U.S. Hospital Improves Patient Care Delivery

With Samsung Cloud Displays

A mid-size hospital based in Indiana has been serving the healthcare needs of its community since 1947. In addition to a 230 bed main facility, the Hospital also operates four neighborhood clinics and outpatient centers in the region.

Challenge

Provide medical staff with patient bedside computer access for EMR and Bedside Medication Verification (BMV) system

Solution

- Samsung SyncMaster Cloud displays (wall mounted in patient rooms)
- USB-connected Bluetooth scanner
- Connected to VMware vSphere™ desktop virtualization platform

Impact

- Medical staff have easy access to the BMV system inside the patient room
- Fast deployment minimized patient room downtime
- Dramatically lower IT support calls

Installing a Bedside Medicine Verification System to Improve Patient Care

The quality of patient care is vital to the Hospital's mission. As part of a continuous effort to use the latest technology to improve health care delivery, the Hospital decided to implement an automated Bedside Medicine Verification (BMV) system which is a computerized system to ensure that the patient gets the appropriate medicine and dosage. A BMV system requires authenticating the medical staffer (through login/password or ID badge scan), scanning the barcode of the patient's wristband, and scanning the barcode on the medicine to ensure accuracy. In order to implement a BMV system, the IT organization needed to provide the medical staff with computing access with barcode scanner capability in the patient rooms.

Challenges of Deploying Laptops, COWs and PCs in Hospitals

The IT department tested a variety of end-client options to install in the patient rooms including laptops, Computer on Wheels (COWs) and traditional PCs. Given the high traffic nature of a patient room, the end-client had to be easy to operate, unobtrusive, and protected. "We tried laptops, but the nurses had a difficult time carrying around heavy laptops into patient rooms – it was just a mess," says the Network Administrator for the Hospital. "We also tried putting the laptops on special carts (COWs) that could be wheeled in to each patient room, but then they wouldn't get charged up and they were bulky to wheel in and out of patient rooms," continued the Network Administrator.

The Hospital also looked at installing desktop PCs in the patient rooms, but it would have been costly, taken up limited space, and created a major support challenge. the Hospital asked their technology partner for a solution that met all of their needs. "We have a long relationship with the Hospital in supporting their telephony, server and networking needs and recognized that a virtualized desktop infrastructure (VDI) with Samsung Cloud displays would be the best fit based on what the Hospital was trying to accomplish," says the Hospital's Technology Consultant.

Samsung Cloud Displays – The Perfect Solution

Samsung Cloud displays are a whole new class of professional-grade monitors specially designed for desktop virtualization and cloud computing. They have the thin/zero client technology built right into the monitor, so there is no need for a separate PC or thin/zero-client – just the Cloud display. With Cloud displays, medical staff can log-in from any Cloud display and access authorized applications from a slim, clutter-free and energy-efficient monitor.

The Hospital set up a proof-of-concept in two patient rooms with stand-alone zero clients, thin clients and Samsung Cloud displays. The response from the medical staff was overwhelmingly positive for Samsung Cloud displays. "We loved the sleek all-in-one design of the Samsung Cloud displays and the fact that we could boot a session directly from the front of the monitor," says the Nursing Director. The IT staff also preferred the Samsung Cloud displays because they were easy to install and had fewer cables to connect.

After the successful proof-of-concept, the Hospital installed the Samsung Cloud displays in all of the patient rooms. Each Cloud display is connected to a keyboard, mouse and Bluetooth scanner. The medical staff can easily use the BMV system without the burden of moving computing equipment like laptops and COWs. The Cloud displays are connected to the LAN network and back to a server in the data center that hosts the BMV application.

Purchase and Operating Cost Savings

Samsung Cloud displays cost less to purchase and operate than other end-client devices. "We saved $1,100 per device compared to COWs," says the Network Administrator. "We only have two desktop support staff, so we really liked that it only took about 30 minutes to install the Samsung Clouds compared to four hours per PC."

The Cloud displays require very little ongoing maintenance so the IT staff can focus on more important IT tasks. "We used to clean up viruses on laptops all the time - it was terrible. With Samsung Cloud displays, we have zero viruses because when the employee logs on, they get a brand new computing session," says the Network Administrator, "the quality of the Samsung Cloud displays is fantastic – we haven't had to replace a single Cloud display." Downtime from breakage has been eliminated because the Cloud displays do not get moved around.

Ideal End-Client for Hospitals

In the near future, the Hospital plans to deploy Samsung Cloud displays to other clinical areas where there are multiple shifts and the medical staff uses different terminals to access Electronic Medical Records (EMR). "We haven't had to touch the Cloud displays since we installed them," says the Network Administrator, "we would definitely recommend Samsung Cloud displays to other hospitals."

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"The quality of the Samsung Cloud displays is fantastic!"

Network Administrator

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