P R O T O N
P A C S

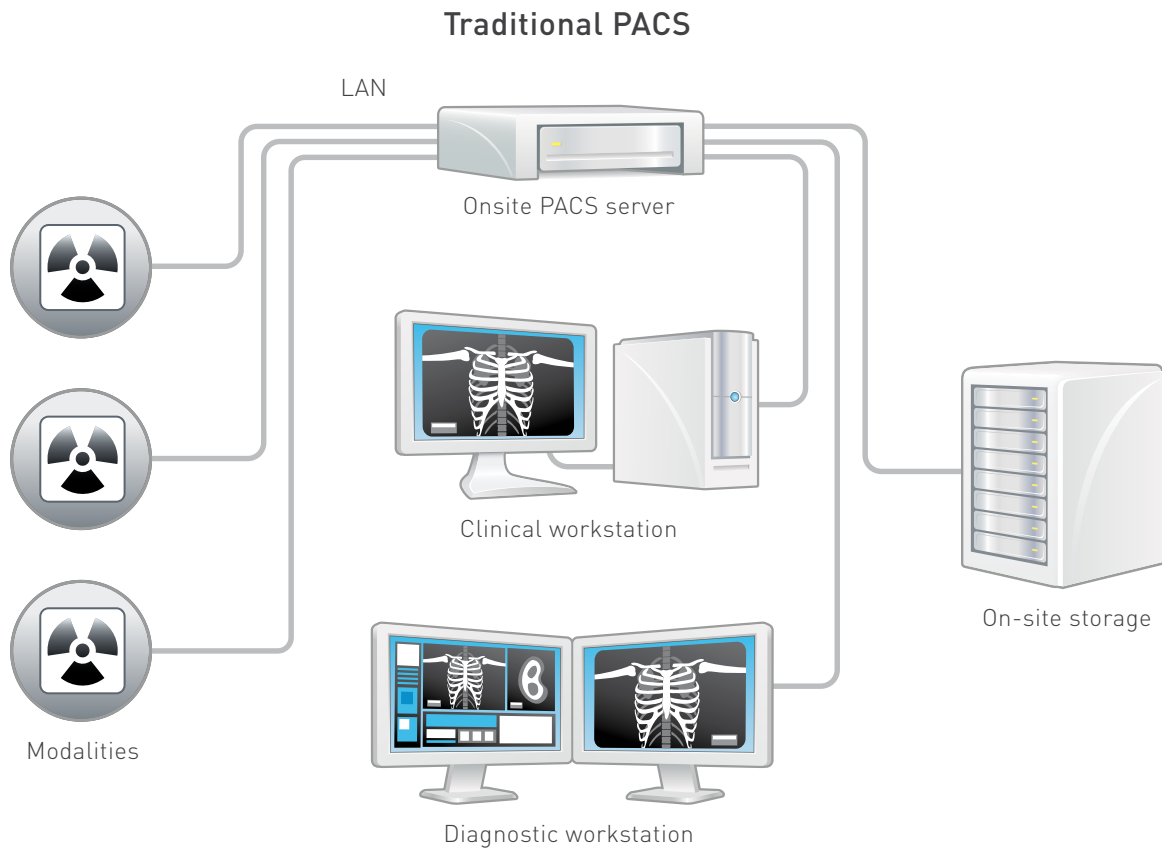# Which PACS is best for your practice?

Are you searching for a new PACS?
The wide range of available options can make this a daunting process. This paper will explore the differences in the three most widely adopted PACS models and help you decide which one is right for your practice.

PACS overview

A picture archiving and communication system (PACS) is a medical technology used to securely acquire, distribute and manage medical images. Used effectively, a PACS should provide efficient access to images and related data no matter the physical location and allow personnel to manage the workflow of patient exams. Essentially, PACS solutions allow practices to break down the physical and time barriers associated with traditional film-based image retrieval, distribution and display. There are three commonly used models for PACS solutions: traditional, cloud-based and hybrid.

Traditional PACS

LAN

Onsite PACS server

Clinical workstation

On-site storage
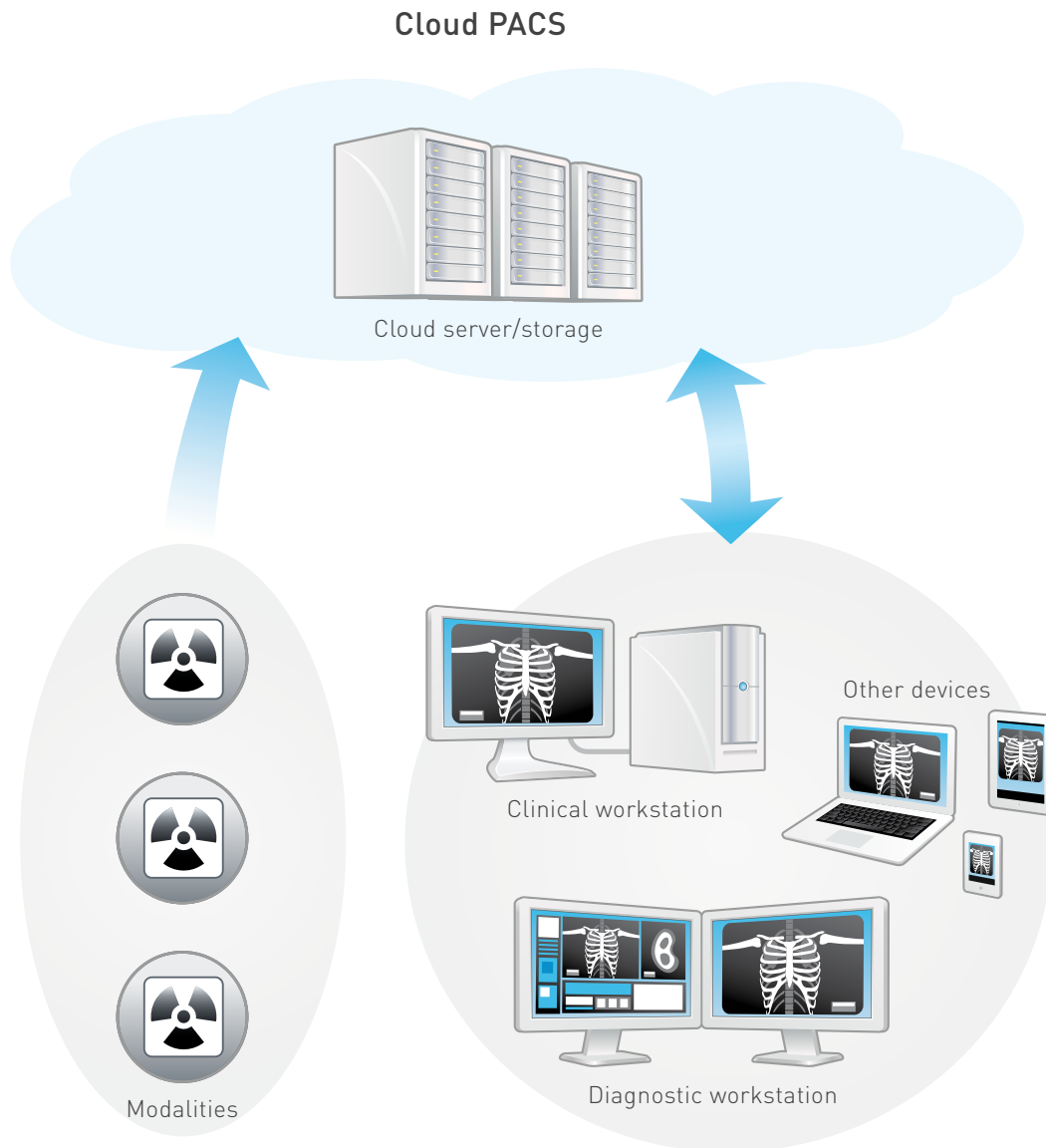
Modalities

Diagnostic workstation

Traditional

A traditional PACS consists of a server installed locally within a facility, and software is installed on the server and on the practice's computers. Images are viewed over the local area network and/or outside the network via a secure connection. In this model, the local server connects to local hard drives to provide quick access to files and in return, new images are then saved to the local server as they are created.

This type of architecture requires the practice to purchase the hardware, software and user licenses, resulting in a large upfront capital expenditure. Additionally, the initial expense is not representative of the total cost of owning a traditional PACS. A practice must also consider that it is then responsiblefor the implementation fees, maintenance, upgrades, user and IT support and data storage. Since practices are required

to keep images on file for many years (in many states, 7 years or some period beyond the age of 18 for pediatric patients), they are also responsible for disaster recovery which requires offsite data storage, monitoring and redundancy planning.

PROS: If your practice has sufficient capital, in-house IT support and offsite data storage capabilities, then the traditional PACS model may be preferential for total ownership and control over your practice's images.

CONS: Upfront and ongoing costs can be prohibitive, significant internal IT resources are required, the risk of losing images is higher, additional licenses may be required if the practice adds users over time, and plans must be in place for scenarios when the PACS is down due to hardware failure, time intensive upgrades or malfunctioning equipment.

Cloud PACS

Cloud server/storage

Other devices

Clinical workstation

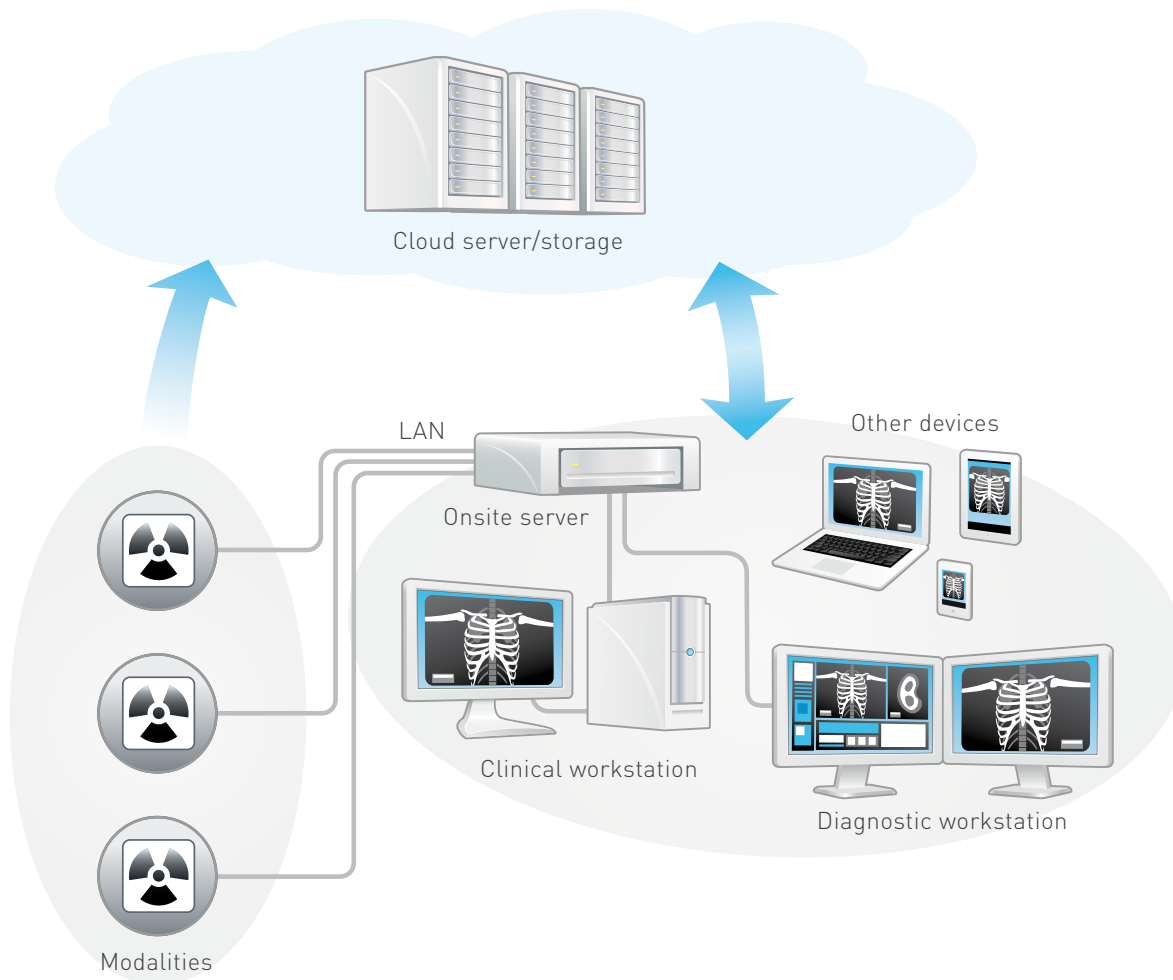Diagnostic workstation

Modalities

Cloud PACS

A cloud-based PACS consists of an offsite server utilizing a secure internet connection to provide access to images and related data. All functionality is essentially the same as a traditional PACS solution, except that authorized users can access the images anytime, anywhere, as long as there is an internet connection. Since the hardware is maintained offsite with the vendor, this model has low initial capital investment. Additional costs can include service agreements and application user support.

PROS: Very affordable with little to no initial investment. Lower ongoing costs since vendor

maintains hardware and provides IT support and maintenance. The vendor also typically provides sufficient data storage to meet legal requirements and provides disaster recovery planning. The solution is typically easily scalable.

CONS: Since the images are stored offsite, if the practice's internet connection is slow or down then the images and PACS are not accessible, thus delaying patient care and resulting in lost revenue for the practice. Cloud solutions also tend to be slower, as images must be sent to the cloud from the acquisition devices (e.g. CR, DR, or MRI) and then downloaded from the cloud to be viewed.

Hybrid PACS

Cloud server/storage

LAN

Onsite server

Other devices

Clinical workstation

Diagnostic workstation

Modalities

Hybrid PACS

A hybrid PACS solution provides all of the functionality of a traditionally installed model and a cloud-based model. The main difference with the hybrid model is that while all of the practice's images are stored offsite in secure data ware-houses, there is also a locally installed server with copies of the most recent images so that images are accessible at any time, even if the internet is down. If the local server fails, images are still viewable through the cloud. This solution provides redundancy so that practices never have to worry about loss of revenue from a down PACS. In addition, all of the benefits of a cloud-based model are still included—the vendor maintains the hardware, software upgrades, user and IT support while also providing locally stored rapid image access.

PROS: All of the benefits of a cloud-based model (low initial cost, no hardware ownership, access anywhere and anytime, offsite secure data storage and redundancy, vendor-supplied IT and user support) coupled with the benefits of a traditional model (local data ownership and fast access to locally stored images].

CONS: With a low-cost model, quick image viewing, lack of need for in-house IT support, secure data storage and no risk of working around a down PACS, the hybrid model has no significant downside. But the hybrid model is less common and as with any technology purchase, users are advised to carefully evaluate the vendor to ensure that true hybrid functionality is offered by the product.

	TRADITIONAL	CLOUD-BASED	HYBRID
Overview	Onsite server, local data storage, in-house IT support	Offsite server, offsite data storage, either in-house or outsourced IT support	Onsite server, offsite server and cloud data storage, IT support included in per-study fee
Capital Expenses	Purchase software licenses and hardware upfront	Typically a pay-as-you-go subscription pricing plan	No upfront capital. Typically provides all hardware and software as part of the per-study fee
Ongoing Support	In-house IT support is needed for ongoing upgrades, hardware maintenance, hardware replacement, network monitoring and application troubleshooting	Can be included or offered as an add-on service	Usually included in per-study fee
Scalability	Must purchase additional software licenses and supporting hardware should additional resources need access to the application	Can be included or additional licenses may be required for new users/workstations	Extremely scalable, typically add new workstations, users and locations for no additional fee
Image Access	Access images on local server. If the server is down, images are not accessible	Access images via secure internet connection. If internet is down, images are not accessible	Access all images rapidly even when the local server or the internet is down
Data Storage and Disaster Recovery	In-house IT typically archives images on local hardware and maintains 2 copies	Various solutions are available for additional fees	Typically included in per-study fee

Next Steps

Now that your practice is fully versed in the available PACS models in the market today, you can confidently select a vendor that suits your business needs. Remember to consider ongoing costs and not just the initial investment, the availability of secure data storage and disaster recovery, and the costs and risks associated with a down PACS.

ABOUT PROTONPACS

By combining Intelerad's #1 KLAS-rated PACS software with all of the necessary PACS hardware, guaranteed secure archiving, proactive support, and our always-on hybrid architecture, Proton-PACS delivers a fully functional and flexible PACS solution in a cost-effective fee-per-study model. The service is fully managed and maintained by the ProtonPACS team, greatly reducing your IT needs, and is uniquely engineered for maximum speed and the elimination of downtime. Proton-

PACS is fully regulatory compliant and seamlessly communicates with any practice management system or EMR. Contact ProtonPACS today by calling **615-376-7502**, emailing **pacs@radsource.us** or visiting **www.protonpacs.com.**

ABOUT RADSOURCE

Radsource is one of the most trusted names in imaging, earning a reputation for both advanced technology and unmatched support. Because of our success in the MRI interpretation arena, Radsource understands the needs of PACS users. In fact, Radsource uses ProtonPACS, so we know all of our customers are receiving a cutting-edge, worry-free solution. Learn how this easy, scalable and cost-efficient model can work for you by contacting Radsource via phone at **615-376-7502**, via email at **pacs@radsource.us** or by visiting **www.radsource.us.**

RADSOURCE

8 Cadillac Dr, Brentwood, TN 37027