Canada Health Infoway
Inforoute Santé du Canada

Building Blocks Working Group Meeting Summary

Meeting Summary

Date and Time Thursday, August 1, 2024, 1:00pm-2:00PM ET	**Location** Virtual	**Note Taker** Sadrina Petit, Project Analyst, Digital Health Interoperability	**Next Meeting Date** Thursday, August 8, 2024, 1:00pm-2:00PM ET

Meeting Agenda:

1. Feedback on last week resources:
   - Organization
   - OrganizationAffiliation
   - Location with distance
   - Facility (organization / location)
   - Jurisdiction
2. Queries and Capability statements

Presenters

- Dean Matthews – Service Directory, Product Owner
- Irfan Hakim - Functional & Industry Consultant| Data & AI

Invited Guests

- Public

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1. **Welcome and Introductions**

   D. Matthews welcomed all participants to the working group meeting. Meeting materials and recording of the session will be made available on the InfoCentral working group.

2. **Content Presentation**

   The Infoway Team presented each of the agenda items as outlined above. In the meeting, we reviewed feedback from last week's resources on Organization, OrganizationAffiliation, location with distance, facility, and jurisdiction. We also discussed queries and capability statements.

   The presentation is available: Building Blocks Working Group Meeting

   The video recording is available: Building Blocks Working Group Meeting

3. **Questions raised during the working group meeting:**

What was discussed in the initial part of the meeting regarding resources?

The initial discussion focused on reviewing a list of resources available and asking if there were any outstanding questions before moving on to detailed discussions about queries and capability statements.

What feedback was sought on the displayed search parameters and queries during the meeting?

Feedback was invited on the potential queries and search parameters, with a focus on understanding how each parameter would be utilized and any necessary refinements.

How is the coverage area defined for querying purposes?

Coverage area can be defined using a geoJSON Extension on the coverage area element for a location, incorporating a flag in search parameters to include or exclude results that are out of the defined coverage area.

What is the purpose of the geolocation extension discussed in the meeting?

The geolocation extension is used to define a coverage area that is broader than a specific point, applicable especially for services that are location-dependent such as home-based services or services restricted to certain municipal or tax boundaries.

Is the implementation of geo JSON considered a search parameter or an operation?

It is considered an operation. The implementation guide should provide guidance on how to query this extension and explain the operational method to be used.

What is the difference between the position and coverage area in location data?

The position refers to a specific point marked by coordinates (latitude, longitude, altitude), typically used for pinpointing locations. The coverage area, however, refers to a broader region that a service covers, which can be represented by a geo JSON shapefile linked to the healthcare service's location resource.

Should all standard search parameters be listed in the capability statement?

Yes, it's important to list all standard search parameters in the capability statement to avoid assumptions and ensure that systems connecting to servers can design queries based on the parameters listed. This ensures compatibility and comprehensive functionality.

What is the default behavior for searching a string like a name without using "contains" or "exact"?

The default behavior would typically be an "exact" match search unless specified otherwise. This ensures that search results are precise, matching the exact string entered.

What additional search options are planned for implementation?
Additional options include parameters like _include, which allows for the inclusion of related resources (e.g., organization resources in a healthcare service search) in the search results bundle. This facilitates more comprehensive results without needing a secondary search.

What is the use case for including a location in the search parameters for healthcare services?

Including a location in the search parameters can help identify all healthcare services provided at a specific location, such as a local community clinic. This can be particularly useful for new practitioners or administrative staff looking to understand the services offered at their location.

Are there specific recommendations for implementing chain search parameters?

Yes, chain search parameters, which allow for more complex queries across linked resources, should be detailed in the implementation guide. These parameters are not standard and need configuration on the FHIR server to function correctly.

How should search parameters be prioritized or considered in terms of standard vs. extra parameters?

While standard search parameters should be universally supported by all FHIR servers, extra parameters like phonetic and chain search parameters provide additional functionality that may be necessary for specific use cases and should be considered based on the particular needs of the healthcare directory or service being implemented.

What is the expectation around support for location-based search parameters?

The necessity of location-based search parameters depends on the use case. For directories aimed at synchronizing or federating data, proximity searches might be irrelevant. However, for real-time search APIs intended for user interfaces, proximity and location-based searches are crucial for delivering relevant results based on user input.

What is the intended scope for the first release of the service directory?

The first release aims to support essential functionality for eConsult and similar services. It will consider whether service directories should include a directory of directories for provinces, like Ontario, to host and provide access to Health Information Exchanges (HIEs) and their directories based on location and other parameters.

Will the service directory include federated service functionality?

Federated service functionality is currently considered out of scope. The primary use case initially is to support the referral process through basic search functionalities like searching by identifier and ID.

What search parameters are necessary for eConsult services, especially regarding location?

For eConsults, it's essential to include location search parameters to help community practitioners find the closest specialist. This aids in determining proximity and availability for consultations.

How will the service directory facilitate the sharing of information across different directories?

The directory is envisioned to support mechanisms that allow directories to federate or synchronize information. This would enable a user to search through their native directory while accessing data from other directories, enhancing comprehensive search capabilities.

What are the security considerations for the service directory?

The guide will highlight that each jurisdiction may implement its security measures based on local regulations. It will include a section on security considerations but will not prescribe specific security protocols. The focus will be on ensuring that directories validate users and manage data access appropriately.

How are search parameters like ID and identifier managed across different resources?

While IDs are universally necessary for backend processes, identifiers might vary based on the resource. For example, a healthcare service might use a service code as an identifier, while a pharmacy might use a license number. The implementation guide will need to clarify these distinctions and provide flexibility in how these parameters are implemented and used.

How will name and location parameters be handled in searches?

The significance of names in search parameters can vary. For instance, the name of a location might be less relevant if the directory architecture does not distinguish between services and locations distinctly. Future considerations might include how users search for services at specific locations, especially in comprehensive facilities like community health clinics that offer multiple services.

How should a service directory handle organization and location identifiers for searches?

For effective searches, the service directory should allow users to search for general organization names like "LifeLabs" and retrieve all relevant locations, instead of requiring precise location identifiers. This approach aids users in finding the nearest services without needing overly specific search terms.

What is the role of building names in location searches within a healthcare service directory?

Building names can be included in search parameters, but their utility may be limited as users often search for services rather than specific building names. The directory should be structured to prioritize service names and functionalities over building names to enhance user experience.

Should provenance information be included in search results for healthcare service directories?

Including provenance can be crucial, especially in referral scenarios where it's important to know the status of a healthcare service listing at the time of the referral. This ensures accuracy and can prevent discrepancies due to changes in service details over time.

How should a healthcare service directory define and utilize search parameters related to names and identifiers?

The directory should specify whether searches by names are exact matches or include partial matches. Identifiers should be clearly defined, whether they relate to individual services or locations, to ensure that search functionalities meet the user’s needs effectively.

What considerations should be made for "active" status in directory listings?
Directories should default to showing only active services unless the user specifically requests to see inactive ones. This approach prevents clutter in search results and focuses on currently available services.

How can healthcare service directories support complex interactions like updates and batch operations?

Directories should specify which interactions (like create, read, update, delete) are supported for each resource type. This includes defining how operations such as batch updates are handled to facilitate efficient data synchronization and updates across different platforms.

What strategies should be employed for federating healthcare service directories?

Federation strategies should focus on ensuring that directories can share and update information seamlessly. This involves setting protocols for data exchange, such as using POST requests for updates, and ensuring that directories can handle incoming data effectively.

What is the main use case for the federated approach to healthcare directories?

The federated approach aims to facilitate efficient information sharing among various directories, allowing updates made in one place to be automatically pushed to others. This method addresses the challenge of updating information across multiple platforms and reduces redundancy by enabling a central update point that distributes changes to other directories.

Why is a single, centralized healthcare directory not considered effective?

A single, centralized directory is often impractical because different regions and organizations capture and present information in unique ways and may have specialized needs for data types and details. A federated system respects these differences and utilizes strengths across various directories, promoting more comprehensive and accurate data sharing.

How does the federated model improve data entry and maintenance?

By allowing entities to update their information in a single, central directory, the federated model can automatically propagate these updates to other relevant directories where users are searching for information. This model prevents the need for multiple updates across different platforms and enhances data consistency.

What are the challenges with changing user behavior regarding directory use in a province?

Changing user behavior to rely on a single directory for healthcare information is challenging and often unrealistic. Users are accustomed to accessing information from multiple sources that are specifically tailored to their needs. The federated model supports this diversity by integrating and synchronizing multiple directories.

Why was federation initially considered out of scope, and why might it be revisited?

Federation may have been initially out of scope due to its complexity or specific project limitations. However, as the discussion evolves and the needs for comprehensive data integration become clearer, the benefits of federation may prompt a reconsideration of its inclusion in the scope.

What future discussions are planned regarding the development of healthcare directories?

Future discussions will focus on refining queries, capability statements, and terminology bindings related to healthcare directories. The aim is to document essential parameters clearly and address any additional considerations like organization affiliations in subsequent meetings.

4. Links shared during the meeting

1. **https://simplifier.net/ca-csd**
2. **https://build.fhir.org/ig/HL7/fhir-extensions//StructureDefinition-location-boundary-geojson.htmlhttps://hl7.org/fhir/R4/search.html#string**
3. **https://smilecdr.com/docs/fhir_repository/search_parameter_phonetic.html**
4. **https://hl7.org/fhir/r4/search.html#chaining**
5. **https://build.fhir.org/ig/HL7/davinci-pdex-plan-net/CapabilityStatement-plan-net.html#location**