

LEHMAN BROTHERS

Overview

Country or Region: United States
Industry: Financial Services

Customer Profile

Founded in 1850, Lehman Brothers maintains leadership positions in equity and fixed income sales, trading and research, investment banking, private investment management, asset management and private equity.

Business Situation

When Lehman Brothers launched an initiative to migrate its messaging environment to the Microsoft Exchange 2003 platform, it was also looking to replace Hewlett-Packard's monitoring solution for its global Exchange and Active Directory environment.

Solution

The current MOM deployment provides proactive monitoring & notification and rich reports on Lehman's global Microsoft Exchange and Active Directory servers. The deployment also has seamless integration between MOM and HP OpenView and hence with Lehman notification and ticketing system via Engyro.

Results & Benefits

The monitoring solution provides administrators secure access to the operational data for the servers they manage at the same time limits access to irrelevant ones. The initial design was to monitor 800 servers comprising a global operation divided into four regions, though Lehman is planning to expand this deployment.

MICROSOFT OPERATIONS MANAGER 2005 RE-DEPLOYMENT & ADVANCED CONFIGURATION

Microsoft Exchange 2003 Cluster Deployment

"This solution provided seamless integration with current monitoring, ticketing and notification systems for the global messaging and AD infrastructure. It also provided granular- proactive monitoring and deeper knowledge about the problems."

Dipendra Bantawa, Principal Consultant / Project Lead

Having initially deployed a limited-scope solution for Lehman Brothers based on Microsoft Operations Manager 2005 (MOM 2005), Microsoft Gold Certified Partner The Henson Group, Inc. (THG) re-designed a much larger, more complex monitoring solution that will eventually span the financial services giant's global IT environment.

BUSINESS SITUATION

Lehman Brothers, an innovator in global finance, serves the financial needs of corporations, governments and municipalities, institutional clients, and high-net worth individuals worldwide.

Founded in 1850, Lehman Brothers maintains leadership positions in equity and fixed income sales, trading and research, investment banking, private investment management, asset management and private equity. The Firm is headquartered in New York, with regional headquarters in London and Tokyo, and operates in a network of offices around the world.

When Lehman Brothers launched an initiative to migrate its messaging environment to the Microsoft Exchange 2003 platform, it was also looking to replace Hewlett-Packard's monitoring solution for its global Exchange and Active Directory environment. This was due to the lack of granularity and flexibility in monitoring the company's complex Windows environment.

During the Exchange migration, Microsoft representative encouraged Lehman to explore the possibility of using MOM 2005, due to its depth of monitoring and out of box reporting for Exchange.

Lehman eventually approved the full-fledged deployment of MOM 2005 based on this successful five-month pilot where approximately 50-plus servers in the US operation were monitored.

That representative also recommended Lehman assign the opportunity to The Henson Group, Inc. (THG) to manage the pilot implementation, configuration, and knowledge transfer.

Lehman eventually approved the full fledged deployment of MOM 2005 based on this successful five-month pilot where approximately 50 plus servers in the US operation were monitored. (The servers involved in the pilot consisted primarily of Windows Domain Controllers [DCs] and Exchange 2000/2003 servers.)

Following several months of evaluations and planning sessions, Lehman Brothers decided to pull the trigger on a global deployment. However, the manner in which MOM 2005 was custom configured for the pilot may have served well for evaluation purposes, but for the full deployment, a drastically different configuration was needed.

Therefore, Lehman Brothers required an entirely new installation to achieve two core objectives: (1) to provide projected scalability that had not been factored into the initial deployment, as it was for evaluation purposes, and (2) to utilize a number of various features also not previously planned for.

The major facet of this new, far more complex deployment was its extension to apply the technology to manage its entire global messaging and AD environment, encompassing four regions: the United States, Asia Pacific, Europe, and Denver (due to various unique factors of the Denver operation's IT infrastructure, which incorporates various business lines, this location is treated as a region in and of itself for all intents and purposes and not just this engagement).

The challenge presented to The Henson Group was to replicate its earlier success, though on a much larger scale, and design and guide deployment on a MOM 2005 solution for the US region, which would then serve as the model for deployments in the other three regions.

Meanwhile, even if The Henson Group had not provided services to Lehman for more than five years — including global deployments of Windows XP and providing mainframe connectivity using Host Integration Server — the consultancy would have been an ideal choice anyway.

A Microsoft Gold Certified Partner founded by former Microsoft engineers from the product groups in Redmond and Microsoft Consulting Services, the consultancy is officially designated as an exclusive “Go To” partner for MOM 2005 engagements.

The Henson Group offers a full-service Systems Management unit staffed by experienced Microsoft Certified consultants, usually specializing in multiple technologies.

The project required a completely new design and implementation of MOM 2005 with a re-configuration to accommodate Lehman Brothers' current needs and future growths.

The Henson Group is consistently ranked at or near the top of Microsoft's official Resource Directory for Microsoft Certified Partners for Systems Management Projects for both MOM and Systems Management Server 2003 (<http://directory.microsoft.com>).

The Henson Group achieved Microsoft's official Advanced Infrastructure Solutions competency for proven experience deploying the Microsoft systems management software family of products, including MOM, SMS, Data Protection Manager, and others.

Furthermore, The Henson Group offers a technology practice entirely dedicated to serving the business processing needs of the Financial Services industry. This practice has a solid client base that includes such major concerns as Bloomberg, Citigroup, Daiwa Securities, Ernst & Young, Goldman Sachs, Morgan Stanley, Warburg Pincus, UBS, and many others. (See www.HensonGroup.com/clients for a complete list of The Henson Group's clients.)

What this meant for Lehman Brothers was that The Henson Group had the resources, project experience, industry knowledge, and proven technical ability to achieve its objectives.

SOLUTION

Lehman's current server monitoring software, based on OpenView, was complex, decentralized, and did not provide the granularity or level of detail necessary for proper proactive monitoring of its Exchange and AD environment.

The project required a completely new design and implementation of MOM 2005 with a re-configuration to accommodate Lehman Brothers' current needs and future growths.

Following Discovery, THG deployed the first Management Group for US region. During the process THG built a lab and documented the deployment process which was used as a guideline to deploy MOM in other regions. All the management packs were tested, tweaked and tuned in the lab first before it was released to production. The Management Packs included the following: MOM 2005, Windows Server Base OS, Windows Operating System, Windows MP Notifier, Active Directory, Internet Information Services, SQL 2000, SQL 2005, Exchange 2000/2003 and HP Proliant.

Custom Management Packs were created to monitor Blackberry Enterprise Server and RightFax Server components. Changes, updates and additions to the rules are normal but synchronizing the changes can be quite challenging. For the same, THG proposed a solution to automate the custom Management Pack synchronization between the regions.

THG provided in-depth knowledge transfer on deploying and managing MOM which has enabled Lehman administrators become self sufficient in managing their MOM infrastructure across the globe.

A highly available monitoring backbone using already established internal Lehman disaster recovery process was an obvious requirement. Thus, a robust Business Continuity Plan (BCP) was designed, tested and implemented to eliminate single point of failure for all the MOM components. Combination of inbuilt MOM features, use of redundant servers, use of multiple sites, regular backups and Lehman failover plan comprised this BCP plan.

Lehman also needed help limiting access to the information in the MOM console through the use of console scopes. THG was able to provide guidance on the use of these scopes and thereby limit who could see what within the MOM console, limiting the risk that the wrong admins would have access to irrelevant state information.

For efficient and effective operational process, such as agent management, MOM infrastructure health check, Knowledge management, Custom Management Pack design and development, a comprehensive operational solution was provided. This included custom scripts, batch files, process based on ITIL and documentation to support them.

For long term trending, capacity planning and deep analysis of the monitored system, MOM does provide out of the box reports. However, these reports do not cover all the scenarios, therefore, THG provided Lehman with custom reports which added tremendous value to the current MOM deployment. And from reporting standpoint, only a single MOM 2005 Reporting Server is installed which store report data for all the Management Groups globally.

As stated previously, Lehman currently has substantial investment in HP OpenView and wanted to integrate MOM seamlessly to the current notification and ticketing system (Remedy), which is tightly integrated with HP OpenView. With Engyro's Product Connector MOM to HP OpenView, using MCF, THG provided the level of integration Lehman required. This connector forwards the designated alerts from the various MOM Management Packs in each Management Group into the regional HP OpenView systems.

THG provided in-depth knowledge transfer on deploying and managing MOM which has enabled Lehman administrators become self sufficient in managing their MOM infrastructure across the globe.

As the project progressed, web server team got interested to evaluate MOM and requested THG to create a test bed for monitoring IIS, Application Center, Synthetic transactions and .Net applications. Management Packs such as IIS, Application Center, Web sites and Services and AVIcode were used to setup the test environment.



About The Henson Group

Founded by former Microsoft engineers in 2000, The Henson Group is an award-winning Microsoft Gold Certified Partner specializing exclusively in deploying Microsoft technologies, official product training, and strategic consulting for overcoming today's business challenges.

The preferred solution provider for many major US and international corporations, The Henson Group is designated an official "Go To" partner for most major products, consistently ranked within the top three consultancies in Microsoft's partner directory (found at: <http://directory.microsoft.com>), holds a seat on the national Microsoft Partner Advisory Council, has direct ties to the product groups, and offers a price guarantee that assures the highest quality service at an unbeatable value.

RESULTS & BENEFITS

The current MOM deployment provides proactive monitoring & notification and rich reports on Lehman's global Microsoft Exchange and Active Directory servers. The deployment also has seamless integration between MOM and HP OpenView and hence with Lehman notification and ticketing system via Engyro. With custom management packs, custom reports and custom scripts all the monitoring and monitoring gaps were covered. Side by side, the implemented Business Continuity Plan will ensure high availability of the MOM infrastructure.

The current deployment provides administrators secure access to the operational data for the servers they manage at the same time limits access to irrelevant ones. The initial design was to monitor 800 servers comprising a global operation divided into four regions. The architecture THG helped Lehman to implement is scalable enough to monitor thousands of servers not in the initial scope of this project. Furthermore, the infrastructure is ready to monitor other Microsoft or third party vertical applications.

Additionally, invaluable knowledge base provided with each Management Pack, ample of operational documents and training has provided Lehman administrators confidence in managing MOM independently.

Lehman began with little internal knowledge of MOM 2005. THG was not only able to transfer Lehman IT pros how to use and administer the product, but also how to customize it to best meet their own corporate standards for server health.

With current MOM deployment the monitoring maturity has improved from reactive to proactive saving huge time and resource. It has improved detection of the root cause of problems, as the Management Packs are written by the same group who developed the Microsoft products.

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