

Healthcare Data Engine (HDE)

Enabling Healthcare Data Engine

Proliferation of healthcare data in recent times and lack of interoperability often make it difficult for organizations to consume and draw insights. Organizations need a solution that provides a unified view of data from multiple sources to create efficiency, improve patient experience, accelerate research, and reduce costs.

The Google Cloud Healthcare Data Engine with Cloud Healthcare Application Programming Interface (API) solution supports standardizing data from Health Level 7 (HL7®) messages to Fast Healthcare Interoperability Resources (FHIR®) from multiple Electronic Health Record (EHR) instances. Data is analyzed using Google's BigQuery™ enterprise data warehouse and Looker™ business intelligence platform, while providing data security and privacy.

In collaboration with Google Cloud, Deloitte is assisting organizations in the development of a centralized, holistic view of data from multiple sources—delivering actionable insights, supporting real-time decisions, optimizing utilization, and advancing quality care to patients.

Why Healthcare Data Engine

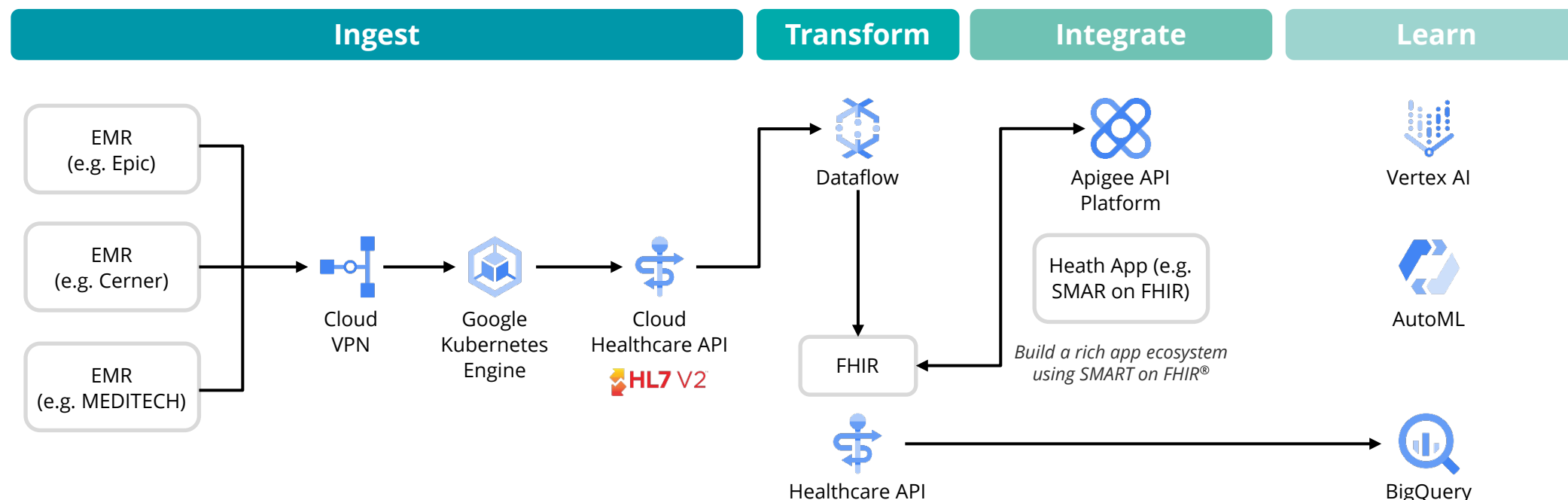
Fragmentation and data volume increasing. Data is siloed and resides in multiple EHR instances, and rarely syncs in near real-time

No true interoperability. EHR systems limit the amount of data exposed in FHIR, and this limits health systems' experience with this new standard

Lack of longitudinal view. Difficult to obtain longitudinal view of patients, therefore providers are unable to deliver highest value of care to patients

Latency of data deters real-time analytics. Institutions doesn't receive data when the data becomes available, thereby hindering speed to insights

Medical Imaging Suite Solution Overview



Transform HL7® to FHIR® using Google Cloud's Whistle2 Mapping Engine, with Source to Target accelerators across HL7 V2 message types for each EHR



Data Ingestion

Supports a variety of different sources and formats to conform to standard patterns



Scalable Infrastructure

Ramps up quickly with Google Cloud's scalable HIPAA-compliant managed services, Healthcare API, and HDE for robust processing



Analytics & Dashboards

Enables and supports an ecosystem of existing Business Intelligence tools and SQL skillsets for analysis through FHIR data



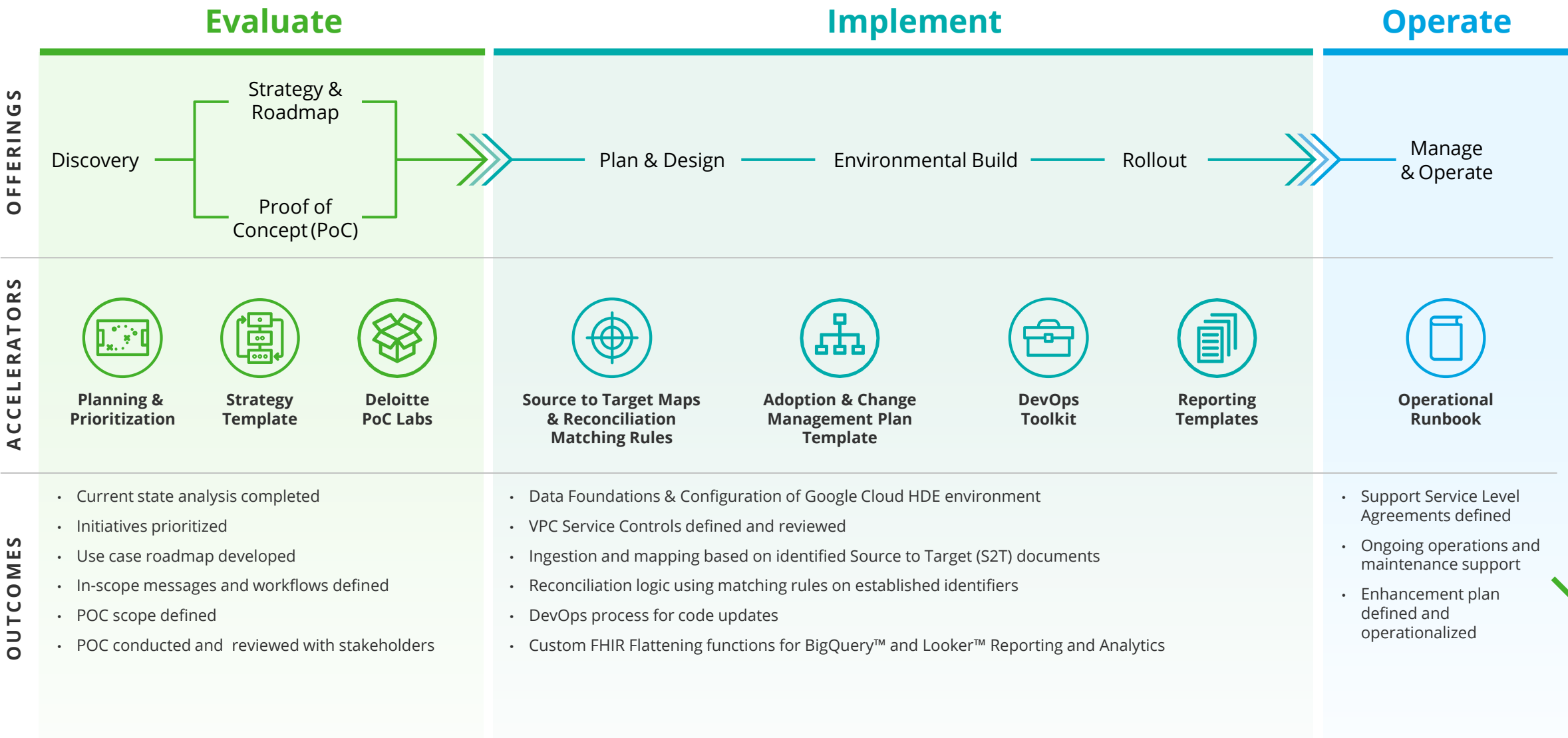
Security & Compliance

Leverages multi-layered security to protect data and privacy with best practices

Our Approach to:

Healthcare Data Engine Implementation

Deloitte brings an industry standards-based methodology combined with technical experience to enable organizations to effectively implement an enterprise-wide healthcare data platform.



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Healthcare Data Engine Solution Benefits

Providers and clinicians are empowered to make near real-time decisions by standardizing data from disjointed healthcare data sources

FHIR store forms a foundation for AI and analytic use cases harmonized by implementing near real-time FHIR store using HDE

Automated data security and privacy best practices are implemented by leveraging Google Cloud's infrastructure, Healthcare API and Data Protection Toolkit

Infrastructure and maintenance costs are lowered by migrating to cloud and leveraging cloud services/tools

Patient-centric experience becomes the focus with ease of access to data for clinical insights through patient apps using SMART on FHIR

START THE CONVERSATION

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