

US Office of National Coordinator (ONC)
Standards and Interoperability (S&I) Framework
Cross Initiative – S&I Simplification Work Group

Simplification & UCAT Priorities

In collaboration with NIST and AHRQ

25 June 2015

S&I Simplification - Analysis Status - 11 December 2014 - Core Matrix Version 3.3 DRAFT
Incorporation of Use Case Initiatives in S&I Simplification Core Matrix

Initiative	Initial Analysis Phase - Core Matrix					FHIM	AHRQ	Consensus Core Matrix						
	Analysis Type	Common Requirements	Common Actors, Systems, Roles	Scenarios, Event Steps	Common Actions	Common Data Objects, Elements	US Health Information Knowledgebase							
Transitions of Care (TOC)	Retro	COMPLETE	COMPLETE	COMPLETE	COMPLETE	FHIM Mapping in Progress	REGISTERED	v1						
Lab Results Interface (LRI)								v2.1						
Longitudinal Coordination of Care (LCC) 1		In Progress						TBD						
LCC 2		In Progress						TBD						
Lab Orders Interface (LOI)		COMPLETE	COMPLETE	COMPLETE	COMPLETE	COMPLETE	FHIM Mapping in Progress	REGISTERED	v2.1					
Provider Directory (PD) - Digital Certificate														
PD - Electronic Address														
esMD 1 - Electronic Submission of Medical Documentation, Provider Profiles Authentication														
esMD 2 - Structured Content of Electronic Medical Documentation Request (eMDR)		Concurrent	COMPLETE	COMPLETE	COMPLETE	COMPLETE	FHIM Mapping in Progress	REGISTERED	v2.1					
esMD 3 - Author of Record Level 1														
esMD 3 - Author of Record Level 2														
esMD 3 - Author of Record Level 3	TBD	Future												
Query Health (QH)	Retro	COMPLETE	COMPLETE	COMPLETE	COMPLETE	FHIM Mapping in Progress	REGISTERED	v2.1						
Data Segmentation for Privacy (DS4P)														
Public Health Reporting (PHRI)							Awaiting Tooling	v3						
HeD 1 - Health eDecisions - Clinical Decision Support (CDS) Artifact Sharing														
HeD 2 - CDS Guidance Service														
Structured Data Capture														
EU/US eHealth Initiative							Concurrent							
DAF 1 - Data Access Framework - Local Access							Retro							
DAF 2 - Targeted Access														
Data Provenance	Concurrent													
RESTful Health Exchange (RHEX)	TBD	TBD						TBD						
Automated Blue Button														
Electronic Certificate		N/A				In Progress	REGISTERED	N/A						

General Priorities

- Analyze Components from Latest S&I Use Case Requirements, if S&I continues...
- **S&I Plus Strategy**
 - Leverage Opportunities
 - Leverage Standards

Leveraging Opportunities

- S&I Use Cases – Buildout
- ISO TC215 and CEN TC251 National Member Bodies (via ISO 19669)
 - Often tied to National HIT Programs
- Federal Health Architecture
 - DoD, VA, IHS, FDA, CMS, HHS, ONC, CDC, NLM, NIH
- NIST: Cross Industry
- **Canada Health Infoway**
- West Health Institute
- **Health Services Platform Consortium (HSPC)**
- HL7 Argonaut Project

Leveraging Standards

- Via FHIM:
 - HL7 Version 2 Messages
 - HL7 Clinical Document Architecture (CDA) Release 2
 - » Consolidated CDA, Continuity of Care Document (CCD)
 - HL7 Fast Health Interoperable Resources (FHIR)
- Via S&I Simplification Use Case Events/Actions
 - ISO/HL7 10781 EHR System Functional Model R2 Functions
 - ISO/HL7 16527 PHR System Functional Model R1 Functions
 - EHR and PHR System Functional Profiles

ISO 19669

- Re-Usable Component Strategy for Use Case Development
 - Scope: S&I Use Case Simplification Methodology
 - In collaboration with ISO and CEN Appointed Experts
 - Reviewed with ISO TC215 WG1 in San Francisco
 - April 2015
 - Experts appointed from Australia, Brazil, Japan, Korea, UK
 - DRAFT in Development
 - Expert review needed

Now

Priorities

1. Continue work under S&I – until new framework
2. Build end-to-end demo with NIST and CDC, focused on Immunization Use Case – Rob Snelick, Rob Savage
3. Quantify FHIM data object compilation from S&I Initiatives – Galen Mulrooney, Ioana Singureanu
4. Seek additional Use Case Template examples: blank and completed – Gary Dickinson, et al.
5. Continue development of Use Case Exchange format – Art Griesser, Michael Faughn, et al.
6. Re-engage with AHRQ/USHIK
7. Develop promotional material

Use Case Template Examples

Seeking	Requests to	Status
1) Blank Use Case Requirements Template 2) Template with one or more example Use Case(s) filled in	Nancy Orvis, DOD MHS	Requested
	David Bass, VHA	Received
	Other FHA Agencies, via FHA HIM	Requested
	ISO TC215 National Member Bodies - Beatriz Leao (Brazil)	Received
	CEN TC215 WG1 – Stephen Kay (UK)	Anticipated
	Canada Health Infoway – Ron Parker	Requested
	Health Services Platform Consortia (HSPC) - Craig Parker, MD, Laura Heerman	Discussed
	West Health Institute – Todd Cooper	Discussed

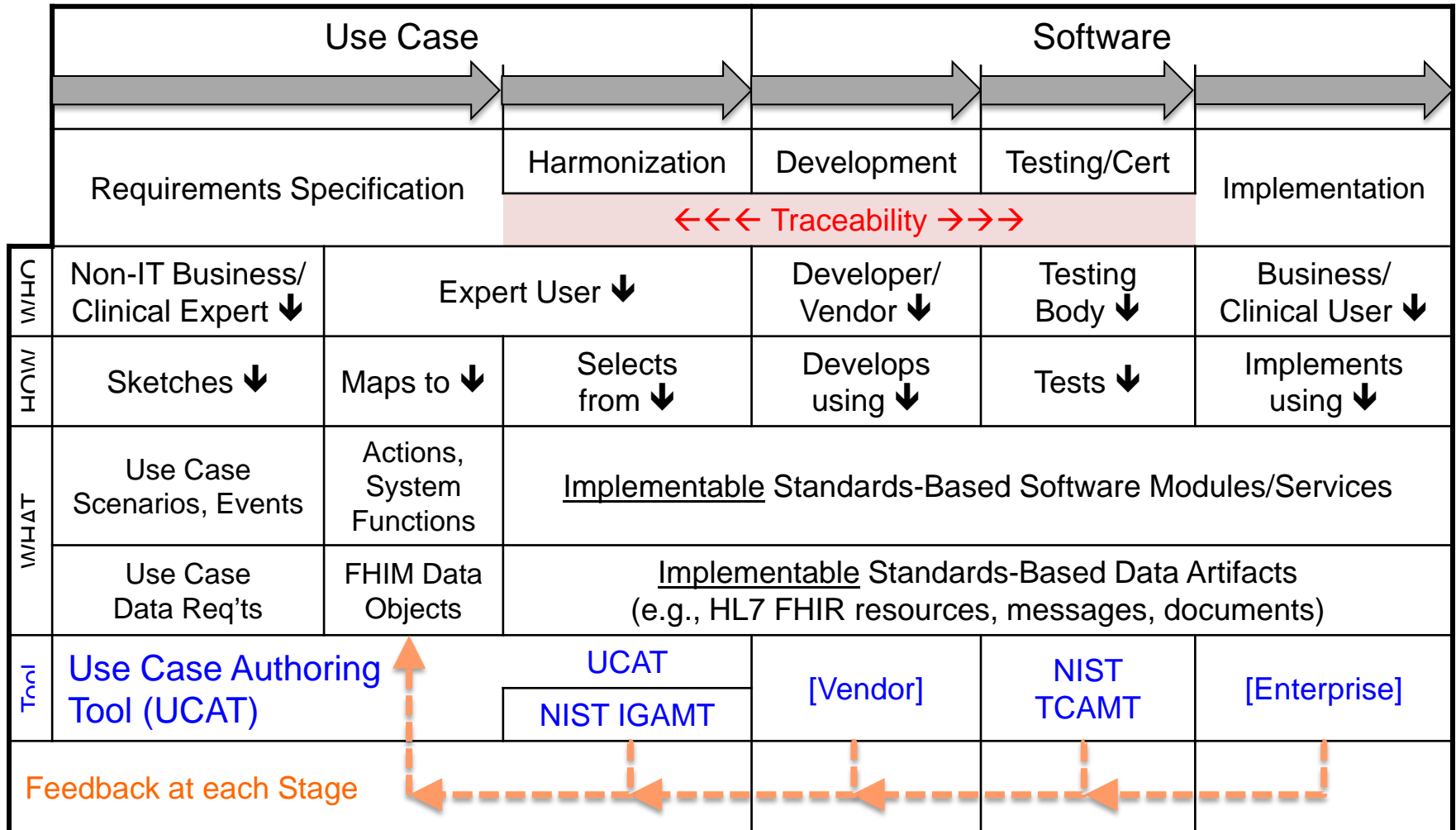
S&I Simplification – Going External, Going International

Use Case Template

	S&I Framework Use Cases ↓	Other Use Cases ↓
	S&I Use Case Template	Basic Use Case Template
Requirements	<ul style="list-style-type: none"> • Assumptions • Pre/Post Conditions • System Functional Reqt's • Traceability 	Same?
Actors, Roles	Person, Organization, System	Mapped to Domain Specific Actors/Roles
Scenarios, Event Steps	<ul style="list-style-type: none"> • Event Description • Actor, Role • Inputs, Outputs 	Same?
Actions	Mapped to EHR/PHR/Other System Functions	Mapped to Domain Specific Actions and Function Set(s)
Data Objects	Mapped to FHIM Data Objects	Mapped to Domain Specific Information Model, Data Objects

Traceability – Anchored by Use Case Authoring Tool (UCAT)

From Sketch to Implementation



S&I Simplification

Progression Steps*

Steps	Tool	Used to...
S&I Use Case Requirements (UCR) Phase		
A-B	Excel	(Current) Analyze UC Components, Update Core Simplification Matrix
C-D	UCAT	Build Use Case, specify Requirements and Details
E		Render completed Use Case per S&I UCR Template (Word .docx)
F		Identify New Core Component Candidates from this Use Case
G		For FHIM update: identify new UC data objects, elements
H		Output to USHIK: full Use Case
I		Output to NIST Tool Suite (IGAMT/TCAMT): full Use Case
S&I Harmonization Phase		
J-K	IGAMT/UCAT	Develop/manage Implementation Guides for selected standards
NIST-designed Software Testing and Certification		
M-S	IG/TCAMT	Develop/manage software test cases; support testing and validation

* See S&I Simplification – Progression Spreadsheet

S&I Simplification

Convened as S&I Work Group

- S&I has acted as Convening Organization
 - S&I brings together parties with like interests, invites discourse and development
 - S&I relies on others to be repository of artifacts
 - » As: FHIM, USHIK, VSA, SNOMED, LOINC, CIMI...
 - S&I relies on others to develop and supply tools
 - » As: MDHT, Prometheus, Sparx...
 - S&I will adopt tools widely used by other federal agencies

S&I Framework – Cross Initiative – S&I Simplification

Links

- US Office of National Coordinator (ONC) Standards and Interoperability (S&I) Framework Wiki
 - <http://wiki.siframework.org>
- S&I Simplification Wiki
 - <http://wiki.siframework.org/Cross+Initiative+--+S%26I+Simplification+WG>
 - <http://wiki.siframework.org/Use+Case+Simplification+Reference+Materials>
- Federal Health Information Model (FHIM)
 - <http://www.fhims.org>
- AHRQ/USHIK S&I Pilot Site
 - <http://ushik-stg.dcgrouppinc.com/mdr/portals/si?system=si&enableAsynchronousLoading=true>
- HL7 EHR Interoperability Wiki
 - http://wiki.hl7.org/index.php?title=EHR_Interoperability_WG