Inventory Inspection Mobile App Results in Increased Efficiency for Manufacturer

ArvInD

Customer: Arvind Limited

Size: 10,000+ employees

Region: India

Industry: Manufacturing and Distribution

Profile: Arvind Limited is a leading manufacturer and exporter of cotton textile.

Services: Enterprise mobility services

Business Need

Arvind Limited is a textile manufacturer and the flagship company of the Arvind Group, headquartered in Ahmedabad, India. State-of-the-art technology and equipment have made Arvind one of the top three producers of denim in the world, enabling them to emerge as a global textile conglomerate.

Arvind has the world's largest shirting plant. Managing inventory became a key challenge. Initially, the inventory inspection process was conducted manually, which was very time consuming. The inspection officers had to visit the warehouse, record verification details on paper, then enter the details in their ERP system where they generate relevant reports. The paper based inventory inspection process caused frequent and unnecessary issues such as delayed data entry and verification process errors, which produced inaccurate inventory records.

Arvind was in search of a mobile application that could automate this process, and ultimately provide their inspection officers, warehouse users, and inventory managers access to comprehensive inventory information on-the-go, along with additional tools to efficiently manage warehouse tasks.

Solution and Approach

Synoptek (formerly Indusa) developed an inventory inspection mobile application for Arvind, which automated their manual inspection process and improved the accuracy of inventory management.

The inventory inspection mobile app empowers inspection officers, warehouse users, and inventory managers to enter inventory data while on location at the warehouse, essentially eliminating their paperbased process. This data is then sent to the system through web services. The app and their ERP system were integrated so the data feeds directly and reports can be generated immediately.

Below are some key features of the app:
- Data sampling
- Dynamics filter, sorting, and search
- Simultaneous inspection of multiple stock items
- Auto suggestion
- Report generation
- Offline capability

A login and authentication feature was created for end users to securely log in and authenticate themselves. Once the user logs in, they can create an inspection entry, initiate a new inspection, and assign an audit name as per the predefined format.

The app then requires inspection officers to filter a pre-existing list of criteria to select what they intend to inspect. The filter criteria includes the type of items, warehouse location, and logical location inside a selected warehouse.

The filtered list of criteria is provided to the inspection officer and provides the samples that need to be reviewed. Per company process, 15 to 20% of the items from the selected inventory list require

inspection. The app calculates this numerical value and displays it to the user to track their progress throughout the inspection.

During the inspection, there is a field in the app to enter in additional notes, including item location, consignment number, actual physical availability, and quantity.

At the conclusion of the inspection, the app automatically generates reports about the entire list of inspected items, including mismatched data and new items found/recorded. The inspector is prompted to edit the report before it is transmitted to the backend application and to their supervisor.

An auto pagination scheduler was also built into the app to load large amounts of data quickly. The inspection app has a mechanism that will automatically create a request queue based on the total number of records and the background scheduler will automatically fetch data accordingly. Offline capabilities are also provided in the app since some of the warehouses are located in remote areas where internet access is limited or not available. When

working offline, the data is stored in the local mobile database and synchronized with the ERP as soon as the user enters into a connected area.

Business Results

With inventory rapidly moving in and out, the inspection app helps inspection officers to effectively track all the moving items, in real-time and with more accuracy, as compared to previously used manual methods.

The app has provided total control of the inventory right at the fingertips of the inspection officers, which has relatively improved their accuracy.

It took approximately two days to complete the inspection manually. With the development of the inspection app, the time for completing the inspection has reduced to just 6 hours, as it has significantly eliminated the time spent on paperwork and manual administrative tasks.