# Healthcare Information Technology Standards Panel

Johnathan Coleman, CISSP, CISM jc@SecurityRiskSolutions.com

Facilitator, HITSP Security and Privacy Technical Committee



# **HITSP Membership**

- ▶ A total of 379 organizations participating in HITSP representing a broad spectrum of interests:
  - Standards Development Organizations (24)
  - Non-SDOs such as clinicians, providers, safety net providers, vendors, purchasers, payers, public health professionals, and researchers (308)
  - Government organizations (32)
  - Consumer organizations (15)
  - (+Plus 89 informational organizations)



#### **Technical Committees**

- ▶ Total Technical Committee Membership 391 individuals
- ▶ Attendance at face to face meetings averages 100 individuals
- Numerous weekly teleconferences
- Incredible amounts of off-line work by sub-groups and individuals
- Sponsor harmonization and joint development efforts with standards organizations



# HITSP Interoperability Specification Catalog

- ▶ IS01 Electronic Health Records Laboratory Results Reporting
- ▶ IS02 Biosurveillance
- ▶ IS03 Consumer Empowerment and Access to Clinical Information via Networks
- IS04 Emergency Responder Electronic Health Record
- ▶ IS05 Consumer Empowerment and Access to Clinical Information via Media
- ▶ IS06 Quality
- ▶ IS07 Medication Management



## TN900 – Security and Privacy Technical Note

- Provides implementation guidance to address Security and Privacy requirements of the AHIC Use Cases
  - Collect and Communicate Security Audit Trail
  - Consistent Time
  - Secured Communication Channel
  - Entity Identity Assertion
  - Access Control
  - Non-repudiation of Origin
  - Manage Consent Directives
  - Manage Sharing of Documents
- Provides a broad framework to support a variety of methodologies and approaches
- Will continue to be reused for future Use Cases

### **HITSP Security and Privacy Constructs**

- Identification of Core Set of Constructs -- A core set of Privacy and Security constructs identified from all use cases; constructs reviewed and validated/modified upon receipt of new use cases
- Incorporation of Constructs into Other Technical Committee
  Documents Privacy and security constructs are incorporated into the documents created by the other TCs to address interoperability in their respective use cases

# **HITSP Security and Privacy Constructs**

Construct Name	HITSP Reference	Type of Construct	Definition
Manage Sharing of Documents (with Document Integrity inserted as an option)	HITSP/TP13	Transaction Package	To ensure the integrity of a document that is exchanged or shared
Collect and Communicate Security Audit Trail	HITSP/T15	Transaction	To define and identify security relevant events and the data to be collected and communicated as determined by policy, regulation, or risk analysis
Consistent Time	HITSP/T16	Transaction	To ensure that all the entity systems that are communicating within the network have synchronized system clocks
Secured Communication Channel	HITSP/T17	Transaction	To ensure the authenticity, the integrity, and the confidentiality of Transactions, and the mutual trust between communicating parties
Entity Identity Assertion	HITSP/C19	Component	To ensure that an entity is the person or application that claims the identity provided
Access Control	HITSP/TP20	Transaction Package	To ensure that an entity can access protected resources if they are permitted to do so
Nonrepudiation of Origin	HITSP/C26	Component	To support Nonrepudiation of Origin
Manage Consent Directives	HITSP/TP30	Transaction Package	To ensure that a consumer's consent directive relating to the collection, access, use, or disclosure of the consumer's IIHI are captured, managed and available to requesting actors, e.g., a Document Source deploying the consent directive in the course of collecting, publishing, and registering the IIHI



# **Base and Composite Standards**

- ▶ Per HITSP definition the term "standard" refers, but is not limited to:
  - Basic Specifications
  - Implementation Guides
  - Code Sets
  - Terminologies
  - Integration Profiles
- ▶ A base standard is capable of fulfilling a discrete function within a single category produced and maintained by a single standards organization
- Composite standards are groupings of coordinated base standards, often from multiple standards organizations, maintained by a single organization.



### **Security & Privacy Selected Standards**

- Originally 249 candidate standards (including reference documents/guidelines) identified in the RDSS as candidates to meet the security requirements from the EHR-Lab, Consumer Empowerment and Biosurveillance 2006 Use Cases.
- Final selection:
  - 8 Composite Standards
  - 20 Base Standards
- ▶ Final Selection includes some standards previously selected and that had already been incorporated into HITSP IS-01, IS-02, IS-03

#### Security & Privacy Selected Standards

#### **Selected Composite Standards:**

**IHE XUA** 

**IHE BPPC** 

**IHE ATNA** 

**IHE Consistent Time** 

**IHE DSG** 

IHE XDS (ITI-14/15/16/17)

IHE XDS.B (via TP13)

**IHE NAV** 

#### **Selected Base Standards:**

**ASTM E2147** 

ASTM E1762-2005

**DICOM Supplement 95** 

**HL7 Data Consent Message** 

**HL7 Confidentiality Codes** 

HL7 v3.0 Consent Related Vocabulary

ISO 10164-7

ISO 15000 ebRS

ITU-T X.509

OASIS SAML 2.0

**OASIS WS-Security** 

**OASIS WS-Federation** 

**OASIS WS-Trust** 

OASIS XACML

RFC 3881 (Healthcare Audit Log)

RFC 1305 (NTP)

RFC 2030 (SNTP)

RFC 2246 (TLS)

RFC 3164 -BSD Syslog

W3C XML Digital Signature



#### **Future Use Cases**

#### 2008 Use Cases with Security and Privacy implications

- Remote Consultation
- Remote Monitoring
- Immunizations & Response Management
- Personalized Healthcare
- Public Health Case Reporting
- Consultation and Transfers of Care

#### ▶ 2009 and Beyond Use Cases for Security and Privacy

- CC 18.0 Patient identification for authorization and authentication
- AHIC 2.0 Secure messaging/online consultation
- AHIC 7.0 Identification/authentication
- AHIC 14.0 Confidentiality, privacy, & security of patient data
- AHIC 15.0 Data access/data control
- AHIC 17.1 Security, network, repositories
- AHIC 30.0 Provider list
- HITSP 5.0 Cross use case work on security (standards)
- HITSP 5.3 Authentication models to support chain of trust data exchanges
- AHIC 46.0 Legal liability & regulatory barriers
- AHIC 47.0 Consumer consent