CASE STUDY

Using Infrastructure as Code to Improve the Patient Experience

The challenge: Navigating Cloud Integration and Scalability for Enhanced Patient Care

A leading healthcare company recognized the urgent need for a robust reporting platform that would empower providers to pinpoint and address areas for improving patient experience. While the client's team of 130 engineers had already developed the platform's frontend, they faced significant challenges in preparing the system for seamless, scalable, and secure operation in the cloud.

Key obstacles included ensuring the platform's performance under growing user demands, integrating disparate systems, and enabling continuous updates without disrupting services. The organization also needed to unify its development, quality assurance, and IT operations teams under a common DevOps culture and streamline processes to keep pace with rapid innovation. Time was a critical factor—operational readiness had to be established before an imminent go-live date. Additionally, manual infrastructure management threatened to introduce human error, hinder scalability, and slow down deployment cycles.

The client sought a partner who could not only architect a cloud center of excellence but also empower internal teams with modern practices, ensuring the new platform would adapt to future growth and maintain the highest standards of reliability, scalability, and efficiency.

The solution: Transforming Healthcare Operations with DevOps and IaC Excellence

To address these challenges, C1 was engaged to transform the client's operational model through the implementation of a comprehensive DevOps framework and Infrastructure as Code (IaC) capabilities.

First, C1 facilitated the alignment of development, QA, and IT operations teams, instilling a shared DevOps culture and guiding the adoption of unified processes. Over a focused six-month period, C1 designed an automated deployment pipeline in Azure, utilizing IaC to script and standardize the provisioning of servers, databases, and application environments. This approach enabled the client to automate server "stand-ups" and manage complex environments with code, reducing manual effort and eliminating room for error.

Core services—including serverless computing, data analytics, and cloud-based applications—were seamlessly integrated. C1's experts delivered tailored IaC libraries, making it easy to configure, replicate, and scale environments as business needs evolved.

The collaborative effort resulted in a robust cloud infrastructure, resilient enough to support current operations and flexible enough to accommodate ongoing enhancements and increased workloads.

The result: Transforming Healthcare with Scalable and Automated Solutions

Within just six months, the healthcare company achieved full operational readiness for the new reporting platform, paving the way for a successful go-live and future innovation.

The adoption of Infrastructure as Code and DevOps frameworks led to a dramatic **80% reduction in deployment time** and a **95% improvement in environment configuration speed**. The **average frequency of deployments increased fourfold**, empowering the organization to release new features and bug fixes rapidly, with minimal risk and downtime.   Automated processes replaced manual configurations, significantly reducing the potential for human error and enhancing system reliability. The unified DevOps culture enabled seamless collaboration across teams, fostering continuous improvement and innovation.

With a scalable, automated infrastructure now in place, the client can confidently support a growing user base and evolving business needs. This transformation not only advanced the platform's technical capabilities but also positioned the organization as a leader in healthcare technology, continually delivering value to providers and patients alike.

Boost healthcare scalability with DevOps

Discover how our innovative approach to Infrastructure as Code (IaC) and DevOps is the prescription for transforming healthcare operations. Just like a well-coordinated medical team, we enhance patient care, improve scalability, and drive rapid innovation. Join us in revolutionizing the healthcare industry and ensuring a healthier future for all!

Revitalize your healthcare IT strategy: https://www.onec1.com/contact-us