

Cisco Configuration Assistant

Configuring Your Business' Entire Routing, Switching, Wireless, Security and Voice Network with a Single, Easy-to-Use Tool

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, reliable, and performing 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. For smaller organizations with limited IT resources, configuring all routing, switching, wireless, and voice solutions in the network for optimal security and performance can be especially challenging.

Now, Cisco has created a comprehensive, easy-to-use network configuration tool that addresses all of these challenges. Cisco Configuration Assistant simplifies the task of configuring, deploying, and administering Cisco network solutions and provides everything you need to quickly set up a small office network. Purpose-built for small and mid-sized business networks serving eight to 250 users, this PC-based application with a simple graphical user interface (GUI) discovers all devices in the network and dynamically configures all routers, switches, and wireless access points and controllers as well as Cisco Unified Communications call-routing and voicemail systems. After the network is deployed, you also can use Cisco Configuration Assistant to generate status reports, synchronize passwords, and upgrade software across all of your Cisco network devices. Together, these capabilities improve the security and performance of your network and substantially reduce the time your IT staff must devote to network deployment and configuration—allowing them to focus on your business priorities.

A Comprehensive Communications Solution

Cisco Configuration Assistant is an integral component of the Cisco Smart Business Communications System. This integrated system of voice, security and wireless networking products provides an affordable, comprehensive communications solution that is easy to deploy and use while allowing for business growth. With the Cisco Smart Business Communications System, even smaller organizations can provide employees and customers with secure anywhere, anytime access to the information they need to communicate and interact more effectively. The solution is complemented by award-winning support and flexible financing options delivered through local Cisco partners.

Cisco Configuration Assistant was purpose-built to provide comprehensive configuration, deployment, and ongoing network management support for the entire line of products in the Cisco Smart Business Communications System. (For a list of all supported devices and limits, see Table 1.)

Simplified Configuration

A single configuration error in just one device in your network can impede the performance of your essential business applications and leave your business vulnerable to a damaging security breach, so proper device configuration is critical. However, even a small office network can contain a wide range of routing, switching, wireless, and voice solutions. Manually configuring all of them can be a tedious and time-consuming task. Cisco Configuration Assistant reduces the time and effort your IT staff must devote to device configuration by simplifying this process through an easy-to-use GUI. This integrated approach encompasses:

- **Voice configuration:** To manually configure a Cisco IP telephony system, you would need to configure the Cisco Unified Communications Manager Express call processing and Cisco Unity[®] Express voicemail applications embedded in your Cisco Integrated Services Router, as well as configure your network routers and switches to support voice communications. Alternatively, Cisco Configuration Assistant can interact with and configure all voice applications and devices dynamically. Simply access the telephony services through the phone icon on the Cisco Configuration Assistant dashboard to easily set up, configure, and apply security to your router and phone system.
- **Router configuration:** Cisco Configuration Assistant supports router configurations and port settings from LAN and WAN interface configurations. The tool makes it easy to assign IP addresses and subnet masks and change the status of Dynamic Host Configuration Protocol (DHCP), among other capabilities.
- **Router security configuration:** Cisco Configuration Assistant allows users to activate the most commonly used Cisco IOS[®] Software security features, including Network Address Translation (NAT), firewalls, and VPNs. The tool guides users to select appropriate parameters that meet the security needs of their network, based on Cisco best practices for network security that have been validated by Cisco network design engineers.
- **Switch configuration:** Cisco Configuration Assistant provides a quick and easy way to configure ports on switch devices. The tool enables dynamic virtual LAN (VLAN) assignment of voice and data traffic and simplifies activation of quality of service (QoS), security, and Power over Ethernet (PoE) features.
- **Wireless configuration:** Because airwaves can cross physical security boundaries, proper security on wireless LANs (WLANs) is essential. Cisco Configuration Assistant can configure either a single access point or multiple access point networks. For standalone access points, Cisco Configuration Assistant guides users through the configuration of Secure Set Identifier (SSID), authentication, and encryption. It will also configure multiple access point networks and supports controller-based solutions such as the Cisco Mobility Express solution.

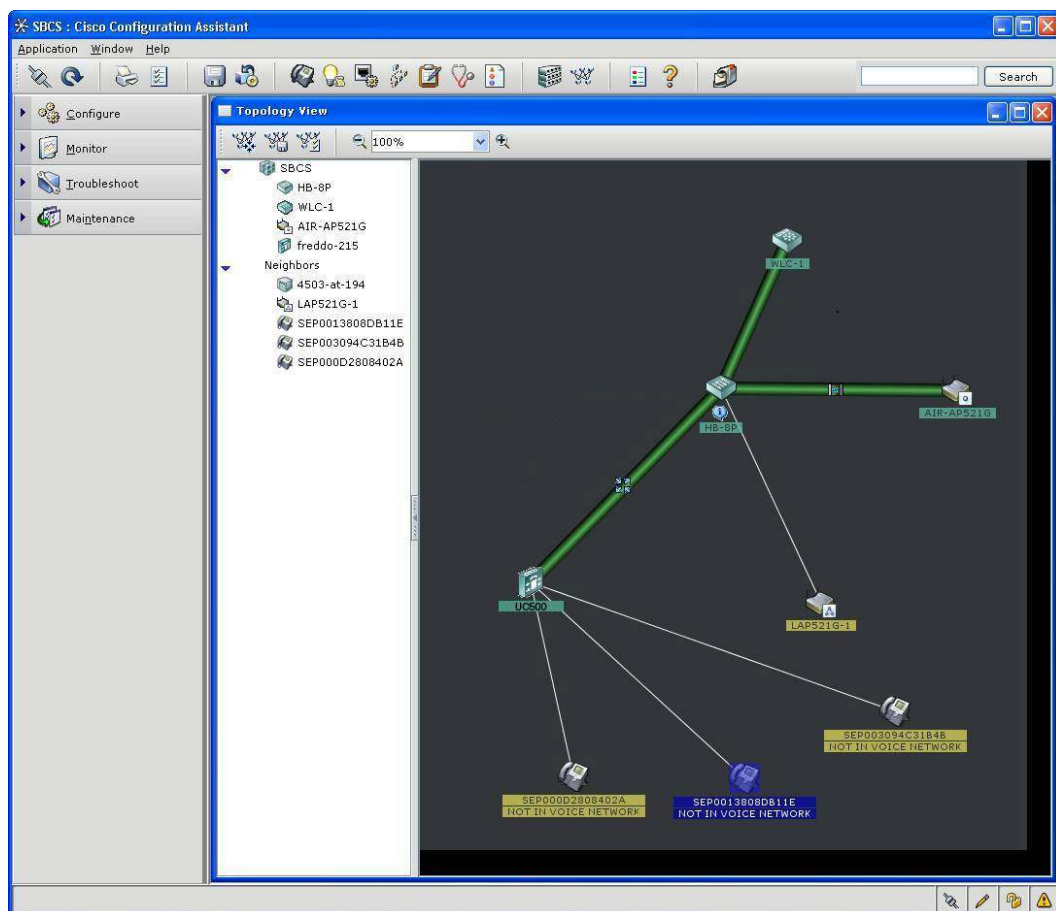
Cisco Configuration Assistant Features

Cisco Configuration Assistant provides the following features and benefits:

- **Holistic, network-level insight through multiple network views**—Users can access devices and monitor the network from two perspectives: the physical Topology View or the Front Panel View. The rich Topology View graphically represents the types of devices in the network as well as detailed information about device status, physical connections, and various monitoring capabilities—all from a single view. The Front Panel View displays all switches and routers in the network simultaneously, along with the state, duplex, and speed

of ports. The Front Panel View also allows users to apply features across multiple ports or multiple switches when configuring features such as VLANs. In addition, users can verify optimal ongoing network performance by generating comprehensive, real-time reports of network inventory and health.

Figure 1. The Topology View graphically represents the types of devices in the network and provides detailed information about device status and physical connections



- **Simplified topology mapping and deployment through dynamic discovery**—Cisco Configuration Assistant’s unique discovery capabilities provide users with total control when discovering network devices to create a community. Users can discover devices by entering a seed IP, range IP, subnet IP, or a single IP address. This feature provides more flexibility and time savings when designing the topology.
- **Clear separation of services through VLAN highlighting**—From the Topology View, users can associate VLAN numbers with colors to quickly view what devices are in a VLAN. Devices that are associated with more than one VLAN display two or more colors with a striped effect.
- **Customization with annotated text**—Users can add additional text under devices in the Topology View to further describe aspects of the network, such as the name of a building, floor, or closet.
- **Improved network visibility with continual health monitoring**—Users can quickly assess the status of switches and routers, including packet errors; temperature; PoE status; and bandwidth, CPU, memory, and ternary content addressable memory (TCAM)

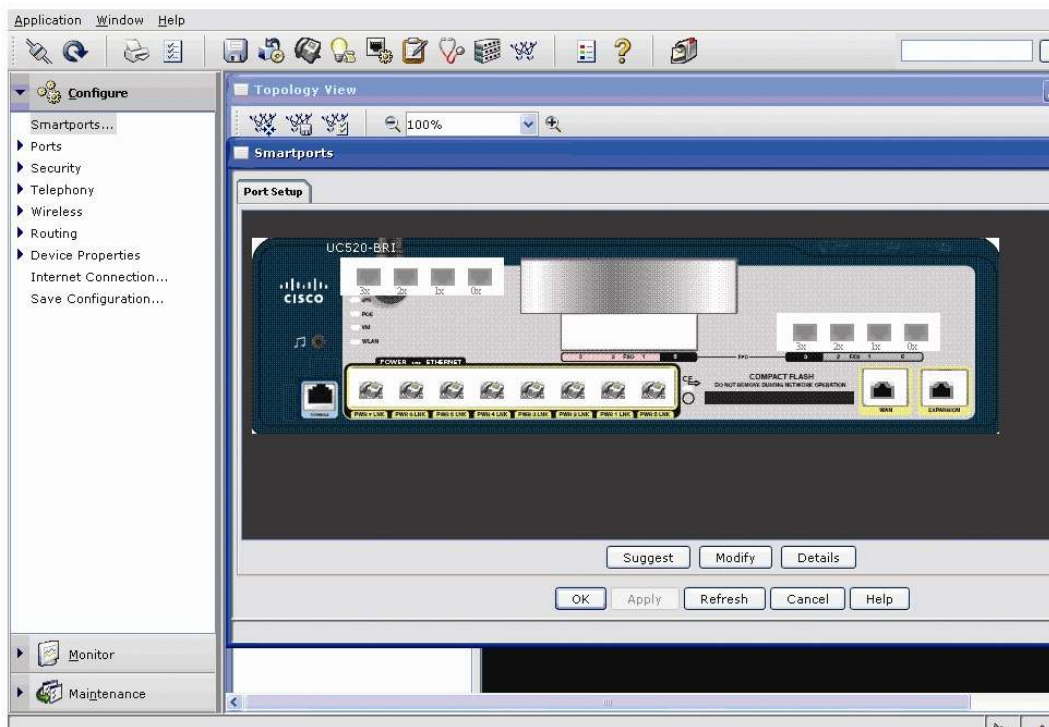
usage—all from a single window. Users can select the specific health categories to monitor. For each category selected, the switch with the highest usage is displayed in the quick view. Users can access a more comprehensive view by clicking the “Details” button.

- **Simplified network reporting**—Users can print easy to read reports such as bandwidth utilization. The enhanced print option even allows users to print the Topology View or Front Panel View on one page using the “fit to page” option.
- **Enhanced security for configuration and monitoring activities**—Cisco Configuration Assistant provides a secure connection between the Cisco Configuration Assistant client and each connected device in the network to safeguard all sensitive information.
- **Increased IT staff efficiency through simplified software updates**—The drag-and-drop Cisco IOS Software Upgrade feature simplifies the process of upgrading the Cisco IOS Software on a Cisco Catalyst[®] switch or Cisco router or access point. Users can download the latest software version by simply dragging the update’s icon from the PC desktop and dropping it onto the icon of the target device depicted in the Topology View. This process eliminates the need to use the specific Cisco IOS Software filename or select a specific Trivial File Transfer Protocol (TFTP) server IP address when performing updates. This process can also be use to deploy Cisco Unified Express images, phone loads, music on hold files and language packs onto the router.
- **Improved network security and performance with dynamic application updates**—Users can stay up-to-date on the latest versions and security patches of Cisco Configuration Assistant through dynamic application updates. With this function, users can be assured that when a newly purchased Cisco device is added to the network, it is automatically supported and secured with the latest update.
- **Enhanced ability to identify and address issues**—The Event Notification feature alerts users if a potential problem arises with a device in the network, if a configuration change is required, or if a new version of Cisco Configuration Assistant is available for download. A dialog box provides all necessary information regarding the event, including time; description; and, if applicable, suggestions to resolve the problem.
- **Enhanced productivity of partners and guests**—Cisco Configuration Assistant’s Guest Port feature allows businesses to easily configure guest access ports on their switch, providing visiting guests with Internet access and allowing them to establish VPN connectivity to their company resources. Guest Port users are separated from internal network traffic so that confidential “internal access only” information and services remain secure from unauthorized guest users.
- **Increased security and performance through network synchronization**—This feature detects inconsistent settings in the network such as VLAN mismatches, centralized time, and security policies. Working with the Troubleshooting Advisor, users can detect and fix these inconsistencies easily.
- **Simplified troubleshooting**—Embedded in the application is the Troubleshooting Advisor, which simplifies troubleshooting by automatically identifying potential network problems and documenting them with a graphical trend chart. Examples include cabling problems, configuration errors, and other potential network problems. Users receive an explanation of the issue and often can correct the problem with a simple mouse click.
- **Enhanced IT staff effectiveness through comprehensive online support**—A detailed, transparent help function embedded in Cisco Configuration Assistant provides an extensive glossary and powerful search engine that help users quickly and easily find the information

they need to apply specific settings. With these online help features, users often can troubleshoot and resolve problems without having to call for technical support.

- Faster network configuration and improved network performance through intelligent port configuration**—Cisco Configuration Assistant includes the Cisco Smartports Advisor, which discovers devices connected in the network and recommends appropriate Cisco best practice configurations for security, availability, and QoS features on switch ports. This feature saves time by proactively recommending Cisco best practices and removes the need for network administrators to consult detailed design guides or documentation. The feature allows network administrators to configure ports more quickly; eliminates human error; and helps ensure the configuration of the switch, router, or access point is optimized for the business' applications.

Figure 2. Cisco Smartports Advisor allows roles to be assigned to specific ports and automatically optimizes performance for the attached Cisco device



- Improved IT staff efficiency and effectiveness when securing the network**—Users can centrally configure security and access for Cisco Catalyst switches. Users simply choose the desired level of security (low, medium, or high) on the Security Slider in Cisco Configuration Assistant. The low setting (default) provides port security and protection against broadcast storms. The medium setting adds MAC address authentication. The high setting adds IEEE 802.1x authentication for media-level access control, providing the capability to permit or deny network connectivity and control VLAN access based on user or machine identity.

A Better Way to Deploy and Configure Business Networks

With so much depending on your network, you cannot afford to leave your business vulnerable to the performance degradation and security vulnerabilities that can arise in an improperly configured network. Cisco Configuration Assistant provides a comprehensive, easy-to-use network configuration solution. As an integral component of the Cisco Smart Business Communications

System, Cisco Configuration Assistant improves the performance and security of your essential business applications, simplifies the deployment of new technologies, and dramatically improves the efficiency and effectiveness of your IT staff.

For more information about Cisco Configuration Assistant or to download the tool free of charge, visit www.cisco.com/go/configassist.

Supported Devices

Table 1 describes supported devices.

Table 1. Cisco Configuration Assistant 1.0 Managed and Supported Devices

Cisco Catalyst Express 500 Series Switches	
Part Number	Product
WS-CE500-24TT	24 10/100 ports and 2 10/100/1000BASE-T uplinks
WS-CE500-24LC	20 10/100 ports, 4 10/100 PoE ports, and 2 10/100/1000BASE-T or Small Form-Factor Pluggable (SFP) uplinks
WS-CE500-24PC	24 10/100 PoE ports and 2 10/100/1000BASE-T or SFP uplinks
WS-CE500G-12TC	8 10/100/1000BASE-T ports and 4 10/100/1000BASE-T or SFP ports
Cisco Catalyst Express 520 Series Switch	
WS-CE520-8PC-K9	Catalyst Express 520 8 10/100 PoE + 1 GE Combo Port
Cisco Unified Communications 500 Series for Small Business	
UC520-8U-4FXO-K9	8 User configuration with 4 PSTN trunks (FXO), 4 Analog ports (FXS), 8 PoE ports, 1 VIC slot for expansion Feature licenses for call control, voicemail and Cisco Unified IP Phones
UC520-8U-2BRI-K9	8 User configuration with 2 BRI trunks (BRI), 4 Analog ports (FXS), 8 PoE ports, 1 VIC slot for expansion Feature licenses for call control, voicemail and Cisco Unified IP Phones
UC520-16U-4FXO-K9	16 User configuration with 4 PSTN trunks (FXO), 4 Analog ports (FXS), 8 PoE ports, 1 VIC slot for expansion Feature licenses for call control, voicemail and Cisco Unified IP Phones Note: requires an eight (8) port Cisco Catalyst Express 520 switch with 8 user call control feature license
UC520-16U-2BRI-K9	16 User configuration with 2 BRI trunks (BRI), 4 Analog ports (FXS), 8 PoE ports, 1 VIC slot for expansion Feature licenses for call control, voicemail and Cisco Unified IP Phones Note: requires an eight (8) port Cisco Catalyst Express 520 switch with 8 user call control feature license
UC520W-8U-4XFO-K9	8 User configuration with 4 PSTN trunks (FXO), 4 Analog ports (FXS), 8 PoE ports, 1 VIC slot for expansion Integrated Wi-Fi Access Point Feature licenses for call control, voicemail and Cisco Unified IP Phones
UC520W-8U-2BRI-K9	8 User configuration with 2 BRI trunks (BRI), 4 Analog ports (FXS), 8 PoE ports, 1 VIC slot for expansion Integrated Wi-Fi Access Point Feature licenses for call control, voicemail and Cisco Unified IP Phones
UC520W-16U-4FXO-K9	16 User configuration with 4 PSTN trunks (FXO), 4 Analog ports (FXS), 8 PoE ports, 1 VIC slot for expansion Integrated Wi-Fi Access Point Feature licenses for call control, voicemail and Cisco Unified IP Phones
UC520W-16U-2BRI-K9	16 User configuration with 2 BRI trunks (BRI), 4 Analog ports (FXS), 8 PoE ports, 1 VIC slot for expansion Integrated Wi-Fi Access Point Feature licenses for call control, voicemail and Cisco Unified IP Phones
	Cisco Unified Communications Manager Express
	Cisco Unity Express

Cisco 850 Series Integrated Services Routers	
CISCO851-K9	Cisco 851 Ethernet to Ethernet Router
CISCO851W-G-A-K9	Cisco 851 Ethernet to Ethernet Wireless Router; Americas
CISCO851W-G-E-K9	Cisco 851 Ethernet to Ethernet Wireless Router; Europe
CISCO851W-G-J-K9	Cisco 851 Ethernet to Ethernet Wireless Router; Japan
CISCO857-K9	Cisco 857 ADSL Router
CISCO857W-G-A-K9	Cisco 857 ADSL Wireless Router; U.S. and Americas
CISCO857W-G-E-K9	Cisco 857 ADSL Wireless Router; Europe
Cisco 870 Series Integrated Services Routers	
CISCO871-K9	Cisco 871 Ethernet to Ethernet Router
CISCO871W-G-A-K9	Cisco 871 Ethernet to Ethernet Wireless Router; U.S./Americas
CISCO871W-G-E-K9	Cisco 871 Ethernet to Ethernet Wireless Router; Europe
CISCO871W-G-J-K9	Cisco 871 Ethernet to Ethernet Wireless Router; Japan
CISCO876-K9	Cisco 876 ADSL over ISDN Router
CISCO876W-G-E-K9	Cisco 876 ADSL over ISDN Wireless Router
CISCO877-K9	Cisco 877 ADSL Router
CISCO877W-G-A-K9	Cisco 877 ADSL Wireless Router: U.S./Americas
CISCO877W-G-E-K9	Cisco 877 ADSL Wireless Router; Europe
CISCO878-K9	Cisco 878 G.SHDSL Router
CISCO878W-G-A-K9	Cisco 878 G.SHDSL Wireless Router; U.S./Americas
CISCO878W-G-E-K9	Cisco 878 G.SHDSL Wireless Router; Europe
Voice Interface Cards	
VIC3-2FXS/DID	2-port FXS voice/fax interface card
VIC-4FXS/DID	4-port FXS voice/fax interface card
VIC3-4FXS/DID	4-port FXS voice/fax interface card
VIC2-2FXO	2-port FXO voice/fax interface card
VIC2-4FXO	4-port FXO voice/fax interface card
VIC2-2BRI-NT/TE	2-port BRI voice/fax interface card
Cisco Mobility Express Solution	
AIR-AP521G-A-K9 AIR-AP521G-E-K9 AIR-AP521G-P-K9	Cisco 521 Wireless Express Access Point (Cisco IOS Software)
AIR-LAP521G-A-K9 AIR-LAP521G-E-K9 AIR-LAP521G-P-K9	Cisco 521 Wireless Express Access Point (Cisco Unified Wireless Network Software)
AIR-WLC526-K9	Cisco 526 Wireless Express Mobility Controller

Device Limitations

The solution supports up to 25 devices in a small office network, including:

- Five routers
- Three autonomous wireless access points
- Two wireless controllers
- Multiple Cisco IP phones (number limited to the number of switch ports in the network)

System Requirements

Table 2 describes minimum system requirements.

Table 2. Cisco Configuration Assistant 1.0 System Requirements

Operating System	Windows 2000 Professional (Service Pack 3 or later) or Windows XP Professional (Service Pack 1 or later)
Disk Space	200 MB
Hardware	PC with Pentium IV
Memory	512 MB
PC Hardware	1 GHz
Screen Resolution	1024 x 768



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