HealthShare Health Connect Overview

Version 2024.1
2024-05-02

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HealthShare Version 2024.1 2024-05-02
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HealthShare Health Connect Overview

HealthShare Health Connect™ is an integration engine that delivers the high-volume transaction support, unparalleled process management, and continuous monitoring required for the “always on” business of healthcare. With Health Connect, you can integrate more systems and departments, handle growing volumes of information and users, and innovate faster. Systems using Health Connect won’t bog down or slow the pace of care as usage grows. Health Connect’s many features include healthcare interoperability, FHIR® support, built-in data transformations, superior monitoring, and high performance.

1 Healthcare Interoperability

Truly connected healthcare requires interchangeable information that flows across all sources, modern and legacy. Health Connect supports the standards and profiles required for interoperability and document-based health information exchange with other healthcare organizations, clinicians, and public health agencies. Some of these standards and profiles include:

- FHIR®
- HL7v2 and HL7v3
- IHE Profiles, including XDS.b, XCA, PIX, PDQ, and MHD
- CDA/C-CDA Documents
- DICOM
- X12
- and more

2 FHIR Support

Health Connect includes deep support for FHIR® interoperability. InterSystems is actively involved in the evolution of the FHIR standard through employee contributions at the HL7 board level, standards-committee participation, and a strong commitment of internal resources. Health Connect provides everything an interface engineer needs to handle FHIR requests. It includes FHIR client and server components, a FHIR object model, and built-in transformations that translate between FHIR and other health information interchange standards such as HL7 v2 and C-CDA.

Health Connect can receive or send FHIR resources via the FHIR RESTful API, in JSON or XML formats. This allows applications based on the latest technologies to use FHIR data — new or mapped from legacy systems — for a variety of use cases.

For more details, see *FHIR Support in InterSystems Products*.

3 Data Transformations

While FHIR may be the future of healthcare interoperability, thousands of HL7v2, CDA, and other integrations form the backbone of interoperability and workflows in healthcare today. Health Connect delivers pre-built extensible data transformations between various modern and legacy data representations, allowing you to focus on building your interfaces without spending all your time converting healthcare data from one format to another. For example, using Health Connect's built-in features, you can easily:

- Transform an HL7 v2 message from one schema version to another.
- Produce HL7 v2 messages from a CDA document.
- Send a portion of a C-CDA document out as a FHIR bundle.

For ease of use, Health Connect uses its own clinical data format, SDA, as an intermediary between different healthcare formats. For example, Health Connect provides built-in XSLTs that convert CDA documents to SDA and built-in DTLs that convert SDA to FHIR. Rather than having to map CDA to FHIR directly, you can use SDA as the intermediary format to simplify the process.

In certain use cases, especially when you only need to convert small pieces of a data representation, directly mapping from one format to another might make more sense. In these cases, you can use the intuitive DTL Editor to bypass SDA and transform one data format to another directly. The DTL Editor allows you to transform the data with a graphical user interface rather than writing custom code.

For an introduction to data transformations in Health Connect, see Data Transformations in InterSystems Healthcare Products.

4 Higher Productivity of Interface Engineers

Healthcare organizations may manage hundreds of different specialized applications, systems, and devices that must work together efficiently, securely, and without interruption. Health Connect provides features that make it easier for interface engineers to create, manage, and troubleshoot such systems, including:

- Drag-and-drop HL7 schema editing, data-mapping, business rule creation, and workflows.
- Source control for HL7 schemas, including custom schemas.
- Drag-and-drop managed file transfers using popular data storage services such as DropBox, Box, and Kiteworks, or the dropping of files into other applications for processing. For details, see *Enabling Productions to Use Managed File Transfer Services*.
- Containerized deployment in public or private clouds. For details, see *InterSystems Cloud Manager Guide*.
- A Java or .NET component that runs Java and .NET apps as efficiently as native components within integrations and workflows. For details, see *PEX: Developing Productions with Java and .NET*.
- Unit testing for routing rules.
- Smart searches that find all the places in a production where a given component is used and all the routes that a message can take in the production. For details, see "Finding Interface References" and "Viewing Interface Maps" in *Monitoring Productions*.

5 Monitoring and Management

Health Connect includes industry-leading message trace capabilities, a powerful test harness, and robust auditing that facilitates the creation, debugging, and support of all your interfaces. Event detection, alerting, and monitoring ensure that information continues to flow even when source systems pause or fail. Messages are never lost, and an interrupted business process can always restart from the point of interruption.

6 High Performance and Reliability

At the heart of Health Connect is an ultra-high-performance, multi-model database engine that seamlessly handles multiple forms of data at high speed, with vertical and horizontal scalability. Health Connect easily scales to handle the transaction volumes of some of the largest and most complex healthcare providers in the world. The Health Connect database engine provides several options for high availability (HA) and disaster recovery, including clustering, virtualization HA, and an elegant, easy-to-implement technology for database mirroring.