NHIN Core Services

The Nationwide Health Information Network (NHIN) is a set of conventions that provide the foundation for the exchange of health information that supports meaningful use. The foundation includes technical, policy, data use and service level agreements and other requirements that enable data exchange, whether between two different organizations across the street or across the country. Participants in the NHIN agree to support a common set of web services and data content (NHIN Core Services) that enable private, secure and interoperable communication of health information among NHIN participants across the public Internet.

There are 10 specifications which describe the NHIN Core Services. These are the functions and underlying mechanisms that all entities connected to the NHIN should support. Throughout 2009, these specifications will be tested and refined in order to establish them as a stable baseline which participants can use operationally without significant changes.
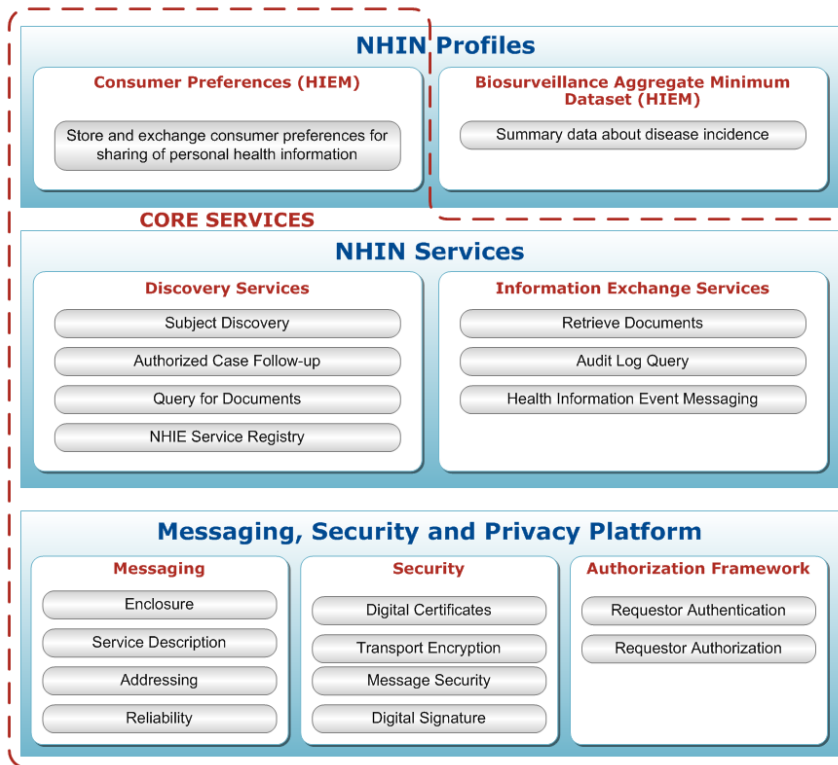
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The following table briefly describes the initial set of NHIN Core Services:

Services	Description
Messaging Platform	The essential protocols required for message transport
Authorization Framework	Provides the framework for authorization of exchanges of health information
Subject Discovery	Ability to search for an individual and determine if they are known within a NHIN participant's network
Query for Documents	Ability to search for a document (health information) for a specific individual
Retrieve Documents	Ability to retrieve or transport a document for an individual from another NHIN participant
Audit Log Query Service	Ability to request and retrieve an audit log of requests and access to health information.
Consumer Preferences	Ability to exchange consumer-defined preferences in association with the exchange of patient health information.
Health Information Event Messaging Service	Ability to keep updated on changes to specific health information for an individual through a "publish and subscribe" model.
NHIE Service Registry Service	Common network registry that allows the discovery of other NHIN participants and the services they offer
Authorized Case Follow up	Re-identification and follow up of anonymous cases identified during BioSurveillance, public health reporting and quality reporting

The NHIN Trial Implementations demonstrated how the NHIN Core Services were able to support key information exchanges in seven AHIC priority use cases. This accomplishment illustrated that a common foundation for nationwide health information exchange can be engineered to support additional functionality and content with limited additional development.

The illustration below describes the NHIN functionality.

The **NHIN Profiles** describe how to implement NHIN services for a specific domain or functionality such as BioSurveillance or adverse event reporting.

The **NHIN Services** describe the specific interfaces (web services) to be used among NHIN participants to locate and exchange health information.

The **NHIN Platform** describes the underlying protocols and capabilities required to securely exchange messages among NHIN participants. network security and privacy.

The NHIN Core Services serve as the foundation for the ability to exchange data among NHIN participants, and higher-level NHIN functionalities are wholly dependent upon this common foundation. Changes to the Core Services directly affect the cost, timeliness and implementation of higher level NHIN functionalities.

Why Baseline the Core Services?

Leveraging the lessons learned from the Trial Implementations, the NHIN plans to mature, stabilize and standardize a specific version of these Core Services. The NHIN will "baseline" this set of services before building the high-level functions in an effort to minimize the long-term costs and efforts involved and to ensure stability. Once the core package is stable, the layers above can be developed, adapted, and changed much more readily.

It is expected that a major upgrade from the baselined version of services will not be required for at least 18 to 24 months, so that the work in 2010 can focus on functionality ("profiles") built on the Core Services.

When Will an Initial Set of NHIN Core Services be Available?

ONC anticipates that the NHIN Core Services will be baselined and available for broader NHIN pilot implementation by January 2010.

Limited production prior to baselining the Core Services is encouraged, though the Core Services are considered "soft" until baselined. Organizations are welcome to use a pre-baselined version, but they need to understand the inherent cost and business responsibilities with maintaining the versions.