

## Cisco Network Assistant

Cisco® Network Assistant is a network management application, available for OS X and Windows, optimized for wired and wireless LANs for growing businesses that have 40 or fewer switches and routers. By using Cisco Smartports technology, Cisco Network Assistant simplifies configuration, deployment, and ongoing management and maintenance of Cisco Systems® networks. The application provides a centralized network view through a user-friendly GUI. The program allows network administrators to easily apply common services, generate inventory reports, synchronize passwords, and employ features across Cisco switches, routers, and access points. Cisco Network Assistant is available at no cost and can be downloaded from: <http://www.cisco.com/go/cna>.

### **New in Cisco Network Assistant Release 5.6**

Cisco Network Assistant 5.6 now employs an optional call home feature to help Cisco better understand in-use hardware and software features. Participating will enable customers to participate in future early field trials, and betas of exciting new Cisco software geared at making the operator's management of network hardware much easier.

### **New in Cisco Network Assistant Release 5.4**

Cisco Network Assistant 5.4 provides a straightforward way to configure Cisco Integrated Security Features (CISF). Dynamic ARP Inspection, DHCP Snooping, and IP Source Guard can be configured on Catalyst 4500 and Catalyst 4900 devices.

### **New in Cisco Network Assistant Release 5.0**

#### **Topology View Enhancements**

##### Increased Device Limits

Cisco Network Assistant now supports up to 40 devices, including any combination of supported switches and routers. The number of supported access points and IP phones is determined by the type and number of devices in the network.

##### Tree View

Devices can now be accessed from the tree view when working in the topology view. When users click a device icon in the tree view, it pops up in the topology view. All functions available by right clicking in the topology view are also available in the tree view.

##### Zoom

With the increase of devices in the topology view, users can enlarge the view of a specific segment of the topology - such as phones, routers, or a subnet. Zoom is accessible from the keyboard or the combo box located on the menu bar.

##### Enhanced Discovery

Discovery is now enhanced to allow for more control when discovering devices in the network. It is now possible to discover devices by entering a seed IP, range IP, subnet IP, or single IP address. This feature provides more flexibility and time savings when designing the topology.

### Health Monitoring

With Cisco Network Assistant, users can quickly access the status of switches, including packet errors; temperature; Power over Ethernet (PoE); and bandwidth, CPU, memory, and ternary content addressable memory (TCAM) usage - all from the same window. Users can select the health categories they wish 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.

### Power Supply Feature

The power supply features support the redundant power supplies for the Cisco Catalyst® 3500 and 3700 Series products as well as the Cisco Catalyst 4500 and 4500 E-Series power supplies. Users can prioritize the switch order for drawing power. The amount of power drawn, what switch is drawing power, and switch priority can all be easily configured and viewed. For the Cisco Catalyst 4500 and 4500 E-Series, this feature provides a convenient way to examine and configure all system and inline power settings, per device and per module.

### Power over Ethernet

The PoE feature gives users access to configure power guarantees per port, and the ability to police ports and shut faulty ones down. Users can view the power runtime status, the amount of power consumed, and the device that is connected to the port.

### Diagnostics

Administrators can keep their network healthy by running their own diagnostic tests; tests are scheduled from the Diagnostics window.

### CLI Preview

Prior to applying features, users now can view the command lines of certain features.

### File Management

The new File Management feature provides an overview of all devices in the community. At a glance the user can determine the status of all device file systems in their community. Files are displayed in an easy-to-navigate and familiar file explorer interface.

A file can be managed on all file systems concurrently. Devices that use Class B file systems, such as the Cisco Catalyst 4500 and 4500 E-Series and some Cisco routers, support functions for undeleting files and squeezing file systems to reclaim space.

### 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 candy-cane effect.

### Cross-Launch Switch Device Managers

Network administrators can now cross-launch the switch device manager from the topology view in Cisco Network Assistant by right-clicking on the device icon to access the device manager.

### Telnet Session

Users can access a Telnet session by right-clicking on a device icon from the topology view or front panel view. Cisco Network Assistant automatically derives the IP address and launches the Telnet session. This enhancement provides additional convenient access to devices.

### Printing

The enhanced print option allows users to print the Topology View or Front Panel View windows on one page using the "fit to page" option. In addition, reports are now printed in an easier-to-read format.

### Annotated Text

Additional text can be added under devices in the topology view to further describe aspects of your network, such as the name of a building, floor, or closet.

### Performance Enhancements

The following performance improvements have been implemented on Cisco Network Assistant to save time with configuration and management:

- Launching process of Cisco Network Assistant
- Loading of the topology view and discovering devices
- Accelerated Cisco Smartports propagation speed
- Concurrent multiple-port configuration propagation

### Localization

Cisco Network Assistant is available in six additional languages: Japanese, simplified Chinese, French, Italian, German, and Spanish. All portions of Cisco Network Assistant are translated; Cisco IOS<sup>®</sup> Software commands to and from a remote device will remain in English. Localized versions of Cisco Network Assistant are available for download at <http://www.cisco.com/go/cna>.

## Key Features and Benefits

### Community

Community is the next-generation discovery mechanism that allows application of common services to supported switches, routers, and access points. These services include Cisco IOS Software upgrades, configuration management, inventory reports, network events, alerts, and password synchronization.

### Community Security

Cisco Network Assistant provides a Secure Sockets Layer (SSL) connection between the Cisco Network Assistant client and each connected device in a community to help ensure security of all sensitive information.

### Drag-and-Drop Cisco IOS Software Upgrade

The Drag-and-Drop Cisco IOS Software Upgrade feature allows users to upgrade Cisco IOS Software on a Cisco Catalyst switch, router, or access point simply by dragging the Cisco IOS Software from the PC desktop and dropping it onto the icon of the target device depicted in the topology view. This process removes the requirement to type the Cisco IOS Software filename or select a particular Trivial File Transfer Protocol (TFTP) server IP address.

### Dynamic Application Update

Users can stay up-to-date on the latest versions and patches of Cisco Network 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.

### Event Notification

The new Event Notification feature alerts users when a new version of Cisco Network Assistant is available for download, if a potential problem arises with a device in your network, or if a configuration change is required. A dialogue box provides all necessary information regarding the event such as time, description, and, if applicable, suggestions to resolve the problem.

**Guest Port**

Guest Port enables companies to provide visiting guests with Internet access, thereby allowing them to establish VPN connectivity to their company resources. Guest Port users are separated from internal network traffic so that the confidential “intranet access only” information and services remain secure from unauthorized guest users.

**Network Synchronization**

This feature detects inconsistent settings in the network such as VLAN mismatches, centralized time, and security policies. Working in concert with the Troubleshooting Advisor, these inconsistencies are detected and fixed easily.

**Online Help**

A detailed, transparent help function embedded in the framework of Cisco Network Assistant provides an extensive glossary and powerful search engine that takes users to the correct (requested) window or related links to apply specific settings. Online Help empowers the user to find instruction and troubleshoot without having to call for technical support.

**Cisco Smartports Advisor**

Cisco Smartports Advisor is an embedded tool that discovers devices connected in the network and recommends appropriate Cisco best practice configurations for security, availability, and quality-of-service (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. Cisco Smartports technology saves time for network administrators; avoids human error; and helps ensure the configuration of the switch, router, or access point is optimized for these applications.

**Topology and Front Panel Views**

Users can monitor their 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 switches in the network simultaneously along with the state, duplex, and speed of switch 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, real-time comprehensive reports are available for inventory, ports, QoS, and access control list (ACL) statistics.

**Exclusive Features For The Cisco Catalyst Express 500 Series****Task-Based Menu**

Navigating through Cisco Network Assistant is intuitive and simple. The main toolbar is divided into four categories so users can easily find the important tasks and features to manage their Cisco Catalyst Express 500 Series Switch: Configure, Monitor, Troubleshoot, and Maintenance.

**Secure Wireless**

As WLAN becomes universal, enabling WLAN security is necessary, even for small businesses. Using the intelligence built into the Cisco Catalyst Express 500 Series, Cisco Network Assistant guides users through the configuration of setting up Service Set Identifier (SSID) and encryption on Cisco Aironet<sup>®</sup> wireless access points.

**Security Slider**

Network security and access to your Cisco Catalyst Express 500 Series Switches are facilitated by choosing the desired level (Low, Medium, or High) on the Security Slider in Cisco Network 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, offering the capability to permit or deny network connectivity and control VLAN access based on user or machine identity.

## Troubleshooting Advisor

The Troubleshooting Advisor offers an enhanced method of simplified 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 problem, and the corrective action is as simple as a single mouse click.

## Platforms

Table 1 lists the devices that Cisco Network Assistant 5.x supports.

**Table 1.** Managed and Supported Devices

Part Number	Description
<b>Cisco Catalyst 3750-X Series</b>	
WS-C3750X-24T-L	24 10/100/1000 Ethernet Ports + four Gigabit Ethernet or two 10 Gigabit Ethernet network module, 350W, and Cisco IOS Software, LAN Base image
WS-C3750X-48T-L	48 10/100/1000 Ethernet Ports + four Gigabit Ethernet or two 10 Gigabit Ethernet network module, 350W, and Cisco IOS Software, LAN Base image
WS-C3750X-24P-L	24 PoE+ 10/100/1000 Ethernet Ports + four Gigabit Ethernet or two 10 Gigabit Ethernet network module, 715W, and Cisco IOS Software, LAN Base image
WS-C3750X-48P-L	48 PoE+ 10/100/1000 Ethernet Ports + four Gigabit Ethernet or two 10 Gigabit Ethernet network module, 715W, and Cisco IOS Software, LAN Base image
WS-C3750X-48PF-L	48 PoE+ 10/100/1000 Ethernet Ports + four Gigabit Ethernet or two 10 Gigabit Ethernet network module, 1100W, and Cisco IOS Software, LAN Base image
WS-C3750X-24T-S	24 10/100/1000 Ethernet Ports + four Gigabit Ethernet or two 10 Gigabit Ethernet network module, 350W, and Cisco IOS Software, IP Base image
WS-C3750X-48T-S	48 10/100/1000 Ethernet Ports + four Gigabit Ethernet or two 10 Gigabit Ethernet network module, 350W, and Cisco IOS Software, IP Base image
WS-C3750X-24P-S	24 PoE+ 10/100/1000 Ethernet Ports + four Gigabit Ethernet or two 10 Gigabit Ethernet network module, 715W, and Cisco IOS Software, IP Base image
WS-C3750X-48P-S	48 PoE+ 10/100/1000 Ethernet Ports + four Gigabit Ethernet or two 10 Gigabit Ethernet network module, 715W, and Cisco IOS Software, IP Base image
WS-C3750X-48PF-S	48 PoE+ 10/100/1000 Ethernet Ports + four Gigabit Ethernet or two 10 Gigabit Ethernet network module, 1100W, and Cisco IOS Software, IP Base image
<b>Cisco Catalyst 3560-X Series</b>	
WS-C3560X-24T-L	24 10/100/1000 Ethernet Ports + four Gigabit Ethernet or two 10 Gigabit Ethernet network module, 350W, and Cisco IOS Software, LAN Base image
WS-C3560X-48T-L	48 10/100/1000 Ethernet Ports + four Gigabit Ethernet or two 10 Gigabit Ethernet network module, 350W, and Cisco IOS Software, LAN Base image
WS-C3560X-24P-L	24 PoE+ 10/100/1000 Ethernet Ports + four Gigabit Ethernet or two 10 Gigabit Ethernet network module, 715W, and Cisco IOS Software, LAN Base image
WS-C3560X-48P-L	48 PoE+ 10/100/1000 Ethernet Ports + four Gigabit Ethernet or two 10 Gigabit Ethernet network module, 715W, and Cisco IOS Software, LAN Base image
WS-C3560X-48PF-L	48 PoE+ 10/100/1000 Ethernet Ports + four Gigabit Ethernet or two 10 Gigabit Ethernet network module, 1100W, and Cisco IOS Software, LAN Base image
WS-C3560X-24T-S	24 10/100/1000 Ethernet Ports + four Gigabit Ethernet or two 10 Gigabit Ethernet network module, 350W, and Cisco IOS Software, IP Base image
WS-C3560X-48T-S	48 10/100/1000 Ethernet Ports + four Gigabit Ethernet or two 10 Gigabit Ethernet network module, 350W, and Cisco IOS Software, IP Base image
WS-C3560X-24P-S	24 PoE+ 10/100/1000 Ethernet Ports + four Gigabit Ethernet or two 10 Gigabit Ethernet network module, 715W, and Cisco IOS Software, IP Base image
WS-C3560X-48P-S	48 PoE+ 10/100/1000 Ethernet Ports + four Gigabit Ethernet or two 10 Gigabit Ethernet network module, 715W, and Cisco IOS Software, IP Base image
WS-C3560X-48PF-S	48 PoE+ 10/100/1000 Ethernet Ports + four Gigabit Ethernet or two 10 Gigabit Ethernet network module, 1100W, and Cisco IOS Software, IP Base image
<b>Cisco Catalyst 3750V2 Series</b>	
WS-C3750V2-24PS	24 Ethernet 10/100 ports with Power over Ethernet (PoE) and 2 SFP Gigabit Ethernet ports; 1 RU

Part Number	Description
<b>WS-C3750V2-48PS</b>	48 Ethernet 10/100 ports and 4 SFP Gigabit Ethernet ports; 1RU
<b>WS-C3750V2-24TS</b>	24 Ethernet 10/100 ports and 2 Small Form-Factor Pluggable (SFP) Gigabit Ethernet ports; 1 rack unit (RU)
<b>WS-C3750V2-48TS</b>	48 Ethernet 10/100 ports and 4 SFP Gigabit Ethernet ports; 1RU
<b>Cisco Catalyst 3560V2 Series</b>	
<b>WS-C3560V2-24PS</b>	24 Ethernet 10/100 ports with PoE and 2 SFP-based Gigabit Ethernet ports; 1 RU
<b>WS-C3560V2-48PS</b>	48 Ethernet 10/100 ports with PoE and 4 SFP-based Gigabit Ethernet ports; 1RU
<b>WS-C3560V2-24TS</b>	24 Ethernet 10/100 ports and 2 Small Form-Factor Pluggable (SFP)-based Gigabit Ethernet ports; 1 rack unit (RU)
<b>WS-C3560V2-48TS</b>	48 Ethernet 10/100 ports and 4 SFP-based Gigabit Ethernet ports; 1RU
<b>WS-C3560V2-24TS-SD</b>	24 Ethernet 10/100 ports and 2 SFP-based Gigabit Ethernet ports; 1RU, DC power supply
<b>Cisco Catalyst 2928 Series</b>	
<b>WS-C2928-24TC-C</b>	24 10/100 Ethernet ports + two combo Gig uplink for China Education
<b>WS-C2928-48TC-C</b>	48 10/100 Ethernet ports + two combo Gig uplink for China Education
<b>WS-C2928-24LT-C</b>	24 10/100 Ethernet ports Includes 8 PoE ports + two combo Gig uplink for China Education
<b>Cisco Catalyst 3750-E Series</b>	
<b>WS-C3750E-24TD-S</b>	24 10/100/1000 + two 10 Gigabit Ethernet (X2) ports, 265W, and IP Base Software
<b>WS-C3750E-24TD-E</b>	24 10/100/1000 + two 10 Gigabit Ethernet (X2) ports, 265W, and Cisco IOS Software IPS
<b>WS-C3750E-48TD-S</b>	48 10/100/1000 + two 10 Gigabit Ethernet (X2) ports, 265W, and Cisco IOS Software, IP Base image
<b>WS-C3750E-48TD-E</b>	48 10/100/1000 + two 10 Gigabit Ethernet (X2) ports, 265W, and Cisco IOS Software IPS
<b>WS-C3750E-24PD-S</b>	24 10/100/1000 PoE + two 10 Gigabit Ethernet (X2) ports, 750W, and Cisco IOS Software, IP Base image
<b>WS-C3750E-24PD-E</b>	24 10/100/1000 PoE + two 10 Gigabit Ethernet (X2) ports, 750W, and Cisco IOS Software IPS
<b>WS-C3750E-48PD-S</b>	48 10/100/1000 PoE + two 10 Gigabit Ethernet (X2) ports, 750W, and Cisco IOS Software, IP Base image
<b>WS-C3750E-48PD-E</b>	48 10/100/1000 PoE + two 10 Gigabit Ethernet (X2) ports, 750W, and Cisco IOS Software IPS
<b>WS-C3750E-48PD-SF</b>	48 10/100/1000 PoE + two 10 Gigabit Ethernet (X2) ports, 1150W, and Cisco IOS Software, IP Base image
<b>WS-C3750E-48PD-EF</b>	48 10/100/1000 PoE + two 10 Gigabit Ethernet (X2) ports, 1150W, and Cisco IOS Software IPS
<b>PWR-RPS2300</b>	Cisco RPS 2300 Redundant Power System
<b>Cisco Catalyst 3750 Series</b>	
<b>WS-C3750-24FS-S</b>	24 100BASE-FX and 2 Small Form-Factor Pluggable (SFP) uplinks
<b>WS-C3750-24TS</b>	24 Ethernet 10/100 ports and 2 SFP uplinks
<b>WS-C3750-48TS</b>	48 Ethernet 10/100 ports and 4 SFP uplinks
<b>WS-C3750G-24T</b>	24 Ethernet 10/100/1000 ports
<b>WS-C3750G-24TS</b>	24 Ethernet 10/100/1000 ports and 4 SFP uplinks
<b>WS-C3750G-12S</b>	12 SFP ports
<b>WS-C3750-24PS</b>	24 Ethernet 10/100 PoE ports and 2 SFP uplinks
<b>WS-C3750-48PS</b>	48 Ethernet 10/100 PoE ports and 4 SFP uplinks
<b>WS-C3750G-16TD</b>	16 Ethernet 10/100/100 ports and one 10 Gigabit Ethernet SFP uplink
<b>WS-C3750G-48PS</b>	48 Ethernet 10/100/100 PoE ports and 4 SFP uplinks
<b>WS-C3750G-48TS</b>	48 Ethernet 10/100/100 ports and 4 SFP uplinks
<b>WS-C3750G-24PS</b>	24 Ethernet 10/100/100 PoE ports and 4 SFP uplinks
<b>WS-C3750G-24TS</b>	24 Ethernet 10/100/100 ports and 4 SFP uplinks
<b>Cisco Catalyst 3560-E Series</b>	
<b>WS-C3560E-12D-S</b>	10 Gigabit Ethernet (X2) ports, IPB software
<b>WS-C3560E-12D-E</b>	10 Gigabit Ethernet (X2) ports, IPS software
<b>WS-C3560E-24TD-S</b>	24 10/100/1000 + two 10 Gigabit Ethernet (X2) ports, 265W, and Cisco IOS Software, IP Base image
<b>WS-C3560E-24TD-E</b>	24 10/100/1000 + two 10 Gigabit Ethernet (X2) ports, 265W, and Cisco IOS Software IPS
<b>WS-C3560E-48TD-S</b>	48 10/100/1000 + two 10 Gigabit Ethernet (X2) ports, 265W, and Cisco IOS Software, IP Base image

Part Number	Description
WS-C3560E-48TD-E	48 10/100/1000 + two 10 Gigabit Ethernet (X2) ports, 265W, and Cisco IOS Software IPS
WS-C3560E-24PD-S	24 10/100/1000 PoE + two 10 Gigabit Ethernet (X2) ports, 750W, and Cisco IOS Software, IP Base image
WS-C3560E-24PD-E	24 10/100/1000 PoE + two 10 Gigabit Ethernet (X2) ports, 750W, and Cisco IOS Software IPS
WS-C3560E-48PD-S	48 10/100/1000 PoE + two 10 Gigabit Ethernet (X2) ports, 750W, and Cisco IOS Software, IP Base image
WS-C3560E-48PD-E	48 10/100/1000 PoE + two 10 Gigabit Ethernet (X2) ports, 750W, and Cisco IOS Software IPS
WS-C3560E-48PD-SF	48 10/100/1000 PoE + two 10 Gigabit Ethernet (X2) ports, 1150W, and Cisco IOS Software, IP Base image
WS-C3560E-48PD-EF	48 10/100/1000 PoE + two 10 Gigabit Ethernet (X2) ports, 1150W, and Cisco IOS Software IPS
PWR-RPS2300	Cisco RPS 2300
<b>Cisco Catalyst 3560 Series</b>	
WS-C3560-24PS	24 Ethernet 10/100 PoE ports and 2 SFP uplinks
WS-C3560-48PS	48 Ethernet 10/100 PoE ports and 4 SFP uplinks
WS-C3560G-48PS	48 Ethernet 10/100/100 PoE ports and 4 SFP uplinks
WS-C3560G-48TS	48 Ethernet 10/100/100 ports and 4 SFP uplinks
WS-C3560G-24PS	24 Ethernet 10/100/100 PoE ports and 4 SFP uplinks
WS-C3560G-24TS	24 Ethernet 10/100/100 ports and 4 SFP uplinks
<b>Cisco Catalyst 3550 Series</b>	
WS-C3550-12G	10 gigabit interface converter (GBIC)-based Gigabit Ethernet ports and 2 fixed 10/100/1000BASE-T ports
WS-C3550-12T	10 fixed 10/100/1000BASE-T ports and 2 GBIC-based Gigabit Ethernet ports
WS-C3550-24-DC	24 Ethernet 10/100 ports and 2 GBIC-based Gigabit Ethernet ports, DC powered
WS-C3550-24	24 Ethernet 10/100 ports and 2 GBIC-based Gigabit Ethernet ports
WS-C3550-48	48 Ethernet 10/100 ports and 2 GBIC-based Gigabit Ethernet ports
WS-C3550-24PWR	24 Ethernet 10/100 ports with integrated inline power and 2 GBIC-based Gigabit Ethernet ports
WS-C3550-24-FX	24 100BASE-FX ports and 2 GBIC-based Gigabit Ethernet ports
<b>Cisco Catalyst 2970 Series</b>	
WS-C2970G-24T	24 Ethernet 10/100/1000 ports
WS-C2970G-24TS	24 Ethernet 10/100/1000 ports and 4 SFP uplinks
<b>Cisco Catalyst 2960-S Series</b>	
WS-C2960S-48FPD-L	48 10/100/1000 PoE+ ports (PoE budget of 740 W) and 2 SFP+ module slots
WS-C2960S-48LPD-L	48 10/100/1000 PoE+ ports (PoE budget of 370 W) and 2 SFP+ module slots
WS-C2960S-24PD-L	24 10/100/1000 PoE+ ports (PoE budget of 370 W) and 2 SFP+ module slots
WS-C2960S-48TD-L	48 10/100/1000 ports and 2 SFP+ module slots
WS-C2960S-24TD-L	24 10/100/1000 ports and 2 SFP+ module slots
WS-C2960S-48FPS-L	48 10/100/1000 PoE+ ports (PoE budget of 740 W) and 4 SFP module slots
WS-C2960S-48LPS-L	48 10/100/1000 PoE+ ports (PoE budget of 370 W) and 4 SFP module slots
WS-C2960S-24PS-L	24 10/100/1000 PoE+ ports (PoE budget of 370 W) and 4 SFP module slots
WS-C2960S-48TS-L	48 10/100/1000 ports and 4 SFP module slots
WS-C2960S-24TS-L	24 10/100/1000 ports and 4 SFP module slots
WS-C2960S-48TS-S	48 10/100/1000 ports and 2 SFP module slots
WS-C2960S-24TS-S	24 10/100/1000 ports and 2 SFP module slots
<b>Cisco Catalyst 2960 Series with LAN Base</b>	
WS-2960-TTL	24 10/100 ports and two 10/100/1000 uplinks, Cisco IOS Software, LAN Base image
WS-2960-TC-L	24 10/100 ports and 2 dual-purpose uplinks, Cisco IOS Software, LAN Base image
WS-2960-48TTL	48 10/100 ports and two 10/100/100 uplinks, Cisco IOS Software, LAN Base image
WS-2960-48TC-L	48 10/100 ports and 2 dual-purpose uplinks, Cisco IOS Software, LAN Base image
WS-C2960G-48TC-L	44 10/100/1000BASE-T ports and 4 T/SFP (combo uplink ports, use as copper or SFP)

Part Number	Description
WS-C2960G-24TC-L	20 10/100/1000 ports and 4 dual-purpose uplinks, Cisco IOS Software, LAN Base image
WS-C2960-8-TC-S	8 10/100 + 1 T/SFP LAN Base Lite Image
<b>Cisco Catalyst 2960 LAN Lite Series</b>	
WS-C2960-24-S	24 10/100 LAN Lite Image
WS-C2960-24TC-S	24 10/100 + 2 T/SFP LAN Lite Image
WS-C2960-48TT-S	48 10/100 ports and two 10/100/1000 uplinks, Cisco IOS Software, LAN Lite image
WS-C2960-48TC-S	48 10/100 + 2 T/SFP LAN Lite Image
<b>Cisco Catalyst 2955 Series</b>	
WS-C2955T-12	12 Ethernet 10/100 ports and 2 fixed 10/100/1000BASE-T ports
WS-C2955C-12	12 Ethernet 10/100 ports and 2 fixed 100BASE-FX ports
WS-C2955S-12	12 Ethernet 10/100 ports and 2 fixed 1000BASE-LX ports
<b>Cisco Catalyst 2950 Series</b>	
WS-C2950-12	12 10/100 ports, Cisco IOS Software, Standard image
WS-C2950-24	24 10/100 ports, Cisco IOS Software, Standard image
WS-C2950C-24	24 10/100 ports and 2 fixed 100BASE-FX ports, Cisco IOS Software, Enhanced image
WS-C2950G-12	12 10/100 ports and 2 GBIC-based Gigabit Ethernet ports, Cisco IOS Software, Enhanced image
WS-C2950G-24	24 10/100 ports and 2 GBIC-based Gigabit Ethernet ports, Cisco IOS Software, Enhanced image
WS-C2950G-48	48 10/100 ports and 2 GBIC-based Gigabit Ethernet ports, Cisco IOS Software, Enhanced image
WS-C2950G-24-DC	24 10/100 ports and 2 GBIC-based Gigabit Ethernet ports, Cisco IOS Software, Enhanced image, DC powered
WS-C2950SX-24	24 10/100 ports and 2 fixed 1000BASE-SX ports, Cisco IOS Software, Standard image
WS-C2950SX-48	48 10/100 ports and 2 fixed 1000BASE-SX ports, Cisco IOS Software, Standard image
WS-C2950T-24	24 10/100 ports and 2 fixed 10/100/1000BASE-T ports, Cisco IOS Software, Enhanced image
WS-C2950T-48	48 10/100 ports and 2 fixed 10/100/1000BASE-T ports, Cisco IOS Software, Enhanced image
WS-C2950ST-8LRE	8 Long Reach Ethernet (LRE) ports, two 10/100/1000 ports, and 2 SFP module uplinks
WS-C2950ST-24LRE	24 LRE ports, two 10/100/1000 ports, and 2 SFP module uplinks
<b>Cisco Catalyst 2940 Series</b>	
WS-C2940-8TT	8 Ethernet 10/100 ports and 1 fixed 10/100/1000BASE-T port
WS-C2940-8TF	8 Ethernet 10/100 ports, 1 fixed 100BASE-FX port, and 1 fixed 1000BASE-X SFP uplink
<b>Cisco Catalyst 3500XL Series</b>	
WS-C3508G-XL	8 GBIC-based Gigabit Ethernet ports
WS-C3512-XL	12 10/100 ports and 2 GBIC-based Gigabit Ethernet ports
WS-C3524-XL	24 10/100 ports and 2 GBIC-based Gigabit Ethernet ports
WS-C3524-PWR-XL	24 10/100 inline power ports and 2 GBIC-based Gigabit Ethernet ports
WS-C3548-XL	48 10/100 and 2 GBIC-based Gigabit Ethernet ports
<b>Cisco Catalyst 2900XL Series</b>	
WS-C2912-LRE-XL	4 10/100 ports and 12 LRE ports
WS-C2924-LRE-XL	4 10/100 ports and 24 LRE ports
WS-C2912-XL	12 10/100 ports
WS-C2924C-XL	24 10/100 ports and 2 100BASE-FX ports - 8 Mbps only
WS-C2924-XL	24 10/100 ports - 8 Mbps only
WS-C2912MF-XL	12 100BASE-FX ports and 2 expansion slots
WS-C2924M-XL	24 10/100 ports and 2 expansion slots
<b>Catalyst Express 500 Series</b>	
WS-CE500-24TT	24 10/100 ports and 2 10/100/1000BASE-T uplinks
WS-CE500-24LC	29 10/100 ports, four 10/100 PoE ports, and two 10/100/1000BASE-T or SFP uplinks



Part Number	Description
<b>WS-CE500-24PC</b>	24 10/100 PoE ports and two 10/100/1000BASE-T or SFP uplinks
<b>WS-CE500G-12TC</b>	8 10/100/1000BASE-T ports and four 10/100/1000BASE-T or SFP ports
<b>Catalyst Express 520 Series</b>	
<b>WS-CE520-24TT-K9</b>	24 10/100 ports and 2 10/100/1000BASE-T uplinks
<b>WS-CE520-24LC-K9</b>	29 10/100 ports, four 10/100 PoE ports, and 2 10/100/1000BASE-T or SFP uplinks
<b>WS-CE520-24PC-K9</b>	24 10/100 PoE ports and 2 10/100/1000BASE-T or SFP uplinks
<b>WS-CE520-8PC-K9</b>	8 10/100 PoE ports and 1 10/100/1000 BASE-T or SFP uplink
<b>WS-CE520G-24TC-K9</b>	24 10/100/1000 ports and 2 10/100/1000BASE-T or SFP uplinks
<b>Cisco Catalyst 4500 Series and 4500 E-Series</b>	
<b>WS-X4908-10G-RJ45</b>	8 port 10GBASE-T RJ-45 half card
<b>WS-C4948E</b>	48 10/100/1000(RJ45)+4 10GbE(SFP+)
<b>WS-C4948E-F</b>	48 10/100/1000(RJ45)+4 10GbE(SFP+) with Back-to-Front Airflow
<b>WS-X45-SUP7-E</b>	4500E Supervisor Engine 7-E
<b>WS-X4748-RJ45V+E</b>	4500E 48-Port PoE 802.3at 10/100/1000 (RJ45)
<b>WS-X4712-SFP+E</b>	4500E Series 12-Port 10GbE (SFP+)
<b>WS-X4612-SFP-E</b>	4500E Series 12-Port GE (SFP)
<b>WS-C4948</b>	48-port 10/100/1000 fixed with 4-Gb SFP ports
<b>WS-C4948-10GE</b>	48-port 10/100/1000 fixed with 2 10 Gigabit Ethernet ports
<b>WS-C4900M</b>	M Series 8-port base system
<b>WS-C4503-E</b>	E-Series 3-slot chassis
<b>WS-C4506-E</b>	4500E-Series 6-slot chassis
<b>WS-C4507R-E</b>	4500E-Series 7-slot chassis
<b>WS-C4510R-E</b>	4500E-Series 10-slot chassis
<b>WS-X4507R+E</b>	Catalyst 4500E; 7-slot chassis for 48 Gb/s per slot
<b>WS-X4510R+E</b>	Catalyst 4500E; 10-slot chassis for 48 Gb/s per slot
<b>WS-C4503</b>	3-slot chassis
<b>WS-C4506</b>	6-slot chassis
<b>WS-C4507R</b>	7-slot chassis with redundancy
<b>WS-C4510R</b>	10-slot chassis with redundancy
<b>WS-X4013+10GE</b>	Supervisor Engine II-Plus-10GE
<b>WS-X4013+TS</b>	Supervisor Engine II-Plus-TS
<b>WS-X4013+</b>	Supervisor Engine II-Plus
<b>WS-X4515</b>	Supervisor Engine IV
<b>WS-X4516</b>	Supervisor Engine V
<b>WS-X4516-10GE</b>	10 Gigabit Supervisor Engine V
<b>WS-X45-SUP6-E</b>	E-Series Sup 6-E
<b>WS-X45-SUP6L-E</b>	Catalyst 4500 E-Series Supervisor Engine 6L-E
<b>WS-F4531</b>	NetFlow Services Daughter Card
<b>WS-F4541</b>	NetFlow Services Daughter Card
<b>WS-X4648-RJ45V-E</b>	E-Series 48-port PoE 802.3af 10/100/1000(RJ45)
<b>WS-X4648-RJ45V+E</b>	E-Series 48-port premium PoE 10/100/1000
<b>WS-X4624-SFP-E</b>	E-Series 24-Port GE (SFP)
<b>WS-X4606-X2-E</b>	E-Series 6-port 10 Gigabit Ethernet (X2)
<b>WS-X4124-FX-MT</b>	24-port Fast Ethernet 100BASE-FX, multimode fiber with MT-RJ connectors
<b>WS-X4124-RJ45</b>	24-port 10/100 with RJ-45 connectors

Part Number	Description
WS-X4148-RJ	48-port 10/100 with RJ-45 connectors
WS-X4148-RJ21	48-port Ethernet 10/100-Mbps with 4 telco connectors
WS-X4148-RJ45V	Prestandard PoE 10/100, 48-port (RJ-45)
WS-X4148-FE-LX-MT	48-port Fast Ethernet 100BASE-LX10, single-mode fiber with MT-RJ connectors
WS-X4148-FX-MT	48-port Fast Ethernet 100BASE-FX, multimode fiber with MT-RJ connectors
WS-X4224-RJ45V	24-port 10/100 PoE 802.3af-compliant with RJ-45 connectors
WS-X4232-GB-RJ	32-port Ethernet 10/100 and 2 GBIC uplinks
WS-X4248-RJ45V	48-port 10/100 PoE 802.3af-compliant with RJ-45 connectors
WS-X4248-RJ21V	48-port 10/100 PoE 802.3af-compliant with telco connectors
WS-X4424-GB-RJ45	24-port 10/100/1000 with RJ-45 connectors
WS-X4418-GB	18 GBIC ports
WS-X4448-GB-RJ45	48-port Ethernet 10/100/100 with RJ-45 connectors
WS-X4448-LX	48-port 1000BASE-X, SFP-based with LC connectors-SFP optics included
WS-X4448-SFP	48-port 1000BASE-X ports, SFP-based with LC connectors
WS-X4248-FE-SFP	48-Port 100BASE-X (SFPs Optional)
WS-X4548-GB-RJ45	Enhanced 48-port 10/100/1000 with RJ-45 connectors
WS-X4524-GB-RJ45V	24-port 10/100/1000 PoE 802.3af-compliant with RJ-45 connectors
WS-X4548-GB-RJ45V	48-port 10/100/1000 PoE 802.3af-compliant with RJ-45 connectors
WS-X4920-GB-RJ45	20 port 10/100/1000 RJ45
WS-X4302-GB	2 GBIC ports
WS-X4306-GB	6 GBIC ports
WS-X4506-GB-T	6-port 10/100/1000 PoE 802.3af-compliant or SFP-based
WS-X4948-10GE	Gigabit Ethernet Module with 48 fixed 10/100/1000BASE-T ports and 2 X2-based ports
WS-X4904-10GE	4 port wire speed 10GE card
WS-X4908-10GE	8 port 2:1 10 GE card
PWR-C45-1000 AC	1000 WAC Power Supply (data only)
PWR-C45-1300 ACV	1300 WAC Power Supply (data and PoE)
PWR-C45-2800 ACV	2800 WAC Power Supply (data and PoE)
PWR-C45-1400 AC	1400 WAC Power Supply (data only)
PWR-C45-1400 DC-P	1400 WDC Power Supply with integrated power entry module (PEM)
PWR-C45-4200 ACV	4200 WAC Power Supply (with integrated PoE)
PWR-C49M-1000AC	4900M AC power supply, 1000 watts
PWR-C49M-1000DC	4900M DC power supply, 1000 watts
<b>Industrial Ethernet Switches</b>	
IE-3000-4TC	Cisco IE 3000 Switch, 4 10/100 + 2 T/SFP
IE-3000-8TC	Cisco IE 3000 Switch, 8 10/100 + 2 T/SFP
IEM-3000-8TM	Cisco IE 3000 Expansion Module, 8 10/100
IEM-3000-8FM	Cisco IE 3000 Expansion Module, 8 100FX
<b>Rockwell</b>	
1783-MS06T	Rockwell Stratix 8000 4-Port base switch
1783-MS10T	Rockwell Stratix 8000 8-Port base switch
1783-MX08T	Rockwell Stratix 8000 8-port copper expansion module
1783-MX08F	Rockwell Straix 8000 8-port fixed fiber expansion module
<b>Blade Switches</b>	
<b>Cisco Catalyst 3020 Blade Switches for HP</b>	

Part Number	Description
<b>WS-C3020-HPQ</b>	16 internal 1000BASE-X ports, 8 10/100/1000 copper ports and 4 shared SFP module slots
<b>WS-CBS3125G-S</b>	Cisco Catalyst Blade Switch 3125G for HP
<b>WS-CBS3125X-S</b>	Cisco Catalyst Blade Switch 3125X for HP
<b>Cisco Catalyst 3030 Blade Switch for Dell</b>	
<b>WS-C3030-DEL-S</b>	10 Internal 1000BASE-TX ports, 2 external 10/100/1000 ports, and 4 SFP module slots
<b>WS-C3030-DEL-F</b>	10 Internal 1000BASE-TX ports, 2 external 10/100/1000 ports, and 4 SFP module slots
<b>Cisco Catalyst Blade Switch 3040 for Fujitsu Siemens Computers</b>	
<b>WS-CBS-3040-FSC</b>	10 Internal 1000BASE-X ports, 2 external 10/100/1000 copper ports and 4 SFP module slots
<b>Cisco Intelligent Gigabit Ethernet Switch Modules for IBM Blade Center</b>	
<b>WS-CBS3012-IBM-I</b>	Cisco Catalyst Switch Module 3012 for IBM BladeCenter
<b>WS-CBS3012-IBM</b>	Cisco Catalyst Switch Module 3012 for IBM BladeCenter
<b>OC-CIGESM-18TT-EBU</b>	14 internal 1000BASE-X ports and 4 external 10/100/1000 copper ports
<b>WS-CBS3110G</b>	14 internal 1000BASE-X ports and 4 external 10/100/1000 copper ports
<b>WS-CBS3110G (telco connectors)</b>	8 Ethernet 10/100/1000 ports, and 1 port 1000BASE-T Ethernet port
<b>WS-CBS3110X</b>	14 internal 1000BASE-X ports and 1 external 10 Gigabit Ethernet X2 module slot
<b>Routers</b>	
<ul style="list-style-type: none"> <li>• Cisco 800 Series Routers (for small offices and home offices)</li> <li>• Cisco 1700 Series Modular Access Routers</li> <li>• Cisco 1800 Series Integrated Services Routers</li> <li>• Cisco 2600 Series Multiservice Platforms</li> <li>• Cisco 2800 Series Integrated Services Routers</li> <li>• Cisco 3700 Series Multiservice Access Routers</li> <li>• Cisco 3800 Series Integrated Services Routers</li> <li>• Cisco EtherSwitch® Modules for Integrated Services Routers</li> </ul>	
<b>NME-16ES-1G</b>	One 16-port 10/100 Cisco EtherSwitch Service Module with one 10/100/1000 port and Cisco IOS Software, IP Base image
<b>NME-16ES-1G-P</b>	One 16-port 10/100 Cisco EtherSwitch Service Module with 802.3af, one 10/100/1000 port, and Cisco IOS Software, IP Base image
<b>NME-X-23ES-1G</b>	One 23-port 10/100 Cisco EtherSwitch Service Module with one 10/100/1000 port and Cisco IOS Software, IP Base image
<b>NME-X-23ES-1G-P</b>	One 23-port 10/100 Cisco EtherSwitch Service Module with 802.3af, one 10/100/1000 port with 802.3af, and Cisco IOS Software, IP Base image
<b>NME-XD-24ES-1S-P</b>	One 24-port 10/100 Cisco EtherSwitch Service Module with 802.3af, 1 SFP uplink, and Cisco IOS Software, IP Base image
<b>NME-XD-48ES-2S-P</b>	One 48-port 10/100 Cisco EtherSwitch Service Module with 802.3af, 2 SFP uplinks, and Cisco IOS Software, IP Base image
<b>Additional Devices</b>	
<ul style="list-style-type: none"> <li>• Cisco Catalyst 6503 Series Switch with the Cisco Catalyst 6500 Supervisor Engine 32</li> <li>• Cisco PIX® 515E Security Appliance</li> <li>• Cisco ASA 5505 and ASA 5510 Adaptive Security Appliances</li> <li>• All Cisco Aironet 350 Series Access Points</li> <li>• All Cisco Aironet 1100 Series</li> <li>• All Cisco Aironet 1200 Series</li> <li>• Cisco IP Phone 7905</li> <li>• Cisco IP Phone 7910</li> <li>• Cisco IP Phone 7912</li> <li>• Cisco IP Phone 7905G</li> <li>• Cisco IP Phone 7912G</li> <li>• Cisco IP Phone 7941G</li> <li>• Cisco IP Phone 7961G</li> <li>• Cisco IP Phone 7970</li> </ul>	

## Device Limits

Cisco Network Assistant supports 40 devices in any combination. The number of access points and IP phones is limited by the number of switch ports in your network.

## System Requirements

Table 2 lists the system requirements for Cisco Network Assistant 5.0.

**Table 2.** System Requirements

System Requirements	
<b>Operating System</b>	<ul style="list-style-type: none"> <li>• Windows 2000 Professional (Service Pack 4 or later)</li> <li>• Windows 2003 Server</li> <li>• Windows XP Professional (Service Pack 2 or later)</li> <li>• Windows Vista Ultimate</li> <li>• Windows 7</li> <li>• Macintosh OS X</li> </ul>
<b>Disk space</b>	200 MB
<b>Hardware</b>	PC with 1 GHz
<b>Memory</b>	1 GB
<b>PC hardware</b>	1 GHz
<b>Screen Resolution</b>	1024 x 768

## Availability

Cisco Network Assistant 5.X is available for free at: <http://www.cisco.com/go/cna>.



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