Cisco Configuration Professional for Cisco Access Routers

Product Overview

Cisco® Configuration Professional has two types: Cisco Configuration Professional and Cisco Configuration Professional Express. Both Cisco Configuration Professional and Express are GUI-based device-management tools for Cisco Integrated Services Routers (ISRs).

Cisco Configuration Professional is a PC-based application that provides the device management for ISRs. It simplifies router, firewall, intrusion prevention system (IPS), VPN, unified communications, WAN, LAN, and basic wireless configuration through easy-to-use wizards.

Cisco Configuration Professional Express, a lightweight version of Cisco Configuration Professional, is an embedded device manager that is available on the router flash memory and can be used to configure some of the LAN and WAN interfaces and basic configurations to bootstrap the router.

Cisco Configuration Professional tools are valuable productivity-enhancing tools 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 tools have configuration checks built into the application, thereby reducing errors.

Cisco Configuration Professional replaces the Cisco Router and Security Device Manager (SDM). Like SDM, Cisco Configuration Professional assumes a general understanding of networking technologies and terms but assists individuals unfamiliar with the Cisco command-line interface (CLI). To find out when a new version of Cisco Configuration Professional is available for download, visit http://www.cisco.com/go/ciscocp periodically.

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 and Express are device-management tools that your business can use to address these challenges. Cisco Configuration Professional provides in-depth configuration GUI screens to help you easily configure complex routing, security, and voice features in the router. Cisco Configuration Professional Express provides a GUI on the box to configure the WAN and LAN and bootstrap the router to be able to reach to a centralized management system.

Cisco Configuration Professional Express

As indicated previously, the Cisco Configuration Professional Express GUI is available on the router flash memory (Figure 1). The router comes with a default configuration, and Cisco Configuration Professional Express can be accessed through a browser by using the WAN IP address.using HTTP. Cisco Configuration Professional Express provides the necessary functions to bootstrap the routers. The user interface supports basic features including different WAN and LAN interfaces, static routes, user management, Domain Name System (DNS), Dynamic Host Configuration Protocol (DHCP), and Hostname configurations. It also provides the ability to configure the server on the router. The capability allows the router to get the complete configuration downloaded automatically from the ready-to-use server. Savvy users of the Cisco IOS® Software CLI can execute and configure the Cisco IOS Software CLI on the routers using Cisco Configuration Professional Express. In addition, Express provides basic utility tools such as ping and traceroute as basic troubleshooting tools.

Figure 1.   Cisco Configuration Professional Express Admin Portal

The Cisco Configuration Professional Express supports two portal views:

- Cisco Configuration Professional Express Admin Portal: Administrators use the Admin View for router administrative tasks such as setting up WAN uplinks and creating VLANs, IP routes, users, DHCP, and so on. For details about the Admin portal, visit: http://www.cisco.com/en/US/docs/net_mgmt/cisco_configuration_professional_express/v2_7/guides/admin guide/CCPExpress_Admin_Guide.html.
- Cisco Configuration Professional Express End User Portal: Administrators can set up the End User View so that users can access it to associate switch ports to VLANs, and to create new Service Set Identifiers (SSIDs) for wireless interfaces. For details about the End User Portal, visit: http://www.cisco.com/en/US/docs/net_mgmt/cisco_configuration_professional_express/v2_7/guides/usergu ide/ccp_express_EndUser_Guide.html.

Table 1 lists the features that Cisco Configuration Professional Express supports, and Table 2 lists the Cisco router products and software releases that Cisco Configuration Professional Express 2.7 and later support.

Table 1.   Cisco Configuration Professional Express Supported Features

Feature	Support Details
Setting up WAN	Provides the interface to enable DNS, DHCP, Hostname, and setup wired WAN such as Ethernet; and dialer, wireless WAN such as third- and fourth-generation (3G and 4G, respectively) interfaces
VLAN	Provides the ability to create a new VLAN and associate one or more Layer 2 interfaces to it
Static routing	Allows you to add, edit, and delete IP routes to a destination interface or IP address from IPv4 or IPv6 subnets
User management	Allows you to create, edit, and delete users who are local to the router; you can specify privilege levels and a password hashing algorithm
Router Diagnostics	Dashboard view allows to view the memory and processor statistics of the router
Plug and Play	Allows to configure Plug and Play server from which the router can obtain full configuration and IOS image updates
Command Line Interface	Allows to configure or run IOS CLI commands that can be directly executed from routers command prompt
Setting up Wi-Fi	Enables to setup a new SSID, the associated VLAN, security scheme and the encryption keys
Troubleshooting	Trace and ping commands allow the user to do basic troubleshooting of the network and device connectivity

Table 2.   Cisco Configuration Professional Express 2.7 and Later Supported Cisco Router Products and Software Releases

| Model	Earliest IOS M train version supported Cisco CP Express 2.7	Earliest IOS T train version supported Cisco CP Express 2.7
Cisco 812 series	15.2(4)M2	No T trains available
Cisco 819 series	15.2(4)M2	15.3(1)T
Cisco 860 series	15.2(4)M2	15.3(1)T
Cisco 880 series	15.2(4)M2	15.3(1)T
Cisco 890 series	15.2(4)M2	15.3(1)T
Cisco 1900 series	15.2(4)M2	15.3(1)T
Cisco 2900 series	15.2(4)M2	15.3(1)T
Cisco 3900 series	15.2(4)M2	15.3(1)T

Cisco Configuration Professional

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 2) 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

Figure 2. Cisco Configuration Professional Homepage with Configuration Options
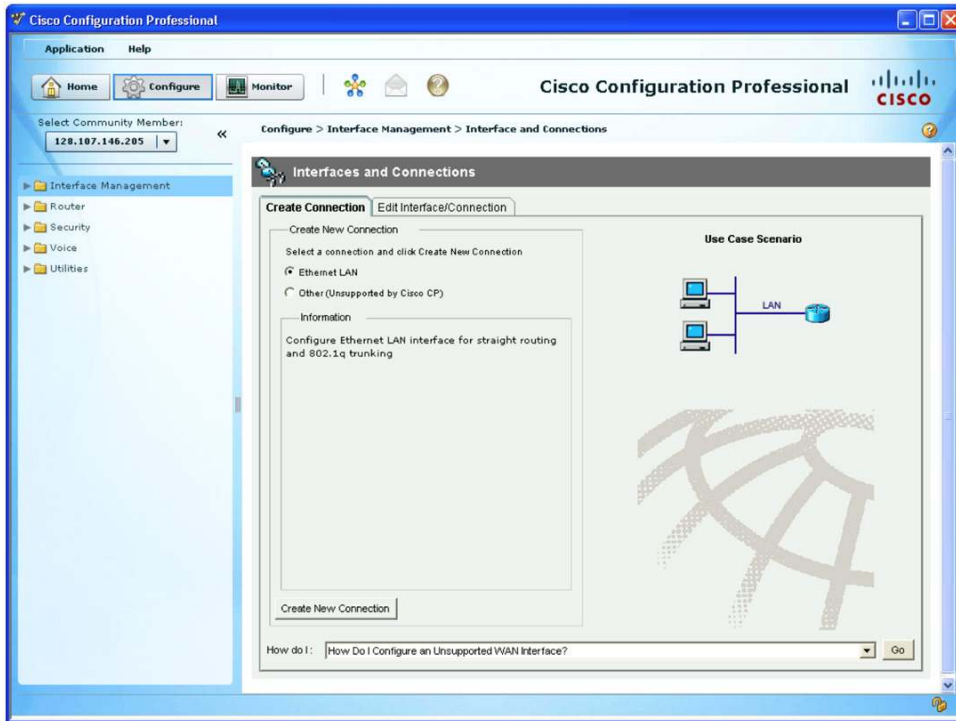
Cisco Configuration Professional smart wizards guide you step-by-step through router configuration workflow by systematically configuring LAN and WAN interfaces, firewalls, IPSs, and IP Security (IPsec) VPNs. These smart wizards can intelligently detect incorrect configurations and propose fixes, such as allowing 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.

When invoked on an already configured router, Cisco Configuration Professional allows you to perform one-step security audits (Figure 3) 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.

Figure 3. Security Audit
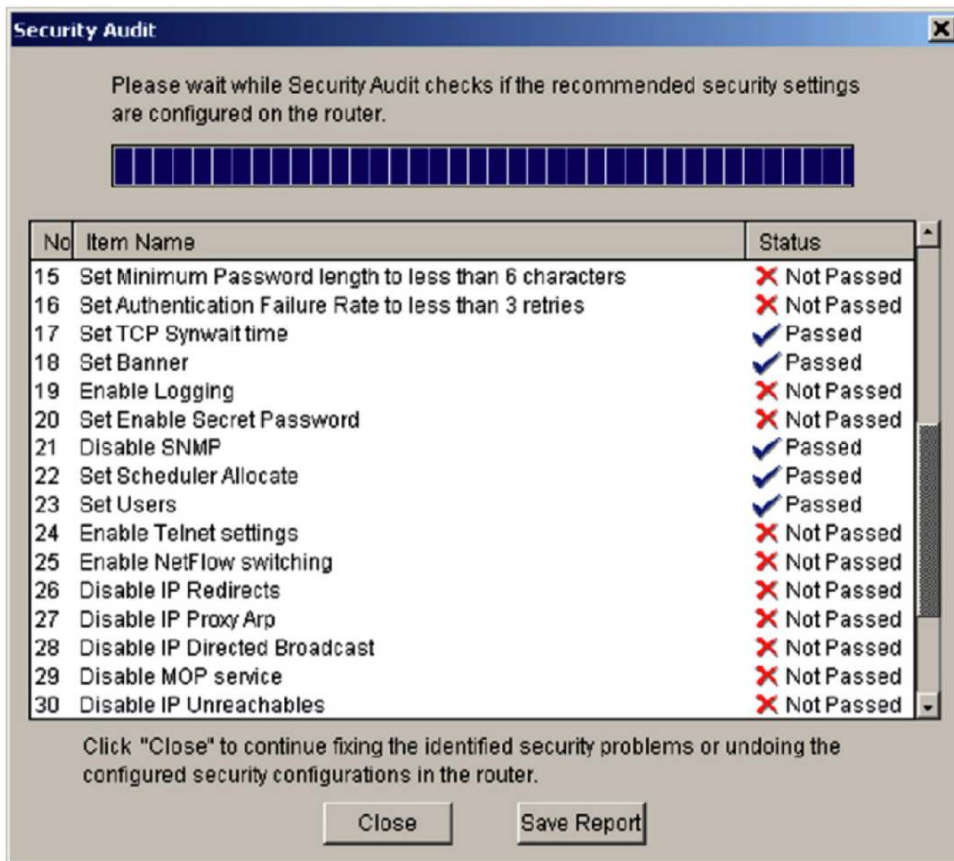
Integrated Voice Configuration

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, and 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 4).

Figure 4.   Setting Up and Configuring the System
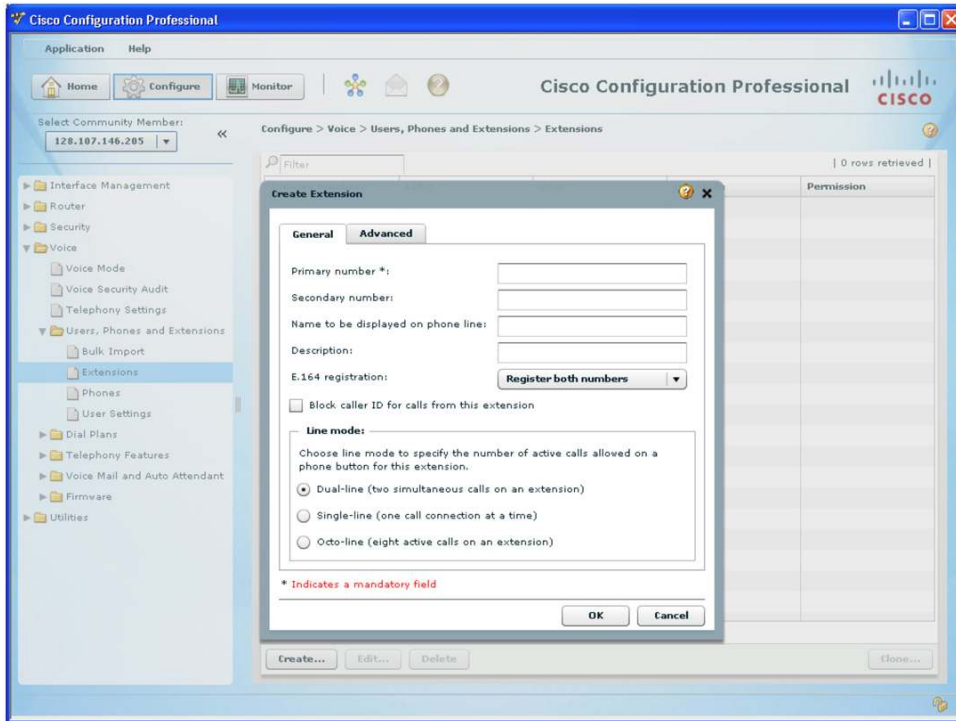
Cost Savings

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 3 lists features and benefits, and Table 4 lists supported voice features of Cisco Configuration Professional.

Table 3.   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. • 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	• Sales representatives can use this feature to showcase 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

Feature	Benefit
	or Cisco IOS Software.
Smart wizards for most frequent router and security configuration tasks	• Smart wizards avert misconfigurations with integrated routing and security knowledge. • They reduce network administrators' training needs for new Cisco IOS Software security features. • 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. • The integration of routing, LAN, WAN, and security features on the router allows for detailed troubleshooting of IPsec VPNs or WAN links.
Quality-of-service (QoS) policy	• WAN and VPN bandwidth and application performance for different business needs (voice and video, enterprise applications, web, etc.) are easily optimized. • 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	• Administrators can proactively manage router resources and security before they affect mission-critical applications on the network.
Real-time network and router resource monitoring	• This monitoring offers faster and easier analysis of router resource and network resource usage. • It offers graphical charts for LAN and WAN traffic and bandwidth usage.
Task-based Cisco Configuration Professional user interface	• This interface provides for faster and easier configuration of security configurations - IPsec VPNs, firewall, access control lists (ACLs), IPSs, etc. • The interface provides a quick snapshot of router services configuration through the dashboard view on the homepage.
Cisco Configuration Professional Express wizard-based deployment of router	• Router deployment for basic WAN access configurations is quick and easy. • This router deployment tool is ideal for nonexpert users.
Digital certificates	• Digital certificates offer a highly scalable and more secure solution than preshared keys. • Digital certificates are now easy to use, and they deploy with the combination of Cisco Configuration Professional, Cisco IOS Software Certificate Authority Server, and the 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.
	• 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.
	• It offers factory-default profiles:
	  ○ Administrator
	  ○ Firewall administrator
	  ○ Easy VPN client user
	  ○ Monitor-only view

User profiles (view-based access control)	• This feature allows for view-based access controls. • It allows Cisco value-added resellers and service providers to offer access to only certain screens of the Cisco Configuration Professional user interface.
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 4.   Cisco Configuration Professional Supported Voice Features

Voice Feature	Support Details
Voice system features	Paging groups and paging number, ad hoc 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 soft keys, call forward all, call forward busy, call forward no answer, monitor, overlay, share, and extension templates
Voicemail	Voicemail initialization, systemwide default setting, message waiting indicator, and mailbox
Time-division multiplexing	T1 Primary Rate Interface (T1-PRI) and single-line TDM trunk (Basic Rate Interface [BRI], direct inward dialing

Voice Feature	Support Details
(TDM) trunks	[DID], and foreign exchange office [FXO])
Phones	Analog phones and IP phones (including phone load support); only skinny endpoints are supported
Dial plan	Class of restriction, basic telephone service dial plan, VoIP dial plan, and 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 MGCP or SIP or H.323 protocol for communication from the gateway when in gateway mode

Tables 5 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 5. 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), Group Encrypted Transport 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 the 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, wireless LAN (WLAN), date and time, Network Time Protocol (NTP), DNS, SSHv2, management access policy, dynamic DNS, 802.1x Layer 2 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 6. Cisco Configuration Professional Supported Cisco Router Products and Software Releases

Router Model	Earliest Cisco Configuration Professional Supported Cisco IOS Software Release
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
Cisco 890 Series	15.0(1)M
Cisco 1801, 1802, and 1803	12.4(9)T
Cisco 1805	12.4(15)XY
Cisco 1811 and 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 7. Cisco Configuration Professional Supported Cisco Integrated Services Router and Cisco Integrated Services Routers Generation 2 (ISR G2) Interfaces (WAN Interface Cards [WICs] and High-Speed WICs [HWICs]) and Modules (Advanced Integration Modules [AIMs] and Network Modules [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-I-DG, 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-ADSL-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, and AIM-IPS-K9
Internal service modules (ISMs)	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
Cisco EtherSwitch 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 8. Cisco Configuration Professional Supported Cisco Phones

Cisco Phones	Models
Phones	Cisco ATA 180 Series Analog Telephone Adaptors; Cisco IP Communicator (IPC); and 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, 7970G, 7971G, 7975G, and 7985G models
Supported Cisco Unified IP Phone Expansion Modules	Cisco Unified IP Phone Expansion Module 7914, 7915-12, 7915-24, 7916-12, and 7916-24 models
Supported Cisco Unified IP Conference Stations	Cisco IP Conference Station 7935 and Cisco Unified IP Conference Station 7936 and 7937G models

Table 9. 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, and VIC3 -2FXS-EDID
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 later
Cisco Unified Communications Manager Express version support	Version 4.0 and higher

Client System Requirements

Table 10 lists client system requirements.

Table 10.   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	• Sun JRE 1.5.0_11 up to 1.6.0_16 • Adobe Flash Player Version 10.0.12.36 and later
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 6.0 or later

Ordering Information

The Cisco Configuration Professional Express Admin portal comes by default on the supported router. The End User portal needs to be installed by network admins looking to provide end-user network setting changes. The portal software can be downloaded from the software download center for free at: http://www.cisco.com/cisco/software/type.html?mdfid=281795035&catid=null.

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 http://www.cisco.com/go/ciscocp. Cisco Configuration Professional is also orderable on a CD with ISR and ISR G2 routers. You can also download it for free; visit the software download center at: http://www.cisco.com/cisco/software/type.html?mdfid=281795035&catid=null to download the latest Cisco Configuration Professional software that can be installed on a PC.

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

Table 11.   Cisco Configuration Professional and Express Ordering Information

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.

Cisco Services for the Branch Office

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 functions, solve performance problems, and lower expenses. Optimization services are designed to continually improve performance and help your team succeed with new technologies. For more information, please visit http://www.cisco.com/go/services.

For More Information

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

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