

WebSphere for iSeries



A Whirlwind of Exciting Announcements

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Agenda

- ★ WebSphere Application Server V5
- **★ WebSphere Development Tools**
- **★ WebSphere Portal Server**
- **★ Q&A**





WebSphere Application Server V5





WebSphere Software Platform

Achieve Customer Loyalty

Render e-business Capabilities and Content as a Compelling, Personalized User Experience to Any Device

Reach & User Experience

Business Integration

Achieve Business Agility

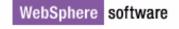
Design, Integrate and Manage Back-end Business Processes Enabling High Business Agility and Cost Reductions

WebSphere.

Foundation and Tools

Achieve Scalability, Reliability & Productivity

Open Foundation Software to Build, Integrate and Deploy e-business Applications Delivering Profound Improvements in Quality and Productivity





2002 - Market transforming momentum

#1

Leading indicators

"...Companies plan to standardize on WebSphere, 5-to-1 over WebLogic .."

-Salomon Smith Barney, 2001

- Consideration +9
- Awareness +9 to 57%
- Unaided awareness +6

Source: IBM SWIT App Server 2001 YtY

#1

Sustained revenue growth

- 14 consecutive quarters of double-digit WebSphere software revenue growth
- 2001 app server growth was 5 times faster than the industry according to IDC

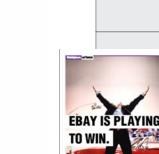
50% 2001 YtY

Source: IBM Finance 2Q02 and IDC 6/02

#1

Technology leaders

- 222 IBM WebSphere software Patents in 2001
- Delivered 200+ new AD partnerships
- Latest Web Services standards including AXIS, SOAP, JAX-R, JAX, WS-Coordination, WS-Transactions, BPEL4WS



Market Leading

e-business Platform



WebSphere.

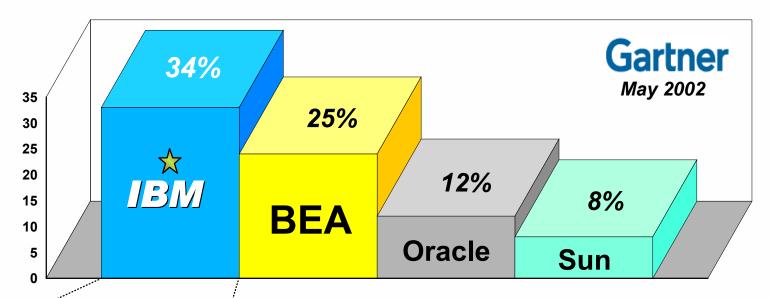
WebSphere software



WebSphere Market Position

Application Platform Suites Market Share

(Inclusive of application servers, portals, messaging, etc.)



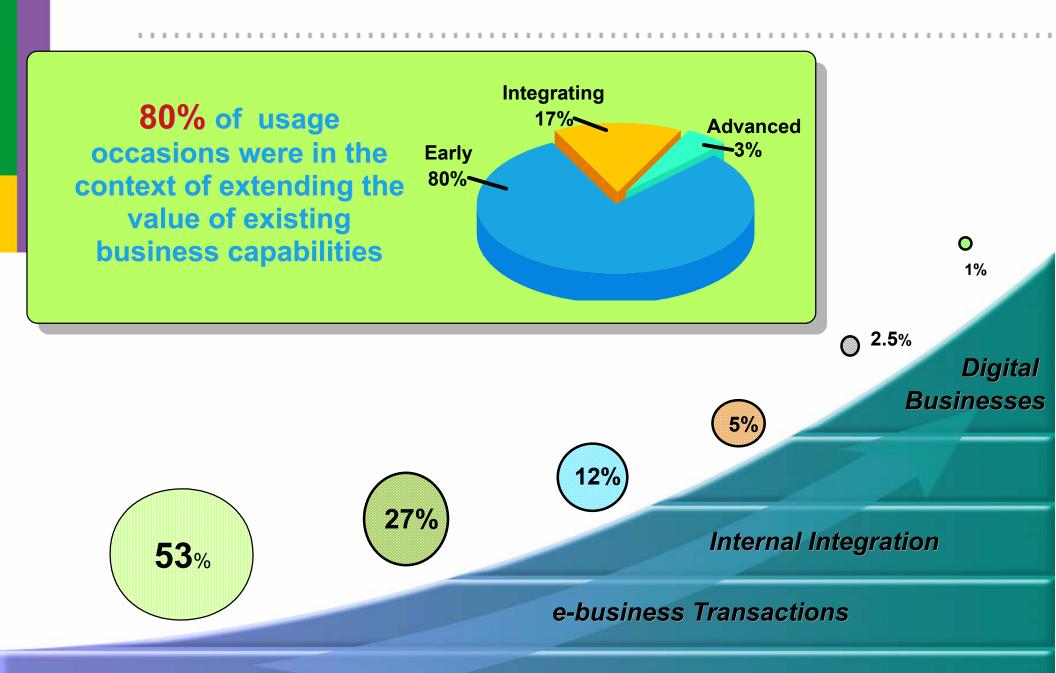


- Customers require integrated platform solutions, not just application servers including messaging, portals, tools, etc.
- WebSphere is the clear market leader in e-business platform solutions
- WebSphere out paced BEA market growth by 33%



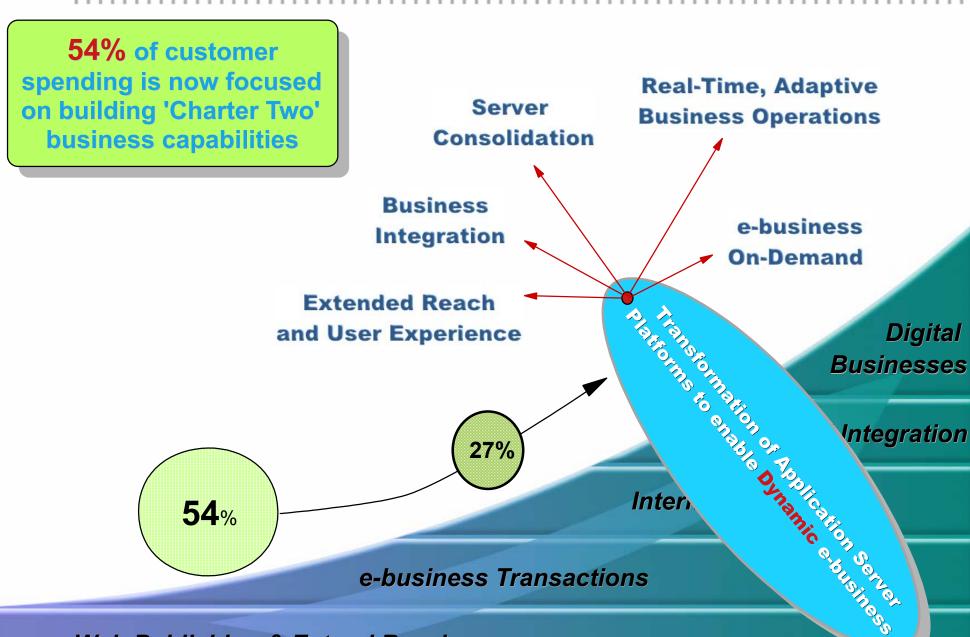


e-business Chapter One: e-business Platform Usage



Source: IBM Market Intelligence 7

Chapter Two: e-business Platform Usage



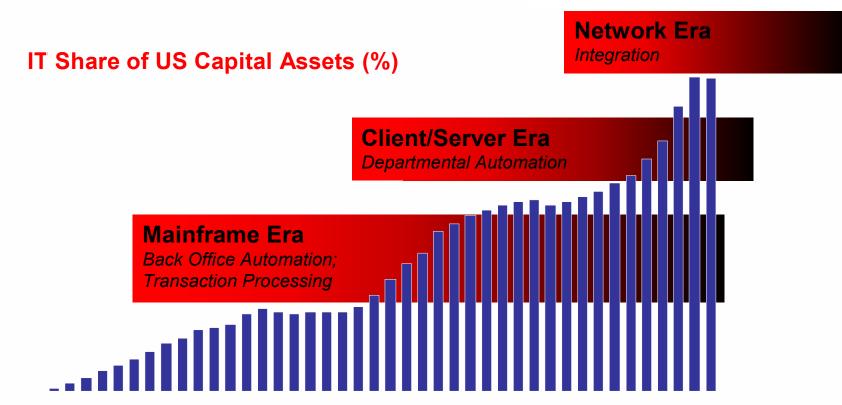
Web Publishing & Extend Reach

Source: IBM Market Intelligence

The Next Era: On-demand Businesses

On-Demand Businesses will be highly adaptive enterprises that can instantly sense and respond to changing conditions. Their business processes are flexible and integrated enough to dynamically change with their needs. Business services can be quickly constructed and made available over an open, utility-like infrastructure for other businesses to consume





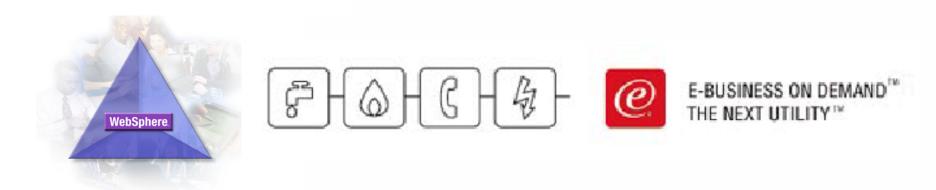








A Platform for an On-demand Business



- Productive construction, deployment & management of new business services
- Dynamic access to computing resources on demand optimizing utilization & TCO
- Increasingly autonomic, self-calibrating infrastructure
- Ubiquitous and personalized access to content and business services
- Business integration and modernization services for the extended enterprise





One Facet of the WebSphere Business Integration Portfolio

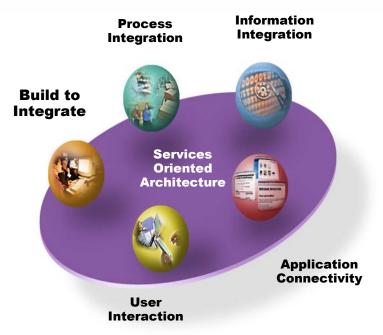
Comprehensive Build-to-Integrate Platform

★ Build, publish & manage open application services

- Latest J2EE 1.3 & Web services standards (1.4-ready!)
- Transform any asset automatically into reusable Web services
- Native pUDDI repository & a secure, manageable gateway
- •J2C+ adapters with advanced back-end transactional coordination

★ Enable dynamic application integration flexibility

- Native, high performance JMS with extended messaging capabilities
- Web Services Invocation Framework for dynamic protocol flexibility
- Rules-based "edge-of-network" Web service routing & caching



★ Visually compose & choreograph application flows & interactions

- Distributed service flows among J2EE assets, Web services, legacy systems & human interactions
- Real-time adaptive applications (business rules, state machines, application profiling, etc.)
- Advanced transactional compensation patterns & coordination of multiple transaction activities
- Generate flows into reusable web services or J2EE components







Intelligent, End-to-end Application QoS

★ Handle unpredictable high volume loads in a customized, dynamic manner

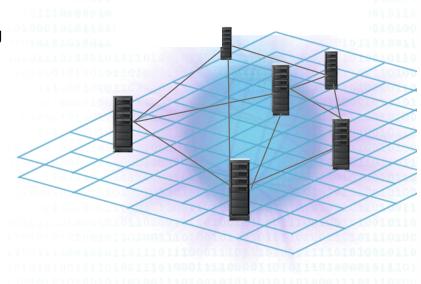
- Dynamic multi-domain workload management
- Load balancing advisors and consultants
- Application profiling for optimizing individual application performance
- Dynamic caching with ESI "edge-of-network" fragment support

★ Avoid downtimes with high availability & reliability

- High availability LDAP directory server & multi-domain failover
- Content distribution framework for efficient content topologies
- Transactional, rules-based (prioritized) QoS routing & caching

★ Instill confidence with robust security services

- Java Cryptography Extensions, CSiv2 & JAAS frameworks
- Secure, multi-protocol Web services gateway
- Enhanced authentication and access control security based on Tivoli Policy Director



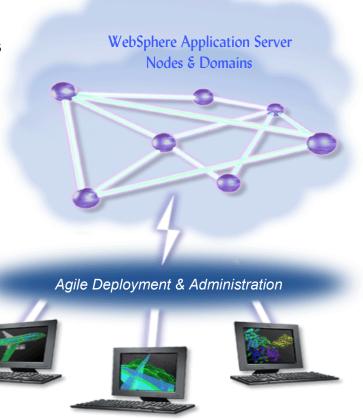






Agile Deployment & Administration

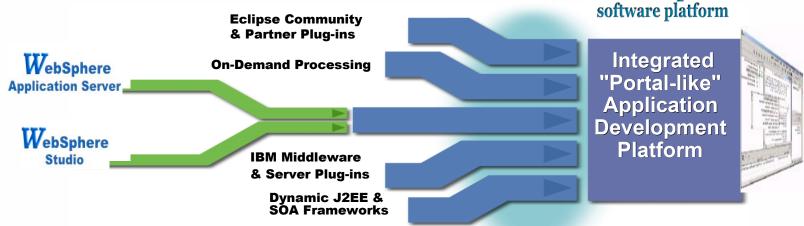
- ★ Efficiently deploy and manage with intuitive, automated tasks & processes from a centralized console
- ★ Support for distributed, cross platform topologies Windows to z/OS
- **★** Easily adapt deployment topologies without disruption, from a standalone "on-ramp" to multi-domain server clusters
- ★ Concurrent or delayed application deployment and/or migration with automated confirmation and coordination across clustered nodes
- **★** Support for open JMX interfaces, advanced coordination of EJB containers and application profile administration
- **★** Features for default administration settings and embedded application or OEM usage





Integrated Application Development

- ★ A services-oriented model where applications are composed of loosely integrated, modular 'services'
- **★** Dynamic, interactive develop, test & server deployment environment
- ★ Portal-like integration of best-of-breed tools and middleware extensions (Eclipse-based)
- ★ Productivity frameworks for business rules, dynamic EJB queries, internationalization, etc..
- ★ Long standing tradition with integrated tooling often cutting developments the WebSphere









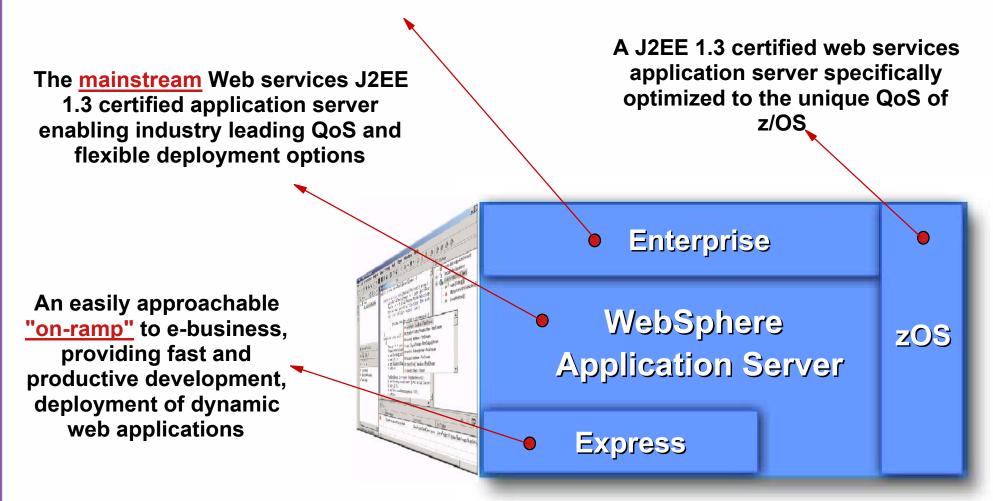
- ★ ONE administration point for foundation messaging, flows, and applications
- **★ ONE** programming model for foundation messaging, flows and applications
- ★ ONE integrated application development environment for foundation messaging, flows and applications
- ★ ONE deployment model for foundation messaging, flows and applications
- **★ ONE** cost effective, integrated foundation platform for your customer



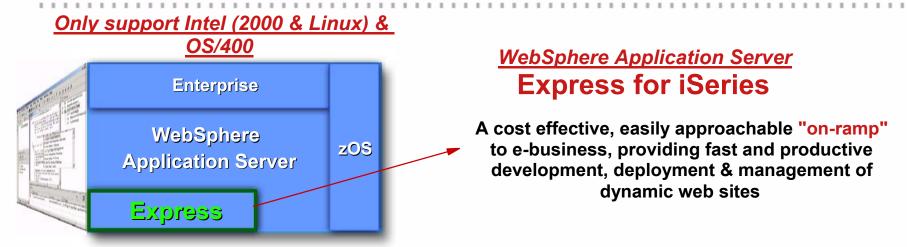


WebSphere Application Server $\sqrt{5}$

An extended J2EE & Web services 'build-to-integrate' platform for composing & choreographing adaptable application workflows and behaviors



WebSphere Application Server (V5) **Express**



- ★ Ready to go "out-of-the-box" via quick, wizard driven near-zero-cost administration
- ★ Built to support smaller footprint and automated installations & administration
- ★ WebSphere-Express V5 for iSeries
 - Includes web application server WebSphere-Express V5 for iSeries
 - Includes 1 copy of WebSphere Development Studio client (WDSc) for iSeries
 - Includes no cost product IBM Telephone Directory
- **★ WebSphere-Express V5 is priced right for MidMarket!**
 - \$2,000 per cpu (unlimited number of web users)
 - \$25 per user (Intranet only registered users buy in increments of 20 users)
 - Price includes 1 year of Software Maintenance (Passport Advantage)
- **★** Recommended migration option for WAS Standard Edition V3.5 (3.02)



Sub-Capacity Pricing Available for iSeries

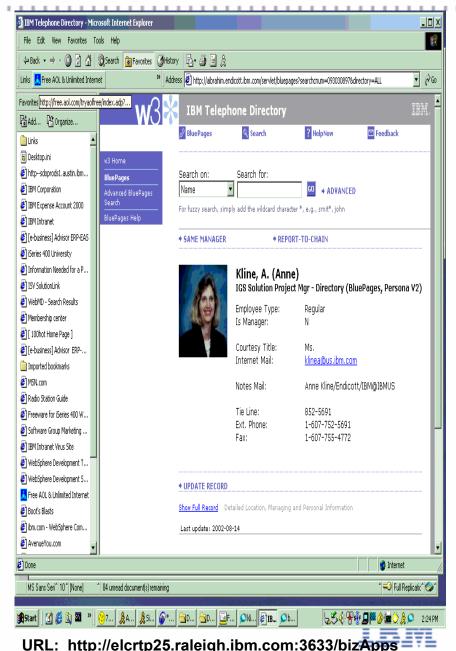


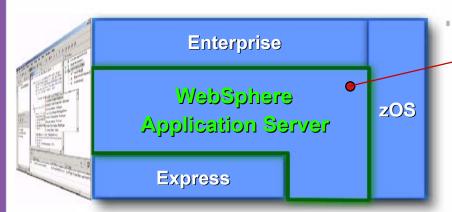
WebSphere Application Server (V5) Exp

IBM Telephone Directory for iSeries

- ★ WebSphere Application Server is web plumbing
 - IBM Telephone Directory provides "out-of-the-box" functionality
- ★ Provide ISV's and customers with an application which can be used immediately
 - "Started simple" with WebSphere
 - -Provide a valuable application all customers can use
 - -Powerful search capabilities
 - Name photo phone role division department management chain, etc.
- ★ IBM Telephone Directory is no-cost for first 1,000 entries
 - -IGS special bid for 1,000+ entries
 - iSeries-only offering for WAS V5 and WebSphere Express V5 for iSeries







WebSphere Application Server

The mainstream Web services J2EE 1.3 certified application server enabling industry leading QoS and flexible deployment options

- ★ Was WAS V4 (single-server) --> now WebSphere Application Server (Base) \$8,951 per cpu
- ★ Was WAS V4 (multi-server) --> now WAS Network Deployment \$13,441 per cpu
- ★ Fully J2EE 1.3 certified (EJB's) including a native, high performance JMS messaging server
- **★** Provides a comprehensive XML Web services environment based on the latest open standards
- ★ Improved, ease-to-use automated administration and management services included advanced caching, security, workload management, availability and clustering services
- ★ New flexible packaging enables multiple deployment options from single server to clustered, highly available 'edge-of-network' configurations from a common console



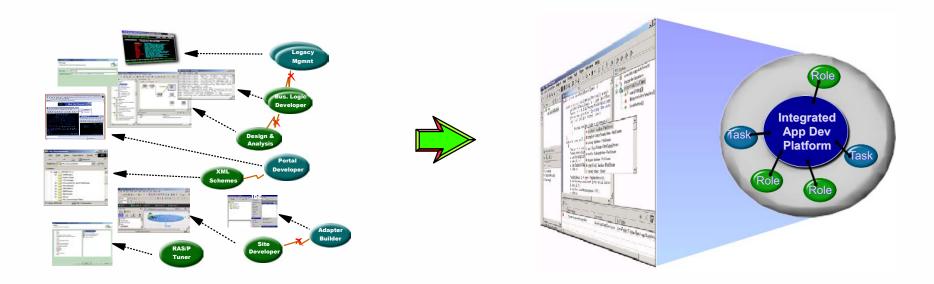


WebSphere Application Development Tools



Application Development: A "Portal-like" Approach for Developers

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



Most AD environments involve more than one tool from multiple suppliers

Best-of-breed tools working together as an integrated environment



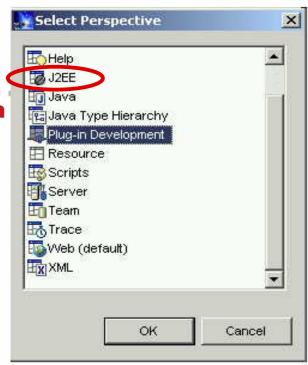


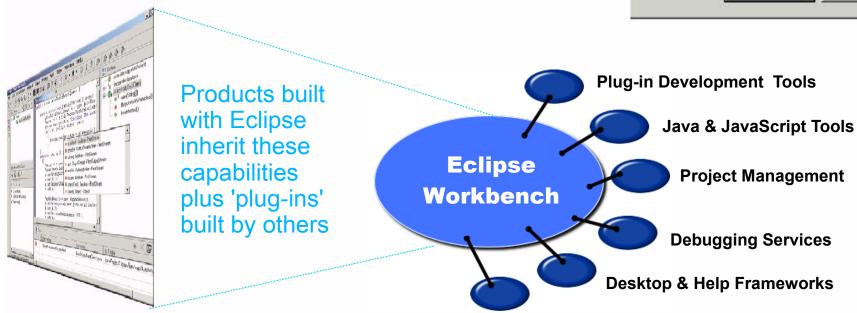
Eclipse Workbench

An Open, Multi-vendor Tool Integration Platform

A personalized, extensible development platform organized via developer

"Perspectives"



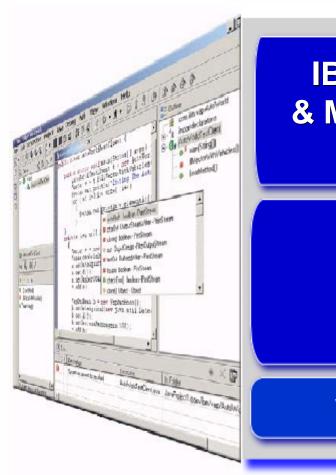






The WebSphere Studio Family

IBM's Development Solution for e-business

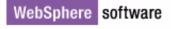


IBM Server & Middleware Tools

Business
Partner Tools
& Middleware

WebSphere Studio

WebSphere Studio Workbench





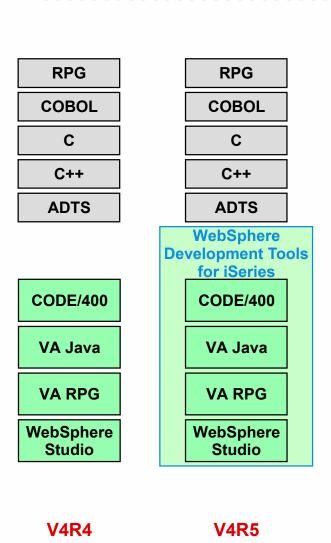
WebSphere Studio Workbench

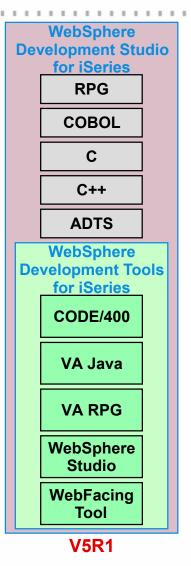
- ★ IBM's commercially supported implementation of the Eclipse open source technology
- ★ the foundation for the new WebSphere Studio family and future IBM middleware tools
- ★ Enables partners or customers to develop, customize or integrate tools with the WebSphere Software Platform
- ★ Support by a new business partner program

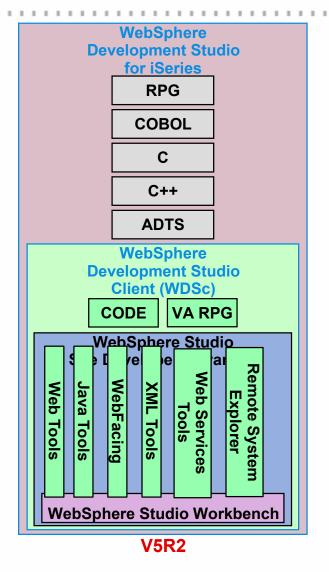




The Evolution of e-business Dev Tools for iSeries











WDSc What? and When?

Components

- ***WDSc**
 - -Java Tools
 - -Web Tools
 - -IBM WebFacing Tool
 - -XML Tools
 - -Web Services Tools
 - Remote System Explorer (RPG and COBOL Development)

WebSphere Development Studio Client (WDSc)

- **★eclipse based tools**
- ★It is the "new" WebSphere Development Tools
 - Will ship with V5R2 version of WebSphere Development Studio for iSeries
- **★No additional charge upgrade for existing V5R1 licenses**
 - Must specifically order the upgrade no auto-ship
 - 5722-WDS Refresh feature code 2655
 - Available mid-July

More details: www.ibm.com/software/ad/wdt400





IBM's Unified Web Services Software Infrastructure ...



Web Services Development









Web Services Deployment & Management





WebSphere Infrastructure Software

..this is what our customers have told us

Market Priorities

- Sustained Leadership in the Developer Community
- Business Partner Success
- A Foundation for an e-business Platform
 - Business Integration
 - User Experience & Reach
- Express On-ramp & Approachability for SMB

Product Priorities

- Build-to-Integrate
- Network & Application Qualities-of-Services
- Usability & Productivity
- Deployment Resiliency, Agility and Productivity
- Open Standards
 Platforms Leadership

WebSphere.







★ Comprehensive Build-to-Integrate Platform

Improve time-to-value by building new integration-ready applications which leverage existing software assets

★ Integrated Application Development

Maximize ROI and lower labor costs with superior developer productivity and the flexibility of a "portal-like" integration of best-of-breed tools

★ Agile Deployment & Administration

Lower cost of ownership and minimize startup investment with highly productive and flexible administration, deployment & management services



Expand business opportunities and productivity with a World Class Infrastructure ready for the next chapter in e-business

★ Intelligent, End-to-end Application QoS Optimization

Create competitive advantage and optimize price/performance while meeting the changing demands of dynamic e-business with industry leading reliability, scalability, performance & security

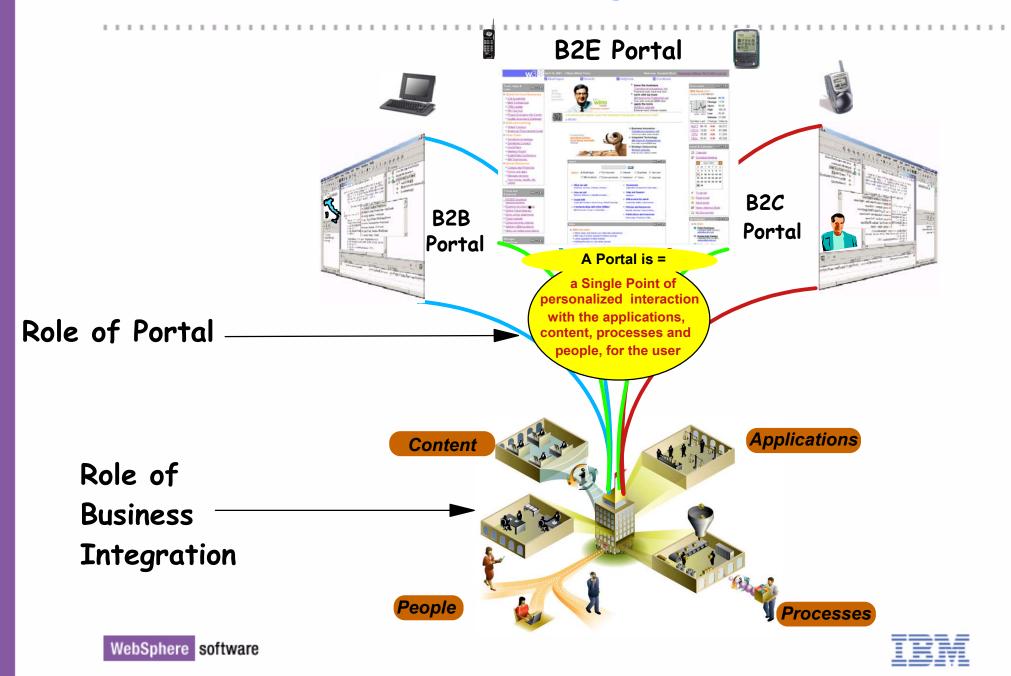




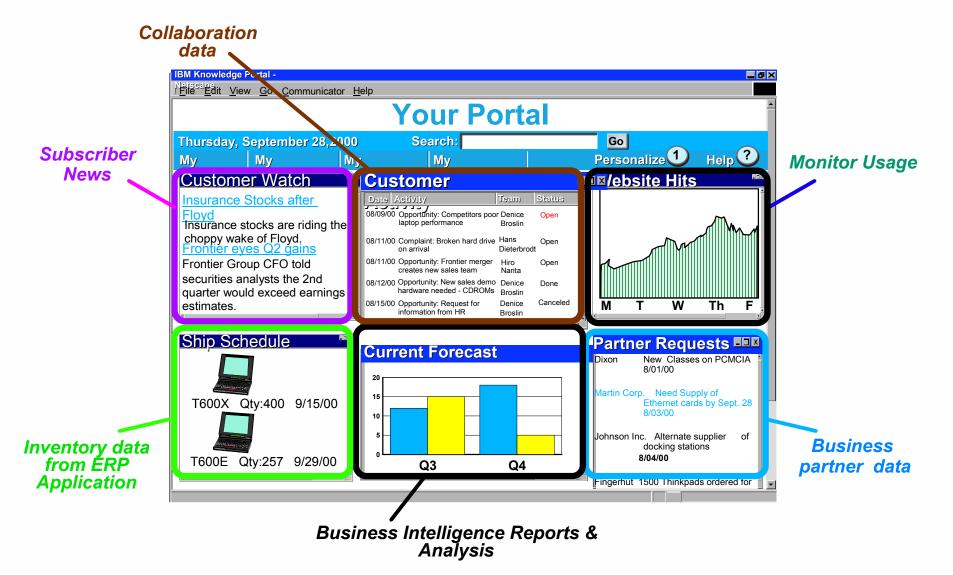
WebSphere Portal Family



WebSphere Portal Family



Example of Portal & Portlets



Business Value of Enterprise Portal

- Organized information
 - ► Targeted, more relevant
 - ► Infoglut, Info-famine, etc.
- Single sign-on
 - ► Fewer passwords, better user experience
- Common presentation
 - ► Consistent user interface
 - ► Pervasive access
- Unification of applications
 - ► New ways of accessing old applications
 - ► Remove Stove Pipe Applications
- Possible Desktop of the future

- Revenue benefits
 - ► Hard Dollars
 - ► Publishing
 - ► Travel, etc.
- Soft Dollars
 - ► Work force productivity
 - **►** Innovation
 - ► Reduced cycle times
 - ► Customer Loyalty Experience
- Cost Avoidance
 - ► Deployment of new applications
 - ► "Rail Road" Tracks

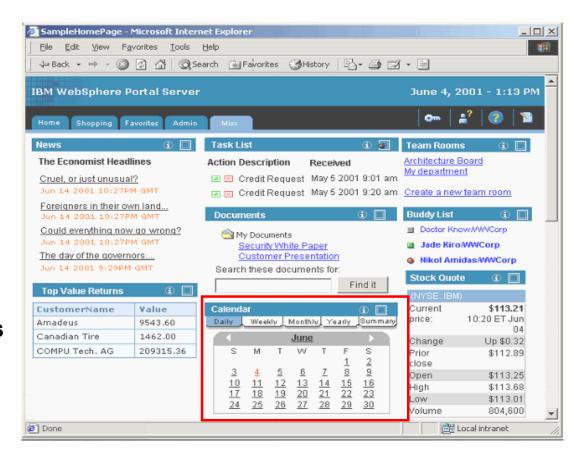




Single Point of Access

Functionality

- Browser based Single point of access
- -Single Sign On Global access
- Portlets Windows to all major applications
- Access Secure, filtered access to corporate data
- Business Value
 - Funnel and filter to the overwhelming information
 - Make better designs when you have the right information
 - Provide a common "desktop" with the proper tools that different jobs require
 - Removing stovepipe applications and departments
 - More Effective experience





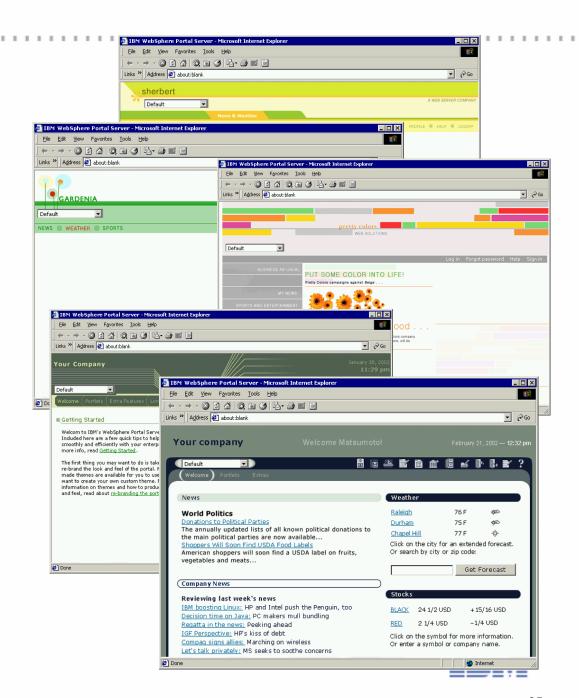
Customization

Functionality

- ► Themes Apply an over all look and feel to your portal pages
- ► Skins Apply an over all look to your portlets
- ► Navigation Models

Business Value

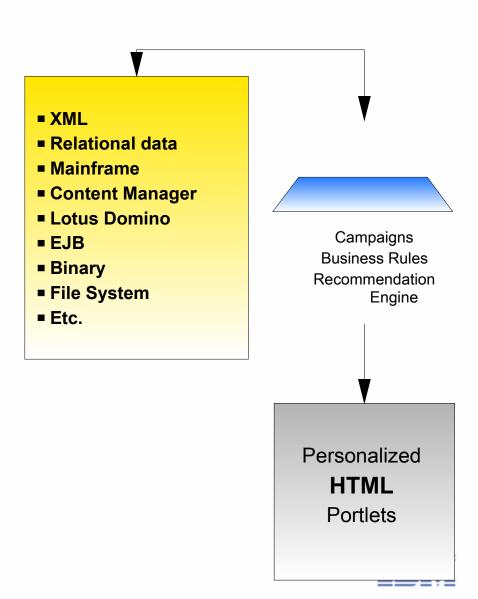
- ► Create "Branded" portal and page groups for different departments and Business units.
- ► Create "virtual" portals with in one portal infrastructure.



Personalization

Functionality

- Personalization Engine with ability to create Rules for triggering personalized content
- Tools Campaigns, Business Rules, Recommendation engine
- Translated Enterprise data translated to HTML and personalized to HTML and portlets
- Mail Campaigns Provide custom mailings
- Business Value
 - Provide content based on profiles, job, location, business rules, etc.
 - Filter and personalize content for customers, business partners and employees
 - -Increase loyalty to portal / web site



Web Content Publishing

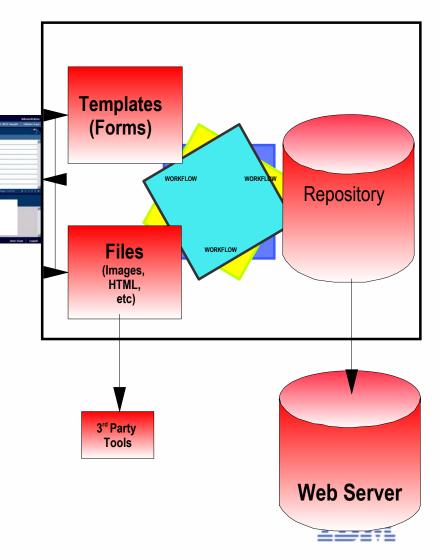
WCM

Functionality

- ► Web Content Publishing
- ► Template based Template based content creation
- ► Integration Integration with Industry Web Content players
- ► Workflow Workflow and approval process provided
- ► Publish Publish to portlets for review

Business Value

- **►** Dynamic content
- ► Provide out of the box Web content publishing with portal
- ► Cost savings
- ► Move to "Distributed" Web Content Publishing
- ► Provide approval process for content



Collaboration

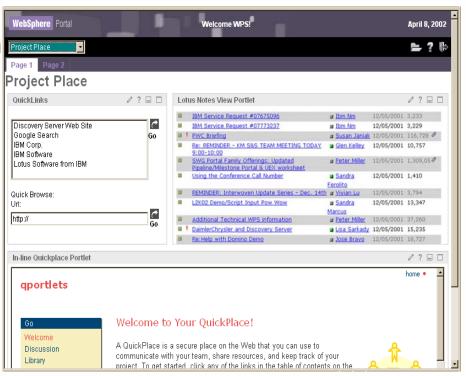
Functionality

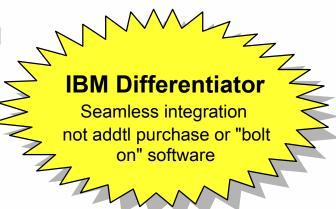
- ► Instant Messaging & Awareness IM with team members
- ► eMeetings Via a browser, users can "white board", "Application Share" either side of firewall.
- ► Shared team and community Places Secure web based "community" to organize related tools, content, and team members.
- ► Collaboration tools
 - Project Management tools (discussions, calendars, tasks, doc libraries etc)
 - -Shared Bookmarks
 - Collaborative Portlets

Business Value

- ► First portal offering that provides "Contextual Collaboration"
- ► Moves away from the individual to Teams
- ► Provides both "View" & "Act"
- ► Higher increase in productivity
- ► Hard Dollar savings









IBM's Portal Offerings

- Three Offerings
 - ► Pick a solution to meet your requirements
 - ► All use the same framework
 - ► CPU Based Pricing with license restrictions on some components
 - Extensible solution
 - WebSphere Translation server
 - Lotus Discovery server
 - WebSphere Commerce
 - -IBM Business Partners
 - Over 60 ISVs and growing!
 - BackWeb, I2, Vignette Interwoven, Stellent, ...

Experience

- Tivoli Policy Director (Global SSO)
- IBM Content Manager (EIP Client)
- Lotus Sametime (eMeetings)
- Lotus QuickPlace (Team Spaces)

Extend

- Lotus Places (Communities)
- Lotus Collaborative Components
- Federated Search Broker
- Web Site Analyzer

Enable

- Portal Server
- Personalization
- Web Content Publishing
- Search Engine
- WebSphere Studio
- WS Application Server



Announcing WebSphere Portal Server Enable V4.1 for iSeries

- **★ Quickly build scalable portals to simplify and speed your access to personalized information and applications**
- ★ Access to enterprise data, external newsfeeds or even your trading partners' applications
- ★ WPS Enable 4.1 priced at \$72K/per cpu
- **★** No sub-capacity pricing available



Summary

- Most "Complete" portal offering on the market
 - ► Portal Personalization WCP Collaboration Security -etc....
- Business Partners Market Momentum
 - ► Providing a lot of value to family of offerings
- Leadership role in development and deployment of Open Standards
- Larger "eWorkplace" eBusiness Strategy
- Leadership role in fundamental areas of infrastructure (Magic Quadrants)
 - ► Web Services
 - ► Portal
 - ► KM / Collaboration
 - ► Infrastructure / Middleware
- Result = Significant Business Value for your e-Business
 - ► Increased employee productivity
 - ► Improved customer loyalty
 - ► Lower cost of portal deployment





Your Feedback and Q&As





Additional Information

WebSphere Application Server - Express Runtime Specifications

Included:

Web container

JSP processor

Server-side JavaScript (Bean Scripting Framework)

WebSphere Common Control Model libraries

XML parser

XSL processor

Web Services - SOAP client API onl

Security runtime (Simple WebSphere Authentication, local OS authorization -- no

LDAP or custom registry support)

RAS subsystem

HTTP session support -- in-memory session support

J2EE API libraries

Internal web server

JVM 1.3.1

Simplified default server config

Connection Manager

JDBC providers

Debug libraries

Installs as Windows service (Windows platforms only)

HTTP web admin console extensions (iSeries only)

Web Server plug-in's - IBM HTTP for iSeries server, Domino for iSeries server (iSeries only)

Excluded:

(From base WebSphere Application Server V5)

EJB container

Java messaging support / JMS providers

J2EE transaction support

J2C resource adapters

J2EE Application Client

ACE support

Work Load Management (WLM)

Performance monitoring infrastructure (PMI)

Localizable text

Dynacache

Data Replication Service (DRS)

XML grammar library

Client Container Resource Config Tool (CCRCT)

Mail providers

URL providers

Resource Environment provider

Application Assembly Tool (function provided by WSSD)

Deploy Tool (provided by WSSD)

WAS runtime samples (alternate samples provided)

IBM HTTP Server (external)

Web server plug-ins (IBM HTTP Server, IIS, Apache, iPlanet)





WebSphere Application Server - Express Administrative Capabilities

Included:

Browser-based admin interface (iSeries only)

Create server instance

Create server configuration

Start server

Stop server

Start server in debug mode

Publish to server

Restart application

Set classpath entries for server

Pass arguments and system properties when starting server

Configure mime types

Enable/disable session manager, URL rewrite, cookies

Configure data sources

Configure ports

SSL configuration

Configure the deployment descriptor for an application:

Servlet configuration

Security roles

Environment variables

Specify start page

Specify error page

Set context parameters

Set mime types

Excluded:

(From base WebSphere Application Server V5)

Browser-based admin interface (Intel only)

Trace level configuration

Trace analysis

Analysis logger support (Site Analyzer components)

Resource Analyzer

Tivoli Performance Manager

Performance monitoring





Where to find other information?

■ <u>WebSphere Portal Family Sites:</u>

Home Page http://www.ibm.com/software/webservers/portal/

Portlet Catalog http://www.ibm.com/software/webservers/portal/portlets

- Developers Home Page http://www.developer.ibm.com/welcome/websphere/wps/index.html
- Portal News news://news.software.ibm.com/ibm.software.websphere.portal-server
- WebSphere Host Integration Sites:

- Home Page http://ibm.com/software/webservers/hostintegration

Portlet Demos http://websphere.dfw.ibm.com/whidemo/

Library http://www.ibm.com/software/webservers/hostintegration/library.html



