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SERVICE MANAGEMENTWORLD TOUR 2008 **THE RIGHT ANSWER, IS RIGHT HERE.**

IBM Service Management for Your Industry

David Bartlett

Vice President
Tivoli Industry Solutions

Service Management – Beyond IT! For the Needs of Today's and Tomorrow's Industries GLOBAL Regulatory & Environmental INFRASTRUCTURE **Policy Impact Impact** SUPPORTING YOUR BUSINESS **Financial Mkts Energy Demand Expectations** Customer Energy / Fuel Satisfaction Costs **Technological** Assets and Advancements Workforce Dynamics

Managing assets/devices is more about managing the business, than the endpoint

Industries increasingly connecting industrial assets to IT infrastructure, blurring the lines between IT and Enterprise Asset classes.

IT Assets

Enterprise Assets



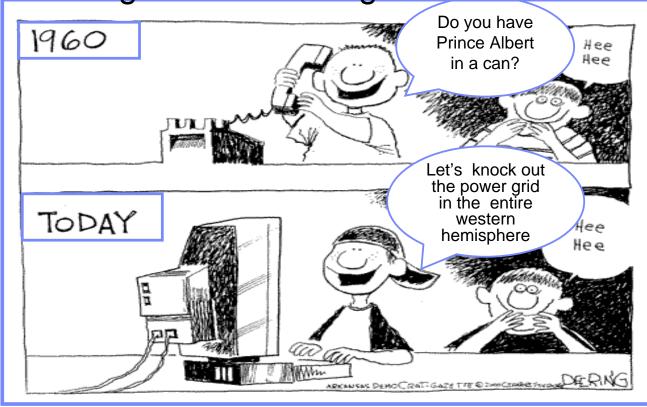
Drivers of Intelligent Infrastructure:

- •Pervasive Computing; RFID; embedded software, IP addresses on enterprise assets like pumps, generators, fleets
- •Open standards and SOA software are enabling more seamless integration of processes across the lifecycle



New Technology Advances brings New Challenges

Improve Security
IT and Business alignment
Compliance issues
Competitive pressures
Technological advances
Globalization
Need to reduce costs





IBM Service Management (in 10 words or less)

'Manage whatever's required for a company to deliver whatever's needed'









IBM Service Management (The One Minute Elevator Talk)

Visibility

See the Business



Control

Manage the Business



Automation

Improve the Business





Industry Solutions



Making Service Management Industrial Strength!

Industry Frameworks

Industry Standards

Process/Data Models

Integration Assets

Industry Software Foundation

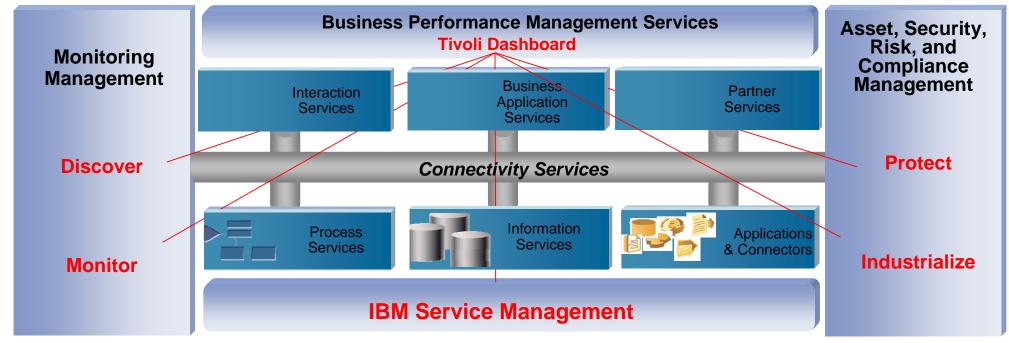


Software platforms based on business specific usage pattern

- Industry-specific extensions / business & technology standards
- Based on service-oriented architecture
- An ecosystem of independent partner assets



Service Management Architecture a management template for all industries



for SOA Based Industry Solutions...



Industry Frameworks ... architected for multiple industries...

Tivoli

Industry

Solutions



Retail Integration



Framework



Product Development Integration













Information Integration

Framework

StatoilHydro

Solution Architecture Framework for Energy







IBM Service Management for Utilities

Visibility:

- ➤ Intelligent Utility Network (IUN) –visibility throughout the grid is key
- Not just an IT project encompasses process, culture, and technology
- > Provides enterprise wide view of all utility asset types including transmission and distribution, production, maintenance, IT, customer and business apps

Control:

- Network management for IP enabled transport network with event correlation across grid and IT infrastructure
- Integrate IT asset management, physical asset management and service desk as new intelligent electrical devices are introduced into the Intelligent Utility Network
- Manage identity and access to insure the security of the utility

Automation:

- ➤ Enables 'on-demand' access to data & information to better manage, automate & optimize operations and planning processes throughout the utility
- > Reduce problem determination time in isolating faults and take corrective actions to ensure speed of resolution and eliminate human errors
- >Automated software provisioning of IT assets, meters, mobile devices, ...



...Improving service restoration time, and reducing truck rolls

...Improving service restoration time, and reducing truck rolls





The Business Challenge

- Silo operations
- Aging infrastructure and workforce
- Costly triangulation methodology for fault isolation

The Tivoli Industry Solution

- Intelligent Utility Network
- Advanced metering
- Network management with event correlation across grid and IT





IBM Service Management for Service Providers

Visibility:

- Deep and wide discovery of Network, Server, Middleware and Application resources
- Executive Dashboards for at-a-glance service and service level objective management
- Single pane of glass for event consolidation and correlation

Control:

- Policy driven storage configuration, makes it easier to create optimally safe and secure storage
- Manage identity and access to network and critical applications on a need-to-know basis ensuring the security of the network and enterprise.
- Goal driven performance management for servers and applications

Automation:

- Correlation of cross silo and cross discipline events, accelerating fault isolation, keeping correlation from having to happen on the phone between separate groups
- Model driven service management that includes application paths and service paths
- Service status driven by the correlation of all underlying source events against the service model and against the SLA's defined for each customer and/or service.

...Retain customers and preserve margins







The Business Challenge

- Retain customers and preserve margins
- Build a Services Operation Center focused on service availability and customer experience

The Tivoli Industry Solution

- Enhance service visibility
- Automated Discovery
- Correlated configuration with real time fault information

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IBM Service Management for Retail

Visibility:

- ➤ Dashboard for Business and IT events and KPIs, ensures critical business processes run efficiently. (eg: multichannel retailing and supply chain management)
- > Single view for security, governance and compliance (eg: PCI)
- > Provides enterprise wide view of all retail asset types including mobile, production, facilities,

Control:

- > Ensure secure transactions across multiple shopping channels while protecting data and customer privacy
- Management of information access, retention, archiving; and expedient backup and recovery solution for uninterrupted business operation
- Manage identity and access to critical application on a need-to-know basis ensuring the security of the

Automation:

- > Reduce problem determination time in isolating faults and take corrective actions to ensure speed of resolution and eliminate human errors
- > Identify security vulnerabilities and security policy violations and take automatic remedial actions to ensure a secure, store and enterprise environment
- > Automated software provisioning of retail applications across all stores



...Deliver a superior shopping experience

"With the new solutions from IBM, we are better positioned to launch effective marketing initiatives and to manage the consumer and sales growth they generate."

Frederico Wanderley, CIO, Casas Bahia





The Business Challenge

- Unplanned outages
- Inconvenienced customers
- Productivity of employees
- Damaging sales results

The Tivoli Industry Solution

- Enhance service visibility
- Automated Discovery
- Correlated configuration with real time fault information

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IBM Service Management for Electronic Data Automation

Visibility:

- ➤ Dashboard of verification project KPIs including to 3rd party ISV EDA project data for hardware and embedded software verification
- > Operational dashboard for health and utilization of verification IT assets including compute grid and storage
- Controlized historical reporting and trond analysis for EDA and IT data

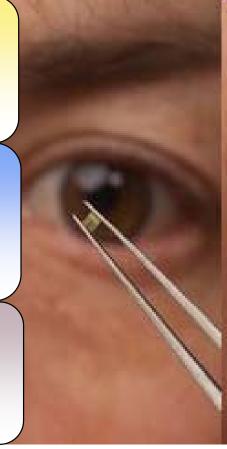
Control:

- Optimizes semiconductor testing to raise quality and meet project goals
- Manage identity and access to insure the security of intellectual property and assets
- Provides change management, build script management and defect management integrated to ISV EDA products

Automation:

- Sophisticated grid load balancing achieving near 100% availability and utilization
- > Manages millions of simulations of the hardware design and associated microcode running on compute grid.
- Capacity planning based on historical usage

... Meeting the cyclical demands of the electronic market



The Business Challenge iCS

- 45nm production and beyond
- Complexity increasing while schedule pressures are reducing time to market
- Design verification and test not possible with current approach/tooling

The Tivoli Industry Solution

- 24x7 Verification Management System
- HPC farm 100% utilization
- Tivoli, Rational, Cadence Integration
- Advanced end-to-end monitoring
- Capacity planning



"...This solution addresses many of the problems we are facing today suc as managing verification time to closure, design team productivity and compute resource utilization,"

Leon Stok, Director of Electronic Design Automation at IBM

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IBM Service Management for Oil and Gas

Visibility:

- View entire oil field metrics / drill down into detail
- Create and maintain consistent representations for: equipment state, relationships, unit operations, Measurement data, reports, vendor specifications, etc.
 - ➤ (uses Reference Semantic Model)

Control:

- Monitor data and KPIs based on thresholds and sophisticated historical models
- Simplifies massive real-time data based on configurable settings with events and alerts
- > Allow collaboration across: field supervisors, process engineers, maintenance supervisors and asset owners

Automation:

Invokes pre-defined actions for both system based processes and human interactions

...Increase production yield while lowering maintenance costs

StatoilHydro

The Business Challenge

- Islands of management
- Offset declining oil & gas production
- \$10B potential loss in revenue

The Tivoli Industry Solution

- SOA based Information Integration & interoperability framework
- Monitor, manage and control SOA services for high availability and performance



"Few companies have the combination of technology expertise, leading-edge research and industry knowledge that IBM has displayed...."

-Adolfo Henriquez, Head of Integrated Operations, Statoil





IBM Service Management for Product Lifecycle Management

Visibility:

- Executive dashboard of technical and business key process indicators mapped to service level agreements
- Operational dashboards for performance, storage, security and compliance data to allow data driven decision making
- > Extensive reporting for capacity planning, auditing and compliance to standards

Control:

- ➤ Policy driven, role-based identity and group management including federation with external partners to assist global collaboration
- ➤ Comprehensive management of the IT and network infrastructure including event correlation to business drivers and performance tuning
- Security and IT management of advanced SOA architectures

Automation:

- Reduce time to isolate faults and take automated corrective actions based on events
- Identify security vulnerabilities and violations and invoke automatic protective actions
- ➤ Global single-sign-on inside the enterprise and between partner companies
- Advanced storage optimization and archiving of PLM data



The Business Challenge

- Enable PLM global collaboration for a large aerospace manufacturer
- Maintain visibility to the status and control of the PLM infrastructure
- Continuing regulatory compliance

The Tivoli Industry Solution

- Executive and operational dashboards of PLM IT environment
- Operational risk management with end-to-end monitoring/event correlation
- Real-time regulatory compliance violation monitoring and historical reporting for application
- Single-sign-on







IBM Service Management for Banking

Visibility:

- Common definition of data
- Support industry open standards
- Works with national (and international) schemes to define data standards to make payment and security instruments interoperable.

Control:

- Provides WW payment interoperability
- Addresses SEPA need in the Euro area, so consumers can use any payments instrument with no differentiation based on the country of origin.

Automation:

- > Reduce problem determination time in isolating faults and take corrective actions to ensure speed of resolution and eliminate human errors
- Identify security vulnerabilities and security policy violations and take automatic remedial actions to ensure a secure payments system

... Secure payments systems at a lower cost



The Business Challenge

- Payment operations fragmented , complex, and costly
- Many-to-many connections and data formats
- Fraud

The Tivoli Industry Solution

- Based on common platform
- End-to-end security across domains
- Operational Risk management with end-to-end monitoring/event correlation
- Regulatory Compliance violation monitoring and reporting for application and people activity.



"The payments business constitutes up to 35% of revenues and 40% of costs for banks"

Boston Consulting Group





Next steps?

Let's explore your use case / entry point

Interactive session used to explore service management needs including: Monitoring, Security, Risk and Compliance, and Asset Management.

Provide a documented high-level solution architecture or roadmap

Explore practical starting points and business value quantification for service management

Contact

Dave Bartlett - <u>davebart@us.ibm.com</u>





THANK YOU



Retail Integration Framework (RIF)

Features

Platform to run, integrate and manage applications

Implements Open standards

Enables a rich ecosystem of business partner content

Built on a SOA foundation and Information on Demand platform

Solution Areas: Store, Multichannel Retailing,

Merchandising Supply Chain and Business Intelligence

Key imperatives:

Deliver a superior shopping experience

Create a demand driven Merchandise Supply Chain

Drive Operational Excellence

Capabilities

Uses open-standards to extend existing / new data sources

Services for master data management, information integration, management

Compose reconfigurable processes to deliver new functions and support new business designs

Optimum performance characteristics & IT infrastructure costs

Dashboards to monitor and manage business and IT events and KPIs







Tivoli is making the difference in Retail based solutions! clients, 25,000 stores worldwide, and counting...























The Spirit of Commerce





Service Provider Delivery Environment (SPDE) Framework

Features

Horizontal Integration across business domains and functions (SDP – OSS - BSS)

Foundation based on IT (SOA, Web 2.0, ITIL, etc.) and Communications Industry (eTOM, SID, NGOSS, IMS, SIP, etc.) standards

Provides a common, consistent and network agnostic service platform

Supports multiple service execution environments

Network Abstraction and Exposure through standards-based network API's & web services

Supported by loosely coupled SW components with telco extensions to leading SW products

Adaptable and scalable to handle industry evolution and convergence

Supports an end-to-end view (the big picture)

Capabilities

Ideation and rapid refinement of new services

Rapid creation of revenue generating services

Assemble, orchestrate, enable and deliver value added services

Minimize the time from service creation to billing

E2E service assurance and customer satisfaction

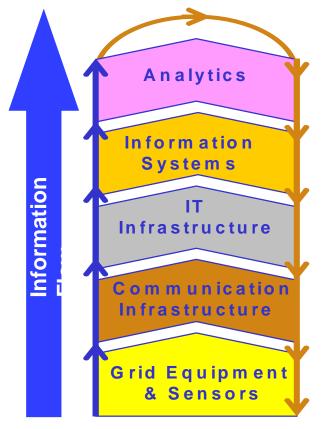
Unlock the business value of information for competitive advantage and gain insight from enterprise data to enable informed decision making







Solution Architecture for Energy (SAFE) Framework



Architectural blueprint that can support the integration of IUN and generation applications

Scalable and flexible framework must accommodate:

- ➤ Connectivity to sensors
- > Communications networks
- ➤ Large volumes of data
- ➤ Business and process modeling with integration between applications and services
- ➤ Comprehensive security and asset management

Protects customer investment

- ✓ Supports Services Orientated Architecture (SOA) integrating web services and external process engines
- √ Utilizes open standards
- √ Embraces customer's leadership applications
- ✓ Product integration enables interchangeable components and easier migration
- ✓ Implementation can be staged as needed



Chemical & Petroleum Integrated Information Framework (IIF)

Features

Delivers C&P ability to create and maintain consistent representations with a meta data abstraction for:

C&P equipment, relationships, unit operations, measurements and equipment state Measurement data, reports, vendor specifications, etc.

Satisfies technology neutral approach to:

Preserve existing application and system investments

Leverage common process models across applications

Build new course-grained and fine-grained service definitions for information access

Uses C&P reference semantic model

Capabilities

Simplifies massive real-time data based on configurable settings with events and alerts

Monitors data and KPIs based on thresholds and sophisticated historical models

Invokes pre-defined actions for both system-based processes and human interactions

Speeds standardization of your work processes

Provides basis for collaboration



Deliver C&P consistent representation



Drive industry standards support



Standardize your processes and performance measures



Visualize within the context of process

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Features

Payment Framework

Platform to run, integrate and manage financial payment applications

Predefined service interfaces for: reception, mapping, acknowledgement, business activity monitoring, liquidity, least cost routing,

anti-money laundering checks and SWIFT interaction

Implements Common Data format using ISO 20022 standard

Sample business state machine (BPEL) processes

Enables a rich ecosystem of business partner content

Built on a SOA foundation and IoD platform

Solution Areas: SEPA Credit/Direct Debit, Supply Chain pmts

Key imperatives:

Optimize Transaction Infrastructure for Efficiency

Renovate, Consolidate and Simplify Complex Payment Environments

Manage growing Risk and Compliance Requirements for Competitive Advantage

Create a extensible plug-n-play model for configuring banking processes.

Utilize solutions that minimize Operational Risk

Ul for Monitoring & Management Business State Engine For WPS & WMB IBM SOA Foundation ISV Applications and Components Application Services Application Services

Capabilities

Uses open-standards for internal data to extend existing / new payment formats

Services for security management, infrastructure, application monitoring, SLA and business service management

Compose reconfigurable processes to deliver new functions and support new business designs.

Optimum performance characteristics & IT infrastructure costs.

Dashboards to monitor and manage business and IT events and KPIs.



Industry-focused offerings provide higher value

Industry Solutions

What does IBM Service Management provide?

Composite Business Services

Technology Services

Industry Frameworks

Industry Standards

Process/Data Models

Integration Assets

The knowledge and capability to deliver key business services within the time and cost parameters required!

- Visibility
 - End-to-end (IT <u>and</u> business level events)
 - Respond faster and make better decisions

Industry Software Foundation

IT Operations





Optimization

- Control
 - Enterprise and IT assets
 - Improve quality and reduce risk
- Automation
 - Lower costs and build agility



