

Engagement Overview

Crownstack, a leading technology solutions provider, started working with Trellis Health as an engineering partner in 2025. Their role was crucial in developing and implementing the engineering solution that empowered the Trellis Health business.

About the Customer

Trellis Health is developed through collaboration among scientists, technologists, parents, and leading clinicians. Trellis effectively addresses significant gaps in women's healthcare. This platform offers intuitive tools that help manage health over time. By providing personalised recommendations, tailored insights, and a secure tracking



system, Trellis empowers women to make informed decisions regarding their health, alleviating the cognitive burden associated with integrating disparate health information.

Industry	Software Development

Business Challenges

- The business aimed to enhance user engagement and streamline customer support
 by implementing a third-party chat messaging platform, while maintaining
 complete control over its backend infrastructure to manage and store
 communication data securely.
- Additionally, the integration of multiple third-party laboratory services was deemed
 essential to facilitate users' direct ordering of home test kits through the platform.
 This initiative aims to enhance convenience, improve care delivery, and increase
 overall engagement with the platform by providing value-added services.



Business Solution

Our team collaborated with the Trellis Health team to address the identified challenges.

- The team implemented a chat component directly within the Superblocks framework, integrating it with Firestore through the use of collections and subcollections to effectively manage message data.
- A polling mechanism was established to retrieve new messages every ten seconds, thereby ensuring near real-time communication.
- For lab services, third-party APIs were integrated per the platform's database schema, incorporating robust exception handling to manage any failures gracefully.
- Furthermore, webhooks were tested locally, utilising Ngrok to ensure reliable communication and timely status updates from external laboratory partners.

Technology Stack

Backend	Python
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Business Outcome

- The implementation of these functionalities led to an enhanced and responsive user experience.
- The incorporation of an embedded chat feature within Superblocks facilitated efficient real-time communication for customer support. Furthermore, the integration of Firestore ensured that message storage was both scalable and well-organised.
- The polling mechanism provided a reliable method for maintaining up-to-date chat conversations without necessitating complex infrastructure.
- Additionally, the successful integration of third-party laboratory APIs enabled users to conveniently order test kits, thereby increasing user engagement and enriching the platform's service offerings.
- Reliable handling of webhooks ensured accurate and timely updates regarding test statuses, which contributed to a more trustworthy and efficient prenatal care experience.

Further Links

<u>Learn More About Crownstack's Offerings</u> <u>Learn More about Trellis Health</u>

