

CASE STUDY

▶ HOW A PRINTER OEM MONETISED SUPPLIES & SPARE PARTS FROM VAST ENTERPRISE INSTALL BASE



With a decade of experience in End-to-End IoT Solutions and IoT Services, read how Thinxstream® used AWS®, Cassandra®, MuleSoft®, Talend™, Android™ and iOS® to build a device management solution for printers and scanners.

THE BUSINESS GOAL

Recurring Service and Supplies Revenue

In the low-end, price-competitive printer market, which our OEM customer addressed, margins are thin. Remote services, self-help and supplies replenishment were avenues for profitable, recurring revenues for our customer.

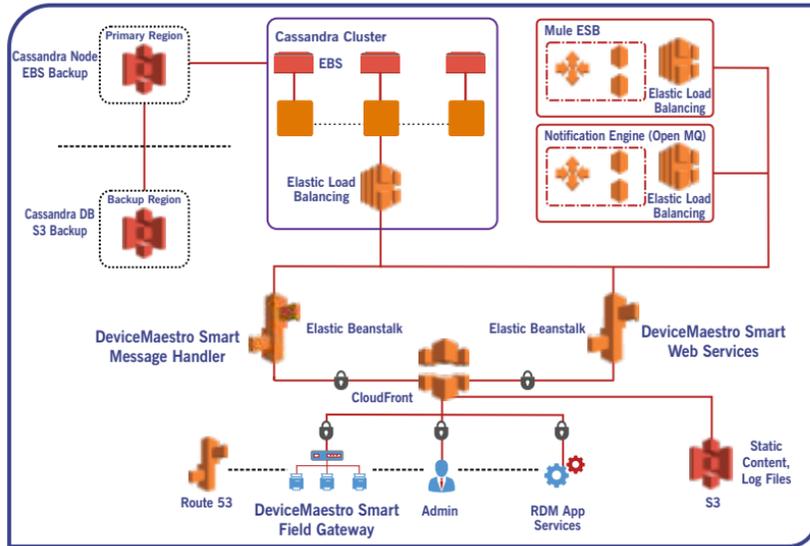
When there are thousands of small enterprise deployments, having a stable, scalable and accurate, centrally-managed device management system became key for their business.

Working with Thinxstream, an experienced end-to-end IoT solutions partner, enabled our customer to develop and integrate low-end networked printers into an IoT solution ecosystem comprising cloud, mobile and field gateways that helped the OEM to keep an accurate account of the health of deployments and their supply-demand forecast.

TOP IOT CHALLENGES

- ▶ **SCALE TO MILLIONS OF PRINTERS**
- ▶ **SIMPLE SETUP FOR USERS**
- ▶ **EDGE COMPUTING ON SMALL FOOTPRINT HARDWARE FOR FIELD GATEWAY**
- ▶ **REAL-TIME STATUS MONITORING**
- ▶ **SECURE CLOUD CONNECTIVITY TO DOCUMENT HUBS FOR SCAN AND PRINT**
- ▶ **CONSISTENT PERFORMANCE AND USABILITY ACROSS DEVICE, WEB, AND MOBILE**
- ▶ **DEVICE CERTIFICATION FROM APPLE® AND MICROSOFT®**
- ▶ **TESTING FOR SCALE**

THE IOT SOLUTION



- > **IoT Platform:** Proprietary IoT platform
- > **Cloud Services:** AWS®, AWS Auto Scaling, AWS CloudFormation®, AWS ELB, Amazon CloudFront®, Amazon CloudWatch®, Amazon EC2®, Amazon Elastic Beanstalk®, Amazon Elastic Block Store, Amazon Route 53®, Amazon S3®
- > **Cloud Data Services:** Cassandra®, MySQL™, PostgreSQL®
- > **UI:** Native Android, Apple® Objective-C®, HTML5, JavaScript™
- > **Programming:** Java®, Embedded C, TR069, OAuth
- > **Client OS:** Android™, iOS®
- > **Others:** Mule® Flow, Talend™ Jobs, JasperReports®, Cloud Storage - Dropbox™, OneDrive®, Google Drive™

KEY HIGHLIGHTS

- ▶ OUT OF THE BOX SETUP EXPERIENCE FOR USERS
- ▶ ACCESS TO PRINTERS FROM ANYWHERE VIA MOBILE PHONE
- ▶ INSTANT HEALTH ALERT
- ▶ ACCURATE TRACKING OF SUPPLIES
- ▶ PRINT FROM AND SCAN TO POPULAR CLOUD STORAGE PROVIDERS
- ▶ CUSTOMIZABLE DOCUMENT WORKFLOWS
- ▶ DRIVERLESS PRINTING AND SCANNING
- ▶ DEMAND FORECAST REPORTS FROM BACKEND
- ▶ DYNAMIC SCALE UP AND DOWN TO MEET DEMAND CYCLES
- ▶ OTA UPGRADE FOR FIELD GATEWAYS

“BY USING AN IOT PLATFORM ON AWS®, WE CREATED A SCALABLE DEVICE MANAGEMENT SOLUTION FOR PRINTERS.”

TECK-LEE LOW
Executive Director

More Information:

- > [Business Benefits of IoT Solutions](#)
- > [Thinxstream IoT Advantage](#)
- > [Device Monitoring & Device Management of IoT Devices](#)
- > [Enterprise Integration of IoT Solutions](#)
- > [Technology Enablers for IoT Cloud Solutions](#)
- > [UX for IoT Solutions](#)
- > [Testing of IoT Solutions](#)
- > [Scope of IoT Solutions and IoT Services](#)

THE RESULTS

The Printer OEM leveraged our IoT services to develop an innovative cloud-based IoT solution, which unlocked new revenue channels for them by offering remote service and supplies replenishment. This IoT solution generated a lot of data that became the basis for reporting and analysis.

Value-added workflows such as mobile access to print/scan functionality, easy access to cloud-based document store, driverless printing and self-help for issues brought the printers closer to users.

By designing well-defined interfaces, loose coupling between modules, and workflows that can be customized, our IoT solution could be adapted to new technologies, processes and 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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