

ORACLE®

Intermec®



Foundation for Change

**High Risk Hazmat and
First Responder Info
With RFID and Sensor-Based
Services**





Impact

- \$1 to \$10 Spent on Environmental Management for Each \$1 of Chemical Purchased
- \$460 Billion Spent Annually on Chemical Purchasing

Chemical Strategy Partners



Keys to Advancing an EMIS

- Start with a System built upon Daily, Normal Operational Use
- Think and re-Think Business Processes not just Technology



The Project



ORACLE®



- Project **ChemSecure**

- Improve Identifying and Tracking Hazardous Materials and Waste
- Unmanned Security with RFID and Oracle information architecture for Sensor Based Services
- Alerts and Notifications to Emergency Response Teams





Transaction Management and Automated Compliance Reports



Inventory can be pre-authorized before it is ordered, allowing you to select less costly or safer alternatives. You have total visibility and control of what comes onto your facility.

PRE-ACQUISITION

By labeling and barcoding inventory, you know what you have, where it is located, who is using it, and on what equipment it's being used. This allows you to track costs, reduce shrinkage, and take advantage of bulk purchases.

LABEL & BARCODE

Bulk quantities can be broken into job-specific quantities. This reduces spillage, contamination, and employee exposure. Material not completely used can be returned for reissue.

ISSUE & REUSE

Waste is tracked from generation through disposal. Automated manifests ensure accuracy, resulting in significantly reduced disposal costs. Comprehensive, World-wide waste tracking and reporting is now a reality.

WASTE

EPA, OSHA, EPCRA, RCRA and site-specific reports are as simple as one click of the mouse. Without EnvironMax these reports can cost you tens of thousands of dollars each to prepare.

REPORTING

Information Capture Process

NASA Dryden Flight Research

Handheld to Desktop



Complete Hazmat Management



Home Site Map Jump: (make selection) Help All

Administration

System

[Site Configuration](#)
[Edits](#)
[User Access Profiles](#)
[Workgroups](#)
[Workflows](#)
[Users](#)

General

[Facility](#)
[Organizations](#)
[Buildings](#)
[Employees](#)
[Training](#)
[Account Codes](#)
[Reports](#)

Material

[Issue Points](#)
[Zones](#)
[Licenses](#)
[Reorder Levels](#)
[Automatic Turn In](#)
[Zone Quantity Limits](#)

Waste

[Container Sequence](#)
[Generators](#)
[Collection Sites](#)
[Inspection Checklists](#)
[Transporters](#)
[TSD Facilities](#)
[Disposal Contracts](#)
[Handling Costs](#)

Material Functions

Catalog

[Manufacturers](#)
[Product Groups](#)
[Product/MSDS](#)
[Chemical Lists](#)
[Chemical Information](#)

Requests

[Authorization](#)
[Order](#)
[Purchase Card](#)
[Reorder](#)

Transactions

[New Inventory](#)
[Container Breakdown](#)
[Transfer](#)
[Receive](#)
[Issue](#)
[Issue by Range](#)
[Turn In](#)
[Turn In - No Label](#)
[In Use Replacement](#)
[Equipment Turn-In](#)
[Undo Last Action](#)
[Respirator Issue](#)

Tools

[Delete Inventory](#)
[Kit Definition](#)
[Kit Build/Break](#)
[Shelf/Bin](#)
[Update Inventory](#)
[Reprint Labels](#)

Waste Functions

Characterization

[Waste Streams](#)
[Waste Profiles](#)
[State Waste Codes](#)

Generators

[Request Containers](#)
[Create Containers](#)
[Fill Containers](#)
[Consolidate Containers](#)
[Close Containers](#)
[Container Information](#)
[Empty Container Pickup Request](#)
[Questions/Comments](#)

Environmental

[Deliver Containers](#)
[Log in Containers](#)
[Container Management](#)
[Parts Washer](#)
[Funding](#)
[Manifest](#)
[Landfill](#)
[Empty Container Pickup](#)
[Removal Orders](#)
[Service Requests](#)
[Waste Sample](#)

Other Functions

Regulatory Reports

[Tier Two Report](#)
[Biennial Report](#)

Process Management

[Processes](#)

Air Emissions

[Emission Points](#)

Hand-Held Devices

[Data Collector](#)
[Download Checklists](#)

Bar Code Labels


[Generate Labels](#)

Inventory and MSDS Management

Information Capture Process

<p>Inventory can be pre-authorized before it is ordered, allowing you to select less costly or safer alternatives. You have total visibility and control of what comes onto your facility.</p> <p>PRE-ACQUISITION</p>	<p>By labeling and barcoding inventory, you know what you have, where it is located, who is using it, and on what equipment it's being used. This allows you to track costs, reduce shrinkage, and take advantage of bulk purchases.</p> <p>LABEL & BARCODE</p>	<p>Bulk quantities can be broken into job-specific quantities. This reduces spillage, contamination, and employee exposure. Material not completely used can be returned for reissue.</p> <p>ISSUE & REUSE</p>	<p>Waste is tracked from generation through disposal. Automated manifests ensure accuracy, resulting in significantly reduced disposal costs. Comprehensive, World-wide waste tracking and reporting is now a reality.</p> <p>WASTE</p>	<p>EPA, OSHA, EPCRA, RCRA and site-specific reports are as simple as one click of the mouse. Without EnvironMax these reports can cost you tens of thousands of dollars each to prepare.</p> <p>REPORTING</p>
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Update Product/MSDS



Active
 [Site Usage]
 [Ingredients]

[Manufacturer Name]
DEXTER CORP

+ Item Name
HYSOL AD 2001 TEST

+ Trade Name
HYSOL AD2001 (FORMERLY 50-900) 50-900 RWDR

[MSDS Prep Dt]
06-MAY-2002

Pages
[Update Product/MSDS](#)
[Product Formulations](#)

Functions
[Duplicate Product/MSDS](#)
[Print MSDS](#)
[Print Repackaging Label](#)

MSDS
[Hazards](#)
[First Aid](#)
[Fire Fighting](#)
[Accidental Release](#)
[Handling & Storage](#)
[Exposure](#)
[Properties](#)
[Stability & Reactivity](#)
[Toxicological Info](#)
[Disposal](#)
[Transporter Information](#)
[Respiratory Info](#)

New Inventory

+ Issue Point Code
1234

+ Product/MSDS Nr UPC [NSN]

[Item Name]

Container Information

Lot/Batch Number Orig Exp Date

+ Quantity + UOM Unit Price

+ Nr of Containers Nr of Cases Nr of Items in a Case Document Number

Unit of Issue Container Type

Pressure State



MSDS: 21001 HZ: A
EXP: JAN 2002
21234

Tracking Label Item
 MFG: Manufacturer
 NSN: 1234567890
 MSDS: 21001 HZ: A
 EXP: JAN 2002

21234

Reports

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PRE-ACQUISITION **LABEL & BARCODE** **ISSUE & REUSE** **WASTE** **REPORTING**

Information Capture Process



Containers Waiting Delivery

Monday November 4 2002 5:42 PM

WCS Code	01111
Description	LASER MAINTENANCE
Location	RM104
Building	B1162
Container	Container Nr

1317243

124411

1115260

RRAD35

Chemical List Usage Report

Start Date: 01-JAN-2002 End Date: 04-NOV-2002

Issue Point: ALL Zone: ALL Bldg: ALL Org: ALL Emp: ALL Chemical List: ALL

12/17/08:13

Inventory Summary Report



Issue Point: ALL Inventory Status: ALL NSN: ALL

Sorted By: Issue Point, NSN Issue Point Location: Onsite

NSN	Product/MSDS Nr	CAGE/PNI	Part Number/Trade Name	Containers	Total Qty	UOM	T
1220LDF004048	20000	12405 A	HYSOL AD2001 (FORMERLY 50-900) 50-900 RWDR HYSOL AD2001 (FORMERLY 50-900) 50-900 RWDR	172	188	GL	
1220LDF004048	185966	12405 A	CAROLYNN HYSOL AD2001 (FORMERLY 50-900) 50-900 RWDR	7	7	QT	
12345	41099	ZZZZZ B	12345 B50W24KEM BOND(OFF WHITE)	30	90	GL	
				147	97	OZT	
1234567	185442	ZZZZZ A	442708 - N-TETRADECANE, 1000MG, NEAT 442708 - N-TETRADECANE, 1000MG, NEAT	12	6001.5	KG	
333	41225	00001 B	T TEST	10	550	GL	
5610PAA808F2857	185426	ZZZZZ A	NO. 36 REFRACTORY CEMENT NO. 36 REFRACTORY CEMENT	10	9	LB	
5682	41232	12405	CAROLYNN HYSOL AD2001				
6139PAA802E2857	185226	ZZZZZ A	SEALED MAINTENANCE FR MAINTENANCE FREE LEAD				
6550011656732	185216	ZZZZZ A	CAMCO QUIK STAIN & QUIK STAIN II				
6810001112222	41222	00002 A	A KIT TEST				
6810001112222	41223	00002 B	B KIT TEST				
6810008556180	41283	0ME98	ACETONE STRIP THIN ME				

CAS Number	NSN	Process Number	Usage (LBS)
0001ROB	8010001818079	TEST	2503.7775
	80102224456897	FA01	79.38

EMIS Platform



Logistics

MaxTrack

Materials
Waste
MSDS
Personnel, Processes and Places
Compliance and AdHoc Reports

**Hazardous Materials and
Waste Compliance Reporting**



**Facility and
Environmental Management**

Air
Water
Soil
TSDf
EH&S

Compliance Management
Workflow Mgt

Facility

MaxControl

**Security Threat
Tracking and Assessment**

Interagency Info Evaluation
Shipment Tracker
Border Control
Wireless-GPS-RFID

Security

MaxWatch

ChemSecure
functionality
added to HMMS



EM Security Imperative



Account



Aggregate

Assess

Notify





Facility

Located on
Edwards AFB

Systems Integration

Complex Radio
Frequency Environment

Communication Security



ChemSecure

Radio Frequency Identification (RFID) Project
with Local and Deployment Capabilities



Project Partners



Leading Private Sector Companies

Team Approach

Hazmat & First Responders

Fire Department



Police



Medical Techs



EPA



ChemSecure Vision

Develop and Test
Methods that:

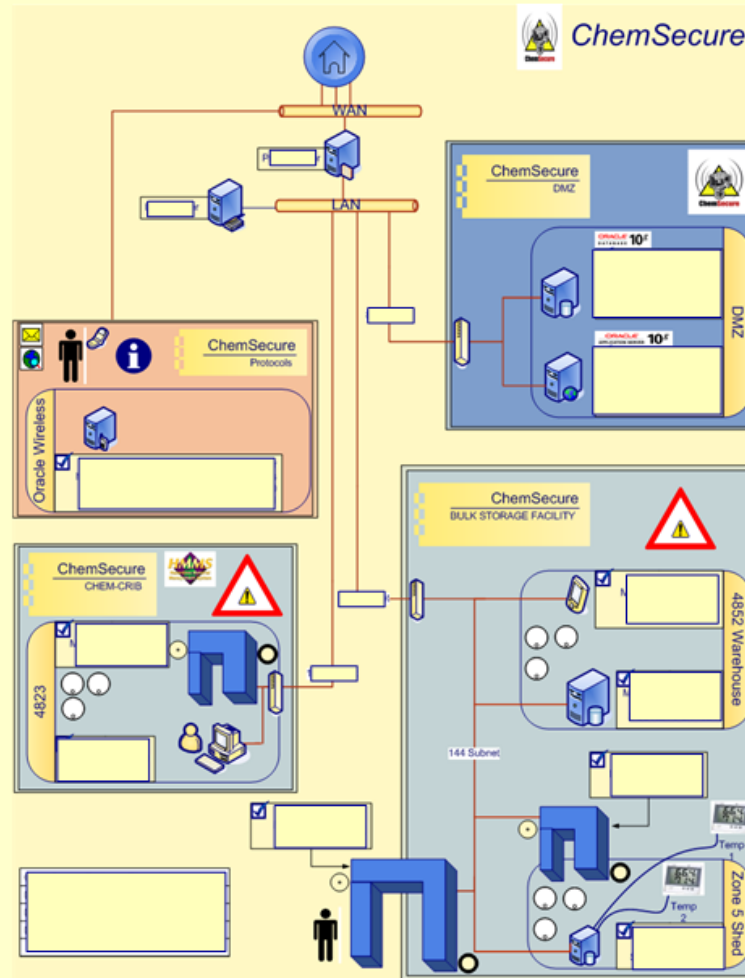
Demonstrate the
feasibility of using AIT to
control, manage, monitor

Geographic and
Operational Capable

Rapidly Changing
Environment

ChemSecure

Radio Frequency Identification (RFID) Project
with Local and Deployment Capabilities



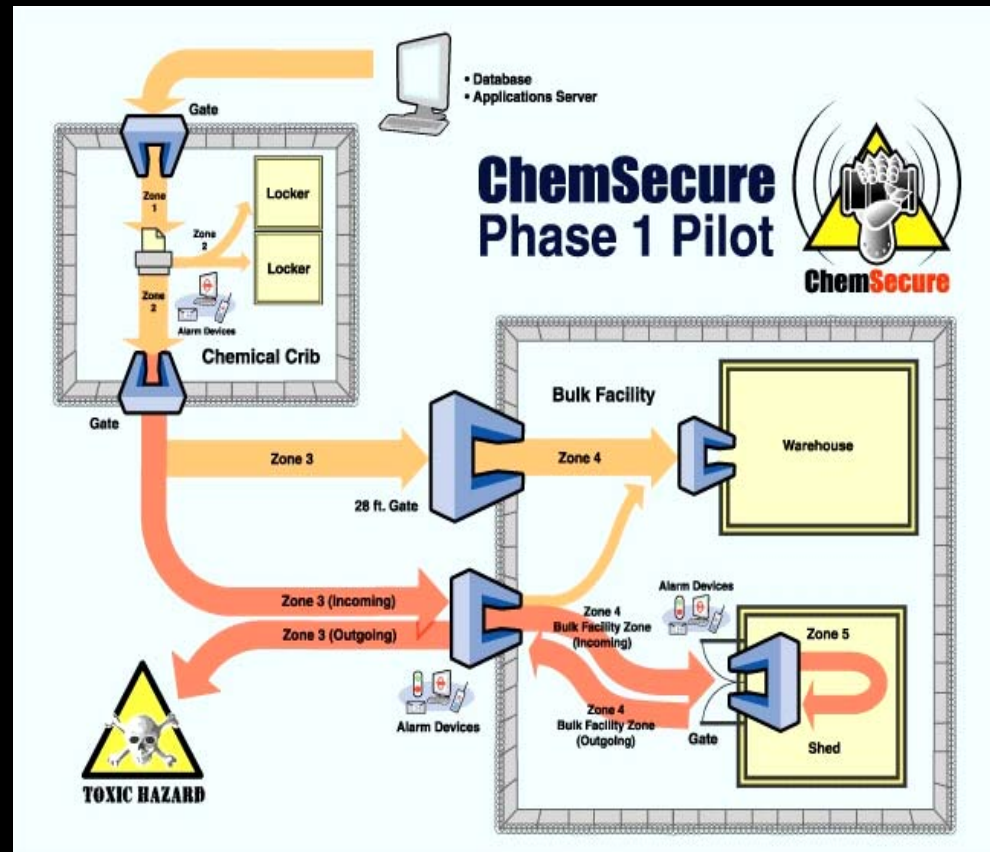
Partnering to Excellence

NASA Dryden Flight Research Center



Real World Scenario

- Main Pharmacy
- Bulk Storage Facility
- Storage Locker



Real Time Hazmat Management

Goal

- Ensure safety & security of chemicals & staff accessing chemicals.

Requirements

- Capture real time info on physical assets with RFID and temperature sensors.



Real Time Hazmat Management

Goal

- Ensure first responder safety when addressing chemical spills.



Requirements

- Mobile device and PDA with integrated RFID support.



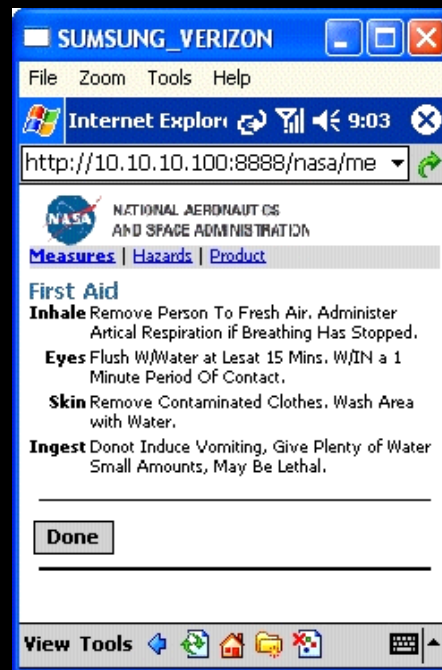
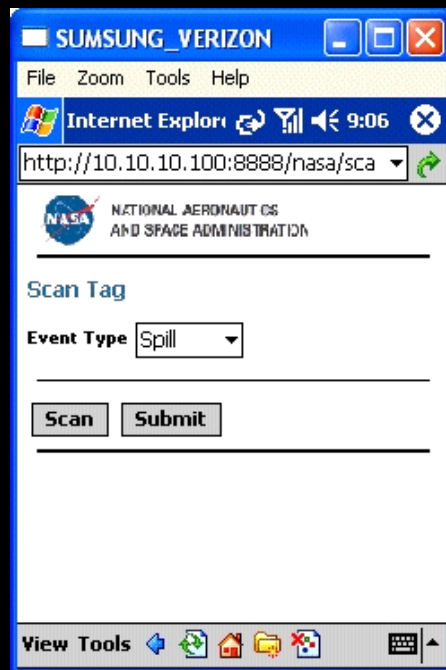
Real Time Hazmat Management

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Real Time Hazmat Management

Goal

- Control handling of chemicals with real-time information about item content & staff credentials.



Requirements

- Correlate chemical asset and personnel information: identity, state, status



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Real Time Hazmat Management

Goal

- Manage exceptions and trigger business flow in case of error conditions.

Requirements

- Role based alerting with multi-channel delivery.



Real Time Hazmat Management

Goal

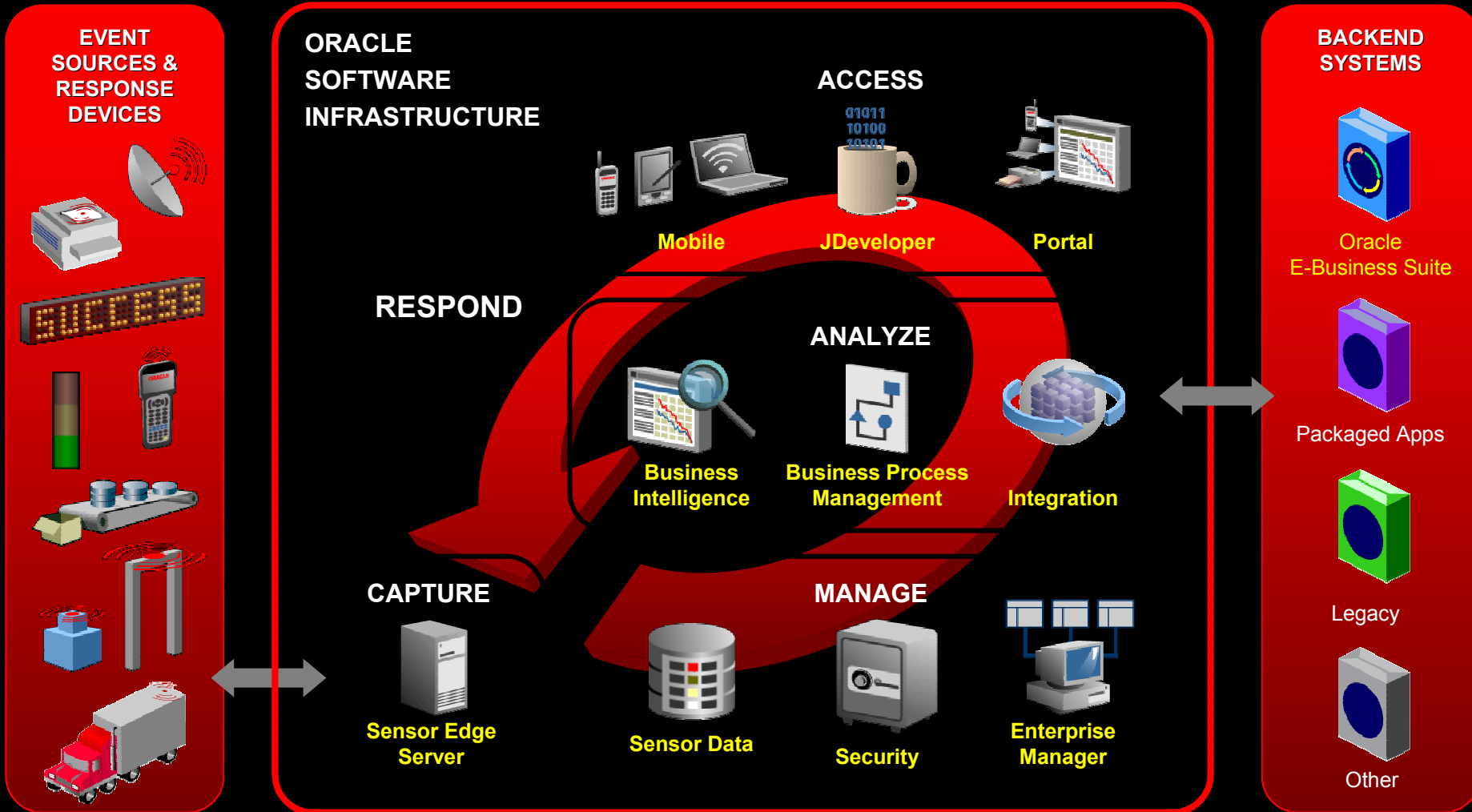
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Requirements

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Oracle Sensor Based Services Infrastructure



Benefits



ORACLE®

- **Reduce Costs.** Reduction in manual processes, faster turnaround, unmanned location, etc.
- **Increased Safety.** Ensures chemicals placed in proper locations and tracked.
- **Improved Security.** EDA triggers faster response times
- **Numerous other Applications.** Logistics management, medical applications, flight safety, etc.



Lessons



ORACLE®

- **Build from Existing Operations.** Success depends on having daily data capture processes in place.
- **Stretch Thinking on New Technology.** Thoroughly explore ability of new technology to enable and improve, not just automate business processes.
- **Involve All Participants.** Front-end planning is best done with all that might have use of solution *output*.
- **Think “Scalability and Interoperability”.** Solutions should scale to enterprise demands and interaction.





Meeting the Challenge Today

ORACLE®

- **Know More**

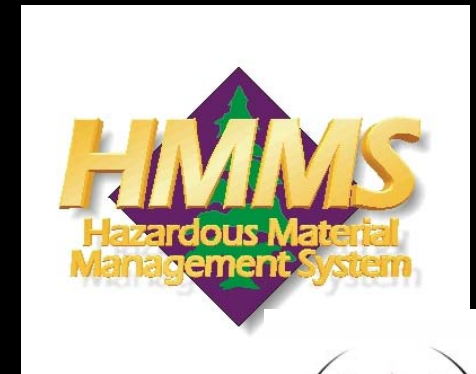
- Real-time supply chain visibility
- Security notification and tracking

- **Do More**

- Automated data collection
- Business process transformation

- **Spend Less**

- Low integration, implementation, maintenance cost
- Strong ROI as a result of HMMS Implementation



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QUESTIONS
&
ANSWERS

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