



Case Study - RIMSYS



RIMSYS enables medical device companies to actively navigate the changing regulatory landscape. RIMSYS offers a suite of cloud-based regulatory affairs software solutions for the medical device industry to manage global product registrations, standards, essential principles, regulatory documents and more.

The Challenge

RIMSYS' online compliance collaborative platform, deployed on AWS, had grown substantially over time. The development and support team were facing challenges with security, scalability, performance and reliability aspects of the platform. As its customer base continued to increase, RIMSYS sought out a faster automated rollout feature with a simpler & more consistent functionality.

Lower security & limited operational best practice awareness tools were a hindrance towards the growth and reliability of RIMSYS. The substantial user growth the platform experienced over the last few years meant that its infrastructure was also lacking the ability to scale at a higher level and reduced flexibility to cope with higher demand.

The application had a basic security system, which meant it had several limitations and vulnerabilities. Therefore, the platform was in desperate need of a boost in its overall infrastructural performance & reliability.

Technical & Operational Challenges
Resource crunching, as the development team engaged in releasing the platform's functional features
Lack of insight in platform's computing performance and resource utilization needs
Scale according to demand
No alert mechanism
No proactive approach
Automated delivery & operational excellence
Lower security best practice awareness tenets
Lower operational best practice awareness tenets

The Solution

The Idexcel team developed a well-planned review of the workload and suggested a series of remedies to improve on its security, performance, reliability, cost and operational excellence.

We have prioritized these matters and focused on implementing them according to hierarchy.

Security:

The cloud security's best practices were implemented by separating the development & production environment within its own isolated network area. The data at rest has been encrypted across all AWS data storage services.

The proper data access perimeter has been set using VPC, Subnet, NACL & Security groups

Availability & Reliability:

Idexcel also implemented an Infrastructure as Code approach to develop tools that can be utilized to recreate the platform's services when a disaster strikes. The CloudFormation templates for remaining resources are kept readily available for execution in case any incidents arise.

The approach enabled failover to the DR region within 15-20 mins with zero loss of data.

The computing and data instances are spread across different availability zones within a region to increase availability & reliability. The incoming traffic load is balanced between the instances across availability zones.

Performance:

Instead of guessing the performance parameters, the environment scales horizontally according to demand. The auto scale feature also enabled an auto-heal capability, which recreates the computing instance in a different availability zone in case of failures.

Operational Excellence:

An efficient CI/CD pipeline has been implemented in an automated fashion to recreate and reuse the latest AMIs in case of an auto scale & disaster.

The AMIs are automatically copied across different regions to enact a faster failover implementation.

The Benefits

The well-designed review helped to remedy the client in several ways, including the platform's security, reliability, performance & operational best practice tenets. These improvements have positioned the client in a place that allows them to leverage the power of AWS with limited expenditures. With a proactive and reduced effort towards infrastructure management, the team can now focus on enhancing the functional aspects of the workload.

The passive DR approach, along with a 75% serverless approach kept costs at bay with the option to failover with lower RTO & RPO.

The automated failover has increased the availability and reliability of the workload, which has helped to expand RIMSYS's client portfolio.

Idexcel Competencies

 Advanced Consulting Partner DevOps Competency Migration Competency Financial Services Competency	 Advanced Consulting Partner Solution Provider Public Sector Partner Well Architected
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