

# Infrastructure Optimization

## Evidence Case Study: HSBC Mexico

Posted: Posted 8/8/06

### Financial Services Firm Supports Growth Through Microsoft Infrastructure Optimization

*HSBC acquired a large local bank in Mexico with more than 1,400 branch locations and wanted to take control of its decentralized IT environment. Manual deployment of software applications and security updates could take months, and the company lacked tools to monitor its IT resources effectively. To improve system management, HSBC Mexico implemented a centralized solution based on the Microsoft® Windows Server® 2003 operating system and the Microsoft Active Directory® directory service, Microsoft Systems Management Server 2003, and Microsoft Operations Manager 2005. Now the company can automatically install updates, get new financial service software to market quickly, and cut IT travel costs. It can also monitor systems in real time and plan for change and business growth. HSBC Mexico estimates that effective management of IT resources will help it support up to 30 percent growth with its existing infrastructure.*

#### Situation

HSBC Mexico is a financial services company with more than 1,400 branches, 5000 ATMs, and 6 million customers throughout Mexico. The company offers a full range of personal and corporate financial services. With 22,400 employees, HSBC is headquartered in Mexico City and is a subsidiary of HSBC Holdings plc.

HSBC Mexico decided to overhaul its technology infrastructure following a 2002 acquisition. At that time, the company faced a decentralized IT environment, including 25,000 workstations without a common operating system. HSBC Mexico did not have a consistent method of software distribution and could not ensure that branch offices had the latest security updates. Redundant systems ran in different locations performing the same tasks, and the IT department did not have an efficient way to effectively monitor system activities.

In this unpredictable environment, IT staff could respond to changes affecting system integrity and security only after they occurred. Inability to anticipate changes affecting the IT environment made it difficult to fully support employees and customers.

In addition to lowered efficiency and potentially compromised security, HSBC Mexico had difficulties in responding quickly to market demands, such as customers continually wanting new features and services. To stay competitive, HSBC Mexico needed to develop new offerings and then manually install the necessary software at each of the 5,000 ATMs throughout Mexico. Deployment often took more than two months and involved IT staff traveling to every location to complete the installation manually. This process had high travel and labor costs, and the delay in deploying new products put HSBC at a competitive disadvantage.

HSBC Mexico needed a solution that would automate software deployment and give it the necessary tools for controlling a centralized IT environment. In essence, the company wanted an IT environment that could effectively support growth and help the business respond to market changes quickly.



<http://www.hsbc.com.mx>

**Country or Region:** Mexico

**Customer Size:** 22,400 employees

**Industry:** Financial Services

**Customer Profile:**

Grupo Financiero HSBC has 22,400 employees and 1,400 branches throughout Mexico. HSBC Mexico offers its six million customers a range of corporate and personal finance services.

**Business Situation:**

HSBC Mexico wanted a solution that would help standardize IT operations and support business growth through automated application deployment and improved asset management.

**Solution:**

The financial service company chose a management solution based on Microsoft® Systems Management Server 2003, Operations Manager 2005, and the Microsoft Active Directory® service to improve control of its IT environment.

**Benefits:**

- Remote management cuts costs, reduces time-to-market
- IT environment changes from reactive to proactive
- Better system management supports business growth

**Software and Services\*:**

- Microsoft Active Directory
- Microsoft Office Project Server 2003
- Microsoft Office SharePoint® Portal Server 2003
- Microsoft Operations Manager (MOM) 2005
- Microsoft SQL Server™ 2005
- Microsoft Systems Management Server 2003
- Microsoft Virtual Server 2005
- Microsoft Windows Server® 2003 Enterprise Edition
- Microsoft Windows® XP Professional

**Vertical Industries**

- Banking Industry

## Solution

HSBC Mexico began researching solution options and quickly concluded that Microsoft had the tools needed to streamline its technology infrastructure. The company wanted an IT environment that would be a resource for supporting sustained business growth.

With help from Microsoft Consulting Services, the company developed an infrastructure optimization strategy to help it reach its goals. Microsoft Infrastructure Optimization is a process that helps businesses analyze IT assets and determine a strategy for developing those assets in line with business goals. A business first determines where it fits into the infrastructure model and then uses a series of benchmarks to guide it to the next level. HSBC Mexico discovered that without a standardized operating environment and a reactive rather than proactive security response, the company fit the profile of a Basic IT environment. At this level the business derives little benefit from IT, and this was exactly the circumstance HSBC Mexico wanted to reverse.

The first challenge for HSBC Mexico was consolidating scattered departmental server computers into a central data center located about 25 miles from Mexico City. The second challenge was standardizing the heterogeneous workstations on a single operating system—no easy task in a large, geographically diverse company.

The company decided to use the Microsoft® Windows Server® 2003 operating system for its central server computers in Toluca and the Microsoft Windows® XP operating system for its workstations. The Active Directory® service—a component of Windows Server 2003 that enables centralized management of hardware, applications, and users—would be a critical part of the new solution. And because the Windows operating system and Active Directory integrate easily with Microsoft Systems Management Server 2003 and Operations Manager 2005, HSBC Mexico chose these products as its primary management tools. The company also installed Microsoft SQL Server™ 2005 database software for data storage at the Toluca facility.

In late summer 2004, the company began testing the new software, consolidating servers, and replacing hardware as needed. HSBC Mexico started desktop software deployment in November by using Systems Management Server to replicate and deploy Windows XP and line-of-business applications to every workstation. Application inventory maintained by Systems Management Server can be combined with business organization information stored in Active Directory to restrict application deployment to a subset of users. HSBC Mexico took advantage of this capability to tailor application deployment specific to each employee's role in the company.

The automated installation process proceeded quickly. At one point, the company deployed to 20 branches and 300 workstations in a single day. Eight months later, the deployment was complete, and HSBC Mexico had the means to monitor and manage its large organization effectively.

Systems Management Server continues to play a major role in the company's strategy for keeping software up to date and managing assets. The company uses Systems Management Server to deploy software updates to workstations and to perform hardware and software inventories. The server software also tracks resource usage and user behavior, and HSBC Mexico uses this information to analyze and manage its systems. For example, HSBC Mexico can cross-reference the number of licenses for any software product with usage data to make purchasing and deployment decisions.

Gabriel Pepe, Distributed Systems Director at HSBC Mexico, says, "We use Systems Management Server to plan for growth, and we know very well if our technology is being used properly. If someone asks how a server is being used, I can explain in detail how the memory is allocated and what percentage of the processor is used."

Microsoft Operations Manager complements Systems Management Server by providing information about problems with application processes as they occur. For example,

*"We are now in a position to increase our number of employees by up to 30% and still support the organization with the same infrastructure."*

**Gabriel Pepe**

Distributed Systems Director

HSBC Mexico

Operations Manager integrates with the custom application responsible for managing ATM activity. With the operations management software running in the background, the application delivers alerts on ATM performance and security issues. "An ATM is a very special workstation because it has a lot of components that are difficult to manage," says Pepe. "ATMs have to handle money and deliver it to customers, and they have a touch screen for the user interface." With frequent system alerts, bank employees can respond to system issues or security risks quickly before they become a problem.

The recent infrastructure changes have affected IT employees the most, although all HSBC Mexico personnel have noticed a few differences. For example, employees now log on to their desktops and access applications using a single password from anywhere within the organization. Authentication information is stored in Active Directory, which also manages Group Policy settings for all the workstations. HSBC Mexico uses Group Policy settings to set permissions and control user access to resources, and to respond quickly to new regulatory requirements on access policies.

Internal regulations also require that HSBC Mexico keep strict control of its development processes. The company uses Microsoft Virtual Server 2005 as a complete development and testing environment for new products and configurations. With Virtual Server 2005, developers can run different operating systems or different versions of an application concurrently on one server computer. HSBC Mexico can test and manage configuration changes in a discrete operating environment without risk of destabilizing the greater system. The company also uses Microsoft Office Project Server 2003 for project management and Microsoft Office SharePoint® Portal Server 2003 for Web-based collaboration. With a stable, proactive IT environment in place, HSBC Mexico continues its journey to optimize its IT infrastructure. The company is moving toward light-touch application deployment and an increasingly policy-driven IT environment.

## Benefits

With its new IT management solution, HSBC Mexico can now take advantage of automated application deployment to get products to market quickly and to install software applications and updates. The IT staff can also monitor resources and support business growth more effectively.

### Remote Management Cuts Costs, Reduces Time-to-Market

HSBC Mexico has developed a technology infrastructure that helps the company get products to market more quickly. With remote system management and automated deployment of software applications and updates, the company has reduced travel and made IT staff more effective. "Today we don't have to travel from the IT office to another city to fix or install something," says Pepe. "We have an infrastructure that allows us to complete remote installation of a desktop computer in an hour. And if the user has any problems, we can take control of the workstation and resolve them." Reduced operating costs are only part of the savings. The company no longer is at a competitive disadvantage in the race to get products to market. "Before, it took us two months to deploy new products," Pepe says. "Now, in two days we can deploy whatever we need to the branches or the ATMs. So from a business perspective, IT is no longer a bottleneck."

### IT Environment Changes from Reactive to Proactive

The transition to a centrally controlled IT environment has enabled IT staff to manage changes in the system more effectively. The new management solution provides the tools that the IT staff needs to address problems before they become evident to business users or customers. "The worst thing for an IT manager is to be notified about a problem by a user or by the customer," says Pepe. "Now, we are the first to know." The HSBC Mexico IT staff are not only the first to know of the problems affecting the system but are also able to anticipate issues and take proactive measures. Pepe explains, "We now have a platform of preventive, proactive tools that really minimize the risk that something unforeseen could happen."

*"Before, it took us two months to deploy new products. Now, in two days we can deploy whatever we need to the branches or the ATMs. So from a business perspective, IT is no longer a bottleneck."*

**Gabriel Pepe**

Distributed Systems Director  
HSBC Mexico

### **Better System Management Supports Business Growth**

HSBC Mexico has used its new system management tools to reduce hardware costs and support business growth. Since implementation, the company has seen a 20 percent increase in the number of employees, while the number of ATMs has increased from 3,000 to 5,000. The company has been able to sustain this growth without a significant increase in hardware, a saving that Pepe attributes to an improved ability to analyze IT resources and plan for growth.

"We are now in a position to increase our number of employees by up to 30 percent and still support the organization with the same infrastructure," Pepe says. "And that's because we have tools like Microsoft Operations Manager and Systems Management Server to help us plan the best use of our resources."

### **Solution Lays Foundation for Continuous Progress**

HSBC Mexico now has a stable, standardized IT environment and the tools it needs to manage its systems. By gaining control of its technology infrastructure, the company has established a foundation for further growth. HSBC Mexico can continue to reach new benchmarks by reducing software deployment costs and tightening security policies. Finally, by helping the company stay ahead of the marketplace, the IT environment can become an investment in business development.

*\*The following recently released products are now available:*

Microsoft Office Project Server 2007

Microsoft Office SharePoint Portal Server 2007

Microsoft Systems Center Operations Manager 2007

### **Microsoft Infrastructure Optimization**

With infrastructure optimization, you can build a secure, well-managed, and dynamic core IT infrastructure that can reduce overall IT costs, make better use of resources, and become a strategic asset for the business. The Infrastructure Optimization Model—with Basic, Standardized, Rationalized, and Dynamic levels—was developed by Microsoft using industry best practices and Microsoft's own experiences with enterprise customers. The Infrastructure Optimization Model provides a maturity framework that is flexible and easily used as a benchmark for technical capability and business value.

For more information about infrastructure optimization, go to:

[www.microsoft.com/io](http://www.microsoft.com/io)

*"We now have a platform of preventative, proactive tools that really minimize the risk that something unforeseen could happen."*

**Gabriel Pepe**

Distributed Systems Director

HSBC Mexico

### **For More Information**

For more information about Microsoft products and services, call the Microsoft Sales Information Center at (800) 426-9400. In Canada, call the Microsoft Canada Information Centre at (877) 568-2495. Customers who are deaf or hard-of-hearing can reach Microsoft text telephone (TTY/TDD) services at (800) 892-5234 in the United States or (905) 568-9641 in Canada. Outside the 50 United States and Canada, please contact your local Microsoft subsidiary. To access information using the World Wide Web, go to: [www.microsoft.com](http://www.microsoft.com)

For more information about Grupo Financiero HSBC S.A de C.V. products and services, call (52) (55) 5721 2222 or visit the Web site at: [www.hsbc.com.mx](http://www.hsbc.com.mx)