



Cisco Transport Manager Enabling the Full Power of Cisco Optical Networking Systems

Overview

Cisco Transport Manager is an advanced optical transport domain manager, which delivers element and network management layer functionality for the Cisco ONS Family of optical networking products. Cisco Transport Manager supports configuration, fault, performance, and security management functional areas. Cisco Transport Manager also serves as a foundation for integration into a larger overall operations support system (OSS) environment.

Value Proposition

Cisco Transport Manager provides comprehensive management capabilities, enabling network operators to efficiently manage their Cisco optical network. Very simply, through the use of Cisco Transport Manager, the revenue-generating capacity of the network is increased, while operational costs are reduced, resulting in better profitability.

Carrier-Class

Cisco Transport Manager meets the most stringent carrier-class requirements. Cisco Transport Manager is designed for continuous operation. High-availability deployment configurations are available to achieve an application availability of 99.999 percent. Cisco Transport Manager is designed to cope with heavy loading scenarios such as high circuit-transaction rates, performance-monitoring data collection, alarm storms, and a large number of simultaneous clients. Cisco Transport Manager perhaps more importantly plays a key role in ensuring high availability of the network itself. Cisco Transport Manager's fault management and performance management capabilities ensure that network problems are discovered quickly and accurately, allowing them to be addressed often before a customer's service is noticeably affected.

Cisco Transport Manager proves in for small networks, but at the same time can scale up to 2500 network elements and 100 concurrent clients per Cisco Transport Manager server. As such Cisco Transport Manager is appropriate for smaller enterprise networks up to large service provider networks.



Unparalleled Productivity

Cisco Transport Manager is a powerful tool that increases the productivity of the network operations staff. Cisco Transport Manager provides GUI-based point-and-click management of the network. As such, Cisco Transport Manager has a low learning curve while providing advanced management capabilities such as A-to-Z circuit provisioning. Explorer-style navigation, the extensive use of wizards, tool tips, legends, and online help make it easy for an operator to perform tasks quickly and efficiently. Many otherwise tedious, time-consuming, and error-prone tasks can be fully streamlined using Cisco Transport Manager features.

Low Cost of Ownership

Cisco Transport Manager is extremely cost-effective by using industry-standard platforms such as Sun Solaris, Oracle8i, and Microsoft Windows. As such Cisco Transport Manager fits smoothly into the information technology environment of most companies. Cisco Transport Manager's ease of installation, administration, and use further help ensure a low cost of ownership. Using scalable Sun server platforms it is possible to minimize up-front investment, but still track with network growth by gradually adding additional processors, memory, and disk space.

Cisco Transport Manager spans all the technologies of the next-generation optical network such as SONET/SDH, long-haul and metro DWDM for transport, and services such as DS1/E1, DS3/E3, 10/100 Ethernet, Gigabit Ethernet, and storage networking protocols. By covering all ONS Family products, Cisco Transport Manager eliminates the need to deploy multiple technology-specific element management systems (EMSs), which further contributes to capital and operating expense savings. Cisco Transport Manager has global reach in that it can simultaneously manage both ANSI and ETSI network elements, which is ideal for service providers with an international service area.

A Foundation for Operations Automation

Open interfaces to OSSs using industry-standard Transaction Language One (TL1), 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 advanced OSS infrastructures. Cisco Transport Manager not only captures and stores all relevant information from the optical transport domain, but also makes that information and its management functionality available to higher-layer OSSs using open communications protocols. For example, the TMF-compliant CORBA northbound interface of Cisco Transport Manager enables the service provider to implement next-generation inventory management, provisioning, flow-through circuit management, and service assurance.



Specifications for Cisco Transport Manager R4.0

Platform

- Sun Solaris 8 server
- Oracle 8i database
- Windows NT 4.0, Windows 2000, and Solaris 8 clients
- Up to 2500 network elements, 100 concurrent clients
- High-availability options: local, geographically diverse

Graphical User Interface

- Microsoft Windows interface
- Domain Explorer for hierarchical organization of network elements
- Bulk discovery and auto-grouping of network elements
- NE Explorer for detailed configuration of network elements
- Network maps for topology display
- Alarm browser, alarm log
- Dynamic or manual display updates
- Control panel for managing server properties and default settings
- Export of table displays to character-delimited flat file

Management Functional Areas

Configuration Management

- Native equipment/facility provisioning of Cisco ONS 15216 100 GHz OADM, ONS 15216 EDFA2, ONS 15327, ONS 15454 SONET, ONS 15454 SDH, ONS 15800, ONS 15801, ONS 15808
- A-to-Z circuit provisioning
- Topology/link management
- Operations on multiple network element
- Searchable inventory reports for network elements and circuit packs
- Broadcast software download
- Automatic network element memory backup, on-demand restoration
- Task scheduling

Fault Management

- Real-time visual and audible alarm and event handling
- Current and historical alarms
- Cisco Transport Manager raised alarms: network element communication loss, software download failure, memory backup failure, self monitor threshold crossing, login security violation, Cisco Transport Manager to network element authentication failure



- Alarm aware displays, alarm browser and log, network maps, network element explorers, domain explorer, and summary dashboard
- Launch of NE Explorer from Alarm Browser/Log for enhanced trouble shooting
- Alarm acknowledgement and notes

Performance Management

- Configurable automatic collection of near-end/far-end, 15-min/1-day performance-monitoring data
- Performance-monitoring query wizard for performance-monitoring reports
- Robust performance-monitoring collection option to recover performance-monitoring data missed during communication downtime.

Security Management

- Enforced password complexity, password aging
- Comprehensive audit log tracks all user actions
- Administrator defined custom profiles for access control of different user groups
- Client inactivity timers for auto screen lock and auto-logout, on-demand client lock
- Centralized management of network element user accounts
- Upload, storage, and viewing of network element audit logs

Northbound Interfaces

- GateWay/CORBA, GateWay/TL1, GateWay/SNMP

Network Element Releases Supported

- Cisco ONS 15200 1.0(5), 1.1(1), 1.1(2), 1.1(3), 2.0
- Cisco ONS 15216 100 GHz OADM 2.0, 2.1, 2.2
- Cisco ONS 15216 EDFA2 2.0, 2.0.1, 2.1, 2.2
- Cisco ONS 15216 200 GHz OADM, EDFA1, DWDM Filters, OSC, and DCU
- Cisco ONS 15327 3.4.1, 4.0
- Cisco ONS 15454 SONET 3.0.3, 3.2.1, 3.3, 3.4.1, 4.0
- Cisco ONS 15454 SDH 3.4.1, 4.0
- Cisco ONS 15501 3.0, 4.0
- Cisco ONS 15530 12.1(10)EV4, 12.1(12c)EV
- Cisco ONS 15540 ESP 12.1(12c)EV, 12.1(10)EV3
- Cisco ONS 15540 ESPx 12.1(12c)EV, 12.1(10)EV3
- Cisco ONS 15600 1.0
- Cisco ONS 15800 2.0, 2.1
- Cisco ONS 15801 2.0, 2.1
- Cisco ONS 15808 2.0, 2.1
- Cisco ONS 15302 1.0

- Cisco ONS 15305 1.0

Refer to the Cisco Transport Manager 4.0 Installation Guide for detailed system requirements.



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