

Onramp to the Cloud Faster with Redox + Google



Kanwarpreet Sethi
Healthcare Product
Manager, Google Cloud



Nick McKenzie
Group Product
Manager, Redox



Overview of Google Cloud's Healthcare API



Cloud Healthcare API

- Provides a serverless/managed service implementation of mature healthcare data standards, such as HL7v2 and DICOM, and also **FHIR to enable Data Interoperability.**
- Is the primary surface through which Google Cloud's healthcare specific data management products are consumed by solution builders.
- Runs on top of the Google Cloud Platform (GCP) exposing a REST interface to the data under management and is integrated with the portfolio of GCP tools.
- Supports compliance with leading healthcare focused regulatory frameworks such as HIPAA, HITRUST and GDPR.

Accelerates implementation of solutions in areas of:-

- Data Interoperability
- Web/Mobile Applications
- Analytics
- Machine Learning & AI

Healthcare Data Engine makes healthcare data interoperable, useful and actionable to accelerate insights and use cases



Interoperability at enterprise scale

Unifies different clinical data formats from disparate systems into a secure, HIPAA-compliant, FHIR® store to enable interoperability

Automatically exports, transforms, and synchronizes data in near-real time



Useful, reliable, accessible in near-real time

Intelligently reconciles fragmented source data into longitudinal patient records in near-real time to reflect the current health status of an individual patient and/ or populations of patients



Actionable insights to accelerate impactful use cases

Includes healthcare-specific infrastructure configurations, data models, and visualizations to power impactful use case Accelerators including:

- Patient Flow Explorer
- Transitions of Care Analytics
- Social Determinants of Health Explorer

Healthcare Data Engine Accelerators unlock clinical and operational insights to power impactful use cases

Clinical Insights

Patient Flow Explorer

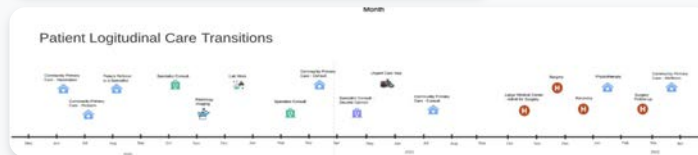
Unlock Insights: Enable a customized dashboard for users to proactively surface key trends and help avoid critical bottlenecks (e.g., ED diversion, ICU capacity)

Transition of Care Explorer

Unlock Insights: Provide a cross-EHR patient single “pane of glass” view of consolidated and harmonized patient data

SDoH Explorer

Unlock Insights: Empower users to connect social determinants of health data and community resources to at-risk patients



Why Google Cloud + Redox?

Google Cloud



Cloud Healthcare API

Provides a managed solution for storing and accessing healthcare data in Google Cloud Platform.

Healthcare Data Engine

Create a longitudinal health record in near real time for Analytics, AI and Apps

HDE Accelerators

Unlock high impact clinical and operational use cases for HDE customers

Google Cloud + Redox

Accelerate data onboarding for Google Cloud's healthcare products

Redox starts with the goal of removing integration as one of the largest barriers to entry in health tech

Redox builds FHIR resources to interface with EHR FHIR APIs and connect to any health system

Redox introduces transformation of legacy data to FHIR between EHRs and cloud databases

Redox partners with Google on a national payvider to transform millions of CCDs to FHIR



Redox

Onboarding healthcare data is complex + time intensive

Transform Source to FHIR

Land in HDE or HC API

Streaming Analytics

AI Insights and Apps

Background

- Google's healthcare products help aggregate your data for Analytics, AI, and Apps
- Google healthcare products are based on the FHIR standard
- Clinical and administrative source data is stored in varying formats and standards

Problem

- This requires transformation of sources and custom mappings to onboard data
- Many organizations don't have the technical expertise to handle this on their own
- Preconfigured transformations help, but 20% of standards are still customized

Solution

- **Redox** fills this critical gap and manages data transformations to FHIR
- This decreases time-to-value for Google Cloud customers
- They can focus on building transformative use cases instead of "mapping hell"

Digital transformation of healthcare requires data to be in FHIR format

Healthcare
Data

Google Cloud customers want to load healthcare data into HCLS products to drive data driven insights

Google Cloud Healthcare products store data in FHIR, a widely adopted industry standard format for healthcare data



Storing data in FHIR makes it easier for you to build and connect to an ecosystem of Analytics/AI/Apps

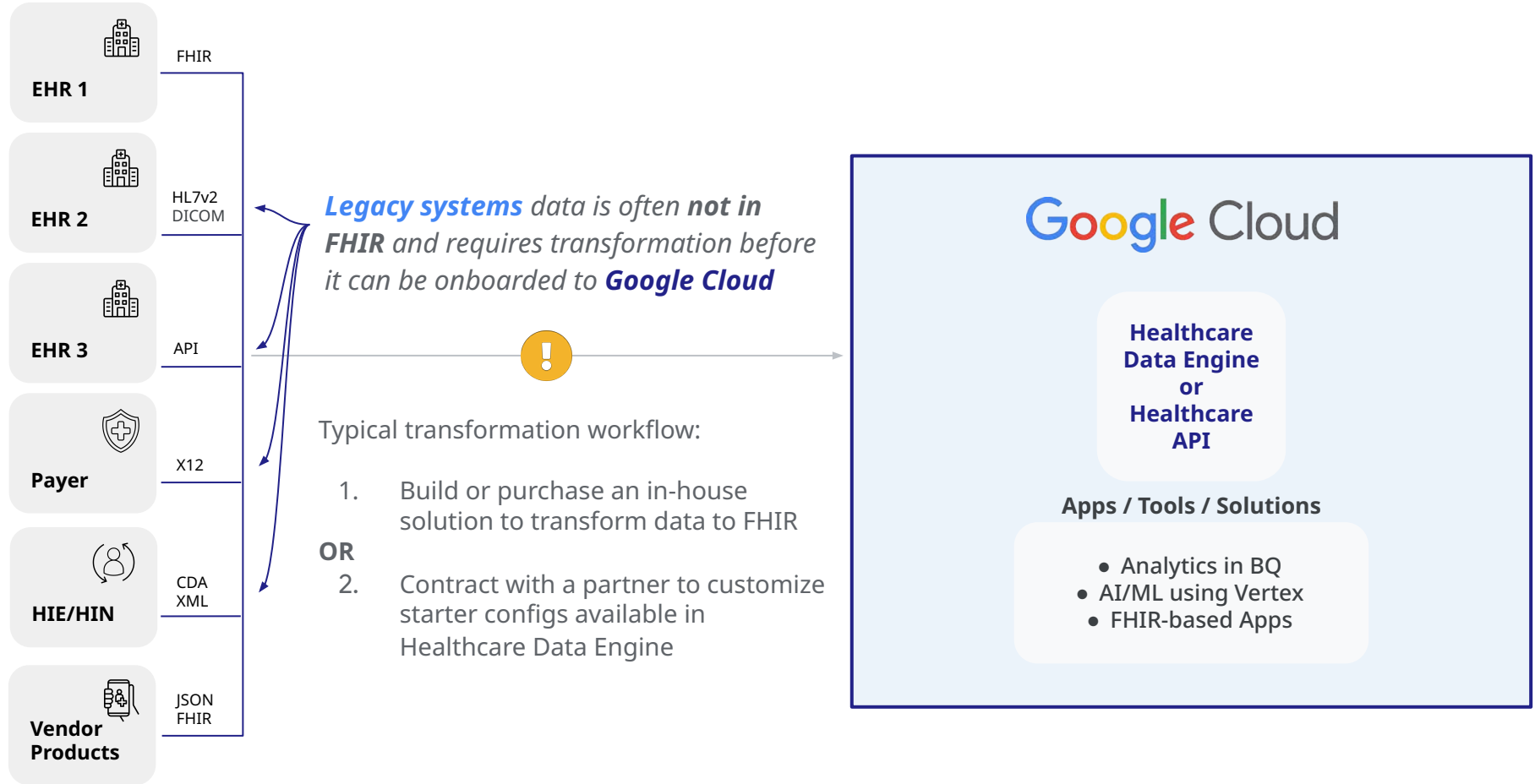
Google Cloud

Healthcare
Data Engine
or
Healthcare
API

Apps / Tools / Solutions

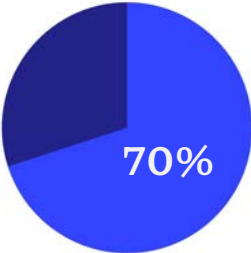
- Analytics in BQ
- AI/ML using Vertex
- FHIR-based Apps

Transforming data to FHIR requires expertise that most customers don't have



Cloud integration projects are slow and resource heavy

Most organizations lack in-house expertise.



Cite **challenges finding skilled resources** to map legacy standards to FHIR and/or maintain integrations.

Most projects take months or even years.



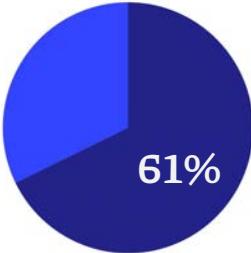
Take **longer than 6 months.**



Take **at least 12 months.**

Organizations want to get to value, faster.

Want to see **faster time to value** from their investments when using third party partners to do the work.



*2023 survey of over 200 provider and payer organizations conducted by Redox + Sage Growth Partners

The Redox Difference



5000+
integrations

Redox **transforms legacy standards into FHIR** leveraging **5000+** existing provider integrations and libraries



33 messages
per second

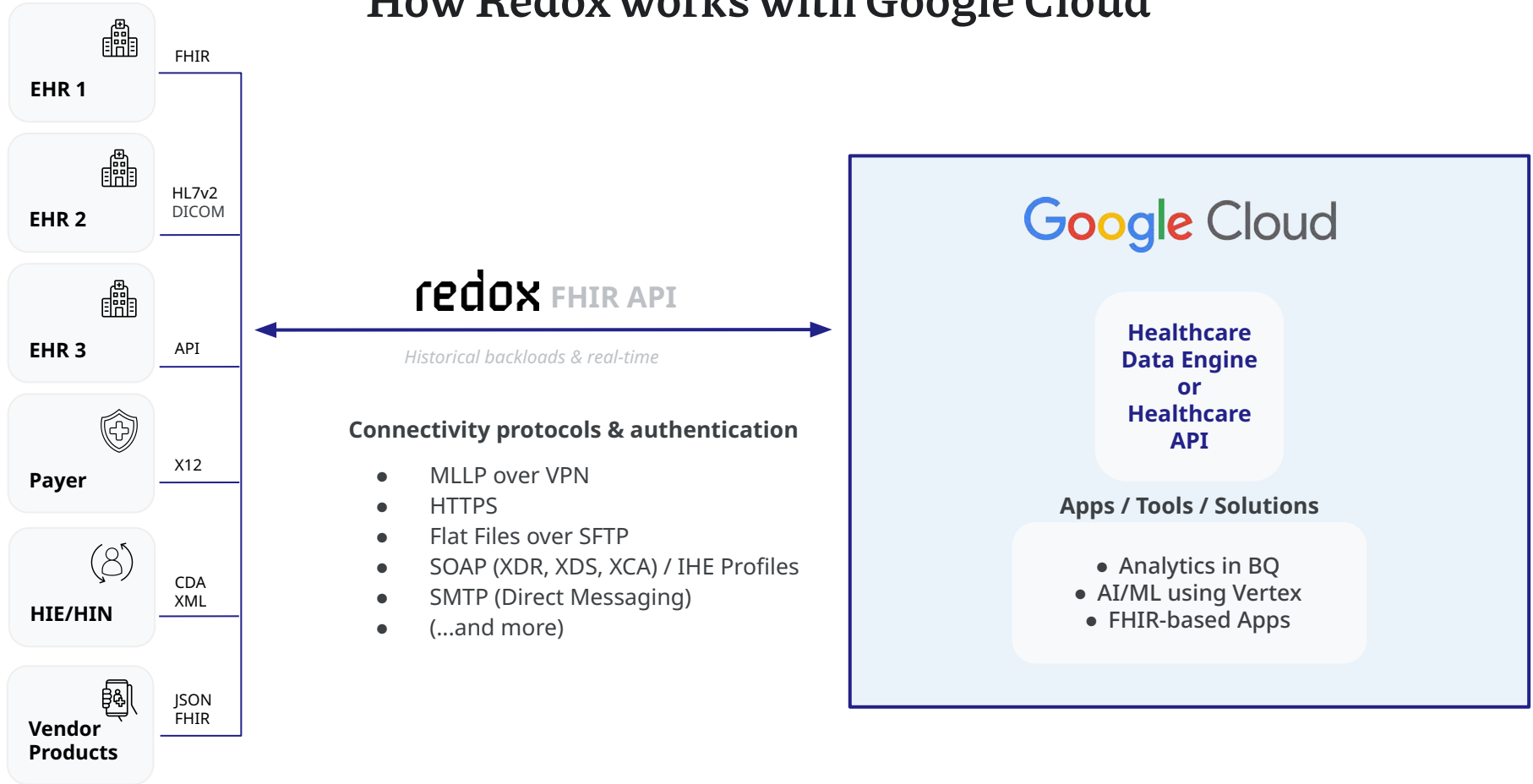
Redox has the technical capacity to **process massive volumes of data at scale**, with average processing speeds of **33 messages per second**



Up to 80%
faster projects

Redox completes cloud integration projects in **up to 80% less time**, freeing up teams to focus on innovation in the cloud

How Redox works with Google Cloud



Google Cloud / Payvider Success Story

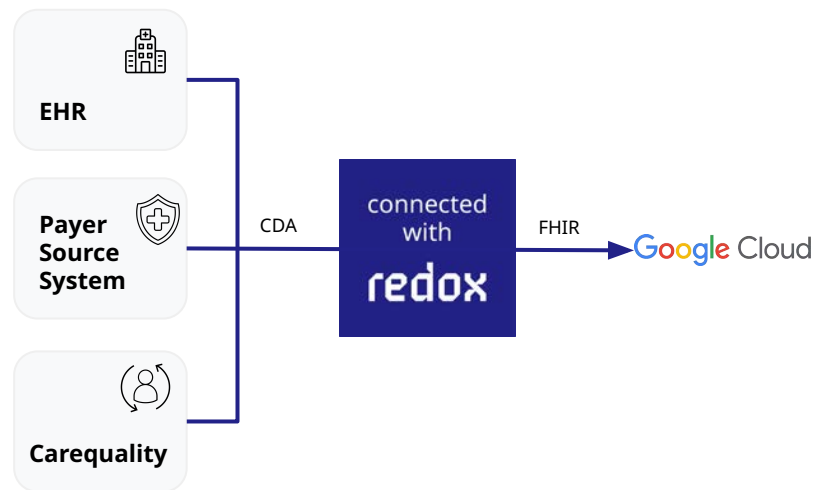
A large national payvider is building a **consistent, normalized FHIR data model** on **Google Cloud** for analytics, customer experience improvement, compliance, and more.

Requirement:

Solution to translate **130m historical CCDs** and **1m daily CCDs** from the EHR instance and Carequality into FHIR to be ingested into Google Cloud.

Solution:

Redox brought the payvider's first use case live in **20%** of the budgeted timeline, now exchanging **10 million monthly messages** with average processing speeds of **33 records/second**.



Thanks for joining!

Connect with today's panelists



Kanwarpreet Sethi
Healthcare Product
Manager, Google Cloud

 /kanwarpreetsethi



Nick McKenzie
Group Product
Manager, Redox

 /nick-mckenzie-api