



WebSphere Foundation & Tools

WebSphere

Creating value with your IT foundation

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Putting the spot light on value

Agenda

- Today's business drivers
- e-business on demand
- The on demand operating environment
- WebSphere infrastructure for the on demand operating environment
- Today's IT infrastructures
- WebSphere foundation: Four capabilities to enable your infrastructure for on demand
 - ▶ Build & deploy on demand applications
 - ▶ Modernize your existing applications
 - ▶ Accelerate Development
 - ▶ Improve IT Operational Efficiency
- Benefits & call to action

Today's Business Challenges



Demand for faster innovation



Relentless cost pressures



Integrate inside, outside
and across the entire value chain

Shift from fixed to variable cost



Demand for predictable ROI



Dramatic improvement in IT costs



Technology Challenges

- Keeping current operations running is demanding enough
Which platform? How many servers? What operational practices?
- The business runs on decades of investment
*How to "Webify" now? Application development is costly /time consuming?
Continued application maintenance is consuming my budget?*
- Development staff spread among many different objectives
*Not sure my current resources have the skills for an e-business?
Is there any leverage with many different development resources?*
- Market segments are narrow, competition is fierce, the sales channel is eroding
*How do I manage supply chains? Increase sales? Prevent computer sabotage?
Reduce Expenses?*

Existing Challenges are compounded by Constant Change

Requires constant improvement in business design and business process

Productivity

Governance

Economy

Capital and Asset Utilization

Security
Threats

Pricing
Pressures

Customer
Preferences

Business

on demand business

Technology

Open Movement

Commoditization

Autonomic Computing

Grids

Web Services

Clusters

Blades

Virtualization

Standards

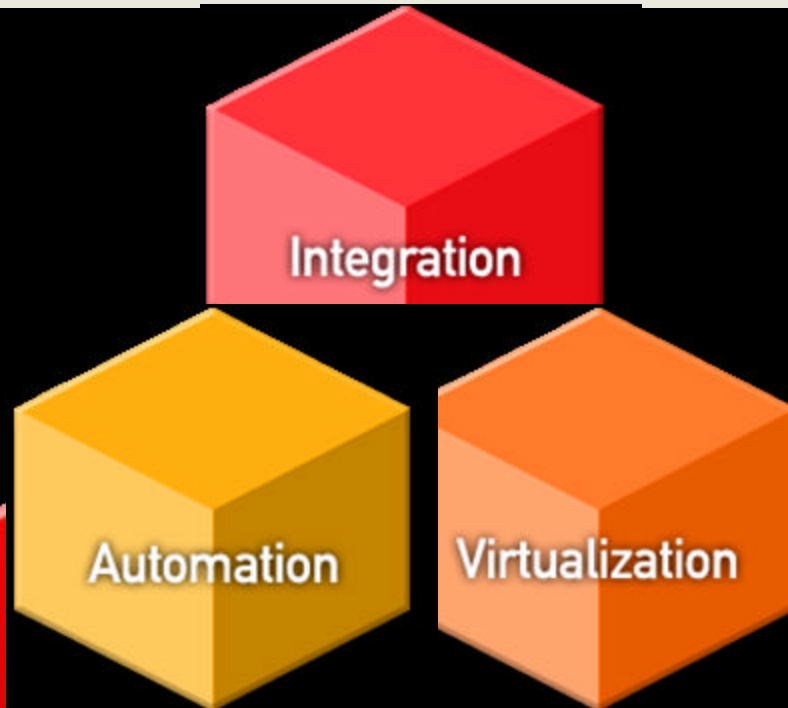
-business on demand

An enterprise whose business processes - integrated end-to-end across the company and with key partners, suppliers and customers - can respond with speed to any customer demand, market opportunity or external threat.

On Demand Business

Requires an On Demand Operating Environment

Business Transformation



On Demand Operating Environment

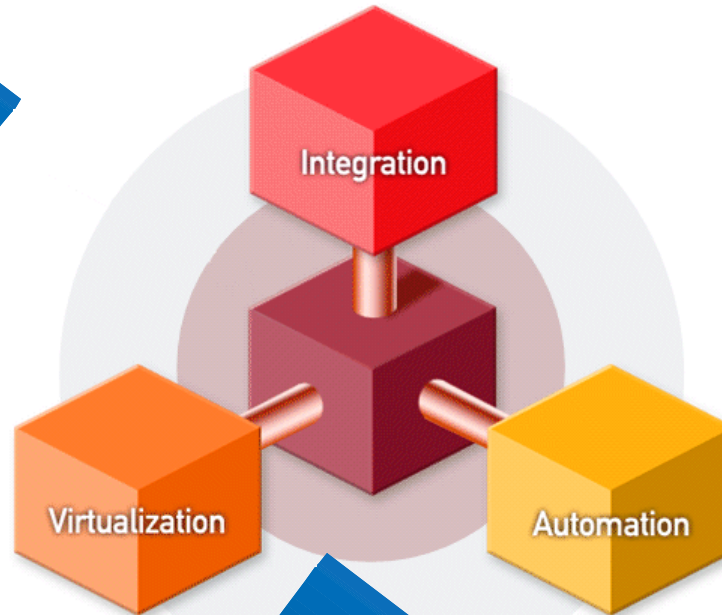
on demand capabilities

Built upon an existing infrastructure ...

With all the issues

**Deploy New
Capabilities**

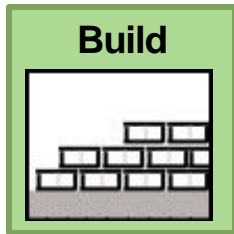
**Balance
Infrastructure
Needs & Cost**



**Unlock
Infrastructure
Value**

WebSphere Foundation

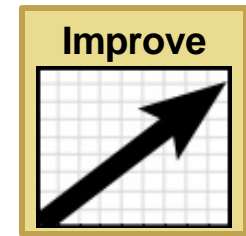
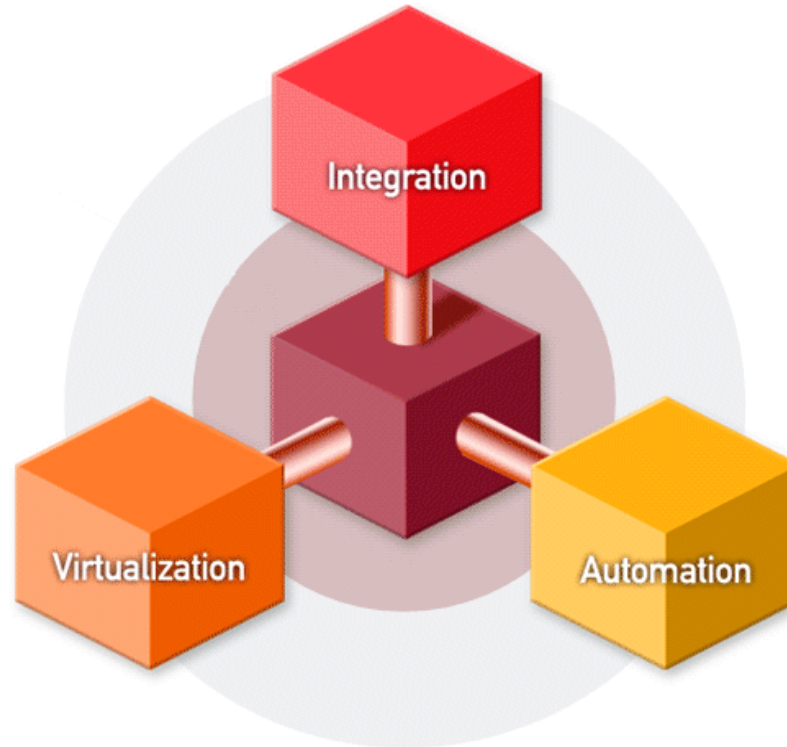
Enables your infrastructure for an on demand world ...



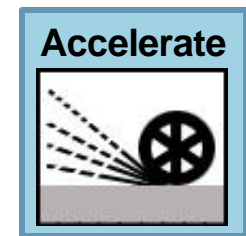
**Build & deploy
on demand
applications**



**Modernize
existing
Applications**

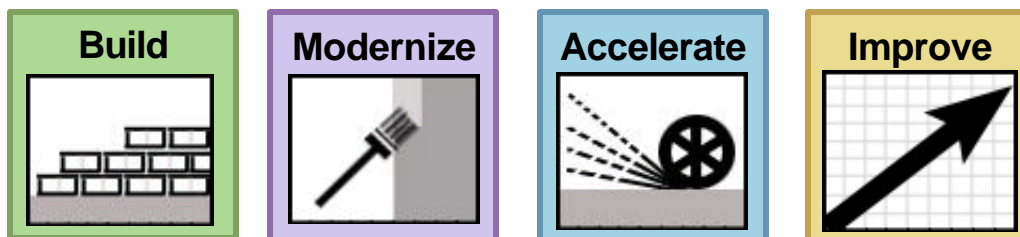


**Improve IT
operational
efficiency**



**Accelerate the
application
development
lifecycle**

WebSphere Foundation Key Capabilities



Build and deploy on demand applications.



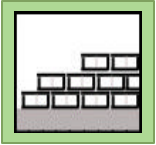
Modernize existing applications.



Accelerate the development lifecycle.



Improve IT operational efficiency



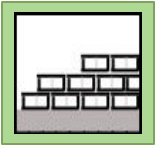
Build and deploy on demand applications.

Objectives

- Implement a **Service Oriented Architecture** as an application service integration platform based on open standards
- Enable the creation of new business function through **Service Choreography** – combining new and existing application assets in a logical flow
- Support easy **and rapid Customization and modification** of deployed applications in response to changing business requirements

Benefits

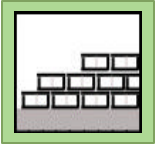
- **Minimize risk** – through the adoption of a flexible, reliable and standards-based application infrastructure
- **Unlock the value** hiding in your own shop through the unification of your heterogeneous IT infrastructure onto a common deployment platform, development paradigm & administration model
- **Deploy new capabilities** - based largely on existing applications - to stay ahead of the competition and respond faster to changing business conditions



Build and deploy on demand applications.

Service Oriented Architecture implemented in a comprehensive offering

- Uses Web Services as an open standards based integration mechanism for loosely coupled application assets
 - ▶ Utilizes integrated web services process engine
 - ▶ Fast, simple, and direct access to any internal or external Web Service (including MS.Net), Java applications or connectors into existing applications
 - ▶ Optimized with industry-leading "qualities of service" for high performance, scale, availability, reliability, and security
 - ▶ Automatically accounts for errors or uncompleted steps in the process, allowing previously committed work to be "undone"
- Choreograph new applications from Services
 - ▶ Visual Process Designer allows developers to graphically model, debug, and enhance process flows
 - ▶ Includes human interaction within the process
 - ▶ Integrated development environment for flow choreography, creation of new applications and web services

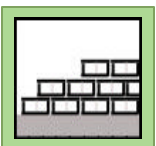


Build and deploy on demand applications.

Service Oriented Architecture implemented in a comprehensive product stack

- Makes the IT environment more flexible and responsive to changing business requirements
 - Lets business analysts change the process without opening code or bringing the application down
 - Captures variable aspects of the application as dynamic "rules" that can be modified through a simple browser interface
- Open Standards based implementation reduces vendor lock-in and supports a heterogeneous environment

**Products : WebSphere Application Server Enterprise,
WebSphere Studio Application Developer Integration Edition**



Build and deploy on demand applications.



The Australian Stock Exchange improved customer service by reducing Web time by 40% and server utilization by 60%.



Build Applications Quickly
 MSG got 100% ROI in 1 year and a 1,000 hour reduction in development time

Danske Bank

For several years Danske Bank has been working on implementing a Service Based Architecture. Paired with a technology like Process Choreographer, this enables Danske Bank to harvest significant productivity gains, when streamlining business processes

“Enterprise customers who implement such SOAs will potentially see substantial business benefits in the form of increased business agility.”

-- Jason Bloomberg,
 Market Research Analyst,
 ZapThink LLC

“By 2007, SOA will be the mainstream software engineering practice, ending the 40-year domination of monolithic software architecture”

-- Gartner Group



Modernize existing applications.

Objectives

- **Improve** existing applications to extend their life and reach
- **Transform** existing application assets for integration into new e-business applications
- **Innovate** existing applications for inclusion in a Service Oriented Architecture

Benefits

- Provide access and extend existing applications to new users and new applications
- Faster time to market by speeding enterprise e-business application development
- Reduce operational and IT costs (Total Costs of Ownership) through re-use of existing operational procedures and skills
- Increase development productivity with a common toolset for both Web and legacy programmers
- Utilize Quality of Service, inherent in enterprise systems, in new e-business applications through the use of Web Services



Modernize existing applications.

- **Improve** existing applications to extend their life and reach
 - ▶ move applications and data to the web without rewriting
- **Transform** existing application assets for integration into new e-business applications
 - ▶ Discover : Identify critical business information for rapid application understanding, change and re-use
 - ▶ Develop : Simplify re-use of existing applications through creation of adapters & code changes
 - ▶ Deploy : mitigate risk through new problem determination, performance and workload testing tools which will save the total deployment cost
- **Innovate** your existing applications to make them ready for a Service Oriented Architecture
 - ▶ Perform Asset Analysis to determine the specific functionality of existing applications
 - ▶ Componentize these applications and wrap the components in Web Services interfaces for inclusion in a Service Oriented Architecture
 - ▶ Define Web Service flows between different components to rapidly create new business function



Modernize existing applications.



“Reusing our legacy quoting engine saved between 200 and 300 development days, a **25% cost savings**”

Yvon Vornique, Manager IT



To increase employee productivity and eliminate high staff turnover, Irish Life and Permanent, an insurance company, leverages IBM Development technology



Delta Airlines cut application development product costs by 50% by implementing IBM's Deployment tools



Accelerate the Development Lifecycle

Objectives

- Improve individual **developer productivity** through an innovative & integrated development environment
- Enable a **structured development process** through a complete set of lifecycle management tools
- Optimize **team development** of complex, multi-faceted development projects

Benefits

- Increases predictability of development projects, both in terms of meeting delivery dates and required functionality
- Decreases risk of starting a new development project
- Promotes reuse of existing assets
- Improves reuse and retention of developer skills



Accelerate the Development Lifecycle

- ***Improves individual developer productivity***
 - ▶ Provides a single and integrated application development environment that supports disparate systems, developer roles and development languages
 - ▶ Extensible development environment can be tailored to the needs of an individual developer through plug-ins based on the Eclipse open source project
 - ▶ Automates code creation for Web Services, connectors and J2EE applications
- ***Enables Structured development process***
 - ▶ Manage the development cycle as an iterative and end-to-end process including requirement analysis, application modeling, RAD, application development and testing, quality assurance, ...
 - ▶ Deliver consistent process guidance to project teams through a development process methodology based on best practices from 10,000s of successful projects
- ***Optimizes Team Development***
 - ▶ Roles based development environment with integrated repository supports individualized views of a single project
 - ▶ Process Methodology Platform and Developer Portal improve team execution and skill transfer

Products : WebSphere Studio, Rational Unified Process, XDE, ...



Accelerate the Development Lifecycle



"we achieved **\$600,000 in IT cost avoidance** through team-based development which in combination with extensive debugging tools **accelerated the development cycle an estimated 40%**"

Rafe Hargrove , CTO



Improve IT Operational Efficiency

Objectives :

- **Streamline operations** to reduce complexity and lower total cost of ownership
- **Improve application stability** through world-class qualities of service
- **Increase operational flexibility** allows rapid response to new market opportunities

Benefits

- **Unlock the value** hiding in your own shop through the unification of your heterogeneous IT infrastructure onto a common deployment platform, development paradigm & administration model
- **Minimize risk** – through the adoption of a reliable and standards-based application infrastructure
- **Be poised for growth and change** - to stay ahead of the competition and respond faster to changing business conditions

" Online banking, trading, credit cards services running on Sun connect to Unisys and 390 back-ends....WebSphere has been worth what we spent" on it, it gave us a huge presence in front of Customers on the Web" *Carol Anderson VP of IS Peoples Bank*



Improve IT Operational Efficiency

- ***Streamline operations***
 - ▶ Integrated e-business infrastructure provides a common platform, development tool and administration model to lower training and implementation costs
 - ▶ Enhanced administration capabilities simplifies deployment and administration
 - ▶ Migration tools to consolidate disparate applications and infrastructures
- ***Improve application stability***
 - ▶ Choice of deployment platforms that best match your R/A/S requirements *and* your existing operational skills & procedures
 - ▶ Utilize the broadest spectrum of existing IT Management and security infrastructures, or exploit the built-in capabilities of WebSphere Application Server
 - ▶ Leverage the rock-solid stability of WAS for z/OS, optimized and finely tuned to leverage the scalability and capabilities of the z/OS environment
- ***Increase operational flexibility***
 - ▶ Easily manage different workloads and varied departmental requirements within a single environment
 - ▶ Expand or reduce your application server workload capacity with minimal or no effort

Products : WebSphere Application Server (base, ND, z/OS)



Improve IT Operational Efficiency : Home Depot

Challenge

- Improve efficiency and effectiveness of the supply chain by providing associates access to critical business information
- Enhance customer service by accommodating large numbers of transactions across disparate computing platforms

Technology Benefits

- more efficiently handle millions of customer orders, replenishment orders, vendor invoices and other business transactions.
- enable fast-growing business in customized services for carpeting, kitchen remodels and similar home improvement projects
- accommodate large numbers of transactions across disparate computing platforms



Uses IBM WebSphere® Application Server as foundation of a new IT system to knit together disparate systems into a more easily managed whole

WebSphere by numbers

1,300 Stores

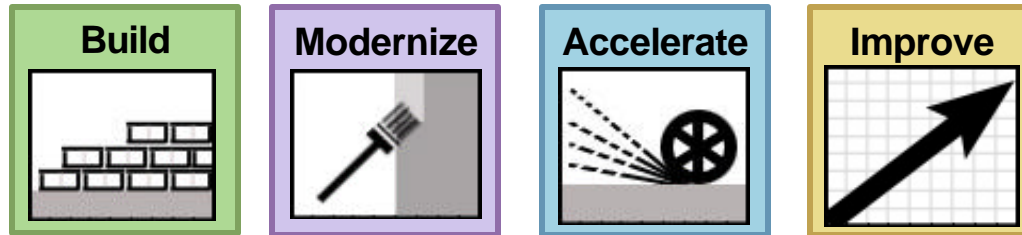
45,000 business partners

300,000 associates

1,000,000's of customers

1 Unified Infrastructure

WebSphere Foundation Key Capabilities



Build and deploy on demand applications.



Modernize existing applications.



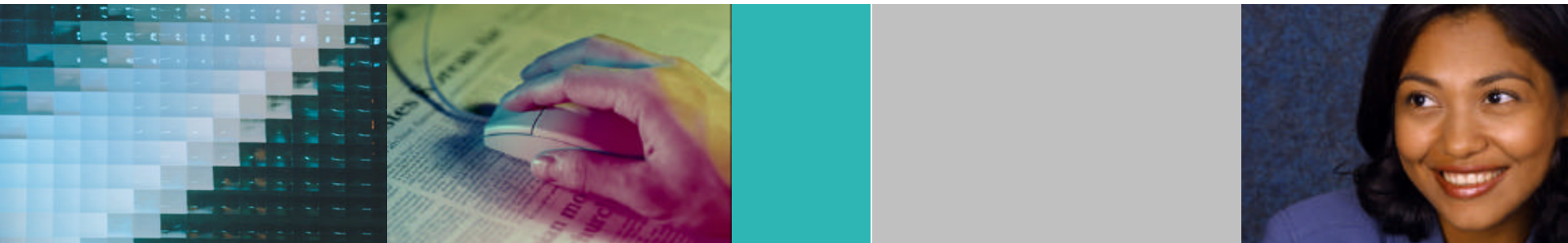
Accelerate the development lifecycle.



Improve IT operational efficiency

WebSphere Foundation Value

- React quickly to opportunities or threats in your business environment through a flexible and responsive IT infrastructure
- Create new business value from your existing IT systems and all the operational processes that surround them
- Make your development projects more predictable, both in delivery date and delivered function
- Integrate and improve your IT operations end-to-end for optimal efficiency

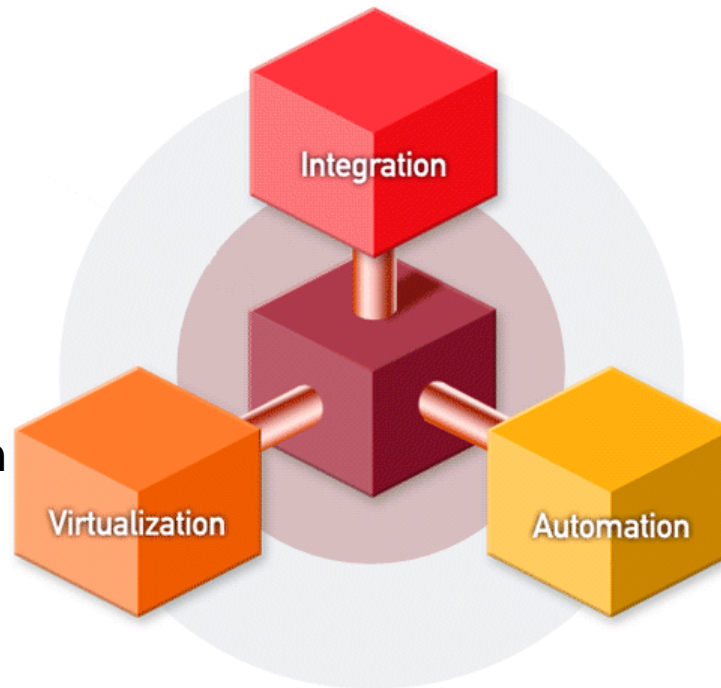


WebSphere Foundation enables the on demand operating environment

Based on an evolving set of components that simplify development, deployment and maintenance

Shared components

- Integrated system console
- Security and identity
- Choreography
- Transaction coordination
- Data persistence
- Workload management
- Collaboration
- Application connectivity
- Configuration tool



Based on open standards

- XML
- Web services
- J2EE
- Open Grid Services Architecture
- CIM

IBM WebSphere e-Business Software

The software foundation of the on demand operating environment

Strengthen Relationships
Enhance customer, partner, employee and supplier user experiences for optimal satisfaction



Optimize Operations
Integrate applications & automate business processes for operational efficiency and business flexibility

Reduce Business Risk
Rely upon a high quality foundation to rapidly build & deploy applications for high-performance e-business on demand

WebSphere Market Momentum – Gartner May 2003

Table 1 Worldwide IBM Market Share Position Based on New License Revenue

	2000	2001	2002
Application Servers	2	2	1
Integration Broker Suites	1	1	1
Portals	NA	3	1
Message-Oriented Middleware	1	1	1
Application Platform Suites Composite Market	2	2	1
Transaction Processing Monitors	1	1	1
Total Market	1	1	1

Source: Gartner Dataquest (May 2003)

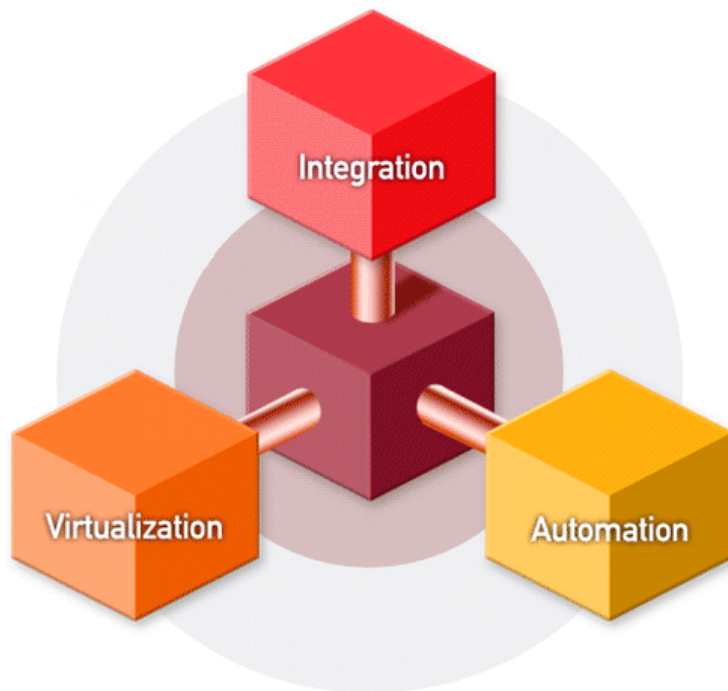
With the release of WAS V4 in 2H01, IBM caught up with its rivals in technical features and implementation of J2EE.

Since then, its market momentum has been unstoppable.

Gartner, April 2003

WebSphere Expertise

Turn software into business value



Expertise

Unmatched services, support, technical enablement, and practical experience to turn software into real world solutions

- Best Practices Services
- Developer Domain
- Customer Support
- Centers of Competency
- Patterns for e-business



Where do you start ?

- Assess your on demand readiness and map out your journey
- Create a broad architectural & infrastructure roadmap to enable your journey, including key services to be re-used
- Establish an application development and deployment platform by adopting Eclipse, Rational's Suite, WebSphere Studio and Application Server families
- Start with a pilot project to develop relevant technical skills and build acceptance
 - ▶ Leverage WebSphere Application Server Enterprise as SOA implementation platform
 - ▶ Leverage business process and technology infrastructure domain experts to assist in your journey
- Continue to identify high "bang for the buck" projects - think strategically, iterate tactically
- Focus on your core values, consider outsourcing non-core

Thank you!

- Next steps

- Learn about available discounts on software, education and services
- Get valuable business and IT information kits, which include analyst white papers and evaluation software
- Request to have someone from IBM contact you