Railinc
Equipment Systems

What’s up? What do you need to know?

Briefing to MARTS
Chicago, IL
September 18, 2006

Alan McDonald, Director, Equipment Data Systems
Agenda

• Who Railinc is
• Railinc Equipment Systems
• Umler/EMIS
  – What’s new, What’s happening
• EHMS
  – What’s new, What’s happening
Who Railinc is

• Subsidiary of the AAR
• The Information Technology branch of the industry
  – Operator of the railway industry’s central computer systems
  – Keeper of the industry’s massive data archives
  – Developer of an ever-growing suite of data related services and products to the transportation industry
  – Communicator of transportation intelligence to the railway industry and shipping community
  – Manager of the railway’s “common language” of industry’s reference files

• Supporting
  – All classes of Railways
  – Railroad suppliers
  – Car Owners
  – Shippers
  – Equipment Leasing Companies
  …And all of their Agents

• Located in Cary, NC
Major Railinc Systems
Supporting Equipment Asset Management

- **Umler®**
  - “Universal Machine Language Equipment Register”
  - The Industry’s repository of railcar information
- **Umler/EMIS**
  - Umler Equipment Management Information System
  - The new vision of Umler®
- **EHMS**
  - Equipment Health Management System
  - Communicating detector information from carriers to car owners
- **EW**
  - Early Warning
  - Communicating safety-sensitive information from car owners to carriers
- **CRB**
  - Central back-office reconciling of AAR billable repairs
- **RAMP-ed**
  - Railway Asset Management Equipment Disposition
- **ER**
  - Event Repository
  - Location and status of all rail equipment
- **F&S**
  - Forward and Store® -- Integral to the industry’s Waybill system
  - Contents and Lading
  - Handling and billing instructions
  - Destination of equipment
How the systems fit together
Umler/EMIS™

• Re-engineering the aging UMLER® system
• Mission critical information
  – Physical characteristics
  – Inspection data
  – Management data
  – Pooling and transportation data
• Reaching the whole rail industry
  – Simple for all car owners to participate
  – Real-time
  – Secure system
  – Increased data integrity and quality
  – Flexible
  – Re-usable
Umler/EMIS
Currently Deployed

• Production: March 19, 2006
• Car Management Information
• Inspections
  – ABT
  – FRA Locomotive Inspections
  – Vehicular Flat Certifications
  – Car Grading
  – Door Lube
  – Retro-reflectorization

• ABT reporting exclusively via Umler/EMIS
  – TRAIN II
  – XML via web-services and FTP for ABT reporting available
  – On-line web application
Umler®/EMIS Phase 3

• Phase 3 – Mid 2008
• Equipment Characteristics
  – Adds/deletes/modifications
  – Restenciling
  – Component management
  – Status management
  – On-line access to history, advanced query

• All reporting via Umler/EMIS
  – Umler® online (TSUM) retired, replaced by Umler/EMIS web
  – UMLER01 TRAIN II retired, replaced by Umler/EMIS TRAIN II formats
  – Monthly files, change tapes replaced with advanced query
  – Query 87 types 19-22 of limited value, replaced by XML/web service
Umler/EMIS Phase 3
What do you need to do

• Check [www.railinc.com](http://www.railinc.com) often
• Watch for upcoming town hall sessions
• Keep up to date: Watch for circulars
• Become a testing partner: umler@railinc.com

• TSUM users
  – Watch for news for training in early 2008

• TRAIN II Message users
  – Ramp-up 2007 development to adopt new variable formats
  – Prepare to test in early 2008

• Change tape/monthly report users
  – Prepare for 2008 rollout of new formats
  – Work with Railinc to establish new reports

• Query 87 types 19-22 users
  – Look towards using XML/web services to get new information
  – Prepare for testing early 2008
Equipment Health Management System (EHMS)

Directly supporting the Advanced Technology Safety Initiative

- Use technology to facilitate pro-active maintenance of cars
  - Identification of problems and developing problems
  - Communication of alerts
  - Reporting remediation/Clearing of alerts
  - Access to historical data

- EHMS has industry level software modules which function in concert with railroad level software modules
How it all fits together

WILDC
- Wayside Detector Data
- Consolidation and Analysis

InteRRIS
- Alert Data
- Events Above 65 Kips

EHMS
- Alert and Close events

AEI and Umler/EMIS
- Daily email reports
- All detector activity over 65KIPS
- One report for each alert level; up to 4 emails per day

Umler/EMIS
- Report remediation
- Identify “other” reasons for closure
- Link to Umler/EMIS for SCABT reporting

Early Warning
- Temporary use of WILDC alerts/Closures using EW alerts
- Broadcast to Early Warning Subscriber Base

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EHMS 2006 Initiatives

• Begin migration from EW for WILD Data
  – Remove facility to close EW/MA for WILD
  – EW itself is NOT going away!
• Communication of data directly from EHMS
  – Supports migration from EW
  – Multiple subscriptions based on profile
  – Real time or batch “push” of data
• “Automate” clearing of alerts
  – Restencilled equipment
  – Stale alerts
  – CRB reconciliation
• Improve user interfaces for query and CRB
• Enhanced EHMS web query
  – Current status
  – Alerts and remediation
  – Detailed data
• Roll-out Hunting Truck Detectors
  – EHMS only (no EW support)
Historical Data

[Image of a computer interface showing data querying and tracking details for equipment and events, including fields for Equipment ID, Detector Type, Event Date, Location, Alert Date, Alert Level, Repairs, and Event Details.]
Remediation (CRH) Reports

Car Repair Reporting

- All records inserted successfully
- 3 Repairs reported successfully

<table>
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<th>Equipment</th>
<th>Number</th>
<th>Detector Type</th>
<th>Repair Made By</th>
<th>Repair Made Date</th>
<th>SPLC</th>
<th>Location</th>
<th>Repair Job Code</th>
<th>Why Made</th>
<th>Inspection Revisions</th>
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<td>CSXT</td>
<td>07-26-2006</td>
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<td>✓</td>
<td>1592 29</td>
<td>✓ CSXT CSXT</td>
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</tr>
</tbody>
</table>
**EHMS 2007 Projects**

- Sunset temporary use of EW/MA for WILD data
  - EW itself is NOT going away!
- Automate statistics from EHMS
- Computer-to-Computer query of data using XML/web services
- Pilot automation of disposition for Hunting Truck alerts
  - Identify process and rule changes necessary
  - Leverage RAMP-ED
- Further integrate EHMS with Umler/EMIS
  - Security grants
  - MRP maintenance
Long-Term Vision
Technology-Driven Vehicle Inspection

Validated ‘Whole’ Car Health Query/Report
Provided from InteRRIS® and EHMS™

InteRRIS®

Raw Data

Umler/EMIS™

EHMS

OK/Not OK
**EHMS Initiatives**

**What do you need to do**

- Check [www.railinc.com](http://www.railinc.com) often
- Watch for upcoming town hall sessions
- Keep up to date: Watch for circulars

**Early Warning Web Users**
- Start using EHMS rather than EW to get your WILD data
- Update your processes
- Watch for training sessions

**Early Warning Messaging Users**
- Plan for development to use EHMS messaging for WILD and EW data
- Set up profiles for data delivery
Railinc Corporation

Supplying the information that drives the railway industry

24 hour customer support

CSC@railinc.com

1-800-544-7245

Other Railinc Systems

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Car Management Systems
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Other systems
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  ISS

RR Clearinghouse