

Nationwide Health Information Network Trial Implementation Cooperative

The Perspective from Wright State University and the HealthLink RHIO

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Purpose of the NHIN

The Nationwide Health Information Network (NHIN) is being developed to provide a secure, nationwide, interoperable health information infrastructure that will connect providers, consumers, and others involved in supporting health and healthcare. This critical part of the national health IT agenda will enable health information to follow the consumer, be available for clinical decision making, and support appropriate use of healthcare information beyond direct patient care so as to improve health.

<http://www.hhs.gov/healthit/healthnetwork/background/>



Round One

CareSpark, Tennessee
Delaware
Indiana, Regenstrief
Long Beach, California
Lovelace, New Mexico
MedVA
NCHICA, North Carolina
NYeC, LIPIX and NYCLIX
West VA
FED, DOD, SSA, VA, IHS



Round Two "Newnies"

Bloomington Hospital, Indiana
Cleveland Clinic
CHIC, Minnesota
HealthBridge, Cincinnati
HealthLink, Wright State University
Kaiser Permanente



Round Two “Newnies”, continued

Can the work of the first round of sub-contractors be readily translated to currently operational HIEs?

- September AHIC Meeting and NHIN Demonstration of Core Services HIE
- December Forum and NHIN Demonstration of Use Cases HIE
- Integration through the Federal Health Architecture with the Federal Gateway



Coordination with Other National Efforts

- ONC—Office of the National Coordinator in HHS
- HITSP—Health Information Technology Standards Panel
- NIST—National Institute of Standards and Technology
- CCHIT--Certification Commission for Healthcare Information Technology
- HISPC—Health Information Security and Privacy Collaboration



NHIN Specifications*

- Interface specifications including Core Services and use Cases
- Summary record specifications and
- Use case data specifications
- Operating procedures specifications
- Security procedures specifications
- DURSA, test and production specifications

*to be available to the public in Toolkit



NHIN Tools, examples

- CCR + HL7 = CCD
<http://www.hl7.org/documentcenter/public/pressreleases/20070212.pdf>
- C32 = CCD subset
<http://www.health.state.mn.us/e-health/wgs0708/cchit/cchitaddendumccdambip.pdf>
part of C32 used as *Summary Patient Record* for NHIN and includes:
 - person information
 - support (emergency contact information)
 - allergies and drug sensitivities
 - conditions (problem list)
 - medications
 - information source



NHIN Tools, examples (continued)

C37 = CCD subset

used as *Lab Report Document* for NHIN and includes:

- person information
- lab report provider information
- order information
- testing information including specimen, etc.
- preconditions, observations, values, reference values



NHIN Tools, examples (continued)

- Test Case Data
- Test Case Scenarios
 - NHIE#1 makes specific request of NHIE#2 because it is known that patient has been treated at facility available through NHIE#2 (this requires NHIE to NHIE interfaces)
 - NHIE#1 makes general request of multiple NHIEs (this requires NHIE to NHIE interfaces)
 - NHIE#1 makes general request of the NHIN through the *Federal Gateway*



NHIN Work Groups

As a network of networks the NHIN has focused on:

- Secure transport of information (Technical and Security Work Group)
- Determining the content to be exchanged (Core Content Work Group)
- Proof of concept (Testing Work Group)
- Establishing a network of trust (DURSA Work Group)



Technical and Security Work Groups

Context for the Technical and Security Workgroup:

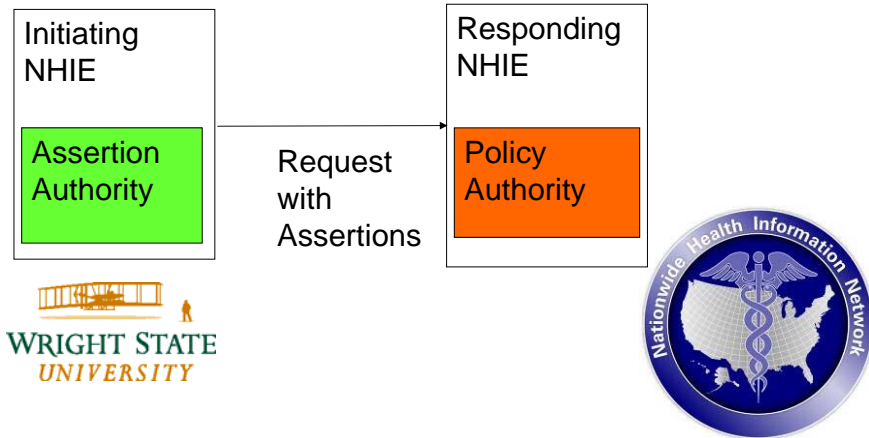
- The 4 A's are the foundation of security practices that support the privacy of health information exchange
 1. Authorization
 2. Authentication
 3. Access
 4. Audit



Authorization Framework

Assumptions:

1. The initiating NHIE will authorize all requests prior to sending
2. Each NHIE will control the release of consumer information

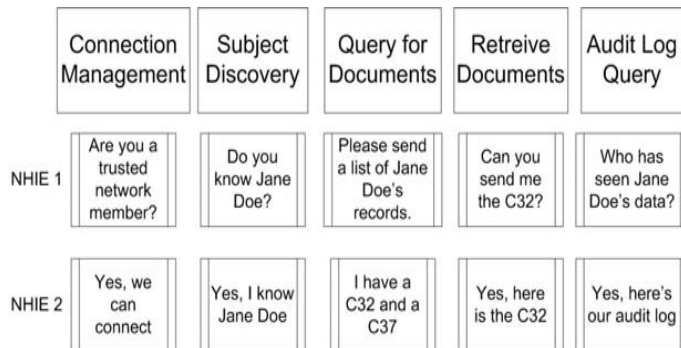


Authorization is applied in each interface specification

1. Connection Management and Service Discovery
 - a. Request Connection
 - b. Revoke connection
2. Subject Discovery
 - a. Announce Subject
 - b. Return Matched Subject
 - c. Revoke Subject
 - d. Change Subject Demographics
 - e. Merge Subjects
 - f. Unmerge Subjects
3. Query For Documents
 - a. Find Documents
4. Retrieve Documents
 - a. Retrieve Document
 - b. Retrieve Document Set
5. Audit Log Query
 - a. Find Audit Events



NHIN Core Services (web services)



Audit

1. An audit report requestor sends an audit report request to the audit report provider.
2. The audit report provider retrieves the relevant audit trail data from its local audit record repository (ARR). If required, the audit report provider transforms the retrieved audit trail data into the required audit report format.
3. The audit report provider returns the audit report to the audit report requestor.



Resources

Office of the National Coordinator (ONC)

<http://www.hhs.gov/healthit/>

National Institute for Standards and Testing (NIST)

<http://xreg2.nist.gov/cda-validation/downloads.html>

Health Information Technology Standards Panel

<http://www.hitsp.org/>

Certification Commission for Healthcare Information Technology (CCHIT)

<http://www.cchit.org/>

Health Information Security and Privacy Collaboration (HISPC)

<http://www.rti.org/page.cfm?objectid=09E8D494-C491-42FC-BA13EAD1217245C0>

Integrating the Healthcare Enterprise,

<http://www.ihe.net/>

ASTM

<http://www.astm.org/>



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