



# The top five things to look for in an enterprise informatics partner

Enterprise imaging<sup>1</sup>, introduced to great fanfare nearly a decade ago, still faces significant challenges from the steadily increasing volume and complexity of medical imaging data that hospitals and health systems deal with every day.

In order to achieve an effective enterprise imaging strategy, it is fundamental to reach the right consolidation of health information, better resource allocation and utilization, and the harmonization of both clinical and business processes with the implementation of a data-driven program of continuous improvement.

When looking to advance your imaging informatics, start by taking stock of the various challenges your organization is facing with regard to your current digital and imaging IT strategy. Offering availability and accessibility of all medical imaging while enhancing adherence to standards that provide a high level of interoperability--both internally and externally--can lead to better valued-added improvements such as supporting stronger patient engagement. As you evaluate your current infrastructure and your approach to an enterprise imaging solution, it's helpful to benchmark and align your current state to an established digital maturity model such as the [Digital Imaging Adoption Model \(DIAM\)](#) created by the Healthcare Information and Management Systems Society (HIMSS).

Developing a strategy to optimize the electronic health record and create a multidisciplinary, multifunctional medical imaging systems environment - adding value for both clinicians and patients - can allow your healthcare providers to have intuitive and immediate access to all patient clinical images and their associated documentation, regardless of source. Currently, in many enterprises these images are not easily available through the standard electronic health record, and frequently departments fail to securely digitally archive them. To further complicate the situation, needs vary by specialty.

It is important to ensure that instead of each department using its own specialized PACS, disparate systems are linked into a single electronic medical record and complex imaging workflows are automated, including upload and delivery of images from remote locations. Every specialty requires access to advanced imaging workflows, converged into a single workspace. The IT department needs to optimize availability of imaging data in the electronic health record and assure its accessibility by imaging analytics and AI applications, reducing the complexity of the consolidated architecture to have better control of storage or migration costs and reduce the number of potential points of security failure. New IT investment must contribute to improved patient care through better diagnostics, increased patient access and improved privacy protection.

Developing an effective enterprise imaging strategy is often easier said than done. How do you choose a partner who can help you accomplish this? Here are **five points to consider when choosing an enterprise informatics partner** to focus on providing access to any type of medical image, anywhere, at any time by anyone across the continuum of care in healthcare systems.

41%

of healthcare leaders say that their hospital or healthcare facility needs to prioritize strategic partnerships and collaborations in order to successfully implement digital health.<sup>2</sup>

## 1 Ability to deliver true integration across key clinical departments

Implementing an enterprise imaging platform is a top priority for many health providers who are looking to gain the clinical, economical and organizational benefits of having one system to use for all medical imaging and multimedia in lieu of separate departmental IT systems. Separate departmental systems are often unable to communicate with each other or to provide specialists with one integrated and efficient workplace.

20%

say that improving technology infrastructure will be a primary priority three years from now, and that partnerships can help achieve this.<sup>2</sup>

Across radiology, oncology, pathology, cardiology, neurology and dermatology, the key is being able to create and implement strategies, initiatives and new workflows across the healthcare enterprise to consistently and optimally capture, index, manage, store, distribute, view, exchange and analyze all clinical imaging and multimedia content to provide a 360-degree view of the patient in the electronic health record.

It's also important that clinicians have effective collaboration tools, including the seamless ability to review images to provide a second opinion or to plan clinical treatments for optimum healthcare outcomes, in order to be able to work securely from anywhere. While vendor-neutral archives (VNAs) were the primary focus of early enterprise imaging efforts, current healthcare industry consolidation requires new, more comprehensive approaches that better address growth and scaling challenges while incorporating more flexibility and the ability to adapt to the unique scenarios of every enterprise. A partner who can help you eliminate the need to search for images in various departmental IT systems can help you enhance patient outcomes, improve patient and provider experiences and reduce costs via centralized data management.

## 2 Discipline-specific contextual workflows and views

A partner with deep knowledge of clinical workflows and views can help you foster ongoing collaboration and communication among in- and out-patient providers--including both primary care physicians and specialists--regarding the care delivery setting, assessments and treatments given, and the treatment plan going forward. In addition to leveraging the data, AI expedites or augments clinical decision-making.

Look for the ability to integrate AI into the existing department and hospital infrastructure through interoperability and to simplify integration of AI applications into the radiology workflow using standard interfaces and protocols after the initial algorithm. It's vital to have automatic orchestration of workflow-driven routing of data to the appropriate AI application and results to the reading

location, the ability to analyze the data in the background without user interaction, and structured access to clinically relevant information by capturing analysis results and data in defined and harmonized formats.

Enhancing remote collaboration around complex cases such as oncology care, and automating reporting results can help you to create more precise outcomes. Multidisciplinary collaboration can be also enhanced thanks to smart diagnostic workflow and virtual consultation tools within a diagnostic interface supporting virtual consultation. In oncology, an established platform integrated with the electronic medical record offers a foundation for establishing tumor board workflow and a tracked care management pathway.<sup>1</sup>

## 3 Integrated analytics to drive enterprise-wide impact

Healthcare organizations are recognizing the increasing need for analytics to discover insights and optimize workflow in real-time. Look for a partner who can provide the interoperability to integrate data from multiple industry-standard sources (such as HL7, DICOM and other structured data sources) onto one platform for a comprehensive real-time systemic view across your healthcare enterprise. This immediate connection to the information necessary for quick, actionable observations and detailed reports helps you move beyond historic spreadsheet reports to leading indicators for operational workflow.

The better the data, the better the results, and having aggregate data at your fingertips helps you to comfortably move beyond simple reporting into AI-generated best-case scenarios, predictive budgeting, staffing mix and modeling, and right-size fleet projections. Harnessing the vast amount of data available can help improve healthcare for more people through retrospective and predictive analytics, aided by an integrated platform to enable access to patient clinical data for all providers.



## 4 Cybersecurity at every touchpoint

In addition to lack of interoperability and difficulties with data management, other obstacles to digital transformation remain. In many cases, healthcare leaders also have concerns about data privacy and security, with 25% of all those surveyed citing it as a barrier to the adoption of digital health technology.<sup>2</sup>

These challenges are heightened in radiology, due to its multiple workflows, increasing adoption of remote collaboration, and the need for data and image sharing across other critical diagnostic areas, including cardiology, pathology and neurology. Personal data within healthcare records is both vulnerable and valuable to criminal enterprises, as it can be used for various malicious purposes such as creating false identities or making false insurance claims. Cyber attacks can quickly spread malware, compromising vital operations. Security must be taken seriously by any enterprise implementing an integrated care delivery network. If a hacker can

penetrate a network to interfere with a device for medical imaging acquisition, its safe operation can be jeopardized, which in turn endangers patient safety.

Can your proposed partner help you store all imaging and waveforms data in a single common and secure archive with a backup to ensure security and availability across settings? Seek an organization that is committed to the deployment of comprehensive security plans that assure the safety of product, business (enterprise information) and well versed in helping to protect patient data and privacy (following HIPAA/GDPR guidelines) while still allowing patients to access their own clinical information and providing protection against hacks that inhibit system availability. As patients demand more accessibility to their health information, hospitals may one day find it necessary to offer patient access to images through personal web-based devices that can interface with the hospital's enterprise imaging system.

## 5 Smooth transition from on-premises IT to cloud-based IT

The ongoing shift in investment to data, analytics and integration technologies will further harness the value of the data embedded in the legacy estate. The experience of the worldwide COVID-19 pandemic appears to have given enterprises the confidence to invest further in virtual care and patient engagement technologies, developing and growing the model for remote care.

Be sure your partner can provide a roadmap to help you accomplish the transition from on-premises to cloud-based IT in a responsible way. A scalable, modular software-only solution based on the IHE technical framework allows healthcare enterprises to connect information systems

in a state-of-the-art medical data-sharing infrastructure. Interoperable components can work together as a suite of software products or independently to interface any cross-enterprise-document-sharing infrastructure.

By indexing and storing non-DICOM and metadata, all available medical data in the interoperability platform becomes accessible and never bound to one specific vendor. Clinical information tagged by well-defined metadata describing clinical content lets you electronically exchange medical documents and images within your healthcare enterprise. A multi-vendor-positive system gives you the flexibility of a strategy that doesn't lock you in to a single vendor.

## Conclusion

Assess which strategy and partner can work with you to carry your organization forward in meeting requirements to advance through the stages of digital imaging adoption. A partner who can provide a platform for scalability, help you manage clinical and operational workflow and manage data securely across and within care settings gives you the tools to enable your healthcare providers to quickly reach the right diagnosis the first time.

To learn more about how we can work together to advance your organization's digital maturity, visit [www.philips.com/diagnostic-informatics](http://www.philips.com/diagnostic-informatics)



1. The collaborative HIMSS-SIIM Enterprise Imaging Workgroup defines enterprise imaging as "a set of strategies, initiatives and workflows implemented across a healthcare enterprise to consistently and optimally capture, index, manage, store, distribute, view, exchange, and analyze all clinical imaging and multimedia content to enhance the electronic health record." - Adopting an enterprise imaging strategy: laying the foundation for complete imaging health records. 2020 white paper published by Signify Research.
2. A resilient future: healthcare leaders look beyond the crisis. The Future Health Index 2021, a proprietary report commissioned by Philips.

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