

WHITE PAPER • MACH7 TECHNOLOGIES

Adopting an enterprise strategy.

Considerations beyond radiology — the most important decisions to weigh when consolidating, structuring, and sharing imaging data across the entire enterprise.

Imaging strategy is an enterprise decision.

Healthcare organizations worldwide are adopting enterprise-wide imaging strategies that consolidate, structure, and share patient imaging data well beyond traditional service lines.

The value of imaging no longer stops at radiology. Departments across the enterprise increasingly depend on access to clinically relevant images within the patient record — and the strategy that delivers it must account for every one of them.

This paper walks through the considerations that matter most when designing an enterprise imaging strategy suited to your individual needs: from image-enabling the enterprise, to resilience, security, AI readiness, and intelligent routing.

SIX CONSIDERATIONS

- 01 Image-enable the enterprise
- 02 Downtime PACS viewing
- 03 Ransomware resilience
- 04 Data backup & recovery
- 05 Artificial intelligence readiness
- 06 Routing & workflows

Consolidating siloed images and making them available across departments unlocks insights that speed time to diagnosis and improve the quality of patient care.

Image-enable the enterprise — and more.



CONSIDERATION 01 · IMAGE-ENABLE THE ENTERPRISE

Bring clinically relevant images to every department

The Emergency Department, Wound Care, Trauma, Dermatology, and more all find utility in clinically relevant images within the patient record. Consolidating siloed images and making them available across departments — including by image-enabling the EHR — gives providers insights that assist time to diagnosis and improve care. A single zero-footprint enterprise and diagnostic viewer like Mach7's eUnity furthers information sharing and extends tools such as real-time collaboration, hanging protocols, and advanced visualization to a wider set of users than legacy PACS ever allowed.



CONSIDERATION 02 · DOWNTIME VIEWING ENVIRONMENT

Plan for the downtime that is inevitable

Whether planned or unplanned, system downtime will happen — so a robust, flexible downtime solution is crucial to service continuity. A zero-footprint enterprise viewer that is also approved for diagnostic interpretation, such as Mach7's eUnity Enterprise Diagnostic Viewer, makes an ideal backup to your primary PACS. Because it is web-based, failover is relatively quick across multiple departments — reducing stress on clinical and diagnostic staff and ensuring patients continue to receive timely care.

A platform that serves both everyday access and downtime resilience turns two separate IT problems into a single, unified investment.

Protect the data the enterprise depends on.



CONSIDERATION 03 · RANSOMWARE

Cybersecurity is now an enterprise imperative

Ransomware is a major issue impacting healthcare institutions. A third of US healthcare organizations were impacted by ransomware in 2020 — costing millions in lost revenue. Stronger employee training, awareness, and more stringent security procedures help mitigate the threat. While it does not eliminate that threat, maintaining an up-to-date backup of critical patient data and images facilitates a rapid return to service. A consolidated, access-controlled archive kept separate from your primary systems can alleviate stress on care providers and keep critical care flowing if a PACS is compromised.



CONSIDERATION 04 · DATA BACKUP

Timely, accessible backup is core infrastructure

Unplanned downtime, natural disasters, cyberattacks, and ransomware all drive the need for robust, accessible data backup and recovery. A data management solution such as Mach7's can consolidate imaging data from multiple departments into an economical, flexible foundation to continue operations during a primary system outage. Your enterprise solution should take advantage of every available IT architecture configuration — active-active failover, dual datacenter, cloud-hosted, and hybrid.

THE STAKES

A third of US healthcare organizations were hit by ransomware in 2020 — a separate, consolidated archive is no longer optional.

Build for what comes next.



CONSIDERATION 05 · ARTIFICIAL INTELLIGENCE

Make your enterprise AI-ready

AI and machine learning have been a hot topic in healthcare IT for years, and their role in assisting diagnosis and improving workflows will only grow. It has become clear that seamless integration of algorithms within existing workflows is paramount to widespread adoption. Many existing PACS are limited here — some can only handle a certain number of associations, or lack the logic to filter studies to send to the algorithms. Data management solutions built specifically for the enterprise, such as Mach7's, overcome these limitations and prepare organizations for the adoption and integration of AI.



CONSIDERATION 06 · ROUTING & WORKFLOWS

Consolidation is only half the equation

Data consolidation is one facet of a successful strategy. Once data enters the archive, it must be routed back out to the correct end point, at the correct time, to power the workflows providers depend on for efficiency. These workflows vary between departments and individual users, so your data management solution must be flexible enough to accommodate the optimal workflow for each group — accounting for different study types, originating modalities, toolsets, and workflow trigger events across specializations.

An enterprise archive that both ingests intelligently and distributes flexibly is what separates a true enterprise strategy from a larger silo.

LET'S TALK

Enterprise imaging is a journey.

Choose a vendor partner, like Mach7 Technologies, who will work with you to solve your greatest challenges. That collaboration is the key to a consolidated enterprise solution that satisfies your users and, ultimately, drives better patient outcomes.

TALK TO US

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FROM PIXEL TO POINT OF CARE.

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References

Third-party figures and claims cited in this paper, with their original sources.

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