

IBM RATIONAL SOFTWARE DEVELOPMENT USER CONFERENCE

04



software runs the world

Software Runs the World

Mike Devlin
General Manager



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Agenda

-  **Transforming software development**
-  **Demo**
-  **Preparing developers for an On Demand world**

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-  **Transforming software development**
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-  **Preparing developers for an On Demand world**

Software runs the world.

1. Software built with development platform.
2. Wireless app designed without a glitch.
3. Latest interface deployed under budget.
4. New product launched ahead of schedule.
5. Better software leaves competition in dust.



Imperatives in Today's World

Innovating
the business to capture
new value.

Business



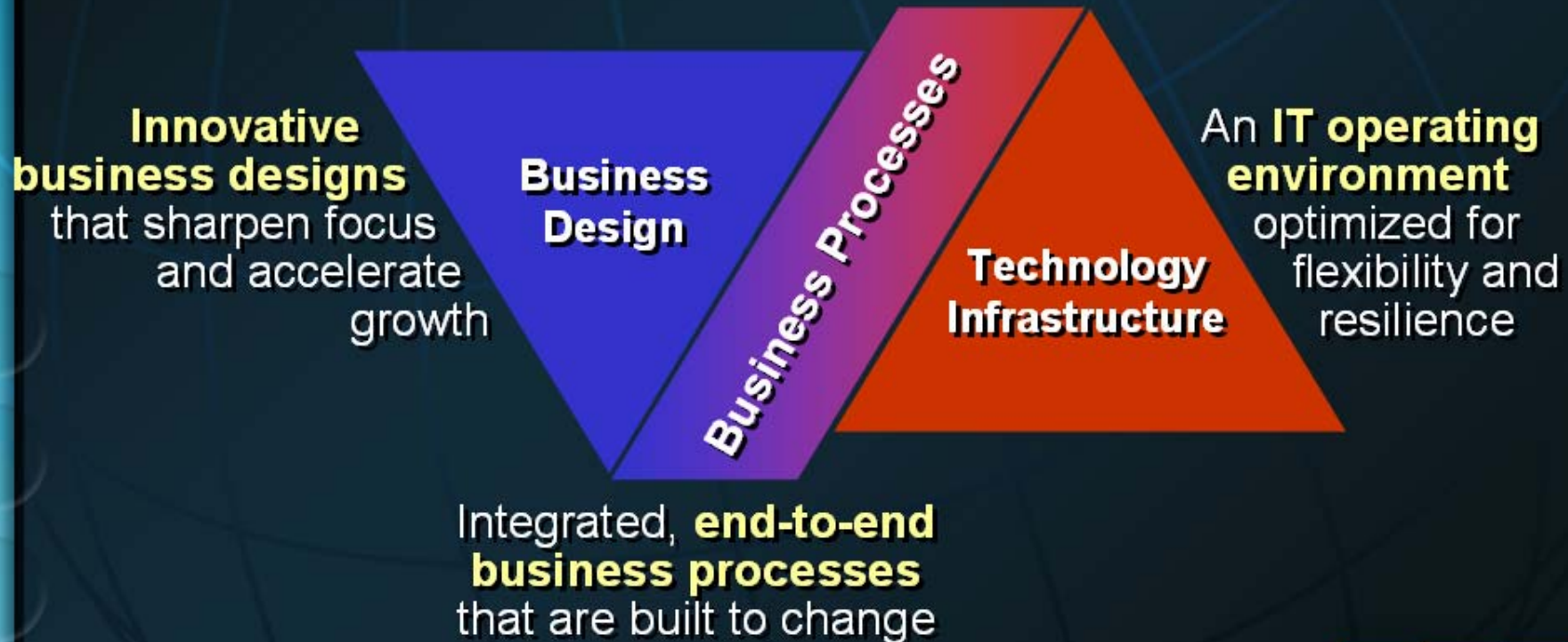
IT

Improving
the productivity
of resources deployed.



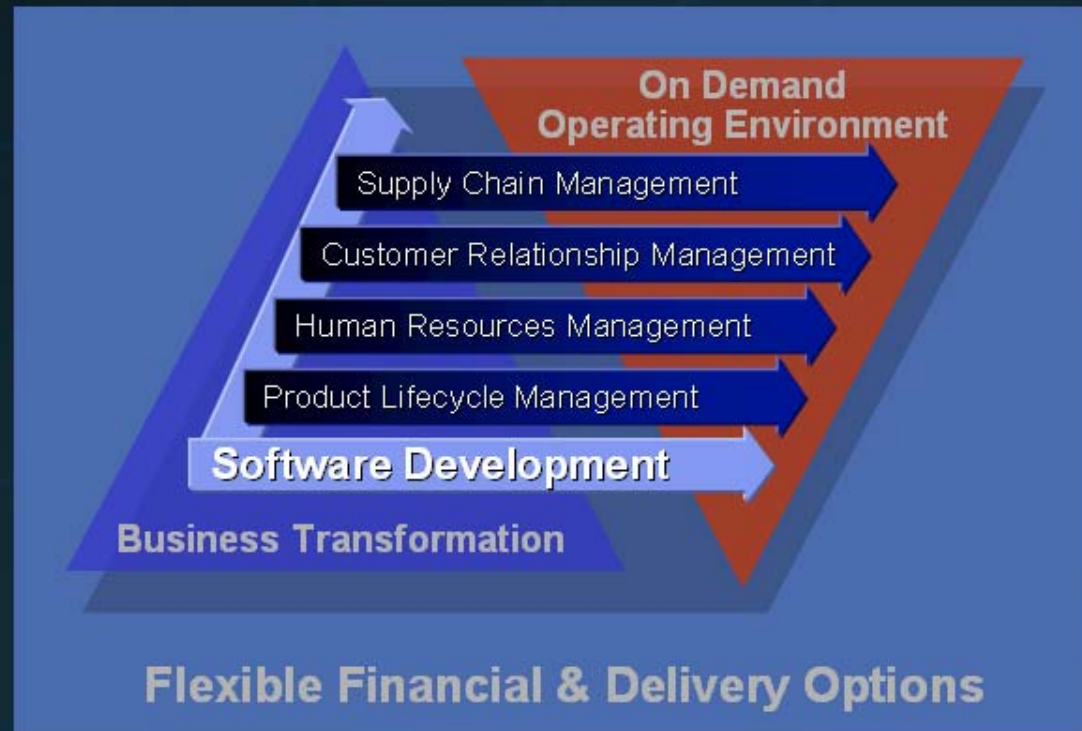
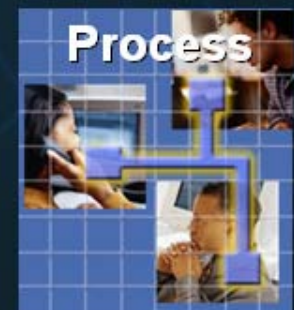
Becoming an On Demand Enterprise

“An on demand business is 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.”



Software Development Differentiates Business Performance

Capture and apply your unique knowledge



Transforming Software Development

Business-Driven Development

Business

**NEW AND
EXISTING
ASSETS**

IT

**Component and Service-
Oriented Architectures**



Business-Driven Development

Leveraging New and Existing Assets



Transforming Banking

Bank of New Zealand

Standardized on the IBM Software Development Platform

Challenge

- **Differentiate** by providing tailored financial solutions

Solution

- **Bring Internet Banking operations in-house**
 - Develop unique applications
 - Leverage customer knowledge
 - Adopt a common process

Results

- **On time and budget delivery**
- **Improved competitive position**



Bank of New Zealand

“Not only was our Internet Banking project a success, it also gave us a platform to build upon that will give us a competitive advantage going forward.”

Rachel Beath
Online Solutions Manager



Transforming Health Care

Blue Cross Blue Shield of Florida

Standardized on the IBM Software Development Platform

Challenge

- **Reduce costs and align IT with business needs**

Solution

- **IT Software Factory**
 - Four divisions build reusable CRM, ERP, Claims, and Decision Support assets
 - “Architecture first” approach, beginning with business modeling

Results

- **Accelerated delivery of business solutions**

*“Reusing assets and information is at the core of what we’re doing to create business value. With the Rational toolset and WebSphere Studio, we have a highly **responsive environment** that allows our extended team to **collaborate in real time, speed delivery and ultimately reduce costs.**”*

Ricardo Garcia,
Director of Capability Development,
Blue Cross and Blue Shield of Florida



Transforming Systems Integration

Unisys

Standardized on the IBM Software Development Platform

Challenge

- **Differentiate Unisys in the systems integrator marketplace**

Solution

- **3D Visual Enterprise**
 - Unique consulting framework

Results

- **Accelerated client success**
 - 25-40% cycle time
 - 75-100% productivity
 - 25-60% cost savings



UNISYS

Imagine it. Done.

“IBM Rational forms the kernel of our 3D Visual Enterprise solution. Using Rational tools and best practices has helped us achieve a 6 to 18 month market lead over our competitors.”

Ed Ferrara, 3D-VE Program
Development Manager



Transforming Government

United States Patent & Trademark Office Implemented the IBM Software Development Platform

Challenge

- Transition to eGovernment

Solution

- **Integrated approach to Enterprise Architecture**
 - Solution Architecture and Pattern Based
 - Asset Reuse
 - Iterative Development
 - Model-driven Architecture w/UML

Results

- ✓ FEA standards compliance
- ✓ Reuse across LOB's
- ✓ eGovernment Services for Citizen and IT transformation



"The USPTO's integrated enterprise architectures have allowed us to adopt advanced development practices required for delivering eGovernment solutions in an efficient manner."

Barbara Dutton,
Office of the CIO



Business-Driven Development

Leveraging New and Existing Assets



Focus # 1: Discover Assets

Optimize Business Investments



Identify and analyze

- ✓ Business processes
- ✓ Requirements
- ✓ Software Assets
 - ✓ Packaged applications
 - ✓ Existing applications
- ✓ Middleware
- ✓ Impact of potential change

***Business process optimization is the #1 priority in 2004 --
Information Week Study 2Q04 – 400 business-technology executives***

Focus # 2: Develop Assets

Improve Time-to-Value



Dramatically accelerate the development cycle

- ✓ Rapid application development
- ✓ Model-driven architecture
- ✓ Asset based development
- ✓ Direct-to-middleware productivity
- ✓ Service-oriented architecture
- ✓ Tightly integrated run-time test and deploy
- ✓ Anytime, anywhere, team collaborative environments

Focus # 3: Deploy Assets

Deliver Business Results



Enable closed-loop deployment

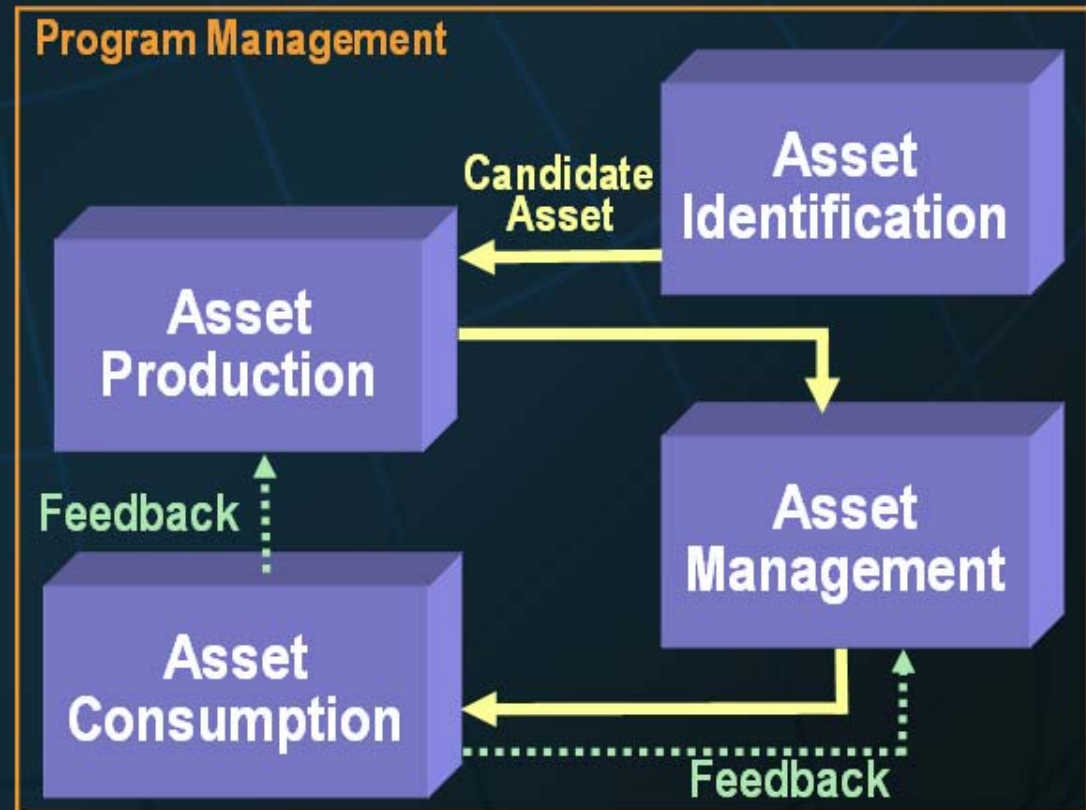
- ✓ Unify development and operations teams
- ✓ Accelerate deployment and provisioning
- ✓ Automate applications monitoring
- ✓ Monitor business performance and analyze ROI
- ✓ Verify and manage change

Asset-Based Development

(Re)using requirements, design, construction, test, and deployment **assets** to **leverage software investments** in packaged, existing and new applications.

Delivered by:

- **Process**
 - RUP
- **Tooling**
 - IBM Software Development Platform
- **Standards**
 - UML, MDA, RAS, Middleware
- **Assets**
 - Artifacts, components



The IBM Software Development Platform

A complete, open, modular, and proven solution



Analyst

Model, simulate, assemble, and monitor business processes



Architect

Model applications and data



Developer

Visually construct, transform, integrate and generate code



Tester

Design, create, and execute tests



Administrator

Provision, configure, tune and troubleshoot applications



Project Manager

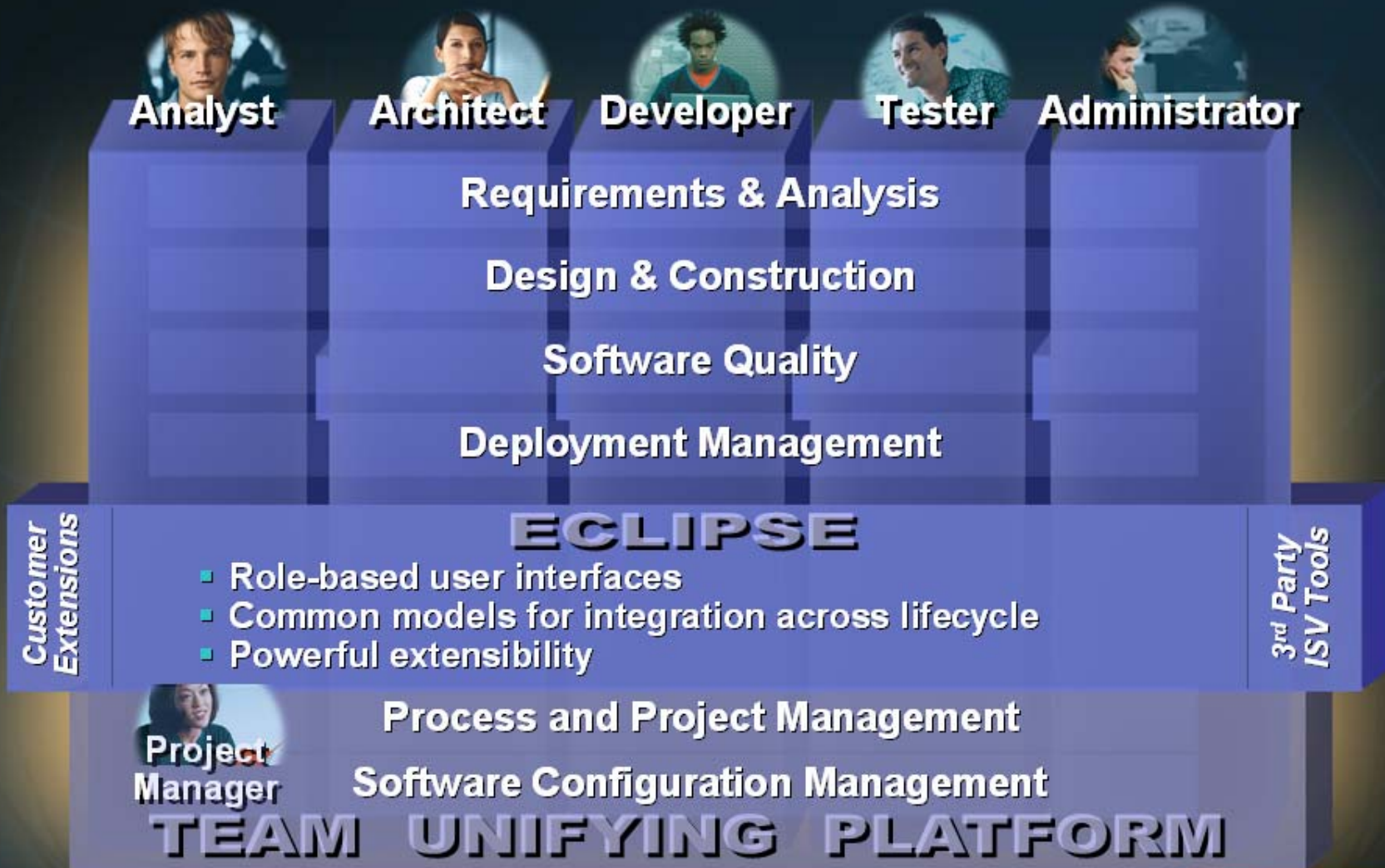
- Follow a common process
- Track project status
- Manage requirements
- Manage change and assets
- Manage quality

TEAM UNIFYING PLATFORM



Delivering a Robust, Open Infrastructure

The Eclipse Universal Framework



IBM: Driving Industry Standards

Driving convergence for developers

Business Process Modeling Notation
(BPMN)

WS-I Basic 1.1

Business Process Execution
Language (BPEL)

Common Base Event
(WS-DM)

Unified Modeling
Language (UML 2.0)

Servlet 2.4 (JSR 154)

BUSINESS
DISCOVER

Eclipse 3.0
Linux
J2EE

Java™ APIs for XML
RPC (JSR 101)

Reusable Asset
Specification (RAS 1.0)

JSP 2.0 (JSR 152)

OPERATIONS
DEPLOY

DEVELOPMENT
DEVELOP

Java Server Faces –
JSR 127 (JSF 1.1)

Portlets (JSR 168)

Solution Install Schema
(W3C)

Service Data Objects (SDO 1.0)

Hyades 1.3



Today's Announcements

New products and programs enrich the IBM Software Development Platform

Lifecycle Integration

- Deeper, richer integrations
 - Eclipse, Hyades, UML 2.0
- Simplified design & construction
 - Drag-and-drop UI construction with JavaServer Faces and Service Data Objects
 - Rapid Deployment to WebSphere, Visual Refactoring
- New software quality solutions
 - New test & analysis tools for architects, developers, testers, and operations
 - Improved .NET, Java, zSeries support
- Enhanced distributed development
 - Remote ClearCase client, Eclipse ClearQuest client, remote MultiSite administration

Open and Extensible Ecosystem

- Expanded Eclipse 3.0, Linux, and C/C++ support
- New tools for IBM Workplace
 - WebSphere Studio Device Developer
 - Workplace Builder
 - API Toolkit
 - Workplace Designer
- New installation and patch toolkit
- New components for building analytics into applications (Alphablox)
- Expanded developerWorks resources
- alphaWorks tools preview



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-  Transforming software development
-  **Demo**
-  Preparing developers for an On Demand world

Demo

Lee Nackman

Chief Technology Officer, Rational software



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Demo: Integrated Development with the IBM Software Development Platform



Developer

- Query for assigned work
- Understand requirements
- Visualize use cases
- Access process and tool guidance
- Visualize application interaction (UML 2.0)
- Check out code
- Implement web service
- Build new page (JSF)
- Compare changes and check-in code
- Close enhancement request



Tester

- Create and execute functional test
- Validate test passes
- Validate enhancement request

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Preparing Developers for an On Demand World

Buell Duncan
General Manager
IBM ISV & Developer Relations



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software runs the world

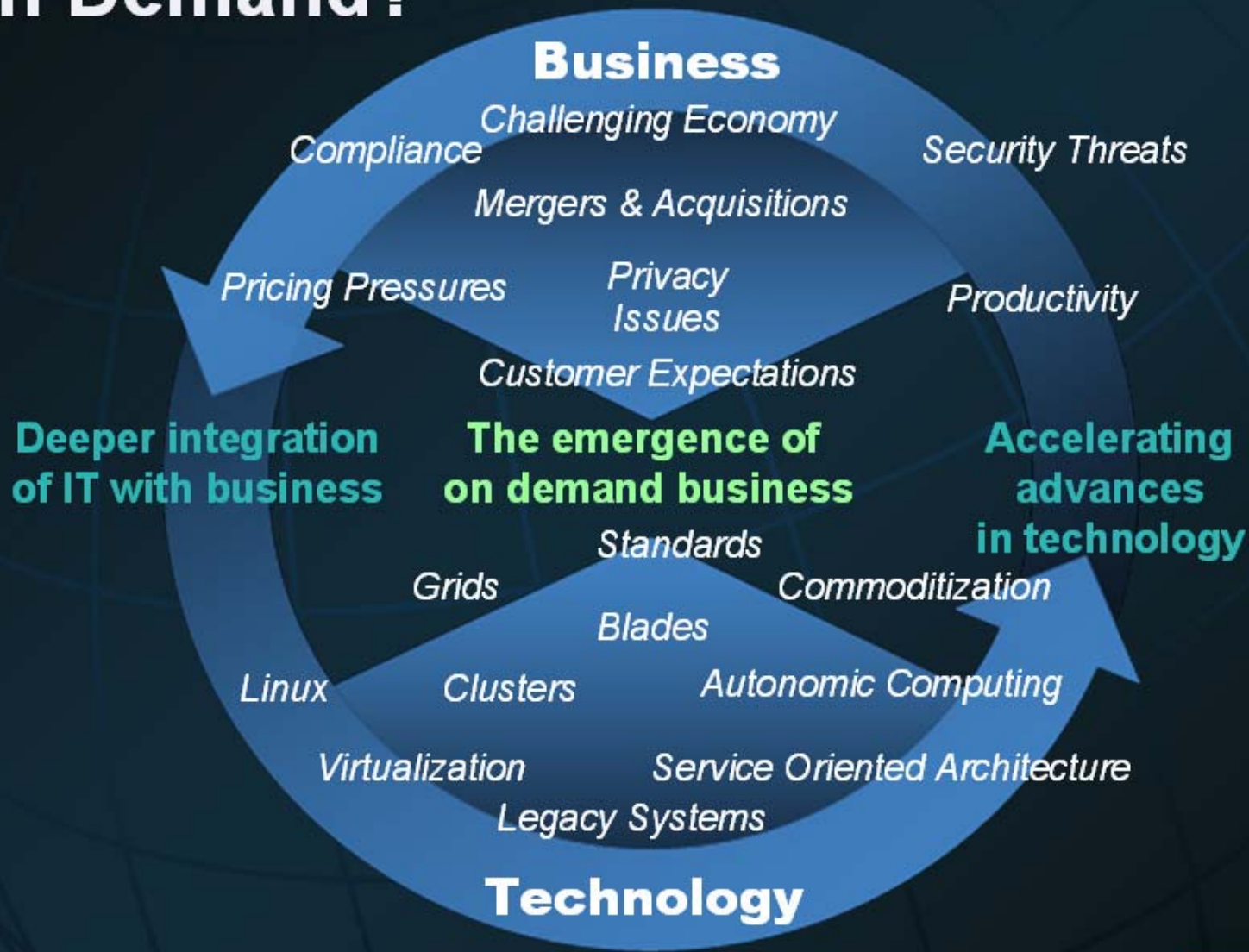
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IBM: Driving Industry Standards

Driving Convergence for Developers



What is Driving Businesses to Become On Demand?



What is Driving Businesses to Become On Demand?



Integration

On Demand Operating Environment: Integration

On Demand Operating Environment

Integration Capabilities

Process
Transformation

Application
Integration

Information
Integration

Business
Modeling

Business
Performance
Management

Access

Collaboration

Products

Architecture

Standards

Service Oriented Architecture (SOA) Connectivity Layer

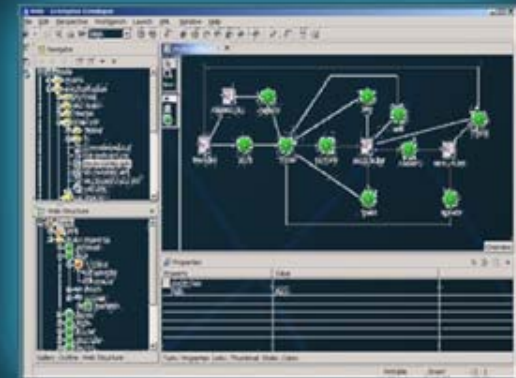


Process Transformation

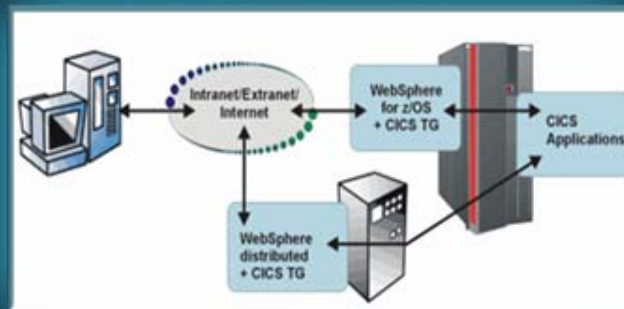


Transformed user interface and workflow for quick return on investment

Transformed business processes using Web services and Java connectors



Transformed applications and data with tools for discovery, development and deployment of legacy assets

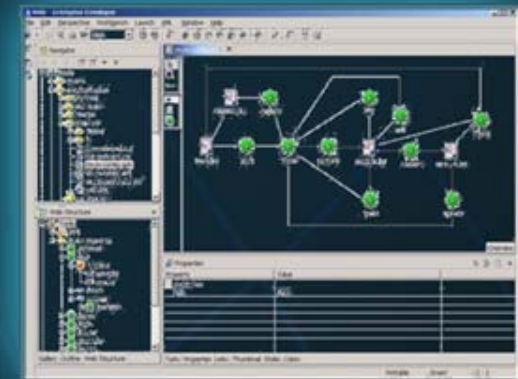


Process Transformation

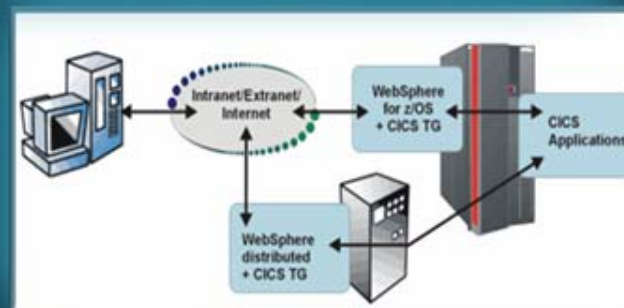


SIEMENS

Transforming applications and workflow for quick return on investment



Transformed applications and data with tools for discovery, development and deployment of legacy assets



Collaboration

- Personalized single point of interaction with other people, information and applications
- Customizable and dynamically adaptable based on business priorities
- Integrated e-mail, instant messaging, team spaces, Web conferencing, etc.



Collaboration

- Personalized single point of interaction with other people, information and applications
- Customizable and dynamically adaptable based on business priorities
- Integrated e-mail, instant messaging, team spaces, Web conferencing, etc.

The logo for Spherion features the word "spherion" in a bold, lowercase, sans-serif font. Above the letter "i" are three horizontal bars: a blue bar on the left, a yellow bar on the right, and a taller orange bar in the center. The entire logo is centered within a white rectangular box.

spherion

IBM: The Right Platform for Development

Rational

Software Development Platform for the entire development life cycle

WebSphere

Platform for application and process integration

DB2

Platform for information integration

Tivoli

Platform for autonomic computing and security

Lotus

Platform for workplace integration

eServer

Platform for Linux and POWER architecture

Marketplace Leadership

*IBM leads in Software Development Platform;
600,000+ Rational users*

*Over 450,000 companies rely
on IBM DB2 Information
Management solutions*

*\$1 billion annual investment in
Engineering, \$5 billion in technology acquisition*

*IBM offers over 50 industry-tailored business
integration solutions that span 11 industries*

*IBM leads in all areas of
Integration, including
Application Integration,
Portal, Business &
Information Integration**

*IBM WebSphere customers
include 91 of the top 100
global companies (2003)*

2,000 customers rely on WebSphere Business Integration

Sources: Gartner, Sept. '03, Oct.'02 Aberdeen, Sept. 02



PartnerWorld Industry Networks...



Insurance



Government



Retail



**Healthcare/
Life Sciences**



Telecommunications



Banking



**Financial
Markets**

ibm.com/isv

The screenshot shows the IBM PartnerWorld website for ISVs. At the top, there is a search bar with a 'PWD' dropdown and a 'Search' button. Below the search bar is a navigation menu with links for 'Home', 'Products & services', 'Support & downloads', and 'My account'. The main content area is titled 'Industry Networks for ISVs' and includes a sub-header 'PartnerWorld Banking Industry Network for ISVs'. A central text block states: 'Right now 45 of the 50 top banks in the world run on IBM systems. With IBM, you have a Business Partner with more than 50 years of experience in this ever-changing industry and a clear vision of the transformation to come. Together we can help customers — from global financial institutions to community banks — intelligently address their toughest business problems.' To the right, there are several promotional tiles: 'Webcast: Banking Industry Network overview', 'Limited time on demand enablement support offers', and 'New solution? Enter to win a marketing consultation'. A sidebar on the left lists 'Selling resources' and 'Banking resources'. A dark blue overlay on the bottom left contains the following text:

Business insight resources

Enablement blueprints

Networking and collaboration

Marketing and sales support



ibm.com/developerWorks

Product Communities

Latest on Open Technologies

alphaWorks

Localized Sites
-China, Japan, Korea



Online & Offline Training

Product Downloads

Q/A Forums

How-to Articles

Sample Code

Blogs

RSS Feeds

Newsletters

On Demand Software Development

- Sample scenarios & solutions
- Patterns for e-business
- Migration station
- Software Development Platform resources



News

Power Architecture Community Newsletter

Contact us

→ Ask an expert

Linux on Power Architecture Developer resources and downloads

Overview

Articles

Downloads

Training and support

Industry solutions

Welcome to the Power Architecture™ community. We present the exciting story of how Power Architecture is changing from manufacturing to software design. We invite you to learn more about Power Architecture and to share your implementation tips. Last but not least, we feature the views of industry's thought leaders, who are part of our community.

Developing solutions for Linux on Power Architecture? The latest online resources, including technical articles as well as no-charge software downloads are available here to customers, ISVs, and IBM Business Partners who are interested in Linux on Power Architecture, or including IBM middleware in Linux solutions on Power Architecture systems (IBM eServer iSeries and pSeries). Resources for non-IBM Power systems, such as the Macintosh Apple G5, are provided as well.

IBM's [portal for the Power Architecture community](#) is the first step in building a broader community around the Power Architecture. The portal provides a place to gather, find resources, and begin establishing a governance model to guide future directions for innovation and collaboration.

The IBM [Power Architecture Pack](#) is a no-charge, downloadable evaluation kit that lets designers create custom FPGAs in a simulation environment. It allows engineers to simulate a system-on-chip design based on their own intellectual property.

IBM eServer iSeries servers, provide support for OS/400, Linux, Java, Domino and Windows 2000 server applications. In a single server, you can run your core business and e-business applications independently.

IBM eServer pSeries servers, provide 64-bit high performance SMP servers with large memory capacity. Applications running in secure logical partitions can be managed independently.

Content on the latest POWER technology

Online community on POWER Architecture

How-tos, downloads, technical support



ibm.com/developerWorks/rational

The screenshot shows the IBM developerWorks Rational website. At the top, there is a search bar with the text "Search for:" and a dropdown menu set to "All of dW". Below the search bar is the IBM logo and navigation links: "IBM home", "Products & services", "Support & downloads", and "My account". The main content area features a "Rational" header with a sub-header "Technical resources and best practices for the Rational software platform" and a "Top story" section titled "Practical application of use cases to a real-time system". A sidebar on the left contains a "Select country / region" dropdown and a "developerWorks" menu with links to "DB2", "eServer", "Lotus", "Rational", "New to Rational", "Products", "How to buy", "Downloads", "Technical library", "Training", and "Support". A "Fast path to Rational" section includes tabs for "Products" and "Technologies", with sub-links for "Configurable process", "Automated testing", "Rational Unified Process (RUP)", "Robot", "ClearCase", and "ClearQuest". On the right, there is a "My developerWorks" section with a "Welcome guest" message and a "Sign in or register" link. Below that is a "Rational software" section with a "Spotlight" area listing "Rational Online Discussions" and "IBM Rational Software Development User Conference 2004". A "New content" section lists several articles, including "Reusable Perl Scripts Using an OO Model of the IBM Rational ClearCase Region", "What, No Supplementary Specification?", "How To Manage 5000 Releases A Year", and "Webinar Schedule".

Downloads, CDs, support, demos, webcasts, white papers, Rational Edge, Web based training, plug-ins, discussion forums, user groups, InBrief newsletter

Assets & patterns, kits index, Rational Development accelerators, RUP plug-in exchange



Next Steps

The image shows a composite of two IBM website screenshots. On the left is the IBM PartnerWorld site, featuring a navigation menu with categories like 'Selling resources', 'Marketing resources', 'Products and technologies', 'Technical resources and support', 'Training and certification', 'Order and track products', 'Events and conferences', 'News and newsletters', 'PartnerWorld membership', and 'Contact PartnerWorld'. The main content area includes a search bar and a list of news items, such as 'PartnerWorld moves to simplify IDs and passwords'. On the right is the IBM developerWorks site, which has a search bar and a 'Top story' section titled 'Model with Rational XDE and WebSphere Studio'. A central white box with the IBM logo contains the text 'ibm.com/developerWorks' and 'ibm.com/isv'. At the bottom right, there are four icons: a copyright symbol, a clock, a group of people, and a globe.

ibm.com/developerWorks

ibm.com/isv



THANK YOU