

### Display upgrade makes the grade

*Sponsored by NDS Surgical Imaging, LLC*

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When Kaleida Health, a five-hospital system in Buffalo, N.Y., began the process of replacing its radiology PACS and cardiology PACS in mid-2010, it also decided to refresh its displays. The enterprise-wide upgrade entailed display systems across four department, radiology, cardiology, emergency medicine and critical care.

After eight years, the previous display systems had reached end of life, and the market and available options had evolved, says Robert Wohlgemuth, advanced systems engineer. Thus, the organization embarked on a thorough analysis and assessment to inform its decision.

Kaleida Health established two key criteria at the outset of the process: remote management software for quality control and medical-grade color display systems. Self-calibration and remote monitoring facilitate regulatory reviews with the New York department of health, which requires quarterly reviews of systems in radiology, emergency medicine and critical care.



Dome's S3c dual display

"We didn't want to manually calibrate each monitor every quarter," explains Wohlgemuth. With 120 displays across five hospitals, manual calibration could be unwieldy from a workflow and personnel perspective. Integrated software streamlines the process and facilitates regulatory compliance.

Over the last several years, the use of color displays has progressed to include diagnostic review as well as worklist management. With those criteria guiding the process, Kaleida Health narrowed the vendor field to two candidates.

The options included a 6 megapixel system and NDSsi's Dome S-line 3 megapixel systems. The team reviewed several configurations: a single medical-grade color monitor with two grayscale systems and a consumer-grade color system for worklist paired with two medical-grade color systems for interpretation.

When radiologists and clinicians assessed the displays, they determined that image quality sufficed on each option. However, several other factors emerged to demonstrate the superiority of the Dome configuration.

Cost, service and support also came into play as the Dome 3 megapixel display system delivered an economical price point in addition to including the requisite remote monitoring software and a five-year warranty. "The Dome 3 megapixel provided more flexibility without increasing our costs," says Wohlgemuth.

A few final factors came into play and nudged Kaleida Health toward the Dome display systems, says Wohlgemuth. NDSsi's Dome displays use non-proprietary video cards, he notes. "This is a cost and support advantage. Usually, the video manufacturers are quick to keep up with updates in [Microsoft] Windows products." This delivers downstream benefits to the organization as its systems are then updated faster.

Finally, the displays do not have embedded fans. "Hospitals are very dusty environments. We don't want fans to circulate the dust because it increases the need for preventive maintenance on the monitors," explains Wohlgemuth.

Several weeks into the deployment of the new displays systems, clinical engineers, IT and physicians are very satisfied with the enterprise-wide rollout of Dome systems. The new monitors meet the organization's needs on all fronts: performance and image quality, budget, service, support and more.