


CASE STUDY

# ▶ HOW A TECHNOLOGY FIRM BUILT A MANAGED SERVICE PLATFORM FOR THEIR PARTNERS



With a decade of experience in End-to-End IoT Solutions and IoT Services, read how Thinxstream® used AWS® IOT to build a scalable, device-agnostic, Cloud-based solution.

# THE BUSINESS GOAL

## Device as a Service

With subscription-based services becoming increasingly popular in the market, our customer wanted to offer Device-as-a-Service to end-users for multiple device types and models, through channel partners.

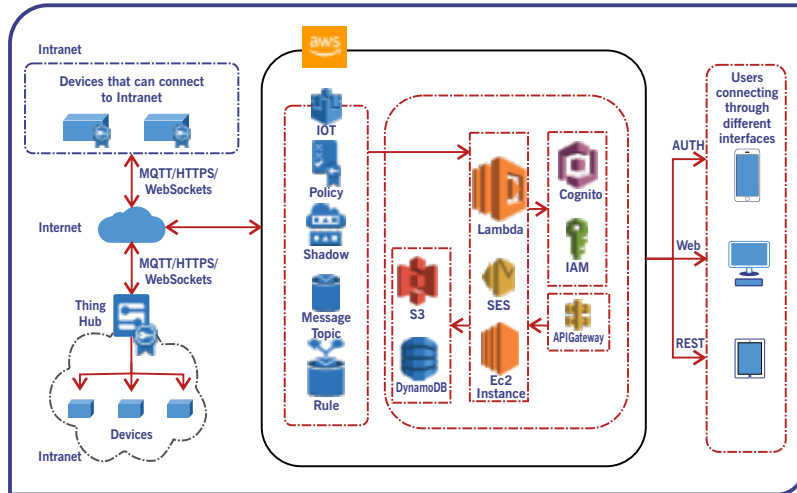
In a multilevel channel network of OEMs, Partners and Resellers, providing a restricted view to each hierarchical entity was a key business requirement. As was supporting multiple device types and models with a common solution for a multi-product company.

While our customer had the domain knowledge and technical expertise to design such a XaaS solution, they needed a reliable end-to-end IoT solutions implementation partner with prior experience of developing large-scale IoT solutions on top of managed services, such as Thinxstream, to develop their XaaS solution.

## TOP IOT CHALLENGES

- ▶ **MULTIPLE PARTNER LEVELS**
- ▶ **MULTIPLE PRODUCT SKUS**
- ▶ **MULTIPLE VERTICALS AND BUSINESS MODELS**
- ▶ **SCALABILITY AND EXTENSIBILITY**
- ▶ **SECURE CONNECTIVITY**
- ▶ **USAGE REPORTING AND CONTROL**
- ▶ **BUSINESS INTELLIGENCE**
- ▶ **MULTILINGUAL SUPPORT**

# THE IOT SOLUTION



- > **IoT Platform:** AWS® IOT
- > **Cloud Services:** AWS IOT Device Gateway, JIT Provisioning, Device Shadow and Rules Engine, AWS Lambda®, Identity & Access Management, Amazon Cognito® and API Gateway
- > **Cloud Data Services:** Amazon DynamoDB®, Amazon S3®
- > **UI:** Responsive Web application for Desktop and Mobile
- > **Programming:** HTML5, AngularJS, Node.js®, Java®, OAuth, MQTT/HTTPS
- > **Client OS:** Android™, iOS®
- > **Others:** Kendo UI® Dashboards, JasperReports®, Cloud Storage - Dropbox™ OneDrive®, Google Drive™

## KEY HIGHLIGHTS

- ▶ **DEVICE-AGNOSTIC AND MULTI-TENANTED XAAS PLATFORM**
- ▶ **BUILT FULLY ON MANAGED SERVICES**
- ▶ **FLEXIBLE DEVICE DATA MODELS AND DISCOVERY**
- ▶ **SUPPORT FOR FIELD GATEWAY**
- ▶ **DEVICE SPECIFIC APPLICATIONS**
- ▶ **ROLE-BASED PORTALS, DASHBOARDS**
- ▶ **RESPONSIVE DEVICE APP FOR MOBILE ACCESS**
- ▶ **CUSTOMIZABLE USER REGISTRATION**
- ▶ **USER ACCESS RESTRICTIONS**
- ▶ **STATUS, USAGE MONITORING AND CONTROL**
- ▶ **SEAMLESS INTEGRATION WITH BI SYSTEMS**

“THE SUCCESSFUL DEPLOYMENT OF THIS DEVICE-AGNOSTIC XAAS PLATFORM BASED ON AWS IOT, ENABLED OUR CUSTOMER TO ADDRESS MULTIPLE MARKETS.”

**TECK-LEE LOW**  
Executive Director

#### More Information:

- > [Business Benefits of IoT Solutions](#)
- > [Thinxstream IoT Advantage](#)
- > [Smart Services & “X”-as-a-Service \(XaaS\) with IoT Devices](#)
- > [IoT Solutions with AWS IoT](#)
- > [Technology Enablers for IoT Cloud Solutions](#)
- > [UX for IoT Solutions](#)
- > [Testing of IoT Solutions](#)
- > [Scope of IoT Solutions and IoT Services](#)

## THE RESULTS

The Technology firm leveraged our end-to-end IoT services to develop a custom IoT solution for XaaS. They deployed it for a major Printer OEM. Custom portals offered different access levels for the OEM and its channels. Usage patterns and logs helped forecast demand for supplies and offer predictive maintenance support. Based on this success, our customer addressed similar requirements in the Retail and Medical Equipment markets.

The AWS IoT Serverless Reference Architecture and suggested best practices for IoT solutions, helped us to deliver a scalable, economical and extensible service platform for our customer.

Our Agile and continuous development cycle helped our customer to create a feature pipeline for early preview, timely delivery and a system for adapting to changing market requirements.

**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.

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