Data Sheet

# Cisco
# Cluster Management Suite Software

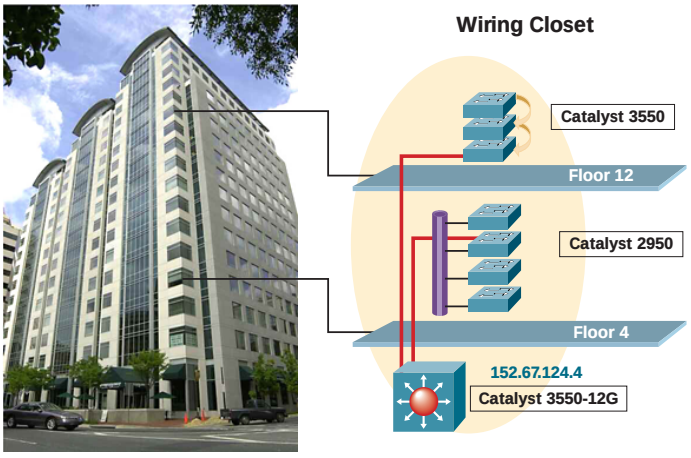
## Product Overview

The Cisco Cluster Management Suite (CMS) Software is Web-based network management software embedded in Cisco Catalyst® fixed-configuration switches designed for mid-size 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 physical proximity. 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, such as multilayer switching, quality of service (QoS), multicast, and security access control lists (ACLs). Thus, Cisco CMS allows administrators to take advantage of benefits formerly reserved for only the most advanced networks without having to learn the command-line interface (CLI) or even the details of the technology.

Figure 1 Clustering Across Multiple Wiring Closets Using a Cisco Catalyst 3550 Switch

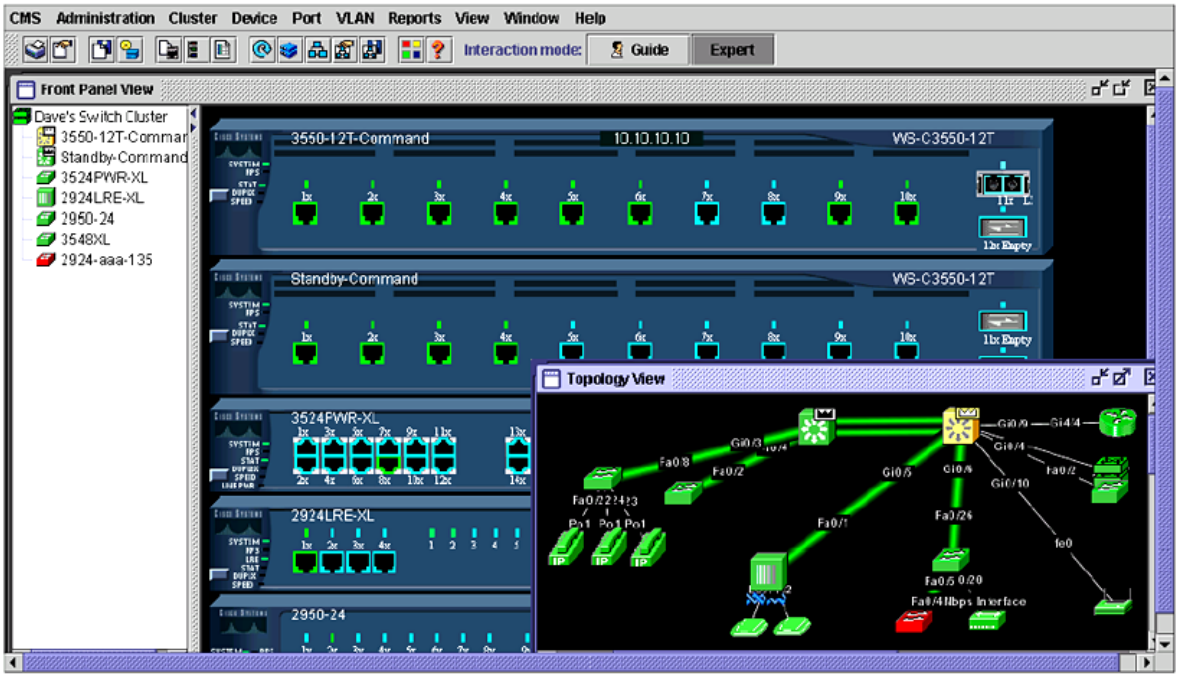



The new Guide Mode in Cisco CMS leads the user step-by-step through the configuration of advanced features and provides enhanced online help for context-sensitive assistance. Furthermore, Cisco AVVID (Architecture for Voice, Video and Integrated Data) Wizards provide automated configuration to optimally 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 and/or limits the applications allowed on the network. 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 click on the Cluster Management Suite link to 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 2 Cisco Cluster Management Suite Software: Front Panel and Topology Views




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

Table 1 Product Features and Benefits

| Feature | Benefit |
|---|---|
| **Ease of Use** | |
| **Wizards for complete intelligent network solutions** | • Wizards make it easy to configure a combination of sophisticated technologies such as quality of service (QoS) and access control lists (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.<br>• 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.<br>• Video Wizard can be used to "video-enable" the cluster. The Wizard configures the switch to properly prioritize video traffic throughout the cluster.<br>• Security Wizard prevents unauthorized users from accessing certain parts of the network or specific servers that might have sensitive data or even restrict certain types of applications on the network.<br>• Multicast Wizard configures multicast routing without having to know the details of multicast routing protocols (Cisco Catalyst 3550 switches with EMI only). |
| **Guide Mode** | • Guide Mode breaks down complex configurations into easy-to-understand steps, with embedded help and instructions along the way. |
| **Auto Link Configuration** | • VLAN trunks and EtherChannels need to be configured appropriately at both ends of a network link. With Cisco CMS, users can configure both ends of the link simultaneously and the user is warned of incorrect configurations. |
| **No installation required** | • Cisco CMS is embedded in the switch as a free application. There is no need for a dedicated server or PC to run Cisco CMS. Auto-discovery of devices in the topology allow users to create clusters by simply clicking on the desired candidate switches. |
| **Sophisticated Help System** | • 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. |
| **User-personalized interface** | • Users can tailor the polling intervals, table views, and other settings within Cisco CMS and retain these settings the next time they use Cisco CMS. |
| **Time-Saving Features** | |
| **Manage from anywhere, to anywhere** | • 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** | • Multi-device and multi-port configuration capabilities allow network administrators to save time by configuring features across multiple switches and ports simultaneously.<br>• One-click software upgrades can be performed across the entire cluster simultaneously. |
| **Configuration Cloning** | • Using a saved configuration file, apply the configuration to other devices for rapid deployment of networks. |

Table 1 Product Features and Benefits (Continued)

| Feature | Benefit |
|---|---|
| **Robust Functionality** | |
| **Broad Feature-set** | • Ability to configure intelligent services like QoS, Security ACLs, and IP Routing, as well as basic features like port security, EtherChannel®, trunking, and SNMPv1/2/3.<br>• Administrative capabilities for setting the IP address, hostname, and administrator accounts for each switch. |
| **Investment Protection** | • Cisco CMS is fully backward-compatible. A single interface can be used to manage a mix of Catalyst 3550, 2950, 3500 XL, 2900 XL, 2900 LRE XL, 1900/2820 switches all at once. |
| **Manage Securely** | • The HTTP port used for Cisco CMS can be changed to help prevent unauthorized users from breaking into the switch. |
| **Wireless Integration** | • 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** | • 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.<br>• Cisco Aironet wireless access points, Cisco IP Phones, and Cisco Long-Reach Ethernet (LRE) customer premise equipment (CPE) are optionally displayed. |
| **Front Panel View** | • Front Panel View shows 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.<br>• Multiple ports across multiple switches may be selected for simultaneous configuration or status information. |
| **Fault, Event and Performance Monitoring** | • 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.<br>• Port Statistics displays detailed information on the traffic being transmitted and received on each interface.<br>• Bandwidth Graphs show the bandwidth utilization on a switch.<br>• Link Graphs and Reports show bandwidth utilization and configuration status of specific links.<br>• QoS Reports and Graphs show the number of packets that are classified, policed, and dropped for individual or aggregate DiffServ Code Point (DSCP) values. (Catalyst 3550 Series only.) |
| **Alarm Notification** | • Provides automated email notification of network errors and alarm thresholds. |
| **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 user's PC or workstation.

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 | 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
- Microsoft Windows 2000
- Microsoft Windows 98, second edition
- Microsoft Windows NT 4.0 (Service Pack 3 required)
- 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 4.75 and 6.2
- Internet Explorer 5.5 and 6.0

### Java Plugins

- Versions 1.3.0, 1.3.1, 1.4.0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