

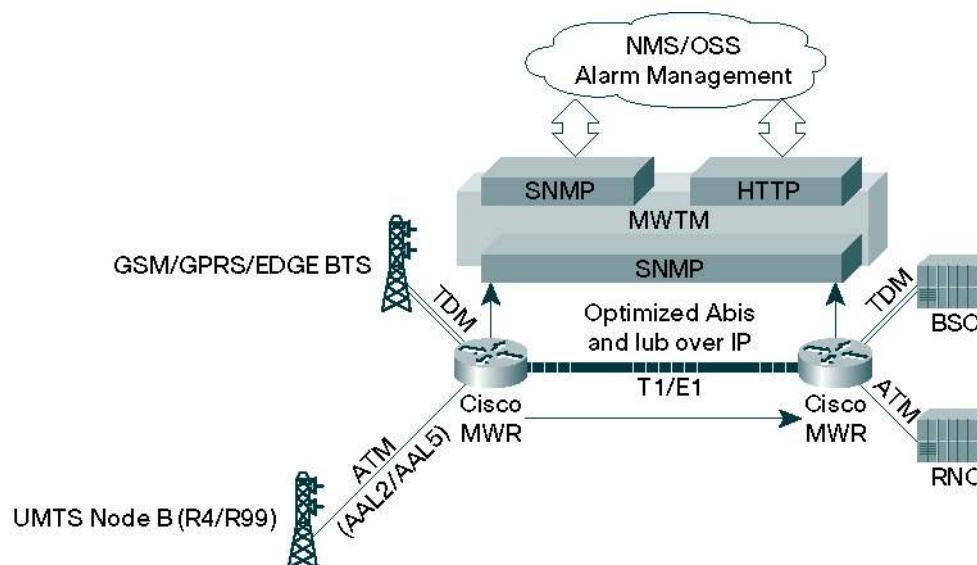
Cisco Mobile Wireless Transport Manager 5.0

Product Overview

Cisco® Mobile Wireless Transport Manager (MWTM) network management software provides monitoring and management capabilities for the Cisco Global Systems for Mobile Communications (GSM) Radio Access Network (RAN) Optimization solution (Figure 1). Cisco MWTM easily integrates with existing Cisco Systems® network management products such as CiscoWorks LAN Management Solution and Cisco Info Center, as well as third-party network management products such as HP OpenView and MicroMuse NetCool, to provide a complete set of monitoring and management tools for the entire Cisco RAN Optimization network. For more information on the Cisco RAN Optimization solution, please visit: http://www.cisco.com/en/US/netsol/ns341/ns396/ns177/ns329/networking_solutions_solution.html.

Figure 1

Cisco Mobile Wireless Transport Manager and RAN Optimization Overview



GSM = Global System for Mobile Communications
 GPRS = General Packet Radio Service
 EDGE = Enhanced Data Rates for GSM Evolution
 UMTS = Universal Mobile Telecommunications System

TDMA = Time-Division Multiple Access
 BSC = Base Station Controller
 RNC = Radio Network Controller

Features

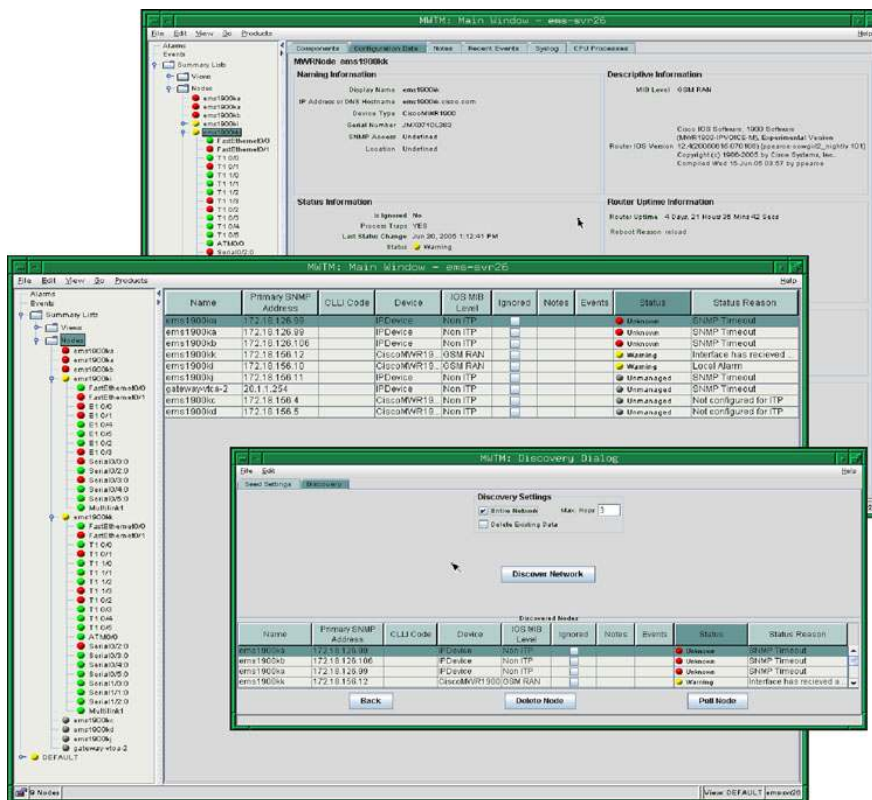
Cisco MWTM provides the following features and capabilities.

Basic Capabilities

- Provides an easy-to-use GUI client (Figure 2) and robust server processes that can be managed by a powerful command-line interface (CLI).
- Discovers the entire Cisco RAN Optimization network and displays each network element, neighboring equipment, and physical/logical connectivity in a network topology drawing that users can customize. Users can create custom views and subordinate views for grouping similar devices together, where each subordinate view has a state that is the aggregation of the states of the contained devices.
- Allows printing windows to a file or Postscript printer, as well as saving the topology map to a JPEG file.
- Provides integrated, online, context-sensitive help that can be customized to suit specific operational needs or languages.
- Based on client/server architecture, it supports Windows and Solaris clients and Solaris and Linux servers, and provides data access through a Web browser.
- Allows clients to connect to a server through the IP network; clients work across a VPN connection through a firewall that supports port forwarding or Network Address Translation (NAT), and through a Secure Sockets Layer (SSL)¹ connection.

Figure 2

Cisco Mobile Wireless Transport Manager Overview



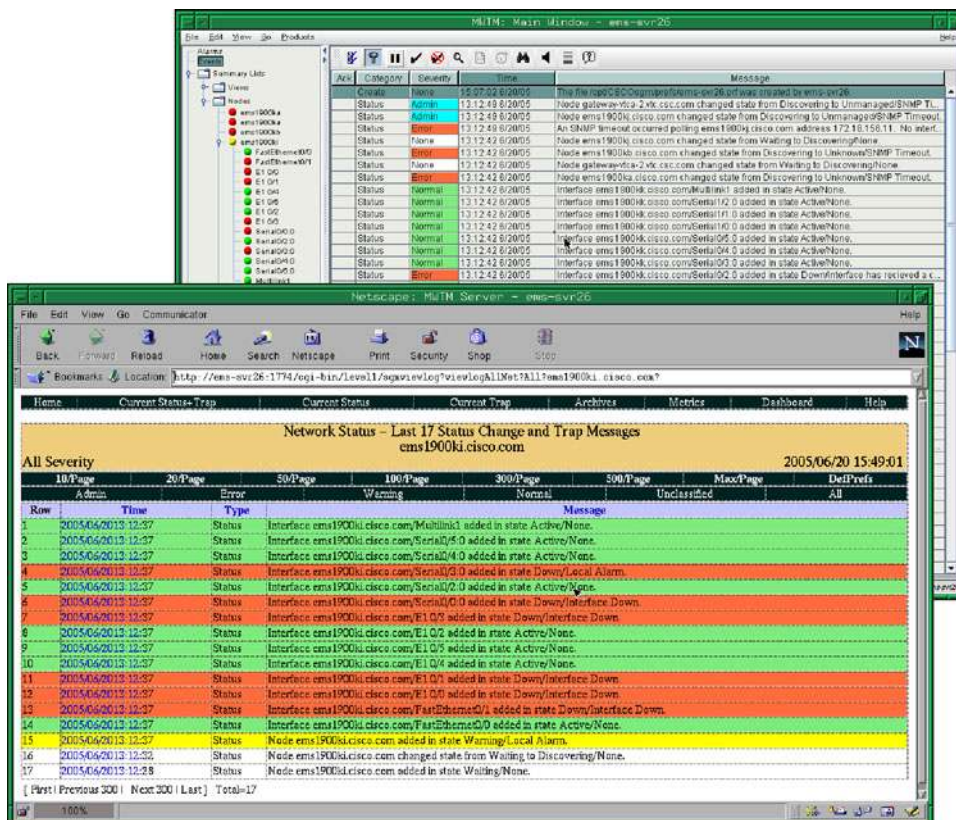
¹ This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. For more details please visit the following website: <http://www.openssl.org/>

Event Monitoring

- Displays a real-time event list that supports acknowledgment, annotation, customized filtering, and field viewing that conform to ITU-T Q.733 standards (Figure 3).
- Receives native traps or HP OpenView traps from hardware devices in the Cisco RAN Optimization solution and uses Simple Network Management Protocol (SNMP) polling to identify the status of each managed device. Cisco MWTM uses easy-to-recognize, color-coded icons to report the status.
- Provides Web-based status monitoring, alarm viewing, sorting, filtering, archiving, online documentation, and client download.
- Provides external script execution on the server and sound playing on the client; both are customizable and triggered by events or alarms.

Figure 3

Cisco Mobile Wireless Transport Manager Event Browser

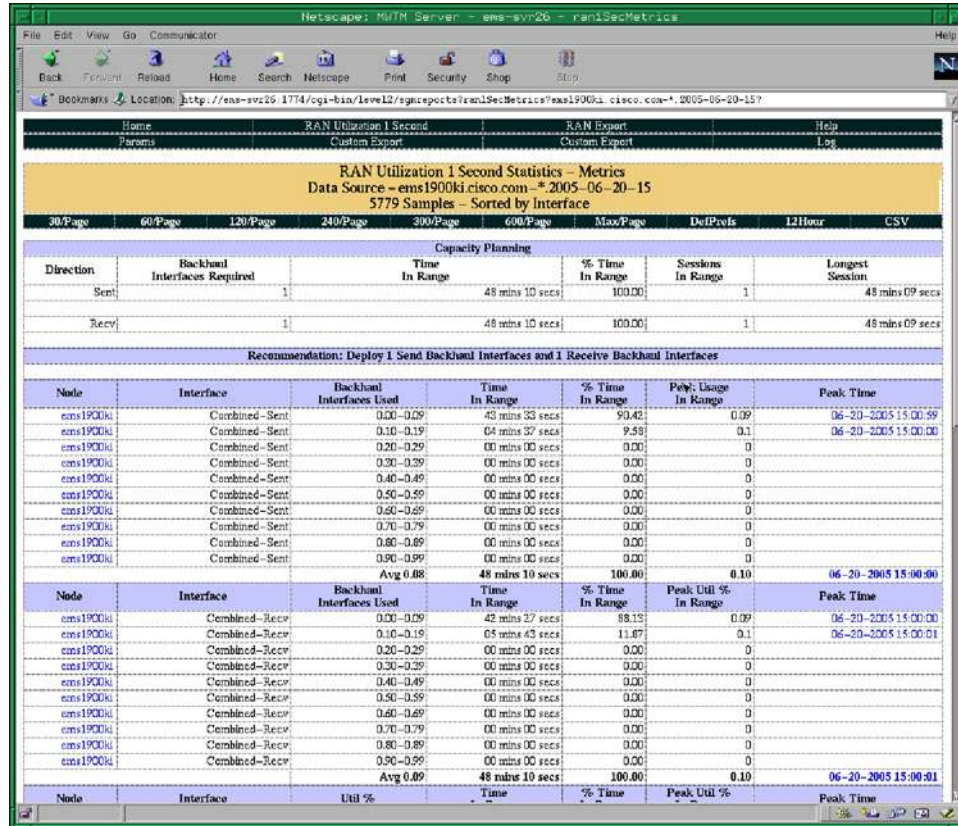


Performance Reporting

- Provides extensive Web-based accounting and network statistics reports for network efficiency and detailed interface-level statistics (Figure 4).
- Displays real-time data rate and usage line graphs.
- Supports options to configure collection intervals and record aging.

Figure 4

Cisco Mobile Wireless Transport Manager Efficiency Report



Third-Party Product Integration

- Receives SNMP traps and generates Cisco MWTM-specific traps for forwarding to external SNMP-based network management applications such as Cisco Info Center or MicroMuse NetCool.
- Java RMI and HTTP interfaces for extracting performance, alarm/event, and configuration information.

Security

- Multiple user-authentication methods supported – OS-based and standalone
- Password enforcement policies – aging, minimum length, and lockouts
- Audit trails and logging capabilities
- Optional SSL-based² encryption between client and server support

² This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. For more details please visit the following website: <http://www.openssl.org/>

Carrier-Class Features

- Scalability – The Cisco MWTM supports large networks and has been verified to work with a network containing more than 2000 Cisco devices and 20 clients connected to the server.
- Security – The Cisco MWTM supports user authentication, multiple levels of user access, password-protected Web pages, activity logging for audit trails, and an optional package for encrypting all client/server communications data.
- Redundancy – Multiple Cisco MWTM servers can monitor the network simultaneously, providing data redundancy. Clients have server failure recognition and automatic failover capabilities.
- Availability – Cisco MWTM clients will automatically switch to a backup server when the primary server is not available (in network problems or hardware failures, for example).

Interoperability

The Cisco MWTM integrates with any SNMP-based event monitoring system such as HP Openview, Micromuse NetCool, and Cisco Info Center products. In addition, the Cisco MWTM collects a large amount of performance data that can be exported or directly accessed from the database. This data can then be used by performance reporting applications from companies such as Concord or InfoVista.

Product Specifications

The Cisco Mobile Wireless Transport Manager supports the following Cisco devices (Table 1)

Table 1. Cisco Mobile Wireless Transport Manager Device Support

Supported Device (Part Number)	Cisco IOS® Software Release
Cisco Mobile Wireless Edge Router (MWR-1941-DC-A)	12.4(2)MR

System Requirements

Table 2 and Table 3 list the system and client requirements for Cisco Mobile Wireless Transport Manager.

Table 2. Server System Requirements

Operation Systems	Processor	RAM	Hard Disk
Red Hat Linux Enterprise 3.0	AMD Operton Model 244	1 GB	1 GB (MWTM installation)
Sun Solaris 8 and 9	1-GHz UltraSPARC III		

Note: Hard disk space required is commensurate with the amount of performance data, inventory, and events being managed by MWTM. Please plan accordingly.

Table 3. Client Requirements

Requirement Type	Minimum Requirement
System hardware	<ul style="list-style-type: none">• At least a 500-MHz single CPU (Pentium III or higher) running Windows 2000 or Windows XP• Sun UltraSPARC III, single 650-MHz CPU or equivalent
Software	<ul style="list-style-type: none">• Windows: Internet Explorer 6.0 SP1, Mozilla 1.7• Solaris: Mozilla 1.7
Memory (RAM)	512 MB (Windows and Solaris)
Available disk space	1 GB
Operating environment	<ul style="list-style-type: none">• Sun Solaris 8(2.8) or 9(2.9)

Requirement Type

Minimum Requirement

Swap space

- Windows XP, Windows 2000 Professional
- Space equal to twice the amount of memory (RAM)

Ordering Information

Cisco MWTM and related upgrades are available for purchase through regular Cisco sales and distribution channels worldwide. To place an order, visit the [Cisco Ordering Home Page](#).

Service and Support

Cisco offers a wide range of services programs to accelerate customer success. These innovative services programs are delivered through a unique combination of people, processes, tools, and partners, resulting in high levels of customer satisfaction. Cisco services help you to protect your network investment, optimize network operations, and prepare the network for new applications to extend network intelligence and the power of your business. For more information about Cisco services, see [Cisco Technical Support Services](#) or [Cisco Advanced Services](#).

For More Information

For more information about the Cisco Mobile Wireless Transport Manager, visit <http://www.cisco.com/go/mwtm> or contact your local account representative or send an e-mail to the customer support group at cs-mwtm@cisco.com.



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