



# Cisco Transport Manager Delivers the Full Power of Cisco Optical Networking Systems

Cisco Transport Manager is the industry's most advanced optical transport domain manager. Cisco Transport Manager delivers the full power of the Cisco ONS 15000 Series Optical Networking System to the operations personnel and back-office systems of today's network operators. The goal of every network operator is to derive the maximum possible profit from available network resources. As competition intensifies, operators of optical transport networks will be increasingly focused on time to revenue, service velocity, flexible service-level agreements (SLAs), preemptive service assurance, and continuous reduction in the cost of operations.

## Technology Independence

With inherent support for Synchronous Optical Network (SONET), Synchronous Digital Hierarchy (SDH), dense wave-division multiplexing (DWDM), and Ethernet, Cisco Transport Manager is a truly integrated optical transport domain manager that is solidly positioned for an increasingly multiservice optical transport network. Deploying Cisco ONS 15000 Series products with a single optical domain manager in Cisco Transport Manager eliminates the need to deploy multiple element management systems (EMSs)-one for each transport technology-and delivers capital and operations cost savings to the service provider's bottom line.

## Carrier-Class Reliability

Cisco Transport Manager was designed, developed, and certified to perform reliably in the most demanding network operations environments. Cisco Transport Manager is built for continuous duty-24 x 7-and constantly executes all management functions with integrity under heavy network element (NE)and client loads, even in the most severe alarm storms. Cisco Transport Manager delivers reliability and cost savings, just when you need it the most, by eliminating downtime and lost information.

## Low Cost of Ownership

Cisco Transport Manager is built on industry-standard platforms such as Sun Solaris, Oracle8i, and Microsoft Windows that are ubiquitous in today's Internet economy. Cisco Transport Manager enables the network operator to utilize the relatively low cost of off-the-shelf hardware and software components and the administrative expertise available in today's Internet-driven talent pool.

## Simplest Acquisition Process

The power of Cisco Transport Manager is made available to customers through the simplest acquisition process in the industry. The purchase of many Cisco ONS 15000 Series network elements includes the right to use (RTU) license for management by Cisco Transport Manager, as well as entitlement to the Cisco Transport Manager software kit at no additional cost. This gives the network operator quick and easy access to the powerful fault, configuration, performance, security, and inventory management features of Cisco Transport

Manager. This novel approach emphasizes the growing recognition that the network element and the element management system are an inseparable solution set for those service providers that want to take advantage of the maximum power of the network element technology for their service offerings.

### Industry-Leading Scalability

Scaling to more than 2,500 NEs and 100 concurrent clients protects the network operator's investment in Cisco Transport Manager server hardware. Adding processors and disks to an existing server allows the network to grow without the need for forklift upgrades associated with migration to another server. The high scalability of Cisco Transport Manager also minimizes the number of server platforms needed, delivering additional capital and operations cost savings.

### A Foundation for Operations Automation

Open interfaces to Operations Support Systems (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 legacy as well as next-generation OSS infrastructures. Cisco Transport Manager not only meticulously captures and stores all relevant information from the optical transport domain, but it makes that information and its management functionality available to components of the back office using open communications protocols. For example, the TMF-compliant CORBA northbound interface of Cisco Transport Manager enables the service provider to implement next-generation flow-through circuit inventory management, provisioning, and assurance. Such tight integration between Cisco Transport Manager and the OSS allows the optical transport network to respond dynamically to the will of the end customer as expressed through the self-care portal.

### Global Network Reach

Many new network operators are launching their networks on one continent, with plans to establish a global footprint within five years. With inherent model awareness, Cisco Transport Manager can manage ANSI and ETSI network elements with a single Cisco Transport Manager server instance. This makes Cisco Transport Manager suitable for deployment as a single global optical domain management platform, with rotating surveillance hand-offs between Asia/Pacific, Europe, and the Americas. The opportunity to install and maintain a single optical domain manager for global operations delivers further savings in capital and operations costs.

### Unparalleled Productivity

Virtually all Cisco Transport Manager functions can be executed from the Cisco Transport Manager client graphical user interface (GUI); there are no commands to remember. The intuitive Windows look-and-feel of the Cisco Transport Manager GUI lowers the learning curve and allows Cisco Transport Manager to be rolled out rapidly to the Network Operations Center (NOC) and the network maintenance center. Cisco Transport Manager efficiently delivers management information and functionality through a superbly designed set of GUI windows and tools. With effective use of the Explorer paradigm for rapid in-place navigation, Cisco Transport Manager minimizes the number of clicks required to accomplish common tasks. The extensive use of wizards, tool tips, legends, and online help makes it easy for an operator to execute even the least-often used functions and enables NOC personnel to maximize productivity, delivering additional savings to the bottom line.

## Management Functions

### Graphical User Interface

- Domain, Subnetwork, and NE Explorers with tree-based navigation
- Color-coded Network Map icons to indicate alarm severity and NE operational state

### Inventory Management

- Inventory data discovery and storage
- Display, search, sort, and export inventory data

### Fault Management

- Alarm, event, and operational state acquisition and storage
- EMS alarms for loss of communication, software download failure, and login security violation
- Quick-view Dashboard for display of alarm count, unacknowledged alarm count, and launch of EMS alarm view

### Configuration Management

- Provisioning of Cisco ONS 15800, 15801, 15808, 15454 SONET, 15327, 15216 100 GHz OADM and 15216 EDFA2 using native Cisco Transport Manager NE Explorer
- Circuit provisioning wizard for Cisco ONS 15454 SONET and 15327 subnetworks

### Performance Management

- Selectable collection of PM data parameters

- Collection and storage of 15-minute and 1-day data registers

## Security Management

- Enforcement of high-security passwords using alphabetic, numeric, and special characters
- Centralized management of NE security (usernames and passwords)

## NE Communications

- TL1, CORBA, HTTP, SNMP, CLI

## Northbound Interfaces

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

## NE Releases Supported

- Cisco ONS 15800 1.4, 1.5, 1.6, 2.0
- Cisco ONS 15801 1.3, 1.4, 2.0
- Cisco ONS 15808 1.0, 2.0
- Cisco ONS 15501 1.0
- Cisco ONS 15530 1.0
- Cisco ONS 15540 1.0, 1.5
- Cisco ONS 15454 SONET 3.0.3, 3.0.4, 3.1, 3.2, 3.3
- Cisco ONS 15454 SDH 3.3
- Cisco ONS 15327 1.0.2, 3.3
- Cisco ONS 15252/01 1.0, 1.1
- Cisco ONS 15216 2.0, 2.1

Refer to the Cisco Transport Manager 3.1 Installation Guide for detailed system requirements.



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