

# VividCloud develops a secure, scalable, HIPAA-compliant telehealth platform on AWS



## Executive Summary

Generated Health is a startup company working to launch a new SaaS product, called Florence, for the telehealth market. The Florence software is well designed, intelligent, and efficient, but required a number of additions to make it a fully cloud native, enterprise-class platform that is compliant with AWS's **Well Architected Framework**.

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

## VividCloud's Solution

VividCloud's 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 3<sup>rd</sup> 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.

Specific achievements 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, staging, and production environments.
- HIPAA assessment and reports are generated on-demand by 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 applications.
- CloudWatch Alarms and SNS topics to automate monitoring.



Industry: Healthcare

Website: [generatedhealth.com](https://generatedhealth.com)

## About Generated Health

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

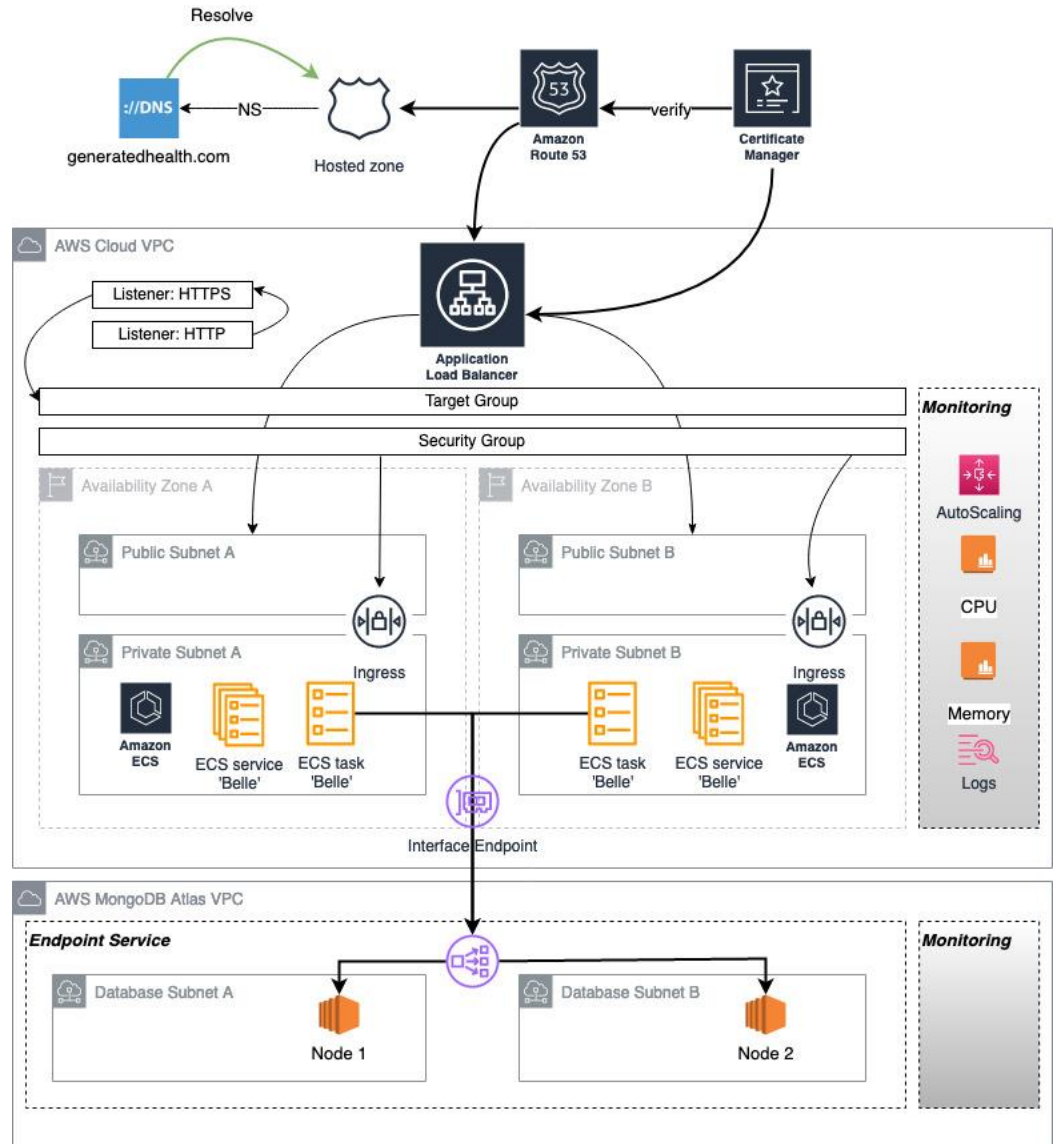
**They offer Florence, a digital services platform that serves as an extension of health professionals' care, so that patients can have healthier lives.**

**Patients are empowered in their self-care while clinician workloads are reduced, leading to better health.**

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

## Solution Architecture

On overview of the solution VividCloud architected and implemented for Generated Health's Florence platform.



aws

**PARTNER**  
Advanced Tier  
Services

## 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 an Advanced Tier APN Consulting Partner. We bring fully managed teams that free our clients from day-to-day oversight responsibilities. VividCloud is based in Brunswick Maine, with 100% of our people onshore in the US.

