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Conference & Exhibition | March 5–9, 2018

Las Vegas | Venetian – Palazzo – Sands Expo Center

Healthcare Transformation Led and Enabled by Disruptive Cloud Technology

Session # 247, March 8, 2018

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COMMITMENT

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Conflict of Interest

- Scott D. Floyd, BS – Business Administration, Executive Director at Kaiser
- Anthony J. Camoratto, MS – Masters, VP, Regional HR Services at Trinity Health
- Rattan I. Singh, MBA – Finance & Info. Mgmt., Director at PwC

Have no real or apparent conflicts of interest to report

Agenda

- Objective
- Industry Trends and Context Setting
- Cloud enabled Business Transformation – A Perspective
- Healthcare Case Study #1
- Healthcare Case Study #2
- Lessons Learned and Recommendations
- Q&A

Learning Objectives



Recognize how to be a leader within healthcare in outlining and adopting the future state technology enablers to create strategic advantage and state-of-the-art business, HR, and analytic capabilities



Assess how to approach a large, complex, and multi-year Cloud SaaS and PaaS solution enabled business transformation for healthcare, get leadership alignment, and review the methodologies and processes to use to define the right future state for the organization



Identify key insights, business benefits, considerations, challenges, and lessons learned for moving healthcare applications to the cloud

Mega Trends Impacting Healthcare



- Emerging markets
 - Rising middle class
 - Leap-frog tech
- Digital natives co-create, iterate, accelerate



- Was supply, now demand...
- Climbing into service, innovation, ecosystem managers
- How does US experience enable us to help aspects of the shift



- Truly xSector
- Tech at the heart of infrastructure, resource utilization, smart cities, etc.
- Consumer expectations in urban environments drive greater use cases of advanced tech



- Key outcome is focus on innovation
- Opportunities to use tech to drive more efficient use, but also create new mediums
- Sustainable business / supply chain issues



- SOCIAL, MOBILE, ANALYTICS, **CLOUD**, and consumerization driving industry and company disruptions
- Business models change
- Ecosystem view

Achieving Transformation – Context Setting

Business and Technology change and/or transformation is achieved by realigning the way organizations structure their business services, how they organize the people that perform the work, the core business service(s) provided, and how technology is used.

TOP BUSINESS DRIVERS

- **Business Model**
- **“Holding Co” to “Operating Co”**
- **Cost Reduction**
- **Increased Business Rigor**
- **Cloud Disruption**
- **Technology Obsolescence**
- **M&A/Post Merger Integration**

Finance

Supply chain

Human capital

BUSINESS AND TECHNOLOGY SOLUTIONS

Strategy & Planning

- Strategy and planning
- Technology selection
- Business case

Structure & Organization

- Business architecture
- Organizational design

People, Processes, Controls, Technology

- Business processes
- Controls
- Business applications and technology
- Change management, communications and training
- Project management

ERP Market Evolution – A Perspective

ERP software market is undergoing significant change. Business and IT need to change how they think about ERP

	First Era	Second Era	Third Era
Timeline	1980s – early 90s	Early 90s – 2013/14	2013/14 - ?
What we call it	“Best of Breed”	Monolithic ERP	Cloud
Software orientation	Single function	Data	Business service
The promise	Automate!	Integrate!	Agility! Metered use!
The contract	Perpetual license	Perpetual license	Term subscription
The reality	Siloed, disconnected	Unwieldy, unresponsive	Loosely coupled, Agile
Business outcomes	Complex, triggered ERP	Customized, static, triggered Cloud	Standardized, harmonized, high reward, high risk
Cost	\$\$ - \$\$\$	\$\$\$ - \$\$\$\$	\$ - \$\$\$\$\$

Insight on Cloud Solutions and IT Spend Trend

After years of hype, public cloud services are now reaching scale – with dramatic growth ahead.

Observations:

- ❑ By 2020, “Cloud Shift” will affect more than **\$1 Trillion in IT Spending**
- ❑ **50% of global enterprises** will rely on at least one public cloud platform
- ❑ The total **global public cloud market will be \$178B in 2018** up from \$146B in 2017 and will continue to grow at 22% CAGR
- ❑ Public cloud services are **dramatically outpacing general IT spend** and will generate \$44 billion in 2018
- ❑ Companies adopt service models, going as far as striving for a **zero infrastructure footprint**
- ❑ **IT suppliers are rapidly adopting their business models** to compete with new players

Sources: <https://www.gartner.com/newsroom/id/3384720>.
<https://www.forbes.com/sites/louiscolombus/2017/11/07/forresters-10-cloud-computing-predictions-for-2018/#3bf64e5a4ae1>

Healthcare Industry IT Opportunities

1	Strong need for cost reduction
2	Strong need for operating efficiencies and increased productivity
3	Need to automate care delivery processes and systems
4	Need to modernize legacy applications and systems
5	Regulatory compliance and security mandates

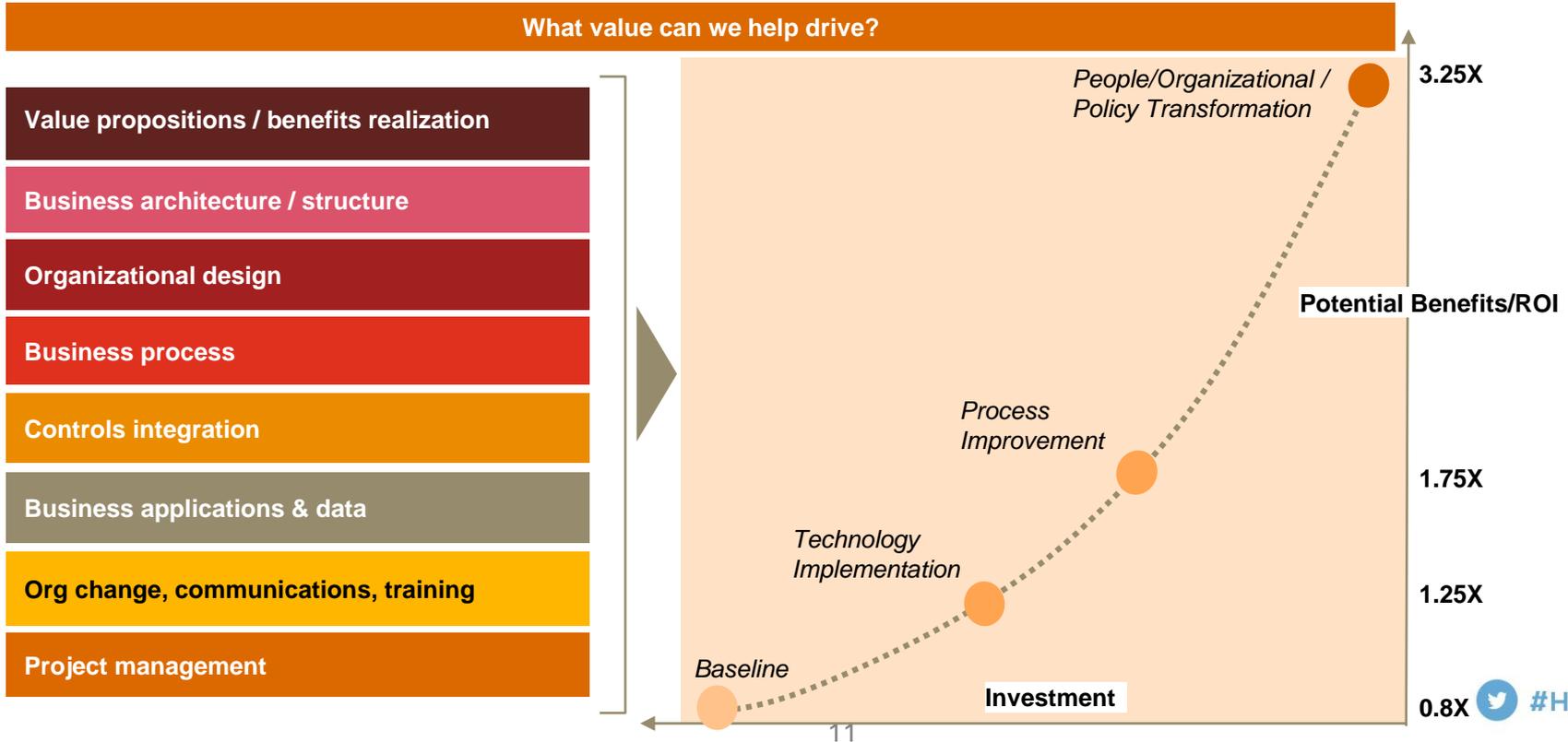
6	Making sense of the data available to make informed decisions
7	Expand access to care and move towards preventive care
8	Value or outcome based care
9	Need for business model innovation to improve sustainability
10	Talent crunch and talent engagement

Cloud Adoption and Deployment Strategy

When deciding to deploy a particular workload to the cloud, healthcare organizations must take into account a number of factors to determine the most appropriate deployment model

- 1 Security requirements (confidentiality / privacy, integrity, and availability)
- 2 Business model (value-based vs. volume-based)
- 3 Data classification (including privacy and locality requirements)
- 4 Target operating model and business process remodeling
- 5 Vendor viability and offerings
- 6 Cost and financial flexibility and scalability
- 7 Performance, upgrades, backup and recovery
- 8 Enterprise digital strategy

Value Based Business Transformation

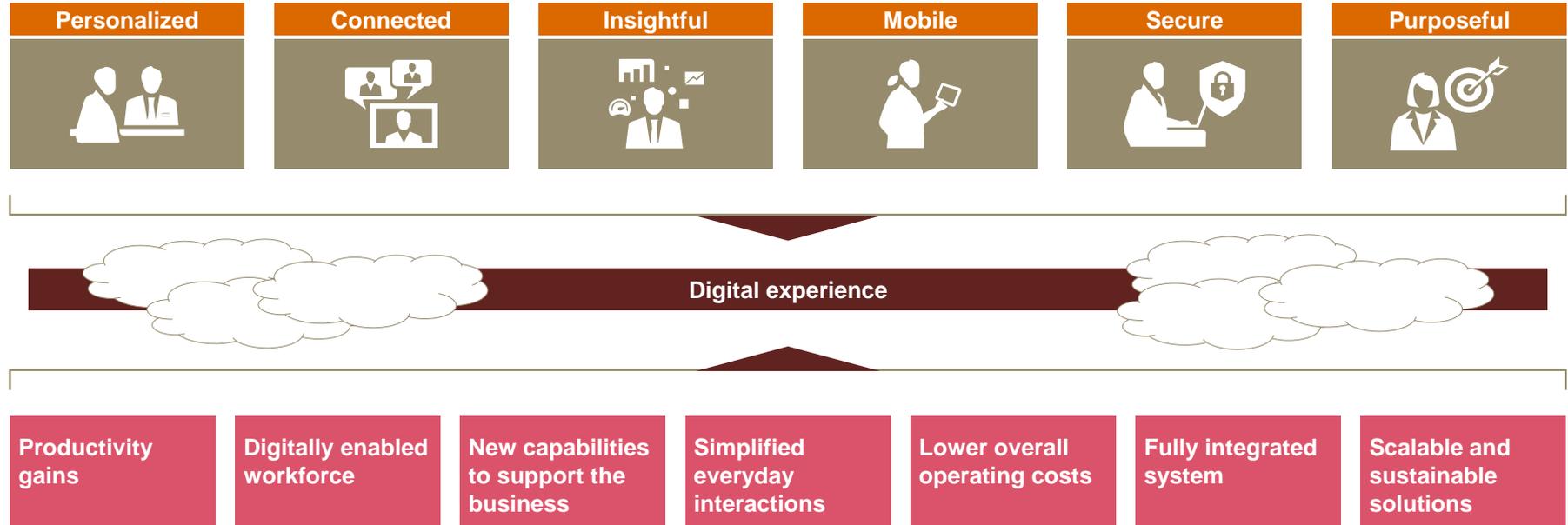


Knowledge Question #1

Cloud technologies still face the challenge of having security vulnerabilities and integration challenges when it comes to health care industry.

- A. TRUE
- B. FALSE

Case #1: HR Transformation and Supporting Technology



HCM Program: Complete HCM Lifecycle Solution



HCM Program: Guiding Principles

Adoption

95% of transactions to be self-service.

Ways of Working

Provide the right information to make decisions and act

Shared Services

Bias towards shared services

Costs & Investments

Configure system to standard except for regulatory and legal purpose

Approvals

90% should require 1 approval or less

Anytime Access

Anytime, anywhere, any device, access

Accountability

Manager / employee for value added activities

Levels of Standardization

95% standardization of all policies and procedures excluding legal and regulatory



HCM Program: HR Options Assessment

Vision and Objectives

Vision:

- Improve access to critical HR business and technical capabilities to support current and changing business needs while managing organization's on-going cost trend

Mission:

- Perform a feasibility assessment on emerging disruptive technologies to determine if there is a better alternative

Objectives:

- Determine whether a more detailed analysis is needed and/or if any option can be excluded from further consideration

Options Considered

Option 1: On Premise

Current installed capabilities plus
My HR phase 2 capabilities

Option 2: SaaS – Product 1

Replace current On-Premise
capability with SaaS-1 offering

Option 3: SaaS - Product 2

Replace current On-Premise
capability with SaaS-2 offering

HCM Program: Timeline



Knowledge Question #2

What is the first step when embarking on a large transformation effort leveraging cloud technologies?

- A. Requirements
- B. Business Case
- C. Program Governance
- D. Implementing Technology

Case #2: Healthcare Organization Operations Optimization

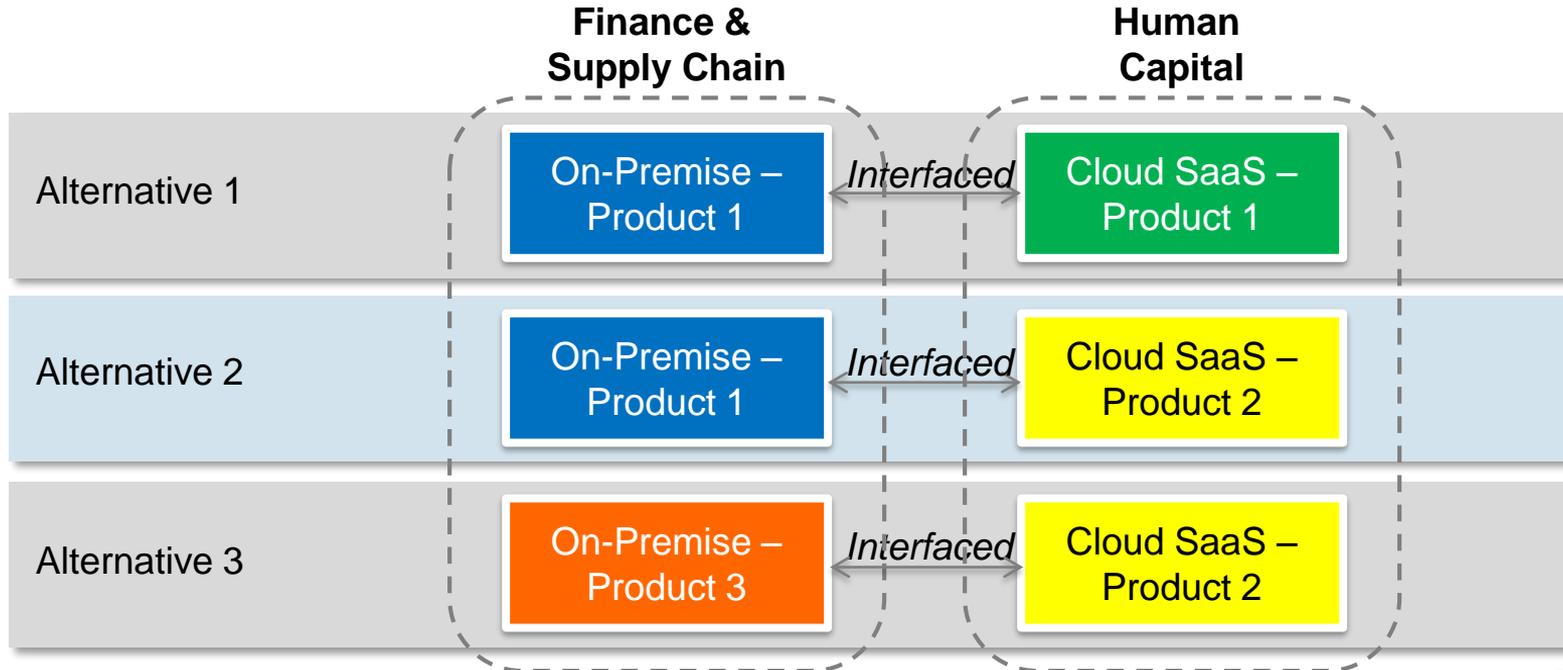
Transform the business to next generation and implement a new Human Resources Management System (HRMS) and a Finance and Supply Chain Management (FSCM) System

Goals

- Serve as platform for scalable growth** and enable increased business agility for future business needs
- Build a foundation for creating and **sustaining transforming operations work**
- Focus on delivering timely, actionable, reliable data** to executives, managers, and key stakeholders
- Enable the synergies identified in the recent merger** related to the finance, supply chain, and HR functions
- Support the Strategic Plan** and deliver standardized and sustainable reporting
- Align technology and processes** to increase efficiencies and effectiveness resulting in a greater consistency
- Enable mobile technology and self-service capabilities** for enhanced end-user experience
- Optimize requisition and approval processes**

Finance, Supply Chain, and HR: Options Assessment

The leadership team considered six alternatives and narrowed down to the following three:



Cloud is Simple, Economical, and Logical for Healthcare

Cloud makes sense for Healthcare

<i>Electronic Record</i>	<i>Reduced Costs</i>	<i>Value Based Outcome</i>	<i>Advanced Clinical Research</i>
<ul style="list-style-type: none"> • Electronic record over the Internet • New approach to data • Improved access • Increased storage capability • Easier to collaborate across regions and hospitals 	<ul style="list-style-type: none"> • Lowering In house storage • Reduced operating and maintenance costs • High powered analytics for better decisions • Combining efforts for data sharing • Telemedicine capabilities allow savings on infrastructure 	<ul style="list-style-type: none"> • Electronic records makes health data more accessible for better outcomes • Preventive healthcare • Telemedicine capabilities • Talent acquisition and management 	<ul style="list-style-type: none"> • Data centers propel the research process by making sense of the large amount of data • Advanced computing power of the cloud, using these giant data sets for progress becomes a reality • Services to assist in diagnosis are becoming a useful tool to guide healthcare practitioners, helping to reduce time spent and improving productivity

Knowledge Question #3

What are the key considerations when trying to determine the right cloud approach and strategy for a healthcare organization?

- A. CapEx vs. OpEx cost
- B. Security considerations
- C. Integration considerations
- D. All the above

Challenges / Barriers Faced

- Consensus driven cultures
- Slow decision making
- Alignment on guiding principles for transformation
- Change management considerations
- Onboarding of critical project resources
- Operating model related to enabling cross-functional teams
- Timing for application design and build vs. end-to-end business process definition
- Adherence to strong project governance (including strict entry and exit criteria)

Recommendations

- Outline a strong business case
- Define project guiding principles, maturity model, and target operating model upfront
- Invest in key stakeholders assessment and alignment
- Have a strong project management governance structure
- Establish the right partner relationship with the cloud vendor and the system implementer
- Review and make the right investments for all the cloud technologies for the end-state ecosystem
- Invest in the right training to enable in-house cloud expertise and skills

Questions

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Thank you