



Canada Health Infoway

Patient Summaries in the Interoperability Landscape

Information sharing

Location: Online

Date: May 16, 2023

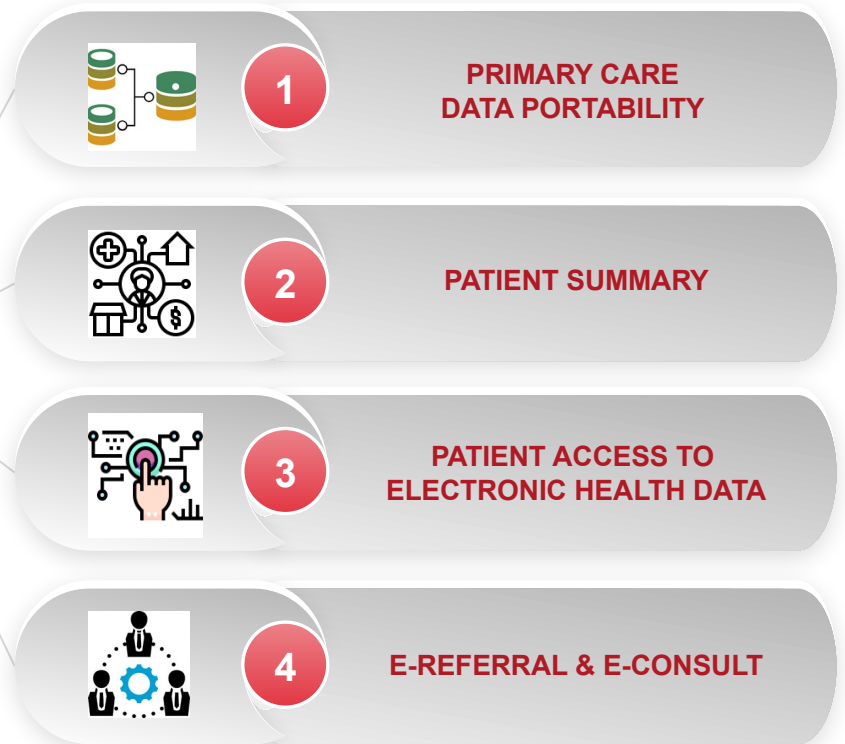
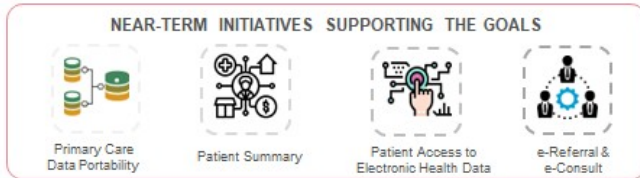
Attila Farkas

Sr. Director, Solution Management and Advisory Services

Objectives

- Quick overview of the PS-CA
- Provide insights into our approach to Interoperability
- Projectathon 2023
- Answer questions

pan-Canadian Interoperability Strategy & Shared Roadmap



PS-CA and IPS

An implementable, testable specification, based on the International Patient Summary (IPS), as defined by IHE International Patient Summary Specification, HL7 IPS Implementation Guide, CEN-EN 17269 and ISO/DIS 27269.

The PS-CA FHIR profile set is as closely aligned to the HL7 IPS-UV specification as possible, while still supporting localized needs and reducing barriers to early adoption

PS-CA defines building blocks (both: content data model and interoperability) to create and share condition-independent and specialty-agnostic patient summaries



Solving for specific interoperability priorities, such as Patient Summaries, while also addressing the broader interoperability landscape

2

Conformance testable specifications focused on specific infrastructure or clinical needs, and associated data sets

- IHE IT Infrastructure (ITI) Framework
- Care Coordination including the IHE International Patient Summary (IPS)
- Medication/Pharmacy
- Radiology
- Cardiology
- Lab/Pathology
- Devices
- Others

1

BASE STANDARDS

HL7 v2,
v3, CDA

HL7 FHIR

LOINC

SNOMED

DICOM

ICD9/10

The [pan-Canadian Patient Summary specification \(PS-CA\)](#) is a level 2 specification

1

Adoption of Base Standards is not enough

- Projects and vendors across the country use base standards but there is lack of harmonization across implementations

2

Interoperability requires harmonization of testable specifications across public and private sector implementers

- There is a growing body of testable specifications in use by multiple countries and healthcare sectors
- The diagnostic imaging sector is most mature in embracing testable specifications

An integrated and harmonized collection of specifications, policies and infrastructure is required to enable wider interoperability



In a few weeks Infoway will introduce a [Proposed pan-Canadian Interoperable Reference Architecture](#) to stimulate a conversation on a key dimension of the wider Interoperability landscape

pan-Canadian PS Specifications - Project Scope (R1)

An overview

Project Background

Patient Summary-CA – **A national collaborative effort of developing a pan-Canadian implementable specification**

Project Approach



Baseline: Develop foundational Use Cases and Business Requirements for pan-Canadian Patient Summaries based on **collaborative workshopping** with jurisdictions, industry, clinical expert and other relevant organizations



Collaborate: Collaborate with jurisdictions, clinical SMEs, technical SMES, vendors, participating organizations to develop and refine detailed artefacts



Review: Review and provide feedback into artefacts through engagement workshops and input gathering



Publish: Publish artefacts for broader stakeholder consultation



Recommend: Recommend draft artefacts for approval



Iterate: Continue to refine as per testing and priorities

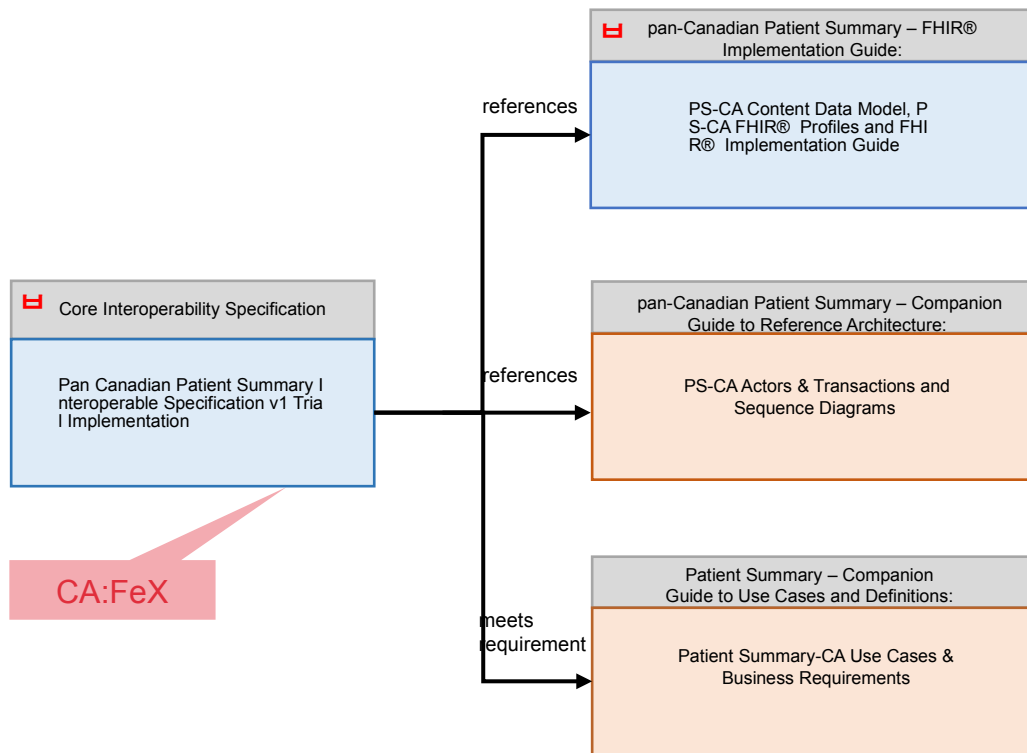
Jurisdictional Alignment

Stakeholder Engagement has identified a set of common use cases for the pan-Canadian Patient Summary, **Release 1** prioritizes these 3.

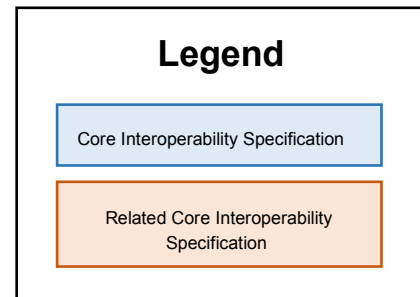
| Use Cases in Scope for Release 1 | AB | BC | NL | ON | SK |
|--|----|----|----|----|----|
| 1. Health Care Provider (HCP) Creates and submits a Patient Summary-CA | x | x | x | x | x |
| 2. Health Care Provider (HCP) Retrieves, Views and Uses a Patient Summary-CA | x | x | x | x | x |
| 3. Patient Accesses and Views their Patient Summary-CA | x | x | x | x | |

Patient Summary PS-CA Specification Package

The [pan-Canadian Patient Summary specification \(PS-CA\)](#) is a level 2 specification



[Link to specification package](#)



Cross-jurisdictional PS-CA Building Blocks Prioritization

Patient Summary-CA: Data Domains of Interest by Canadian Jurisdiction and Release

| | IPS-UV | | PS- CA | AB | BC | MB | NL | ON | SK | v1.0.0 TI | Future |
|-------------|----------------------------|-------------|----------------------------|----|----|----|----|----|----|-----------|--------|
| Header | Subject | Header | Subject | | | | | | | | + |
| | Author | | Author | | | | | | | | + |
| | Attester | | Attester | | | | | | | | + |
| | Custodian | | Custodian | | | | | | | | + |
| Required | Medication Summary | Recommended | Medication Summary | | | | | | | | + |
| | Allergies and Intolerances | | Allergies and Intolerances | | | | | | | | + |
| | Problem List | | Problem List | | | | | | | | + |
| Recommended | Immunizations | Recommended | Immunizations | | | | | | | | + |
| | History of Procedures | | History of Procedures | | | | | | | | + |
| | Medical Devices | | Medical Devices | | | | | | | | |
| | Diagnostic Results | | Diagnostic Results | | | | | | | | |
| Optional | Vital Signs | Optional | Vital Signs | | | | | | | | + |
| | Past history of Illness | | Past History of Illness | | | | | | | | + |
| | Social History | | Social History | | | | | | | | + |
| | Advance Directives | | Advance Directives | | | | | | | | |
| | Pregnancy | | Pregnancy | | | | | | | | |
| | Functional Status | | Functional Status | | | | | | | | |
| | Plan of Care | | Plan of Care | | | | | | | | |
| | | EXT | Extension(s) | | | | | | | | |
| | | | Family History | | | | | | | | + |

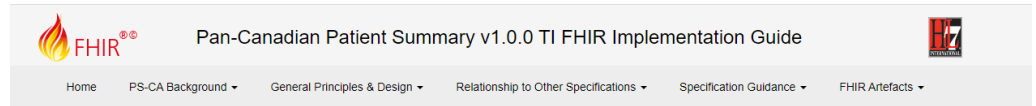
Infoway has orchestrated a collaborative process to

- reach consensus on priorities
- consolidate requirements
- conduct detailed data analysis to understand jurisdictional needs and the required flexibility for the design of PS-CA building blocks

The pan-Canadian Patient Summary FHIR Implementation Guide & HL7 FHIR® Profiles

- **The pan-Canadian Patient Summary - FHIR Implementation Guide** is an implementable, testable specification for the FHIR composition that defines the data payload of the PS-CA specification and is based on the HL7 FHIR IPS implementation guide
- **The PS-CA FHIR Profiles** are implementable, testable data content models that reflect configurable building blocks for creating a well formed pan-Canadian Patient Summary as a FHIR document

[Link to PS-CA FHIR bundle](#)



This is the current version of the PS-CA Implementation Guide. Other releases of the PS-CA Implementation Guide may be found at [Guides](#).

PS-CA Library of Profiles

PS-CA Structure

A patient summary, as defined in both the [IPS-UV](#) and PS-CA specifications, is a [document](#). The [Composition \(PS-CA\)](#)

Composition profile dictates the structure of the patient summary document in a way that combines information about the creation of the patient summary (e.g., header information) with clinical information about the patient (e.g., composition sections).

The Composition (PS-CA) profile relies on the capability in FHIR® to [reference other FHIR resources](#) to establish a link between the Composition resource and the other resources that belong to each of its sections.

All the resources that make up the Patient Summary document (e.g., Composition, Immunization, Condition, MedicationRequest, etc.) are transported together using a [FHIR Bundle](#). This Bundle SHALL include all the resources that are referenced directly or indirectly by the PS-CA Composition.

List of Profiles in PS-CA Version 1.0.0 TI

Pages have been developed for the profiles in PS-CA Version 1.0. Each of the pages include the:

- profile differential table
- extensions (if applicable)
- description of the differences between this profile and the corresponding IPS profile

Bundle

[Bundle \(PS-CA\)](#)

This profile represents the constraints applied to the Bundle resource by the PS-CA project.

Composition

[Composition \(PS-CA\)](#)

This profile represents the constraints applied to the [Composition](#) resource by the PS-CA project. A Canadian Patient Summary (PS-CA) document is an electronic health record extract containing essential healthcare information about a subject of care. It is informed by the [IPS-UV Composition](#) profile but differs primarily in its application of Must Support flags on some of the sections to allow jurisdictional implementers to have flexibility in which sections systems must support in order to show conformance to their respective patient summaries.

Solving Interoperability Challenges - Core Concepts

To solve **interoperability challenges**, IHE International has developed a process that **brings together clinicians, jurisdictions, vendors and, developers** of healthcare information technology (HIT) in an annually recurring four-step process.



1

Clinical, technical and jurisdictional experts define critical use cases and business requirements for solving a problem (e.g., Sharing Patient Summaries).



2

Technical experts create detailed specifications for Patient Summaries to address these use cases, selecting and optimizing established standards.



3

Industry implements these standard specifications called Integration Profiles in various HIT systems and solutions.

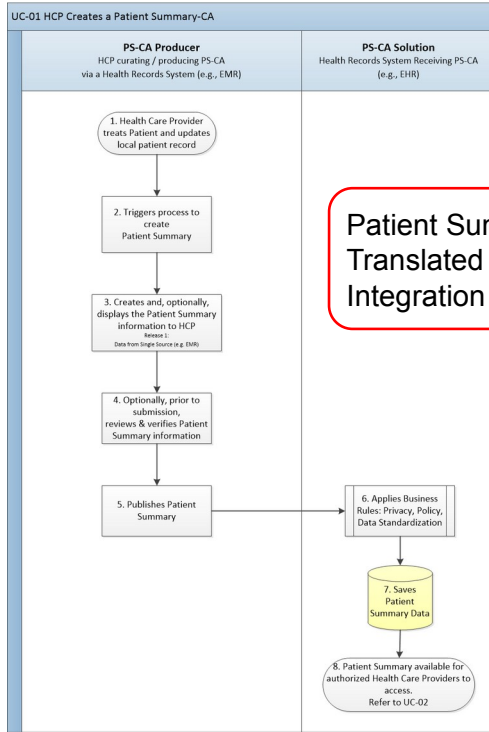


4

Allows vendors to demonstrate interoperability and conformance to the specification for the Patient Summary by testing their systems at carefully planned events called Connectathons and Projectathons.



Use Cases & Requirements Translated to Solve a Problem







Patient Summary Use Case Translated to Integration Profiles



| PS-CA USE CASE 1: HCP Creates PS-CA | | | MAPPING TO SECTIONS FROM THIS AND REFERENCED INTEROPERABILITY SPECIFICATIONS | | |
|-------------------------------------|---|--------------------|--|--|--|
| USE CASE ACTOR | SERVICE SUPPORTED | OPT | TECHNICAL ACTOR | OPT | PROFILE / STANDARD |
| PS-CA Producer | Authenticate User | O | Client (e.g., EMR) | O | Internet User Authorization (IUA) |
| | Identify Patient | O | Client (e.g., EMR) | O | Use Existing Standards Employed by the Clinical System |
| | | O | Patient Demographic Consumer | O | PDQm |
| | Retrieve clinical data from local data sources (Patient Identifier) | R | Client (e.g., EMR) | R | Use Existing Standards Employed by the Clinical System |
| | Assemble and review Patient Summary | R | Client (e.g., EMR) | R | Use Existing Standards Employed by the Clinical System |
| | Update Current Valuesets and ConceptMaps | O | Client (e.g., EMR) | O | SVCM |
| | Omit or Mask Data based on Jurisdictional Policy | O | Client (e.g., EMR) | O | Jurisdictional Requirement |
| Save PS-CA to Document Repository | R | Client (e.g., EMR) | R | Use Existing Standards Employed by the Clinical System | |
| | | Data Source | R | CA:FeX | |
| Document Repository (Central)* | Save PS-CA to Document Repository | R | Data Recipient | R | CA:FeX |
| Central Infrastructure | Identify Patient | O | Patient Identity Registry | O | PMIR |



Creating Specifications with Established Standards

| MAPPING TO SECTIONS FROM THIS AND REFERENCED INTEROPERABILITY SPECIFICATIONS | | |
|--|-----|--|
| TECHNICAL ACTOR | OPT | PROFILE / STANDARD |
| Client (e.g., EMR) | O | Internet User Authentication (IUA)  |
| Client (e.g., EMR) | O | Use Existing Standards Employed by the Clinical System |
| Patient Demographic Consumer | O | PDQm |
| Client (e.g., EMR) | R | Use Existing Standards Employed by the Clinical System |
| Client (e.g., EMR) | R | Use Existing Standards Employed by the Clinical System |
| Client (e.g., EMR) | O | SVCM |
| Client (e.g., EMR) | O | Jurisdictional Requirement |
| Client (e.g., EMR) | R | Use Existing Standards Employed by the Clinical System |
| Data Source | R | CA:FeX  |
| Data Recipient | R | CA:FeX  |
| Patient Identity Registry | O | PMIR  |

Existing, internationally-developed solution for **User Authorization (IUA)**

Existing, international profile, developed to solve for **consistent patient demographics** query (PDQm)

CA:FeX: Canadian developed integration profile to solve for a **standardized way to exchange FHIR documents** (e.g., Patient Summary)

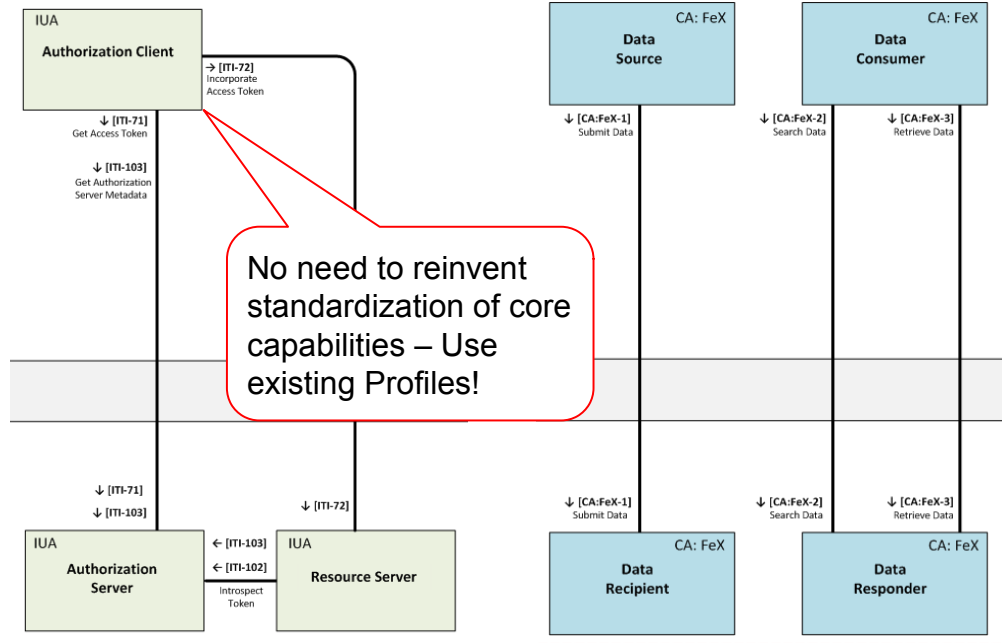
Optimizing the development process with modular technology!
These Profiles can implement very different protocols and technologies



Integration Profiles – Modular Technology



| MAPPING TO SECTIONS FROM THIS AND REFERENCED INTEROPERABILITY SPECIFICATIONS | | |
|--|-----|--|
| TECHNICAL ACTOR | OPT | PROFILE / STANDARD |
| Client (e.g., EMR) | O | Internet User Authorization (IUA) |
| Client (e.g., EMR) | O | Use Existing Standards Employed by the Clinical System |
| Patient Demographic Consumer | O | PDQm |
| Client (e.g., EMR) | R | Use Existing Standards Employed by the Clinical System |
| Client (e.g., EMR) | R | Use Existing Standards Employed by the Clinical System |
| Client (e.g., EMR) | O | SVCM |
| Client (e.g., EMR) | O | Jurisdictional Requirement |
| Client (e.g., EMR) | R | Use Existing Standards Employed by the Clinical System |
| Data Source | R | CA:FeX |
| Data Recipient | R | CA:FeX |
| Patient Identity Registry | O | PMIR |

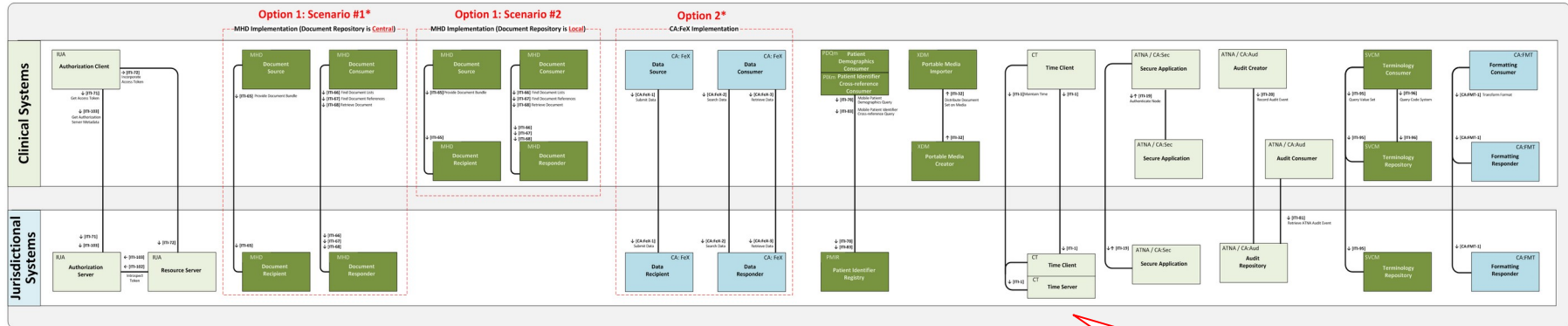




Integration Profiles – Reference Architecture

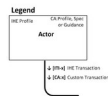


Reference Architecture Overview



- IHE Profiles**
- IAUA Internet User Authorization
 - ATNA Audit Trail and Node Authentication
 - CT Consistent Time
 - MHD Mobile access to Health Documents
 - PMIR Patient Master Identity Registry
 - PDQm Patient Demographics Query for Mobile
 - PXm Patient Identifier Cross-Reference for Mobile
 - XDM Cross-enterprise Document Media Interchange
 - SVCM Sharing ValueSets, Codes and Maps

- Canadian Specifications and Guidance**
- CA-Fx Canadian FHIR Exchange
 - CA-FMT Canadian Formatting Service
 - CA-Sec Canadian Network Security (based on ATNA)
 - CA-Aud Canadian Audit Trail (based on ATNA)
- *Preferred Option



Legend: actors



An approach allowing for a standardized set of eco-system capabilities, capable of supporting scalable growth without imposing deployment architectures



Integration Profiles – Testable Capabilities



IHE Profiles

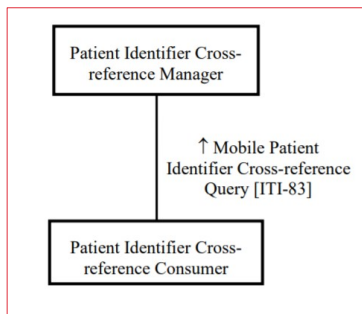
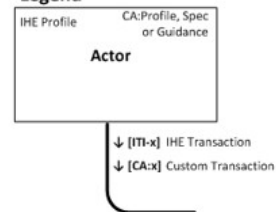
| | |
|------|---|
| IUA | Internet User Authorization |
| ATNA | Audit Trail and Node Authentication |
| CT | Consistent Time |
| MHD | Mobile access to Health Documents |
| PMIR | Patient Master Identity Registry |
| PDQm | Patient Demographics Query for Mobile |
| PIXm | Patient Identifier Cross-Reference for Mobile |
| XDM | Cross-enterprise Document Media Interchange |
| SVCM | Sharing Valuesets, Codes and Maps |

Canadian Specifications and Guidance

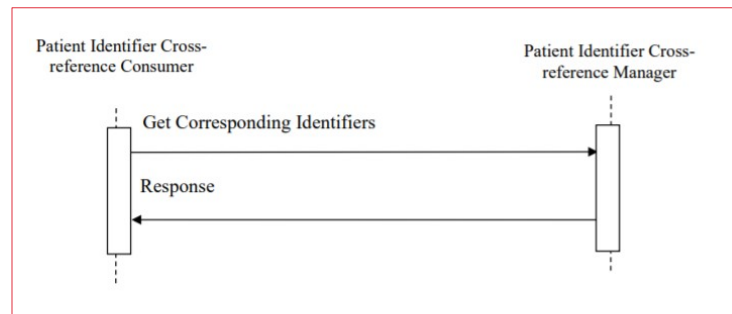
| | |
|--------|---|
| CA:FeX | Canadian FHIR Exchange |
| CA:FMT | Canadian Formatting Service |
| CA:Sec | Canadian Network Security (based on ATNA) |
| CA:Aud | Canadian Audit Trail (based on ATNA) |

*Preferred Option

Legend



Profiles define the Actors and their supported Transactions



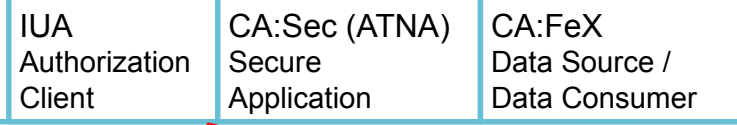


Integration Profiles in Vendor Systems

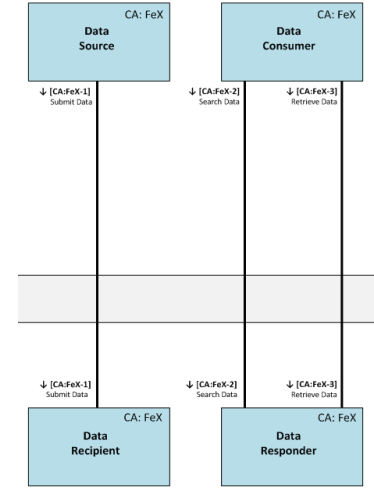
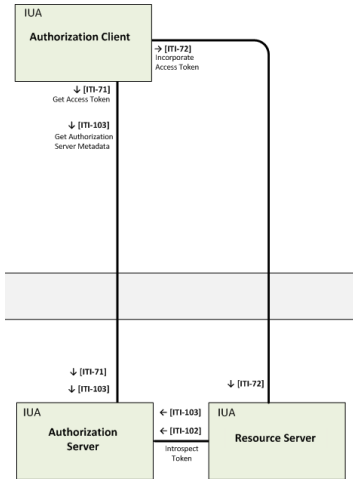


Clinical System (e.g., EMR, HIS, etc.)

Vendor systems can compete on everything they choose to, except for the interoperability profiles they claim to support

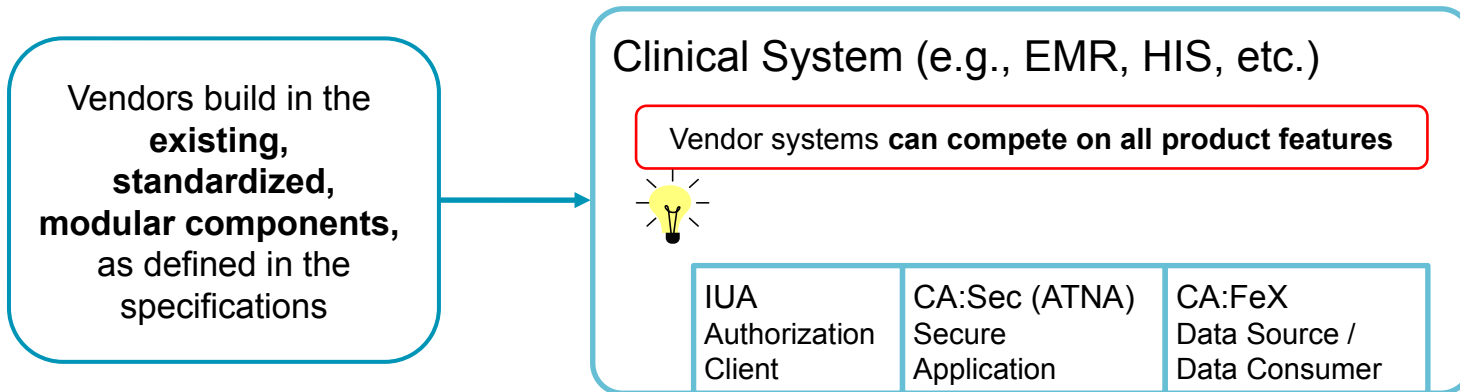


This vendor system claims they can operate as a secure node, authorize their users and submit and receive Patient Summaries (three Profiles, four Actors)





Implementing the Standards into Clinical Systems





What is Gazelle Testing Framework and where does it fit in?





Gazelle Testing Framework



IHE

GAZELLE
eHealth test framework
for interoperability

A compendium of international and national profiles and transactions

Gazelle

TF Tests List Create an account Sign-in CAS Sign-in

Tests List

Search Criteria

Domain: (1) ITI - IT-Infrastructure
 Integration profile: (1) PIXm - Patient Identifier Cross-reference for M...
 Transaction: (1) ITI-83 - Mobile Patient Identity Cross-Identif...
 Test Type: connectathon
 Test Peer Type: Show all
 Test Last modifier: Show all
 Author: Show all

Actor: (1) PAT_ID_X_REF_MGR - Patient Identity Cross-...
 Int Prot. option: Show all
 Test Status: ready
 Test Version: Show all
 is Validated: Show all

Save search criteria

You can add up to 4 filters presets for this page:

Name of preset:

Save

Check the box if you want to make it your default page

None

| Keyword | Version | Status | Type | Peer type | is Validated ? | Test author | Last modifier | Last changed | Action |
|----------------------------------|--------------|--------|--------------|--------------|----------------|-------------|---------------|--------------------|-------------------------------------|
| CHPIXM_Mobile_Id_Feed&PIXm_Query | EPR Bem 2021 | ready | connectathon | Peer To Peer | false | vhofman | vhofman | 9/17/21 8:02:55 AM | Q i |

Results per page: 20

Export as Excel file

Gazelle is a suite of tools developed by IHE International and other collaborators to bring Integration Profiles to life.

It provides users an opportunity to validate the role they will be playing in the ecosystem and ensure they are able to satisfy the interoperability requirements.

Gazelle offers several self-serve, self-test and conformance assessment opportunities for jurisdictions and vendors to test alignment to Integration Profiles

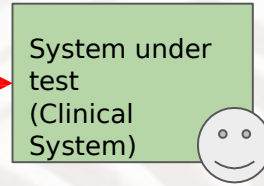
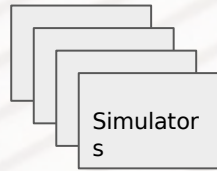
Gazelle Concepts

- Core concepts:
 - Vendors (**Organization**)
 - Clinical Systems (**System**)
 - Integration Profiles (**Profile**)
 - Actors (**Actor**)
 - Transactions (**Transaction**)



Gazelle Components

2. Run transaction and exchange messages with simulators (through the Proxy)

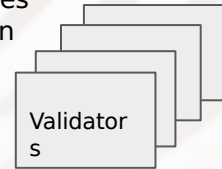
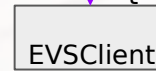


1. Read test plan and test description

4. Collect all test evidences in Test Management (from the

SUT operator

3. Validate exchanged messages with Validator



Preloaded with international and national integration profiles vendors can claim adherence to

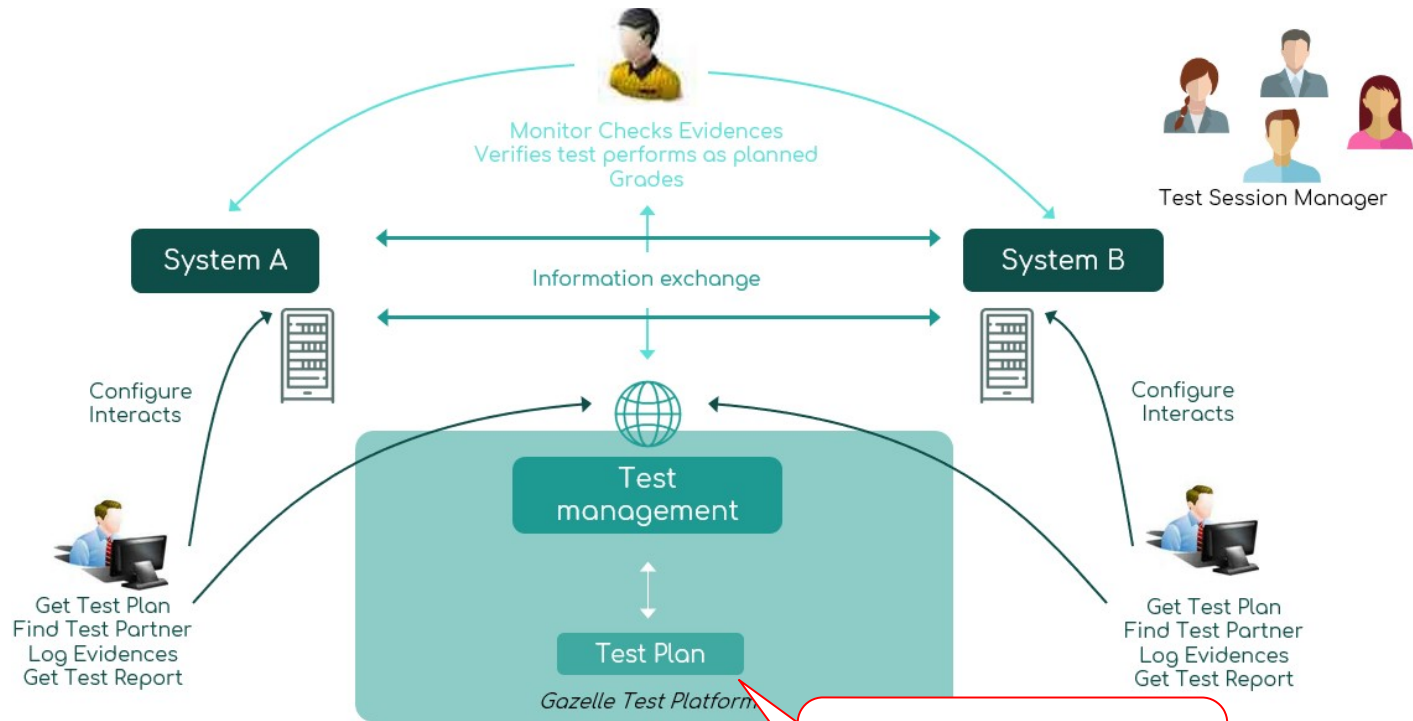


| IHE Profiles | | Canadian Specifications and Guidance | | Legend | |
|--------------|---|--------------------------------------|---|-------------------------|------------------------------|
| IUA | Internet User Authorization | CA:FeX | Canadian FHIR Exchange | IHE Profile | CA:Profile, Spec or Guidance |
| ATNA | Audit Trail and Node Authentication | CA:FMT | Canadian Formatting Service | Actor | |
| CT | Consistent Time | CA:Sec | Canadian Network Security (based on ATNA) | [IHE] IHE Transaction | |
| MHD | Mobile access to Health Documents | CA:Aud | Canadian Audit Trail (based on ATNA) | [CA] Custom Transaction | |
| PMIR | Patient Master Identity Registry | | | | |
| PDQm | Patient Demographics Query for Mobile | | | | |
| PIXm | Patient Identifier Cross-Reference for Mobile | | | | |
| XDM | Cross-enterprise Document Media Interchange | | | | |
| SVCM | Sharing Valuesets, Codes and Maps | | | | |

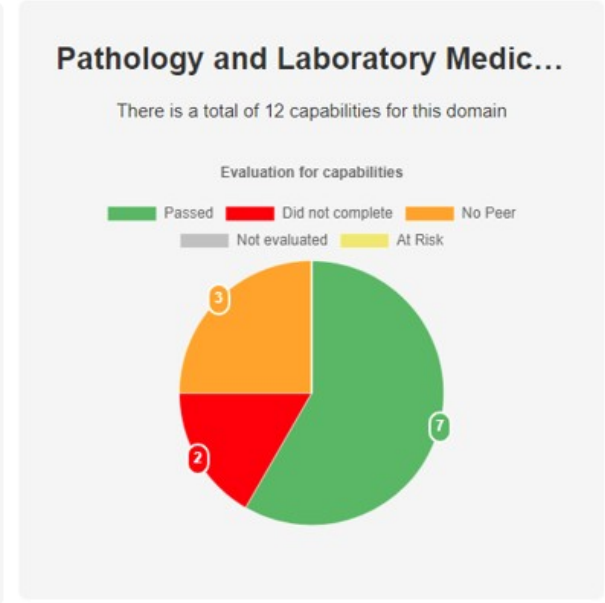
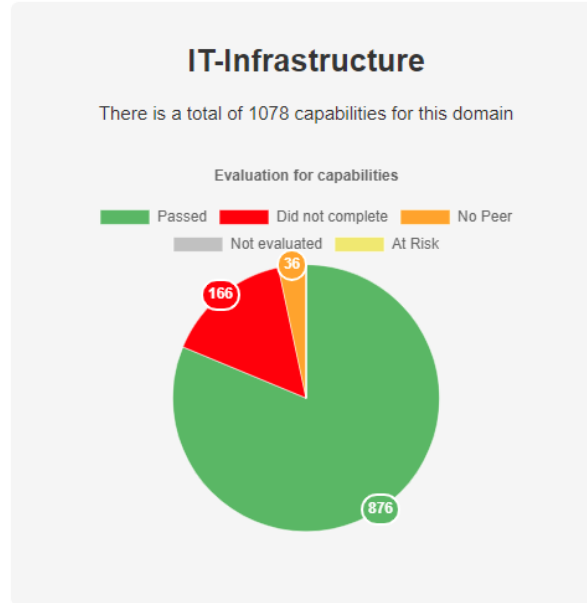
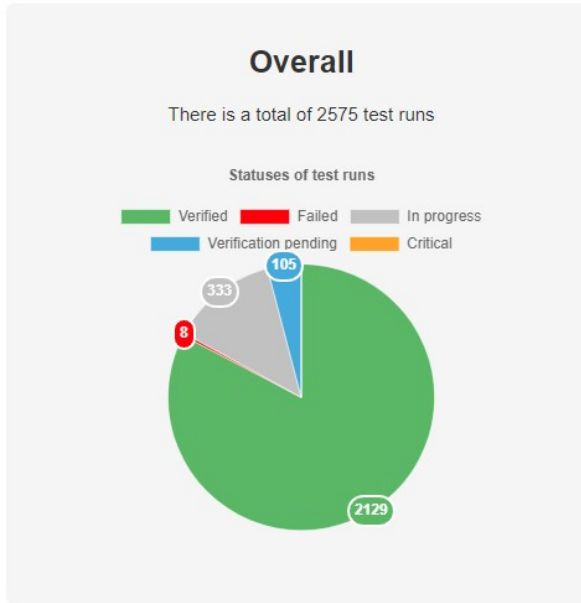
*Preferred Option



Conceptual Model of a Testing Event



Overview of the outcome of the session for managers



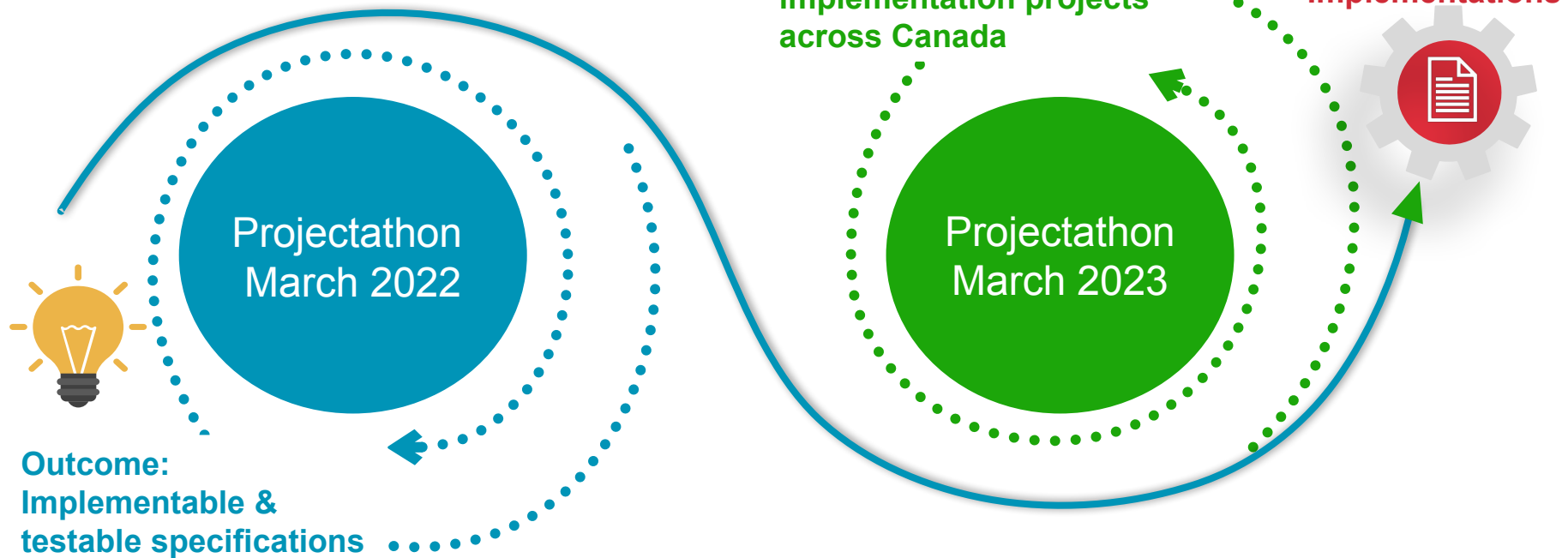
This information is fed into a report for each vendor to reflect their results.

Projectathon 2023

Vendors had an opportunity to test and demonstrate capabilities in two distinct areas of the specification:

- A. Document format and content,
- B. Secure, exchange transactions.

Projectathon 2022/23



25 Read more about the Projectathon 2022: [Pan-Canadian Projectathon final report](#)

A. Testing for Document Format and Content

The PS-CA FHIR Content Data model will be tested using a combination of test data and validation tooling. To consider:

- ❖ The **PS-AB** and **PS-ON** specifications are very **closely aligned to the PS-CA** and should be supported by minimal configuration of capability in the vendor systems. The **Data Configuration Guide** provides the necessary configurations for testing the PS-AB and PS-ON specifications.
- ❖ The test cases will highlight where configuration is needed and test that it is applied properly, based on claimed vendor conformance.
- ❖ The Projectathon will offer an assessment of the FHIR document against the ON and AB implementation guidance as represented in the PS-ON and PS-AB specifications, in addition to the PS-CA.

| | PS-CA | PS-AB | PS-ON |
|--------------|---|--|--|
| meta.profile | No constraints | No constraints | Always supply meta.profile (implementation detail) |
| .identifier | Demonstrate you can supply JHN & MRN slices modeled | Always supply an identifier (implementation detail) At least one identifier must be a JHN (implementation detail) | Always supply an identifier (implementation detail) Demonstrate you can supply a JHN and/or MRN |
| name | Always supply a name | Always supply a name | Always supply a name |
| name.text | Demonstrate you can supply | Always supply name.text (implementation detail) | Demonstrate you can supply |
| name.family | Demonstrate you can supply | Always supply name.family (implementation detail) | Demonstrate you can supply |
| name.given | Demonstrate you can supply | Demonstrate you can supply | Demonstrate you can supply |
| telecom | Encouraged but not must support | Encouraged but not must support | Demonstrate you can supply |
| gender | Always supply a gender | Always supply a gender | Always supply a gender |
| birthDate | Always supply a birthdate | Always supply a birthdate | Always supply a birthdate |
| address | Encouraged but not must support | Encouraged but not must support | Demonstrate you can supply |



To access the **Data Configuration Guide**, go [here](#).

NOTE: This document is based on the PS-AB and PS-ON at a point in time and are, therefore, subject to change.

B. Testing Secure, Exchange Transactions

Implementation patterns may differ from jurisdiction to jurisdiction and information exchange channels may vary in terms of their security footprint.

Therefore, the Projectathon test cases have been organized into two categories:



Category 1 - Test cases that test **individual actor capabilities in isolation**, e.g., how a system can handle encrypted transactions, how a system can handle a CA:FeX transaction, how a system can handle an OAuth 2 token exchange, etc.



Category 2 - Complex test cases that **group individual actor capabilities with other relevant actor capabilities to simulate real world scenarios**, e.g., how a patient summary creator system can submit the document to a repository by using an OAuth 2 integration, etc.

Projectathon Testing: Integration Profiles

- 1** **CA:FeX** Implementable, testable interoperability specification based on HL7 FHIR. Defines building blocks to enable creating, consuming and sharing clinical data via FHIR RESTful exchange patterns.
- 2** **MHD** Defines one standardized interface to health document sharing. This profile is applicable to systems where needs are simple, such as pulling the latest summary for display.
- 3** **IUA** Provides an authorization profile for the HTTP restful transactions. Ensures that the users (e.g., Patient, provider, etc.) and applications requesting access to the FHIR document (e.g., Patient summary) are authorized to have access.
- 4** **CA:Sec** Specifies the foundational elements needed to securely execute transactions between two systems. Based on the ATNA profile and aims to bring improvements via loose coupling, with focus on node and application security.
- 5** **CA:Aud** Specifies the foundational elements needed to perform event logging for auditing purposes. It is based on the ATNA profile and aims to bring improvements via loose coupling with focus on auditing using modern formats and technologies.
- 6** **CT** Provides a means to ensure that the system clocks and time stamps of the many computers in a network are well synchronized.

CA:FeX, MHD, IUA Simulators

Patient Summary API (CA:FeX) 0.2 OAS3

RESTful APIs used to save and retrieve Patient Summary documents.

Based on [CA:FeX profile](#)

Note:

- Where applicable, FHIR search interactions are required to support both GET and POST methods. In the POST variant, parameters may appear in both the URL and the body. See [FHIR search](#) for more details.
- This page is intended to be used as dynamic documentation for the PS-CA CA:FeX APIs. Please do not include any PII/PHI in the documents exchanged via this page.
- The data served by this page is ephemeral and should not be considered as persistent in the long term.
- When executing transactions combined with authorization (utilizing [IHE IUA profile](#)), a valid access token is required that is provided by the authorization server. The token must include the respective scopes for each CA:FeX transaction (CAFEX-1, CAFEX-2 and CAFEX-3). Use the Authorize button to provide the access token.

Servers

▾

Authorize 

Capability Statement FHIR Capability Statement for this service

GET /`metadata` Retrieves the FHIR Capability Statement for this service

Data Recipient APIs for saving Patient Summary documents


POST /`Bundle` Saves a new Patient Summary to the document repository [CA:FeX-1]

Data Responder APIs for retrieving Patient Summary documents

GET /`Bundle` Retrieves a list of document Bundles matching the search criteria [CA:FeX-2A]

POST /`Bundle/_search` Retrieves a list of document Bundles matching the search criteria [CA:FeX-2A]

Validators and Renderers



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FHIR Validator

Or upload a resource in a file:

Advanced Options

By default, the FHIR Validator validates your resources using the profile URLs found in the "meta.profile" field of your resource (or the Base FHIR profiles if no profile URLs are present). However, you may choose to use existing profiles from other Implementation Guides or use your own profile to validate your resources.

Pick an Implementation Guide to validate against:

- ca.infoway.io.pzca (version 1.0.0)
- ca.on.oh.patient-summary (version 0.10.0-alpha-11)

Projectathon Testing Days

- ❖ The purpose of the Projectathon was to test the PS-CA and PS-ON (Ontario patient summary implementation guidance) specifications with a focus on both content and exchange
- ❖ Nine vendors completed over 200 tests both individually and collaboratively related to:
 - ❖ Security and authorization
 - ❖ Transport of a patient summary
 - ❖ Assessment of FHIR documents against PS-CA and PS-ON
- ❖ **7/9** vendors were able to successfully interact with the retrieve data transaction
- ❖ **2/9** vendors were able to demonstrate the ability to create a well-formed patient summary (PS-CA) document
- ❖ **One** vendor was able to partially demonstrate ability to create a well-formed PS-ON document
- ❖ **All** vendors showed some capability of being able to submit a patient summary (either via a PS they created or a sample that was provided



| Total Profiles Tested | Total Tests Conducted | Total No-Peer Tests | Total Peer-to-Peer Tests | Total Submitted PS-CA Tests | Total Submitted PS-ON Tests |
|-----------------------|-----------------------|---------------------|--------------------------|-----------------------------|-----------------------------|
| 6 | 203 | 144 | 59 | 3 | 1 |

Symposia day

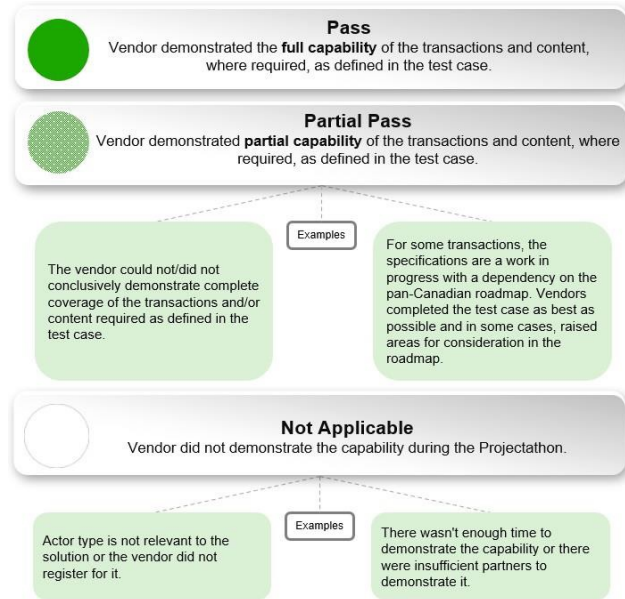
- 1. Keynote: International Interoperability Experience: Switzerland.** Participants learned about eHealth Suisse's interoperability experience, key takeaways and next steps. This was an interactive session with questions and answers throughout, hosted by Martin Smock.
- 2. Primer to the pan-Canadian Interoperability Strategy & Shared Roadmap.** Participants learned about the pan-Canadian strategy to achieving connected care and associated key initiatives.



- 3. Canadian FHIR exchange (CA:FeX) v2.0.0 draft.** Participants learned about the next iteration of CA:FeX and how it can help drive modernization of health information exchanges.
- 4. Clinical session: Achieving pan-Canadian alignment on data elements.** Participants joined an open, interactive discussion about the opportunities for achieving pan-Canadian interoperability. During this session, clinicians shared their thoughts and recommendations on several topics.

32 The presentation materials and session recordings are available [here](#).

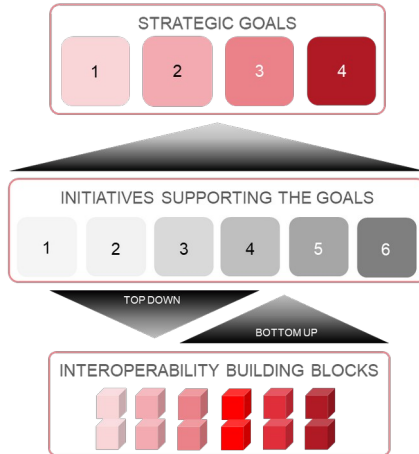
Evaluation and Sample Results



| | Capability Statement | | CA:FeX-1 Submit Data | | | |
|----------------------|-------------------------------|-----------------------------------|----------------------|----------------------------|-------------------------|-------------------------------|
| | Client Data Source / Consumer | Server Data Recipient / Responder | Data Source (Client) | Data Source (Client) + IUA | Data Recipient (Server) | Data Recipient (Server) + IUA |
| Akinox | ● | ○ | ● | ● | ○ | ○ |
| Enovacom | ○ | ● | ○ | ○ | ● | ○ |
| Microquest | ● | ○ | ● | ● | ○ | ○ |
| ORACLE Health | ● | ● | ● | ● | ● | ○ |
| Smile Digital Health | ○ | ● | ○ | ○ | ● | ● |
| TELUS Health | ○ | ● | ○ | ○ | ● | ● |
| Verto | ● | ● | ● | ● | ● | ● |
| VeroSource | ○ | ● | ○ | ○ | ○ | ● |
| WELL Health | ○ | ○ | ○ | ○ | ● | ● |

A Comprehensive Approach To Advance Pan-Canadian Interoperability

Top-Down, Bottom-Up Approach



THE 4 STRATEGIC GOALS

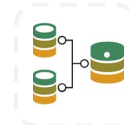
1
Easing Data Blocking
and Portability

2
Improving Provider
Access to Patient Data
at Point-of-Care

3
Enabling Patient
Access to their Health
Record

4
Improving Care
Coordination and
Collaboration

NEAR-TERM INITIATIVES SUPPORTING THE GOALS



Primary Care
Data Portability



Patient Summary



Patient Access to
Electronic Health Data

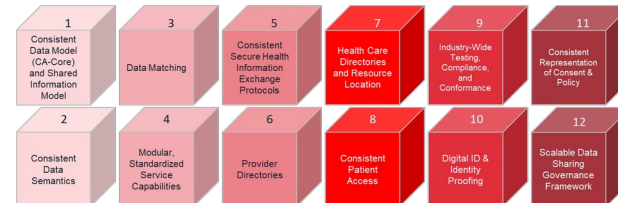


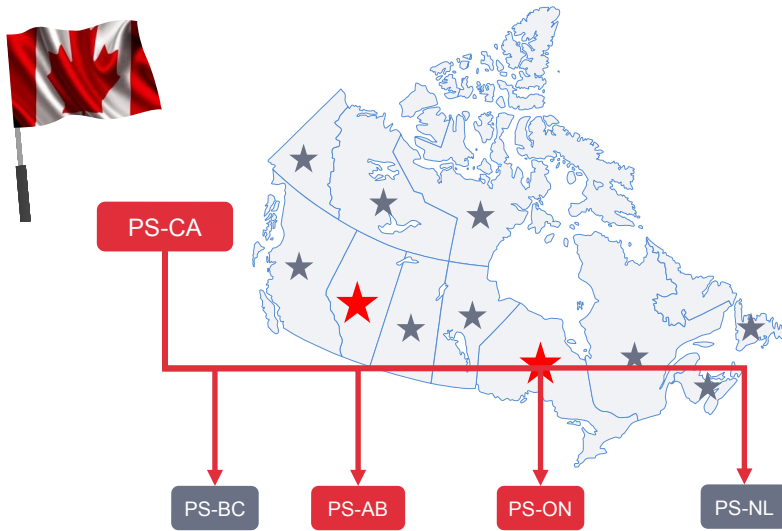
e-Referral &
e-Consult

TOP DOWN

BOTTOM UP

INTEROPERABILITY BUILDING BLOCKS





As the Patient Summary (and other initiatives such as eReferral) evolve and implementations expand across the country, a formal **decision-making** approach to **achieve alignment** is needed to **solve for differences** (e.g., legislation, policy, clinical workflow, terminology, technical, etc.)

Committing to a **core pan-Canadian approach** (e.g., core data model, minimum must support values, cardinality, etc.) requiring **minimal configurations** to meet **intra-jurisdictional needs** without limiting the future of **inter-jurisdictional exchange**.





Canada Health Infoway

Q & A



Canada Health Infoway

Thank you!

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