



Healthcare Directory Technology Learning Community

TLC Meeting – June 9, 2017

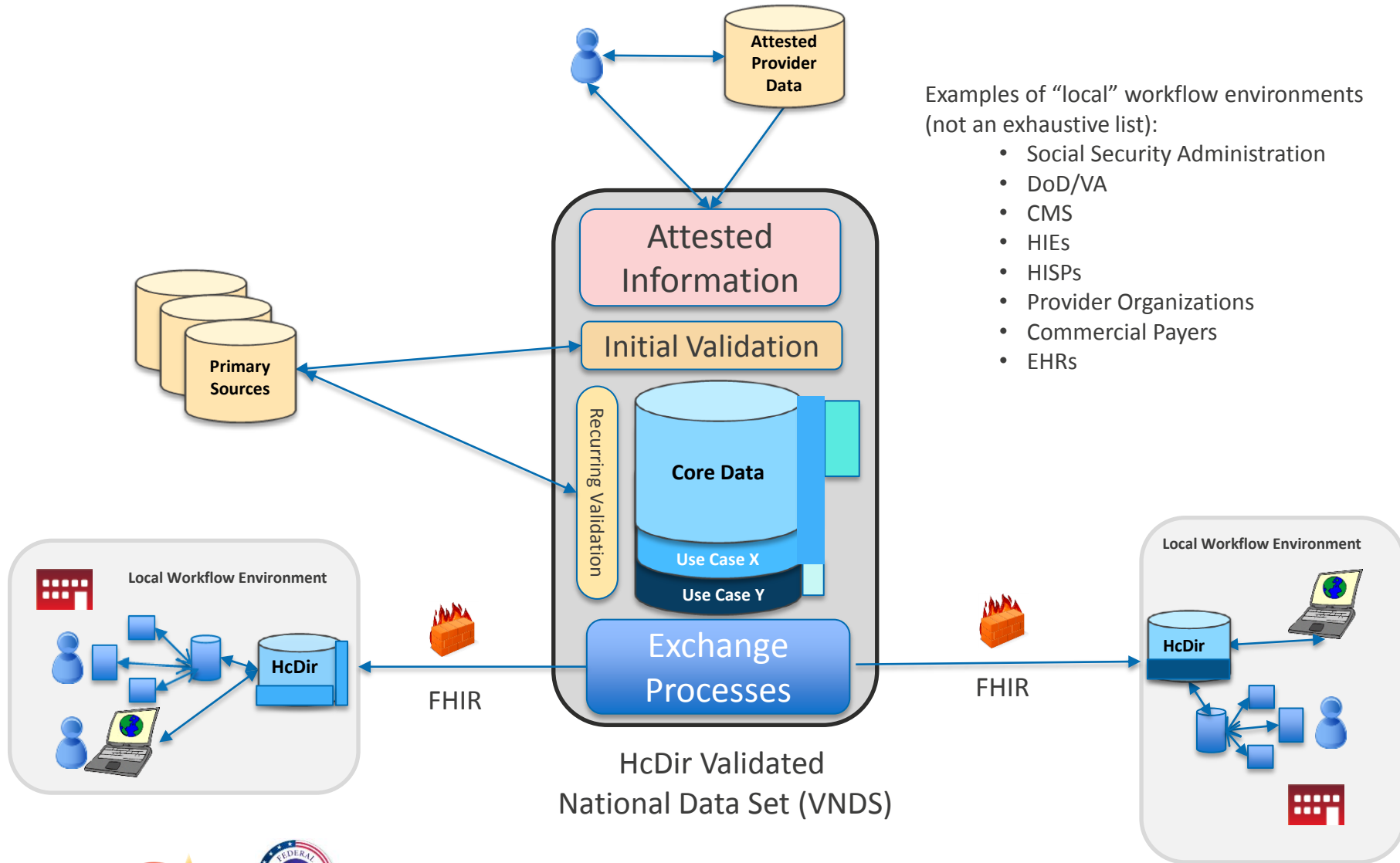
Daniel Chaput, ONC – Rim Cothren, A Cunning Plan - Bob Dieterle - EnableCare, LLC



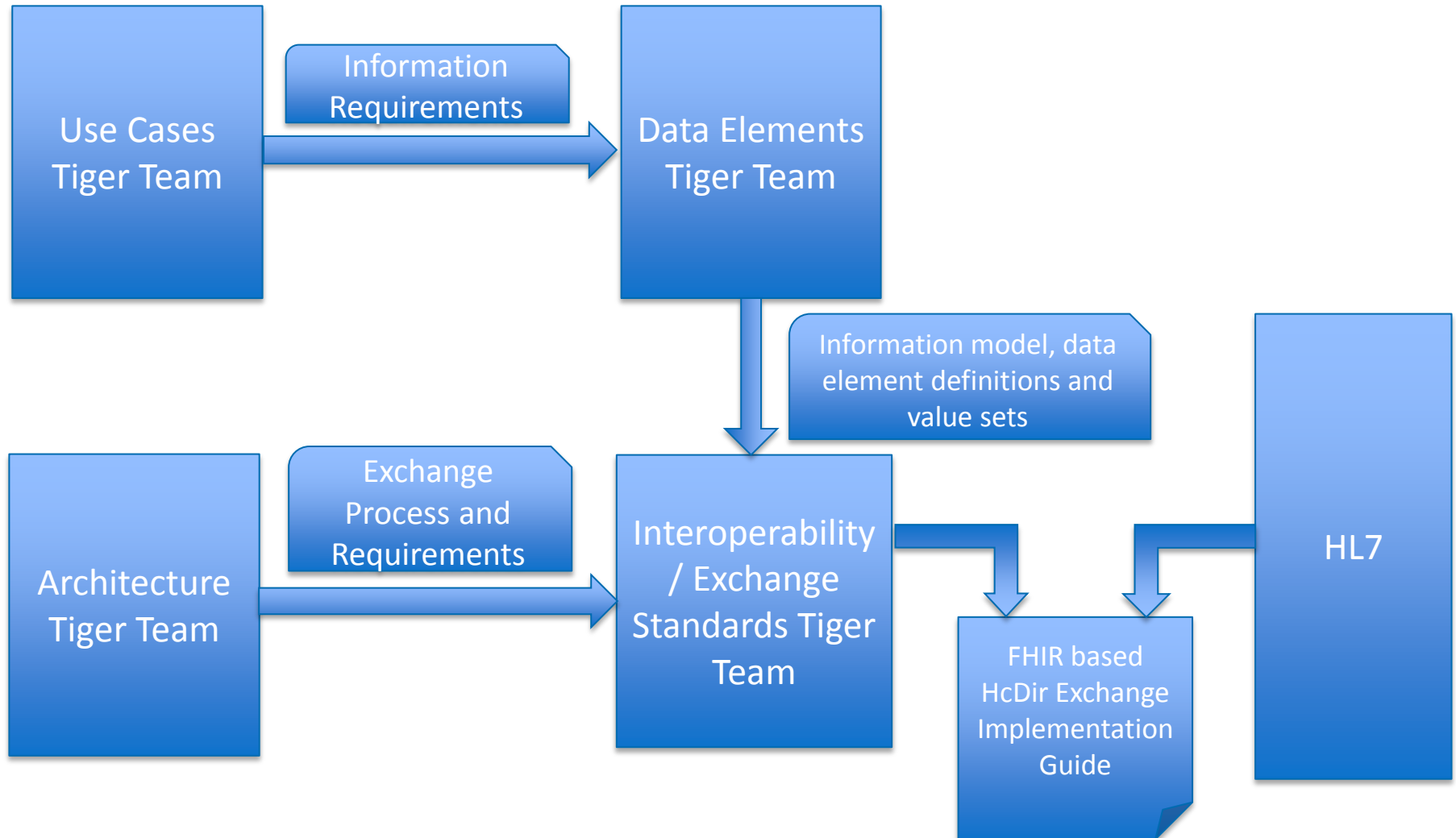
Agenda

- Welcome and Housekeeping
- Tiger Team Updates
- Discussion
 - » Reporting and healthcare directories

HcDir Conceptual Architecture -- Draft



ONC-FHA Healthcare Directory Tiger Team Dependencies



Use Cases

- Basic Information Exchange
 - » A1. Enable electronic exchange (e.g. discovery of electronic end points such as IHE/EHR endpoints, FHIR server URLs, Direct addresses)
 - » A2. Find an individual and/or organization (even if no electronic end point is available)
- Patient/Payer focused
 - » B1. Find provider accessibility information (specialty, office hours, languages spoken, taking patients)
 - » B2. Relationship between provider and insurance plan (insurance accepted) or plan and provider (network)
 - » B3. Plan selection and enrollment
 - » B4. Claims management (adjudication, prior authorization, payment)

Use Cases (Cont.)

- Care Delivery / Value Based Care
 - » C1. Provider relationship with a patient (e.g. for alerts)
 - » C2. Provider relationship with other providers in context of a patient (e.g. care team communications)
- Other
 - » D1. Provider credentialing
 - » D2. Quality or regulatory reporting (e.g. aggregate data, plan networks)
 - » D3. Detection of fraud; inappropriate approval of services and/or payment for services

Data Elements Tiger Team

1	2	3	A	B	C	D	E	F	G	H	I	
					Cardinality							
				Information Requirement [1]	Ind	Org		A1	A2	B1	B2	E
				Demographics								
				Individual type	1..*	--		Yes	Yes	Yes	Yes	
				Organization type [6]	--	1..*		Yes	Yes	Yes	Yes	
				Name		1..1		Yes	Yes	Yes	Yes	
				Description	--	0..1					Yes	
				Alternate name (a.k.a., d.b.a., alias, historical)		0..*		Yes	Yes	Yes	Yes	
				Name type		1..1		Yes			Yes	
				Time period		1..1			Yes	Yes		
				Primary Address [2]		0..1		Yes				
				Alternate address (including historical) [2]		0..*		Yes	Yes	Yes	Yes	
				Address type		1..1		Yes	Yes	Yes	Yes	
				Time period		1..1			Yes	Yes	Yes	
				Gender	1..1	--		Yes	Yes	Yes	Yes	
				DOB/Age	1..1	--		Yes	Yes	Yes	Yes	
				Picture	0..1	--				Yes		
				Identification								
				Global unique identifier [3] [7]	1..1	1..1			Imp	Imp	Yes	
				Identifier (NPI, etc.)	0..*	0..*		Yes	Yes	Yes	Yes	
				Type	1..1	1..1		Imp	Yes	Yes	Yes	
				Time period	1..1	1..1			Yes	Yes	Yes	
				License information (state, DEA, etc.)	0..*	0..*		Yes	Imp	Imp	Imp	
				Type	1..1	1..1		Imp	Imp	Imp	Imp	
				Time period	1..1	1..1			Imp	Imp	Imp	
				Tax ID	0..1	1..1		Yes				
				Contact information		1..*						
				Telephone number	1..*			Yes	Yes	Yes	Yes	
				Via (reception, etc.)		0..1		Yes				
				Type/purpose [4]		1..1		Imp	Yes	Yes	Yes	
				Time Period		1..1			Yes	Yes	Yes	
				Email address [5]		1..*		Yes	Yes	Yes	Yes	
				Via (reception, etc.)		0..1		Yes				

Data Elements Tiger Team

- Logical Groupings:
 - » Demographics (e.g. name, gender, DOB, type)
 - » Contact information (e.g. phone, email, fax, purpose of each)
 - » Location (e.g. addresses, hours, contact info, purpose)
 - » Identification (e.g. unique ID/type)
 - » Education/license (e.g. education, license information, tax ID)
 - » Relationships (e.g. parent-child, individual-org, role)
 - » ESI/electronic end point
 - » Validation

Data Elements Definitions

1. Review reference standards and document relevant portions
 - » S&I, IHE HPD, ASC X12, FHIR
2. Draft recommended data elements
 - » Include applicable relationships/constraints
 - » Identify/propose value sets
3. Describe validation processes
4. Describe restrictions

Data Elements – Address Example

Address Object							
	The Address Object contains a single physical, virtual or postal address	Data Type	Card	Scope	Value Set	Entry check	Validate against Source wrt Context
Address1	First line of an address	Text	1..1			No	Yes
Address2	Second address line, if needed	Text	0..1			No	Yes
City	Contains a valid US city	Code	1..1	USPO	US cities	Yes	Yes
County	Contains a valid US county	Code	0..1	USPO	US counties	Yes	Yes
State	Two digit state	Code	1..1	USPO	US states	Yes	Yes
ZIP Code	Five digit zip with optional extension	Code	1..1	USPO	Zip codes	Yes	Yes
Geolocation	Geolocation for physical addresses	Set	0..1	Calc	generate and store	Yes	No
Type	Type of address	Code	1..1	HcDir	Type for the Address	Yes	Yes
Usage	Indicates the usage for this address.	Code	1..*	HcDir	Usage for the Address	Yes	Yes
Status	Status of this address	Code	1..1	HcDir	Status for the Address	Yes	Yes

Architecture Tiger Team – Exchange Mechanisms

- Synchronous Request & Response

- » Any user makes a request for HcDir Data, could be an existing sub/set, a “query” for a population, a query for an individual rec, etc.
- » System processes as necessary
- » Response may be sent with data (real-time) or sent with a URI for future pickup (batch)

- Subscribe/Publish

- » Any user makes a request for HcDir Data, could be an existing sub/set, a “query” for a population, etc., may be one time or on a schedule
- » System processes as necessary
- » System publishes the result as a push to subscriber (real-time), to a queue (real-time), or as a batch for the subscriber to pull

Architecture Tiger Team – Exchange Scenarios

- Describe how various actors interact with a healthcare directory
 - » E.g. information exchange, payer, provider, EHR, state/federal government, etc.
- Define scope of populations (i.e. what are they searching for?)
 - » Is the population geography or state-based? Is the population defined by a relationship? Is the population defined by some attribute?
- Identify appropriate exchange mechanisms
 - » Pull (real-time), pull (batch), sub/pub (push), sub/pub (queue), sub/pub (batch)
- Define scope of data accessed in a healthcare directory
 - » Full data, delta data, urgent data

Interoperability Tiger Team

- Goal: Implementation Guide for Sept. HL7 ballot cycle
- Applicable FHIR resources
 - » Organization, Practitioner, Location, HealthcareService, Endpoint, PractitionerRole
- New resources?
 - » Network, Product, Accessibility, Credentialing/Accreditation, Validation, Restriction, Contract, OrganizationRole, OrganizationAffiliation

Discussion

- How does your organization use a healthcare directory to support reporting (e.g. quality reporting)?



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