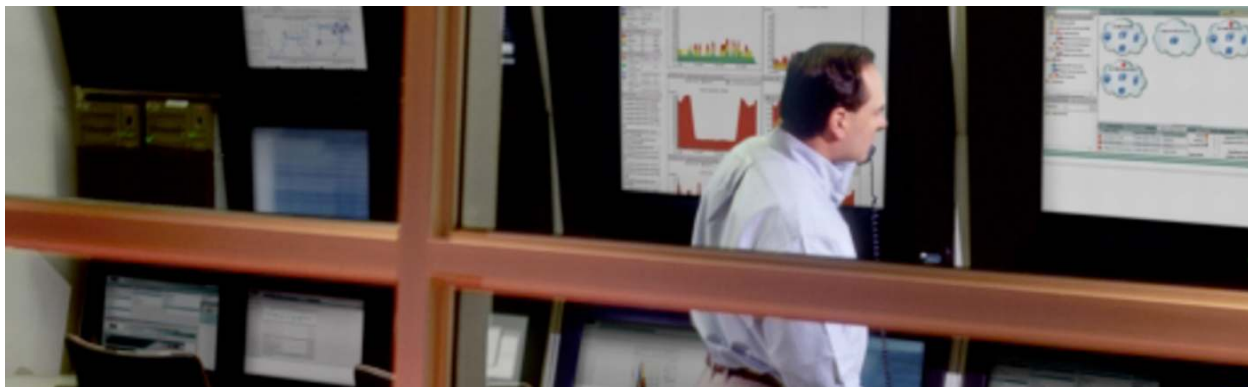


## Cisco Transport Manager Release 9.2

Intelligent Carrier-Class EMS System for Optical Networks



### Product Overview

Cisco® Transport Manager is an intelligent, multitechnology, carrier-class element management system (EMS) for optical networks designed following the TMF MTNM principles. Cisco Transport Manager simplifies provisioning and network management and reduces overall costs by providing operators with:

- **Single system to manage optical networks:** Increases productivity by simplifying complex provisioning tasks of optical network elements
- **Single repository for network information:** Supports configuration, fault, performance, and security management to capture network information such as resources, alarms, and performance data
- **Integration with operations support system (OSS):** Foundation for northbound EMS-to-network management system (NMS) interfaces, with gateway options for CORBA, compliant with TMF 814 standard, Simple Network Management Protocol (SNMP), and direct SQL database access

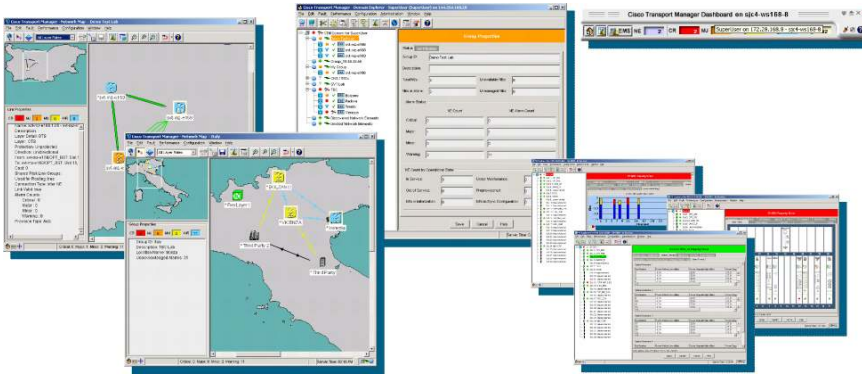
### Features and Benefits

Cisco Transport Manager increases user productivity through a powerful GUI-based management system that simplifies complex provisioning tasks. The Cisco Transport Manager northbound interfaces accelerate integration into the operations support system's customer environment.

#### GUI-Based Management for Unparalleled Productivity

Cisco Transport Manager is a powerful GUI-based management system that makes advanced management capabilities such as A-to-Z circuit provisioning easy to learn and use. Its explorer-style navigation and extensive use of wizards, tool tips, legends, and online help allow operators to perform tasks quickly and efficiently. Many otherwise tedious, time-consuming, and error-prone tasks can be fully streamlined using these intuitive tools, lowering the cost of network operation (Figure 1).

**Figure 1.** Cisco Transport Manager GUI: Domain Explorer, Network Map, and NE Explorer



**High Availability for Carrier-Class Management**

Cisco Transport Manager provides the same easy-to-use manageability features provided by the optical local craft tool, the Cisco Transport Controller. In addition to this, Cisco Transport Manager is designed for continuous operation. High availability deployment configurations are available to provide local and geographic redundancy options. Cisco Transport Manager can cope with heavy load scenarios such as high circuit-transaction rates, performance monitoring data collection, alarm storms, and numerous simultaneous clients (up to 100). Cisco Transport Manager plays a crucial role in the high availability of the network itself. Cisco Transport Manager's fault management and performance management capabilities help to ensure that network problems are discovered quickly and accurately, so they can be addressed often before a customer's service is noticeably affected.

**Northbound Interfaces for Operations Automation**

Industry-standard Simple Network Management Protocol (SNMP) and Common Object Request Broker Architecture (CORBA) protocols make Cisco Transport Manager a flexible building block in traditional as well as next-generation OSS infrastructures. Cisco Transport Manager not only captures and stores all relevant information from the optical transport domain, it also makes that information and its management available to higher-layer OSSs using open communications protocols. For example, the TeleManagement Forum-compliant (TMF 814 v3.0) CORBA northbound interface of Cisco Transport Manager facilitates the implementation of the next generation of inventory management, provisioning, flow-through circuit management, and service assurance. The Cisco Transport Manager CORBA northbound interface is used for validation with the Cisco Info Center.

**Product Specifications**

Table 1 lists the product specifications for Cisco Transport Manager Release 9.2.

**Table 1.** Product Specifications

Product Specification	Details
User interface	<ul style="list-style-type: none"> <li>• Rich point-and-click, intuitive user interface</li> <li>• Domain explorer for logical organization of network elements (NEs) and subnetwork explorer for hierarchical organization of network elements</li> <li>• Easy navigation from network to shelf, cards, port</li> <li>• Network maps for topology display with zooming capabilities</li> <li>• Alarm browser and alarm log</li> <li>• Control panel for managing server properties and default settings</li> <li>• Client inactivity timers for automatic screen lock and automatic logout</li> <li>• Powerful step-by-step provisioning wizards</li> </ul>

Product Specification	Details
<b>Configuration management</b>	<ul style="list-style-type: none"> <li>• Native equipment and facility provisioning</li> <li>• A-to-Z circuit provisioning</li> <li>• Layer 2 provisioning using quality of service (QoS) templates</li> <li>• Network element explorer for detailed configuration of network elements</li> <li>• Topology and multilayer link management</li> <li>• Broadcast software download and software activation</li> <li>• Automatic network element memory backup, on-demand restoration</li> <li>• Networkwide operations performed in bulk fashion (for example, alarm severities and default profiles assignment)</li> <li>• IPv6 and SNMPv3 support</li> </ul>
<b>Fault management</b>	<ul style="list-style-type: none"> <li>• Real-time visual and audible alarm (optional continuous alarm) and event management</li> <li>• Current and historical alarms</li> <li>• Alarm-aware displays, alarm browser and log, network maps, network element explorers, domain explorer, subnetwork explorer, and summary dashboard</li> <li>• Enable and disable unacknowledged alarm capability</li> </ul>
<b>Performance management</b>	<ul style="list-style-type: none"> <li>• Configurable automatic collection of near-end and far-end 5-minutes, 10-minutes, 15-minutes to 1-day performance monitoring data</li> <li>• Query wizard for performance monitoring reports</li> <li>• Robust performance monitoring collection option to recover performance monitoring data missed during communication downtime</li> <li>• Real-time display with 10-second polling</li> <li>• Graph of performance monitoring data</li> </ul>
<b>Security management</b>	<ul style="list-style-type: none"> <li>• Centralized management of network element user accounts</li> <li>• Upload, storage, and viewing of network element audit logs</li> <li>• Comprehensive Cisco Transport Manager audit log tracks all user actions</li> <li>• Enforced password complexity, password aging</li> <li>• Custom profiles for access control of different user groups</li> <li>• Basic external authentication based on SiteMinder policy server, a third-party application from Computer Associates International, Inc.</li> <li>• External authentication based on RADIUS/SiteMinder server</li> </ul>
<b>Administration</b>	<ul style="list-style-type: none"> <li>• Modular Installation (optical, MGX voice gateways, or both)</li> <li>• Hot database backup initiated through the graphical interface</li> <li>• Extended and granular logging capabilities to facilitate troubleshooting of the system</li> </ul>
<b>Northbound interfaces</b>	<ul style="list-style-type: none"> <li>• Gateway/CORBA</li> <li>• Gateway/SNMP</li> </ul>
<b>Network elements support</b>	See the <a href="#">Release Notes for Cisco Transport Manager Release 9.2</a> for the NE software releases that Cisco Transport Manager 9.2 supports.
<b>Reliability and availability</b>	<p>High availability options:</p> <ul style="list-style-type: none"> <li>• Local</li> <li>• Geographically diverse</li> </ul> <p>High Availability Solution based on Symantec Veritas to be licensed separately.</p>
<b>Platform</b>	<ul style="list-style-type: none"> <li>• Sun SPARC/T2 Solaris 10 server (for example, SUN T5120: <a href="http://www.sun.com/servers/coolthreads/t5120/index.xml/">http://www.sun.com/servers/coolthreads/t5120/index.xml/</a>)</li> <li>• Oracle 10g database (not included in Cisco Transport Manager license)</li> <li>• Client running on Windows 2000, Windows XP, Windows Vista, Windows 7, and Solaris 10</li> </ul>

## How to Order

To place an order, visit the [Cisco ordering homepage](#). For the latest part numbers, refer to the Cisco Transport Manager product bulletin under the product literature section at <http://www.cisco.com/go/ctm>.

## Ordering Information

Cisco Transport Manager is made up of the base media kit, additional optional functional components (Gateway/CORBA and High Availability), and client and network element right-to-use (RTU) licenses. Table 2 lists the part numbers and descriptions associated with Cisco Transport Manager 9.2.

Table 2. Ordering Information

Part Number	Description
<b>Cisco Transport Manager Release Software Product Kits</b>	
CTM-9.2-K9	Cisco Transport Manager 9.2 Unlimited RTU Edition
CTM-9.2-NE10-K9	Cisco Transport Manager 9.2 to manage up to 10 nodes and 5 concurrent clients
CTM-9.2-NE50-K9	Cisco Transport Manager 9.2 to manage up to 50 nodes and 10 concurrent clients
CTM-9.2-NE200-K9	Cisco Transport Manager 9.2 to manage up to 200 nodes and 20 concurrent clients
CTM-9.2-NE3K-K9	Cisco Transport Manager 9.2 to manage up to 3000 nodes and 75 concurrent clients
CTM-9-CRBA-PRO-NBI	Cisco Transport Manager 9.x - Gateway/CORBA OSS Interface fault management, performance management, provisioning
CTM-9-CRBA-FIP-NBI	Cisco Transport Manager 9.x - Gateway/CORBA OSS Interface fault management, performance management
CTM-9.2-HA	Cisco Transport Manager 9.2 High Availability Agent 3.0
CTM-9.2-AUTH	Cisco Transport Manager 9.2 External Authentication License
<b>Cisco Transport Manager Release Upgrades</b>	
CTM-3.2-9.x-ADD	Cisco Transport Manager 9.x - Release 3.2 to Release 9.x, Upgrade Addendum
CTM-4.0-9.x-ADD	Cisco Transport Manager 9.x - Release 4.0 to Release 9.x, Upgrade Addendum
CTM-9.2-UPG-K9	Cisco Transport Manager 9.2 - Upgrade Kit, Release 9.0 to Release 9.2, software CDs
CTM-9.2UPG20NE-K9	Cisco Transport Manager 9.2 - Upgrade Kit up to 20 network elements, Release 4.1.x and later to Release 9.2, software CDs
CTM-9.2UPG50NE-K9	Cisco Transport Manager 9.2 - Upgrade Kit up to 50 network elements, Release 4.1.x and later to Release 9.2, software CDs
CTM-9.2UPG100NE-K9	Cisco Transport Manager 9.2 - Upgrade Kit up to 100 network elements, Release 4.1.x and later to Release 9.2, software CDs
CTM-9.2UPG200NE-K9	Cisco Transport Manager 9.2 - Upgrade Kit up to 200 network elements, Release 4.1.x and later to Release 9.29.2, software CDs
CTM-9.2UPG1kNE-K9	Cisco Transport Manager 9.2 - Upgrade Kit up to 1000 network elements, Release 4.1.x and later to Release 9.2, software CDs
CTM-9.2UPG2kNE-K9	Cisco Transport Manager 9.2 - Upgrade Kit up to 2000 network elements, Release 4.1.x and later to Release 9.2, software CDs
CTM-9.2UPG4kNE-K9	Cisco Transport Manager 9.2 - Upgrade Kit up to 4000 network elements, Release 4.1.x and later to Release 9.2, software CDs
CTM-9.2-AUTH-UPG	Cisco Transport Manager 9.2 External Authentication License Upgrade
CTM-9.2-CRBA-UPG	Cisco Transport Manager Gateway/CORBA Northbound Interface 9.2 Upgrade
CTM-9.2-HA-UPG	Cisco Transport Manager 9.2 High Availability Agent 3.0 Upgrade
<b>Note:</b> Cisco SAS is available for all the above-listed applications and related upgrades. The purchase of an annual Cisco SAS maintenance contract entitles you to free upgrades to minor and maintenance application releases, access to the Cisco.com Software Center for patches and bug fixes, and Cisco Technical Assistance Center (TAC) support. Refer to your Cisco sales representative for further information.	
<b>Cisco Transport Manager License Upgrades</b>	
CTM-NE10TO50-UPG	Cisco Transport Manager to manage up to 50 nodes, License Upgrade
CTM-NE50TO200-UPG	Cisco Transport Manager to manage up to 200 nodes, License Upgrade
CTM-NE200TO3K-UPG	Cisco Transport Manager License Upgrade from 200 network element maximum to 3000 network element maximum
CTM-NE200UNL-UPG	Cisco Transport Manager License Upgrade from 200 network element maximum to maximum number of network elements
CTM-NE3KUNL-UPG	Cisco Transport Manager License Upgrade from 3000 network element maximum to maximum number of network elements
CTM-APP-150-UPG	Cisco Transport Manager Application license expansion. Additional 150 NEs
<b>Cisco Transport Manager Client RTU Licenses</b>	
CTML-9-CLIENT-001	Cisco Transport Manager Client RTU License - 1 RTU
CTML-9-CLIENT-010	Cisco Transport Manager Client RTU License - 10 RTU

CTML-9-CLIENT-050	Cisco Transport Manager Client RTU License - 50 RTU
<b>Cisco Transport Manager Network Element RTU Licenses</b>	
CTML-9-15216-001	Cisco Transport Manager RTU license for 15216 - 1 RTU
CTML-9-15302-001	Cisco Transport Manager RTU license for 15302 - 1 RTU
CTML-9-15302-025	Cisco Transport Manager RTU license for 15302 - 25 Block
CTML-9-15305-001	Cisco Transport Manager RTU license for 15305 - 1 RTU
CTML-9-15305-025	Cisco Transport Manager RTU license for 15305 - 25 Block
CTML-9-15310-001	Cisco Transport Manager RTU license for 15310 - 1 RTU
CTML-9-15310-025	Cisco Transport Manager RTU license for 15310 - 25 Block
CTML-9-15310-100	Cisco Transport Manager RTU license for 15310 - 100 Block
CTML-9-15530-001	Cisco Transport Manager RTU license for 15530 - 1 RTU
CTML-9-15540-001	Cisco Transport Manager RTU license for 15540 - 1 RTU
CTML-9-15327-001	Cisco Transport Manager RTU license for 15327 - 1 RTU
CTML-9-15327-025	Cisco Transport Manager RTU license for 15327 - 25 Block
CTML-9-15454-001	Cisco Transport Manager RTU license for 15454 - 1 RTU
CTML-9-15454-025	Cisco Transport Manager RTU license for 15454 - 25 Block
CTML-9-15454-050	Cisco Transport Manager RTU license for 15454 - 50 Block
CTML-9-15454M2-001	Cisco Transport Manager RTU license for 15454 M2 - 1 RTU
CTML-9-15454M2-025	Cisco Transport Manager RTU license for 15454 M2 - 25 Block
CTML-9-15454M2-050	Cisco Transport Manager RTU license for 15454 M2 - 50 Block
CTML-9-15454M2-100	Cisco Transport Manager RTU license for 15454 M2 - 100 Block
CTML-9-15454M6-001	Cisco Transport Manager RTU license for 15454 M6 - 1 RTU
CTML-9-15454M6-025	Cisco Transport Manager RTU license for 15454 M6 - 25 Block
CTML-9-15454M6-050	Cisco Transport Manager RTU license for 15454 M6 - 50 Block
CTML-9-15454M6-100	Cisco Transport Manager RTU license for 15454 M6 - 100 Block
CTML-9-15454-100	Cisco Transport Manager RTU license for 15454 - 100 Block
CTML-9-15600-001	Cisco Transport Manager RTU license for 15600 - 1 RTU
CTML-9-15600-005	Cisco Transport Manager RTU license for 15600 - 5 Block
CTML-9-15600-025	Cisco Transport Manager RTU license for 15600 - 25 Block
CTML-9-1580X-001	Cisco Transport Manager RTU license for 1580X - 1 RTU
CTML-9-8880-001	Cisco Transport Manager RTU: License for Cisco MGX 8880
CTML-9-8850-001	Cisco Transport Manager RTU: License for Cisco MGX 8850
CTML-9-8830-001	Cisco Transport Manager RTU: License for Cisco MGX 8830
<p><b>Note:</b> Passive Cisco ONS 15216 network elements that are not actively managed by Cisco Transport Manager, namely the Cisco ONS 15216 200-GHz Filter, ONS 15216 200-GHz OADM, ONS 15216 EDFA1, ONS 15216 OSC, ONS 15216 DCU, and ONS 15216 Unidirectional Filter and MDS 9000 nodes do not require a Cisco Transport Manager RTU. The active Cisco ONS 15216 network elements, namely the Cisco ONS 15216 100-GHz OADM and ONS 15216 EDFA2, do require a Cisco Transport Manager RTU. MDS 9000 Family nodes are not actively managed by Cisco Transport Manager and hence do not require a Cisco Transport Manager RTU.</p>	

### 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 additional product information on Cisco Transport Manager Release 9.2, visit <http://www.cisco.com/go/ctm> or contact your local account representative.



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