Chapter 9: Network Management

This chapter provides only a subset of Cisco products and part numbers.

Network Management At-a-Glance

Product	Features	Page
NETWORK MANAGEMENT SOLUTIONS		
Cisco Carrier IP NGN Management Solution (CIMS) ***NEW PRODUCT***	· Solution provides service life cycle management for Cisco Carrier Ethernet and IP RAN systems · Network and service discovery · Flexible service activation wizard with predefined support for Carrier Ethernet and IPRAN end to end service activation · Sophisticated analysis of both root-cause and service impact · Easy-to-use customer centric service dashboard for diagnostic routines	9–4
Cisco Network Application Performance Analysis (NAPA) Solution	· Solution provides comprehensive application and network performance visibility to empower network managers to effectively manage end-to-end service delivery. It helps enterprise IT to improve end-user experience, enhance operational efficiency, reduce application delivery risk and optimize use of network resources	9–4
Cisco Proactive Automation of Change Execution (PACE) Solution ***NEW UPDATES***	· Solution offers products and services that accelerate operational success by helping IT organizations securely automate and control network changes and configurations · Helps enterprises meet compliance requirements, accelerate growth, ensure business continuity, and increase user productivity	9–5
Cisco Video Assurance Management Solution (VAMS)	· Provides real-time, centralized monitoring of video transport over core, distribution, and aggregation networks · Monitors any changes in the multicast trees that might affect video performance · Actively manages network events to help you maintain video service uptime and quality · Supports correlation and aggregation of events in the core, distribution, and aggregation networks · When video probes are placed at demarcation points along the video path in the network, they help identify, isolate, and troubleshoot video errors. Supported video probes include: Tektronix MTM400, Ineoquest, and Mixed Signals.	9–5
NETWORK MANAGEMENT SERVICES MODULES		
Cisco Catalyst 6500/ Cisco 7600 Series Network Analysis Modules (NAMs) 1 and 2	Integrated in the Cisco Catalyst 6500 Series Switches and Cisco 7600 Series Routers, the Cisco NAM is a service module that provides granular insight into how the network is being used and how users experience the services the network offers to help improve application and network performance. With its built-in Traffic Analyzer GUI, the Cisco NAM provides quick access to the configuration menus and presents easy-to-read performance reports on voice, video, and TCP-based traffic.	9–6
Cisco Branch Routers Series Network Analysis Module (NAM)	The Cisco Branch Routers Series NAM is a service module integrated in the Cisco 2800, 2900, 3800 and 3900 Series Integrated Services Routers that provides application performance monitoring, traffic analysis, and troubleshooting in the borderless access network. It includes the Traffic Analyzer web interface, which can be accessed anywhere at any time, eliminating the need to send personnel to remote sites or to haul large amounts of data over WAN links to the central site.	
Cisco NAM 2200 Series Appliances	An extension of the Cisco NAM blades, the Cisco NAM 2200 Series Appliances offer next-generation performance, superior scalability, and maximum deployment flexibility. The NAM appliances increase the reach of the NAM in places in the network not currently served by the blades or where high performance monitoring is essential.	
Cisco WAAS NAM Virtual Service Blade (VSB)	Introduced in NAM 4.1, the Cisco WAAS NAM Virtual Service Blade is an integrated solution on the WAAS 574 and 674 Appliances. Providing a zero hardware footprint, the WAAS VSB is targeted towards Pre-deployment and Small data center environments by leveraging the embedded instrumentation of WAAS and NetFlow.	
Cisco Nexus 1000V NAM Virtual Service Blade (VSM)	Integrated with the Cisco Nexus 1010 Virtual Services Appliance, NAM VSB offers comprehensive visibility into virtual machine (VM) network to help identify performance bottlenecks, troubleshoot performance issues and optimize the use of VM network resources. Being an integrated solution, it provides investment protection, ease of deployment, and reduced network footprint.	

OPTICAL MANAGEMENT

Cisco Transport Manager 9.2	· Advanced optical transport domain manager that delivers element and network management layer functions · Offers efficient management of the entire Cisco ONS product family. · Provides a resilient, adaptable, and integrated carrier-class element-management-system (EMS) solution. · GUI-based management system makes advanced management capabilities such as A-to-Z circuit provisioning easy to learn and use. · Solution is cost-effective, using industry-standard platforms such as Sun Solaris, Oracle, and Microsoft Windows to fit smoothly into various IT environments, solution offers a variety of northbound interface options (for example, Simple Network Management Protocol [SNMP], TL1, and CORBA)	See 8–4

ROUTING AND SWITCHING MANAGEMENT

Cisco Active Network Abstraction	· Flexible and powerful multivendor network resource-management system provides an enabling platform for value-added network and service-management applications in a multitechnology, multiservice network environment	9–7
Cisco IP Solution Center	· Family of intelligent network management applications helps reduce administration, management, and network operational costs by: - Providing automated resource management and rapid profile-based provisioning capabilities that speed deployment and time-to-market of Multiprotocol Label Switching (MPLS) and Metro Ethernet technologies - Working with Cisco MPLS Diagnostics Expert to provide automated, workflow-based troubleshooting and diagnostic capabilities for MPLS VPN networks	9–7
Cisco Multicast Manager ***NEW UPDATES***	· Simplifies multicast monitoring and troubleshooting · Web-based network management application is ideal for: - Enterprise customers that employ multicast for financial market data - Cable operators that use multicast to transport video over IP - Service providers that need to manage a multicast VPN (MVPN) environment	9–8
CiscoWorks LAN Management Solution (LMS)	· Part of the Cisco NAPA and Cisco PACE solutions, CiscoWorks LMS provides critical applications needed to manage Cisco switch-based enterprise campus networks: - CiscoWorks Campus Manager - CiscoWorks Device Fault Manager - CiscoWorks Resource Manager Essentials and CiscoView - CiscoWorks Internetwork Performance Manager - CiscoWorks Portal and CiscoWorks Assistant	9–8
CiscoWorks Health and Utilization Manager (HUM)	· Simple Network Management Protocol (SNMP)-based MIB polling application monitors network elements (such as CPU, memory, and interfaces, and links) for their availability and usage levels and provides historical reporting · CiscoWorks HUM is licensed separately and integrates with the CiscoWorks LAN Management Solution (LMS)	9–8

ENTERPRISE UNIFIED COMMUNICATIONS MANAGEMENT

Cisco Unified Communications Management Suite	· Comprehensive portfolio of communications applications integrated with a secure network infrastructure	9–9
Cisco Unified Operations Manager ***NEW UPDATES***	· Part of the Cisco Unified Communications Management Suite, Cisco Unified Operations Manager provides contextual diagnostic tools to facilitate trouble isolation and thereby increase the productivity of an organization's network managers · Provides a real-time, service-level view of the entire Cisco Unified Communications System and presents the current operational status of each element	9–9
Cisco Unified Service Monitor ***NEW UPDATES***	· Part of the Cisco Unified Communications Management Suite, Cisco Unified Service Monitor provides a low-cost, reliable method of monitoring and evaluating voice quality in Cisco Unified Communications Solutions	9–10
Cisco Unified Provisioning Manager ***NEW UPDATES***	· Part of the Cisco Unified Communications Management Suite, Cisco Unified Provisioning Manager · Provides provisioning for Cisco Unified Communications initial deployments and implementations · Remains in place to provide ongoing operational provisioning and activation services for individual subscriber changes	9–10
Cisco Unified Service Statistics Manager ***NEW UPDATES***	· Part of the Cisco Unified Communications Management Suite, Cisco Unified Service Statistics Manager provides advanced statistics analysis and reporting capabilities	9–10
CiscoWorks QoS Policy Manager	· Supports centralized management of network quality of service (QoS) · Provides comprehensive QoS provisioning and monitoring capabilities so you can manage, tune, and optimize the performance characteristics of your Cisco network	9–11
Cisco Media Gateway Controller Node Manager	· Element manager for the fault, configuration, performance, and security management of the Cisco PGW 2200 Softswitch gateway	9–12

VIDEO, CABLE, AND CONTENT-DELIVERY MANAGEMENT

Cisco Broadband Access Center	· This centralized, automated platform controls and configures residential gateways and IP devices
	· Provides:
	  - Recognition of all devices coming into the service provider network
	  - Generation and distribution of the appropriate IP lease and configuration files based on the service provider business policies
	  - Distributed architecture with central management and single point of integration
	  - Support for tens of millions of devices and designed to deal with performance impacting avalanche scenarios
	  - Support for DOCSIS, PacketCable, CableHome, and TR-069 device types
		9–12

Cisco Broadband Troubleshooter	· Provides a diagnostic tool for RF technicians to quickly and easily isolate problems in the cable plant
	· Performs the following functions:
	  - Analyzes and sorts RF conditions into specific categories such as attenuation, provisioning, and noise or packet corruption (cyclic redundancy check [CRC]) errors
	  - Provides dashboard views of network health, cable modem termination system (CMTS), and cable modem statistic and snapshots
	  - Correlates cable modem to subscriber information
	  - Works with an optional tool to map cable modems and status to subscriber street-level views
		9–12

SECURITY AND ACCESS MANAGEMENT

Cisco Security Management Suite	· Offers best-of-class management applications as part of a self-defending network including; Cisco Security Manager, a policy-based configuration-management system designed to efficiently provision small- to large-scale Cisco firewall, VPN, and intrusion-prevention-system (IPS) deployments and Cisco Security Monitoring, Analysis and Response System (MARS), which delivers sophisticated monitoring, analysis, and mitigation functions for multivendor networks. · Together, these two products form the Cisco Security Management Suite that delivers security administration and enforcement for the Cisco Self-Defending Network.	9–12
Cisco Access Registrar	· Cisco Access Registrar is the flagship Cisco RADIUS and Diameter authentication, authorization, and accounting (AAA) server for the service provider market · Supports service provider deployment of access services by centralizing AAA information and simplifying provisioning and management	9–13
Cisco Security Monitoring, Analysis, and Response System (MARS)	· Appliance-based, all-inclusive solution provides exceptional insight into and control of an organization's existing security deployment	See 5–33

BUILDING MANAGEMENT

Cisco Network Building Mediator	· Solution that extends the network as a platform to transform the way buildings are built, operated, and experienced. The mediator is the intelligence powering the new Energy Intranet by interconnecting and enabling four critical elements: the convergence of building systems and IT and the dynamic balance of energy supply and energy demand. The integration of these disparate systems onto an IP network leads to a truly converged, energy-efficient building.
	· The strategy of the Cisco Mediator is built on:
	  - Any-to-any connectivity—Building, IT, and green technologies
	  - End-to-end management—Efficiency, conservation, and de-carbonization
	  - Extensible platform—Third-party applications and cloud services
		9–13

Cisco Network Building Mediator Manager ***NEW PRODUCT***	· Allows organizations to centrally manage their geographically dispersed buildings over an IP network · Displays network presence information, providing operators real-time visibility into the status and accessibility of their facilities · Each building or site that needs to be managed uses one or more Cisco Network Building Mediators to integrate all the building systems within that facility · Connects, monitors, aggregates, and manages this distributed network of mediators	9–15

NETWORK CONFIGURATION AND CHANGE MANAGEMENT

CiscoWorks Network Compliance Manager (NCM)	· Part of the Cisco Proactive Automation of Change Execution solution, CiscoWorks Network Compliance Manager tracks and regulates configuration and software changes throughout a multivendor network infrastructure (including Cisco routers, switches, firewalls, load balancers, and wireless access points) · Provides exceptional visibility into network changes and can track compliance with a broad variety of regulatory, IT, corporate governance, and technology best practices	9–16

Cisco Network Registrar	• Provides fast, scalable, and highly-available naming and addressing services for service provider and large enterprise networks • Cisco CNS Address and Name Registrar Dynamic Host Configuration Protocol (DHCP) server supports DHCP Safe Failover (redundant DHCP servers), dynamic Domain Name Server (DNS) updates, DOCSIS cable modems, and integration with directory services using Lightweight Directory Access Protocol Version 3 (LDAPv3)	9–16
Cisco Mobile Wireless Transport Manager	• Performs real-time updates of any system changes such as inventory, events, and performance counters • Accelerates time to service by providing GUI-based editing • Allows the operator to immediately view events from the Cisco Radio Access Network (RAN) Optimization solution and Cisco IP Transfer Point (ITP) networks • Improves network serviceability by allowing operators to proactively assess the readiness and general health of Cisco RAN and Cisco ITP enables easier network problem identification and troubleshooting • Provides northbound XML application programming interfaces (APIs) • Helps maintain system integrity by preventing accidental or malicious operations from unauthorized users	9–16
Lifecycle Services for Network Management Products and Solutions	• Technical support services that help you maximize the availability, security, and performance of your Cisco network management products	9–17
Technical Services for Operating Network Management Products	• Technical support services that help you maximize the availability, security, and performance of your Cisco network management products.	9–17

FOR MORE INFORMATION

Product Ordering
To place an order, visit: http://www.cisco.com/en/US/ordering/index.shtml.

End-of-Life and End-of-Sale
Please visit the end-of-life and end-of-sale website for a complete and up-to-date listing of products that are no longer being sold or supported, what replacement products are available, and information about product support.
http://www.cisco.com/en/US/products/prod_end_of_life.html

NOTE: This chapter provides only a subset of Cisco products and part numbers. For the most up-to-date and comprehensive information, refer to the Cisco website at http://www.cisco.com, the Cisco ordering website at http://www.cisco.com/en/US/ordering/index.shtml, or reference the URL listed in the "For More Information" section of each product.

Cisco Carrier IP NGN Management Solution (CIMS)

The Cisco Carrier IP NGN Management Solution (CIMS) abstracts service complexities and transforms them into easy-to-understand service activation and assurance routines. The correlation of faults and event reduction in CIMS helps service providers easily identify important faults and resolve issues without having detailed technical knowledge of every service type.

Ideal for Companies That Need These Features

Cisco Carrier IP NGN Management Solution (CIMS)	• Service lifecycle management with abstraction of network service • Flexible device activation • Carrier Ethernet/IP RAN service-centric debugging and service dashboard • Increased operational efficiency

Key Features and Benefits

- Point-and-click, GUI-based service activation that simplifies and helps ensure a standardized, reliable, and repeatable service activation process regardless of technology and service type
- Service at-a-glance dashboard that allows operators to easily see which services have been affected because of problems on the network
- Allows operators to run standardized diagnostics regardless of the network and service technology
- Enables standardized processes and procedures independent of technical implementations and provides built-in support for Ethernet CFM
- Extensive platform support and multivendor "ready" that provides built-in support for Cisco hardware and supports multivendor extensibility that can be developed through Cisco Advanced Services.

For More Information
http://www.cisco.com/go/ctm

Cisco Network Application Performance Analysis Solution

The Cisco Network Application Performance Analysis (NAPA) solution provides comprehensive application and network performance visibility across the Cisco Borderless Network to empower network managers to solve next-generation application delivery challenges and improve the end-user experience.

Key Features and Benefits

- Improves application performance with effective use of Cisco control and optimization mechanisms, such as QoS and Cisco Wide Area Application Services (WAAS)
- Accelerates problem resolution and increases operational efficiency with advanced troubleshooting
- Preempts performance issues with threshold-based, proactive alerts
- Assesses impact on application and network behavior from changes such as WAN optimization, VM migration, application roll-out, and so on
- Gains visibility into virtual machine (VM) network including real-time monitoring of VMs while being migrated with VMotion

For More Information

http://www.cisco.com/go/napas

Cisco Proactive Automation of Change Execution (PACE) Solution

The Cisco Proactive Automation of Change Execution solution combines products and services that accelerate operational success by helping IT organizations securely automate and control network changes and configurations. This solution helps enterprises meet compliance requirements, accelerate growth, ensure business continuity, and increase user productivity. The solution is optimized to help medium-sized to large enterprises with challenges relating to compliance, in-house expertise, network complexity, and growth.

Solution Overview

- Cisco PACE Portal and Components
- CiscoWorks Network Planning Solution
- EMC Voyence Control
- CiscoWorks LAN Management Solution
- CiscoWorks Quality of Service (QoS) Policy Manager
- Cisco PACE Advanced Services

Key Features and Benefits

The Cisco PACE solution is optimized to help medium-sized to large enterprises address the challenges of compliance, growth, network complexity, and in-house expertise.

- Compliance—Adapt quickly to changing regulations such as:
  - Sarbanes Oxley (SOX)
  - Control Objectives for Information and Related Technology (COBIT)
  - IT Infrastructure Library (ITIL)
  - Gramm-Leach-Bliley Financial Modernization Act (GLBA)
  - Visa Cardholder Information Security Program (Visa CISP)
  - Payment Card Industry (PCI) Data Security Standards
  - Health Insurance Portability and Accountability Act (HIPAA)
  - Committee of Sponsoring Organizations (COSO) of the Treadway Commission
  - Custom regulations

For More Information

http://www.cisco.com/go/pace

Cisco Video Assurance Management Solution

Get real-time centralized monitoring of your core, distribution, and aggregation networks for broadcast video transport. The Cisco Video Assurance Management Solution (VAMS) provides the framework for a flexible end-to-end assurance management platform for video

The Cisco Video Assurance Management Solution comprises the following building blocks:

- Cisco Multicast Manager—Monitors any changes in the multicast trees that might affect video performance.
- Cisco Info Center—Actively manages network events to help you maintain video service uptime and quality.
- Cisco Active Network Abstraction—Supports correlation and aggregation of events in the core, distribution, and aggregation networks.
- Third-party video probes—Help you identify, isolate, and troubleshoot video errors at demarcation points along the video path in the network; supported video probes include: Tektronix MTM400, Ineoquest, and Mixed Signals

Ideal for Companies That Need These Features

Cisco Video Assurance Management Solution
- Reduced mean time to repair (MTTR)
- Proactive video-transport monitoring
- Enhanced video quality of experience
- Increased operational efficiency

Key Features and Benefits

- Dynamic visualization of video metrics
- Custom service views
- Root-cause analysis
- Integration with other operations-support-system (OSS) and business-support-system (BSS) solutions
- Proactive video transport monitoring
- Data collection from probes
- Multicast data collection

For More Information

http://www.cisco.com/go/vams

Cisco Catalyst 6500 Series/Cisco 7600 Series Network Analysis Modules 1 and 2
Cisco Branch Series Routers Network Analysis Module
Cisco NAM 2200 Series Appliances
Cisco WAAS NAM Virtual Service Blade
Cisco Nexus 1000V NAME Virtual Service Blade

The Cisco Network Analysis Modules (NAMs) provides comprehensive performance monitoring, exceptional traffic analysis, and insightful troubleshooting to help today's dynamic, evolving enterprises manage and improve application and network performance. The broad portfolio of Cisco NAMs, which encompasses integrated services modules, self-contained appliances, and now virtual service blades, arms you with what you need to manage performance throughout the Cisco borderless network.

Ideal for Companies That Need These Features

Cisco Network Analysis Modules
- Consistent and efficient delivery of applications and services to end users
- Improved operational effectiveness of switch, server, client, and application resources
- Assured delivery of VoIP services
- Visibility into Cisco WAAS improvements on application delivery
- Operational insight into virtual machine (VM) network including VM-to-VM interactions
- Quantification of the "before and after" of a business change on networks and applications
- Deployment flexibility with integrated service modules, virtual service blades and standalone appliances

Key Features and Benefits

- Transaction-aware Intelligent Application Performance (IAP)—Provides granular application performance metrics in both WAAS and non-WAAS environments to accurately characterize and improve the end user experience
- Comprehensive flow-based monitoring—Automatically identifies hundreds of protocols and provides real-time and historical usage reports on the traffic with the greatest potential impact on critical resources - top applications, top hosts, top conversations
- Web-based captures for deep, insightful data analysis—Captures the packets to help resolve acute problems before they affect users. Extensive capture features, including trigger-based captures, decodes, filters, and a capture analysis toolset, help to quickly pinpoint and resolve problem areas.
- Superior voice-quality monitoring—Uses mean opinion score (MOS) and critical performance indicators such as packet loss and jitter to help improve the quality of voice service. In addition, the NAM provides RTP-based analytics to help provide a view of the realtime media data path.

For More Information

http://www.cisco.com/go/nam

Cisco Active Network Abstraction

Cisco Active Network Abstraction (ANA) is a flexible and powerful multivendor network resource management system. Cisco ANA enables value-added network and service management applications in a multitechnology, multiservice network environment.

The core technology of Cisco ANA includes a unique Virtual Network Element abstraction model that dynamically discovers and identifies basic network components, while obtaining end-to-end visibility of network resources, connections, and dependencies. The building blocks of this model are autonomous, virtual software-based network devices, each one cloning the characteristics and properties of its real-world counterpart. The aggregation of these devices creates the virtual model in the same way an aggregation of network elements creates a real-world network.

Ideal for Companies That Need These Features

Cisco Active Network Abstraction

- Multivendor network resource management
- A common device management infrastructure that will be compatible with future versions
- Simplified integration of OSS applications from one authoritative source
- Vendor-neutral management platform
- Consistent procedures and interfaces for all network elements
- Standards-based access to near real-time device and network information
- Integration software development kit for developers

Key Features and Benefits

- Cisco Configurable Device Management Platform—The device management platform provides a single solution for multidevice, multitechnology, and multivendor element management. The platform features unified monitoring and configuration, and comes complete with prepackaged, commonly used element-management-system (EMS) functions.
- Cisco Network Fault Isolation and Service Fault Isolation—This technology provides extensive fault-analysis capabilities for quick and accurate fault detection, isolation, and correlation. It reduces trouble-ticket flooding by analyzing the structure, configuration, and dependencies (logical and physical) of the virtual network to track down the virtual source of the fault to accurately reveal the real problem. With this technology, no costly rule maintenance is required.
- Cisco Network Discovery and Service Discovery—This technology provides accurate, real-time discovery of the network inventory, topology, and services. It allows users to view physical network aspects and topological relationships, and it accurately displays the logical inventory, complete with a service view, that spans network layers.
- Cisco Service Activation—This feature facilitates automatic configuration of any device regardless of vendor, model, or software version. The combined activation and configuration process dramatically quickens deployment, while eliminating unnecessary and error-prone manual processes. All activation and configuration activities are done in parallel with no single point of congestion.

For More Information

http://www.cisco.com/go/ana

Cisco IP Solution Center

Cisco IP Solution Center is a family of intelligent network-management applications that help reduce administration, management, and network operational costs

Ideal for Companies That Need These Features

Cisco IP Solution Center

- Scalable and reliable architecture for large-scale operations
- Single server solution and web GUI
- Open APIs and OSS interfaces that help:
  - Integrate IP VPN services into existing infrastructure
  - Integrate Cisco fault-management products with independent software vendor products for VPN-aware performance reporting

Key Features and Benefits

- Tracking of Layer 3 and Layer 2 resources
- Rapid profile-based provisioning
- Autodiscovery of Layer 3 VPN and Layer 2 VPN services
- Ability to recognize incorrect service configuration
- Investment protection from Cisco IOS Software and Cisco IOS XR Software and line card changes

For More Information

http://www.cisco.com/go/isc

Cisco Multicast Manager

Cisco Multicast Manager is a web-based network-management application that simplifies the holistic discovery, visualization, monitoring, and troubleshooting of multicast networks to help ensure business continuity. This solution is appropriate for enterprise customers that employ multicast for financial market data for multiple system operators (MSOs) use multicast to transport video over IP, and for service providers that need to manage their multicast VPN (MVPN) environment.

Ideal for Companies That Need These Features

Cisco Multicast Manager
- As enterprise customers, the ability to employ multicast for financial market data
- As a cable operator, the ability to use multicast to transport video over IP
- As a service provider, the ability to manage multicast VPN (MVPN) environment

Key Features and Benefits

- Video operations solution—Provides monitoring support for video probes to detect poor-quality video
- Enhanced address management database—Indicates which video channels are being affected when problems with specific multicast groups are detected
- Monitoring and diagnostics for MVPNs
- Support for one-time passwords with TACACS
- Support for the Cisco Carrier Routing System (CRS) and Cisco Advanced Services Routers (ASR)

For More Information

http://www.cisco.com/go/cmm

CiscoWorks LAN Management Solution (LMS)

CiscoWorks LAN Management Solution (LMS) is an integrated suite of management tools that simplify the configuration, administration, monitoring, and troubleshooting of Cisco networks. Built on popular, Internet-based standards, CiscoWorks LMS applications help network operators manage the network through a browser-based interface that can be accessed anytime and from anywhere within the network. CiscoWorks LMS maintains a centralized list of all Cisco network devices and their credentials. The list serves as a single repository for all CiscoWorks applications, whether they are installed locally or distributed in a multiserver deployment. CiscoWorks LMS Portal facilitates functional views that can be tailored to meet the needs of an individual or group of network operations staff, simplifying integration and navigation between Cisco network products and other third-party application functions.

Ideal for Companies That Need These Features

CiscoWorks LAN Management Solution
- A centralized system for sharing device information across all LMS applications
- Network discovery, topology views, end-station tracking, and VLAN management
- Real-time network discrepancy analysis with easy-to-deploy, device-specific best-practices templates
- Hardware and software inventory management, centralized configuration tools, and syslog monitoring
- Network response time and availability monitoring and tracking
- Real-time device, link, and port traffic management, analysis, and reporting
- Flexible license model

Key Features and Benefits

- CiscoWorks Device Fault Manager provides detailed, real-time detection, analysis, and reporting of device faults. It often identifies problems before users realize they exist.
- CiscoWorks Campus Manager configures, manages, and visualizes complex physical and logical Layer 2 infrastructures, including VLAN, user tracking, and topology visualization tool.
- CiscoWorks Resource Manager Essentials provides network inventory, device configurations and changes, software updates, and syslog analysis.
- CiscoWorks Internetwork Performance Monitor offers proactive measurement of network response time and availability as well as real-time and historical analysis of congestion and latency problems.
- In CiscoWorks CiscoView, front-panel graphical displays of Cisco devices simplify user interaction with device components to change configuration parameters and monitor statistics.
- CiscoWorks Common Services provides a common model for data storage, login, user-role definitions, access privileges, and security protocols, as well as navigation and launch management.

For More Information

http://www.cisco.com/go/lms

CiscoWorks Health and Utilization Manager (HUM)

CiscoWorks Health and Utilization Manager is a Simple Network Management Protocol (SNMP)-based MIB polling application that monitors network elements (such as CPU, memory, and interfaces or links) for their availability and usage levels and provides historical reporting. The application is offered separately and integrates with the CiscoWorks LAN Management Solution (LMS)

Ideal for Companies That Need These Features

CiscoWorks Health and Utilization Manager
· An add-on to CiscoWorks LMS for monitoring the health and usage of critical MIB parameters, such as CPU usage, interface and port availability, and so on, with historical trending and reporting

Key Features and Benefits

· Monitors CPUs, memory, and interfaces and ports for usage and availability levels
· Provides historical trending on a daily, weekly, monthly, and annual basis
· Supports integration with CiscoWorks LMS
· Offers comprehensive reporting through, for example, a device dashboard, custom reports, and Top-N/Bottom-N reports
· Provides threshold breach event notification, reporting, and event handler support

For More Information

http://www.cisco.com/en/US/products/ps9303/index.html

Cisco Unified Communications Management Suite

Cisco Unified Communications Management Suite is a comprehensive portfolio of communications applications integrated with a secure network infrastructure. To take full advantage of such a system, organizations need a communications-management solution that provides a dashboard view of the entire system status.

Solution Overview

· Cisco Unified Provisioning Manager
· Cisco Unified Operations Manager
· Cisco Unified Service Monitor
· Cisco Unified Service Statistics Manager

Key Features and Benefits

Cisco Unified Communications Management Suite allows you to:
· Collect, analyze, and report statistical information from the network
· Manage moves, adds, and changes
· Track and report on user experience and mean opinion scores
· Monitor network elements, including Cisco Unified Communications Manager, the Cisco Unity system, gateways, and endpoints, including the underlying network
· Identify and diagnose problems, and test and track changes
· Maintain network inventory
· Deploy and provision the network

For More Information

http://www.cisco.com/en/US/products/ps5747/Products_Sub_Category_Home.html

Cisco Unified Operations Manager

Part of the Cisco Unified Communications Management Suite, Cisco Unified Operations Manager features out-of-the-box, real-time, service-level monitoring of all system elements. It performs automatic discovery for the entire system and provides contextual diagnostics for rapid troubleshooting. With Cisco Unified Operations Manager there are no rules to write, no thresholds to define, and no extensive, time-consuming initial setup

Ideal for Companies That Need These Features

Cisco Unified Operations Manager
· Real-time notifications and reports about the status of the network monitored to a higher-level entity
· Ability to manage multisite and multicluster unified communications environments
· Reduced administrative overhead through sharing device and credential information with other CiscoWorks tools deployed in the enterprise

Key Features and Benefits

· Real-time visualization and monitoring of the entire Unified Communications system supports more efficient troubleshooting
· Active service assurance ensures that devices and applications are functioning as they should, and reveals faults and performance issues before they affect service
· Powerful diagnostic tests and troubleshooting capabilities rapidly isolate faults and increase productivity
· Correlation, analysis, and presentation of voice service quality data and alerts make use of information available through Cisco Unified Service Monitor
· Inventory and change monitoring enable tracking of complete details of unified communications devices and IP phone inventory
· Cisco Unified Operations Manager does not deploy any agent software on the devices being monitored, so it will not disrupt system operations

For More Information

Cisco Unified Service Monitor

Part of the Cisco Unified Communications Management Suite, Cisco Unified Service Monitor offers an affordable, reliable way to continuously monitor active calls supported by the Cisco Unified Communications System. Cisco Unified Service Monitor also provides near real-time notification when the voice quality of a call fails to meet a user-defined quality threshold.

Ideal for Companies That Need These Features

Cisco Unified Service Monitor
- Real-time management information and diagnostic tools to help ensure an efficient deployment and subscriber satisfaction
- Immediate monitoring and assessment of the quality of IP-based calls without elaborate setup or complicated installation problems

Key Features and Benefits

- Flexible and comprehensive voice-quality measurements through a combination of Cisco Voice Transmission Quality (VTQ) metrics from Cisco IP phones, Cisco 1040 sensors, and Network Analysis Module version 4.0 and above
- Ability to pinpoint the network segment causing call-quality degradation
- Top N reports and enhanced data filters for call-quality analysis
- Advanced quality thresholds
- Near real-time Simple Network Management Protocol (SNMP) alerts on quality threshold violations
- Integrates with Cisco Unified Operations Manager to display call-quality violations on Service Quality Alerts display
- Integrates with Cisco Service Statistics Manager for long-term trend and capacity planning reports

For More Information

http://www.cisco.com/go/cusm

Cisco Unified Provisioning Manager

Part of the Cisco Unified Communications Management Suite, Cisco Unified Provisioning Manager supports the implementation of Cisco Unified Communications, as well as ongoing, simplified operational provisioning and activation services for individual subscriber changes.

Ideal for Companies That Need These Features

Cisco Unified Provisioning Manager
- Ability to perform initial installation and deployment of Cisco Unified Communications network elements and services
- Ability to perform ongoing operational provisioning and activation of services and subscriber changes
- Cost control for deployments and ongoing service provisioning
- Policy control of management and services

Key Features and Benefits

- Activation services for full lifecycle management
- Provides a consolidated view of subscribers across the organization
- Manages subscriber services across the Cisco Unified Communications infrastructure using policy-driven, business-level management abstractions
- Drives down initial deployment costs by permitting reuse of defined configurations for new site or location deployments
- Batch provisioning permits the rollout of large numbers of subscribers at once, avoiding inefficient and repetitive tasks
- Policy-driven, delegated management reduces ongoing costs, and expertise required to manage network changes yet retains management oversight

For More Information

http://www.cisco.com/go/cupm

Cisco Unified Service Statistics Manager

Part of the Cisco Unified Communications Management Suite, Cisco Unified Service Statistics Manager provides advanced statistics analysis and reporting capabilities for Cisco Unified Communications deployments. Cisco Unified Service Statistics Manager is an easy-to-use, web-based software product that provides a variety of easy-to-use, yet advanced executive and operational reports, enhancing capacity planning and budgeting.

Ideal for Companies That Need These Features

Cisco Unified Service Statistics Manager
· Statistical reporting, trending, and analysis for small, medium, and large Cisco Unified Communications deployments

Key Features and Benefits

· Optimizes network resources and increases operational efficiency by providing visibility into key metrics such as call volume, service availability, call quality, resource utilization, and capacity
· Allows users to collect and analyze statistics from a variety of sources to define service-level agreement (SLA) constructs
· Trend analysis capabilities can help identify potential adverse developments before they impact service
· Provides customizable report templates and automatic report invocation and scheduling features
· Enables the export of data and reports in a variety of file formats, including HTML, PDF, and comma-separated value (CSV)

For More Information

http://www.cisco.com/go/cussm

CiscoWorks QoS Policy Manager

CiscoWorks QoS Policy Manager (QPM) allows administrators to centrally define and administer Cisco IOS Software and Cisco Catalyst Operating System parameters needed for differentiating network traffic. This application helps to ensure high availability and predictable performance for business-critical applications that rely on advanced voice and video services.

Ideal for Companies That Need These Features

CiscoWorks QoS Policy Manager
· End-to-end QoS configuration and automated, reliable policy deployment, while eliminating device-by-device command streams
· Rules-based policies that combine static and dynamic port applications and host system traffic filters
· Cisco QoS Policy Manager services, including congestion management and avoidance and traffic shaping
· Ability to efficiently translate policies to specific QoS configuration commands to ensure consistency across domains
· Ability to validate policies quickly and reliably to LAN and WAN policy domains prior to deploying them
· Ability to generate web-based reports on QoS policies deployed in the network

Key Features and Benefits

· Cisco QPM measures traffic throughput for top applications and service classes and troubleshoots problems with real-time and historical quality-of-service (QoS) feedback.
· Cisco QPM centrally defines roles and permissions for use with the Cisco Secure Access Control Server (ACS) privilege control. Policy views can be modified and deployed for different device groups.
· The application partitions the network into administrative and deployment domains and uses policy libraries for global QoS configuration. It modifies, scales, and monitors Cisco IOS AutoQoS voice policies on routers.
· Cisco QPM uses the secure, web-based GUI for accurate end-to-end QoS configuration and automated, reliable policy deployment, while eliminating device-by-device command streams. The Setup wizard intelligently determines QoS policies and properties at each network point that requires IP telephony QoS configuration based on Cisco design recommendations.
· Cisco QPM exposes QoS policy conflicts, uploads existing device configurations, presents command-line-interface (CLI) syntax that corresponds to policies, allows previewing of configuration changes before deployment, supports incremental access-control-list (ACL) updates, defines ACL ranges, and restores or applies a previous version of a policy database and backup to a remote server.
· An integral part of Cisco content networking, Cisco QPM Version 3.2 delivers the appropriate service levels to business-critical applications by supporting the extension of IP packet classification to include application signature, web URLs, and negotiated ports.
· Cisco QPM facilitates congestion management, congestion avoidance, and bandwidth control by selectively activating QoS mechanisms on intelligently grouped LAN and WAN interfaces and providing support for external application programming interfaces (APIs) to trigger event-based policy distribution.
· The application extends security by defining access-control policies to permit or deny transport of packets into or out of device interfaces.
· Cisco QPM supports device inventory import from CiscoWorks Resource Manager Essentials, shortening configuration time for devices targeted for policy enforcement and QoS monitoring.

For More Information

http://www.cisco.com/go/qpm

Cisco Media Gateway Controller Node Manager

Cisco Media Gateway Controller (MGC) Node Manager is a Cisco element manager for fault, configuration, and performance management of the Cisco PGW 2200 Softswitch. It integrates management access to all node components, effectively representing them as a single entity to the network operator. The software provides views of individual managed devices and logical objects, such as trunk groups and signaling links, making it easier to manage the components that make up a voice-over-IP (VoIP) media gateway control node.

Ideal for Companies That Need These Features

Cisco Media Gateway Controller Node Manager
- Network surveillance
- Cisco MGC Node Manager Diagnostic Tools
- Provisioning and configuration
- User access and performance

For More Information

http://www.cisco.com/en/US/products/sw/netmgtsw/ps1912/index.html

Cisco Broadband Access Center

Cisco Broadband Access Center (BAC) allows service providers to centralize the provisioning and management of subscriber devices through fully redundant and distributed product architecture.

Ideal for Companies That Need These Features

Cisco Broadband Access Center
- As a service provider, the ability to manage subscribers with network services using cable and DSL CPE devices

Key Features and Benefits

- Cisco BAC automatically recognizes end-user devices coming onto the service provider network. It assigns an appropriate class of service, dynamically generates device configuration files, and activates subscribers.
- Cisco BAC supports both preprovisioning of devices (giving customers a ready-to-use experience) and autoprovisioning so that service providers can easily support self-registration of customer-provided cable and DSL access devices.
- The solution provides embedded, high-performance data storage, optimized for device provisioning.
- Cisco BAC requires no additional external database.
- The solution provides an integrated Kerberos Protocol server for CableLabs PacketCable voice service provisioning.
- Cisco BAC has a Java-based provisioning application programming interface (API).
- Cisco BAC appliance-based distributed information caching and processing servers offer true scalability.

For More Information

http://www.cisco.com/en/US/products/sw/netmgtsw/ps529/index.html

Cisco Broadband Troubleshooter

Cisco Broadband Troubleshooter is an easy-to-use tool that gives network administrators and technicians a GUI that streamlines RF problem resolution. The tool dynamically monitors RF characteristics on a per-modem or per-upstream basis, provides a measurement interface for the upstream that looks and feels like a spectrum analyzer, decentralizes RF monitoring and analysis, and automatically sorts and categorizes RF problem conditions. The product provides a fault-analysis tool that facilitates isolation of performance, cable plant, and Cisco Unified Communications Manager problems and characterizes upstream and downstream trouble patterns. Operators can quickly discern customer-premises-equipment (CPE) connectivity impairments by identifying noise, attenuation, provisioning, and packet-corruption problems.

For More Information

http://www.cisco.com/en/US/products/sw/netmgtsw/ps530/index.html

Cisco Security Management Suite

The Cisco Security Management Suite is a framework of next-generation security-management tools designed for the operational management and policy administration of the Cisco Self-Defending Network. This suite of integrated applications simplifies the management process by automating tasks associated with the functional areas of security management: configuration, monitoring, analysis, mitigation, identity, and auditing. The result is an increased level of security assurance, better organizational productivity, and lower overall total cost of ownership (TCO).

The primary components of the Cisco Security Management Suite include the Cisco Security Manager and the Cisco Security Monitoring, Analysis, and Response System (MARS). With a powerful set of applications, an integrated architecture, and a comprehensive partnering strategy, the Cisco Security Management Suite is positioned to provide organizations with a best-of-class management solution for their security networks. This solution gives administrators tools that automate and simplify operational tasks.

The Cisco Security Management Suite delivers increased security, better organizational productivity, and lower overall TCO.

Ideal for Companies That Need These Features

Cisco Security Management Suite
- Policy consistency and security assurance
- Rapid threat mitigation for improved company network uptime
- Better control of and access to security information for forensics analysis and reporting
- Accounting and tracking of user network access and authorization

Key Features and Benefits

- Provides a single integrated application for managing for managing firewall, VPN, and intrusion-prevention-system (IPS) security services on Cisco security appliances and modules, routers, and switches
- Reduces operational expenses while at the same time improving provisioning accuracy and consistency
- Collaborates with Cisco Security MARS to form a comprehensive security management solution encompassing security provisioning, event monitoring, threat detection, and mitigation
- Allows faster response to threats by defining and assigning new security policies to thousands of devices in a few simple steps
- Provides ease-of-use with a rich GUI
- Supports true enterprise-class operational environments with support for multiple simultaneous security administrators with fine-grained control of access permissions; an optional "workflow" mode allows the security and network operations staff to work together effectively with the appropriate division of responsibilities
- Supports provisioning for Cisco router platforms running a Cisco IOS Software security software image, Cisco ASA 5500 Series Adaptive Security Appliances, Cisco PIX security appliances, Cisco IPS 4200 Series Sensors, Cisco Catalyst 6500 Series/7600 Series with security services modules, and Cisco Catalyst 3000 and 4000 Series Switches

For More Information

http://www.cisco.com/en/US/solutions/collateral/ns340/ns394/ns171/ns625/ns647/net_brochure0900aecd80400060.html

Cisco Access Registrar

Cisco Access Registrar is a standards-based RADIUS/Diameter and proxy RADIUS/Diameter server designed for high performance, extensibility, and integration with external data stores and systems. It provides an ideal solution for service providers with wide-area broadband (WiMax), wide-area mobile Code Division Multiple Access (CDMA), General Packet Radio Service (GPRS), Universal Mobile Telecommunications Service (UMTS), 1xRTT, 1xEV-DOrA), wired and wireless local-area networks (Wi-Fi, WiMax), dial-up, and DSL services.

Ideal for Companies That Need These Features

Cisco Access Registrar
- Service providers that are looking for a high performing and most extensible AAA server for their network.

Key Features and Benefits

- Cisco Access Registrar is RADIUS and Diameter compliant for multiple dial-in Network Access Server (NAS) devices to share a common database.
- Cisco Access Registrar provides support for IPv6 interfaces.
- Cisco Access Registrar provides many features including Authentication, Authorization, and Accounting, Proxy, database and LDP configuration, resource allocation and session management, system tuning and configuration, troubleshooting, and monitoring.

For More Information

http://www.cisco.com/go/car

Cisco Network Building Mediator

The Cisco Network Building Mediator ("Mediator") is the industry's first solution that extends the network as a platform to transform the way buildings are built, operated, and experienced. The Mediator:

- Enables sustainable energy reduction across global operations
- Takes full advantage of Cisco's expertise in collaboration, convergence, and security to foster sustainable energy use
- Helps ensure that network applications will be compatible with future versions by providing flexible integration of new technologies that deliver energy efficiency, clean energy, and environmental stewardship

The Cisco Mediator is the intelligence powering the new Energy Intranet by interconnecting and enabling four critical elements: the convergence of building systems and IT and the dynamic balance of energy supply and energy demand. The integration of these disparate systems onto an IP network leads to a truly converged, energy-efficient building.

The strategy of Cisco Mediator is built on:

- Any-to-any connectivity—Building, IT, and green technologies
- End-to-end management—Efficiency, conservation, and de-carbonization
- Extensible platform—Third-party applications and cloud services

The Cisco Mediator collects data from the building, IT, energy supply, and energy demand systems that use different protocols and are otherwise unable to communicate. The mediator then normalizes the data into a common data representation, enabling it to perform any-to-any protocol translation and provide information to the end user in a uniform presentation.

This network-based framework creates a common, standards-based, open platform that then allows enterprise applications, cloud services, and building and IT systems to communicate. Protocol agnostic, Cisco Mediator extends the network to serve as an effective foundation for sustainability management.

Key Features and Benefits

- Cisco Mediator supports Cisco EnergyWise technology to manage energy across IT and facilities.
- The mediator supports network protocols such as Simple Network Management Protocol (SNMP), Simple Object Access Protocol (SOAP), and XML.
- The solution supports open standard building automation protocols such as BACnet and Modbus.
- Cisco Mediator supports other third-party building automation protocols.
- Any-to-any protocol translation allows communication between multivendor systems.
- Cisco Mediator supports energy meters, including pulse meters and smart meters (Modbus or IP).
- The solution allows for flexible integration of energy-generating and energy-consuming devices.
- The solution provides tools to both monitor real-time energy consumption and create automated policies to control it.
- The solution supports automated demand response and automated fault diagnostics.
- The platform is hardened and secured through the Cisco Self-Defending Network.
- Role-based access control offers increased user security.
- Communication is secured through certificate encryptions.
- Cisco Mediator provides interactive, menu-directed tools that allow you to:
  - Configure the interfaces and protocols on the mediator
  - Create and edit schedules, alarms, logs, and trends
  - Perform remote installation
  - Back up and restore configuration
- The solution provides a graphical programming tool that allows users with a working knowledge of controls and automation to translate their knowledge into efficient and powerful control logic.
- The management framework is web-based.
- With this solution you can control and manage devices over the Internet.
- Cisco Mediator presents real-time information in web-based graphical views.
- With Cisco Mediator you can create customized webpages for facility operations management.
- Cisco Mediator provides a standards-based open interface that allows third-party applications to integrate with the mediator and offer services "over the cloud". Examples of such cloud services include:
  - Remote energy management
  - Automated demand response
  - Automated fault diagnostics
  - Remote facility management

Specifications

Feature	Cisco Network Building Mediator
Processor	Pentium-class @ 266 MHz
Memory	512 MB of SDRAM and 512 MB of Compact Flash
Communications	· 1- console port (RS-232) · 2- RS-232 · 4- RS-485 · 2- 10/100 BASE-T Ethernet ports · 4- Dallas 1-Wire® ports (for distributed I/O points) · 2- USB ports
Inputs	4- Counters (optionally, general purpose digital inputs)
Outputs	2- Solid-State single-pole relay outputs (0-60V, 1.0A AC/2.0A DC outputs, opto-isolated)
Power	24V DC or AC (24 universal DC power supply provided with unit)
Wattage	Typically 6 Watts (maximum 10 Watts)
Weight	Approximately 35 oz.
Size	Approximately 8" x 6" x 1" (housing cover)
Temperature	Recommended ambient range: 0° to 70°C (32° to 158°F)
Agency listings	Safety—UL 60950-1, CAN/CSA-C22.2 No. 60950-1 EMC Emissions—47CFR Part 15 (CFR 47) Class A, CISPR2 2 Class A, EN55022 Class A, ICES003 Class A, EN61000-3-2, EN61000-3-3

Selected Part Numbers and Ordering Information

NBM4800-K9	Cisco Network Building Mediator 4800-Include 2000 Pts
NBM4800-PL	Cisco Network Building Mediator 4800-Add 1000 Pts License
NBM4800-INT	Cisco Network Building Mediator 4800-Intermediate Protocols
NBM4800-ADV	Cisco Network Building Mediator 4800-Advanced Protocols
NBM2400-K9	Cisco Network Building Mediator 2400-Include 250 Pts
NBM2400-PL	Cisco Network Building Mediator 2400-Add 250 Pts License
NBM2400-INT	Cisco Network Building Mediator 2400-Intermediate Protocols

For More Information

http://www.cisco.com/go/mediator

Cisco Network Building Mediator Manager

Each building or site that needs to be managed uses one or more Cisco Network Building Mediators to integrate all the building systems within that facility. The Cisco Network Building Mediator Manager connects, monitors, aggregates, and manages this distributed network of mediators. The mediator manager includes a global navigator that provides visualization and presence for the dispersed deployment, global alarm monitoring for centralized event management, and tools for defining schedules and set points that apply across all facilities, helping to standardize facility operations and increase efficiencies in facility management.

Key Features and Benefits

- Provides global navigator that includes network presence information for enterprise-wide visibility of facility operations
- Provides global set-point control for changing system set points across all facilities
- Offers global alarm monitoring portal with the ability to redirect or route alarms to workflow management systems
- Provides global, unified schedules that apply across all facilities and across all subsystems
- Offers navigation capability from global site view to local site view
- Provides site dashboard highlighting important site parameters
- Provides site view that includes graphical equipment status pages for critical systems such as heating, ventilation, and air conditioning (HVAC), lighting, and metering
- Offers direct control of local site and equipment set points from enterprise portal

Specifications

Processor	Quad-core Intel Xeon (Nehalem)
Memory	6 GB
Hard Disk	2 x 300-GB SAS RAID drives
Ethernet	Ethernet network interface cards (NICs): 2 x Integrated NICs, 2 x Gigabit NICs (PCI-X)
Interfaces	1 serial port, 4 USB 2.0 ports, 1 keyboard port, 1 video port, 1 mouse port
Form Factor	Rack-mounted 1 RU
Weight	35 lb (15.87 kg) fully configured
Dimensions	1.70 x 16.78 x 27.75 in

Selected Part Numbers and Ordering Information

NBM-MGR-6300-K9	Cisco Network Building Mediator Manager 6300
NBM-MGR-50N-LIC	Cisco Network Building Mediator Manager (50-node license)

For More Information

http://www.cisco.com/go/mediator

Cisco Network Compliance Manager (NCM)

Cisco Network Compliance Manager identifies and corrects trends that could lead to problems such as network instability and service interruption.

Ideal for Companies That Need These Features

Cisco Network Compliance Manager
- Tracks and regulates configuration and software changes throughout your multivendor network infrastructure (including routers, switches, firewalls, load balancers, and wireless access points)
- Improves visibility into network changes
- Tracks compliance with a broad variety of regulatory, IT, corporate governance, and technology best practices

Key Features and Benefits

- Flexible incremental licensing based on number of nodes
- Software image management with validation and recommendation
- End of Sale and End of Life reporting and notification
- Policy- and rule-based compliance reporting and management
- Rule-based prevalidation and configuration
- Sophisticated search capability
- Extensive support for a broad range of vendor equipment

For More Information

www.cisco.com/go/ncm

Cisco Network Registrar

Cisco Network Registrar is a full-featured Domain Name Server/ Dynamic Host Configuration Protocol (DNS/ DHCP) system that provides scalable naming and addressing services for service provider and enterprise networks. The application dramatically improves the reliability of naming and addressing services for enterprise networks.

Ideal for Companies That Need These Features

Cisco Network Registrar
- Usability, better lease reservation performance, and an enhanced IPv6 capability to facilitate DOCSIS 3.0 deployment

Key Features and Benefits

- Real-time server status dashboard
- Carrier-class lease reservation performance
- Sanity check before installation
- Configuration wizard—A configuration wizard helps users navigate through different Cisco Network Registrar configuration steps
- Searching capability improvement
- Installation wizard
- Lease query conformance
- Enhanced error reporting
- DHCPv6 enhancements

For More Information

http://www.cisco.com/en/US/products/sw/netmgtsw/ps1982/index.html

Cisco Mobile Wireless Transport Manager

With the Cisco Mobile Wireless Transport Manager (MWTM), Cisco offers monitoring and management capabilities for the Cisco Global System for Mobile Communications (GSM) Radio Access Network (RAN) Optimization solution, Cisco IP Transfer Point (ITP) networks, and Cisco Mobile Service Exchange Framework (mSEF).

Ideal for Companies That Need These Features

Cisco Mobile Wireless Transport Manager
- Easy navigation through the various management and troubleshooting tasks required to support the GSM backhaul infrastructure

Key Features and Benefits

- Event monitoring
- Performance reporting
- Troubleshooting

- Operations-support-system (OSS) integration
- Wizard-based provisioning
- Autodiscovery and topology
- Security
- Client/server architecture and OS support

For More Information

http://www.cisco.com/go/mwtm

Lifecycle Services for Network Management Products and Solutions

Cisco and our authorized partners provide a comprehensive portfolio of services for your network management solutions across the planning, design, implementation, and operate phases of the Cisco Lifecycle Services approach.

Planning, Design, and Implementation Services

Cisco and our global network of partners help you increase your success through world-class professional services delivery. Proven methodologies and leading practices help you better understand and improve the state of your operations and your Cisco network management solutions and processes. In addition to increased customer satisfaction, these services help reduce the complexities of deploying network services and reduce excess operating costs for your business. These innovative service programs are delivered through a unique combination of consulting engineers, processes, tools, and partners to address your planning needs. Implementation service activities are delivered primarily through Cisco Certified Partners.

Cisco Services for Operations and Network Management

- Accelerate your design and implementation of network management solutions
- Increase the accuracy and efficiency of your Cisco Operations and Network Management solution deployment by providing expertise and methodologies
- Help to ensure the Cisco Operations and Network Management solution delivers expected features and functions through involvement in all aspects of the plan, design, and implementation activities
- Improve your operations staff's productivity by enhancing staff skills to support the Cisco Operations and Network Management solution

For More Information

http://www.cisco.com/en/US/products/ps6835/serv_group_home.html

Technical Services for Operating Network Management Products

Cisco and our authorized partners offer technical support services that help you maximize the availability, security, and performance of your Cisco network management products. These services are available through your Cisco account manager or your local authorized partner.

Application Support

Application software support services are essential to keeping business-critical applications available, secure, and operating at optimal performance. They can help you reduce security, operational, and business risk by simplifying the process of keeping software releases current and supporting your staff with Cisco expertise and online tools.

Cisco Application Support for Network Management products include Software Application Support (SAS) and Software Application Support plus Upgrades (SASU).

Cisco Software Application Support provides:

- Around-the-clock, global access to certified Cisco Technical Assistance Center (TAC) engineers with specialized expertise in application software problems
- Unrestricted access to the extensive Cisco.com knowledge base, automated troubleshooting tools, and online support communities
- Access to ongoing application software updates for your licensed applications
- Software Application Support plus Upgrades includes all the deliverables of SAS plus access to major software application upgrades on your licensed applications, which can include significant new features and network management functions

Hardware Support

Cisco SMARTnet Service delivers rapid problem resolution, flexible device-by-device coverage, and premium service options to help maximize operational efficiency. SP Base provides similar device-level support tailored specifically for service provider customers.

Cisco SMARTnet Service and SP Base provide:

- Around-the-clock, global access to the Cisco TAC
- Registered access to the extensive Cisco.com knowledge base and tools
- Next-business-day advance hardware replacement (premium options available for business-critical devices, such as 2-hour replacement and onsite parts replacement and installation)
- Access to ongoing operating system software updates and upgrades

- Cisco operating system (Cisco IOS Software) software support to extend the life of Cisco devices with improved security, increased performance, bandwidth management, new protocol support, and greater interoperability
- Proactive diagnostics and real-time alerts on select devices with Smart Call Home

For More Information

http://www.cisco.com/go/services/applicationsupport

http://www.cisco.com/en/US/products/svcs/ps3034/ps2827/ps2960/serv_group_home.html

To find the specific technical services available for your hardware product or software application, visit the Cisco Service Finder tool at http://www.cisco-servicefinder.com.

To find a Cisco partner near you, visit: http://www.cisco.com/go/partnerlocator.

Technical Support Offerings for Network Management Products		
	Application Support: **SAS or SASU**	**Hardware Support:** **Cisco SMARTnet or SP Base Service**
Cisco Catalyst 6500/7600 Series Network Analysis (NAM) Modules 1 and 2		Cisco SMARTnet or SP Base Service
Cisco Branch Routers Series NAM		Cisco SMARTnet or SP Base Service
Cisco NAM 2200 Series Appliances		Cisco SMARTnet or SP Base Service
Cisco Transport Manager	SAS	
Cisco Active Network Abstraction	SAS	
Cisco IP Solution Center	SAS	
Cisco Multicast Manager	SAS	
Cisco Video Assurance Management Solution (VAMS)	SAS	
CiscoWorks LAN Management Solution (LMS)	SAS	
CiscoWorks Health and Utilization Manager	SAS	
Cisco Unified Communications Management Suite	SAS	
Cisco Unified Operations Manager	SAS	
Cisco Unified Service Monitor	SAS	
Cisco Unified Provisioning Manager	SAS	
Cisco Unified Service Statistics Manager	SAS	
CiscoWorks QoS Policy Manager	SAS	
Cisco Media Gateway Controller Node Manager	SAS*	Cisco SMARTnet or SP Base Service*
Cisco Broadband Access Center	SAS	
Cisco Broadband Troubleshooter	SAS and SASU	
Cisco Secure Access Control Server (ACS)	SAS*	Cisco SMARTnet or SP Base Service*
Cisco Security Management Suite-Cisco Security Manager	SAS	
Cisco Access Registrar	SAS	
Cisco Security Monitoring, Analysis, and Response System (MARS)		Cisco SMARTnet or SP Base Service

CiscoWorks Wireless LAN Solution Engine and CiscoWorks Wireless LAN Solution Express	SAS*	Cisco SMARTnet or SP Base Service*
CiscoWorks Network Compliance Manager	SAS	
Cisco Network Registrar	SAS	
Cisco Mobile Wireless Transport Manager	SAS	

*Products with SAS or SASU and Cisco SMARTnet or SP Base Service have hardware devices and software applications. Cisco SMARTnet or SP Base Service is the support service for the hardware and OS and SAS is the support for the software application. Both are required to ensure that the product is completely covered.