Cisco Monitor Director 1.1:
A Cisco VAR Managed Service Provider Solution

Cisco® Unified Communications is a comprehensive IP communications system of voice, video, data, and mobility products and applications. It enables more effective, more secure, more personal communications that directly affect both sales and profitability. It brings people together by enabling a new way of communicating—where your business moves with you, security is everywhere, and information is always available...whenever and wherever it is needed. Cisco Unified Communications is part of an integrated solution that includes network infrastructure, security, mobility, network management products, lifecycle services, flexible deployment and outsourced management options, end-user and partner financing packages, and third-party communications applications.

For small businesses that are looking to reach, serve, and retain customers, Cisco introduces the Smart Business Communications System (SBCS). This new affordable, complete system of voice, video, and wireless networking products makes anytime, anywhere secure access to information, thereby enabling more effective and efficient ways of communicating with customers and employees. This business communications solution is easy to deploy and use while allowing for business growth—and it is complemented by award-winning support and easy financing delivered through local Cisco partners.

The surge of growth in the small and medium-sized business (SMB) segment of the networking market has created huge revenue potential for Cisco partners and managed service providers (MSPs). More than 90 percent of the world's economy consists of SMBs, making this segment significantly influential. MSPs can seize this opportunity by moving away from the reactive break-and-fix model and becoming proactive "trusted advisors" for their SMB customers. For partners to survive, they need to support a large number of SMBs, migrating them to advanced voice services with efficiency and quick turnarounds.

Cisco SBCS empowers company partners to rapidly transform the IT infrastructure of small businesses to the best-of-class unified communications technology with minimal time spent on site. Rapid deployment is supported through a targeted platform offering, the Cisco Unified Communications 500 Series for Small Business, Cisco's best-practice network configurations, and Cisco Configuration Assistant supporting both data and telephony services. In addition, the Cisco VAR Managed Service Provider solution extends this offering by enabling partners to become "trusted advisors" and have full visibility into their SMB customer network. Cisco SMB partners can migrate from the "drop and go" reactive business model to proactive engagement with their end users. Using the Cisco VAR Managed Service Provider solution, partners can take full ownership and responsibility of their SMB customers. This new model allows Cisco partners to move to a monthly recurring business model—a model that is instrumental to their survival.

Remote monitoring and management is the underlying technology for managed services, enabling comprehensive visibility of devices and voice services installed at the SMB customer's site. Customer satisfaction and trust can be strengthened through proactive monitoring of the end-user network.

Solution Overview

A comprehensive management application designed solely for the SMB market, the Cisco VAR Managed Service Provider solution encompasses two complementary components—Cisco Monitor Manager 1.1 and Cisco Monitor Director 1.1. These two applications offer an economical and scalable migration path for Cisco partners to migrate to managed services. The startup package enables partners to remotely monitor up to five SMB customers economically and scale to supporting up to 50 SMBs as partner business expands.

Deployed at the partner location, Cisco Monitor Director 1.1 is a centralized, proactive network management application for Cisco MSPs planning to offer 24-hour, proactive voice and data network monitoring and management services to their SMB customers. It works in conjunction with Cisco Monitor Manager, which is deployed at many SMB corporate headquarters and remote offices. Cisco Monitor Manager collects customer network data and reports it back over a secure communication channel to Cisco Monitor Director, giving MSPs secure access and visibility into the customer's network (refer to Figure 1).

Figure 1. Cisco VAR Managed Service Provider solution Offering: Cisco Monitor Director with Cisco Monitor Manager
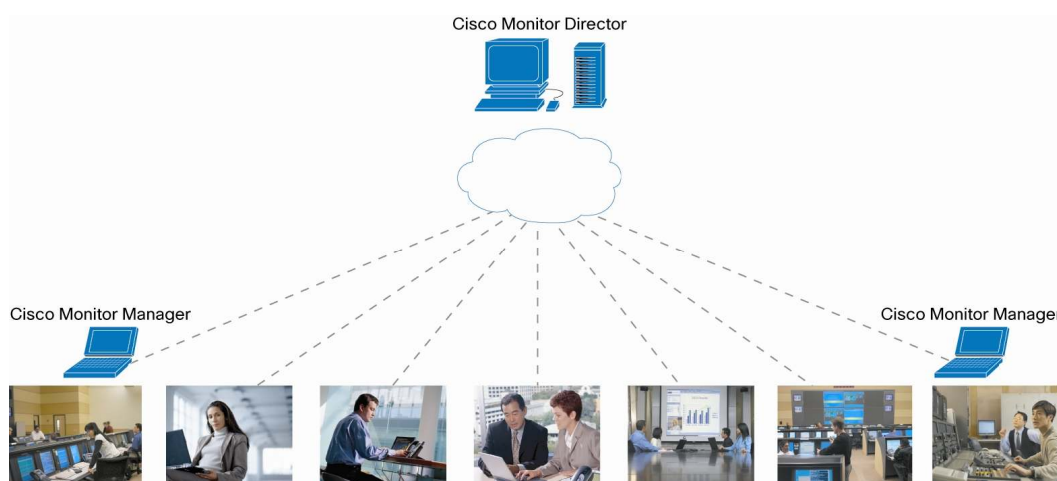
As a critical distributed intelligent component of the Cisco VAR Managed Service Provider solution deployed at the SMB end-user's location, Cisco Monitor Manager 1.1 provides monitoring of critical device parameters on Cisco SMB-class routers, switches, voice gateways, Cisco Unified Communications Manager Express (formerly known as Cisco Unified CallManager Express), Cisco Unity® Express, security appliances, access points, and Cisco Unified IP phones. Cisco Monitor Manager 1.1 also supports newly introduced Cisco Unified Communications 500 Series for Small Business and Cisco Access Point 500 devices for small businesses. It monitors the network 24 hours a day, and periodically polls and collects inventory and performance-monitoring data from the managed Cisco devices in the SMB network. Data assimilated and filtered by Cisco Monitor Manager is then sent to the Cisco Monitor Director for central management and reporting at the partner's network operations center (refer to Figure 2).

Figure 2. Cisco Monitor Manager in a Small Business Network
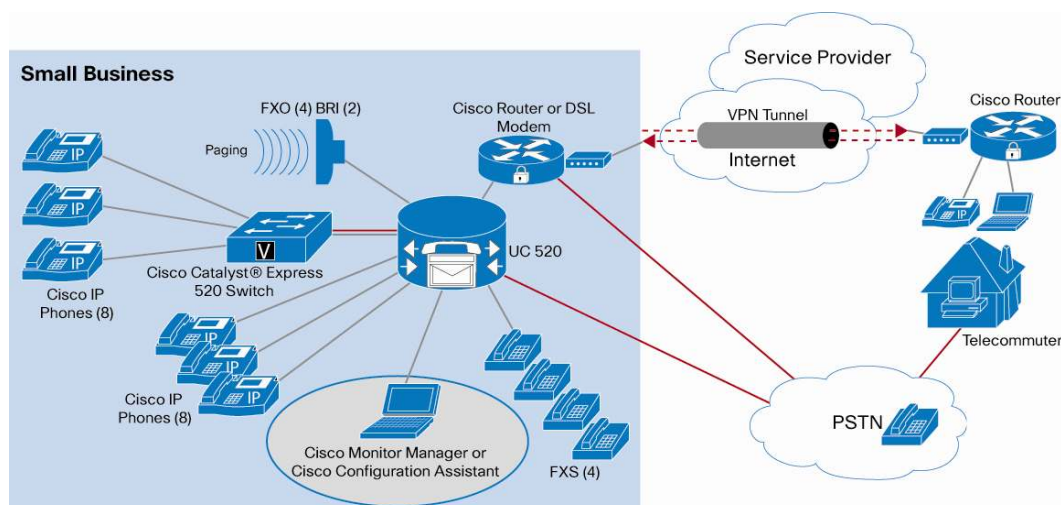
A primary concern of value-added reseller (VAR) MSPs is the overwhelming amount of information that can affect service efficiency. The double-filtering scheme of this solution provides the ability to scale the number of SMB customers and manage traffic efficiently and effectively.

Cisco Monitor Director and Cisco Monitor Manager are Microsoft Windows-based applications that are completely nondisruptive to system operations and do not deploy any agent software on managed devices.

Key Features and Benefits

The Cisco VAR Managed Service Provider solution provides the following features and benefits to VAR MSPs and their SMB customers:

- Ease of use and low initial investment; does not require time-consuming training
- Distributed architecture and intelligence for present and future network scalability
- Secure, reliable communication between VAR MSPs and SMB customers
- Central customer dashboard for VAR MSPs
- Voice and data network discovery and topology
- Networkwide inventory collection and reporting
- Cisco device performance monitoring
- In-depth syslog reporting
- Cisco Unified IP Telephony monitoring
- Interface status and traffic monitoring
- Reports
- Multilayer alert-filtering capability
- Real-time alerts and notifications through e-mail and paging
- Configurable e-mail and pager addresses based on time-of-day setting
- Interface to common trouble-ticketing applications
- End-of-sale and end-of-life database reference and notifications

- Scheduled HTML-based automated e-mail monthly reports that include network alert summary, device-availability analysis, Top N Utilization reports, and network topology
- Integrated license report

Comprehensive Reporting

Cisco Monitor Director provides detailed reports on alerts and syslogs generated in a customer network. The reports are based on alert filters configured on the Cisco Monitor Director server. Periodic snapshot reports on inventory, topology, and performance are also provided for MSPs to select. The following reports are available (Figure 3):

- Inventory reports
- Network summary report
- Performance reports
- Fault reports
- End-of-sale and end-of-life reports
- Cisco Monitor Manager license reports

Figure 3.   Cisco Monitor Director Alert Reports

Integrated License Report

Cisco Monitor Manager, the SMB resident component of the solution, periodically sends its license status and license dates to Cisco Monitor Director over a secured connection. Cisco Monitor Director can support up to 50 remote Cisco Monitor Manager connections. This licensing information is then maintaine3d in the Cisco Monitor Director database and presented in a licensing report. This report helps MSPs keep an active tab on its SMB customers and their license status; it also helps MSPs plan their license renewal process.

Notification Settings for Alerts and Trouble-Ticket Generation

Cisco Monitor Director allows network users to configure alert notifications for proactive resolution of network problems. Alert notifications can be sent to an e-mail account or pager using the Alert Notifications Settings in the application. The e-mail notification function can also be used to generate trouble tickets supporting most third-party trouble-ticket applications (refer to Figure 4).

Figure 4. Cisco Monitor Director Notification Settings for E-Mail and Pager Alerts

Monthly Network Summary Report

Cisco Monitor Director can be used to generate monthly summary reports to inform customers of their network status. These reports provide useful information about overall network health throughout the previous month. They include an alerts summary and usage trends of various parameters such as CPU, memory, bandwidth, etc. (refer to Figure 5).

Figure 5. Cisco Monitor Director Monthly Network Summary Report
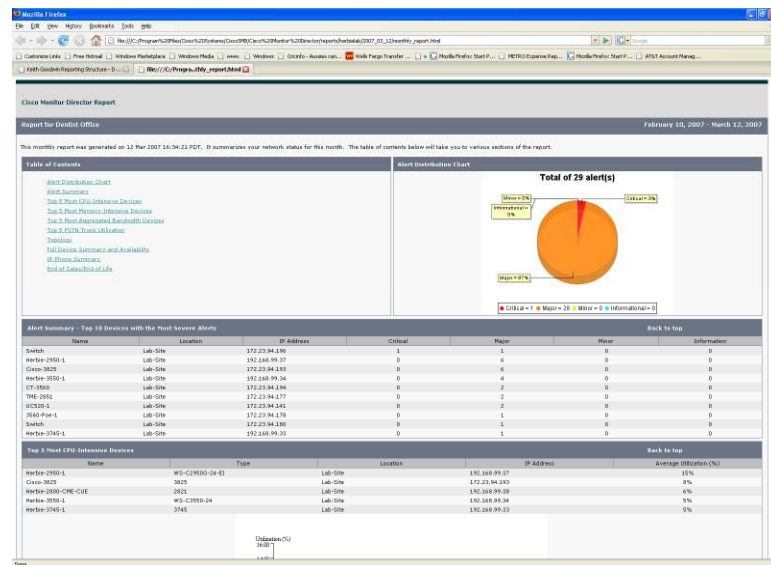
Voice and Data Network Discovery and Topology

As the onsite component of the Cisco VAR Managed Service Provider solution offering, Cisco Monitor Manager allows network users to discover and view the complete topology of their network across all locations and remote offices. It supports Cisco Discovery Protocol-based network discovery, which starts from an initial seed device and discovers the entire underlying data and voice network and then visualizes it in an intuitive graphical display. Its real-time auto-refresh display shows network- and device-level status, faults, inventory, connectivity, and manageability

information for all the Cisco networking elements in the network. Cisco Monitor Manager periodically rediscovers the topology and generates new alerts if it finds new Cisco networking devices in the network. The graphical topology is also sent to Cisco Monitor Director, where it can be used for troubleshooting and reporting purposes.

Please note that a single copy of Cisco Monitor Manager deployed at a customer's head office enables monitoring of all remote sites as well as the main office. This single copy connects back to the partner's network operations center to offer proactive managed services (refer to Figure 6).

Figure 6. Cisco Monitor Manager Network Topology

Networkwide Inventory Collection and Reporting

Cisco Monitor Manager periodically collects inventory information that includes cards and interface information from all managed Cisco devices in the network. This interface information is collected and stored in the Cisco Monitor Manager embedded database for reporting purposes. The application provides device-inventory reports that show all the managed Cisco devices with their operational cards and interfaces. These reports are also periodically sent to the Cisco Monitor Director server when managed by a VAR MSP on behalf of the customer. Cisco Monitor Manager also collects detailed inventory of all Cisco voice devices in the network and stores it in its embedded database for detailed voice-related reports (refer to Figure 7).

Figure 7. Cisco Monitor Manager Networkwide Inventory Report

Cisco Unified IP Telephony Monitoring

In addition to providing network-level device monitoring, the Cisco VAR Managed Service Provider solution offers Cisco partners value-added voice features to manage SMB voice networks.

As the access element of this distributed managed service offering, the application remotely polls and collects data continuously as it monitors the different Cisco Unified IP Telephony elements such as Cisco Unified Communications 500 Series for Small Business, Cisco Unified Communications Manager Express, Cisco Unity Express, Cisco voice gateways, and Cisco Unified IP phones. It provides real-time information and raises alerts for connectivity- and registration-related outages affecting Cisco Unified IP phones (both Session Initiation Protocol [SIP]- and Skinny Client Control Protocol [SCCP]-based phones) in the network and provides additional contextual information to determine the location and identification of the Cisco Unified IP phones. It uses open interfaces such as Simple Network Management Protocol (SNMP) and HTTP or HTTPS to periodically collect data from the Cisco Unified Communications System and the underlying transport infrastructure.

Cisco Monitor Manager provides a rich set of reports that includes trunk usage, voice port usage, and IP phone reports. The IP phone inventory reports give network managers instant access to status information about every IP phone deployed in the network. Such reports are available for both SIP- and SCCP-based IP phones. These voice reports are also sent to Cisco Monitor Director to enable MSPs to offer their SMB customers managed voice services. It provides voicemail monitoring that keeps track of the size of the mailbox and creates alerts based on the configured threshold limits. These critical voice-related data, reports, and alerts are forwarded to Cisco Monitor Director for reporting and notifications.

Secure and Reliable Communication

Cisco Monitor Manager uses the secure and reliable HTTPS protocol when discovering and retrieving configuration and performance information from managed Cisco routers, switches, voice gateways, Cisco Unified Communications Manager Express, Cisco Unity Express, access points, and security devices. The application also supports protocol fallback and uses HTTP if the HTTPS protocol is not supported by a managed Cisco device. Cisco Monitor Manager uses SNMP to monitor Cisco Unified IP Telephony elements in the network.

In VAR-managed service, Cisco Monitor Manager periodically communicates with the Cisco Monitor Director installed at the VAR's location using a secure, reliable, and encrypted Secure Sockets Layer (SSL) connection. Every Cisco Monitor Manager that connects back to a Cisco Monitor Director server is authenticated using a unique customer ID number and preshared key. For improved security the SSL port is made configurable on the Cisco Monitor Manager application as well as the Cisco Monitor Director server.

Cisco Device Performance Monitoring

Cisco Monitor Manager provides a quick and intuitive GUI for monitoring important device parameters such as CPU, memory, and public switched telephone network (PSTN) trunk usage. The application periodically polls the device for these parameters and stores them in the Cisco Monitor Manager embedded database for real-time graphing, historical analysis, and reporting purposes. The application also allows users to configure thresholds for these parameters in order to notify operators of a threshold breach. Application alerts are generated and dispatched through e-mail or pager messages and optionally sent to a Cisco Monitor Director server operating in a managed services solution mode (refer to Figure 8).

Figure 8. Cisco Monitor Manager Device Performance Monitoring
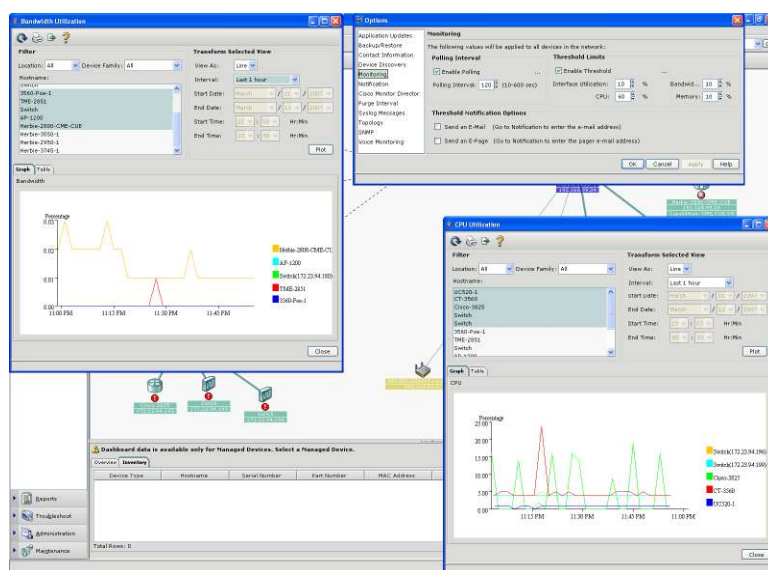
Interface Status and Traffic Monitoring

Cisco Monitor Manager monitors traffic status and important interface parameters such as packet rates, interface status, traffic counters, errors, and interface usage. The application periodically polls the device for these parameters and stores them in the embedded database for real-time graphing, historical analysis, and reporting purposes. The application also allows users to configure thresholds for these monitored parameters in order to notify operators of a threshold breach. Application alerts are generated and dispatched through e-mail or pager messages and optionally sent to a Cisco Monitor Director server (refer to Figure 9).
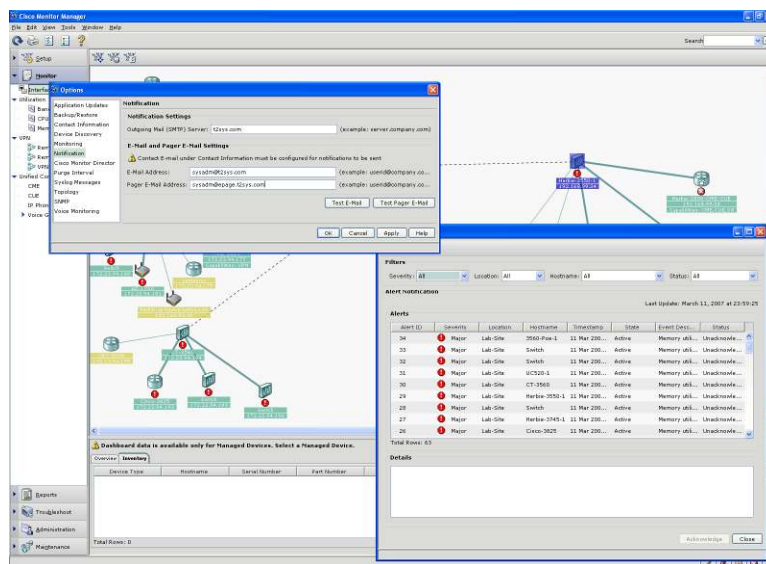
Figure 9. Cisco Monitor Manager Interface Monitoring
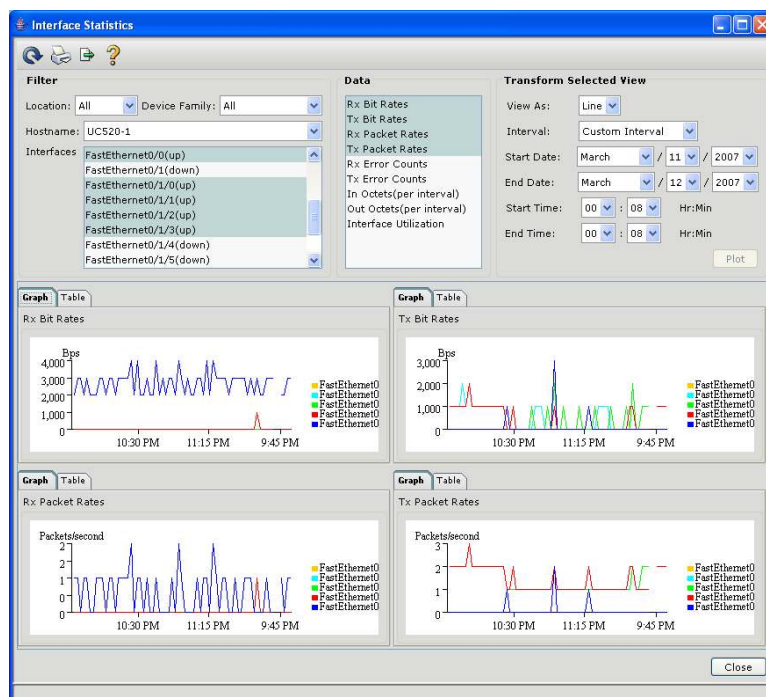
Real-Time Alerts and Notifications

Cisco Monitor Manager continuously monitors the customer's network and reports syslogs, faults, application, and threshold-crossing alerts to Cisco Monitor Director over a secure communication channel. Cisco Monitor Director dispatches these alerts to user-specified e-mail and pager messages which contain detailed information about the network condition and the possible cause of the alert. These rich alerts can be easily integrated into a third-party ticketing system, which can open ticket cases and help in proactive resolution of the network condition. Cisco Monitor Director stores these alerts in the embedded database for historical reporting purposes over a user-configured time duration (refer to Figure 10).

Figure 10. Cisco Monitor Manager Notification and Alerts

Reports

Cisco Monitor Manager periodically retrieves inventory and performance data and collects syslog messages from the monitored devices. This data is stored in the embedded database for historical reporting purposes. The application provides in-depth reporting capabilities that are easy to interpret, present, and print. Data from the graphical reports can be filtered based on site, device family, or a particular managed Cisco device. Cisco Monitor Manager supports the following networkwide, easy-to-use graphical reports (refer to Figure 11).

- Alert Report
- IP Phone Status Report
- Configuration Archive Report
- Discovered Devices Report
- Device, Interface, and Memory Inventory Report
- Syslog Report
- End-of-Sale and End-of-Life Report

Figure 11. Cisco Monitor Manager Reports

Configuration Archive

Cisco Monitor Manager provides a user-friendly GUI that helps network users to perform on-demand backup and restore of startup configuration files for all the managed Cisco devices in the SMB customer's network. The configuration archive feature in Cisco Monitor Manager also supports backup and restore of the VLAN database for all managed Cisco Catalyst® switches in the network. With this feature, network users can also save running configurations to start up configurations before performing a manual backup (refer to Figure 12).

Figure 12. Cisco Monitor Manager Configuration Archive
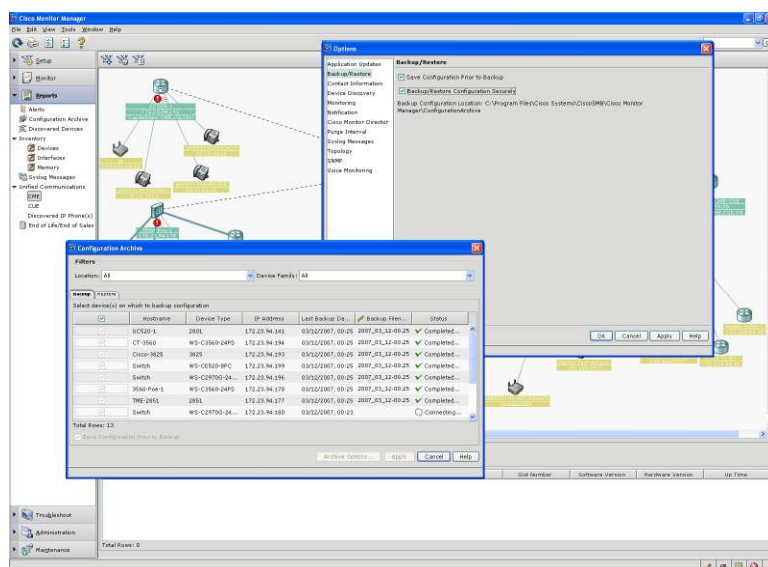
Cisco VAR Managed Service Provider solution Features and Benefits

Table 1 lists the features and benefits of the Cisco VAR Managed Service Provider solution.

Table 1. Features and Benefits of Cisco VAR Managed Service Provider solution

Feature	Benefits
Ease of use and low initial investment	• Built for VARs offering managed services to SMB customers • System is intuitive and easy to use • Cost of initial deployment is low
Distributed and scalable architecture	• Scales to communicate with up to 50 instances of Cisco Monitor Manager
Central dashboard	• Provides consolidated view of all customer sites being monitored by Cisco Monitor Manager
Integrated license report	• Monitors and reports the license status and license expiration dates of all implementations of Cisco Monitor Manager at SMB locations
Applications	• Manages multitenant units—Landlords who own large commercial properties can offer 24-hour centralized networking and monitoring services for their SMB tenants. • Offers VAR managed services—The Cisco Monitor Manager software operates in conjunction with Cisco Monitor Director to help MSPs offer managed services.
Cisco Discovery Protocol-based network discovery and complete topology	• Discovers entire SMB network starting from a seed device • Provides rich graphical display of topology; spans multiple customer locations, displaying the total network with unified topologies and interconnections • Displays network- and device-level fault information, device connectivity, and manageability information
Secure and reliable communication	• Uses secure and reliable SSL connection to communicate with the Cisco Monitor Manager • Includes configurable SSL port for improved security
Individual customer topology map	• (Cisco Monitor Director) Displays complete network topology of each customer network • Displays network- and device-level fault information, and device connectivity and manageability information
End-of-sale and end-of-life reports	• Provides end-of-sale and end-of-life reports to predict network upgrade requirements
Real-time alerts and notifications through e-mail and pagers	• Displays real-time fault-monitoring information • Interfaces to common trouble-ticketing applications • Displays user-friendly performance charts and graphs • Generates and dispatches notifications based on user-defined threshold-crossing alerts

Scheduled customized reports	• Generates monthly summary report to keep busy customers updated on the status of their network • Through monthly summary report, provides useful information about overall network health that includes alerts summary and usage trends of various parameters such as CPU, memory, bandwidth, etc.
Networkwide inventory collection and reporting	• Provides complete device-inventory information, including card and interface details for all managed devices in the SMB network • Provides inventory reports that can be used to keep track of devices and cards in the SMB network
Built-in troubleshooting tools	• Facilitates debugging of network problems by providing troubleshooting tools such as traceroute and ping
IP telephony monitoring	• Offers discovery, inventory, and monitoring of Cisco Unified IP Telephony elements • Provides real-time information about connectivity and registration status of Cisco Unified IP Telephony elements • Raises alerts on Cisco Unified IP Telephony elements based on their service status • Through voice mailbox monitoring, keeps track of the size of the mailbox and creates alerts based on the configured threshold limits • Monitors PSTN trunk and voice-port usage
Performance and interface traffic monitoring	• Collects, stores, and displays important real-time monitoring information with output options of charts and graphs • Compares monitoring data against user-defined thresholds and generates threshold-crossing alerts to the user • Monitors interface traffic statistics and displays interface usage • Monitors CPU and memory usage for all managed devices
Configuration archive	• Facilitates backup and restore of startup configuration files • Offers ability for network users to also select the option of saving running configuration files prior to manual or periodic backup
Syslog-based alerting and reporting	• Collects and stores syslog messages from managed devices • Generates alerts and reports of syslog messages
Device manager launch point	• Supports the launch of various Cisco device managers such as the Cisco Adaptive Security Device Manager and the Cisco Router and Security Device Manager, Cisco PIX® Device Manager, SmartPorts etc.
Persistent storage of monitored data and device credentials for historical reporting with built-in database	• Uses built-in database to store inventory, performance, and syslog data • Supports the ability to view, report, and analyze historical data
Discovery and monitoring of VPN peers	• Discovers VPN peers across SMB locations • Monitors status and traffic parameters of VPN tunnels

Product Specifications

Tables 2 and 3 give the system requirements for Cisco Monitor Director and Cisco Monitor Manager, respectively, and Table 4 gives device software support information.

Table 2. System Requirements for Cisco Monitor Director

Description	Specifications
Scalability criteria	• Supports up to 50 SMB headquarter sites and remote offices
Operating systems	• Windows XP Professional (Service Pack 2) • Windows 2000 Server (Service Pack 4) • Windows 2003 Server (Service Pack 1)
Protocols	• HTTPS
Processor	• Pentium IV with 3 GHz of memory
Memory	• 2 GB or more of RAM
Disk space	• Recommended: 60-GB hard disk (minimum: 1 GB hard disk)

Table 3. System Requirements for Cisco Monitor Manager

Description	Specifications

Cisco SMB-class networking device support	• Routers and integrated services routers: Cisco 830 Series Secure Broadband Router Cisco 1700 Series Modular Access Routers, Cisco 1800 Series Integrated Services Routers, Cisco 1841 Integrated Services Router, Cisco 2600 Series Multiservice Platforms, Cisco 2800 Series Integrated Services Routers, Cisco 3600 Series Multiservice Platforms, Cisco 3700 Series Multiservice Access Routers, and Cisco 3800 Series Integrated Services Routers • Cisco Catalyst switches: Cisco Catalyst 2900XL, Catalyst 2940, Catalyst 2950, Catalyst 2955, Catalyst 2970, Catalyst 3550, Catalyst 3500XL, Catalyst 3560, and Catalyst 3750 Series, and Cisco Catalyst Express 500 Series • Cisco Unified Communications 500 Series for Small Business • Cisco Unified Communications Manager Express and Cisco Unity Express • Cisco Unified IP phones • Security appliances: Cisco ASA 5505 and ASA 5510 Adaptive Security Appliances; and Cisco PIX 501, PIX 506, PIX 506E, PIX 515, and PIX 515E Security Appliances • Access points: Cisco Aironet® 1100 and Aironet 1200 Series Access Points; Cisco Airespace 1010, Airespace 1020, and Airespace 1030 Series Wireless LAN Controllers, Cisco Airespace 2006, Airespace 4112, Airespace 4124, Airespace 4136, Airespace WLC521 and Airespace AP521, and Airespace 4402 Wireless LAN Controllers and Cisco Integrated Services Router Network Modules
Scalability criteria	• Limited deployments - Networking devices: 5 - Access points: 5 - IP phones: 48 • Standard deployments - Networking devices: 20 - Access points: 50 - IP phones: 250
Operating systems	• Windows XP Professional (Service Pack 2) • Windows 2000 Professional (Service Pack 4)
Protocols	• HTTP and HTTPS, SNMP, Cisco Discovery Protocol, and TFTP
Processor	• Pentium IV with 1.2 GHz of memory
Memory	• 1 GB RAM or more in limited deployment • 2 GB RAM or more in standard deployment

Table 4.   Device Software Support Information

Device Family	Devices	Cisco IOS® Software Release*
Cisco Aironet access points	Cisco Aironet 1100, Aironet AP521 and Aironet 1200 Series	12.2(15)JA and later
Cisco Airespace access points**	Cisco Airespace 2006, Airespace 4112, Airespace 4124, Airespace 4136, and Airespace 4402 Wireless LAN Controllers, Cisco WLC521 and AP521and Cisco Airespace 1010, Airespace 1020, and Airespace 1030 Series	**
Cisco routers	Cisco 830, 850, and 870 Secure Broadband Routers, Cisco 1700 Series Modular Access Routers, Cisco 1800 Series Integrated Services Routers, Cisco 1841 Integrated Services Router, Cisco 2600 Series Multiservice Platforms, Cisco 2800 Series Integrated Services Routers, Cisco 3600 Series Multiservice Platform, Cisco 3700 Series Multiservice Access Routers, Cisco 3800 Series Integrated Services Routers, and Cisco Unified Communications 500 Series for Small Business	12.2(13)ZH and later
	Cisco SB 101 Secure Broadband Router, Cisco SB 106 Secure ADSL over ISDN Router, Cisco SB 107 Secure ADSL Router, and Cisco 200 ISDN Adapter	12.3(8)YG and later
Cisco Catalyst switches	Cisco Catalyst 2900XL, Catalyst 2940, Catalyst 2950, Catalyst 2955, Catalyst 2970, Catalyst 3550, Catalyst 3500XL, Catalyst 3560, and Catalyst 3750 Series, and Cisco Catalyst Express 500 Series Switches	12.0(5.1)XU and later

Cisco ASA adaptive security appliances and Cisco PIX security appliances	Cisco ASA 5505 and ASA 5510 Adaptive Security Appliances and Cisco PIX 501, PIX 506, PIX 506E, PIX 515, and PIX 515E Security Appliances	7.0 and later
Cisco Unified Communications Manager Express	Cisco Unified Communications Manager Express	3.3 and above
	Cisco Unity Express	2.0 and above
Cisco Unified IP phones	Cisco Unified IP Phones 7900 Series	–

* The minimum Cisco IOS Software release supported by the device family; individual devices in the family may require later versions

** These devices will not be supported as fully managed devices. Thus no inventory, syslog, and monitoring functions will be available for these devices in Release 1.1. These devices are discovered as neighbor devices only if Cisco Discovery Protocol is turned on for them. Cisco Monitor Manager 1.1 does not allow these devices to be added as seed devices. Cisco Monitor Manager 1.1 shows the controller and access points on the topology map. It allows launching the embedded device manager on the controller.

For more information about system requirements, please refer to the Cisco Monitor Manager 1.1 and Cisco Monitor Director 1.1 quick start guides at: http://www.cisco.com/go/sbnm.

Ordering Information

For simplicity and ease of deployment, Cisco Monitor Manager and Cisco Monitor Director are offered as a single MSP monitoring packaged solution for VAR-managed services.

The package includes a perpetual license of the Cisco Monitor Director at the partner site and five 1-year annual subscription licenses for Cisco Monitor Manager deployment at the SMB sites. The annual subscription licenses are activated only at the time of registration, so various SMBs can be added at different times. An integrated license management monitoring and reporting features is available on Cisco Monitor Director.

The solution is also offered without licenses for a limited time-based trial and evaluation period. License purchases following the demo period are required for continued use of the product, and license renewals can be purchased following the end of a 1-year deployment. Please refer to the online product bulletins for further ordering details. The Cisco VAR Managed Service Provider solution is available for purchase through regular Cisco sales and distribution channels worldwide. To place an order, visit the Cisco Ordering Home Page.

To download a time-based evaluation trial version of the latest Cisco VAR Managed Service Provider solution software or purchase a 1-year subscription license for use beyond the initial evaluation period, please contact your nearest Cisco partner or reseller.

Cisco VAR Managed Service Provider solution licensing options are described in the product bulletin located under the Cisco Monitor Director "Product Literature" section at: http://www.cisco.com/go/sbnm.

Table 5 lists ordering information for the Cisco VAR Managed Service Provider solution in limited deployments.

Table 5. Ordering Information for Limited Deployments

Part Number	Description
DIR-1.1-LTD-K9	Cisco Monitor Director Combo,1 Reseller DIR license, 5 Limited MON licenses, 1 year
MON-LTD-5-LIC-K9	Cisco Monitor Manager, Ext Limited Package, 5 MON licenses, 1 year
MON-LTD-10-LIC-K9	Cisco Monitor Manager, Ext Limited Package, 10 MON licenses, 1 year
MON-LTD-15-LIC-K9	Cisco Monitor Manager, Ext Limited Package, 15 MON licenses, 1 year
MON-LTD-25-LIC-K9	Cisco Monitor Manager, Ext Limited Package, 25 MON licenses, 1 year
MON-1.1-LSMSPUP-K9	Cisco Monitor Manager 1.1 MSP Limited to MSP Standard 20 Device
DIR-1.1-LMSPUP-K9	Cisco Monitor Director 1.1 Limited Self-Managed to Limited MSP

Table 6 lists ordering information for the Cisco VAR Managed Service Provider solution in standard deployments.

Table 6. Ordering Information for Standard Deployments

Part Number	Description
DIR-1.1-STD-K9	Cisco Monitor Director Combo,1 Reseller DIR license, 5 Standard MON licenses, 1 year
MON-STD-5-LIC-K9	Cisco Monitor Manager, Ext Standard Package, 5 MON licenses, 1 year
MON-STD-10-LIC-K9	Cisco Monitor Manager, Ext Standard Package, 10 MON licenses, 1 year
MON-STD-15-LIC-K9	Cisco Monitor Manager, Ext Standard Package, 15 MON licenses, 1 year
MON-STD-25-LIC-K9	Cisco Monitor Manager, Ext Standard Package, 25 MON licenses, 1 year
DIR-1.1-SMSPUP-K-K9	Cisco Monitor Director Standard Self-Managed to Standard MSP

For More Information

For more information about the Cisco VAR Managed Service Provider solution, visit http://www.cisco.com/go/sbnm or contact your local Cisco account representative.

Cisco Unified Communications Services and Support

Using the Cisco Lifecycle Services approach, Cisco and its partners offer a broad portfolio of end-to-end services to support the Cisco Unified Communications system. These services are based on proven methodologies for deploying, operating, and optimizing IP communications solutions. Initial planning and design services, for example, can help you meet aggressive deployment schedules and minimize network disruption during implementation. Operate services reduce the risk of communications downtime with expert technical support, and optimize services enhance solution performance for operational excellence. Cisco and its partners offer a system-level service and support approach that can help you create and maintain a resilient, converged network that meets your business needs.