

Cisco 12000/10720 Router Manager 3.1

Offers service providers carrier-grade element management for IP and MPLS deployments of Cisco 12000/10720 Series Routers

The Cisco[®] 12000/10720 Router Manager is a graphical user interface (GUI)-based, carrier-class element management system (EMS) for managing Cisco 12000 Series and Cisco 10720 routers (Figure 1). It provides several GUI features designed to increase network operations productivity. With the ability to discover inventory in real time, this EMS helps to ensure quicker deployment of Cisco networking equipment and provides comprehensive element service assurance to more quickly solve network problems.

Cisco 12000/10720 Router Manager 3.1 gives service providers carrier-grade management with detailed troubleshooting capability. This EMS supports Cisco router edge enhancement, following the release of the Cisco 12000 Series 4-port Gigabit Ethernet IP Services Engine (ISE) and the Cisco OC-12c/STM-4c ATM ISE cards. It also includes operations and management (OAM) features for troubleshooting of MPLS transport network problems, including support for the Cisco MPLS MIBs in Cisco IOS[®] Software Releases 12.0(24)S and 12.0(25)S.

Figure 1
Cisco 12000/10720 Router Manager 3.1 GUI



Cisco 12000/10720 Router Manager is one of the Cisco element managers that provides device-specific fault, configuration, accounting, performance, and security (FCAPS) management capability for Cisco service provider products. Cisco element managers are based on a highly scalable, tested, and field-validated common infrastructure. This flexible, modular model allows you to install the mix of element managers you need to support your business. It also enables cost-effective and rapid deployment of new element managers, which means you can more rapidly introduce and manage new services. Cisco element managers provide common interfaces and element management services to applications in the network- and service-management levels of the Cisco Internet OSS, as well as to your existing operations support system (OSS) components.

Cisco 12000/10720 Router Manager runs on Sun Microsystems UltraSPARC servers with the Solaris 8 operating environment installed. For server specifications, visit: http://www.cisco.com/warp/public/756/partnership/sun/products/Cisco_RefModel_Descriptions_CEM.pdf

Table 1 lists the features and benefits of Cisco 12000/10720 Router Manager.

Table 1 Features and Benefits of Cisco 12000/10720 Router Manager

| Feature/Function | Benefit |
|--|---|
| Fault management <ul style="list-style-type: none"> • Supports fault detection, logging and display, troubleshooting, and repair • Supports debugging MPLS forwarding issues and examination of MPLS traffic engineering issues; provides visibility of MPLS tunnels and Label Switch Paths (LSP) | <ul style="list-style-type: none"> • Provides higher service availability |
| Inventory management <ul style="list-style-type: none"> • Automatically discovers—and updates in real time—the elements in a network, as well as how each network element is configured in terms of field-replaceable units (interface cards and power supplies, for example) and installed software releases • Maintained inventory also includes a logical inventory (MPLS, virtual LAN [VLAN], and ATM information, for example) • The inventory management function operates in real time and caters to online insertion and removal (OIR) | <ul style="list-style-type: none"> • Helps ensure maximum use of network investment |
| Provisioning and service activation <ul style="list-style-type: none"> • Includes VLAN provisioning, quality of service (QoS), IP addresses on interfaces, ATM switched virtual circuit (SVC) or permanent virtual circuit (PVC), packet over SONET (POS), and Spatial Reuse Protocol (SRP) interfaces • Synchronizes services with the network elements • Offers flow-through provisioning using the Common Object Request Broker Architecture (CORBA) interface | <ul style="list-style-type: none"> • Provides better service to the customer and maximum revenue to the provider |
| Threshold Monitoring <ul style="list-style-type: none"> • Supports proactive checking for network capacity breaches • Collects performance management data per interface as well as per ATM connection • Offers a powerful troubleshooting feature, useful for service-level agreement (SLA) supervision | <ul style="list-style-type: none"> • Provides higher service availability • Enables increased revenue by offering SLA supervision as a value-added service |
| Cisco Resource Management Essentials (RME) for Network element administration <ul style="list-style-type: none"> • Includes Cisco IOS Software image upgrade, configuration backup and restore, and management of Cisco IOS Software passwords • Cisco Element Managers now includes CiscoWorks Resource Manager Essentials for network-element operations and administration tasks | <ul style="list-style-type: none"> • Simplifies time-consuming administrative tasks • Reduces reliance on the command-line interface (CLI) • Reduces operator training costs |

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| Feature/Function | Benefit |
|--|---|
| Network security <ul style="list-style-type: none"> • Gives the network operations center (NOC) manager fine-grained control over access to EMS applications based on the operator's role • Access control can be customized based on any combination of individuals, groups, roles, and features, rather than a more restricted user-administrator structure | <ul style="list-style-type: none"> • Access security features reduce margin for error and prevent malicious access • Increases reliability of service |
| Multiple users <ul style="list-style-type: none"> • Supports multiuser, multisite NOC operations with up to 50 simultaneous users | <ul style="list-style-type: none"> • Reduces costs and simplifies operations for several sites from one NOC |
| High availability <ul style="list-style-type: none"> • Online EMS database backup occurs without management interruption, even when backup is in progress • EMS self-monitoring helps ensure that all internal processes are up and running | <ul style="list-style-type: none"> • Reduces management downtime to increase availability of service |
| OSS integration interfaces <ul style="list-style-type: none"> • Enables integration into the service provider's OSS, and facilitates management using a single application • Based on industry standards, including CORBA, Simple Network Management Protocol (SNMP), and File Transfer Protocol (FTP) | <ul style="list-style-type: none"> • Reduces cost of operation |
| Cisco CNS Configuration Engine integration <ul style="list-style-type: none"> • Integration with Cisco CNS Configuration Engine for simpler, GUI-based Cisco IOS software management | <ul style="list-style-type: none"> • Enables less skilled personnel to manage the network |

For More Information

For more information about the Cisco 12000/10720 Router Manager and Cisco routers, visit: <http://www.cisco.com/en/US/products/sw/netmgtsw/ps156/index.html> and <http://www.cisco.com/en/US/products/hw/routers/index.html>

For more information about Cisco EMS products and the Cisco Internet OSS, visit: <http://www.cisco.com/go/oss>

A free trial version (30 days) of Cisco 12000/10720 Router Manager is available by ordering part number EMS-12K-KIT-D from Cisco.com.



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