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Business Challenges around Meaningful Use- IT and Implementation

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How Important is Meaningful Use?



- This may be the most important undertaking of your career
- You do not want “A CNN moment”...
- Health Net Agrees to \$250,000 Fine and “Corrective Action Plan” to Settle Loss of PHI

Meaningful Use



- To qualify for the first wave of HITECH meaningful use incentives starting in 2011, hospitals have to meet 14 core requirements and eligible professionals -- such as doctors and nurse practitioners -- must meet 15 core requirements.
- In addition to those core requirements, healthcare providers also must meet five objectives of their choosing from a menu of 10.
- To Learn more:

https://www.cms.gov/EHRIncentivePrograms/30_Meaningful_Use.asp

HITECH



- Health Information Technology for Economic and Clinical Health (Act)

Make it Understandable



Vision

- Enable significant and measurable improvements in population health through a transformed healthcare delivery system
 - Improve quality, safety and efficiency
 - Improve care coordination
 - Improve public health
 - Ensure privacy and security

Some Examples



- Use CPOE for at least one medication order for more than 30% of patients.
- Implement drug-drug and drug interaction checks.
- More than 40% of permissible prescriptions written are generated and transmitted electronically using certified EHR technology (for eligible providers only).
- Record demographic info, such as gender and race, for 50% of patients seen by EP or admitted by hospital.
- Maintain up to date problem list of current and active diagnoses for 80% of patients.
- Maintain active medication list for 80% of patients seen by EP or admitted to hospital.
- Maintain active drug allergy list for 80% of patients seen by EP or admitted to hospital.
- Record and chart changes in vital signs, such as height, weight, BMI, blood pressure, for more than 50% of patients over age 2.
- Record smoking status for more than 50% of patients over age 13.
- Implement one clinical decision support rule for EP's specialty or hospital's high priority condition and track compliance with that rule.
- Report clinical quality measures to the Centers for Medicare and Medicaid Services.
- Provide more than 50% of patients with electronic copy of health information upon request within 3 business days.
- Provide 50% of patients with electronic copy of discharge instructions at time of discharge (for hospitals only.)
- Provide clinical summaries for each office visit to more than 50% of patients within 3 business days (eligible professionals only.)
- Perform at least one test of certified e-health record's capability to electronically exchange key clinical information, such as problem list or medication list, among providers of care or patient-authorized entities.
- Protect electronic health information created or maintained by certified EHR technology by conducting or reviewing security risk analysis and implementing security updates.

Stage 1 Highlights



- **Insurance-** Check insurance eligibility electronically, and file at least 80% of claims electronically
- **EHR-**Provide patients with an electronic copy of their health information, and implement 5 clinical decision support rules
- **CPOE-**In the areas of medications, laboratories and radiology/ imaging and provider referrals
- **E-prescribing-**Electronic generation and transmission of permissible prescriptions
- **Privacy/Security-**Protect electronic health information created or maintained by certified EHR

An Intersection of Industries



Information Technology

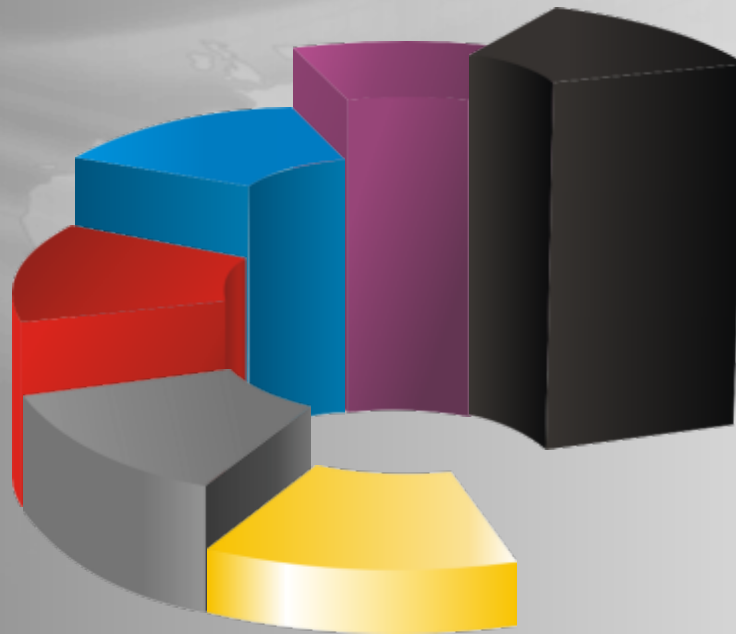
- By 2014, there will be 1 billion applications driving server deployments
- More virtual machines are now deployed annually than physical servers
- 2009: 800 exabytes of digital data
- 2020: 35,000 exabytes (42x growth)

Clinical Data Is Growing at Extraordinary Rates



The amount of healthcare data being generated quadruples every two years

* National Institutes of Health, 2009



Customers' Top Business Priorities:



- Leverage information as a strategic and competitive asset
- Accessibility (discoverability, availability)
- Analytics (integration, repurposing)
- Compliance (security, governance)
- Manage costs and efficiency in anticipation of data growth
- Business acceleration from IT

TOP IT PRIORITIES: 2010 VS. 2011



2010

- 1. Increase use of server virtualization
- 2. Information security initiatives
- 3. Improve data backup and recovery
- 4. Manage data growth
- 5. Application deployments or upgrades

2011

- 1. Increase use of server virtualization
- 2. Manage data growth
- 3. Information security initiatives
- 4. Application deployments or upgrades
- 5. Improve data backup and recovery

What it means



■ Appetite for more and more information is driving:

- Applications of all types and sizes, inside and outside the data center...everywhere
- Virtual machine sprawl to keep up with the new applications
- Challenges to make content discoverable, searchable, accessible and meaningful

■ Requires new data management strategies

How do we make progress?



Focus on Quality

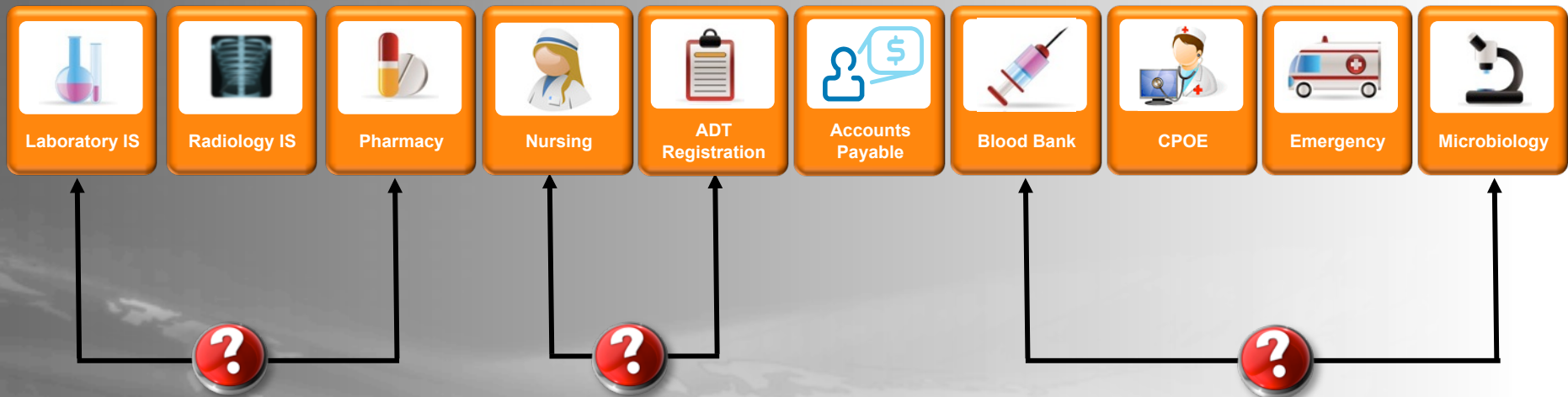
- Identify your major clinical processes
 - Gaps?
- Create and support teams to improve workflow process
- Deliver essential data:
 - In the right place
 - At the right time
- Data systems **MUST** support this change

Disparate Data Silos That Neither Share, nor Integrate

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For the Healthcare Enterprise It Means

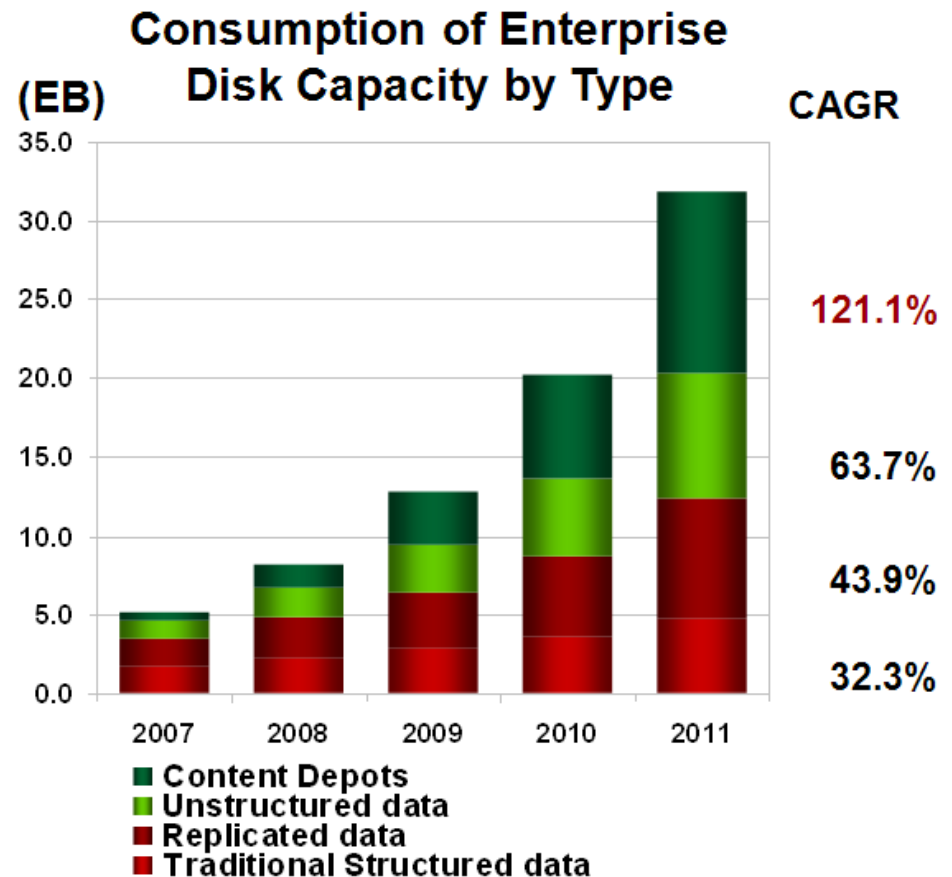
- Departmental systems with islands of storage and access points
- No enterprise-wide consolidation of information
- Integrating services require complex and multiple data interfaces
- Legacy system lock-in
- Complex data management and low utilization that leads to increased wastage and higher cost of ownership.

Challenge: Most Is Unstructured



Unstructured content grows faster than traditional information or structured content

- 70% of Healthcare related data is unstructured
- Unstructured data is growing at 10x the rate of structured data
 - How to gain value from this data and turn it into useable information
 - How to scale and support different workloads without more or larger silos



What Healthcare Needs Next

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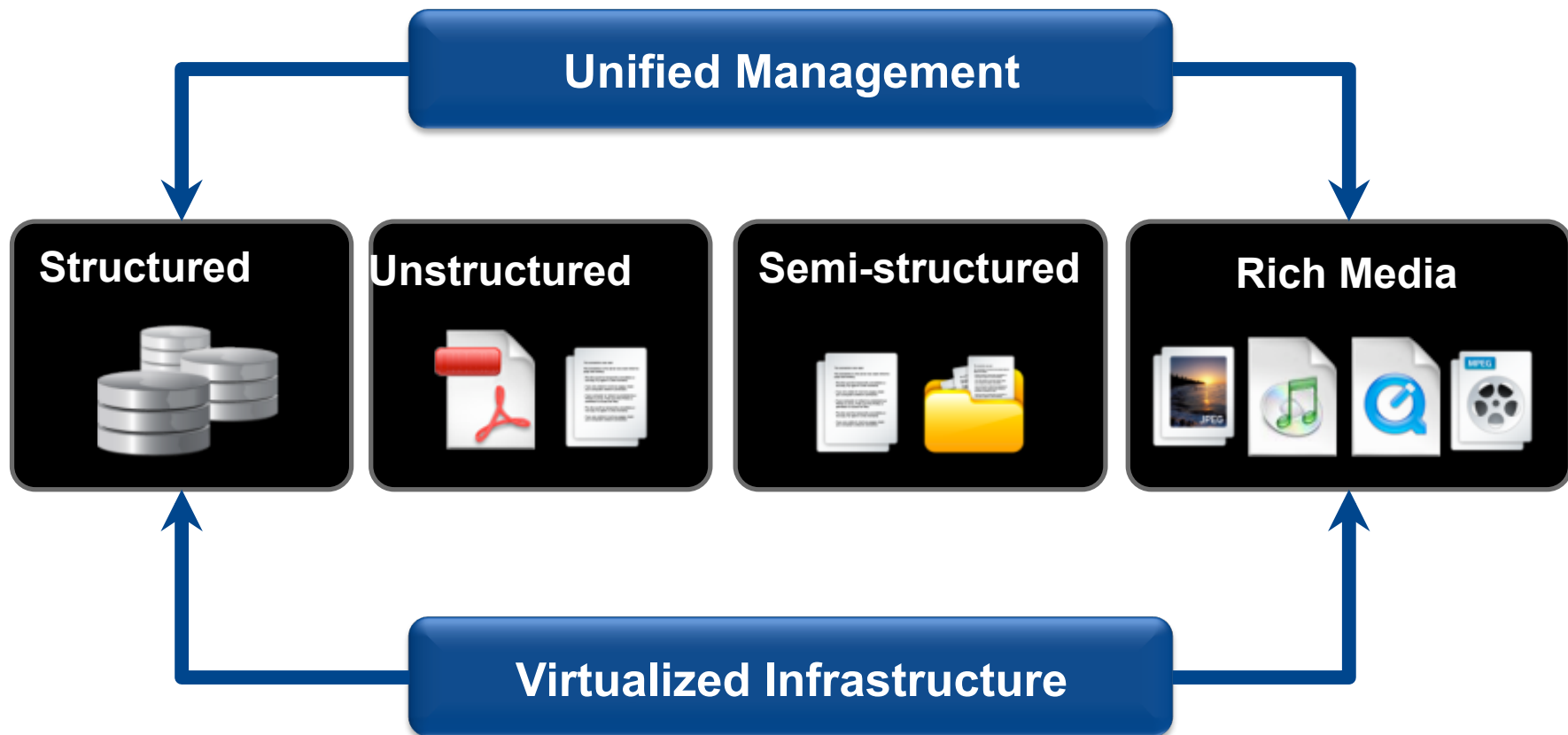
The evolving needs of healthcare coupled with the growing data challenge require organizations and IT to adapt quickly in order to:

Contain capital and operational expenses

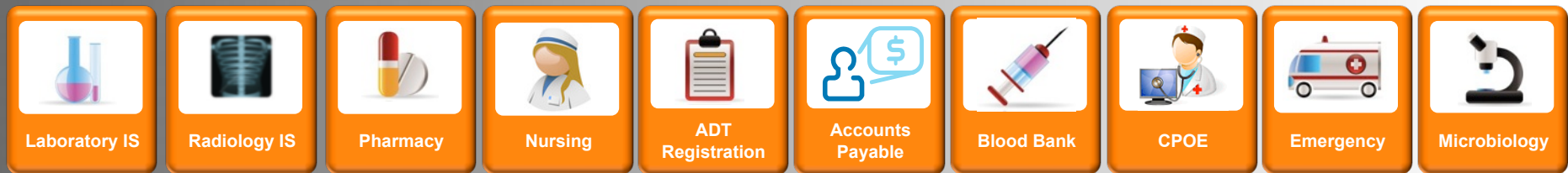
- Improve clinical data access where and when it is needed
- Deliver clinical efficiencies and decision making for the betterment of patient care
- Enable EHR adoption and improve it's clinical utilization
- Unlock the clinical and business value of their data
- Reduce Integration, operational and maintenance costs

Technology Strategy

A common virtualized platform for all data, content and information



A Growing Demand to Access All Relevant Patient Data



For the Healthcare Enterprise It Means

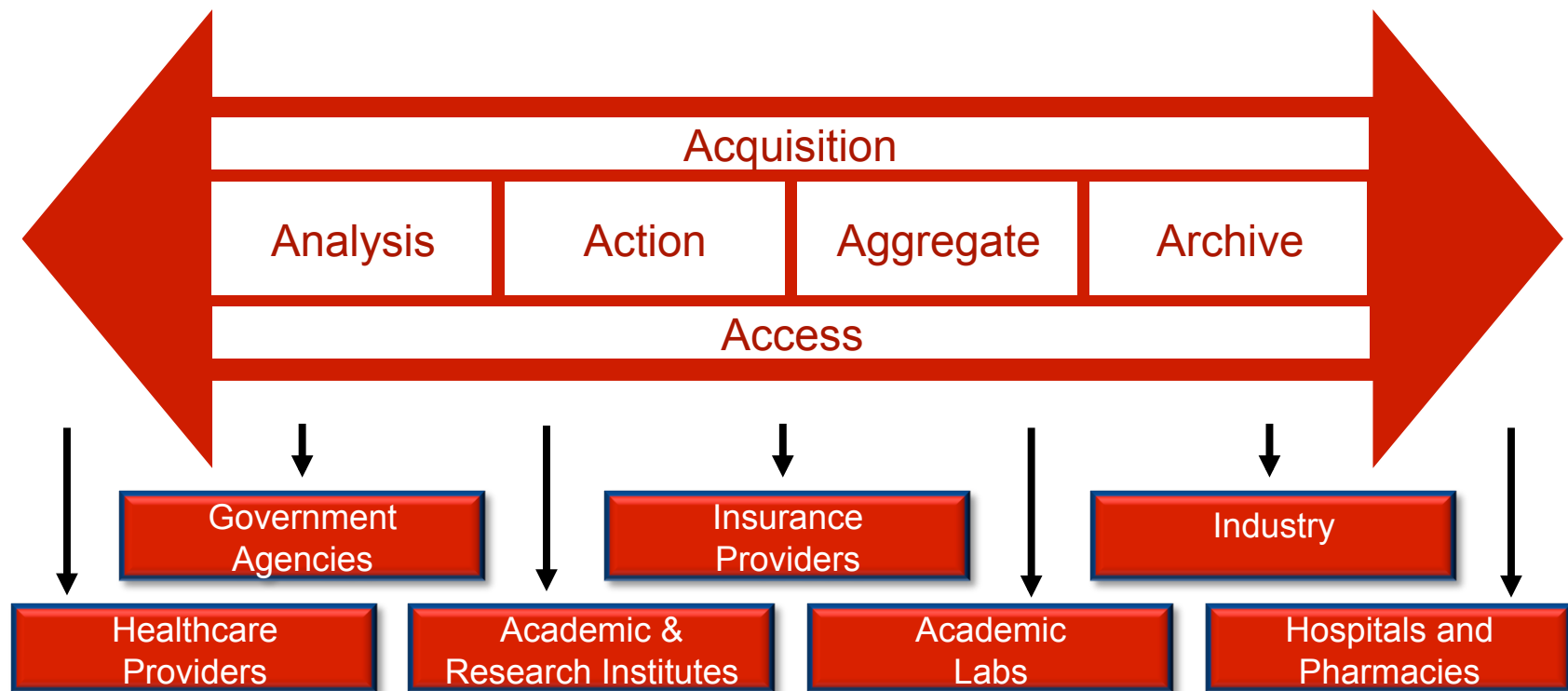
- A single point of access for healthcare staff
- A patient-centric view of information
- Access to the data needed to make patient care decisions
- Infrastructure to implement healthcare transforming technologies

The “New” Healthcare Information Lifecycle



Transformation Through Alignment

Not information technology... business technology



Enterprise IT, Private and Public Cloud in One Platform

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Business Benefits

- Immediate availability of clinical data across the enterprise.
- Data and documents uniformly accessible by all applications.
- Unified Search ALL documents
 - Evaluation and analysis of enterprise assets.
- Availability of data even if no longer available within the source systems
- Platform independence (future-proofed architecture)
- Integration of data supplied by Departmental systems (applications)
- Vendor Neutrality of legacy data for future applications changes (application independence)
- Use as an emergency information system (in the event of production environment failures)

Common Data Strategy

One platform for all data

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Enterprise Data Center Applications

- Tiered storage and virtualization via enterprise hardware platforms
- Common protection solutions
- Common storage management



Content Depots (Archiving/Object/Content Level Awareness/Web 2.0)

- Foundation for open, scalable and integrated content solutions



STRUCTURED DATA

(RDB, Apps)

COMMON INTEGRATED STRATEGY FOR

Storage and Security, Data Protection and Search

UNSTRUCTURED DATA

(Files, Metadata, Content)

Distributed Enterprise & Departmental Applications

- Midrange hardware platforms
- Common storage management
- Common protection solutions



File Storage – Two Key Segments

- High-performance NAS: Focused on high throughput environments
- Standard NAS: Focused on file sharing and backup environments

