

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

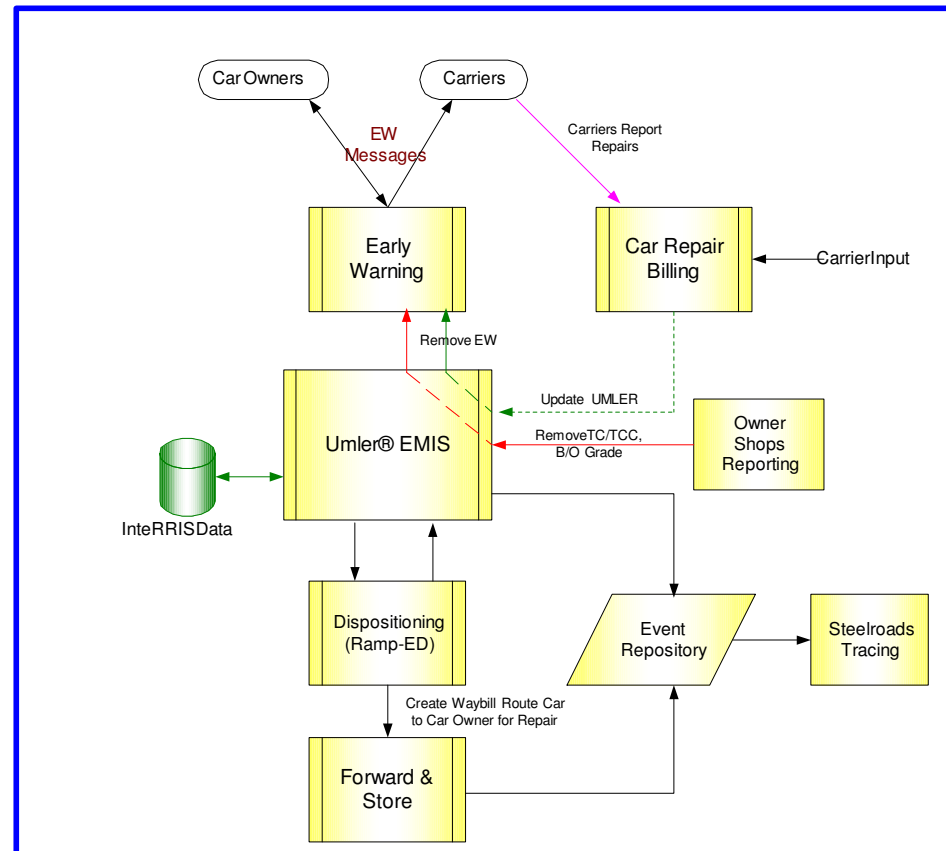
Who Railinc is

- 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

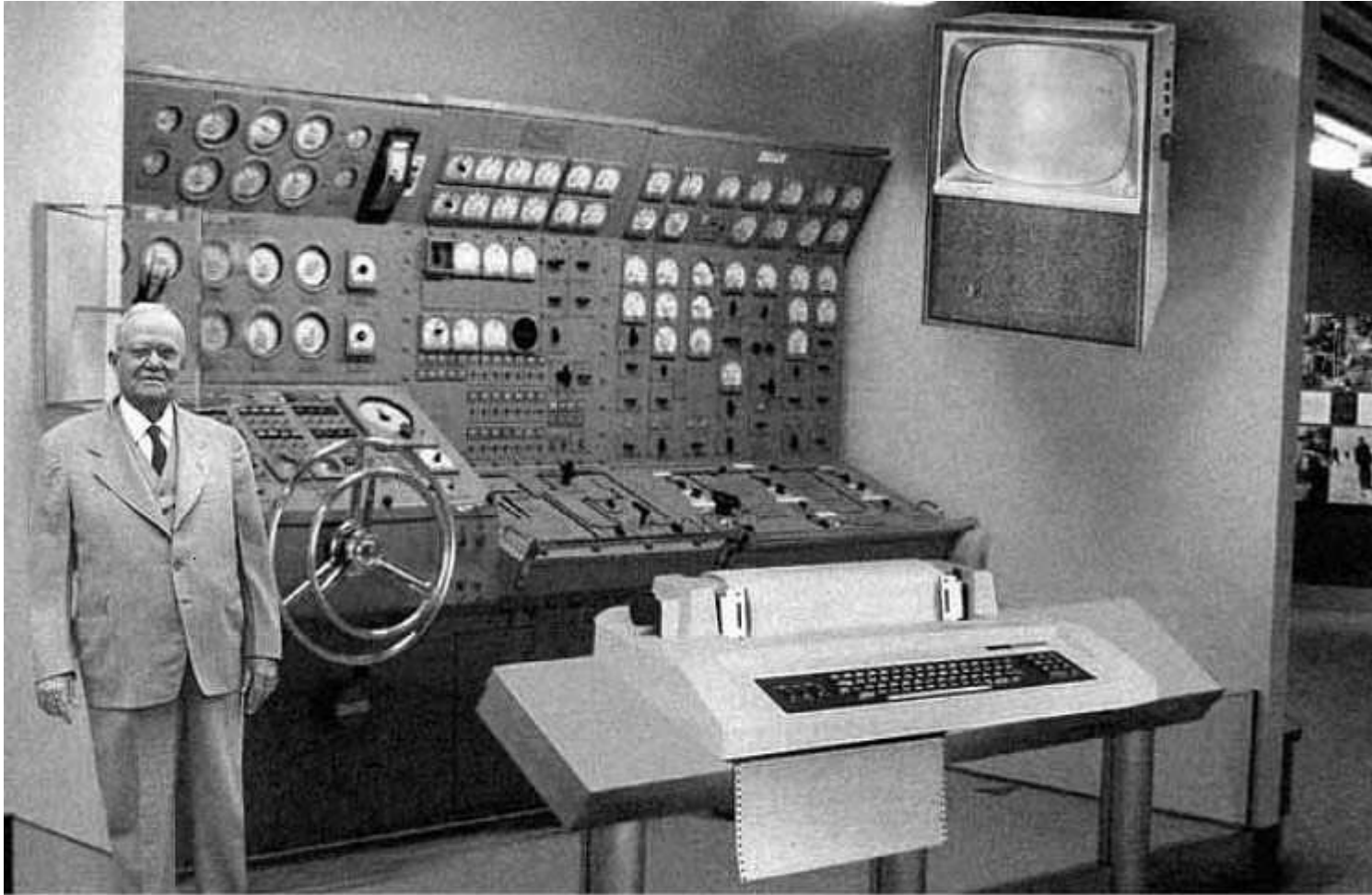
- **Umler®**
 - “Universal Machine Language Equipment Register”
 - The Industry’s repository of railcar information
- **Umler/EMIS**
 - Umler Equipment Management Information System
 - The new vision of Umler®
- **EHMS**
 - Equipment Health Management System
 - Communicating detector information from 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



Legacy Umler Laptop Version

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

Sample Umler/EMIS Screen

UMLER - Report Air Brake Test Inspection - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print Mail News RSS

Address http://www.railinc.com/EMIS2/?cnid=inspections&loc=1

UMLER Access Pools / Equipment Manage Notices Resume Suspended Work Transactions Upload/Download Administer Account(s)

Equipment Management Information System

User ID: ACP1 Company Name: BBSI - RAILINC INTERNAL TESTING

Home Contact List Contact Us Help Log Out

Report Air Brake Test Inspection

Equipment ID(s)	Reporter	Performer	Date Done	Location/SPLC
BCOL0000046007 BCOL0000046014 BCOL0000046015	BBSI	CN	03-02-2004	250100001
	BBSI	CN	03-02-2004	
	BBSI	CN	03-02-2004	
	BBSI	CN	03-02-2004	

Validate Submit Suspend Reset Clear Cancel

RAILINC

Internet

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 often
- Watch for upcoming town hall sessions
- Keep up to date: Watch for circulars
- Become a testing partner: umler@railinc.com

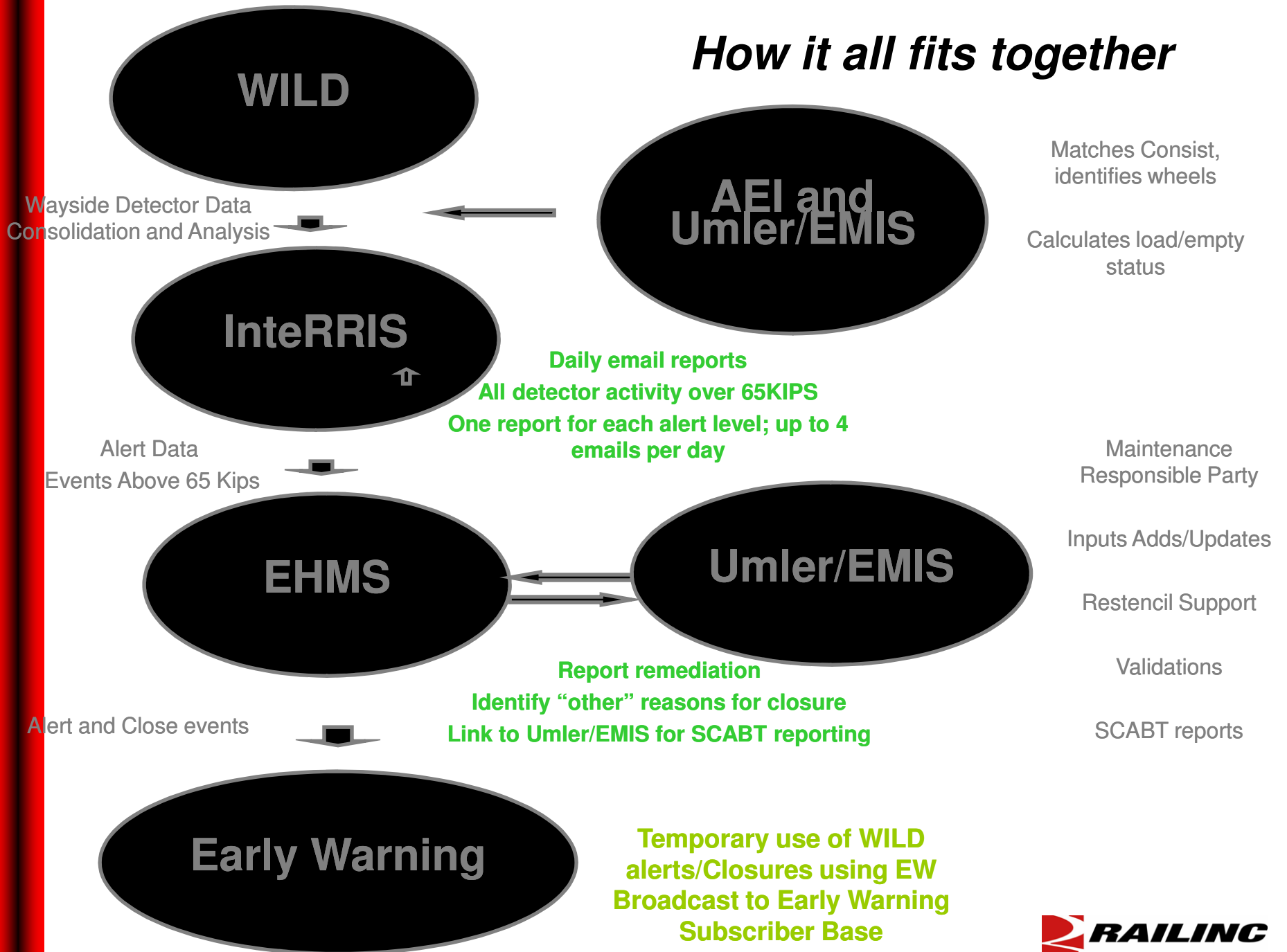
- **TSUM users**
 - Watch for news for training in early 2008
- **TRAIN II Message users**
 - Ramp-up 2007 development to adopt new variable formats
 - Prepare to test in early 2008
- **Change tape/monthly report users**
 - Prepare for 2008 rollout of new formats
 - Work with Railinc to establish new 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



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

Equipment Health Management System - Microsoft Internet Explorer

Address: http://localhost:9080/RAILINC_EHMS_WEB/ehms/ss/query2.html

Data Query

Search Criteria

Equipment ID: CSXT 1-5

Detector Type: Hunting Detector
WILD (Hold CTRL to Select Multiple Types)

Date Range: 07-01-2006 to 07-30-2006

Event Level: All

Data Set: All Repairs Alerts Detail Events

Report Format: Equipment View Event View

Train Date: [] []

Reporting System: All

Search **Reset** **Clear**

Alerts

Equipment ID	Detector Type	Event Date	Location	Alert Date	Alert Level
CSXT-0000000001	WILD	07-25-2006	Wheel 5R	07-25-2006	Opened
CSXT-0000000002	Hunting	07-02-2006	Truck A	07-01-2006	Critical

Repairs

Equipment ID	Detector Type	Event Date	Location	Performer	Reporter	Repair Date	SPLC	Job Code	Why Made	Insp. Reason	Timestamp	Delete
CSXT-0000000001	WILD	07-28-2006	Wheel 5R	CSXT	rganesh - CSXT	07-28-2006	602325000	80	1520		07-28-2006 12:15	<input type="checkbox"/>
CSXT-0000000002	Hunting	07-25-2006	Truck A	CSXT	rganesh - CSXT	07-25-2006	602325000			Found Ok	07-25-2006 17:30	<input type="checkbox"/>

Event Details

Equipment ID	Detector Type	Event Date	Location	Timestamp	Site Name	Meas. Value
CSXT-0000000001	WILD	07-25-2006	Wheel 5R	07-25-2006 08:45	SITE A	69.5
CSXT-0000000002	Hunting	07-02-2006	Truck A	07-01-2006 13:15	SITE B	0.72

Done Local intranet

Remediation (CRH) Reports

Equipment Health Management System - Microsoft Internet Explorer

Address: http://localhost:9080/RAILINC_EHMS_WEB/ehms/crs.html

RAILINC Equipment Health Management System [sign out](#) | [user services](#) | [help](#) | [contact us](#)

rkiruvas is signed on for company CSXT

Home | Admin Links | Car Repair History | Detector Health | Detector Event | Alerts | Notification Profile | Maintenance Responsible Party | Help

Car Repair Reporting

- All records inserted successfully
- 3 Repairs reported successfully

	Equipment		Detector Type	Repair Made By	Repair Rptd By	Repair Date	SPLC	Location		Repair		Inspection		ABT		
	Initial	Number						Job Code	Why Made	Reason	Explanation	Performer	Reporter			
1.	CSXT	0000005345	WILD	CSXT	CSXT	07-26-2006	653235000	Axle: 3	Side: R	✓	1563	33				
2.	CSXT	0000005347	HD	CSXT	CSXT	07-26-2006	653235000	Truck: A				✓	Found Ok			
3.	CSXT	0000005347	WILD	CSXT	CSXT	07-26-2006	653235000	Axle: 3	Side: R	✓	1562	29		✓	CSXT	CSXT

[Enter More Repairs](#) [Done](#)

[LEGAL NOTICES](#) | [TERMS OF SERVICE](#) | [PRIVACY](#)
Copyright © 2006 Railinc. All Rights Reserved.

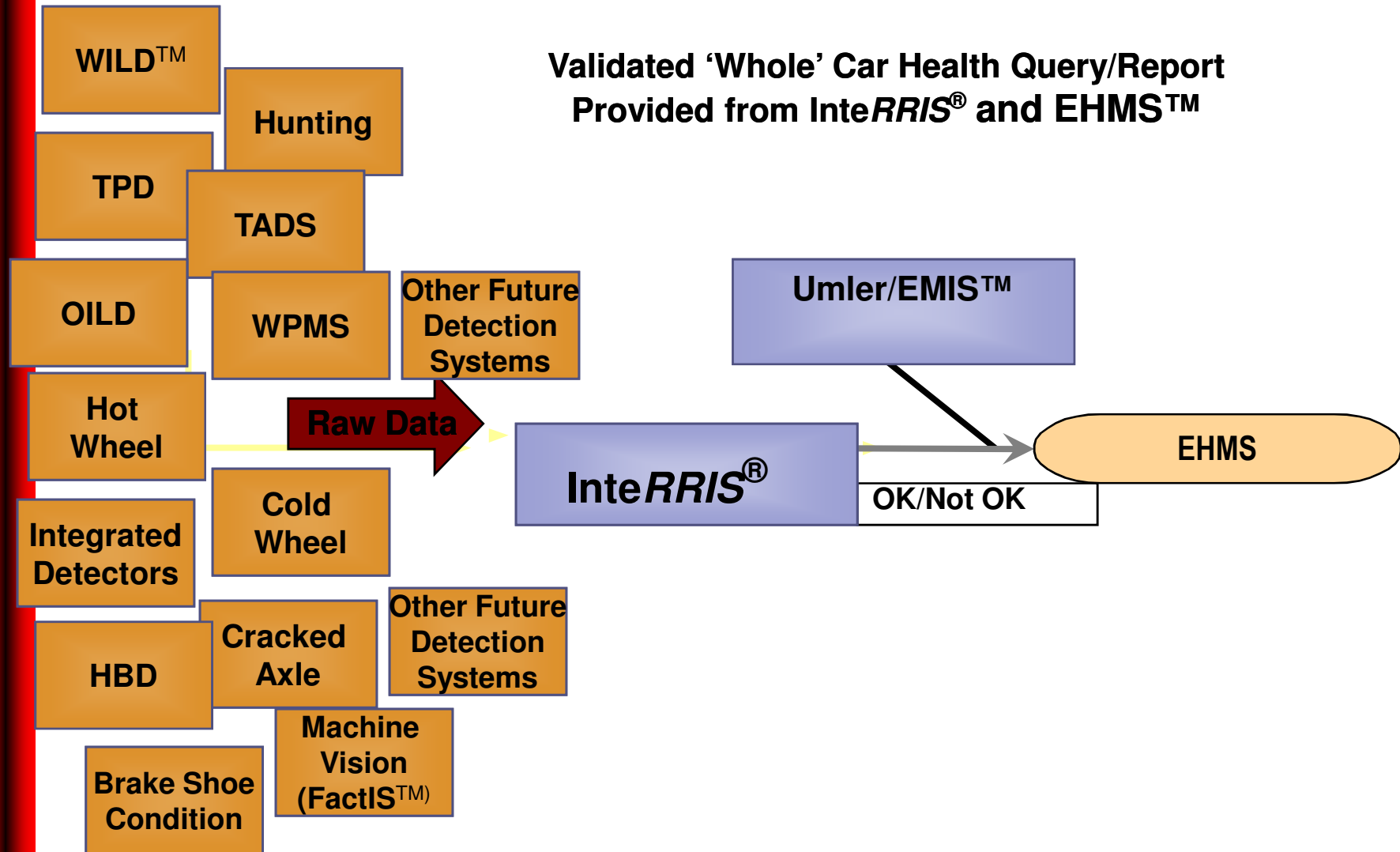
Done Local intranet

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[™]



EHMS Initiatives

What do you need to do

- Check 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

Car Tracing Services

Steelroads®
Railsight®
Nextpath®

Car Management Systems

CHARM®/DEPRE®

Other systems

IRF
ISS
RR Clearinghouse