

NEC imaging solution just what the doctor ordered at Willamette Falls Hospital

Quick Facts

FACILITY:
Willamette Falls Hospital

LOCATION:
Oregon City, Oregon

CHALLENGE:
Improve accessibility of imaging information

SOLUTION:
30" NEC LCD3000

DATE:
Late 2005

The standards and technology in medical imaging are changing, but one fact remains constant: doctors want and need the tools that will allow them to provide their patients with the best care possible. So when Willamette Falls Hospital needed to upgrade their operating room equipment, they turned to a trusted technology partner, NEC Display Solutions (NEC-DS)*.

In an age of hospital mergers and large health care systems, Willamette Falls Hospital in Oregon City, Oregon, remains true to its roots. This 100-bed, JCAHO-accredited facility proudly describes itself as an "independent, uncommonly personal community hospital dedicated to providing high-quality, compassionate care." More than 200 physicians and surgeons practice medicine in its state-of-the-art facility. Nearly 60,000 base procedures are performed at the hospital each year, including MRI, CT, ultrasound, nuclear medicine and digital mammography.

The Challenge

A vital component of today's modern health care is the Picture Archiving and Communication System (PACS), which is integrated throughout a facility to provide access to medical images and data. In the case of Willamette Falls Hospital, the challenge was to make its existing PACS digital and analog medical imaging information more accessible to its operating room (OR) doctors during medical procedures, while also improving PACS medical image clarity.

The hospital's doctors needed more imaging flexibility in the OR. They also wanted to be able to position the monitors displaying information (such as x-rays, scans and other medical images) at various positions around patients to aid them during surgeries and procedures. The previous system used 19" CRT displays, and doctors and the hospital's PACS administrator John Hart became frustrated when they could not achieve the image quality they needed.

"There was a lot of frustration – with clarity, sizing, etc. – with the system we had," said Hart. "We couldn't get the blood to look like blood or the bone to look like bone."

The Solution

In order to improve image quality and upgrade the OR displays to digital, Willamette Falls turned to NEC-DS. "I've completed more than 40 PACS installations around the world, and I've been using NEC displays for years," said Hart. "They have always given me a crystal-clear picture and they are the most solid system I've found that meet all of the American College of Radiology standards."

The hospital decided to replace the existing Sony CRTs with large-screen displays, and Hart engaged the surgical team to help with the decision. The group evaluated 21" displays with color and grayscale options, before deciding on 30" NEC LCD3000s. "With orthopedics, neurologists and OB doctors using these OR rooms, it is very difficult to get total agreement on picture quality," said Hart. "But we have nearly 100% satisfaction with the displays. The large form factor gives

the doctors great clarity as well as the ability to zoom in on certain images without compromising the quality of the image."

Each operating room has been outfitted with two of the large-screen LCDs on customized Ergotron boom mounts, enabling surgical staff to easily position the displays for optimal accessibility during procedures. The LCD3000s also allow a long digital cable feed, so that 20-30 feet of cable can be used for positional flexibility without affecting the image quality. With the addition of broadband connectivity and custom laptop setups in each of the OR rooms equipped with the new installations, physicians are able to package records and medical images and burn them onto CDs for patients. In addition to creating a patient record portability solution, these backup records create a disaster contingency and/or recovery plan should the PACS system ever become unavailable.

With the implementation of this solution, Willamette Falls Hospital has become one of the first hospitals in the country to put 30" monitors on booms in ORs; most similar installations involve monitors of that size mounted on walls or placed on carts. Also, this imaging solution is poised to assist the hospital's staff into the future. "These are multi-tasking monitors," said Hart. "We chose to do the analog images first, which are the most difficult to display; we are following that with all of our digital imaging. And the multiple ports on these monitors mean they can be easily expanded to other uses as technologies change."

In fact, Willamette Falls Hospital is already moving on to their next technological upgrade with the help of NEC-DS. "We've just opened an expanded, state-of-the-art emergency department," added Hart, "and we've equipped it with additional NEC wall-mounted LCDs for PACS viewing."



NEC 30" LCDs have provided Willamette Falls' doctors with increased imaging flexibility in operating rooms during surgeries and procedures.

** As of April, 1, 2005, NEC Display Solutions of America, Inc. became the new name for the company previously known as NEC-Mitsubishi Electronics Display. This change came as a result of the company becoming a wholly-owned subsidiary of NEC Corporation.*

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