

DESCRIPTION

The Traverse Exchange Canada (TEC)-Amplifi Project is an initiative revolutionizing healthcare data exchange. Humber River Health (HRH) implemented a robust, secure, and scalable platform, which seamlessly connects Electronic Health Records (EHR) at acute care hospitals with Point Click Care Electronic Medical Record (EMR) systems at community long-term care organizations. HRH was able to leverage cutting-edge technologies, such as microservices architecture, real-time data streaming, and Fast Health Interoperability Resources (FHIR), along with standard RESTful Application Programming Interfaces (APIs) for efficient, standardized data sharing, including Continuity of Care Documents (CCD); ensuring patients' safety and continuity of care. Comprehensive security measures enforce Personal Health Information Protection Act (PHIPA) compliance and protect patient privacy, ultimately enhancing patient care by empowering providers with timely, reliable information.

OBJECTIVE

To develop a robust, secure, and scalable data exchange platform that integrates existing EHR and EMR systems.

ACTIONS TAKEN

The TEC-Amplifi Project utilizes:

- Real-time data streaming, custom connectors integrate major EHR and EMR systems, such as Meditech and Point Click Care through Health Level 7 and FHIR interfaces.
- Security measures at HRH, which include encryption for data at rest and data in transit; complying with Ontario's PHIPA.
- Real-Time Record Locating System (RLS) and Simple Object Access Protocol (SOAP) utilizing reliable interoperability to optimize performance.
- Completed rigorous testing to ensure that CCDs are sent and received.

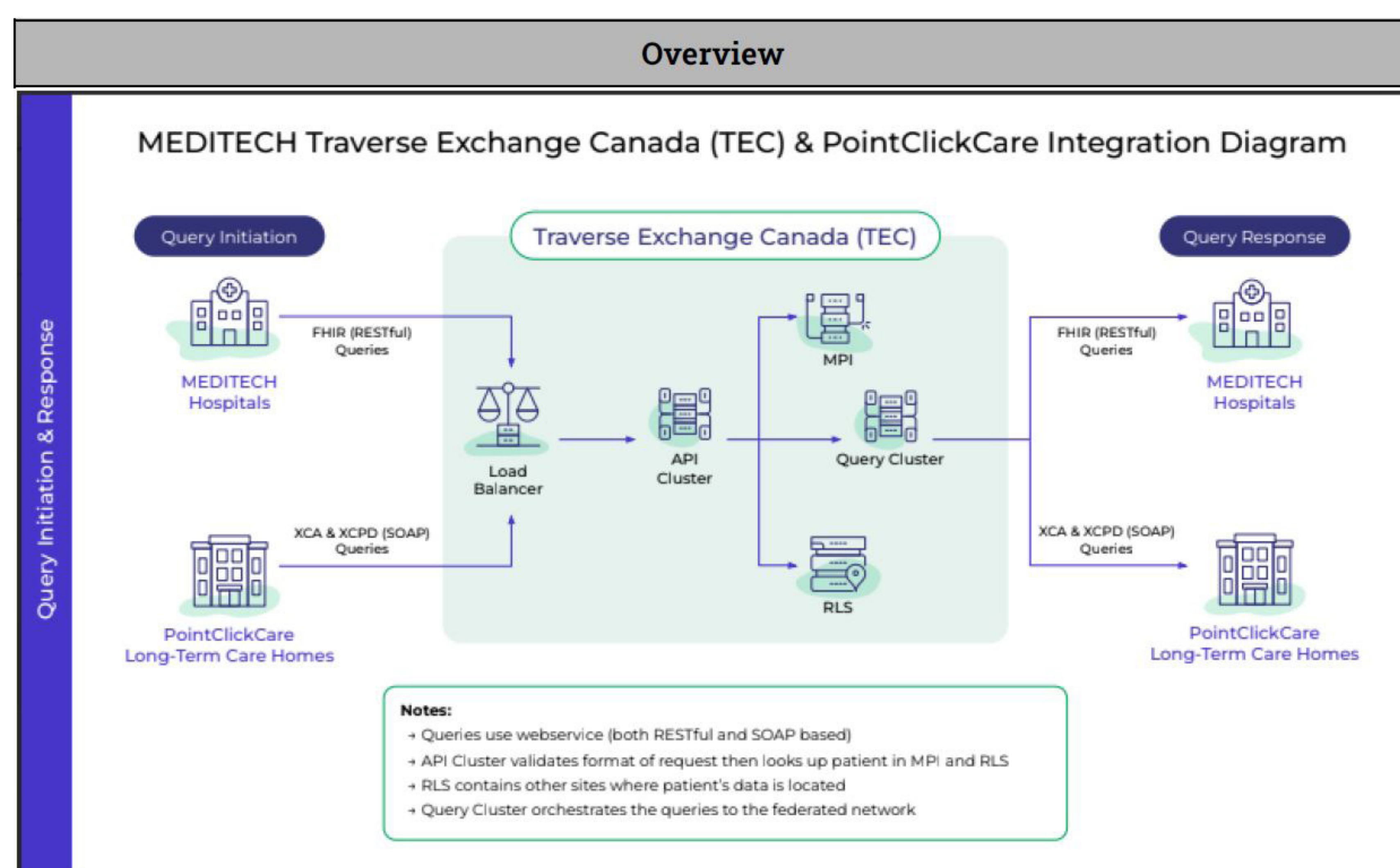


Figure 1. Overview of the TEC-Amplifi data transfer as described by Meditech, 2023.

Continuity of Care Document

Created on: May 29, 2024

Test, Cliff

External Reference #: S00002675
 DOB: 26/12/1997
 Sex: Male

Demographics

Address	456 Main Street FRENCH RIVER, ON P0M 1A0
Phone	1(705)555-5555
Preferred Language	English
Marital Status	Single
Religious Affiliation	Unknown
Race	Unknown
Ethnic Group	Unknown

Author

Organization	Southlake Regional Health Cent
Address	596 DAVIS DRIVE NEWMARKET, ON L3Y 2P9
Phone	1(905)895-4521

Allergies, Adverse Reactions, Alerts

Allergen	Type	Severity	Reaction	Last Updated	Verified	Status
acetaminophen	Allergy	Severe	Anxiety	March 18th, 2024 10:52am	Yes	Active
Peanut (Legumes)	Allergy	Unknown	Anxiety	March 18th, 2024 10:52am	Yes	Active

Social History

Smoking Status
 Unknown if ever smoked

Observation Status

Observation	Response	Date of Response
Patient Sex	Female	May 13th, 2024 2:51pm
Assigned Birth Sex	Female	May 23rd, 1958

Problems

Active Problems

Medical Problem	Onset Date	Status
Angina pectoris		Active

Figure 2. Snippets from example CCDs documents.

SUMMARY OF RESULTS

The TEC-Amplifi technical implementation at HRH, successfully integrated multiple Health Information Systems, enabling seamless data exchange among healthcare providers. This resulted in a 50% reduction in data retrieval times, significantly enhancing system performance. Robust data privacy and security delivered zero patient identification errors setting new standards for healthcare interoperability at HRH. The project emphasized interprofessional and intraprofessional collaboration between technical and healthcare professionals for successful implementation.

LESSONS LEARNED

- Consistent interprofessional and intraprofessional communication ensured a successful technical implementation.
- Rigorous testing achieved zero patient identification and data exchange errors.

