

Pulse
Comes to You



IBM.

Managing the World's Infrastructure

Maximo Asset Management

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Something meaningful is happening... - the world is about to get a whole lot smarter

Every human being, company, organization, city, nation, natural system and man-made system is becoming interconnected, instrumented and intelligent.

This is leading to new savings and efficiency—but perhaps as important, new possibilities for progress.



“The world will continue to become smaller, flatter and smarter. We are moving into the age of the globally integrated and intelligent economy, society and planet... What this means is that the digital and physical infrastructures of the world are converging. Computational power is being put into things we wouldn’t recognize as computers.”

– Sam Palmisano, CEO IBM, November 6, 2008



The Changing Landscape: Embedded IT Components



The typical plant has thousands of devices with some degree of embedded intelligence used for real-time performance monitoring.

Fieldbus and IEC 61850 (UCA) technologies for instrumentation and control need self-discovery and software-configurability tools.



Virtually every mobile asset today has data collection capability. Whether continuously fed to the EAM application or via batch upload — performance data is being used for predictive maintenance.



From vibration sensors to bearings with Bluetooth to microprocessor based engine controls — even mobile equipment is now IT-dependant.

What's smarter about asset infrastructure?

Centerpoint uses Smart Meters to reduce power consumption through demand response.



A bridge on I-95 in New London CT has built-in sensors to monitor stress and indicate potential failure.



Locomotives built by Bombardier have on-board computer systems using telematics for real-time diagnostics.



A datacenter reduces energy consumption and optimizes service delivery by collecting power, thermal and temperature inputs from IT equipment, datacenter infrastructure and facilities.

Smart buildings use building automation systems to optimize comfort, safety and energy consumption.



“Smart Business”

I just received an online alert from your blood analyzer requesting preventive maintenance in the next 72 hours. Remote diagnostics pinpointed your current needs. I have dispatched a technician for Sunday evening when your downtime is least costly based on your past 12 months of asset utilization records.



Convergence: IT-enabled Operating Assets

Blurring lines of ownership require a unified solution to manage all assets



- ### Connected Operating Assets
- IT improves asset performance
 - Networked connectivity for remote monitoring
 - Networked connectivity for maintenance automation

- ### Embedded IT
- On-board IT creates asset sophistication
 - Automation of complex tasks
 - Mechanics replaced by electronics



What is the role of asset management in a smarter planet?



A smarter planet is built on intelligent, instrumented, and well-managed business and IT assets that enable rather than constrain innovation, transformation, and differentiation.

- Manage business and IT assets together as services
- Transform these assets into business value
- Prevent asset-related health, safety, and business risk
- Harness and manage emerging “smart assets”

Maximo: Managing the Smarter Planet



Operating and IT assets, are becoming less differentiated

**Transportation
Assets**



Facilities



**Production
Equipment**



**IT Hardware
& Software**



**Infrastructure:
Telco, Utilities**



Maximo's role within the IBM Smarter Planet strategy:

- *The IBM system to manage the intelligent assets*
- *Leverage data generated by smart assets to drive greater asset management effectiveness; Condition Based Maintenance, RCM, Telematics, etc.*
- *Intelligent operating assets (software enabled, micro-processor driven, IP addressable) utilize Maximo's IT Asset capabilities to more effectively manage these assets*



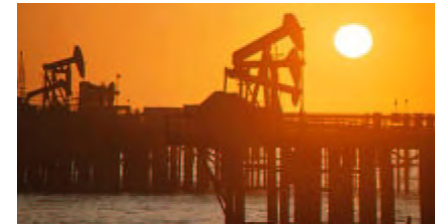
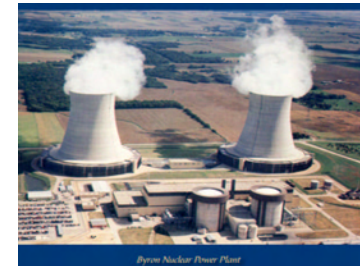
Managing complex assets through the entire asset lifecycle



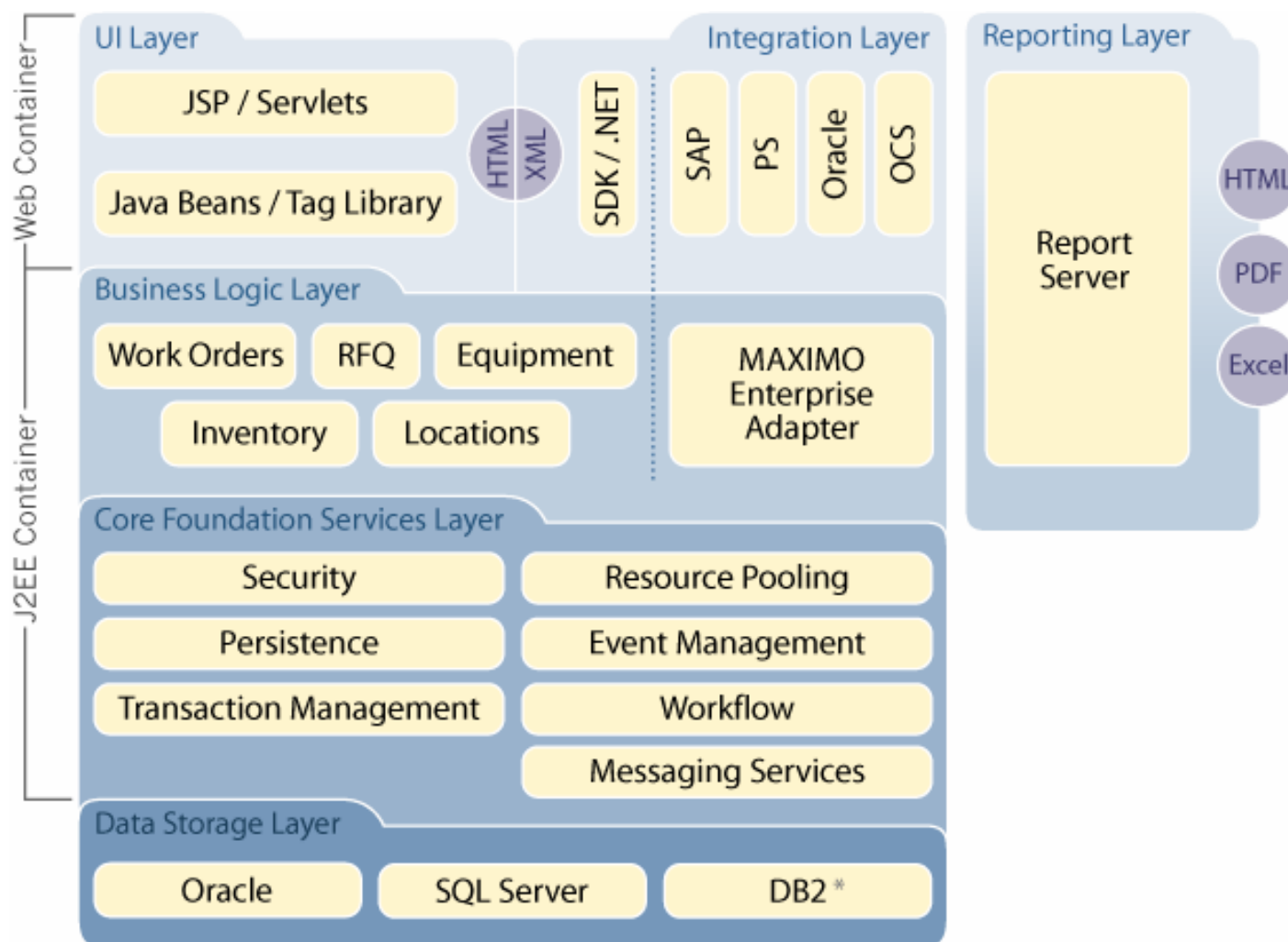
Maximo: Deep Vertical Functions- Industry Solutions

- Unique Industry Functionality
 - Delivered with out of the box Industry specific business processes
 - Supports Industry specific regulatory compliance: FDA, NRC, DOT
 - Delivers more complete solutions and more rapid, lower cost implementations

- Maximo for Oil & Gas
- Maximo for Nuclear Power
- Maximo for Life Science
- Maximo for Transportation
 - Asset Configuration Manager
- Maximo for Utilities



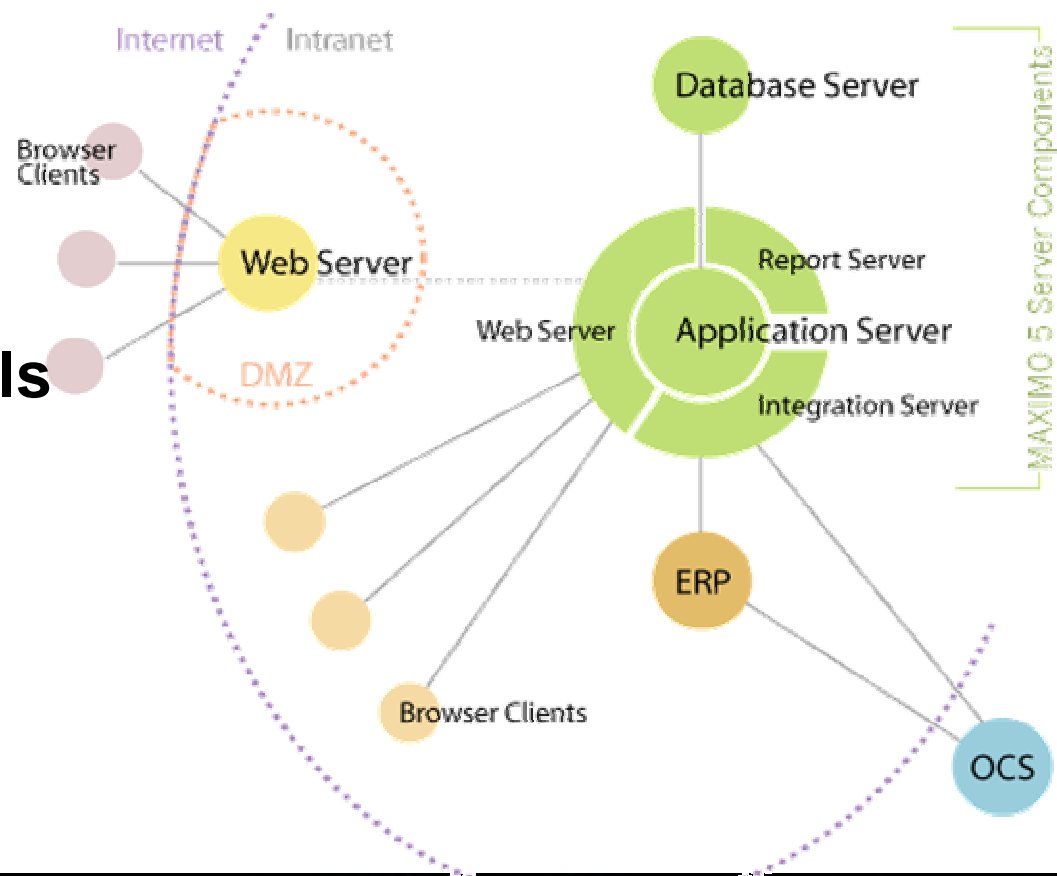
Maximo – Architecture



* Future

Maximo: Deployable / Scalable

- **Designed to support your deployment needs**
 - Inside or On the firewall
- **Security**
 - SSL / HTTPS
 - LDAP
- **Communication**
 - Standard Protocols
 - Wired
 - Wireless
 - Satellite
 - Dial-Up



Capabilities

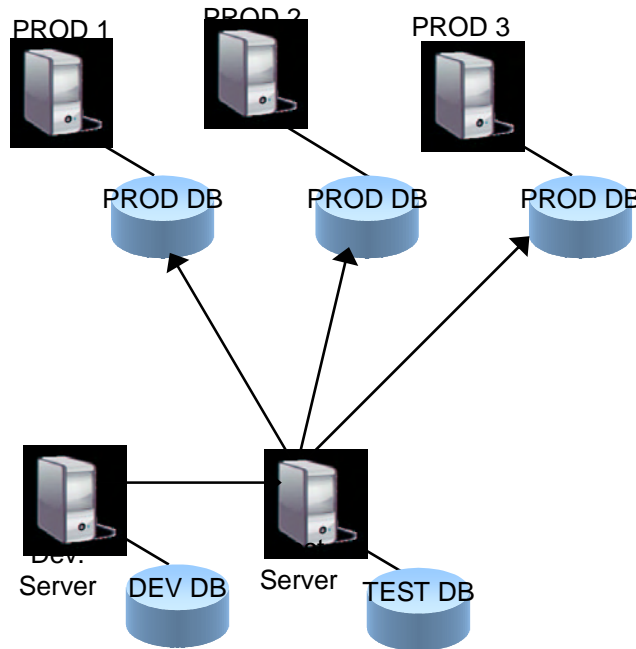
Linear Asset Manager



For asset intensive and highly regulated industries such as Railway, Roadway, Oil and Gas, Water and Waste Water, and Utilities

Complexity

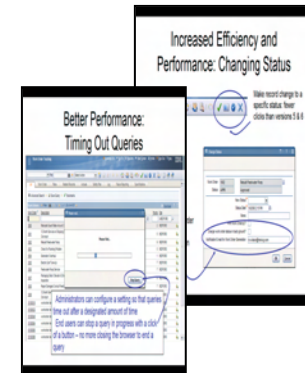
Migration Manager



- Migration of Configurations between Maximo environments
- Supports standard rollout environments:
 - DEV → TEST → PRODUCTION

Performance & Availability

Efficiency & Performance



- One Click Status changes
- Run-in background mode support
- Ability to 'kill' a report and 'cancel' query

Capabilities

Industry Solutions

Oil & Gas 7.1.1

- Reliability & Availability Analysis

Transportation 7.1.1

- Consist Management (Rail)

Nuclear Power 7.1.1

- Permitting, Config. Change Mgmt

Utilities 7.1.1

- Reliability & Availability Analysis

Spatial Asset Management

- Polygon selection, Usability enh.

Asset Configuration Mgmt 7.1.1

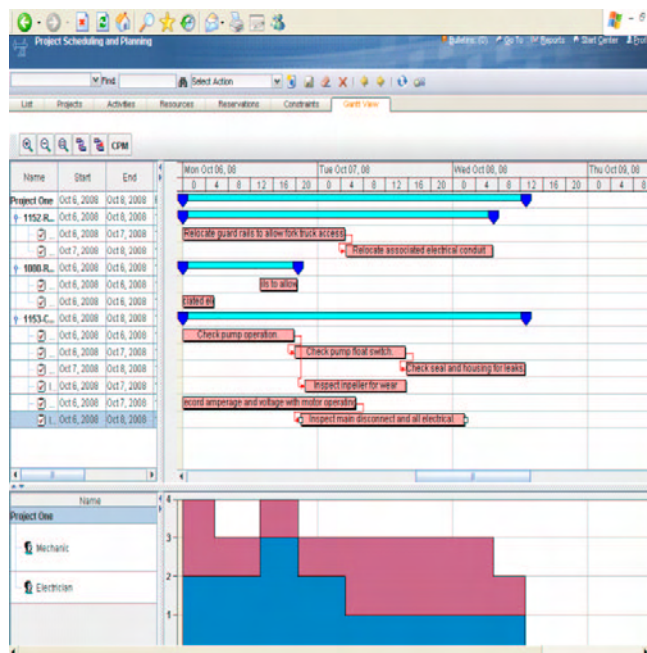
- Service Data Management

Primavera 7.1.1

- Import Task Resources

Complexity

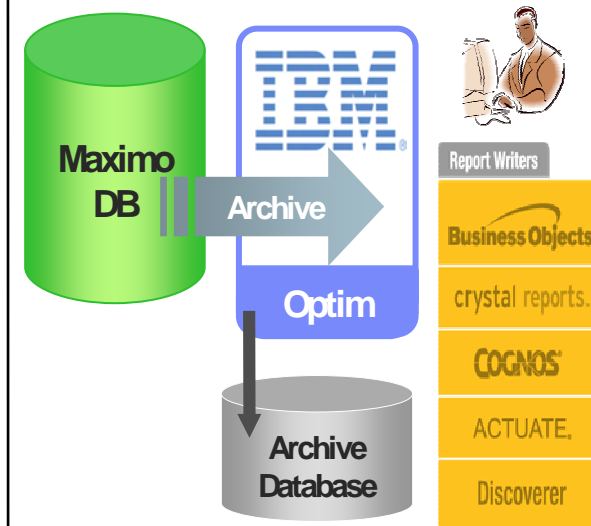
Maximo Scheduler



- Gantt chart control
- Drag and Drop WO/tasks
- View resource requirements
- Manage task dependencies
- Perform a CPM schedule

Performance & Availability

Maximo Archiving with IBM Optim

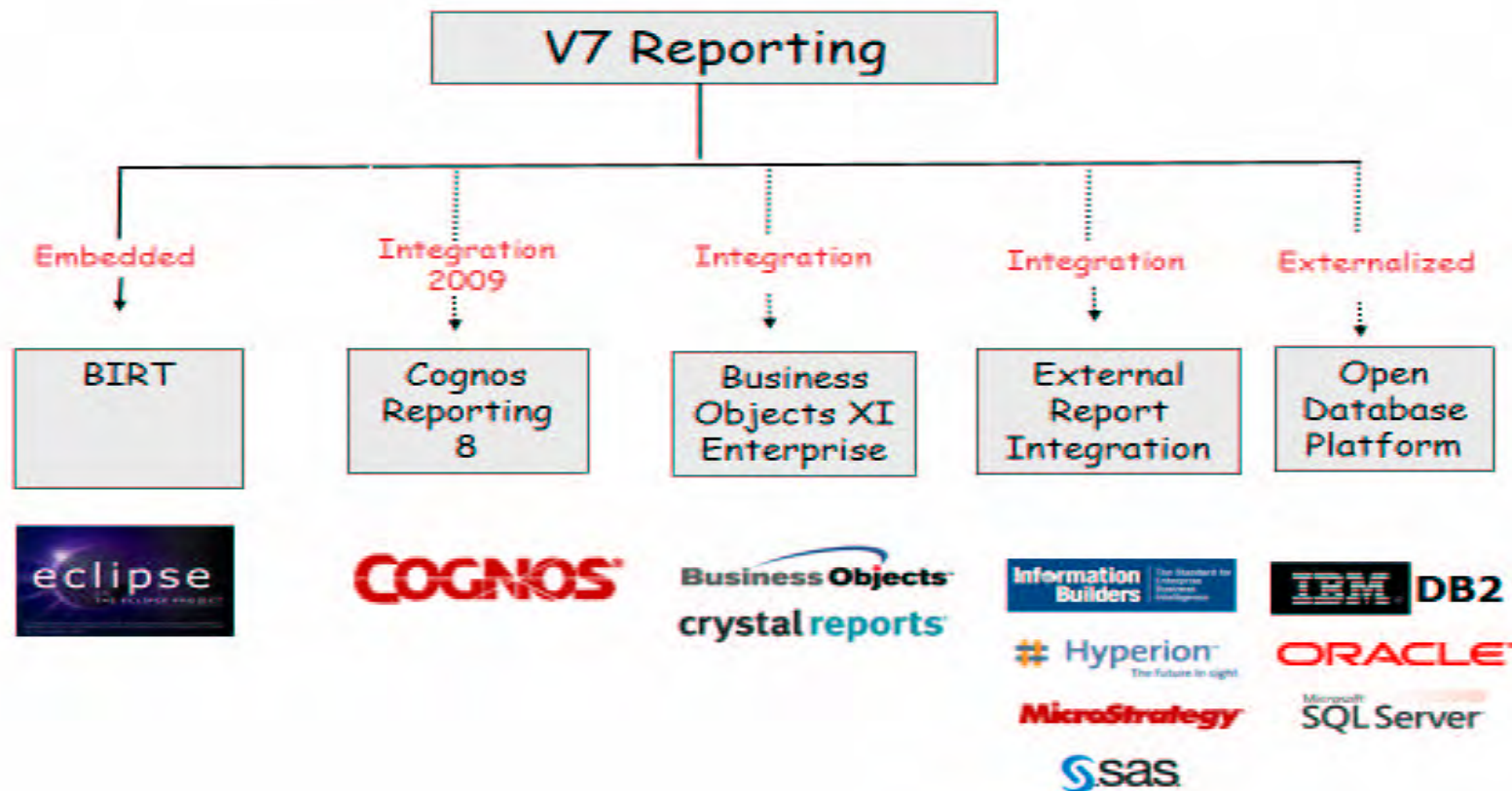


- Improve Apps Performance
 - Segregate Data & Move to Archive
 - Reduce database size prior to upgrade
- Reduce Infrastructure Costs
 - Deploy Tiered Storage Strategies
 - Simplify Infrastructure
- Improve Compliance



Maximo: Reporting

- Supports Maximo's Open Reporting System in enabling Clients to use Reporting Tool of Choice



Maximo Asset Management Strategy

- Manage all asset classes in a single system –
Production, Facilities, Transportation and IT
- Support converged and smart assets –
IT & operational assets, leveraging
Tivoli for Monitoring, Security, Network,
Availability, Automation, etc.
- Provide Asset Based Service Management –
Implements best practice to managing a system
of logically and physically connected assets
- Continue to Deliver Deep Industry-Specific Solutions–
Enhance capability to increase the out of box values
- Continue to protect customer investments by supporting existing and
new platforms – focusing on ability to upgrade customer
implementations, and delivering a modern, stable architecture



Maximo Asset Management 7.1 – Available Products

2008

- Released in May 2008
 - New coverage for Linear Assets and other Asset Management Capabilities
 - Decreased deployment / configuration cost
 - Enhanced user interface and security features
 - Upgrade from release 6 to 7.1 available
 - Available in 16 Languages
 - Expanded Platform Support

- Maximo Asset Management 7.1
- Maximo Linear Asset Manager
- Maximo Change & Corrective Action Manager
- Maximo Asset Navigator
- Maximo SLA Manager

- Upgrade Utilities

- Maximo Adapter for Project Manager

- Maximo Enterprise Adapter for SAP
- Maximo Enterprise Adapter for Oracle

- Maximo Mobile Work Manager
- Maximo Mobile Inventory Manager

- Maximo Adapter for Primavera

- Maximo for Oil & Gas 7.1
- Maximo for Government
- Maximo Asset Config. Mgr.
- Maximo for Service Providers

- Maximo for Utilities / Spatial
- Maximo for Transportation
- Maximo for Life Sciences
- Maximo for Nuclear Power

- All Industry Solutions available for Release 7.1
- Transportation
 - Telematics
 - Motor Pool billing
- Oil & Gas
 - Action tracking
 - Management of Change
- Upgrades available

Customer Adoption of Maximo 7.1



Amtrak

- Upgraded from Maximo 6 to 7.1



Austin Energy

- First customer live on 7.1



City of Chesapeake

- Maximo 7.1 live in 10 weeks



Chevron Mining Inc.

- Maximo 7.1 live in 13 weeks

.....and many more new and upgrading

Commitment to Maximo User Community

- 7 Maximo Industry User Groups
 - Maximo Transportation User Group
 - Maximo Oil and Gas User Group
 - Maximo Facilities User Group
 - Maximo ITSM User Group
 - Maximo Airports User Group
 - Maximo Life Sciences User Group
 - Maximo Utility Working Group
- Industry Advisory Councils
- Maximo Advisory Council (MAC)
 - Meetings held twice a year



Analyst View: Gartner EAM Magic Quadrant for Manufacturing 2008

Gartner

IBM Maximo is the only solution to have been placed in the EAM Leader's Quadrant in all 12 editions of the Gartner EAM Magic Quadrant for Manufacturing and the previous Gartner EAM Magic Quadrant



As of 4 September 2008

Source: Gartner (September 2008)

IBM is the Leader

- #1 in EAM Market Share - ARC
- #1 in EAM Market Share - IDC
- Gartner Magic Quadrant for Power Generation
- Gartner Magic Quadrant for Transmission and Distribution
- Gartner Magic Quadrant of Manufacturing
- IDC Short List for Power Generation
- IDC Short List Work and Asset Management for Energy Delivery

8 September 2008
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 Manufacturing
 Dan Miklovic
 D: G00159644

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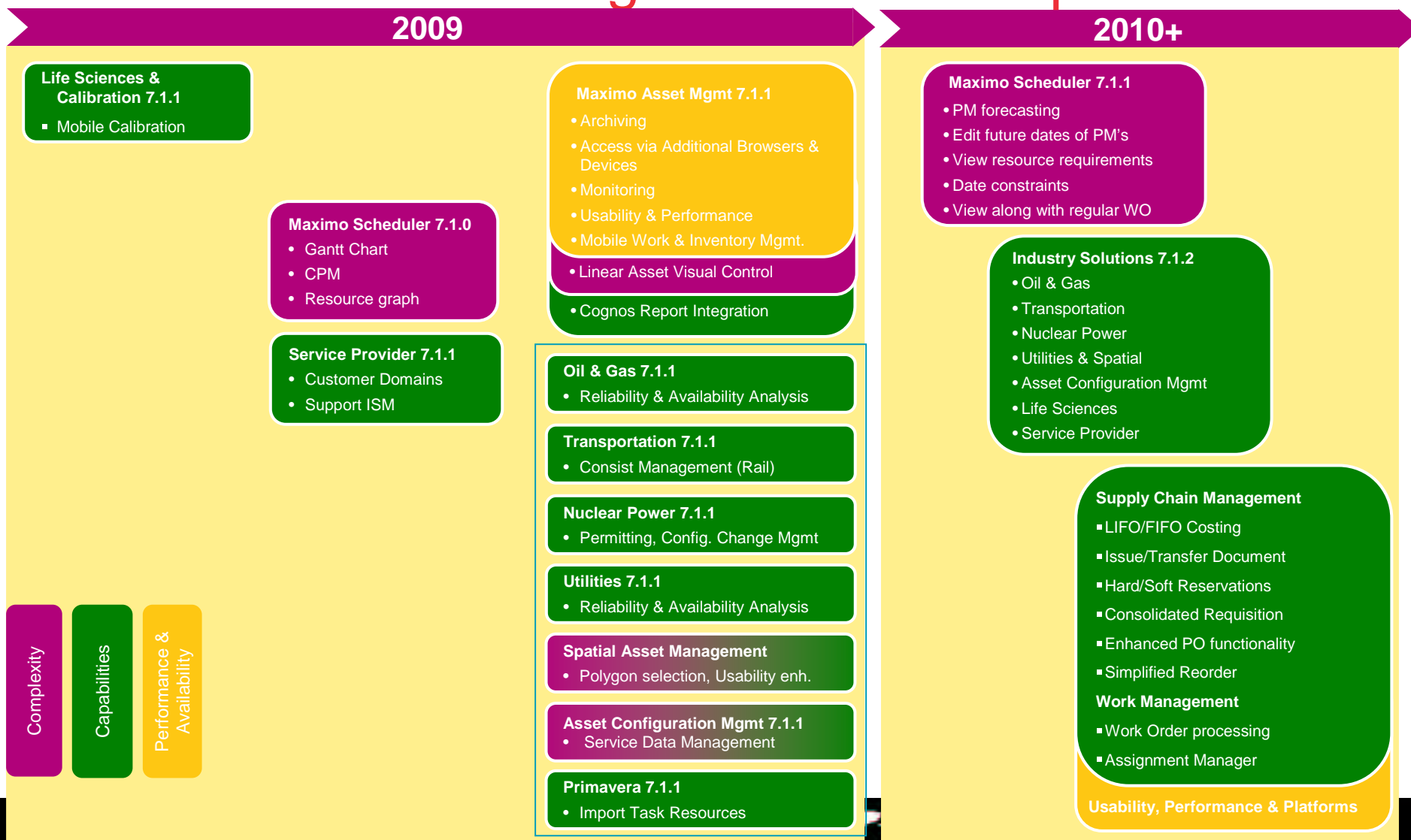
Managing the World's Infrastructure

Maximo Product Roadmap



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Maximo Asset Management Roadmap



Asset Management & A Smarter Planet



We've thought about IT as the world of data centers, software, PCs, routers, bandwidth.

We've thought about infrastructure as the world of buildings, factories, hospitals, roads, pipelines.

Those worlds are converging.

In a smaller, flatter, faster and “smarter” planet we face...

More *complexity in assets and processes*

More *capabilities required*

More *reliance on management systems*

but also have the opportunity to achieve...

More *insight and collaboration*

More *efficiency, growth & profit*

More *innovation*



Something Meaningful is Happening.

*“Every human being, company, organization, city, nation, natural system and man-made system is becoming **interconnected, instrumented and intelligent.** This is leading to new savings and efficiency—but perhaps as important, new possibilities for progress.”*



And Maximo is a big part of it!



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Thank You



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