How an electronic tools company launched their first smart product

With a decade of experience in End-to-End IoT Solutions and IoT Services, read how Thinxtream® used Espressif™, AWS®, Android™ and iOS® to create a connected product solution.

THINXTREAM®

THE BUSINESS GOAL
Build a Smart Connected Product Solution

Traditional, old economy businesses, with standalone, low-cost devices, such as our customer who manufactured electronic tools, are responding to the competitive challenge posed by new-age businesses leveraging digital technologies.
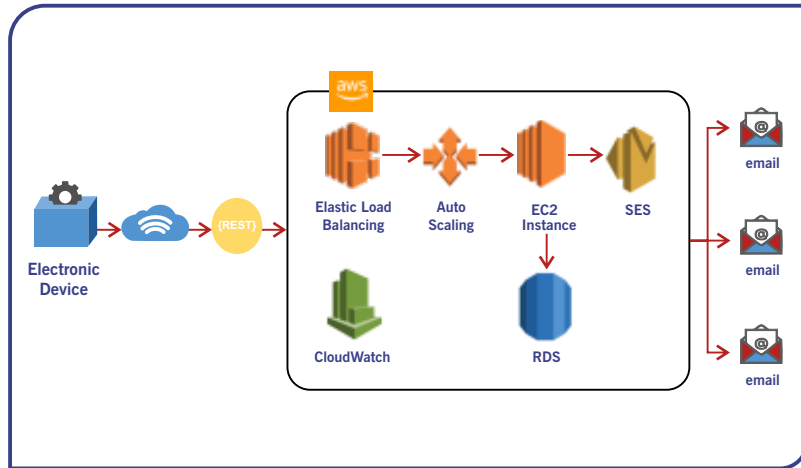
Budget goals demanded that the digital transformation of their traditional products occur rapidly. This is not easy for several businesses. While they possessed the domain knowledge of their business and products, they found it difficult to assimilate the various IoT technologies required to launch a complete, smart connected product solution on time and within budget.

Working with Thinxtream, an experienced end-to-end IoT solutions partner, provided our customer with a rapid, cost-effective rollout of an IoT based, next-generation smart connected product solution with cloud connectivity and mobile provisioning.

TOP IOT CHALLENGES

▶ **SMALL FOOTPRINT DEVICE**

▶ **LOW POWER USAGE REQUIREMENT**

▶ **REAL-TIME ALERTS TO USERS**

▶ **FALLBACK AND RECOVERY**

▶ **SCALE UP TO 1 MILLION DEVICES**

▶ **OPTIMUM USE OF COMPUTING RESOURCES**

▶ **TESTING FOR SCALE**

THE IOT SOLUTION

> **Firmware:** Espressif ESP8266 Wi-Fi Microcontroller with full TCP/IP stack
> **Cloud Platform:** AWS®
> **Cloud Services:** Amazon EC2®, AWS Auto Scaling, Amazon® Simple Email Service, Amazon Elastic Block Store, AWS Elastic Load Balancing, Amazon CloudWatch®
> **Cloud Data Services:** Amazon RDS®
> **UI:** Native Android™, Apple® Objective-C®
> **Programming:** Java® Web Services, Embedded C
> **Client OS:** Android, iOS®

KEY HIGHLIGHTS

▸ **SINGLE CLICK DEVICE DEPLOYMENT**

▸ **REGISTRATION AND PROVISIONING FROM MOBILE APPS**

▸ **REAL-TIME FULLY CONFIGURABLE EMAIL ALERT ON PROBLEM DETECTION**

▸ **ON DEMAND SECURE CLOUD CONNECTION OVER WI-FI®**

▸ **REMOTE DEVICE STATUS**

▸ **OTA DEVICE FIRMWARE UPGRADE**

▸ **USAGE ANALYTICS AND INSIGHTS**

More Information:

- Business Benefits of IoT Solutions
- Thinxtream IoT Advantage
- Smart Services for IoT Devices
- IoT Solutions with AWS IoT
- Technology Enablers for IoT Device Firmware
- Technology Enablers for IoT Cloud Solutions
- UX for IoT Solutions
- Testing of IoT Solutions
- Scope of IoT Solutions and IoT Services

THE RESULTS

The Electronic Tools company leveraged our end-to-end IoT services to build an IoT solution for their first smart connected product, and launched it gaining brand recognition for technical innovation.

Secure connectivity and instant alert features improved the access to the product. Mobile provisioning and configuration improved its usability. More importantly, OTA ability enabled the smart product to evolve and improve with use.

Leveraging Reference Architectures and best practices from AWS resulted in fast turn-around and a stable and repeatable development and deployment process.

Our IoT solution architecture has established the foundation for future implementations and innovation for the smart product by the customer.

Thinxtream Technologies is a global software company with a portfolio of innovative software platforms, components, solutions, patents, competences and services for Internet of Things (IoT) across several industry verticals and applications, successfully enabling leading customers, including Fortune 500 companies, meet their application, product and business goals.

Interested in learning more? For more information contact:

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