# About This Guide

This preface discusses the objectives, audience, organization, and conventions of this hardware installation guide. This preface also provides general information about Cisco documentation. Sections in this preface are:

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## Objectives

This publication provides hardware installation information for Cisco WAN and voice interface cards used in Cisco 3600 series, 2600 series, 1600 series, and Cisco 1720 modular routers (herein referred to as Cisco modular routers).

This publication also provides minimum software configuration information for configuring WAN interface cards, but this is not meant as comprehensive router configuration instructions. For detailed software configuration information, refer to the Cisco IOS configuration guide and command reference publications. These publications are available on the Documentation CD-ROM that came with your router or you can order printed copies. (See the "Ordering Documentation" section on page xiv.)

> **Note** This publication describes a variety of router models that are similar in functionality, but differ in the number of interfaces supported. Some information provided might not apply to your particular router model.

# How to Use This Guide

- Use Table 1-1 in Chapter 1, "Overview of Cisco WAN and Voice Interface Cards" to identify the WAN and voice interface cards compatible with Cisco 3600 series routers and their required release of Cisco IOS software.

- Use Table 1-2 in Chapter 1, "Overview of Cisco WAN and Voice Interface Cards" to identify the WAN and voice interface cards compatible with Cisco 2600 series routers and their required release of Cisco IOS software.

- Use Table 1-3 in Chapter 1, "Overview of Cisco WAN and Voice Interface Cards" to identify the WAN interface cards compatible with the Cisco 1720 router and their required release of Cisco IOS software.

- Use Table 1-4 in Chapter 1, "Overview of Cisco WAN and Voice Interface Cards" to identify the WAN interface cards compatible with Cisco 1600 series routers and their required release of Cisco IOS software.

- See Chapter 2, "Installing WAN and Voice Interface Cards in a Cisco Modular Router" for instructions to install the WAN or voice interface card in a network module or in a chassis card slot.

- See Chapter 3, "Connecting WAN and Voice Interface Cards to a Network" for instructions to connect the WAN or voice interface card to the network.

# Audience

This publication is designed for the person installing the router, who should be familiar with electronic circuitry and wiring practices and have experience as an electronic or electromechanical technician.

# Organization

The major sections of this guide are as follows:

| Chapter | Title | Description |
|---|---|---|
| Chapter 1 | Overview of Cisco WAN and Voice Interface Cards | Lists the WAN and voice interface card options for Cisco modular routers, discusses environmental requirements and safety recommendations, and describes how to prepare for connections between networks and ports. |
| Chapter 2 | Installing WAN and Voice Interface Cards in a Cisco Modular Router | Includes basic installation information for installing network modules in Cisco 3600 series and Cisco 2600 series routers, and for installing interface cards directly into chassis slots on Cisco 2600 series, Cisco 1600 series, and Cisco 1720 modular routers. |
| Chapter 3 | Connecting WAN and Voice Interface Cards to a Network | Provides basic hardware installation information for connecting WAN and voice interface cards to a network, and reading interface cards LEDs. |

# Conventions

This publication uses the following conventions to convey instructions and information:

| Convention | Description |
|---|---|
| **boldface font** | Commands and keywords. |
| *italic font* | Variables for which you supply values. |
| [   ] | Keywords or arguments that appear within square brackets are optional. |
| {x | y | z} | A choice of required keywords appears in braces separated by vertical bars. You must select one. |

| Convention | Description |
|---|---|
| `screen font` | Examples of information displayed on the screen. |
| **`boldface screen font`** | Examples of information you must enter. |
| < > | Nonprinting characters, for example passwords, appear in angle brackets. |
| [ ] | Default responses to system prompts appear in square brackets. |
| **Note** | Means *reader take note*. Notes contain helpful suggestions or references to additional information and material. |
| | **Timesaver**   This symbol means *the described action saves time*. You can save time by performing the action described in the paragraph. |
| | **Caution**   This symbol means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data. |
| | **Warning**   This warning symbol means *danger*. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents. To see translations of the warnings that appear in this publication, refer to the *Regulatory Compliance and Safety Information* document that accompanied this device.

**Waarschuwing**   Dit waarschuwingssymbool betekent gevaar. U verkeert in een situatie die lichamelijk letsel kan veroorzaken. Voordat u aan enige apparatuur gaat werken, dient u zich bewust te zijn van de bij elektrische schakelingen betrokken risico's en dient u op de hoogte te zijn van standaard maatregelen om ongelukken te voorkomen. Voor vertalingen van de waarschuwingen die in deze publicatie verschijnen, kunt u het document *Regulatory Compliance and Safety Information* (Informatie over naleving van veiligheids- en andere voorschriften) raadplegen dat bij dit toestel is ingesloten.

**Varoitus**   Tämä varoitusmerkki merkitsee vaaraa. Olet tilanteessa, joka voi johtaa ruumiinvammaan. Ennen kuin työskentelet minkään laitteiston parissa, ota selvää sähkökytkentöihin liittyvistä vaaroista ja tavanomaisista onnettomuuksien ehkäisykeinoista. Tässä julkaisussa esiintyvien varoitusten käännökset löydät laitteen mukana olevasta *Regulatory Compliance and Safety Information* -kirjasesta (määräysten noudattaminen  ja tietoa turvallisuudesta). |

| Convention | Description |
| --- | --- |
| | **Attention** Ce symbole d'avertissement indique un danger. Vous vous trouvez dans une situation pouvant causer des blessures ou des dommages corporels. Avant de travailler sur un équipement, soyez conscient des dangers posés par les circuits électriques et familiarisez-vous avec les procédures couramment utilisées pour éviter les accidents. Pour prendre connaissance des traductions d'avertissements figurant dans cette publication, consultez le document *Regulatory Compliance and Safety Information* (Conformité aux règlements et consignes de sécurité) qui accompagne cet appareil. |
| | **Warnung** Dieses Warnsymbol bedeutet Gefahr. Sie befinden sich in einer Situation, die zu einer Körperverletzung führen könnte. Bevor Sie mit der Arbeit an irgendeinem Gerät beginnen, seien Sie sich der mit elektrischen Stromkreisen verbundenen Gefahren und der Standardpraktiken zur Vermeidung von Unfällen bewußt. Übersetzungen der in dieser Veröffentlichung enthaltenen Warnhinweise finden Sie im Dokument *Regulatory Compliance and Safety Information* (Informationen zu behördlichen Vorschriften und Sicherheit), das zusammen mit diesem Gerät geliefert wurde. |
| | **Avvertenza** Questo simbolo di avvertenza indica un pericolo. La situazione potrebbe causare infortuni alle persone. Prima di lavorare su qualsiasi apparecchiatura, occorre conoscere i pericoli relativi ai circuiti elettrici ed essere al corrente delle pratiche standard per la prevenzione di incidenti. La traduzione delle avvertenze riportate in questa pubblicazione si trova nel documento *Regulatory Compliance and Safety Information* (Conformità alle norme e informazioni sulla sicurezza) che accompagna questo dispositivo. |
| | **Advarsel** Dette varselsymbolet betyr fare. Du befinner deg i en situasjon som kan føre til personskade. Før du utfører arbeid på utstyr, må du vare oppmerksom på de faremomentene som elektriske kretser innebærer, samt gjøre deg kjent med vanlig praksis når det gjelder å unngå ulykker. Hvis du vil se oversettelser av de advarslene som finnes i denne publikasjonen, kan du se i dokumentet *Regulatory Compliance and Safety Information* (Overholdelse av forskrifter og sikkerhetsinformasjon) som ble levert med denne enheten. |
| | **Aviso** Este símbolo de aviso indica perigo. Encontra-se numa situação que lhe poderá causar danos físicos. Antes de começar a trabalhar com qualquer equipamento, familiarize-se com os perigos relacionados com circuitos eléctricos, e com quaisquer práticas comuns que possam prevenir possíveis acidentes. Para ver as traduções dos avisos que constam desta publicação, consulte o documento *Regulatory Compliance and Safety Information* (Informação de Segurança e Disposições Reguladoras) que acompanha este dispositivo. |

| Convention | Description |
|---|---|
| | **¡Advertencia!** Este símbolo de aviso significa peligro.  Existe riesgo para su integridad física.  Antes de manipular cualquier equipo, considerar los riesgos que entraña la corriente eléctrica y familiarizarse con los procedimientos estándar de prevención de accidentes. Para ver una traducción de las advertencias que aparecen en esta publicación, consultar el documento titulado *Regulatory Compliance and Safety Information* (Información sobre seguridad y conformidad con las disposiciones reglamentarias) que se acompaña con este dispositivo. |
| | **Varning!**  Denna varningssymbol signalerar fara. Du befinner dig i en situation som kan leda till personskada. Innan du utför arbete på någon utrustning måste du vara medveten om farorna med elkretsar och känna till vanligt förfarande för att förebygga skador. Se förklaringar av de varningar som förkommer i denna publikation i dokumentet *Regulatory Compliance and Safety Information* (Efterrättelse av föreskrifter och säkerhetsinformation), vilket medföljer denna anordning. |

# Obtaining Service and Support

For service and support for a router purchased from a reseller, contact the reseller. Resellers offer a wide variety of Cisco service and support programs, which are described in the *Cisco Information Packet* that shipped with your router.

**Note**  If you purchased your router from a reseller, you can also access Cisco Connection Online (CCO) as a guest. CCO is Cisco Systems' primary, real-time support channel. Your reseller offers programs that include direct access to CCO's services.

For service and support for a router purchased directly from Cisco, use CCO.

# Cisco Connection Online

Cisco Connection Online (CCO) is Cisco Systems' primary, real-time support channel. Maintenance customers and partners can self-register on CCO to obtain additional information and services.

Available 24 hours a day, 7 days a week, CCO provides a wealth of standard and value-added services to Cisco's customers and business partners. CCO services include product information, product documentation, software updates, release notes, technical tips, the Bug Navigator, configuration notes, brochures, descriptions of service offerings, and download access to public and authorized files.

CCO serves a wide variety of users through two interfaces that are updated and enhanced simultaneously: a character-based version and a multimedia version that resides on the World Wide Web (WWW). The character-based CCO supports Zmodem, Kermit, Xmodem, FTP, and Internet e-mail, and it is excellent for quick access to information over lower bandwidths. The WWW version of CCO provides richly formatted documents with photographs, figures, graphics, and video, as well as hyperlinks to related information.

You can access CCO in the following ways:

- WWW: http://www.cisco.com

- WWW: http://www-europe.cisco.com

- WWW: http://www-china.cisco.com

- Telnet: cco.cisco.com

- Modem: From North America, 408 526-8070; from Europe, 33 1 64 46 40 82. Use the following terminal settings: VT100 emulation; databits: 8; parity: none; stop bits: 1; and connection rates up to 28.8 kbps.

For a copy of CCO's Frequently Asked Questions (FAQ), contact cco-help@cisco.com. For additional information, contact cco-team@cisco.com.

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**Note** If you are a network administrator and need personal technical assistance with a Cisco product that is under warranty or covered by a maintenance contract, contact Cisco's Technical Assistance Center (TAC) at 800 553-2447, 408 526-7209, or tac@cisco.com. To obtain general information about Cisco Systems, Cisco products, or upgrades, contact 800 553-6387, 408 526-7208, or cs-rep@cisco.com.

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Please use CCO to obtain general information about Cisco Systems, Cisco products, or upgrades. If CCO is not accessible, contact 800 553-6387, 408 526-7208, or cs-rep@cisco.com.

# Ordering Documentation

Cisco documentation and additional literature are available in a CD-ROM package, which ships with your product. The Documentation CD-ROM, a member of the Cisco Connection Family, is updated monthly. Therefore, it might be more current than printed documentation. To order additional copies of the Documentation CD-ROM, contact your local sales representative or call customer service. The CD-ROM package is available as a single package or as an annual subscription. You can also access Cisco documentation on the World Wide Web at http://www.cisco.com, http://www-china.cisco.com, or http://www-europe.cisco.com.

If you are reading Cisco product documentation on the World Wide Web, you can submit comments electronically. Click **Feedback** in the toolbar and select **Documentation**. After you complete the form, click **Submit** to send it to Cisco. We appreciate your comments.