Remote Level Monitoring, (RLM)

Robertshaw Industrial Products
Goals

Use Technology in Delivery Operations to:

- Maximize asset utilization – trucks/fleet, more efficient use of drivers
- Reduce overhead costs & improve margin on gallons delivered
- Predict product demand & manage inventories better
- Improve customer service & retention – prevent “run-outs” and emergency deliveries
Existing Situation

Many distributors using outdated methods to run their delivery operations as costs continue to rise & margins shrink:

- Vehicle Expenses
  - Fuel, Insurance, Maintenance, Replacement Cost
- Personnel Expenses
  - Driver wages and benefits
  - Dispatching & administrative
- Operational Inefficiency
  - Lost sales and customer dissatisfaction due to product “run-outs”
  - Emergency deliveries
- Other
  - Driver shortages & retention issues
  - Driver training and compliance
  - Product pump-backs & inefficient inventory management
A Remote Level Monitoring, (RLM) program can be a foundational technology to improve delivery efficiency:

- Installation of stand alone monitors in customer tanks
  - Report inventory level on a scheduled basis via cellular network or other means
  - Additional reports and notifications for exception conditions like low level or excessive usage.
  - Email and/or text alerts for exception conditions highlight action needed.

- Data Center
  - Central place for level information, delivery planning tools and management reports. Accessible via Internet.
  - Controlled access to information by user role and hierarchy
Financial Analysis

- Key Performance measure is percentage of tank capacity filled at each delivery
  - The greater fill percentage the fewer number of deliveries over time.

Typical Fill 40%-50%
Desired Fill 70%-85%
Financial Analysis

- Impact from moving from a 40% average fill to a 75% average fill*

- ROI
  - Investment payback approximately 1 year
  - 25% reduction in overhead costs by improved tank fills and reduced deliveries
  - Better use of resources for dispatch and fleet management
  - Fewer invoices to process
  - Win new customers with more reliable delivery and service

* 500 gallon tank
$75 cost per delivery
Implementation

- **Starts at the top**
  - Senior management focus and direction

- **Internal Customers**
  - Notification and training of dispatch, service & admin personnel
  - Culture change – dispatch to the fill percentage goal vs. “milk runs” – *Use the data for decision making!*
  - Process change – resist “topping off” tanks
  - Reassurance – technology to help do the job better, not eliminate jobs

- **External Customers**
  - Announcement – new program with customer service benefits
  - Convert scheduled and will call customers to “keep-fill”

- **Tank Selection Criteria**
  - Unpredictable usage and distant locations
  - High throughput “keep fill”
  - Critical strategic customers
  - Cluster for synergy
Management

- **Goal Setting**
  - Set tank fill percentage performance goals
  - Establish roll out program with quarterly goals for monitor installations

- **Evaluation and Analysis**
  - Use data center tools to evaluate performance on regular basis

- **Additional Tools**
  - Tank fill optimization software
  - Vehicle dispatching and routing software
  - Back office software integration for order automation
Summary

- Costs to run delivery operations are many and continue to rise.
- An RLM program is a fundamental technology to help reduce costs associated with bulk product delivery.
  - Reduce direct costs and overhead
  - Better asset utilization
  - ROI can be rapid
  - Improved customer service
  - Better demand forecasting and inventory management
- Successful implementation requires top down support and attention
  - Culture and process change
  - Reinforcement of goals and data analysis
  - Marketing to external customers – advantages of “keep-fill” business model
- Additional technology tools can be used in conjunction with RLM
  - Tank Fill optimization software & vehicle routing software
  - Back office software integration
Remote Level Monitoring, (RLM)

Data Center Screen Capture Examples
Example Data & Analysis
Area Snapshot
Tank Summary
Fill Analysis
Suite of Devices
Remote Level Monitoring, (RLM)

OptiFill & Dispatch Compass
Screen Capture Examples
OptiFill displays suggested orders for monitored and scheduled tanks based on selected delivery criteria.
Dispatch Compass™ calculates the most efficient routes. Dispatch Compass automatically shows OptiFill generated orders and “will-call” orders, (for both bulk and packaged goods)
All routes view displays a color-coded map with each route that has been created.
Choose a single route and view driving and load details.
Dispatch Compass

Easily make manual adjustments when needed.
With the printable Dispatch List, you never have to worry about new or replacement drivers - Dispatch Compass calculates the most efficient routes and provides driving directions to each tank.
Remote Level Monitoring, (RLM)

Robertshaw Industrial Products