

HIT Standards Committee

S&I and CDA – Update and Discussion

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Recap

- Established a set of Use Cases corresponding to key transitions specified in Meaningful Use
- Identified and prioritized the information to be exchanged from a clinical / business perspective (TOC CIM)
- Selected CDA as the standard to exchange that information

Today's Discussion – deep dive into CDA activities

- CDA Consolidation
- CDA tools and resources for implementers
- Potential use of Green CDA

The S&I Framework identified three primary areas of concern regarding CDA (CCD/C32) implementation and interoperability.

Issue #1: Inadequate and Confusing Documentation

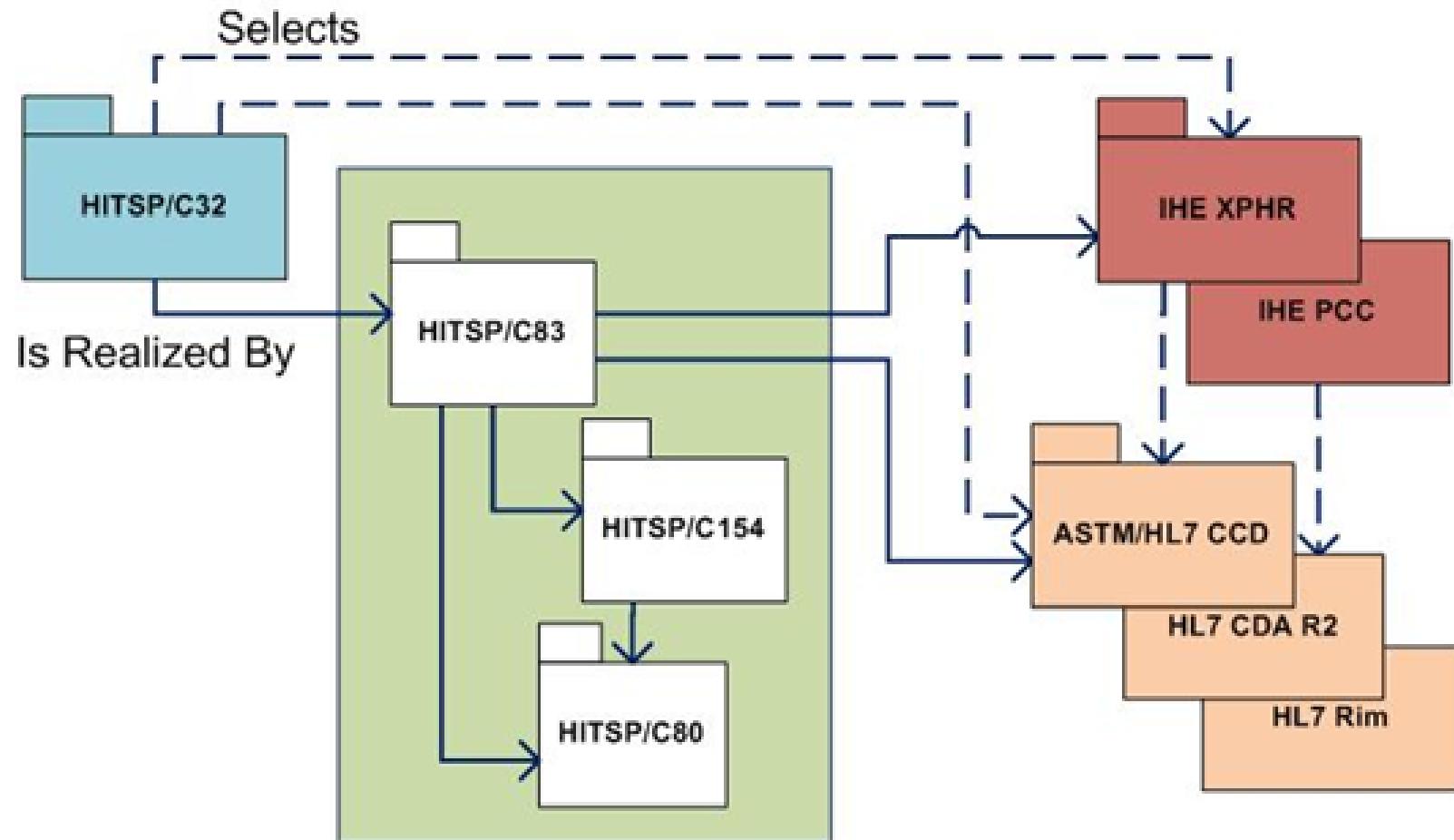
- CDA Document, Section, and Entry templates balloted by disparate organizations and scattered across more than a dozen documents.
- C32 is a 5 page specification; its implementation information is spread across 8 different documents totaling hundreds of pages.

Solution: CDA Consolidation

- ONC fostered SDO and implementer collaboration to reconcile and consolidate all CDA Templates in to a newly balloted single Implementation Guide.
- HL7 received and addressed more than 1000 comments – primarily from implementers

Before Consolidation C32 Documentation Issues

Figure 1. – Document and Standards Relationships



After Consolidation

Single Source of CDA Components

Implementation Guide for Consolidated CDA Templates

- Document Templates: 9
- Section Templates: 60
- Entry Templates: 66

Templated CDA focuses on
reusability of components

Clinical Summary

Allergies
Medications
Problem List
Procedures
Results

Advance Directives
Encounters
Family History
Functional Status
Immunizations
Medical Equipment
Payers
Plan of Care
Social History
Vital Signs

Consult Note

Assessment and Plan
Plan of Care
History of Present Illness
Physical Exam
Reason for Referral

Allergies
Chief Complaint
Reason for Visit
Family History
General Status
History of Past Illness
Immunizations
Medications
Problem List
Procedures
Results
Review of Systems
Social History
Vital Signs

Issue #2: Lack of Implementer Tools and Resources

- One implementer described the toolset employed to wade through CDA based PDFs in order to understand requirements
 - Laser Printer
 - Yellow Highlighter
 - Legal Pad
- We cannot require software engineers to digest hundreds of pages or to have a PhD in CDA in order to implement it – we must provide them with a better way to interface with the standard

Solution: Express CDA as a Computable Model

- ONC joined MDHT project supported by the VA and IBM Research
- Paradigm changer – Documents → Models → Resources

Issue #3: Overly Complicated XML Schema

- The base standard requires even limited scope CDA instances to carry the full compliment of base CDA hierarchies, elements and attributes.
- Implementers are unable to scope CDA down to the level of complexity relevant to a specific instance.

(Potential) Solution: Green CDA

- The definition of instance specific schemas which allow implementers to ‘leave behind’ the complexities of CDA which are not pertinent to their implementation.
- Assignment of business labels (e.g. ‘code/@code’ → ‘Result Type’)
- Transformable to canonical CDA to maximize compatibility
- Natural extension of Consolidation and MDHT efforts