



e-business Strategy

*Adoption Phases and Technologies
Bring New Business Model*

Mike Rhoads

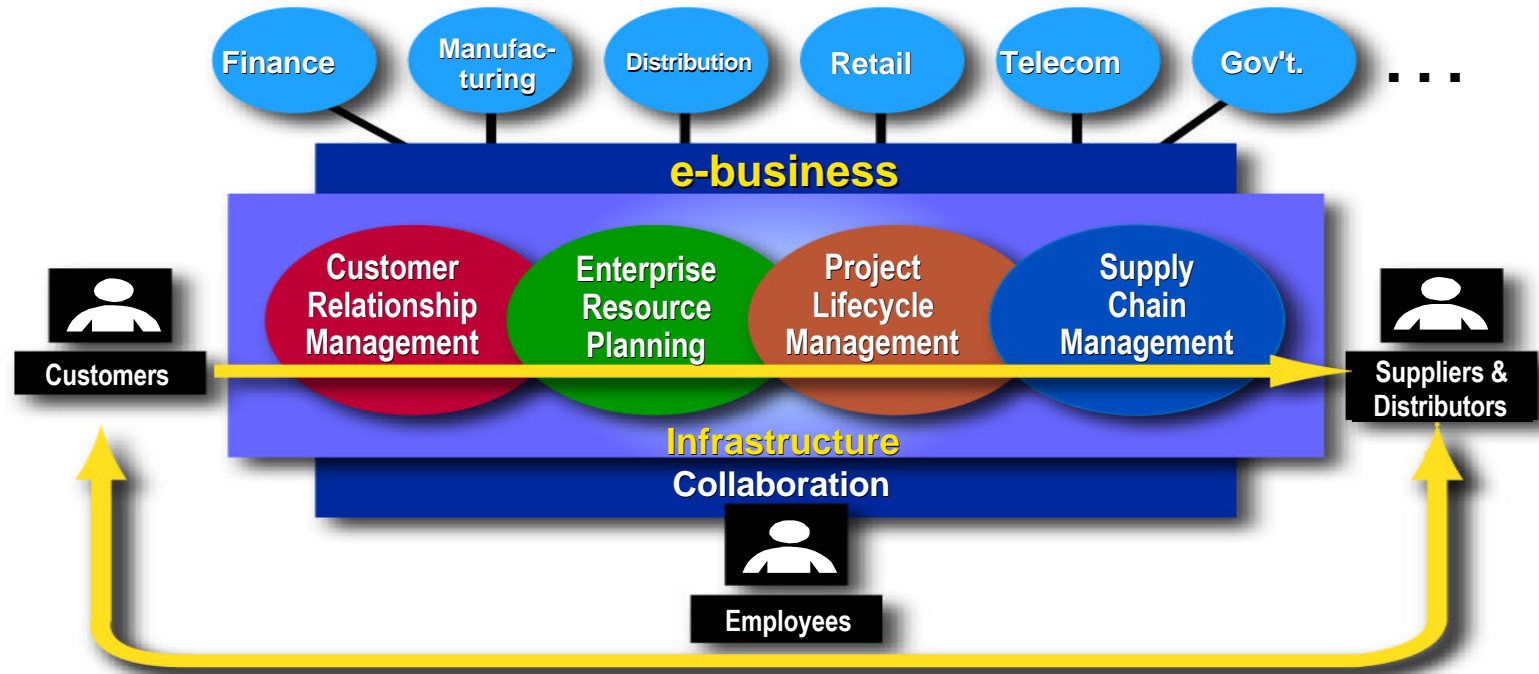
Business Unit Executive

World-Wide WebSphere Solutions

Raleigh, NC. USA

The IBM logo, consisting of the letters 'IBM' in a white, bold, sans-serif font, is positioned on a dark blue vertical bar at the bottom left of the slide. The background of the slide features a large, semi-transparent globe with various icons (a computer monitor, a hand holding a pen, a gear, a hand cursor, and a globe) and binary code (0s and 1s) floating around it.

What is e-business?

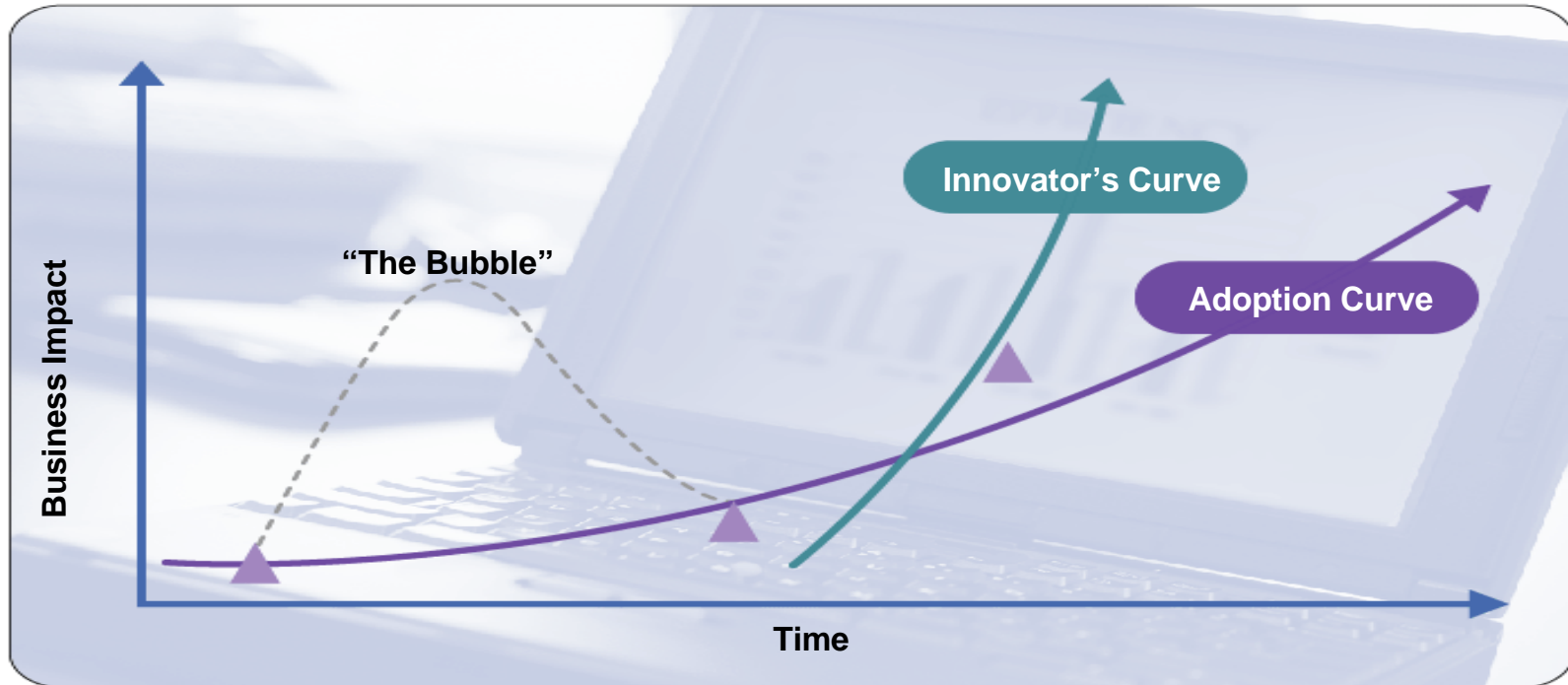


e-business (*e biz' nis*) *n.*

1. An organization that **connects its core business systems to key constituencies** using intranets, extranets, and the Web.
2. **Building and enhancing business relationships** through the effective use of network-based technologies.
3. **Leveraging Internet technologies to integrate business process to effectively transact and interact** with customers, suppliers, & employees to achieve and sustain a **competitive advantage**.

e-business Adoption

From Hype to Reality



EARLY

Enable transactions
against core business
systems

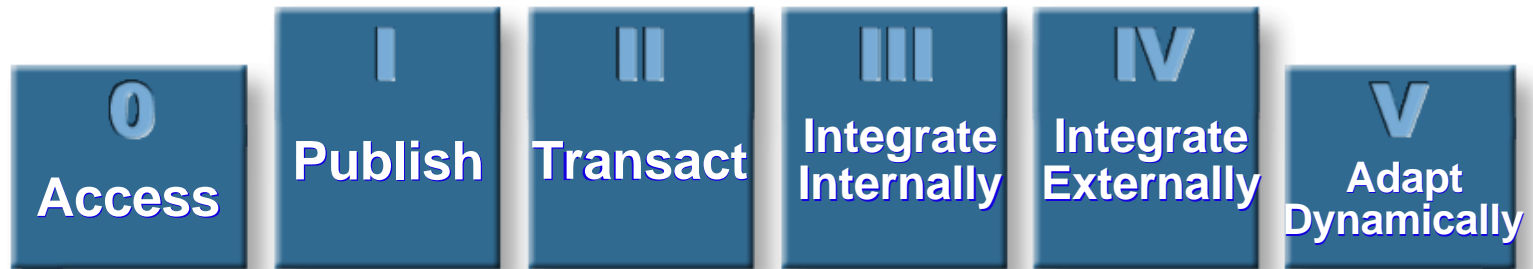
INTEGRATING

Use the Web to integrate
business processes
across enterprises

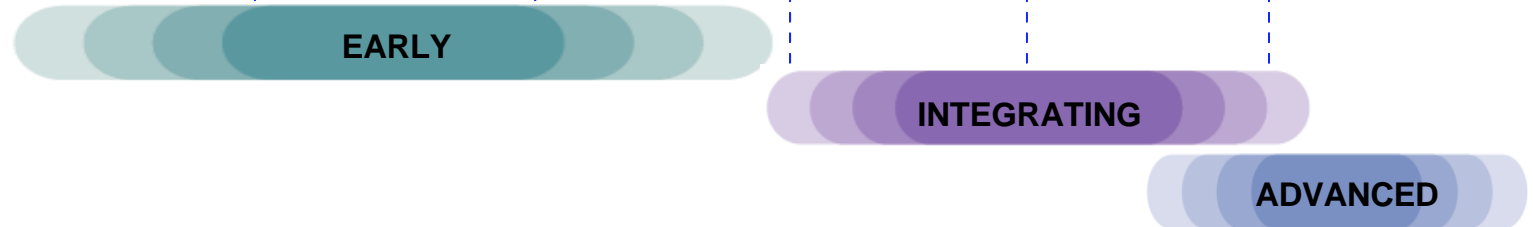
ADVANCED

Use the Web to
dynamically adapt to
cust. & mkt requirements

State of e-business Adoption



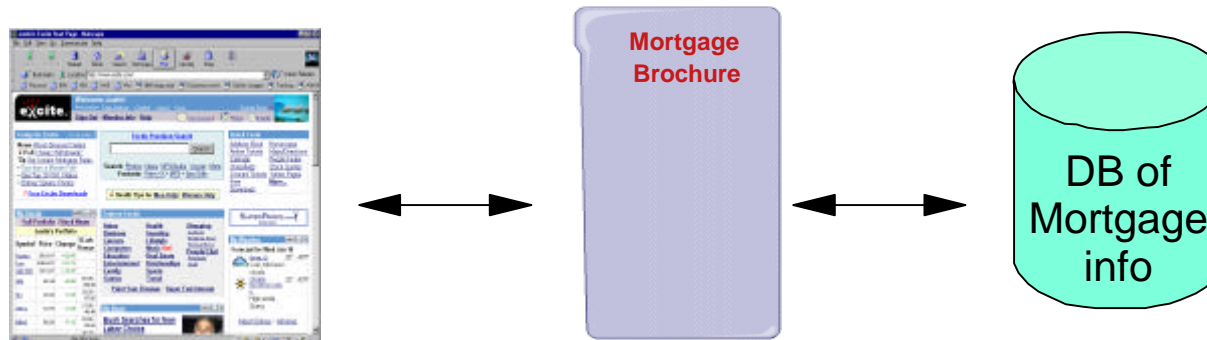
<p>Computerized establishment</p> <p>May use the Web for e-mail, and may support a simple home page.</p>	<p>Maintains a multi-page Web site.</p> <p>Uses the Web for e-mail, one-way communication or publishing of business information.</p>	<p>Uses the Web to enable clients to execute one-way or two-way transactions against core business systems.</p>	<p>Uses the Web to improve and/or integrate core business processes within the enterprise.</p>	<p>Uses the Web to integrate business processes across enterprises.</p>	<p>Uses the Web as the foundation for existing in a digital community.</p>
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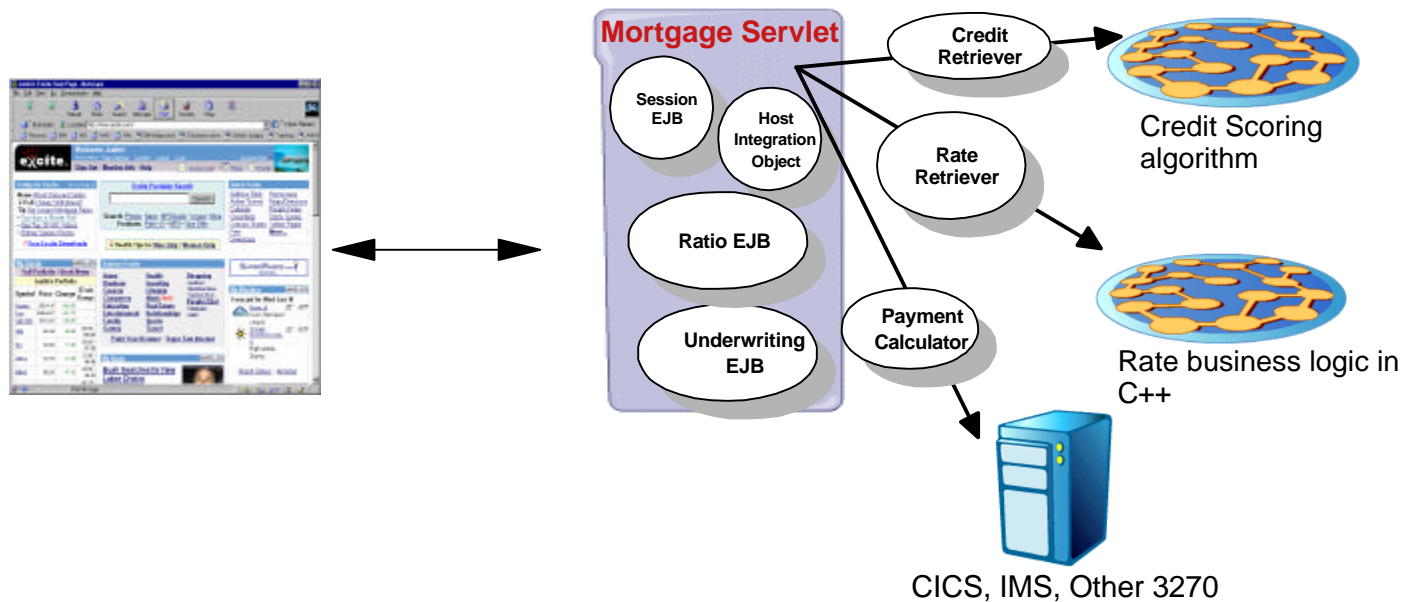
Infrastructure Evolution

Simple Web presence ...



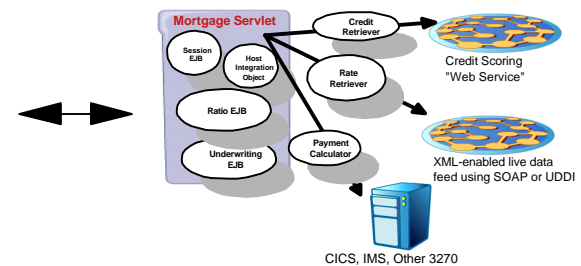
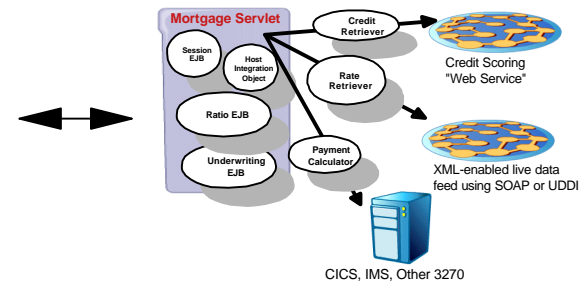
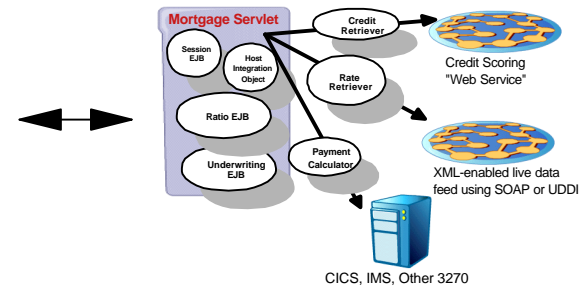
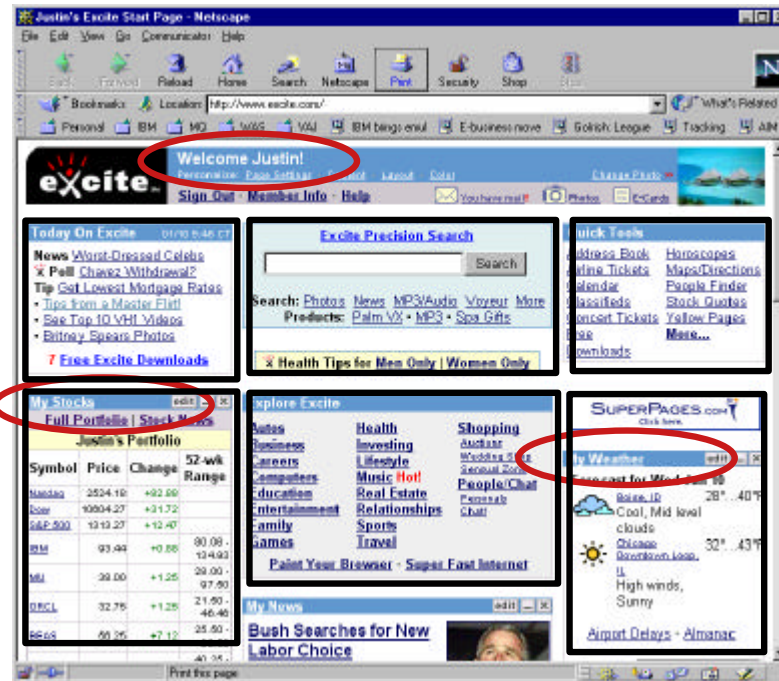
Infrastructure Evolution

... add transactional access for real e-business...



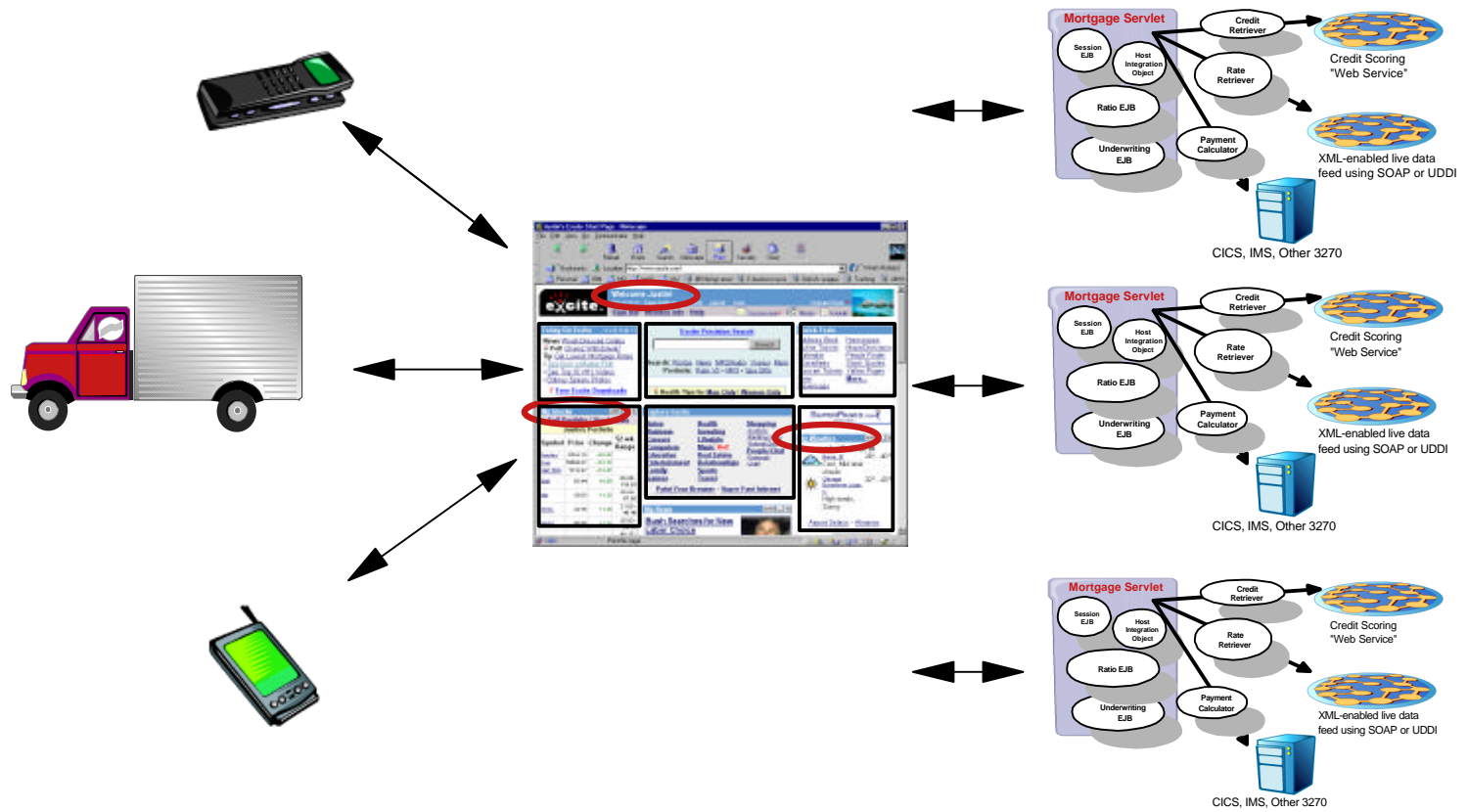
Infrastructure Evolution

... multiple applications can be aggregated into a Portal, for easy access and common look-and-feel ...



Infrastructure Evolution

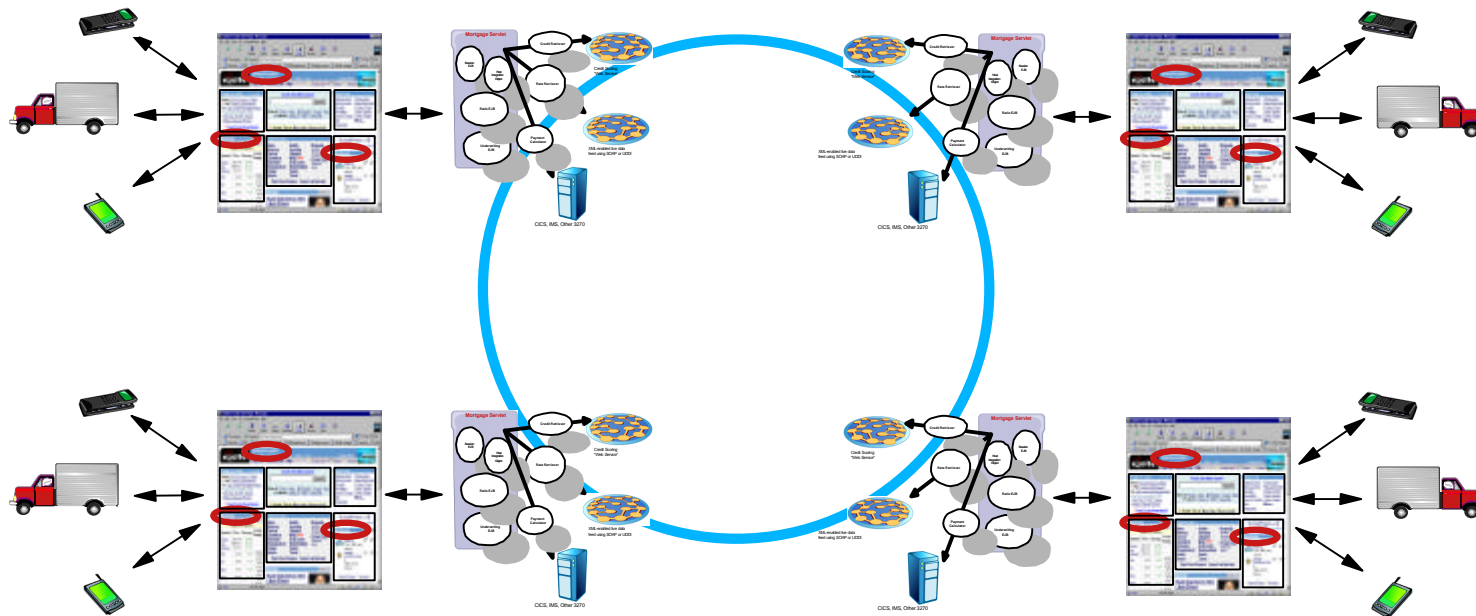
... access can be extended to pervasive devices ...



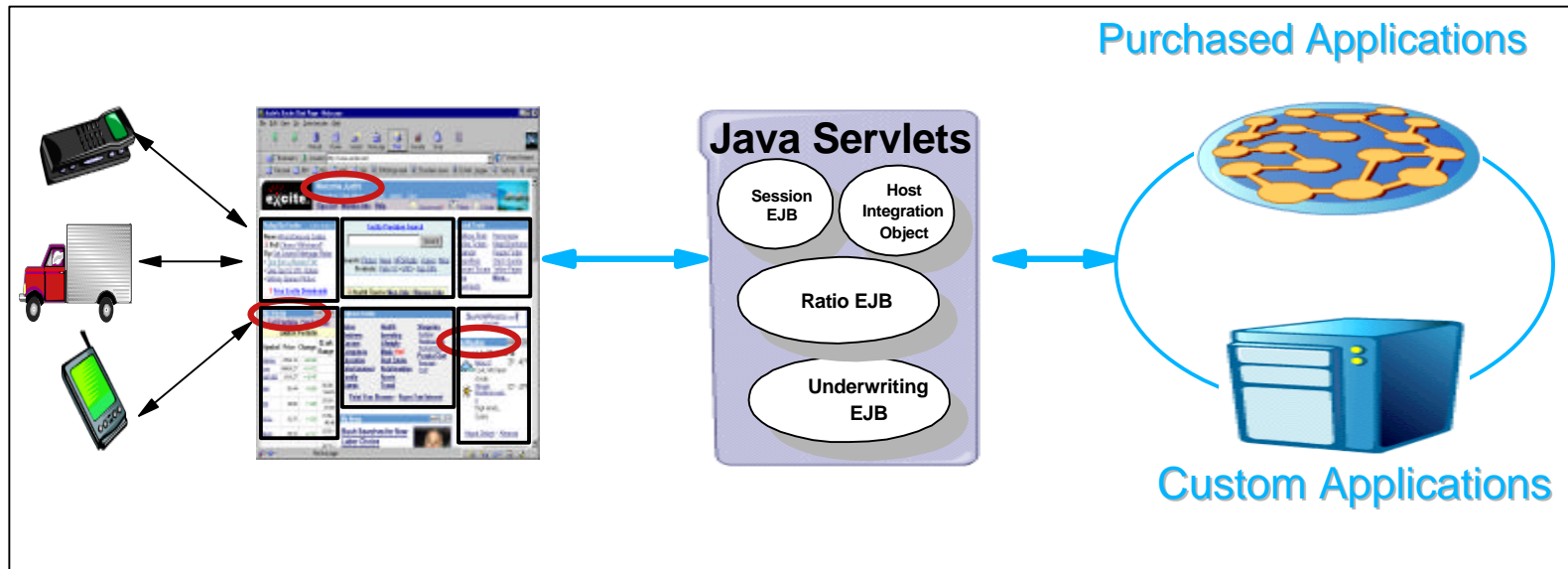
Infrastructure Evolution

... applications can be integrated with partners across the web in an e-marketplace ...

e-market



e-business Application Architecture



Interaction Servers

Transaction Servers

Integration Servers



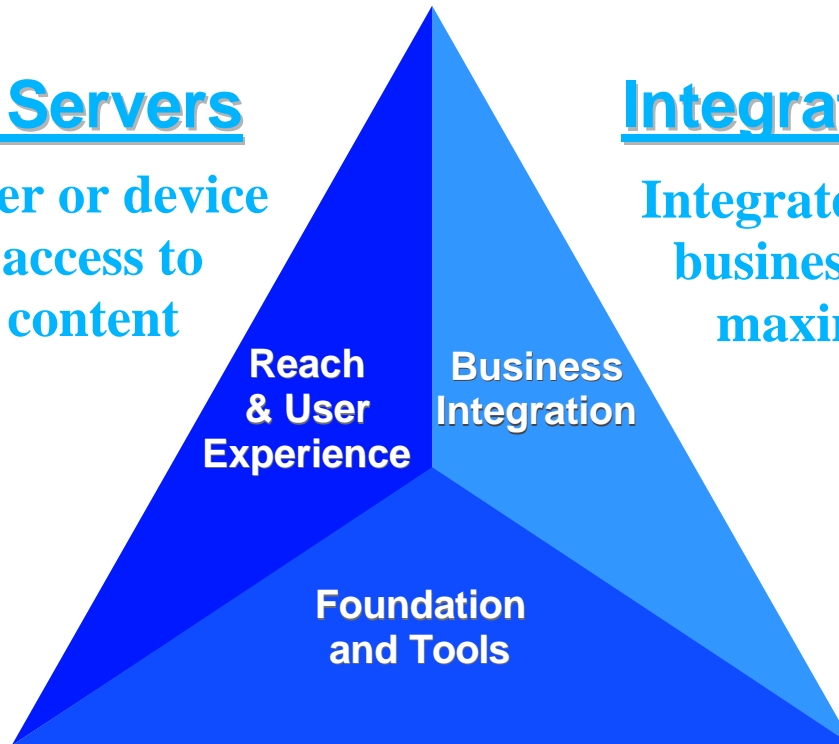
The WebSphere Software Platform provides the infrastructure for e-business

Interaction Servers

Provide any user or device streamlined access to customized content

Integration Servers

Integrate and automate business processes to maximize agility



Transaction Servers

Develop, connect and run high performance web applications

IBM



What is a Web App Server

**The Web
Application Server is
the operating system
for e-business!!!**

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business

What is a Web App Server

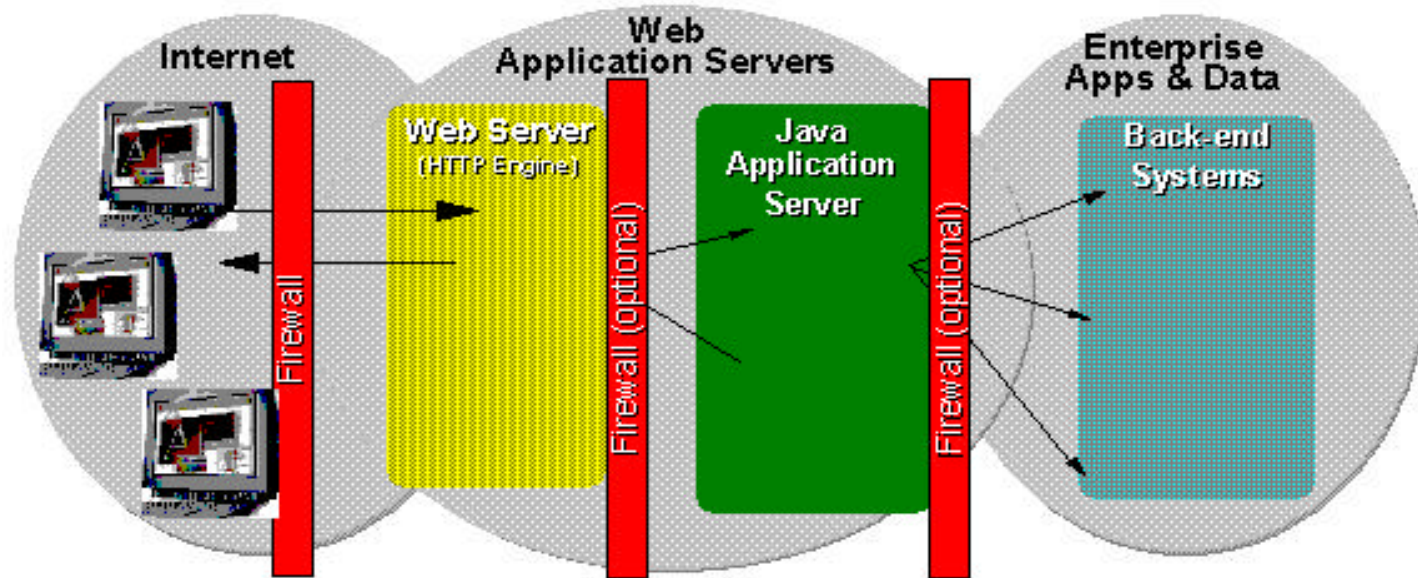
Web Application Servers

Web Server
(HTTP Engine)

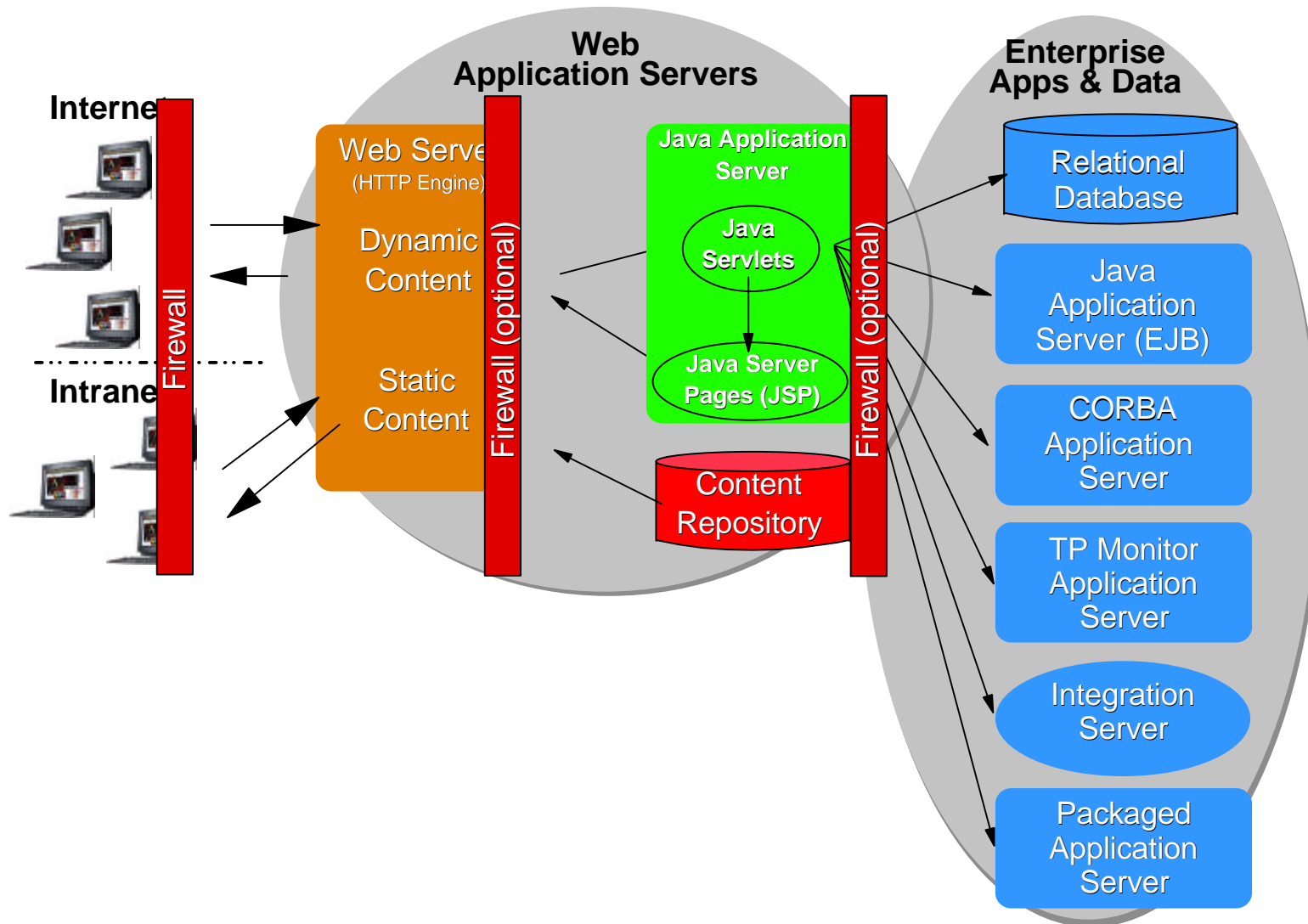
**Java
Application
Server**

IBM

What is a Web App Server

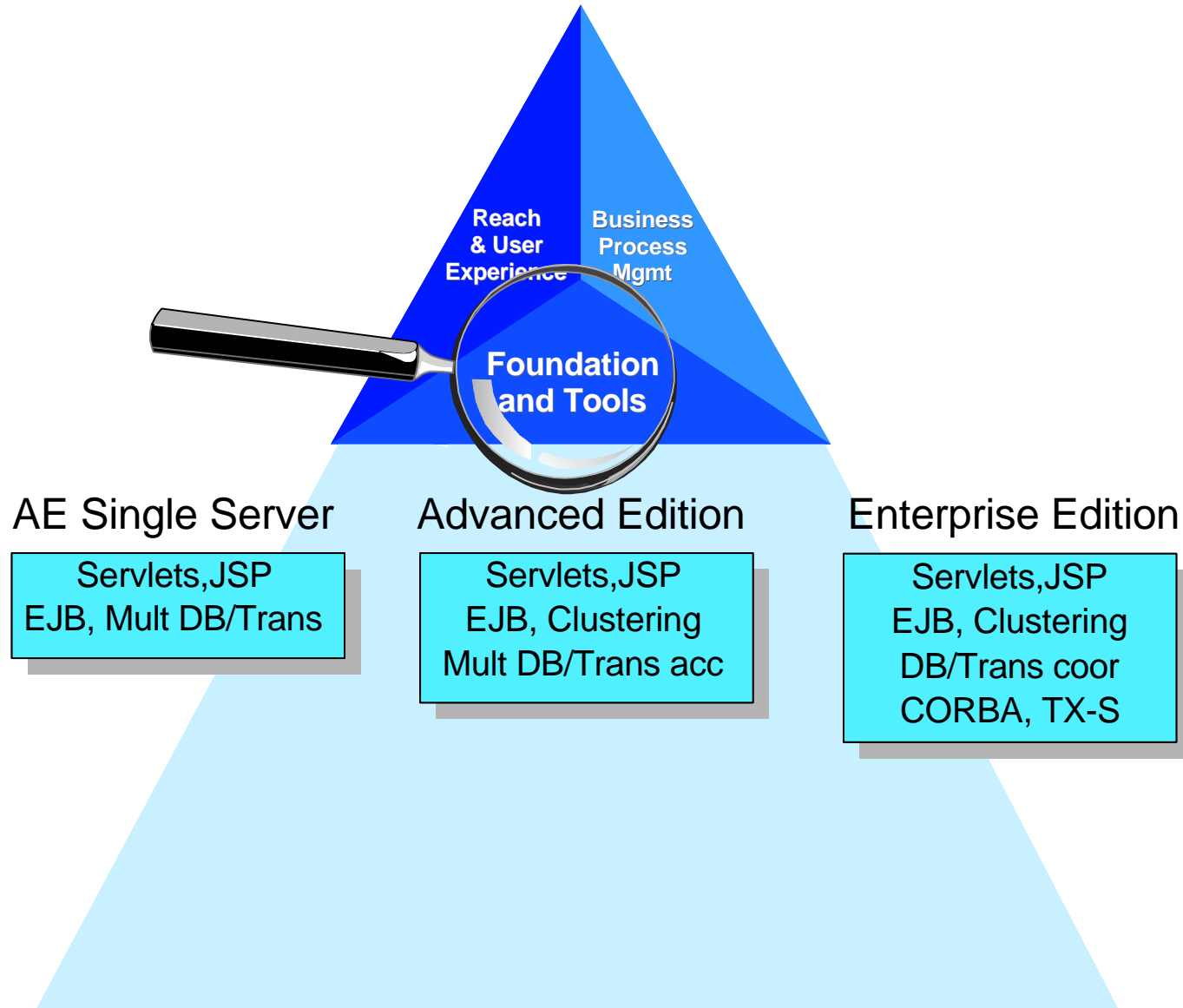


What is a Web App Server





Grow at your own pace





Engineered for all

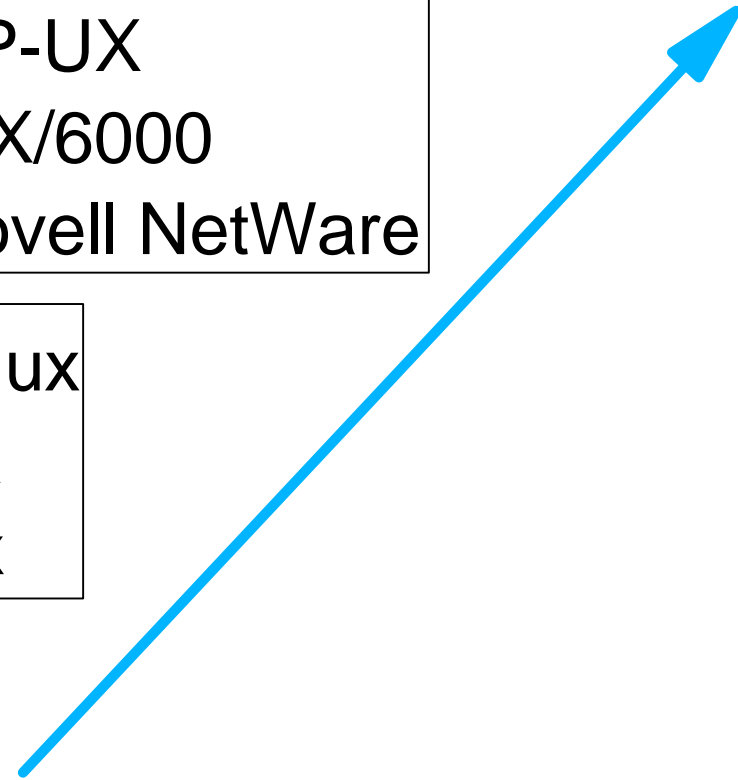
Major Platforms

- i-series
- Linux/390
- 390 and zOS

- Sun Solaris
- HP-UX
- AIX/6000
- Novell NetWare

- Red Hat Linux
- SuSE Linux
- Turbo Linux

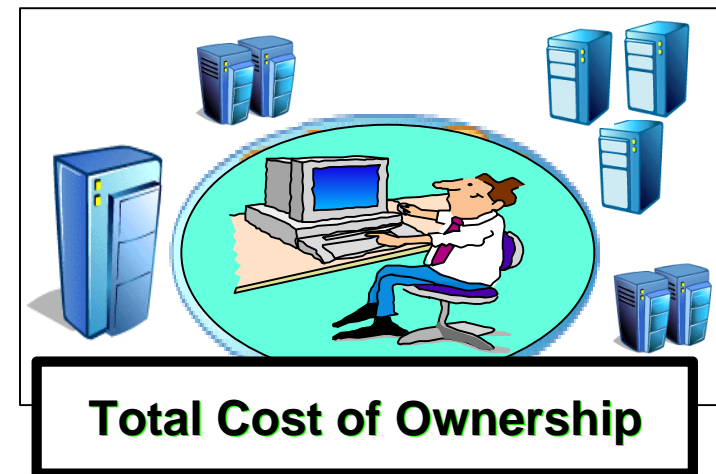
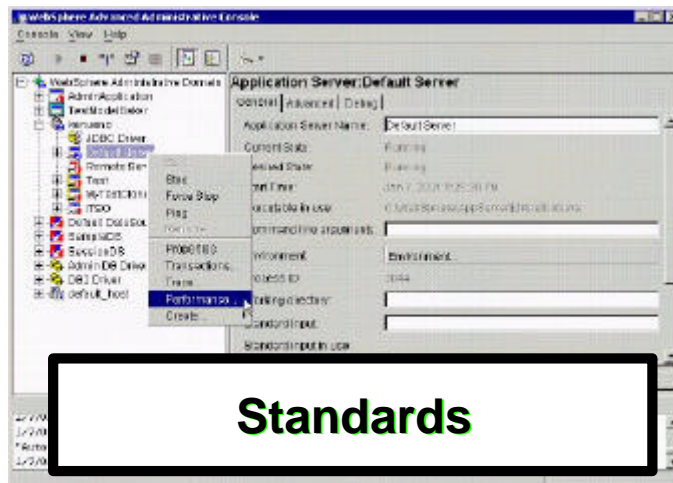
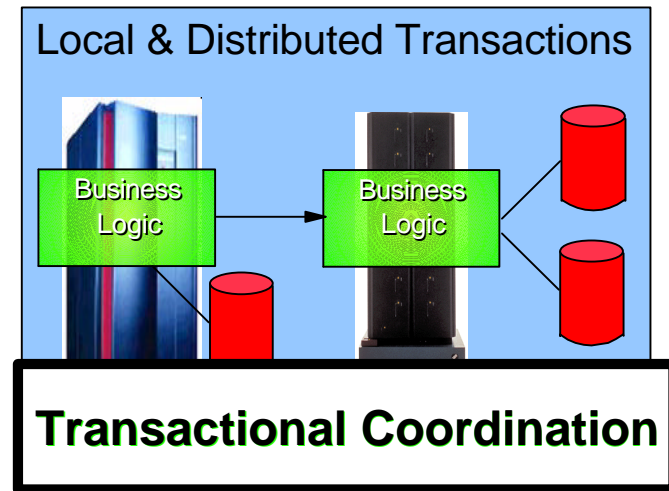
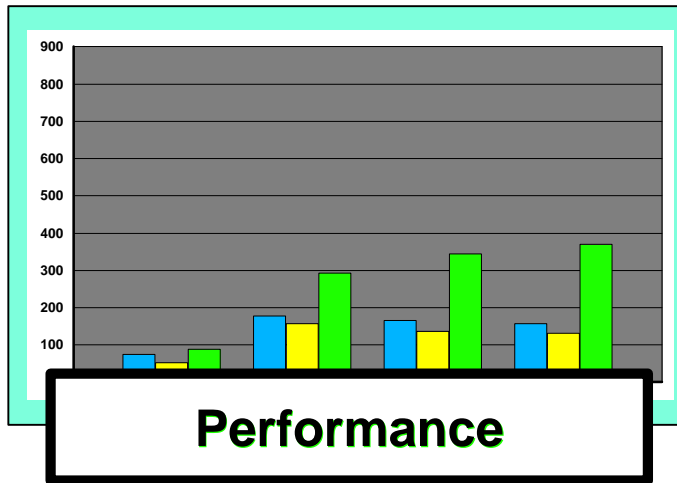
- Windows NT
- Windows 2000



IBM



WebSphere App Server Differentiators





Scale and Performance

- Scored first place in PC Magazine's public benchmark.
- Winner of e-Bay "bake-off" showing superior performance
- More than 33 million page views per day on weather.com
- Charles Schwab study shows 100,000 concurrent sessions
- Best vertical scaling with WAS on z/OS
- Advanced caching technologies w/ edge of network capability
- Supported by a High Volume Web Site team
- Ships with performance monitoring APIs
- Ships with tooling for load measurements
- Ships with performance tuning wizard
- Performance documents (redbooks, white papers, etc.)

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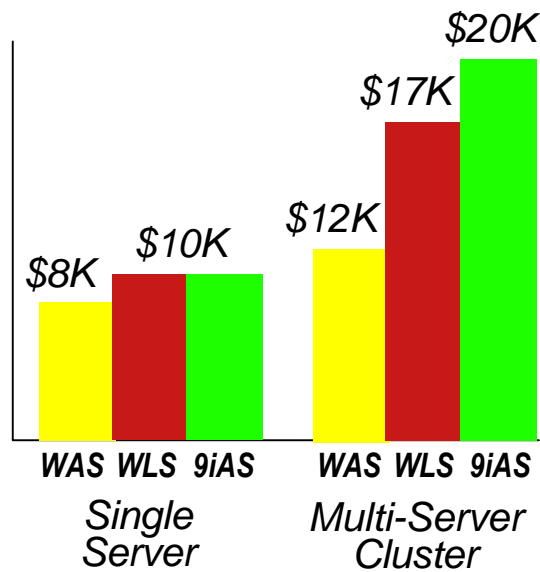
WebSphere Application Server: A More Complete J2EE Platform

Feature Set	WAS v4.0 AEs	WAS v4.0 AE	WAS v4.0 EE	BEA WLS v6.1	Oracle 9iAS R1 EE
Java technology	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Full J2EE v1.2 support	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Connection mgmt/pool.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
XML parsing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Expanded DB support	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Web services support	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Integrated HTTP server	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	native only	<input type="checkbox"/>
Directory services		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>
Application-level WLM		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clustering/cloning		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dynamic caching		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	JSP taglib only	<input type="checkbox"/>
Distributed security		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>
Message Beans			JMS Listener	<input type="checkbox"/>	
Business Rule Beans			<input checked="" type="checkbox"/>		
Bi-dir CORBA interop.			<input checked="" type="checkbox"/>		
ActiveX bridge			<input checked="" type="checkbox"/>		
C/C++ asset integration			<input checked="" type="checkbox"/>		
Globalization			<input checked="" type="checkbox"/>		
Shared work areas			<input checked="" type="checkbox"/>		

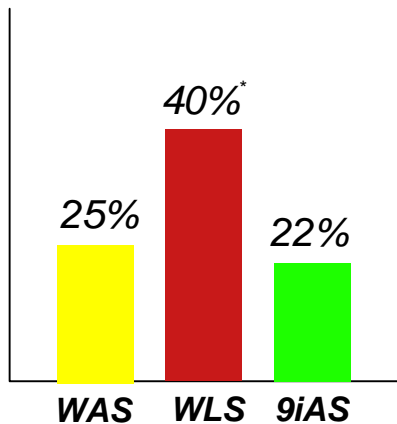


WebSphere Offers Lower Total Cost of Ownership

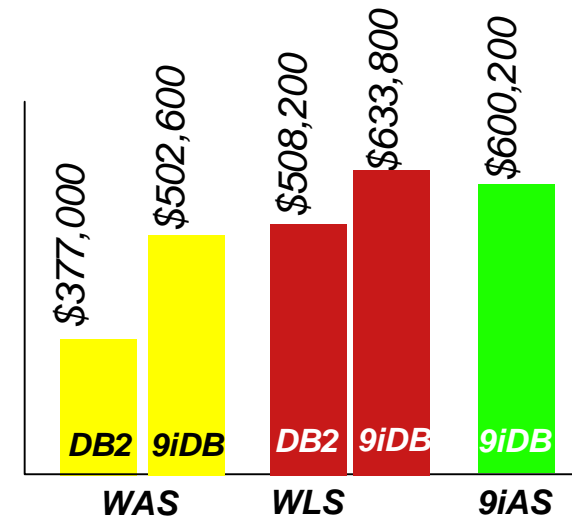
Software Acquisition Cost
(per CPU)



Support and Maintenance Cost
(OTC per CPU per year)



Three-Year TCO
(Sample Three-Tier Configuration using Intel/W2K Platforms)



- IBM WAS AE v4.0
- BEA WLS v6.1
- Oracle 9iAS R2

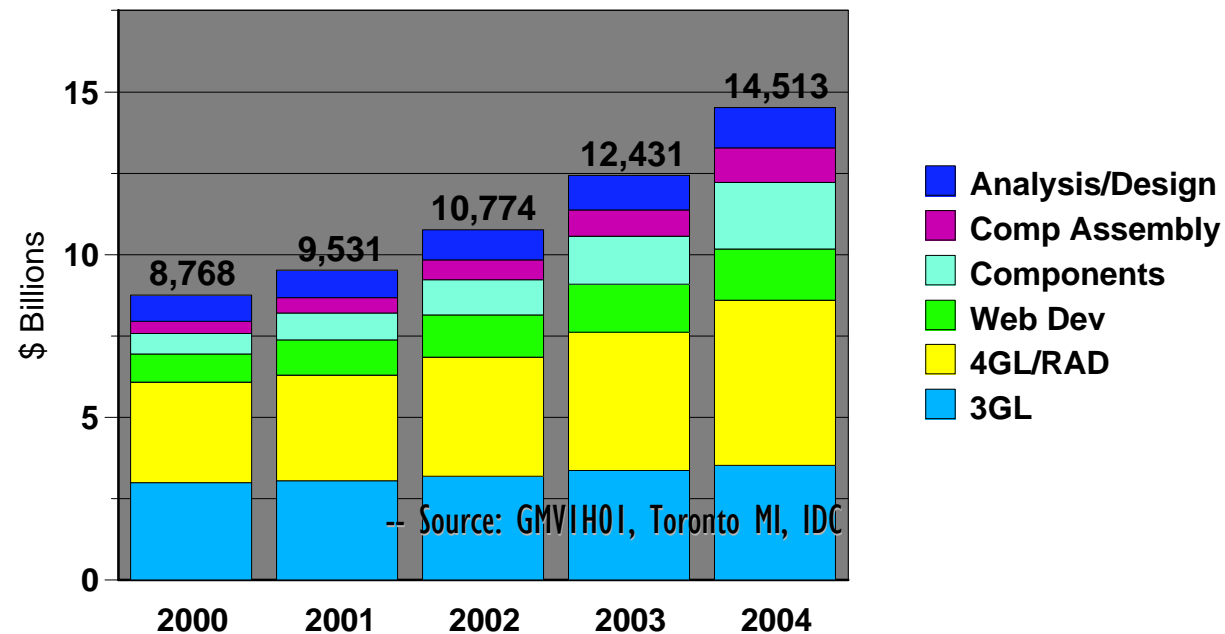
* Estimate; 20% for support (actual) + 20% for maintenance/upgrades; BEA offers no subscription-based maintenance plan; upgrades purchased separately



What is the most important factor in choosing an App Server?

★ 44% answered "Good Development Tools" across 14 key Industry Segments

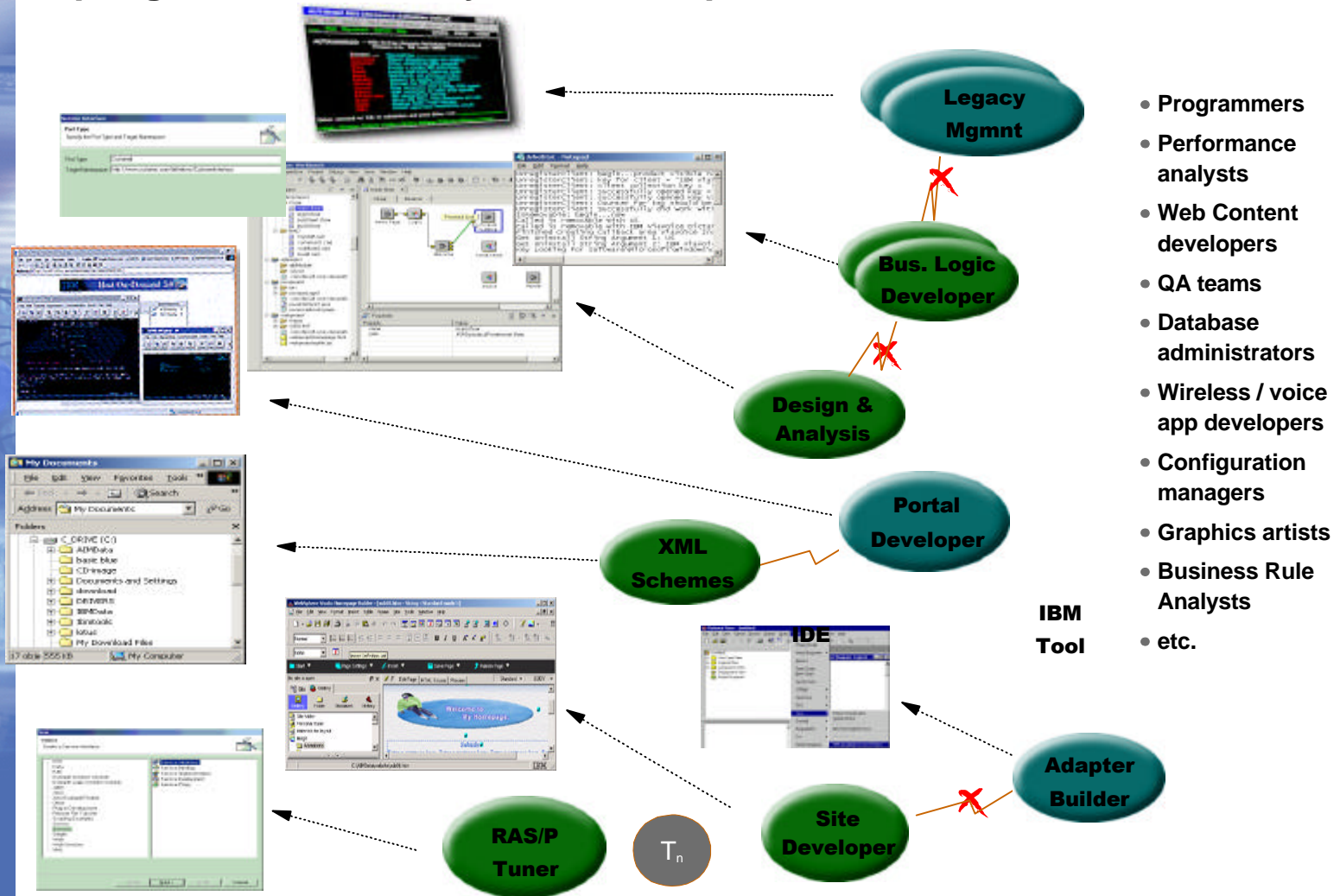
-- Source: Evans Survey 2001



The Problem:

Proliferation of Poorly Integrated Development Tools

Rapid growth in diversity and interdependencies of roles and tasks

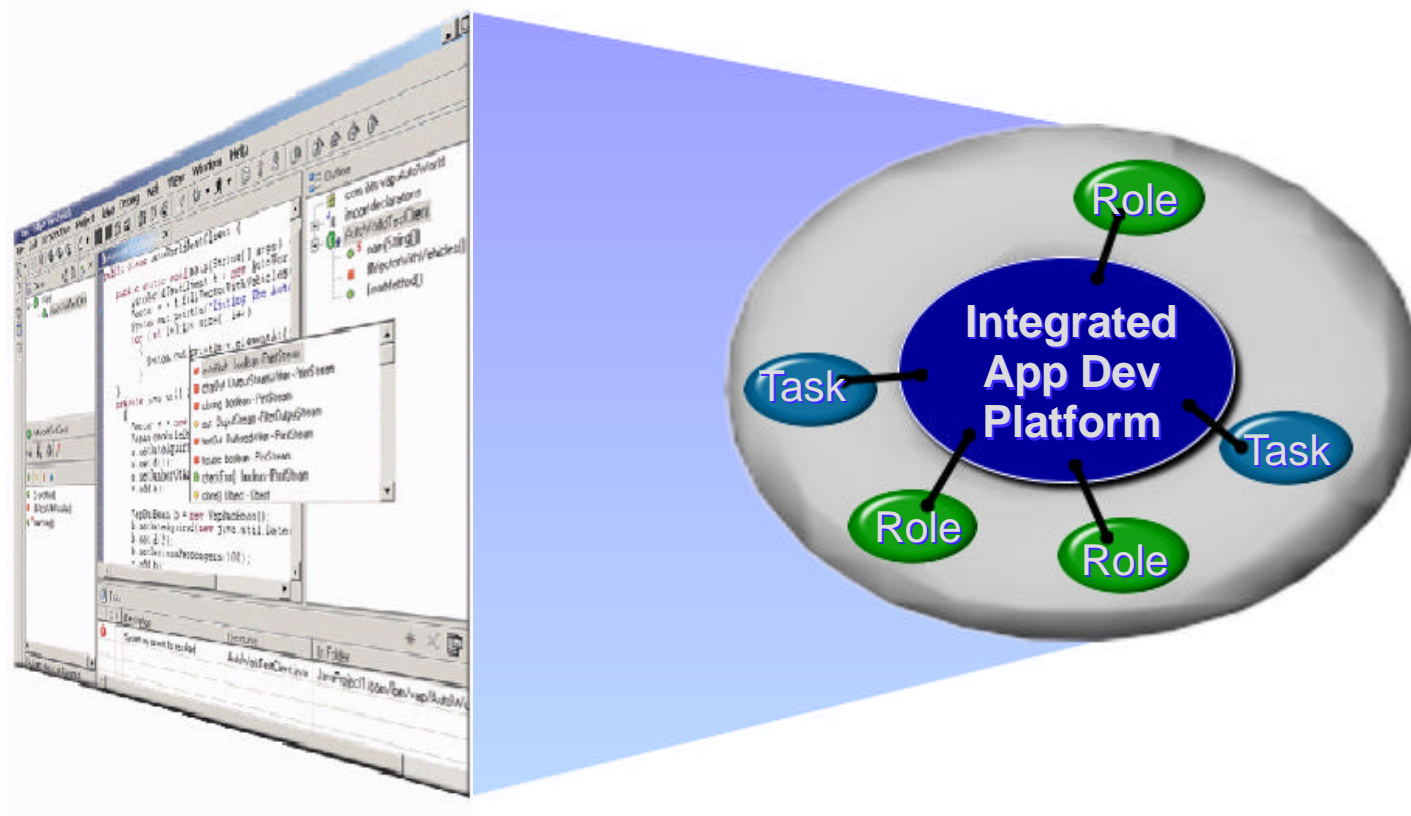




The Solution:

An Integrated Platform for e-business Development

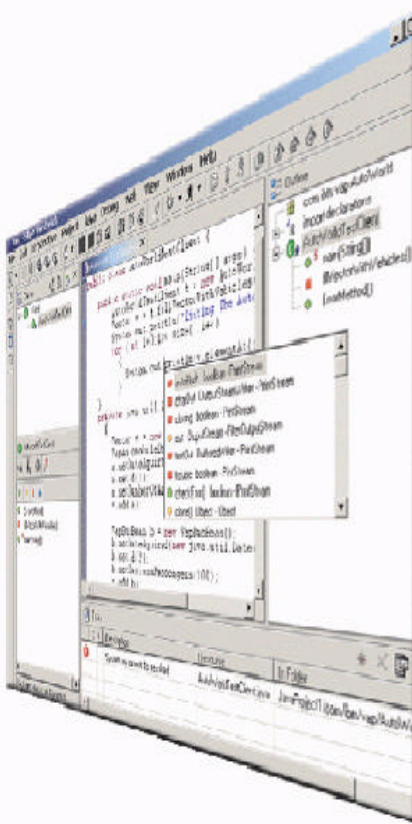
An integrated experience unlocks greater productivity by bringing order, collaboration and integration to rapidly expanding e-business development processes





WebSphere Studio Family

IBM's New AD Solution for e-business



**IBM Server
& Middleware
Tools**

**Partner Tools
& Middleware**

WebSphere Studio

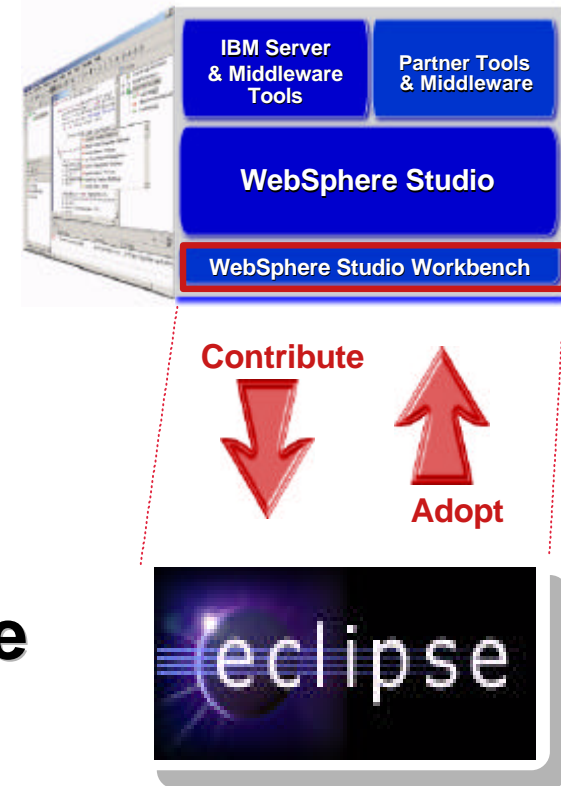
WebSphere Studio Workbench

IBM



WebSphere Studio Workbench

- Workbench is IBM's commercially supported implementation of Eclipse
- \$40M software/R&D contributed as initial Eclipse technology



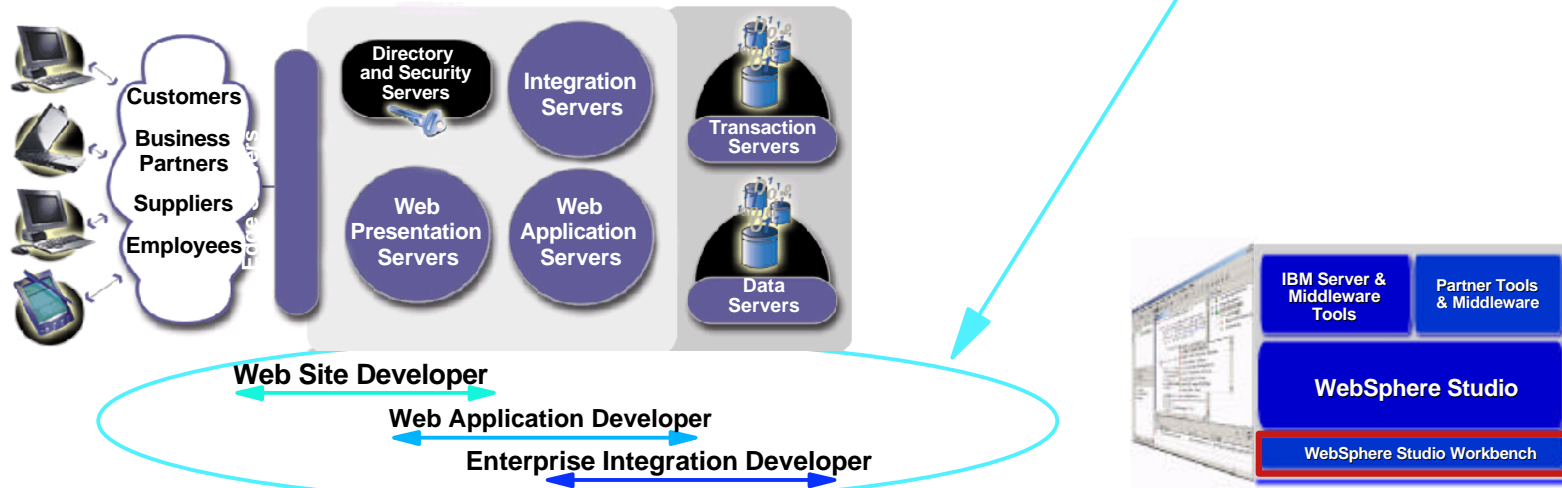
www.Eclipse.org

IBM

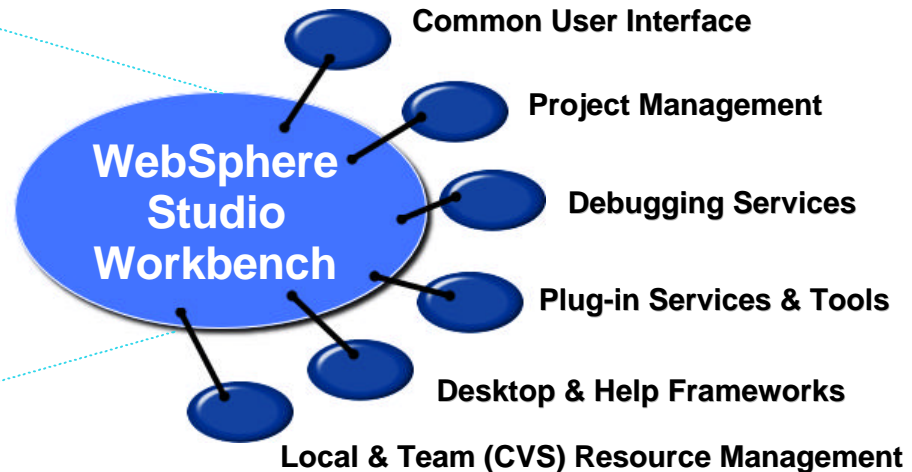


WebSphere Studio Workbench

An integrated, personalized, extensible development platform organized via developer "Perspectives"



Products built with Workbench inherit these capabilities plus 'plug-ins' built by others

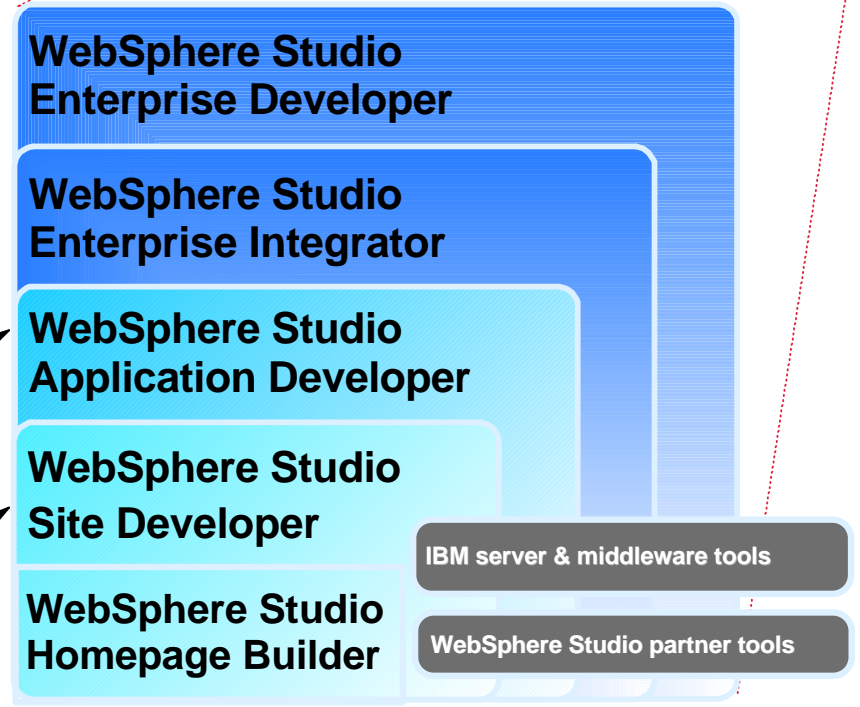
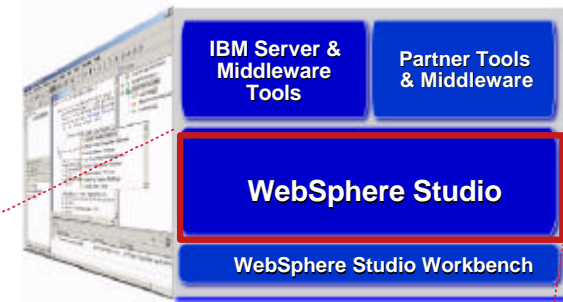
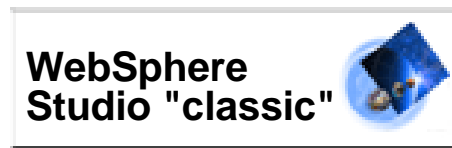




The New WebSphere Studio Family

Fast, Easy and Powerful

- ★ A single, comprehensive IDE with unprecedented flexibility and extensibility
- ★ Configurations add or subtract "perspectives" to meet the needs of specific developer roles
- ★ Extend and customize with partner, customer and IBM plug-ins
- ★ Common development environment across Windows and Linux





WebSphere Studio Application Developer

The Ultimate Development Environment

Franchise Features

VisualAge for Java

- ★ Incremental Compilation
- ★ Dynamic Debugging
- ★ Code Assist
- ★ Unit Test Environment
- ★ Scrapbook
- ★ EJB Development
- ★ Enterprise Access
- ★ ...Other features

WebSphere Studio

- ★ Page Editing (HTML/JSP)
- ★ Link Management
- ★ Advanced Publishing
- ★ ...Other features

+

New Features

- ★ JDK 1.3 and EJB 1.1 support
- ★ Vendor Plug-in
- ★ XML tooling
- ★ Web Services tooling
- ★ Pluggable JDK Support
- ★ New File based IDE
- ★ Flexible, Open Team Development Environment
- ★ Much more!

=

WSAD

WebSphere
Studio
Application
Developer

IBM



WS Studio Launch

- **Analyst Interactive Reviews**
- **WW Sales Enablement Teleconference**
- **EMEA Sales Enablement Teleconference**
- **AP Sales Enablement Teleconference**
- **Americas Enablement Teleconference**
- **LinuxWorld Preps**
- **NY Times Pre-briefs (2 of them!)**
- **Top 50 Workbench Tools ISV**
- **eServer and Linux Specific GTM Events**
- **VA Java Business Partner Teleconference**
- **WebSphere Business Partner Teleconference (EMEA, NA, AP)**
- **La Guade Special Event with 56 Partners**
- **Analysts and press Conferences... WW**
- **Key Tools Launch Event**

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IBM



Response to Launch

■ **Web Based Interest**

- ▶ **Over 10,000 Downloads of Studio products in the first 3 hours**
- ▶ **Over 31,000 Visitors to Eclipse.org Site in first two days**
- ▶ **Over 4,400 Eclipse Downloads in first two days**

■ **Press and Analyst Response**

- ▶ **Over 55 articles written in first 3 days**
- ▶ **Overwhelming positive response from analysts quotes**
- ▶ **Several new, positive analysts reports**

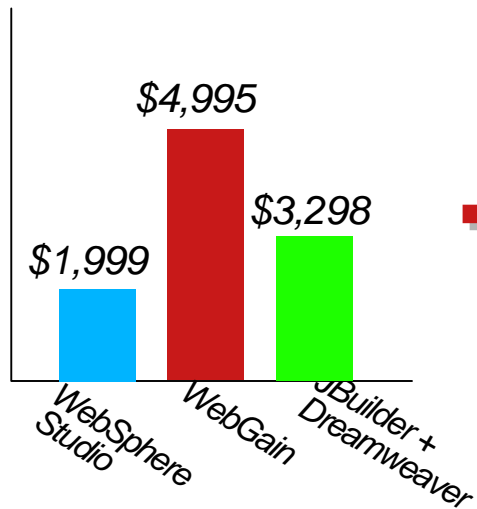
■ **Material**

- ▶ **WebSphere Studio V4.0 Application Developer Spec Sheet**
- ▶ **VisualAge Enterprise Suite V3 Offering fact sheet**
- ▶ **WebSphere Studio Workbench White Paper**
- ▶ **WS App Developer Product Review Guide**
- ▶ **VisualAge for Java Product Transition White Paper**
- ▶ **Application Development Vision and Strategy White Paper**
- ▶ **More info and & Web based demos - ibm.com/software/ad/adstudio**

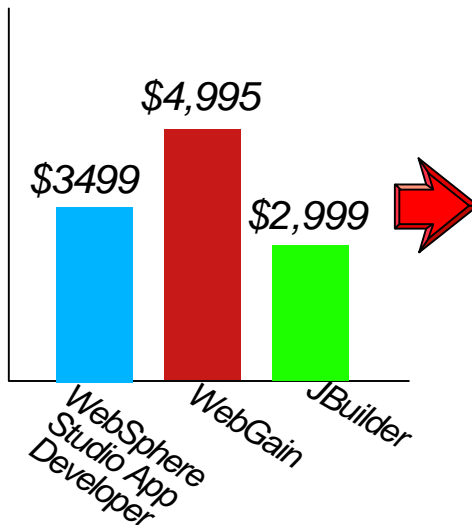


Lower Total Cost for Tools

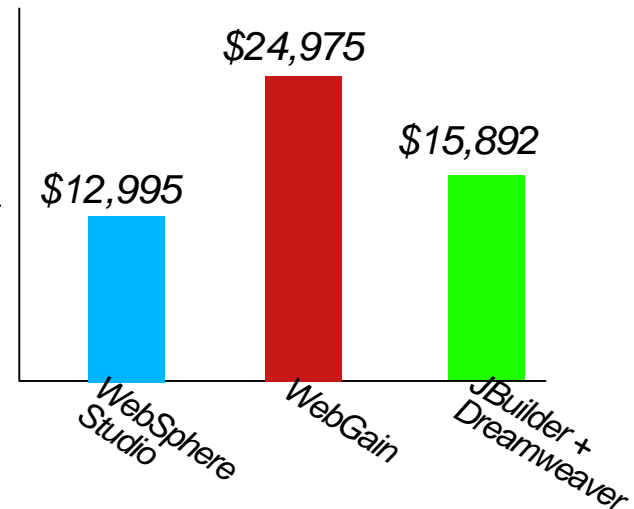
*Development Tools Cost
(per Web Developer)*



*Development Tools Cost
(per OO/Java Developer)*



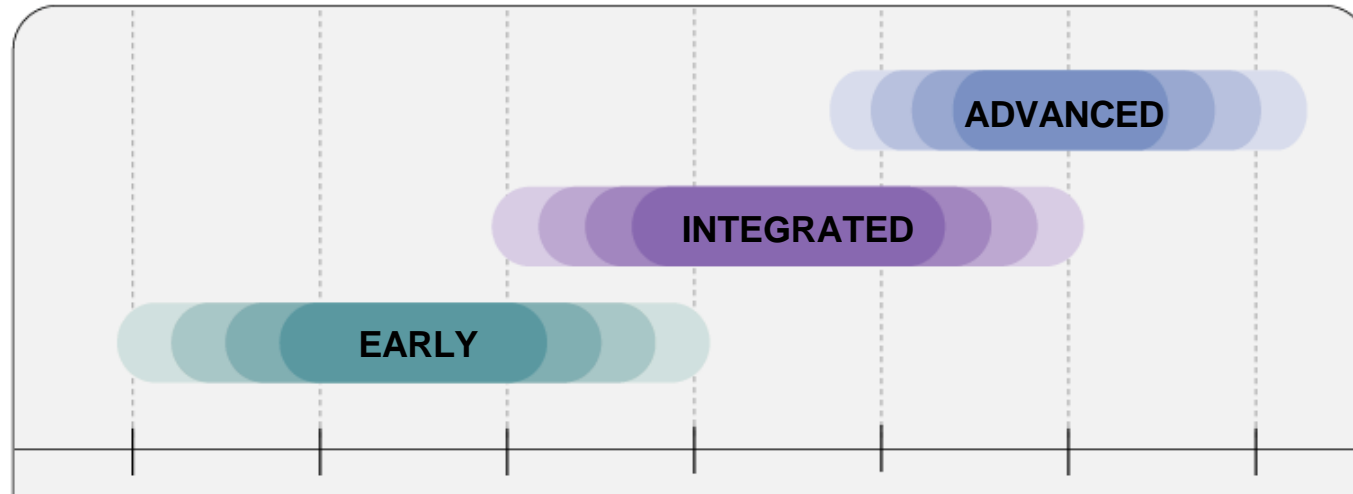
*Total Cost for Tools
(Example Team with
3 Web Developers and
2 OO/Java Developers)*



- IBM WebSphere Studio
- WebGain Studio
- Borland JBuilder Enterprise / Macromedia Dreamweaver



Aligning Your e-business Strategy



EARLY—Speed implementation of solutions that drive Web transactions

INTEGRATED—Become the leading provider of e-business infrastructure and integration capabilities

ADVANCED—Work with early adopters to shape the future





Position Your e-business to Win

Benefit from innovative approaches.

- Develop a vision and strategy to identify new ways of doing business that drive long-term competitive advantage.
- Choose, tailor, and implement innovative solutions to manage relationships and conduct e-business.
- Leverage technology as a differentiator to attract and retain customers.
- Interact individually with customers to build lasting relationships.
- Build confidence in your business by protecting customer privacy and securing company assets.

Deploy integrated processes.

- Position your company to benefit from partnerships quickly by enabling them to easily and securely interoperate with your business processes.
- Increase productivity and reduce cost and time to market by implementing integrated, highly automated processes.
- Be prepared to deploy and adapt processes and applications quickly by using a proven framework.
- Ensure future flexibility by using standards based products designed to operate in a multi-system, multi-vendor environment.

Execute fast with precision and agility.

- Be first to take advantage of opportunities and innovative business models by being up and running fast with supporting applications.
- Be prepared to handle disruptive market events with applications and systems that can grow and adapt on demand.
- Establish collaborative, cross company connections to efficiently serve your customer.
- Respond accurately to market shifts by quickly sensing customer, product and financial trends.
- Be always open for business by running a reliable, secure infrastructure that's easy to manage.

IBM and its partners help companies realize the benefits of Next Generation e-business

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Getting started with IBM

Global

Flexibility

- In-house
- outsource

Experience

- Breadth of portfolio
- Partners
- Relationships
- Open standards

www.ibm.com/ebusiness/infrastructure

IBM