

Case Study: Migration of ECG Management Solution to AWS

Client Requirements

Client is one of the leading provider of medical imaging and medical equipment solutions. Their critical care business has a suite of ECG devices and a thick client ECG management solution.

Client's objective was to migrate their current ECG management solution from on-premise to a public cloud, The solution had to establish connectivity between ECG devices and their cloud-based ECG management solution.

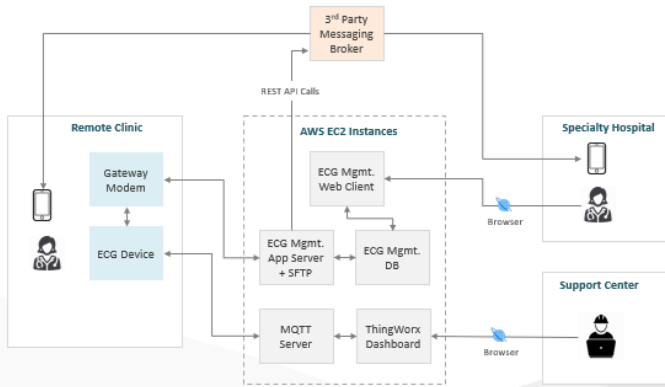
CitiusTech was chosen given their expertise in cloud migration of healthcare solutions and device connectivity.

CitiusTech Services:

- Conducted feasibility analysis on migration of client's application to AWS cloud, and its connectivity with legacy ECG devices
- Migrated a thick-client ECG management solution to AWS, in a 3-tiered architecture (DB server, Web server, Application server)
- Established a secure data pipeline using HTTPS, between ECG device and cloud solution to send ECG files, using AWS SQS, AWS Lambda
- Built remote servicing capabilities using MQTT protocol and ThingWorx solution, hosted on AWS
- Built a cloud-based analytics dashboard to capture operational metrics
- Built a SMS notification feature into ECG management solution using 3rd party messaging broker

Value Delivered:

- Successfully helped establish seamless connectivity between ECG devices in remote areas and cardiologists in specialty hospitals
- Significantly reduced the effort for service engineers to perform maintenance on ECG devices
- Eliminated the need for on-site visits for maintenance



Solution Schematic