Executive Summary

Operating rooms are one of the costliest areas of hospital operations. A study presented at the *"American Society of Anesthesiologists"* in 2012 stated that *"cancelled surgeries cost hospitals in millions each year"*.

SurgeryLink, a startup based in Fort Worth, Texas, is founded by a team that has collectively spent several decades working in operating rooms all over the country in various roles, experiencing an unnecessarily high number of scheduling errors and surgery delays first-hand. Most were simple communication mistakes that could have easily been avoided.
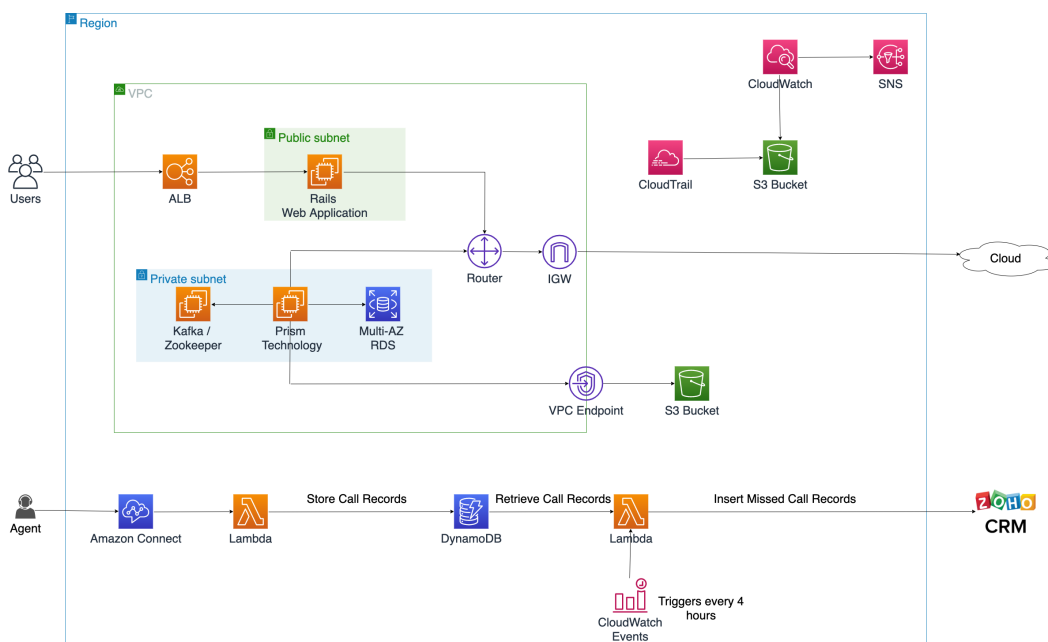
Brought together by a passion to fix surgery coordination & communication, the SurgeryLink team is on a mission to give the surgical community the simplest way possible to connect and communicate in-order to provide safe, efficient care. As avid users and lovers of technology, a common thread that binds the SurgeryLink team; *"we believe surgery coordination is error-prone, highly inefficient and ripe for disruption."*

Objectives

The SurgeryLink platform is a forward-thinking event-based application written on advanced JavaScript, Ruby, Kafka development tools and hosted on AWS and RackSpace.

The key objectives of the implemented solution are:

- Take over hosting and applications management
- Start development and add new functionality to meet customer needs
- Keep expenses minimum until business develops a strategy

About Surgery Link

Surgery Link, a startup based in Fort Worth, Texas, is a unique solution that is disrupting the healthcare software market regarding the surgery scheduling process, making it more efficient for all stakeholders, increasing efficiencies, and streamlining how surgeries are scheduled.

Because we believe in "rolling up our sleeves" to work side-by-side with you we ensure that the product is fully-customized not only to meet but exceed your specific needs. SurgeryLink team has a combined 100+ years of healthcare experience.

Company Overview

SurgeryLink mission is to provide you with the tools necessary to have a comprehensive communication and collaboration tool that reduces or eliminates errors and oversights, while improving efficiencies.

Surgery Link software increases surgery volumes, reduces delays and cancellations, increases patient satisfaction, team accountability and supply and inventory management.

Results

- *Achieved application usage by more than 1000 surgeries co-ordinated with over a 99% application deployment success rate*
- *Addition of new features which allowed their customers to use the application with ease*
- *Importantly, the application was maintained and developed in a very cost effective way*

AWS Services

- *Cloud Formation*
- *Virtual Private Cloud (VPC)*
- *Application Load Balancer (ALB)*
- *Simple Storage Service (S3)*
- *Relational Database Service (RDS)*
- *Simple Notification Service (SNS)*
- *Dynamo DB*
- *AWS Lambda*
- *Amazon Connect*
- *CloudWatch*
- *CloudTrail*

Why is Surgery Link working with BizCloud Experts

BizCloud Experts is an AWS Partner Network (APN) Advanced Consulting Partner with multiple AWS Service Delivery designations and has been named amongst the 10 most competent Amazon Web Service Providers of 2019. BizCloud Experts was challenged to take over a system that had been developed by technologists from the former owners who left no clear documentation and no knowledge transfer.

BizCloud Experts, being a startup with a can do attitude, we developed a strategy that did the following:

- Immediate Technology and Code Analysis of Production Systems
- Validation of Access to Code and Production Systems
- Worked with vendors to change access keys
- Recruited full-time and free-lancers to address the skill gap

The end-result was that BizCloud Experts provided 24x7 support, added features as the business requirements increased. AWS based scalable, highly-available and cost-effective solution has been designed using services like EC2, RDS, IoT, Lambda, S3. The migration to AWS has been successfully implemented without any downtime. BizCloud Experts are now moving to a No-Ops Continuous Delivery Model.

Implementation Description

The infrastructure consists of a multi AZ (Availability Zone) RDS database, Virtual Private Cloud (VPC), Application Load Balancer (ALB), Internet Gateway (IGW) that were deployed utilizing CloudFormation templates in North Virginia region. BizCloud Experts utilized Jenkins as the CI/CD automation tool for the continuous delivery of infrastructure. CloudFormation templates were split into logical stacks for the reusability, and consisted of AWS pseudo parameters, cross stack references with outputs being exported. The stacks were protected from termination, utilized stack policies to prevent unintentional updates on the stack resources and change sets allowed to preview how proposed changes to a stack might impact the running resources. BizCloud Experts also migrated the customer's existing contact center to Amazon Connect, an omni channel cloud contact center solution.

With AWS, SurgeryLink has now completed 9 months under BizCloud Experts technology management and supported the co-ordination of over 1000+ surgeries in this period. Our rapid application development process has added over 25 new features in two major releases and rolled out a new website all under a total of less than USD $75,000.

About BizCloud Experts

BizCloud Experts is recognized as a leader in developing solutions using Serverless computing technologies, and automating IT services. We innovate, transform and seamlessly blend digital and physical platforms. To learn more, visit our site, follow us on Facebook, Linked-In,Twitter, call us @+1 (214) 206 8976 or email sales@bizcloudexperts.com.

BIZCLOUD
EXPERTS