

**ACCELERATING DELIVERY
OF CRITICAL DATA**

Increasing customer satisfaction by building a data warehouse to analyze and report errors before they become a customer problem.



**A GLOBAL IT
COMPANY**

Background

This global information technology company develops and provides a wide variety of devices, as well as software and related services to consumers, small and medium-sized businesses (SMBs), and large enterprises.



**THE
IMPACT**

90%
Reduction

in identification time to the emergence of product quality issues in the fleet

70%
Reduction

in incorrect predicted actions for identifying devices within set proximity with similar issues

98%
Reduction

in response time to alert technicians when predicted issues arise

The Challenge - Perpetual Errors

The devices that our client sold to their customers were generating errors, causing the customers to complain and have downtime in workflows. The customers' frustration arose with the ongoing errors and eventually, they would complain and threaten to change providers. Additionally, our client was charging per each use of the device and with the ongoing errors, it stopped being used resulting in a loss of revenue. Each device has its own error repository, and the client was collecting data but not analyzing and making decisions about it.

The Solution - Monitor, Analyze, and Upgrade

In Time Tec built a data warehouse to monitor the devices' internal error reporting systems. Our solution pulls the device error data into a data warehouse to be analyzed and acted upon. We also built models that look for trends in the errors so major changes can be made before the errors cause problems for the customers.

The Results - Customer Satisfaction

- ✓ Automated alerts that accurately predict issues and then alerts technicians in less than 15 minutes as they arise instead of just twice a day.
- ✓ The system finds trends and makes suggestions for hardware or firmware updates before it becomes a major problem.
- ✓ The system automatically identifies devices in close proximity that may have similar issues and alerts technicians with 94% precision, saving time and money.
- ✓ Decreased the time it takes to identify the emergence of product quality issues in the fleet from 4-6 months to 1-2 weeks of deployment.
- ✓ Transformed complex processes of spreadsheets and tables of plain text values into intuitive data visualizations with unlimited filtering and a low learning curve for new hires.

In Time Tec Services Used

Data Science

Data Engineering

Quality Assurance

UX/UI Design

Business Intelligence and Reporting

DevOps

Technical Writing



Accelerated identification process from 6 months with an 80% precision rate, to 1-2 weeks with 94% precision rate.

— **Bruce Stoutenburg**
Software Architect

