Welcome to
The Future of Vehicle and Safety Functions

Please record your attendance using the Sign In Sheet

Moderator: Douglas Hooper, Georgia DoR
June 10, 10:30 – 12 noon
International Salon C
Wireless Roadside Inspection Program Update & CMV Roadside Technology Corridor Briefing

Chris Flanigan, Program Manager
Federal Motor Carrier Safety Administration
The likelihood of a roadside inspection is far less than of a CMV being weighed.

In 2012, almost 3.6 million annual CMV safety inspections with over 631,000 put Out of Service (OOS) (17.5%) [FMCSA Motor Carrier Management Information System (MCMIS) data].

In 2010, 81 million static weight inspections (118M Weigh-in-Motion (WIM)) with a 0.25% Total Violation rate (479K citations) [FHWA, Office of Freight Management and Operations, Annual State Certifications of Size to Weight Enforcement on Federal-Aid Highways].
- Motor Carrier safety improved through increases in roadside safety inspections
- Frequent driver and vehicle safety assessments ensure compliance
- Safe and legal motor carrier transportation enabled
- Wide industry and public agency participation
Benefits & Incentives

- Improved safety of commercial motor vehicles
- Reductions in accidents resulting in lower:
  - Fatalities, injuries, and property damage
  - Overall congestion and delay
  - Emissions
  - Energy Use
- Provides credit to carriers in Compliance, Safety, Accountability (CSA) Program for wireless inspections
- Increased productivity and mobility of the transportation system
  - Reduce delays at border crossings and other inspection points
  - Uniform and fair collection of user fees and taxes
Communications Path

1. SDMS is evaluated for safety issues.

2. Safety Data Message Set (SDMS) to Gov. Sys.

3. SDMS Message is compiled using both vehicle-based and Government data.

4. Data Collected:
   - Crosses into Geofence
   - On-board data collected

5. Vehicle:
   - Creates Geofence Locations

6. Inspect Report

7. Inspection Report

Government System

Motor Carrier Ops. Center
Compliance, Safety, Accountability (CSA)

CSA is a major FMCSA safety initiative…

- A more comprehensive measurement system
- A safety fitness determination methodology based on performance data and not necessarily tied to an on-site performance review
- A broader array of progressive interventions

**GOALS of CSA**
- Correct unsafe behavior early
- Reach a larger number of carriers & drivers
- Maximize efficiency and effectiveness of department resources
- Achieve greater reduction in large truck & bus crashes

**Behavior Analysis & Safety Improvement Categories (BASI Cs)**

- Unsafe Driving
  - Hours of Service Compliance
  - Driver Fitness
  - Controlled Substances and Alcohol
- Vehicle Maintenance
- Hazardous Materials Compliance
- Crash Indicator
• Working with Tennessee, Kentucky, Georgia, and North Carolina (in discussions with other states in this region)
• Approximately ten fleets
• 500-1,000 vehicles
• Goal of FOT
  – Test end to end system
  – Develop algorithm to support CSA program
• Measures of success
  – Technical and operational feasibility
  – Data accuracy and security
Recent Accomplishments

- Program Guidance Committee Established
- Representative Stakeholder Committee Established
- Definition and Oversight Committee Established
- Comprehensive Stakeholder Group Defined
- Draft Functional Requirements Developed
- Safety Data Message Set defined
License Plates – Today’s Challenges

Georgia Steele, Assistant Director
Georgia Department of Revenue

Seth Stores, Marketing Manager
3M DMV Services
Agenda

• Consumer Trends
  • Impact on license plates
• Purpose of a license plate
• Technology trends around license plates
• Considerations around license plate design
  • Supply Chain
  • Cost
• Georgia Department of Revenue
Consumers Changing Demands

- Forrester Research

81% of consumers are willing to pay more for customized products.
- Forrester Research
Running Shoe Customization

CUSTOMIZED FLEXIBILITY AND SUPPORT

The Nike Free ID combines the feel of barefoot running with cushioning, traction and underfoot protection. Customize your shoe's flexibility by adding more cushioning or choosing the lightest, most barefoot-like upper and midsole, and then choose the colors of the Swoosh, laces, sole and more.

CHOOSE YOUR FLEX

For more cushioning, choose the Nike+

CHOOSE YOUR FIT

For a snug fit and more support, choose

MAKE IT PERSONAL

Choose the colors of every part of your
Purpose of License Plates

- Identifies vehicle
- Recapture non-compliant vehicles
- Promote the latest state image
- Enhance safety
- Improve visual and camera readability
  - Law Enforcement
  - Toll operations
Changing Technology Landscape

- License plates are being used in more ways than ever
- Information is vital to many stakeholders
Enhanced Camera Readable Plate Value Proposition

• Tolling – “Enhanced Revenue Capture”
  • Minimize Revenue Leakage – improved camera readability
  • Minimize Labor Intensive Manual Enforcement Operations
• Law Enforcement – “Automated LP Reading”
  • More complete and consistent Id of hotlist Plates
  • Improved “Hands Off” Automation
• DMV – “Improved Compliance”
  • Insurance
  • Registration
  • Emissions
Automated Enforcement Applications

Cash

Cash & Electronic

All Electronic

The License Plate & DMV Records Are Critical for Enforcement
Challenges for License Plate Reading

• **Plate Design**
  – Fonts & Graphics Variations
  – Repeated Alpha Numeric

• **Plate Construction**
  – Embossed vs. Flat Plates
  – Reflective Properties of Sheeting
  – Printing Inks

• **Camera**
  – Illumination Type (white light vs. IR)
  – OCR Software (regional optimization)

*Uniquely Identifying Vehicles: Alpha Numeric, State/Country, Plate Type*
ALPR Demonstration
Important considerations around plate design

• Readability both for the human eye, as well as in IR for camera readability
  • Night time and day time
  • Understand how license plates are used by your stakeholders

• Design – Manufacturing – Distribution processes in place
  • What processes are in place to assure a good customer experience and a cost effective fulfillment approach?
Operational Considerations
External Market Reality

- State Budget Deficits
- Fewer State Employees
- Aging Infrastructure
- Higher Service Expectations

Governments Have New Challenges and Need New Solutions
Operational Considerations

- Understand your supply chain
  - Customer order process and information flow
  - Manufacturing lead times
  - Branch structure and fulfillment models
    - Direct mail vs. branch delivery

- Understand your costs
  - Inventory levels for small volume plates
    - Stock vs. on demand production
  - Transaction costs vs. shipping costs
  - Program management costs (design proofing process, inventory tracking and auditing)
What is Supply Chain Management?

A system of technologies and processes that senses and responds to real-time demand signals across a supply network of customers, suppliers and employees.

Source: Gartner (May 2012)
Supply Chain Structure

- Build a structure that works for agency
  - Not a one size fits all process
- Engage stakeholders
  - Motorists
  - Manufacturing partners
  - Equipment and material suppliers
  - Branch offices
- Understand the components involved
Cost Considerations

- Plate Cost
- Carrying Costs
- Distribution costs
  - Transaction costs
  - Shipping costs
- Program management
  - Order tracking
  - Customer complaints
  - Revenue from plates

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<tr>
<th>Average Inventory Costs</th>
<th>Low</th>
<th>High</th>
<th>Definition</th>
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<tr>
<td>Capital Costs</td>
<td>6%</td>
<td>12%</td>
<td>Money spent on inventory</td>
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<tr>
<td>Inventory Service Costs</td>
<td>3%</td>
<td>8%</td>
<td>Physical handling of inventory</td>
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<tr>
<td>Storage space Costs</td>
<td>2%</td>
<td>5%</td>
<td>Warehouse space</td>
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<tr>
<td>Inventory Risk Costs</td>
<td>9%</td>
<td>18%</td>
<td>Obsolescence, damage, theft</td>
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<tr>
<td>Inventory Management Costs</td>
<td>3%</td>
<td>6%</td>
<td>Clerical and Inventory control</td>
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<tr>
<td><strong>Total Inventory Cost</strong></td>
<td><strong>23%</strong></td>
<td><strong>49%</strong></td>
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Source: Transportation & Distribution - Helen Richardson
Georgia Department of Revenue
Organization

• **Mission** - to administer the tax laws of the State of Georgia fairly and efficiently in order to promote public confidence and compliance, while providing excellent customer service.

• Background on motor vehicle tag program

• Process for evaluating alternate approaches to managing tag program
  • Requirements
  • Stakeholders
Georgia Department of Revenue’s Objectives:

• To improve the production, quality and statewide delivery of license plates and vehicle renewal decals and forms
  – To realize improvements in customer service and cost savings through the implementation of new technologies and processes
Georgia DOR Fulfillment Center

- Project went live in March 2012
- Process for plate manufacturing and fulfillment
  - Ordering process
  - Branch distribution
- Benefits to DOR and the states motorists
  - Shorter lead times
  - Inventory control
- Advice to other states considering a change to their tag program
License Plate Fulfillment Center

Discussion
What’s next?

Lunch
International Salon 4 - 10
12 Noon – 1:30 p.m.

Followed by Quick Connect
Imperial Salon B
1:30 p.m. – 3:00 p.m.