

Cisco Cluster Management Suite Software

Product Overview

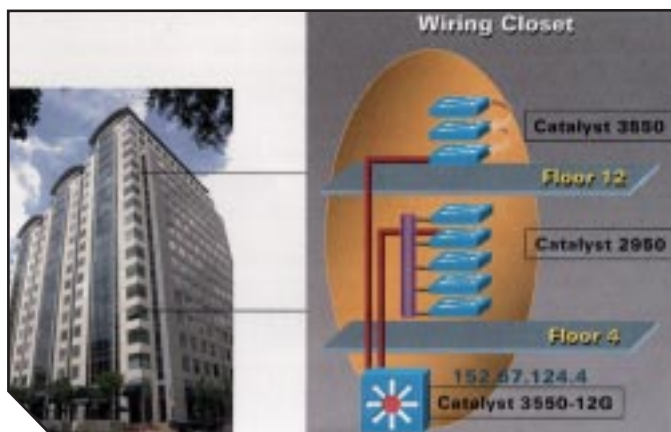
The Cisco Cluster Management Suite (CMS) Software is Web-based network management software embedded in the Cisco Catalyst® fixed-configuration switches designed for midsize enterprise and branch office networks. The software reduces the time it takes to deploy and configure multiple switches by simplifying repetitive and time-consuming network management tasks and providing monitoring and troubleshooting tools.

Cisco CMS Software is embedded in Cisco Catalyst 3550, 2950, 3500 XL, 2900 XL, and 2900 LRE XL switches, and can manage a mix of all these plus the Cisco Catalyst 1900/2820 switches in a single interface. Through Cisco Switch Clustering technology, users access Cisco CMS with any standard Web browser to manage up to 16 of these switches at once, regardless of their geographic proximity or whether they are stacked. To make network deployments and management easier, users have the option of using a single IP

address for the entire cluster if desired. With the addition of the Cisco Catalyst 3550 Series switches, Cisco CMS can now extend beyond routed boundaries for even more flexibility in managing a Cisco cluster.

Cisco CMS provides an integrated management interface for delivering intelligent services, enabling users to manage their entire LAN with one robust tool without having to learn the command-line interface (CLI). By bringing the simplicity of traditional LAN switching to the deployment of intelligent services such as multilayer switching, IP routing, quality of service (QoS), multicast, and security access control lists (ACLs), Cisco CMS allows administrators of midsized networks to deploy intelligent services at the edge.

The new Guide Mode in Cisco CMS leads the user step-by-step through the configuration of advanced features and provides enhanced online help for context-sensitive assistance. Furthermore, Cisco AVVID (Architecture for Voice, Video and Integrated Data) Wizards provide automated configuration to optimally support video streaming or videoconferencing, voice over IP (VoIP), and mission-critical applications. In addition, the Security Wizard automatically restricts unauthorized access to servers with sensitive data. These Wizards can save hours of time for network administrators, eliminate human errors, and ensure that the configuration of the switch is optimized for these applications.





How Cisco CMS Works

Cisco CMS takes advantage of Cisco switch clustering technology to manage multiple switches simultaneously. After one switch is designated as the Command Switch, simply type in its IP address in your browser and load the CMS Java Applet into your browser.¹ A cluster is then created in one step by simply selecting the desired cluster members from the switches that are automatically discovered in the Cisco CMS topology map. Cisco CMS also allows the network administrator to designate a standby or redundant Command Switch, which takes the Command Switch duties should the primary Command Switch fail. Other key features include the ability to configure multiple ports and switches simultaneously, as well as perform software updates across the entire cluster at once. Bandwidth graphs and link reports provide useful diagnostic information and the topology map gives network administrators a quick view of the network status.

Figure 1. Cluster Management Suite: Front Panel and Topology Views



1. You will need to have a compatible Java (JRE) Plug-in installed in your browser.

Product Features and Benefits

Feature	Benefit
Ease of Use	
Wizards for easy deployment	<p>Wizards make it easy to configure a combination of sophisticated technologies such as QoS and ACLs to support specific types of traffic and security, eliminating the need to know the intricacies of the technologies themselves. Wizards are fully compatible with each other so that users can take advantage of any combination of them.</p> <ul style="list-style-type: none"> • Data Wizard can be used to prioritize mission-critical data applications over less critical traffic, without having to know the details of QoS. • Voice Wizard can be used to “voice-enable” the cluster. The Wizard automatically detects Cisco IP phones and configures the switch to properly prioritize voice traffic throughout the cluster. • Video Wizard can be used to “video-enable” the cluster. The Wizard configures the feature that properly prioritizes video traffic throughout the cluster. • Security Wizard prevents unauthorized users from accessing certain parts of the network or specific servers that might have sensitive data. • Multicast Wizard configures multicast routing without having to know the details of multicast routing protocols (Cisco Catalyst 3550 switches with EMI only).
Guide Mode	<p>Guide Mode breaks down complex configurations into easy-to-understand steps, with embedded help and instructions along the way.</p>

Feature	Benefit
Ease of Use (continued)	
No installation required	<ul style="list-style-type: none"> No installation necessary and no need for a dedicated server or PC to run Cisco CMS. Cisco CMS is embedded in the switch as a free application. Auto-discovery of devices in the topology allow users to create map clusters by simply clicking on the desired candidate switches.
Sophisticated Help System	<ul style="list-style-type: none"> Embedded Help provides contextual help for the window currently open. In addition, a table of contents, index, and glossary provide easy navigation to the desired information.
Time-Saving Features	
Manage from anywhere, to anywhere	<ul style="list-style-type: none"> Manages up to 16 switches, regardless of geographical location or whether they are stacked. Use a standard web browser and manage from any PC in the network or even over a dial-up connection.
Multi-device and multi-port administration	<ul style="list-style-type: none"> Multi-device and multi-port configuration capabilities allow network administrators to save time by configuring features across multiple switches and ports simultaneously. One-click software upgrades can be performed across the entire cluster simultaneously.
Robust Functionality	
Investment Protection	<ul style="list-style-type: none"> Cisco CMS is fully backward-compatible. Thus, you can use a single interface to manage a mix of Catalyst 1900, 2900 XL, 3500 XL, 2900 LRE XL, 2950, and 3550 switches all at once.
Manage Securely	<ul style="list-style-type: none"> The HTTP port used for Cisco CMS can be changed from the standard port 80, preventing unauthorized users from breaking into the switch.
Wireless Integration	<ul style="list-style-type: none"> The Web-based management for a Cisco Aironet Wireless Access Point can be launched by simply clicking on its icon in the topology map.
Monitoring, Troubleshooting, and Reporting	
Topology View	<ul style="list-style-type: none"> Topology View displays the entire cluster as well as neighboring devices. The status of switches are displayed using color-coded schemes for quick recognition of network faults. Cisco Aironet® wireless access points, Cisco IP Phones, and Cisco Long-Reach Ethernet customer premise equipment (CPE) are optionally displayed.
Front Panel View	<ul style="list-style-type: none"> Front Panel View displays the front panel of all the switches in a cluster. The status of ports are displayed using a color-coded scheme for quick recognition of port faults. Multiple ports across multiple switches may be selected for simultaneous configuration or status information.
Fault and Event Monitoring	<ul style="list-style-type: none"> The System Messages Monitor displays a log of the most recent system messages (or syslog messages) generated by the switch so that users can quickly determine the root cause of network problems.
Performance Monitoring	<ul style="list-style-type: none"> Port Statistics displays detailed information on the traffic being transmitted and received on each interface Bandwidth Graphs show the bandwidth utilization on a switch. Link Graphs and Reports show bandwidth utilization and configuration status of specific links. QoS Reports and Graphs show the number of packets that are classified, policed, and dropped for individual or aggregate DiffServ Code Point (DSCP) values.
Inventory Report	Inventory Report provides a quick view of all the switches in the cluster, including their software version, IP address, serial numbers, and host name.
Read-only Access Mode	Read-only access mode allows technicians to use Cisco CMS for monitoring and troubleshooting without fear of accidentally changing the switch configurations.

Product System Requirements

The following requirements apply to the PC being used to load Cisco CMS from the switch.

The minimum requirement for a PC is a Pentium processor running at 233 MHz with 64 MB of DRAM. The minimum requirement for a UNIX workstation is a Sun Ultra 1 running at 143 MHz with 64 MB of DRAM.

Recommended Platform Configuration for Web-Based Management OS					
Management OS	Processor Speed	DRAM	Number of Colors	Resolution	Font Size
Windows NT 4.0	Pentium 300 MHz	128 MB	65536	1,024 x 768	Small
Solaris 2.5.1	Sparc 333 MHz	128 MB	Most colors for applications	—	Small (3)

Operating Systems

- Microsoft Windows 95 (Service Pack 1 required)
- Microsoft Windows 98, second edition
- Microsoft Windows NT 4.0 (Service Pack 3 required)
- Microsoft Windows 2000
- Solaris 2.5.1 or higher, with the Sun-recommended patch cluster for that operating system and Motif library patch 103461-24

Browsers

- Netscape Communicator 4.61 and 4.7
- Internet Explorer 5.0 and 5.5

Java Plugins

- Versions 1.2.2, 1.3.0, 1.3.1



Corporate Headquarters

Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 526-4100

European Headquarters

Cisco Systems Europe
11, Rue Camille Desmoulins
92782 Issy-les-Moulineaux
Cedex 9
France
www.cisco.com
Tel: 33 1 58 04 60 00
Fax: 33 1 58 04 61 00

Americas Headquarters

Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-7660
Fax: 408 527-0883

Asia Pacific Headquarters

Cisco Systems, Inc.
Capital Tower
168 Robinson Road
#22-01 to #29-01
Singapore 068912
www.cisco.com
Tel: +65 6317 7777
Fax: +65 6317 7799

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