Sun Enterprise SyMON™ 2.0 Software

Just the Facts

Copyrights

Positioning

Introduction

Enterprise management is an end-to-end solution that enables organizations to manage systems, applications, and the networks that connect them. Achieving the continuous operation of servers, desktops, storage subsystems, relational databases, transaction monitors, and complex applications like SAP, Baan, and PeopleSoft, is a difficult and time consuming task. While no single application can provide best-of-breed enterprise management solutions that meet every requirement on every platform, organizations can employ applications that are designed to solve common problems, yet can be adapted and extended to meet the specific needs of a particular environment.

One component of enterprise management, and perhaps the most pressing problem organizations face, is systems management. Focusing on the management of the hardware platform, operating system, and storage components, systems management provides the monitoring, performance, and resource management that is essential to ensuring systems remain operational. Monitoring and adjusting CPU utilization and network bandwidth allocation enables application response time and service-level requirements to be met. In addition, storing data for trend analysis enables effective capacity planning and resource management. When systems such as these operate at peak efficiency, organizations are better equipped to make better decisions faster—a factor that can mean the difference between merely surviving and thriving in an increasingly competitive marketplace.

Conventional tools cannot support the move from managing small pockets of disparate systems and services to that of managing the integrated enterprise. IT organizations need an integrated set of systems management tools—a platform that offers common services for all enterprise management applications. Such solutions must have a consistent look-and-feel, implement enterprise-wide security procedures, integrate with other management tools, and enable new functionality to be added with ease.

The most advanced systems management tool from Sun to date, Sun Enterprise SyMON™ 2.0 software offers a single point of management for all Sun systems, the Solaris™ operating environment, applications and services for data center and highly distributed computing environments. With Sun Enterprise SyMON software, IT organizations can efficiently manage and arbitrate between users, applications, and resources (Figure 1).

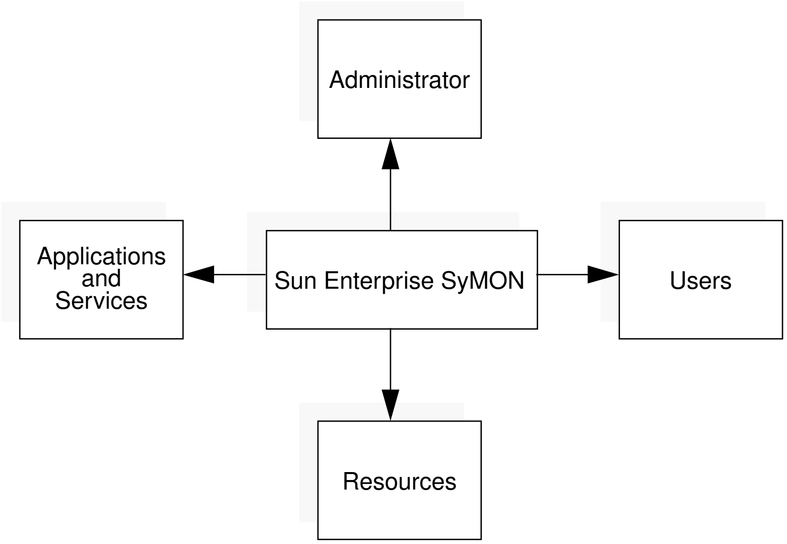

Figure 1. Sun Enterprise SyMON software provides a single point of management for the enterprise

Sun systems, which have long been the preference for both technical and commercial computing users, capitalize on Sun's strengths in reliability, availability, and serviceability (RAS). Enterprise management tools, however, must be designed to understand the systems they intend to manage—and no one knows how to manage Sun systems better than Sun. As a result, Sun Enterprise SyMON software gives administrators the most comprehensive tool for managing Sun systems, as well as a platform that integrates easily with other enterprise management tools.

Key Features

Sun Enterprise SyMON software is Sun's next-generation enterprise system management tool. Designed to support Sun systems, Sun Enterprise SyMON technology provides a platform upon which the enterprise can base its administrative and management operations to help ensure all systems and the services they provide are highly available. A powerful tool for managing the enterprise network, Sun Enterprise SyMON software enables system administrators to perform remote system configuration, monitor performance, and isolate hardware and software faults all through an easy-to-use graphical user interface.

Key features of Sun Enterprise SyMON software include:

- Common management platform, scalable from a single system to thousands of server and desktop systems
- Single point of management, enabling effective use of administrative resources
- Proactive and automated management of complex and common administrative tasks, reducing the likelihood for costly errors and helping to ensure availability
- Configuration flexibility, enabling Sun Enterprise SyMON technology to be configured out of the box to best fit the needs of the environment, as well providing easy customization for new rules, scripts, actions, and so on
- Extensible agent architecture, enabling administrators to add functionality and management features with ease
- Dynamic agents, enabling functionality to be extended asynchronously
- Active configuration management controls, providing a secure interface for remote dynamic reconfiguration capabilities and helping to ensure availability
- Single event model, enabling information to be shared with multiple consoles or users with ease
- Multiple system support, enabling administrators to monitor and manage all Solaris systems remotely
- Predictive failure analysis, enabling administrators to predict potential memory and disk hardware failures on a statistical basis, thereby enhancing decision making and increasing availability
- Health monitoring, a sophisticated set of heuristics that incorporates a large body of administrative knowledge, including an intelligent rules-based health monitor that correlates metrics and gives suggested steps for resolution, resulting in simplified administration
- Log-file scanning, enabling administrators to search and parse logs and registers for a particular status—the foundation for application health monitoring
- Logical element grouping, enabling the grouping of Sun systems by geographical location, server role, administrative responsibility, and so on; the status of the individual systems are summarized by the group, as events and alarms are issued to each system
- Hierarchy and topology viewer, a central management application that displays the hierarchy and a topology map of all the objects that are being managed
- Automatic discovery of Sun systems, including IP address, subnet address, hostnames, and OIDs to identify specific types of systems, as well as parametric scheduling

- Physical viewer, displaying photo-realistic images of hardware components and pointing to components with an associated event, enabling administrators unfamiliar with a particular Sun platform to quickly determine which components need to be replaced
- Logical viewer, presenting a tree hierarchy of the managed host or domain, including all hardware and operating system components—if an event is associated with a particular component, the logical viewer will identify its exact location within the hierarchy
- Event and alarm management, providing administrators with the information they need when they need it
- Enterprise-wide security measures, such as authentication, data integrity, and access control lists for management of data and active management functions
- Real-time performance analysis, enabling administrators to isolate potential and existing bottlenecks
- Standard interfaces and protocols, enabling future integration with third-party management tools, including Tivoli and Computer Associates, thereby providing a complete enterprise management solution
- Full SNMP connectivity, enabling information to be shared with other enterprise management tools
- GUI using Java™ technology, providing heterogeneous GUI support, a common look and feel for all Sun Enterprise SyMON applications, and the flexibility to manage the enterprise from any platform using Java technology, thereby increasing administrator efficiency

Sun Enterprise SyMON software will be extended through the use of future sophisticated add-on products to provide additional functionality:

- Trend analysis and historical data storage, supporting system performance analysis, configuration fault analysis, system sizing, and long-term capacity planning and forecasting efforts
- Host application and database fault management, increasing data and service availability through integration with third-party products like BMC PATROL
- Firmware and patch management, providing administrators with the ability to upgrade systems when needed with the addition of Enterprise Configuration and Service Tracker
- On-line diagnostics, enabling hardware and software problems to be predicted, detected, isolated, and resolved, thereby ensuring system and service availability with the addition of Enterprise Diag Tool

Availability

Sun Enterprise SyMON 2.0 software began shipping in November 1998 as a web release. RTU licenses and media became available in December 1998.

Target Users

The target users for this system management solution are UNIX® or general system administrators and IT management. Operations personnel and application administrators will also be part of the target market given the event/alarm management and application monitoring capabilities.

Target Markets

A scalable and extensible management platform, Sun Enterprise SyMON technology is designed to support enterprises that range from small companies, to large nationwide organizations, to global enterprises that span the world. The management capabilities that Sun Enterprise SyMON software employs span the management and administrative needs of many commercial and government sectors, including, but not limited to, the financial, manufacturing, service, and government markets.

By employing key Sun Enterprise SyMON software features, organizations at every size level and market segment can raise the reliability, availability, and serviceability (RAS) of their systems, applications, and services.

Selling Highlights

To continue the tradition of providing additional RAS capabilities for all Sun systems, Sun Enterprise SyMON 2.0 software is available on the Internet free-of-charge to manage an individual server or desktop. A right-to-use license is required to manage additional servers or desktops/network devices from one Sun Enterprise SyMON server layer.

Market Value Proposition

Enterprise customers require advanced capabilities to help them manage their system environments more efficiently and effectively. They need Sun Enterprise SyMON software to proactively manage more complex environments while driving down their total administrative costs.

Given that most customers have heterogeneous environments, future Sun Enterprise SyMON integration software will integrate its comprehensive management capabilities for a Sun environment into the leading third-party enterprise management solutions. These include Computer Associates Unicenter TNG, Tivoli TMS, HP OpenView IT/Ops, BMC PATROL, Enlighten, and others. Levels of integration range from basic SNMP integration to any SNMP listener to more tightly integrated solutions based on API interaction. These future integration capabilities provide customers with the flexibility in configuring the correct management environment for their needs.

Applications: Small, Medium, Large, and Global Enterprises

Managing Computing Resources in the Small Company

Enterprises must manage their computing systems and ensure they remain available, all while under budget pressures that force them to find ways to operate with fewer administrators and without redundant equipment. These issues are perhaps best understood when viewed in the context of a small software engineering organization. In such environments, engineering personnel may utilize a single local-area network that is supported by a small number of servers that run development tools (Figure 2). Should a workstation or server fail catastrophically or simply become unavailable, one or more engineers—perhaps the entire engineering team—may need to sit idle until the problem is isolated and resolved.

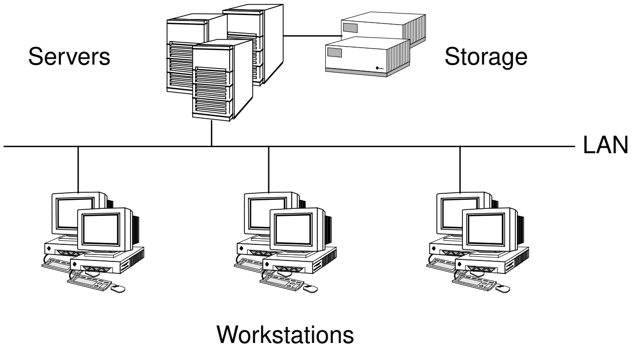

Figure 2. Keeping critical servers, workstations, and other components available

Sun Enterprise SyMON software provides a host of features, including a single point of management, common management platform, single event model, proactive and automated management of complex tasks, physical and logical configuration viewer, and security measures that enable organizations to predict, detect, isolate, and quickly resolve problems.

Comprehensive Single Point of Management

Small companies on the rise pose an interesting challenge for administrators. Often characterized by a constantly changing environment with resources relocated frequently, up-and-coming organizations require administrators to physically manage multiple systems. Typically, environments such as these use point products for managing systems or no products at all.

Junior administrators or those unfamiliar with managing multiple systems need an intelligent tool that can provide a single point of management. Sun Enterprise SyMON software gives administrators a single point of management, enabling them to work from their office and use time effectively. A common management platform, Sun Enterprise SyMON technology can run on any system available to the administrator, from a small desktop system to very large servers. With the ability to be configured out of the box to best fit the needs of the environment, administrators can customize Sun Enterprise SyMON product with new rules, scripts and actions. Built-in rules and proactive and automated management handles automated tasks for junior administrators, reducing the likelihood for costly errors and helping to ensure availability.

As enterprises grow, new markets, processes, and business requirements demand larger numbers of often heterogeneous systems. Furthermore, each group within the organization may utilize one or more computing platforms. For example, a large manufacturing company may utilize a mainframe as an inventory repository, while workstations and servers may be employed by engineering and manufacturing staff. Sales and marketing personnel may add to the complexity of the enterprise network by using personal productivity tools running on individual PCs or Network Computers (NCs). The heterogeneous enterprise computing environment that results is composed of a myriad of disparate systems spread throughout the organization (Figure 3).

As a company grows, additional system administrative staff may not be added in an effort to keep operating costs low. While it is imperative for organizations to remain cost-conscious, hardware and software systems still require attention in order to achieve the availability requirements of the organization. As a result, administrators need to be able to perform corrective actions without leaving the central office. To aid this effort, IT organizations need a single point of administration, enabling effective use of personnel while reducing overhead costs.

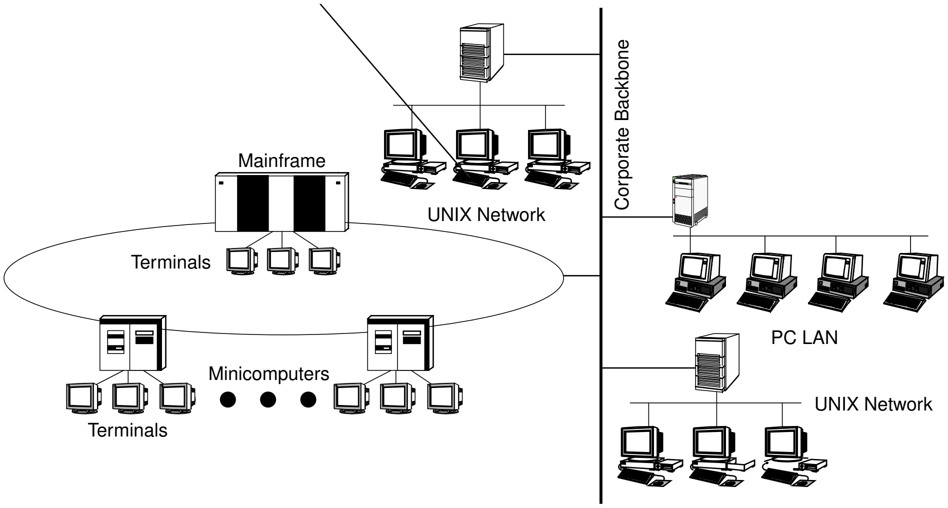

Figure 3. Disparate systems can be spread throughout the organization

Sun Enterprise SyMON software incorporates a variety of features that assist organizations by enabling the central administration and increasing administrator effectiveness, including multiple system support, a logical viewer, security measures, and event and alarm management.

Managing the Global Enterprise

Everyday, work is increasingly done by teams rather than individuals. The faster, leaner, process and team-oriented organizations are proving that individuals must collaborate. Because computers are such an integral part of business, systems must support this new work methodology. One example of team collaboration is the “tiger team” approach to problem solving. Tiger teams require individuals from all departments, regardless of location, to participate in critical meetings electronically. For example, a critical manufacturing problem might require resources from manufacturing, purchasing, sales and marketing, and engineering in order for problem isolation, resolution and implementation to be successful.

Indeed, corporate collaboration is needed daily in order for global enterprises to operate efficiently and effectively. International banks must access accounts, obtain information, and perform transactions around the clock. With branches in multiple locations and automated teller machines distributed around the world, personnel and system collaboration is imperative. In addition, systems and services must remain available—every minute a system is down results in lost revenue. Such matters are time critical, and often cannot wait for individuals to fly to a central location. Communication must be swift, making system, network, and resource management a key requirement for the global enterprise.

Sun Enterprise SyMON technology helps mitigate the management problems faced by the global enterprise by providing topological views, auto-discovery of systems, active management through the support of dynamic reconfiguration and dynamic system domain management, log file scanning, historical data logging, and the ability to extend the system’s functionality as needs dictate. These features help the IT organization ensure the enterprise operates at peak efficiency and availability.

Compatibility

The Sun Enterprise SyMON 2.0 software platform supports all systems running Solaris 2.5.1, 2.6, and 7 operating environments.

Hardware-dependent configuration management functions support includes the following:

- Sun Ultra™ 1, 2, 5, 10, 30, 60, and 450 systems
- Sun Enterprise 150 and 250 servers
- Sun Enterprise 3X00, 4X00, 5X00, and 6X00 servers
- SPARCserver™ 1000 and 1000E servers
- SPARCcenter™ 2000 and 2000E servers

Additional hardware-dependent configuration management function support will be available from the Sun Enterprise SyMON software web site (`http://www.sun.com/symon`) after version 2.0 ships. These platforms include, but are not limited to Sun Enterprise 10000 servers.

Intelligent Agent-based Architecture

Most traditional systems and network-management products are console-centric, forcing processing to be done at a centralized location. Inherently less reliable, console-centric solutions require an excessive amount of network bandwidth.

Sun Enterprise SyMON™ technology is based on the industry-wide manager/agent architecture. In this paradigm, a manager acting as a management station executes applications that monitor and control systems by sending requests to the agents that are managing them. Agents—pieces of software that perform all data requests and management functions—have access to critical management information and respond to manager requests (Figure 4).

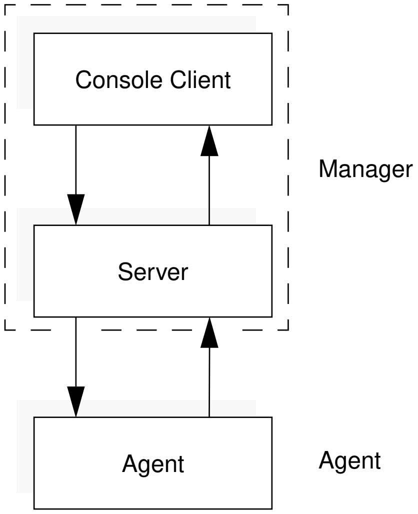

Figure 4. Sun Enterprise SyMON software uses agent technology

Utilizing an object-centric, dynamic, intelligent design, Sun Enterprise SyMON software enables processing to be done at the source—where the managed object is located. By distributing management intelligence, Sun Enterprise SyMON technology enhances the reliability, availability, and serviceability (RAS) of the enterprise network. Sun Enterprise SyMON product employs autonomous agent technology, a technique in which agents are not dependent on other software components, and all data collection and processing is done locally at the agent. Based on SNMP technology, these agents collect and process data locally, and can act on data to send SNMP traps, run processes, and so on, even if connection to the manager is severed. These intelligent agents can also initiate alarms, notification, or specific actions based on collected data or messages through customizable rules and thresholds.

Because no one package can meet every demand of the enterprise, additional modules can be dynamically loaded to Sun Enterprise SyMON agents from the console—without disruption to the management system—providing administrators with a flexible and extensible application that can be tailored to form a comprehensive enterprise management solution that adapts to their changing needs.

Three-Tiered Architecture

Sun Enterprise SyMON software employs a three-tier architecture that provides a high level of scalability and distribution (Figure 5).

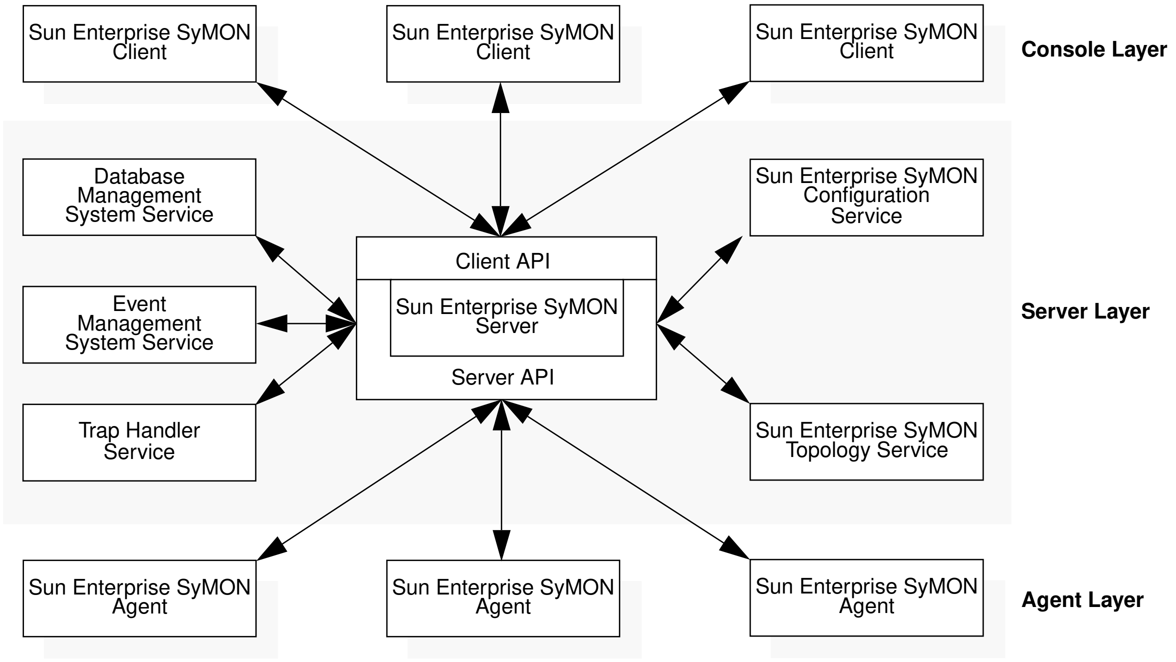

Figure 5. Sun Enterprise SyMON software employs a three-tiered, agent-based architecture

Console Layer

The console layer constitutes the user interface of the Sun Enterprise SyMON system. The console provides administrators with visual representations of managed objects, as well as the ability to manipulate attributes and properties associated with them. Based on Java™ technology, the console can be easily customized and extended for a variety of computing environments. The console is currently supported on the Solaris 2.5.1, 2.6, and 7 operating environments, and on Microsoft Windows 95, 98, and NT.

Server Layer

The server layer provides management services on demand, enabling effective and efficient high-performance operation. The server layer can support multiple consoles, enabling several administrators to view the enterprise network simultaneously. Acting as a service broker to the console, the server layer consolidates and optimizes multiple console requests, thereby minimizing network traffic. Communication with the console layer is through a well-defined client application programming interface (API). This interface can also be used by third-party tools to gain access to data collected by Sun Enterprise SyMON agents.

All users are authenticated by a *security server agent* or *helper application*, providing administrators access and management of only the systems within their control. Additional server agents provide management services, including topology, event, and data management.

Agent Layer

The agent layer consists of agents and probes that manage objects such as desktops, servers, storage subsystems, and network hardware and software. The agents utilize rules-based technology to determine the status of managed objects. Agents can then generate alarms or perform actions automatically based on the detected actions, thereby providing auto-management, including predictive failure analysis.

System Monitor Server Context

A system monitor server context is defined as the system monitor server layer and the agent layers. When starting the console, the user logs into a particular system monitor server context. The managed objects whose agents send information to that same system monitor server also belong to the same system monitor server context.

A managed object can belong to the same system monitor server context or a remote system monitor server context. (A managed object in a remote server context sends information to a different system monitor server than the server your console is currently connected to.) By default, Sun Enterprise SyMON *manages* an object in the same server context but only *monitors* an object in a remote server context.

Features and Benefits

Features	**Benefits**
• The main management console—hierarchical and topology viewers, including logical element grouping	• Eases manageability through a single point of management
	• Lowers service level costs by facilitating serviceability
	• Allows administrators to logically group resources to manage the environment more effectively and efficiently
• Configuration management: Physical viewer, logical viewer, dynamic reconfiguration	• Increases serviceability by letting customers locate problems quickly
	• Shows the actual configuration of the system
	• Highlights any component with an associated event/problem
	• Enables customers to perform on-line upgrades and repairs, thereby saving time and money
• Proactive, automated performance and data management	• Allows customers to make more informed decisions based upon current and historical trends
• Event/alarm manager	• Minimizes downtime through rapid and automatic notification of problems
• End-to-end security and access control	• Allows controlled administrative access to active management controls to eliminate user error
• Intelligent, autonomous agents	• Increases administrative efficiency by allowing administrators the ability to customize they way they perform management
• Application monitoring: process monitoring and logfile scanning	• Increases the availability of applications by proactively monitoring their health and alerting administrators before problems occur

Requirements and Configuration

System Requirements

Sun Enterprise SyMON™ Platform

- Console layer: Solaris™ operating environment and/or Microsoft Windows NT, 95, or 98
- Server layer: Solaris operating environment on SPARC™ systems
- Agent layer: Solaris operating environment on SPARC systems

Solaris Operating Environment

- Solaris 2.5.1 operating environment
- Solaris 2.6 operating environment
- Solaris 7 operating environment

Disk Space Requirements

- Console layer: 41.9 MB
- Server layer: 78.5 MB
- Agent layer: 35.6 MB

If you are installing all three Sun Enterprise SyMON layers on one machine, you must have 150 MB of disk space available. This is not the sum total of the disk space requirements for the individual system monitor layers, as the layers share some common packages.

System Configuration

It is recommended that the Sun Enterprise SyMON server layer be installed on an Ultra™ workstation or a machine with equivalent or greater CPU power. There must be a minimum of 128 MB of memory; however, 256 MB of memory is suggested.

Sun Enterprise SyMON Component	Hardware Requirement
System monitor console	• Minimum—SPARCstation™ 10 system with a minimum of 96 MB of RAM • Suggested—Ultra 1 system or a machine with equivalent or greater CPU power, with 96 MB of RAM
Sun Enterprise SyMON server	• Minimum—Ultra 2 system with a minimum of 128 MB of RAM • Suggested—Ultra 2 system or a machine with equivalent or greater CPU power, with 256 MB of RAM
Swap space	• Minimum—128 MB of RAM • Suggested—200 MB of RAM

Licensing/Usage

Sun Enterprise SyMON 2.0 software is available on the Internet free-of-charge to manage an individual server or desktop (`http://www.sun.com/symon`). A right-to-use license is required to manage additional servers or desktops/network devices from one Sun Enterprise SyMON server layer.

Ordering Information

Sun Enterprise SyMON™ 2.0 Software

Order Number	Title and Description
SYMV9-200-E999	Sun Enterprise SyMON™ 2.0 software for 5 servers RTU license, media, and documentation
SYMX9-200-E999	Sun Enterprise SyMON 2.0 software for 10 servers RTU license, media, and documentation
SYMY9-200-E999	Sun Enterprise SyMON 2.0 software for 25 servers RTU license, media, and documentation
SYMC9-200-E999	Sun Enterprise SyMON 2.0 software for 100 servers RTU license, media, and documentation
SYMX9-200-D999	Sun Enterprise SyMON 2.0 software for 10 desktops RTU license, media, and documentation
SYMC9-200-D999	Sun Enterprise SyMON 2.0 software for 100 desktops RTU license, media, and documentation
SYME9-200-D999	Sun Enterprise SyMON 2.0 software for 250 desktops RTU license, media, and documentation
SYMX9-200-EE99	Sun Enterprise SyMON 2.0 software for10 servers, ScholarPAC™, RTU license, media, and documentation
SYME9-200-DE99	Sun Enterprise SyMON 2.0 software for 250 desktops, ScholarPAC, RTU license, media, and documentation

Note: *ScholarPAC products are non-discountable and available only to education customers that are registered under the Sun Microsystems Computer Systems ScholarPAC program.*

Service and Support

The SunSpectrum^{SM} program is an innovative and flexible service offering that allows customers to choose the level of service best suited to their needs—ranging from mission-critical support for maximum solution availability to backup assistance for self-support customers. The SunSpectrum program provides a simple pricing structure in which a single fee covers support for an entire system, including related hardware and peripherals, the Solaris^{TM} operating environment software, and telephone support for Sun software packages. The majority of Sun's customers today take advantage of the SunSpectrum program, underscoring the value it represents. Customers should check with their local Sun Enterprise^{TM} Services representative for program/feature variance and availability in their area.

FEATURE	SUNSPECTRUM PLATINUM^{SM} Mission-critical Support	SUNSPECTRUM GOLD^{SM} Business-critical Support	SUNSPECTRUM SILVER^{SM} Systems Support	SUNSPECTRUM BRONZE^{SM} Self Support
Systems Features				
Systems approach coverage	Yes	Yes	Yes	Yes
System availability guarantee	Customized	No	No	No
Account Support Features				
Service account management team	Yes	No	No	No
Personal technical account support	Yes	Yes	No	No
Account support plan	Yes	Yes	No	No
Software release planning	Yes	No	No	No
On-site account reviews	Monthly	Semiannual	No	No
Site activity log	Yes	Yes	No	No
Coverage / Response Time				
Standard telephone coverage hours	7 day/24 hour	7 day/24 hour	8 AM–8 PM, Monday–Friday	8 AM–5 PM, Monday–Friday
Standard on-site coverage hours	7 day/24 hour	8 AM–8 PM, Monday–Friday	8 AM–5 PM, Monday–Friday	N/A
7-day/24-hour telephone coverage	Yes	Yes	Option	No
7-day/24-hour on-site coverage	Yes	Option	Option	N/A
Customer-defined priority setting	Yes	Yes	Yes	No
• Urgent (phone/on-site)	Live transfer/ 2 hour	Live transfer/ 4 hour	Live transfer/ 4 hour	4 hour / N/A
• Serious (phone/on-site)	Live transfer/ 4 hour	2 hour/next day	2 hour/next day	4 hour / N/A
• Not critical (phone/on-site)	Live transfer/ customer convenience	4 hour/ customer convenience	4 hour/ customer convenience	4 hour / N/A
Additional contacts	Option	Option	Option	Option

FEATURE	SUNSPECTRUM PLATINUM Mission-Critical Support	SUNSPECTRUM GOLD Business-Critical Support	SUNSPECTRUM SILVER Systems Support	SUNSPECTRUM BRONZE Self Support
Enhanced Support Features				
Mission-critical support team	Yes	Yes	No	No
Sun Vendor Integration Program (SunVIP℠)	Yes	Yes	No	No
Software patch management assistance	Yes	No	No	No
Field change order (FCO) management assistance	Yes	No	No	No
Remote Systems Diagnostics				
Remote dial-in analysis	Yes	Yes	Yes	Yes
Remote systems monitoring	Yes	Yes	No	No
Remote predictive failure reporting	Yes	Yes	No	No
Software Enhancements and Maintenance Releases				
Solaris enhancement releases	Yes	Yes	Yes	Yes
Patches and maintenance releases	Yes	Yes	Yes	Yes
Sun unbundled software enhancements	Option	Option	Option	Option
Internet and CD-ROM Support Tools				
SunSolve™ license	Yes	Yes	Yes	Yes
SunSolve EarlyNotifier℠ Service	Yes	Yes	Yes	Yes

Education

Sun Educational Services will be offering Sun Enterprise SyMON™ training as part of their Enterprise Systems and/or their System Administration course offerings. Check with Sun Educational Services for more information.

Professional Services

Sun Professional Services offers Systems and Network Management services as part of their Enterprise Operations suite of services. These services include a fixed-price System and Network Management Assessment Service, and other services such as their System and Network Management Architecture service. Contact Sun Professional Services for more information.

Glossary

Agent	A software process, usually corresponding to a particular local managed host, that carries out manager requests and makes local system and application information available to remote users.
Alarm	An abnormal event, which may be indicative of current or impending problems, is detected by a system monitor agent. The system monitor agent passes information about the abnormal event to the system monitor server. The server passes this information on to the user as an alarm, when the abnormal event matches a predefined alarm condition.
Alarm acknowledgment	Sun Enterprise SyMON™ software users can acknowledge alarms, indicating that the alarm does not represent a serious problem or that the problem is being resolved. Acknowledged alarms take a lower priority than unacknowledged alarms.
Alarm Editor	A Sun Enterprise SyMON software GUI used to edit the alarm limits and alarm refresh rates of any monitored property.
Bus	A point-to-point network component. Used by Sun Enterprise SyMON software to represent a network link to which many other hosts may be connected.
Community	A string similar to a password, used to authenticate access to an agent's monitored data.
Console window	A graphical user interface component of Sun Enterprise SyMON software based on Java™ technology that is used to view monitored hosts (and managed objects) information and status and to interact with remote system monitor agents.
Discovery	A Sun Enterprise SyMON tool available from the console window, used to find hosts, routers, networks, and simple network management protocol (SNMP) devices that can be reached from the system monitor server.
Domain	An arbitrary collection of hosts and networks that are monitored by Sun Enterprise SyMON software as a single hierarchal entity. Users may choose to divide their enterprise into several domains, each to be managed by different users.
Dynamic loadable modules	A system monitor agent module that can be loaded or unloaded at run time, enabling monitored properties to be displayed on the Sun Enterprise SyMON software main console window without having to restart the console or agent.
Event	A change in the state of a managed object.
File scanning	The act of scanning a file (usually a log file) for certain patterns (regular expressions) which may be indicative of problems or significant information. system monitor agents use file scanning to assist in the monitoring of systems and applications when these components do not provide direct access to status information.

GUI	Graphical user interface. The GUI provides the user with a method of interacting with the computer and its special applications, usually via a mouse or other selection device. The GUI usually includes such things as windows, an intuitive method of manipulating directories and files, and icons.
Hierarchy view	A window view that defines objects in a hierarchy or tree relationship to one another. Objects are grouped depending on the rank of the object in the hierarchy.
Manage	In Sun Enterprise SyMON software, this is the ability to monitor and manipulate objects. For example, management privileges include acknowledging and closing alarms, loading and unloading modules, changing alarm thresholds, and so on. Management privileges are similar to read, write, and execute access.
MIB	Management information base. A MIB is a hierarchical database schema describing the data available from an agent. The MIB is used by Sun Enterprise SyMON agents to store monitored data that can be accessed remotely.
Module	A software component that may be loaded dynamically to monitor data resources of systems, applications, and network devices.
Monitor	In Sun Enterprise SyMON software, monitor is defined as being able to observe an object, view alarms and properties. Monitoring privileges are similar to read-only access.
Node	A node is a workstation, server, desktop server, or workgroup server.
Object	A particular resource (computer host, network interface, software process, and so on) which is subject to monitoring and/or management by Sun Enterprise SyMON software. A managed object is one which you can manipulate (for example you can acknowledge and turn off an alarm condition for an object that you can manage). A monitored object is one which you can observe but not acknowledge or otherwise manage.
Request caching	The Sun Enterprise SyMON server consolidates duplicate outstanding requests originating from multiple consoles and eliminates the execution of redundant requests.
Rule	A rule is an alarm check mechanism that allows for complex or special purpose logic in determining the status of a monitored host or node.
Server layer	The collection of programs and processes (SNMP-based trap, event, topology, configuration, and Java server) that work on behalf of a Sun Enterprise SyMON software user to help manage a particular set of networks, hosts and devices. Usually sends requests to system monitor agents, accepts collected data from them, and passes the data to Sun Enterprise SyMON software console for display.
SNMP	Simple network management protocol. A simple protocol designed to allow networked entities (e.g., hosts, routers) to exchange monitoring information.

Sun Enterprise SyMON Super-user	A Sun Enterprise SyMON super-user is a valid user on server host. The super-user decides what the agents are in the context of the server. By default, the super-user password is used as a seed for security key generation.
Sun Enterprise SyMON user	Sun Enterprise SyMON users are the members of the `symon` group in the `//group` file.
Topology view	The topology view displays the members of the object selected in the hierarchy view.
URL	Uniform resource locator. An URL is a textual specification describing a resource which is network-accessible.

Materials Abstract

All materials are available on SunWIN, unless otherwise noted.

Collateral	Description	Purpose	Distribution	Token # or COMAC Order #
Powerpack				
– *Sun Enterprise SyMON™ 2.0 Software, Just the Facts*	Reference Guide for Sun Enterprise SyMON 2.0 Software	Training Sales Tool	SunWIN, Reseller Web	52499
– *Sun Enterprise SyMON 2.0 Software Customer Presentation*	Presentation on Sun Enterprise SyMON 2.0 Software and Sun's System Management Strategy; Slide Notes for Presentation	Sales Tool	SunWIN, Reseller Web	56689
References				
– *Sun Product Intro—Sun Enterprise SyMON 2.0 Software*	Introduction E-mail	Sales Tool	SunWIN, Reseller Web, E-mail	95409
– *Sun Enterprise Management Software, Quick Reference Card*	Quick Reference Card for Sun Enterprise Management Products	Sales Tool	SunWIN, Reseller Web, First Resort	95386
– *Sun Enterprise SyMON 2.0 Software FAQ*	Frequently Asked Questions	Training	SunWIN	53074
Product Literature				
– *Sun Enterprise SyMON Data Sheet*	Product Brochure (glossy)	Sales Tool	SunWIN, COMAC	94200, DE882-0
– *Sun Enterprise SyMON Product Brief*	Overview Brief	Sales Tool	SunWIN, Reseller Web	53243
– *Managing the Integrated Enterprise—Sun Enterprise SyMON*	Technical Positioning Paper	Sales Tool	SunWIN, Reseller Web	94737
– *Sun Enterprise SyMON Configuration Guide*	Configuration Guide for Sun Enterprise SyMON	Technical Sales Tool, Training	SunWIN	TBD
Training				
– *Sun Enterprise SyMON 2.0 Software FCS Training*	In-depth Training Course for Sun Enterprise SyMON 2.0 Software	Training	SunWIN	TBD
External Web Sites				
– *Sun Enterprise SyMON*	`http://www.sun.com/symon`			
Reseller Web Site				
– *Sun Enterprise SyMON*	`http://reseller.sun.com/products/symon`			