OPRETO

Revolutionizing Telehealth Communication: How Opreto's Next-Generation Platform helped UpHealth Achieve Unprecedented Scalability, Reliability and User Satisfaction for their Martti Product

92% reduction in application startup time

30% reduction in login time

33% reduction in error reporting

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I was impressed with how quickly Opreto understood our industry, spoke our language, and became involved as if they always were a part of our team. Opreto's leadership all have a solid engineering background, which translates to their ability to hire talented engineers, to direct projects, to overcome technical issues and to deliver quality products. Ultimately what makes them unique is that they care, they care about doing a good job, they care about their client, they care about their engineers and they care about delivering pristine, perfect products.

David Chocron,
Vice President of Architecture and Engineering

UPHealth™

Background

Martti by UpHealth is a full-service telehealth platform dedicated to overcoming health disparities and removing language barriers to receiving healthcare. As their core product, it has revolutionized communication between patients and healthcare providers by introducing Video Remote Interpreting (VRI) into the market to facilitate those interactions with professional interpreters available 24/7. However, by 2021, UpHealth was encountering the limitations of the original implementation and engaged Opreto to create the next generation of the platform.

The Challenge

Several fundamental design choices in the original implementation of the Martti platform later became obstacles to service delivery. The application was a C# application, which precluded cross-platform deployment. The codebase had accumulated significant technical debt, and the deployment process had become rather unwieldy and required multiple manual steps.

As a result, the original third-party development team was removed from the project when the difficulties of developing it on the existing base became unmanageable. Additionally, the client lost access to some of the build steps in this process.

UpHealth wanted to grow its business by building new features and adjusting to rapidly growing interpreter-driven requirements. Unfortunately, the pace of development with the existing technology stack and software architecture needed to support the required momentum to change and continuously align with their client's needs.

Any new vendor must adhere to rigorous data security compliance requirements to support this growth. In addition, as a health care provider, any software release must protect any Personal Identifiable Information and adhere to the guidelines outlined in HIPPA.

The Solution

Opreto began the engagement with an appraisal of the existing Martti platform, followed by a proposal for architectural refactoring on a modern cross-platform framework. Opreto then assembled a custom team of Software Architects, Software Engineers, DevSecOps Engineers, Data Engineers, and UX Engineers to implement the next generation of the platform, helping UpHealth meet scalability, compliance, and data security requirements.

Since some of UpHealth's customers had a contractual obligation to use a desktop application, we built the application on the Electron framework, which pointed to a modern React-based application.

Instead of mimicking the design of the old application, Opreto took the opportunity to create a new and more intuitive design for the new application.

Opreto's implementation integrated with all of the other components in the stack, including Salesforce, the existing back-end APIs, and the current notification service. Opreto also constructed a fully-featured cloud platform, an Infrastructure-as-Code stack, and a DevSecOps process to ensure secure infrastructure management.

The Results

The new Martti platform has yielded several tangible benefits to UpHealth. In particular, it has enabled greater business scalability, as evidenced by record numbers of time interpreters spend on the platform. It has also enabled new features to be built out rapidly and securely. Opreto greatly enhanced the responsiveness and reliability of the platform.

One notable win is system startup time, which dropped from over one minute to under five seconds – a decrease of 92%. This and similar improvements have restored overall business confidence in the software system.

Many additional measured improvements have resulted from the deployment of the new implementation. Rates of failure and downtime have been reduced dramatically, and far fewer defects have been reported. User Happiness metrics tracked before and after the change have also improved significantly.

Opreto's new implementation has transformed the Martti platform from a problem to a potential for UpHealth's business.

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