eHealth Exchange™

Scaling Nationwide Interoperability with eHealth Exchange

Industry: Health Information Exchange (HIE)

CHALLENGE

As the **nation's largest health information network**, eHealth Exchange facilitates over 21 billion data exchanges annually across a complex ecosystem of healthcare organizations, including federal agencies, hospitals, HIEs, and medical groups. To continue expanding its mission, eHealth Exchange needed to scale its architecture, adopt modern standards like FHIR, and onboard new participants quickly, all while staying aligned with federal interoperability policies and ensuring the highest standards of security and data quality.

SOLUTION

Ready Computing partnered with InterSystems to modernize eHealth Exchange's national data infrastructure, building a scalable architecture on a customized InterSystems HealthShare/IRIS for Health platform. This robust architecture supports three distinct exchange hubs, the CONNECT HUB (IHE SOAP), the QHIN HUB (TEFCA/IHE), and the FHIR HUB, to manage all exchange standards. We also delivered a comprehensive FHIR-based solution (including a SMART on FHIR app) and provided review and feedback during the TEFCA agreement formulation. Our most significant contribution was designing and implementing the infrastructure that resulted in eHealth Exchange converting from a point-to-point to a hub and spoke model for information exchange. We were also a key member for the implementation team to enable eHealth Exchange to become one of the first five certified QHINs in the country, accelerating national access to patient data.

RESULT

eHealth Exchange now supports secure access to electronic patient records for 250 million patients across five federal agencies, 70,000 medical groups, 85% of dialysis centers, and 75% of U.S. hospitals. **The three-hub architecture ensures both backward compatibility with legacy systems and a clear path toward the future of data exchange.** By enabling eHealth Exchange to achieve one of the first QHIN certifications, Ready Computing's contributions continue to solidify its leadership in the health data landscape, processing over 21 billion transactions annually and leading the charge in national interoperability.

FAST FACTS

Reach
250M
Patients

Deployment Model
Customized InterSystems
HealthShare (UCR) / IRIS for Health

Exchange Networks
Connect, QHIN, FHIR, and
CareQuality participants

WHY IT MATTERS

When health data flows securely and intelligently, across all standards and networks, including CareQuality, everyone benefits. Ready Computing is enabling eHealth Exchange to be the resilient backbone for providers, payers, policymakers, and most importantly, patients.

IMPACT AT A GLANCE

- Enabled secure and highly performant real-time IHE data exchange for one of the largest healthcare networks in the US.

- Enabled real-time FHIR data exchange between participants such as health care providers, VHA and FDA.

- Enabled eHealth Exchange to become one of the first five certified QHINs in the country.

- Developed the scalable, multi-hub architecture for continued growth.

- Delivered a comprehensive FHIR-based solution for FHIR information exchange.

- Delivered a SMART on FHIR proxy app to facilitate electronic Prior Authorization workflows.

- Future-proofed infrastructure for nationwide data interoperability.

Trusted interoperability partner for the nation's largest health data network.

Did You Know? eHealth Exchange Connects

70K	**5**	**75%**	**85%**
Medical Groups	Federal Agencies	of U.S. Hospitals	of Dialysis Patients

Making it the Backbone of America's Health Information Exchange

ABOUT eHEALTH EXCHANGE

eHealth Exchange is a "Network of Networks" facilitating exchange of health information among providers, regional and state HIEs, public health authorities, payers, and federal agencies, including optional onramps to Carequality and TEFCA™.

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