



Untangle your business with WebSphere Message Broker

Dave Arnold, May 2009





	Session A - 9:15am to 9:55am	Session B - 10:10am to 10:50am
Stream 1	<p>Managing Business Rules with ILOG Business Rules Management Systems (BRMS)</p> <p>Designed for those who want to discover an easy and safe solution to automate process-based decisions with the right tools for business managers, analysts, architects and developers.</p>	<p>Enable SOA Governance with WebSphere Service Registry and Repository</p> <p>Designed for those who want to learn how to easily and quickly publish, find, enrich, manage and govern services and policies in your SOA. A particular emphasis is placed on runtime aspects of the services lifecycle.</p>
Stream 2	<p>Simplify, Secure and Accelerate your SOA deployments with WebSphere® DataPower SOA Appliances</p> <p>Designed for those who want to learn more about WebSphere DataPower SOA Appliances, a key element in IBM's holistic approach to SOA.</p>	<p>Untangle your SOA Connectivity Infrastructure with WebSphere Message Broker</p> <p>Learn how WebSphere delivers an advanced ESB to power SOA. Intended for those who want to understand how to achieve universal connectivity and transformation in heterogeneous IT environments.</p>



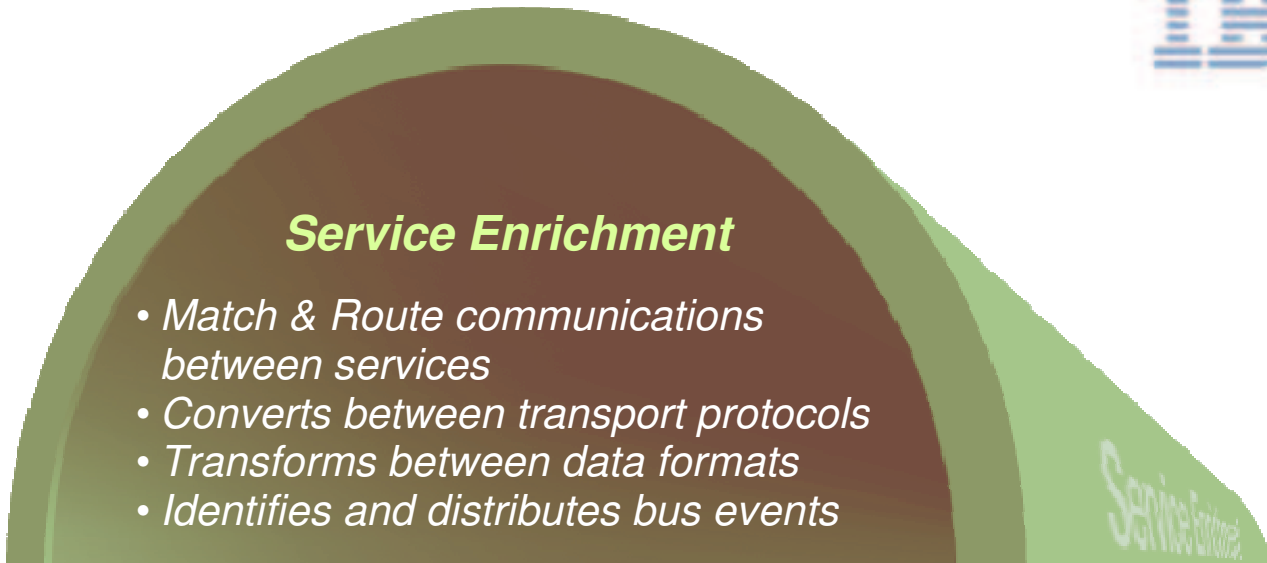
Agenda



- Recap – A look at the ESB
- Introduction to WebSphere Message Broker
 - What is WebSphere Message Broker
 - History and Roadmap
 - ESB Characteristics
 - EAI Characteristics
 - Easy to Adopt, Easy to Use
 - Multiple WMB editions , Codeless, wizards, patterns
- Business Value – leveraging existing assets and facilitating change
 - Extending the reach of existing applications
 - New work for packaged applications
 - Combining Batch (file based) and online processing
- Federation
 - Security
 - Governance
 - Management and Monitoring
 - “Where the rubber meets the road” an example
- Summary



Recap - A look at the ESB



Execute business requirements faster by quickly integrating applications and services

Save time and money centralizing service interfaces

Create new revenue-generating services from current core business applications



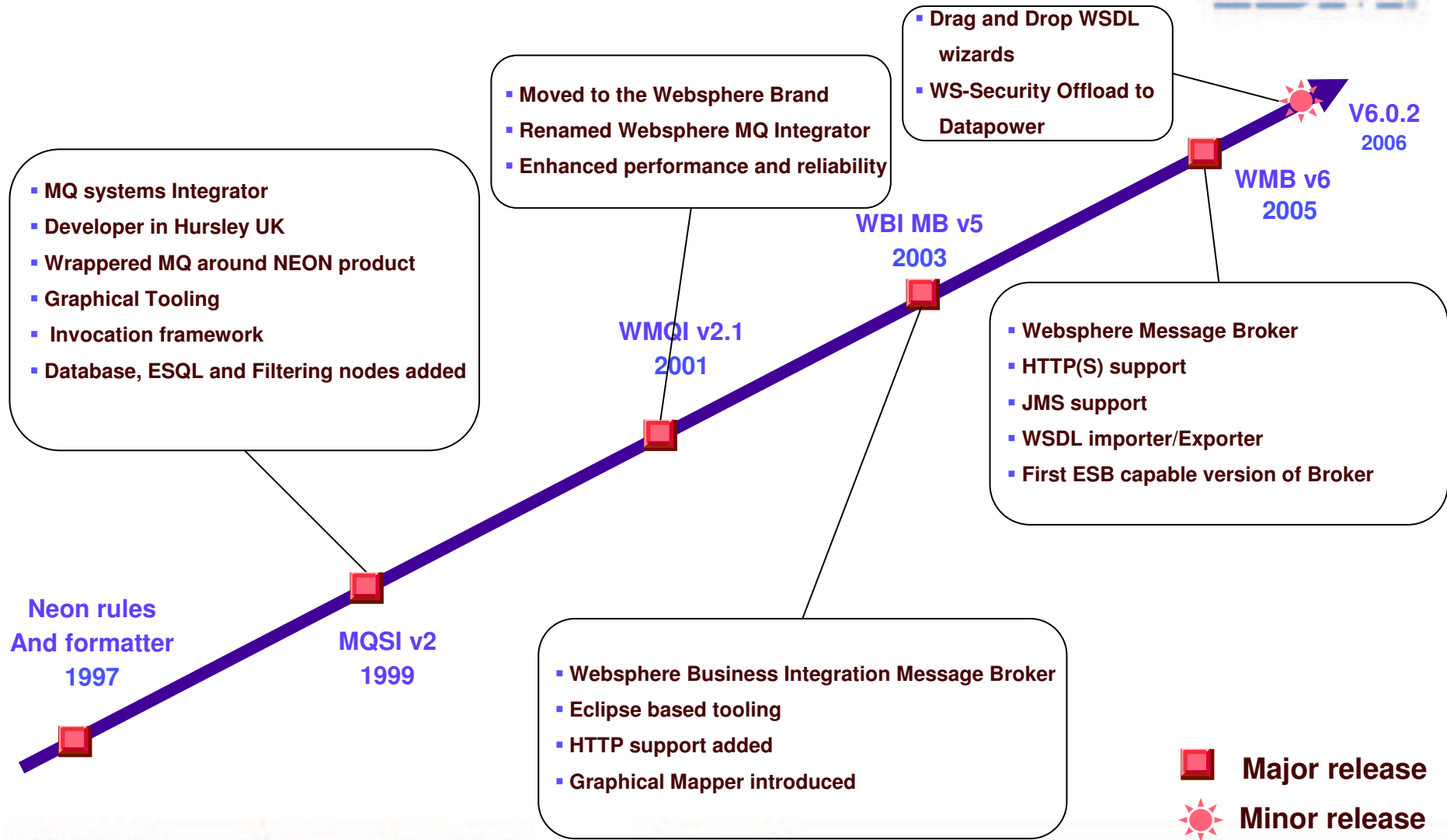


Introduction to WebSphere Message Broker



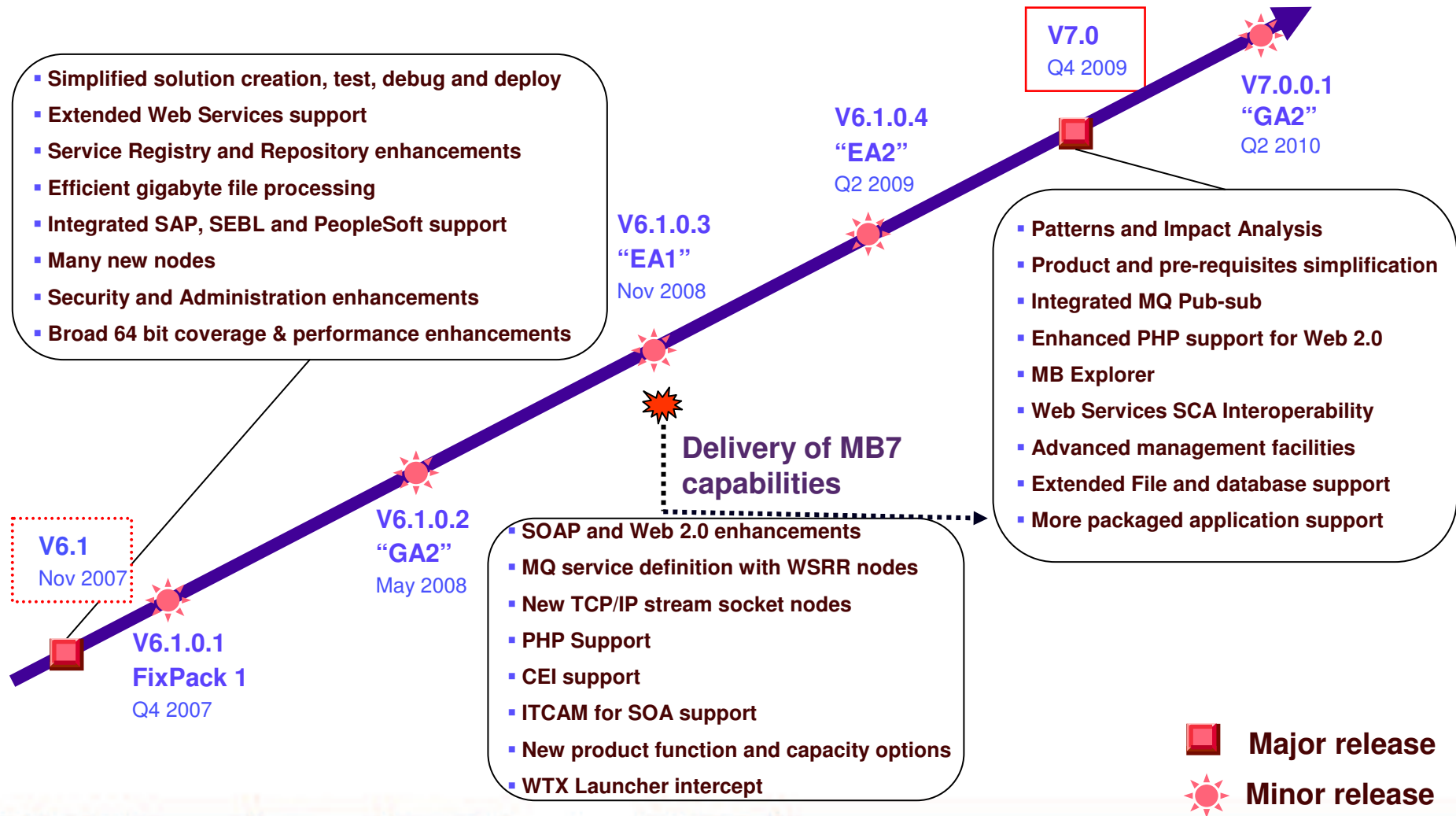
WebSphere Message Broker History

10 Years of Transformation and Protocol switching – Mature and Robust



WebSphere Message Broker Roadmap

IBM's plans, directions, and intent are subject to change or withdrawal



SOA/Enterprise Service Bus Characteristics



- Standards Based
 - Multiple Web Services transports
 - HTTP(S), Any JMS 1.1 provider and WMQ as a service
 - SOAP 1.1/1.2, WSDL 1.1, MTOM/XOP, SOAP with Attachments
 - WS-Security and WS-Addressing
 - WS-Policy (when used with WSRR)
- Development experience
 - Supplied nodes for SOAP Input, Reply, Request, Asynchronous Request and Reply
 - WSDL drag and drop for skeleton mediation creation and configuration
 - WSDL import and export (validated against Basic Profile 1.1)
- Federation capabilities
 - Native integration with DataPower SOA appliance
 - Native integration with WSRR
 - TFIM and LDAP Integration for Identity
 - Authentication and Authorization and Identity Mapping



Enterprise Application Integration Characteristics



- Universal Connectivity
 - Transform **any data**, delivered over **any transport** on **all major platforms**
 - Binary, Fixed Format (C/COBOL), XML, Industry (SWIFT, EDI, HIPAA...), Tagged Delimited, User Defined
 - MQ, JMS, HTTP(S), Web Services, File/FTP, MQe, Scada, email, TCP sockets, Siebel, JDE, Oracle EBus, SAP, PeopleSoft, User Defined
 - Intel, Unix and Mainframe
- Interactions and Operations
 - Route, Filter, Transform, Enrich, Monitor, Distribute, Decompose, Correlate...
- Beyond stateless mediation of services
 - Provides the industry's richest events processing & management abilities
 - Complex Event Processing
 - Publish and Subscribe
 - Fan-out /Fan-in aggregation
 - Enables an enterprise nervous system



Ease of Adoption

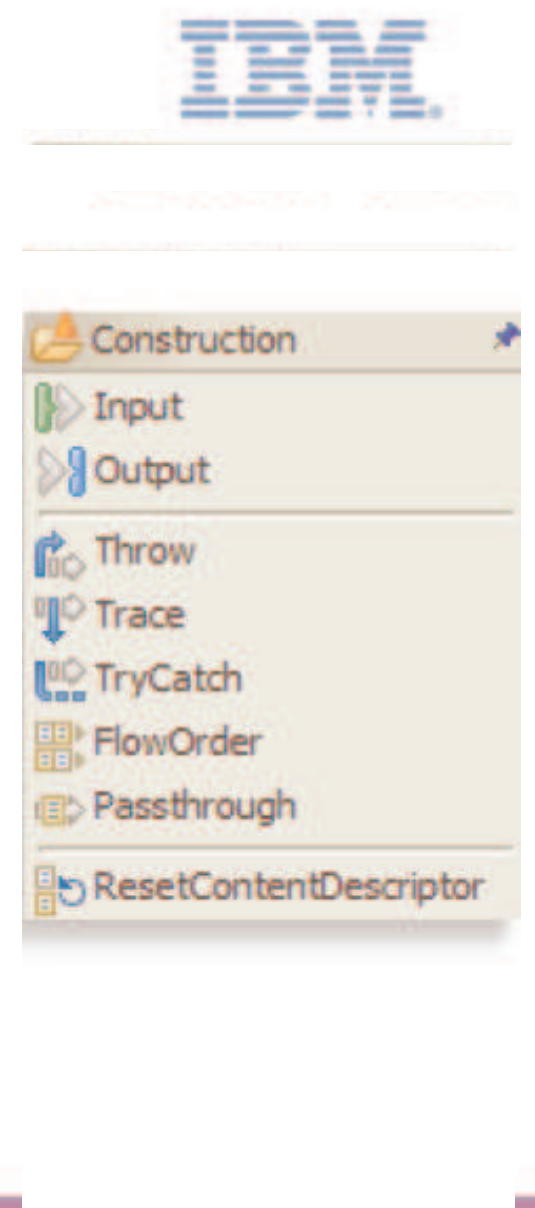


- Invest over time! WMB grows with your business and your requirements
 - WMB Editions
 - 90 day Trial Edition
 - Starter Edition
 - Remote Adapter Deployment
 - Enterprise Edition
 - Identical code base and binaries delivered
 - Identical Development Administration and Management
 - Edition controlled by configuration parameter



Ease of Use

- Eclipse based GUI
 - Supports Team Development
 - Emphasis on assembly of mediations
 - 80+ supplied processing nodes (+RYO)
 - Graphical mapping
 - WMB Mapper (XPath), XSLT, WTX
 - Drag and drop wizard based development
 - WSDL, SCDL, XSLs
 - Meta-data discovery tools
 - Data Perspective, EMD wizards for Packaged Applications
 - Move to a patterns based approach
 - Extends the wizard driven development
- Administration
 - Graphical, Scripted, Programmatic, Third party management tools





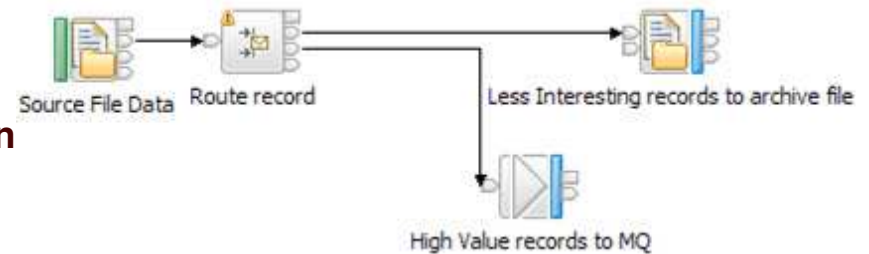
Business Value of WebSphere Message Broker



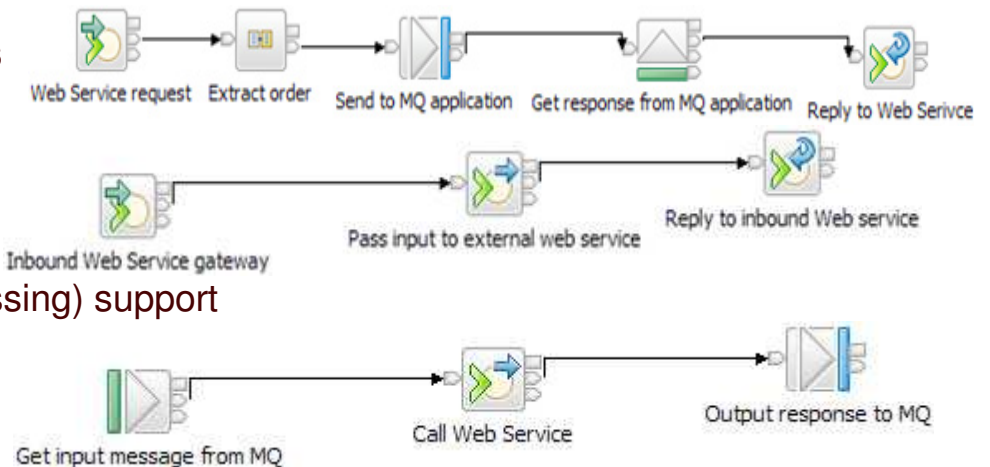
Extending the reach of existing applications



- **MQ-enabling all of your applications**
 - **Allow information to flow between applications that were not originally built for such interaction**
 - Reliable, robust, secure



- **Providing and consuming Web services**
 - Use WMB as a universal translator
 - Protocol and data switch
 - MQ Enabling
 - Web Services Gateway
 - Synchronous and Asynchronous (WS-Addressing) support



- **Uniting disparate JMS providers**
 - The JMS API address application portability but disparate JMS providers do not interoperate.
 - WMB supports the inclusion of any JMS v1.1 provider as a support protocol
 - WMB, an enterprise can finally realize the full promise of JMS as an interoperable messaging standard

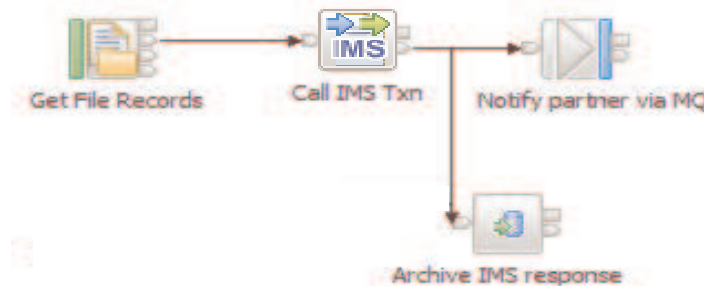


Extending the reach of existing applications



- **Leveraging the Mainframe**

- Run natively on zOS
 - VSAM, QSAM, CICS and IMS nodes
- Run off mainframe
 - Connect directly or via WMQ



- **Notifying people and applications**

- As a universal engine for integration we can use WMB beyond app to app integration we can use it to detect and re-broadcast events from apps that would not ordinarily be able to raise such alarms
 - E-mail remains a vital technology for informing recipients of key events.
 - Common Event Infrastructure (CEI) to WebSphere Business Monitor
 - WebSphere Business Events.



- **Connecting remote devices to the enterprise to integrate their data with the enterprise.**

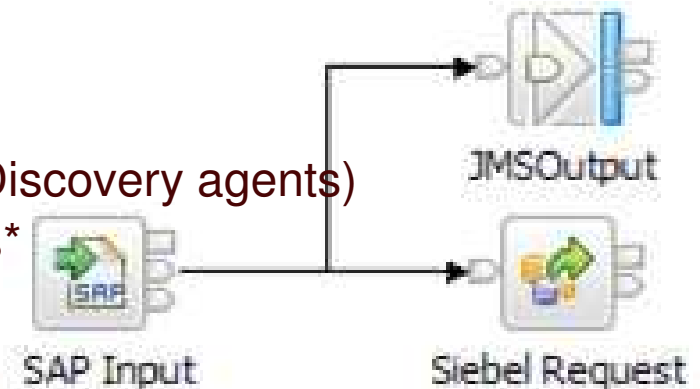
- support for the MQe and SCADA protocols enables
 - Laptops
 - retail appliances
 - mobile phones
 - devices used in hostile environments such as oil rigs



New work for Packaged Applications



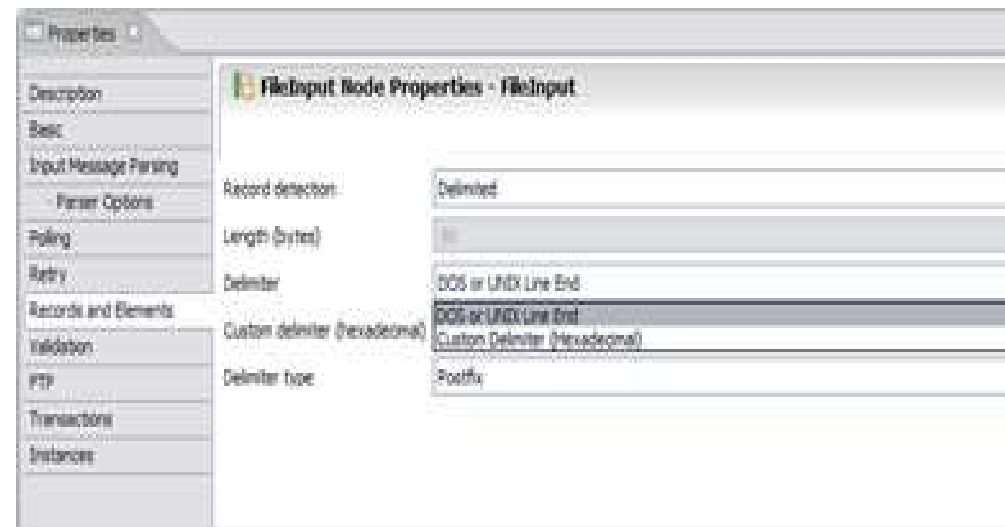
- **Synchronizing packaged applications**
 - Key customer information is often held in multiple applications and needs to be kept in step – Change of Address process for example
 - Facilitate change from one packaged app to another
- **Moving information to and from packaged applications**
 - Web Service enable SAP directly via WMB SOAP nodes.
 - Push mainframe CICS data into Peoplesoft
- **Synchronizing SAP and Siebel information while informing JMS subscribers**
- **Based on WebSphere Adapters**
 - Common Tooling (incl. Enterprise Metadata Discovery agents)
 - SAP, Siebel, Peoplesoft, Oracle*, JDEdwards*



Combining batch and online processing



- Getting first-class data from your files
 - Bridge the gap between EAI and ETL
 - Service enable file based applications
- Handling both local and remote files
 - Local File Read/Write
 - FTP Send and Retrieve
 - WMQ FTE
- Dealing with gigabyte files
 - Lazy read, lazy parsing
 - Read whole file or
 - Records by delimiters
 - Records by definition
 - Records by length





SOA Policy and Governance

Management and monitoring

Federation and WebSphere Message Broker

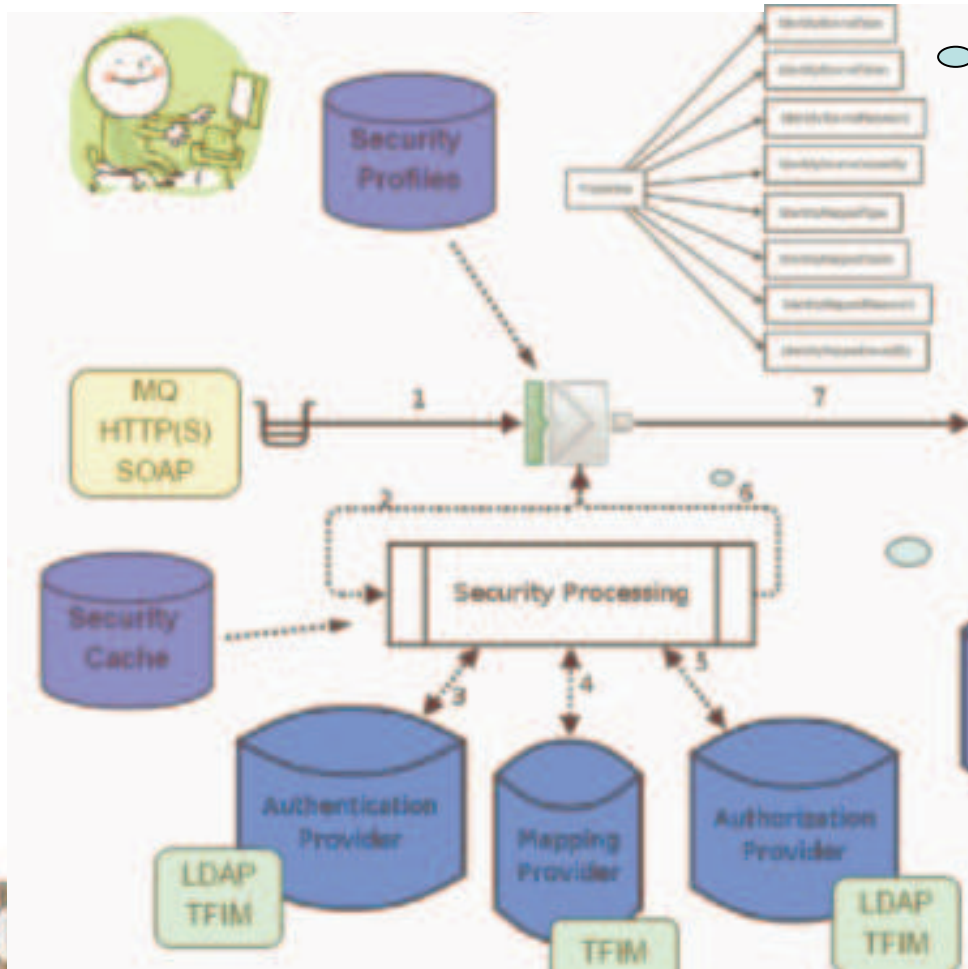
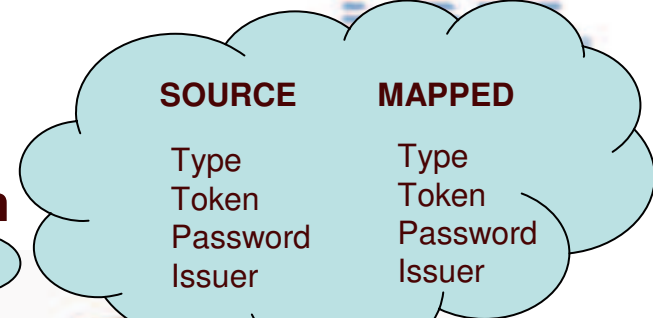
Connectivity – “Where the rubber meets the road”

Security



Securing your applications and Services

- **Security Policy Enforcement Point**
 - **identity, authentication, authorization**



MQInput Node Properties - MQInput

Identity token type	Username
Identity token location	\$Root.MDMD.UserIdentifier
Identity password location	
Identity issuedBy location	<optional, specify a string or path ext
Treat security exceptions as normal exceptions	<input checked="" type="checkbox"/>

MyApplicationFlow.cmf

Additional Instances	
Commit Count	
Commit Interval	
Consumer Policy Set	
Consumer Policy Set Bindings	
Coordinated Transaction	<input type="checkbox"/>
Provider Policy Set	
Provider Policy Set Bindings	
Security Profile Name	DefaultLDAP



Identifying, Understanding and Using your application inventory



- **Development Time**

- Wizard/Pattern based development driven by Service Meta-data
- Plug into Service lifecycle for SOA Governance

- **Runtime**

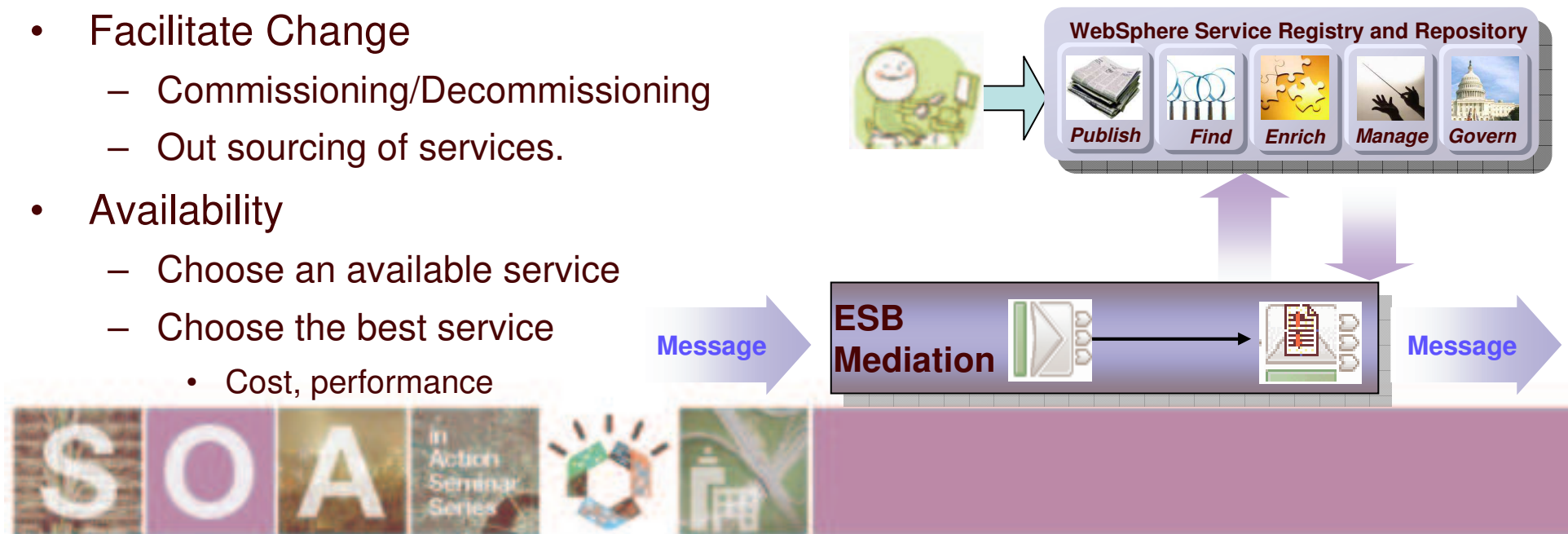
- Dynamic Service Endpoint selection – Web Services, WMQ etc.
- Retrieve artefacts such as XSL Stylesheets for dynamic selection of target data format.

- **Facilitate Change**

- Commissioning/Decommissioning
- Out sourcing of services.

- **Availability**

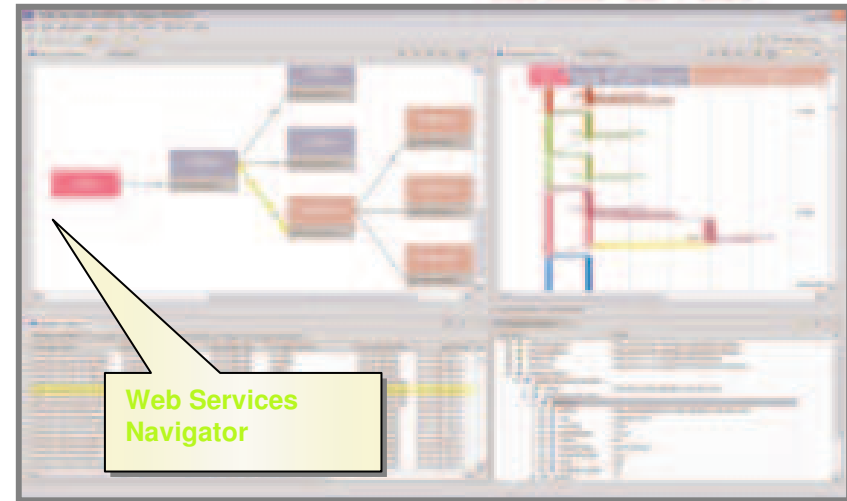
- Choose an available service
- Choose the best service
 - Cost, performance



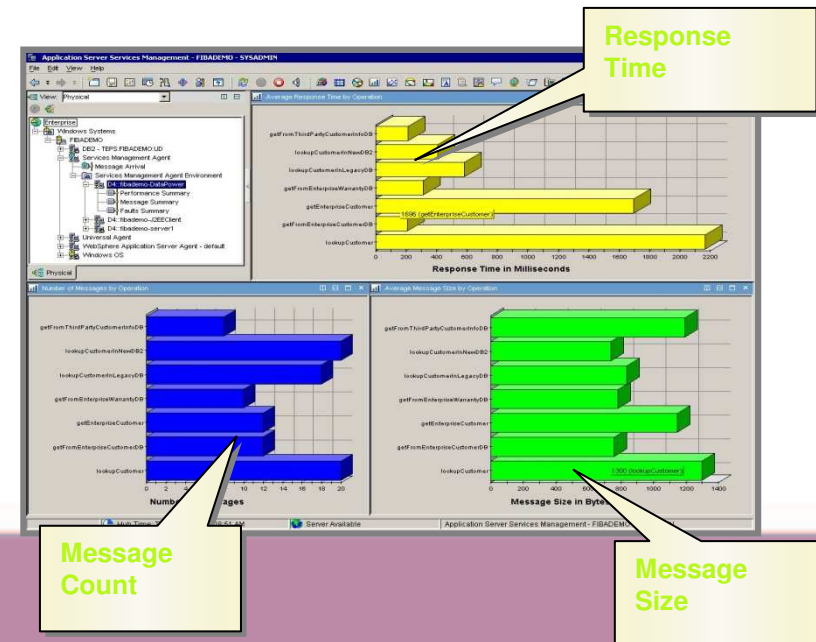
Management and Monitoring with ITCAM for SOA



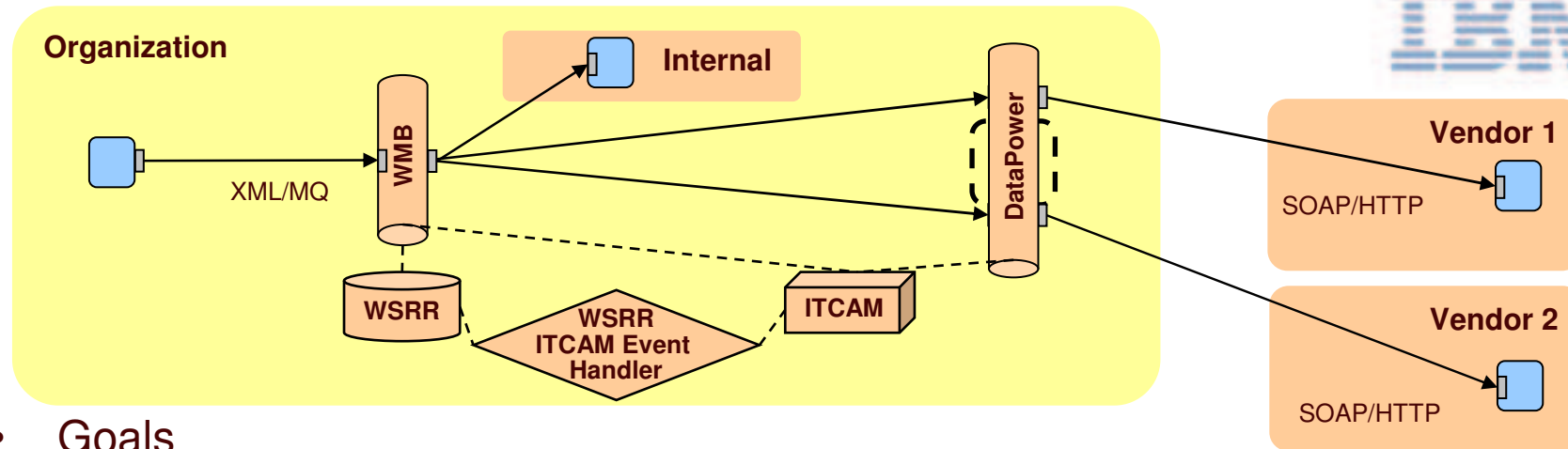
- Single platform for Management and Monitoring
 - ESB Systems management
 - Combined WMQ and WMB monitoring
 - Understand message flow (mediation) performance
 - Measure response times, message counts and size...
 - Ability to dynamically modify message flow properties
 - ESB Services management
 - Understand service flows and relationships
 - Web Services Management (SOAP), MQ, JMS, HTTP transports



- Service Management Automation
 - Supports thresholds and automatic responses
 - Built-in and extensible alerts, situations, workflows
 - Integrated console with OMEGAMON for Messaging, ITCAM for WAS
 - WSRR integration to view deployed services
- Non intrusive – no changes to deployed artefacts



Business value driven availability



- **Goals**

- Out source to different business partners to serve different constituencies
- Secure interactions with external business partners
- Flexible Control of service access (based on availability and cost)
- Monitoring of business partner response

- **Solution**

- WebSphere Message Broker matches skill set and cost targets
- WebSphere DataPower XS40 or XI50 for Service Proxy, XML firewall and Web Services Security
- ITCAM for SOA monitors internal and vendor response time
- WSRR enables dynamic metadata-driven routing
- WSRR ITCAM for SOA Event Handler reflects ITCAM metrics in WSRR meta-data





Summary



In summary



- WebSphere Message Broker is....
 - A Universal Data Transformation and Protocol Switch
 - A fully SOA Enabled ESB that adds the broadest possible set of capabilities for performing Enterprise Application Integration
 - Addresses the “pre-scribed” standards based world with its ESB capability
 - Untangles the broader, less “sanitary” challenges posed by our “legacy” applications
- WebSphere Message Broker promotes....
 - Agility and speed of service delivery
 - Centralization and common platform for service delivery
 - Reuse of core application functionality as services



Upcoming WebSphere Proof of Technologies



Topic	Where	When
Simplify, Secure and Accelerate your SOA with WebSphere DataPower SOA Appliances	Sydney IBM Centre, 601 Pacific Highway, St Leonard's	Wednesday, 3 June
Simplify, Secure and Accelerate your SOA with WebSphere DataPower SOA Appliances	Canberra Cliftons, Level 2, 10 Moore Street	Thursday, 4 June
Business Process Management for End-to-End Process Automation	Melbourne Cliftons, Level 1, 440 Collins Street	Tuesday, 16 June
Business Rules Management with WebSphere JRules	Melbourne Cliftons, Level 1, 440 Collins Street	Thursday, 18 June

For information on the above sessions or to register, call 1800 802 796, or speak to an IBM representative.

