

HL7 FHIR– Fast Healthcare Interoperability Resources– is a next generation standards framework created by Health Level Seven International. For more than three decades HL7 has developed the world’s most widely used interoperability solutions for patient care, clinical research, and public health.

Today, FHIR combines the best features of HL7’s existing solutions, while leveraging the latest web technologies and applying a critical focus on implementation.

FHIR solutions are built from a set of modular components called “Resources”. These resources can easily be assembled into working applications that solve real-world clinical and administrative problems at a fraction of the time and cost of existing alternatives.

FHIR is suitable for use in a wide variety of contexts, including uses for mobile devices, cloud communications, EHR-based data sharing, server communication in large institutions, and much more. The FHIR platform can serve as a clinical model for analytics and machine learning.

Business Case for FHIR

FHIR offers many improvements over existing solutions:

- Focused on **implementation** – Fast and easy to implement. Solutions have been created in one day!
- Supported by large **implementation libraries** – Examples are available to accelerate development
- Provides **Interoperability out-of-the-box** – Base resources can be used as is, or adapted as needed
- **Evolved from HL7 standards at the heart of Meaningful use** – FHIR supports all of them
- Leverages **Web standards** – XML, JSON, HTTP, Atom, OAuth, and many more
- Supports **REST** and **Service Oriented Architectures**, as well as message and document exchanges
- Specifications are **concise** and **easily understood**, by both clinicians and developers with little or no clinical experience. This reduces application development time and cost.
- **Release 4** is the first “normative” edition, now an ANSI standard, providing stable Resources and backward compatibility
- FHIR is licensed (under Creative Commons) to be **free** and without restrictions

FHIR Delivers Flexibility

A central challenge for healthcare standards is how to handle the variability caused by diverse and evolving healthcare processes. Historically, more fields are added to a specification, increasing cost and complexity. FHIR addresses this challenge by defining a simple framework for extending and adapting FHIR resources. All FHIR systems, on whatever platform, can work with these extensions using the same framework that manages the primary resources, which is human readable and further augments clinical safety.

FHIR Supports a Large Implementation Community

The Argonaut Project was the first implementation initiative, emerging from the Federally-mandated *Jason Report*. The Argonaut initiative grew from a private-sector collaboration of EHR developers and large providers to become a global initiative. More recently, the community has expanded exponentially to include US Federal agencies, CMS and third-party payers (Da Vinci Project), BioPharma (TransCelerate), and precision medicine (Sync for Science). ONC has awarded a cooperative agreement to HL7 to create a solution for “bulk data”. Apple has embedded the FHIR specification within iOS 11.3 to enable interoperable personal health records on its mobile platforms. The 6 largest healthcare cloud vendors have agreed to utilize FHIR for data exchange between their respective cloud environments. The FHIR Accelerator Program has emerged as home for innovative approaches to leveraging the HL7 FHIR platform.

Learn more about FHIR Find FHIR at <http://hl7.org/fhir>, and follow us on Twitter using #FHIR.