

# What You Need to Know Before Purchasing a PACS

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Many radiology practices, hospitals, and other health care providers are interested in purchasing picture archiving and communication systems (PACS) but are unsure of what to look for in a PACS agreement. Purchasing a PACS is a major financial investment, and implementing a PACS will have a long-term effect on a provider's daily operations. Therefore, before purchasing a PACS, providers should be aware of important legal issues that are at stake.

This article explains the more significant issues that providers encounter when selecting, purchasing, and implementing PACS and point out some of the more common pitfalls to avoid. In addition, this article offers some practical guidance on negotiating a PACS contract to best meet a customer's needs.

## THE PLANNING STAGE

### Selecting a PACS

One mistake providers sometimes make is not devoting sufficient time to planning before selecting a PACS. A provider should consider several factors when choosing a PACS, including the volume of images it will require the PACS to process, its financial resources and information technology (IT) infrastructure, and its in-house technical staffing capability. For example, an application service provider (ASP) model for a PACS requires less upfront costs than a PACS acquired as a capital purchase and places responsibility for the hardware maintenance on the vendor rather than

the radiology group's IT staff. However, an ASP model may pose other risks, such as slow image retrieval, poor security, or excessive downtime.

Weighing the pros and cons of each PACS can make selecting the right system a time-consuming effort. Fortunately, online PACS list servers as well as PACS consultants can help providers prioritize their goals when making a selection. Networking with colleagues and radiology administrators at facilities with similar imaging needs also provides valuable assistance when engaging in the PACS selection process. Colleagues who have already gone through PACS implementations will often be more than happy to complain or brag, as the case may be, about their PACS experiences.

### Assembling a PACS Team

Assembling the proper PACS team is crucial to the selection and contract process. The team should be composed of people with the right expertise, who will be able to tackle all of the operational, technical, and financial issues that may arise. A PACS team should generally include one or more of the radiologists who will use the PACS as well as IT staff members and financial advisors. For example, radiologists are generally the best people to ensure that technical response times and system functionalities are adequate, but a provider's IT staff members likely will be the most competent people to address interfaces, modality compatibility, and technical implementation responsi-

bilities. A properly staffed PACS team will ensure that important issues are reviewed by those with the necessary expertise.

### Issuing a Request for Proposal

Before committing to a particular PACS brand, a provider should consider issuing a request for proposal (RFP) to several PACS vendors. Requiring multiple PACS vendors to submit responses to an RFP allows a provider to easily compare the relative merits of each system and make an informed decision. More important, PACS vendors are naturally more likely to offer better terms when they know that their potential customers are considering other PACS vendors and have not already committed to their products. Furthermore, sales representatives sometimes tell providers that their PACS products can perform specific functions without fully understanding what is required. Requiring a vendor to provide a written response to an RFP avoids this disconnect and helps a provider understand what a vendor really can and cannot do, especially when the vendor is told that its response to the RFP will be incorporated into the PACS agreement.

A good RFP need not be overly formal, complex, or long, but it should address all significant issues that a provider is likely to judge relevant when making its PACS selection. For example, a PACS RFP should deal with financial terms, functionalities, technical and hardware requirements, implementa-

tion responsibilities, training, key maintenance terms, liability limitations, essential warranties, and other key expectations. If a provider later determines that an RFP did not address these important issues, the RFP can be supplemented or otherwise amended.

### **Make an On-Site Visit**

After narrowing the field of PACS vendors, providers should ask for one or more site visits at locations where particular PACS are already being used. To the extent possible, a provider should seek to conduct its site visits at offices that are similar from technical and business perspectives. Generally, letters of recommendation or phone calls from other radiology providers describing the benefits of particular PACS brands are not adequate and will not detect problems that may be discovered during comprehensive site visits.

## **FINANCIAL CONSIDERATIONS**

### **Payment Terms**

Because the PACS marketplace has become increasingly competitive, providers may now choose from several different payment arrangements. In addition to the traditional cash purchase and capital financing options, some PACS are priced on a per study basis, a per megabyte basis, or other form of per use arrangement. For example, in lieu of charging a large lump sum for equipment, license fees, and other startup costs, some PACS vendors simply charge providers a few dollars for every study captured, stored, or viewed. If a PACS is financed on a per study basis, however, the contract will typically require a provider to commit to a minimum volume of studies over a course of several years so that the

vendor can recapture the upfront costs.

To the extent that PACS fees are not being paid on a per study basis, the payment obligations of a provider should be tied to the achievement of certain implementation milestones, such as delivery of the equipment, successful implementation of the system, and the PACS “go-live” date. Final payment should be reserved, whenever possible, until the provider confirms that the PACS is working properly in accordance with its documentation. The confirmation process is commonly referred to as “acceptance testing” in contracts, because the provider should have an opportunity to test the PACS and confirm that it is performing in an acceptable manner. Reserving final payment until the acceptance date gives the vendor a strong financial incentive to finish the job in a timely manner and gives the provider the comfort of knowing that the system actually works before making final payment.

### **Budgeting**

To properly budget for a PACS, all costs associated with it must be incorporated into the financial calculations. In addition to the amount of time and any lost productivity arising from a PACS implementation, providers need to factor in costs relating to the following: implementation, software licenses, equipment, ongoing maintenance, training, third-party software, software customization, and interface development fees. Two of the more significant costs that are often not fully considered are ongoing maintenance fees and implementation costs.

After a PACS is acquired, a provider has little or no negotiating power and likely will be forced to accept the maintenance fees and

terms offered by the vendor. Accordingly, a provider should negotiate the price of ongoing maintenance and other key terms related to PACS maintenance (eg, response times, support hours) before it acquires its PACS. In addition, the contract should prohibit the PACS vendor from increasing its annual maintenance fees by more than increases in the applicable consumer price index or some other agreed-on percentage.

The implementation of a PACS is complex and can take longer than estimated to complete. Therefore, payment for a PACS implementation should often be made on a fixed-fee basis rather than on a time-and-materials basis. Paying on a fixed-fee basis protects a provider from additional charges if a vendor underestimated the amount of time it would take to complete the implementation. Travel costs and other out-of-pocket expenses related to an implementation also can add up to significant amounts of money for which a provider did not plan. If possible, a provider should limit out-of-pocket costs and travel costs related to the implementation to an aggregate dollar amount or should negotiate some other contractual mechanism to control such hidden costs (eg, any expenses over \$500 require prior written approval).

## **IMPLEMENTATION**

Regardless of whether a PACS implementation is simple or complex, the PACS vendor and the provider should develop a mutually agreeable written implementation work plan. Every provider needs to have a clear understanding of how its new PACS will be implemented and what each party’s responsibilities will be to avoid conflicts during the implementation. Furthermore, the work plan should include a con-

crete timetable that the parties will adhere to for the implementation. The complexity of PACS implementation will vary. For example, an ASP-based PACS has a very different implementation from a standard PACS, in which the equipment is located at the provider's site. Likewise, a mini-PACS implementation that involves only one modality is less complex than an enterprise-wide PACS implementation that includes several hospitals.

Because some PACS implementations take an unreasonably long time and may even fail after repeated attempts, a provider should insist on specific contractual remedies if the vendor fails to meet the implementation timetable (eg, the right to terminate the agreement, the right to a discount). In the event that the parties do not agree on an implementation work plan before the execution of the PACS agreement, the agreement itself should set forth some basic timetable under which the PACS vendor commits to successfully complete the more significant implementation milestones.

A successful implementation depends on the vendor's implementation team being appropriately qualified. Therefore, a provider should review the qualifications and resumes of the implementation team. More important, a provider should reserve the right to remove and replace the PACS vendor's staff when necessary.

## **CONTRACTUAL TERMS**

Although the price and payment terms set forth in a PACS agreement are usually negotiated at length, there are many other essential contract terms that need to be considered before signing a PACS agreement. Although this article cannot explore all of the issues

raised by a PACS agreement, the terms set forth below arise in virtually all PACS contracts.

### **Scope of License**

The term of the license being granted should always be scrutinized. For example, a provider will receive either a perpetual license or a "term" license that expires after a certain number of years. A term license usually requires a provider to pay additional fees to extend the license after the end of the initial term. This distinction can easily be overlooked, but failing to detect this distinction will have significant financial consequences to a provider when the initial term expires and a new license renewal fee becomes due.

License restrictions should also be reviewed by the PACS team to ensure that the license is broad enough to meet the provider's needs. To the extent that a license restriction will impede a provider's operations, the provider should demand that such restriction be deleted or modified. Picture archiving and communication system agreements, for instance, commonly state that only employees may use the PACS software, but providers often wish to permit their medical staff members and affiliates to access and use their PACS. In these cases, the restriction on the scope of the license (and any adjustment in price) needs to be addressed before signing the PACS agreement. With the increasing use of teleradiologists from other countries, providers should also be on the lookout for licenses that prohibit access to, or the use of, the PACS by persons outside of the United States.

### **Indemnification and Limitations of Liability**

Indemnification provisions raise significant liability issues that need

to be thoroughly reviewed by a competent lawyer on the basis of a provider's particular circumstances. In all cases, however, a PACS vendor should agree to indemnify and hold a provider harmless from any liability that arises from a claim that the PACS infringes on a third party's intellectual property rights. Furthermore, a PACS vendor's duty to indemnify a provider for claims of infringement should generally be excluded from any liability cap the parties negotiate.

A PACS agreement proposed by a vendor will usually include a limitation of liability provision that states the vendor cannot be responsible for certain kinds of damages and limits the vendor's liability in all events to a specific dollar amount. These provisions are often one sided, and providers should demand that the risks be more fairly allocated, especially with respect to damages arising from breaches of confidentiality or patient injuries.

### **Warranties**

PACS agreements drafted by vendors will often lack important warranties unless providers are familiar with standard legal protections and ask for them. For instance, a PACS is a device governed by the US Food and Drug Administration, and a PACS agreement should require that the PACS remain compliant with all applicable laws and regulations, including Food and Drug Administration laws and regulations. Picture archiving and communication system agreements should contain uptime warranties, under which vendors agree that the PACS will operate properly most of the time (eg, 99% of the time). Another warranty to include in a PACS agreement is a technical response time warranty, by which the vendor warrants that the PACS will

process and respond to information within a specified amount of time (eg, a radiologist will be able to pull images to a desktop or move screen to screen within 2 seconds). Unfortunately, some providers realize too late that the number of studies their radiologists can read per day has been considerably reduced by the sluggishness of their PACS.

### Interfaces

A PACS will often interface with other programs to allow the transfer of data across applications. For example, a PACS may need to be interfaced with a radiology information system or with modalities such as magnetic resonance imaging or computed tomographic scanners. A PACS contract should describe the functionality of the interface, and if possible, the specifications of the interface should also be set forth in the agreement. If a PACS vendor has already developed an interface with a particular application for other customers, then it is more likely that the interface development will not run into unforeseen problems. When preparing an RFP, therefore, it is a good idea to ask vendors if they have previously interfaced with a provider's existing applications. To the extent possible, interfaces should be developed by the PACS vendor on a fixed-fee basis, especially if the interface is being done by a particular vendor for the first time. In addition, a provider should ask for a vendor's Digital Imaging and Communications in Medicine conformance statement, because this affects how a PACS can connect to medical imaging devices and display images on other computer systems.

### Maintenance and Support

Although maintenance services are often provided under separate agree-

ments, providers should view maintenance contracts as part of the PACS acquisition and should negotiate maintenance contracts simultaneously with acquisition agreements. A maintenance contract should address important support issues, such as service response times, the installation of updates, and software fixes. Furthermore, because most providers are reluctant to use PACS without current maintenance contracts, the maintenance contract should require the vendor to commit to providing support for a minimum number of years to assure the provider that the PACS will have a useful life of several years to justify its cost.

### Posttermination Rights

Providers are responsible by law for maintaining and providing access to medical records for a number of years, and this obligation generally extends to data residing on a PACS. Therefore, a PACS agreement should state that the data residing on the PACS is owned by the provider. Moreover, if a provider's license to use the PACS is terminated for any reason, the PACS images need to remain accessible to the provider in a usable format. Some providers, to avoid undue disruption to their operations, negotiate the right to continue using their PACS for a transition period, during which time they seek replacement systems and arrange for data migration.

### Data Security

Every PACS agreement, especially any ASP PACS agreement, needs to provide assurances that the PACS will maintain data security and data integrity. Agreements should require the PACS vendor to represent that the PACS will comply with the security standards established by

the Health Insurance Portability and Accountability Act of 1996 and its related regulations. If the vendor is responsible for data backup, the contract should also specify how PACS data are backed up and what type of redundancies are in place to ensure that data are recoverable in the event of a disaster (eg, data are backed up daily and stored at a secondary location). The contract should specify firewalls, antivirus protection, and other basic technical safeguards that the PACS vendor will provide. Finally, the PACS vendor will likely also need to execute a Health Insurance Portability and Accountability Act business associate agreement with the practice.

### Negotiating Tips

When negotiating with PACS vendors, providers often have more power than they realize, especially when they are negotiating with more than one vendor, and the vendors know that they have not yet won the contract. For this reason, providers should consider negotiating with 2 or more PACS vendors simultaneously to ensure that they receive the best possible contract terms. Similarly, a provider should not be fooled when a PACS vendor responds to a reasonable request to modify the contract by confidently declaring that the objectionable provision is "standard in the industry." Despite these assurances, such provisions are often negotiable.

All vendor promises need to be expressly set forth in the contract. It is an all too common occurrence for a sales representative to make an oral promise that the vendor does not live up to after the contract is signed. To guard against overly zealous sales representatives, most PACS agreements state that any promises not expressly set forth in

the agreements are null and void. Accordingly, if a provider intends to rely on a vendor's representation, then that representation must be expressly set forth in the agreement.

### CONCLUSION

Providers need to be savvy when negotiating their PACS contracts, or they can be exposed to significant financial losses and operational disruptions. Although focusing on the is-

sues outlined in this article is a good start to successfully negotiating a PACS agreement, providers should consider hiring competent legal counsel to assist in the review and negotiation of their PACS agreements.

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