



# Overview

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CiscoView is a graphical SNMP-based device management tool that provides real-time views of networked Cisco Systems devices. These views deliver a continuously updated physical/logical picture of device configuration and performance conditions, with simultaneous views available for multiple device sessions.

Use CiscoView to:

- View a graphical representation of the device, including component (interface, card, power supply, LED) status.
- Configure parameters for devices, cards, and interfaces.
- Monitor real-time statistics for interfaces, resource utilization, and device performance.
- Set user preferences.
- Perform device-specific operations as defined in each device package.
- Manage groups of stackable devices.

The following topics are described in this section:

- [CiscoView Features, page 1-2](#)
- [CiscoWorks Server, page 1-4](#)
- [CiscoView Security and User Roles, page 1-4](#)
- [Installing CiscoView, page 1-6](#)
- [Starting CiscoView, page 1-6](#)
- [Navigating in CiscoView, page 1-7](#)

- [Setting Debugging Options and Display Logs](#), page 1-16
- [Setting Preferences](#), page 1-17
- [Getting Help](#), page 1-19
- [Understanding CiscoView Release Versions](#), page 1-19
- [Device Packages](#), page 1-19

## CiscoView Features

CiscoView 6.1 operates in *client-server* mode. In client-server mode, the device package and basic management functionality are centrally located on the CiscoView server.

The following features are new for CiscoView:

- Internet Protocol version 6 (IPv6) functionality. When the IPv6 device package is installed, CiscoView manages IPv6 functionality using Telnet/SNMP over IPv4 transport using dual stacks. IPv6 management features are launched from the device's context menu (see [Using the Context Menu](#), page 1-14 for more information).



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**Note** For information on which devices CiscoView supports IPv6 functionality, see the IPv6 device package readme file on Cisco.com.

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- Device list and credentials from a common database. CiscoView inherits device credentials from the Device and Credential Repository (DCR), which contains a common list of devices and credentials for all installed CiscoWorks products. For more information on the DCR and the Device and Credential Admin (DCA), which provides an interface to administer the DCR, see *User Guide for CiscoWorks Common Services*.
- SNMP version 3 (SNMPv3) support. CiscoView supports SNMPv3 communication with authentication but without privacy (AuthNoPriv support) for greater security. DCA fetches SNMPv3 device credentials and gives preference to using those credentials when SNMPv1 or SNMPv2 device credentials are also present.

- Mini-RMON (Remote Monitoring) functionality. This can be used to set up alarms, collect traffic statistics for a device, and troubleshoot network-related problems. See [Appendix A, “CiscoView Mini-RMON Manager”](#) for more information.

**Note**

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For information on which devices CiscoView supports RMON functionality, see the CiscoView Mini-RMON Manager device package readme file on Cisco.com.

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- HTML-based client. CiscoView provides a lightweight, HTML-based client with added support for Netscape and Mozilla.
- Integration with Access Control Server (ACS) for finer granularity in user roles. See [CiscoView Security and User Roles, page 1-4](#) for more information.
- Integration with Software Center.

**Note**

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The functionality provided by Software Center was provided in previous releases of CiscoWorks Common Services by Package Support Updater (PSU).

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- New user interface. See [Navigating in CiscoView, page 1-7](#) for more information.

To ensure that you are set up correctly to use CiscoView and perform basic functions within CiscoView, you must perform certain tasks. For more information about your setup, see *Installation and Setup Guide for CiscoWorks Common Services 3.0 (Includes CiscoView 6.1)*.

# CiscoWorks Server

CiscoView works in conjunction with the CiscoWorks Server, which represents a common management foundation. It contains a set of management services shared by multiple management applications. These management services are enabled when a suite is installed and an application that relies on one of these services is opened.

CiscoView uses these CiscoWorks components:

- CiscoWorks Home Page
- Security
- Help Engine and Files
- Web Server
- Cisco.com User Accounts
- Device and Credential Repository (DCR)
- Groups
- Software Center

For detailed information, see *User Guide for CiscoWorks Common Services*.

## CiscoView Security and User Roles

CiscoView 6.1 supports two modes of user authentication and authorization: local and Cisco Secure Access Control Service (ACS). Local authentication and authorization is the default mode when you install CiscoView. To use Cisco Secure ACS authentication and authorization, you must have a Cisco Secure ACS server installed on your network.

By default, CiscoView 6.1 uses the CiscoWorks Server security mechanism to authenticate users and authorize them to access the application. The following roles are available to the user:

- Read-only:
  - Help Desk
  - Approver
  - Network Operator
- Read-write/Debug:
  - Network Administrator
  - System Administrator

You cannot change these roles or the privileges assigned to those roles.

You can also use Cisco Secure ACS to provide user authentication and authorization. Cisco Secure ACS allows you to create custom roles and privileges so that you can customize CiscoView to best suit your business workflow and needs. To use ACS authentication, the CiscoWorks Server roles must be mapped to groups which are then mapped to usernames. The ACS administrator maps these roles on ACS server through the ACS GUI.

When you use ACS authentication, CiscoView checks ACS to determine your user role when you log in and displays those devices that you have permission to view.

For more information on ACS and how to configure CiscoView to use ACS, see *User Guide for CiscoWorks Common Services*.

# Installing CiscoView

Before you can display a device's view for configuration and monitoring, you must install CiscoView from the CiscoWorks Common Services CD-ROM package. See *Installation and Setup Guide for CiscoWorks Common Services 3.0 (Includes CiscoView 6.1)* for detailed installation instructions. During the installation process, the most commonly used device packages are installed for you. All Cisco Systems device packages are periodically updated, and should be downloaded from Cisco.com as they become available. You can add or update device packages by using Software Center. Software Center is a component of CiscoWorks Common Services. See *User Guide for CiscoWorks Common Services* for information about how to use this utility to download device packages.

## Starting CiscoView

You can start CiscoView from one of the following launch points:

- the CiscoWorks homepage
- Device Center
- Campus Manager applications (if Campus Manager is present in the CiscoWorks bundle)

To start CiscoView from the CiscoWorks homepage, click the CiscoView tab.



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**Note**

If the CiscoView tab is maximized, you can also start CiscoView by selecting **Chassis View**.

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To start CiscoView from Device Center, follow these steps:

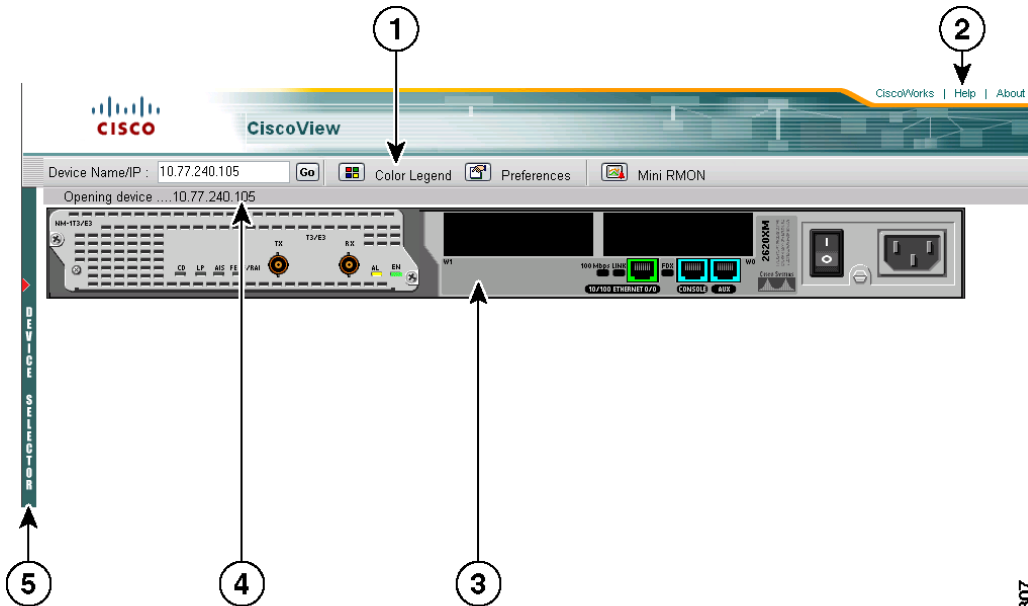
- 
- Step 1** From the **Device Troubleshooting** tab in the CiscoWorks homepage, select **Device Center**.
- Step 2** Do one of the following in the Device Selector pane:
- Select a device from the list.
  - In the provided field, enter the IP address or name of the device you want to access and then click **Go**.
- The device information page appears and displays the **Summary** and **Functions Available** panes.
- Step 3** Select **CiscoView** from the **Functions Available** pane. A graphical representation of the device chassis appears.
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For instructions on how to start CiscoView from Campus Manager applications, see *User Guide for Campus Manager 4.0*.

## Navigating in CiscoView

When you start CiscoView, the CiscoView desktop opens.

Figure 1-1 CiscoView Desktop



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1	Options bar	4	Status bar
2	Tools bar	5	Object Selector handle
3	Chassis View		

Table 1-1 describes each component on the CiscoView desktop.

**Table 1-1 CiscoView Desktop Component Descriptions**

Component	Description
Options bar	Allows you to view devices in CiscoView, access the color legend, and change preferences. See <a href="#">Table 1-2 in Using the Options Bar, page 1-10</a> for a description of each option.
Tools bar	Allows you to open the CiscoWorks homepage, access online help specific to the selected device, or find out what CiscoView version is installed. See <a href="#">Table 1-3 in Using the Tools Bar, page 1-11</a> for a description of each option.
Chassis view	<p>Displays a graphical representation of the device's back or front panel after you select a device. Device components shown are color-coded according to their status and refreshed according to the polling frequency you have defined. See <a href="#">Understanding the Color Legend, page 1-13</a> for more information on color status definitions.</p> <p><b>Note</b> If a hot swap is detected, the device is rediscovered and the display redrawn at the next poll.</p>
Status bar	Shows progress and result of device polling, refreshes, and so on. If any error occurs as a result of device polling, the error message will appear in the Status bar.
Object Selector handle	<p>Opens and closes the Object Selector (see <a href="#">Using the Object Selector, page 1-11</a>):</p> <ul style="list-style-type: none"> <li>• When the Object Selector is closed, click the handle to open it.</li> <li>• When the Object Selector is open, click the handle to close it.</li> </ul>

## Using the Options Bar

Table 1-2 describes the options on the Options bar.

**Table 1-2 Options Bar**

Option	Description
Device Name/IP field	You can enter either the name or IP address of a device and view that device within CiscoView. If the device's SNMP credentials are not listed in the DCR, you will be prompted to enter the appropriate credentials. See <a href="#">Viewing Devices Without Credentials in the DCR, page 1-16</a> for more information.
Color Legend	You can access the color legend, which defines the colors used to indicate the status of the device components. See <a href="#">Understanding the Color Legend, page 1-13</a> for more information.
Preferences	<p>You can set the following global preferences:</p> <ul style="list-style-type: none"> <li>• Length of time it will take for the SNMP request to timeout</li> <li>• How many times CiscoView tries to send an SNMP request</li> <li>• Refresh rate of chassis view (how often the device is polled)</li> <li>• MIB label shown in dialog boxes</li> <li>• Refresh rate of graphs within the device monitoring dialog box</li> </ul> <p>See <a href="#">Setting Preferences, page 1-17</a> for more information.</p> <p><b>Note</b> To set preferences—for example, to resize the chassis view—for a particular device, access the device's context menu. See <a href="#">Using the Context Menu, page 1-14</a> for more information.</p>
Mini RMON	You can launch CiscoView Mini-RMON Manager. See <a href="#">Appendix A, “CiscoView Mini-RMON Manager”</a> for more information.

## Using the Tools Bar

Table 1-3 describes the options on the Tools bar.

**Table 1-3 Tools Bar**

Item	Description
Help	<p>Opens a new window that displays context-sensitive help for the displayed page. The window also contains buttons that you use to go to the overall help contents, index, and search tool.</p> <p>See <a href="#">Getting Help, page 1-19</a> for more information.</p>
About	<p>Displays the following information:</p> <ul style="list-style-type: none"> <li>• CiscoView release version and copyrights. This information refers to the base application that runs all device packages; for example, CiscoView X.X.</li> <li>• Active device package, if applicable; for example, Cat5000 Package, Version X.X.</li> <li>• All installed device package information (version numbers shown in parentheses).</li> </ul> <p>See <a href="#">Understanding CiscoView Release Versions, page 1-19</a> for more information.</p>

## Using the Object Selector

The Object Selector lists all devices managed by the DCA, organized by group. The Object Selector is located on the left side of the CiscoView desktop. See *User Guide for CiscoWorks Common Services* for information on adding devices and setting device credentials.

Note the following:

- AUS (Auto Update Server) device and cluster members are filtered from the CiscoView device list.
- In ACS login mode, CiscoView displays only those devices that you have permission to view based on your user role. For more information on user roles and their privileges, see [CiscoView Security and User Roles, page 1-4](#).

To display a device, follow these steps:

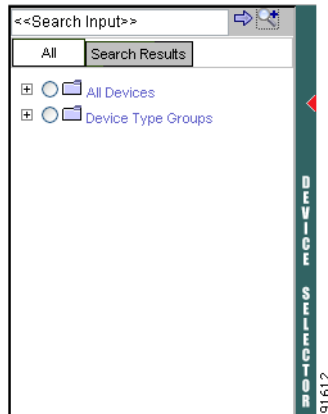
- Step 1** Click the Object Selector handle to open the Object Selector. A list of all devices managed by the DCA, organized by group, appears.

For more information on device groups, see *User Guide for CiscoWorks Common Services*.



**Note** In local CiscoWorks security mode, the Object Selector lists all devices in the DCR. In ACS security mode, the Object Selector lists the devices you have permission to view.

**Figure 1-2 Object Selector**



- Step 2** (Optional) Enter a partial IP address in the provided field and click **Filter**. The list is filtered to show only devices containing the string you entered.
- Step 3** Select a device from the list. A graphical representation of the device chassis appears.

You can view devices for which the DCR has no credentials; see [Viewing Devices Without Credentials in the DCR, page 1-16](#) for more information.

## Understanding the Color Legend

When a device is selected and displayed in the chassis view, all device components are color-coded according to their status. [Table 1-4](#) shows each color and its meaning.

**Table 1-4** Color Legend Descriptions

Color	Meaning	Description
Cyan (blue-green)	Port is dormant	Interface cannot pass packets, but is in a pending state, waiting for some external event to place it in the Up state. Interface could have: <ul style="list-style-type: none"> <li>• Packets to transmit before establishing a connection to a remote system</li> <li>• A remote system establishing a connection to the interface; for example, dialing up to a SLIP server</li> </ul> When the expected event occurs, the interface state changes to Up.
Orange/Light Brown	Port is down	Admin status is up and operational value is down. <p><b>Note</b> For Catalyst 4000, 5000, and 6000 devices, it can also indicate that the port is not connected.</p>
Red	Port failed	Hardware failure in the port or the port is not connected. <p><b>Note</b> For Catalyst 4000, 5000, and 6000 devices, orange/light brown indicates that the port is not connected.</p>
Yellow	Minor failure	Port or interface is down: both admin and operational status are down. This does not necessarily indicate a fault condition. Yellow can also indicate that the port is disabled.
Purple	Port is being tested	Admin status is up, but tests must be performed on the interface. After testing is completed, the interface state changes to Up, Dormant, or Down as appropriate.
Green	Port is active	Interface is able to send and receive packets.

## Using the Context Menu

When you select a device in CiscoView, a graphical representation of the device is displayed in the chassis view. The context menu appears when you right-click a device or its components. Its contents are context-sensitive and vary according to the device and your selection.

You can view the front or back device panel and select different components (cards, ports, power supply) and menu options to configure and monitor status for the device. To access the context menu, follow these steps:

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- Step 1** Select a device from the [Object Selector](#). A graphical representation of the device chassis appears.
  - Step 2** Right-click the device or its components. The context menu appears.
  - Step 3** Select an option to change. The context menu contents vary by device, but typically contains these options:

Option	Description
Configure	Configures device categories, such as Management, Physical, ARP Table, TCP, and so on.
Monitor	Displays a set of dynamic charts for selected device categories.
Front or Rear	Displays either the front or back device panel. A logical view can also be displayed as defined by the device package.
Resize	Reduces the graphical display down to 75% or 50%. You can resize it back up to 100%.
Refresh	Triggers component polling and display update.
System Info	Displays system MIB information (name, description, location, contact, and up-time) for a displayed device.
Device-specific options	Options defined in the device package, such as “Clear All Counters.”

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## Selecting a Device or its Components in the Chassis View

You can select the entire device, or one or more Cisco device components to configure and monitor. For example, you can configure multiple ports or multiple cards in a chassis.

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- Step 1** Select a device from the [Object Selector](#), or enter the IP address or device name in the Device Name/IP field of the [Options](#) bar and click **Go**. A graphical representation of the device chassis appears.
- Step 2** Do one of the following:
- Select the device or a single component.
    - a. Left-click on the device or component to select it. A yellow border appears around the selection. (To select the entire device, point to an area that does not contain a component before clicking.)
    - b. Right-click to display the context menu.
  - Select multiple components.
    - a. Hold down the **Ctrl** key to select several similar components at once. A yellow border appears around the selected components.
    - b. Right-click while holding down the Ctrl key to display the context menu.

**Note**

Components in the group must be defined by the device package as being of the same type.

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# Setting Debugging Options and Display Logs

You can set a SNMP and activity trace and/or view the trace log. This option records trace information into the cv.log file, which is located at *%NMSROOT%/MDC/tomcat*, where *%NMSROOT%* is the directory in which CiscoView is installed.

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- Step 1** From the CiscoView tab in the CiscoWorks homepage, select **Administration > Debug Options And Display Log**. The Trace Settings dialog box appears.
- Step 2** Select either or both of the following and then click **Apply**:
- **SNMP Trace** to display SNMP request and response pairs, MIB instance ID, data value, data type, request method, and time stamp.
  - **Activity Trace** to display server activity such as which device and dialog boxes are open.
- Step 3** Click **View Trace** to see the trace activity in a separate window.
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# Viewing Devices Without Credentials in the DCR

In CiscoView, you can view devices for which there are no credentials in the [DCR](#).

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- Step 1** In the Device Name/IP field, enter the IP address or name of the device you want to add.
- Step 2** Click **Go**. The SNMP Credentials dialog box appears.



**Note** If you enter the IP address or name of a device which has credentials configured in the DCR (and thus the [Object Selector](#)), CiscoView displays the chassis view for that device without prompting you to enter its SNMP credentials.

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- Step 3** In the Select Protocol field, select either the SNMP V3 or SNMP V1/V2C radio button, depending on the type of credentials you want to use for the device.
- Step 4** If you selected the SNMP V3 radio button, do the following:
- a. Enter the appropriate username and password.
  - b. Specify the authentication algorithm you want to use by selecting either the MD5 or SHA-1 radio button.
- If you selected the SNMP V1/V2C radio button, enter the appropriate read-only and read-write community strings.
- Step 5** Click **OK**. The device is displayed in CiscoView.
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## Setting Preferences

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- Step 1** Do one of the following:
- Click **Preferences** from the Options bar.
  - From the CiscoView tab in the CiscoWorks homepage, select **Administration > Device Preferences**.

The Device Preferences dialog box appears.

- Step 2** Specify your options, then click **Apply**.

Field	Description
Device Display Name	Select the IP address of the device you want to set preferences for.
SNMP Timeout	Enter a value (in seconds) in the field. This value represents the length of time that elapses before an SNMP request times out.
SNMP Retry Count	Enter a value in the field. This value is the amount of times an SNMP request will be sent before the request times out.

Field	Description
Chassis Polling Frequency	<p>Select a value from the list. The default value varies by device. A typical value is every 60 seconds.</p> <p>CiscoView real-time status is based on periodic SNMP queries sent to the managed device. Reducing polling frequency (for example, from 10 seconds to 120 seconds) reduces SNMP-based traffic on the network and the workstation overhead required for processing.</p>
Show MIB Label as (defaults to Alias)	Click <b>Descriptor</b> to display MIB descriptors, for example, sysName. Click <b>Alias</b> to display textual labels, for example, System Name.
Default Refresh Rate for Monitor Dialogs	Select a value from the list. The monitoring dialog is updated at the selected refresh rate.



**Note** The settings specified here are also used by CiscoView Mini-RMON Manager.

# Getting Help

- Click **Help** from the **Tools** bar. If no device is displayed, CiscoView Basics help appears. If a device is displayed, device-specific help appears.
- Click **Help** in a dialog box to display context-sensitive help for that dialog box.

**Note**

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If device-specific help appears and you want to see all CiscoView help, click Main (located in the top left pane).

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## Understanding CiscoView Release Versions

Click **About** from the **Tools** bar to display:

- CiscoView release version and copyrights. This refers to the base application that runs all device packages; for example, CiscoView X.X.
- Active device package, if applicable; for example, Cat5000 Package, Version X.X.
- All installed device package information (version numbers shown in parentheses).

## Device Packages

Cisco's routers and switches are referred to as network devices. Routers and switches must be physically installed in the appropriate chassis and connected to your network (using each specific device's hardware installation guide). A software update that enables CiscoView to support new features for a particular device is called a device package. CiscoView uses the device package to display a dynamic panel view of the physical device and all its modules, submodules, ports, and the like.

The CiscoView engine controls and manages physically connected devices through Simple Network Management Protocol (SNMP). The SNMP system consists of three parts: SNMP manager, SNMP agent, and MIB. Each installed device's SNMP agent uses sets of MIB variables that you can configure, monitor, and modify (as necessary) using CiscoView and each installed device package's software.

## Device Package Updates

CiscoView provides support for a considerable range of devices by installing device packages. Additional device packages can be added to CiscoView anytime after the initial product release or installation. When new device packages become available, they are placed on Cisco.com. Check this site to ensure that you have the latest device release. You can add or update device packages by using Software Center. Software Center is a component of CiscoWorks Common Services. For more information on using Software Center, see *User Guide for CiscoWorks Common Services*. Make sure to review the CiscoView release notes for each device package because they supply critical information, notes, and cautions about usage.