

Case study

The Mechanics Bank ensures system protection and improves Quality of Service with AppSense



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Ray Anderson,
Lead Systems Engineer,
The Mechanics Bank

Background

The Mechanics Bank, headquartered in Richmond, California, celebrated a century of community banking in 2005. With approximately \$2.5 billion in assets and 32 branch offices, it is one of the largest community banks based in the San Francisco Bay Area.

Reactive security fixes in a resource-draining environment

Renowned for innovative, customer-friendly banking, The Mechanics Bank has always tried to take every precaution possible to ensure its IT systems are secure and perform at maximum efficiency. According to Ray Anderson, who is responsible for the company's server-based computing environment, not only was this a challenge to achieve, it consumed a tremendous amount of resources:

Tedious lock downs

IT is adamant about securing against unauthorized applications and plug-ins - and the spyware and malware that can attach themselves to downloaded software and emails. The Bank can't afford to have users introduce anything into its environment that IT hasn't validated, and which could inadvertently overwrite a DLL and break customer-interfacing software, such as a retail office application for opening new accounts. In addition, certain application upgrades don't have global installers, which makes securing them tedious.

Time-draining system maintenance

Thursday nights are set aside for system maintenance. Before AppSense, IT staff would find themselves squeezing “emergency” changes or fixes into the normal Thursday night window to remove unauthorized installations and/or fix unforeseen system changes. This was essential for helping keep the infrastructure clean and operational and, with this type of overhead, efficient management of the environment was a constant challenge.

An inundated help desk

When end-users ran unauthorized applications, registry settings would be altered. Browser hijackings often resulted in IT having to delete and recreate user profiles and accounts. This often proves to be a very time consuming process ultimately leading to user dissatisfaction. Equally frustrating, when a browser or default settings on a server suddenly changed, the help desk would be inundated by calls and have to spend valuable time tracking down and fixing the problem.

Server resources: cpu & memory-hogging applications

Some of the banking applications end-users rely on consume tremendous CPU cycles and memory. As a growing company, The Mechanics Bank would have to either make additional hardware/software investments or squeeze more utilization out of their existing servers

The Mechanics Bank needed an efficient solution for controlling and locking down its systems. It also wanted a simple way of optimizing its environment in order to accommodate more users and applications without additional hardware investment.



Challenges

- Finding a proactive solution to protect their IT systems against the costly effects of harmful executables
- Ensuring their 32 branches could serve their customers effectively.
- Providing a quality service to their end users by improving the system performance

Solution

- AppSense Management Suite across its 16 Citrix servers and 3 test servers

Benefits

- Blocks harmful executables, eliminates browser hijacks and malware
- Eliminates need for weekly maintenance “emergency” windows
- Cut CPU server load by 50%
- Saved 225 MB in memory per server
- Radically reduced help desk call volume

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“AppSense has had a tremendous impact on our business. We can secure and control our application environment in a completely proactive manner. Not only are our operational and customer-facing applications totally protected, they require less hardware and administrative overhead to manage.”

Ray Anderson,
Lead Systems Engineer, The Mechanics Bank

The all-in-one solution

The AppSense Management Suite was proposed as a single solution that would solve the Bank's security challenges and effectively address its performance and optimization concerns.

AppSense made it easy for Anderson's team to completely secure and control the Bank's application environment by automatically controlling application access without complex scripts or high maintenance lists. As a result, problems such as browser hijacking and malware and associated support calls are totally eliminated.

“We haven't had a single occurrence during the recent worm and zero day exploit scares and I attribute that largely to AppSense,” Anderson noted.

Increased server utilization

“With AppSense, I can manage how applications perform and consume resource usage, so they're not taking off with CPU utilization and being memory hogs, and so that I don't have to purchase more servers,” Anderson said. “The Bank cut its average CPU server load in half - from approximately 20% without AppSense to just 10% with it. We saved 225 MB in memory on applications including Lotus Notes and Internet Explorer, as well as its ITI banking programs. We were already doing pretty well with our environment, but AppSense gave us the ability to even further streamline and enhance the use and performance of our environment.”

Reduced maintenance and help desk burden

Before AppSense, IT was constantly investigating broken applications and instances of bank users encountering something new on their browsers or in their sessions. Now they don't have to do that at all. If a user calls the help desk because he can't run an application, IT can quickly open the AppSense Management Suite and determine which executable is running or attempting to run, and fix the problem. IT also no longer has to squeeze “emergencies” into their scheduled maintenance windows or remove unauthorized installations and fix changed configurations.

“We can confidently step away from micro-managing our environment and focus our efforts on helping the bank evolve. AppSense is good preventative medicine,” Anderson said.

Enhanced response time

The increase in system performance has positively impacted response times for users. According to Anderson,

“Because AppSense enables applications to share DLL and driver instances, duplicated DLLs and drivers no longer hang up execution, and performance and memory are much better.”

Resolving security and performance issues

With AppSense The Mechanics Bank easily enhanced application security and improved performance. According to Anderson,

“It didn't take long at all. It was very intuitive and didn't require any special reconfiguration.”

Their infrastructure consists of 16 production Citrix Servers and 3 test servers - on HP ProLiant DL360 machines - which support 480 concurrent users and 75% of the Bank's employees who.

Anderson's team dedicated a server to AppSense deployment manager, installed the AppSense Management Suite and simply added nodes (IP address or host name) and AppSense automatically installed the client. They then created “straight forward” configurations, which were automatically downloaded onto each server.

The Bank operated AppSense for 5 weeks in passive mode to monitor the applications and their dependencies. They reviewed the logs to determine which applications and executables were legitimate, so there would be minimal impact on users when they put it in active mode. According to Anderson,

“Passive mode is a great capability. It helped make our deployment a huge success.”

Applications deployed on AppSense:

- Lotus Notes, Internet Explorer, ITI Banking Applications

Network environment

- 16 production Citrix servers
- 3 test servers
- 480 concurrent users
- AppSense Management Suite

About AppSense

We are the leading provider of user virtualization technology to enterprise organizations. User virtualization is a way of managing user-specific information independent of the desktop, and applying this information into any desktop (local install, virtualized, published, streamed etc) on-demand. This enables IT to standardize the desktop build, automate desktop and application delivery, and migrate users to new desktops - all while ensuring the user experience is seamless, personal, predictable and easily manageable.