HIRA – Healthcare Interoperability Reference Architecture
(former HSRA Healthcare Service Reference Architecture)
Current Status
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Current status and Objectives

▪ Due to my unprecedented dayjob workload, HIRA project has been paused since last meeting
▪ Now the work has been restarted
▪ The objective is to ballot HIRA in the next cycle with some change:
  - The model will include some relevant IHE profiles (e.g. XD* family, identification)
  - The model will be revised with use of NAF 4.0 Framework
HIRA MODEL RECAP
The objective of the HL7 Healthcare Service Reference Architecture (HL7-HIRA) is to support the design of medium/large scale eHealth architectures based on HL7 services and standards. The project organizes adopted HL7 Service Functional Models, Functional Profiles and Domain Models as a basis for:

- a formalized Enterprise Service Inventory (Normative)
- an Architectural Patterns Catalog (Normative)
- guidelines for enterprise Service Discovery and Orchestration (Informative)
HIRA as a tool

- HIRA represent a tool for architects and CIOs
- The Reference Architecture it’s useful to navigate and select Health Standards and can be used also in combination with an Enterprise Architecture Frameworks (e.g. TOGAF)
- HIRA is centered on standard health business capabilities and shown how these capabilities are realized with different technical standards (Technical Model Projections).
Functional models and technical projections

Functional Model

Technical Model Projection A

Technical Model Projection N

Approach for Enterprise Service Discovery and Orchestration (TBD)

Architectural Patterns (TBD)
The Modeling language used for HIRA is the OMG UAF (Unified Architecture Framework)

The model will be revised for the use of NAF 4.0 (UAF based).

UAF is a modeling language based on UML/SysML and it’s also integrated with BPMN2 and SoaML.
Reasons for using it

- Based on UAF (already used in the model, no big change)
- It covers, explicitly, business domain and is aligned with standard (ISO, IEEE, OpenGroup, OMG/UAF).
- More clearly service oriented
- More simple automatic generation of document with tool.
- It will be tailored for HIRA/HSRA of course

https://www.nato.int/cps/en/natohq/topics_157575.htm
A single artifact approach

- We use UAF/NAF modeling language/framework, to support a “single artifact” approach with the objective to support the maintainability and the navigability of HIRA.

- We’ll have a single artifact (the model) that can be easily published as a web site and with a traditional documents.

- The UAF/NAF editor used is Magic because the HL7/Sparx EA license agreement do not include an UAF/NAF plugin.

- The model will be released as document and web site shortly (immediately after the NAF update).
HIRA MODEL UPDATE

NO UPDATE

HIRA (old) model navigation
### Strategic Taxonomy Table Identification Services

<table>
<thead>
<tr>
<th>#</th>
<th>Name</th>
<th>Definition</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Identification Service (IDS)</td>
<td>The Identification and CrossReference Service (IDS) Functional Specification is charged with defining the functional specifications of a set of service interfaces to uniquely identify various kinds of entities (e.g., people, patients, providers, devices and so on) within disparate systems within a single enterprise and/or across a set of collaborating enterprises.</td>
<td>[<a href="https://www.hl7.org/standards/standards/">https://www.hl7.org/standards/standards/</a></td>
</tr>
<tr>
<td>2</td>
<td>Management Function</td>
<td>Core identification management functions.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Register an Identity</td>
<td>Allows for creation of an identity with a supplied set of property values. Uses an identifier supplied by the service consumer which is unique within the Domain for the Entity Type. Although it does not directly impose the description of the interface on parameters other than the potential output messages, it is expected that IDS implementations will typically provide some level of automated implicit linking capabilities. This could be policy driven, or be handled manually using the explicit linking operation described in this specification. This functionality is similar to that described by the HL7 PV profile. This would be triggered when a new entity is created or the properties of an entity updated. Actively 'linking' entities based on an automated logic is not encouraged. Note that the actual policies are handled through 'out of band' agreements.</td>
<td></td>
</tr>
</tbody>
</table>

**IDS** stands for Identity Service (or a Real World Entity that is guaranteed to be unique across an instance of an IDS i.e., across all Primary Domains covered by the instance). This may be generated by the IDS implementation and is only used internally by the Services, although this is an implementation and technical specification choice.
Q&A

HIRA HL7 Confluence Page:
https://confluence.hl7.org/x/Ag0hAg