

Technology Review Committee Plans Ahead On Construction Projects

Jill Schlabig Williams

Subject: St. Joseph Hospital, part of the six-hospital PeaceHealth system

Location: Bellingham, WA
Size: 253-bed, two-campus medical center and level III trauma center

Staff: Clinical engineering department, outsourced to ARAMARK CTS, includes four technicians and one manager.

When Jack Haupt was hired by St. Joseph Hospital to manage an \$85 million expansion that would nearly double the size of the hospital, he knew that extensive coordination would be required between technology groups in the region and at the system level to succeed. Haupt, the vice president of facility support services, turned to James Ruff, manager of clinical engineering with ARAMARK Healthcare, to launch a Technology Review Committee (TRC) to bring together all of these groups. Three years later, as the hospital enters the third phase of its construction plan, the TRC has been successful at reducing chaos, cutting costs, and planning ahead.

Challenge

Educated as an architect and city planner, Haupt had already overseen a similar but smaller expansion at



Members of the Technology Review Committee at St. Joseph Hospital (from left): Jack Haupt, Hermon Dew, Art Cummings, James Ruff, and Tom Wolf.

another PeaceHealth hospital. He knew first hand the confusion that could result when technology groups didn't work together and plan ahead. "We ran into problems with fiefdoms between groups and lack of communication with regard to needs," he says. Typical problems could involve confusion at the installation stage over where data switches were going or scheduling issues with subcontractors trying to install cabling in the midst of other work.

The major expansion at St. Joseph's would add a new cardiac center and other services, and expand surgical and recovery units. It presented an opportunity to update technology and infrastructure. "Our goal was to minimize confusion in this project," Haupt says. "We wanted to coordinate projects properly in the field and reduce costs by competitively bidding projects. We wanted to work with all of the technology groups up front, identifying their needs from the very beginning."

He turned to Ruff, who had a 20-year career as a military biomed, to pull the committee together. "James had experience with a similar com-

mittee in the military," says Haupt. "By bringing everyone to the table, we could leverage everyone's expertise. We wanted the group to be collaborative, comprehensive, and transparent in its operations."

Ruff, as head of the outsourced clinical engineering department, had approached Haupt as part of ARAMARK Healthcare's "partnership success planning process" with the question "what keeps you up at night?" Haupt's answer—coordinating the technology in this \$85 million expansion—led naturally to the creation of the TRC.

Solution

In 2003, Haupt and Ruff asked the managers of the hospital's clinical engineering, plant maintenance, IT, and telecommunications departments to join the committee. Other groups participate as needed, including materials management and the Picture Archiving and Communication Systems group. Regional and facility levels are represented; the PeaceHealth IT department is managed at the facility level but the

clinical engineering, security, and telecommunications divisions all operate regionally. The committee meets as often as necessary to coordinate specific projects.

After gathering its members, Haupt and Ruff helped the committee establish guidelines for its operations and review the hospital's strategic plan. As an advisory group, the committee reviews capital equipment and systems purchases, reviews and confirms compatibility of systems, and manages the migration of technologies to new platforms. It makes recommendations to departments that are purchasing systems or devices and reports its findings to the Capital Review Committee. A key goal for the TRC is to identify when redundant or inappropriate devices or network systems might have been planned that do not meet strategies set by the hospital. Cost containment is a guiding principle for its work.

The hospital's information backbone was one of the first areas the committee addressed. "We wanted to be efficient when we built the first platform for the expansion, satisfying all needs at once," says Ruff. To avoid problems with space for data switches, the group created a grid over the entire addition and used it to plan server rooms with proper capacity and room for growth. The group considered such factors as backup and emergency power and redundancy of systems. They then coordinated the cabling for the networks.

Coordinating current projects is only part of the committee's role. It also works to forecast what technologies are coming next and to ensure that today's infrastructure and cabling meet tomorrow's needs.

"This committee is unique because it focuses on the initial planning for a new technology before it gets integrated into a project," says Hermon Dew, who took over as committee chair when he joined St. Joseph as director of facility support services in late 2003. "At each meeting, after a list of major projects is reviewed, we look at other technologies we're interested in."

It is each committee member's job to be aware of emerging technologies in their own area of expertise and to evaluate whether those technologies would be useful. If so, they must recommend whether a new technology would be implemented as a local or systemwide effort, and determine how to do it most economically.

"There are so many systems to keep track of—abduction, patient tracking, access control," says Dew. "They all share the same space, and we must plan infrastructure layouts and data backbones. We rely on the committee members to be aware of what is coming in the industry."

"We want the group to be proactive, so we give the committee members time to pull information together on emerging technologies," says Dew. "We promote training, and try to allow the team to attend conferences to stay abreast of where the industry is going."

The group has evaluated new telecommunications systems, ultimately recommending an 801(b) wireless phone system that uses the data network. The IT staff had to get involved in maintaining voice quality on the system, and to develop a backup system.

When investigating a patient tracking system, the group discovered that the same technology was being investigated at the system level. They ultimately adopted the same system, negotiating a reduced contract rate and allowing the IT department to support only one system.

When a local disaster resulted in jammed cell phone lines, the committee began investigating an emergency radio system for the hospital. They chose an 800 MHz trunked system that is tied in with city, allowing constant contact with local disaster personnel in an emergency.

Results

"We've seen real savings in construction costs by bundling projects and using competitive bidding," says Haupt. "By grouping and bidding cabling work, we were able to get a contract for 20% less than we had previously paid. Plus, we gave the work to our electrical contractor rather than a sub, which gave us greater cost controls and better coordination."

Ruff says that the committee has improved coordination of technical groups in the hospital. "We already had good communication and rapport, but this committee solidified us as a team," he says. "Everyone gets frustrated by lack of communication. Now we can clearly define who's doing what, and who communicates to whom. In the committee, we're very open, sharing frustrations about growth and bouncing ideas off of one another. We've found communication is the best tool to eliminate frustrations."

Haupt says that the committee works: "Projects have been competitively bid with all projects being delivered before or on schedule and under budget," he says. And, if things go as expected, the TRC will have plenty of work in the years to come: the 20-year plan for the hospital calls for it to again double its size by 2025. ■

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