U.S. Approach to E-Freight
Electronic Freight Management

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Michael P. Onder, Team Leader Freight
Technology and Operations
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Background

- Collaborated with industry to improve freight flow between Consignor and Consignee
- Conducted several demonstration projects with home grown standards
- Agreed to use UBL standards with Limited Brands, Inc., a Fortune 250 company
- Results published in Public Roads http://www.fhwa.dot.gov/publications/publicroads/09janfeb/06.cfm
  - the EFM system improved freight tracking across the board.

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Mean duration of the Deployment Test’s supply chain

Manufacturer’s Factory

Distribution Center

Shipment is in movement

Shipment awaiting physical state change, such as shipment consolidation

Shipment awaiting information exchanges to take place

Target Of Opportunity

Data are based on preliminary qualitative findings collected during baseline activities along the target supply chain.

Time = 0

160 hours

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**Shipment Coordination Today**

- **Partner A**
  - Instant Message
- **Partner B**
  - Internet
- **Partner C**
  - Text Message
- **In-House**
  - Intranet
- **IT**
  - Telephone
  - E-mail
  - Fax

**TODAY**

- Integrated solutions are only available in closed systems
- Manual Inputs are required to support sharing of data
Shippers Want Automated Coordination

- Real-time status of orders from the time a Purchase Order is issued until product is delivered – this doesn’t exist in an open environment.
- Visibility, accountability, flexibility, efficiency, performance monitoring
- Secure exchange of data to facilitate decision making
EFM Concept-Meet Shippers Need

- Happiness is - An Open Information Sharing System
EFM Prototype Test Results

- **Timeliness of the freight release process:**
  - Goods released 6 to 24 hours in advance of normal release.

- **Status information:**
  - Provided near real-time automated status reports.

- **Timeliness of supply chain data:**
  - Provided downstream partners earlier access to data on purchases, booking, and tendering.

- **Data quality on the supply chain:**
  - Fewer errors in data entry because of reduced data entry and no rekeying of data.

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Collaboration with EU

- Both have compatible technical approaches
  - EU uses connectivity through data standards & e-docs
  - US uses web services & federated data sharing
- Both EU and US have input transport information requirements to the UBL standards development process.
- Both primarily focus on small and medium enterprises (SME’s)
- Both eliminate freight delay through push and pull data sharing
Standards For Information Sharing

- Compatible OASIS-UBL Transport Messages in XML format
- US tested standard data sets successfully with industry
- Standardized methodology for operation through ISO (ISO TS24533)
- Working on Governance approach through ISO
Governance of Electronic Freight Information Sharing

- Identifies core set of information elements
- Identifies ‘how’ you communicate the information elements to your partners
- Includes generic rules and procedures for refining a tool for use within your organization
- May include code lists, message schemas, etc.
  - Also licensing agreement
  - Also implementation guide
e-Freight/EFM Governance Questions

- Service provider/business model?
- Who has governance authority (who owns the brand?)
- What is the role of the users group?
- What are the conditions for the registry/registries?
- What is included in the licensing agreement?
- What is the content of the implementation guide?
DEMDACO

- **Goal:** visibility of EDI status and ETA information to DEMDACO via the Kansas City Trade Data Exchange (TDE)
- **Partners:** Ocean Carriers (MSC and APL), dray carrier (IXT) and Kansas City SmartPort (administrator of the TDE)
- **Processes Targeted:** purchase order, rail status, dray status, ETA
- **Benefits:** the benefits below result in less time spent by DEMDACO to research and monitor shipments, improved timeliness in EDI information, and access to new information
  - New visibility over PO details such as weight and quantity in status messages
  - New generation of and visibility over real-time ETA
  - Single point of access (the TDE) for DEMDACO to view booking, status and ETA information in real-time.
  - All data exchanges via EFM web services and UBL message schemas
Interdom – Pride Trucking

- **Goal:** automation of all information exchanges between Interdom Partners and Pride Trucking
- **Partners:** Interdom Partners (3PL) and Pride Trucking (dray carrier)
- **Processes Targeted:** order, pre-note, status, invoice
- **Benefits:** automation of previously manual transactions improves both the speed and accuracy with which they are completed and integration of the EFM package into Interdom’s and Pride’s legacy systems.
  - Improved timeliness and accuracy of all processes
  - Reduced labor costs associated with completing manual transactions (elimination of redundancy)
  - Reduced labor costs associated with correcting errors in manually entered information
  - Integration of the EFM package allows for continued use once pilot concludes.
Interdom - Agmark

- **Goal:** direct connectivity of supply chain partners
- **Partners:** Interdom Partners (3PL) and Agmark Intermodal (3PL)
- **Processes Targeted:** order and status
- **Benefits:** reduced dependency on third party data providers for EDI translation and rail status information
  - Reduction in cost associated with utilization of a VAN to transfer order information between Interdom and Agmark.
  - Reduction in costs associated with Agmark receiving rail status via a 3rd party data provider.
  - Reduction in costs associated with the VAN facilitating the collection and transfer of EDI 322 (status) from the railroad to Interdom.
Worldwide Logistics

- **Goal**: direct connectivity of supply chain partners
- **Partners**: Worldwide Integrated Supply Chain Solutions (3PL) and Griffin Pipe Products Co.
- **Processes Targeted**: status of shipment
- **Potential Benefits**:
  - More efficient labor utilization for WorldWide due to accuracy, completeness and timeliness of data and information.
  - Improved shipment visibility through WorldNet and integration of EFM web service into WorldNet, specifically the visibility into active load shipment status.
  - Cost reductions associated with more accurate shipment delivery dates
  - A single point of access for Griffin Pipe in viewing shipment status and details.
    - Additional customers can be added at any time without making any changes or additional cost to the EFM implementation
  - Web services/automation of messaging reduces redundancy of effort (by WorldWide).
Express Systems International (ESI)

- **Goal:** direct access to status and availability information via smart phone and automation of invoicing process.
- **Partners:** ESI (3PL), dray carrier (to be confirmed)
- **Processes Targeted:** status and invoice
- **Potential Benefits:**
  - **Smart phone app:** will provide a shipment status query and a container availability status to the Android phone for on-demand access by ESI’s customers.
    - It is anticipated that the benefits to this app will largely be qualitative.
  - **Invoice:**
    - The EFM package will automate the invoicing process between ESI and one of their dray carriers (currently in the process of confirming).
    - 60 invoices/week are manually received and re-keyed into their system. Use of the EFM package will eliminate the need to receive, print and re-key, offering large labor savings.
Freightgate ISP & Carter Transportation

**Goal:** To improve productivity, data quality and lower transaction cost for all parties involved in the shipment booking process.

**Partners:** Involves Shipper (Best Slip Covers), Broker (Carter Transportation), Information Service Provider (Freightgate) and Truck Carriers

**Processes Targeted:** Automated booking process using UBL-compliant booking messages

**Potential Benefits:**
- Resulted in transaction cost reduction of 85%.
  - The startup cost for Carter was $39,500, including training, system setup, custom configurations and documents and message integration.
  - Annual potential savings of $24,710, based on volume at the time of the case study
- Significant refocusing of principle owner’s time from operations to sales and service
New EFM Case Study - Canada and China

- Transport Canada hired Freightgate, a 3PL service provider, to assist in the test implementation of EFM on supply chains originating in China. Partners are:
  - Alliance International, a NVOOC; LOGWIn Logistics, a China based freight forwarder; CBSA (Customs); Port of Prince Rupert (Western Canada); Maher Terminals (Eastern US); Canadian National Railway; Canadian Motor Carrier.

- Purpose—demonstrate the increased shipment visibility and efficiency resulting from the use of the EFM information exchange platform and to measure its Return on Investment (ROI)
Demonstration Project - EU & US

- MOU in place between EU and USDOT
  - 2010, EU largest trading partner of the US, ($560 billion)

- High level agreement among partners, includes:
  - Exposure level, known risks/liabilities, expected outcomes,
    duration of test, interest in adoption (sustained over long term)

- Partners include:
  - Consignors, consignees, shippers, brokers, forwarders, logistics
    firms, carriers, and public sector parties at national and local
    levels as needed.

- Identify funding sources methods for obligating:
  - EU and US governments plus industry share
How Demo Would Work?

- Identify willing trading partners in EC and US
- Identify supply chains and partners
- Get Agreement on governance rules for test
- Establish evaluation parameters
- Make application for grant funds with match pledges
  - include all agreements to ensure high level of success
- Engage consulting and IT support
- Determine requirements, conduct design, test all elements and begin production.
- Evaluate results.

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Getting Underway

- What is keeping us from conducting this prototype test?
- Identifying it as a high priority project in EC and US terms?
- It has ITS at its heart, can improve security through improved visibility, and also includes greening freight movement through reduced emissions, eliminating unnecessary traffic, etc.
- What else is needed?
- Let’s get underway!

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Questions-Comments

Mike Onder
US DOT – FHWA
+202 366 2639
michael.onder@dot.gov

EFM websites
http://www.efm.us.com/
http://www.efm-saic.com/EFM-Site/index.html