



Connect to Care

# CONNECTing to the Nationwide Health Information Network (NHIN)

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April 30, 2009



Office of the National Coordinator for Health IT



# NHIN Mission

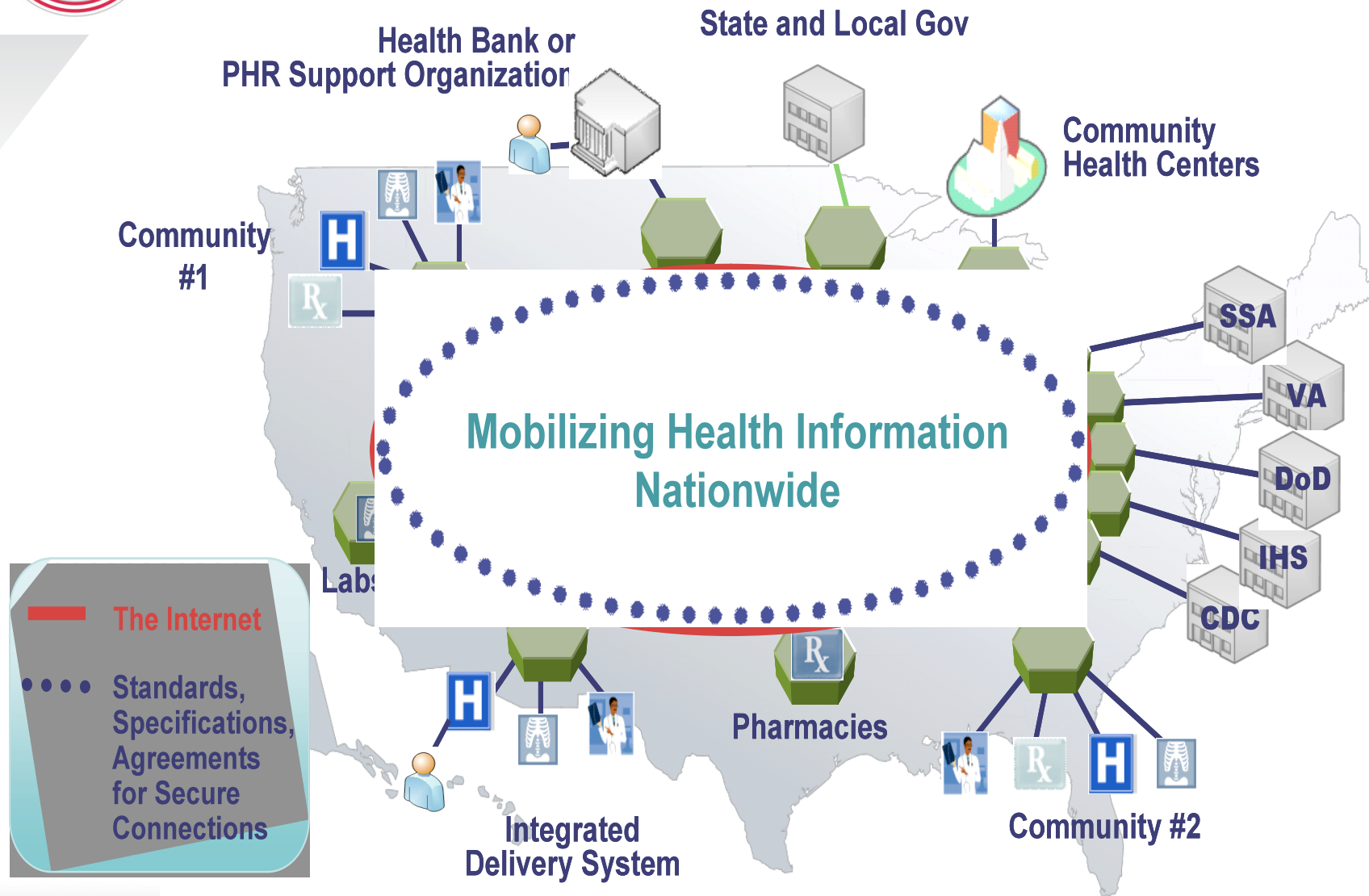
## **Mission**

*To achieve better quality, value, and affordability of health and wellness services by establishing the Nationwide Health Information Network as the common, secure, nationwide, interoperable network for exchanging health information, and provide this infrastructure with low adoption barriers.*

- Establish the NHIN as the common, secure, nationwide, interoperable network for exchanging health information, and provide this infrastructure with low adoption barriers.
- There should be a common infrastructure that looks after the common good.
- Key to adoption is lowering the technical, cost and policy barriers.

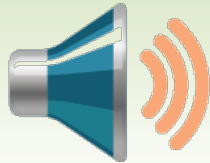


# NHIN Network of Networks





# NHIN Security & Privacy Protections



## Messaging Platform

Supports data Confidentiality and Integrity



## Audit Log Query Interface

Supports accounting of disclosures



## Authorization Framework Interface

Supports authorization for access, purpose requests and verification of user



# NHIN Security & Privacy Protections



**Consumer Preferences Interface**  
Supports restrictions on access



**Authorized Case Follow-Up**  
Supports requests for de-identified data and case follow-up



**DURSA**  
Important component of the trust fabric:  
Supports access, accounting, restrictions, de-identification, verification of requestor, safeguards, incident reporting & mitigation



## Other Potential NHIN Capabilities as identified by the agencies

- **Quality Reporting**
- **Distributed Clinical Decision Support**
- **Healthcare Administration (claims, eligibility, coordination of benefits, program integrity)**
- **Pharmacy (e-prescribing, medication history and reconciliation)**
- **Integration with clinical research networks (e.g. NCI caBIG)**



## What is CONNECT?



- **A Federal Health Architecture (FHA) multi-agency initiative to address:**
  - The emerging NHIN
  - Participate in the NHIN Trial Implementations 2008
  - Participate in NHIN Limited Productions/Pilots 2009
- **A technology solution for secure interoperable exchange of health information**
  - A Platform for Participation
  - A Platform for Innovation



# CONNECT: Tools for Information Exchange

FHA's CONNECT Initiative provides three related tools to enable organizations to connect to the NHIN:



**The Gateway**, which implements the core services defined by the NHIN

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**Enterprise Service Components**, which provide robust tools for indexing patient identities, maintaining patient health documents, implementing business rules for authorizing the release of medical information and more

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**Universal Client**, a client framework for developers to implement enterprise service components





# Benefits to Citizens

## Patient Focused Benefits

- Improve health quality
  - Provides appropriate information to help guide medical decisions at the time and place of care
  - Improves the coordination of care and information amongst hospitals, laboratories, physician offices and other entities through an effective infrastructure for the secure and authorized exchange of health care information
- Prevent medical errors
- Reduce health care costs
  - Reduces health care costs resulting from inefficiency, medical errors, inappropriate care, duplicative care, and incomplete information
- Increase administrative efficiencies
- Decrease paperwork
- Expand access to affordable care





## Benefits to Citizens

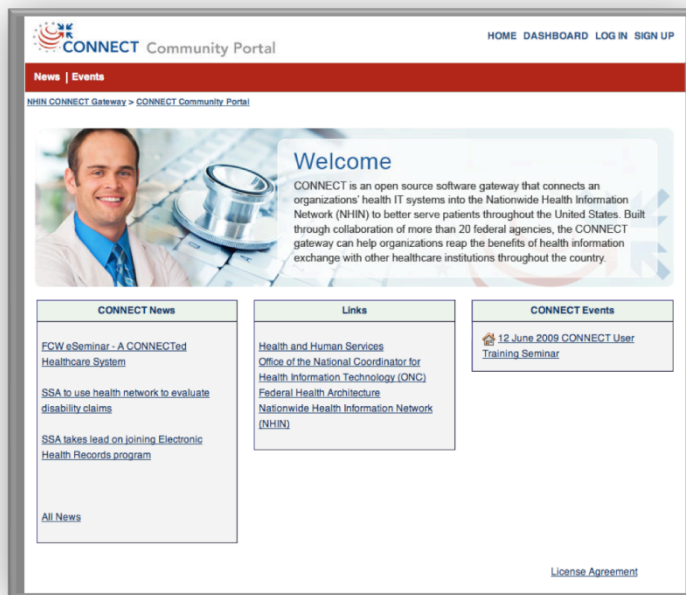
- **Population Health Benefits – Improving public health activities**
  - Early detection of and rapid response to infectious disease outbreaks around the country
  - Improved tracking of chronic disease management – promotes prevention
  - Evaluation of health care based on value enabled by the collection of de-identified price and quality information that can be compare
  - Facilitates health and clinical research and health care quality
- **Promotes a more effective marketplace,**
  - Greater competition
  - Greater systems analysis
  - Increased consumer choice
  - Improved outcomes in Healthcare services and efforts to reduce health disparities



## Public availability of CONNECT solution



Released under a “**non-viral**” **license** that makes it easy to develop solutions using the CONNECT software code base



A website where interested parties can **download** the CONNECT solution at:  
**[www.connectopensource.org](http://www.connectopensource.org)**



# Federal and Private Sector Partners using NHIN in 2009\*

## Agency



Department of Defense



Department of Veterans Affairs



Social Security Administration



Indian Health Service



Centers for Disease Control



National Cancer Institute



National Disaster Medical System



## Private Sector



CareSpark



Kaiser Permanente



MedVirginia



INHS



NCHICA



NMHC



Regenstrief Institute

\* Via demonstration and/or production activities.



# FY09 Goals and Objectives

## Adoption

- **Support limited production usage of the NHIN by SSA, IHS, NDMS, CDC, DoD, VA**
- Expand the set of agencies who are committed to utilizing the NHIN from 6 to 14
- Ensure that a vibrant open-source community has been established to build upon the CONNECT code base to create innovative solutions for the health industry
- Host a CONNECT User Conference to share technical knowledge and facilitate developer and user adoption of CONNECT

## Development

- Enhance the Gateway with enterprise-class components that includes robust components for master patient indexing, document registries and repositories, a policy engine for authorizing release of medical information and more
- Implement new and updated NHIN services, including support for emergency health and biosurveillance needs
- Provide a software development kit for CONNECT that makes it easy for external developers to integrate CONNECT with existing electronic health information systems

## Operations and Maintenance

- Provide implementation support services to the Federal agencies that are planning to deploy CONNECT, including consultation and help desk capabilities



## CONNECT 2009 Timeline

- **March 2009: Version 2.0 Release**
  - General availability as open source
  - Implementation of existing 10 NHIN services
- **July 2009: Version 2.1 Release**
  - Includes Enterprise Service Components (MPI, Document Registry/Repository, Policy Engine, Audit Log)
  - Enhancements to messaging security and reliability
  - Add Linux platform support
- **Version 2.2 and beyond**
  - Enhanced services for discovering patients and other entities within the NHIN
  - Integration with claims and pharmacy networks
  - Integration with grid-based networks
  - Improved capabilities for public health, quality reporting and clinical decision support



## **Internet 2 and NHIN**

- **Telemedicine**
- **Remote Consultation**
- **Remote Monitoring**
- **Emergency Care**
- **EHR Integrated Multimedia**
- **Clinical Research**
- **Distributed Computing Applications for Clinical Decision Support**



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**Questions?**

