HSPC’s Impact to the Health Industry

2018-2024 Roadmap

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# Executive Summary (two page max)

* Will speak in business terms to the “Target State” vision and how the Roadmap gets us there
* Relate the activities/milestones in the swimlane as enablers to achieve the Vision
* Summarize the Transition Map and its core uses, with an emphasis on how an HSPC member (or a community member) could use this roadmap to achieve business outcome improvements
* LIMITED TO TWO PAGES

# Introduction

*Note to Reader: This document is an early draft. The content is in the early stages of development and is provided for review, comment, and refinement.*

## Purpose of this document (.25 page)

* document consensus view across HSPC community
* Establish a shared vision to help align, incentivize, and coordinate activities across a broad and diverse community en route to achieving HSPC goals
* Clearly identify tangible products and milestones for the community

## Why produce a Roadmap? (.3 page)

* Burgeoning need of HIT industry for a cohesive vision of the future
* Not boiling the ocean
* Provide an “at a glance” view of the principal activities underway and envisioned as part of HSPC.
* Applies good Enterprise Architecture practice to separate concerns and show interrelationships and the multi-dimensionality of our very complex problem space

## What this document is (and isn’t) (.3 page)

* Reflects the mainstream of activities supported by and fostered by HSPC
* Articulation of the priorities and principal work being done in HSPC
* Does not prohibit HSPC or HSPC members from working on other activities
* Does not limit new or incubating work that might come into HSPC
* Not every project needs to be on the roadmap;
* Not an exhaustive list of products, nor does it replace project management tools (GANTT and WBS)
* Not inherently intended to replace HSPC Strategic Initiatives, rather it is an assembly of projects and initiatives into a cohesive and architecturally sound “separation of concerns”

## How to use this Document (.5 page)

* Forward reference to section 5
* Industry View
	+ Define what we’re up to – communication vehicle
	+ Documents priorities, deliverables, expectation setting
* HSPC View
	+ Call out intra-HSPC use – community level
	+ Call out HSPC project use
	+ Call out HSPC Initiative use
	+ Call out member use
	+ Call out HSPC Governance
* Member View
	+ Align internal and industry efforts
	+ Determine co-investment/collaborative activities
	+ Interop/strategic planning

## Introducing the T-Map Construct (1 page)

* T-Map is a tool to provide a visual representation of the roadmap
* T-Map is a visualization to allow for an “at a glance” view of complex interdependent disciplines en route to a shared future vision state.
* Based upon intellectual property concepts contributed to The Open Group, used with permission
* Contains five core elements:
1. Vignette of the current state, characterizing the challenges and problems existent
2. Short vision of the “future” state, based upon a successful execution and transformation of the roadmap
3. Swimlanes, separated based upon enterprise architecture principles, representing dimensions of the problem space, and characterized by a principal objective
4. Phases delineating what major milestones and core achievements will be realized, and indication of co-dependencies among the swimlanes
5. Swimlane specific milestones, evidence based and measurable, indicating specific achievements



<explanation in narrative about how the pieces come together goes here>

# HSPC-driven Health Industry Transition Map (T-Map)

## Future State Vision (.6 pages)

*Describe the agreed-upon future state, elaborating on the bullets that were agreed to in the roadmap. Clarify the role of HSPC in realizing this vision, and how the scope/breadth of the future state were curtailed based upon those areas that HSPC felt we could add value to.*

***Note that this is in part an articulation of the value proposition of HSPC to the industry writ large***

* Full system transparency providing information where/when needed
* Realization of the “Learning Health System”
* Evidence of improved value and outcomes – value-based care
* Standardized workflow
* Benefits realized from rapid innovation and adoption
* Gold-standard interoperability through evidence-based confo3rmance testing

*Will rationalize the future state and articulate the role of the HSPC community and key HSPC projects as achieving that future vision within industry. Section will speak briefly to some of those topics deliberately not included in the future state, particularly those with which HSPC agrees but has not material contribution to. Ultimately this is not a “boil the ocean” vision, rather it is bringing out those areas of the health sector to which HSPC can make an impact.*

## Inclusion Criteria – What belongs on the Roadmap and why (.5 pages)

* *Articulate the inclusion criteria developed at SLC Workshop*
* Rationalize why they were selection and how they have been applied
* Activities/milestones need to affect the “future state” vision
* Achievable/practical
* Openness, vendor neutral
* Impact more than one effort or stakeholder group
* “In our wheelhouse”

## Transition Roadmap (T-Map) (2 pages)

*Section will include 2-3 paragraphs describing the core content of the T-Map and a short visibility into key design decisions. Will tease the process by which it was developed, forward referencing the Appendix which will elaborate that in detail*

*This section will rationalize why the swimlanes and segments were selected as they appear, and allude to other key design decisions around the framework.*



**Insert graphic name – HSPC Preliminary Roadmap**

*Following the graphic will be forward-references to the subsequent sections where detail can be found about the dimensionality view (swimlanes), the phasing (timeline), and the intersect with current HSPC activities (project/initiative drilldown).*

*The section will close with a summary paragraph articulating in words what the visual says in pictures. This paragraph is intended to be the Executive Summary of the overall roadmap, as concisely as possible describing our plan and our vision.*

# Segment-oriented View

* *Introduction of the segments [uber-swimlanes]*
* *recap of the rationalization for their selection and existence*
* *Explain the nature of “separation of concerns”; relate to EA Principles and Open Group design practices*
* *Briefly forward-reference the Project/Initiative relationship, indicating that swimlanes are NOT intended to represent either, and that any given project or initiative will manifest in many if not all of the swimlanes*
* *Provide the definition, context, scope of each*

## Content Segment

* *[NOTE that this pattern repeats for all Segments; and similar for Swimlanes]*
* *Indicate what problems it is trying to solve*
* *Contextualize the segment, particularly as relating to other segments and its role in achieving our industry vision*
* *Articulate “why we care” – explain the “so what”*

### Data Swimlane

* *Introduce the overarching principal objective (the “tag line”). Rationalize it*
* *Provide a tour of the Swimlane, building to the penultimate milestone and the target state*
* *Explain the swimlane phase by phase. Call out particularly relevant milestones and relate them to their role in advancing toward the target state. Where a phasing represents a major deliverable of availability of capability, describe that and rationalize it.*
* *Relate activities within the swimlane to either existing HSPC initiatives, existing projects, or needed investments.*

### Knowledge Swimlane

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Milestone | Description | Swim lane | Phase | Dependencies |
| Develop Phase 1 Priority Terminology Management Environment | Terminogy management including:* SOLOR architecture
* LOINC Loaded into OntoServer
* SNOMED/LOINC Integration
* RxNorm Loaded into Ontoserver
* SNOMED/RxNorm Integration
* SNOMED Loaded into OntoServer
 | Model | Phase 1(Other phases with continue and extend) |  |
| Process for surveying term standards/information models | A process will be developed and documented outlining steps to survey current standards and information models (including FHIR) when developing CIMI information models. | Model | Phase 2 |  |
| Patient Identity ManagementParking lot | MOVE to possibly security layer – not data/information/knowledge. | Data/Information | Phase 1 |  |
| Create HSPC CIMI models and FHIR profiles for selected domains | Requirements:1. Sharable HSPC/FHIR models for reading data.
2. Sharable HSPC/FHIR models for writing data.
3. Sharable HSPC/FHIR models for a publish-and-subscribe environment.

Models will be developed for the following domains:1. Laboratory (including pregnancy tests)
2. Vital Signs
3. Wound Assessment
4. Pain Assessment
5. Pulmonary Embolism
6. Neonatal admission assessment
 | Knowledge | Phase 1 |  |
| Develop CIMI Model Patterns to capture expressivity of VMR, QDM, FHIR, CEM | 1. Assertion
2. Evaluation Result
3. Lab Evaluation Result (QN, Ord, Nom)
4. Procedure including specializations
5. Orders
6. Goals
 | Knowledge | Phase 2 |  |
| Create CIMI to FHIR transformation | Author declarative transformations for the models outlined above. | Data/Information | Phase 1 |  |
| Knowledge Authoring Environment: V1 | 1. An authoring environment allowing the creation of new models in a variety of knowledge areas.
2. Supports different types of users.
3. Supports artefact lifecycle and governance.

This has a Software Dependence. | Knowledge | Phase 1,2,3,4(there will be a version for each phase) |  |
| Declarative representations of work flows and care processes using sharable Medical Knowledge Models[[1]](#footnote-1) | 1. Develop a Process Model using BPMN/DMN/CMMN for a computable guideline. Examples:
	1. PE
	2. HTN
	3. Mental Health
2. Diagnostic and Risk Assessment Models based on pub/sub environment (PMML, DMN). Examples:
	1. Pneumonia
	2. Sepsis
 | Knowledge | Phase 1,2,3,4(there will be a version for each phase) |  |
| Provide Example Display Components For UI (such as application banner)  | Define characteristics of select display components that ease portability and interoperability. | Knowledge | Phase 2 |  |
| Patient Identification Models | Develop HIE Models based on Patient Identity Management and other services. | Knowledge | Phase 1 |  |
| Knowledge Care Process/Resource Model | Create model and terminologies to support the care process. Describe provider capabilities (e.g. within their scope of practice and within context). | Knowledge | Phase 2 |  |
| Define CDS Knowledge Artefacts | Libraries of HL7 standards based rules, order sets and documentation templates intended to be shared. | Knowledge | Phase 2 |  |

Road Map Milestones: Content Pool/Swim Lanes

Collected milestones for Content section of the Road Map. The swim lanes identified are tentative. More description is needed.

##

## Context Segment

### Business Swimlane





Top-2 areas/milestones for business swimlane – for summary tomorrow – per your request:

1. Maturity Model and Self-Assessment re: HSPC adoption for health systems and industry
2. Business Outcomes/Benefits/KPIs from HSPC adoption
3. [if you need another] Adoption Package – License, IP agreement, governance pre-requisites for adoption

### Security Swimlane

## Platform Segment

### Infrastructure Swimlane

### Software Swimlane

# Phase-oriented View

* *Quick recap about the role of the phasing. Transition paragraph and intro.*
* *Overview of the phasing concept, ties to timeline, relationship to major phase deliverables*
* *Set expectation for inconsistent depth, consistency, granularity, particularly in “out years”*

## Phase I: Concept and Deliverables

* *(Note that this pattern will repeat)*
* *Discuss the time window and the value proposition HSPC intends to deliver upon completion of this phase*
* *Talk to projects and milestones that span swimlanes, piecing together the seemingly disparate parts to “tell the story” of what Phase I brings to industry*
* *Rationalize what has been undertaken in the phase, how it builds upon what has come before (for Phase I, that is the current status quo, for subsequent phases, it will build on last Phase)*
* *Introduce key co-dependencies among projects or activities*
* *Draw particularly attention to aspirational efforts that need resourcing*
* *“Tell them what they are going to get”*

## Phase II: Concept and Deliverables

## Phase III: Concept and Deliverables

## Phase IV: Concept and Deliverables

# Using the Roadmap

* *Call out that the roadmap serves multiple roles and stakeholders*
* *Tease the section “tell them what you’ll tell them”*
* *Draw particular distinction between HSPC’s direct use of the roadmap, and HSPC Members’ use of the roadmap.*

## Use within HSPC

* *Intro / context*

### Community Priorities

* Discuss community objectives
	+ Establish and maintain Alignment on vision
	+ Explain low volatility of the document, but living document
	+ Difference between consensus on a vision and 100% agreement on execution
* What it means to be on the roadmap.
* Ability for projects to incubate within HSPC and NOT be on the roadmap
* Transition from incubation to strategic priority

### HSPC Initiatives

* Explain how initiatives relate to the roadmap
	+ Creating new milestones
	+ Correlation across milestones
	+ Consumption of deliverables from other streams
	+ Not isomorphic with any specific element on the Roadmap
	+ How initiatives differ from projects

### HSPC Projects

* Explain how initiatives relate to the roadmap
	+ Creating new milestones; not every project milestone fits onto the Roadmap
	+ Correlation across milestones
	+ Consumption of deliverables from other streams
	+ Not isomorphic with any specific element on the Roadmap
	+ How projects differ from initiatives

## Member Organization Use

* How the Roadmap can be used for interoperability planning
* Extending the Roadmap to be used intra-organizationally
* Use of roadmap to determine collaboration/co-investment plans
* Roadmap as legitimator to advance specific organizational objectives

## Other Uses

* Articulate the direction and value proposition of the HSPC community
* Membership growth
* Influence on roadmap as a membership benefit/incentive
* Amplify impact of HSPC work with peer/partner groups

# Roadmap Refresh Process

* Low volatility
* Consider content refresh annually, with public production biennially
* Voting process so as to assure that content reflects community consensus

# Appendices

How this Roadmap was created

Acknowledgements

Reference Materials

Roadmap Face-to-Face Meeting (Salt Lake) Notes: 

1. Specific Sharable Models Services are identified in Appendix W. [↑](#footnote-ref-1)