



## Preface

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This preface describes the objectives, audience, organization, and conventions of this guide and describes related documents that have additional information. It contains the following sections:

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- [Obtaining Documentation and Submitting a Service Request, page xvii](#)

## Objective

This guide provides an overview and explains how to install, connect, and perform initial configuration for the following series:

- Cisco 810 series ISRs that include both Cisco 812 series and 819 series ISRs
- Wireless and non-wireless Cisco 860 series, Cisco 880 series, and Cisco 890 Integrated Services Routers (ISRs)

## Audience

This guide is intended for Cisco equipment providers who are technically knowledgeable and familiar with Cisco routers and Cisco IOS software and features.

# Organization

This guide is organized into the following chapters and appendix.

Chapter	Name	Description
Chapter 1	<a href="#">Chapter 1, “Product Overview”</a>	Describes the router models and the hardware features available.
Chapter 2	<a href="#">Chapter 2, “Installing the Router”</a>	Lists the items shipped with the router, the equipment and tools necessary for installing the router, the safety warnings and guidelines, and the procedures for installing the router.
Chapter 3	<a href="#">Chapter 3, “Connecting the Router”</a>	Describes typical connections for the router, procedures for connecting the router to various devices, and how to verify the connections.
Chapter 4	<a href="#">Chapter 4, “Initial Configuration”</a>	Provides the procedures for initially configuring the router settings.
Appendix A	<a href="#">Appendix A, “Technical Specifications”</a>	Provides the router, port, and cabling specifications.

## Conventions

This section describes the conventions used in this guide.



### Note

Means *reader take note*. Notes contain helpful suggestions or references to additional information and material.



### Caution

This symbol means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.



### Tip

Means *the following information will help you solve a problem*. The tip information might not be troubleshooting or even an action, but could be useful information.



Warning

#### IMPORTANT SAFETY INSTRUCTIONS

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. Use the statement number provided at the end of each warning to locate its translation in the translated safety warnings that accompanied this device. Statement 1071

#### SAVE THESE INSTRUCTIONS

Waarschuwing

#### BELANGRIJKE VEILIGHEIDSINSTRUCTIES

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 de standaard praktijken om ongelukken te voorkomen. Gebruik het nummer van de verklaring onderaan de waarschuwing als u een vertaling van de waarschuwing die bij het apparaat wordt geleverd, wilt raadplegen.

#### BEWAAR DEZE INSTRUCTIES

Varoitus

#### TÄRKEITÄ TURVALLISUUSOHJEITA

Tämä varoitusmerkki merkitsee vaaraa. Tilanne voi aiheuttaa ruumiillisia vammoja. Ennen kuin käsittelet laitteistoa, huomioi sähköpiirien käsittelemiseen liittyvät riskit ja tutustu onnettomuuksien yleisiin ehkäisytapoihin. Turvallisuusvaroitusten käännökset löytyvät laitteen mukana toimitettujen käännettyjen turvallisuusvaroitusten joukosta varoitusten lopussa näkyvien lausuntonumeroiden avulla.

#### SÄILYTÄ NÄMÄ OHJEET

Attention

#### IMPORTANTES INFORMATIONS DE SÉCURITÉ

Ce symbole d'avertissement indique un danger. Vous vous trouvez dans une situation pouvant entraîner des blessures ou des dommages corporels. Avant de travailler sur un équipement, soyez conscient des dangers liés aux circuits électriques et familiarisez-vous avec les procédures couramment utilisées pour éviter les accidents. Pour prendre connaissance des traductions des avertissements figurant dans les consignes de sécurité traduites qui accompagnent cet appareil, référez-vous au numéro de l'instruction situé à la fin de chaque avertissement.

#### CONSERVEZ CES INFORMATIONS

Warnung

#### WICHTIGE SICHERHEITSHINWEISE

Dieses Warnsymbol bedeutet Gefahr. Sie befinden sich in einer Situation, die zu Verletzungen führen kann. Machen Sie sich vor der Arbeit mit Geräten mit den Gefahren elektrischer Schaltungen und den üblichen Verfahren zur Vorbeugung vor Unfällen vertraut. Suchen Sie mit der am Ende jeder Warnung angegebenen Anweisungsnummer nach der jeweiligen Übersetzung in den übersetzten Sicherheitshinweisen, die zusammen mit diesem Gerät ausgeliefert wurden.

#### BEWAHREN SIE DIESE HINWEISE GUT AUF.

**Avvertenza      IMPORTANTI ISTRUZIONI SULLA SICUREZZA**

Questo simbolo di avvertenza indica un pericolo. La situazione potrebbe causare infortuni alle persone. Prima di intervenire su qualsiasi apparecchiatura, occorre essere al corrente dei pericoli relativi ai circuiti elettrici e conoscere le procedure standard per la prevenzione di incidenti. Utilizzare il numero di istruzione presente alla fine di ciascuna avvertenza per individuare le traduzioni delle avvertenze riportate in questo documento.

**CONSERVARE QUESTE ISTRUZIONI**

**Advarsel      VIKTIGE SIKKERHETSINSTRUKSJONER**

Dette advarselssymbolet betyr fare. Du er i en situasjon som kan føre til skade på person. Før du begynner å arbeide med noe av utstyret, må du være oppmerksom på farene forbundet med elektriske kretser, og kjenne til standardprosedyrer for å forhindre ulykker. Bruk nummeret i slutten av hver advarsel for å finne oversettelsen i de oversatte sikkerhetsadvarslene som fulgte med denne enheten.

**TA VARE PÅ DISSE INSTRUKSJONENE**

**Aviso      INSTRUÇÕES IMPORTANTES DE SEGURANÇA**

Este símbolo de aviso significa perigo. Você está em uma situação que poderá ser causadora de lesões corporais. Antes de iniciar a utilização de qualquer equipamento, tenha conhecimento dos perigos envolvidos no manuseio de circuitos elétricos e familiarize-se com as práticas habituais de prevenção de acidentes. Utilize o número da instrução fornecido ao final de cada aviso para localizar sua tradução nos avisos de segurança traduzidos que acompanham este dispositivo.

**GUARDE ESTAS INSTRUÇÕES**

**¡Advertencia!      INSTRUCCIONES IMPORTANTES DE SEGURIDAD**

Este símbolo de aviso indica peligro. Existe riesgo para su integridad física. Antes de manipular cualquier equipo, considere los riesgos de la corriente eléctrica y familiarícese con los procedimientos estándar de prevención de accidentes. Al final de cada advertencia encontrará el número que le ayudará a encontrar el texto traducido en el apartado de traducciones que acompaña a este dispositivo.

**GUARDE ESTAS INSTRUCCIONES**

**Varning!      VIKTIGA SÄKERHETSANVISNINGAR**

Denna varningssignal 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 vanliga förfaranden för att förebygga olyckor. Använd det nummer som finns i slutet av varje varning för att hitta dess översättning i de översatta säkerhetsvarningar som medföljer denna anordning.

**SPARA DESSA ANVISNINGAR**

## Figyelem

### 중요 안전 지침

이 경고 기호는 위험을 나타냅니다. 작업자가 신체 부상을 일으킬 수 있는 위험한 환경에 있습니다. 장비에 작업을 수행하기 전에 전기 회로와 관련된 위험을 숙지하고 표준 작업 관례를 숙지하여 사고를 방지하십시오. 각 경고의 마지막 부분에 있는 경고문 번호를 참조하여 이 장치와 함께 제공되는 번역된 안전 경고문에서 해당 번역문을 찾으십시오.

이 지시 사항을 보관하십시오.

## Предупреждение

### ВАЖНЫЕ ИНСТРУКЦИИ ПО СОБЛЮДЕНИЮ ТЕХНИКИ БЕЗОПАСНОСТИ

Этот символ предупреждения обозначает опасность. То есть имеет место ситуация, в которой следует опасаться телесных повреждений. Перед эксплуатацией оборудования выясните, каким опасностям может подвергаться пользователь при использовании электрических цепей, и ознакомьтесь с правилами техники безопасности для предотвращения возможных несчастных случаев. Воспользуйтесь номером заявления, приведенным в конце каждого предупреждения, чтобы найти его переведенный вариант в переводе предупреждений по безопасности, прилагаемом к данному устройству.

### СОХРАНИТЕ ЭТИ ИНСТРУКЦИИ

## 警告

### 重要的安全性说明

此警告符号代表危险。您正处于可能受到严重伤害的工作环境中。在您使用设备开始工作之前，必须充分意识到触电的危险，并熟练掌握防止事故发生的标准工作程序。请根据每项警告结尾提供的声明号码来找到此设备的安全性警告说明的翻译文本。

请保存这些安全性说明

## 警告

### 安全上の重要な注意事項

「危険」の意味です。人身事故を予防するための注意事項が記述されています。装置の取り扱い作業を行うときは、電気回路の危険性に注意し、一般的な事故防止策に留意してください。警告の各国語版は、各注意事項の番号を基に、装置に付属の「Translated Safety Warnings」を参照してください。

これらの注意事項を保管しておいてください。

## 주의

### 중요 안전 지침

이 경고 기호는 위험을 나타냅니다. 작업자가 신체 부상을 일으킬 수 있는 위험한 환경에 있습니다. 장비에 작업을 수행하기 전에 전기 회로와 관련된 위험을 숙지하고 표준 작업 관례를 숙지하여 사고를 방지하십시오. 각 경고의 마지막 부분에 있는 경고문 번호를 참조하여 이 장치와 함께 제공되는 번역된 안전 경고문에서 해당 번역문을 찾으십시오.

이 지시 사항을 보관하십시오.

**Aviso INSTRUÇÕES IMPORTANTES DE SEGURANÇA**

Este símbolo de aviso significa perigo. Você se encontra em uma situação em que há risco de lesões corporais. Antes de trabalhar com qualquer equipamento, esteja ciente dos riscos que envolvem os circuitos elétricos e familiarize-se com as práticas padrão de prevenção de acidentes. Use o número da declaração fornecido ao final de cada aviso para localizar sua tradução nos avisos de segurança traduzidos que acompanham o dispositivo.

**GUARDE ESTAS INSTRUÇÕES**

**Advarsel VIGTIGE SIKKERHEDSANVISNINGER**

Dette advarselssymbol betyder fare. Du befinder dig i en situation med risiko for legemeskade. Før du begynder arbejde på udstyr, skal du være opmærksom på de involverede risici, der er ved elektriske kredsløb, og du skal sætte dig ind i standardprocedurer til undgåelse af ulykker. Brug erklæringsnummeret efter hver advarsel for at finde oversættelsen i de oversatte advarsler, der fulgte med denne enhed.

**GEM DISSE ANVISNINGER**

**تحذير**

**إرشادات الأمان الهامة**

يوضح رمز التحذير هذا وجود خطر. وهذا يعني أنك متواجد في مكان قد ينتج عنه التعرض لإصابات. قبل بدء العمل، احذر مخاطر التعرض للصدمات الكهربائية وكن على علم بالإجراءات القياسية للحيلولة دون وقوع أي حوادث. استخدم رقم البيان الموجود في آخر كل تحذير لتحديد مكان ترجمته داخل تحذيرات الأمان المترجمة التي تأتي مع الجهاز. قم بحفظ هذه الإرشادات

**Upozorenje**

**VAŽNE SIGURNOSNE NAPOMENE**

Ovaj simbol upozorenja predstavlja opasnost. Nalazite se u situaciji koja može prouzročiti tjelesne ozljede. Prije rada s bilo kojim uređajem, morate razumjeti opasnosti vezane uz električne sklopove, te biti upoznati sa standardnim načinima izbjegavanja nesreća. U prevedenim sigurnosnim upozorenjima, priloženima uz uređaj, možete prema broju koji se nalazi uz pojedino upozorenje pronaći i njegov prijevod.

**SAČUVAJTE OVE UPUTE**

**DŮLEŽITÉ BEZPEČNOSTNÍ POKYNY**

Tento upozorňující symbol označuje nebezpečí. Jste v situaci, která by mohla způsobit nebezpečí úrazu. Před prací na jakémkoliv vybavení si uvědomte nebezpečí související s elektrickými obvody a seznamte se se standardními opatřeními pro předcházení úrazům. Podle čísla na konci každého upozornění vyhledejte jeho překlad v přeložených bezpečnostních upozorněních, která jsou přiložena k zařízení.

**USCHOVEJTE TYTO POKYNY**

Προειδοποίηση

#### ΣΗΜΑΝΤΙΚΕΣ ΟΔΗΓΙΕΣ ΑΣΦΑΛΕΙΑΣ

Αυτό το προειδοποιητικό σύμβολο σημαίνει κίνδυνο. Βρίσκεστε σε κατάσταση που μπορεί να προκαλέσει τραυματισμό. Πριν εργαστείτε σε οποιοδήποτε εξοπλισμό, να έχετε υπόψη σας τους κινδύνους που σχετίζονται με τα ηλεκτρικά κυκλώματα και να έχετε εξοικειωθεί με τις συνήθειες πρακτικές για την αποφυγή ατυχημάτων. Χρησιμοποιήστε τον αριθμό δήλωσης που παρέχεται στο τέλος κάθε προειδοποίησης, για να εντοπίσετε τη μετάφρασή της στις μεταφρασμένες προειδοποιήσεις ασφαλείας που συνοδεύουν τη συσκευή.

ΦΥΛΑΞΤΕ ΑΥΤΕΣ ΤΙΣ ΟΔΗΓΙΕΣ

הרהר

#### הוראות בטיחות חשובות

סימן אזהרה זה מסמל סכנה. אתה נמצא במצב העלול לגרום לפציעה. לפני שתעבוד עם ציוד כלשהו, עליך להיות מודע לסכנות הכרוכות במגעלים חשמליים ולהכיר את הנהלים המקובלים למניעת תאונות. השתמש במספר ההוראה המסופק בסופה של כל אזהרה כדי לאתר את התרגום באזהרות הבטיחות המתורגמות שמצורפות להתקן.

**שמור הוראות אלה**

предупредување

#### ВАЖНИ БЕЗБЕДНОСНИ НАПАТСТВИЈА

Симболот за предупредување значи опасност. Се наоѓате во ситуација што може да предизвика телесни повреди. Пред да работите со опремата, бидете свесни за ризикот што постои кај електричните кола и треба да ги познавате стандардните постапки за спречување на несреќни случаи. Искористете го бројот на изјавата што се наоѓа на крајот на секое предупредување за да го најдете неговиот период во преведените безбедносни предупредувања што се испорачани со уредот.

ЧУВАЈТЕ ГИ ОБИЕ НАПАТСТВИЈА

Ostrzeżenie

#### WAŻNE INSTRUKCJE DOTYCZĄCE BEZPIECZEŃSTWA

Ten symbol ostrzeżenia oznacza niebezpieczeństwo. Zachodzi sytuacja, która może powodować obrażenia ciała. Przed przystąpieniem do prac przy urządzeniach należy zapoznać się z zagrożeniami związanymi z układami elektrycznymi oraz ze standardowymi środkami zapobiegania wypadkom. Na końcu każdego ostrzeżenia podano numer, na podstawie którego można odszukać tłumaczenie tego ostrzeżenia w dołączonym do urządzenia dokumencie z tłumaczeniami ostrzeżeń.

NINIEJSZE INSTRUKCJE NALEŻY ZACHOWAĆ

Upozornenie

#### DÔLEŽITÉ BEZPEČNOSTNÉ POKYNY

Tento varovný symbol označuje nebezpečenstvo. Nachádzate sa v situácii s nebezpečenstvom úrazu. Pred prácou na akomkoľvek vybavení si uvedomte nebezpečenstvo súvisiace s elektrickými obvodmi a oboznámte sa so štandardnými opatreniami na predchádzanie úrazom. Podľa čísla na konci každého upozornenia vyhľadajte jeho preklad v preložených bezpečnostných upozorneniach, ktoré sú priložené k zariadeniu.

USCHOVAJTE SI TENTO NÁVOD

## Opozorilo

### POMEMBNI VARNOSTNI NAPOTKI

Ta opozorilni simbol pomeni nevarnost. Nahajate se v situaciji, kjer lahko pride do telesnih poškodb. Preden pričnete z delom na napravi, se morate zavedati nevarnosti udara električnega toka, ter tudi poznati preventivne ukrepe za preprečevanje takšnih nevarnosti. Uporabite obrazložitevno številko na koncu posameznega opozorila, da najdete opis nevarnosti v priloženem varnostnem priročniku.

### SHRANITE TE NAPOTKE!

#### 警告

#### 重要安全性指示

此警告符號代表危險，表示可能造成人身傷害。使用任何設備前，請留心電路相關危險，並熟悉避免意外的標準作法。您可以使用每項警告後的聲明編號，查詢本裝置隨附之安全性警告譯文中的翻譯。請妥善保留此指示



#### Warning

When installing the product, please use the provided or designated connection cables/power cables/AC adaptors. Using any other cables/adaptors could cause a malfunction or a fire. Electrical Appliance and Material Safety Law prohibits the use of UL-certified cables (that have the "UL" shown on the code) for any other electrical devices than products designated by CISCO. The use of cables that are certified by Electrical Appliance and Material Safety Law (that have "PSE" shown on the code) is not limited to CISCO-designated products. Statement 371



#### Warning

Read the wall-mounting instructions carefully before beginning installation. Failure to use the correct hardware or to follow the correct procedures could result in a hazardous situation to people and damage to the system. Statement 378



#### Warning

There is the danger of explosion if the battery is replaced incorrectly. Replace the battery only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions. Statement 1015



#### Warning

To avoid electric shock, do not connect safety extra-low voltage (SELV) circuits to telephone-network voltage (TNV) circuits. LAN ports contain SELV circuits, and WAN ports contain TNV circuits. Some LAN and WAN ports both use RJ-45 connectors. Use caution when connecting cables. Statement 1021



#### Warning

This equipment must be grounded. Never defeat the ground conductor or operate the equipment in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available. Statement 1024



  
Warning

If the symbol of suitability with an overlaid cross appears above a port, you must not connect the port to a public network that follows the European Union standards. Connecting the port to this type of public network can cause severe personal injury or can damage the unit. Statement 1031

  
Warning

Connect the unit only to DC power source that complies with the safety extra-low voltage (SELV) requirements in IEC 60950 based safety standards. Statement 1033

  
Warning

Do not use this product near water; for example, near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement, or near a swimming pool. Statement 1035

  
Warning

Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations. Statement 1036

  
Warning

Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface. Statement 1037

  
Warning

Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning. Statement 1038

  
Warning

When installing or replacing the unit, the ground connection must always be made first and disconnected last. Statement 1046

  
Warning

Do not locate the antenna near overhead power lines or other electric light or power circuits, or where it can come into contact with such circuits. When installing the antenna, take extreme care not to come into contact with such circuits, because they may cause serious injury or death. For proper installation and grounding of the antenna, please refer to national and local codes (for example, U.S.:NFPA 70, National Electrical Code, Article 810, Canada: Canadian Electrical Code, Section 54). Statement 1052

  
Warning

No user-serviceable parts inside. Do not open. Statement 1073

  
Warning

Installation of the equipment must comply with local and national electrical codes. Statement 1074

  
Warning

Only trained and qualified personnel should be allowed to install, replace, or service this equipment. Statement 1030

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Warning

**Read the installation instructions before connecting the system to the power source.** Statement 1004

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Warning

**Ultimate disposal of this product should be handled according to all national laws and regulations.**  
Statement 1040

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Warning

**The covers are an integral part of the safety design of the product. Do not operate the unit without the covers installed.** Statement 1077

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Warning

**Hot surface.** Statement 1079

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Warning

**The equipment is suitable for installation in the following locations:**

**Network Telecommunications Facilities**  
**Location where the NEC applies**  
**OSP**

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## Related Documentation

- [Regulatory Compliance and Safety Information for Cisco 800 Series Routers](#)
- [Cisco IOS Software Releases 12.4 Special and Early Deployments](#)
- [Cisco IOS Quality of Service Solutions Command Reference, Release 12.4T](#)
- [Cisco IOS Security Configuration Guide, Release 12.4T](#)
- [Cisco IOS Security Command Reference, Release 12.4T](#)
- [Cisco CP Express User's Guide](#)

## Searching Cisco Documents

To search an HTML document using a web browser, press **Ctrl-F** (Windows) or **Cmd-F** (Apple). In most browsers, the option to search whole words only, invoke case sensitivity, or search forward and backward is also available.

To search a PDF document in Adobe Reader, use the basic Find toolbar (**Ctrl-F**) or the Full Reader Search window (**Shift-Ctrl-F**). Use the Find toolbar to find words or phrases within a specific document. Use the Full Reader Search window to search multiple PDF files simultaneously and to change case sensitivity and other options. Adobe Reader's online help has more information about how to search PDF documents.

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# Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

Subscribe to the *What's New in Cisco Product Documentation* as a Really Simple Syndication (RSS) feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS Version 2.0.

