Alberta Health conformance overview

Created by the Alberta Health Conformance Team within the Ministry of Health

Alberta Health conformance overview v1.3 | Ministry of Health

Contents

1 Introduction

Alberta Health (AH) has been working with Independent Software Vendors (ISVs) for over fifteen years to assist them in their integration with Alberta Health applications. Conformance testing, conducted by the Alberta Health Conformance team, ensures that the vendor software or Point-of-Service (POS) system adheres to all Conformance requirements prior to a Vendor deploying their software in a live, Production environment.

Conformance test execution checks that the functionality (as defined in the requirements) is present and that the information being passed between systems is processed and understood by the systems receiving the data, in a manner suitable for end-user needs (as per the published specifications). If, at any point, the requirements and/or specifications are updated by Alberta Health, the Vendor would be required to go through conformance again, with a targeted scope, to be considered conformed to the latest version. Also, once a Vendor has rolled out their implementation, they are required to attend an annual, Alberta Health Check-In meeting (quarterly for the first year for new Vendors) to update AH on changes to their application and to applicable procedures and documentation. At this meeting, Alberta Health will determine what, if any, conformance execution is required to be considered reconformed.

A Conformed Vendors List is posted publicly by the Conformance Team to recognize the accomplishments of the Vendors who are in progress or have completed all conformance requirements for integrations over the previous four years. The posting of this list does not endorse any one Vendor or vendor software but is informational-only for public consumption. The list is posted on the open.alberta.ca, Alberta Government website and a link to the document is also available on the Alberta Netcare website.

1.1 Document purpose

The purpose of the Alberta Health Conformance Overview document is to provide the Vendor with a high-level look at the integration(s) available, what the process looks like, the expectations of the Vendor and the support provided to the Vendor throughout the Vendor Integration Process. More, detailed information will be provided during the Vendor Engagement Phase. See also section “4 How do I get started?”

1.2 Applications available for integration

- **Alberta’s Drug Information System, (Pharmaceutical Information Network or PIN)**
  Clinical Systems, such as Electronic Medical Records (EMRs) and Pharmacy Practice Management Systems (PPMSs), can be integrated with the Electronic Health Record (EHR) and provide continuous real-time access to the Pharmaceutical Information Network (PIN). As the health care provider works in the patient's record on their local system, the patient's medication profile data is automatically exchanged with PIN. As additional new data is recorded in the local system by the pharmacist or physician, it is automatically sent to PIN, and immediately available for all other health care providers connected to the EHR. PIN supports this integration via a universal computer language, or healthcare messaging standard, called Health Level Seven (HL7). This allows different computer systems to send and receive information to each other in a secure way. As a result, Pharmacies, physician offices, primary care sites and other health facilities can exchange PIN information, even though they use different local systems.

- **Immunization and Adverse Reaction to Immunization (Imm/ARI)**
  The Immunization/Adverse Reaction to Immunization (Imm/ARI) application is the provincial repository for immunization and Adverse Events Following Immunization (AEFI) data. Health practitioners authorized to immunize through the regulation governing their profession, submit immunization and AEFI data to Imm/ARI. These health practitioners provide immunization services from various points of service (POS). Imm/ARI is used for:
  - Monitoring the effectiveness of immunization programs
  - Monitoring of adverse events and the continued safety of the immunization program, including support of national AEFI surveillance
  - Understanding changes in disease patterns
  - Identification of underserved populations
  - Identification of immunization coverage rates
  - Evaluation of vaccine preventable disease control efforts
  - Development of immunization policies and strategies

  Integrating with Imm/ARI empowers users to review their clients' Immunization information and be compliant with current immunization regulation reporting requirements without having to rely on or access other systems.

- **Provincial Client Registry (PCR)**

  Provincial Client Registry (PCR) is a repository of demographic data collected from multiple sources to create a consolidated view of the most current demographic data available for persons who have accessed the health care system in Alberta. Software Vendor(s) integrating with Netcare can integrate with PCR to search for a person by ULI or demographic parameters in order to validate person identity, health care insurance eligibility and import desired data into their systems.

- **Alberta Netcare Portal (ANP)**

  Alberta Netcare Portal provides authorized Health Care Providers access to a patient's key health information such as patient demographics, hospital visits, laboratory data, transcribed reports, cancer screening reports, patient event history, immunizations, and drug data. It also provides access to online decision support and reference tools including a warning management tool and a database of all available drugs and their common dosages. Vendor software can integrate with the portal to allow authorized Health Care Providers to open a patient's EHR record directly from within the software through a Parameter-Launched Browser.

- **Community Information Integration (CII) / Central Patient Attachment Registry (CPAR)**

  Community Information Integration (CII) is a system that collects select patient information from community Electronic Medical Records (EMRs) and other members of the patient's care team through Alberta Netcare. The Central Patient Attachment Registry (CPAR) is a provincial system that captures the confirmed relationship of a primary provider and their paneled patients and displays in Alberta Netcare Portal. Together CII/CPAR enables the health system integration and improved continuity of care.

  CII/CPAR:
  - Enables sharing of important healthcare information between the patient's primary provider (MD or NP) and other providers in the patient's circle of care.
  - Facilitates sharing of consultation reports to Alberta Netcare where they are available to providers in the patient's circle of care.
  - Identifies relationships between patients and their primary provider, displays in Alberta Netcare Portal and identifies where a patient is paneled to more than one primary provider.
  - Allows for family physicians to identify and coordinate when patients are on multiple panels.
  - Facilitates the sharing of patient encounters with community providers and other through the Community Encounter Digest in Alberta Netcare
  - Supports notification of primary providers when their patient has a hospitalization, day surgery or ER discharge via eNotifications.

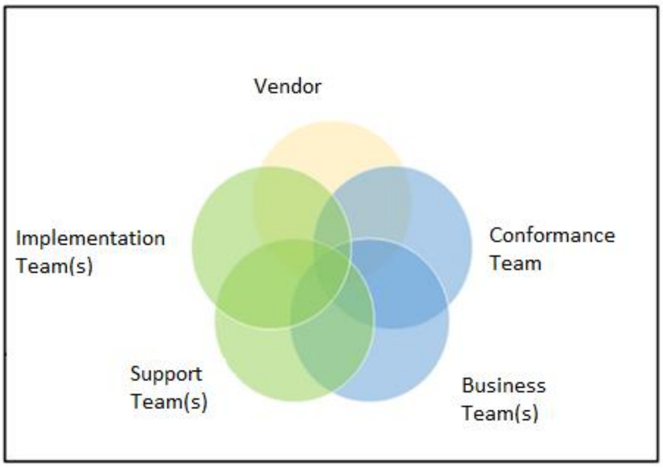
1.3 Technology

The Alberta Netcare messaging interface allows vendor software to perform various health-related functions via a system-to-system (S2S) link between the vendor software and the Netcare Electronic Health Record (EHR) applications. The User Interface (UI) is handled by the Vendor and all messaging within the vendor software occurs at a system level to provide efficient and convenient integration. All data is exchanged using the Health Level 7 (HL7) messaging standard, an international standard for the exchange of health and medical-related information. Currently, integrations with CII/CPAR, PIN, PCR and Imm/ARI use HL7 v3 messaging and CII Hospital eNotifications uses HL7 ADT messages.

Vendor integration with the Alberta Netcare Portal (ANP) is via a Parameter Launched Browser (PLB). This integration is one-way only, from the vendor software to the browser, allowing vendor-application users to access ANP within their current context of user and patient.

To access the Alberta Health environment the vendor software must support their end-user's use of an RSA SecurID software token and, in one-off cases, legacy hardware fobs.

2 Vendor integration process



2.1 Teams

The five main teams who are involved in the Vendor Integration process are as follows: Vendor, Conformance Team, Business Team(s), Support Team(s) and Implementation Team(s).

The Vendor is the independent Software Vendor who is interested in having their software or POS system integrate with one or more Alberta Health applications.

The Conformance Team assists the Vendor with all Conformance-related activities, prepares test scripts and related data, and conducts live Conformance testing with the Vendor. The Conformance Team, along with the Business Team(s), sign off successful Conformance execution.

The Business Team(s) manage the AH applications that a Vendor will integrate with. They are also responsible for maintaining the integration, functional requirements, and technical specifications for their application. The Vendor will work closely with the Business Team(s) in all Vendor Integration phases to ensure understanding of the requirements and, via design demos, gain approval of their proposed design prior to beginning their software development. A Limited Production Rollout (LPR), when applicable, is led by the primary Business Team. The Business Team(s) will also provide information for resources to assist the Vendor with the required documentation such as Privacy Impact Assessment (PIA) and provincial Organization Readiness Assessment (pORA), where applicable.

The Support Team(s) are the teams who maintain the Sandbox/Conformance environment. They perform vendor setup and configuration and are available to assist with technical questions related to the environment, connection issues or message submission failures. The integration the Vendor is implementing will determine which Support Team will be assisting (e.g. the Independent Software Vendor Support (ISVS) Team for PCR, PIN and Imm/ARI, the CII Operations Team for CII/CPAR, etc.).

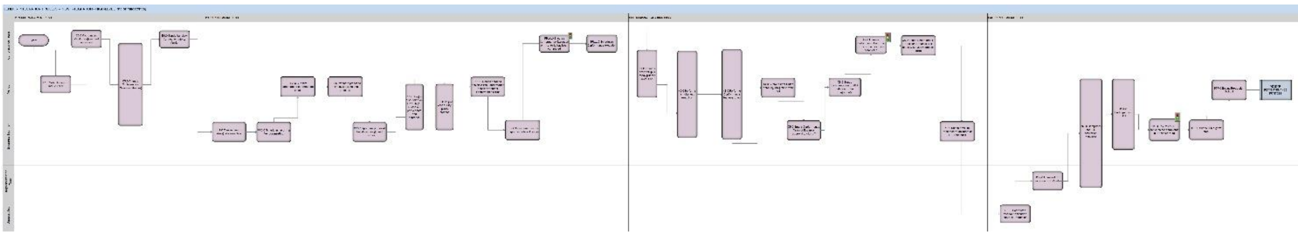
The Implementation Team(s) are responsible for assisting the vendor prepare for their deployments in Production. This will involve activities such as determining the LPR site(s), onboarding Users, etc. The Implementation Team will be either eHealth Services (eHS) for PCR, PIN and Imm/ARI, or the CII Implementation Team for CII/CPAR. Implementation for ANP PLB does not require an LPR or assistance from an Alberta Health implementation team as the integration piggybacks on existing user/site Netcare setup. To help ensure there are no delays in the Vendor's production release schedule, the Conformance Team includes the applicable Implementation Team early in the Vendor Integration process.

2.2 Integration phases

For a new Vendor, the Integration Process is divided into four distinct phases as follows:

- **Vendor Engagement Phase** – Vendor contacts Alberta Health for information, the Conformance Team coordinates a meeting with the vendor and all the AH business and support teams to discuss the various integrations and the Integration Process. The Conformance Team ensures the Vendor has all the applicable information needed for integration.
- **Pre-Conformance Phase** – Vendor reviews AH requirements to decide whether to move forward with their integration effort and, if so, submits the commitment confirmation to AH. The Vendor determines their proposed high-level design and presents it to AH for approval. The Vendor then works on their development and presents their detailed design via pre-conformance sessions. The Business Team(s) approve the detailed design and then the vendor completes their development and internal testing based on the approved design.
- **Conformance Execution Phase** – Vendor and AH execute the test script prepared by the Conformance Team. Upon successful completion of the test execution and submission of user guide and other, required process documentation related to the integration(s), the Vendor receives Conformance signoff from AH.
- **Post-Conformance Phase** – Vendor works with the Business Team(s) and the Implementation Team to set up the Limited Production Rollout (LPR) site(s) and begin the LPR process. If any issues are found during LPR which must be addressed, the vendor implements the development changes then must complete targeted, conformance execution. If all LPR activities are completed successfully, the Vendor receives LPR signoff from the Business Team(s). Once LPR has been signed off, the Vendor works with the Implementation Team to roll their product out to additional sites.

2.2.1 High-level process diagram for new vendors



Double-click here to view full-sized Image

2.3 Project timelines

The length of time to complete Conformance execution varies depending on the application(s) the Vendor wishes to integrate with. Some only take a day or two and some take as long as a couple of weeks.

While the Conformance Execution Phase is short, there are many steps in the other Vendor Integration Process phases to be completed, especially for a new Vendor. Assistance by the various Alberta Health teams and the commitment of the Vendor can drastically shorten this time. The timely items that can be managed by the Vendor are the submission of completed forms for setup and access, review of the business requirements, design decisions and presentations, and development and internal testing.

The other item that often takes the longest is the completion and submission of the Privacy Impact Assessment. The Alberta Health Business and Implementation Teams encourage and assist the Vendor in beginning this work as early as possible.

3 Vendor support

There are various support resources, information, and tools available to assist the Vendor at each phase of the Vendor Integration Process. Alberta Health values a collaborative environment and all teams work together, with the Vendor, to help the Vendor achieve successful end results.

3.1 Support roles

The Conformance Team assists the Vendor with requests or questions related to the Vendor Integration Process and to the Sandbox environment. They also act as coordinator with the Vendor and the various teams throughout the process and serve as the one-point-of-contact for the Vendor. The Vendor can reach the Conformance Team through their general Inbox at Health.EHRVendorSupport@gov.ab.ca.

The applicable Support Team is available to answer all technical questions related to messaging, connection, unexpected errors, etc. Questions or concerns are managed through the Conformance Team for all integrations except CII/ CPAR. For CII/CPAR technical questions or concerns, the CII Operations Team is the point of contact and can be reached at their general inbox at eHealthCII-Operations@gov.ab.ca.

All questions related to business requirements, application functionality, vendor software design and integration decisions are managed by the Business Team(s). The Vendor will be introduced to the appropriate Business Team(s) by the Conformance Team Lead during the Vendor Engagement Phase.

3.2 Alberta Netcare ISV EHR integration - SharePoint site

The Conformance Team hosts a SharePoint site containing all of the documents a Vendor needs to successfully integrate with Alberta Health applications. Integration process documents and various request forms are stored there. For each integration there are business requirements, message specifications, implementation guides, schemas, sample messages, and other application-specific supporting documents. The site also contains helpful links and contact information.

Access to the SharePoint site must be requested for each person via a request form that is included in the Vendor Conformance Package. This package will be sent to the Vendor by the Conformance Team after the Vendor attends the Vendor Introductory Meeting.

A Conformance Overview Meeting will be scheduled to introduce the Vendor to the Business, Implementation and Support Teams, provide an overview of the Vendor Integration Process, and receive a tour of the SharePoint site so that the Vendor knows where to find the applicable documentation. It also allows the Vendor to ask any preliminary questions regarding the process and/or the Alberta Health applications and for the AH teams to ask the Vendor any pertinent, engagement questions.

3.3 Sandbox environments and tools

3.3.1 CII/CPAR integrations

The CII/CPAR sandbox is set up to provide Vendors with an automated way for:

- Submitting CII encounters, or consult, operative and Pulmonary Function Test (PFT) reports and receiving results of CII validation including which submissions were successful, which submissions were not, and why.
- Submitting CPAR Panels and receiving results of CII/CPAR validation including successful Panel and Attachment submissions, unsuccessful Panel and Attachment submissions, and the reason they were not successful.
- Receiving automatically-generated, ADT eNotifications based on a Vendor's successful CPAR Panel submissions.

Access to the CII/CPAR sandbox environment is via whitelisting of the Vendor's static, source data centre IP address(es). The Vendor is also provided with access to CII's internal, SFTP site where they can pick up the CII-generated files containing their submission, validation results.

3.3.2 PCR, PIN, Imm/ARI and ANP PLB integrations

The Alberta Health Sandbox environment is available for a Vendors to use for development and their internal testing. The environment contains the Production version of the Alberta Health applications. Access to this environment is via RSA SecurID software tokens and Vendor-specific credentials to access the individual applications. Request forms for the software tokens and Sandbox setup will be sent to the Vendor by the Conformance Team as part of the Vendor Conformance Package.

The Sandbox environment does NOT contain Production data, nor should a Vendor be entering Production data while developing and testing. The Conformance Team will provide each Vendor with their own set of test data including users, facilities, and test patients.

Tools are also available in the Sandbox environment, and training is provided on the tools, for a Vendor to create test data and to confirm data submissions or query results. A tool is also available for a Vendor to send test messages outside of their software to check message structure, configuration values, schema, etc. These tools are applicable to PCR, PIN, and Imm/ARI integrations only. Access to these tools is automatically granted as part of the Vendor setup in the Sandbox environment.

4 How do I get started?

The first step to getting started is to complete the Vendor Intake Form and submit it to the Conformance Team at the following email address: Health.EHRVendorSupport@gov.ab.ca

The Vendor Intake Form can be downloaded from the Alberta Netcare site, under the section “Vendor Intake”.