

CASE STUDY

Breast Imaging Center Implements Cost Effective PACS Appliance for Digital Mammography

The Customer

Founded in 1991 by Dr. Elizabeth Pusey, Women's Medical Imaging provides advanced digital Mammography services and women's health services at its location in Newport Beach, Calif. In 2006, Women's Medical Imaging implemented a Siemens MAMMOMAT® Novation DR. Referring physicians depend on the practice to provide high-quality images and critical information they need to develop comprehensive treatment plans for their patients. Women's Medical Imaging's average number of studies per day has increased dramatically recently to more than 15 per day, and with the implementation of digital mammography as well as latest technologies, the practice is expecting additional growth.

The Challenge

With the implementation of its Siemens MAMMOMAT® Novation DR, Women's Medical Imaging looked at a number of PACS solutions and was deterred by the high costs and complexities. As an alternative, the facility initially tried to maintain a CD-based digital image archival and retrieval system. This approach was quickly found to be highly inefficient as it required significant manual intervention for proper maintenance and updating. Unfortunately, this solution also did not provide Dr. Pusey with immediate access to prior studies and lacked the scalability needed to keep pace with the practice's rapid growth. In addition, the replication of all medical images and studies for remote storage, as required by the Health Insurance Portability and Accountability Act (HIPAA) was a concern and a CD-based system would require a highly labor-intensive process resulting in significant additional costs.



"ImageGrid was the most cost-effective and feature-rich Mammography PACS solution that we found in the market. By having immediate access to studies, I can provide better care to my patients."

Elizabeth Pusey, M.D., Medical Director

Locations

Newport Beach, CA

Services

Digital Mammography, Ultrasound, Women's Health

Key Business Challenges

Reliable and cost-effective digital image archiving solution to accommodate Digital Mammography

Streamlining and improving communication with referring physicians

Remote replication capability for compliance with HIPAA disaster recovery requirements

ImageGrid™ PACS Appliance Key Benefits

Lower administrative and maintenance costs for image archiving

Increased physician productivity from faster access to priors

Compatibility with existing Siemens MammoReport Workstation

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“Our staff were routinely archiving studies on CD-ROMs and trying to maintain a log. Given the fact that uncompressed digital mammography studies can be between 80 to 100 MB, the limitations and inefficiencies of CD-based archiving quickly became apparent. I could see it becoming an ongoing issue as we expand our practice to not only find the time, but also additional onsite storage space for storing the CDs,” said Elizabeth Pusey, M.D., medical director of Women’s Medical Imaging. “More importantly, accessing the digital image data from our archive for comparison studies or follow-up visits required a substantial time delay and effort to meet the needs of referring physicians and patients.”

Women’s Medical Imaging was in need of a cost-effective, reliable, scalable and feature-rich solution that would be compatible with its modalities as well as the Siemens MammoReport Workstation.

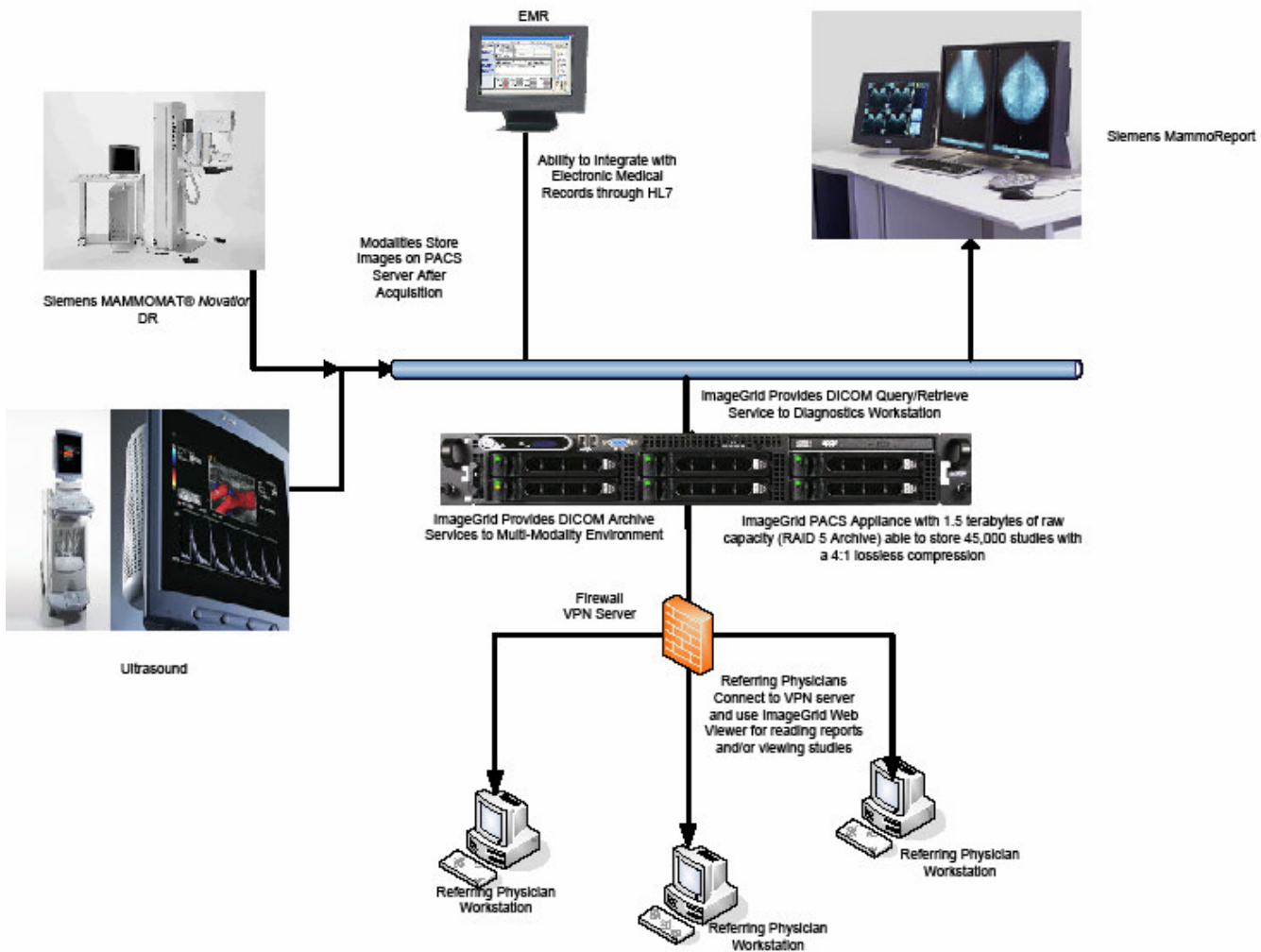
The Solution

Women’s Medical Imaging deployed the Candelis ImageGrid™ PACS Appliance system and quickly discovered that the solution exceeded all expectations. The 1.5-terabyte raw capacity system, which can accommodate approximately 45,000 mammography studies using a 4:1 lossless compression, was installed in just four hours with no interruptions to daily operations.

Today, the Siemens MAMMOMAT® *Novation* DR and the ultrasound send images directly to the ImageGrid system and studies are immediately available for viewing by radiologists. As a DICOM-based storage server, ImageGrid is compatible with any DICOM viewing software, including the Siemens MammoReport Workstation.

“ImageGrid has completely automated our image archiving and management process and we now have a reliable and more efficient solution for accessing and retrieving studies and for delivering reports more quickly to referring physicians,” says Dr. Pusey. “The ImageGrid’s web-based referring physician DICOM viewer is a clinically valuable tool in that it provides my referring physicians easy access to their patients’ studies when and where they need them.”

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ImageGrid PACS Appliance for Women's Medical Imaging



The Results

Women's Medical Imaging has been able to improve physician and staff productivity through immediate and always-online access to its entire image library, as well as the routing of images to offsite users. ImageGrid's ability to handle multiple modalities and its full compatibility with any DICOM-compliant modality means that Women's Medical Imaging can easily add modalities in the future without concern about handling additional studies. ImageGrid has not only lowered image management costs by eliminating a labor-intensive CD-based system, but equally important, errors resulting from the manual handling of CD-based images have been all but eliminated. Women's Medical Imaging's ImageGrid can easily and cost effectively be expanded to the tens of terabytes as the archiving needs grow.

Women's Medical Imaging is also taking advantage of the ImageGrid-embedded PACS capabilities and features, such as providing viewing access to referring physicians.

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“By providing referring physicians with the ability to view their patients’ studies and reports, we have been able to vastly improve communication with them, which helps all of us to provide superior patient care” added Dr. Pusey.

ImageGrid has been implemented at a fraction of the cost of competing PACS solutions, which in turn allows Women’s Medical Imaging to invest in additional modalities for better patient care. According to Women’s Medical Imaging, the ImageGrid has reduced its image archiving cost to an impressive 20 cents per study.

ImageGrid’s appliance architecture enables the integration of the PACS server and archive in a single rack-mountable hardware. Its proactive self-monitoring capability has allowed the practice to avoid additional IT administrative costs which are typical of many PACS implementation.