CASE STUDY

OpsWorks Co.

Revolutionizing Infrastructure for AI-Powered Cardiac Imaging Software Solutions Provider

Industry: Healthcare
Service: DevOps-as-a-Service
Duration: Ongoing for 2 years

Healthcare · DevOps · AWS · Jenkins · Docker · Docker-Compose · Terraform · SVN · Bitbucket · Python · Packer

The client is a public-sector healthcare company that develops cardiac imaging software solutions to support healthcare professionals in their CT, MRI, X-Ray, and Ultrasound procedures. Powered by AI, their products streamline workflow, enhance reproducibility, and empower cardiologists and radiologists to deliver accurate diagnoses and tailored treatment strategies for all patients.

30+ years on market

40+ countries covered

6K+ publications

20+ industry patents

Client's Goals

1. Develop a cost-effective infrastructure for automated testing
2. Speed up the overall development process

Client's Challenges

Efficient resource management

To ensure the reliability and quality of the main company's application before release, the client validated it with automated test suites. However, the variability in testing frequency and load poses a significant challenge, impacting optimal system performance and complicating resource management.

Cost optimization

Since automated tests needed significant resources, the client's team executed them on dedicated servers and only overnight to avoid interrupting other tasks. However, as testing needs grew, server capacity fell short, causing process delays. Scaling it up was a pricey solution, so client needed to find workarounds.

Security concerns

Given the sensitive nature of healthcare data, the client wanted to ensure the automated testing infrastructure was secure and compliant, along with the whole product. Data protection, access controls, and regulatory compliance remain paramount in all its aspects and need additional care.

OpsWorks Co. Solution

Custom AMI

By selecting AWS as a cloud provider, we gained access to custom AMIs like Windows 10 or Windows 11, addressing the client's precise needs. This allows the client to host their application natively and efficiently, optimizing overall resource usage.

SPOT instances implementation

Understanding client's testing needs and challenges, our team has optimized server usage accordingly. By automating the creation of temporary EC2 VMs dedicated to testing, our infrastructure maintains the flexibility to accommodate various test suites, all while leveraging the cost savings offered by SPOT instances.

Comprehensive security training

To ensure high-level security, OpsWorks experts provided comprehensive security training for the in-house team involved in managing and accessing the automated testing infrastructure. We educated employees on best practices for data protection, phishing awareness, and incident response protocols to mitigate human-related security risks and enhance security.

Results & Benefits

1. **14x** tests speed-up
2. **3x** release frequency increase
3. **2x** infrastructure cost optimization

Technology Stack

Amazon Web Services · Docker · Terraform · Jenkins · Bitbucket · SVN · Packer · Docker-Compose

Achieve long-term success with reliable partner!