CA NSM System Monitoring Option for OpenVMS helps you to proactively discover, monitor and display the health and availability of critical servers running OpenVMS and application log files that are residing on those systems. It enables you to monitor OpenVMS resources against user-defined thresholds and generate policy-based alerts to notify you of problems before they can impact your overall business.

Overview

Large, complex, geographically-distributed environments make it increasingly difficult for IT management and support staff to keep up with day-to-day problems. Manually monitoring individual systems and their components is costly and time-consuming. CA NSM System Monitoring Option for OpenVMS enables automated system monitoring, simplified administration and automated, centralized, proactive management that notifies you of significant events before business is affected.

Benefits

Organizations increasingly realize that the key to successful operations requires them to be proactive in sustaining service levels for business-critical applications. CA NSM System Monitoring Option for OpenVMS gives you the ability to automatically monitor and filter events and take corrective action. This provides numerous benefits that can help result in increased profitability, accelerated response times and enhanced customer service.
Features

Manage the health and availability of OpenVMS systems

CA NSM System Monitoring Option for OpenVMS helps monitor the resources of multiple OpenVMS systems from a central network and systems manager. Through its robust functionality, system administrators can proactively monitor and automatically receive notifications when policy-based events occur on multiple remote systems within the enterprise. The solution includes two agents that accomplish this: a system agent that monitors local and cluster-wide system resources, and a log agent that monitors the existence or nonexistence of files and monitors the contents of selected ASCII log files for complex strings.

Each agent consists of a status monitor that collects statistics at specific intervals. The status monitor also compares the current statistics to the threshold values defined in the OpenVMS Management Information Base (MIB) and sends SNMP traps when thresholds are exceeded. You can configure the status monitor by setting the polling interval and the threshold levels for the monitored resources. The above agents, using predefined threshold and filtering policies, send events as they occur to the CA Network and Systems Management Event Manager. They also enable interactive monitoring of these resources.

Key capabilities

With its extensive remote monitoring and event notification capabilities, CA NSM System Monitoring Option for OpenVMS provides:

- **Simplified administration and integrated management:** The system and log agents conform to the CA NSM Manager/Agent architecture and are developed using CA NSM Agent Technology. They allow OpenVMS systems to be managed as an integral part of the complete enterprise management solutions from CA Technologies, enabling consistency in initiating and monitoring response actions across multiple operating systems. This also helps simplify system management and reduce the cost of ownership by avoiding duplication of efforts.

- **Centralized automated management:** The system and log agents allow you to centrally monitor critical OpenVMS resources and receive alerts when critical resources deviate from the expected state. Their ability to send notification of critical events to the CA NSM Event Manager, which can initiate user-defined corrective actions, enables you to automate management without having to constantly watch for them.
Faster response time and enhanced service levels: Integrating with the advanced event management, correlation, and root cause analysis of systems, networks and applications within your enterprise, CA NSM System Monitoring Option for OpenVMS allows you to quickly identify and isolate problems. This helps reduce system and application downtime and increase productivity. Better service to users is provided by automated responses that enable faster response to potential problems. Automated notifications and actions help reduce downtime and improve overall service delivery.

FIGURE A.
Centralized automated monitoring

The system agent helps enable enterprise-wide monitoring of the health and availability of multiple OpenVMS systems.

Technical Features

Automatic discovery: CA NSM System Monitoring Option for OpenVMS allows you to automatically discover OpenVMS systems in your enterprise and view them under the Business Process View (BPV). Each monitored system is represented as a separate icon that changes color whenever changes occur to the state of the resources monitored and managed by the system agent. The color of the icon is an immediate indication of the health of the OpenVMS system’s monitored resources. The icons reflect colors that range from best to worst—with green indicating the best state and red indicating the worst.
System metrics monitoring: The system agent monitors a wide range of OpenVMS system resources. In a cluster environment, an agent can monitor not only its own system resources, but also cluster-wide resources. In high availability mode, multiple agents can act as backups, providing monitoring across the cluster. Some of the resources monitored by the system agent are:

- File systems for their utilization and growth between polls
- Files for file size and time-stamp changes to help detect file tampering and growth between polls
- Processes for their existence or absence
- Printers for printer queue lengths and printer events
- Memory for memory load, memory utilization and page space utilization
- Processor for run state and CPU utilization
- Event logs for OPCOM messages to help detect and audit significant events
- Batch jobs for batch queue existence and batch job retention
- Shadow sets for absence for a shadow set member
- Device queues for queue length and queue events
- Looping processes to help detect selected processes with continuous CPU usage without any I/O
- SYSGEN parameters for changes in values and for values out of specified ranges
- Cluster-wide resources when an agent is set up to monitor them
- Nodes where an agent can monitor whether or not other nodes in the cluster are up and running
- HSC/CI (Hierarchical Storage Controller/Computer Interconnect) for HSC/CI resources

Memory and processor usage monitoring: The system agent continually monitors memory and processor usage; you can enable and disable this for the other resource categories. Individual polling intervals can also be set up for each category. The polling interval determines how frequently statistics are collected. Each metric within a category has associated warning and critical thresholds that determine the exception levels for a particular OpenVMS system. By changing these thresholds, you can tailor the monitoring algorithm to match the processing profile of the system.

Monitoring of files: The log agent monitors the existence or nonexistence of specified files, generating events when an unexpected status is detected. It also checks for the contents of specific ASCII log files generated by systems and applications against known text patterns. It sends an event trap when a known pattern is detected in a monitored file.
Policy-based alerts: The system and log agents periodically examine critical statistics and compare them against user-defined thresholds and policies to determine critical events. When a critical event occurs, an SNMP tap is generated to alert the event manager about an exception condition. The trap may cause a notification to be sent or a specific message action to be taken.

FIGURE B.
Monitoring of memory and processor usage

Memory usage of the OpenVMS system is continuously monitored, proactively providing warnings when critical events occur.

What’s new in r3.2
- Object granularity: CA NSM System Monitoring Option for OpenVMS supports DSM object granularity for OpenVMS agent objects. This allows you to determine what objects are important to your business; you can configure CA NSM WorldView™ or the CA NSM Management Command Center to maintain only the more important objects. When used in conjunction with managed object scoping, you can filter not only which OpenVMS hosts can have granular objects, but also which instance objects can be created under what host.
Delivery approach

CA Services provides a portfolio of mainframe services delivered through CA Technologies internal staff and a network of established partners chosen to help you achieve a successful deployment and get the desired business results as quickly as possible. Our standard service offerings are designed to speed deployment and accelerate the learning curve for your staff. CA Technologies field-proven mainframe best practices and training help you lower risk, improve use/adoption and ultimately align the product configuration to your business requirements.

Benefits

**CA NSM System Monitoring Option for OpenVMS helps you effectively manage OpenVMS systems in a distributed heterogeneous environment**

CA NSM System Monitoring Option for OpenVMS provides key benefits to assist you in bridging the gap between business operations and IT. By automating systems management, simplifying administration and insulating your users from low-level technology specifications, this solution can help your organization to meet its ultimate business goals of increasing profits while improving customer service.

The CA Technologies advantage

CA Technologies has 30 years of recognized expertise in robust, reliable, scalable, and secure enterprise-class IT management software. CA Technologies is an IT management software and solutions company with expertise across all IT environments—from mainframe and distributed, to virtual and cloud. CA Technologies manages and secures IT environments and enables customers to deliver more flexible IT services. CA Technologies innovative products and services provide the insight and control essential for IT organizations to power business agility. The majority of the Global Fortune 500 rely on CA Technologies to manage their evolving IT ecosystems. For additional information, visit CA Technologies at ca.com.