LTIMindtree

Case Study

GS1 Standards Implementation for Pallet Shipping for US-Based Global Technology Distributor

Client

A Fortune 100 company, which is the world's largest wholesale technology distributor, and a global leader in IT supply-chain and logistics solutions.

Challenges

The client has a custom WMS implemented in their large scale warehouses. WMS is responsible for the various activities executed during the entire supply chain of order fulfillment. The tool supports more than 100,000 orders to be shipped in a day/warehouse, and handles around 800,000 automated transactions/day. The tool interfaces with various advanced systems like Material Handling System (MHS), Labor Management System (LMS), to reduce the transit time of materials in the warehouse, thereby improving the delivery efficiency. The key challenges in WMS processes are:

- Manual scanning of product serial numbers – about 5k-10k scans per day
- High transaction times
- Lower volume of order fulfilment
- Lower process productivity and high labor costs

LTIMindtree Solution

LTIMindtree redefined the current processes, aligning with GS1 Standards, for receiving and picking of pallets, where each pallet could have around 2000-5000 products. This was achieved through:

- Optimizing database indexes to suit the queries for fetching large amount of data
- Optimized Custom code/functionalities
- Integration of WMS with EDI to receive the OEM Data and send the ASN Data
- Extensive System/Functional/Unit/Regression Test cases ensuring lesser defects

Uniqueness of solution - The standard implemented by the project, is the first of its kind in the supply chain industry, which would easily enable the distributors to seamlessly supply the customer orders to the store. Real-time calls implemented to get the data from the customer were properly placed in the supply chain process to improve the data availability for the operations to execute their tasks.

Business Benefits

- Manual serial scans reduced by 5000% to a single scan, increasing the productivity of the picker
- Time taken to pick the product is reduced by 30 minutes/order
- Labor cost savings of USD 120K/yr/warehouse
- Generated key additional business segments (Telecom, New product Introduction) with the customer

- Volume of the Shipping units increased by 30% per warehouse
- Process Productivity increased by 20%
- Benefits through our process standards:
  - Reduction in defects by 10% during the Functional acceptance testing by following the coding standards and peer review of code
  - Exceeded committed SLAs through constant inputs from the stakeholders involved
  - Leveraged the functional expertise to implement the standards that are new to the industry to increase the efficiency of the supply chain
  - Leveraged our Project Management expertise by using the Rational Unified Process (RUP) to monitor and control the execution of the project within the agreed timelines and budget

Technology Landscape: Usability

- **Tools:** Microsoft Visual Studio 2005, Team foundation Server, Toad, Putty, SSH Secure Shell, Microfocus Net express, Forms Partner
- **OS:** Windows server 2003, Mainframe-ZOS, Linux/Unix
- **Languages:** Microsoft Visual C, Microfocus Cobol, .net, Cobol, Pro*C
- **Database:** Oracle, DB2, Sql Server

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