Area Networking Command Reference

Related Topic	Document Title
X.25 and LAPB configuration	"Configuring X.25 and LAPB" in the *Cisco IOS Wide-Area Networking Configuration Guide*

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

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 X.28 Configurable PAD Options

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 www.cisco.com/go/cfn. An account on Cisco.com is not required.

Table 1: Feature Information for X.25 Data Display Trace

Feature Name	Releases	Feature Information
X.28 Configurable PAD Options	15.4(1)T	The X.28 Configurable Packet Assembler Disassembler (PAD) Options feature provides a configurable option to prevent the padding character from being sent to the Point of Sale (POS) terminal. The following command was introduced: **x28 padding**.