Modernizing Today's Enterprise Applications

Agenda

- IBM WebSphere Market Leadership
- The IBM WebSphere Pyramid and Dynamic e-business
- Customer Pains/Requirements
- Enterprise Modernization Offering, Benefits, and Value Proposition
- Competitive Highlights
- Services
- Next Steps
- Summary
- Questions and Answers

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Seminar Objectives

- By the end of today's seminar you will know the following about IBM's Enterprise Modernization (EM) Offering:
  - ► why you should modernize
  - ► what the EM offering consists of, benefits, and value proposition
  - ► how EM can deliver e-business systems by leveraging your existing IT assets
  - ► how EM can improve processes by leveraging e-business technology
  - ► how you can become more competitive by reducing costs leveraging your existing application assets using Enterprise Modernization
  - ► and how we can perform an assessment of your business to determine how this offering would work for you

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WebSphere Market Leadership

- **35,000+** global customers
- **9,000** partners (500% YTY)
- **1,300** certified solution providers
- **4,700** trained global integrators
- **Eleven** consecutive quarters of double-digit growth
- **Grew** market share 10 times faster than BEA over past year
- **WebSphere** is the clear favorite over BEA among companies planning to build out their infrastructure

Most **Rapidly** growing
e-business platform

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CICS/390: Today!

>30 billion transactions/day, >$1 trillion processed/day

30 years invested in Applications

>14K customers worldwide

5000 packages from 2000 ISVs

ENTERPRISE JAVABEANS

CICS

950,000 programmers earn their living from CICS

30 million users

Used by 490+ of IBM's top 500 customers
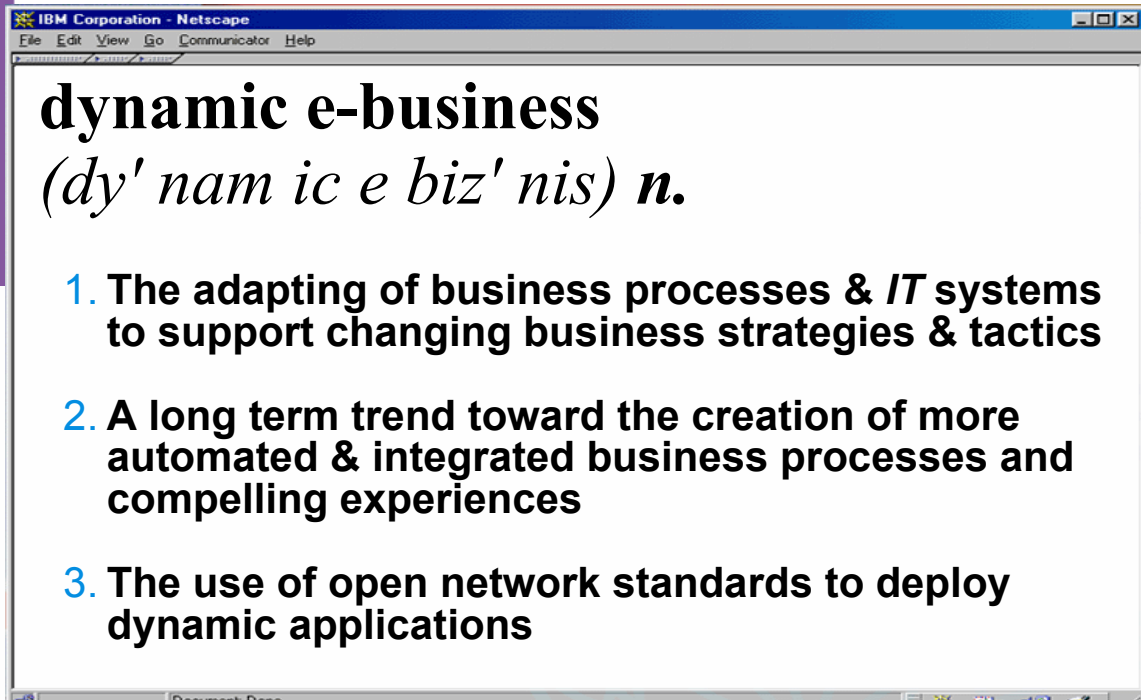
$1Trillion applications ....IDC

>20K CICS licenses

Over _900K_ concurrent users/system

80%+ penetration on S/390

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The road to dynamic e-business

IBM Corporation - Netscape

File Edit View Go Communicator Help

dynamic e-business
(dy' nam ic e biz' nis) **n.**

1. **The adapting of business processes & *IT* systems to support changing business strategies & tactics**

2. **A long term trend toward the creation of more automated & integrated business processes and compelling experiences**

3. **The use of open network standards to deploy dynamic applications**

Document: Done

Digital Businesses

External Integration

Internal Integration

e-business Transactions

Web Publishing & Extending Existing Apps

The WebSphere Pyramid?
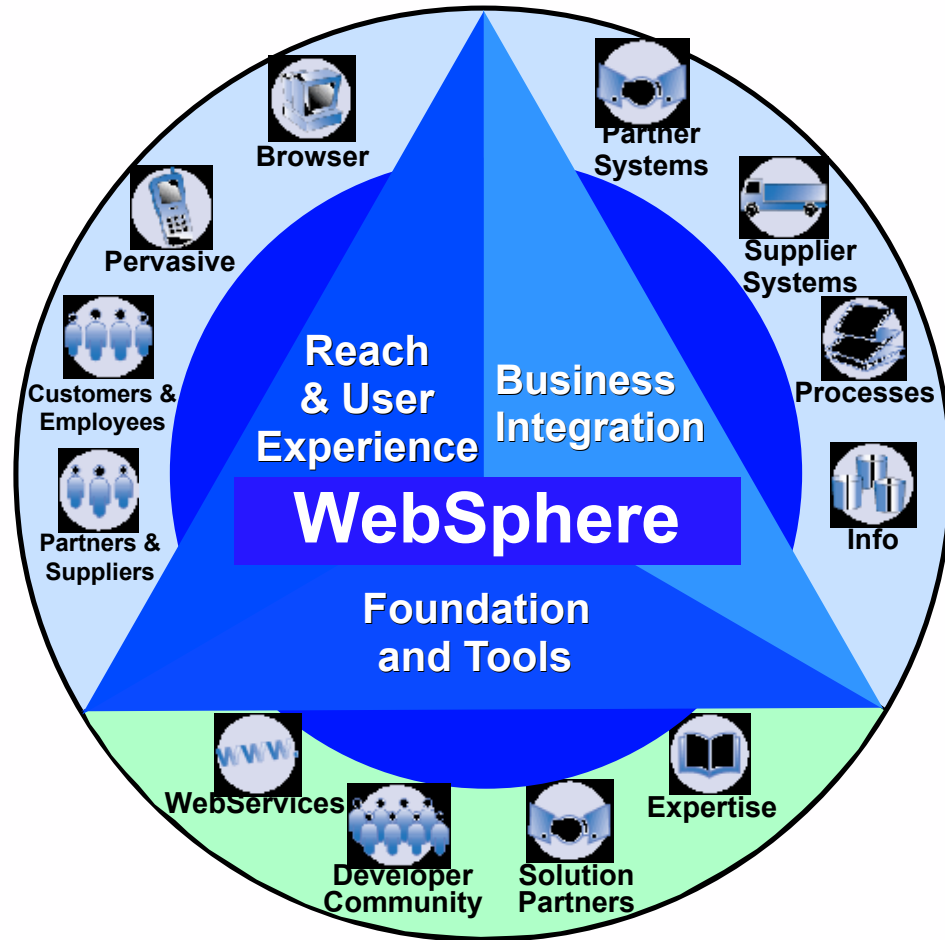
The **one** comprehensive software platform for end-to-end Dynamic e-business

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Dynamic e-business infrastructure delivers solid Return on Investment

Achieve Customer Loyalty

By Extending & Personalizing User Experiences

Browser

Pervasive

Customers& Employees

Partners& Suppliers

Achieve Business Agility

By Integrating & Automating Business Processes

Partners Systems
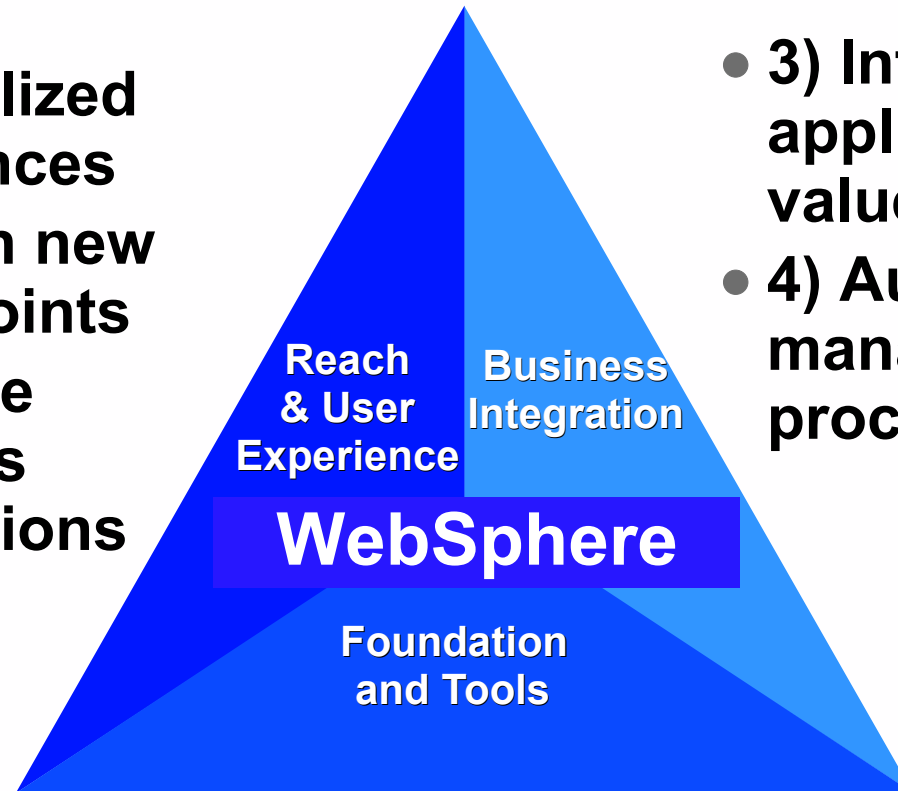
Suppliers Systems

Processes

Information

1

2

3

Achieve Productivity & Scalability

By Rapidly Building, Reliably Growing Dynamic e-business Applications

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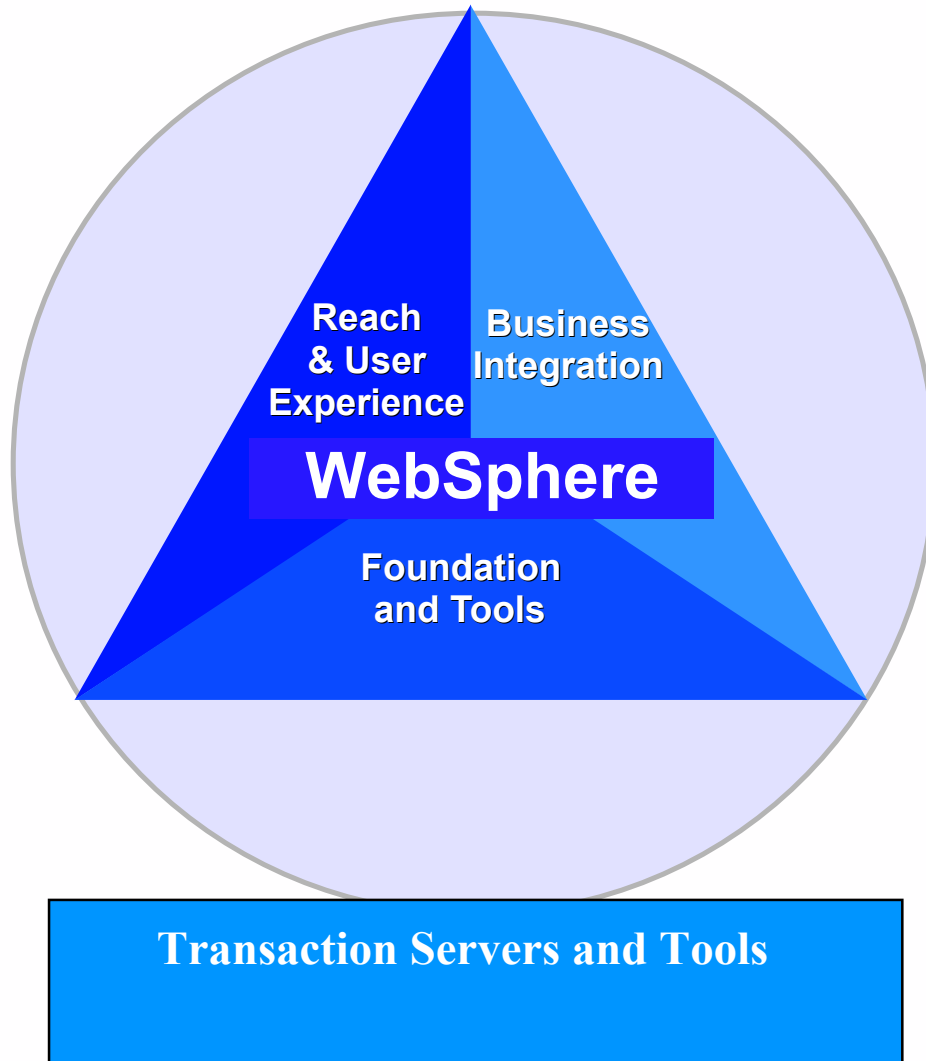# What is holding firms back from dynamic e-business? The ability to:

- **5) Drive personalized experiences**
- **6) Reach new touch points**
- **7) Enable business transactions**

- **3) Integrate applications across value chain**
- **4) Automate & manage business processes**

Reach & User Experience

Business Integration

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Foundation and Tools

- **1) Rapidly develop e-business applications**
- **2) Deploy reliable and scalable infrastructure**

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WebSphere Pyramid Built on a Solid Foundation

Reach & User Experience

Business Integration

WebSphere

Foundation and Tools

Transaction Servers and Tools

WebSphere has the heritage and rock solid reliability of IBM TransactionServers and Tools at its base, so you know you can bring the robustness of the mainframe to your Web

infrastructure.

Key IBM Transaction Servers and Tools

- Transaction Servers eg:
  - IBM CICS TS
  - IBM TX Series
  - TPF
- Connectivity eg:
  - CICS Transaction Gateway
- Tools eg:
  - Fault Analyzer
  - File Manager
  - CICS Performance Analyzer
- Compilers

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Enterprise Modernization

- What is it?
  - ► Enterprise Modernization is the liberation of core business assets to satisfy new e-business application development
- Why modernize?
  - ► Reuse is cheaper than writing new
  - ► Bridge the development skills gap with a common toolset for both Web and Legacy programmers. (850K+ COBOL developers)
  - ► Leverage existing systems, applications and skills to create Dynamic e-business with excellent Returns on Investment.
  - ► Modernization accelerates the e-business adoption for competitive advantage
- Why IBM?
  - ► IBM customers have significant business knowledge invested in enterprise systems (over 180 billion LOC and 5 Billion new each year)
  - ► Customers want to leverage Qualities of Service built in enterprise systems
  - ► Web Services makes it easier to leverage these assets today

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Enterprise Modernization Challenges/Hurdles

- **Legacy not ready for integration** into Web Application Architecture
  - ‣ Tedious and costly manual analysis and harvesting
- **Scarcity of Skills** and Steep learning curve (or perception of steep learning curve)
  - ‣ Complex new/emerging technologies (XML, SOAP/WSDL, Struts, EJB, JCA, etc)
  - ‣ Massive amounts of traditional technologies   (COBOL, PL/I, CICS, IMS)
  - ‣ Need to include new developer communities
- **Multiple Artifacts**
  - ‣ More complex Application design
  - ‣ Fragmented development process
  - ‣ Responsibility boundaries and Communication among team member
  - ‣ Error prone integration, test and build
  - ‣ Multiple point tools and multiple skills must be in place
- **Clashes between development groups**
  - ‣ COBOL developers know the enterprise applications, hold the business knowledge, Java developers have the web knowledge
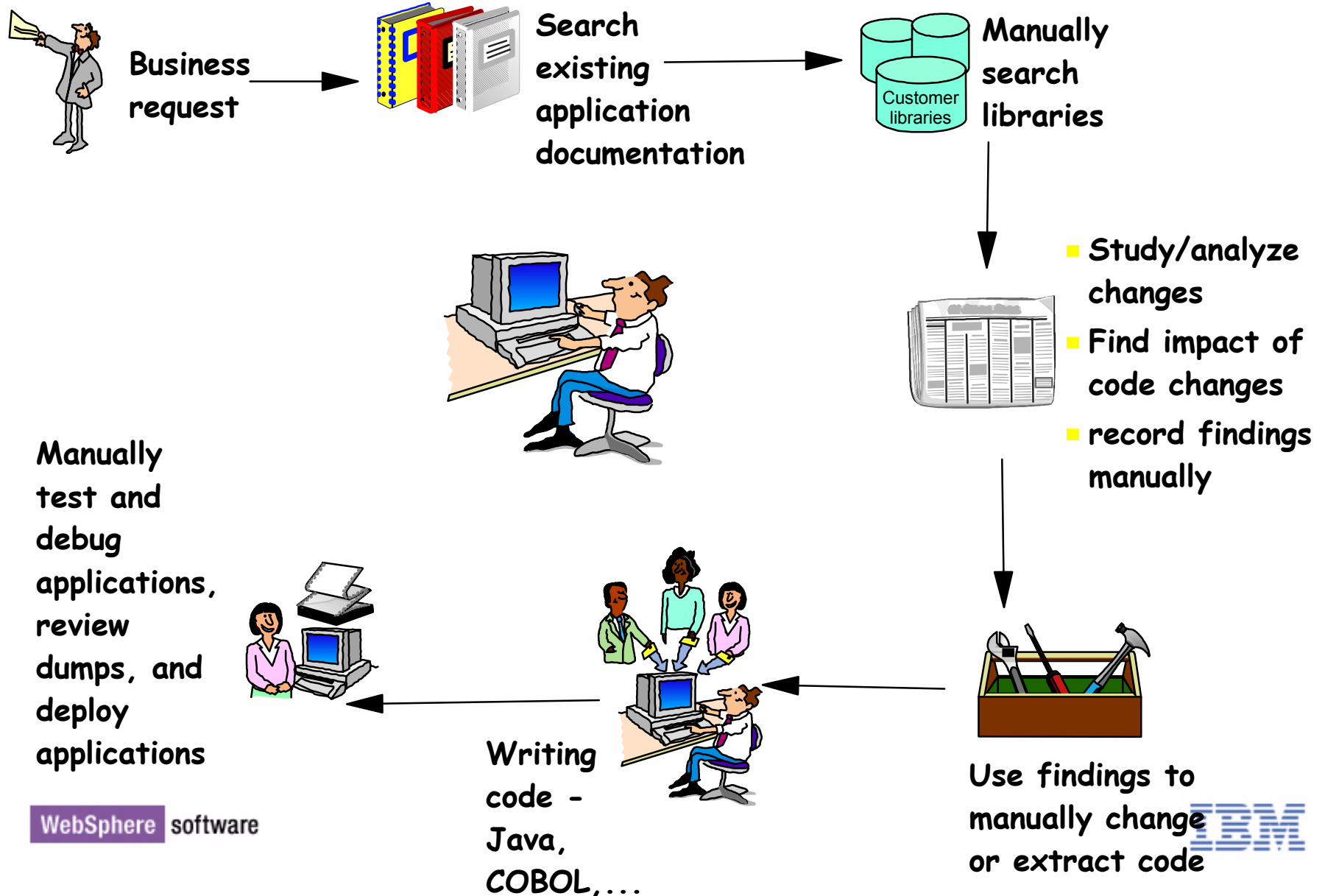- **Too much backlog** and not enough time to deliver

High Costs

High Risk

Slow Delivery

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How would companies modernize enterprise applications today?

Business request

Search existing application documentation

Customer libraries

Manually search libraries

- Study/analyze changes
- Find impact of code changes
- record findings manually

Manually test and debug applications, review dumps, and deploy applications

Writing code - Java, COBOL,...

Use findings to manually change or extract code

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Customer Pains/Requirements

Who are the key players in the move to an e-business?

Key Player	Pain
CFO	■ Controlling and managing his IT budget
CIO/IT Executive	■ Cost increases for the move to e-business ■ Cannot deliver e-business applications fast enough
IT Manager	■ Costs of deploying new applications ■ Scarcity of highly skilled professional resources ■ Low developer productivity ■ High training costs and long learning curve ■ Complexity of e-business development process
IT Professional	■ e-business applications are complex and difficult to develop

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How can Enterprise Modernization help your pains?

- **<u>Reduce</u>** e-business application development time
  - **<u>Shorten time</u>** for debug, test, and deployment
  - **<u>Eliminate</u>** web and traditional organizational barriers
  - **<u>Reduce</u>** skills and technical challenges of e-business
  - **<u>Improve</u>** e-business development processes
- **<u>Speed</u>** integration of existing core applications with new e-business applications
  - **<u>Reuse</u>** IT assets as components
- **Save costs and time** by training developers on <u>one common toolset</u> regardless of their role in e-business application development

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Enterprise Modernization Strategy

Completion - speeds the movement of applications from the development process through system test to production

Completion

Construction
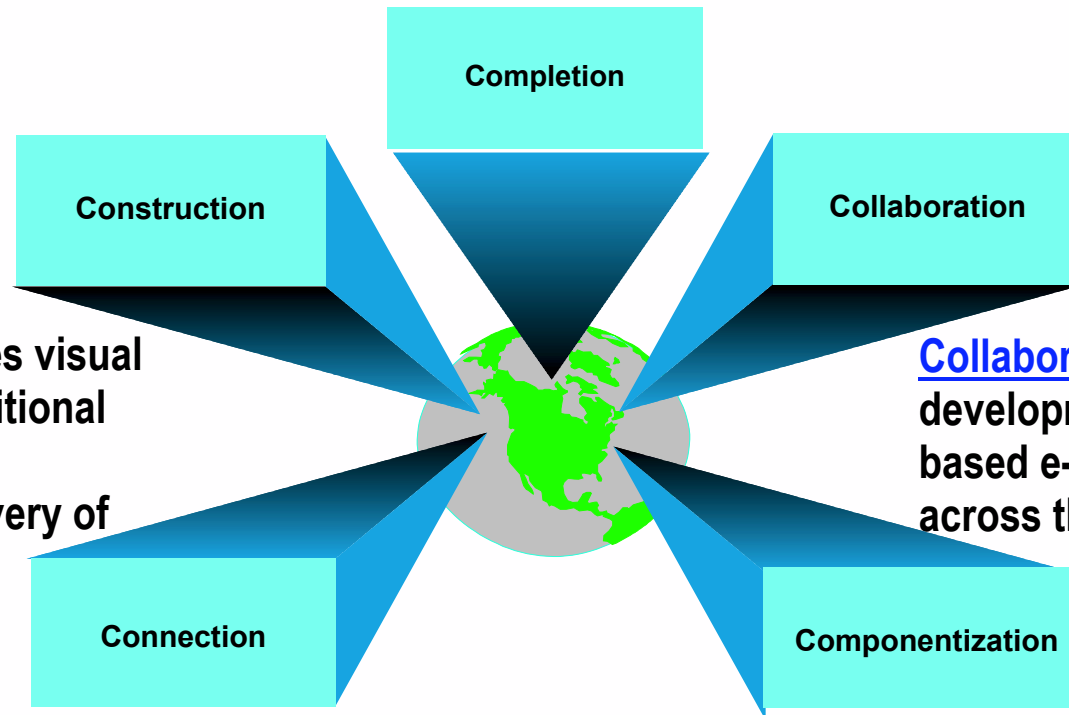
Collaboration

Construction - provides visual tooling to include traditional and business oriented developers in the delivery of mission critical J2EE applications

Collaboration - facilitates team development of component based e-business applications across the enterprise

Connection

Componentization

Connection - helps connect and reuse legacy enterprise applications for e-business by using connectors

Componentization - promotes the transformation of legacy Enterprise Applications into components and the integration of these components into new e-business applications.

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Enterprise Modernization New Products/Services

Completion -Fault Analyzer,File Manager, Debug Tool
Workload Simulator, Application Monitor
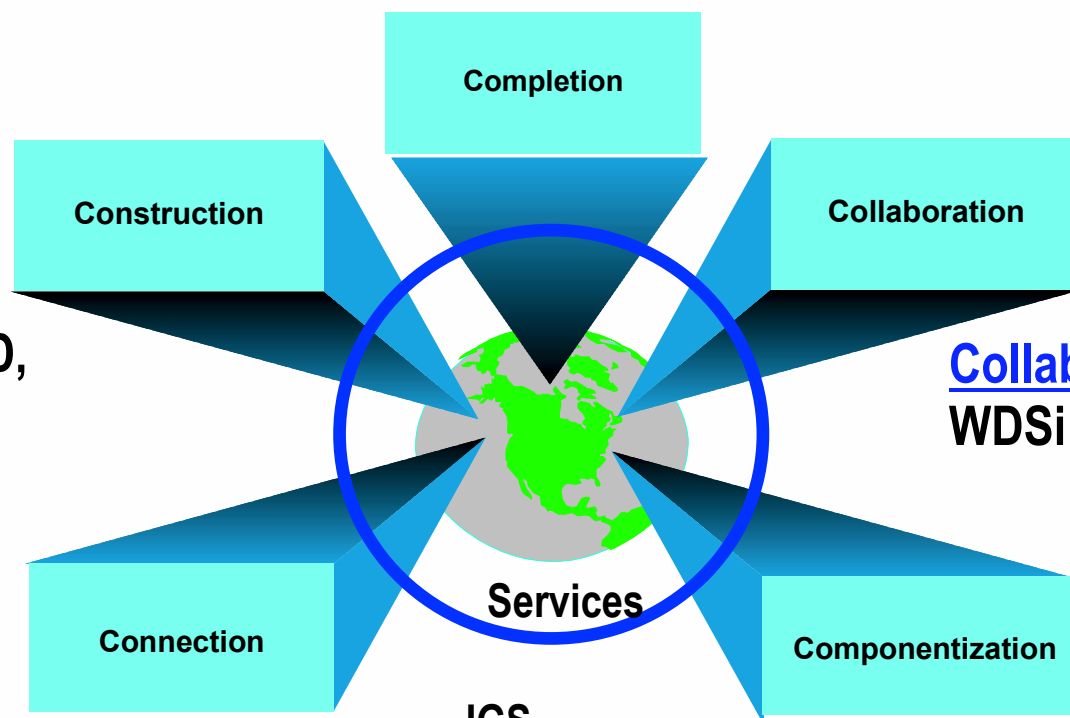
Construction - WSED, WDSi

Collaboration - WSED, WDSi

Connection - WSED, WDSi, WSAA, WebSphere Portfolio, CICS Transaction Gateway

Componentization - WSAA,WSED

any enterprise component can be Web Service

Completion

Construction

Collaboration

Connection

Componentization

Services

IGS
Accenture
CAP Gemini E&Y

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EM Offering Value Proposition

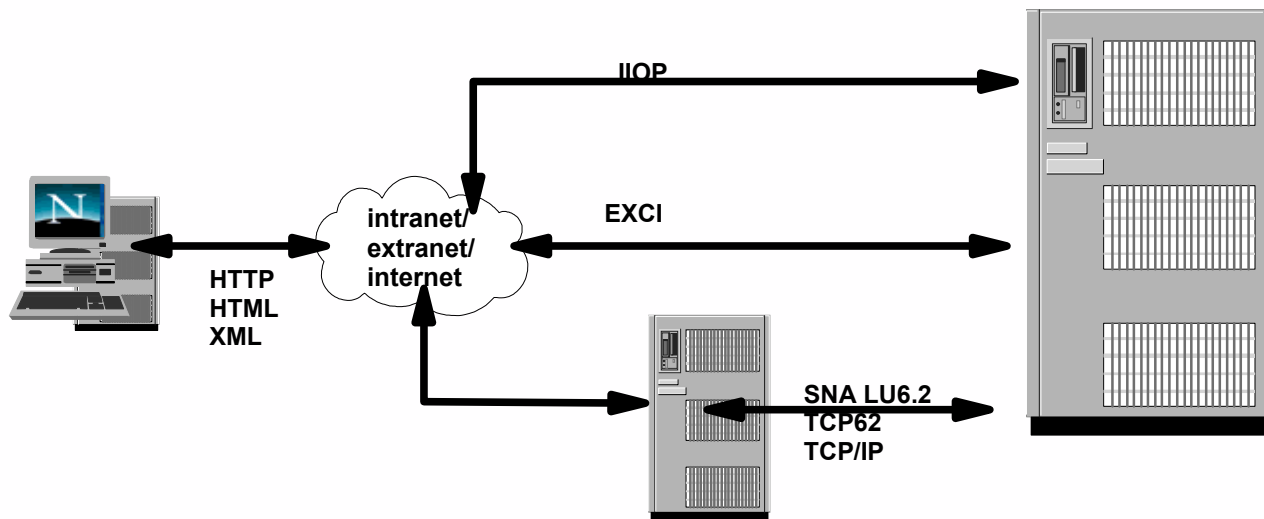| IBM Enterprise Modernization offering	Benefit/Value Statement
Addresses traditional and new developers	- More productive developers - More applications with higher quality - Easier core application integration - More reuse
Supports the complete development process	Speed through the process and lessen time to market
Maximize development resources by including business oriented developers (EGL)	Applications meet business needs
Supports all transaction environments	Deployment flexibility today and tomorrow.

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Enterprise Modernization: Connection
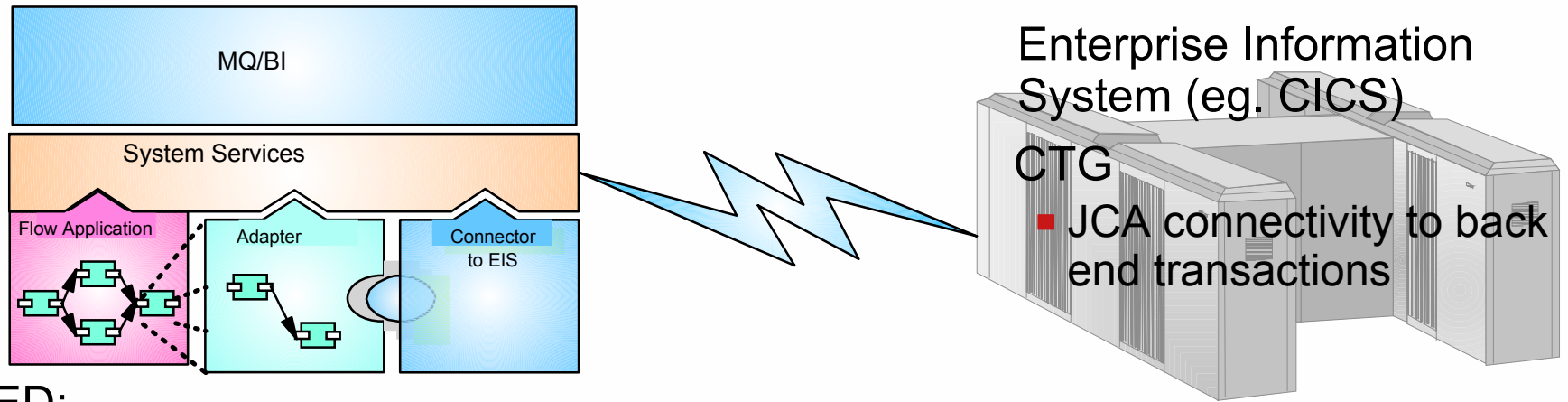
- ■ Objective
  - ▶ *Simplify the connectivity or access to host components using one common connector building tool*

- ■ Value
  - ▶ *By easing the burden of connecting disparate applications and technologies, customers can realize savings by modernizing and reuse.*

IIOP

intranet/ extranet/ internet

EXCI

HTTP HTML XML

SNA LU6.2 TCP62 TCP/IP

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Enterprise Modernization: Connection

MQ/BI

System Services

Flow Application

Adapter

Connector to EIS

Enterprise Information System (eg. CICS)

CTG
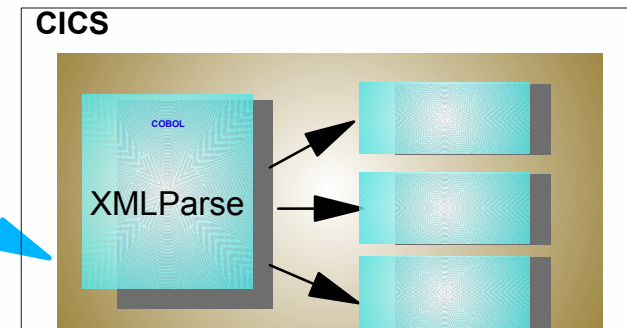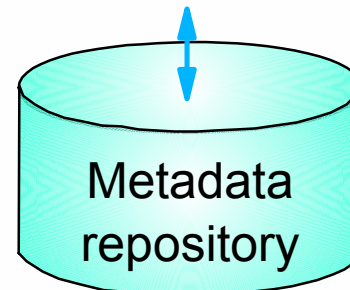- JCA connectivity to back end transactions

WSED:
- generates command beans
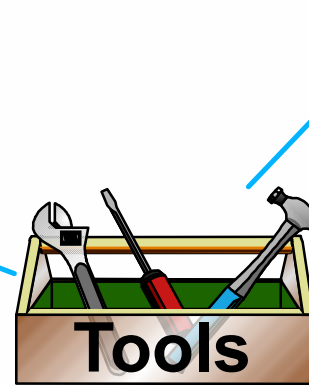- enables migration from CCF
- Imports metadata (eg. COBOL copybook)
- Generates WebSphere and Enterprise based transformers

Tools

CICS

COBOL

XMLParse

WSAA
- scans artifacts and builds metadata repository
- Connector builder assistant creates metadata files

Metadata repository

Enterprise COBOL
- processes XML messages
- accesses enterprise business logic and databases

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Enterprise Modernization: Componentization
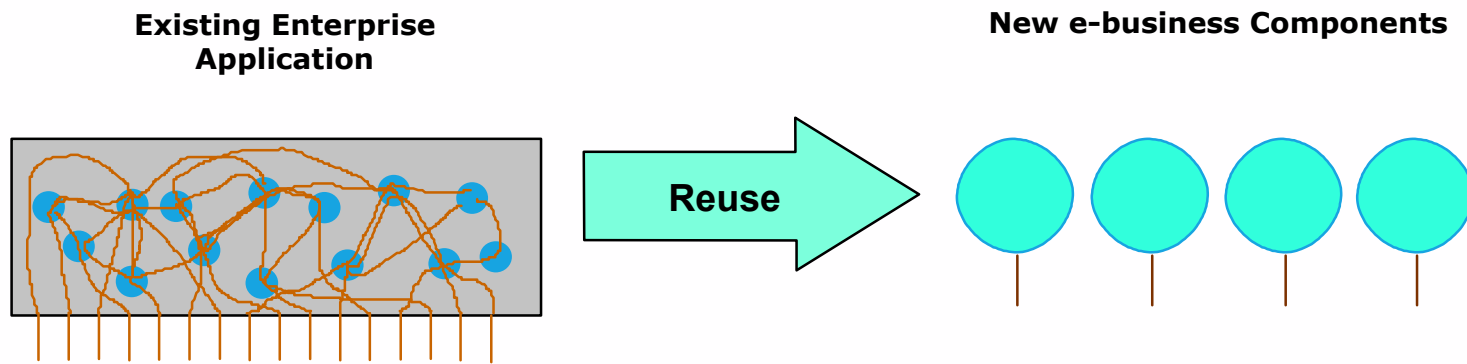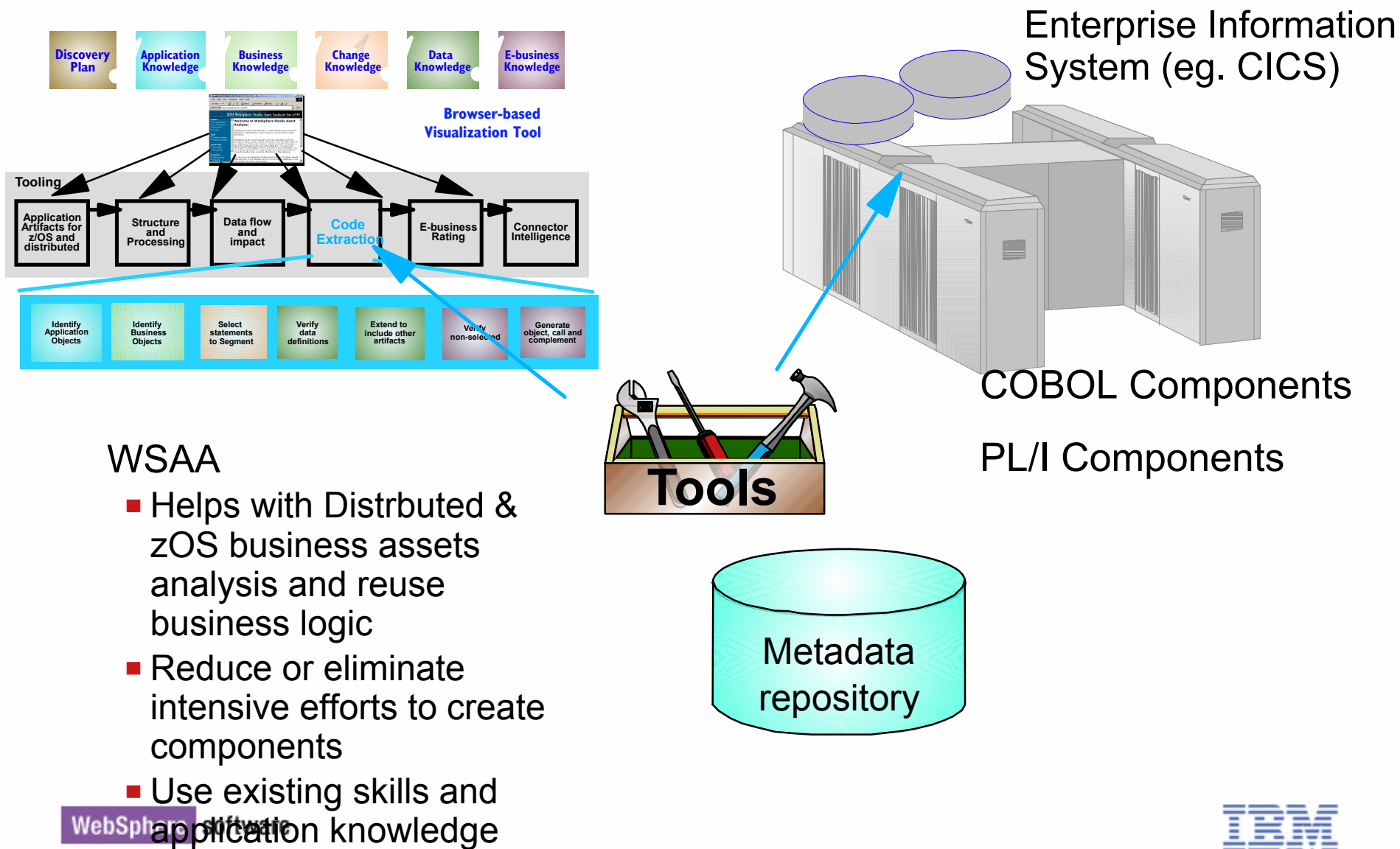
- **Objective**
  - *Reuse existing applications as components*

- **Value**
  - *Position for evolution to dynamic e-business*
    - *Deliver knowledge to speed developer action*
    - *Reuse of IT assets as components*
    - *Rapid application creation and maintenance*

Existing Enterprise Application

New e-business Components

Reuse

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Enterprise Modernization: Componentization

Discovery Plan
Application Knowledge
Business Knowledge
Change Knowledge
Data Knowledge
E-business Knowledge

Browser-based Visualization Tool

Tooling

| Application Artifacts for z/OS and distributed | Structure and Processing | Data flow and impact | Code Extraction | E-business Rating | Connector Intelligence |

Identify Application Objects
Identify Business Objects
Select statements to Segment
Verify data definitions
Extend to include other artifacts
Verify non-selected
Generate object, call and complement

WSAA

- Helps with Distrbuted & zOS business assets analysis and reuse business logic
- Reduce or eliminate intensive efforts to create components
- Use existing skills and application knowledge

Tools

Enterprise Information System (eg. CICS)

COBOL Components

PL/I Components

Metadata repository

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Enterprise Modernization: Construction

- Objective:
  - ▶ *Facilitate enterprise wide e-business J2EE component based development using a common component assembly tool*

- Value:
  - ▶ *Enable all developers to participate in E-business more readily*
  - ▶ *Facilitate component construction and best practices*
  - ▶ *Include many more areas of expertise in the process*

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WebSphere Studio Enterprise Developer Component Assembly and Building

- Common component assembly environment for all types of Developers
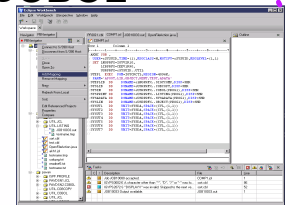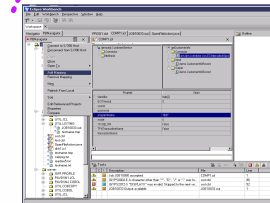- Composing e-business App from components
- Creating & documenting business logic flow
- Assemble web, app server, and z/OS components
- Generate Java Flow components

- **VALUE**
  - Accelerate creation of new e-business applications
  - Include all enterprise developers in the process
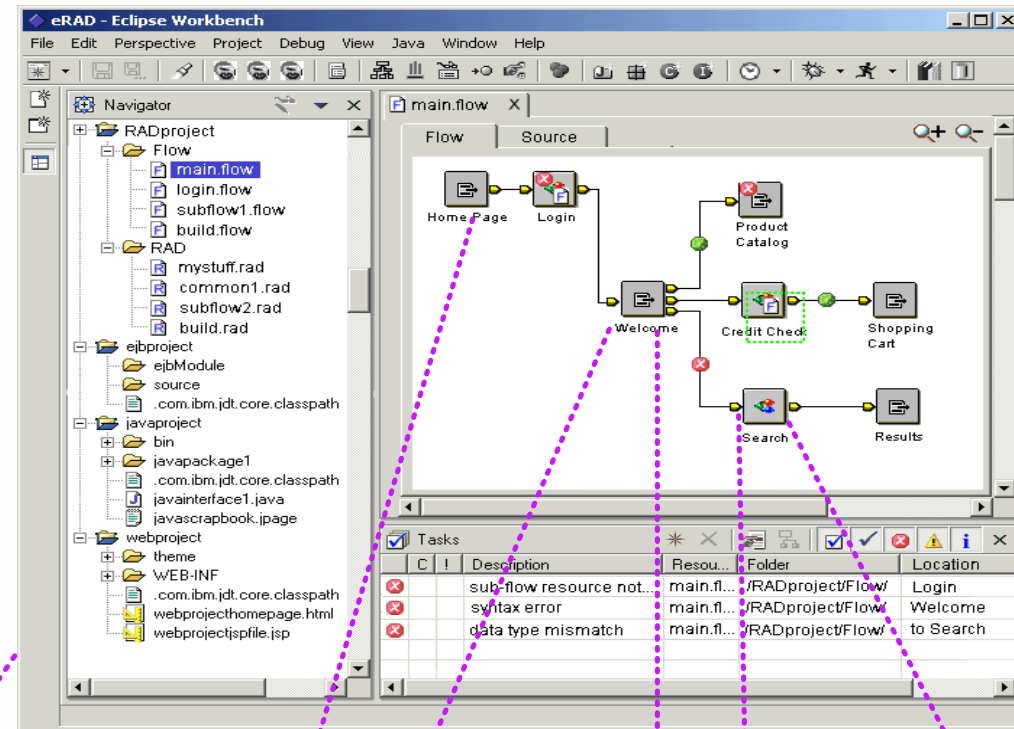
Build JSP

Edit/ Debug EGL

Edit / Debug COBOL

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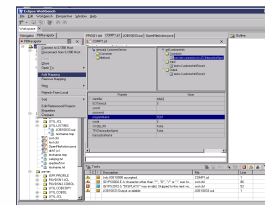
Enterprise Modernization: Collaboration

- Objective:
  - ▶ *Facilitate e-business team development using a common development platform*

- Value:
  - ▶ *Enable business to become an E-business more quickly,*
  - ▶ *Allow developers to participate and build on their existing skills*
  - ▶ *Improve teaming and communications among development groups*

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WebSphere Studio Workbench

Enterprise Modernization: Collaboration

An open, integrated, personalized, extensible environment enabling multiple developer "Perspectives"

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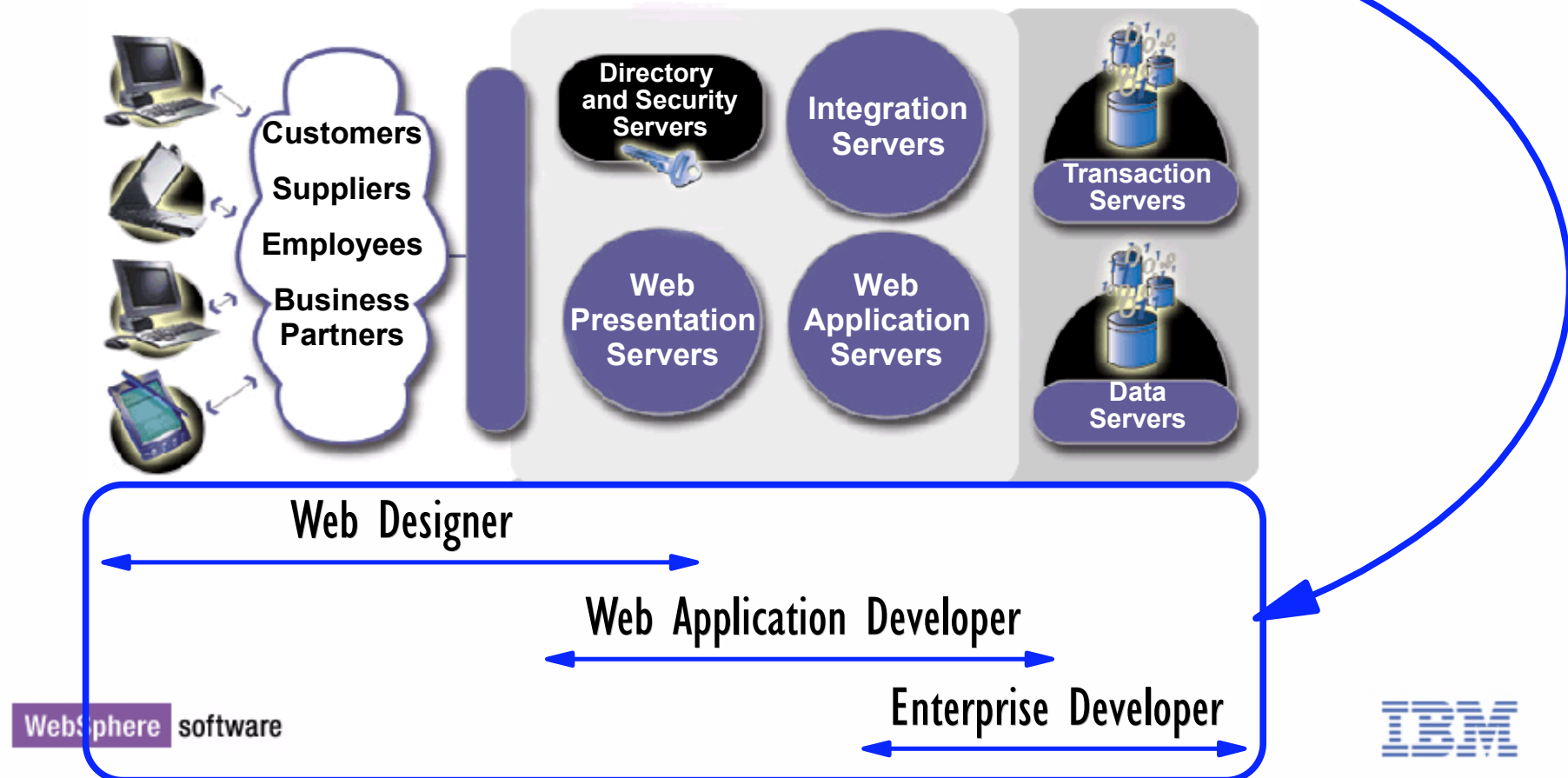
Eclipse Workbench
An Open Tool Integration Platform

A common development platform for all developers including Web, Java, COBOL, EGL, PL/I and RPG programmers

Select Perspective

- Help
- **J2EE**
- Java
- Java Type Hierarchy
- Plug-in Development
- Resource
- Scripts
- **Server**
- Team
- Trace
- Web (default)
- XML

OK   Cancel
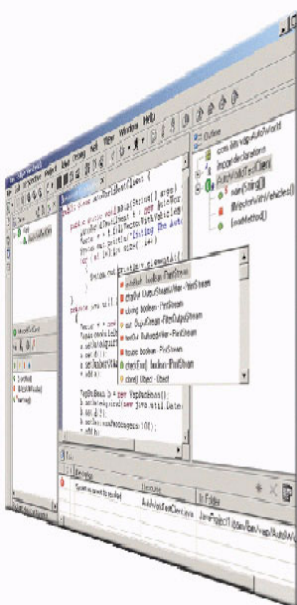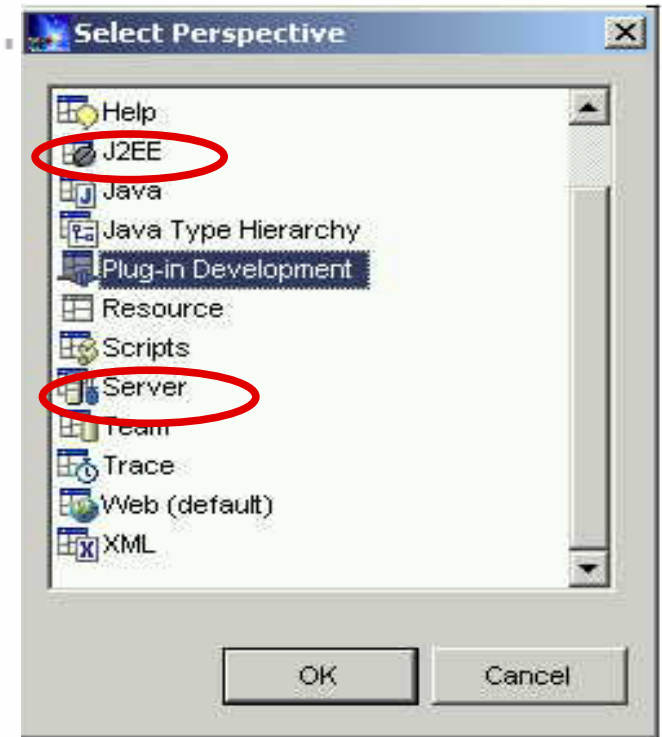
Products built with Eclipse inherit these capabilities plus 'plug-ins' built by others

Eclipse Workbench

Java & JavaScript IDE

Project Management

Debugging Services

Plug-in Development Tools for all Developers

Desktop & Help Frameworks
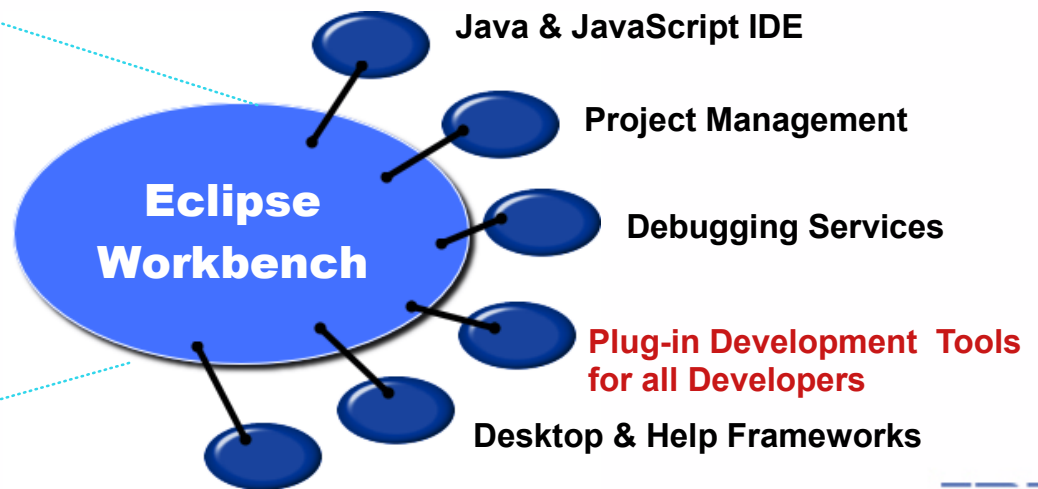
Local & Team (CVS) Resource Management

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Enterprise Modernization: Completion

■ Objective:

  ▶ *Enable developers to move through the testing and implementation cycle in a timely, cost effective manner*

■ Value:

  ▶ *Deploys robust, high quality applications more quickly*

  ▶ *Lowers TCO of development and platforms*

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Enterprise Modernization : Completion

Deploy

Application Performance Management

Fix performance problems fast:
- ▸ *Find, fix & improve CICS and DB2 performance and availability*

Completion: We help application developers test and deploy e-business applications quickly

Discover

Leverage Enterprise business rules to build dynamic ebusiness applications:
- ▸ *e-business application understanding*
- ▸ *Business change impact analysis*

Deployment Readiness & Quality Assurance

Comprehensive Deployment & Test Solutions:
- ▸ *Fault resolution management*
- ▸ *Transform and migrate data*
- ▸ *Analyze & Debug S/390 and WebSphere applications*
- ▸ *Simulate application load testing*

Develop

Speed up and simplify:
- ▸ *Development of new e-business applications*
- ▸ *Integration of existing applications*
- ▸ *Modernization of legacy applications*
- ▸ *Building of e-business components*

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Enterprise Modernization : Completion Offerings

Deploy

Application Performance Management

- ▸ *Application Monitor*
- ▸ CICS Performance Analyzer
- ▸ CICS OTTO
- ▸ CICS IA

Completion test and deployment tools

Deployment Readiness & Quality Assurance

- ▸ *Fault Analyzer*
- ▸ *File Manager*
- ▸ *Debug Tool*
- ▸ *Workload Simulator*

Discover

- ▸ *WebSphere Studio Asset Analyzer*

Develop

- ▸ *VisualAge Enterprise Suite*
- ▸ *WebSphere Studio Enterprise Developer*
- ▸ *Enterprise COBOL & Enterprise PL/I*

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How can customers modernize enterprise applications with the tools of IBM's EM strategy?

Business request

Search existing application documentation

Customer libraries

Manually search libraries

Discovery-WSAA

- Study/analyze changes
- Find impact of code changes
- record findings manually

Deployment -

Manually test and debug applications, review dumps, and deploy applications

Fault Analyzer
File Manager
Debug Tool
Appl. Monitor

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Writing code - Java, COBOL,...

Use findings to manually change or extract code

Development-WSED

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Competition vs. IBM

| Company	Legacy Understanding	Legacy Development	Web Understanding	Web Development
Compuware	X	X		X
Seec	X			
MicroFocus	X	X		
Relativity	X			
Borland				X
MicroSoft				X
WebGain				X
Sun		X		X
IBM	X WebSphere Studio Asset Analyzer	X WebSphere Studio Enterprise Developer	X WebSphere Studio Asset Analyzer	X WebSphere Studio Enterprise Developer

Business Partner Overview

- This page is for the business partner to provide an overview of the IBM Customer Loyalty Solution; page may be inserted where needed within the presentation
  - ► Business Partner Supplied Bullet #1
  - ► Business Partner Supplied Bullet #2
  - ► Business Partner Supplied Bullet #3
  - ► Business Partner Supplied Bullet #4
  - ► Business Partner Supplied Bullet #5

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Next Steps

- **WebSphere Enterprise Modernization Executive Assessment**
  - ► Using the IBM Executive Assessment, **(IBM Business Partner)** will meet with you to conduct an e-business assessment of your company
    - – will work with you to map out the required hardware, software, and services necessary to meet your company's needs
    - – this assessment takes aproximately 2 - 3 weeks
  - ► After the initial visit, the customer will get:
    - – an in-depth analysis of findings which includes the recommended business solution(s)
    - – strategic and tactical proposal
    - – competitive Website analysis (as applicable)
    - – ROI analysis (where appropriate)
  - ► Dowload the executive assessment at:
    - – http://www.ibm.com/partnerworld/software

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Enterprise Modernization Summary
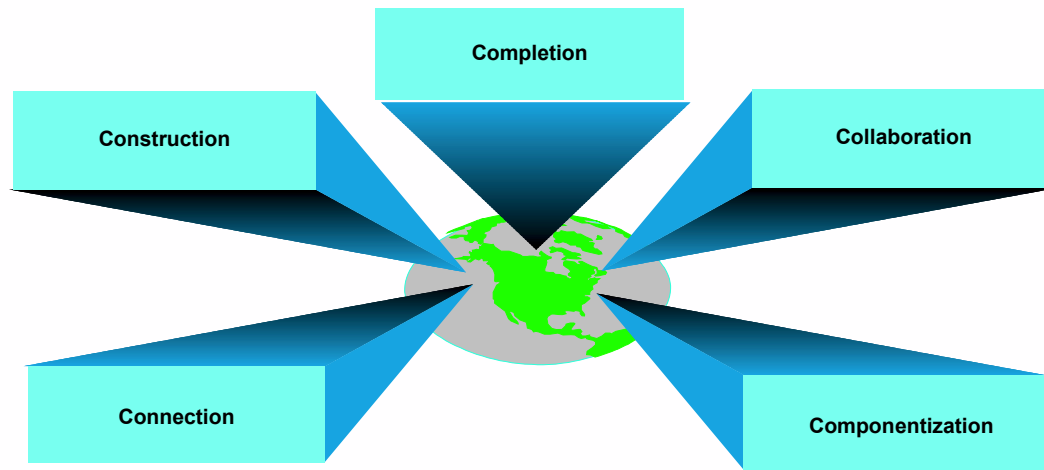
- **Reduce the e-business application development time**
  - ‣ **Use of industry standards can accelerate development**
  - ‣ **Eliminate Web & Traditional developer organizational barriers**
  - ‣ **Reduce skills and technical challenges of e-business**

- **Position for evolution to dynamic e-business**
  - ‣ **Reuse of IT assets as components**
  - ‣ **Rapid application creation**
  - ‣ **Extend developer community in the organization**

- **Bridge the development skills gap with a common toolset for both Web and Legacy programmers**

Useful Websites

- **http://www.ibm.com/partnerworld**
  (select "software" track)

- **http://www.redbooks.ibm.com/**
  ("how to" practices on SW)

- **http://www.developer.ibm.com**
  (PartnerWorld for Developers)

- **http://www.ibm.com/websphere**
  (dedicated WebSphere site)

- **http://www.ibm.com/software/websphere**
  (SW info, case studies, latest news,
  connection to all Websphere related sites)

- **http://www.ibm.com/software/ad/casestudies/**
- (See customer references)

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Thank You

Business Partner Name, Date