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IBM Workplace and WebSphere Portal

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Agenda

- Workplace and Portal
- WebSphere Portal
- Development Tools for IBM Workplace
- Summary

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Workplace and Portal

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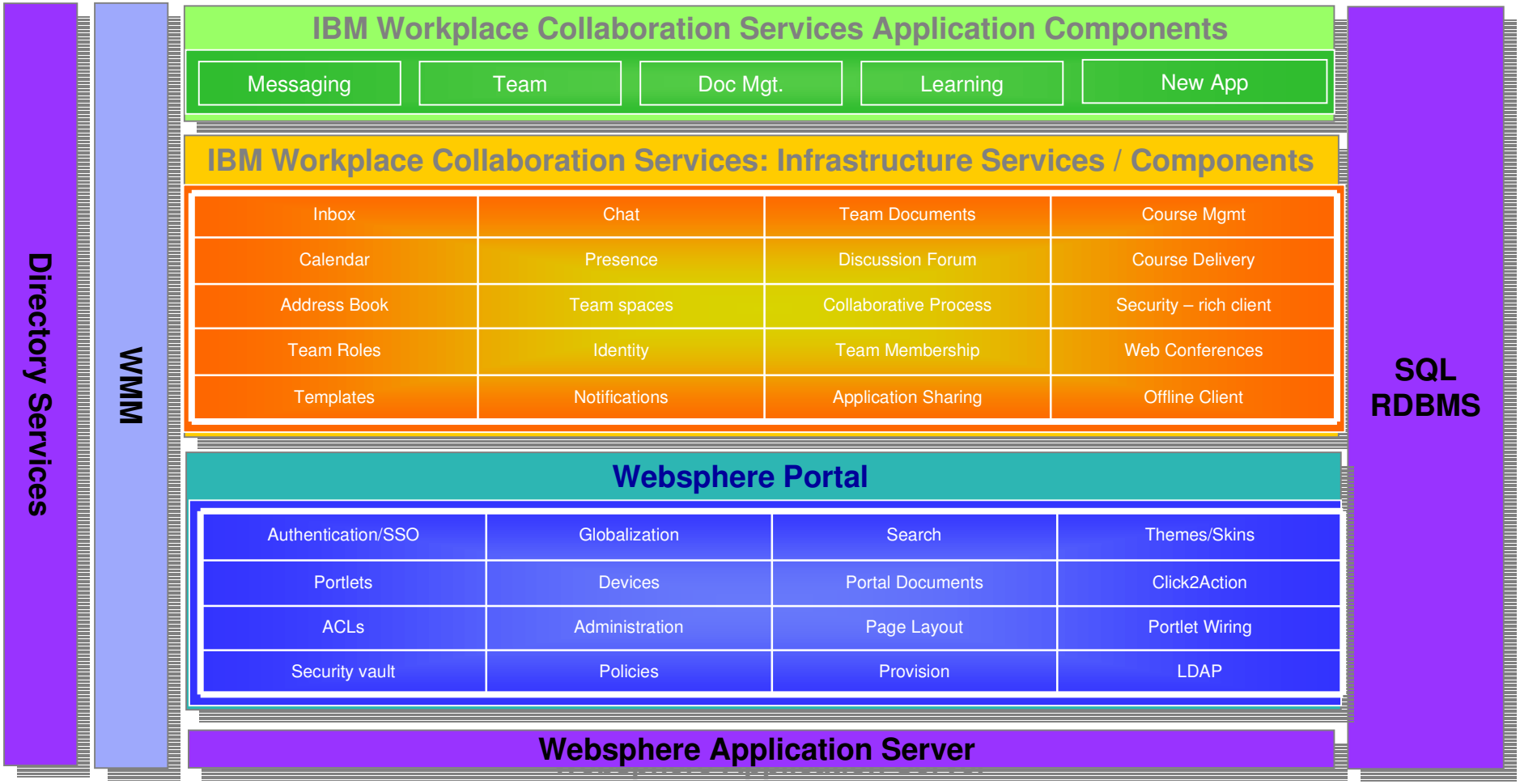
Workplace Software Stack

Workplace builds on WebSphere Portal, which in turn is based on WebSphere Application Server



IBM Workplace is…

A family of products, solutions and technologies for transforming the way people work

Only Workplace provides:

Unified, consistent access to people, resources and tools needed, in the context of a user's role -- in order to make more informed decisions, faster

IBM Workplace family includes:

- Portal technology
  - WebSphere Portal
- Collaboration tools
  - **Workplace Collaboration Services**
  - Lotus Notes & Domino
  - Sametime
- Tools & Technology
  - Workplace Templates, Workplace Designer
  - Lotus Domino Designer
  - Workplace Managed Client
  - WebSphere Everyplace Deployment (WED)
- Solutions
  - IBM Workplace for….Business Controls & Reporting, Branch Bank, etc...

Portal Technology Provides Key Integration Services

Access Based on “Who You Are”

Integration at the glass, common navigation

- Portlet based user experience
- User experience for service-oriented-architectures (SOA)

Integration of infrastructure for B2E, B2B, B2C

Content, information & application aggregation

- Domino, Microsoft Office, Web content, Custom applications, Host/Legacy applications, SAP, Siebel, PeopleSoft, Oracle, JD Edwards, etc…

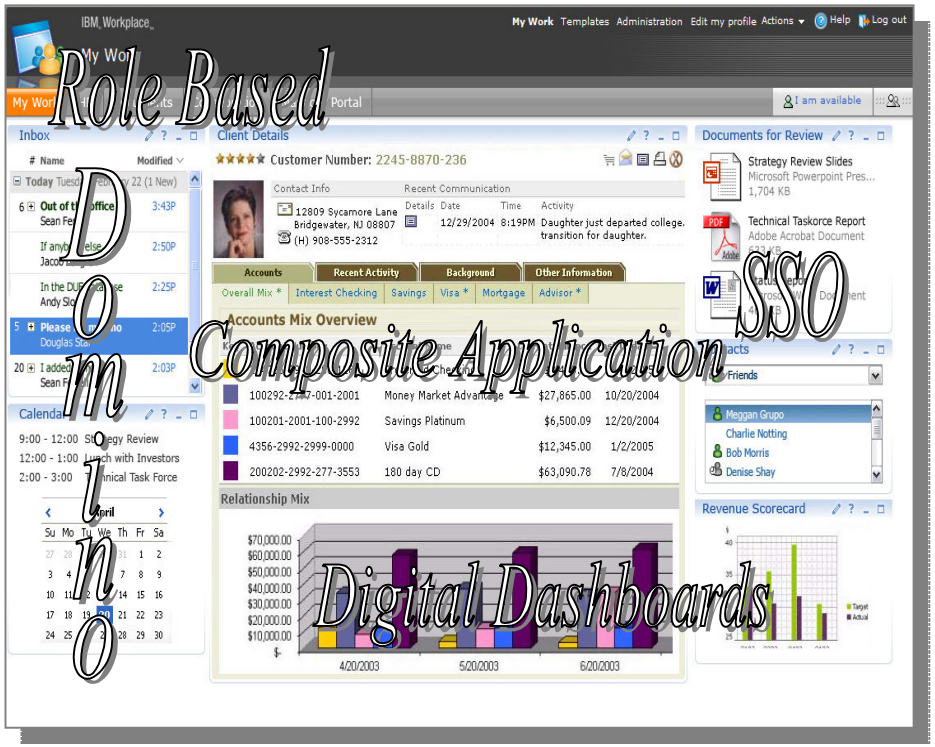
Self Service Model

Single Sign-on

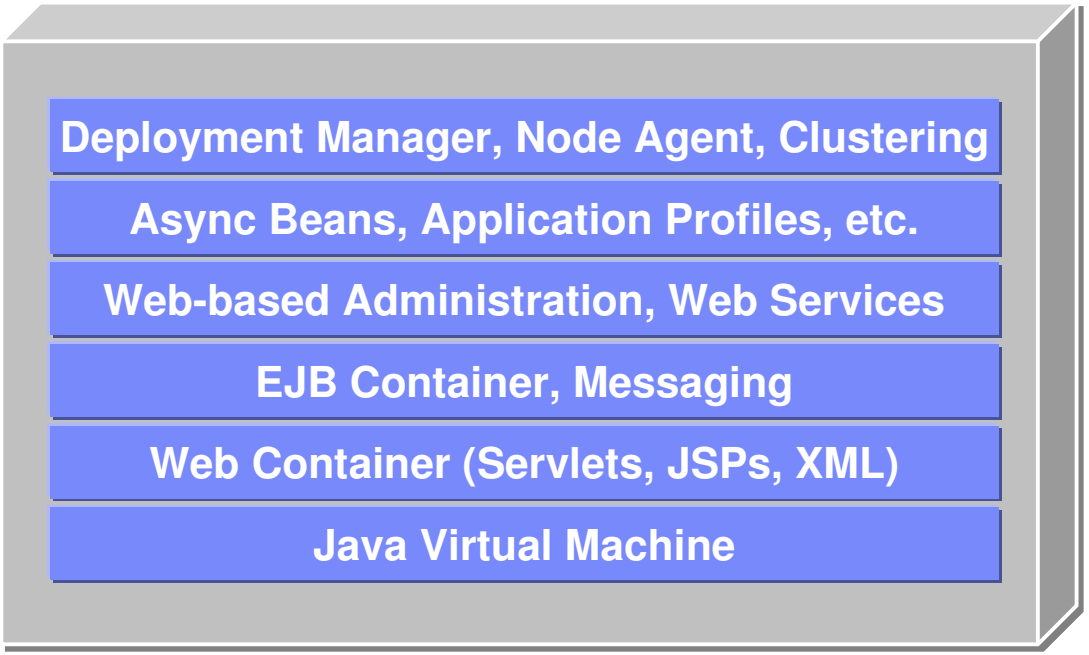
Enables Collaboration in Context

Basis for creating new composite applications

- Incorporate existing assets and create new ones



WebSphere Application Server



- Provides standards-based environment for WebSphere Portal
  - Runtime environment through Java Virtual Machine
  - Data access and logic through Enterprise Java Beans and Messaging
  - User Interface components through Servlets and Java Server Pages
  - Communication to other applications and portals through Web Services

IBM Workplace Collaboration Services Extends Portal

WCS = Out-of-the-box Collaboration

Portal = Infrastructure

WCS is composed of a set of portal-based collaboration services delivered as pre-built portlets

- **Extensible: can be customized and plugged-in into composite applications**

Tools for extending and integrating with WCS & Portal:

- WCS Templates & Lists
- IBM Workplace Designer
- Rational Application Developer (RAD)

Common programming model in next releases

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WebSphere Portal

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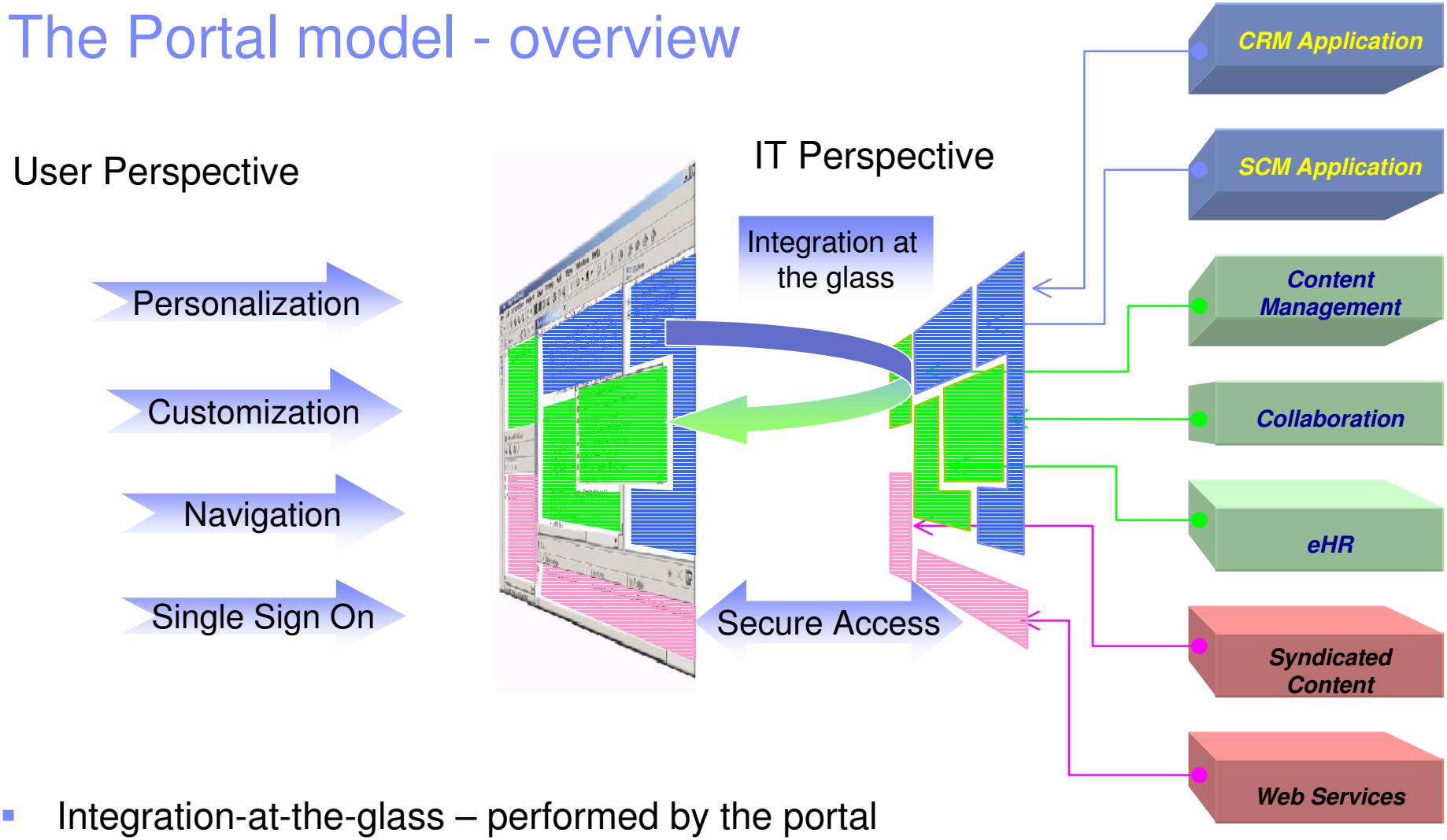
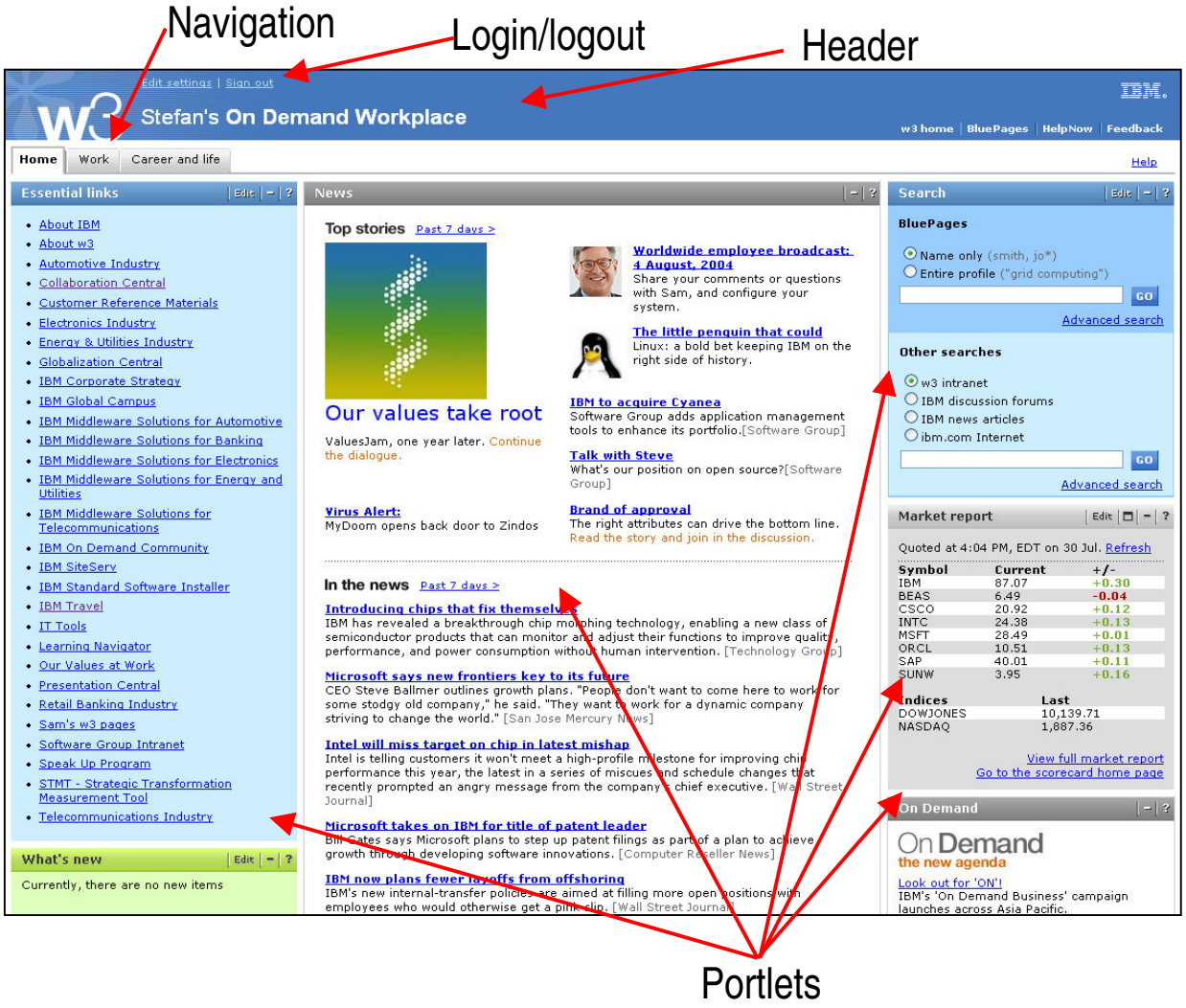
The Portal model - overview



- Integration-at-the-glass – performed by the portal
- Components may or may not work on the same backends

Portal model – portal page



- Combines application user interfaces together into one unified presentation
- User registration
- Authentication and Authorization
- Pluggable portal components: Portlets
- Personalization based on profiles
- Customization of pages by users
- Search
- Content Management
- Administrators can either lock or open up areas of the page for end users to customize

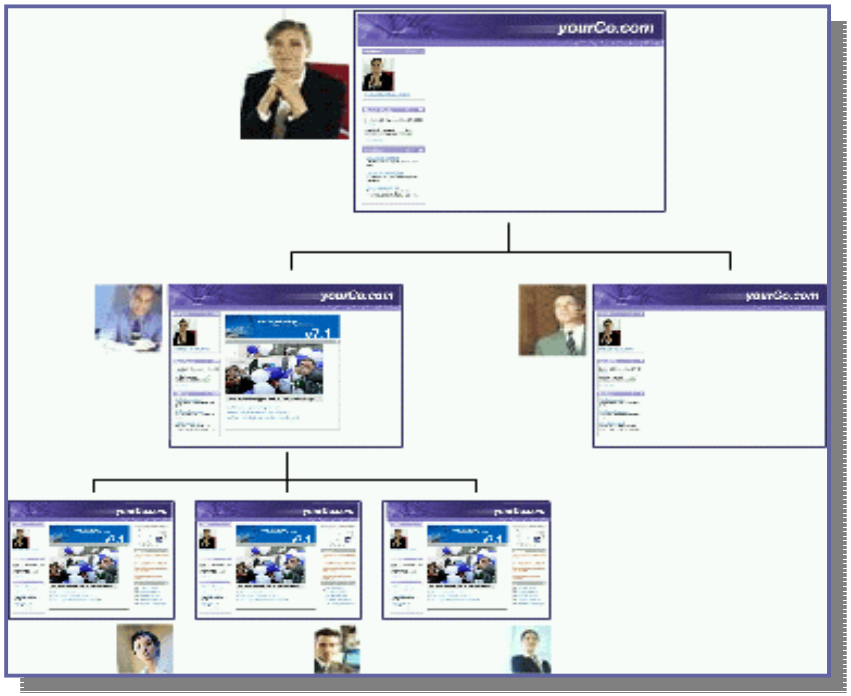
Themes and Skins

- Portal user interfaces are rebrandable by design: *Themes* and *Skins*
- Themes and skins control every element of how the page looks: colors, fonts, spacing, images, navigation, rows, columns, and portlets
- Themes and skins can be applied to any group of pages, any time
- Themes do most of the hard work for cross-browser support and accessibility e.g. through braille readers

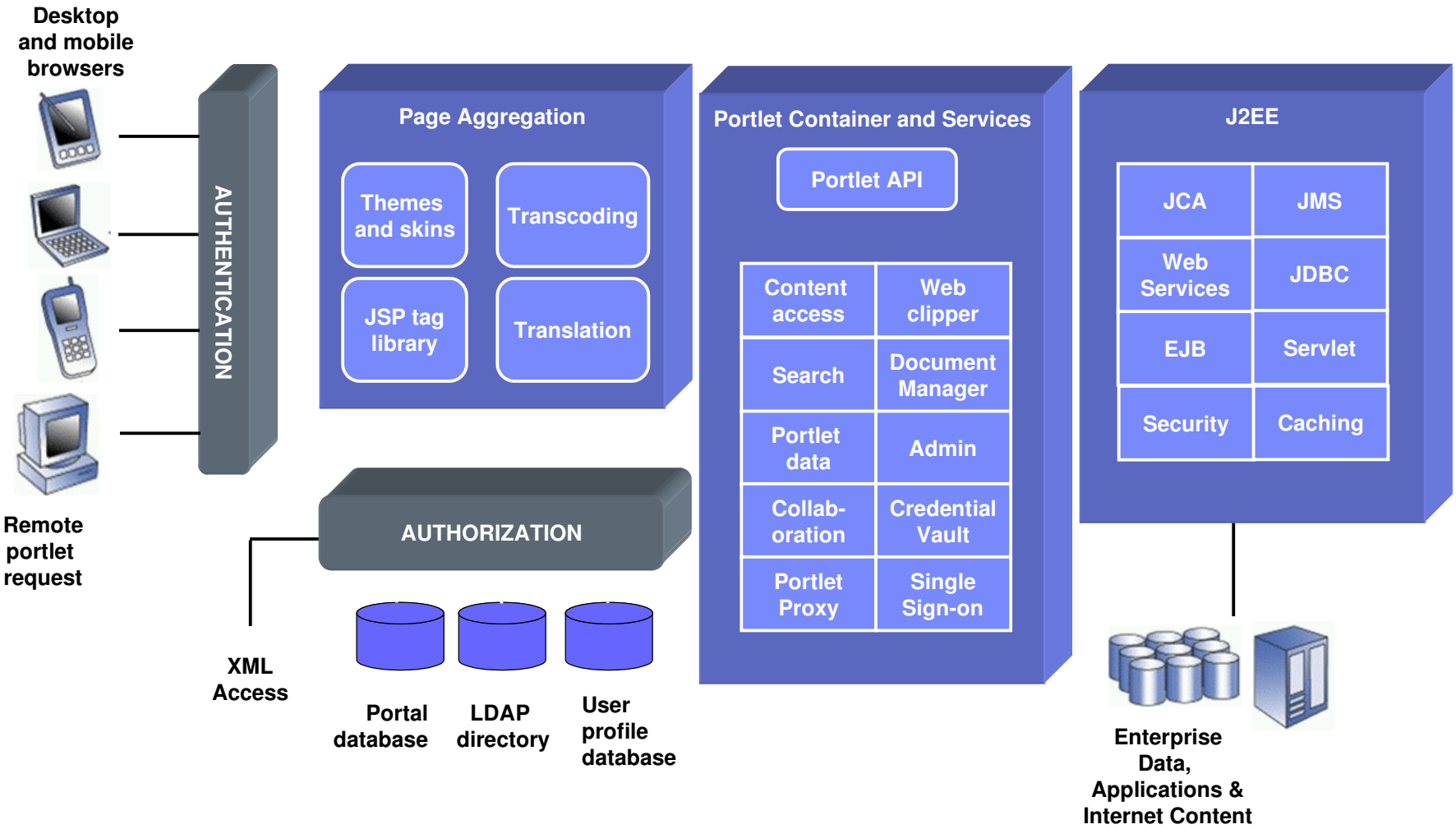
→ *You can fully customize the entire appearance and look and feel of the portal to your specific needs using custom themes and skins*

Cascading Page Definitions

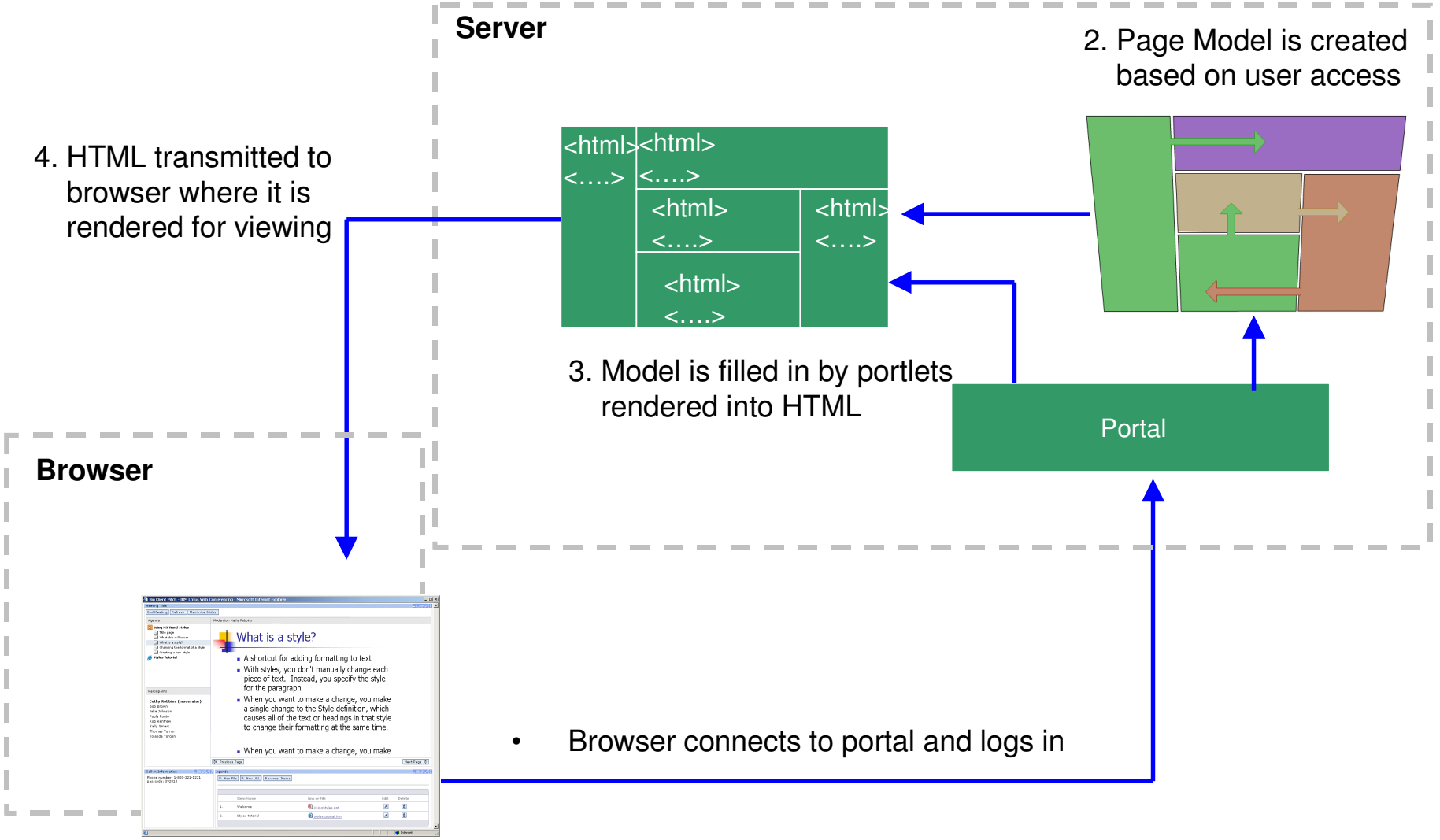
- Different administrators control different areas of the page
  - They can lock areas to prevent others from making changes
  - They can also delegate responsibility for certain areas to others
- The end user sees the aggregated result
- Future changes are propagated
- Helps organizations enforce policies and consistency, and create region specific portals with some centrally managed content



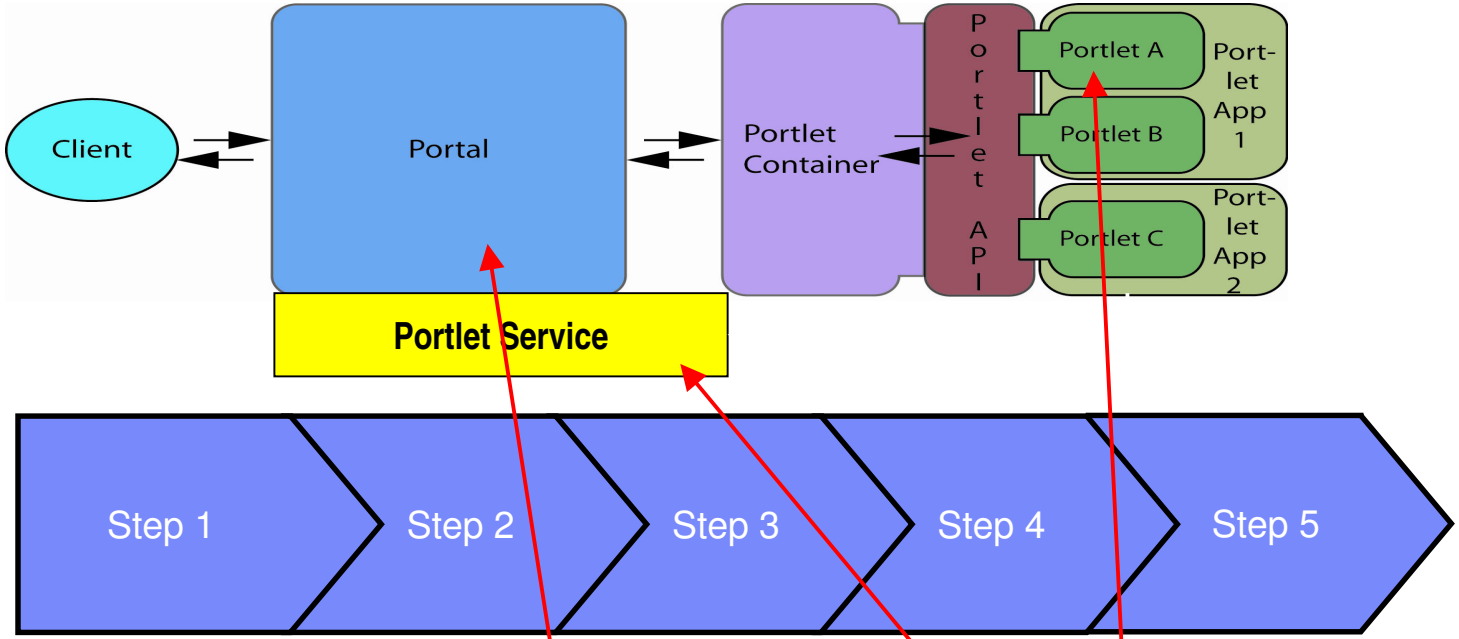
WebSphere Portal Server – High-level Architecture



Building a Page –HTML Browser



Portal plug-points



Portal servlet examines the request header

Determines the device and user information

Portal database and security settings are checked

Determines what pages and portlets the user will see

Layout system is called for the target markup

Themes and Skins define the overall look and feel, page, rows, columns and decorations

Portlet action processing

The first phase processes portlet messages and sends events to other portlets

Portlet rendering

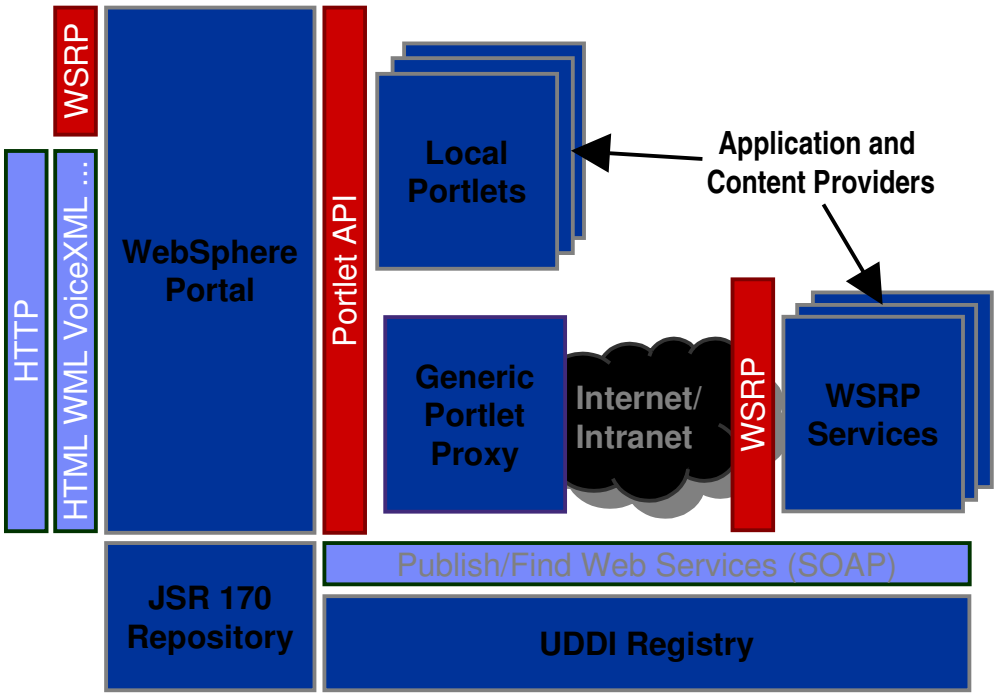
Portlets that support the target markup are included, others are omitted

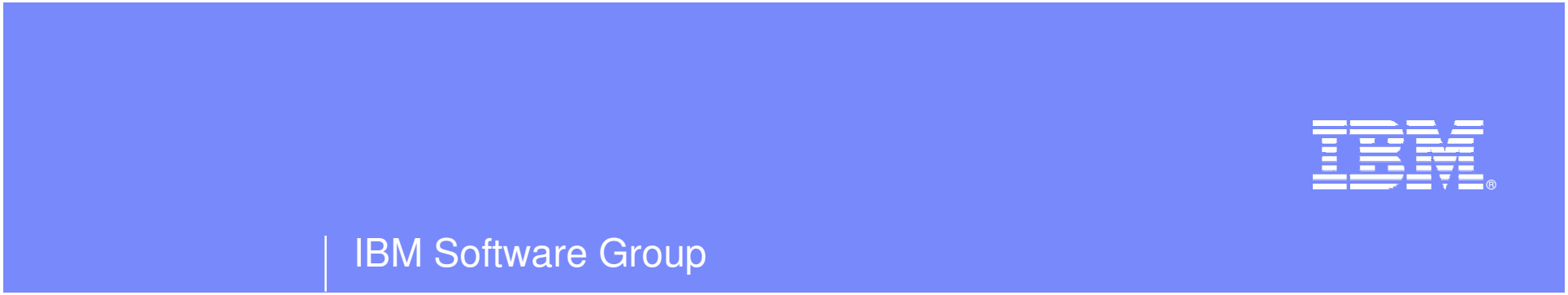
Key Portal Standards

The Java Portlet API (JSR 168) defines the API for local portlets, Spec Leads: IBM and Sun see http://jcp.org/jsr/detail/168.jsp

WSRP (Web Services for Remote Portlets) deals with visual web services in portals, IBM provides Chairman and Spec Editor, for more information see http://oasis-open.org/committees/wsrp/

JSR 170 defines a common interface for access to content management systems.





Development Tools for IBM Workplace

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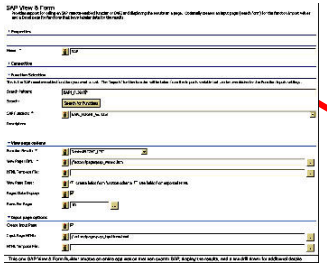
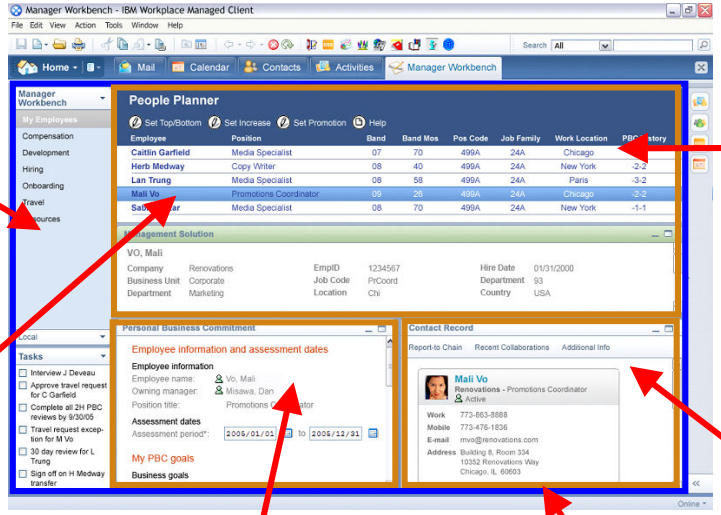
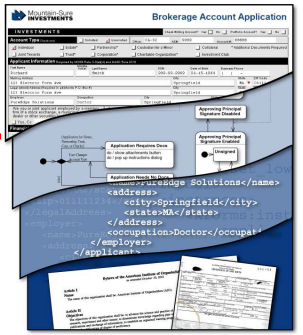
Tools for Workplace Development

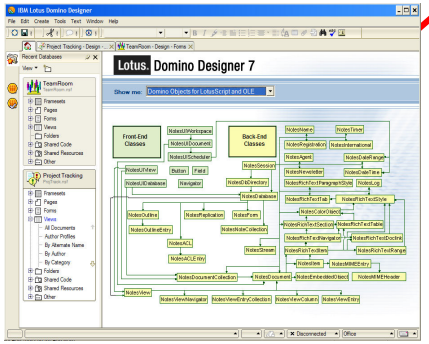


Composite built with Bowstreet Factory

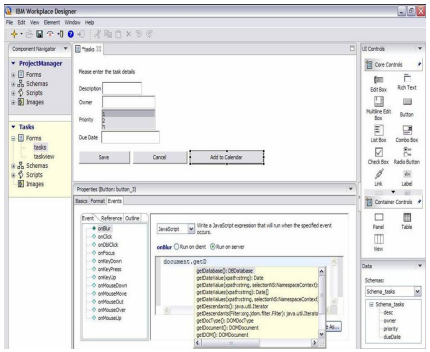




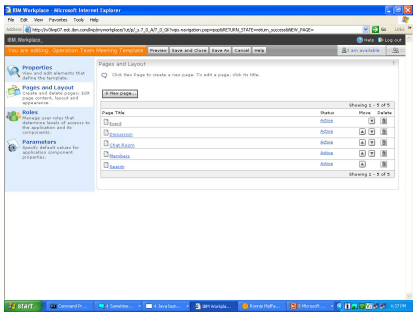
E-form built with Workplace Forms Designer



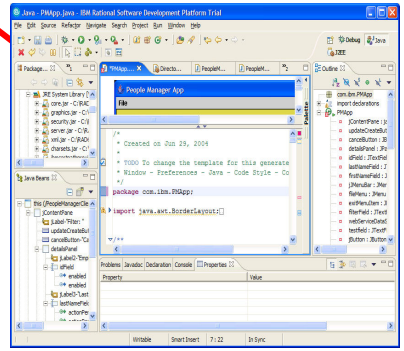
Notes app built with Domino Designer



Collaborative app built with Workplace Designer



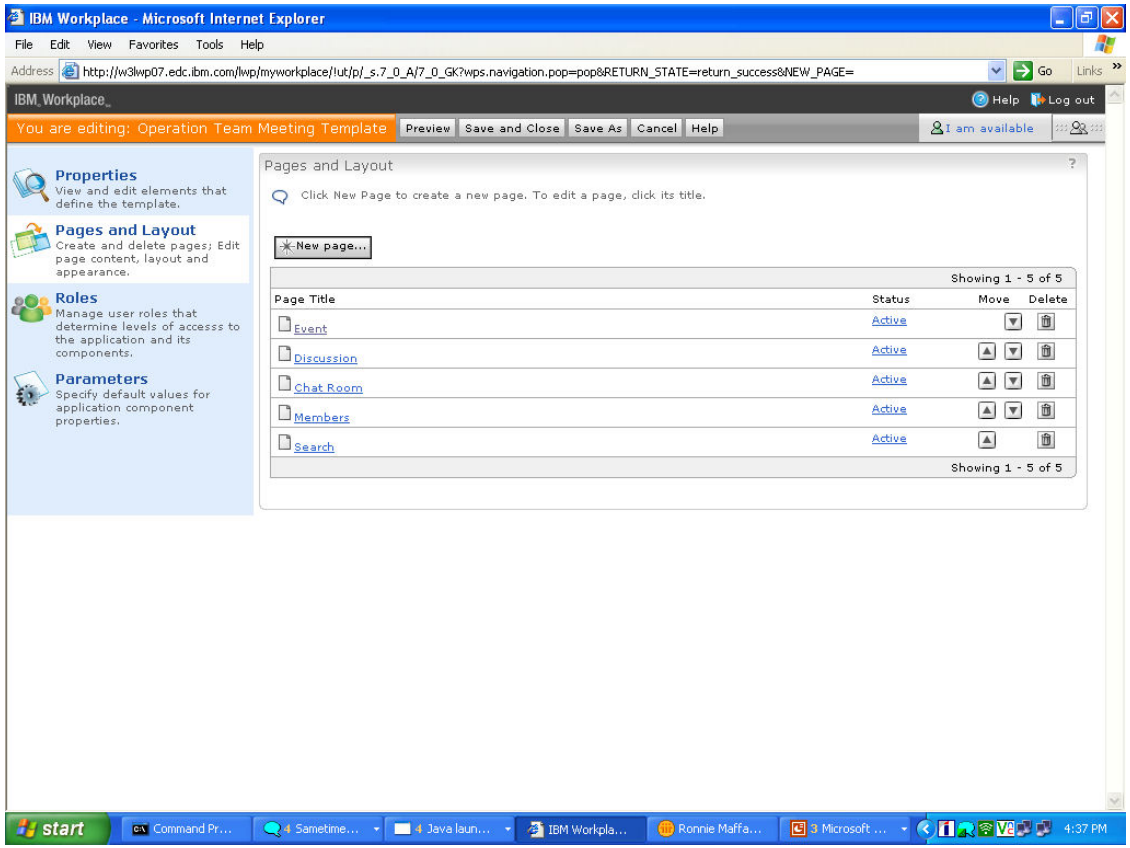
Template built with Workplace Builder



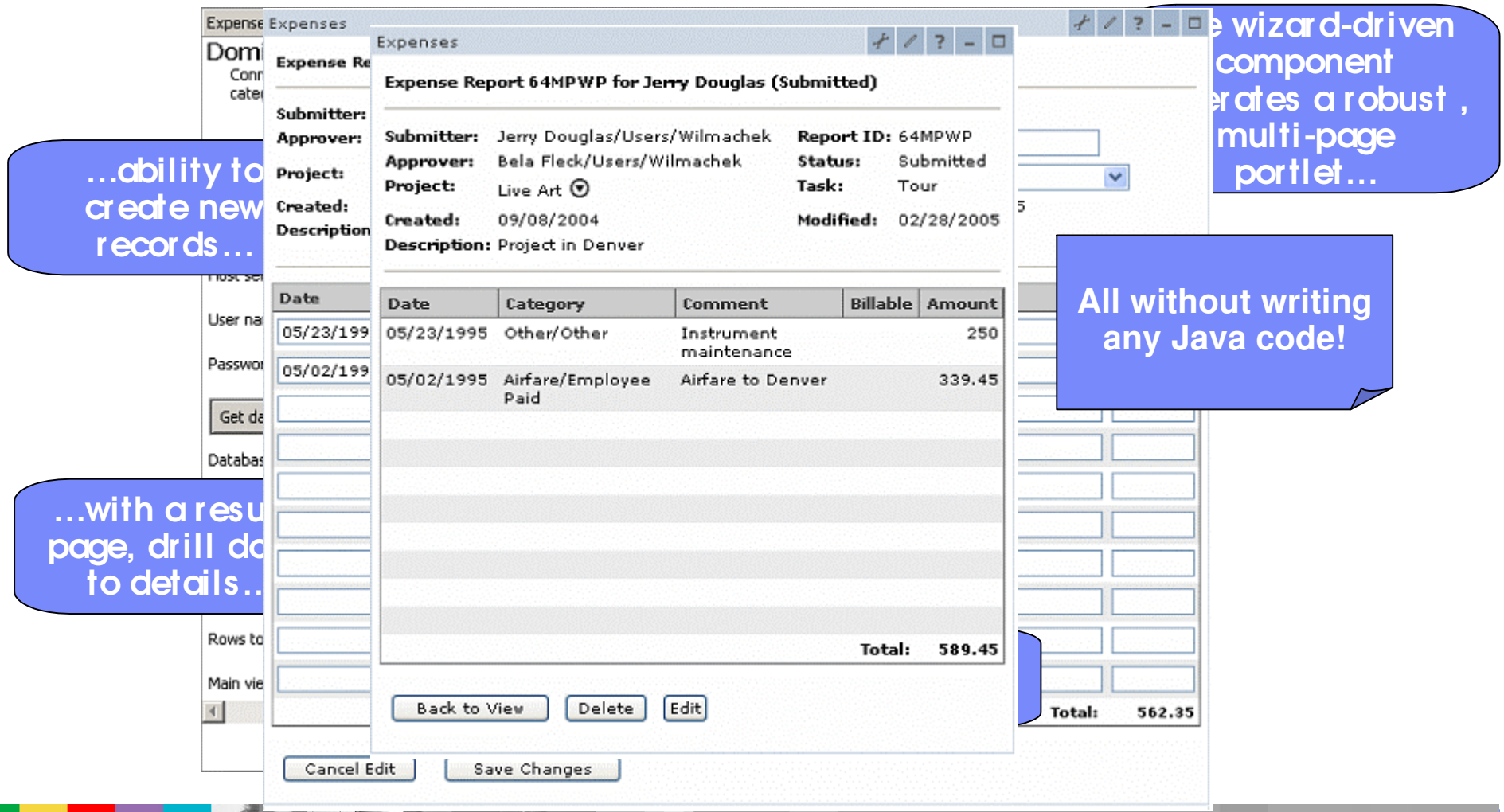
Eclipse component built with Rational RAD

Workplace Builder

- Customize and create new Workplaces, templates or forms for specific business purposes
- Self-service tool designed for business users to:
  - easily work with the Workplace templates included with a specific product
  - assign access controls
  - create new forms
  - …without having to rely on IT

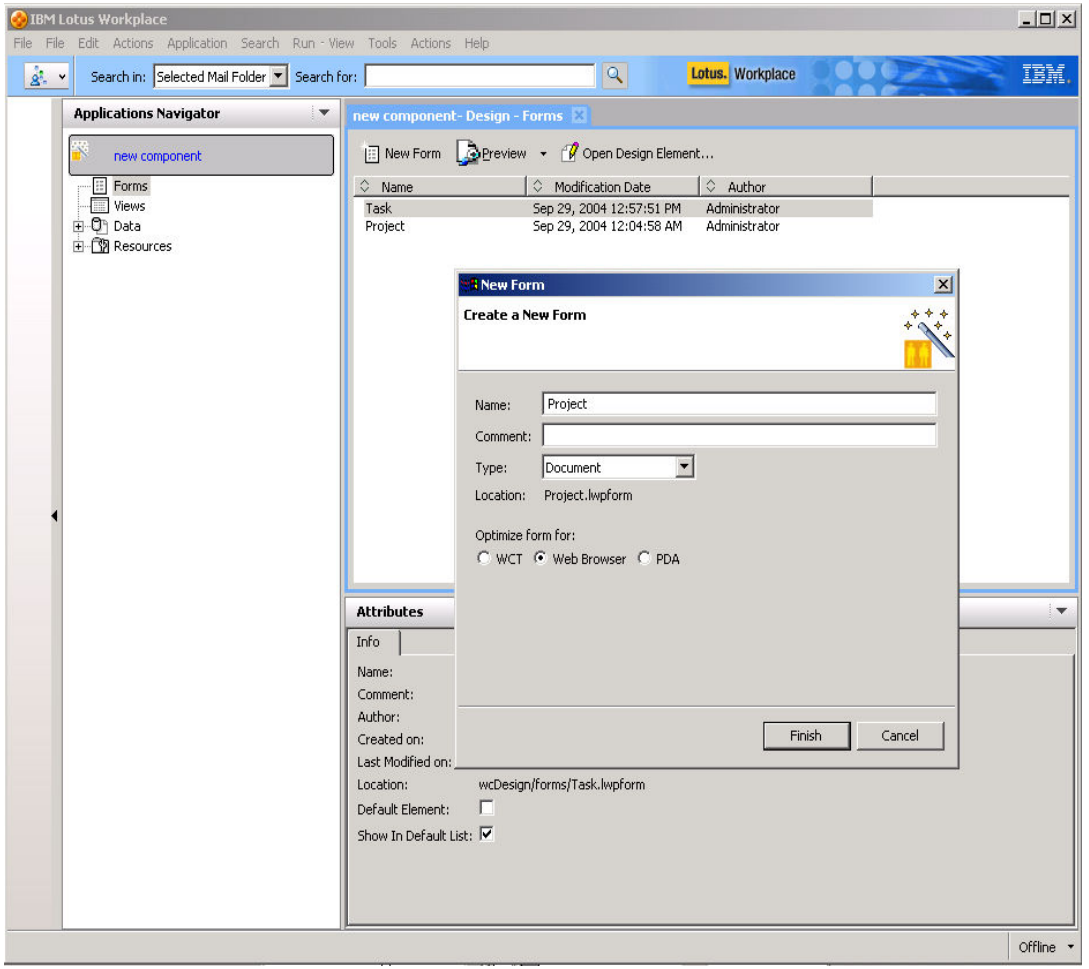


Bowstreet Portlet Factory for WebSphere



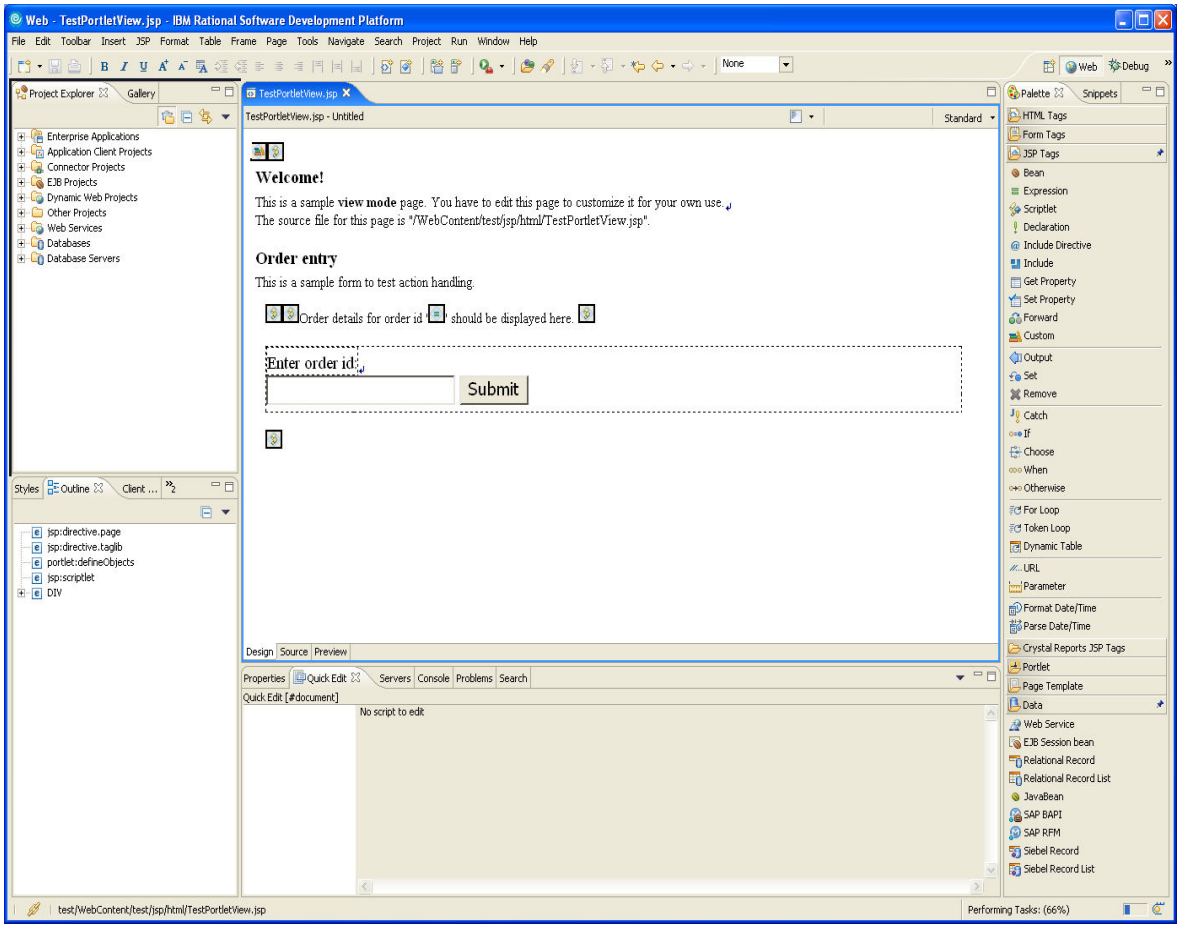
Workplace Designer

- Easy-to-use:
  - Visual development of applications and components
    - Forms, views, scripts, etc.
    - Components that Builder can assemble
- Provide path for Domino Designer and Visual Basic skilled developers
- Provide flexible path to Rational tools
  - Users can move easily to Rational tools from Designer, if desired
- Create components to render to multiple targets
  - Browser or Workplace Client



Rational Application Developer

- Current version 6.0.1 with support for portal application development
  - Struts and JSF Portlet creation
    - Support of the JWL JSF widget library with client side capabilities
  - Support major portlet programming model - Click-to-Action, People Awareness, Portlet Messaging
  - Standard Support for Portlet - JSR 168 Portlet APIs
  - Portal page and site design
  - Business portlet creation
  - …and more!



Summary

- IBM Workplace Technology
  - IBM WebSphere Application Server provides a scalable J2EE environment for use by Portal
  - WebSphere Portal provides the runtime environment for IBM Workplace
  - IBM Workplace provides applications and rich collaborative APIs to end users and programmers
- WebSphere Portal
  - WebSphere Portal offers application aggregation and a customized user experience
  - The look and feel of portal page can be customized via Themes and Skins
  - The content of portal pages can be customized via portlets.
- Development Tools
  - There is a wide assortment of development tools for IBM Workplace products
  - Workplace Builder allows business users to create applications through visual programming
  - Workplace Designer supports scripting and visual programming to create components
  - Rational Application Designer provides support for portlet programming and more

- Please use this information to contact me:
- Scott Nicklous
- email nick@de.ibm.com

More Information

Useful Links and Resources

www.software.ibm.com/websphere	▪ WebSphere Portal product information ▪ Latest Info Center ▪ White Papers
www.redbooks.ibm.com	▪ In-depth, how-to books
www7b.software.ibm.com/wsdd	▪ WebSphere Developer's Domain ▪ Best practices for WebSphere applications
www.ibm.com/developerworks	▪ Technical information written by developers for developers ▪ Over 80 technical articles about portal alone
www.sys-con.com/websphere	▪ Monthly technical journal about WebSphere