



Network Management for the Cisco ONS 15540 ESP

The following network management applications support the Cisco ONS 15540 ESP:

- CiscoWorks 2000 CiscoView
- CiscoWorks 2000 DFM (Device Fault Manager)
- CiscoWorks 2000 Resource Manager Essentials
- CiscoWorks 2000 Campus Manager
- CTM (Cisco Transport Manager)

CiscoView

CiscoView is a device management application providing dynamic status, monitoring, and configuration information for a range of Cisco internetworking products including the Cisco ONS 15540 ESP. CiscoView displays a physical view of a device chassis, with color-coding of modules and ports for at-a-glance status. Monitoring capabilities display performance and other statistics. Configuration capabilities allow changes to devices if security privileges are granted.

Embedded CiscoView and server based CiscoView support the Cisco ONS 15540 ESP.

For information about web access to the switch, refer to “Using the Cisco Web Browser” in the IOS Configuration Fundamentals Configuration Guide at this URL:

http://www.cisco.com/univercd/cc/td/doc/product/software/ios122/122cgcr/ffun_c/ffcprt1/fcf005.htm

You can download Embedded CiscoView from Cisco.com:

<http://www.cisco.com/kobayashi/sw-center/netmgmt/ciscoview/embed-cview-planner.shtml>



Note

The download information is not available on this CD. To access the download link, you must have Cisco.com login access and a network connection.

DFM

DFM (Device Fault Manager) reports faults that occur on Cisco devices, often identifying fault conditions before users of network services realize that the condition exists. DFM analysis technology differs from the traditional rules-based approach to event analysis. DFM analysis uses a top-down approach that starts by identifying the fault conditions that affect managed systems. Each fault condition causes a set of symptoms—a problem signature—that occurs within the faulty element and in related elements. DFM creates a causality mapping between the fault conditions and the symptoms. After the fault conditions and their symptoms are identified, this information is coded in the analysis model.

Because the event information necessary to diagnose fault conditions is present in the analysis model, DFM monitors only the events necessary to diagnose the condition. DFM simplifies event analysis: there are no rules to write and the analysis model guarantees that critical fault conditions are always identified.

DFM can operate as an independent management system or can integrate with existing management applications to add fault management to the functionality already in place.

Availability

DFM is available in the LAN Management Solution, as well as an add-on for existing CiscoWorks 2000 installations. If you plan to install DFM with the full contents of the CiscoWorks2000 LAN Management Solution see the LMS Product Overview documentation and other product installation documentation for more detailed information on setting up and configuring these solutions. See the Read Me First document for the appropriate bundle for additional information.

You can download a copy of the DFM documentation from Cisco.com:

<http://www.cisco.com/univercd/cc/td/doc/product/rtrmgmt/cw2000/dfm/index.htm>

You can download DFM from Cisco.com:

<http://cisco.com/cgi-bin/tablebuild.pl/cw2000-dfm>

Resource Manager Essentials

The Resource Manager Essentials (Essentials) suite is part of the CiscoWorks family of products. It is an Enterprise solution to network management. Essentials is a powerful suite of Web-based applications offering network management solutions for Cisco switches, access servers, and routers. The Resource Manager Essentials browser interface allows easy access to information critical to network uptime and simplifies time-consuming administrative tasks.

Essentials is based on a client/server architecture that connects multiple web-based clients to a server on the network. As the number of network devices increases, additional servers or collection points can be added to manage network growth with minimal impact on the client browser application.

Taking advantage of the scalability inherent in the intranet architecture, Essentials supports multiple users anywhere on the network. The web-based infrastructure gives network operators, administrators, technicians, Help Desk staff, IS managers, and end users access to network management tools, applications, and services.

Essentials allows the network administrators to view and update the status and configuration of all Cisco devices from anywhere on the network through a standard Web browser as the Essentials client.

Essentials maintains a database of current network information. It can generate a variety of reports that can be used for troubleshooting and capacity planning. When devices are initially added to the Essentials inventory, the network administrator can schedule Essentials to periodically retrieve and update device information, such as hardware, software, and configuration files, to ensure that the most current network information is stored. In addition, Essentials automatically records any changes made to network devices, making it easy to identify when changes are made and by whom.

Essentials applications provide the network monitoring and fault information you need for tracking devices that are critical to network uptime and application availability. They also provide tools that you can use to rapidly and reliably deploy Cisco software images and view configurations of Cisco routers and switches. Essentials applications, together with links to Cisco.com service and support, automate software maintenance to help you maintain and control your Enterprise network.

Essentials works in conjunction with the CiscoWorks Server, which 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.

Essentials uses the following CiscoWorks services:

- Database engine and utilities
- Login and application-launching desktop
- Event management
- Online help system
- Job management
- Cisco Management Connection (CMC)
- Process management
- Security
- Web server

You can download a copy of the Resource Management Essentials documentation from Cisco.com:

<http://www.cisco.com/univercd/cc/td/doc/product/rtrmgmt/cw2000/cw2000e/index.htm>

You can download Resource Management Essentials from Cisco.com:

<http://cisco.com/cgi-bin/tablebuild.pl/cw2000-rme>

Campus Manager

Campus Manager (Campus) is part of the CiscoWorks family of products. As an enterprise solution to network management, Campus provides a suite of web-based network management tools that enable administrators to obtain various types of graphical views of their network topology and end-user information.

Campus is based on a client/server architecture that connects multiple web-based clients to a server on the network. As the number of network devices increases, additional servers or collection points can be added to manage network growth with little impact on the client browser application.

By taking advantage of the stability inherent in the intranet architecture, Campus supports multiple users anywhere on the network. The web-based infrastructure gives network operators, administrators, technicians, Help Desk staff, IS managers, and end-users access to network management tools, applications, and services.

Key Campus features include the following:

- Intelligent discovery and display of Layer 2 networks on browser-accessible topology maps, independent of VTP server
- Configuration of virtual LAN (VLAN)/LAN Emulation (LANE) and asynchronous transfer mode (ATM) services, and assignment of switch ports to those services
- Link and device status display based upon Simple Network Management Protocol (SNMP) polling
- Identification of Layer 2 configuration discrepancies
- Diagnostic tools for connectivity related problems between end stations, and Layer 2 and Layer 3 devices
- Automatic location and correlation of information on users by media access control (MAC), IP address, NT or NetWare Directory Services (NDS) login, or UNIX host name, with their physical connections to the switched network
- Layer 2 and Layer 3 path trace between source and destination handsets
- Export of topology maps to Visio
- Java plugins to improve graphical user interface (GUI) performance
- Ability to form Custom Groups in Topology View based on criteria like SysLocation, SysName, and IP address/subnet mask.
- Secure communication between the client browser and Campus applications using Secure Socket Layer (SSL) protocol.

You can download a copy of the Campus Manager documentation from Cisco.com:

http://www.cisco.com/univercd/cc/td/doc/product/rtrmgmt/cw2000/camp_mgr/index.htm

You can download Campus Manager from Cisco.com:

<http://www.cisco.com/cgi-bin/tablebuild.pl/cw2000-campus>

CTM

Cisco Transport Manager is the EMS (element management system) for the Cisco ONS 15540 ESP. CTM provides standard fault, configuration, performance, and security management capabilities across the element and network management layers of the TMN (Telecommunications Management Network) reference architecture. The robust client/server-based platform easily scales to manage up to 100 simultaneous client (user) sessions and up to 1000 NEs (network elements). CTM version 3.1, and later, supports the Cisco ONS 15540 ESP.

CTM GateWay is an architectural component that provides northbound EMS-to-NMS (network management system) interface mediation. CTM GateWay enables service providers to integrate CTM with their existing OSSs (Operations Support Systems) by using open, standard interfaces. Cisco offers TL1 (Transaction Language One), SNMP (Simple Network Management Protocol), and CORBA (Common Object Request Broker Architecture) interface options for CTM GateWay.

CTM provides the following benefits:

- Integrated IP, SONET, SDH, and DWDM (dense wavelength division multiplexing) management in a single scalable platform.
- An intuitive Java-based GUI (graphical user interface) that provides a native “look-and-feel” on both Microsoft Windows and Sun Solaris client platforms.
- User-defined domain explorer network views with “bubble up” alarm severity propagation and drill-down capabilities to isolate fault conditions and service-delivery impact.

- Geographic network maps and explorer views that reflect the physical layout and configuration of the network.
- Alarm browser and alarm log views that provide a robust listing of all current and historical alarms and events.
- A desktop-resident dashboard that provides alarm status for the CTM user's entire span of control with quick access to the Domain Explorer and the Alarm Browser.
- Real-time network surveillance with configurable popup alarm and event notifications.
- Real-time shelf views with full alarm and operational status indicators.
- Automated configuration backup with manual restore capabilities, plus remote software download capability across the entire network domain.
- GUI-based NE configuration.
- Integrated A-to-Z circuit provisioning.
- Extensive PM (performance monitoring) statistics collected across the SONET, SDH, DS-1, E1, DWDM, and Ethernet interfaces available for display or export.

You can download a copy of the CTM documentation at:

<http://www.cisco.com/univercd/cc/td/doc/product/rtrmgmt/optnet/ctm/index.htm>

To place an order for a CTM bundle, contact your local Cisco sales representative.

