

VividCloud Builds AWS Infrastructure and Deploys a Telehealth Platform



Executive Summary

Generated Health is a startup company working to launch a new SaaS product, called BELLE, for the telehealth market. The BELLE software is well designed, intelligent, and efficient, but only a basic rehost to AWS had been made. As a cloud platform, BELLE lacked many of the features required to be cloud native and compliant with AWS's Well Architected Framework.

Generated Health required a full migration of their core software to AWS before they could go to market with their new SaaS platform.

VividCloud's Solution

Generated Health turned to VividCloud to create a secure, scalable, HIPAA-compliant telehealth SaaS platform on AWS from their core software.

Our solution included a scalable AWS infrastructure, multiple AWS account structures, cyber security, CI/CD pipelines, automated testing and deployments of releases, performance monitoring, integration of 3rd party products, and operations support once the platform was deployed.

Results

Generated Health's platform was deployed on schedule to support an initial cohort of five clinical practices. Since then, they have continued to onboard new customer accounts and patients. Other results of this successful project include:

- Reliable weekly code deployments into three distinct deployment environments
- Highly available deployments to two availability zones
- SMS service provider setup for a sandbox, and staging and production environments
- HIPAA assessment and reports leveraging AWS Audit Manager, AWS Security Hub, AWS Config and SCPs
- Automated CI/CD pipelines
- DNS domain, maintained under Route53
- Hosted Website moved to Lightsail
- CloudWatch Dashboard to visualize performance of the application
- CloudWatch Alarms and SNS topics to automate monitoring



Industry: Healthcare

Location: Harpswell, ME

Website: generatedhealth.com

A b o u t
G e n e r a t e d H e a l t h

Generated Health is an exciting startup in the rapidly expanding high technology market in Maine.

They offer digital services as a valuable extension of health professionals' care, so that people can attain healthier lives. They catalyze patient self-care using everyday technology. Patients are empowered in their self-care, and clinician workloads are reduced, leading to better health.

Generated Health's BELLE is a SaaS platform for clinical practices to improve health outcomes and gain efficiency by extending care outside of patient visits. BELLE is an automated, intelligent messaging platform used with any mobile phone.

AWS Services

The following services and capabilities of AWS are used in this solution:

- AWS **Route 53** registered Domain, hosted zones, and DNS records to provide access to the user/administrator as well as 3rd party services like Sinch (SMS)
- AWS **VPC Private Link** to keep communication between the application and MongoDB Atlas private
- AWS **VPC Security Groups, IGWs, NATs, subnets, and route tables** to provide a secure networking environment
- AWS **ELBv2, Target Groups** to route traffic from the internet to the application
- AWS **Certificate Manager** to terminate HTTPS on the ELBv2
- AWS **ECS ECR, Fargate, Cluster, Service, Tasks** to run the application
- AWS **CloudWatch Logs, Metrics, and Alarms** to simplify monitoring
- AWS **Audit Manager** to perform HIPAA assessments and run HIPAA reports
- AWS **IAM** roles and policies to grant access to AWS resources
- AWS **Control Tower** to setup an OU for Generated Health
- AWS **SSO** to provide access to the AWS Accounts
- AWS **Service Catalog** to provision AWS Accounts
- AWS **Security Hub** and **Config** to provide insights to AWS Audit Manager and HIPAA assessments
- AWS **Lightsail** to host Generated Health's Website (WordPress)
- AWS **CloudTrail** to audit activities on Generated Health's AWS Accounts
- AWS **S3** to store **CloudTrail** logs
- AWS **SNS** topics used to notify irregularities to the support team
- AWS **KMS** to encrypt data stored in EBS volumes/snapshots and **SSM Parameter Store**
- AWS **SSM Parameter Store** to store credentials used by the application
- AWS **CloudFormation** and **StackSets** to provision AWS Accounts

About VividCloud

VividCloud is a software development company focused on cloud and IoT. AWS is our cloud platform of choice, and we are a Select Tier APN Consulting Partner. We bring fully managed teams to projects, freeing our clients from day-to-day oversight responsibilities. VividCloud is based in Brunswick Maine, with 100% of our people onshore in the US.

