Union Tank Car Company – Telematics Vision

- Electronic Environment For Railcars
- Improved Business Process
- Enhanced Safety & Security
- Improved Fleet Management
Union Tank Car Company – Telematics
Electronic Environment

- Historically Physical Fields Move to Electrical Fields
  - Manual Power → Mechanical Power → Electronic Power
- Cell Phone
  - 80’s Cordless → 90’s Cellular → Value Features

Where do we find VALUE?
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Improved Business Process

- Better Delivery Scheduling – Real-time Tracking
- Timely Financial Transactions
- Inventory Management:
  - More Precise shipment measurement (Volume & Weight)
  - Electronic linking of inventory into Business Operating System
- Leads to Improved Customer Satisfaction
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Enhanced Safety & Security

- Immediate Location Known – HAZ MAT & Authority Notification
- Tampering Awareness & Response
- Remote Locking of Manways/Valves – Security Controls
- Gas/Vapor Detection – Potential NARs Detection
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Improved Fleet Management – Maximize Uptime

- Detection vs. Inspection
  - Leads to Predictive Measures
- Monitor Life Cycle Costs - Structures/Components
  - Develop history of cost/performance
- Railcar Handling – Impact, Vibration, Stress
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Technical Developments

- On-Board Car Weighing & Volume Systems
- Wireless Sensors
- Lower Power – Longer Life
- Universal OEM Telematic Equipment Mounting
DHS Update:

- Over 580 TIH cars, 6 Shipper Team
- Ethylene oxide, Anhydrous Ammonium, Sulfur Dioxide and Chlorine
- 40 of 62 HTUA Cities
- Begin Installation – October ’09 - 4 to 6 Months
- Several Shippers Installing Sensors
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Thank You