

Health IT Standards Committee

A Public Advisory Body on Health Information Technology to the National Coordinator for Health IT



NwHIN Power Team

- Provider Directory Recommendations

July 16, 2014



Task	Brief Description
Provider Directories (PD)	<ul style="list-style-type: none">• Search for provider• Respond to search
Query for a Patient Record	<ul style="list-style-type: none">• Search for patient information• Respond to searches for patient information
Provider Data Migration and Patient Portability	<ul style="list-style-type: none">• To enable patients who switch providers to have their care continue seamlessly (no repeat tests, missing key clinical information etc.).• To enable providers switching EHR systems to continue providing seamless care to patients (coded data in old system is consumable by the new system so clinical decision support still works)

Functionality Recommended by HITPC Information Exchange WG



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Search for provider: EHR systems have the ability to query external provider directories to discover and consume addressing and security credential information to support directed and query exchange

Respond to search: EHR systems have the ability to expose a provider directory containing EPs and EH addressing and security credential information

HITPC Information Exchange WG

Recommendations



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1. **Scope:** Standards must address PD transactions (query and response) as well as minimum acceptable PD content to enable directed and query exchange
2. **Continuity:** Build on Stage 1 and 2 approaches and infrastructure for directed exchange where possible and allow use of organized HIE or cross-entity PD infrastructures where applicable and available (ie, remain agnostic to architecture and implementation approaches)
3. **Simplification:** Set goal of having PD query and response happen in a single (or minimal) set of transactions
4. **External EHR system:** An EHR system of another distinct legal entity, regardless of vendor
5. **Transactions:**
 - a. **Querying systems must have ability to:**
 - i. Present authenticating credentials of requesting entity
 - ii. Validate authenticating credentials of provider directory holding entity
 - iii. Present provider-identifying information
 - iv. Securely transmit query message
 - b. **Provider directory must have ability to:**
 - i. Validate authenticating credentials of requesting entity
 - ii. Present authenticating credentials to requesting entity
 - iii. Match provider
 - iv. Respond with unambiguous information necessary for message addressing and encryption or acknowledgement of non-fulfillment of request
 - c. **Provider directories must have administrative capabilities to:**
 - I. Submit updated provider directory information (additions, changes, deletions) to external provider directories
 - II. Receive and process provider directory updates from external provider directories
6. **Transaction details:**
 - a. Provider directories should contain minimum amount of information necessary on EPs and EHs to address and encrypt directed exchange and/or query for a patient record messages

Key Points from Deliberation with Micky Tripathi (Chair, HITPC IE WG)



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- Limit certification requirement to focus on Direct messages to enable the exchange of patient information
- What to Certify
 - At a minimum, EHR technology would need to be able to query external provider directories for the following information and electronically process the response returned in accordance with the Modular Specification Provider Directories Implementation Guide:
 - Query for an individual provider's Direct address;
 - Query for an organizational provider's Direct address;
 - Query for relationships between individual providers and organizational providers
- Authentication required for certification
 - Authentication of the directory service – Basic Transport Layer Security (TLS) handshake does this
 - Does query of a directory service include any data elements that would necessitate authentication of the client (queryer) as well?
 - Nothing sensitive in the data model beyond name and routing information (address, email, fax, where to send patient record information)
- Standards to recommend
 - TLS – basic server-only authentication or mutual authentication?
 - Healthcare Provider Directory (HPD+)

- No existing provider directory standard is ready to become a national standard – IHE HPD+ is a good start, but needs proof in the marketplace
 - Risk of making work for the certification bodies and for the vendors for something that they might not actually use.
- Possibility of leveraging National Provider Identifier (NPI) directory to provide Direct addresses as an interim path forward
- Encourage exploration of other simple approaches, such as a FHIR-based approaches
- Determining whether mutual authentication is a risk-based decision – should be up to the directory service provider to determine whether mutual authentication is required.
 - Mutual authentication is built into the HDP+ spec and available if required. Best to remain silent on it in the recommendations.



1. Based on our assessment of the functional requirements for querying provider directories, we know of no standards that are sufficiently mature and implementable to become a national standard. IHE's HPD+ profile is a good start, but needs to be proven within the marketplace.
2. We recommend that ONC encourage the exploration of other simple approaches for implementing the required functionality, such as working with CMS to harmonize its RESTful directory approach with FHIR.
3. We note that the federal government has already implemented a database of national provider identifiers (NPIs) and suggest exploring the possibility of providing the capability to capture Direct addresses within this database and making the information publically accessible through a service interface.

