

The Simple Seven

Looking for the perfect PACS solution? Follow these seven steps when evaluating the system that's right for your facility

by Dana Hinesly

Editor's Note: This article is part two of a three-part series about installing the right PACS for your facility. Part 1, "The Fine Nine" in our November 2004 issue, discussed steps for evaluating a vendor. Part 3, to appear in an upcoming issue, will address how to select the best PACS administrator for your facility.

The verdict is unanimous: Taking your imaging and archiving system digital is definitely the way to go. However, once the decision is made, the process of getting your PACS solution in place isn't as clear-cut, primarily because it's something that impacts everyone in your facility.

"One important element of PACS is that it extends well beyond the radiology department," says Kurt Finke, director of the biomedical instrumentation department for the Veterans Affairs Medical Center (Minneapolis). "This [purchase] will impact all physicians and clinicians who look at medical images. It's a very substantial and wide-sweeping endeavor."

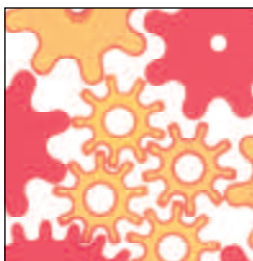
The good news? The professionals who have learned the hard way are more than willing to pass along tips and tricks for a painless PACS project. Take the following advice to heart, and your facility will be armed with knowledge and experience from those who have "been there, done that." You'll come out alive and well, and with a PACS solution to prove it.



Team Up

Although it might seem that the standard corporate solution is always to form a committee, in this case, more heads are not only better than one—they're essential to a successful PACS selection.

As soon as your facility makes the decision to purchase a PACS, put your team together. The rule of thumb for including a department is easy: If it currently uses film, it's in. Each department should be represented by at least one person. When mustering participants, don't forget less-obvious groups.



Radiology is a given. But depending on the structure of your facility, the team could include someone from the emergency department, surgery, and even referring physicians. In particular, seek out people who can "straddle the fence"—for example, a radiologic technologist who's also a "techie."

"If you have a technologist with some IT background, you have the best of both worlds," says Brett A. Roose, the radiology business manager and PACS administrator at St Patrick Hospital (Missoula, Mont). "The tech knows the workflow and what's best in a PACS to make it functional."

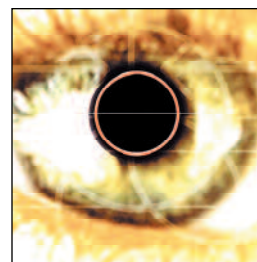
The main all-too-often-excluded department is the information technology (IT) group. Whatever you do, don't leave them out—which is easier said than done for some facilities. The PACS is driven by technology, but imaging is driven by the PACS. Not surprisingly, this reality blurs the lines of responsibility, and tension can grow between the radiology and IT departments. If this situation sounds like life at your facility, it's time to call a truce.

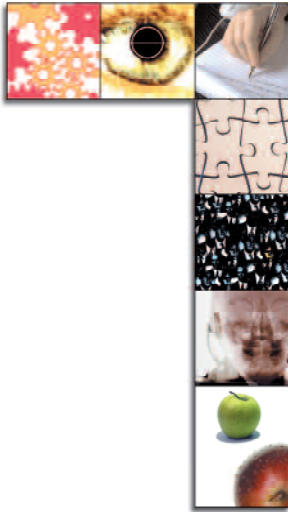
"Even if radiology and IT were an aggravation to each other before, if [they still are when selecting a PACS], it won't work," says John Durham, PACS administrator at Williamson Medical Center (Franklin, Tenn). "There is no 'us' and 'them.' It's 'we' now."



Know Your Stuff—Literally

Take a meticulous survey of the entire facility, creating a comprehensive list of every modality in your facility that you expect will interface with the PACS. The inventory should indicate whether each piece is digital or video, which will help





determine what upgrades, if any, are necessary to prepare all modalities for PACS.

"If they're video, you'll need an interface. If they're digital, it's almost plug and play," says Derek Suragh, PhD, director of radiology for the Memorial Hospital of Salem County (Salem, NJ). "It's the facility's responsibility to make sure the HIS/RIS, for example, isn't ten years old and trying to interface with a brand-new PACS."

Next, catalog the details of the facility's network. Is the technology in place to handle a PACS, or will upgrades be necessary?

"It is extremely important that a proper survey is done of the facility," says Frank Kotroba, director of sales at GE Walker

Inc/Thinking Systems Corp (Tampa, Fla). "Because managing [various] types of modalities can be very different."

Here is where the burgeoning relationship with IT starts to pay off. No matter how sophisticated your eventual PACS solution is, it is useless if it crashes the network.

3 Compile a Dream Sheet

After you've determined what you have, it's time for the fun part:



Make a wish list. Don't limit yourself at this point—budgets and reality eventually will do that for you. Instead, catalog the components of your ultimate PACS solution as well as specific improvements your facility wants to accomplish by installing a PACS—both now and in the future.

"Are you looking for a RIS or an EMR system?" Kotroba asks. "Some sites aren't ready [when they initially install their PACS]. But as they grow, it helps them organize their practices, so they should be talking about it and know where they want to go."

To help determine the amount and quality of equipment you need, take into account who will be using the system. It is a big step toward appropriating funds properly. Monitors are just one example; printers are another.

"When a doctor is in a room with a patient, he or she needs to have some way to show the X-ray to the patient, and we're doing that with printers," says Ron Briggs, president and CEO of St Francis Memorial Hospital (West Point, Neb). "When showing the image to the patient, quality isn't as important; it just needs to be good enough for the doctor to show [the patient] what they're talking about."

When brainstorming on this topic, include every aspect of your facility. Where will studies be stored? Do you want existing histories converted or stored in a file room? If your operation is growing, make sure you consider the difficulties of adding satellite locations as your business expands. If telemedicine is key to your success, be absolutely certain that the system is extremely fast and efficient.

In addition to the tangible components, your team must decide how much downtime is tolerable. Generally, technology companies make performance guarantees in terms of the percentage of time that the system is operable.

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When sorting through these promises, keep in mind that the number sometimes sounds better than the reality. For example, 99.9% uptime might sound appealing, but could be less so when converted to 8 hours and 46 seconds of downtime each year. Whether or not that's too much is something your team will need to determine before you start shopping, to ensure that time isn't spent dealing with vendors who can't meet this basic need.

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Hone Your Networking Skills

Once you know where your facility stands today

and where it hopes to be tomorrow, it's time to start the search for the actual system, which translates to finding the vendor that sells it. Your options can number in the hundreds. Wading through them all would be a waste of time, energy, and money.

Online research and trade shows are a good place to start, but perhaps the best way to narrow the pool of candidates is to consult



with peer and sister facilities. True, no two facilities are identical, but many similarities exist in the PACS process among even the most unique facilities—so don't try to reinvent the wheel.

"The best thing is to network with colleagues," says Henry Hollenberg, MD, CTO of Total Radiology Solutions (West Monroe, La), a PACS application service provider for Glenwood Regional Medical Center (West Monroe, La). "You're with people you know and trust and can get the inside scoop of which vendors do a good job and which don't."

Find out which PACS they chose and how they like it. Ask which vendors and systems they recommend, as well as which they suggest avoiding—and why. Don't hesitate to contact local, competing facilities, either. Even the fiercest competitors are likely to surprise you at how eagerly they pass along their insight.

"For anyone who calls me [about the PACS process], I don't hold anything back," says Durham of Williamson Medical. "Ultimately, it's best for the patients. And when you get to the bottom level, everyone's in the business for the same reason. If we can help patients, then *that's* the bottom line."

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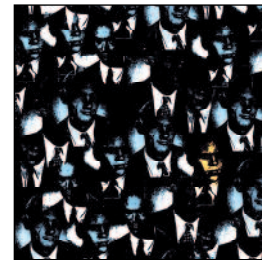
Is Bigger Better?

Selecting a vendor is an involved process with far-reaching implications. Sure, the software and hardware hold the most appeal, but the relationship is too important to base solely on one factor. Look beyond their PACS solution to what else they bring to the table.

Can—and will—the vendor adapt its system to fit your needs, instead of you morphing into the system? What kind of customer service does the vendor offer? Is the vendor in close proximity, and, if not, is it willing to send someone to your site if the need arises?

A primary source of answers to these questions lies in the size of the vendor. Unfortunately, asking which size of vendor is best is akin to administering a Rorschach test—everyone sees something a little different.

"Companies provide different sizes of solutions," says Xiaoyi Wang, president of Thinking Systems Corp (St Petersburg, Fla).



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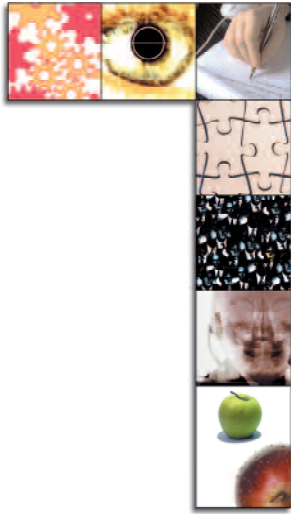
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“At trade shows, the companies that provide cutting-edge technology are usually the smaller vendors. [My experience is that] a small vendor will provide better customer service.”

Of course, size has its advantages. According to St Patrick’s Roose, “[We went with a larger vendor because we] wanted an established company with some money ... and plenty of resources and capital to be around for the long haul.”

Should you go with a small vendor or a big one? It depends, in part, on what you’re looking for through the PACS-acquisition process.

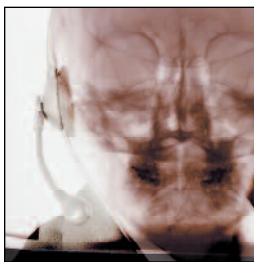
“If you’re willing to take on some of the work and risk, then the small vendors are a very good match,” says Finke of the VA Medical Center. “If you need an all-encompassing solution and just want to write a check and say, ‘Give me a PACS,’ then the big guys are well-suited for that.”

After doing research and talking with peers, you’re sure to discover that good, bad, and ugly vendors come in all sizes. What’s perfect for one facility is a nightmare for another. Ultimately, only the PACS team can make the decision, based on the individual facility’s needs and desires.

6 Call the Contenders

At this point, you’ll have a list of potential vendors, gained through independent research, friendly advice, and industry experience. Now the detailed information-gathering begins; first up is letting the vendors on your list know you’re interested.

Create a template of screening ques-



tions. Posing the same inquiries to every vendor will make side-by-side comparisons easier. Keep the questions generic, but geared toward what is important to your facility, such as user interfaces, system uptime, modality integration, and archiving. Include questions about hardware: Find out if you’re required to purchase the vendor’s hardware or if off-the-shelf options are available. Get specifics about the current state of the company’s software as well.

“Where is the vendor in the process with their latest software, and has it been fully tested?” asks St Francis’ Briggs, who speaks from experience. To prevent obsolescence of its PACS software, St Francis’ contract included a stipulation that the facility always receive the latest software. “We ended up as the beta site,” he admits. Avoid such hassles by insisting that the vendor field-test all software before installing it at your facility.

Most likely, this preliminary elimination round will cull your vendor list to a manageable number. Now it is time to obtain the in-depth information you need about the remaining candidates’ systems to make a final decision. Whether you acquire this knowledge through a traditional RFP process or by more informal means, design your queries to focus on securing information from the vendor—not providing your requirements to them.

“Write the RFP around function. Let the vendor tell you how it can meet your functional requirements,” Finke says. “If you’re too specific, you limit yourself. Let the vendor tell you what it uses and why. Then, evaluate accordingly.”

And don’t overload yourself. Your ideal list of finalists will have at least two, but no more than five, vendors. “Keep it focused, and [send information requests only] to your top vendors,” Roose suggests. “If you’re trying to evaluate 20 vendors’ systems, details will fall through the cracks.” That isn’t a risk you want to take with such an important purchase.

7 Compare and Contrast

As the quotes and proposals start to roll in, gather all the data collected thus far and do your best to compare apples to apples.

“We took the quotes and decided the best course of action wasn’t to just look at the price quote, but to do a five-year cost analy-



sis,” Durham recalls. “We figured out formulas to find not only numbers, but also what we were getting for that number.”

For example, one vendor promised 99.9% uptime, and another guaranteed 99.99%. Durham’s team calculated the specific dollar value for the difference and did similar figuring for every key price point.

While you’re crunching numbers, begin face-to-face vendor meetings and site visits. Rightfully so, many vendors use site visits as an opportunity to put their best foot forward. However, it is in your best interest to keep the field trips on your terms. Even on hosted visits, ask the vendors not to hover.

“When you go on a site visit, ... you want to hear from the user,” says Marilyn Schultz, administrative director of radiology at Akron General Medical Center (Akron, Ohio). “We’ve been on site visits where the vendor stands right there and sometimes even answers for the client—and that says something about the system.”

When on your visit, take notes and talk with as many people as possible: technologists, radiologists, and anyone else who uses the system. Find out what they like about the PACS and what they don’t. Ask about the vendor’s installation process, the usability, and the learning curve. Above all, pay attention. Undoubtedly, the site’s workflow will vary from that of your facility’s, but the fundamentals will be similar. Think about how the PACS solution’s features and processes will fit into your facility.

A natural vetting process will take place through each site visit and consultation. Some systems will be out of range for your budget; others will come up short on functionality so that eventually, only one vendor—and, subsequently, your future PACS solution—will remain standing. As the process rolls toward this eventuality, don’t be in too much of a hurry to speed it up.

“We had 18 months to complete our due-diligence and research it, [although we did have] very anxious radiologists who tried to push it,” Roose remembers. “We would not be pushed, and the benefits were great, because we were prepared for everything.”

Although it can be frustrating, your dedication, patience, and thoroughness will pay off in the end. “If these systems are done right, it can be a big boon to your practice and your patients,” says Hollenberg of Glenwood Regional. “You can really do a lot to help them out.” **MI**

Dana Hinesly is a contributing writer for Medical Imaging.