

Role of Provider Directories in Health Information Exchange

HIT Policy Committee- Information Exchange WG

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Business requirements: Health Plans, Public Health and Others

1. Do you currently use external provider directories for health information exchange? What are they and how do you use them?

NaviNet maintains provider directories for over 900,000 providers in the U.S. These directories use a federated data architecture that allows us to access the provider directories of our health plan customers in real-time.

In addition to having access to the health plan provider directories, NaviNet creates a higher level provider directory that assigns a NaviNet provider and office ID that maps each individual health plans provider ID to the broader NaviNet provider ID and allows us to route provider related transactions to the correct provider at the correct office location. The focus of the approach is routing plan transactions and information to the appropriate user in the appropriate officer for the appropriate provider and patient. This federated model enables the routing and delivery of hundreds of unique transactions using a web-based architecture that supports the specific transactions\business process requirements of each of NaviNet's individual health plan customers. Each plan maintains its provider data in a unique data model that supports their specific business processes including; member provider directories, network contracting, claim processing, credentials, etc.

Provider directories in our 12 years of experience cannot be limited to just information about the clinicians. To be effective as routing tools, these directories must link clinicians to specific office locations, to specific authorized users for that clinician, and to the office locations where an individual patient encounter occurred or will occur. This is only possible if existing business processes can be leveraged and repurposed. NaviNet leverages health plan transactions and processes to make the necessary linkages and route content to the appropriate user.

A good example of this kind of process leverage can be found in the airline industry. United Airlines recently changed their business process for entry processing into their Red Carpet clubs. United at first took a simple and typical approach. A card was issued to each member and the front desk asked for a photo ID before entry was granted. Then someone made the brilliant connection that TSA already checks photo IDs and the boarding pass contains all the member information necessary. Now, Red Carpet Club members simply present their boarding pass and a quick scan links to the membership files at United. Neither a card nor a photo ID check is required - administrative simplification at its finest.

A clean slate provider directory used by all is seductively simple but in practice the approach cannot address the inherent complexity of the health care industry and will not be sustainable. There is no one and done provider directory. It is simply not possible to maintain all the information necessary for all the combinations of health care organizations to achieve interoperability. For NaviNet, a federated model that contains a minimum data set to facilitate routing and enable the linkage with existing business processes and provider data sets has been the answer to sustainability and complexity.

2. Do you currently maintain an internal provider directory?

a. If so, how do you validate and maintain it?

As described above NaviNet does maintain an internal provider directory. The directory is maintained as a result of supporting multiple business processes. Our health plan customers each need to maintain internal provider directories to conduct their business processes from network contracting, to eligibility and benefits, to claim payment. By linking each provider and office in the NaviNet network to these health plan data bases, NaviNet is able to maintain aggregated directories from multiple health plans cross-linked with our internal provider directories.

To simplify the maintenance of these directories, NaviNet provides each of our plan customers with the ability to develop transactions to support their provider directories. Providers support this effort because their payments from health plans are dependent on having accurate provider information in the payers' provider data bases. NaviNet also requires its provider offices to maintain the internal NaviNet provider directories to be able to conduct transactions with plans. These internal provider directories include provider, office and user data. Providers support this maintenance process because without accurate and current data, they are unable to participate in the business processes that NaviNet enables.

The key to provider directory maintenance is a recognition that data is a by-product of a business process. Too many in the industry think of data as the beginning. In practice, data collection and maintenance is the end. While that end data may be useful to many, without a leveraged business process to cover the costs of obtaining and maintaining data, the data are unlikely to become available in the first place. The industry is rapidly learning that interoperability is not a business process in and of itself. Few organizations are willing to pay for interoperable provider data unless it can directly support their own business processes.

Like it or not, the market is unlikely to realign itself to make data exchange more convenient. At the core of every organization is an independent view of how health care should work and what their internal systems can support. That means provider data directories must be able to support each organizations view of how the market should work. Payment reform is an excellent example. It is highly unlikely that we will see a uniform set of business programs and processes around payment reform. Each health plan whether for profit or not for profit will work to differentiate its market offerings by establishing a program they believe will be most effective. Every provider organization will work to negotiate its own terms with these payers. In most cases this variability will require new provider directory data elements. NaviNet addresses this variability by federating multiple provider databases and cross linking them with the internal NaviNet provider directories for routing purposes.

- b. Also if so, would your organization find value in using a third party directory to help maintain/support your internal directory?

Maintaining provider directories is a very expensive proposition. NaviNet would welcome the availability of accurate and timely third party provider directories. However, we have 12 years of experience in cross linking health plans provider directories with our internal provider directories. The cost challenges in maintaining these linkages are significant. Many health plans don't cross link their own internal provider directories, because of the expense and challenge of having one unified list. Everyone agrees on the value of one unified directory but when investment is required, many plans decide they can live with multiple directories.

For NaviNet to invest in linking with new third party directories we would need to be assured of the accuracy of a new third party database or the third party would need to bring a set of business processes to NaviNet as a result of linking with their provider directories. Unless one of these conditions was met, linking in new provider directories becomes just an additional cost with no return.

The most likely source of highly accurate and sustainable provider directories as stated earlier, is to look for an existing business process that creates provider directories as a by-product. The work CAQH has done in provider credentialing is a good example and should be leveraged in creating sustainable provider directories.

3. What uses would you have for these two types of provider directories? Would you use them? If not, why not?

- a. **Yellow pages:** An authoritative resource listing clinicians and entities that is used to "look up" providers and point to routing directories

The yellow pages of providers would have some value to NaviNet but also would have many limitations. Because NaviNet focuses on supporting business processes, most of these processes require the owner of the business process to validate the data. For example, health plans might use the yellow pages for supporting consumer related data elements like office hours but would be unlikely to use these yellow pages as a source of credentialing information or plan participation. Similarly, a consumer looking for a new provider will want to be sure that the provider is in their plan's network. Providers may participate in different ways in different plan products. An individual provider may be a capitated generalist in one plan product and a fee for service specialist in another product. For the patient this could mean the difference between a \$20 co-pay and a \$3,000 bill. A federated model that encompasses the health plans' provider directories would be the most effective way of addressing this issue.

- b. Routing directory:** routing registrar to provide addressing hierarchy/service to enable machine-to-machine routing in context of health information exchange activities

Provider directories for routing are the equivalent of URL's and TCP/IP in the Internet world. We don't need to anticipate all the uses, we just need to be sure that a machine that only understands zeros and ones can route to the right user at the right time with zero defects.

The key is to keep it simple and accurate while enabling the flexibility described earlier to support multiple parties unique business processes. It may be counter-intuitive but this is clearly a case where less is more. The Internet is a very clear model for the power of this approach. Interoperability on the Internet is based on routing standards not data standards.

4. What set of clinicians and entities need to be included to enable your use cases?

- a.** Would it need to include individual clinicians, or is the entity sufficient?

This is a critically important question and the answer depends on the specific process. Different methods of exchange will have different requirements. The following table highlights some of the variation in routing requirements. (note: More detail is available in my testimony on March 8th before the ONC Standards Committee Implementation Workgroup.)

Methods of Exchange	Description	Routing Requirements
State or Community-based RHIO	NHIN network of networks with comprehensive patient data available thru EMRs to treating providers	Patient ID is the key routing element. HIE aggregate patient data and distribute when pulled by an authorized user, either a provider on an entity.
Affiliated Multi-site organizational exchange	A single organization establishes business relationships and an internally controlled exchange of clinical data	Each organization must internally validate and maintain provider directories and entity dissemination rules. Federated directories required.
Provider to Provider Direct	Enables provider controlled exchange thru direct office-to-office communication	Like email, the source needs to identify the destination address whether an individual provider or an entity

Methods of Exchange	Description	Routing Requirements
Third Party Patient Aggregators - (e.g. "Blue Button")	Organizations with a business interest in individual patients that assemble and disseminate individuals clinical information across the continuum of care	Individual aggregators will need both physician and entity routing to send PHI to the office that will see the patient and will need to maintain patient consent for the distribution to that office.
Targeted Process Automation	Specific outcomes are directly targeted with programs that aggregate the necessary patient data to support the business /clinical process and deliver to providers the automated process needed to complete the targeted transaction.	Each organization must internally validate and maintain provider directories and entity dissemination rules. Federated directories required.
Consumer Centric Aggregators - (e.g. "Blue Button")	Consumer organizations that recruit and support consumers in managing their health care	Individual aggregators will need both physician and entity routing to send PHI to the office that will see the patient and will need to maintain patient consent for the distribution to that office.

5. What information about clinicians and entities need to go into the provider directory in order to make it useful for you?

- a. For example, provider type, specialties, credentials, demographics and service locations

The most critical information is authoritative and normalized provider and entity data that can be used for routing purposes. The other critical requirement is for data elements that can assist in cross linking providers with the federated provider directories that will be a requirement for many organizations and methods of exchange.

6. What data or information about your organization or clinicians could be made available to establish directories?

- a. Issues to be resolved?

NaviNet maintains normalized information about provider offices and their associated providers. This information is highly dynamic and could support other exchanges through a federated model.

7. If your organization maintains a provider directory, would you allow it to be accessed by outside parties in a federated structure? If so, what requirements would be necessary?

NaviNet operates like UPS. We federate the provider directories of our customers with our routing directories and deliver the “package” to the right user, in the right location, at the right time for a delivery/transaction fee. This is the core of our business so clearly we welcome participation by outside parties.

8. What “trust framework” is needed for populating, maintaining and using provider directories?

- a. Are there specific issues (reliability, trust, privacy, uses of data, others) you would like to make sure are addressed with respect to provider directories

Trust is not an absolute where an entity either trusts another entity or it doesn't. Business rules and relationships create significant variability in when one organization “trusts” another and is willing to exchange information. A provider may trust a colleague until that provider becomes an expert witness for the plaintiff's attorney in a lawsuit of a former patient. Federated directories that can enable the business rules for individual organizations are essential to establishing an effective and sustainable “trust framework.”

9. Can the business interest of existing data suppliers or directory owners be aligned so that they would be willing to help populate, maintain and use an authoritative directory? Is this a desirable goal? Is it feasible?

NaviNet is supportive of industry efforts to create an authoritative provider directory to facilitate routing and cross-linking with federated provider directories.