



Overview

Country or Region: United States

Industry: Healthcare—Provider

Customer Profile

Based in San Diego, California, Sharp HealthCare supports numerous health-care facilities and services, including seven hospitals. In 2006, the organization earned U.S.\$1.9 billion in revenue.

Business Situation

A decentralized, manual provisioning process was slow and impeded employee productivity. In addition, the process lacked consistent user guidelines and roles, which created security risks.

Solution

Sharp implemented a well-defined, centralized provisioning model. To support its processes, the organization deployed an automated provisioning solution built on technologies from Microsoft and Sentillion.

Benefits

- Improves patient care
- Accelerates provisioning by up to 97 percent
- Reduces costs
- Increases quality of provisioning
- Improves help-desk resolution

Healthcare Provider Improves Speed and Quality of Provisioning, Boosts Productivity

“Although the strike was called off, our system made it possible for IT to not be a roadblock to continued operations. We used our new system to provision 500 nurses in a 24-hour period.”

Linda Hill, Manager of Technical Assistance Center, Sharp Healthcare

Award-winning Sharp HealthCare runs numerous hospitals and medical facilities in and around San Diego, California. Managing appropriate system access for each of the organization’s 18,000 employees and physicians was no small task, and one that could take as long as several weeks. At the end of 2003, Sharp decided to migrate its manual provisioning system to a centralized model backed by established processes, defined employee roles, and an automated provisioning application called proVision. Developed by Sentillion, proVision uses the existing identity stores at Sharp—supported by the Active Directory® service and Microsoft® SQL Server® database software—to dramatically speed up the provisioning process and minimize security risks. With its new solution, Sharp has not only reduced costs, but also boosted patient care, employee productivity, and the morale of its help-desk technicians.

Situation

Winner of the 2007 Malcolm Baldrige National Quality Award—the nation's highest Presidential honor for organizational performance excellence—Sharp HealthCare provides exemplary healthcare services. Based in San Diego, California, the nonprofit organization manages seven hospitals, three medical groups, and numerous other medical services that include three affiliated medical groups, 19 outpatient medical clinics, and a health insurance plan. Recognized for nine consecutive years as one of the 100 most wired hospitals and healthcare systems by *Hospitals & Health Networks* magazine, Sharp earned U.S.\$1.9 billion in revenue in 2006.

The organization's 18,000 employees and physicians share more than 10,000 workstations, which run the Windows® XP operating system. In addition, 500 server computers, which run UNIX, LINUX, or the Windows Server® 2003 operating system, support numerous applications, including Microsoft® Exchange Server 2003 for messaging and collaboration and 15 clinical systems. Administrators use the Active Directory® service in Windows Server to manage 25,000 user identities and organizational resources. In addition, Microsoft SQL Server® 2005 Standard Edition database software tracks every identity that ever touches a Sharp system.

At the end of 2003, Sharp's provisioning—the assignment of user access rights—was facilitated by a manual, decentralized process. High-level employees managed 3,000 to 3,500 provisioning requests every month along with their other responsibilities, which might include taking care of patients. In addition, only employees who themselves had access to a resource could grant access to someone else. This meant that provisioning a single user typically involved numerous individuals. As a result, it could take as long

as one month for an employee to gain access to all of the resources he or she needed.

The slow provisioning process affected productivity—especially for new hires, people who traveled between facilities, student nurses, and temporary nurses. “We don't want nurses to be sitting around, not being able to access a PC or clinical system because we haven't quite got our act together,” explains Linda Hill, Manager of the Technical Assistance Center at Sharp Healthcare.

There were also security risks. The organization lacked predefined employee roles that specified which type of employee should have access to which resources. This meant that an employee could inadvertently gain access to a system that he or she was not authorized to use. Deprovisioning was another challenge. Multiple employees were needed to deprovision an individual, but the people in charge of deprovisioning were not always aware of terminations.

Sharp decided to restructure its provisioning process to help boost its service levels and facilitate compliance with government regulations such as the Health Insurance Portability and Accountability Act of 1996 (HIPAA). To achieve its goal, Sharp wanted to implement new processes and an automated provisioning system. “We had to make sure that we had the right processes behind the technology,” says Hill. “And by establishing our processes first, we could build a solution that fit into our environment, rather than doing it the other way around.”

Solution

Sharp spent about two years building a centralized model that transferred control of provisioning to nine experts at the help desk. Then, in 2006, while Sharp was still defining employee roles, the organization began evaluating automated provisioning solutions

“When I look back wearing my 20/20 glasses, I would say that my decision to make our identity store a SQL Server database was probably the best decision of my career in the past seven years.”

Linda Hill, Manager of Technical Assistance Center, Sharp Healthcare

that could support clinical applications, which frequently lack standardized interfaces. Sharp reviewed multiple offerings and ultimately chose proVision™, an application from Sentillion.

Sentillion, a leading provider of identity and access management solutions for healthcare organizations, had already deployed a single sign-on solution at Sharp. In addition, proVision was competitively priced and could use the organization's existing identity stores built on Active Directory and SQL Server.

Another differentiator was that Sentillion listened. “Most vendors pushed to implement a solution where the end user manages access requests,” Hill says. “Sentillion was willing to implement my goal, which was to have the manager select a role for an employee, and then have the help desk initiate and automate the request very quickly.”

In February 2007, Sentillion deployed a test system on three HP ProLiant DL380 server computers running the Windows Server 2003 Standard Edition operating system. One server computer was set up to support the proVision workflow engine that automates predefined processes and consistently applies policies to each request. A second system was designed to host the proVision Bridges that would allow proVision to interact with applications much like a help-desk technician does. However, rather than having a technician manually input the information, proVision does it automatically using the information in the identity stores. A third server computer was dedicated to SQL Server 2005 Standard Edition, which stores every request, role, script, and identity ever created at Sharp. These three server computers were configured to interact closely with the organization's Active Directory, which is the authoritative source for identity and account information created in the last six months.

(SQL Server stores identity and account information forever.)

Five engineers from Sentillion used Java scripts to implement a Bridge to Active Directory, Exchange Server, and one clinical application that ran on other server computers. Pleased with the results, Sharp moved the test system into production in March 2007. The team from Sentillion began building Bridges to nine of the organization's most mission-critical applications that run on other server computers.

By June 2007, the Sentillion team had implemented the nine Bridges. Three programmers at Sharp, who attended training at Sentillion, have continued to build Bridges for additional applications. To date, the proVision software manages 20 clinical and non-clinical applications. Help-desk technicians manage access to the other applications using the new, more efficient processes established with the centralized provisioning model. Although most of these applications will eventually be managed by proVision, there is one that will not.

“The application is a very heavy client program that does not work consistently on a PC,” explains Hill. “Every time a patch of any kind is made to the system, the application's screen changes. This means that if we built a Bridge to it, we would have to keep modifying it. I was very impressed with Sentillion because when they found this out during the initial deployment, they came to us right away. Generally, most vendors say they can do anything, regardless of the situation. But instead, Sentillion was straightforward and offered to build a Bridge to a different application instead.”

Benefits

As a result of its new provisioning solution, Sharp HealthCare has been able to boost the level of patient care, increase the speed and

accuracy of the provisioning process, cut expenses, and improve help-desk operations.

Improves Patient Care

To provide exceptional care, clinical employees need to focus on patients—not provisioning or waiting for system access. The new centralized model makes it possible for employees to do just that. “We’re all supporting patient care, and everything we do is designed to give the best possible patient experience,” says Hill. “Our new solution allows us to make sure that when employees need to do something on the system, they can do so, because we’ve provisioned their accounts correctly.”

Because in-demand employees can pick and choose where they work, Sharp believes its provisioning system can help retain highly skilled personnel. “We need to impress a new employee as much as we want them to impress us,” explains Hill. “We have one shot at making new employees feel valued, and that shot comes when they first come in and sit down to work. If they have access to all of the accounts they need, they see that we took the time to be ready for them.”

Accelerates Provisioning by up to 97 Percent

The difference in the time it takes to provision an employee with the new system versus the old one is dramatic. “While it used to take as long as one month to get someone access, our new system has allowed us to grant access to resources in 24 to 48 hours,” Hill notes.

In addition to boosting productivity and employee satisfaction, this ability to rapidly provision employees is a plus for other reasons. In July 2007, Sharp faced a potential nursing strike and so the organization had less than 48 hours to make arrangements for 500 temporary nurses. “We arranged for some nurses to come in from

other states to cross the picket line,” explains Hill. “We also arranged for some managers who used to be nurses to help out. We needed to set up new identities for the managers who would work as nurses because we would have to be able to show an auditor why a nurse manager touched patients’ medical records.”

Once the temporary nurses were identified, Sharp had to provision their accounts. Because it was critical that the nurses had access to resources as soon as they reported to work, Hill stood by and watched the system process all of the requests. Five hours before the strike was scheduled to begin, a new union contract was signed. “Although the strike was called off, our system made it possible for IT to not be a roadblock to continued operations,” says Hill. “We used our new system to provision 500 replacement nurses in a 24-hour period.”

Reduces Costs

Not only does the increased productivity save Sharp money, but also extends existing investments. “When I look back wearing my 20/20 glasses, I would say that my decision to make our identity store a SQL Server database was probably the best decision of my career in the past seven years,” Hill explains. “We wouldn’t have been able to deploy a solution as quickly as we did without having our SQL Server database in place. When it was time to write Bridges, we already had all of the information proVision needed to create a perfect account.”

Shifting the responsibility of provisioning to help-desk technicians has also minimized costs. As proVision provides for a single point of administration, a small group of dedicated employees are now managing the provisioning process, rather than numerous high-level employees. “We’re saving money because we no longer have to pay analysts to

“Being able to use Active Directory and SQL Server together has been amazing. I can tell you what kind of access nurse Nancy has today and what she had five years ago.”

Linda Hill, Manager of Technical Assistance Center, Sharp Healthcare

be on call to answer provisioning requests,” Hill notes.

Increases Quality of Provisioning

The automated provisioning system eliminates human error and consistently applies established processes and roles to every provisioning request, which helps Sharp to comply with industry regulations. In addition, Human Resources can initiate a ticket to rapidly change access for individuals who are promoted or to deprovision individuals when they terminate employment—a process that is far more effective than the old system, which involved phone calls, e-mail, and multiple individuals.

Sharp also has the information it needs to help with audits. The system records every aspect of each provisioning transaction, including who made the request, when it was made, and who approved it. “Being able to use Active Directory and SQL Server together has been amazing,” notes Hill. “I can tell you what kind of access nurse Nancy has today and what she had five years ago. I can perform audits to make sure that a nurse does not have too much access. And when auditors ask to see what level of access an individual has, we can show them. We can also be confident that when the auditors verify the information we provided, they will find that we were telling the truth.”

Improves Help-Desk Resolution and Turnover

Help-desk personnel not only have new levels of responsibility, but also tools to help them get their jobs done faster. “When you have to pick up calls every day, and the people are not calling to tell you that they’re having a wonderful day, it gets very old and tiresome,” says Hill. “One of the hidden benefits of this solution is that my help-desk staff is now empowered to resolve many more calls, and as a result, their morale is higher.”

The difference in help-desk operations is measurable. First-contact resolution—that is, the ability to resolve a call while the customer is on the phone—has gone up from 45 percent to 75 percent. Employee turnover has fallen from 15 percent to 1 percent.

“There are a lot of contributing factors to the reduced turnover,” concludes Hill. “But certainly, having proVision in place has been one of the largest factors, because employees feel better about being able to help people get their jobs done.”

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

For more information about Sentillion products and services, call (978) 689-9095 or visit the Web site at: www.sentillion.com

For more information about Sharp HealthCare products and services, call (858) 499-4000 or visit the Web site at: www.sharp.com

Windows Server 2003

The Windows Server 2003 family helps organizations do more with less. Now you can run your IT infrastructure more efficiently, build better applications faster, and deliver the best infrastructure for enhancing user productivity. And you can do all this faster, more securely, and at lower cost.

For more information about Windows Server 2003, please visit: www.microsoft.com/windowsserver2003

Software and Services

- Microsoft Server Product Portfolio
 - Windows Server 2003 Standard Edition
 - Microsoft Exchange Server 2003
 - Microsoft SQL Server 2005 Standard Edition

- Technologies
 - Active Directory

Hardware

- HP ProLiant DL380 server computers