Bradmark's NORAD Monitors All Major Databases Platforms

Identifies problems before they arise and alerts administrators before they impact availability

The secret behind a smooth running operation is getting on top of a problem when it first surfaces. Through proper monitoring of your database and operating system environment, you can prevent some failures and detect others before they cause any problems, allowing you to implement remedies so the system doesn't go offline at all. NORAD Surveillance becomes the watchdog of your distributed enterprise in an around-the-clock manner by letting the DBA know when the system is performing as expected and when something abnormal is occurring.

NORAD Surveillance isolates problems through a rules-based methodology, alerting the DBA of potential problems through systems alarms, numeric and alphanumeric paging, SNMP traps, or the execution of pre-defined SQL scripts. The DBA specifies how frequently the collections of statistics need to be sampled, what the rules of the environment are, and what alarms need to be published should these rules be exceeded.

In response to these alerts or alarms, the DBA may require further information before taking appropriate action. That is why NORAD provides the ability for the DBA to drill down to whatever level is required in order to solve the problem. Information is available from the global level right down to the detail session level. A special blocked process tree is made available graphically in the event one process is blocking other processes from executing. Even the currently executed SQL code is available for review.

To perform these activities the DBA can connect from any PC Console on the network, identify the server or servers he wishes to monitor, and thereafter monitor and control the instances and databases in real time. Through its distributed agent architecture, NORAD Surveillance not only monitors an unlimited number of servers and entities, but also has the ability to share the information between the various agents. Data collection and analysis modules function independently, as asynchronous processes initiated from the DBA console.

Messages are returned to the initiating console only when an event occurs that warrants an alarm, minimizing the load on the network while maximizing efficiency in a complex environment. A console can temporarily disconnect from any server without disrupting the monitoring process. In fact, the console does not have to be connected to the server over the duration of the monitoring process. After initiation, the host-based agents independently perform the tasks of data collection, analysis, repository placement, reporting, and alerting.

Console, Server and Vendor-specific functions are the three main components of NORAD Surveillance. The Console functions are those that the DBA runs to configure collections, set up events, respond to alarms, and view performance data from the monitor. These routines are represented by intuitive, graphical interfaces that the DBA can run from any 32-bit Microsoft Windows console. From this console, the DBA can issue configuration requests and view monitored information. In addition, an interface is provided through the console to the Alerter agent so that the DBA can configure, receive, respond to, and reset alerter conditions on the servers.

The Server functions are performed through a set of intelligent agents that are controlled by the various command consoles. Some are continuously executing in the background, such as those consisting of data collection, automated data analysis, event management, alarm prioritization, and alerter notification. Others are performed on demand, such as viewing monitoring requests, performing trend analysis, reviewing real-time statistics, comparing current to historical information, solving performance bottlenecks, examining currently executed SQL code, etc.

NORAD Surveillance vendor-specific functions allow the DBA to quickly implement new rules or add new metrics without re-configuring or rewriting the fundamental software. This feature makes implementation of new functions extremely easy, and offers the DBA a flexible, building block approach to the implementation of intelligent agents.

Configurable in client/server, client only, dedicated server, and heterogeneous configurations, this flexible distributed agent architecture allows NORAD to scale to any size configuration, from a single server environment to an unlimited number of servers and an unlimited number of databases and instances within a complex enterprise environment.

NORAD Surveillance *DB*

- Database monitoring for Microsoft SQL Server, Oracle, Sybase ASE and IBM DB2 UDB
- Centralized control allows you to easily view key global performance statistics and configure server components
- Flexible agent architecture allows you to scale to any size configuration and simultaneously monitor multiple database instances and multiple vendor RDBMs
- Efficient collection definitions can easily be modified to user-specific metrics without rewriting the fundamental software
- Alerting is automated through rules analysis and event generation that can also easily be customized by adding new rules
- Numerous pre-defined reports are provided for each of the monitored platforms and the operating system

NORAD Surveillance *OS*

- Provides IT departments with real-time feedback and automatic corrective actions to ensure application and system uptime
- Maximizes application performance, availability and reliability
- In a very large network, the monitoring responsibility can be divided among multiple monitoring stations
- In addition to providing detailed operating system statistics, there are also user-customizable collections to monitor Logfiles, Application Processes, and Script Execution with analysis of the results

Bradmark Technologies, Inc.
Founded in 1981, Bradmark Technologies, Inc. provides database management tools for Sybase, Oracle, DB2 UDB, Microsoft SQL Server and Hewlett-Packard IMAGE databases. Through innovative architectures, such as NORAD and DBGeneral, customers receive easy-to-install, highly reliable and flexible products, which increase enterprise performance and information availability. Bradmark customers include more than 200 of the Global 500, and hold more than 10,000 licenses worldwide. Headquartered in Houston, Bradmark has offices in San Jose, California, Seattle, Washington, Birmingham, England, Munich, Germany and The Netherlands.

Contact Bradmark Technologies at (800) 621-2808, or visit us on the Web at www.bradmark.com.

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