



## Industry Solutions – the Framework for Delivering Smarter Transportation

---

*Ken Donnelly, Worldwide Industry Leader,  
Asset Management Solutions, IBM USA*

# Pulse2012

Meet the Experts. Optimise your infrastructure.

**May 31 – June 1**

Sheraton on the Park Hotel, Sydney



# Agenda

- Evolution of Asset Management Solutions
  - The Journey from CMMS to Industry Framework
- Maximo Industry Solutions for Transportation
  - Portfolio by Industry Segment
- Future Direction
  - Customer Programs that help influence the direction
- Customer Examples
- Summary and Questions



# Evolution of Asset Management



In the beginning...

- Asset management was done manually
- Not on electronic tablets but on stone tablets
- Until the late 1960's, paper and pencil were the predominant method

# Evolution of Asset Management



## 1970's



## 1980's



In the 1970's

- Emergence of mainframe solutions
- Computerized Maintenance Management Systems (CMMS) created with consultants

In the 1980's

- Emergence of desktop systems
- Continued use of CMMS systems, with consulting companies reselling custom systems

# Evolution of Asset Management



## 1990's



## 2000's

In the 1990's

- Client server replace mainframe and desktop, combining both on a LAN
- Enterprise Asset Management (EAM) extends CMMS as a “COTS”

In the early 2000's

- Internet Architecture –Java and .NET – with industry specific solutions
- “All In One” Systems from ERP companies

# Evolution of Asset Management

# 2010 AND BEYOND



## Industry Framework

- Leveraging industry solutions from many parts of the business
- Incorporating integration, optimization and analytics to achieve greater value
- Transformation through Interconnected, Instrumented and Intelligent Systems



Create your own agenda for transformation by implementing each solution one project at a time



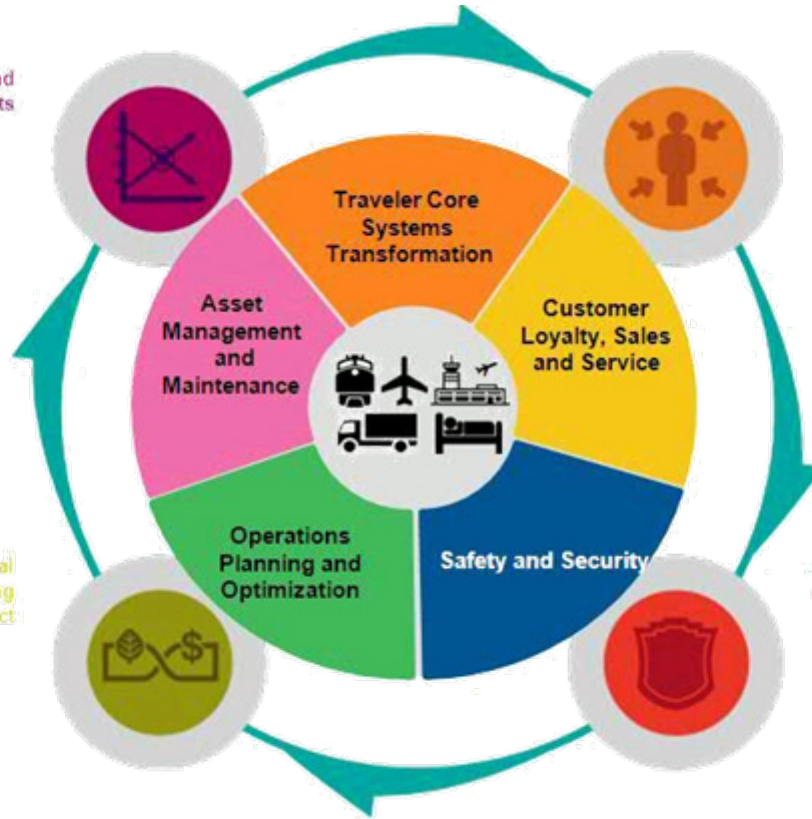


Predict demand and optimize capacity and assets

Dramatically improve the end-to-end traveler or customer experience

Improve operational efficiency while reducing environmental impact

Assure safety and security



## IBM Travel and Transportation Framework

# Agenda

- Evolution of Asset Management Solutions
  - The Journey from CMMS to Industry Framework
- Maximo Industry Solutions for Transportation
  - Portfolio by Industry Segment
- Future Direction
  - Customer Programs that help influence the direction
- Customer Examples
- Summary and Questions



# IBM Asset Management solutions for Fleet & Freight Logistics

**Maximo for Transportation** for managing all fleet assets, including tractors, trailers, cars, trucks and forklifts

**Maximo Asset Management** for managing facilities and distribution centers, including conveyers, refrigeration units, lighting and security assets

**Tivoli Asset Management for IT** for managing technology assets including networks & telephony



**Maintenance Managers** can see the backlog of preventive & unscheduled work to manage resources and increase asset reliability

**Inventory Managers** can see demand for replacement items and better manage spare parts inventory

**IT Managers** can see how to streamline technology assets and resources across the organization

# Maximo for Transportation Industry Solution

## Added Capabilities

- Asset Alias
- Asset History
- Campaigns
- Consist Management
- Drivers Log
- Equipment Groups
- Equipment Status
- Fuel Record
- Fuel Tank Monitoring
- Fuel Transactions Import
- Industry Codes
- Inspections & Servicing Activities
- Inventory Count Books
- Labor Certification
- Licenses and Registration
- Life Cycle Costing / Depreciation
- Line Codes
- Log Segments
- Maintenance and PM Alerts
- Manually Item Warranties
- Measurement Points

Industry Solution

Maximo Asset  
Management

Client Configuration

## Added Capabilities

- Mechanic Work Order
- Merged Work Order ACM
- Meter Change Out
- Meter History
- Meter Import
- Motor Pool
- Motor Pool Billing
- Move History
- PM Event History
- PM Relationships
- Position Codes
- Primary Meter
- Recent and Repeat Repairs
- Repair Orders
- Serial # Changes
- Specifications
- Telematics Data Import
- Transportation Reports & KPIs
- Tire & Wheel Management
- Vehicle Data
- Warranty Alerts
- Warranty Recovery
- Warranty Validation Exclusions

# IBM Asset Management solutions for Airports

**Maximo for Transportation** for managing ground support fleet and people movers

**Maximo Asset Management** and **Maximo Everyplace** for managing airside and landside facilities maintenance, including security assets, jet bridges, runways, elevators and escalators

**Tririga IWMS** for managing energy and facilities management, capital projects and real estate portfolio management



**Maximo Spatial Asset Management** gives users the visibility to see and leverage complex GIS information

**Maximo for Service Providers** to support managing assets for others, including multiple clients & contracts with service level agreements

**Tivoli Asset Management for IT** for managing technology assets including networks & telephony



# IBM Asset Management solutions for Rail and Metro

## **Maximo Asset Management**

for managing facilities, distribution centers and stations, including elevators, escalators, lighting and security assets

**Maximo Linear Asset Manager** for managing railway infrastructure, including track, signals, electrification and structures, such as bridges and tunnels

**Maximo for Transportation and Maximo Asset Configuration Manager** for managing all rolling stock and support fleet assets, including locomotives and cars



**Maximo for Service Providers** to support managing assets for others, including multiple clients and contracts with service level agreements

**Maximo Mobile and Maximo Everyplace** for workers in the field supporting linear & facility assets, and in the storeroom issuing, transferring & receiving spare parts

**Maximo Scheduler** to schedule planned work and visually align to the number of available resources using drag & drop capabilities

# IBM Asset Management solutions for Marine / Maritime

## **Maximo for Transportation**

for asset management of cranes, fleet, vessels and all other moving assets

## **SRO Data Replicator (SDR)**

for multi-site and multi-vessel data synchronization to disconnected remote sites like regional offices, vessels and off-shore platforms



## **Maximo Asset Management**

for managing ports, terminals, facilities and distribution centers, including building systems and security assets



**Maintenance Managers** can see the backlog of preventive and unscheduled work to manage resources, while increasing asset reliability and availability

**Inventory Managers** can see demand for replacement items and better manage spare parts inventory and component rebuilds

**IT Managers** can see how to streamline technology assets and resources across the organization

# Agenda

- Evolution of Asset Management Solutions
  - The Journey from CMMS to Industry Framework
- Maximo Industry Solutions for Transportation
  - Portfolio by Industry Segment
- Future Direction
  - Customer Programs that help influence the direction
- Customer Examples
- Summary and Questions



# IBM Maximo Customer Programs

## Advisory Councils

- Transportation Advisory Council (TAC)
  - Long term Transportation industry focus
  - Clients, Academics, Consultants, IBM
  - Meet 1-2 times per year
  - Met in Paris in May 2010, hosted by SNCF
  - Will meet again in Fall 2012

## Development Partners

- Led by Maximo Development Team
  - Maximo for Transportation
  - Maximo Linear Asset Manager
  - Maximo Asset Configuration Manager
  - Maximo Scheduler, ...
- Met following Pulse 2012 conference

## Pulse – Tivoli User Group

- Annual Meeting, in Las Vegas for 2012
- Dedicated Transportation Track
- Regional – Pulse Comes To You

## Maximo Transportation User Group

- Meet annually at Pulse Conference
- Presentations by multiple clients

## Transportation Round Table

- By invitation, meet with transportation clients to discuss common EAM issues

## International Rail Summit

- Sponsored by Amtrak, IBM and others
- 120 Railway Professionals met for a full day to discuss EAM railway challenges



# Maximo Rail Industry Summit in Europe

- June 5, 2012
- Host: SNCF
- Sponsors: IBM, Accenture, Syclo, CapGemini, Oxplus, MaxGrip and ZNAPZ
- Location: IBM Forum in La Gaude, France
- Attendees: Expecting 70-80 railway professionals from around the world
- Agenda:
  - Presentations by rail organizations such as Amtrak, BAM Rail, Nedtrain, PKP Cargo, Russian Railways, TBT Stockholm and others
  - Separate tracks for Linear Infrastructure and Rolling Stock
  - Includes Smarter Building, Smarter Transportation and Business Analytics & Optimization (BAO) demonstrations at the IBM Forum

Maximo Rail Industry Summit in La Gaude, France 2012

# Agenda

- Evolution of Asset Management Solutions
  - The Journey from CMMS to Industry Framework
- Maximo Industry Solutions for Transportation
  - Portfolio by Industry Segment
- Future Direction
  - Customer Programs that help influence the direction
- Customer Examples
- Summary and Questions

## Business Benefits

- Integrated systems to Maximo to provide early failure alerts
- Optimized maintenance control
- Improved response times and achievement of Service Level Agreements (SLA) by maintenance service providers
- Reporting streamlined and more user friendly.
- Greater precision in monitoring the ratio of asset availability to the cost of maintenance
- Better tracking the profitability of investments



## Business Benefits

- Integrated Fuel Management and Telematics with Maximo for Transportation, leveraging diagnostic codes and meter data
- Single central data repository for all assets
- Centralized management of fleet information
- Distributed cost control at repair facilities
- 15,000 labor hours saved in first year
- Increased Warranty Recovery by 50%
- Improved tracking of costs and asset depreciation

## Business Benefits

- Sensors integrated to Maximo to create early alerts
- Overall efficiency in cost & budget management, resource forecasting, labor utilization and inventory turnover
- Automated signature process
- Improved work order reaction times, asset efficiency and purchasing efficiency
- Consistent data integrity across multiple asset types
- Met the on time rate target with an overall average of 99.15%

# Agenda

- Evolution of Asset Management Solutions
  - The Journey from CMMS to Industry Framework
- Maximo Industry Solutions for Transportation
  - Portfolio by Industry Segment
- Future Direction
  - Customer Programs that help influence the direction
- Customer Examples
- Summary and Questions





# Summary



1. Frameworks are the new trend in Asset Management

2. Industry Solutions are part of a portfolio for T&T segments

3. Clients are gaining benefits from Smart Transport projects



# Questions?



## Trademarks and disclaimers

© Copyright IBM Australia Limited 2012 ABN 79 000 024 733 © Copyright IBM Corporation 2012 All Rights Reserved. TRADEMARKS: IBM, the IBM logos, ibm.com, Smarter Planet and the planet icon are trademarks of IBM Corp registered in many jurisdictions worldwide. Other company, product and services marks may be trademarks or services marks of others. A current list of IBM trademarks is available on the Web at "Copyright and trademark information" at [www.ibm.com/legal/copytrade.shtml](http://www.ibm.com/legal/copytrade.shtml)

The customer examples described are presented as illustrations of how those customers have used IBM products and the results they may have achieved. Actual environmental costs and performance characteristics may vary by customer.

Information concerning non-IBM products was obtained from a supplier of these products, published announcement material, or other publicly available sources and does not constitute an endorsement of such products by IBM. Sources for non-IBM list prices and performance numbers are taken from publicly available information, including vendor announcements and vendor worldwide homepages. IBM has not tested these products and cannot confirm the accuracy of performance, capability, or any other claims related to non-IBM products. Questions on the capability of non-IBM products should be addressed to the supplier of those products.

All statements regarding IBM future direction and intent are subject to change or withdrawal without notice, and represent goals and objectives only.

Some information addresses anticipated future capabilities. Such information is not intended as a definitive statement of a commitment to specific levels of performance, function or delivery schedules with respect to any future products. Such commitments are only made in IBM product announcements. The information is presented here to communicate IBM's current investment and development activities as a good faith effort to help with our customers' future planning.

Performance is based on measurements and projections using standard IBM benchmarks in a controlled environment. The actual throughput or performance that any user will experience will vary depending upon considerations such as the amount of multiprogramming in the user's job stream, the I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve throughput or performance improvements equivalent to the ratios stated here.

Prices are suggested U.S. list prices and are subject to change without notice. Starting price may not include a hard drive, operating system or other features. Contact your IBM representative or Business Partner for the most current pricing in your geography.

Photographs shown may be engineering prototypes. Changes may be incorporated in production models.

