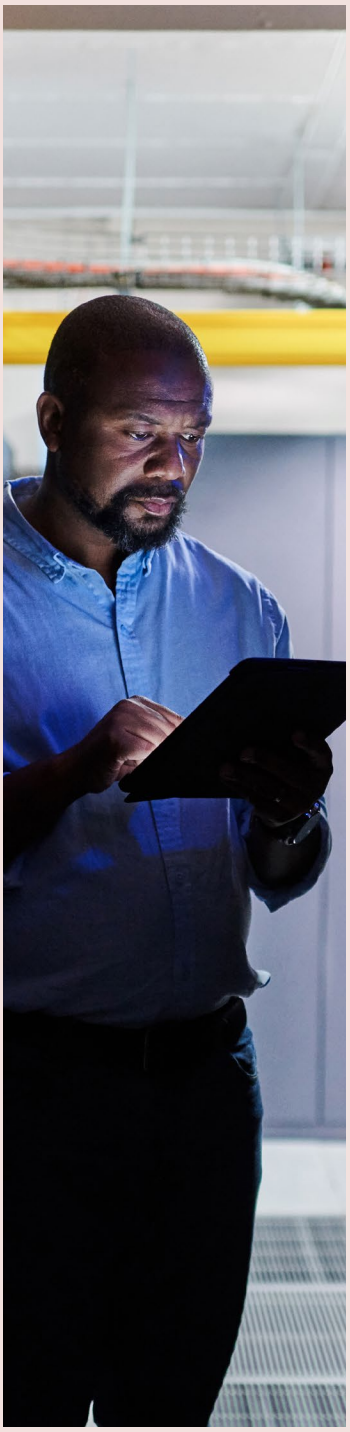
CASE STUDY



LEADING PAYER ORGANIZATION IMPLEMENTS CLOUD ECOSYSTEM TO DRIVE OPERATIONAL EXCELLENCE.

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A mutual benefit network offering affordable health plans to millions of members in California sought to enhance care management and grow the business. The insurer offers a wide range of health, dental, vision, Medicaid, and Medicare healthcare service plans for members.

The payer required a solution to address business imperatives: ensure equitable treatment to members, rationalize healthcare spend for individuals and employers, improve the patient and provider experience, incentivize clinical outcomes, and reduce the total cost of operations. In addition, the payer wanted a holistic view of member, provider and payer information with real-time access to boost service.

Cloud-first operations

The healthcare payer embarked on an IT modernization journey to transform and re-imagine the experience for their members. Infosys implemented an integrated cloud based enterprise data hub on Microsoft Azure. This modern solution enabled democratization of data and supported machine learning (ML)-based decisioning. Moreover, it facilitated population health management by supporting the creation of Integrated Health Records (IHR) comprising demographic, clinical, risk, and social determinants of health (SDOH) data of members.

Infosys undertook infrastructure configuration and setup, implemented cybersecurity policies, and developed DevOps pipelines for cloud-first operations. We deployed data connectors and data modeling to capitalize on the scalable processing, storage and analytical capabilities of Microsoft Azure.

Our team created a robust data foundation to address data management requirements in terms of source, format and latency. Our strategic partnership with Microsoft helped leverage advanced cloud service components to deliver the proof of concept, proof of value, and the minimum viable product. We adopted a tiered data architecture and fit-for-purpose technology components to support diverse data types, execute multiple workloads, and augment core capabilities.

Data-driven operations

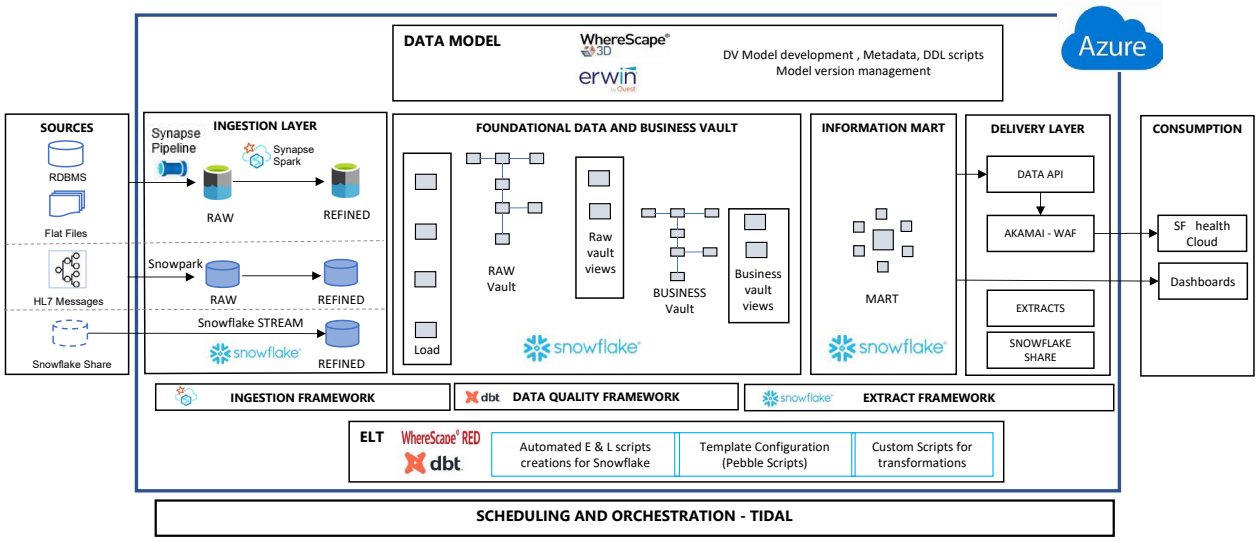
Infosys designed a data vault-based model for connecting diverse member, clinical, claims data sources and core business domains, using WhereScape. We created a scalable templatized configuration driven Ingestion Framework using Synapse pipelines and Synapse Spark notebook to expedite data ingestion from internal and third-party systems. We combined advanced automation with a pattern-driven migration approach to seamlessly migrate three billion records spanning five years of historical data to the Microsoft Azure platform.

Our team developed Snowflake-based ELT pipelines, and a PySpark-based Hybrid testing framework which enabled faster time-to-market by providing automated validations , shorter deployment windows and improved customer satisfaction by 75%

Infosys used a 4-layer architecture to integrate core member databases and files from clinical partners into data lake repositories on Microsoft Azure, based on consultation with our hyperscaler partners – Microsoft and Snowflake. We developed an integrated repository for core enterprise data assets, which supports analytical tools for actionable insights and data-driven decision making.

Our team implemented best practices for cloud operations, including disaster recovery and advanced security, a dedicated architect to review code base, regular Sprint demos with stakeholders, and code quality checks mitigated risks in deployment, while incorporating feedback to enhance the cloud solution.

High Level Solution Design

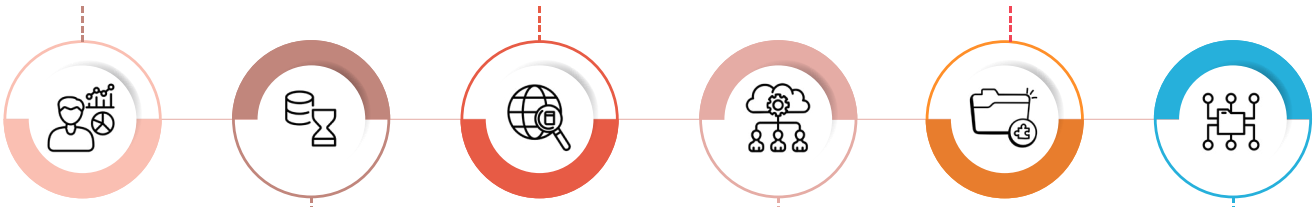


Cloud boosts IT efficiency

Automated data ingestion enables analysts to save ~ 2-3 hours for each request.

Testing accuracy minimizes data quality issues (< 1% null values, 0 duplicates) across sources.

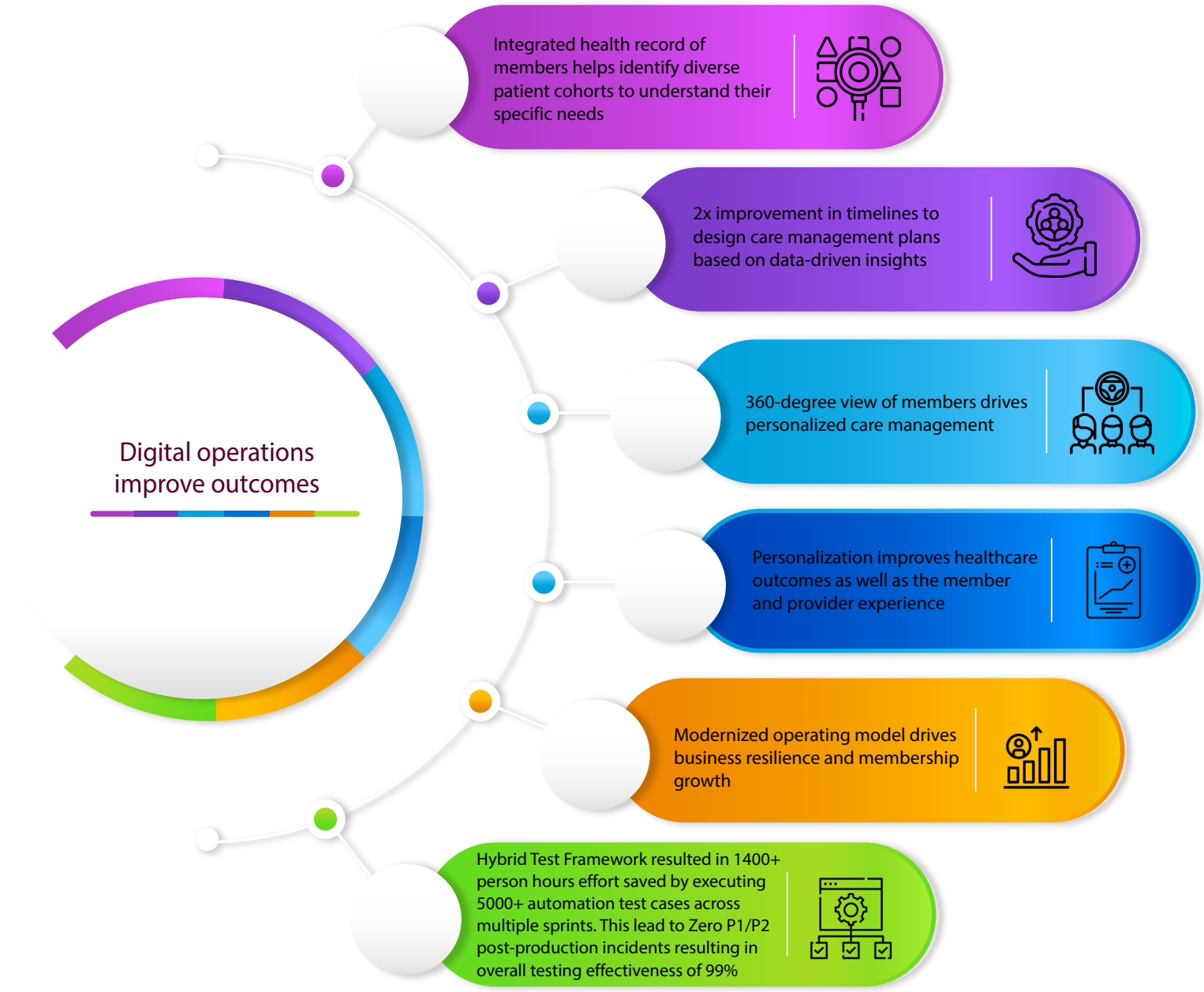
Agile and scalable platform supports onboarding of new data sources



Serverless processing on Synapse Spark, E2E orchestration and performance tuning of code accelerate data loading.

Minimal technical debt and offloading of data processing loads to cloud resources optimize IT costs.

Futuristic framework reduces the effort to integrate source data into the data lake.



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