ESSEN **Essen RFID**

Container Logistics
CONTAINER FREIGHT MANAGEMENT
at depot in Navi Mumbai

Arshiya™
There's a way

A large logistics company looking to incorporate the latest in container freight logistics at its inland depot. Implementation of a next-gen RFID based solution helps optimize utilization, improve efficiency and reduce costs.

Company:

Arshiya International Ltd, Nhava Sheva - Navi Mumbai, India

Facility: Inland Container Depot

Challenge:

• To track freight containers stored in a large depot, where containers have to be accurately located in a 3-axis area of rows, columns and tiers. The containers are further segregated based on hazardous content, liquid content, perishable content or normal containers.

• To optimize storage through efficient yard management so that proper loading sequence is maintained. Containers that are to be transported out first, need to be stacked at the top for easy handling and reduced waiting time.

Proposed Solution:

• Specialized Metallica™ RFID tags are used, mounted two on each container. Xtenna™ RFID reader/antenna devices with wi-fi connectivity are fitted on the depot's heavy lifting equipment such as Rubber Tyred Gantry Cranes (RTGC), stackers and forklifts.

• A container unloaded into the depot is immediately fitted with reusable Metallica™ tags and the depot's back-end database is instantly updated as the container is stacked in the storage yard based on its outbound schedule. Containers that need to move out first are placed at the top tier while being stacked to ensure easy handling and saving of time.

• RFID tags on the containers also ensure that containers containing hazardous, liquid or perishable contents are stored as well as handled correctly.

• When a container to be exported needs to be cleared from the depot or an imported container needs to be released, the database indicates the area within the yard for the lifting equipment to proceed and those containers are accurately located by the Xtenna™ devices fitted on the lifting equipment.

• Essen RFID's real-time Container Freight Management System ensures that a proper queuing and loading sequence for the containers is maintained, so that cargo vessels that take in containers can also offload them easily in the sequence of their next port of call. The reusable RFID tags are removed once the entire process has been completed and the containers are out of the depot.

Realised Benefits:

• Accurate location tracking of containers

• Optimum utilization of heavy equipment

• Efficient queuing sequence

• Reduction of waiting time for cargo ships; huge cost savings

TECHNOLOGY

Solution:
EPC Gen2 compliant asset tracking/ container management system

Tag Type:
Metallica™ UHF Passive

Reader/Antenna:
Xtenna™ Long Range,
Proximity Xtenna™ Short Range

Read Range:
17 metres (50 feet),
7-30 cm (3-12 inches)

Method:
Multiple Tracking via Integrated Reader/Antenna modules
  Number of modules: 6

Integration Platform:
  RFID Middleware: Xtenna™ Studio
  Application: Essen RFID's Container Freight Management System
  Database: SQL Server 2005 Exp. ed.

Tag Manufacturer/Supplier:
Essen RFID

Reader/Antenna Manufacturer:
Essen RFID

Systems Integrator:
Essen RFID

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