

September 2009 - Standards Implementation Guidance				
Functionality	Standards	Implementation Guidance (2011)	Implementation Guidance (2013-2015)	Gaps, Notes, Comments, and Future
<b>PRODUCT CERTIFICATION STANDARDS</b>				
Access Control	45 CFR Parts 160, 162, and 164 Health Insurance Reform: Security Standards; Final Rule. February 20, 2003. § 164.312(a) Access Control (HIPAA)			
	FIPS 197, Advanced Encryption Standard, Nov 2001	NIST SP800-111 - Guide to Storage Encryption Technologies for End User Devices		
	HL7 V3 RBAC, R1-2008, HL7 Version 3 Standard: Role Based Access Control (RBAC) Healthcare Permissions Catalog, Release 1, February 2008		HITSP/SC108 -- Access Control (Using any implementation of RBAC that supports permissions from the HL7 permissions catalog)	
	OASIS eXtensible Access Control Markup Language (XACML), ITU-T Recommendation X.1142, February 2005		HITSP/SC108 -- Access Control (exchanging privacy policy in computable form using healthcare specific XACML schema)	Contingent on availability of healthcare specific XML schema, user attributes, role codes, etc.
	OASIS Security Assertion Markup Language (SAML) v2.0 OASIS Standard, ITU-T X.1141		HITSP/SC108 -- Access Control (Using C19/SAML assertions supporting healthcare specific attribute schema)	Contingent on availability of healthcare specific XML schema, user attributes, role codes, etc.
	OASIS WS-Trust Version 1.3, March 2007		HITSP/SC108 -- Access Control (Supporting federated identity domains through use of WS-Trust channel between identity providers)	Contingent on availability of healthcare specific XML schema, user attributes, role codes, etc.
Audit	45 CFR Parts 160, 162, and 164 Health Insurance Reform: Security Standards; Final Rule. February 20, 2003. § 164.312(b) Audit Controls (HIPAA)			
	IHE ITI-TF Revision 4.0 or later, Audit Trail and Node Authentication (ATNA) Integration Profile, Section 9.1 Authentication	HITSP/SC109 -- Security Audit		

Authentication	45 CFR Parts 160, 162, and 164 Health Insurance Reform: Security Standards; Final Rule. February 20, 2003. § 164.312(d) Person or Entity Authentication (HIPAA)			
	IETF RFC 4120. The Kerberos Network Authentication Service (V5). July 2005	IHE EUA Integration Profile		
	IHE ITI-TF Revision 5.0 or later, Enterprise User Authentication (EUA) profile	IHE EUA Integration Profile		
	IHE ITI-TF Volume 2 Supplement 2007 – 2008 Cross Enterprise User Assertion (XUA)		HITSP/C19 -- Entity Identity Assertion	
Consent Management	45 CFR Parts 160 and 164. Standards for Privacy of Individually Identifiable Health Information; Final Rule. August 14, 2002; American Recovery and Reinvestment Act of 2009 (ARRA), Subtitle D - Privacy. January 6, 2009 (HIPAA)			Standards work continues that will support more expressive policies than can be acknowledged today
	HITSP/CAP143 Manage Consumer Preference and Consents		HITSP/CAP143 -- Manage Consumer Preferences and Consents	
	IHE ITI-TF Revision 5.0, Basic Patient Privacy Consents (BPPC) Profile		HITSP/CAP143 -- Manage Consumer Preferences and Consents	
	HL7 Version 3.0 Privacy Consent related specifications RCMR_RM010001 - Data Consent		HITSP/CAP143 -- Manage Consumer Preferences and Consents	
Consumer EHR	45 CFR Parts 160 and 164. Standards for Privacy of Individually Identifiable Health Information; Final Rule. August 14, 2002; American Recovery and Reinvestment Act of 2009 (ARRA), Subtitle D - Privacy. January 6, 2009 (HIPAA)			
	HITSP/CAP120 Communicate Unstructured Document (using portable media or system-to-system (PHR) topology)	HITSP/CAP120 Communicate Unstructured Document (using portable media or system-to-system (PHR) topology)		

	HITSP/CAP119 Communicate Structured Document (using portable media or system-to-system (PHR) topology)		HITSP/CAP119 Communicate Structured Document (using portable media or system-to-system (PHR) topology)	
HIPAA Deidentification	45 CFR Parts 160 and 164. Standards for Privacy of Individually Identifiable Health Information; Final Rule. August 14, 2002. Section 164.514(a-b) Deidentification of protected health information (HIPAA)			
	46 CFR Parts 160 and 164. Standards for Privacy of Individually Identifiable Health Information; Final Rule. August 14, 2002. Section 164.514(c) Reidentification (HIPAA)			
	HL7 Version 3.0 Clinical Genomics; Pedigree, Release 1 (Anonymization)		HITSP/C25 - Anonymize (for Biosurveillance and Quality)	
	ISO/TS 25237:2008 Health Informatics -- Pseudonymisation, Unpublished Technical Specification (Pseudonymization)	HITSP/T24 -- Pseudonymize HITSP/C87 - Anonymize Public Health Case Reporting Data Component HITSP/C88 - Anonymize Immunizations and Response Mgmt Data		
Data Integrity	45 CFR Parts 160, 162, and 164 Health Insurance Reform: Security Standards; Final Rule. February 20, 2003. § 164.312(c) Integrity (HIPAA)	HITSP/SC112 -- Healthcare Document Management		Data Integrity is provided for low/moderate level of assurance through SHA1 hash/size independently managed from the document
	FIPS PUB 180-2 with change notice to include SHA-224. 1 August 2002. SHA-2 family (excludes SHA-1).		HITSP/C26 -- Nonrepudiation of Origin	
	ASTM Standard Guide for Electronic Authentication of Health Care Information: # E1762-95(2003)		HITSP/C26 -- Nonrepudiation of Origin	
	HIE ITI-TF Supplement Volume 3 – Document Digital Signature (DSG) Content Profile		HITSP/C26 -- Nonrepudiation of Origin	

	ETSI Technical Specification TS 101 903: XML Advanced Electronic Signatures (XadES)		HITSP/C26 -- Nonrepudiation of Origin	
	ISO/TS-17090, Health Informatics, Public Key Infrastructure		HITSP/C26 -- Nonrepudiation of Origin	
Transmission Security	45 CFR Parts 160, 162, and 164 Health Insurance Reform: Security Standards; Final Rule. February 20, 2003. § 164.312(d) Transmission Security (HIPAA)			
	FIPS PUB 180-2 with change notice to include SHA-224. 1 August 2002. SHA-2 family (excludes SHA-1).	HITSP/T17 -- Secure Communications Channel		
	FIPS 197, Advanced Encryption Standard, Nov 2001	HITSP/T17 -- Secure Communications Channel		
	IETF Transport Layer Security (TLS) Protocol: RFC 2246, RFC 3546	HITSP/T17 -- Secure Communications Channel		
	IETF Cryptographic Message Syntax (CMS), RFC-2630, -3852	HITSP/T17 -- Secure Communications Channel		
<b>INFRASTRUCTURE CERTIFICATION STANDARDS</b>				
Consistent Time	IETF Network Time Protocol (Version 3) Specification, Implementation and Analysis, "Request for Comment" (RFC) #1305, March, 1992	HITSP/T16 -- Consistent Time		
	IETF Simple Network Time Protocol (SNTP) Version 4, "Request for Comment" (RFC) #2030, October, 1996	HITSP/T16 -- Consistent Time		
	IHE ITI-TF Revision 4.0 or later, Consistent Time (CT) Integration Profile	HITSP/T16 -- Consistent Time		
Document Exchange	HITSP/SC112 - Healthcare Document Management	HITSP/SC112 -- Healthcare Document Management		
	IHE ITI-TF Cross Enterprise Document Reliable Interchange (XDR) Integration Profile		HITSP/SC112 -- Healthcare Document Management	
	IHE ITI-TF Revision 5.0 Volume 2 Supplement 2007 – 2008 Cross-Enterprise Document Sharing-B (XDS.b) Integration Profile		HITSP/SC112 -- Healthcare Document Management	

	IHE ITI-TF Revision 5.0 - Registry Stored Query Transaction for XDS Profile Supplement [ITI-18]		HITSP/SC112 -- Healthcare Document Management	
	OASIS/ebXML Registry Information Model v3.0		HITSP/SC112 -- Healthcare Document Management	
	OASIS/ebXML Registry Services (ebRS) Specifications v3.0		HITSP/SC112 -- Healthcare Document Management	
	IHE ITI-TF Revision 5.0 or later, Cross Community Access (XCA) profile		HITSP/SC112 -- Healthcare Document Management	
	IHE ITI-TF Revision 5.0 or later, Cross-Enterprise Document Media Interchange		HITSP/SC112 -- Healthcare Document Management	
	HL7 V3 Confidentiality Codes value set		HITSP/SC112 -- Healthcare Document	
Service Access	OASIS Simple Object Access Protocol (SOAP) Version 1.1	IHE ITI-TF Vol 2: Appendix V (Web Services for IHE Transactions)		
	OASIS Web Services Security:SOAP Message Security 1.1 (WS-Security 2004), 1 February 2006	IHE ITI-TF Vol 2: Appendix V (Web Services for IHE Transactions)		
Domain Name Service	IETF: RFC-2181, -2219, -2782. Domain Name Service (DNS) services	HITSP/T64 -- Personnel White Pages		
Directory Access	IETF: RFC-2251, -2252, -2253. Lightweight Directory Access Protocol (LDAP)	HITSP/T64 -- Personnel White Pages -- any directory schema is allowed		HITSP is working on a cross-enterprise provider directory
	IHE ITI-TF Revision 4.0 or later, Personnel White Pages (PWP)		HITSP/T64 -- Personnel White Pages -- conformant directory schema required	
	RFC 1766 Tags for the Identification of Languages		HITSP/T64 -- Personnel White Pages	