Shared Services/Cloud Computing Ready for Key Linkages between Federal, State and Local Communities



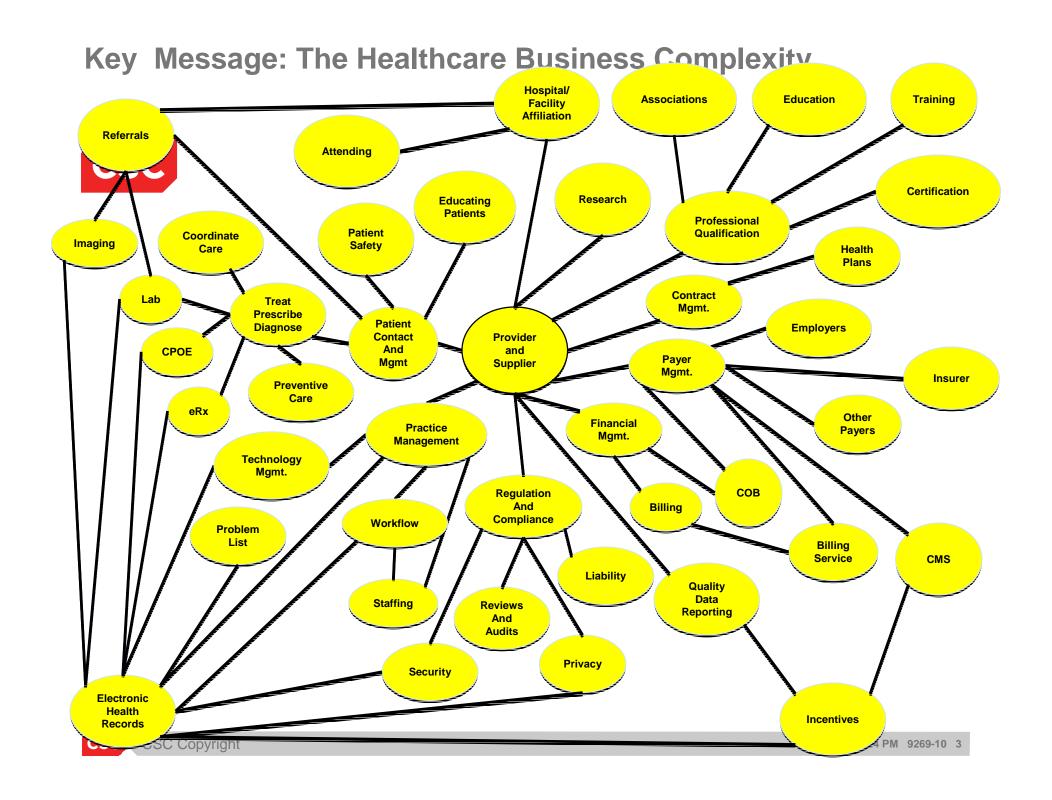
John C. Dodd, Fellow for Health and Human Services and Enterprise Architecture

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Key Message: Alignment with Common Shared Services can Create Key Design Platforms for Change and Innovation



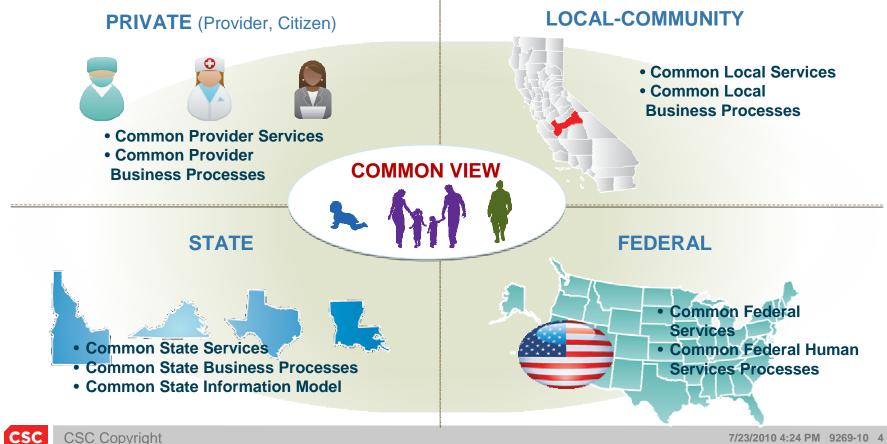
- Foster alignment between Federal-State-Local Communities is not needed
- Use UCore Concepts, Business Artifact Flows, and Semantic matching along with Adapt with Harmonization with MDMI and Semantic Data **Patterns** to define Key universal data elements and shared services that can be common ground elements
- Defined as Shared Services in a Cloud Computing environment.
- Many Federal, State agencies, and local communities are defining comprehensive sets of business capabilities and integration. Need Simple **Core and Guidelines**
- Some of those business areas e.g., in Medicaid are more outward facing areas like Provider Management, Client Management to be shared within the Cloud
- The state of trusted shared services, standards and the readiness of cloud computing to address key aspects of an integrated environment.
- What are enablers and barriers to change?
- Is the technology ready? Are we ready? Roadmap to Align and Support Rapid Evolution



Complete Alignment- Business and Services Framework: Support Alignment Cross Boundaries

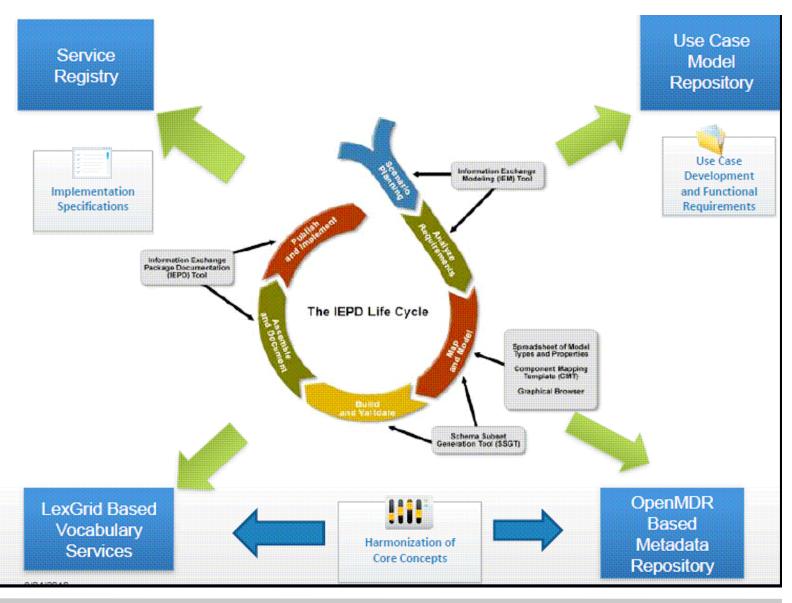


To create a coordinated view of health and human services by linking information and creating meaningful information exchanges to better support the citizen.

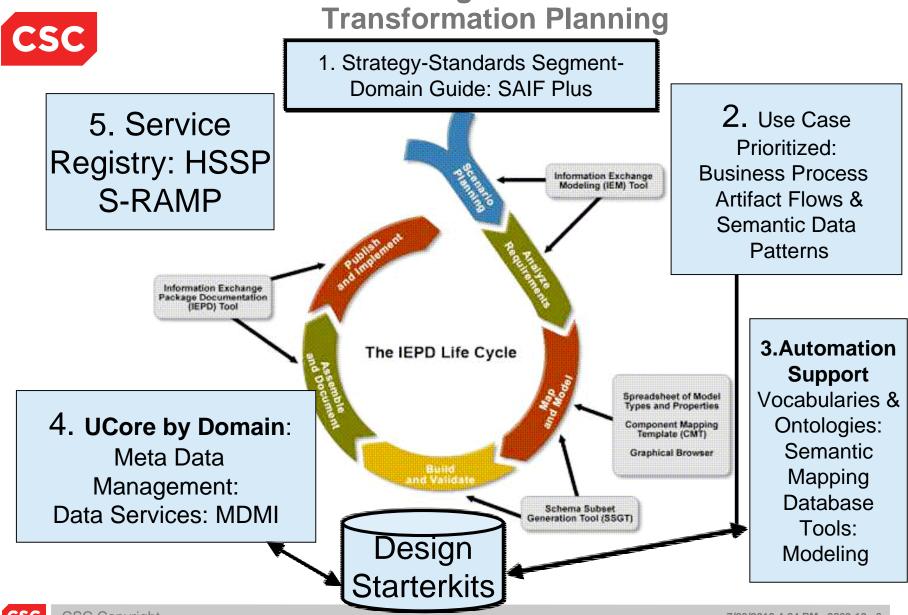


ONC: NIEM/NHIN Alignment

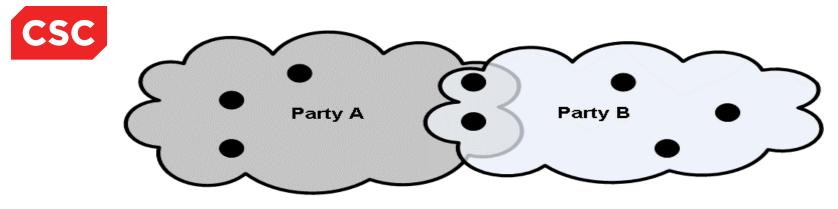




Aligning Shared Services with NIEM/NHIN and HL7/OMG: Strategic Harmonization and Transformation Planning



SAIF Value Proposition: Working Interoperability



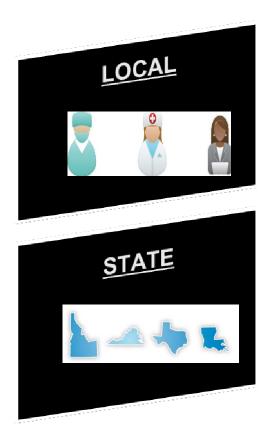
Interoperability Paradigm

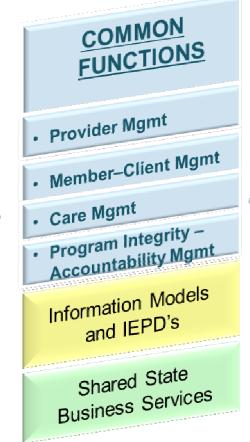
Interoperability Paradigm (Messages, Documents, Services): specifications which enable two or more (HL7) trading partners to collaborate in the context of a specific business interaction

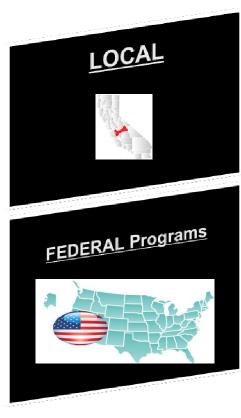
- No assumptions of size, character, or identify of parties
 - Nations, Enterprises, Departments, Individual, Systems, etc.
- No assumptions of exchange details (What, Why, How, etc.)

Common Ground elements Business Architecture: Service Framework, Common Capabilities, Adaptation, Extension Approaches









Current State:

- Many functions
- Many systems
- Many point-to-point interfaces

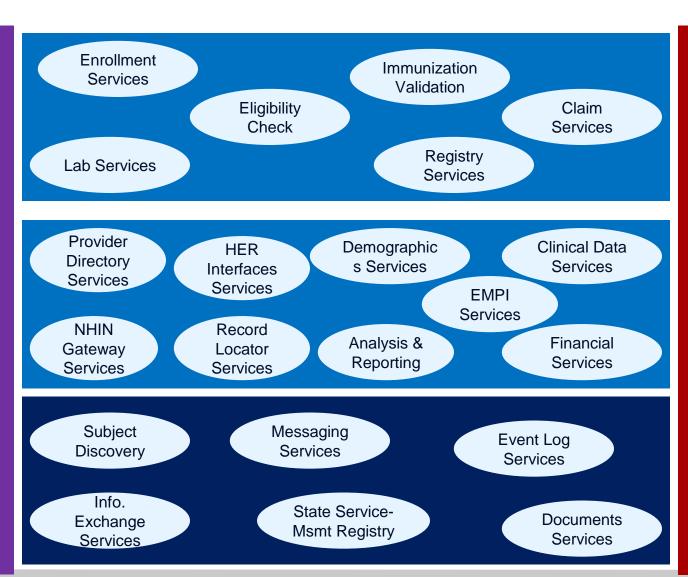
Potential Shared Services

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Shared Services

Foundational Services

NHIN Shared Services

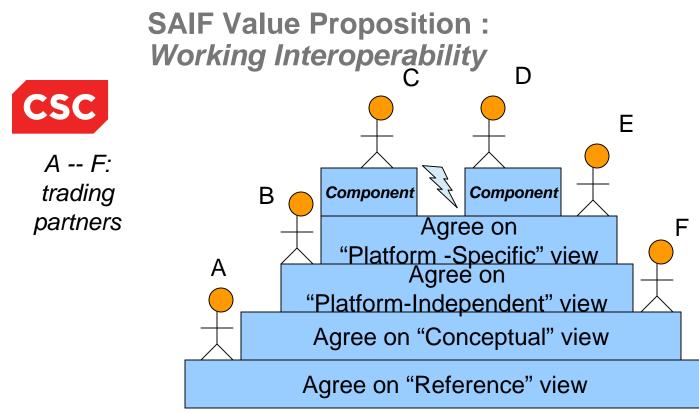


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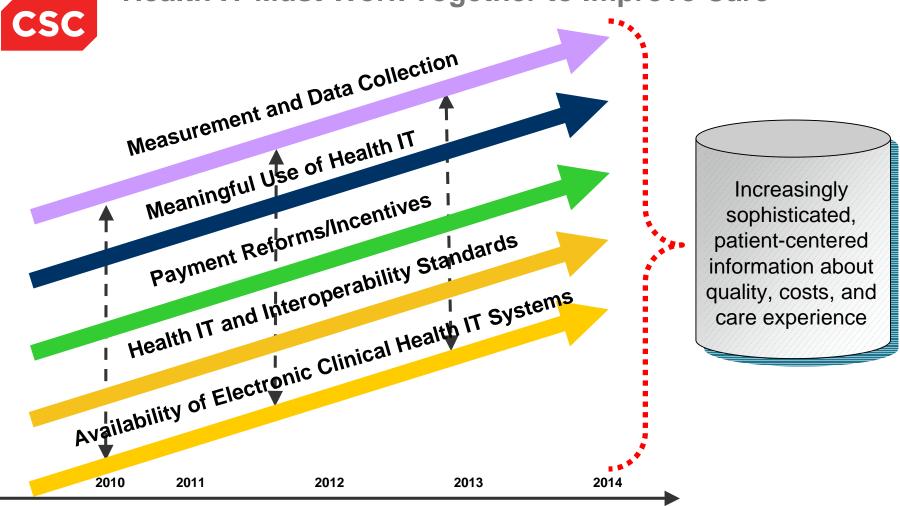
System Management Services

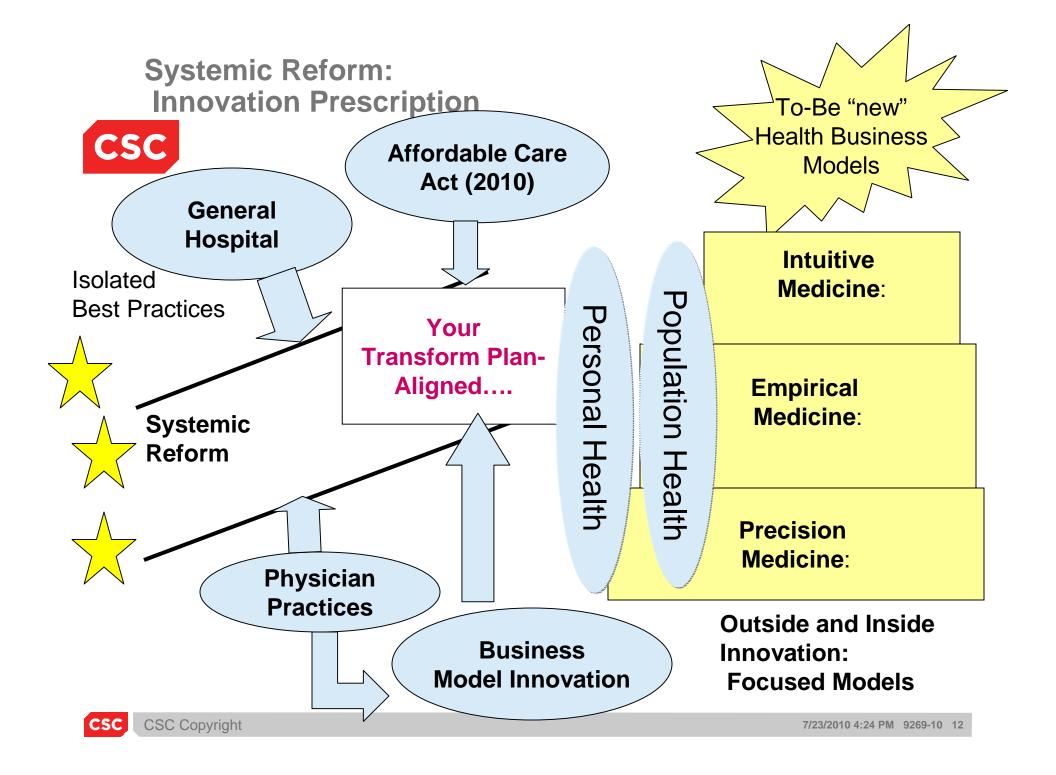
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- Interoperability: the <u>deterministic</u> exchange of data/information in a manner that <u>preserves</u> <u>shared meaning</u>
- Two "trading partners" interoperate based on a certified "<u>level of shared compliance</u>" to interoperability specifications/standards
- Certified "<u>level of conformance</u>" determine degree of <u>automated</u> interoperability that is possible and/or difficulty of the <u>transformations</u> that are required to enable interoperability

Many Aspects of Quality Measurement, Payment Reform, and Health IT Must Work Together to Improve Care





Alignment can link Health & Human Services



Working to improve health and human services to citizens through an information-driven enterprise



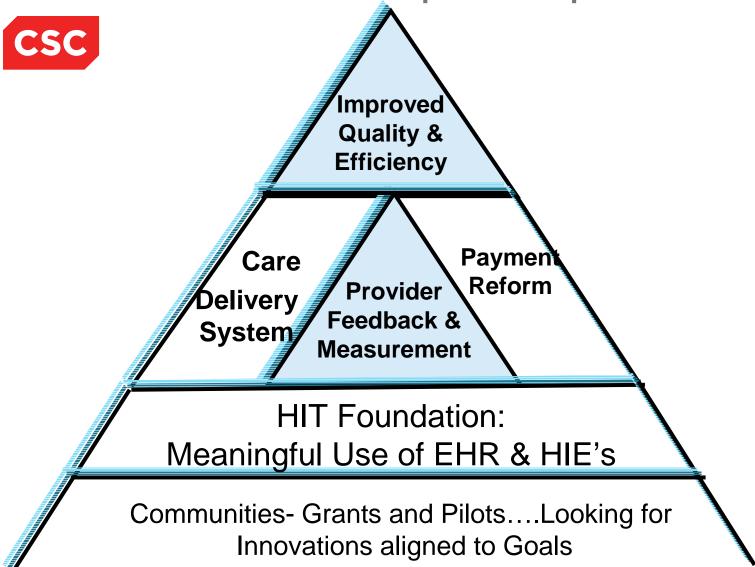
Federal Health Information Model

Performance Management

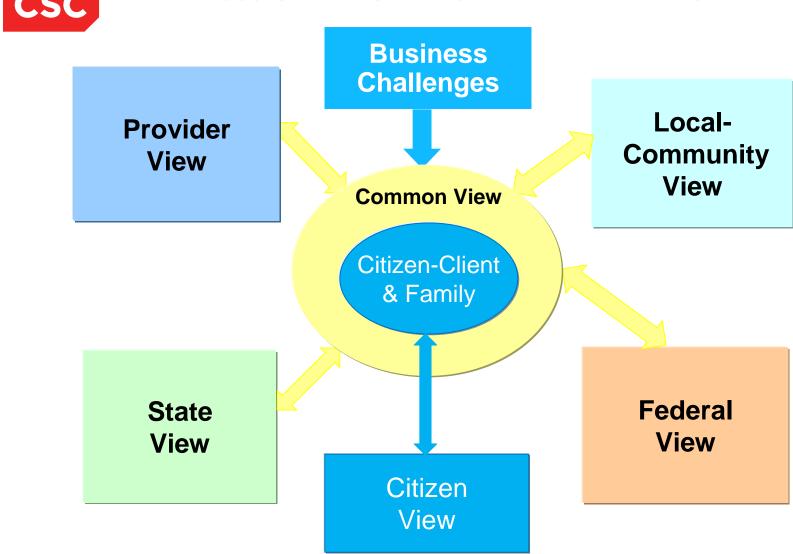




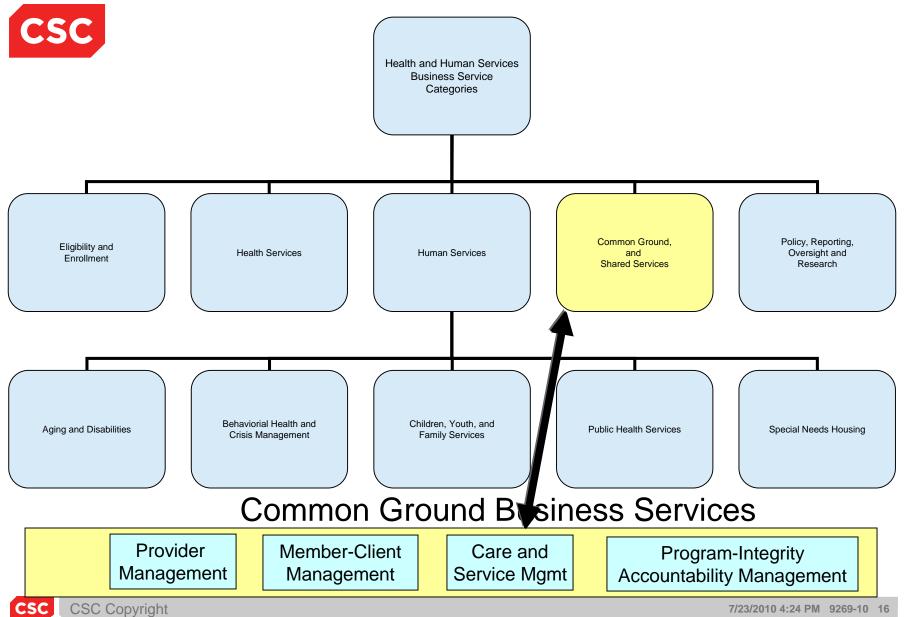
Moving the Needle within 30 months: Agile Architecture and Rapid Development



Key aspects of an integrated environment: Capabilities with Coordinated Views of each Business Challenge with a 360 Citizen-Client-Caseworker at the Center



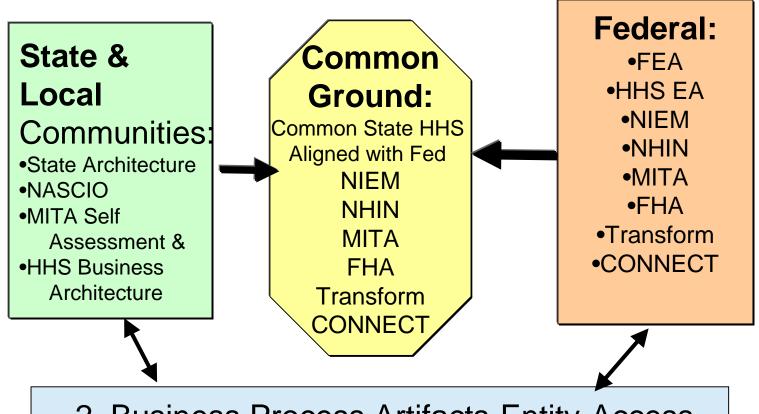
"Strawman" Health and Human Services Business Capability **Categories: Human Services**



Business Areas Alignment defining Cross Boundary Business Operations Models: Finding Common Ground Process



1. Strategy and Concern Maps: Priorities

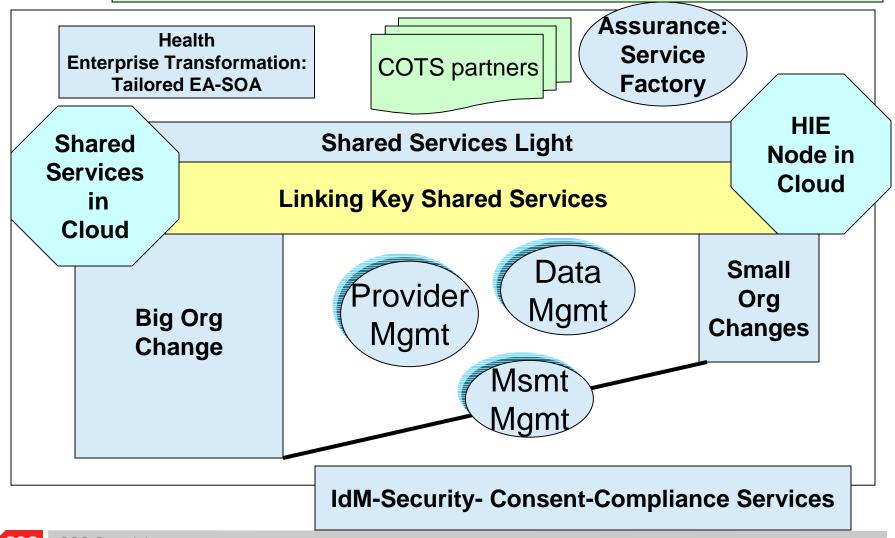


2. Business Process Artifacts-Entity-Access Policies and Process Alignment

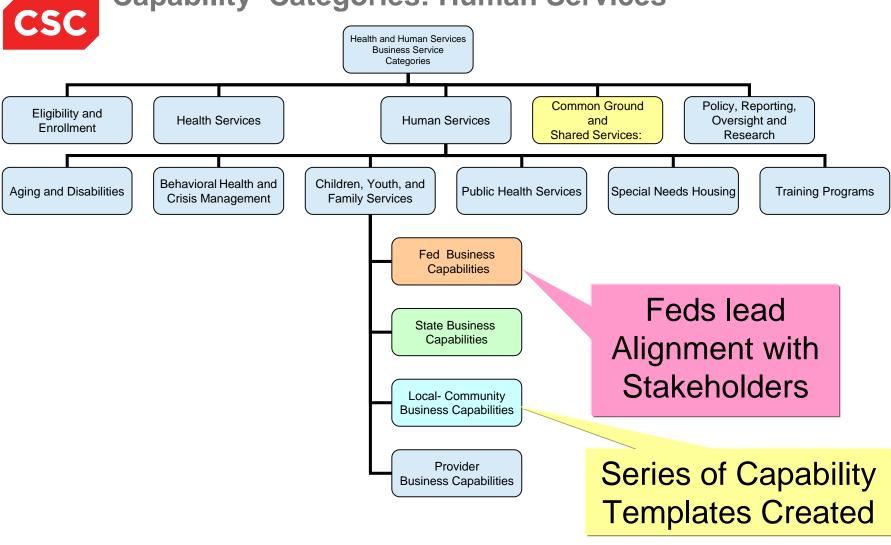
Starter Kit: Support the Range of Organizations with a Family of Services



Enterprise Transformation for Health Care Reform: From Fragmented to Loosely Coupled



"Strawman" Health and Human Services Business Capability Categories: Human Services



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Enablers and Barriers



Enablers

- It makes sense....
- The technology-standards are there- (privacy still being worked but much better than last year)
- NIEM/NHIN converging and many other related standards
- Many excellent examples of small to medium interoperability...
- Some models for Cancer Research, Public Health.....
- Lots of financial transactions....

Barriers

 But means you have to talk across boundaries...

fragmentation is strong

- Not well known and "Health" has often been isolated from the many other interoperability- "we are different"....
- Distribution of knowledge- some real leaders but huge "gap"-"Crossing the Chasm" and becoming mainstream

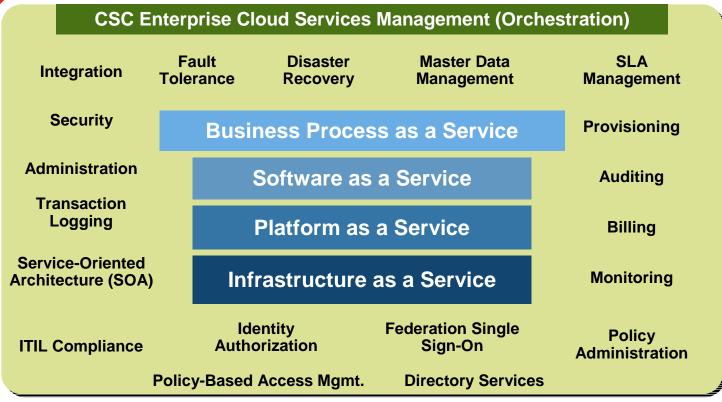
Is the technology ready? Are we ready?



- Good libraries of basic services and push for more open source for health issues.....adapters that can be shared
- Interoperability- HL7 and OMG others working together
- Office of National Coordinator "don't need to solve everything attitude"...and phased approach.....NIEM/NHIN and Health Interoperability Model
- Business Architecture and tie in Performance Architecture-Dashboards
- Business Artifacts/ BEDL.....IBM and others
- SOA- SOAML, Model Driven Message Interoperability (MDMI)
- Patterns and Architecture need to be shared and leveraged

Trusted Cloud Services...



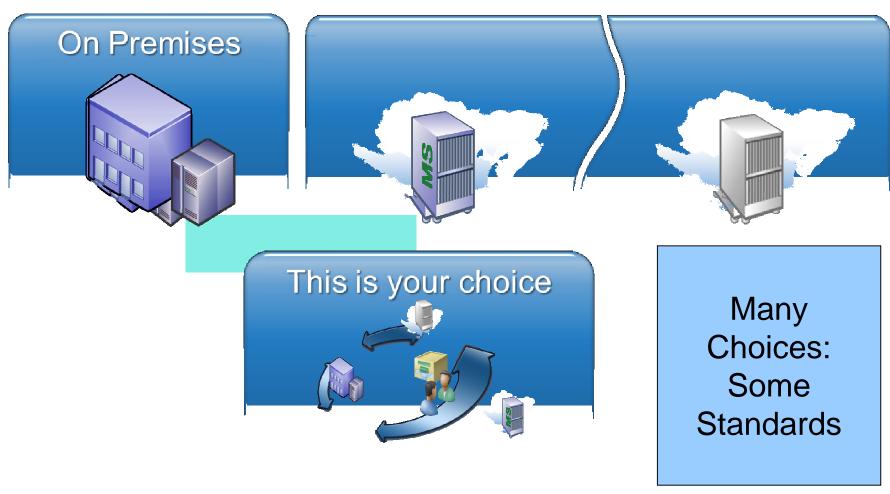


... will require orchestration, integration, monitoring, SLA management, security, monitoring, master data management, auditing, metering, billing, and so much more

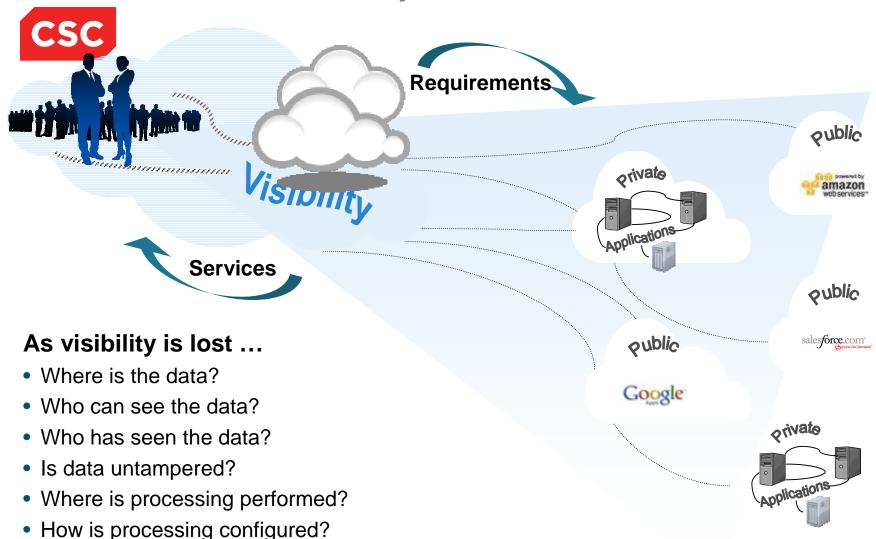
Power of Choice: Software + Services



SERVICES



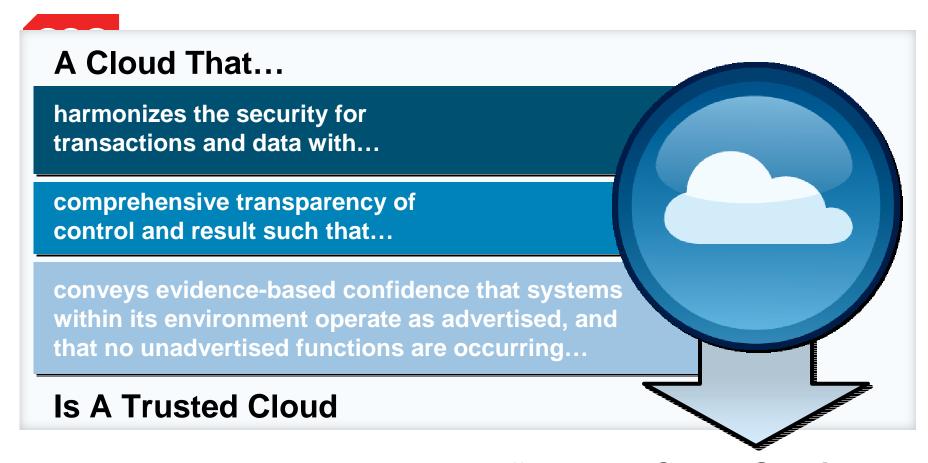
Information Assurance is Cloud-Complicated, "Clouds are cloudy"



... Security, compliance, and value are lost as well

Does backup happen? How? Where?

A "TRUSTED" CLOUD



Services rendered via a Trusted Cloud are "Trusted Cloud Services"

The generation of new enterprise value with Trusted Cloud Services is an application of Digital Trust

Translation of Business Needs to Trusted Cloud **Service Delivery**



- 1. Trusted Cloud Service decision support
 - Trusted cloud services business needs analysis and recommendations (CloudAssist)
- 2. Orchestrator of Orchestrators
 - The automated arrangement, coordination, connection, and accountability for individual cloud service contributions

Business and technical needs integration knowledge **CloudTrust Protocol** service service service service service service interface interface interface interface interface interface CSC Google Private terrem<u>ark</u> **Trusted** amazon Azure Services Platform Cloud Cloud

Trusted
Cloud Vision

Information Centric Security Solutions





INFORMATION

RIGHTS

MANAGEMENT

Centralized Document Access Control

Revocation (Digital Shredding)

Document Activity Monitoring and Audit



Applications

IDENTITY
AND ACCESS
MANAGEMENT

Identity Administration

Directory Services

Access Management

DATABASE SECURITY

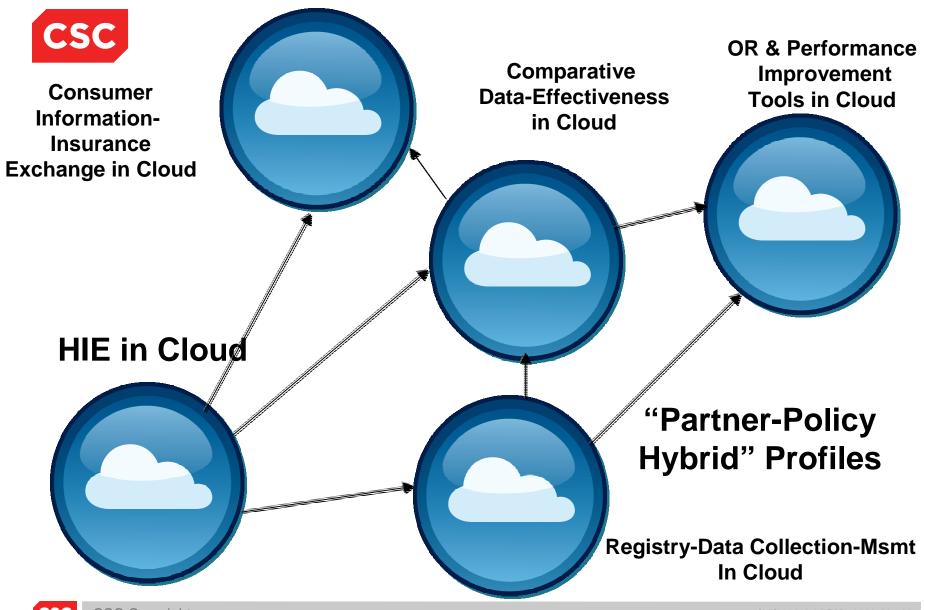
Activity Monitoring

Access Control and Authorization

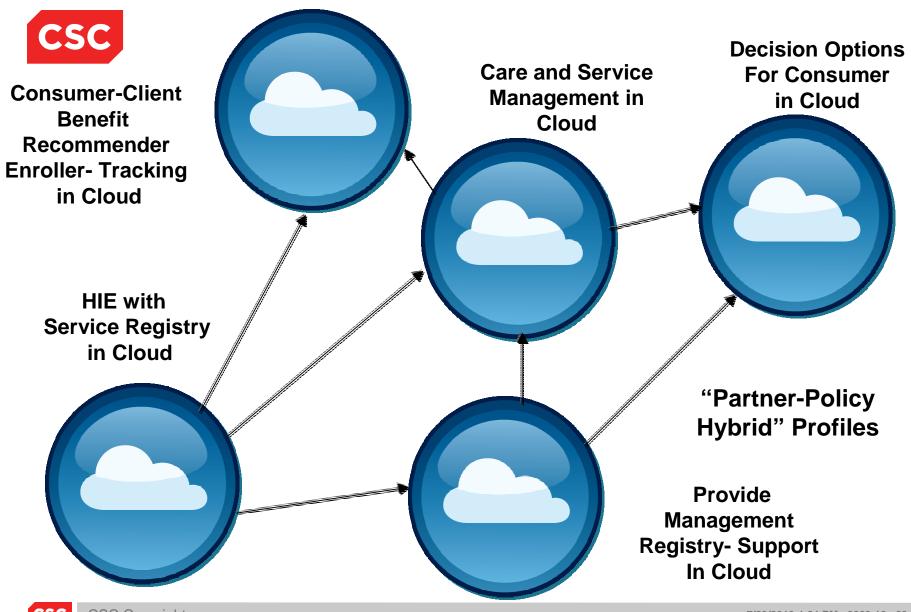
Encryption and Data Masking



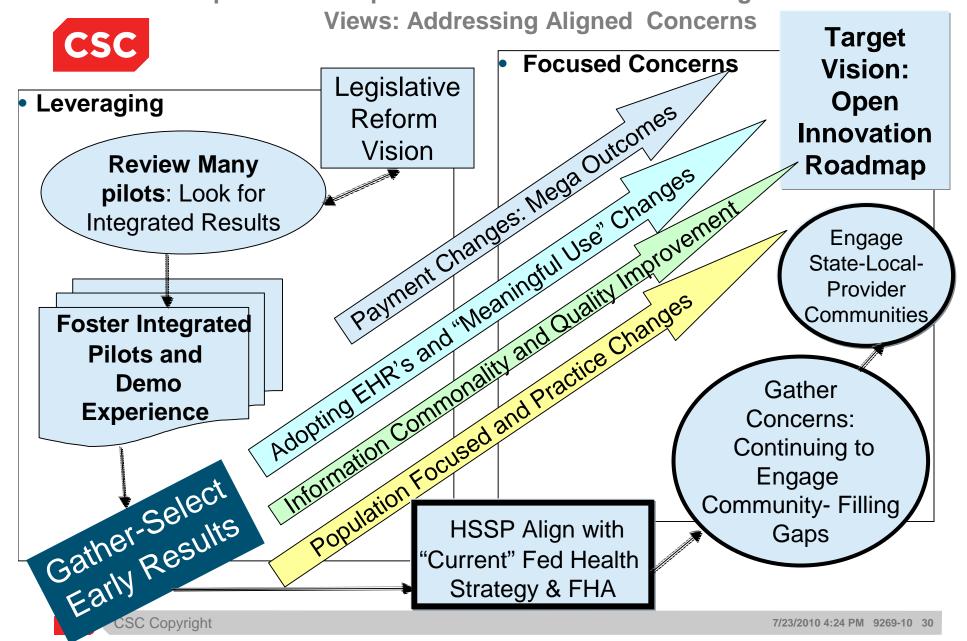
Defining a "Transparency-Msmt" Shared Services Cloud Technology Roadmap: Boundaries and Policies for Sharing



Defining a "Common Ground" Shared Services Cloud Technology Roadmap: Boundaries and Policies for Sharing



Standards and Open Services: Strategic Roadmaps to Citizen-Population Group Coordinated Services and Integrated Across





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Thanks