

# Cisco Configuration Professional for Cisco Access Routers

#### **Product Overview**

Cisco Configuration Professional is a GUI based device management tool for Cisco access routers. It simplifies router, firewall, IPS, VPN, unified communications, WAN, LAN and basic wireless configuration through easy-to-use wizards.

Cisco Configuration Professional is a valuable productivity-enhancing tool for network administrators and channel partners for deploying routers in medium-sized businesses and enterprise branch offices with increased confidence and ease. Cisco Configuration Professional has configuration checks built into the application thereby reducing errors.

The new device manager for Cisco integrated services routers, Cisco Configuration Professional will replace Cisco Router and Security Device Manager (SDM) over time. Like SDM, Cisco Configuration Professional assumes a general understanding of networking technologies and terms but assists individuals unfamiliar with the Cisco CLI. To find out when a new version of Cisco Configuration Professional is available for download, visit <a href="http://www.cisco.com/go/ciscocp">http://www.cisco.com/go/ciscocp</a> periodically.

Cisco Configuration Professional Express, a light-weight version of Cisco Configuration Professional, is available on the router's flash and can be used to configure some of the router's LAN and WAN interfaces and minimal Cisco IOS Software security features.

### **Customer Benefits**

Today's businesses depend on network-based applications and communications tools more than ever before. To preserve essential communications with your partners and customers, maintain the productivity of your employees, and sustain the profitability of your business, you need to make sure that your network is secure and reliable, and that it performs optimally at all times. However, modern business networks can encompass a wide range of wired and wireless networking, security, and voice technologies. Making sure that your network is configured and operating properly is a complex, costly, and time-consuming task.

Cisco Configuration Professional is a device management tool that your business can use to address these challenges. It provides in-depth configuration GUI screens to help you easily configure complex routing, security and voice features in the router.

### Ease of Use and Built-In Application Intelligence

With Cisco Configuration Professional you can remotely configure and monitor your Cisco routers without using the Cisco IOS Software CLI. If you are not an expert with Cisco IOS Software, the Cisco Configuration Professional GUI (Figure 1) can help you in your day-to-day operations; the application:

- Provides easy-to-use smart wizards
- · Assists you through comprehensive online and video help

🎖 Cisco Configuration Professional Application Help at tall to Cisco Configuration Professional Configure Monitor A Home CISCO Select Community Member Configure > Interface Management > Interface and Connections 3 128.107.146.205 Interfaces and Connections ▶ 🛅 Interface Management ► Router Create Connection | Edit Interface/Connection ▶ 🗀 Security Create New Connection lise Case Scenario ▶ 🛅 Voice Select a connection and click Create New Connection 🖿 🛅 Utilities € Ethernet LAN C Other (Unsupported by Cisco CP) Configure Ethernet LAN interface for straight routing and 802.1g trunking Create New Connection ▼ Go How do I: How Do I Configure an Unsupported WAN Interface?

Figure 1. Cisco Configuration Professional Homepage with Configuration Options

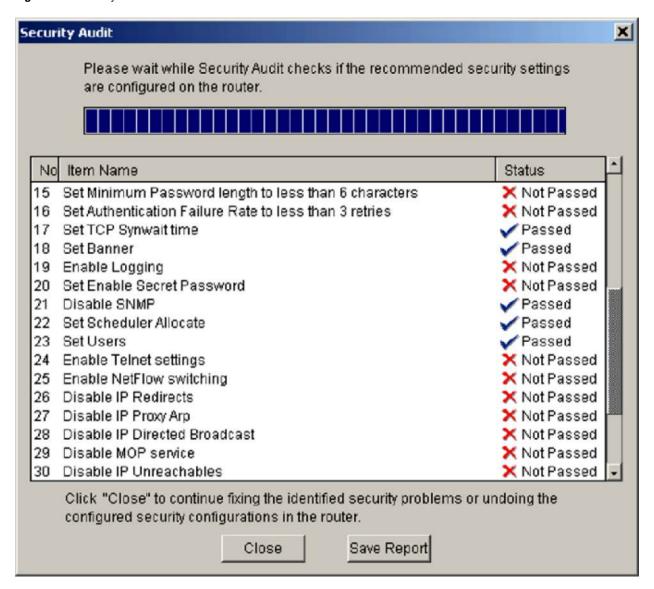
Cisco Configuration Professional smart wizards guide you step-by-step through router configuration workflow by systematically configuring LAN and WAN interfaces; firewalls; IPSs; and IPsec VPNs. These smart wizards can intelligently detect incorrect configurations and propose fixes, such as allowing Dynamic Host Configuration Protocol (DHCP) traffic through a firewall if the WAN interface is DHCP-addressed. Online help embedded within Cisco Configuration Professional contains appropriate background information, in addition to step-by-step procedures to help you enter correct data into the application. Networking, security, and voice terms and definitions that you might encounter are included in an online glossary.

If you are a network professional familiar with Cisco IOS Software and security features, Cisco Configuration Professional offers advanced configuration tools to quickly configure and fine-tune router security features, allowing you to review the commands generated by the application before delivering the configuration changes to the router.

### **Integrated Security Configuration**

When deploying a new router with Cisco Configuration Professional, you can configure a Cisco IOS Software firewall quickly. An advanced firewall wizard allows for a single-step deployment of high, medium, or low application firewall policy settings.

Figure 2. Security Audit

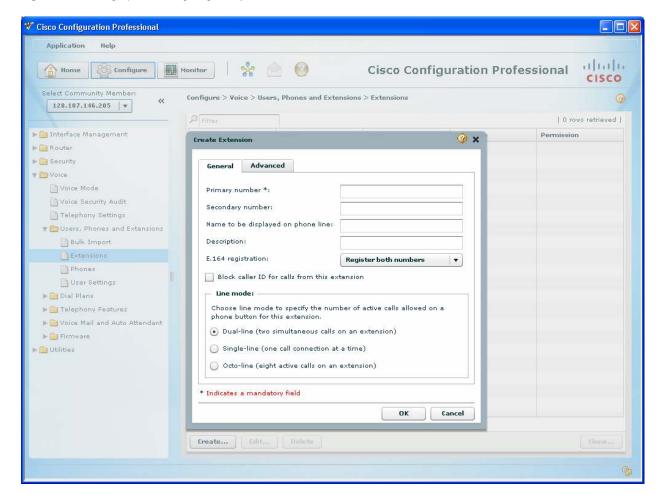


When invoked on an already configured router, Cisco Configuration Professional allows you to perform one-step security audits (Figure 2) to evaluate the strengths and weaknesses of your router configurations against common security vulnerabilities. Administrators can fine-tune their existing router security configurations to better suit their business needs. They can also use Cisco Configuration Professional for day-to-day operations such as monitoring, fault management, and troubleshooting.

### **Integrated Voice Configuration**

With Cisco Configuration Professional you can easily set up your Cisco IP telephony system by configuring the Cisco Unified Communications Manager Express call processing and Cisco Unity Express voicemail. When deploying a new IP telephony system using the application, you can configure it as a standalone Cisco Unified Communications Manager Express or as a gateway to Cisco Unified Communications Manager. You can quickly configure features required for an initial telephony deployment, including users, phones, extensions, dial plans, analog and digital trunks. You can also configure voice system features such as paging groups, pickup groups, hunt groups, intercom, conferencing etc.When invoked on an already configured router, Cisco Configuration Professional allows an administrator to easily make day-2 changes such as moves, adds and changes of phone users on the deployed configuration. Simply access the voice services provided under the voice folder on the Cisco Configuration Professional left pane to easily set up and configure the system (Figure 3).

Figure 3. Setting Up and Configuring the System



### **Cost Savings**

Cisco Configuration Professional is ideal for enterprise branch offices and companies of all sizes that are sensitive to device deployment and network management costs and have few skilled technicians. Cisco Configuration Professional enhances the productivity of network, security, and voice administrators through built-in configuration checks, a configuration editor for experts, and meaningful defaults.

Cisco Configuration Professional features provide an additional advantage of improved network availability through reduced instances of configuration errors.

## **Product Specifications**

Table 1 lists features and benefits, and Table 2 lists supported voice features of Cisco Configuration Professional .

 Table 1.
 Features and Benefits

Feature	Benefit
Comprehensive remote management	This feature turns the router into a security, voice, and remote-access solution with its own management tool.
management	You can manage the router remotely from any supported desktop or laptop.
Out-of-the-box router configuration	Cisco Configuration Professional Express is a slimmed-down version of the Cisco Configuration Professional GUI tool embedded in the router flash memory that helps Cisco partners and customers with out-of-the-box configuration of access-router LAN and WAN interfaces and minimal Cisco IOS Software security features.
At-a-glance router status views	These views offer a quick graphical summary of router hardware, software, and primary router services such as VPN, firewall, QoS, etc.
Demo Mode	This feature can be used by sales representatives to show case the feature richness of the ISR
Router security audit	The audit assesses the vulnerability of your existing router.
	It provides quick compliance to best-practices security policies for routers.
One-step router lockdown	This feature simplifies firewall and Cisco IOS Software configuration without requiring expertise about security or Cisco IOS Software.
Smart wizards for most	Smart wizards that avert misconfigurations with integrated routing and security knowledge.
frequent router and security configuration tasks	They reduce network administrators' training needs for new Cisco IOS Software security features.
comiguration tasks	The wizards secure the existing network infrastructure easily and cost-effectively.
WAN and VPN troubleshooting	Mean time to repair (MTTR) is reduced by taking advantage of the integration of routing, LAN, WAN, and security features on the router for detailed troubleshooting.
	<ul> <li>The integration of routing, LAN, WAN, and security features on the router allows for detailed troubleshooting of IPsec VPNs or WAN links.</li> </ul>
QoS policy	<ul> <li>WAN and VPN bandwidth and application performance for different business needs (voice and video, enterprise applications, web, etc.) are easily optimized.</li> </ul>
	Three predefined categories of policy are available: real-time, business-critical, and best-effort.
Network-based application recognition (NBAR)	NBAR provides real-time validation of application usage of WAN and VPN bandwidth against predefined service policies.
	NBAR provides for traffic performance monitoring.
Real-time monitoring and logging	<ul> <li>Administrators can proactively manage router resources and security before they affect mission-critical applications on the network.</li> </ul>
Real-time network and router	This monitoring offers faster and easier analysis of router resource and network resource usage.
resource monitoring	It offers graphical charts for LAN and WAN traffic and bandwidth usage.
Task-based Cisco Configuration	This interface provides for faster and easier configuration of security configurations IPsec VPNs, firewall, ACLs, IPSs, etc.
Professional user interface	The interface provides a quick snapshot of router services configuration through the dashboard view on the homepage.
Cisco Configuration	Router deployment for basic WAN access configurations is quick and easy.
Professional Express wizard- based deployment of router	This router deployment tool is ideal for non-expert users.
Digital certificates	Digital certificates offer a highly scalable and more secure solution than preshared keys.
	Digital certificates are now easy to use and deploy with the combination of Cisco Configuration Professional, Cisco IOS Software Certificate Authority Server, and Easy Secure Device Deployment feature.
Role-based access	This feature uses the Cisco IOS Software CLI views feature to define restricted task-based roles for different router administrators and users.
	<ul> <li>It allows Cisco value-added resellers and service providers to offer a graphical, read-only view of the customer-premises-equipment (CPE) services to end customers.</li> </ul>
	It offers factory-default profiles:
	Administrator
	Firewall administrator
	Easy VPN client user
	Monitor-only view
User Profiles ( View Based	This features allows for view based access controls
Access Control)	It allows Cisco value-added resellers and service providers to offer access to only certain screens of the Cisco Configuration Professional user interface

Feature	Benefit
Secure Sockets Layer (SSL)- based and Secure Shell (SSH) Protocol v2-based secure remote access	This feature provides for secure management between a PC and a Cisco router.
Comprehensive remote management	This feature turns the router into a security, voice, and remote-access solution with its own management tool.  You can manage the router remotely from any supported desktop or laptop.

 Table 2.
 Cisco Configuration Professional Supported Voice Features

Voice Feature	Support Details
Voice system features	Paging groups and paging number, adhoc and meet-me conferencing, night services, intercom, whisper intercom, after hours, call park, hunt groups,call blast, pickup groups and single number reach
Users, phones, and extensions	System speed dial, multiple lines per phone,dual line, octal line, phone softkeys, call forward all, call forward busy, call forward no answer, monitor, overlay,share, extension templates
Voicemail	Voicemail initialization, systemwide default setting, message waiting indicator, and mailbox
Time-division multiplexing (TDM) trunks	T1 Primary Rate Interface (T1-PRI) and single-line TDM trunk (Basic Rate Interface [BRI], direct inward dialing [DID], and foreign exchange office [FXO])
Phones	Analog phones and IP phones (including phone load support) Only Skinny end points Supported
Dial plan	Class of restriction, POTS dial plan, VOIP dial plan , Translation rules and profiles
Multisite deployment	H.323 and Session Initiation Protocol (SIP) voice-over-IP (VoIP) parameters and remote worker (codec and Cisco IP Communicator [IPC].
Cisco SRST	Gateway mode with Media Gateway Control Protocol (MGCP) or SIP or H.323 protocol for communication from the gateway when in gateway mode.

Tables 3 through 9 summarize the Cisco IOS Software features, router platforms, and router modules supported in Cisco Configuration Professional Please refer to the release notes for the exact router SKUs supported.

 Table 3.
 Cisco Configuration Professional Supported Cisco IOS Software Features

Cisco IOS Software Feature	Support Details
VPN	VPN protocols include Easy VPN Server, Easy VPN Remote, Enhanced Easy VPN (IPsec Dynamic Virtual Tunnel Interface [DVTI]), SSL VPN, generic routing encapsulation (GRE) over IPsec, Dynamic Multipoint VPN (DMVPN) (full-mesh or hub-spoke), GET VPN, Voice and Video Enabled VPN (V3PN), digital certificates, VPN monitor, and troubleshooting.
Firewall	Firewall support includes zone-based firewall, stateful inspection, application firewall, granular protocol inspection, network edge, firewall log, and policy table.
IPS	IPS features are compatible with Cisco IOS Software IPS feature in Releases 12.4(11)T2 and 12.4(9)T or earlier T train and Cisco IOS Software 12.4 Mainline releases (automatic signature provisioning, dynamic signature update and signature customization, event viewer, signature creation wizards, and threat-based signature categories).
Advanced configuration	Cisco IOS Software Certificate Authority Server, AutoQoS phase II, Network Address Translation (NAT) wizards, ACL,ACL Object Groups, VLAN, CLI preview mode, DHCP server, WLAN, date and time, Network Time Protocol (NTP), Domain Name System (DNS), SSHv2, management access policy, dynamic Domain Name System (DNS), 802.1x L2 port, and 802.1x Layer 3 spouse and kids are all supported.
Content filtering	Cisco value-added resellers and partners can configure content filtering on the access router to permit or deny URLs (based on categories configured in a third-party database) or to block any keywords or specific domains. The content filtering feature blocks access to the URLs, keywords, or specific domains from inside the corporate network.
Routing	Supported routing protocols include Open Shortest Path First (OSPF), Enhanced Interior Gateway Routing Protocol (EIGRP), Routing Information Protocol (RIP) Version 2, and static.

 Table 4.
 Cisco Configuration Professional Supported Cisco Router Products and Software Releases

Router Model	Earliest Cisco CP Supported Cisco IOS Version
Cisco 815	12.4(11)T
Cisco 850 series	12.4(9)T
Cisco 860 series	12.4(20)T
Cisco 870 series	12.4(9)T
Cisco 880 series	12.4(20)T

Router Model	Earliest Cisco CP Supported Cisco IOS Version
Cisco 890 series	15.0(1)M
Cisco 1801,1802,1803	12.4(9)T
Cisco 1805	12.4(15)XY
Cisco 1811, 1812	12.4(9)T
Cisco 1841	12.4(9)T
Cisco 1861	12.4(20)T
Cisco 1900 series	15.0(1)M
Cisco 2800 series	12.4(9)T
Cisco 2900 series	15.0(1)M
Cisco 3800 series	12.4(9)T
Cisco 3900 series	15.0(1)M

**Table 5.** Cisco Configuration Professional Supported Cisco Integrated Services Router and Integrated Services Router-G2 Interfaces (WICs and HWICs) and Modules (AIMs and NMs)

Cisco Integrated Services Router Interface and Module Technology	Part Numbers
WAN interface cards (WICs)	WIC-1T, WIC-2T, WIC-2A/S, WIC-1DSU-T1-V2, WIC-4ESW, WIC-1B-S/T-V3, WIC-1ADSL, WIC-1SHDSL-V3, WIC-1ADSL-IDG, WIC-1ADSL-DG, WIC-1AM, and WIC-2AM
High-speed WICs (HWICs)	HWIC-1FE, HWIC-2FE, HWIC-4T, HWIC-4A/S, HWIC-8A/S-232, HWIC-8A, HWIC-16A, HWIC-4ESW-POE, HWIC-D-9ESW-POE, HWIC-4ESW, HWIC-D-9ESW, HWIC-ADSLI-B/ST, HWIC-ADSLI-B/ST, HWIC-1ADSLI, HWIC-1ADSL, HWIC-1ADSL-M, HWIC-2SHDSL, HWIC-4SHDSL, HWIC-CABLE-E/J-2, HWIC-CABLE-D-2, HWIC-AP-AG-A, HWIC-AP-AG-E, HWIC-AP-AG-J, HWIC-AP-G-A, HWIC-AP-G-E, HWIC-AP-G-J, HWIC-1T, HWIC-2T, HWIC-2A/S, HWIC-IDSU-T1, HWIC-3G-GSM, HWIC-3G-CDMA-S and HWIC-3G-CDMA-V
Advanced integration modules (AIMs)	AIM-VPN/SSL-3, AIM-VPN/SSL-2, AIM-VPN/SSL-1, AIM_VPN/HPII-PLUS, AIM_VPN/EPII-PLUS, AIM_VPN/BPII-PLUS, AIM-IPS-K9,
Internal Service Modules (ISM)	ISM-SRE-300
Network modules (NMs)	NM-4T, NM-4A/S, NM-8A/S, NM-16ESW, NM-16ESW-1GIG, NM-16ESW-PWR-1GIG, NM-2FE2W-V2, NM-1FE2W-V2, NM-1FE-FX-V2, NM-16ESW-PWR, NMD-36ESW-PWR-, and NMD-36ESW-PWR-2GIG
Enhanced network modules (NMEs)	NME-WAE-502-k9, NME-WAE-522-k9, NME-WAE-302-k9, NME-XD-48ES-2S-P, NME-X-23ES-1G-P, NME-16ES-1G-P, NME-XD-24ES-1S-P, NME-X-23ES-1G, NME-IPS-K9, NME-VMSS_16, NME-VMSS-HP-16 and NME-VMSS-HP-32
Ether Switch Modules	SM-ES2-16-P, SM-ES2-24, SM-ES2-24-P, SM-D-ES2-48, SM-ES3-16-P, SM-ES3G-16-P, SM-ES3-24-P, SM-ES3G-24-P, SM-D-ES3-48-P and SM-D-ES3G-48-P

 Table 6.
 Cisco Configuration Professional Supported Cisco Phones

Cisco Phones	Models
Phones	Cisco ATA 180 Series Analog Telephone Adaptors; Cisco IPC; Cisco Unified IP Phone 6921, 6941, 6961, 7902G, 7905,7906G,7910G,7911G,7912G,7920,7921G,7931G,7940G,7941G,7941G-GE,7942G,7945G,7960G,7961G, 7961G-GE,7962G, 7965G,
Supported Expansion Modules	7914, 7915-12,7915-24,7916-12,7916-24
Supported Conference Stations	7935, 7936, 7937G

Table 7. Cisco Configuration Professional Supported Cisco Integrated Services Router Voice Interface Modules

Cisco Integrated Services Router Interface and Module Technology	Part Numbers
Analog voice interface cards	VIC2-4FXO, VIC2-2FXS, VIC2-2FXO, VIC2-2BRI-NT/TE, VIC-2DID, VIC-4FXS/DID,VIC3-4FXS/DID,VIC3-2FXS/DID,VIC3-2FXS/DID
T1/E1 voice interface cards	VWIC2-1MFT-T1/E1 and VWIC2-2MFT-T1/E1
Voice network modules	NM-HD-1V, NM-HD-2V, NM-HD-2VE, NM-HDA-4FXS, NM-HDV2, NM-HDV2-1T1/E1, and NM-HDV2-2T1/E1
Voice expansion modules	EVM-HD-8FXS/DID, EM-HDA-8FXS, EM-HDA-4FXO, EM2-HDA-4FXO, EM-HDA-3FXS/4FXO, EM-HDA-6FXO, EM-4BRI-NT/TE and EM3-HDA-8FXS/DID
Cisco Unity Express Voicemail	NM-CUE, NM-CUE-EC, AIM-CUE, AIM2-CUE and NME-CUE
Cisco Unity Express Voicemail Version Support	Version 2.3.2 and higher
Cisco Unified Communications Manager Express Version Support	Version 4.0 and higher

## **Client System Requirements**

Table 8 lists client system requirements.

Table 8. Client System Requirements

Personal computer operating systems	Windows 7  Windows Vista: Business Edition and Ultimate Edition  Windows XP with SP2 and higher  Mac OSX 10.5.6 running Windows XP using VMWare 2.0
Other software	<ul> <li>Sun JRE 1.5.0_11 up to 1.6.0_16</li> <li>Adobe Flash Player Version 10.0.12.36 and later</li> </ul>
PC hardware	Minimum 2-GHz processor     1-GB DRAM minimum; 2 GB recommended     Screen Resolution: 1024 x 768     Free disk space of 200 MB
Browser requirements	Microsoft IE 6.X or later

## **Ordering Information**

Cisco Configuration Professional is available as a free download from Cisco.com for all supported platforms. Refer to Table 3 for a list of supported platforms. To download a copy of Cisco Configuration Professional, visit <a href="http://www.cisco.com/go/ciscocp">http://www.cisco.com/go/ciscocp</a>.

Cisco Configuration Professional is also orderable on a CD with integrated services routers and integrated services routers–G2.

To place an order, visit the Cisco Direct Order page and refer to Table 11.

Table 9. Information for Cisco Configuration Professional

Cisco Configuration Professional Part Number	Description
CCP-CD ISR-CCP-CD	Cisco Configuration Professional software is shipped on a CD. Cisco Configuration Professional Express is also embedded in the flash of the router. A default router configuration file is placed in both the flash and NVRAM of the router. The default router configuration file allows a user to connect to the Cisco Configuration Professional to set up the router for the very first time.
CCP-CD-NOCF ISR-CCP-CD-NOCONF	Cisco Configuration Professional software is shipped on a CD. Cisco Configuration Professional Express is also embedded in flash of the router. A default router configuration file is placed in only the flash of the router. No default router configuration file is available in the NVRAM of the router.
CCP-EXPRESS ISR-CCP-EXP	Cisco Configuration Professional CD is not shipped on a CD with the router. Only Cisco Configuration Professional Express is embedded in flash of the router. A default router configuration file is placed in both the flash and NVRAM of the router. The default router configuration file allows a user to connect to the Cisco Configuration Professional to set up the router for the very first time.
CCP-EXPRESS-NOCF ISR-CCP-EXP-NOCONF	Cisco Configuration Professional CD is not shipped with the router. Cisco Configuration Professional Express is embedded in the flash of the router. A default router configuration file is available in only the flash of the router. No default router configuration file is available in the NVRAM of the router.
ISR-CCP-CD=	Spare SKU for ISR-CCP-CD

### To Download the Software for Free

Visit the <u>Cisco Software Center</u> and search for Cisco Configuration Professional to download the latest Cisco Configuration Professional software that can be installed on a PC.

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Services from Cisco and our certified partners can help you reduce the cost and complexity of branch-office deployments. We have the depth and breadth of experience across technologies to architect a blueprint for a branch-office solution to meet your company's needs. Planning and design services align technology with business goals and can increase the accuracy, speed, and efficiency of deployment. Technical services help maintain operational health, strengthen software application functionality, solve performance issues, and lower expenses. Optimization services are designed to continually improve performance and help your team succeed with new technologies. For more information, visit <a href="http://www.cisco.com/go/services">http://www.cisco.com/go/services</a>.

### For More Information

For more information about Cisco Configuration Professional, visit <a href="http://www.cisco.com/go/ciscocp">http://www.cisco.com/go/ciscocp</a> or contact your local Cisco account representative.



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