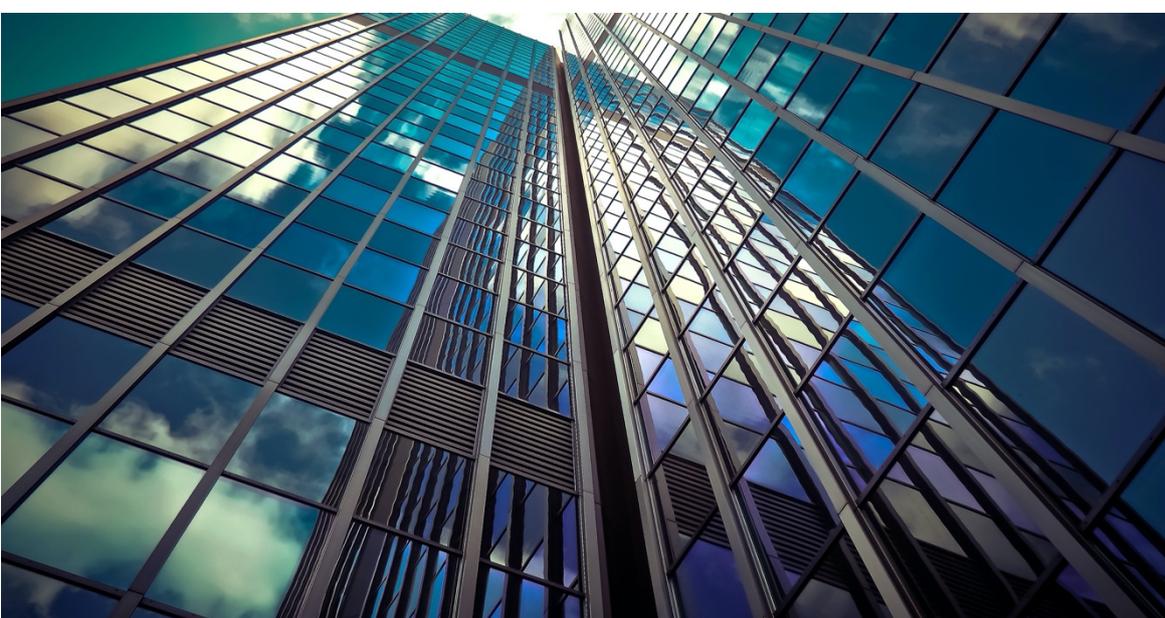# Asset Tracking Solution Using RFID

Background

The Client, a large diversified business enterprise with a Pan India presence, was facing the challenge of managing its huge number of assets effectively. (The client's business includes Industrial Technology, Consumer Goods, and Energy and Building Technology and IT services.)

The client had been tracking their assets manually, which was time consuming, expensive, inaccurate and resulted in duplication. Real time asset visibility status was not available. These inherent disadvantages of manual asset tracking led to inefficient asset planning and avoidable losses.

Acquiring real time information about its assets was also critical for the smooth functioning of the enterprise

Some assets had an irregular shape, making it difficult to tag and read, presenting a technical challenge for automation.

Given this scenario, the client wanted a solution that could provide real time information and overcome the technical challenges to improve efficiencies in their asset management processes.
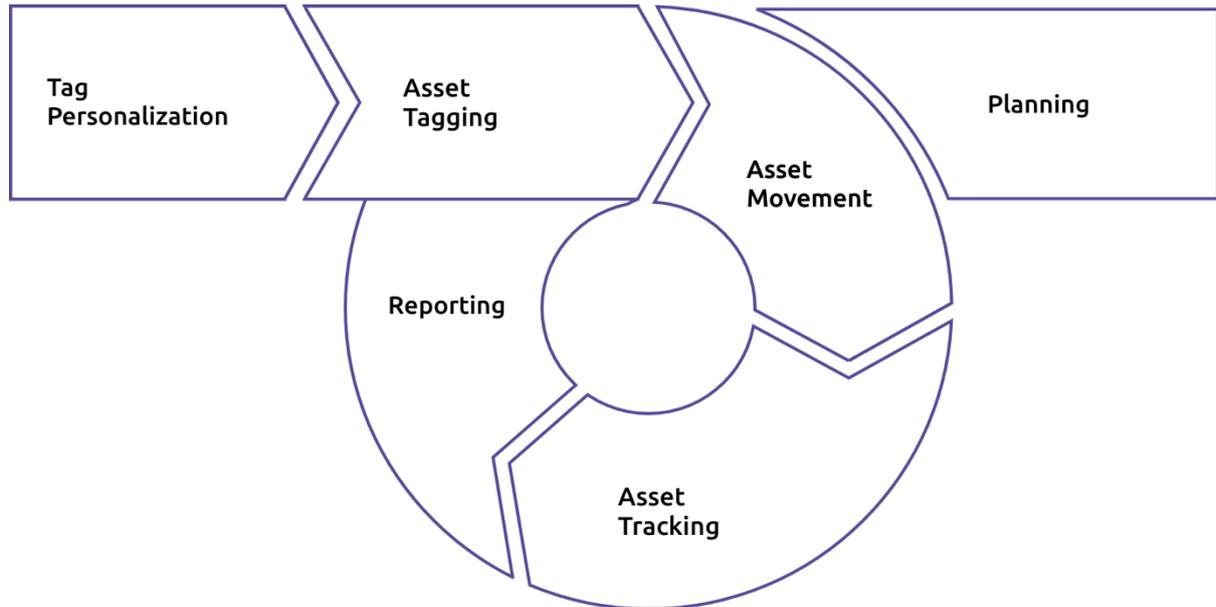
Objectives for the IntelliStride team

- To automate the tracking and tracing of assets
- To achieve accuracy in reporting
- To provide management real time asset availability status
- To remove duplication in counting assets
- To facilitate improved asset planning

Solution

IntelliStride proposed the use of passive RFID technology for an automated Asset Tracking System to the client.

The process flow had five stages - tag personalization, asset tagging, asset movement, asset tracking & reporting and asset planning.

Process Flow

IntelliStride deployed the following RFID hardware and software components to implement the solution.

Hardware Components
- RRU4 Reader
- WIRA-30-CSB-KRAI-ETSI
- ARU-CSB Integrated Reader
- RFID Printer
- Cordless Barcode Scanner
- UHF-RFID Tags
- M-ARU Reader

Software Components
- CrossTalk IoT suite for autoID, device management, track and trace visualization
- Reader Start up tool
- Kibana Reporting Tool

For each asset, there were two tags orthogonally applied on it. This ensured that all the assets were detected as they passed through the gates at any direction. Also, with RFID, inventory could be monitored/managed using a handheld computer quite easily.

Based on the logic created in Crosstalk IoT suite, decisions were made on asset movement as either IN or OUT.

Reports Generated

Some of the reports that enabled better asset management, generated by the Kibana Reporting tool are:

- Day-wise asset movement report
- Week-wise asset movement report
- Month-wise asset movement report
- Half-yearly
- Location-wise report

Outcome / Results

After deploying the RFID enabled automated asset tracking system by IntelliStride, the client was able to get real time visibility and manage their assets efficiently, resulting in improved decision making and profitability. Here are the key benefits:

- Accurate tracking and tracing of assets.
- Better inventory management leading to a strong supply chain
- Improved employee productivity
- Efficient asset planning with huge cost savings