## **Overpromised Interoperability?**

Three Ways to Close the Gaps Missed by PACS, VNAs and Enterprise Imaging Platforms

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1: Leverage HIEs

2: Ascend to the Cloud

3: Simplify Imaging Workflow

## **Ascend to the Cloud**

Learn why healthcare IT teams are embracing cloud-based image access, sharing and management models to help close interoperability gaps at the department and enterprise level.



The road to medical data interoperability has proven to be rocky, curvy and prone to a few bumps. The promise that structured and unstructured content (images, reports, pictures) could be securely, compliantly and consistently shared regardless of modality, format, size or originating location hasn't come to fruition. Challenges associated with image sharing and access to patient imaging history continue to be significant causes of unnecessary exam duplication<sup>i,ii</sup>. Failure to connect image archiving to electronic medical record (EMR) systems has resulted in millions of dollars in excess spending, primarily driven by reimaging, diagnostic delays and reimbursement refusals.

Part 2 of this 3-part Executive Brief examines the impact of cloud computing. Beyond disaster recovery and business continuity, the cloud is now an essential component of nearly every healthcare delivery organization's(HDO's) business strategy. Cloud-based image access, sharing and management models help close the gaps healthcare teams need to fill after deploying a PACS, VNA or Enterprise Imaging Platform.

#### Ask Healthcare Leaders about Interoperability

A 2014 survey found that leaders from accountable care organizations (ACOs) see interoperability as the most significant obstacle to effectively using and recognizing the full potential of health IT<sup>III</sup> with 100 percent of respondents noting that access to patient data from external organizations

is challenging.<sup>iv</sup> The difficulty of connecting care data, and specifically care imaging, lies in navigating the complexities and limitations of legacy systems, integrating with EMRs and managing increasingly complex clinical workflows.



#### Cloud Adoption is No Longer About Big Data and Data Recovery

Adoption of cloud computing to facilitate image data management, sharing and interoperability is on the rise and HIT teams are ready. When surveyed in November 2015, HIT leaders from over 550 providers ranked cloud-based image data sharing as the new IT technology they were "most excited" about.<sup>v</sup> A report by healthcare analyst MarketsandMarkets predicts the healthcare cloud computing market will nearly triple from \$3.73 billion in 2015 to \$9.48 billion by 2020—noting that the focus on healthcare data sharing and interoperability is a key growth factor.<sup>vi</sup> Nearly 80 percent of healthcare data is unstructured, clinically actionable, and "heavy". PACS data comprises 63 percent of the total.<sup>vi</sup>, so HIT teams are looking for ways to take data off-premises and into the cloud.

#### **Cloud Security Concerns are Waning**

With an eye on data security, providers and payers have traditionally been slow to move to the cloud; but in the last five years, analysts note that there has been a significant shift in cloud adoption from a CAGR of four percent to a prediction of 20 percent in 2017.<sup>viii</sup> As core HIT management systems, including the EHR, move to the cloud, image management vendors are jumping on board with this trend. Many VNA and PACS vendors now offer hosted software-as-a-service (SaaS) solutions for image sharing and management.

#### How to Fill the Image Sharing Gap

HIT leaders should look to a combination of private and public cloud solutions to fill image sharing and interoperability gaps. Interoperability across the healthcare ecosystem will demand modernization and a move from onpremises to cloud-based models.



This transition will facilitate a movement to interoperability through advanced patient data sharing including the sharing and exchange of "heavy" images in the cloud.

#### Citations

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<sup>a</sup> Heather Demello, "Doing away with duplicate testing can cut healthcare costs", University of New Hampshire, May 12, 2015. Last accessed November 2016: https://www.unh.edu/healthyunh/blog/healthcare-consumerism/2015/05/ doing-away-duplicate-testing-can-cut-healthcare-costs.

<sup>III</sup> Premier, Inc., eHealth Initiative, Interoperability Survey, "Accountable care organizations struggling with HIT interoperability, according to survey", September 24, 2014. Last accessed November 2016: https://www.premierinc.com/aco-interoperability-survey-9-24-14/

<sup>w</sup> Premier, Inc., eHealth Initiative. The Landscape of Accountable Care and Connected Health. September 24, 2014. Results from the 2014 national survey of accountable care organizations.

 $^{\rm v}$  JENSEN and MADSEN. Peer60. Trends in Medical Imaging Technology. November 2015.

<sup>w</sup> Heather Caspi, "Healthcare looks to future in cloud computing", Healthcare-DIVE, October 22, 2015. Last accessed November 2016: http://www.healthcaredive.com/news/healthcare-looks-to-future-in-cloud-computing/407746/

<sup>vii</sup> "The Body as a Source of Big Data", NetApps and GlobalDots, March, 2013. Last referenced November 2016: http://www.globaldots.com/last-week-in-performance-industry-march-4-edition/.

<sup>viii</sup> MarketsandMarkets.com, "mHealth Solutions Market by Connected Devices, Apps, Services (Remote Monitoring, Consultation, Prevention) - Global Forecast to 2020". November 2015.

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Part 3: Simplify Imaging Workflow

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