SIOS iQ Performance Root Cause Analysis

SIOS iQ™ enables IT staff to quickly and easily identify and correct critical application performance issues. It automatically warns the IT staff that an issues exists, lists all affected objects in the environment, defines the root cause of the issue, and recommends specific changes for improvement. The following is a common use case scenario.

The Environment

A large enterprise hosts the majority of its IT operations in a VMware environment comprising hundreds of hosts, thousands of VMs and hundreds of thousands of objects.
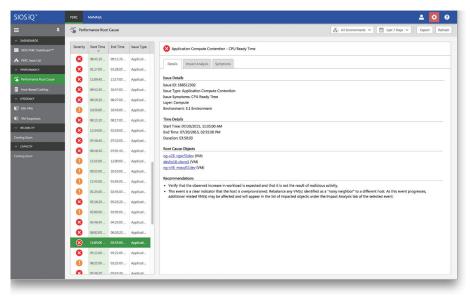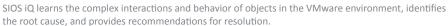
The Challenge

The IT department received numerous alerts indicating that CPU utilization on a host has exceeded the target threshold. The next day, the IT department receives several calls from end users because the performance of a business critical application used has slowed significantly. The slow performance is impeding end user productivity and preventing them from processing important reports needed to run the business.

The Traditional Solution

The IT staff's VMware administrator reviews each of the alerts and determines that there is a problem with performance on a particular host. The IT staff assembles a team of experts from each domain, including network, application, and infrastructure in a "war room" to find a solution.

The team spends hours manually compiling and analyzing data from various sources to identify causes of issues. They review reports generated by tools that monitor: application, host, storage and network. They also consult infrastructure analytics tools. They spend more time debating the best solution and assigning ownership of resolution steps.

SIOS iQ learns the complex interactions and behavior of objects in the VMware environment, identifies the root cause, and provides recommendations for resolution.

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While they are able to validate a CPU utilization issue, their existing tools could not account for the interaction of objects in their environment. The team cannot reach consensus on the root cause of the problem or the most effective steps for resolution.

The Simple, Intelligent SIOS iQ Solution

SIOS iQ eliminates the need for a war room approach by auto-matically identifying the performance issue and its root cause. When the IT administrator checked the state of his VMware environment a red indicator light under Performance alerted him to a problem. He clicked on the alert and was given a clear summary of the issues, severity, and effected objects in his environment as well as the root cause of the issue and recommendations for correction.

The SIOS PERC dashboard indicated a severe issue that was caused by three specific VMs. It identified the root cause of the problem as application compute contention causing issues with CPU ready time. Based on SIOS iQ recommendations, the IT manager vMotioned the VMs to a host that could better accommodate the workload. The application performance issue was immediately resolved.

Conclusion

Traditional approaches record discrete events, (e.g., CPU utili-zation exceeding a threshold) to identify a problem. They generate "alert storms" of meaningless information and miss important correlations that can indicate severe problems. In contrast, SIOS iQ learns the complex interactions and behavior of objects (CPU, storage, network, applications) in the enterprise's VMware environment and delivers a simple, intelligent identi-fication of the root cause and specific recommendations for resolution. The result: fast, accurate identification and resolution of performance issues, improved service to end users, and significant time savings for IT staff.

About SIOS

SIOS Technology Corp. makes software products that provide the insights and guidance IT managers need to manage and protect business critical applications in large, complex data centers. SIOS iQ is a machine learning analytics software platform that helps IT managers optimize performance, efficiency, reliability, and capacity utilization in VMware environments. SIOS SAN and SANLess software is an essential part of any cluster solution that provides the flexibility to build Clusters Your Way™ to protect your choice of Windows or Linux environment in any configuration (or combination) of physical, virtual and cloud (public, private, and hybrid) without sacrificing performance or availability.

Founded in 1999, SIOS Technology Corp. (http://us.sios.com) is headquartered in San Mateo, CA, and has offices throughout the United States, the United Kingdom and Japan.

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