



CHAPTER 12

Network Manager Overview

This section introduces the Network Manager. Topics in this section include:

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About the Network Manager

The Network Manager is a simple-to-use network management system for Cisco IP video conferencing networks and Unified Videoconferencing deployments.

Designed with the network administrator in mind, the Network Manager provides a unified interface for managing all the devices (elements) in your video conferencing network, including:

- Cisco Unified Videoconferencing MCUs
- Cisco IOS H.323 Gatekeeper
- Cisco Unified Videoconferencing Gateways

System Requirements

The Network Manager communicates with Cisco elements using a variety of industry-standard protocols, such as SNMP, XML, Telnet and FTP.



Note

Ports supporting these protocols must be available in each element in order to be managed by the Network Manager.

What the Network Manager Provides

The Network Manager is a fully compliant network management system that provides network-wide functionality for Cisco elements.

Topics in this section include:

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Viewing Network Status

The Network Manager provides network administrators with the most critical network status information at a glance, including:

- Element information—Total number of elements, the number of faulty elements and the number of elements that are offline.
- Call information—Total number of calls in the network, the number of point-to-point calls and the number of conferences.
- Endpoint information.
- Bandwidth information—Inter-zone bandwidth usage.
- B-channel usage information.

All network status information is updated in real time by the Network Manager database.

Viewing Calls and Conferences

The Network Manager provides network administrators with a view of all calls and conferences currently taking place over the network. With these view, administrators can quickly determine:

Calls

- Source and destination alias
- Source and destination gatekeeper
- Allocated resources

One-click control allows the network administrator to view call details or to access the source or destination gatekeeper element manager per call. For more information about viewing calls with the Network Manager, see [Chapter 17, “Conferences and Calls View”](#).

Conferences

- The MCU controlling the conference.

- Conference type.
- Video and bandwidth settings.
- Number of participants—including the current number, the number reserved and the number of local participants.

One-click control allows the network administrator to link to the MCU Conference Control interface to assume full control of any conference in the list. For more information about viewing conferences with the Network Manager, see [Chapter 17, “Conferences and Calls View”](#).

Using Auto-Detect

The Network Manager uses an automatic detection mechanism for discovering the Cisco elements present on the network. This information is saved to the Network Manager database and is used to create the various network views available via the Network Manager interface. Auto-detect can be run at regular intervals and whenever the server is restarted. Auto-detect can also be manually initiated at any time. For more information, see the [“Viewing Multiple Networks” section on page 12-4](#)



Note

The access field definitions for SNMP communities and Telnet must correspond with the settings configured in the selected element in order to retrieve the information from the element. If these fields are not configured correctly, the required information cannot be displayed. For more information, see [Chapter 14, “Network Tree View”](#).

Configuring Basic Elements

The Network Manager provides network administrators with the ability to view and edit the most commonly used configuration parameters of various elements in the network, such as MCUs, gatekeepers and gateways.

Configuring an MCU

Network administrators can configure the following parameters on Cisco Unified Videoconferencing 3500 Series MCU products using the Network Manager:

- IP address
- MCU type (such as MCU or MP Only)
- GKTMP port
- LRQ hop count

Configuring a Gateway

Using the Network Manager, network administrators can configure the following Cisco Unified Videoconferencing 3500 Series Gateway parameters:

- Gatekeeper IP address
- Location

**Note**

For more information about configuring elements with the Network Manager, see [Chapter 15, “Network Map View”](#).

Viewing Alarms and Events

The Network Manager provides network administrators with a list of the alarms currently active in any of the elements in the network. The list is constantly updated by the system, ensuring that any problems are located without delay. One-click access from any alarm directly to the administration interface of the device ensures that problems can be investigated and dealt with immediately.

In addition, the Network Manager provides a list of all events that have taken place in the network. This list can be filtered by the network administrator, as required. For more information, see [Chapter 16, “Alarms View”](#).

Connecting to Element Managers

The Network Manager provides one-click access to the administration interfaces (element managers) of all the elements in the network, regardless of type, without the need to log in individually to each element. This gives network administrators the ability to perform a full range of management and configuration procedures on individual elements. Links to element managers can be found throughout the Network Manager interface, including the Alarm and Event views, the Conferences view and the various network views.

Connecting to Terminal Managers

In addition to providing one-click access to element managers, the Network Tree view of the Network Manager also provides one-click access to the Web-based management systems of some common endpoints registered to the network.

Managing a Centralized Log

The Network Manager provides centralized log management at both the network and element type levels. Using the Settings View, network administrators can define the size of the network log file, as well as the number of backups to maintain and the level of activity detail to include in the log. In addition, the Network Manager can be used to keep logs for those elements types, such as MCU elements and gateways, that do not maintain log files of their own.

Viewing Multiple Networks

The Network Manager provides network administrators with multiple options for viewing the elements in the network, including a Network Tree view with elements arranged in a tree structure according to zone, a Network Table view that displays a single, unified list of all network elements, as well as a Network Map view that displays elements and network status information in a graphic, multi-layered format. For more information about the network views, see [Chapter 14, “Network Tree View”](#).

The Network Tree view features a default view based on the zones in the IP conferencing network. However, the Network Manager also enables network administrators to create custom views. By creating folders and placing elements into them, administrators can view the network in whatever arrangement works best, such as dividing the network according to location. The views created in the Network Tree view can also be displayed in graphic format in the Network Map view.

For more information about creating custom views, see [Chapter 19, “Finding and Managing Elements”](#).

Configuring Offline

The Network Manager can hold configuration details for offline elements and apply settings as each element goes online. Both added elements and existing elements can be configured to allow offline configuration.

Defining Network Subsets

The Network Manager enables administrators to define subsets of the network and restrict users with specific profiles to control certain network areas. Administrators can configure the network subsets using criteria to include or exclude certain zones and element types.

Supporting Cisco IOS H.323 Gatekeeper

The Network Manager provides extensive monitoring, configuration and management capabilities of the Cisco IOS H.323 Gatekeeper including local and remote zone setup, bandwidth policies, prefixes, logs, debugging and Telnet commands.

Dragging and Dropping

The Network Manager provides Network Tree drag and drop functionality for convenient element hierarchy management. Element addressing details are automatically updated in the tables of related elements. This feature can be used during offline configuration.

Monitoring Calls

The Network Manager supports a comprehensive calls view detailing endpoint information, source and destination gatekeepers, bandwidth settings and call disconnection capabilities.

