



Quest Solutions for System Center Are the Right Prescription for Johns Hopkins' Heterogeneous Environment, Streamlining Tasks And Reducing Costs

The Johns Hopkins University, established in 1876 as America's first research university, includes nine academic and research divisions, and numerous centers, institutes, and affiliated entities. The university and its related institutions strive to lead the world in the diagnosis and treatment of disease. They also train tomorrow's great physicians, nurses, and scientists, as well as to provide the highest quality health care and service to patients.

When Johns Hopkins needed to bring its Windows and non-Windows systems under a single management and monitoring umbrella, the IT staff turned to Quest for help in extending Microsoft System Center solutions to non-Windows systems, applications, and devices.

The Challenge

A central IT team is responsible for system management and monitoring as well as some security solutions at Johns Hopkins. The team manages about 14,000 desktops and 1,300 servers, or about 35 to 40 percent of the Johns Hopkins environment. Johns Hopkins is primarily a Windows shop that has used MOM and SMS since their early releases. Most recently they have upgraded to Microsoft System Center Configuration Manager 2007 and Operations Manager 2007 for management and monitoring.

However, many departments at the institution have their own IT support, and more than 200 major projects now involve server-based service technologies that include SAN and network devices as well as Linux and Unix components. A partial list of the non-Windows components includes Dell, HP, IBM, BladeCenter, VMWare, RedHat, Oracle, Blackberry, APC, EMC, and IronPort Relay. The central IT staff needed to work with the other project teams to monitor and manage their projects as well as the core Windows systems.

As systems architect Jamie Bakert put it, Johns Hopkins was suffering from "console sprawl": although the Microsoft System Center solutions were successfully managing the institution's Windows systems and applications, a variety of technologies and products from a number of companies had been put in place to handle the non-Windows systems and applications—and each had its own management console. Before long, managing all the management consoles had become a task in itself. Moreover, the jumble of products could not provide a comprehensive solution that would provide business intelligence and reporting.

Moreover, solutions in place for non-Windows systems were often ad hoc. Most significantly, Johns Hopkins maintains a dynamic inventory, but on non-Windows systems, the inventory was often just a spreadsheet—not a secure or reliable solution.

Johns Hopkins needed a comprehensive solution that would enable it to assess, deploy, update, and monitor its Windows and its non-Windows servers, clients, and devices from a single, unified console. To keep training and software costs low, Johns Hopkins sought a solution that leveraged the IT staff's experience with the Microsoft System Center products.

The Quest Solution

After carefully evaluating a number of products, Johns Hopkins chose the Quest Management Xtensions products for Operations Manager and Configuration Manager. These solutions extend the powerful capabilities of the Microsoft System Center family to heterogeneous environments, enabling System Center to be the single, end-to-end platform for managing desktops, servers, and devices in both physical and virtual environments.

What Johns Hopkins needed, according to Bakert, was to monitor "not only Windows systems, but anything with a heartbeat." Bakert said that Quest's solutions are the right prescription. "Quest allows us to more effectively model services. With the ability to plug-in almost all data enter and networked components, we can graphically define all of the components which make up a service and begin to manage services like devices."

Johns Hopkins was particularly impressed with the breadth of value the Quest products provided. As Bakert explained, System Center does not merely monitor and manage enterprise components applications; "By leveraging Quest products to support our single management toolkit, we can accelerate time to value and more easily realize many of our ITIL-based, integrated IT systems lifecycle management and knowledge driven management, initiatives."

"Today's complex IT environments include many disparate components that exist outside of the Windows world. The challenge is how to monitor and manage the overall health of distributed applications. Quest allows us to plug those non-Windows systems into an Operations Manager and Configuration Manager environment and provide end-to-end service management into the System Center pane of glass."

—Jamie Bakert
Systems Architect
Johns Hopkins

Overview

JOHNS HOPKINS
UNIVERSITY

Headquarters

Baltimore, Maryland

Services

Research University, Hospital, and School of Medicine

Critical Needs

A single solution to manage and monitor both Windows and non-Windows systems and applications

Solution

Quest Management Xtensions Solutions for Operations Manager and Configuration Manager

Results

- Increased efficiency by uniting management and monitoring under a single console
- Reduced operating costs and complexities by standardizing change and configuration management under Quest's Configuration Manager solution
- Ensured effective and consistent monitoring of non-Windows systems through a single, well-understood tool
- Delivered ROI by eliminating redundant technology and the costs associated with acquiring and learning additional, non-integrated solutions
- Reduced IT work load, enabling implementation of further system integration and efficiency efforts

Other products in the marketplace, asserted Bakert, might have provided a specific monitoring scenario for an application or a service, but not as broad. Investing in those alternatives, “would not be an enterprise solution and would only address a small percentage or subset of our distributed environment,” he said.

The Bottom Line

The Quest Management Xtensions products have enabled Johns Hopkins to manage and monitor all its Windows and non-Windows systems using the Microsoft System Center solutions already in place, quickly alleviating the problem of console sprawl. “With VMWare, we had no way of monitoring the hardware without putting up [another] tool and having another console to manage and alert our different VMWare environments,” explained John Taylor, also a Systems Architect at Johns Hopkins. “Without this Quest tool, we would have had to dedicate FTE resources to manage hardware heterogonous environment to include IBM Director, HP Systems Insight Manager, and Dell Open Manage in our environment. So it’s helped us prevent having multiple management consoles.”

Bringing disparate systems under a single management and monitoring umbrella is much more than a mere convenience; it saves both time and money. Eliminating platform- or application-specific monitoring tools means reduced software acquisition and licensing costs, reduced training costs, and less ongoing maintenance. Moreover, having a single, well-understood tool means that management and monitoring are performed more effectively and consistently, reducing downtime. While downtime is a serious concern for any business, at a teaching hospital like Johns Hopkins, computer systems are vital to critical healthcare functions. “If our clinical applications are disrupted, it affects patient care, and that’s our highest priority,” said Taylor. “The Quest Management Xtensions products enable the IT staff to resolve problems quickly, minimizing downtime.”

Quest Management Xtensions products have also enabled Johns Hopkins to be more proactive in managing and tuning systems to prevent performance problems before they can affect users. Jamie Bakert gave one example: “We’ve actually had a number of instances where Quest has allowed us to better correlate performance information across VMware hosts and guests allowing us to better tune, scale, and identify issues.”

Auditing and reporting is another key concern for many organizations. Johns Hopkins is subject to both internal and external regulations, including HIPPA, FERPA, and Sarbanes-Oxley. The Audit Collection Services (ACS) feature of Operations Manager 2007 automatically collects records generated by audit policies on each Windows machine and consolidates the individual security logs into a central database, where authorized auditors can filter and analyze events and create reports on the collected data. Quest extends this powerful functionality to non-Windows systems. Johns Hopkins can now easily comply with applicable regulations across its heterogeneous environment and demonstrate that compliance to auditors.

Johns Hopkins has also been very impressed by the support provided by Quest and plans to invest further in Quest solutions. In particular, the IT staff is seeing increased use of Macs. They plan to extend their implementation of Quest Management Xtensions in order to inventory the Macs and provide an effective patch management process to secure them.

About Johns Hopkins

The Johns Hopkins University opened in 1876 as America’s first research university. It includes nine academic and research divisions, as well as numerous centers, institutes, and affiliated entities. The Johns Hopkins Hospital opened in 1889, followed four years later by the university’s School of Medicine. These institutions strive to lead the world in the diagnosis and treatment of disease, train tomorrow’s great physicians, nurses, and scientists, and provide the highest quality health care and service to patients.

About Quest Software, Inc.

Quest Software, Inc., a leading enterprise systems management vendor, delivers innovative products that help organizations get more performance and productivity from their applications, databases, Windows infrastructure and virtual environments. Through a deep expertise in IT operations and a continued focus on what works best, Quest helps more than 90,000 customers worldwide meet higher expectations for enterprise IT. Quest provides customers with client management as well as server and desktop virtualization solutions through its subsidiaries, ScriptLogic, Vizioncore and Provision Networks. Quest Software can be found in offices around the globe and at www.quest.com.

Quest Software Incorporated. • To learn more about our solutions, contact your local sales representative or visit www.quest.com • Headquarters: 5 Polaris Way, Aliso Viejo, CA 92656, USA

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