

# HIEPI Technical Infrastructure Workgroup Meeting Minutes

Meeting Owners	David Towne, State HIT Coordinator Lee Jones, MAeHC/GSI
Agenda Author	Nael Hafez
Version	1

Date	July 22, 2010
Time	12-4 PM
Location	Gallen Campus - Brown 460 Conference Call: (877) 449-6558; Conference Code: 735 291 4860

## AGENDA

Topic	Led By	Start	End
Roll Call/Attendance	Nael Hafez	12:00 PM	12:05 PM
Review of Project Progress to date	Lee Jones	12:05 PM	12:30 PM
Review of consensus areas – further thoughts/discussion	Lee Jones	12:30 PM	1:00 PM
Converging on solutions – Do we have consensus?	Lee Jones	1:00 PM	2:00 PM
15 Minute Break	Group	2:00 PM	2:15 PM
Bullet responses to answer ONC requirements	Nael Hafez	2:15 PM	3:00 PM
Pricing Models for State HIE Infrastructure	Lee Jones	3:00 PM	3:30 PM
Next Steps	Lee Jones	3:30 PM	3:45 PM
Other Business – Q/A	Group	3:45 PM	4:00 PM

## ATTENDEES

Name	In Attendance (Y or N)	Name	In Attendance (Y or N)
David Towne	Y	Andrew Watt	N
Lee Jones	Y	John Kelly	Y (phone)
Nael Hafez	Y	Elizabeth Collins	N
Sharon Beaty	N	Elizabeth Shields	Y
Mark Nightingale	Y	Vinod Brahmapuram	Y
Bob Bridgham	Y	Brian Richards	UNK
Frank Catanese	Y		

## GUESTS

Name	In Attendance (Y or N)
Mark Belanger	Y

\* Via telephone

## MEETING HANDOUTS

1. HIEPI Workshop 2 Presentation Tech Infrastructure.

---

## MEETING SUMMARY

Introductions – Vinod (Co-lead) and Elizabeth Shields

Focus: Technical Infrastructure

Review/Recap of progress to date

Building Blocks

- Secure Routing among providers (compliant w/ current NH law)
- Secure Routing to PH and patients
- Community Record (Centralized store)
- Shared Services

Strawman Phasing

- Discussion and prioritization of use cases (sequencing, not based on importance)
- Criteria – Legal? Manageable? Budget? Market need? Substitute in market? Complexity?

Phase 1

- “Push” network between providers; network of networks (last mile between organizations)
- Bring in Providers outside of existing hospital networks
- Develop phase 2 capabilities

Phase 2

- Extend “Push” network to include PH and other entities
- Create a “Pull” network to query data (e.g for emergency services) using CCD standardized patient information
- Develop Phase 3 capabilities
- Business development to build shared services

Phase 3

- Extend Push and Pull networks
- Allow centrally orchestrated merger of records
- Advance shared services

Use Cases and Prioritization

Consensus Areas of each workgroup

Emerging Approach – Phase 1 Consensus “Hub of Hubs” tying together existing networks/organizations

NH State Backbone (HIE Proper)

Components:

- Security
- Node Addressing
- Provider Addressing
- Audit

Functionality

- Bridge the siloed IDNs (hubs) – intermediary

**TI Consensus Points – Topics for convergence:**

(Commentary, Requirements/Assumptions, Open questions left for subsequent discovery, Costs (drivers, components, orders of magnitude))

Decision 1: Secure Routing to providers – brokered point to point transactions between providers

Decision 2: Move toward structured data as the target payload – CCD – discrete data elements using industry standards

Should we allow for and support the CCR? No – **Safe and appropriate to support CCD as the NH Standard**

Decision 3: Provider network that is agnostic to provider type or system used by the provider at the edge or node

Consensus Points: How are transactions conducted across the state, among disparate entities in a standard manner?

Consensus Point 1: Provider Aggregators (e.g. Hospital Systems) as Edge system brokers – primary connections to HIE. **Consensus is achieved.**

Comments:

- a. Physical infrastructure exists in a statewide HIE that will facilitate transactions between connected and disenfranchised providers.
- b. What about individual providers who make the investment to connect; are we leaving them out? We're optimizing for participation of larger aggregators; while that does not preclude the individual provider – they can always choose a local HIE as an on-ramp or the state sets up an on-ramp/aggregation point for these independent providers.
- c. This question may not be within the scope of this group since this gets into rollout strategy and may already be covered by policy elsewhere. This is not controversial.

Requirements/Assumptions:

- a. There is nothing to preclude smaller provider entities to connecting if they comply to the standards for the state.

Open Questions:

Costs:

Example: 90-100K of capital outlay for H/W, s/w, services, and related interfaces to IDN owned organization. Operational costs: b/w 1-5K/month for software; 1.5 FTE over 12 months. Phase 1: 150 providers. This is anecdotal and not necessarily scalable across the state. Estimate to build on-ramp to state HIE would be approx. 50% + FTE costs.

Consensus Point 2: State HIE narrowly facilitates exchange => **Consensus is Achieved**

Comments:

Requirements/Assumptions:

Open Questions:

Costs:

Consensus Point 3: Use NHIN Direct as protocol for Central Exchange – **Consensus NOT achieved.**

Comments:

- a. CAQH, as one example (the real baseline is using the SOAP WSDLs from IHE), is a viable alternative. MA is already moving in this way, and maybe NH can as well. There is some grass root support in the New England area, so should stay on the table. This would work better ultimately, so maybe we can set the bar higher by going in this direction. We should wait for results of environmental scan before being more precise.
- b. We do not want NH to be a one off. This discourages cooperation from national vendors; path of least resistance to get acceptance by the vendors.
- c. Transition to full IHE protocols as they mature/evolve/achieve saturation in the market.
- d. Need to look at the environmental stack to see where we can set the bar; and set the bar higher.
- e. Baseline: use SOAP WSDL from HIE.

Requirements/Assumptions:

- a. Reduce the level of effort (and cost) by the end nodes to be compatible with the NH HIE – our choice needs to have open compatibility and require minimal lift by participants.
- b.

Open Questions:

Costs:

- a. There will be open source for NHIN direct (or CAQH), so costs will presumably be limited to implementation costs
- b. Initial investment should not be lost with future changes; need to minimize switching/transition costs as we move from phase to phase

Consensus Point 4: Allow local and global of addressing of endpoints. **Consensus is achieved.**

Comments:

- a. Regional provider index service may be available to support NH.
- b. May have budgetary constraints
- c. Safer and cheaper to have people find addresses themselves.
- d. Secure node addressing comes with maintenance and policy issues.

Requirements/Assumptions:

Open Questions:

Costs:

Consensus Point 5: Protected Health Information not exposed to central HIE. **Consensus achieved.**

Comments:

- a. We may want to include certain technology in the HIE sooner, in anticipation of phase 2 and beyond like RLS/MPI. The argument is to plan for vendors needing to "build-in" more than once as we move from phase to phase. Subject to budget, this would be more efficient.
- b.

Requirements/Assumptions:

Open Questions:

Costs:

Consensus Point 6: Trust relationships are brokered by HIE and/or local networks => **Consensus Achieved**

Comments: We discussed in #7 the need for common CA, and how that might be facilitated. HIE is logical place to orchestrate that.

Requirements/Assumptions:

Open Questions:

Costs: minimal (see #7)

Consensus Point 7: Transport Layer Security is used as a baseline of transaction encryption and other encryption can be layered on.

**Consensus is achieved.**

Comments:

- a. This is encryption of data in transit/motion, what about encryption at rest? We have a hub (fully federated model), we do not have data at rest.
- b. We want to avoid, if possible, encryption/decryption in the HIE.
- c. Need to have state entity to help with CA-like activities like identity proofing, for added strength.
- d. There is a Web Services division in DOIT that centrally acquires and manages certificates. This might be a candidate to help with CA activity.

Requirements/Assumptions:

- a. There will still need to be policy for issues that are allocated to the local networks (i.e data at rest)
- b. When we start to have centralized user access, we will need to look at multi-factor authentication.

Open Questions:

- a. We may be asked for the requirements for this, but not something we have to define now. We will certainly need to address data at rest when PHI is in the middle (e.g. EMPI).

Costs: Negligible (\$400/cert). Process may introduce overhead costs, but very expensive. Hub can gain efficiencies. Really limited if we have small nodes.

Consensus Point 8: Transactions are unsolicited and unidirectional => Consensus **Achieved** / Not Achieved

Comments:

Requirements/Assumptions:

Open Questions:

Costs:

Consensus Point 9: No Consent Representation required for transaction (consent management responsibility federated to brokers and not enforced by HIE) => Consensus **Achieved** / Not Achieved

Comments:

Requirements/Assumptions:

Open Questions:

Costs:

Consensus Point 10: Acknowledgement of successful transactions sent to initiator => Consensus **Achieved** / Not Achieved

Comments:

Requirements/Assumptions:

Open Questions:

Costs:

Consensus Point 11: Local transactions happen according to local architectural and policy frameworks => Consensus **Achieved** / Not Achieved

Comments:

Requirements/Assumptions:

Open Questions:  
Costs:

**Other Discussion Points:**

Q/A: Discussion of Pulling and Polling of data – dependent on design, business rules, policy drivers, funding availability

Q/A: Discussion of NHIN Exchange, Connect and Direct and the differences between them – protocols and services to interact with other states; Connect and/or Direct could be used to support NH backbone. We are not bound to use it. National network will not mature for a while, but in the interim we have a need to address the cross-border exchange and patient flow with regional states (ME, VT, MA).

Q/A: What are we hearing from Biz/Ops about sustainability and opportunity?  
Discussion in WG about what groups are willing to pay for and alignment with strategic vision for healthcare reform; converging themes. Varied sense of value – mature hospital systems see incremental value; less mature see a huge leap in value

Q/A: Where does IHE/SOAP fit into Services bus?

Q/A: What standards do we want to support? What's our posture?

**Action Items (From previous meetings and new)**

Item #	Raised By	Action Item Description / Comment	Assigned To	Due Date	Status/ Remarks
1					
2					

**ISSUES IDENTIFIED**

Issue #	Raised By	Issue Description	Assigned To	Due Date	Status/Remarks

**DECISIONS MADE** (SEE CONSENSUS ITEMS ABOVE).

Decision #	Sponsor	Decision Description	Approved (Y or N)	Comments