

Startup based in US brings Internet-connect solar energy to areas without access to a power grid starting with rural India



Client

The client is a global provider of internet-based utility services, serving over a billion people through their hardware enabled platform-as-a-service.

Industry

Consumer Goods and Energy

Business need addressed

The Connected Solar System is the practical & visionary means to benefit millions of households. It has the potential to transform the multi-billion-dollar energy market by opening up vast new opportunities for the client's end-users and partners alike.

Trantor solution

Trantor quickly scaled up a 25-member product development team for the client, which is providing end-to-end services to the client ranging from product management, UX and UI design, software development, testing, and sustenance engineering.

Business Benefits

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- Enabled client to provide electricity & Internet to far-flung areas
 - On-time delivery of the solution to help the business accrue profits
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“TBD”

- *VP, Product*

Project Goals

- Establish product development team including UX, Software development, and Testing
- Support the client through different milestones like investor demos, prototype development, and field tests
- Establish pragmatic project management and software engineering practices for long-term sustained software delivery

Technologies Used

- Kotlin
- C
- Ionic 3 and Angular 4
- NodeJS
- CosmosDB (MongoDB API)
- Terraform
- MS Azure

The Problem

The client was facing opportunity costs from delays and needed to scale a software engineering team quickly.

- Software development needs were complex because the client’s custom IOT hardware was being developed in parallel and required low-level code to support the software goals
- Product development teams perform best when co-located. Having end-to-end solution built by a co-located team was essential for the success of the product.

The Trantor Approach

Trantor team supported the project by delivering following software solutions:

1. Kernel-level code to support the custom IOT platform based on Android AOSP
2. Applications that run on the custom flavor of Android and support the low-level functions
3. Scalable Microservices layer were built on Azure to support CHS and ingest telemetry data
4. Mobile Apps to back the on-ground sale and support operations

The Solution

- The IOT hardware customizations were supported by writing Kernel-level drivers
- The microservices were developed using NodeJS and GraphQL, which were hosted on Azure App Services and backed by CosmosDB and Blob Storage
- Telemetry data was ingested using Azure Time Series Solution
- Hybrid Mobile Apps were developed using Ionic 3 and AngularJS
- Robust Manual and Automated Test Suites for upholding the quality of the applications in production

The Benefits

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About Trantor

Trantor delivers innovative technology solutions, which enable our clients to achieve their business objectives at reduced cost. With expertise in both Cloud-based and traditional applications, we understand all aspects and challenges of software development from product and feature definition to core product development and QA, deployment, and ongoing maintenance. Our deep experience in fintech, ecommerce, captive centers, and custom software development is unparalleled.

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