



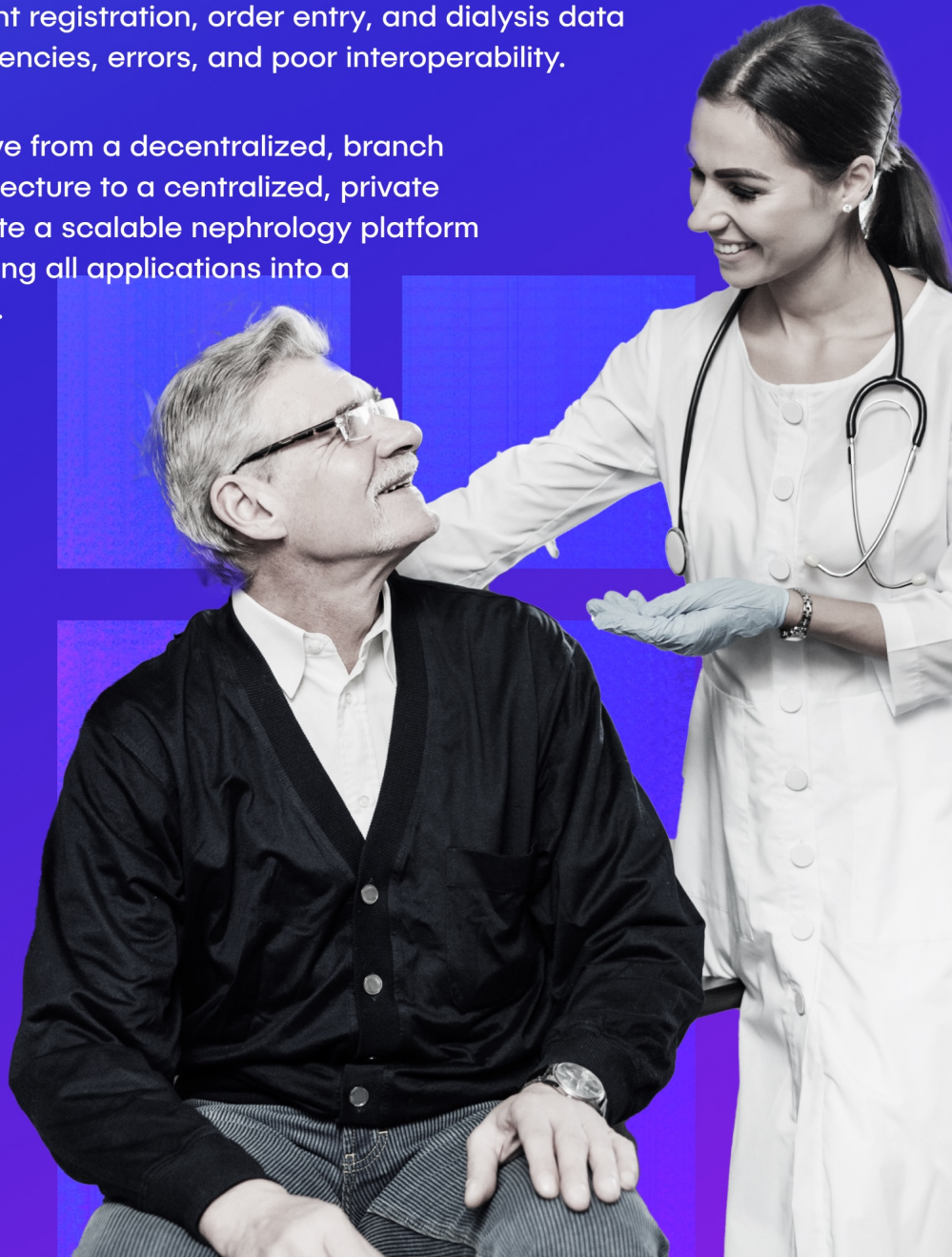
HEALTHCARE
LIMITLESS

Innovative Healthcare Solutions: CitiusTech's Impact on Operational Excellence in over 300 Clinics

The client, a leading provider of renal dialysis services, operated on multiple legacy applications for patient registration, order entry, and dialysis data leading to operational inefficiencies, errors, and poor interoperability.

Their objective was to move from a decentralized, branch office topology style of architecture to a centralized, private cloud like hosted model create a scalable nephrology platform on Google Cloud, consolidating all applications into a microservices-based system.

The new platform developed by CitiusTech provided a unified system for clinical operations, reducing data redundancy and error rates, increasing staff productivity, and enhancing patient and physician experiences. It supported 3000+ renal care clinics, modernized 1500+ legacy databases, and improved early identification of CKD-ESRD in patients.



**BUSINESS
CHALLENGE**

Legacy System Shackles: How Outdated Apps and Fragmented Data are Hindering Patient Care Efficiency

The client operates 3000+ clinics spread across the United States and [AJ1] internationally, treating end-stage renal disease and featuring in the Fortune 500 list. Their digital landscape, however, was cluttered with old, multiple legacy applications - one for patient registration, another for order entries, a separate one for dialysis data, and a sprawling network of 1500+ databases.

Faced with a multitude of challenges, the client's digital infrastructure was mired in complexity. At the core were the non-service-oriented legacy applications, which not only hindered the creation of mobile applications but also anchored the system in outdated practices. These archaic systems demanded manual data collection - a laborious and error-prone process. The situation was further complicated by the way applications were interconnected; instead of utilizing modern, event-driven, real-time services, they relied on offline data movements leading to inevitable delays in data transmission, creating bottlenecks in a system that needed agility.

Business rules were entangled in a web of rules engines and stored procedures within applications, lacking coherence and efficiency. The analytics applications, were unable to fully harness the power of data.

The infrastructure itself presented its own set of challenges. It was plagued with multiple single points of failure, evident in the form of solitary servers stationed in clinics and lone network connections tethering them to data centers. This setup posed risks of system downtimes.

The challenge was monumental: transform the chaotic, disjointed digital sprawl into a cohesive, responsive, and adaptable system, leading the way to better patient care and smoother operations.

THE SOLUTION

A State-Of-The-Art Digital Solution, Transforming Patient Data Management for Enhanced Healthcare Services.

CitiusTech's mission was to construct a new, state-of-the-art digital ecosystem utilizing services-based architecture design, cloud infrastructure and AI advancements.

The transition involved multiple complex components, leading CitiusTech to strategize a well-planned phased development, migration and deployment of these new enterprise solutions, ensuring everything worked perfectly in critical healthcare environments with minimal disruptions.

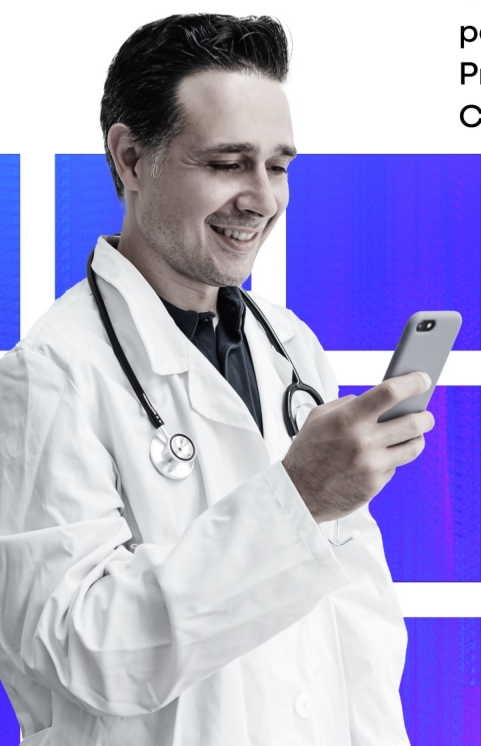
CitiusTech worked collaboratively with other vendors specializing in different aspects - patient access, labs, dialysis, and more and helped inculcate deep knowledge in technologies like IBM DB2, UDMH, and ColdFusion in our internal teams to ensure long-term success.

The first step was laying the foundation for a unified patient record- all patient information, previously scattered across multiple databases, now flowing into a single, accessible reservoir of data - a 'single source of truth' for patient data. This consolidation was key to ensuring every decision, every action was informed and precise.

The legacy applications were carefully deconstructed. In their place, CitiusTech built modern microservices & APIs powered solutions to provide dialysis treatments, manage hospitalizations, and coordinate patient care across providers to manage diabetes, depression, and vascular access, and to engage care partners effectively... infused with enterprise BI dashboards, Predictive analytics & ML algorithms, all hosted on the Google Cloud infrastructure & services ecosystem.

Next, CitiusTech focused on automating workflows, ensuring that every process from patient registration to dialysis monitoring was smooth and automated.

The team also developed several AI models to improve patient health monitoring, claims, and assess physician performance. Starting with 50+ clinics and 10-15 Cognos reports, CitiusTech scaled this solution to over 3000 clinics, delivering 50+ reports.



BENEFITS DELIVERED

Higher productivity, error reduction, and improved patient care in over 3000 clinics.

The new GCP enterprise cloud platform that CitiusTech rolled out was ingenious. It's positioned as a command center for all things clinical – creating new clinical orders, updating patient info, generating flowsheets, lab requisitions, and more – all in one place.

This platform is a single source of truth for all the clinics and apps. This means less duplication of data, fewer errors, and a smoother operation all around. Productivity has increased, burnout has decreased, and the experience for patient, physician, and teammate has significantly improved.



3000+ Renal Care Clinics supported for smoother implementations and automation.



1500+ Legacy Databases/Tech modernized and consolidated for better efficiency.



4 Legacy Apps reimaged into microservices, enhancing functionality and integration.



55K+ Patients were identified early for CKD-ESRD progressions, leading to timely interventions.



8Mn+ Patient Encounters processed, providing insights for clinic performance and care planning.



100% Smoke Testing Coverage ensuring reliability and functionality of the new system.



80%+ Regression Test Coverage maintaining high standards in system performance.



1Mn+ Duplicated Records Eliminated streamlining patient data with NextGate EMPI implementation.



100% Compliance achieved with CMS and Renal ACO reporting, ensuring regulatory adherence and cost savings.

These numbers paint a picture of significant improvement and efficiency brought by the new platform, making a real difference in the world of renal care. To know how CitiusTech could help you achieve cloud-nativity and improve your HEDIS/Star quality performance, write to us at info@citiustech.com

HEALTHCARE LIMITLESS



CitiusTech

Our vision is to inspire new possibilities for the health ecosystem with technology and human ingenuity. At CitiusTech, we constantly strive to solve the industry's greatest challenges with technology, creativity, and agility. Together with the world's leading Healthcare and Lifesciences organizations and our partners, we aim to accelerate the transition to a human-first, sustainable, and digital healthcare ecosystem.

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