**Summary**

TO THE NEW started engagement with Rhinogram in 2017 to replace their existing billing software with a more compatible one to improve the overall workflow for their Customer Success team and to better manage their customers’ subscriptions, payments, and invoices.

Since then, TO THE NEW has been continuously working with Rhinogram to expand and extend the telehealth services to make healthcare more accessible to the patients. Our team has worked on features like security auditing, appointment manager, message broadcasting and analytics to monitor the practice workflow.

**About Rhinogram**

Rhinogram is a telehealth platform which helps providers communicate with their patients and vice-versa for appointments, any health-related queries, and prescriptions in real-time without having the patient to download any app.

It enables a better patient experience by making remote healthcare possible, simplifying communication and minimizing office interruptions with real-time, text-based patient engagement. Rhinogram aims to provide zero-barrier communication between providers and patients.

**Overall Goal**

Being in the telehealth industry, it was important for Rhinogram to have maximum reach to the patients and at the same time protect their data. The client wanted to enhance their messaging service and make it as secure as possible.

One of the big milestones for 2019 was to get Rhinogram certified for ‘Meaningful Use’. This means any provider participating in the ‘CMS Medicaid Meaningful Use’ program can use Rhinogram to meet the “Secure Messaging” portion of their reporting criteria. Additionally, the focus was to improve and make messaging faster for the practices.
Business Objectives

- To produce an audit log that allows administrators to detect and analyze breaches in user and application behavior, intentional or accidental, helps keep practices in compliance with privacy and security regulations
- To track NUMERATOR data for secure messaging for Medicaid providers to help them with their Medicaid claims
- To have reporting capabilities in the system to help customers make decisions based on the metrics
- To enable bulk messaging to patients
- To enable message translation for communicating with non-english speaking patients

Technical Excellence

- Managed and followed Agile & API driven approach to development
- Followed all HIPAA protocols during development
- Worked on AWS services like Kinesis, SQS, Lambda functions, etc. to enhance the overall application performance
- Created an automation framework using Nightwatch to catch issues on a day-to-day basis before the release and help us keep our app free from issues as much as possible
- Developed analytics dashboard using Chart.js for the practice to monitor their workflow
- Introduced NOSQL databases like DynamoDB and MongoDB to get rid of expensive sql JOIN operations in SQL databases
- Researched into various translation & detection services to match with Rhinogram’s requirements and implemented the translation work using Google API

Technology Stack

**Frontend**
- React
- Redux
- webpack
- Chart.js

**Backend**
- Node

**Database**
- DynamoDB
- MongoDB

**Automated Tests**
- Nightwatch
- JUnit
- Jest

**Messaging Tools**
- Twilio
- Zipwhip
- Bandwidth
**Business Results**

- Rhinogram got ONC certified for ‘Meaningful Use’

- Increase in the number of providers adopting the platform because of better HIPAA regulations implemented in the platform

- Reduced messaging time significantly by introducing message broadcasting. For instance, messaging 50 patients about the office being closed today which would otherwise take more than one hour to send out, now take only a few seconds to do

- Integrated message detection and translation service helped doctors have faster and effective communication with the patients