Beyond FISMA – a Policy Framework for an Interconnected World

Information Security and Privacy Board Meeting
July 14, 2011

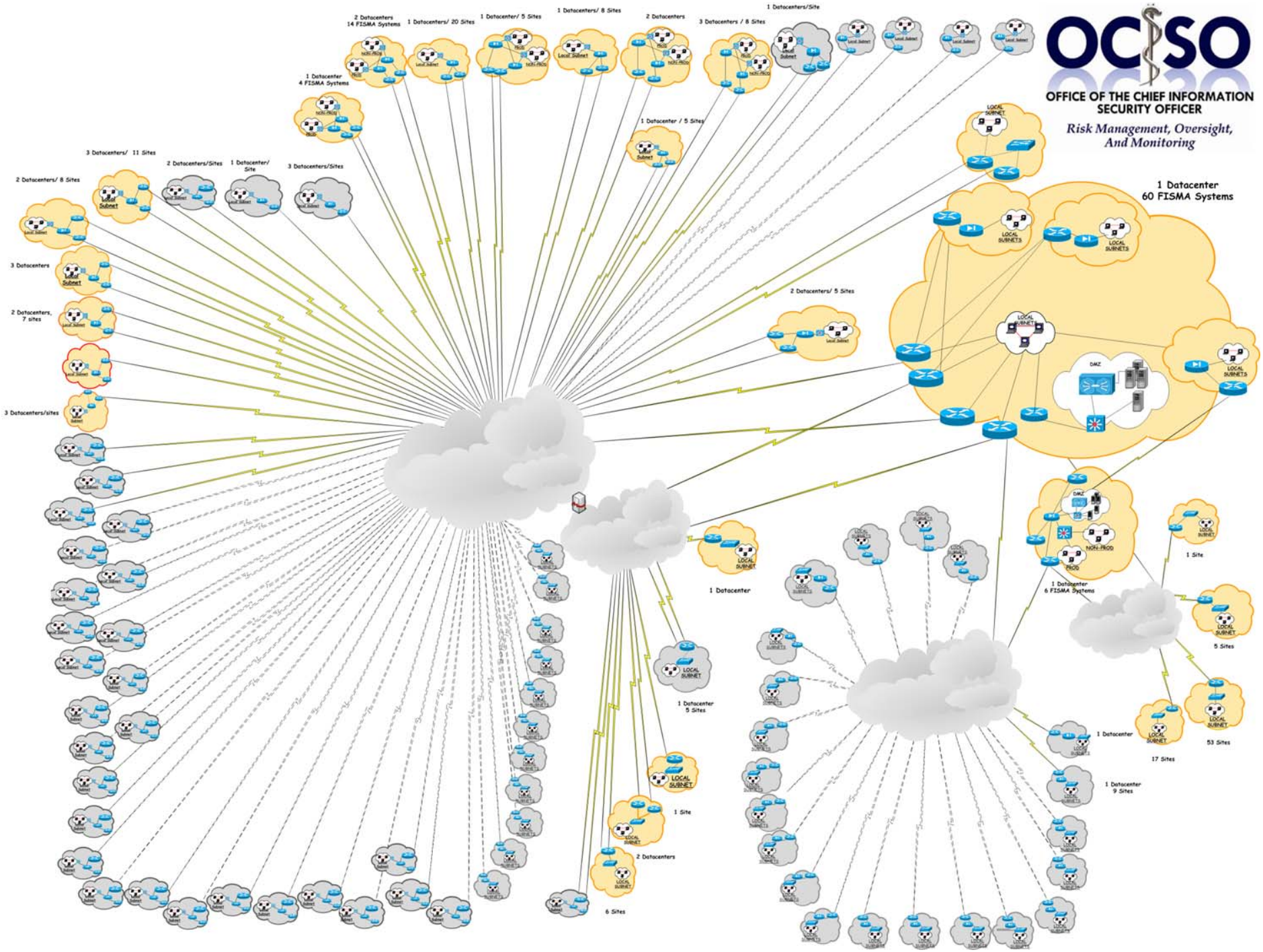
Julie Boughn

Ryan Brewer

Ms. Ashley Corbin

***Centers for Medicare & Medicaid Services (CMS)**; Director, Division of Research, Innovation and Standards*

Henry Chao


OCISO
OFFICE OF THE CHIEF INFORMATION SECURITY OFFICER
Risk Management, Oversight, And Monitoring
1 Datacenter 60 FISMA Systems
2 Datacenters 14 FISMA Systems
1 Datacenters/ 20 Sites
1 Datacenter/ 5 Sites
1 Datacenters/ 8 Sites
2 Datacenters
3 Datacenters / 8 Sites
1 Datacenters/Site
1 Datacenter 4 FISMA Systems
1 Datacenter / 5 Sites
3 Datacenters/ 11 Sites
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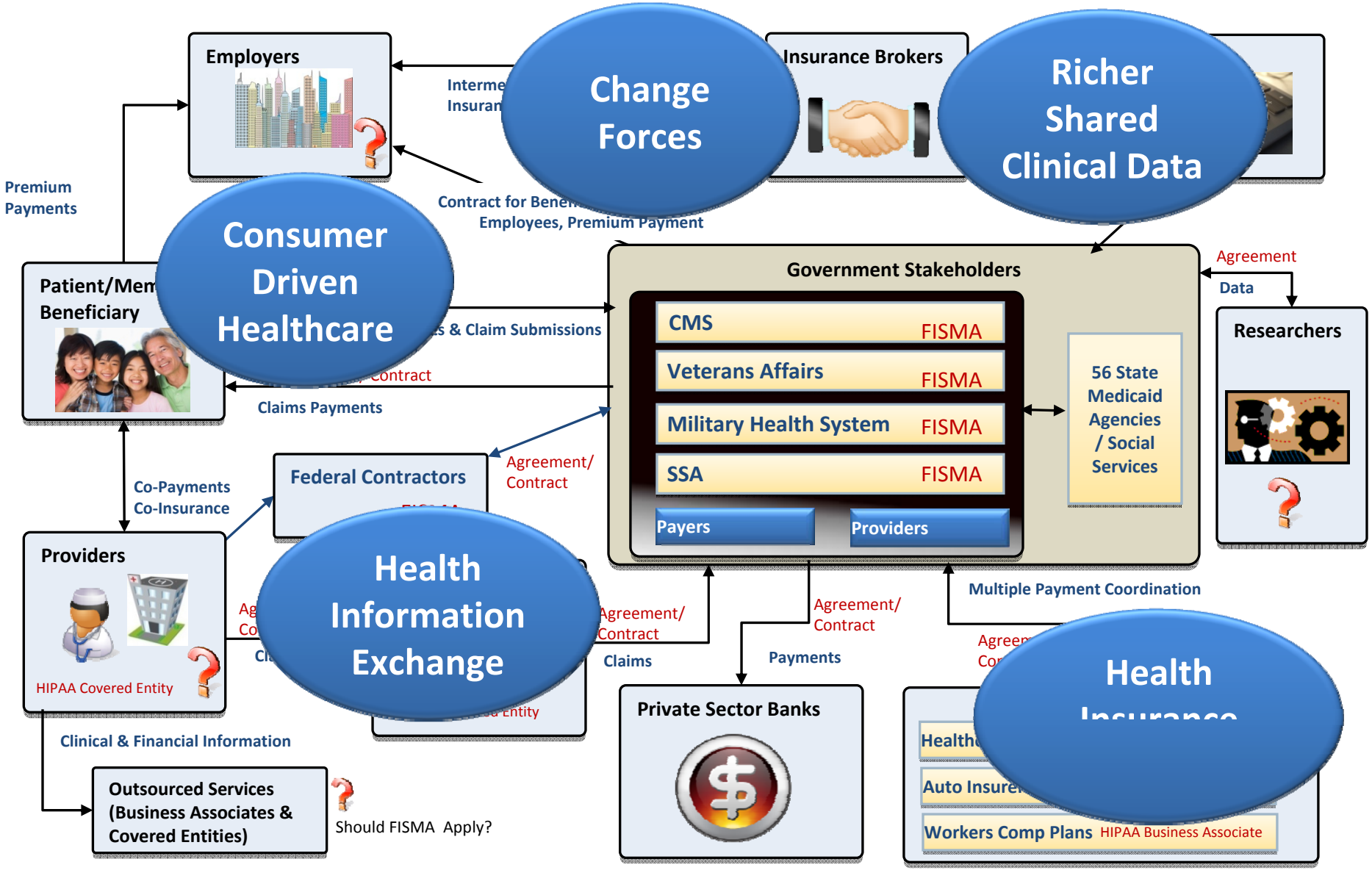
1 Site
2 Datacenters
6 Sites
1 Datacenter 6 FISMA Systems
1 Site
5 Sites
1 Datacenter
17 Sites
53 Sites
1 Datacenter 9 Sites
DMZ
NON-PROD
PROD
LOCAL SUBNET
LOCAL SUBNETS

Health Care Environment Drivers

- Health Information Exchange/Interconnectivity
  - Moving from small scale trials and pilots to operations
  - The dilemma of boundaries and data ownership
- Open Government/Transparency Initiative
- Increasingly diverse set of partners and stakeholders
  - Undefined expectations around appropriate security posture to conduct business

Healthcare Information Landscape



Health Care Environment Drivers
Security Concerns

- Shifting boundaries/parameters around shared Federal healthcare data without clear delineation of ownership and related security responsibilities
- Increased dynamic inbound/outbound movement of data across federal and non-federal partner boundaries
- Higher degree of data blending coming from different sources impacting traceability, accountability and ownership
- Existing trust partnerships have been traditionally built to apply in a one-to-one model, shifting to one-to-many or many-to-many

Security Considerations for Adoption of a Widespread Health Information Exchange Model

- Based upon applicable law and broadly construed existing frameworks
  - For Federal entities – FISMA
  - For non-Federal entities that are Covered Entities and Business Associates – HIPAA
  - Other laws or frameworks – Privacy Act, ITIL, ISO/IEC 27001, COBIT
- Parties to an exchange may also seek compliance with a variety of additional expectations and desire to establish formal mechanisms based around trust
- Uniformity and compatibility will be essential for nationwide exchange of health information

Policy Considerations

- Federal agencies currently have different expectations for "appropriate security" of non-Federal interfaces
- This creates complexity and burden for non-Federal entities that wish to exchange information with multiple Federal agencies
- Consistent definitions and expectations around appropriate security of interfaces would;
  - Further health care interconnectivity to support national initiatives
  - Address complexity and confusion
  - Provide flexible options to meet the needs of varied health care operations
  - Provide direction that is independent of scale

Longer-term, there is a need for a consistent nationwide information security posture for all interconnected health care stakeholders

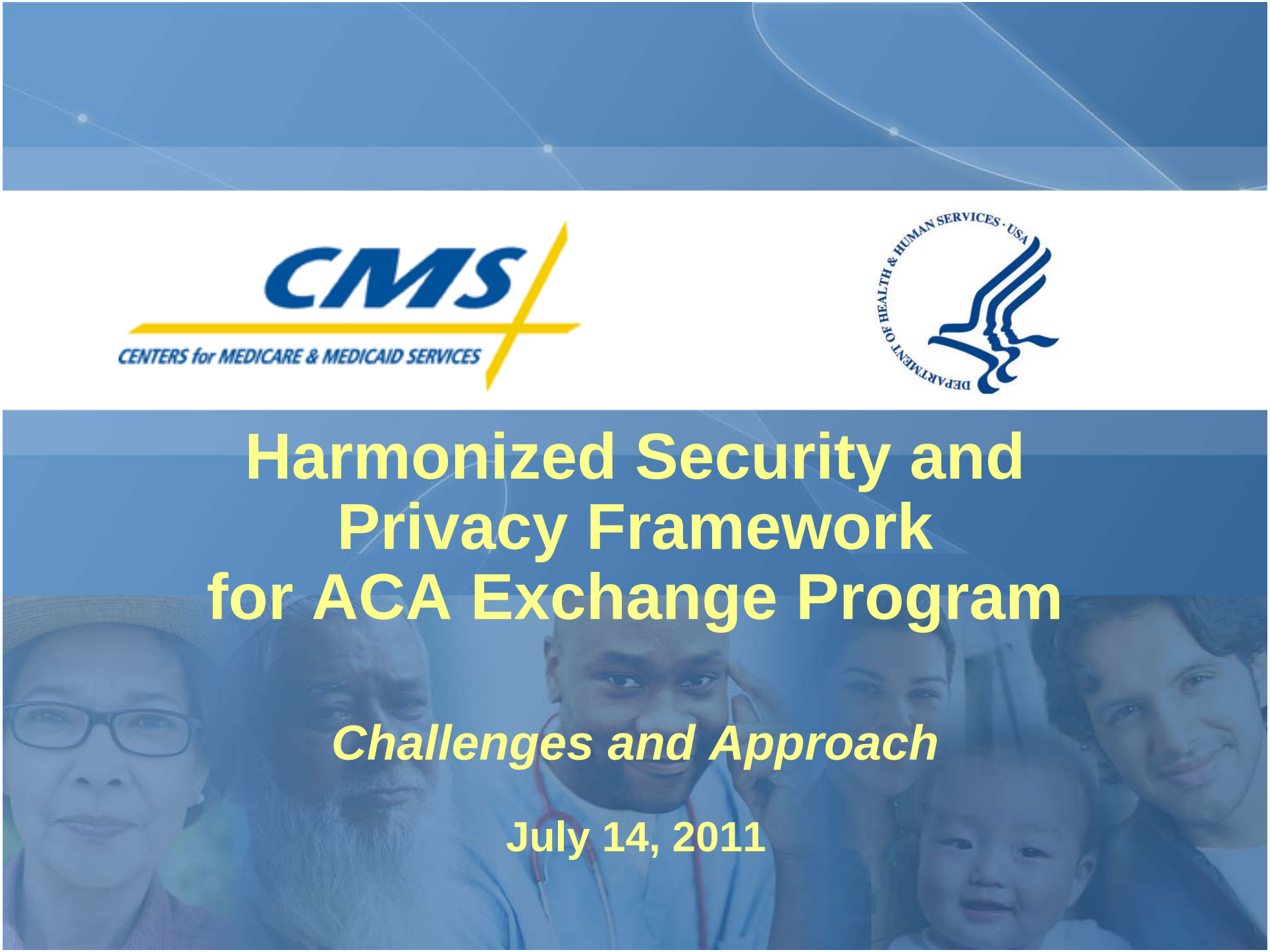
Trends in National Health Care Initiatives

TREND	TOPIC
	HIT Exchanges as the primary path to meet National Health Care agenda (Meaningful Use, Health Insurance Exchanges, ACOs)
	Organizations that are, or will potentially participate in a health care exchange model (federal and non-federal) placing infrastructure, applications and data in cloud hosting environments

Positive Drivers

- ONC has established centrifugal force and the health care industry has remained engaged
- Federal Government has championed the “Cloud First” initiative and they have also taken steps to address Cloud Computing security concerns via FedRAMP

TREND	TOPIC
	Number of National Health Care initiatives that place a focus on ensuring that security and privacy are critical components of expanded health care interconnectivity
	**Availability of national level, prescriptive direction around the definition of acceptable security and privacy controls and common security frameworks in Health Care interconnectivity**



Harmonized Security and Privacy Framework for ACA Exchange Program

Challenges and Approach

July 14, 2011

Agenda

- Background (Patient Protection and Affordable Care Act)
- Security Challenges
- Pragmatic Approach for Adoption of Framework
- Harmonized Security and Privacy Framework
- Questions

Background

Health Insurance Exchange Program

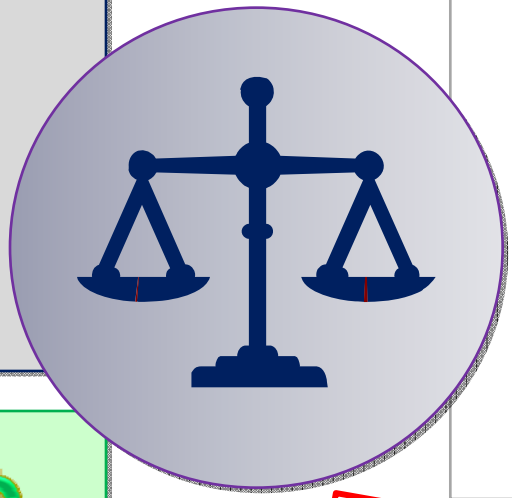
- **Under the Act, each state has a health insurance Exchange:**
  - Organized marketplace to
  - Help consumers and small businesses
  - Buy health insurance with
  - Easy comparison of available plan options:
    - Price, benefits and services, and quality

States will implement / operate an Exchange,
or HHS will do so on behalf of a state

Information Security: Balancing Issues and Challenges

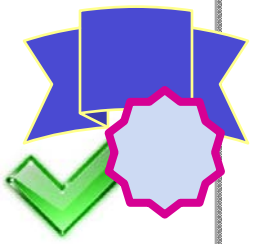
Governance and Authority

- Balance FISMA, HIPAA, HITECH, Privacy Act, and state laws against ACA requirements
- Follow 26 USC §6103, *Safeguards for Protecting Federal Tax Returns and Return Information* (and related provisions)



Numerous Security Frameworks, Audits, and Certifications

CSA	NIST SP-800
ITIL	HIPAA
CAG	State Frameworks
OCTAVE	ISO2700
CMMI	ISO2702
CSI	COBIT
PCI	CSF



Resource Demands

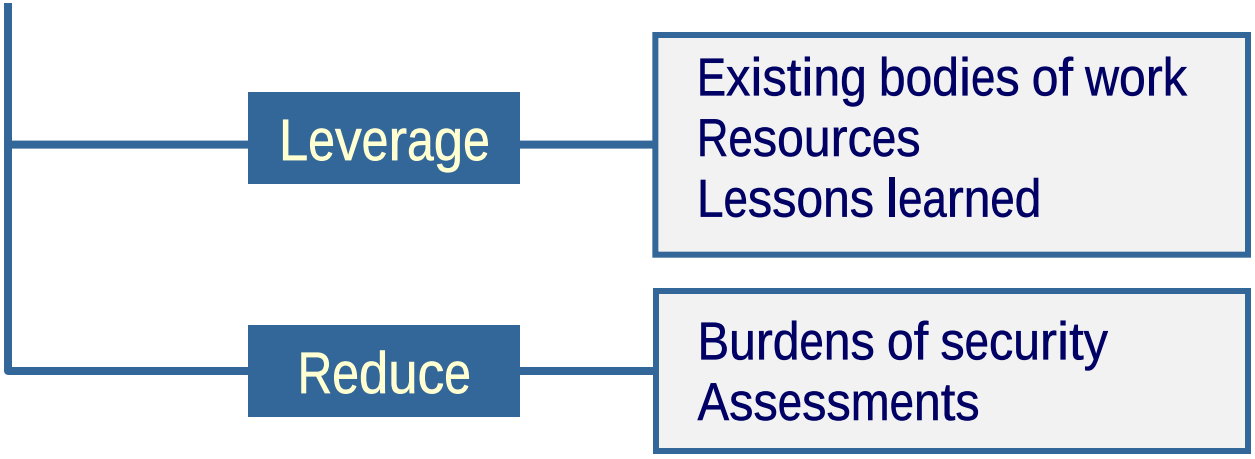
Multiple assessments via different frameworks is expensive – measures but does not improve security

A Pragmatic Approach for Adoption of the Framework, 1 of 2

- **Common goal of state and federal Exchange programs: maintain confidentiality and integrity of systems and data**
- **Must consider wide variance among each service provider:**
  - Capabilities
  - Resources
  - Strategies
  - Policies
  - Standards
  - Physical security

A Pragmatic Approach for Adoption of the Framework, 2 of 2

Our aim: Build a pragmatic approach to security for wide adoption



Enforcement protocol for interaction with Exchange IT solutions should encourage commitment to invest in enforcement of IT security principles

Harmonized Security and Privacy Framework

- **CMS has written a draft titled "Harmonized Security and Privacy Framework – Exchange Technical Reference Architecture (TRA) Supplement"**
  - **Goals:**

    Foster a collaborative discussion on security and privacy between the states and CMS

    Assure that the overall Exchange solution provides **necessary, effective security and privacy** for the respective systems and data in **compliance with all applicable federal and state security and privacy laws** and regulations

- **CMS will evolve the Harmonized Security and Privacy Framework in collaboration with the states**

Harmonized Security and Privacy Framework

Key Topics in the Draft Supplement

- System and Data Classification
- Security Controls
- Identity, Credential, and Access Management
- Secure Infrastructure and Cloud Computing
- Data Encryption
- Auditing
- Continuity of Operations and Disaster Recovery
- Compliance Oversight
- Privacy Consideration

Harmonized Security and Privacy Framework

Three Phases for Development

Phase 1 — Guidance on most important security and privacy considerations to establish a harmonized framework for the Exchange Architecture

Phase 2 — Baseline definition and requirements to guide implementation

Phase 3 — Detail to enable compliant operations and oversight

Desired Outcome

Trust fabric for interconnectivity and information exchange that is cost effective for all entities and protects all stakeholders by:

- Focusing on a risk management-based security approach
- Leveraging existing security frameworks and regulations to the maximum extent possible
- Creating a comprehensive, flexible, scalable security strategy for health care interconnectivity that:
  - Matches levels of security requirements, controls and compliance with the health care business and data interconnectivity work
  - Offers more than one approach to meet the security concerns of participating stakeholders
  - Requires definition of certain minimum threshold goals, such as ensuring information protection
  - Outlines a governance structure to support the overarching goals

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