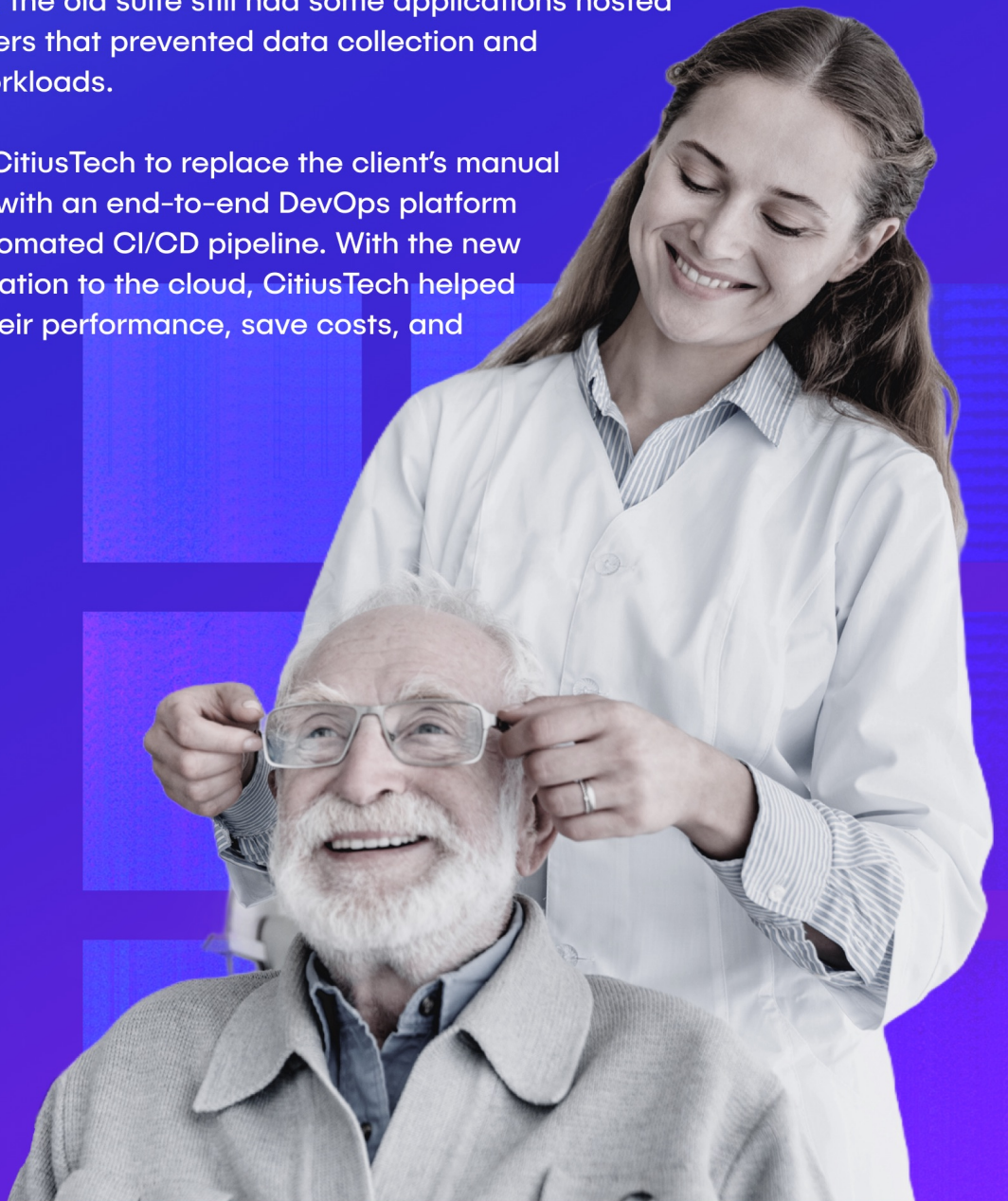**CitiusTech**

HEALTHCARE
LIMITLESS

CitiusTech Modernizes Cataract Surgery Planning Platform on AWS for a Global Pharmaceutical and Medical Equipment Manufacturer

The customer, a global pharmaceutical and medical device company, wanted to revolutionize their cataract refractive suite to deliver a better experience to their consumers. However, the old suite still had some applications hosted in physical data centers that prevented data collection and increased manual workloads.

AWS partnered with CitiusTech to replace the client's manual deployment process with an end-to-end DevOps platform consisting of fully automated CI/CD pipeline. With the new platform and full migration to the cloud, CitiusTech helped the client enhance their performance, save costs, and increase scalability.

BUSINESS CHALLENGE

SMARTCataract Planner Powered by AWS Cloud-Based Infrastructure

Before engaging with CitiusTech, the client's cataract refractive suite lacked an automated component. The manual deployment aspect consumed their employees' time, delaying their reactions to high-value tasks. Additionally, their applications were hosted both on-premises and in the cloud which provided disjointed data collection. To achieve a highly scalable and reusable solution with low latency, the client needed a fully cloud-based planning solution wherein all their pre-op and intra-op devices could share measurements and surgery plans anytime and anywhere. The client was on a mission of revolutionizing their cataract planning process.

In addition, the client's cataract refractive suite lacked the data churn needed to apply artificial intelligence and machine learning (AI/ML) across their hybrid environment.

THE SOLUTION

SMARTCataract Planner Powered by AWS Cloud-Based Infrastructure

CitiusTech engineered SMARTCataract Planner for the client on a proprietary cloud platform using Cloud Foundry. To create this, CitiusTech migrated all on-premises workloads to client's AWS environment hosted on the Philips HealthSuite Digital Platform (HSDP)[1]**.** They used AWS solutions, like Amazon SageMaker[2] to deploy machine learning, Amazon Quicksight[3] to provide data-driven insights, and Amazon Elastic Load Balancer (Amazon ELB)[4] to improve application scalability. They also utilized AWS Lambda[5], AWS Identity and Access Management (AWS IAM)[6], AWS IoT[7.] Throughout the migration process, CitiusTech conducted the requisite security and performance checks to ensure quality and resilience could be delivered at speed.

Inside SMARTCataract Planner, CitiusTech replaced the client's deployment process with an end-to-end, scalable DevOps platform consisting of a fully automated CI/CD pipeline with infrastructure as code (IaC) to deliver a self-service platform and

[1]https://www.usa.philips.com/healthcare
[2]https://aws.amazon.com/sagemaker/
[3]https://aws.amazon.com/quicksight
[4]https://aws.amazon.com/elasticloadbalancing/

[5]https://aws.amazon.com/lambda/
[6]https://aws.amazon.com/iam/
[7] https://aws.amazon.com/iot/

infrastructure orchestration components. Additionally, CitiusTech constructed operational runbooks and established a robust disaster recovery system tailored to staging and production environments. All the while, CitiusTech implemented rigorous testing requirements for performance, functionality, and security.

As the client was looking to enhance their customer-facing offering, CitiusTech helped the client incorporate AI/ML to cater to organize, analyze, and optimize data to revolutionize their cataract planning process. The data-driven insights, streamlined processes, and innovative software's provided surgeons with valuable insights that ultimately enhanced their patient outcomes and experience.

BENEFITS DELIVERED

Since deploying the end-to-end, scalable DevOps platform, the client has already onboarded 30 customers. In addition to the new customers, 44,750 surgical plans have been created and about 30 total devices have been connected to the cloud application. With the move to cloud, the number of incident tickets due to down time has drastically decreased, allowing the client to achieve 90% optimization in their deployment.

Some of the most remarkable results include a 50% decrease in customer ticket counts, and a reduction from 8 hours to 2 hours of manual operational tasks, empowering the client to focus on more complex automation and innovation. These achievements showcase the efficacy of the SMARTCataract Planner and how it delivers faster, smoother deployment and superior performance. Additionally, the enhanced efficiency CitiusTech provided, has continually led to elevated customer satisfaction and greater business success.

- 300% reduction in deployment time
- 50% decrease in overall customer ticket count
- Over 93% reduction in Service Integration (SI) renewal time for a single environment

To know how CitiusTech could help you achieve cloud-nativity and improve your member experiences, write to us at info@citiustech.com

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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