Tivoli software

The Next Generation of Asset and Service Management

Operational Intelligence for Smart Asset Management

There is over $170 Trillion worth of assets in use today across the world.

Production Equipment	$5.8 Trillion in the utilities industry alone

Facilities	$162 Trillion

Transportation Assets	Over $4 Trillion

Linear Assets	Over $10 Trillion

IT Hardware and Software	$52 Billion in the Fortune 500 alone, HW only

Maximo provides enterprise level visibility across functional departments.

IT Managers can see how to streamline inventory and resources across the organization

Software Asset Managers can see how to optimize licensing to avoid over/under-purchasing and mitigate compliance risk

Financial Managers can see the entire inventory and analyze return on assets for financial reporting

Compliance/Risk/Governance can see asset detail to ensure regulatory compliance and mitigate risk

Contract Managers can see asset related contracts; negotiate vendor T&Cs and monitor supplier performance

Maintenance Managers can see job plans enabled by availability of information to increase asset capacity

Hardware Asset Managers can see lease and maintenance status and when to plan for upgrades

Service Desk Technicians can see asset data to streamline service request handling and expedite incident & problem resolution
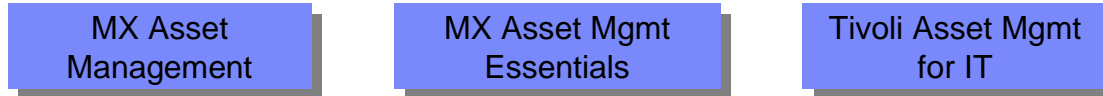
Purchasing Managers can see costs and orders enterprise-wide for price comparisons, discounting, standardization and order tracking

Operations Managers can see asset conditions in sufficient detail to improve asset utilization & performance

Facilities Managers can see assets in the Data Center to optimize power consumption and reduce unplanned outages
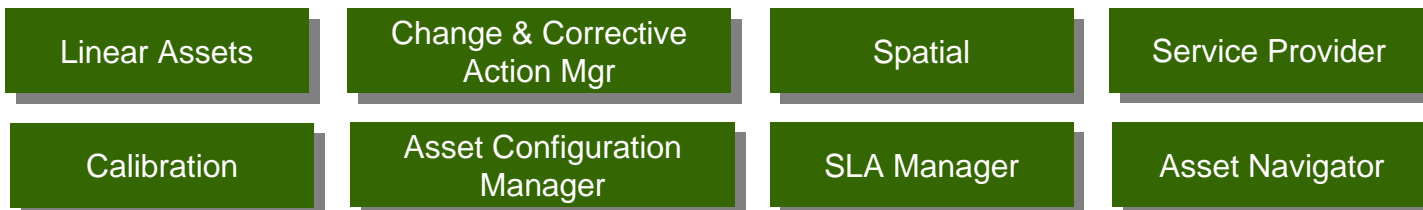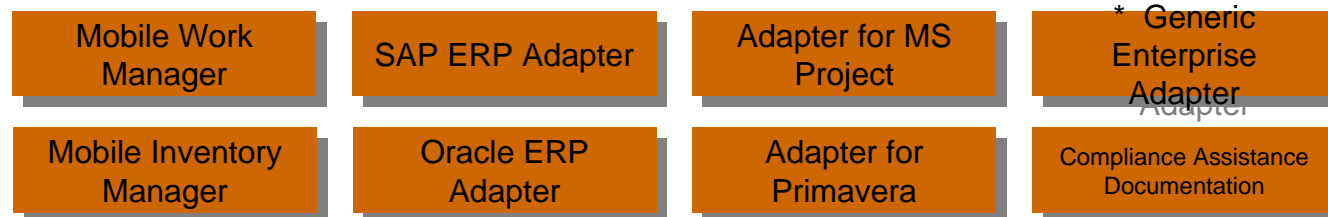
Asset Management Product Family

General Solutions

MX Asset Management	MX Asset Mgmt Essentials	Tivoli Asset Mgmt for IT

Industry Solutions

Utilities	Life Sciences	Nuclear Power
Transportation	Government	Oil & Gas

Add-On Solutions

Linear Assets	Change & Corrective Action Mgr	Spatial	Service Provider
Calibration	Asset Configuration Manager	SLA Manager	Asset Navigator

Options

Mobile Work Manager	SAP ERP Adapter	Adapter for MS Project	* Generic Enterprise Adapter
Mobile Inventory Manager	Oracle ERP Adapter	Adapter for Primavera	Compliance Assistance Documentation

* Included with MAM 7.1

Integrated Architecture

Integrated Solution
With Operational & Process Management

Web Platform
Based on J2EE, SOA, XML

Processes Work Together
Built upon ITIL Foundation

No Rip and Replace
Leverage existing investments

Flexible Workflow and Configuration Tools
Pre-built adapters and no coding
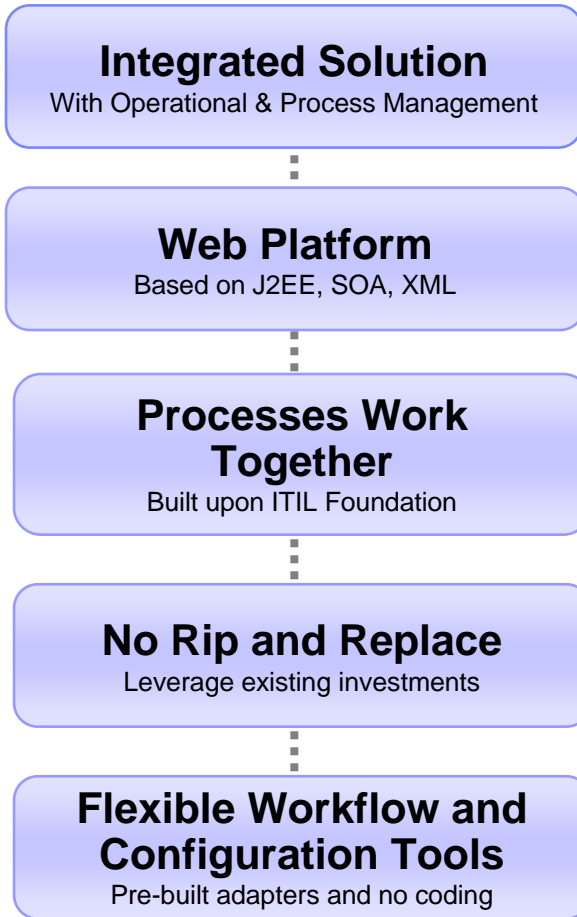
Common Data Model | Common Workflow
Common reporting | Common UI | Common Tools

Maximo Asset Management

Tivoli Asset Management for IT

Tivoli Service Request Manager

Change and Configuration Management Database (CCMDB)
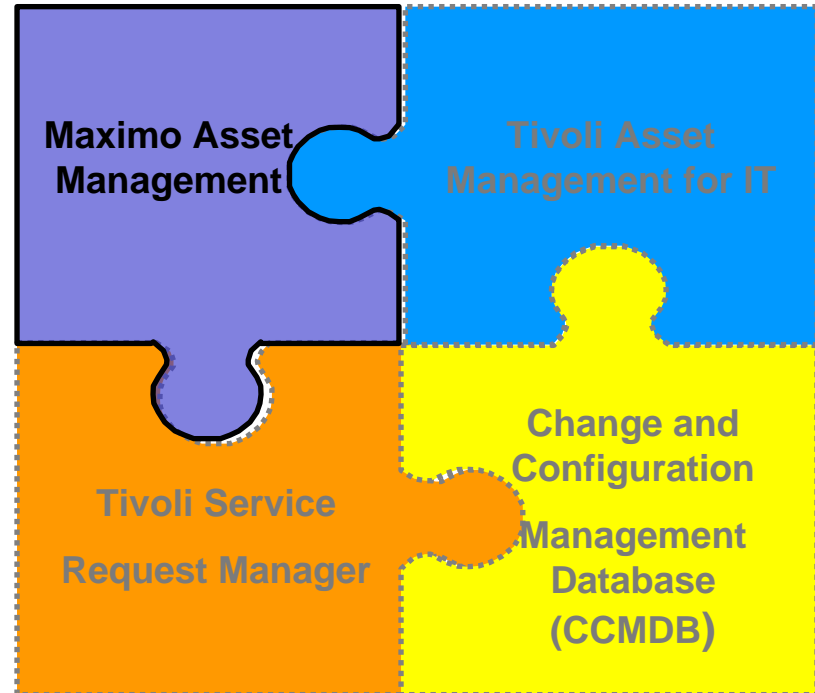
IBM Maximo

- Addresses business challenges of Operations and IT

- Provides Service Management capabilities for
    - Asset Owners
    - Asset Managers
    - Service Providers

- Consolidates point technology solutions for Asset and Service Management

- Next generation J2EE / SOA Technology Platform

- Configurable "platform" to support changing business requirements

IBM Maximo Capabilities – Asset Mgmt.

ASSET Management

- Asset Mgmt details:
  - Location/Function, work, and cost history
  - Location and equipment hierarchies and networks
    - Roll-up costs across systems, subsystems, service and locations
  - Asset Modeling, Spare Parts, Attributes, Meters and Attached Documents with logical inclusion downstream
  - Asset Safety Hazard elimination and LOTO capabilities
  - Condition Monitoring
    - Allows for proactive response
    - Automatically generate work orders based on pre-set tolerances
    - Decreases reactive maintenance & unplanned downtime
  - Authorized vs. Deployed asset repositories
    - Reconciliation allows an organization to effectively manage their constantly changing infrastructure
    - Hardware specification and Software license compliance
  - Forms core of CMDB

IBM Maximo Capabilities – Work Mgmt.

WORK Management

- Supports planned and unplanned maintenance activities from initial service requests to work order generation, through completion and recording of actual results
  - Job plans for recurring tasks
  - Preventive/Predictive/Recurring Maintenance
  - Manage labor, skills, qualifications, training
  - Graphical assignment manager
    - Ensures assignment of the right person, with the right skills
  - Tight integration with Project Management tools
  - Mobile enablement

IBM Maximo Capabilities – Materials Mgmt.

MATERIALS Management

- Track all materials, parts, components and their usage
  - Decreases stock, eliminates unnecessary spending
- Inventory optimization and planning tools help stock the right level of inventory to meet demand
  - Re-order points
  - Economic order quantities
  - ABC analysis
- Track serialized assets as they move through the enterprise
- All transactions are recorded allowing for real-time knowledge of status

IBM Maximo Capabilities – Procurement Mgmt.

PROCUREMENT Management

- Plan demand, streamline purchasing processes, ensure compliance with existing purchasing contracts
  - Eliminate costly off-contract buying by establishing approved vendors
  - Ensure the right materials and assets are ordered at exactly the right time
  - Analyze vendor performance
  - Automate requisitioning based on schedules
  - Eliminate human intervention with "lights out purchasing" of interval-based, meter-based or event driven requirements
  - Electronic Commerce enabled

# IBM Maximo Capabilities – Contract Mgmt.

CONTRACT Management

- Comprehensive functionality to fully manage vendor contracts
  - Master
  - Lease/Rental
  - Service/Warranty
  - Labor Rate
  - Software License
  - User-defined

- Terms and Conditions library
  - Ensures consistency & standardization

- Payment Schedule support

- Associate Service Level Agreements to contracts to monitor vendor performance

Customer Benefits and Demonstrated Value
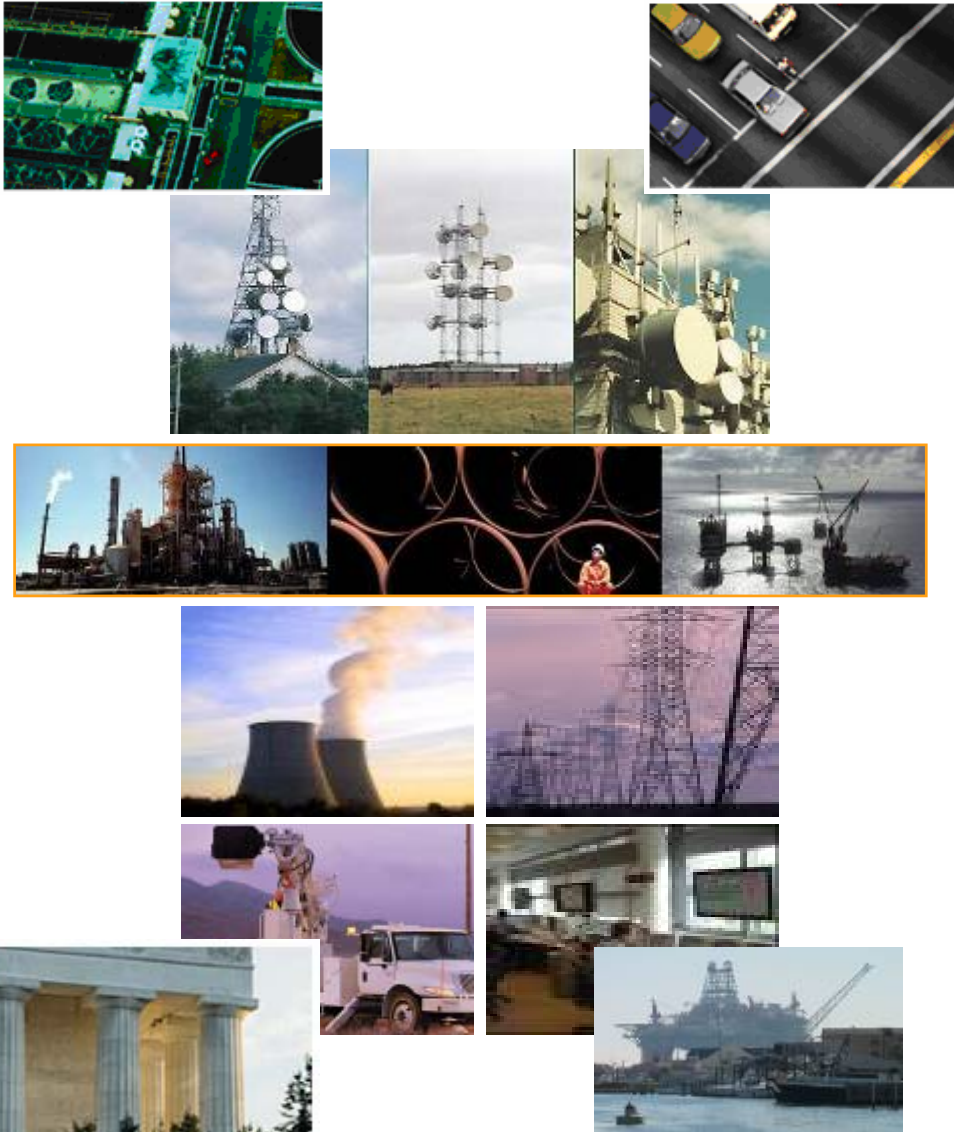
Labor Utilization **UP 10-20%**

Asset Utilization **UP 3-5%**

Equipment purchases DOWN **3-5%**

Warranty recoveries UP **10-50%**

Inventory needs DOWN **20-30%**

Inventory carrying costs DOWN **5-20%**

Material costs REDUCED **5-10%**

Purchasing labor REDUCED **10-50%**

Architecture

Architecture

- **All applications built in a** Java 2 Enterprise Edition **(J2EE), n-tiered component architecture**

- One of the few major applications J2EE certified

- Major technology jumps for vendors not on full J2EE or .NET platform

- Standard for developing multi-tier enterprise applications

- Natively supports global security model
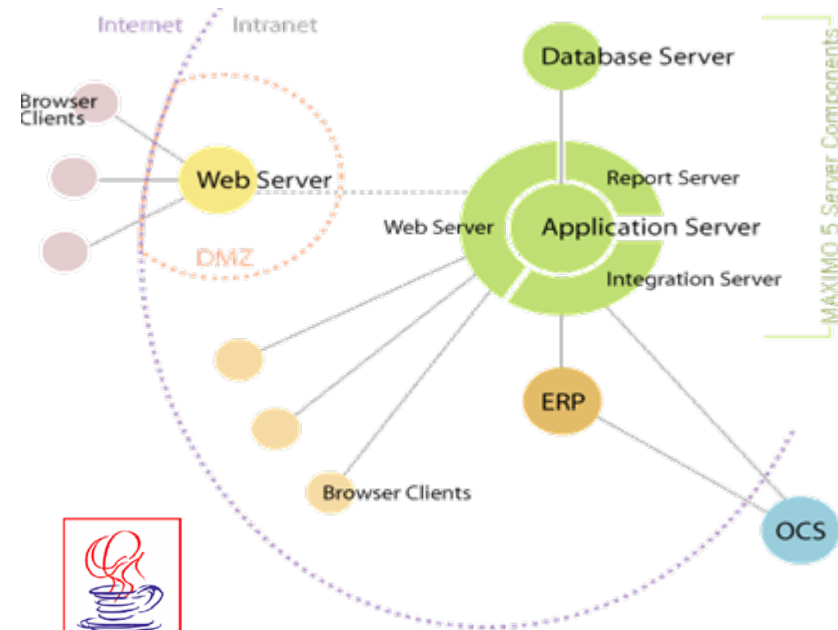
> Built from the ground up in a <u>true</u> Web Architecture

> Non-proprietary standards based technology framework

JAVA
VERIFIED™
Enterprise
Application

IBM® Maximo has been certified as an SOA Specialty Product by IBM.

Configuration Tooling and Framework

Key IBM Advantage: Configuration & Workflow Tools

- Easy-to-use Application Designer

- Integrated Database Configuration Tool

- Configurable role-based User Interfaces

- Real-time KPI-based dashboards

- Configurable graphics

- Powerful Escalation Engine

    - Integration with pre-built adapters

    - Easy-to-use Workflow Builder

    - Standardized workflow engine

    - Provides capability for seamless integration of ITIL-based processes

Architecture allows product version upgrades without configuration re-writes !!
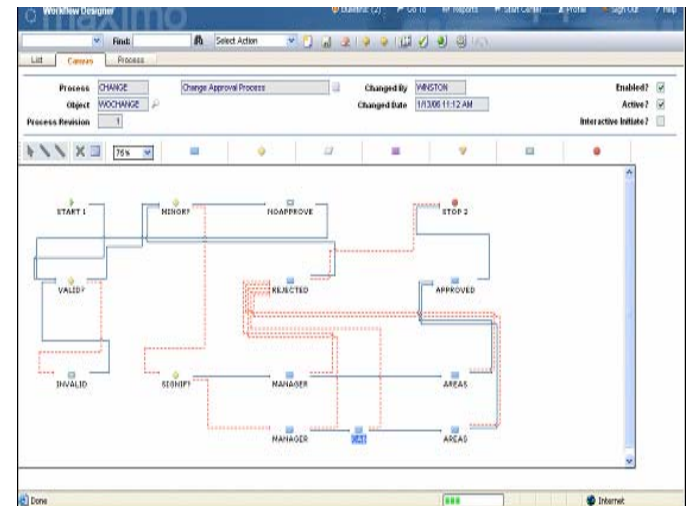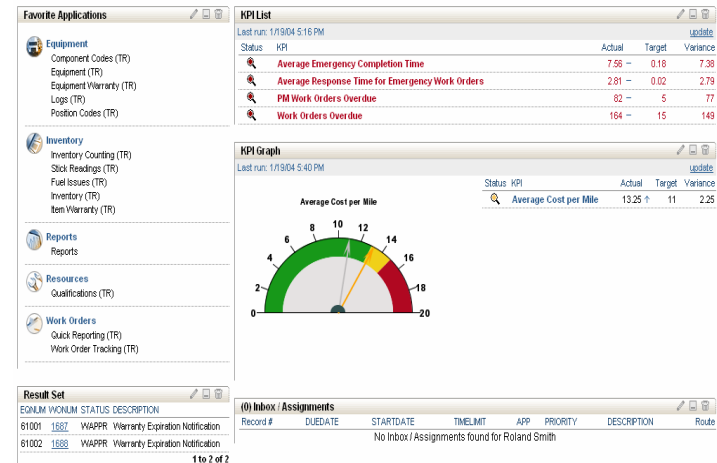
Integration Framework

- UI driven integration development and deployment

Define	Transform	Deploy
Define an Integration Service for Maximo Object(s)	Define transformation and processing logic	Define deployment parameters and systems
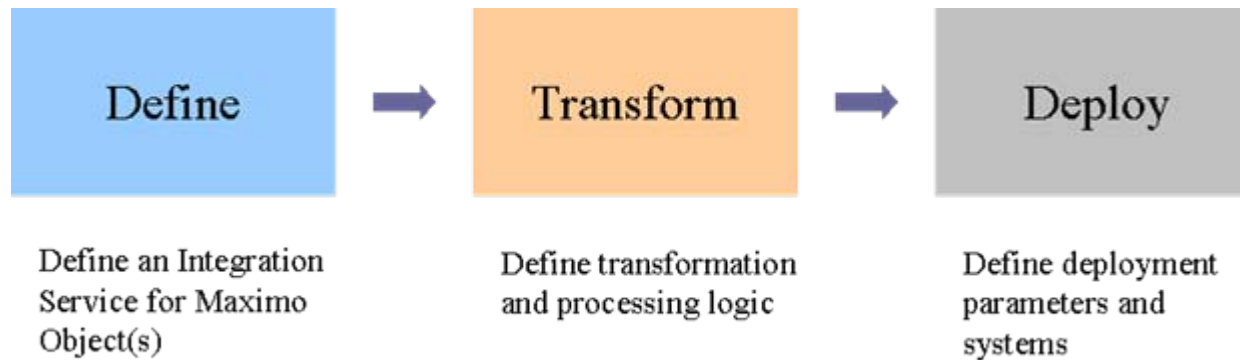
- Multiple integration options

  - Web services

  - JMS

  - HTTP(S)

  - Database

  - File (XML or flat)

  - Event or Batch/bulk processing

  - Email and workflow connectivity
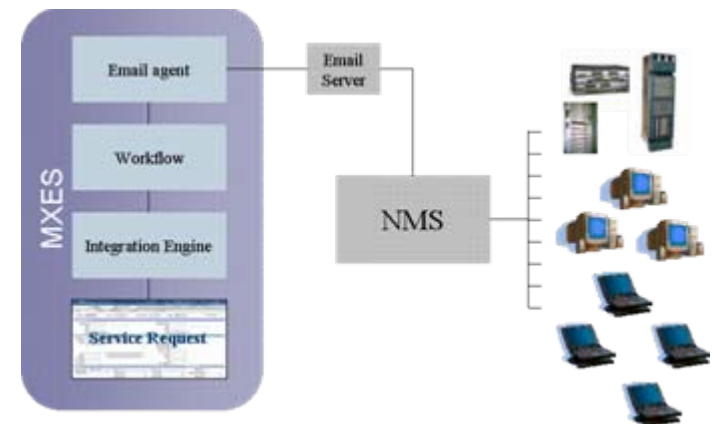
SNMP feed via email

Integration Strategy

CCMDB

Maximo Enterprise Asset Management

Tivoli Service Request Manager

Tivoli Asset Management for IT

- HW/SW Contract Mgmt
- Procurement Mgt
- Financial Mgmt
- H/W Asset Lifecycle Mgt
- Workflow

- Maximo License Compliance Center
- S/W License Compliance
- S/W inventory and use mgmt

Authorized Assets ← Asset Reconciliation → **Deployed Assets**

SAP

Oracle

ERP

HR

Procure-ment

Fixed Assets

MIF

TUAM — Chargeback/ Usage Accounting

MIF

TEC CTI Sametime Netcool TRC 3rd Party

Integration Composer

Hardware & Software Discovery

TPM/TCM TLCM TLCMz TADDM NetCool 3rd Party

MIF = Maximo Integration Framework

Maximo Reporting

- Maximo ships with BIRT and Actuate for upgrades
- Out-of-the-box integration with BO/Crystal
- Integration with other tools enabled with External Reports Integration

Maximo 7

Upgrade only

BIRT

Actuate

BO/Crystal

External Reports Integration
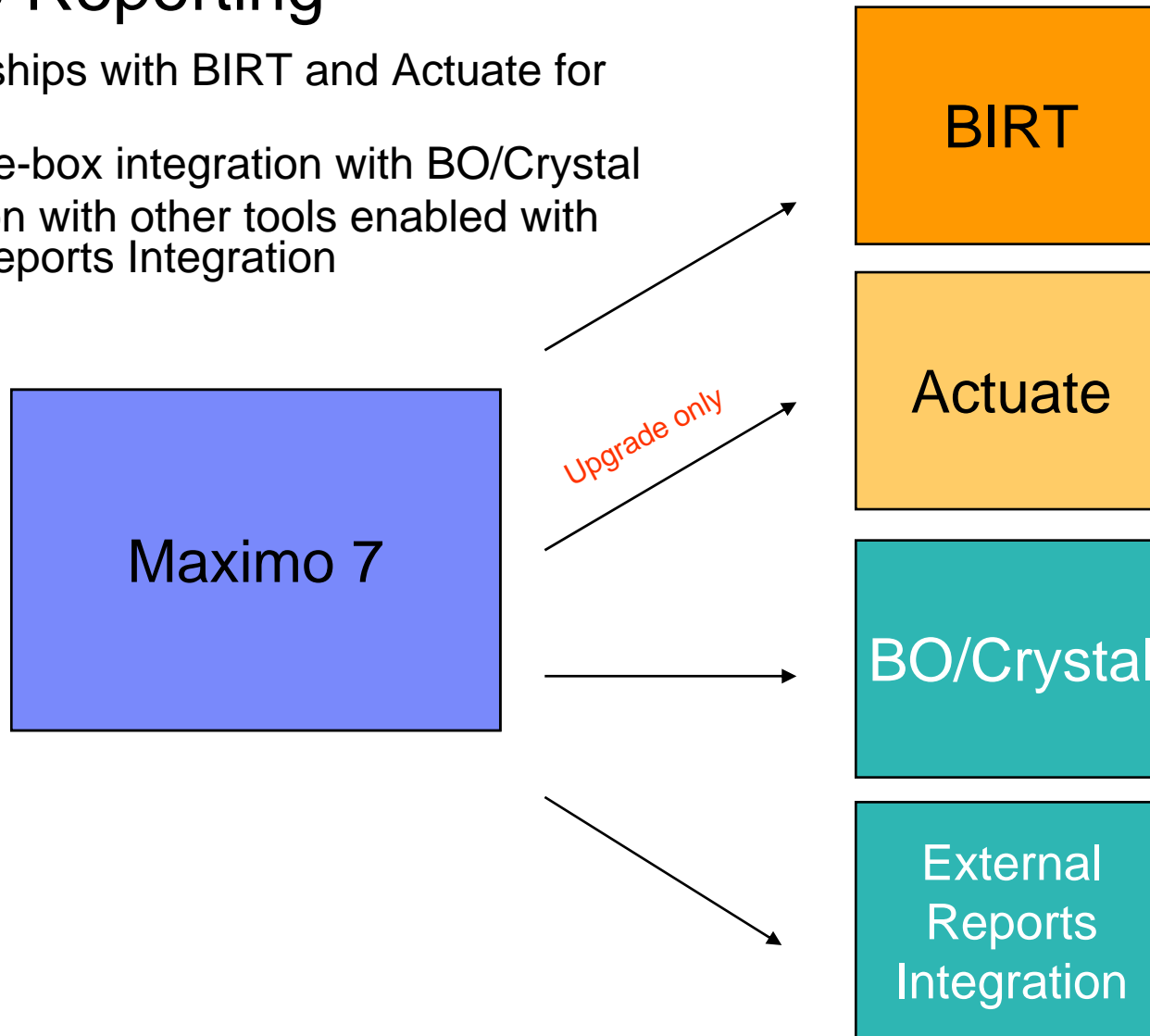
Maximo Tools for Smarter Work Management.

- Maximo Every Place

- Maximo Scheduler

- Maximo Mobile Work Manager and
- Inventory Manager
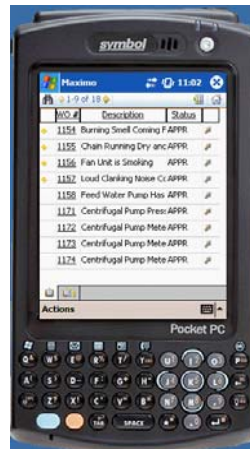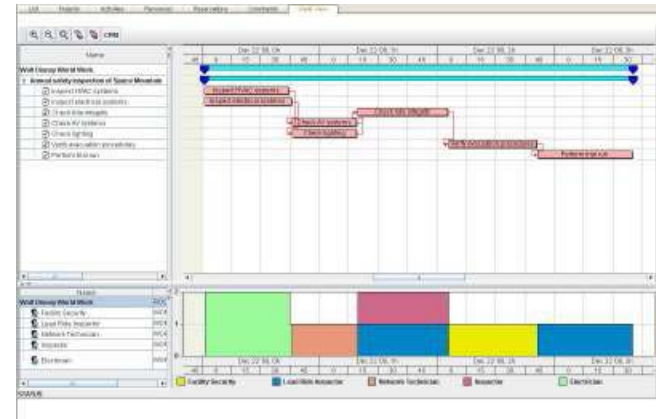
Analysts View

Analyst View

Gartner

Figure 1. Magic Quadrant for Enterprise Asset Management for Manufacturing

Source: Gartner (September 2009)
As of September 2009

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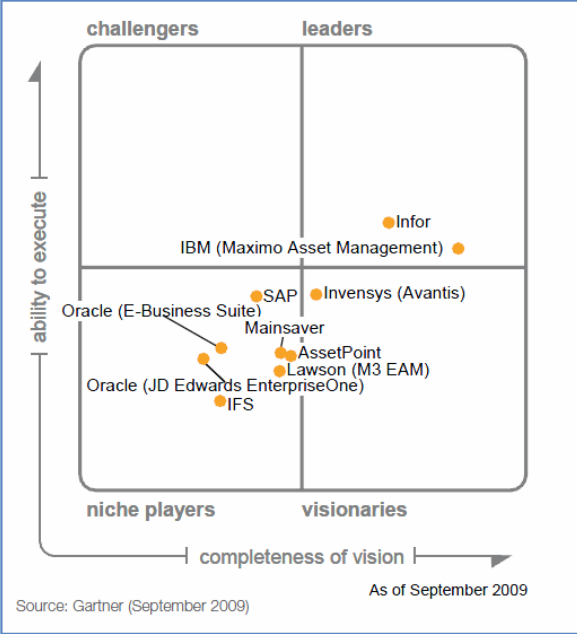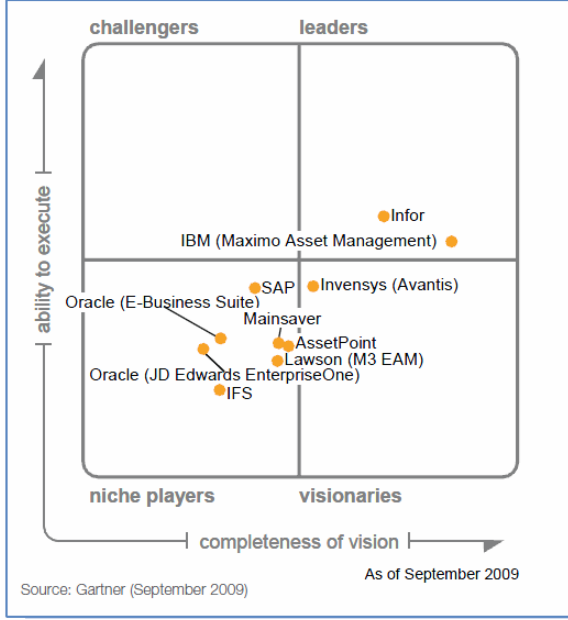
Figure 1.
Magic Quadrant for Power Generation Enterprise Asset Management Software

Source: Gartner (September 2009)
As of September 2009
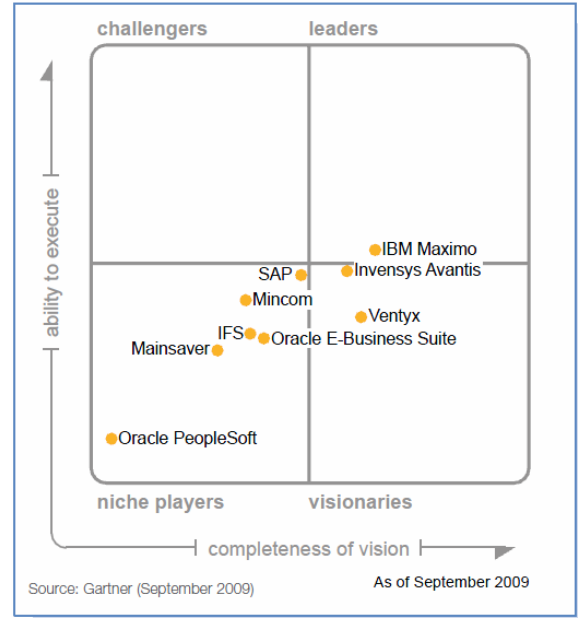
Summary

IBM Maximo Leadership in EAM

- ✓ Providing (E) Enterprise (A) Asset (M) Management Solutions Since 1968

- ✓ Over 10,000 Clients in 103 Countries Worldwide

- ✓ Industry's Leading Enterprise Asset Management Provider – Significant Margin

- ✓ Maximo is the Most Widely Used and Successfully Installed Enterprise Asset Management Solution in the Public Sector Marketplace. Public Sector is our Fastest Growing Market.

- ✓ Largest User Group Community in the Industry

- ✓ Our Clients are our Key Input Source for New Functionality.

- ✓ Industry-Best Technology and Tools - SOA and Web Services Standards with Java2 Enterprise Edition (J2EE) Technologies.

- ✓ No Code on the Client - A Pure Web/Browser Based Solution Provides a Cost Efficient and Rapid Deployment to a Distributed Environment. Any Existing Workstation that is Browser Enabled Can Be Utilized With Maximo.

- ✓ Maximo Provides Application Designer and Workflow Designer Tools to Configure the System to our Client's Specific Needs. Configurations Are Upgradeable with Subsequent Releases of Maximo.

- ✓ Native Mobile Technology That Works with Bar Codes and RFID.

- ✓ Maximo Enterprise Adapter – Provides Integration to Any Third Party System (Homegrown, Mainframe, Package)

- ✓ All Backed By A $100 Billion Dollar Company – In Process of doubling the R&D Staff.

- ✓ IBM has a Huge Commitment to the continued success of Maximo.

- ✓ Our Clients Are Our Greatest Asset

Who uses Maximo in New Zealand?

Questions? and Thank You!

WIN

An Apple
iPhone 3GS 8GB
Valued at $719!*

Visit the IBM® Stand,
fill in an evaluation form
for your chance to WIN!

*See competition poster for full terms and conditions (available at the IBM® Stand)
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Backup

Client Successes In All Industries

96 of Top 100 Financial Institutions	ING · FIRST CITIZENS BANK · Prudential Financial — Growing and Protecting Your Wealth®
96% of Government Agencies	Michigan.gov · UNIVERSITY of TORONTO
Top Global Telco Companies	T··Mobile · belgacom · BT · DiGi · CABLE & WIRELESS
9 of 10 Healthcare Companies	MayoClinic.com — Tools for healthier lives · ANMED HEALTH · REX HEALTHCARE
8 of 10 Top Retailers	ebaY · UPS · Federated DEPARTMENT STORES, INC. · Parcelhouse SMART eLOGISTICS
Energy/Utilities	e·on IS · gasNatural · bp · HydroOttawa
Manufacturing/Industrial	*Ford Motor Company* · PHILIPS
Media/Entertainment	WB · REUTERS · US OPEN

Who uses Maximo? Asset Intensive Organizations

11 of the 12 largest PHARMACEUTICALS **companies in the world are using Maximo**

7 of the 10 largest AUTOMOTIVE **companies in the world are using Maximo**

5 of the 10 largest OIL & GAS **companies in the world are using Maximo**

10 of the 20 largest diversified UTILTY **companies are using Maximo**

11 of the 12 major AEROSPACE & DEFENSE **companies in the world are using Maximo**

7 of the 13 busiest AIRPORTS **in the world companies are using Maximo**

6 of the 17 largest ENERGY **companies in the world are using Maximo**

Thousands of Customers in Industries Around the World

Transportation & Travel
- Airports
- Aviation
- Freight/Logistics
- Marine, Ports & Terminals
- Rail & Transit
- Hospitality

Manufacturing & Distribution
- Aerospace & Defence
- Electronics & Industrial
- Life Sciences
- Automotive
- Food & Beverage
- Retail

Government & Public Sector
- Federal (Civil)
- State/ Local
- Education
- Federal (Defense)
- Government (non-U.S.)
- Healthcare

Energy, Utilities & Natural Resources
- Nuclear
- Fossil/Hydro Powergen
- Transmission & Distribution
- Water / Wastewater
- Oil & Gas, Chemicals
- Mining / Metals / Minerals

Financial Services, Telecom & Service Providers
- Banking & Securities
- Telecommunications
- Service Providers (EAM)
- Insurance
- Media & Cable
- Service Providers

Maximo is EVERYWHERE!

Nuclear
- 42 units globally
- >25% Market share in NA
- Southern, TXU, Daya Bay, Fortum, DTE, Dominion, TVA

Fossil/Hydro Powergen
- 160 customers globally
- 10 of 20 Fortune 1000
- Duke, Xcel, NYPA, LCRA, NRG, Bureau of Rec

Transmission & Distribution
- 80 customers globally
- Focused Development Team
- APS, DTE, NiSource, ESKOM, ConEd, Scotia Gas

Water / Wastewater
- 125 customers globally
- 11 of 30 largest cities
- MWRA, MWD, Honolulu, Corpus Christi, LADPW, Thames

Oil & Gas, Chemicals
- 200 customers globally
- 5 of top 10 Fortune 500
- BP, Flint Hills, Chevron,
- ADNOC, El Paso, BOC Gases

Mining / Metals / Minerals
- 30 customers globally
- world's largest steel producer
- BemaGold Alcoa, Yallourn, Syncrude

Maximo is EVERYWHERE!

Airports
- 100 customers globally
- 7 of top 13 busiest
- BAA, DIA, Swissport, Schiphol, Las Vegas, Detroit

Marine, Ports & Terminals
- 75 customers globally
- 26 maintaining vessels
- BC Ferry, Hutchinson Ports, Port of Seattle, Stolt Offshore

Aviation
- 40 customers globally
- 17 maintaining aircraft
- Northwest (Compass), Aires, Shanghai, Boeing, Rolls Royce

Rail & Transit
- 100 customers globally
- Amtrak, Tube Lines, Washington Metro, Long Island Rail Road, BAM Rail

Freight/Logistics
- 70 customers
- JB Hunt, Fedex, Coca-Cola Enterprises, Frito Lay, DHL, Albertsons

Hospitality
- 100 top hotels, casinos, amusements parks
- Starwood, MGM, Mohigan Sun Casino, Disney World

Maximo is EVERYWHERE!

Aerospace & Defense
- 50 customers globally
- 11 of 12 largest companies
- Boeing, EADS, BAE systems
- Lockheed Martin, Raytheon

Automotive
- 80 customers: OEM / Tier1
- 7 of top 10 companies
- GM, Ford, Toyota, VW-AUDI,
- Daimler-Chrysler, Hyundai

Electronics & Industrial
- 85 customers globally
- 6 of 9 largest companies
- Samsung, Philips, Motorola,
- Intel, TI, Tyco Electronics

Food & Beverage
- 75 customers globally
- 5 of top 10 companies
- Cargill, Nestle, Sara Lee,
- Coca Cola, Gen'l Mills, Diageo

Life Sciences
- 150 customers globally
- 11 of top 12 companies
- Abbott, Alcon, Amgen, BMS,
- Sanofi-Aventis, Eli Lilly, J&J

Retail
- 40 customers globally
- 5 of 10 top companies
- Albertson, Target, Sears,
- Sainsbury, Darty, GAP

Maximo is EVERYWHERE!

Federal (Civil)
- 56 customers
- Department of the Treasury, NASA, GSA, Veterans Affairs

Federal (Defense)
- 84 customers
- US Air Force, US Army, US Marine Corps, US Navy

State / local
- 125 customers
- AK Dept. of Admin., State of CA, GA Dept. of Admin. Svcs., Maryland DOT, LA County DPW

Government (non-US)
- 48 customers globally
- Dutch Army, Royal Saudi Air Force, Royal Canadian Mint, Israeli Army

Education
- 127 customers globally
- Cornell University, Johns Hopkins University, Detroit Public Schools, Perdue Univ.

Healthcare
- 92 customers globally
- Mass General Hospital, Barnsley District Hospital, Baptist Hospital - Louisville

Maximo is EVERYWHERE!

Banking & Securities
- 50 banking customers
- 15 securities customers
- State Street, Freddie Mac, AMEX, Merrill Lynch, HSBC

Insurance
- 10 customers globally
- Early ITSM story - Amerus
- Allstate, Mutual of Omaha, AmerUs, Banque de France

Telecommunications
- 20 customers globally
- Success w/Mobile Providers
- T-Mobile, Vodafone, Proximus, Qualcomm

Media & Cable
- 17 customers globally
- Mainly facilities asset class
- BBC, Turner Broadcasting, Universal Studios

Service Providers (EAM)
- 110 customers globally
- Facilities & Industrial
- Honeywell, ABB, Johnson Controls, UNICCO

Service Providers (ITSM)
- 15 customers globally
- Managed Svcs, Outsourcing
- CSC, Getronics, Accenture, HP

Aging application portfolio

Plant Digital Control System			Customer Information System		

Plant Digital Control System

Capital Projects

- Investment Planning
- CPM Scheduling
- Engineering

Operate and Maintain Assets

Planning & Scheduling	Work Force Management
SCADA	Document Management
Outage Management	Operator Rounds
Work Management	Contractor Management
Asset Management	Service Management

Customer Information System

Develop Assets
- Network Analysis/Design

Operate Assets
- Metering
- SCADA
- Outage Management

Maintain Assets

Geographic Information System

Construction Work Mgmt.	Meter Work Mgmt.	Maintenance Work Mgmt.
Workforce Management	Workforce Management	Workforce Management

Supply Chain/Material Management

HR, Finance

Supply Chain/Material Management

HR, Finance

- **Duplication of Functionality**
- **Legacy Code**
- **Point to Point Integration**

IBM Maximo Asset Management

Asset Management
- Locations
- Asset
- Failure Codes
- Condition Monitoring
- Meters
- Meter Groups

Work Management
- Job Plans
- Routes
- Service Requests
- Service Items
- Work Order Tracking
- Safety
- Quick Reporting
- Labor
- • Qualifications
- Lock-Out/Tag-Out
- Tools /Crafts/Companies
- Preventive Maintenance
- Master PM
- Assignment Manager

Materials Management
- Item Master
- Storerooms
- Inventory
- •Consignment Stock
- •Lot Management
- •Kitting
- Issues & Transfers
- Condition Codes
- Stocked Tools
- Service Items

Purchasing
- Request for Quotation
- Receiving
- Receiving Inspections
- Purchase Requisitions
- Invoices
- Purchase Orders
- Desktop Requisitions

Contract Management
- Purchase Contracts
- Master Contracts
- Warranty Contracts
- Lease/Rental Contracts
- Labor Rate Contracts
- Payment Schedules

Service Management
- Service Catalogs
- SLA Management
- Incidents
- Problems
- Changes
- Releases
- Solutions

Enhanced Workflow – Event Driven, Context-based / Escalation Manager

KPIs / Reporting / Analysis

Security & Administration

ISM 7.1 Total Solution

Common User Interface	Common Configuration Services
Web Based	**Workflow**
User Configurable	**User Interfaces**
Configurable by roles	**Data Extensions**
Role base data access	**Data Visualization**
Reporting Engine	**Report Definition**
Out of the Box Reports	

Maximo Asset Mgmt

Tivoli Service Request Mgmt

Change & Configuration Mgmt DB (CCMDB)

Tivoli Asset Mgmt for IT

Process Workflow Runtime & Services

Collaboration	Notification	Escalation	Security	**Integration Modules**

Common Data Subsystem

CIs	Assets	Process Artifacts	Meta Data
•Attributes	•Attributes	•Related to CIs and Assets	•Configurations
•Relationships	•Relationships		•Process

Discovery and Application Dependency Mapping

Reconciliation	Federation	Discovery	Discovery Library

Operational Mgmt Products

IBM and Non-IBM Software
- •Application Mgmt
- •Server/Device Mgmt
- •Network Mgmt
- •Storage Mgmt
- •Security Mgmt
- •Discovery tools
- •Customer developed