Accelerating the Digital Transformation of Healthcare Using Agile IT

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Executive Summary

Change is a constant throughout healthcare systems worldwide, as developed nations undertake reform of existing systems and emerging nations build new healthcare systems from the ground up. In the developed world, nations are challenged by goals for healthcare reform that include improving the quality of care, providing better access to care for citizens, and reducing the cost of care, as healthcare expenditures account for an ever-increasing share of GDP in most nations. To accomplish these goals, most health systems are embarking on digital transformation efforts, seeking efficiencies from industrialized approaches to providing care, or by avoiding the need for expensive care altogether by improving the health of the population they manage.

To industrialize existing health systems and adapt to new business models, flexibility is key, as new tools and technologies become available and best practices emerge. Health systems need to build technology infrastructure that can support this change — leveraging solutions such as converged infrastructure, the cloud, mobile and big data analytics technology. Cloud is a key underpinning of agility as it allows health systems to support innovation and remain competitive — despite business and technical challenges — as business model change continues. Building in agility by modernizing IT approaches will allow organizations to meet the challenges they see now, and those to come.
Global Healthcare Challenges

Healthcare spending as % of GDP is not sustainable in developed nations.

Healthcare reform across the globe seeks to improve care for individuals and enhance population health while reducing per capita healthcare costs.

Consumers increasingly demand personalized service from providers, including access to their health data electronically, delivered via personalized technology.

New technologies are required to meet the demands of consumers for access to high quality, efficient, integrated care.

Source: data.worldbank.org
Technology Responding to Global Healthcare Challenges

It’s not just a destination, but a journey that is ongoing — healthcare is experiencing permanent change.

**From Episodic Care**
- 2nd Platform Technologies – Client Server
- Clinical Innovation Without Process Innovation
- Operational CIO Leadership
- Lack of Alignment Between Payers, Providers, Patients & Employers

**To Integrated Care**
- 3rd Platform Technologies – Cloud, Mobile & Big Data
- Clinical and Business Process Optimization
- Innovation CIO, CISO Leadership
- Focus on Patients as Integrated Care Consumers
Making the Case for IT Transformation in Healthcare Organizations

Must be able to deliver care faster, cheaper, better—IT must continue to evolve and drive efficiencies so they can continue to find money to invest in new innovations.

**Providers’ top strategic goals**
- Manage business in fee-for-value environment
- Price transparency
- Overall cost reduction
- Quality measurement and improvement
- Building out risk-sharing arrangements with payers, such as accountable care models

**Payers’ top strategic goals**
- Price transparency
- Overall cost reduction
- Quality measurement and improvement
- Building out risk-sharing arrangements with providers, such as accountable care models
- Organic organizational growth
Defining Agile IT
A broader set of capabilities

Built in the cloud
Agile IT relies on the cloud as a foundation for mobile, social and big data analytics technologies delivered via secure, high-performance platforms to support new capabilities such as population health management and virtual care.

All this leads to digital transformation
That drives more efficiencies to create cost savings that can be invested in process and clinical innovation.
Accelerating the Digital Transformation of Healthcare Using Agile IT

Need for Agile IT in Integrated Care

**BUSINESS DEMAND DRIVERS**

- Declining reimbursement
- IT budget grows with adoption
- Healthcare delivery costs grow

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<td>Infrastructure investment</td>
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<td>Unsustainable gap transformation</td>
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**Demand for shorter cycle times**

- Demand to reduce cost
- Complexity slows productivity

**Opportunity for transformation with agile IT to restore equilibrium**

As costs rise and reimbursement falls, IT will play an increasingly important role. Agile IT will be essential for innovation to help health systems manage the need to reduce the cost of care, while improving access and quality.
IDC Predictions 2016
Agile IT on the Third Platform

Key drivers
Key drivers include the unsustainable cost of healthcare globally, the shift from fee-for-service to fee-for-value and the ubiquitous availability of the cloud and mobile devices.
Where Is the New IT Spending Going?

- Providers invest in big data and analytics to build data-driven transformation
- Growing consumerism drives investment in patient engagement and CRM
- Security a growing priority
- EHR reaching maturity

Making the Move To the 3rd Platform

Adoption of Technology by Healthcare Organizations

Cloud
33% of payers and 27.5% of providers are investing in cloud to create more agile IT environment with easier and faster deployment of new services.

Big Data / Analytics
60% of payers and 37% of providers are investing in big data tools.
70% of payers and 41% of providers are investing in analytics applications.

Mobile
34.5% of payers and 22.8% of providers responded that investing in mobile technology was one of the reasons why their overall IT spending amount increased.

Source: IDC Health Insights Payer Survey, IDC, June, 2015 (N = 60)
Source: IDC Health Insights Provider Technology Spend Survey, IDC, October, 2015 (N = 200)
Hospitals Are Ready for the Cloud

U.S. hospitals in 2015 compared with 2014

- **30%** were comfortable with cloud in 2014 and still are.
- **16%** are more comfortable with cloud now than in 2014.
- **42%** are comfortable with cloud now but were not in 2014.
- **12%** have the same concerns about cloud as they did in 2014.
- **1%** are less comfortable with cloud; have even more concerns than in 2014.

**Why do we need the cloud?**

**To Support:**
- Innovation
- New Models of Care
- Changes in Regulations
- Changes in Patient Expectations
- Evolving Business Models

Source: 2015-2016 IDC-HI Healthcare Provider Technology Spend Survey, October, 2015, n=200
IDC’s Cloud MaturityScape

**Exploratory Clouds**
Individual development and line-of-business (LOB) teams experiment with cloud. Shadow IT reigns supreme with inconsistent approaches to security, healthcare regulatory compliance, information management, and governance.

**Ad hoc**
- **Business Outcome**
  Reduced risk from ad hoc clouds and more robust cloud availability and control, typically provided via private or hybrid clouds to address HIPAA-related concerns

**Opportunistic**
- **Collaborative Standardization**
  Cloud leaders in healthcare begin to collaboratively learn from one another, formalize best practices, and develop frameworks for implementing enterprise-scale private or hybrid multicloud architectures.
- **Business Outcome**
  Early-stage technical insight but inconsistent business value

**Repeatable**
- **Agility Unleashed**
  More consistent and standardized availability of automated cloud resources and services enable developers and LOB teams to execute more rapidly and cost-effectively.
- **Business Outcome**
  Repeatable cloud processes drive improved speed and quality of business and clinical process changes required to enable new care delivery and reimbursement models

**Managed**
- **Industrial Clouds**
  Mission-critical workloads and applications are increasingly implemented using cloud platforms and services. Workload portability increases while end users enjoy consistent experiences across applications.
- **Business Outcome**
  Infrastructure and development resources are more scalable, available and cost-effective making it possible for healthcare organizations to rationalize hyper-heterogeneous application portfolios

**Optimized**
- **Innovation and Transformation Engine**
  Organization-wide cloud strategies and policies are consistently defined and implemented, resulting in more robust and flexible IT availability and lower costs and risks.
- **Business Outcome**
  Business and clinical innovation and transformation through the healthcare organization and its partners, with clear understanding of true cost and value
Those Who Thrive in This Digital Economy Will Be the Healthcare Organizations that:

- Can execute upon a vision for digital transformation
- Blend digital and physical experiences to enhance population health
- Turn clinical and business information into a competitive advantage
- Create new care models by connecting systems
- Leverage technology to win the talent wars and mitigate clinician shortages
Examples of What Healthcare Organizations Can Do with Agile IT

Provide stakeholder access to data and applications via the cloud — a universal access point.

Leverage a common data model and analytics tools to move from reporting facts to providing actionable insights at the point of care.

Harvest and integrate data from both internal and external sources for use by all stakeholders (providers, populations, patients, caregivers).

Incorporate newly acquired businesses more easily.

Invest in innovation using derived cost savings from effective transformation and optimization of IT infrastructure.
Starting the Journey Toward Agile IT

To achieve a more agile IT infrastructure that is more cost-effective to own and operate, healthcare organizations will need to:

- Rationalize the application portfolio
- Consolidate data centers
- Virtualize desktops, servers and storage

Building in agility by modernizing IT approaches will allow forward-looking healthcare organizations to meet the challenges they see now, and those to come.