

Global Resale Refactors the Business Critical Inventory Application

Global Resale moves to the cloud and refactors their application to expand capacity, unlocking velocity and automation

CHALLENGE

- Unstable application couldn't keep up with the pace of business or support growth initiatives
- Reporting structure prohibited a clear view of the business
- Growth opportunities created pressure to enhance the application
- Business outpaced manual and spreadsheet-based processes

RESULTS

- Partial refactor to a .NET web application stabilized the application and Azure database
- Accelerated warehouse processing and increased capacity by saving 1 minute per device
- Expanded globally to the UK and grew retail partnerships
- Optimized workflows reduced device turnaround time by 72%
- Launched mobile partnership with Sprint and decreased time spent per device by 10%

COMPANY

Global Resale is a leading reverse logistics company that specializes in the remarket of used electronics. Their custom application supports the business across the intake, inspection, refurbishment, and resale of devices globally.

Industry: Consumer Goods & Services

Headquarters: Austin, TX

Service Area:



Application
Development



System
Integration



Business
Intelligence

WHY HEADSPRING?

Expertise

Global Resale approached Headspring for their expertise within the .NET framework and leading development practices. Headspring is a certified Microsoft Power BI partner, which ensured they were a trusted and established partner with a successful track record of implementing reporting solutions. While considering the cloud as part of the enhanced infrastructure, Headspring's Azure partnership solidified the decision that they were the right partner to deploy and manage a cloud-based solution.

Customer-centric model

From the start, Headspring was relentless on customer intimacy, learning the ins and outs of the system to become acutely aware of business process. This made Headspring the right choice to deliver on new business initiatives that arose after the initial business-critical stabilization project.



CHALLENGE

Stabilize the business-critical application

The infrastructure was increasingly difficult and expensive to maintain, couldn't support a growing number of users, and inhibited organizational agility. Global Resale was challenged to stabilize their inventory management application, remove defects, and derive value from their investment - all extremely difficult to achieve in the application's existing environment.

Execute on growth opportunities

Global Resale had big plans for growth, including partnering with Sprint to tap into a new line of business with mobile devices, onboarding new distributors and vendors, and expanding their global footprint. The application lacked a strong foundation to support these initiatives.

Unlock velocity and autonomy

Speed is the name of the game and inventory that sits idle negatively affects the bottom line. The lack of critical features and automation caused crucial delays and prevented self-sufficiency. The application was built upon hard coded workflows that were inflexible, causing users to be dependent on developers to manage data for each piece of inventory. The desktop application lacked portability, had to be installed on each machine independently, and required manual updates for each release.

Eliminate manual processes

Device specification entry and updates were done manually in Microsoft Excel, requiring significant time and effort while also leaving room for data integrity issues and malformed data. The business outpaced the manual and spreadsheet-based processes mandating they seek a solution for data upload, aggregation, and automation features.

Transform data into insights

Existing reporting structures inhibited an accurate and comprehensive view of critical KPIs. Global Resale required a centralized and connected data source for a single source of truth - standardizing metrics and analytical tools available to all lines of business. A real-time dynamic view of the business would empower decision making and enable Global Resale to communicate business health to investors.

SOLUTION

Migrate to the cloud

A cloud-based infrastructure future-proofed the application for sustained results, maximizing flexibility, security, and scale, while also reducing overhead costs. Headspring modified and refactored key components of the application, built all new components as a .NET web application hosted in Microsoft Azure as opposed to a local server, and deployed new cloud-based workstations.

New capabilities add business value

Headspring meticulously diagrammed workflows to deliver enhancements with the greatest impact on mission critical processes, and pivoted to deliver features that addressed evolving business strategies. For future expansion, they designed a UI to enable location, warehouse, and facility filters. To empower users the application integrated with Azure Active Directory, UIs were created to manage device data, and batch upload capabilities were deployed.

The value of automation

Recognizing the urgent need to add automation, Headspring built a separate web application to integrate with Blancco, a testing and erasure software suite, and consume the API. The integration would not only eliminate manual processes, it would automatically pull in asset specifications and ensure data was accurately stored to achieve compliance and quality management requirements.

Data-driven organization

Microsoft Power BI centralized all reporting and data analysis, and the Azure SQL database was stabilized to maintain the existing database scheme. A geo-replicated reporting database was built on top of Microsoft Azure to take the load off the main server and allow the reporting server to scale separately. Headspring identified key business drivers and mapped out Global Resale's core business processes to build an expansive suite of reports and dashboards. To get the design just right, prototype dashboards were delivered to test users across business units to allow hands-on use and feedback to shape the final iteration.

Support new line of business

To support Global Resale's partnership with Sprint, Headspring rapidly developed a new .NET web application in just 2 weeks. The solution entailed two integrations - the first with Sprint that involved consuming a Java based API with a .NET framework, and the second with FutureDial, a device processing solution, to add device valuation and testing automation.

RESULTS

Stabilized the system and achieved agile workflows

The partial refactor to a .NET web application stabilized the inventory management application as well as the Azure database. New data upload capabilities and UI's replaced the need for developers to manage data behind the scenes, eliminating dependencies out of critical business processes and enabling users to operate with autonomy.

Unleashed efficiency and velocity with automation

The integration with Blancco dramatically improved inventory processing by automatically pulling all asset specifications into the system, updating the status based on the reported BIOS, and timestamping and logging all changes as inventory moves through the process. The automation saved 1 minute per device, resulting in accelerated warehouse processing time and increased capacity.

Recognized for high quality

The new suite of Power BI reports enabled Global Resale to achieve and maintain ISO 9001 quality management standards, ISO 14001 environmental management standards, and R2 certification for sustainable electronics recycling. These certifications demonstrated their commitment to high standards, credibility for strong customer focus, and corporate responsibility.

Reduced device turnaround time

The new reports coupled with the new stabilized application resulted in a 72% decrease in device turnaround time within a 3-month timeframe. Operations managers were able to identify bottlenecks and make data-driven decisions to optimize the warehouse workflow.

Achieved growth initiatives and accelerated forward

Migration from a single tenant to multi-tenant system provided the infrastructure to open a second warehouse in the UK, and the new application offered facility-filtering to provide users instant access to location specific inventory. Global Resale also grew retail partnerships, as the new application supported the technical buildout and integration to successfully onboard new partners.

Captured a clear view of the business

Global Resale was equipped with an expansive suite of dashboards and 35 reports in Power BI - spanning all lines of business. The sales team was armed with live inventory reports and real time financial data. Executives had a macro-level view into all areas of the business, as well as the flexibility to create ad-hoc reporting for status and investor meetings. To ensure autonomy, the Headspring team conducted 1:1 training for report creation and self-sustained modifications moving forward.

Supported a new line of business

The new web application immediately supported Global Resale's new mobile line of business with Sprint - adding critical automation and reducing the time spent by 10% per device. Users were able to scan barcodes to instantly populate all specifications into the system and create reports for each device. This replaced manual entry and eliminated the burdensome task to combine spreadsheets and perform calculations.