Asset Visibility for Marine Terminal Operators
Operational Efficiencies Gained from RFID

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Case Studies in Marine Terminal Asset Visibility

- Management of Wheeled Parking Areas
- Improving Throughput at Distribution Centers
- Container Inventory Management, Grounded and Wheeled
- Security Gate Processing
- In-Yard Monitoring & Reporting of Road Trucks
1. RTLS Tag transmits its ID

2. WhereNet Infrastructure, which supports both WiFi and RTLS, timestamps the tag x-mission and sends it to the visibility server.

3. Visibility Server computes the tag’s location based on the difference between arrival time at each LAP

4. Visibility Server updates the tag’s location and status in database
APL Wheeled Operation

**Problem**
- Unable to locate a sea container
- Error rate ~30% for location current process
- Lack of real-time information

**Solution**
- Automatically assigns location without tagging container
- Tracking UTR
- Track Chassis and Dwell time

**Benefits**
- 100% tracking location of sea container
- Reduction / elimination of manual input
- Automated & optimizing check in/out
- Increasing throughput
NYK Logistics - Long Beach, California

**Problem**
- Capacity limit reached, no land to expand
- Trucks congested on site

**Solution**
- Tag and track containers and trailers
- Understand the mission
- Yard Management Software assigns dock

**Benefits**
- Eliminated 100% manual yard searches
- Increased daily throughput of the yard by 38%
- Improved gate and hostler productivity by 50%
- Reduced dwell times by 4 hours
- Saved 40-60 parking slots in the yard
- Reduced time spent by drivers on site to complete a double transaction by 66%
SSA Marine Grounded & Wheeled Operations

Problem

• Double Digit Container Growth - Annually
• Lack of Real-Time Information

Solution

• Virtual Tagging Application
• Container Handling Equipment is Tracked
• Marine Terminal Software (MTS) maintains an inventory of each container and updates the Terminal Operating System in real time

Benefits

• Improved Terminal Throughput
• Reduced Operating Costs
• Improved turn times for the 3rd party truckers
Grounded Operation

Ground

Confirmation of container ID and automated update of Grounded container position.
Access Control - Pier Pass Truck Tag

Problem

- Security Processing for thousands of trucks in LA / Long Beach
- Growing gate volumes
- Pollution

Solution

- Drayman Tagging System from WhereNet
- Truck & Driver Registration by eModal
- TOS Integration

Benefits

- More accurate Identification of persons arriving at facilities
- Faster process
- Foundation for TWIC adoption
Tamper-Proof Tag Assembly

1. Install Screws From Top into Inserts
2. Snap Tag Into Place Hiding All Anti-Tamper Features

- Tag Is Shipped Unarmed
- Once Tag is Inserted, Alarm is Armed
- Tag Will Alert System if Switch is Released
In Yard Monitoring and Reporting of Road Trucks

Problem
- Driver behavior limiting success of automation systems
- Safety of yard labor

Solution
- Full locate of Truck Tag
- Frequent reports to Terminal Operating System

Benefits
- Improved job lists sent to handling equipment
- Increased productivity of terminal handling equipment
1. Drayman R45079 gets assignment

Virtual Drop-off Zone

Virtual Pickup Zone

Gate
Adding Cargo Security

- Security is a process not a technology
  - False positives
  - Alarm processing

- eSeals
  - Working with several MTOs on the West Coast
  - ISO 18185 process

- Container Security Devices

- Support for Global Supply Chain through existing business systems
Thank You

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