



# **EHEALTH ONTARIO FEDERATION**

## **BOLDLY GOING WHERE NO ONE HAS GONE BEFORE**

Ron Soper, Integration and Solutions Architecture



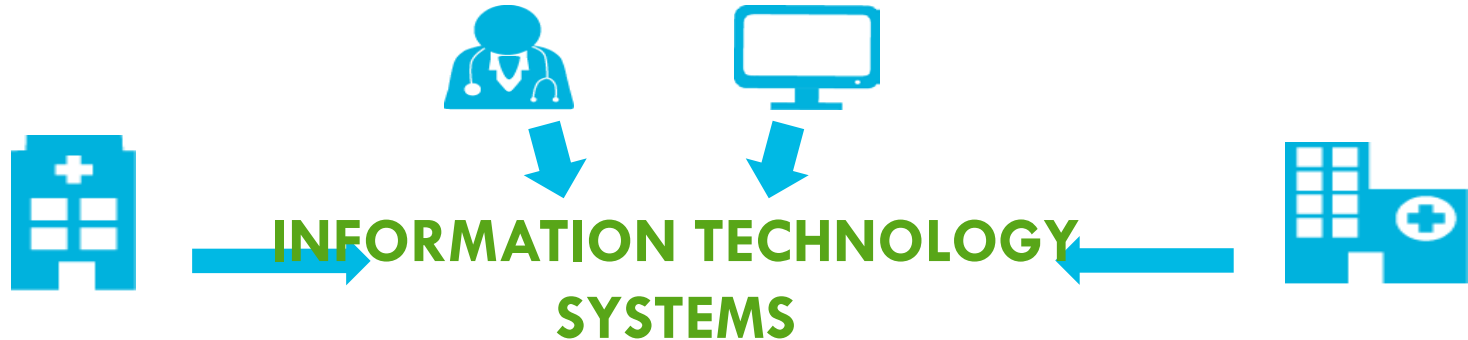
# Who we are

- We are an independent government agency established by the Ministry of Health and Long-Term Care to deliver electronic health records (EHRs)



# What We Do

- Our role is to deliver a comprehensive, patient-focused, secure and private EHR system
- We provide funding, guidance, access and infrastructure to ensure a secure and stable delivery system for electronic health records across the province
- We help improve patient outcomes through electronic data delivery, make the health care system more efficient, improve your health care experience and provide savings and value for Ontario taxpayers



# Today's Session

Share our experiences issuing and managing digital identities, authentication and provincial single sign on

- eHealth Ontario's identity management solution
- Approach to federated identity and single sign on
- The clinician experience (demo)
- Lessons learned

# The Digital Identity Challenge



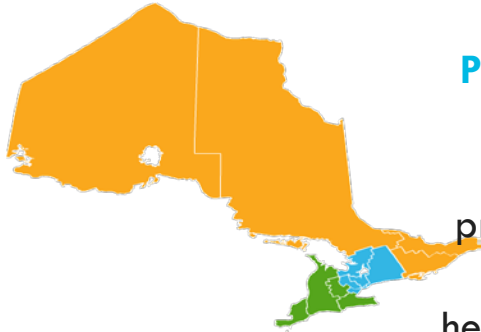
- Clinicians have multiple sets of credentials used to access various clinical applications.
- As new applications become available, providers are often issued new sets of credentials.
- Adoption challenges associated with multiple credentials.

# ONE ID Provincial Identity Federation



- To solve the digital identity challenge, we deployed a provincially-scoped federated identity solution
- Identity federation solves:
  - **Credential proliferation:** eliminating need for providers to acquire more credentials
  - **Clinician workflow:** eliminating need for frequent successive logins
  - **Service adoption:** rolling out services faster as existing credentials can be used
  - **Federated Single Sign On:** enables users access to a number of applications leveraging a single account and credential challenge.

# ONE ID Identity & Access Services



**Province wide** identity provider, federation operator and security provider enable secure and trusted access to health care applications

As **federation operator**, ONE ID sets policies, standards, agreements, technical specs and brokers authentication traffic between partners

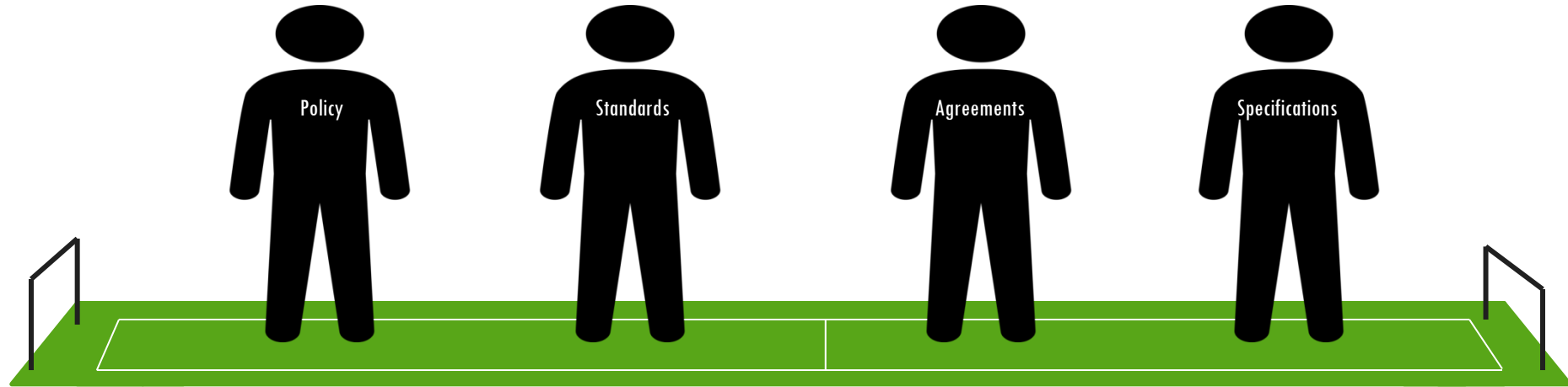


As **identity provider**, ONE® ID issues electronic credentials for clinicians to access disparate/unconnected applications



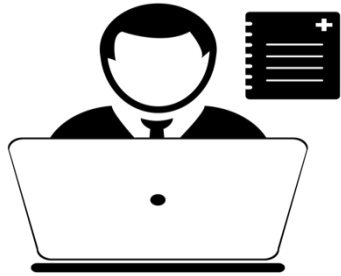
As **security provider**, ONE ID provides authentication, authorization/auditing services to applications which partnered with eHealth Ontario for security services

# ONE ID: Business & Policy Framework





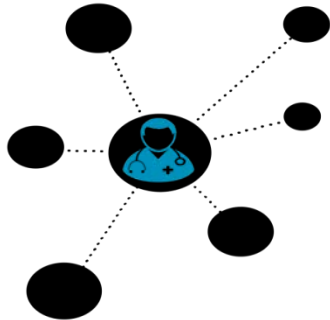
# ONE ID Registration & Enrolment



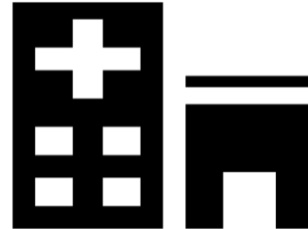
Registration Agent



Self Registration



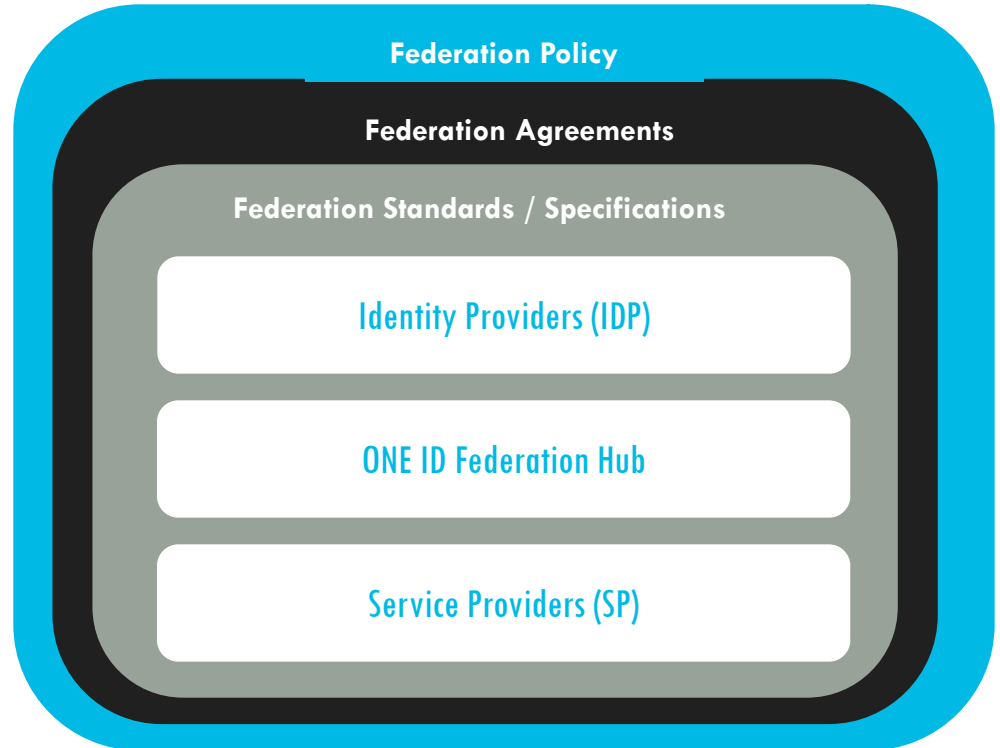
Express Registration



Federated

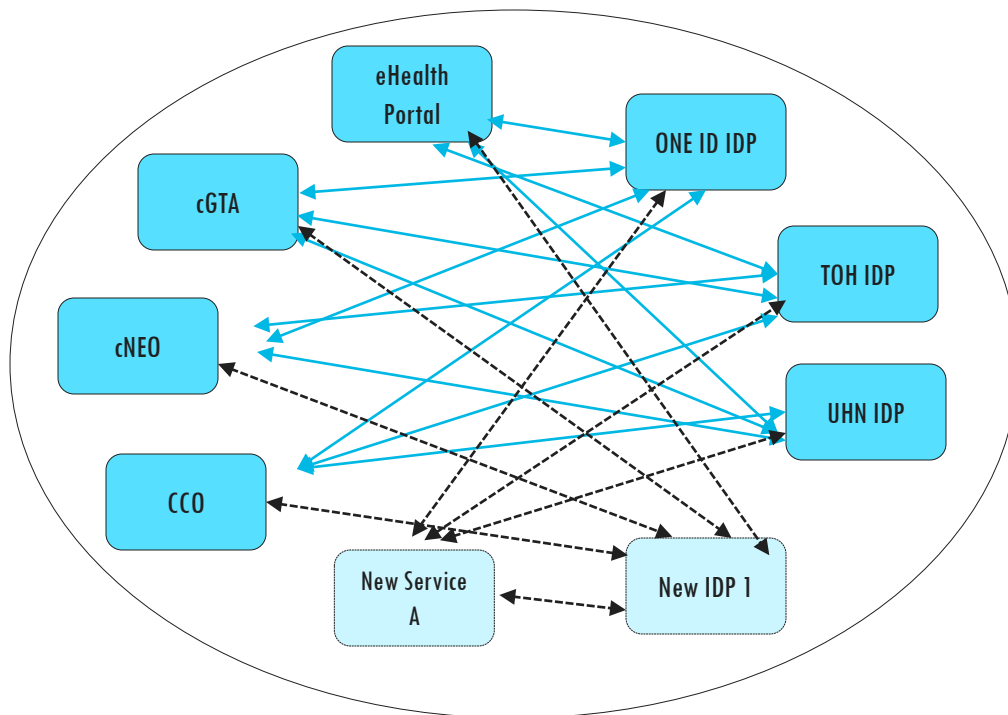
# ONE ID Federation

- Authentication
  - Responsibility of identity providers
- Authorization
  - Defined by service owner
  - Informed by federation hub
  - Enforced by service owner
- Federation Hub
  - Data integrity and validation checks
  - Accountable for issuing trusted single sign on tokens



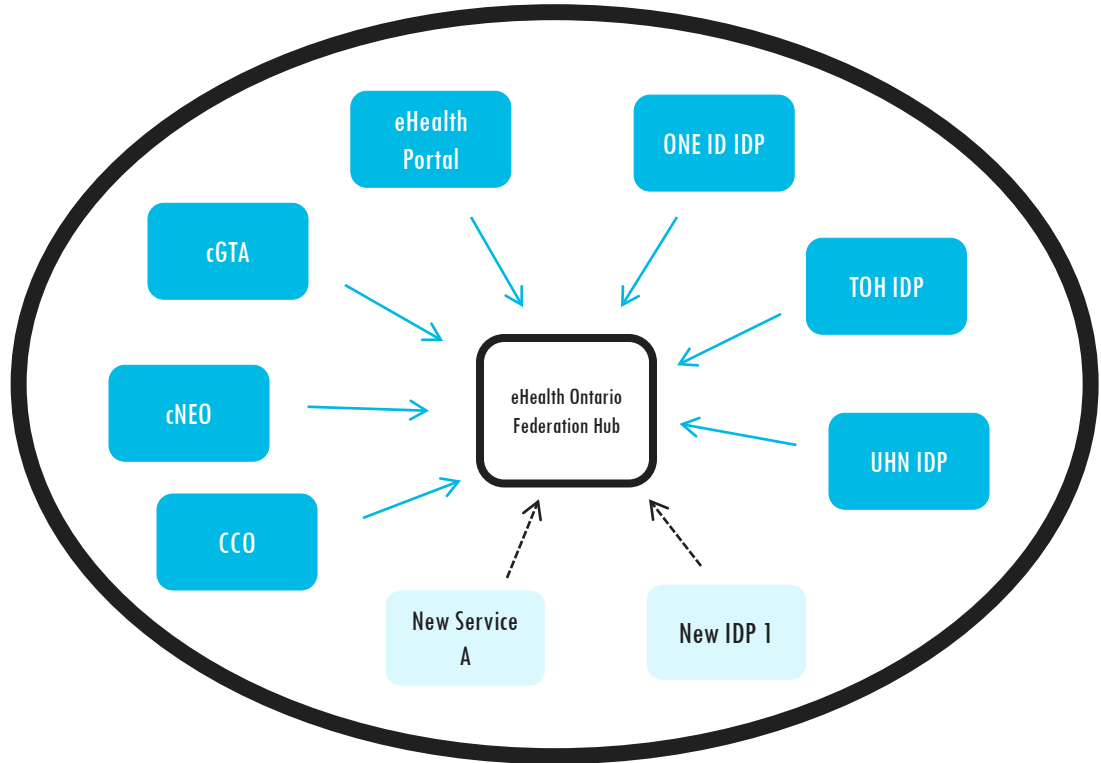
# What a Mesh

- Multiple access points, multiple credentials
- All partners must directly trust each other
- Partners must sign agreements with each other
- Each partner must update their configuration as new partners join the federation
- Significant overhead on each partner to deploy and manage

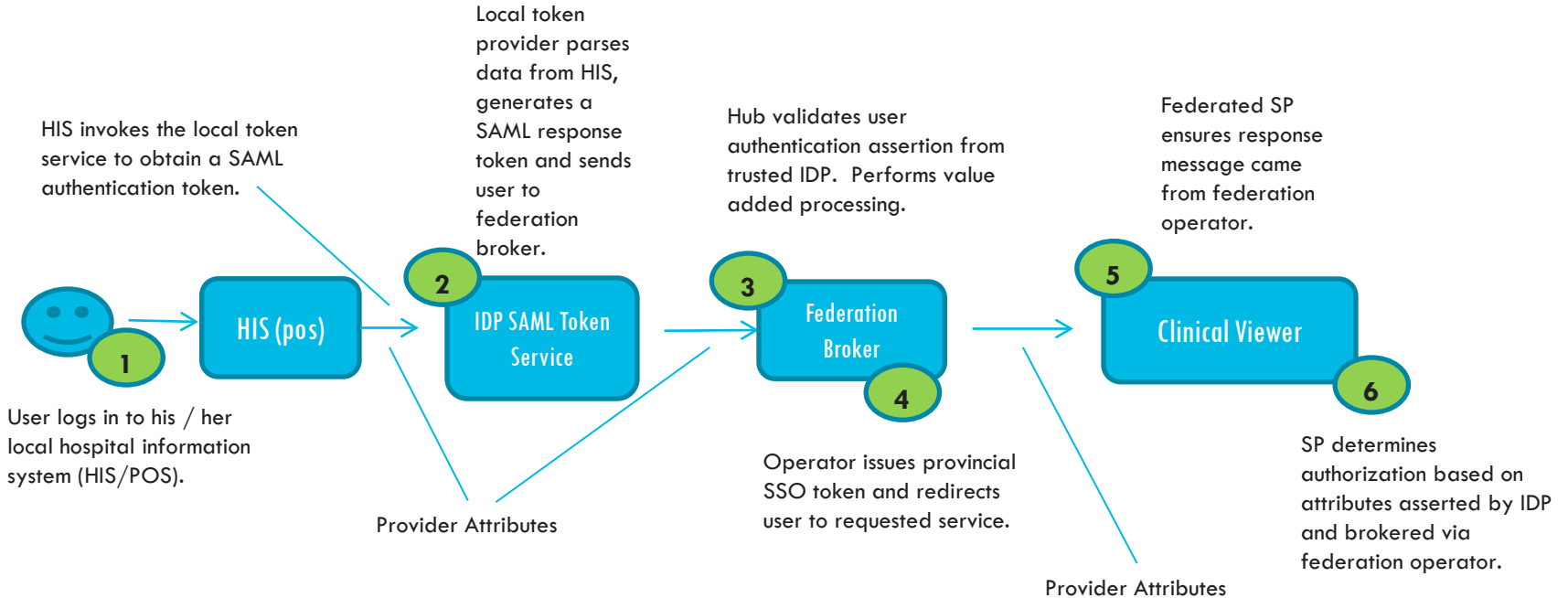


# We Don't Mesh Around

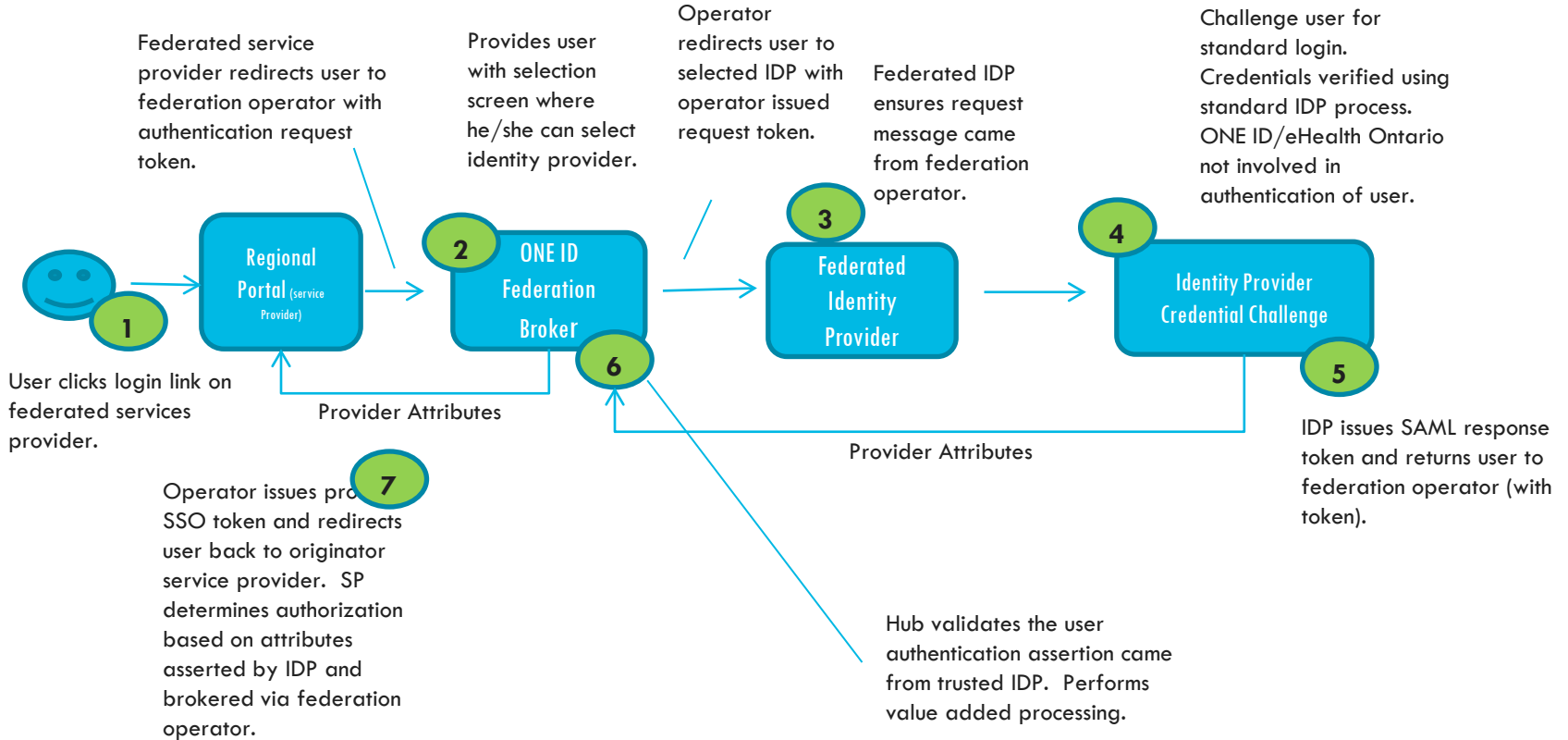
- Identity /service providers need only a single connection and agreement to the hub to join federation
- Hub routes requests and responses between partners
- All identity providers are able to authenticate users to any service
- Overhead of managing federation lies with federation operator (eHealth Ontario)



# Federated Login Flow – IDP Initiated Login



# Federated Login Flow – Service Provider Initiated Login



## Federated Single Sign On Demo

- Open Source POS Application
- SP Initiated Login
- Federated Logoff
- Integration with eHealth eHR Assets

# Patient Context Sharing

- Patient context sharing is often tied to the concept of single sign on
- One application launches another to display specific information about a patient without requiring the user to login again
- Important aspect of clinical workflow
- Context sharing between applications has been identified as a critical success factor for solution





# Lessons Learned



## ■ **Partner Capabilities**

- Ability for partners to meet the provincial federation standards varied greatly.
- A process for managing exemption requests is required.
- Not all organizations have the technical infrastructure in place to participate; additional technology required.

## ■ **Security**

- Implementation is only as strong as the weakest link.

## ■ **Policy & Agreements Framework**

- Getting consensus on policies and agreements is challenging.

# Boldly Gone: In Summary



- **Credential proliferation:**
  - Our federation solution encourages providers to use the EHR through simple and convenient reuse of their existing credentials
- **Service Adoption:**
  - Our federation solution enables service providers to make their applications available to a wider audience without the additional overhead of building / maintaining their own identity management solution
- **Clinician Workflow:**
  - Providers more willing to leverage the broader set of EHR assets as they do not require additional credentials or authentication challenges to achieve access
- **Governance Processes:**
  - Established architecture and standards governance committees enabled us to socialize the solution and obtain feedback from stakeholders across the province in a structured fashion.

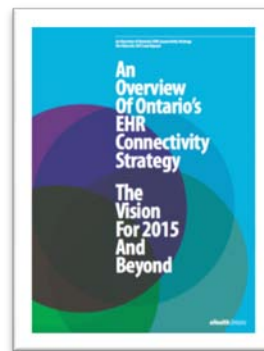
# Get Involved



## Ontario's Ehealth Blueprint

[ehealthblueprint.com](http://ehealthblueprint.com)

Sign up for our quarterly 'Blueprint Bulletin' newsletter



## Ontario's EHR Connectivity Strategy

[ehealthontario.on.ca/ehr-connectivity-strategy](http://ehealthontario.on.ca/ehr-connectivity-strategy)



## Innovation Lab

Our online, provincial EHR platform for EHR solution testing

[innovation-lab.ca](http://innovation-lab.ca)

Learn more about our standards work and resources:

[ehealthontario.on.ca/architecture/standards](http://ehealthontario.on.ca/architecture/standards)

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