

EDW Solution to Create a Single View of Data and Drive Predictive Analytics



Client Requirement

The client is a leading home health and hospice care provider. It wanted to build a next generation solution that could aggregate, manage and leverage data from a spectrum of applications (EMR, HR systems, referrals, etc.). It needed to build a solution that could provide a single source of truth to manage organizational KPIs.

The solution also needed to effectively handle data across different parts of the business to drive advanced analytics and predictive modeling use cases.

CitiusTech Solution

After a detailed assessment of the client's business needs, CitiusTech designed, developed and implemented a scalable Enterprise Data Warehouse (EDW) solution using Hadoop-based infrastructure (Microsoft HDInsight), hosted on Microsoft Azure cloud. The solution included:

- A **foundational data warehouse** to configure KPIs and reports across various domains

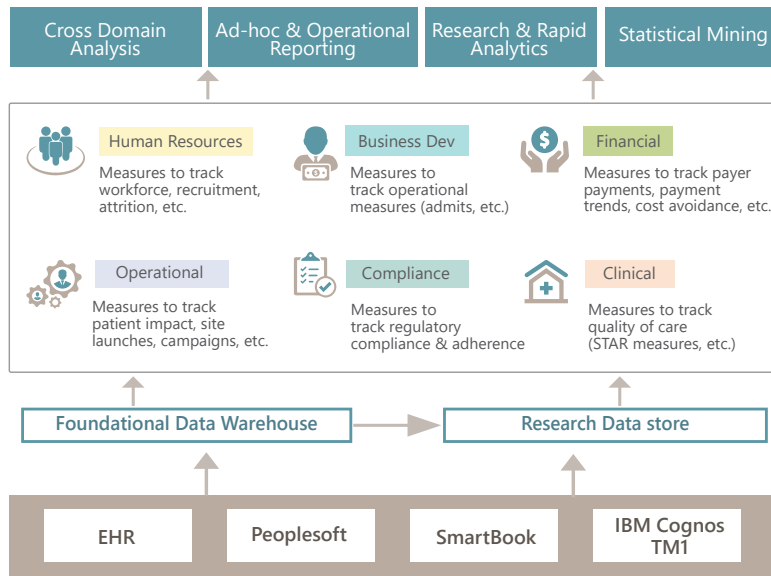
- Metadata-driven **cross-domain analytics** to calculate and report KPIs
- **Research Data Store** for supervised / unsupervised learning and model development, e.g., identifying and scoring high-risk patients, driving early interventions
- Highly flexible **data lake** to seamlessly absorb external data (e.g., marketing, socio-economic datasets etc.) and drive integrated analytics
- **Managed Services model** for infrastructure management, integration of additional data sources, and on-going monitoring and support services

The solution was designed to initially load and reconcile massive amounts of historical data

22M+
patient visits

1.5M+
care episodes

1.7M+
claims records



Solution Schematic

Value Delivered

By partnering with CitiusTech, the client was able to:

- Build a robust data infrastructure for current and future (predictive) analytics
- Effectively manage a large set of enterprise KPI's (70+) and compliance metrics (65+)
- Enable risk scoring by leveraging SOC / ROC OASIS data combined with clinical data

About CitiusTech

CitiusTech is a specialist provider of healthcare technology services and solutions to healthcare technology companies, providers, payers and life sciences organizations. With over 4,000 professionals worldwide, CitiusTech enables healthcare organizations to drive clinical value chain excellence - across integration & interoperability, data management (EDW, Big Data), performance management (BI / analytics), predictive analytics & data science and digital engagement (mobile, IoT). CitiusTech helps customers accelerate innovation in healthcare through specialized solutions, platforms, proficiencies and accelerators. With cutting-edge technology, world-class service quality and a global resource base, CitiusTech consistently delivers best-in-class solutions and an unmatched cost advantage to healthcare organizations worldwide.

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