



## Mechanics Bank Plans for Scalable Virtual Infrastructure and High ROI

**VMware and AccessFlow Use VMware Capacity Planner to Provide Thorough Assessment to Deliver Maximum Results, Including Cost Savings and Increased Performance**

### Results

- Thoroughly analyzed application and server use
- Identified hardware that could be repurposed after migration to virtual infrastructure
- Established clear metrics for success of project
- Demonstrated business and technical benefits that would result from virtual infrastructure
- Projected return on investment figures
- Realized they could build a complete test and development environment without buying 100 new servers
- Identified a disaster recovery strategy that would utilize the current SAN

### Banking on a Virtual Infrastructure

Founded in 1905 as an independent community bank, The Mechanics Bank has become one of the largest banks headquartered in the San Francisco Bay Area. Today, with over \$2.5 billion in assets, the bank aims to provide the conveniences of a large bank, while giving customers the service and personal attention of a smaller bank.

The IT department at Mechanics Bank supports 600 users in 30 facilities, managing the networks, voice communications, servers and applications needed for the business. "We work closely with business units to ensure quick delivery time, and that everything is working optimally," says Richard Lewis, VP of IT for Mechanics Bank.

In the spring of 2005, the bank began looking for a strategy that would address three areas: streamline the test environment; provide an effective disaster recovery strategy; and contain costs. "It's no fun going down to a disaster recovery site and trying to rebuild 20 Intel servers from bare metal up," elaborates Lewis. "Also, every application that comes in the bank requires its own dedicated server. Obviously, we didn't want to build a \$ 6,000 server for each new application that really only needed 7 percent of its CPU and gets light usage. Every application needed a dedicated server so we needed a strategy to combat that trend."

The IT department found an old copy of VMware® GSX Server in its lab, and decided to try it out. "We broke out an old version that had been in the lab for about a year," says Lewis. "We were impressed that we could build three virtual machines emulating servers – one running Linux, one running Windows 2003, and one running Windows 2000 – all on the same physical server. We realized the technology would enable us to meet our three goals, so we started putting together a plan."

**"The VMware Virtualization Assessment helped us identify what needed to be done to achieve maximum results. The expertise of the consultants provided a full-blown assessment that we could not have done on our own. It was like a health check; it showed us where we are, where we want to be and how to get there."**

*Richard Lewis*  
Vice President of IT, Mechanics Bank



#### VMWARE AT WORK

- VMware Capacity Planner
- VMware Virtualization Assessment
- VMware ESX Server, VMware VirtualCenter and VMotion on 4-CPU HP DL 585s
- EMC Symmetrix SAN
- Guest OSes: Microsoft® Windows® 2003, Windows 2000 and Linux
- Applications to run on virtual machines include: Lotus Notes, Citrix Presentation Server

### A Team of Experts

Just as Mechanics Bank began preparing to implement its virtual infrastructure, it was approached by both VMware and AccessFlow with consolidation plans. "It was funny because at about the time we were starting down the path of virtualization, both VMware and AccessFlow landed on our doorstep," says Lewis. "We had learned from previous engagements that if you spend some time planning and designing up front, you can reap the benefits later. So we decided to use both vendors to plan our deployment."

Mechanics bank has worked with AccessFlow President Steve Kaplan for more than 10 years to deploy strategic technology solutions. Past projects include roll-outs of IBM Lotus Notes and Citrix Presentation Server. Bringing AccessFlow together with VMware's professional services team for a VMware Virtual Assessment allowed Mechanics Bank to thoroughly evaluate its current server infrastructure in order to create a successful virtualization strategy.

"Utilizing our expertise along with VMware's resulted in a valuable assessment with the client because we were able to demonstrate the technical and business benefits of an enterprise-wide virtualization strategy," says Kaplan. "It offers a complete solution for disaster recovery, end of life servers, test and development, and Citrix."

The team consisted of an ROI consultant and engineer from AccessFlow, a VMware professional services organization engineer, and Mechanics Bank staff. "I can't say enough about the talent of the people from AccessFlow and VMware," says Lewis. "They were dedicated to the project, but at the same time had fun. It showed me that these people are excited about the technology; it's not just a paycheck."

### Thorough Analysis Pays off

Working with VMware and AccessFlow, Mechanics Bank was able to fully evaluate its environment. One valuable tool used to fully assess the environment was VMware Capacity Planner (formerly AOG Capacity Planner). "There were some things that came out of our Virtualization Assessment using Capacity Planner that we would not have found without it," says Lewis. "Even I underestimated the underutilization of our resources. We found that some applications were performing differently than we thought. Some were more memory intensive, some were CPU-bound."

VMware Capacity Planner is a hosted IT capacity analysis and planning tool that quickly collects infrastructure data and provides improved visibility of hardware and software assets across the enterprise. It provides an integrated set of analysis, planning and decision support functionality that enables intelligent and objective infrastructure assessments including virtualization and server consolidation assessments.

Kaplan adds that Capacity Planner was a valuable tool during the assessment. "We learned a lot from Capacity Planner that aided us in our strategy," he says. "Working with VMware professional services, we were able to gather the performance metrics of more than 100 servers. It helped us with 'if/then' modeling so we could come up with the optimal solution. It gave us information on capacity planning, performance metrics during peak hours,



and other key utilization statistics.”

This data enabled the team to create a solid plan for virtualization. “Before, on our own, we had a small budget, a small pilot, and an argument based on that small budget,” says Lewis. “The Virtualization Assessment is how you get to the next level – where you can justify a larger investment that will result in a bigger payoff – both with saved costs and increased efficiencies.”

- Expected results include:
- **Cost-effective test and development environment.** Lewis says he is excited about building a streamlined environment for test and development. “We expect cost savings in being able to build a test environment without building 20 servers,” he says.
- **Cost containment.** With a virtual infrastructure in place, Mechanics Bank will no longer need to buy new servers to accommodate new applications. Instead, it will just deploy virtual machines on existing servers. “We can utilize hardware we already have, so we will not need to pay for new servers or maintenance,” Lewis says.
- **Multiple cost savings identified.** The Virtualization Assessment revealed multiple cost savings that will result from deploying a virtual infrastructure. “There were some things I left out of my basic analysis of the pilot that came out of the Virtualization Assessment, such as port density on gigabit Ethernet switches, power consumption,” says Lewis. “The assessment gave us the complete information, so we could fine-tune our plans.”
- **Soft costs identified.** The assessment also illustrated soft costs, such as the ability to create a “gold” disk image for creating new virtual machines. “We can deliver a server, a virtual machine, to a business unit in an hour or two instead having to

order physical hardware, wait for it to arrive, and then set it up,” says Lewis. “It is harder to put a dollar amount to these types of savings, but they add up and are important.”

- **Disaster recovery strategy.** Mechanics bank is planning to use its existing SAN with its virtual infrastructure in order to quickly recover systems in the event of a disaster. “I can copy VMDK files to a remote site, creating an archive of my virtual machines,” Lewis says.
- **Centralized management.** Lewis adds that he is excited about the new capabilities he will gain with a virtual infrastructure. “We’re all eager to use VMware VMotion™ technology to move virtual machines across physical servers to eliminate downtime,” he says. “We’re also looking forward to being able to monitor the health of every single one of our machines through a single GUI (graphical user interface) using VMware VirtualCenter.”

## A Sound Investment

The Virtualization Assessment is expected to pay off because Mechanics Bank can build its virtual infrastructure precisely according to its needs, allowing the bank to reap the full benefits of the technology. “I absolutely recommend a Virtualization Assessment for other enterprise customers considering an investment in virtual infrastructure,” says Lewis. “The Virtualization Assessment helped us identify what needed to be done to achieve maximum results. The expertise of the consultants provided a full-blown assessment that we could not have done on our own. It was like a health check; it showed us where we are, where we want to be and how to get there,” he says.

[www.vmware.com](http://www.vmware.com)

VMware, Inc. 3145 Porter Drive, Palo Alto, CA 94304 USA  
Tel 650-475-5000 Fax 650-475-5001