Aurabox vs PACS Comparison

Introduction

A PACS (Picture Archiving and Communication System) is a study-centric, on-premises computer system for storing and reviewing DICOM studies (the universal file format for medical imaging). The organisations that use PACS are generally medical imaging practices that generate imaging using modalities such as x-ray, ultrasound and CT. These images are then stored in the PACS and are available for radiologists employed by that organisation to review and report on. The PACS is required to communicate with the modalities.

Aurabox is a cloud-based, patient-centric, clinical workflow platform for obtaining, storing, viewing and collaborating on medical imaging. **Aurabox** allows you to retrieve imaging from any medical imaging practice PACS, aggregate medical imaging from multiple PACS in a single location for a single patient, store it in perpetuity, view it in full DICOM resolution, and share it with any medical professional anywhere.

Storing and viewing imaging

Each medical imaging practice that uses **PACS** has their own separate storage system. There is no integration of data between different radiology practices using PACS which means that there is no single point of access for medical imaging performed for a single patient across multiple radiology practices.

The primary system of record in **Aurabox** is a Patient. When studies are added to **Aurabox**, they are added to patient records. In this way **Aurabox** is similar to an Electronic Health Record (EHR). In fact, sometimes we refer to **Aurabox** as an Imaging EHR.

Aurabox stores all of its data in shared cloud regions, but can also access data in different storage systems, across cloud services. It can also move data between storage services automatically. The system is vendor-agnostic, and records are combined across multiple organisations to form a single patient record.

Who uses the system

PACS are primarily used by medical imaging practices. **PACS** are generally installed on servers owned by the imaging provider, though there are some cloud-based **PACS** available.

Many specialists who use medical imaging do not have their own **PACS**, and rely on

the individual web portals of imaging providers to access imaging, or for **PACS** administrators to manually transfer imaging between **PACS.** This often results in scattered, delayed or limited access to medical imaging.

Aurabox's main clients are doctors or other organisations requiring the ability to manage and share medical imaging from multiple medical imaging practices/third-parties. They can use **Aurabox** as a PACS-like system for reviewing patients with medical imaging, while using all of the clinical workflow, sharing and collaboration features as well.

Aurabox is also available for medical imaging practices who want to share imaging and reports with referrers and patients, researchers, sports medicine and physiotherapy, and education.

Because **Aurabox** is one network, not many isolated storage systems, it is very easy to share and collaborate on patients that are imaging-intensive or require regular imaging. **Aurabox** allows multiple doctors from different institutions to share a patient imaging history without compromising access to other patients.

Different systems working together

Aurabox connects doctors, hospitals, and medical imaging practices to provide a network of patient data. Aurabox also allows patients to access data and take control of their health information. A **PACS** is a dedicated system for storing DICOM files and connecting to DICOM modalities. They are designed for different uses.

Case study
A surgeon refers a patient to **medical imaging practice A** for a preoperative CT study. **Medical imaging practice A** uses its

own **PACS**. Once the CT scan is complete, the images are stored in Medical imaging practice A's **PACS** and a radiologist belonging to that medical imaging practice reviews and reports on the images. The surgeon uses Aurabox for his patients and the medical imaging practice A forwards the patient imaging to Aurabox.

The surgeon accesses his Aurabox account to view the imaging to plan the surgery.

Following the surgery, the surgeon requests another CT study which is performed at **medical imaging practice B,** which also uses a different PACS to medical imaging practice A. The images are also forwarded to Aurabox at the surgeon's request.

Without Aurabox, the surgeon must log in to a separate web viewers in order to view the pre-operative and post-operative CT studies and cannot view the two CT scans side by side. Because the patient's images have been sent to **Aurabox** by both imaging practices, the surgeon is able to compare the pre and post-operative imaging side by side in the Aurabox viewer.

The surgeon wants to discuss the patient at a multidisciplinary meeting and refer the patient to an oncologist, so he shares the patient's profile containing the aggregated medical imaging with the oncologist via the **Aurabox** platform. This allows the oncologist to access both imaging studies in one location prior to review. As an added bonus, the patient now has full access to their imaging and can retain this for the future.

Comparison of features

	Aurabox	PACS
General features		
Store medical imaging securely	✅	✅
View medical imaging in diagnostic quality, online	✅	Conditional[1]
Add additional medical imaging	✅ via a web browser, DICOMWeb, or DICOM forwarding	✅ Via DICOM forwarding only
Connect directly to modalities	With add-on	✅
Request prior medical imaging from third-party providers	✅	❌
Patient view, with imaging and reports	✅	❌ [2]
Share a complete patient with full imaging performed at different imaging practices.	✅	❌ [3]
Provide portable, cross-organisation accounts for patients	✅	❌
Manage and track patient consent relating to medical imaging	✅	❌
Tagging, Custom Fields, Forms	✅	❌
Pathology, clinical imaging, documents and other assets	✅	❌
MDM scheduling and patient list	✅	❌
Download DICOM	✅	✅

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[1] Some PACS have attached online viewers (e.g. Intelerad). Others require a third-party service to enable this functionality.
[2] PACS generally only has a searchable list of studies, and does not aggregate at a patient level
[3] Some PACS allow sharing a single or set of studies, but requires selecting the studies individually. It does not have a "patient view" of imaging.

For Radiology providers		
Distribute imaging and reports to referring doctors	✅	Partial[4]
Distribute imaging and reports to patients	✅	Partial[5]
Reporting interface	❌	✅
Connect directly to medical imaging equipment via DICOM	With add-on	✅
Radiology work list	❌	✅
Hosting and support		
Hosting options	Cloud	Cloud or self-hosted
Price	$	$$$

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[4] Referring doctors can access imaging *from that location only* where a compatible viewer is available (e.g. Inteleviewer)
[5] PACS sometimes have an optional patient portal which gives patients access to their imaging *from that location only*