



Shaping Healthcare Possibilities

# Scaling Interoperability for a National Health Plan

From Manual Bottlenecks to Seamless Data Exchange

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# Executive Summary

A top-tier national health plan serving over 17 million lives, and a founding member of HL7's Da Vinci Project and CARIN Alliance, has long been at the forefront of shaping industry standards for clinical and consumer-directed data exchange. With a vast network of 36,000 hospitals and clinics, the client's interoperability platform supports critical initiatives such as Medicare Risk Adjustment, HEDIS/Stars, Value-Based Care, and Care Management.

Facing a projected 70% annual increase in data volumes, the client sought to modernize its interoperability infrastructure to accelerate EHR onboarding, reduce manual overhead, and ensure compliance with evolving CMS mandates. CitiusTech was selected as the strategic partner to drive this transformation.



# Business Challenge

## Manual Processes and Fragmented Systems Impede Growth

The client's interoperability platform was constrained by resource-intensive processes and fragmented data formats, making it difficult to scale and support expanding use cases. Key challenges included:

**Delayed Provider onboarding** due to manual engineering efforts in building new interfaces

**Limited scalability** across diverse EMR versions and data formats (HL7, CCD, FHIR)









**Rising cloud costs** and performance bottlenecks across varied consumption patterns

**To overcome these hurdles, the client needed a standardized, automated, and scalable platform to support seamless data exchange and cost-efficient operations.**

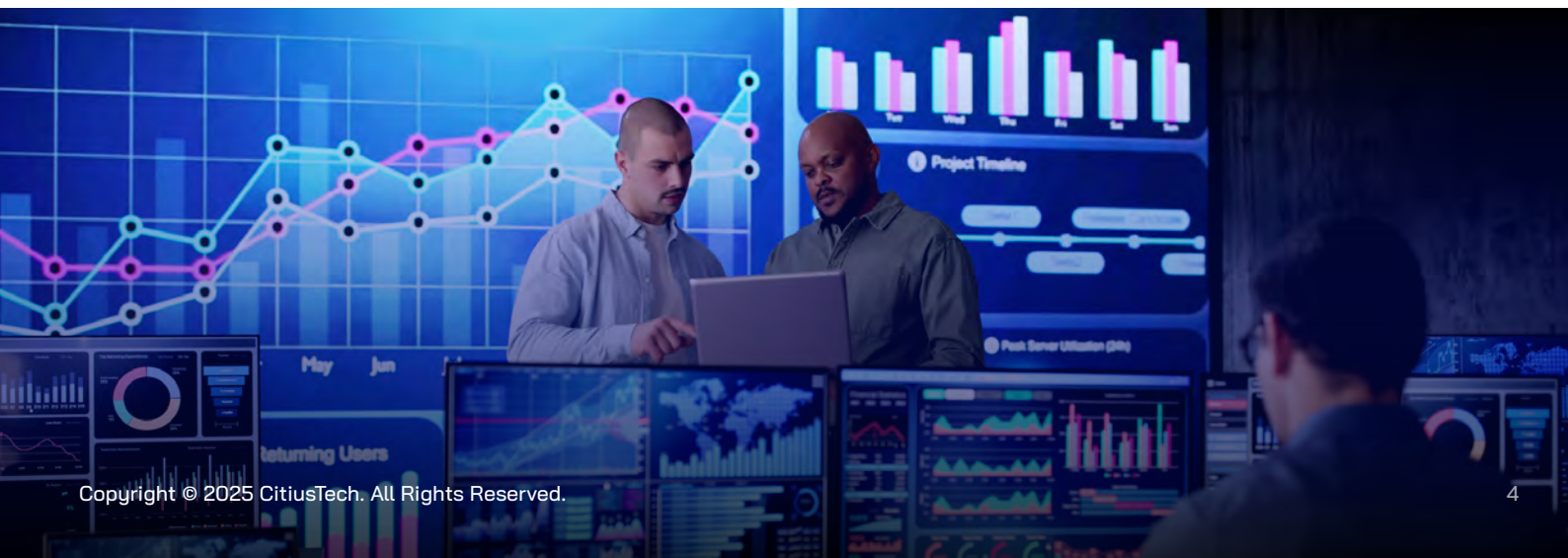
# The Solution

## Automated, API-Driven Interoperability Across 30+ HIEs and 12+ EMRs

CitiusTech leveraged its deep expertise in healthcare interoperability and cloud-native technologies to modernize the client's platform. Key solution components included:

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**Clinical Interfaces & Pipelines:** Built scalable ingestion pipelines across multiple EHRs with minimal manual intervention
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**CDeX API Enhancements:** Enabled standardized FHIR bundle and image ingestion for MRR clinical data
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**Real-Time Eligibility Checks:** Automated member validation across Medicare, Medicaid, and Commercial lines of business
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**Bulk Claims Extraction:** Delivered standardized JSON claims data via FHIR APIs for accurate eligibility and partner interoperability
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**Epic Blue-Ribbon Certification Enhancements:** Implemented coverage filtering to meet certification requirements
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**FHIR Server Migration:** Transitioned from Azure to Firely for repo façade architecture support
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**Interop Automation:** Introduced reusable wrapper notebooks, live dashboards, and auto-generated liquid FHIR templates
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**Reliability & Observability:** Deployed runtime logging, audit trails, and real-time validation to ensure data integrity and traceability

The solution was built on a modern multi-cloud stack including Azure, Snowflake, MongoDB, Databricks, and Firely—ensuring high availability, scalability, and regulatory compliance.





# Benefits

## 40% Productivity Gains and 7x Faster Data Transfers

CitiusTech's solution delivered measurable improvements across operational efficiency, performance, and compliance:

### 40%

**productivity improvement** via reusable automation components

### 80%

**faster processing** of CDeX lab results

### 85%

**faster file uploads** and **7x higher transfer speeds** through parallel processing

### 100%

**workflow automation**, saving 2–3 hours daily on file generation and uploads

By modernizing its interoperability platform, the client is now equipped to support a growing provider network, enhance care quality, and drive value-based outcomes at scale.





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#### About CitiusTech

CitiusTech is a global technology services, consulting, and business solutions enterprise 100% focused on the healthcare and life sciences industry. We enable 140+ enterprises to build a human-first ecosystem that is efficient, effective, and equitable. Leveraging deep domain expertise and next-generation technologies including AI, Cloud, Data, and Intelligent Automation, we assist our clients in realizing their vision, accelerate transformation, and achieve business outcomes. With 7,700+ healthcare technology professionals worldwide, CitiusTech powers digital innovation, business transformation, and industry-wide convergence through next-generation technologies, solutions, and products. Follow CitiusTech on Twitter or LinkedIn.

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