

Adopting an Enterprise Strategy: Considerations Beyond Radiology

Healthcare organizations across the world are adopting enterprise-wide imaging strategies that consolidate, structure, and share patient imaging data beyond traditional service lines. These are some of the most important considerations when developing an enterprise imaging strategy that suits your individual needs.



Image Enable the Enterprise and More

Increasingly, hospital departments like the Emergency Department, Wound Care, Trauma, Dermatology, and more are finding utility in having access to clinically relevant images within the patient record. By consolidating siloed images and data from across the enterprise and making them available to care providers across multiple departments (including through image-enabling the EHR), they gain access to insights that can assist time to patient diagnosis and help improve the quality of patient care.

Having a single zero-footprint enterprise and diagnostic viewer to present images across multiple departments, like Mach7's eUnity, helps to further information sharing across the enterprise. This strategy also provides access to tools such as real-time collaboration, hanging protocols and advanced visualization functionality that were historically reserved for a subset of PACS users.



Downtime PACS Viewing Environment

Whether it is planned or unplanned, system downtime is inevitable. A robust and flexible downtime solution is thus crucial to maintaining service continuity. When considering an enterprise strategy, a zero-footprint enterprise viewer that is also approved for use for diagnostic interpretation (such as Mach7's eUnity Enterprise Diagnostic Viewer) makes an ideal viewing platform to serve as a backup to your primary PACS. Being web-based, it is relatively quick to failover to across multiple departments - reducing stress for clinical and diagnostic staff and ensuring patients continue to receive the timely care they need.



Ransomware

Ransomware (and cybersecurity in general) is a huge issue currently impacting major healthcare institutions. It has been reported that a third of healthcare organizations in the US were impacted by ransomware in 2020¹ - costing millions of dollars in lost revenue. Enhancing cybersecurity through enhanced employee training & awareness and more stringent security procedures can help to mitigate the threat posed by bad actors.

While it does not eliminate the threat posed by ransomware, maintaining an up-to-date backup of critical patient data and images can help facilitate a rapid return to service delivery. In the event a PACS or other systems are compromised, having a consolidated, access-controlled archive of patient data separate from your primary systems - as might be set up in case of downtime - can help alleviate stress on care providers and ensure patients continue to receive critical care.

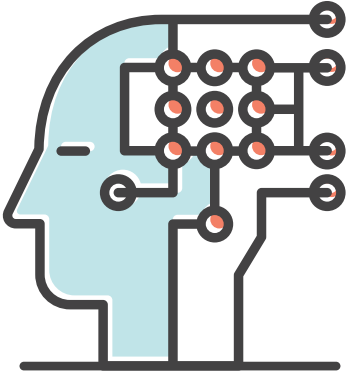
¹ <https://www.healthcarediver.com/news/more-than-13-of-health-organizations-hit-by-ransomware-last-year-report-f/602329/>



Data Backup

Timely access to an accurate, up-to-date backup is a critical component of a healthcare organization's IT infrastructure. Unplanned system downtime, natural disasters, cyberattacks, and ransomware are all factors that drive the need for robust and accessible data backup and recovery solutions.

Using a data management solution, such as one provided by Mach7, to consolidate patient imaging data from multiple departments across the enterprise can serve as an economical and flexible solution to continue operations in the event of a primary system outage. Your enterprise solution should be designed to take advantage of all available IT architecture configurations such as active-active failover, dual datacenter, cloud hosted, and hybrid configurations.



Artificial Intelligence (AI)

Artificial intelligence (AI) algorithms and machine learning (ML) technologies have been a hot topic of discussion within the healthcare IT sector for several years now. The promise these innovations hold in assisting diagnosis and improving workflows has all but guaranteed they will only become more prominent as technologies (and the best practices to use them) are developed further. Though there is still much discussion around how care providers can best make use of AI, it has become clear that seamless integration of algorithms within existing workflows is paramount to ensuring widespread adoption.

Many existing PACS are limited in facilitating this, as some can only handle a certain number of associations or may not have the proper logic to filter studies to send to the algorithms. However, some data management solutions built specifically for the enterprise (such as Mach7's) can overcome these limitations – preparing healthcare organizations for the adoption and integration of AI.



Routing & Workflows

Data consolidation is only one facet to a successful enterprise imaging strategy. Once data enters the archive, it must then be routed back out to the correct end point, at the correct time, to leverage the workflows care providers depend upon to maximize their efficiency. These workflows will vary between departments and individual users; as a result, your data management solution must be flexible to accommodate the optimal workflows for each group, accounting for different study types from different originating modalities, toolsets and workflow trigger events that may be present for different specializations.

Enterprise Imaging is a journey, which is why you should choose a vendor partner, like Mach7 Technologies, who will work with you to solve your greatest challenges. This collaboration is the key to developing a consolidated enterprise solution that satisfies your users and, ultimately, drives better patient outcomes.

