



With VMware View, Phoebe Putney Gives its Nurses Bedside EMR Access

By implementing a VMware View virtualized desktop environment, Phoebe Putney Memorial Hospital reduced costs, improved efficiency and boosted patient care by giving its nurses bedside access to the hospital's McKesson EMR system.

Located in Albany, Georgia, the 443-bed Phoebe Putney Memorial Hospital is the flagship hospital of Phoebe Putney Health System. Recognized for clinical excellence and innovative community programs, Phoebe Putney Memorial has more than 300 affiliated doctors and 3,800 professional staff.

The Challenge

Like all healthcare providers, Phoebe Putney Memorial Hospital must reconcile two, often contradictory, priorities. The hospital's most critical priority is to deliver high quality patient care. But Phoebe Putney must also manage its financial resources. So the hospital continually explores ways to enable its IT staff, healthcare workers and administrators to work more efficiently. "If we can cut down the number of steps it takes people to do their jobs, we not only cut our costs, but often improve patient care at the same time," notes Mike Elder, Director of Information Systems, Phoebe Putney.

Phoebe Putney has also wrestled with some specific cost and management issues. Five years ago, for example, the hospital's data center was hitting its capacity limits for both physical space and power. It was also struggling with its desktop environment—especially the systems used by the hospital's 70 or so transcriptionists and medical coders. These employees work from their homes, and for many years, they used traditional laptops and a secure VPN connection to access hospital files. Inevitably, many installed applications on their computers conflicted with hospital software. And providing on-site support for these

desktops, which were distributed across a wide swathe of rural Georgia, was, in Elder's words, "a nightmare."

The Solution

To tackle these challenges, Phoebe Putney implemented a number of solutions from McKesson Provider Technologies, including its Horizon Clinicals® electronic medical records (EMR) software. In addition, about five years ago, it began virtualizing servers with VMware vSphere. "Virtualization saved us a ton of time and money," notes Elder. "It was so easy to add a new virtual server, compared to the old rack and stack systems." Within the first year, the hospital had virtualized over 50 servers. Today, it has 400 virtual servers running on 40 VMware ESXi hosts.

Once it had validated the benefits of virtualization within its server environment, Phoebe Putney began considering desktop virtualization. At the time, McKesson was urging customers to use Citrix for their desktop virtualization initiatives, but Phoebe Putney decided to implement VMware View. "We'd tried Citrix previously, and felt that VMware View would be less expensive and an easier solution to manage," explains Julius Blash, Network Technician, Phoebe Putney.

INDUSTRY

Healthcare

LOCATION

Albany, Georgia

KEY CHALLENGES

- Maintain high standards for patient care
- Reduce costs associated with managing desktop infrastructure
- Improve manageability of desktop systems

SOLUTION

Phoebe Putney implemented a VMware View virtualized desktop environment. This streamlined the management of its desktop infrastructure and also made it possible to expand that infrastructure cost-effectively, allowing the hospital to deploy thin clients in patient rooms so nurses have bedside access to the hospital's EMR system.

BUSINESS BENEFITS

- Improved patient care with point-of-care access to EMR system
- Expanded desktop deployment without adding new PC tech support
- Improved security of desktops
- Improved ability to comply with patient privacy regulations

VMWARE CASE STUDY

“Considering the benefits of VMware View—the efficiency, the ease of management, and the way it allows us to improve standards of care—there is no reason why any hospital should not be virtualizing its desktops.”

Mike Elder
Director of Information Systems
Phoebe Putney Memorial Hospital

VMWARE FOOTPRINT

- VMware View 4.6
- VMware vSphere

APPLICATIONS VIRTUALIZED

- McKesson Provider Technologies applications software
- McKesson Provider Technologies client software
- Microsoft® SQL 2003

PLATFORM

- Wyse Thin Clients
- Dell servers
- HP XP20000 Disk Array

The hospital subsequently deployed 400-500 VMware View mobile secure desktops. One pool of virtual systems is configured for Phoebe Putney’s transcriptionists and coders. Another pool comprises roaming desktops that allow nurses to access McKesson applications from anywhere in the hospital. To support this implementation, the hospital installed 450 Wyse thin clients in patients’ rooms. Other pools support Phoebe Putney’s physicians, administrators and some third-party vendors such as attorneys. Users can access these desktops from a variety of devices, including iPads and Android tablets.

The VMware View desktops configured for clinical use are equipped with Imprivata OneSign Single Sign-On software to streamline log-ins and protect the systems from unauthorized access.

During implementation, the hospital engaged a VMware Professional Services Organization consultant to help optimize the deployment. The consultant recommended that the hospital use VMware View Composer to generate new desktops upon log-in. Refreshing the hospital’s virtual desktops regularly eliminates the risk that changes to a user’s system will interfere with the performance of log-in software or user applications. The hospital also worked with VMware to configure its desktops to support location-based printing.

Business Benefits

Switching from traditional PCs to a VMware View virtualized desktop environment delivered benefits to Phoebe Putney in a number of ways.

Some of the benefits are derived from the hardware. The 450 Wyse thin clients installed in patient rooms are smaller than traditional PCs, have fewer moving parts and are less prone to hardware breakdowns. This reduces the need for on-site technicians to perform service calls, which can disrupt patients. It also helps keep costs in check. The hospital would have had to hire another

PC technician, at a cost of around \$60,000 annually in labor and benefits, if it had chosen conventional PCs for this initiative.

The thin clients are also quieter than conventional PCs, which is better for patient comfort.

The VMware View systems are more secure. “All files, including files with patient information, are stored in our data center, instead of on the desktops, and secured by us,” notes Will Clark, Team Leader, Phoebe Putney. “It’s a major security benefit.” It also helps ensure the hospital is in compliance with privacy regulations such as HIPAA.

Offering VMware View desktops has reduced by half the time required to support the hospital’s transcriptionists and coders, because they can be managed centrally and are protected from customization and other end user changes.

Perhaps most important to Phoebe Putney, however, is that the VMware View environment enables bedside point-of-care. Nurses can log onto McKesson software as they are evaluating or talking to patients. They can check the status of orders and lab results. This allows nurses to deliver care more efficiently and focus on their patients. Before, they had to walk to the nearest nurses’ station to record information given to them by patients, or that they observed when evaluating patients. Now they can enter that information immediately. This helps ensure medical records will be more accurate and up-to-date.

Looking Ahead

Phoebe Putney plans to enhance its virtualization implementation include leveraging VMware View in other hospitals in its healthcare network, and implementing other VMware solutions including VMware ThinApp and VMware vShield Endpoint.

