



IBM SOA

SOA Connectivity

Delivering the ESB without limits

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WebSphere Technical Sales



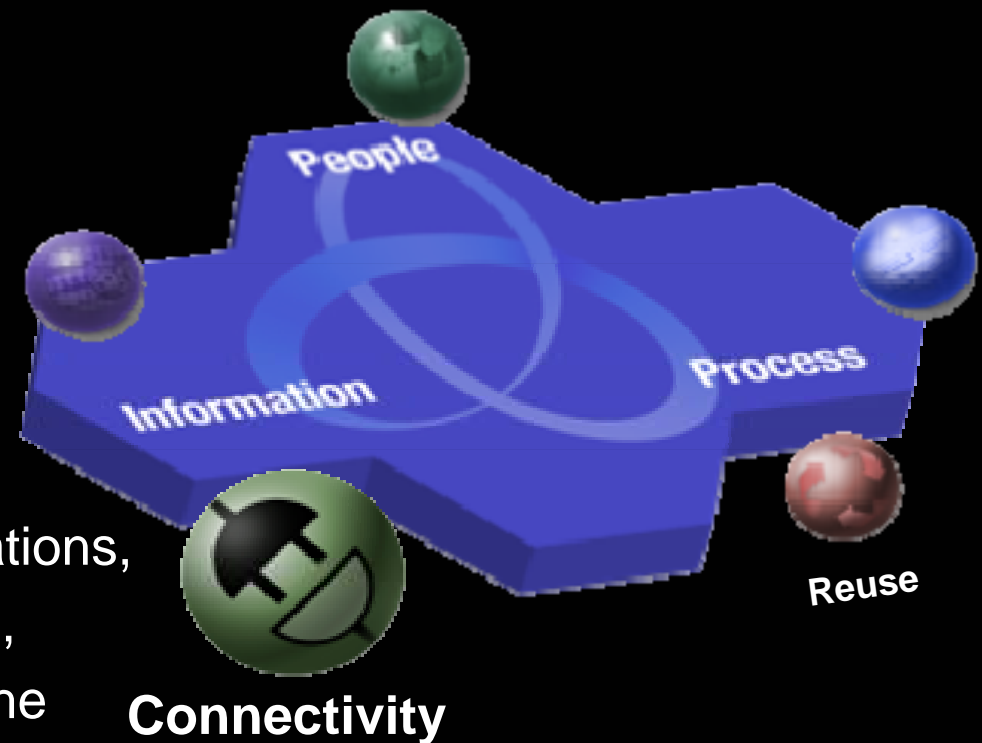
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Connectivity Entry Point for SOA

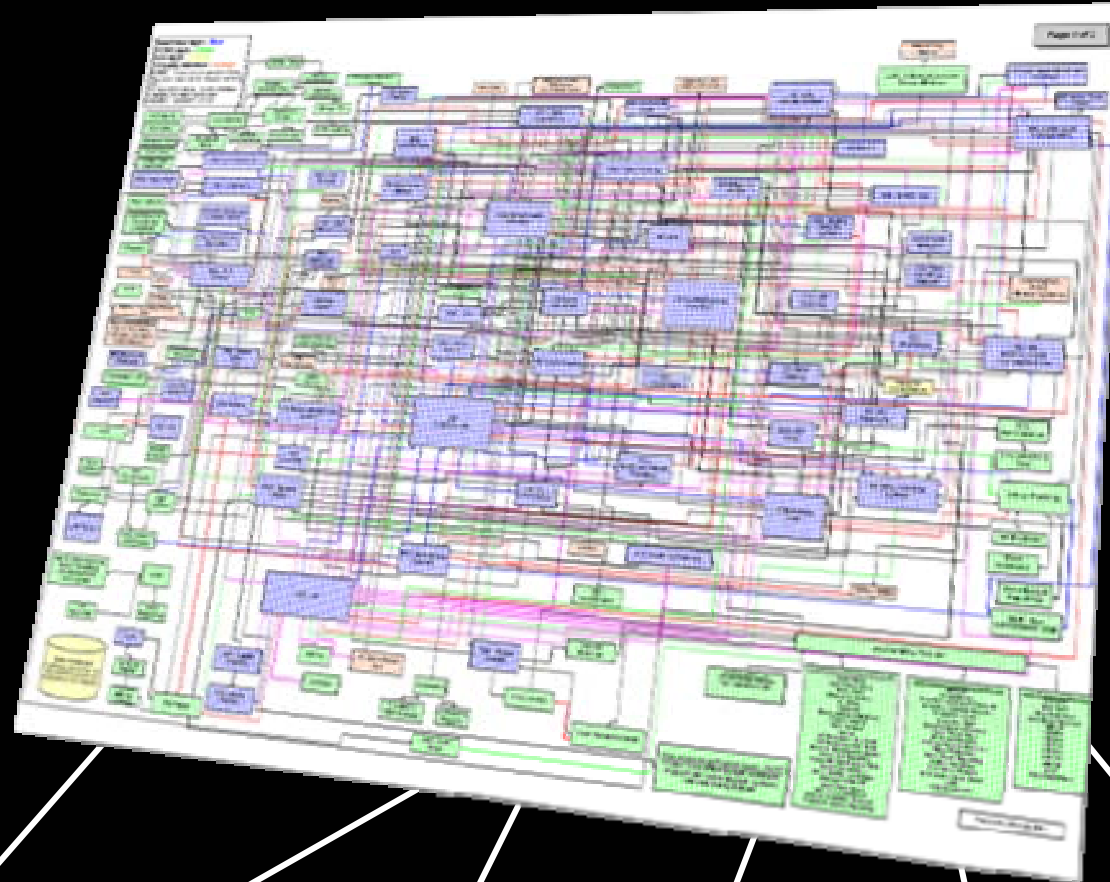
Connect everything inside and outside your company enabling your SOA to deliver reliable and secure connectivity with high performance and high availability, spanning newly developed web services and complex heterogeneous environments

- IBM powers the **most connected SOA** for your business
- Link together all types of data, applications, protocols and platforms, from sensors, handheld devices and appliances to the mainframe



The Connectivity Challenge

- IT budget spent on maintenance, not on new value add investments
- Complex processes & systems
- Complex applications & interfaces
- Difficult to adapt quickly



Legacy
Claims
Database

Auto
Claims System

Home Claims
System

Life
Insurance
Claims

Business Partner
Claims System

...

Why an ESB to Meet Your Connectivity Needs?

Flexible connectivity infrastructure for integrating applications and services

- Reduce the number, size, and complexity of interfaces
- Reduces cost and risk involved as business changes and new opportunities arise
- Promotes reuse – Data and business logic more usable, and applications easier to service-enable
- Dynamic real-time, event-driven SOA – replacing unresponsive, batch-updating IT systems

Leverage the benefits

Reliable and secure data movement – anywhere in the enterprise

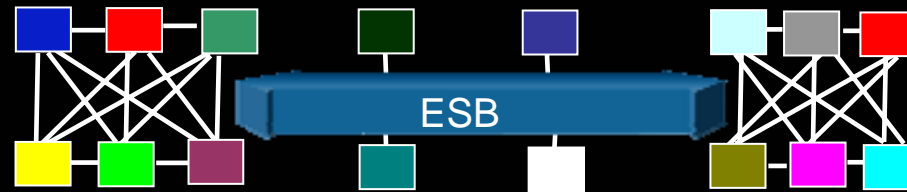
Application Programmers focused on logic – simplified programming tasks

Dedicated environment – Common tooling, management and operational support



Your ESB decision is critical for business success

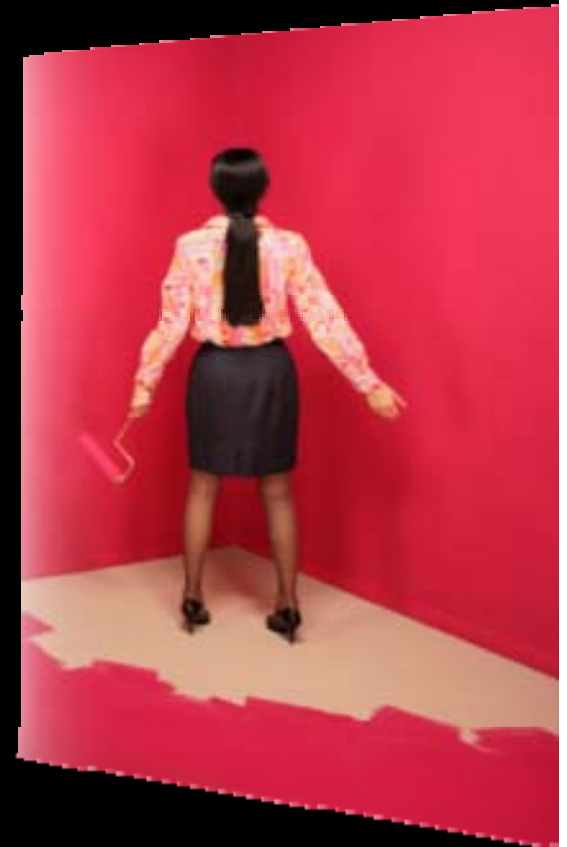
What happens when an ESB only solves part of the problem?



- Sales revenue declining; Higher warehousing costs
 - ESB unable to connect sales application to warehouse inventory system
 - Warehouse unable to match production to orders
 - Customers reluctant to order without knowing availability dates
- Business applications and operations grind to a halt
 - New XML and web services based order processing system recently deployed
 - Order Processing interactions with sales, invoicing and logistics systems showing processing overload
 - Servers unable to handle XML validation and security checking in addition to application load
- Regulatory Compliance and Audit failures; Penalties and Lawsuits
 - Unable to monitor transactions or track or control changes to system
 - Security failures in one part of the system expose all systems and data

Will Your ESB Limit Your Business?

- Making the wrong strategic decision can limit your business and your future
 - Can your business grow?
 - Can it take advantage of new technologies while still using existing ones?
- Can your business respond fast enough for changes?
 - Will the data be available and secure?
 - Will you be able to access the right system?
- Will your ability to meet your needs be limited by your ESB, or will your ESB enable you to exceed expectations



Core differentiators for ESBs to meet your needs

Integrates everything – integrating more platforms, protocols, languages than anybody else

Secure coordinated transactions – connect 3rd party JMS providers, end-to-end secure transactionality

Unmatched Qualities of Service – 24x7 environment, clustering, high availability, hot deployment, versioning

1. Integrating Everything with the ESB

- Should your business be limited to connecting just applications and web services?
 - Is your infrastructure flustered by files?
 - Puzzled by packaged applications?
 - Stumped by sensors, actuators, devices?
 - Dumbfounded with defacto industry standards and open standards?

- Connect to all resources and assets in your SOA through your ESB
 - Up to the minute information from all parts of the business, and everything in it
 - Accelerate ROI for packaged applications
 - Make your files and file-based data work for you
 - Extending the lifecycle and value of existing applications, systems and data



2. Integrated Platform - Secure Coordinated Transactions

- Should your business be limited when moving and updating data and resources?
 - Do you want to be limited in the way you process and reconcile transactions?
 - Does your business process just one resource update at a time?
 - If you are using multiple messaging providers should they take part in the transactional update?

- Secure your transactional resource updates
 - Move data securely from one application to any other application
 - Policy based so no additional programming needed in the application



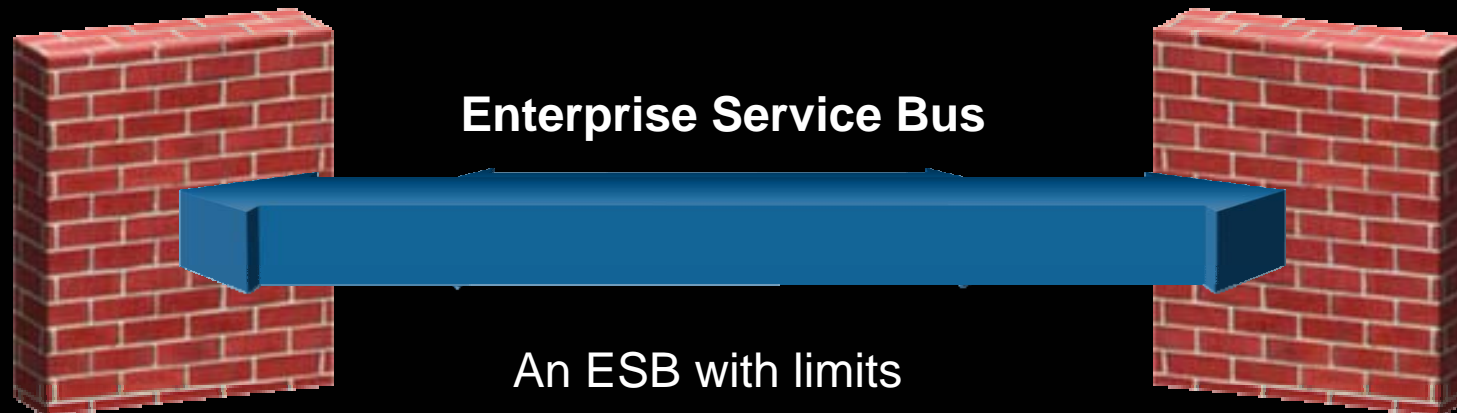
3. Integrated Platform – Unmatched Qualities of Service

- Should your business operations be limited?
 - Can't deploy across multiple systems, CPUs, and geographies?
 - Stuck with a single environment instead of choosing multiple computing platforms / operating systems?
 - Choosing all or nothing for qualities of service?
 - Forced to pick one? Synchronous, asynchronous; one-to-one, one-to-many
 - Will your configuration be as limited as your console view?

- Flexible, powerful configuration and operation
 - 24x7 production environments, with clustering and high availability, with deployment also on System z
 - Hot deployment of new applications and services with powerful version control
 - Full Transaction support (JTS/JTA, EJBC, JMS, XA and 2 phase commit)



ESB offerings compared



Break through limits to deliver end-to-end reliable and secure connectivity with integration to all applications, systems and services

An ESB without limits delivers greater breadth and depth of functionality

Your business needs an *ESB without limits*



An *ESB without limits* provides a solution with a complete set of connectivity capabilities beyond those delivered by just an ESB

ESB Without Limits

Specialized SOA Hardware to Extend ESB Capabilities

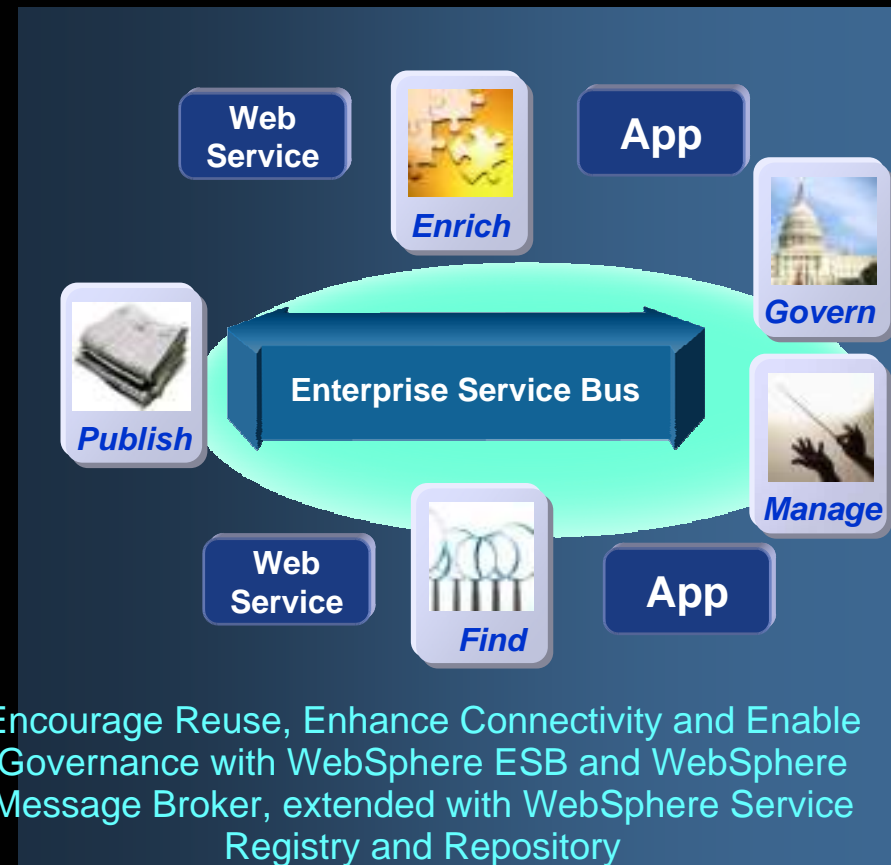
- Will your ESB solution scale as you had hoped?
 - XML and Web Services create new challenges for integration
 - Difficult to secure and lockdown?
 - Excessive XML processing causing bottlenecks to core functions
- Extend ESB functionality in a hardware form factor using appliances
 - Simplify SOA and optimize topology
 - Secure and lockdown Web services
 - Accelerate SOA with wirespeed performance
 - Easy-to-deploy appliances anywhere
 - Robust Service Level Management & Web Service Management



ESB Without Limits

Service Registry to dynamically extend and govern ESB

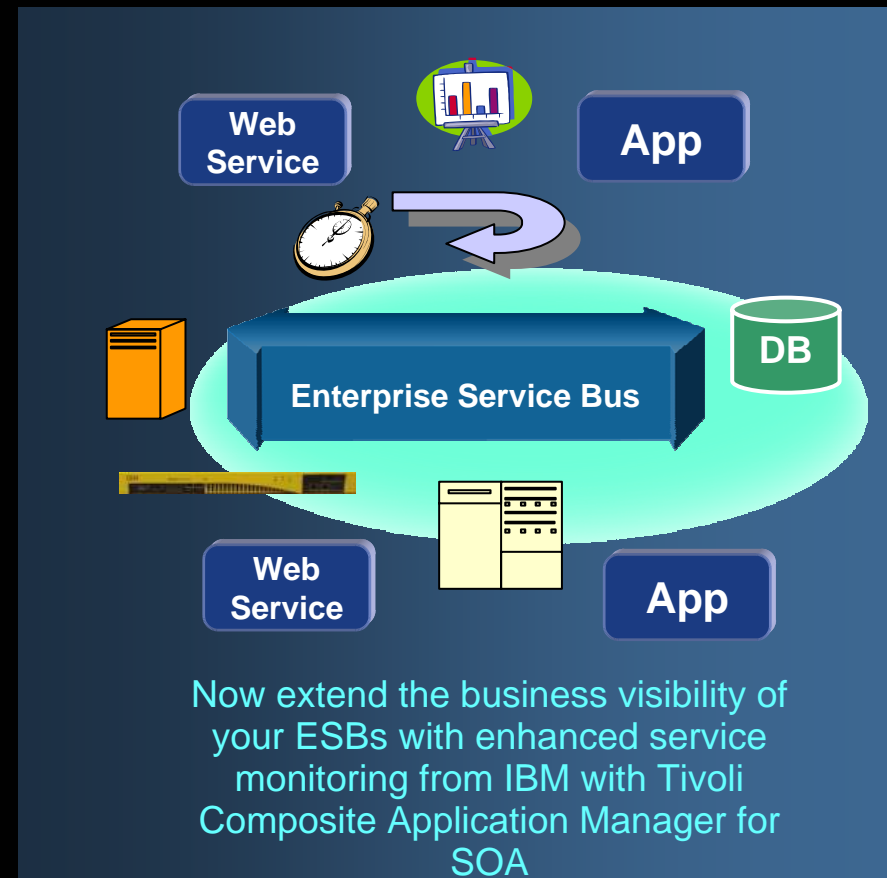
- Will your ESB limit you to simply connecting, with no overall plan?
 - Can you find your services and other assets?
 - Will you be able to define policies and ensure compliance?
 - Is your SOA just an illusion?
- Federated services management across the enterprise
 - Dynamic service definition and location
 - Defined policies to define and enforce use and reuse of assets
 - Promote SOA Governance through management of assets and mitigation of risk



ESB Without Limits

Service monitoring for end-to-end visibility of service interactions

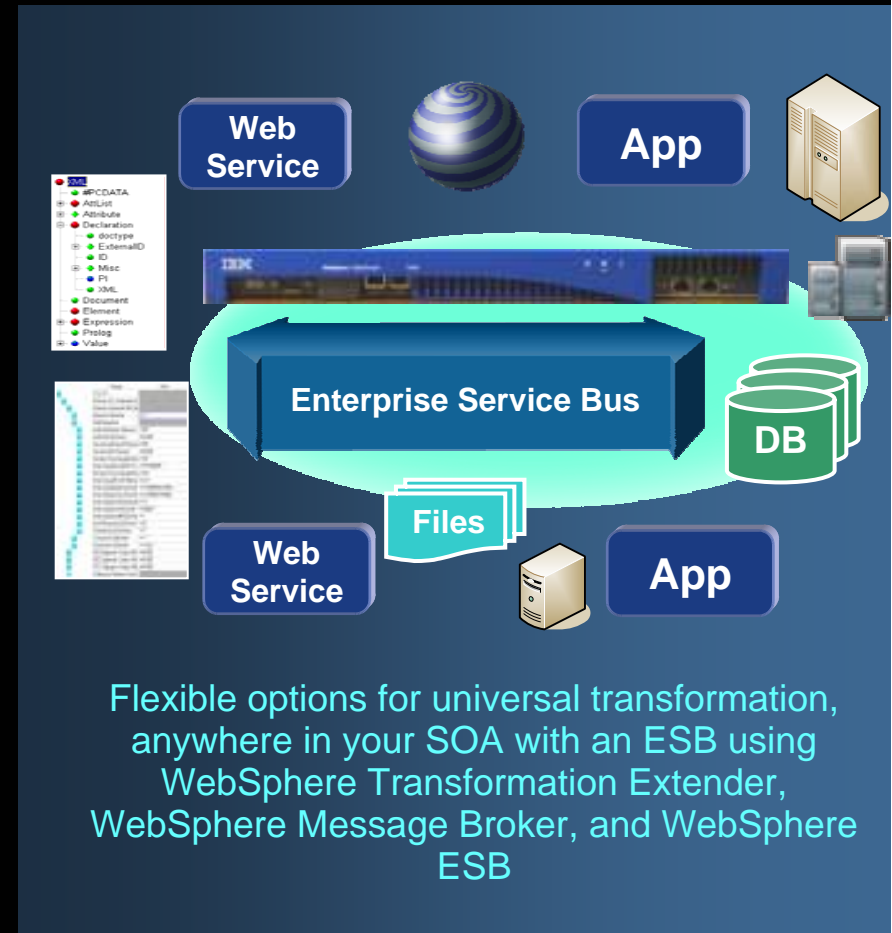
- Will your ESB limit your business through lack of monitoring information?
 - Will you get end-to-end visibility of your resource utilization?
 - Will you be alerted to problems in your deployment, and drill down to find them?
- Improve business visibility and help to optimize flow of information
 - Service problem identification and resolution
 - Service Management Automation
 - Heterogeneous SOA Platform Support
 - Integrated Console
 - Life-cycle Management



ESB Without Limits

Universal Transformation to Meet your Connectivity Needs

- Will your ESB be able to handle and process all types of data format?
 - Map and transform any data format to any other data format?
 - Manipulate complex formats including industry standard formats?
 - Will your business be limited by where it can perform transformations?
- Map and Transform any data to multiple formats anywhere in your SOA
 - Flexible and integrated transformation
 - Embed within applications
 - Execute from scripts
 - Drive with Events
 - Deliver as Services



Enterprise Service Bus offerings from IBM

- **WebSphere ESB:** the ESB for web services integration
- **WebSphere Message Broker:** the advanced ESB for web services and non web services assets
- Match your ESB to your business needs and your SOA deployment
 - Enterprise-wide connectivity supporting other SOA entry points
 - People, Process, Information, Reuse
 - Matching integration to your programming environment and available skills
 - Simplify your infrastructure's connectivity – without being limited by your ESB
- Only IBM delivers ESB without limits
 - Wider range of coverage, greater depth of function – no limits for your SOA



Benefits of Using IBM for Your ESB

*IBM application integration costs 2-4 times less than custom-built integration approaches**

- WebSphere MQ
 - The messaging backbone for your ESB
 - More than 500,000 MQ servers
 - Deployed by more than 10,000 different clients
 - 80+ supported platform configurations
- IBM ESB Offerings
 - Built-in transaction coordination
 - Support for Web Services and more
 - Connects 3rd party JMS providers
 - Integrated with WebSphere platform
 - Scalable, with performance to match back-office transaction processing systems
- Rich support for standards-based connectivity, including de facto industry standards
 - WS*
 - XML
 - JMS
 - MQI / MQe
 - TCP/IP
 - HTTP/S
 - SCADA
 - Tibco RV
 - FTP/SFTP
- Businesses rely on WebSphere Connectivity software
 - **Financial Markets Clients**
 - 100s of Millions of messages and Trillions of dollars
 - **Government Clients**
 - Multiple agencies processing millions of messages
 - **Banking Clients:**
 - Up to \$35 trillion per day through WMQ (SWIFT)
 - Over 213 million messages per day just on z/OS

GROHE AG

Speedy Integration of SAP with Legacy Business Systems



Challenge

Create 14 application interfaces to integrate the newly implemented SAP modules with legacy applications in a cost effective manner within two months

Solution

- An ESB implementation to enable a global exchange of information with a string of services between decoupled front and back ends using standardized interfaces based on common message formats
- Service-enable legacy systems in a building-block approach to facilitate future business integration projects

Benefits

- Decreased average integration time by up to 84%
- Increased data transfer reliability and availability
- Service-enabled legacy systems for reuse of assets on demand
- Bring new services online within two to four weeks
- Passing and transforming up to 25,000 messages per day



Software

- WebSphere Adapter for SAP
- WebSphere Adapter for JDBC
- WebSphere Message Broker
- WebSphere MQ

Servers: IBM System p™ 670

What's New for WebSphere MQ?

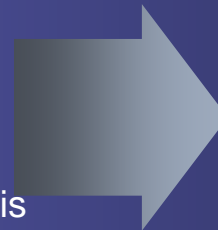
WebSphere MQ delivers...

- The proven, reliable messaging backbone for SOA connectivity
- Support for virtually any commercial IT system – over 80 platform configurations
- End-to-end data integrity – even single transactions updates to multiple IT systems
- Support for C, C++, Java JMS messaging and C# .NET applications

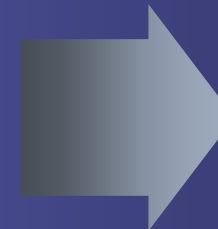
New feature highlights

Key benefit

- New Eclipse plug-ins for
 - Graphical Java Message Service (JMS) configuration
 - Graphical Publish-and-Subscribe configuration
 - Testing configurations, problem determination & diagnosis
- New Eclipse plug-in for managing permissions – helping with configuration and audits
- Message Service Clients for integrating C, C++, and C# .NET applications



Enhanced ease of use



Enhanced management

What's New for WebSphere Message Broker?

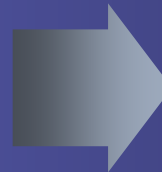
WebSphere Message Broker delivers...

- IBM's advanced ESB for standards-based and non-standard applications
- Unmatched ability to integrate heterogeneous systems, platforms, devices, APIs, etc...
- Universal transformation, high performance, and integrated complex event processing

New feature highlights

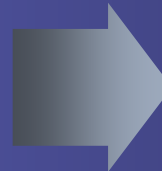
Key benefit

▪ Enhancements to the Message Broker Toolkit



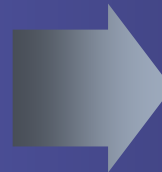
Enhanced ease of use and productivity

▪ Integration with WebSphere Service Registry and Repository



Support for SOA governance

▪ Enhanced administration, testing, and platform support



Improves flexibility and speeds time to production

What's New for WebSphere ESB?

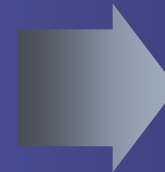
WebSphere ESB delivers...

- Web Services connectivity, JMS messaging and Service Oriented Integration
- Improved time to value
- Seamless integration with the WebSphere platform

New feature highlights

Key benefit

- Dynamic selection, administration and configuration, and an accelerated development cycle
- Enhanced performance and throughput



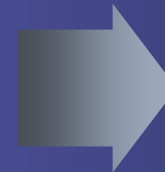
Enhanced ease of use enables better business flexibility

- Enhanced integration with WebSphere MQ, new JMS capability and support for WebSphere Service Registry and Repository



Enhanced use of existing assets and support for true governance

- Enhanced support for ITCAM for SOA and WebSphere Business Monitor
- Remote access of mainframe DB2 resources



Enhanced systems management

What's New for WebSphere Transformation Extender?

WebSphere Transformation Extender delivers...

- Universal transformation deployable anywhere in the enterprise
- Consistent data transformation and validation across any infrastructure
- Faster application deployment with reduced development and maintenance costs

New feature highlights

Key benefit

- | | | |
|--|---|---|
| ▪ New functionality and language support | ➔ | Enhanced ease of use and Globalization |
| ▪ System z platform options with z/OS Batch, CICS, IMS, Unix System Services | ➔ | Extended platform choice |
| ▪ Updated Enterprise and Industry (accelerator) Packs | ➔ | Improved time to value with support for the latest application and Industry Standards |

What's New for WebSphere Adapters?

WebSphere Adapters delivers...

- Service enabled applications to participate in SOA
- Full portfolio available from one vendor for end-to-end SOA
- First class support for applications such as SAP and Oracle

New feature highlights

Key benefit

- | | | |
|---|---|--|
| ▪ New and Enhanced open standards based adapters | ➔ | Accelerated ESB connectivity |
| ▪ Enhanced Toolkit for developing custom adapters | ➔ | Tools for the extended development community |
| ▪ Integration with common tooling – WebSphere Integration Developer | ➔ | Enhanced ease of use, and productivity |


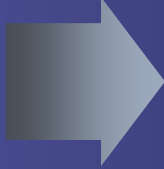

What's New, WebSphere Service Registry & Repository

WebSphere Service Registry & Repository delivers...

- Integrated service metadata repository to govern services and manage service lifecycle
- Seamless publish and find capabilities across all phases of SOA
- Reuse with dynamic and efficient interactions between services, promoting visibility, consistency and reducing redundancy in your SOA

New feature highlights

Key benefit

- | | | |
|---|---|--|
| <ul style="list-style-type: none">▪ Publish and find services and related metadata through all stages of SOA▪ Integration and federation with other standard registries and repositories |  | Promote reuse and eliminate redundancies |
| <ul style="list-style-type: none">▪ Enable optimized access to service metadata▪ Manage service interaction and policies▪ Supported by CICS and key WebSphere products |  | Enrich SOA runtime interaction |
| <ul style="list-style-type: none">▪ Facilitate service lifecycle with guards for state transitions▪ Analyze impacts of service introduction, deletion or alteration by maintaining relationships▪ Manage role based access to services, changes, versioning and service retirement |  | Better control of SOA with governance |

What's New, WebSphere DataPower

WebSphere DataPower delivers...

- Specialized IBM hardware to Simplify, help Secure and Accelerate SOA
- Higher levels of security assurance certifications that only comes with hardware
- ESB functions in a hardware form factor
- Hardware assisted performance and scale for SOA

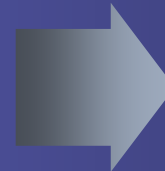
New feature highlights

Key benefit

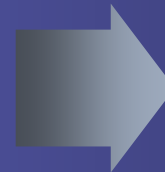
- Advanced Connectivity
- Gigabit-speed SOA Processing
- Advanced Web Services Standards and Security
- Robust end-to-end SOA Management
- Improved WebGUI
- Improved administration to compare and “roll-back” configurations



Enhanced Time to Benefit



Enhanced Security and Governance



Ease of Use

Wachovia

Secure SOA Integration of Web Services and Legacy Systems

Challenge

High profile Check 21 initiative leveraging SOA. Critical components included Web service security; Legacy ATM message integration; Message routing; High-volume reliable processing in real-time

Solution

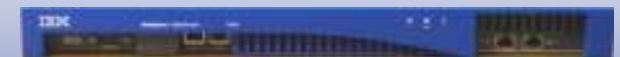
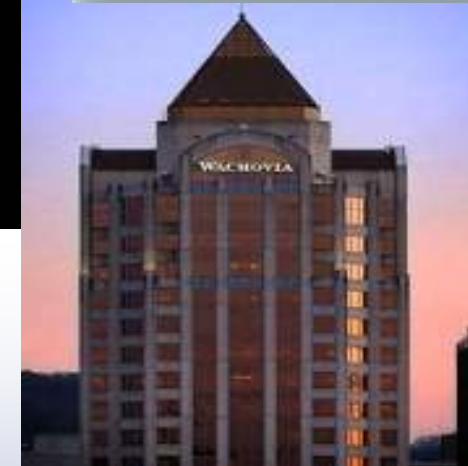
- Deployed WebSphere DataPower Integration Appliance XI50
- Message-level security & XML threat protection

Benefits

- Improved efficiency with on-demand routing of remote deposits from branch office ATMs
- SOA message-level security, content validation, & threat protection
- Reduced VAN charges by using HTTP without sacrificing security compliance
- Reallocated resources previously dedicated to batch check processing to focus on core business tasks



WACHOVIA

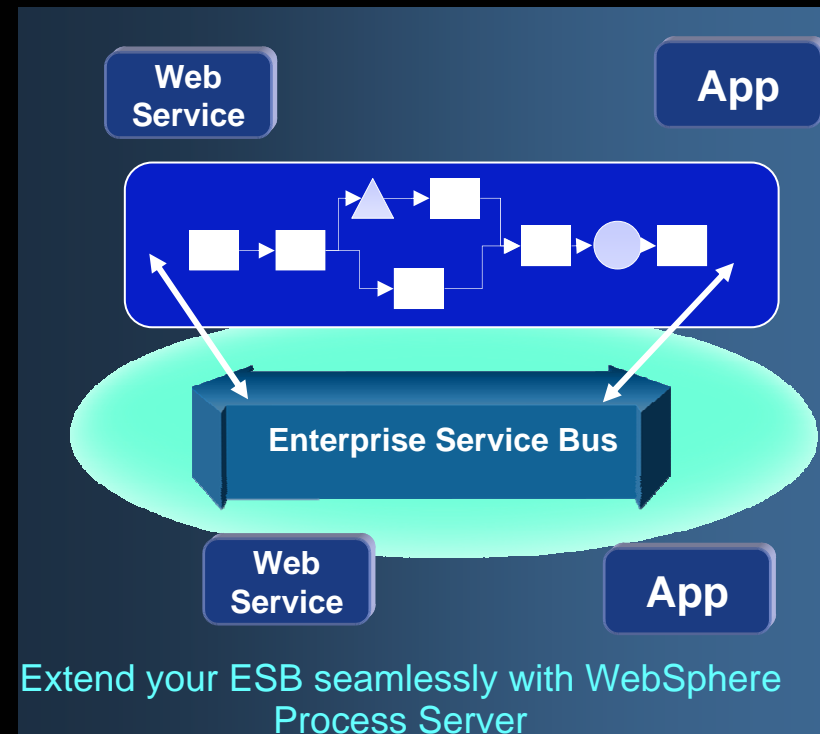


WebSphere DataPower
Integration Appliance XI50

ESB Without Limits

Service Orchestration to seamlessly extend your ESB to include process

- Will your ESB be part of a complete SOA platform architecture?
 - Will your ESB be able to orchestrate and automate responses for process calls?
 - Will your processes definitions be complicated by connectivity complexity?
- Power the optimized processes within your business
 - ESB taking advantage of a robust, scalable Application Server
 - ESB used as the connectivity layer by the Process Server
 - Shared tooling for maximum interlock and reuse of skills and assets throughout the lifecycle



Customers who rely on WebSphere for their SOA Connectivity needs

An ESB without limits

Enterprise Service Bus

Why IBM WebSphere for SOA Connectivity?

Nobody has the same breadth and depth

- Broad portfolio relied on by over 87,000 customers
- Extensive ecosystem – 2,500+ SOA partners and 3,150 active ISV solutions

Nobody invests more

- IBM investing over \$1B a year around SOA and Web services
- Over 6,700 IBM developers
- Over 10,750 IGS technical practitioners trained on WebSphere

Award-winning SOA products



IBM Overall Winner in Application Integration Middleware

- CRN Channel Champions Award (February 2006)
- CRN Channel Champions Award (March 2005)



IBM tops elite vendor list

-Intelligent Enterprise Editors' Choice Awards (April 2005)



IBM WebSphere MQ – voted best Java Messaging tool by JavaPro readers – May 2006

Looks Great – How Do I Get Started?

1. Visit the Connectivity Launch web page

(www.ibm.com/websphere/launch/connectivity) for critical and useful information including:

- *Complimentary 90-day trial WebSphere MQ download*
- *Connectivity video and demo*
- *Updated product information including new demos, datasheets and whitepapers*
- *Registration information for upcoming Connectivity webcasts and events in your area*

2. Meet with your IBM Sales Representative or Partner Contact to find out more on how an “ESB without limits” can meet your SOA Connectivity needs

3. Conduct an SOA workshop to develop your plan with ROI tied to it

- *Line-of-business or IT-led SOA Workshops. Contact your IBM rep or soa@us.ibm.com*



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