HITSP ARRA Efforts

Internal Review Team (IRT) Overview
8 July 09 | HITSP Panel Meeting

TC Members
- Charles Parisot (co-chair)
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Staff Members
- Jack Corley (staff co-chair)
- Bob Yencha, Ed Larsen
- Gene Ginther, Sarah Quaynor
- Erik Pupo

How All the HITSP ARRA Efforts Fit Together

❑ The Efforts
- EHR-Centric IS
- Security, Privacy, and Infrastructure
- Quality Measures
- Data Architecture
- Harmonization Framework and Exchange Architecture
- Content and Publication Management
- Gap Resolution Plan for HITSP Support to Meaningful Use

❑ Basic Concepts and Simplification through Reuse
- Exchange Architecture
- Data Architecture
- Capability
- Service Collaborations

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Starting Point – ARRA Requirements and Tiger Teams
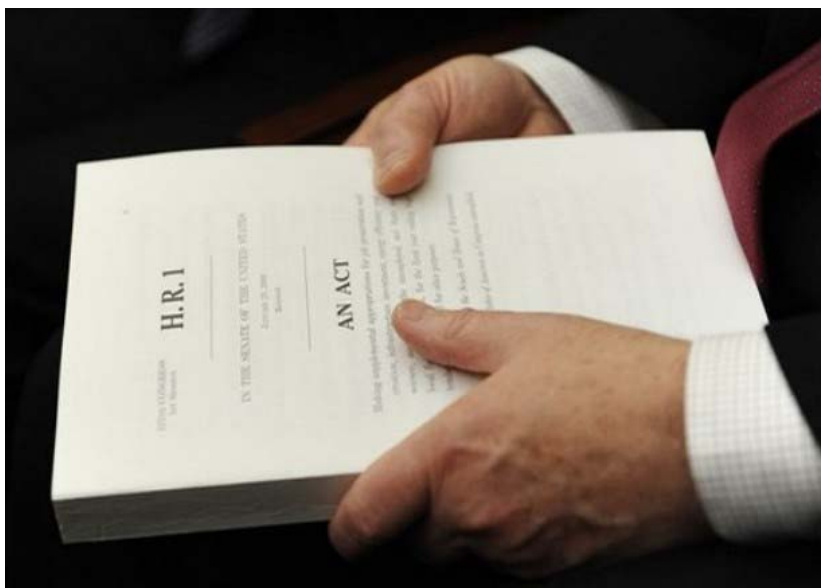
EHR Centric IS
- Capitalize on existing specifications
- Organize according to EHR Information Exchanges
- Establish Capability Concept

Security, Privacy, and Infrastructure
- Define Infrastructure Service Collaborations
- Integrate Security and Privacy functions

Quality IS
- Ability to interoperably specify Measure
- Ability to extract patient-specific data from EHR and other sources for a measure

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Foundation to Simplify and Clarify HITSP Support for ARRA

Other Team Efforts	Objective
Harmonization Framework and Exchange Architecture	Enhance fundamental HITSP concepts to dramatically simplify specification creation and use of Specifications
Data Architecture	Ensure consistent and effective Data Elements, Value Sets, and Templates
Content and Publication Management	Establish the foundation for electronic publishing
Gap Resolution Plan for HITSP Support to Meaningful Use	Establish strategic plan to address Meaningful Use Requirements that increase over time **To Be Done In July and August**

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ARRA / HITECH Eight Priority Areas

HITSP Tasks for ARRA	Eight Priority Areas for HIT in ARRA							
	Security + Privacy	HIT Infrastructure	Certified EHR	Disclosure Audit	Quality	IIHI* Unusable	Demographic Data	Vulnerable Pop
EHR-Centric IS			■		■		■	■
Security and Privacy Service Collab	■	■	■	■	■	■		
Quality Measures			■		■			■
Supporting Deliverables								
Harmonization framework	■	■					■	■
Data Architecture		■	■		■		■	■

* Individually Identifiable Health Information (IIHI) Unusable

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ARRA / HITECH Meaningful Use

HITSP Tasks for ARRA	ARRA Title IV (Division B) – Section 401 – Medicare Incentives			
	e-Prescribing	Info Exchange to Improve Quality	Report Quality Measures	Certified EHR
EHR-Centric IS	■	■	■	■
Security and Privacy Service Collab	■	■		■
Quality Measures			■	■
Supporting Deliverables				
Harmonization framework	■	■		■
Data Architecture	■	■	■	■

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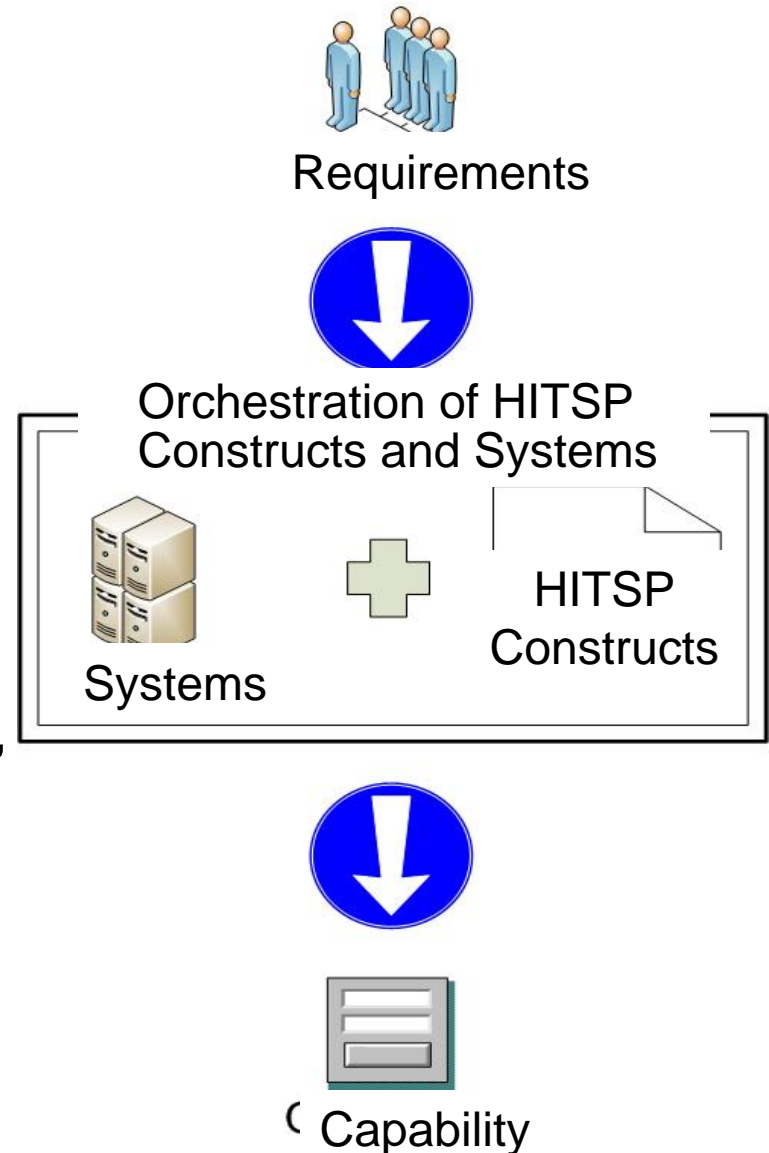
Capability
Created To Simplify Design and Use Of HITSP Specifications
For ARRA Efforts And Beyond

A new concept - HITSP Capability

❑ A HITSP capability is an implementable business service that specifies interoperable information exchanges using HITSP constructs.

❑ It is meant to supports stakeholder requirements and as part of its design, it includes workflow, information content, infrastructure, security and privacy.

❑ Capabilities include constraints and operate on specific network topologies (contexts)

❑ Capabilities have options: subsets of the data content can be sent or received as appropriate by a system implementing a capability.

What is a capability?

❑ Capabilities are specified using HITSP Constructs.

❑ As part of the HITSP Tiger Team effort addressing ARRA, Capabilities are meant to clearly state what types of data HITSP can and cannot "exchange"

❑ During the ARRA Tiger Team effort, no new standards were selected, and no new constructs were specified to build capabilities

Requirements

Orchestration of HITSP Constructs and Systems

Systems

HITSP Constructs
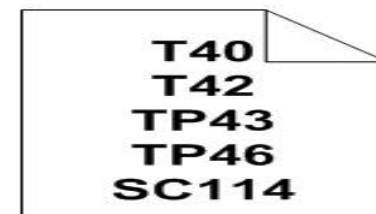
Capability

What is an example of a capability?

☐ Requirement: An organization wants to exchange a prescription with an ambulatory organization.

☐ The diagram on the right shows how Capability 117 was assembled to support this requirement.
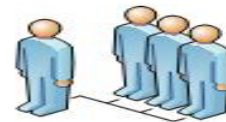
I want to exchange a prescription with an Ambulatory of Long-Term Care (LTC) Organization
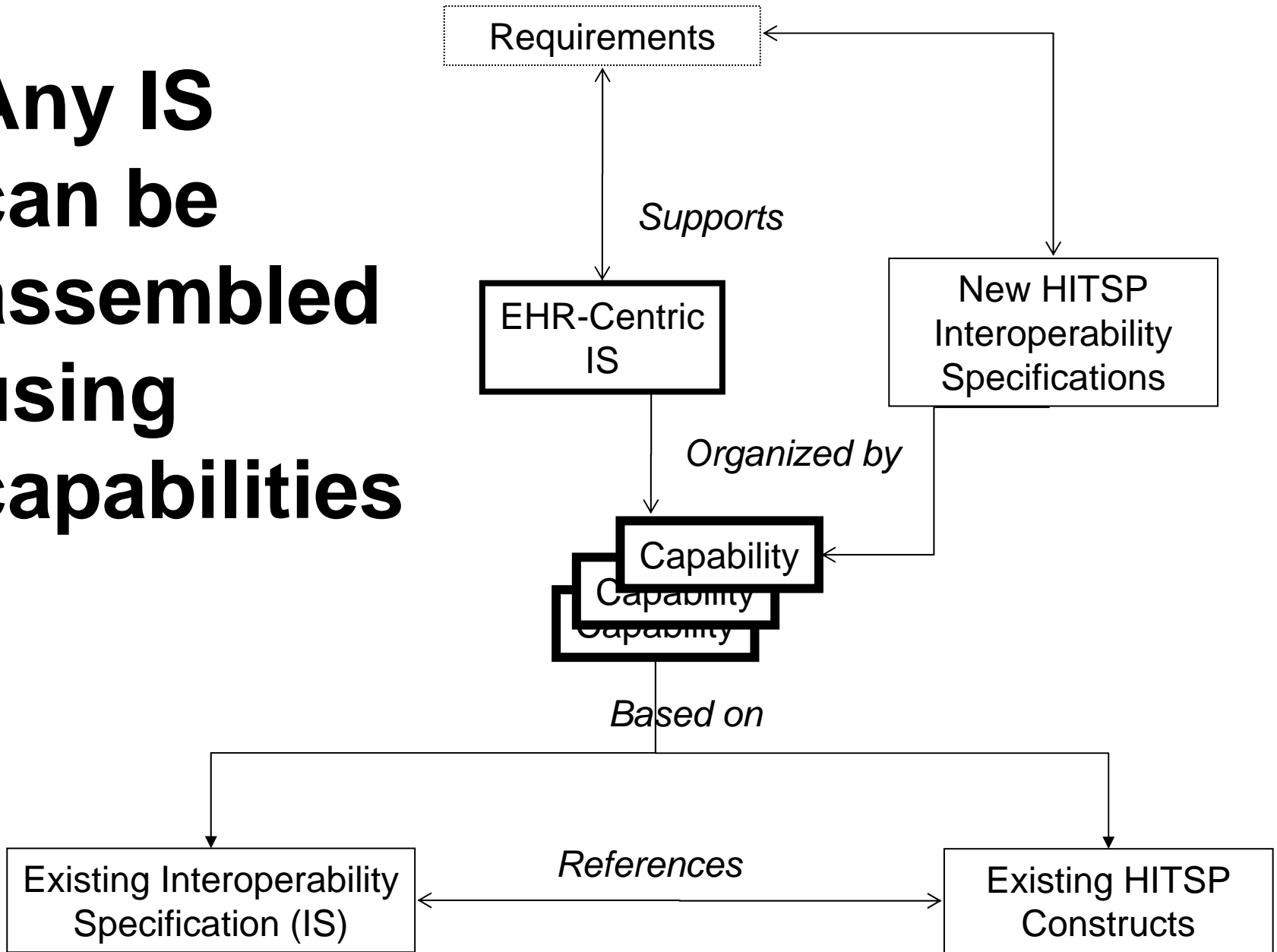
EHR System
EHR Hospital
Pharmacy System
HIE
PGM/Payer System
Clinical Decision Support
HC Entities

T40
T42
TP43
TP46
SC114

CAP117 – Communicate Ambulatory and Long Term Care Prescription

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Any IS can be assembled using capabilities

Requirements

Supports

EHR-Centric IS

New HITSP Interoperability Specifications

Organized by

Capability
Capability
Capability

Based on

Existing Interoperability Specification (IS)

References
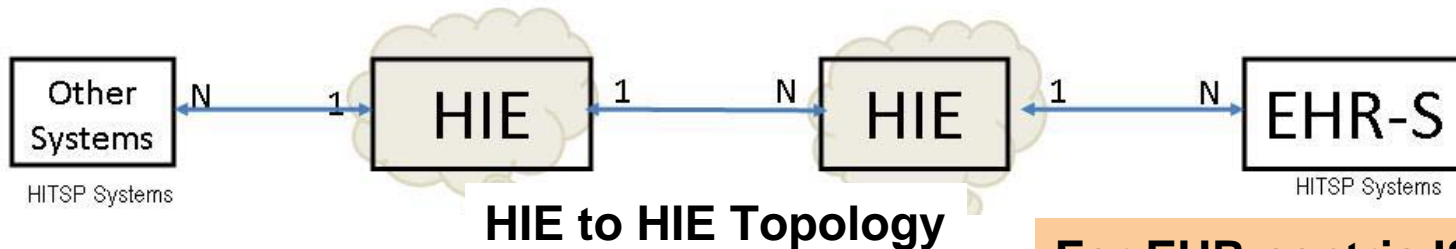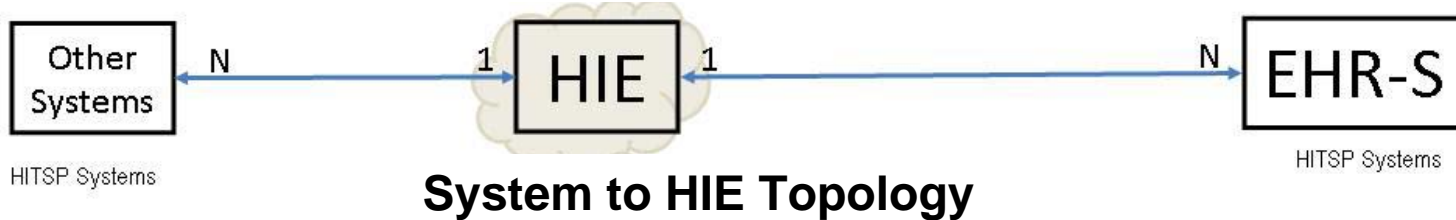
Existing HITSP Constructs

Service Collaborations
Exchange Architecture and
Data Architecture

Additional Keys To Simpler Definition and Implementation Of HITSP Specifications

Relating Service Collaborations to Capabilities

EHR Centric IS
Quality IS
Other New IS

IS documents/Workflows

Capabilities

Existing ISs today

Service Collaborations

Query for Existing Data

Healthcare Document Mgt

Patient Identity Management

Knowledge and Vocabulary

Healthcare Images

Other Service Collaboration

Component (e.g. C26)

Transaction Packages (e.g. TP13)

Constructs Specified in Service Collaborations

Transactions (e.g. T29)

What does HITSP mean by Exchange Architecture?

Other Systems — 1 → EHR-S

HITSP Systems   HITSP System

Portable Media Topology

Other Systems — 1 — **Network** — 1 — EHR-S

HITSP Systems   HITSP System

System to System Topology

Other Systems — N — 1 — **HIE** — 1 — N — EHR-S

HITSP Systems   HITSP Systems

System to HIE Topology

Other Systems — N — 1 — **HIE** — 1 — N — **HIE** — 1 — N — EHR-S

HITSP Systems   HITSP Systems

HIE to HIE Topology
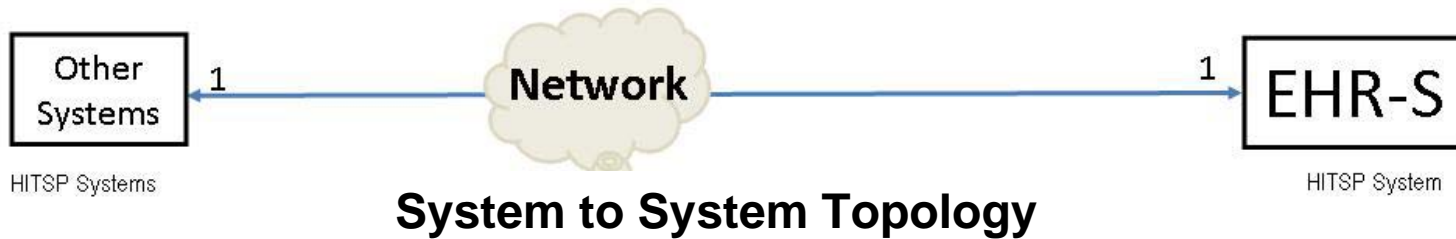
**For EHR-centric IS,
an EHR-S must participate**

Data Architecture: Consistency for Data Elements

❑ Each data element defined for consistent use across different information exchanges
  – Usable for both document and message exchange standards (HL7 V3 CDA, HL7 V2, NCPDP, X12, etc.)

❑ Similar data elements for different standards treated as same HITSP data element to maximize interoperability

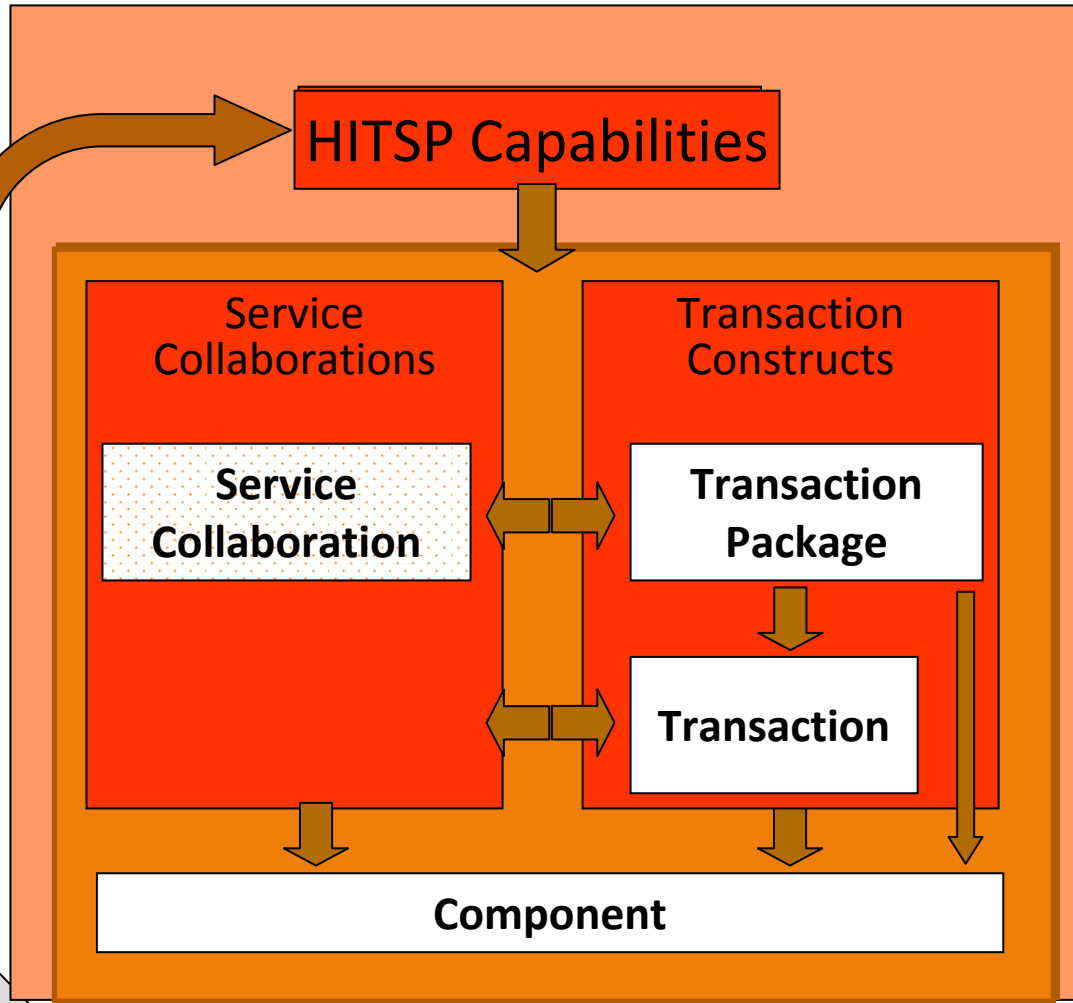❑ Constraints may be applied to a data element to facilitate use across a wide variety of standards

SDO Document Section	Area of constraint	Data Element Definition	HITSP Opt/Repeat	Additional Constraints
2.4 Section Constraints	2.4.1 Measure Set Section	This section describes constraints that apply to the Measure Set section and contains constraints regarding measure set names and measure names from a measure set and codes or other identifiers and may contain text descriptions. Each measure set is	R	HITSP-QRDA-3 The measure developer **SHALL** register the measure set OID with HL7 or other identified SDO

The Refined HITSP Framework

Business Requirements
Identifies interoperability business needs

Interoperability Specification

- Identifies what HITSP capabilities and constructs to use to meet Business Needs
- Defines Requirements, Context and Constraints for those capabilities and constructs

HITSP Capabilities

Service Collaborations

Transaction Constructs

Service Collaboration

Transaction Package

Transaction

Component

SDOs

Base Standard #1

Base Standard #2

Base Standard #...

Base Standard #n

Composite Standard #1

Composite Standard #...

Composite Standard #m

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