





IBM WebSphere® Portal 6 -Technical Overview

Your Name

Your Title



- § Architecture
- § Administrator and User Productivity
- § Site Owner Productivity
- § Content Author Productivity
- § Developer Productivity
- § Operator Productivity





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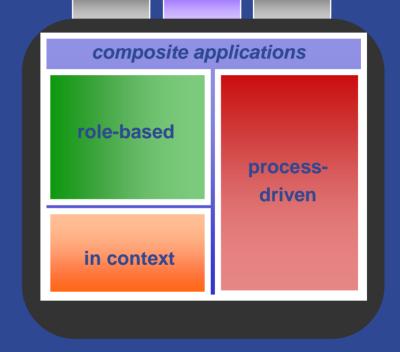
Dynamically Delivered Based on Choice







Mobile Clients



Openness Critical enabler:

Security-Rich Composite application or view, that assembles and delivers services in the form of portlets in the context of a business process

Standards based access to integration and innovation



Building Standard Based Composites

JSR 168

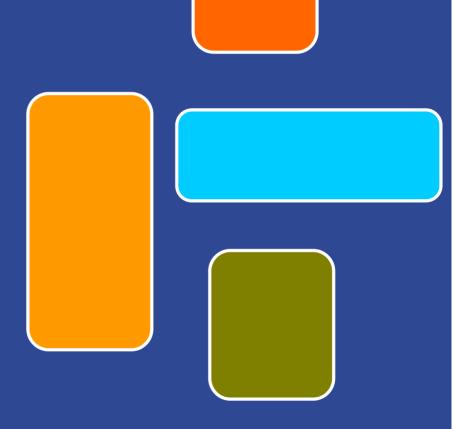
- § Standard portlet API
- § J2EE platform interoperability

Web Services

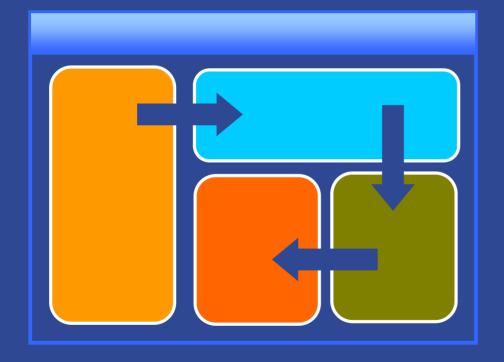
- § Data-oriented
- § Presentation-oriented
 (WSRP)







Composition "at the glass"



Orchestration

- § Business Process Integration
- § Business User Workflow
- § Property Broker

"Integration"



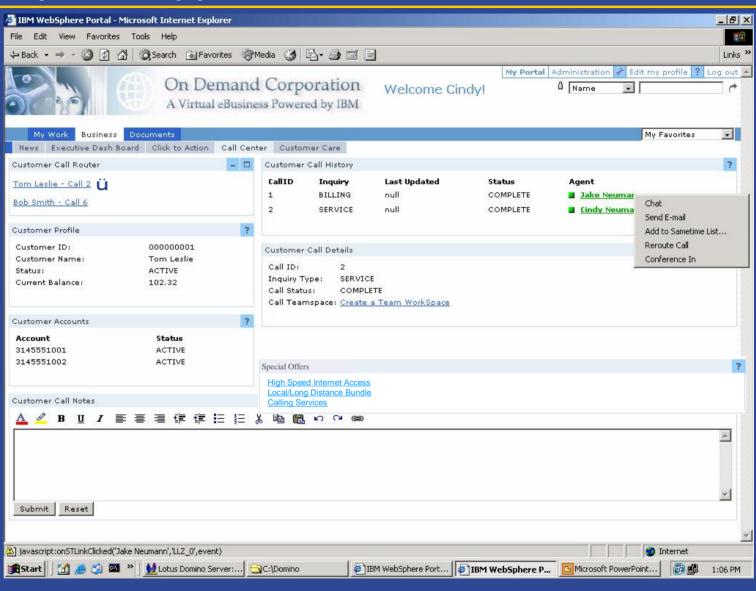
A Sample Composite Application

Info from call Router portlet can populate the call center employee's desktop

People awareness allows chatting with customer service reps that helped the customer in the past

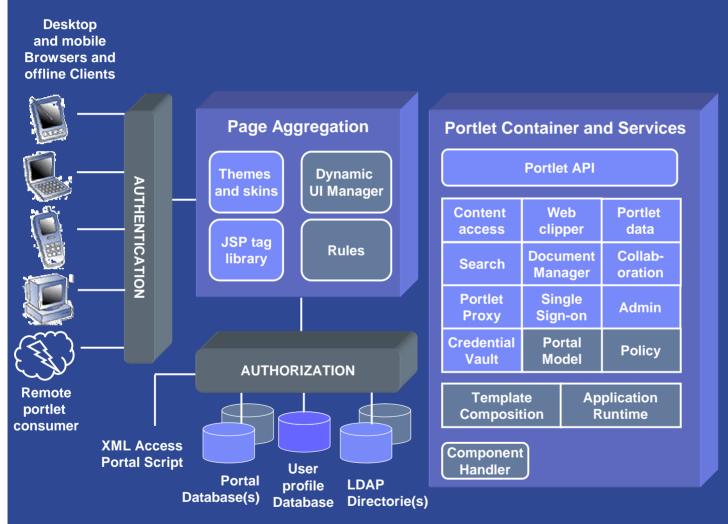
People tag can be extended with application specific capabilities such as re-routing the call

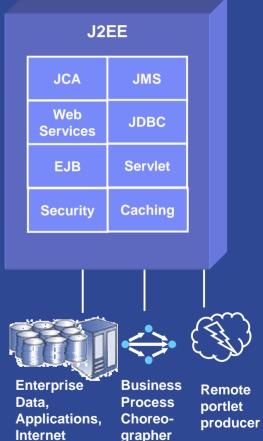
Productivity is improved by integrated disparate applications and allowing focus to remain in the app vs. navigating to the buddy list portlet





Architecture Overview WebSphere Portal V6





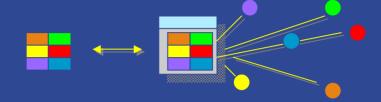


Lotus.

Aggregation

§ Web Services

UIs generation runs in one JVM, but logic runs in a variety of JVMs



SWSRP

- 4 Invoke services from anywhere
- **4** Some security issues with some partners



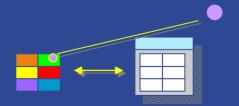
§ AJAH

Serve up UI structure from the portal, but retrieve the complete portlet UI from anywhere



§ AJAX

Serve up UI structure and portlet from the portal and the data from anywhere





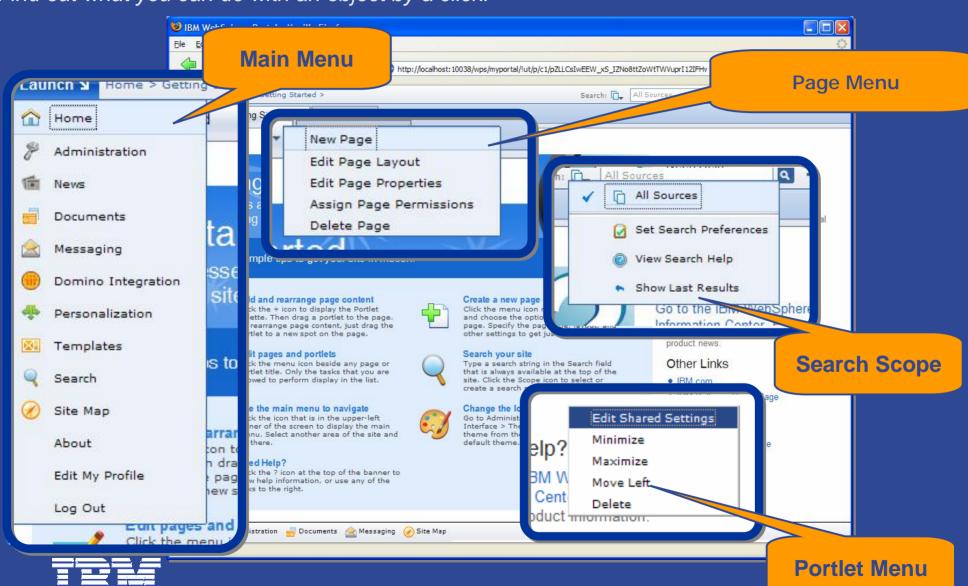
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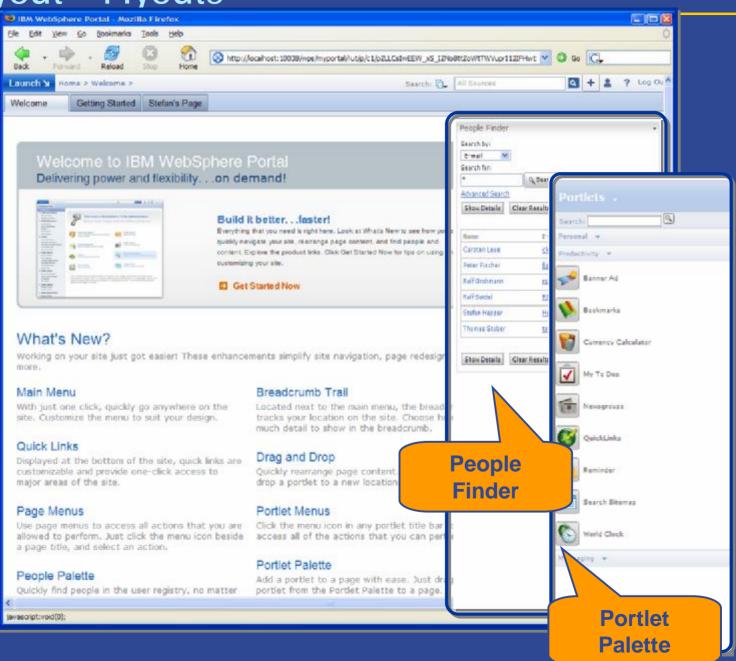
Contextual Menus

Find out what you can do with an object by a click!



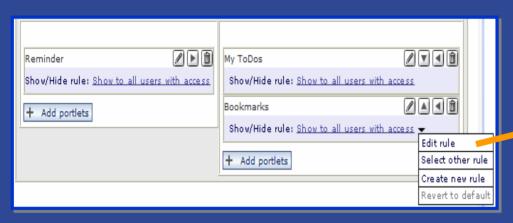
New Page Layout - Flyouts

WebSphere Portal
provides
everything
needed to
effectively
build,
customize and
manage a
portal solution.
In the new release
access to
these
capabilities is
just easy.





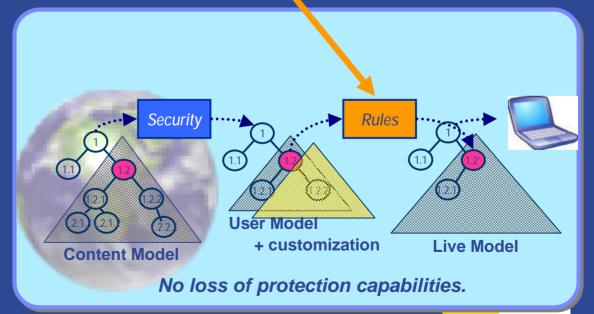
Attribute Based Administration - Dynamic Aggregation



Allow administrators to use personalization rules to determine what pages and portlets are shown.

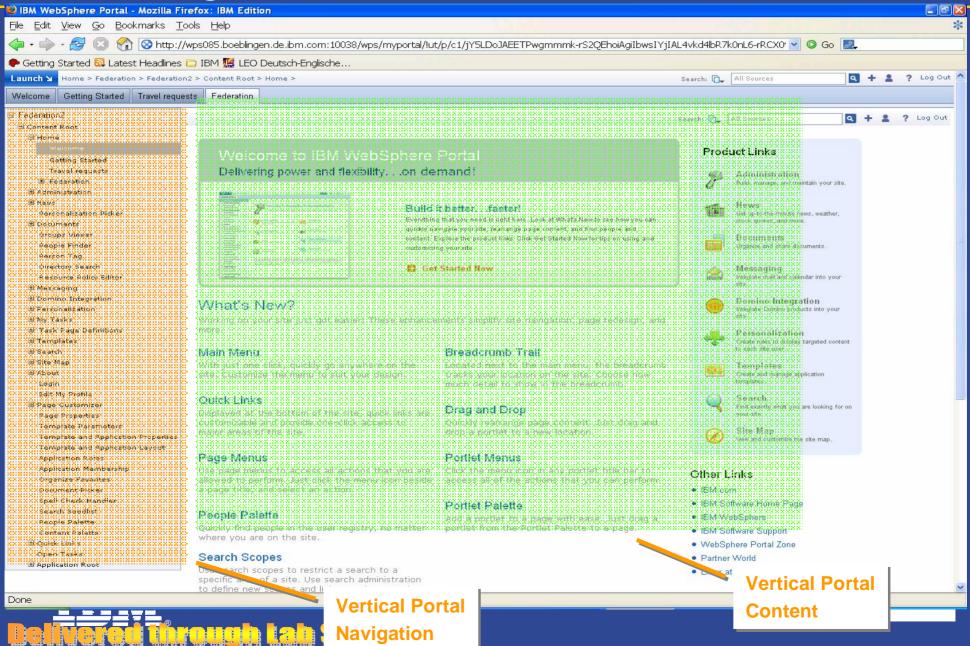
Enables decisions on user attributes and other factors (such as time of day or virtually any attributes you define objects for)

Access control still determines what rights the users have (edit, config, etc)





Portal Navigation Federation

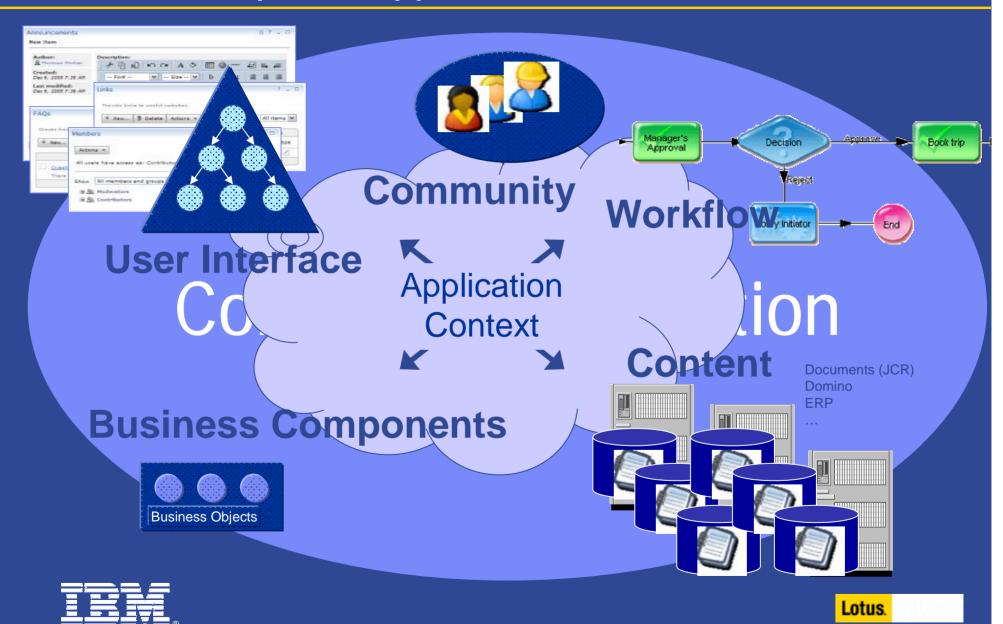


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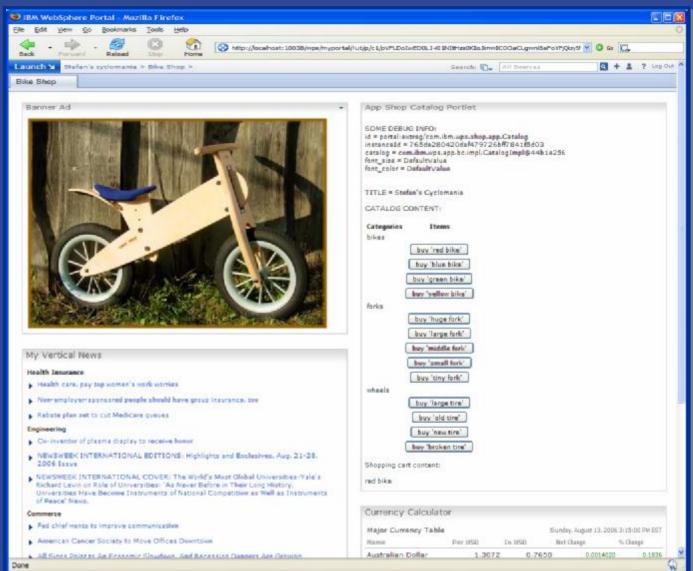




What are Composite Applications?



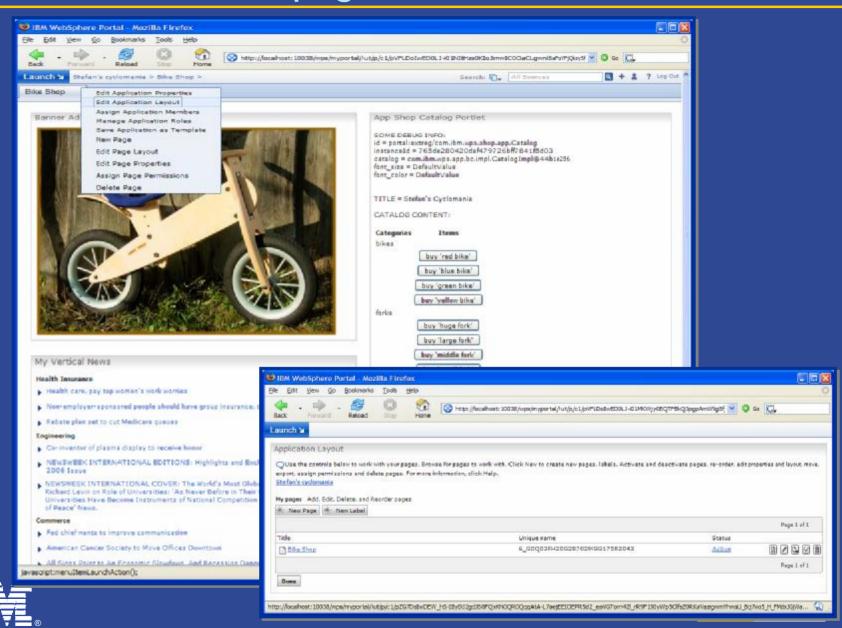
My Little Bike Shop...





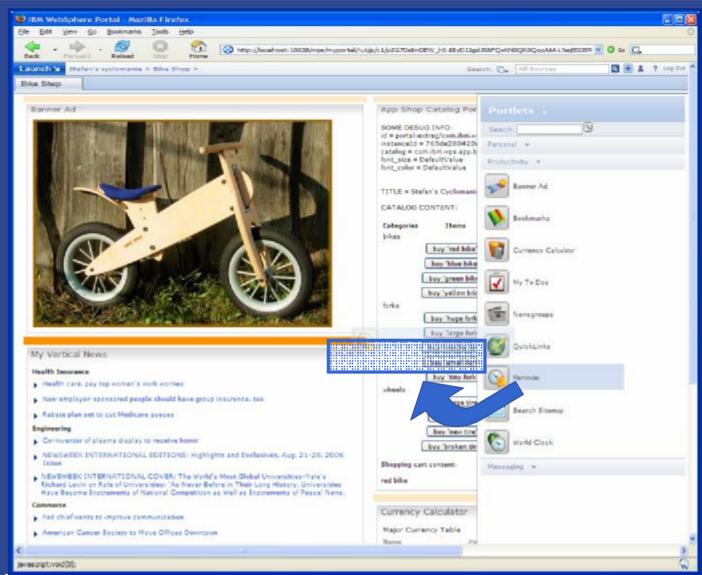
...can have one or more pages...

layout



... with Portlets....

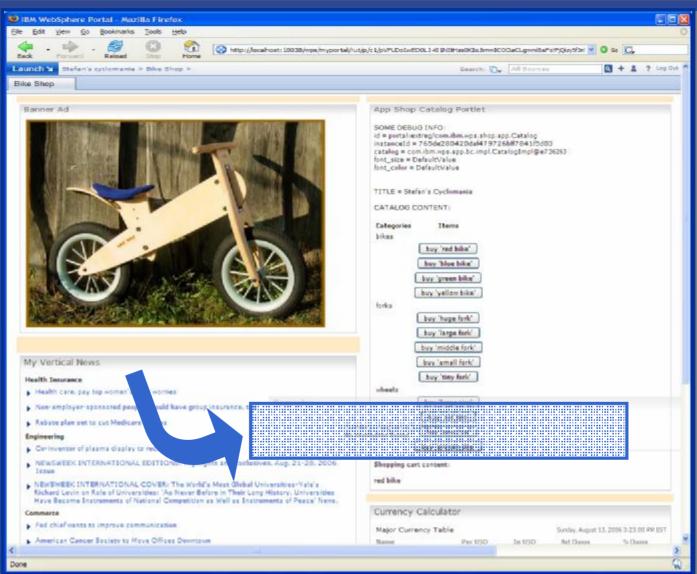
Portlet Palette





... where we like them.

Drag&Drop





And we allow others to reuse what we have created...

Templates BM WebSphere Portal - Mozilla Firefox File Edit View Go Bookmarks Tools Help Nttp://localhost:10038/wps/myportal/lut/p/c1/pZDLDo8wEEU_adraQLcV58EM4qLlsTENEt9EisEis499b4spFt 💌 Home 4 # 2 7 Log Out Lapunch Y Stefan's cyclomania > Bike Shap > Search: D. All Saurces Bike Shop **Edit Application Properties** Edit Application Lavour Assign Application Members Banner Ad App Shop Catalog Portlet Manage Application Roles SOME DEBUG INFO: id = portal extreg/com.ibm.wps.shop.app.Catalog instanceId = 765de280420daf479726bff7841f5d03 Edit Page Layout catalog = com.ibm.wps.app.bc.impl.CatalogImpl@536ce3B1 fone_size = DefaultValue font_color = DefaultValue Assign Page Permissions TITLE = Stefan's Cyclomania CATALOG CONTENT: Q + 2 ? Log Out Launch > Templates > Template Library > Search: 1 All Sources Welcome Template Library Application Library Application Template Library *New... Import... Show: All application templates > Page 1 of 1 Owner Status wosadmin Composite Applications August 14, 2006 2:38:00 PM GMT+02:00 unlocked Advanced Bike Shop -**Edit Template Properties** Generic Bike Shop 7 Composite Applications August 13, 2006 9:48:04 PM GMT+02:00 unlocked Edit Template Layout Improved Bike Shop admin Composite Applications August 14, 2006 11:26:08 AM GMT+02:00 unlocked Edit Template Parameters admin Composite Applications August 14, 2006 6:44:05 PM GMT+02:00 unlocked My Template + Manage Roles Portal Blank Templat admin Composite Applications July 20, 2006 2:29:25 AM GMT+02:00 unlocked Export Template Page 1 of 1 Delete Template Assign Template Permissions Administration 🛁 Documents Messaging | Site Map Lotus

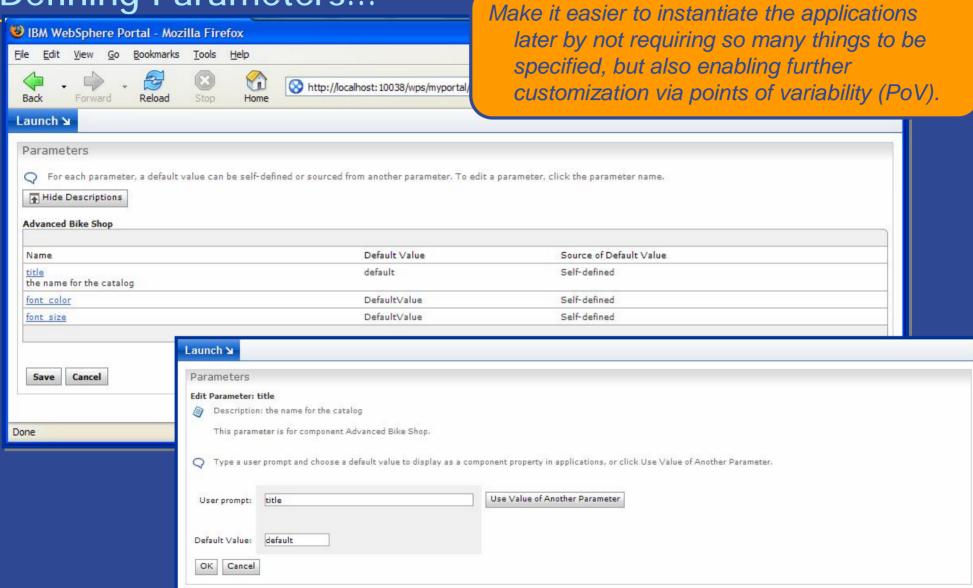
Templates and Applications

Application Instance(s) **PoVs Application** Instance Application Application Context Application Context **Template** Application Porta Community Portal Objects Instantiation Serialization **Business Objects** Template XML **Business Objects**

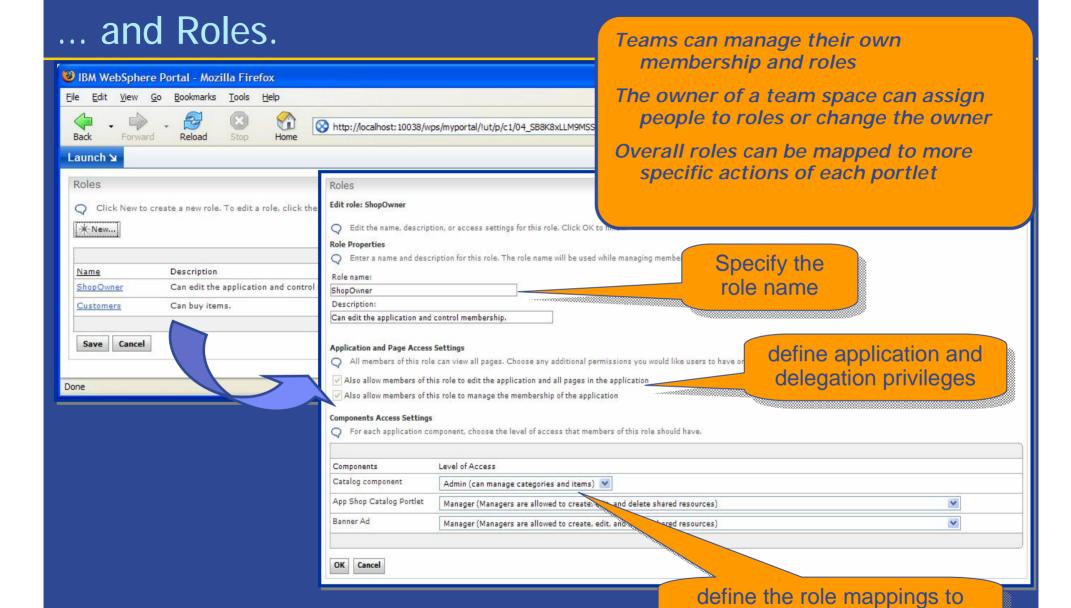
- contains the blue print to easily create another instance of that application
- describes visual and non-visual business components and their relationships
- allows for points of variability to be filled out during instantiation



Defining Parameters...

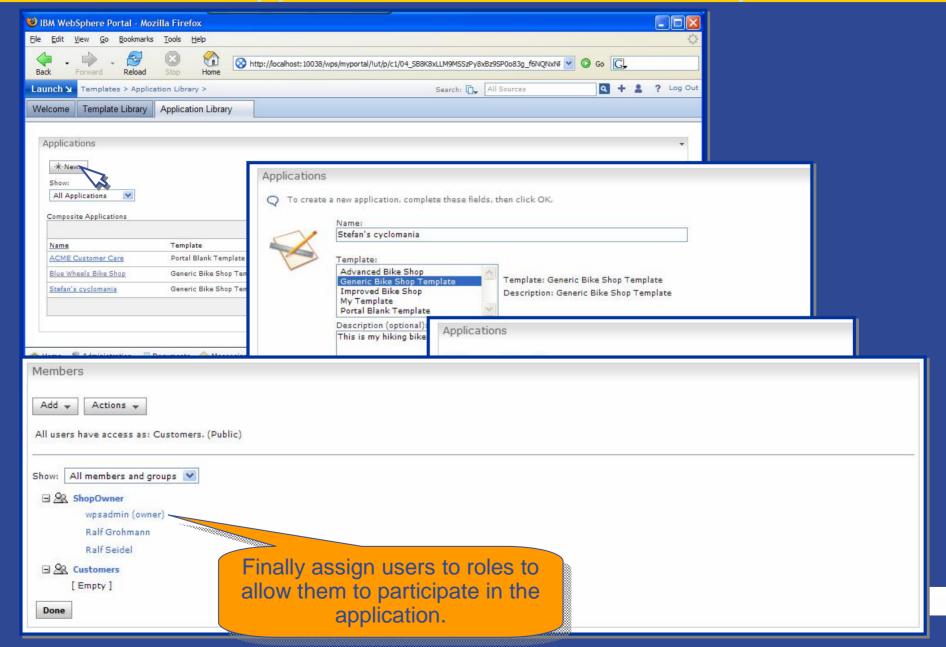




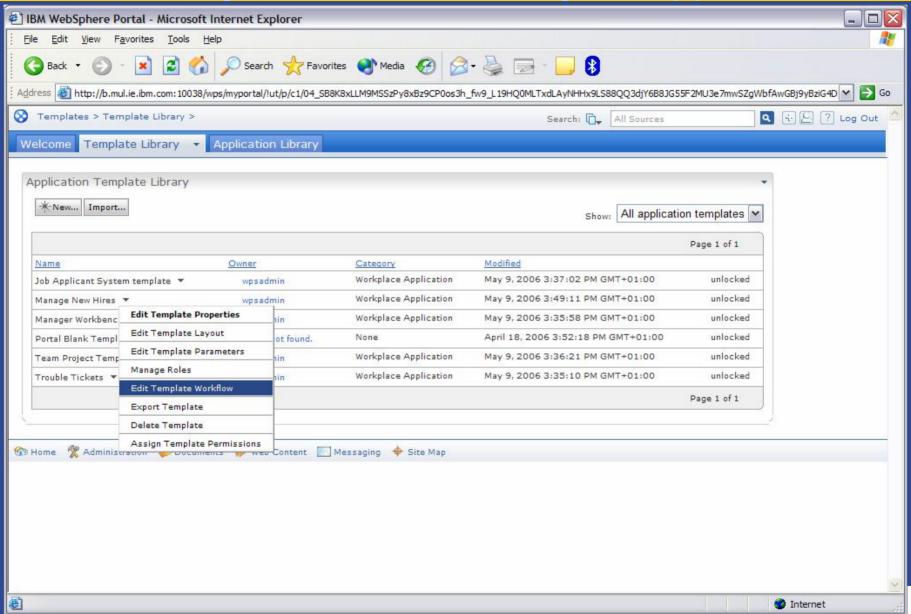


the individual component roles

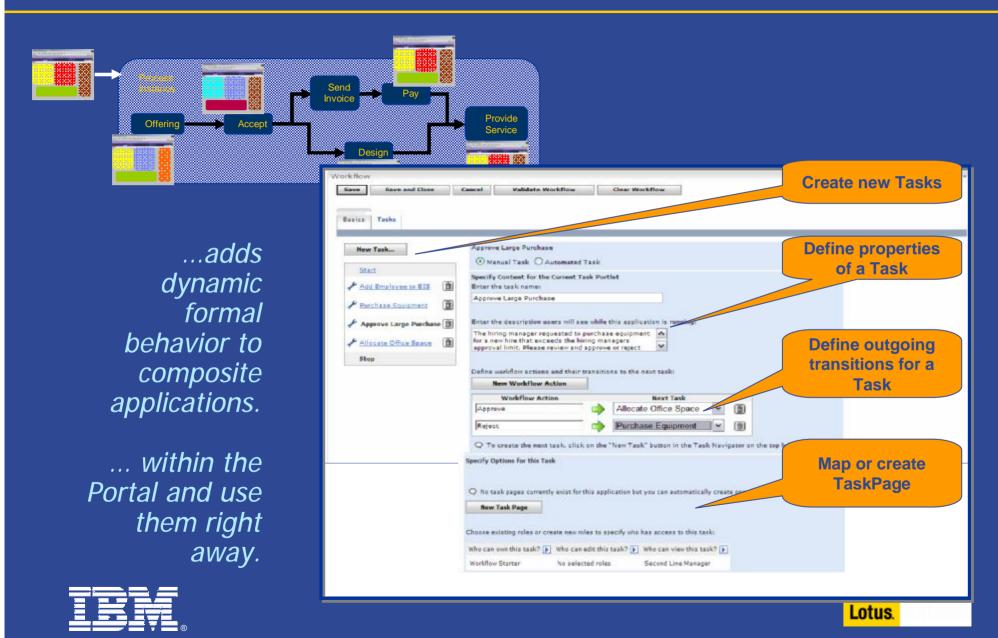
Create a new Application based on this template...



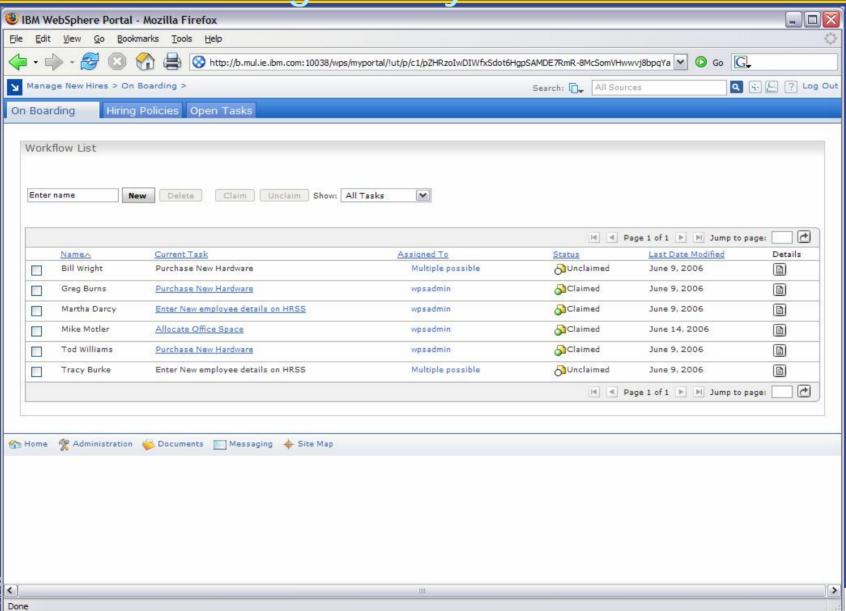
You can add dynamic behavior to your Application...



Define workflows...

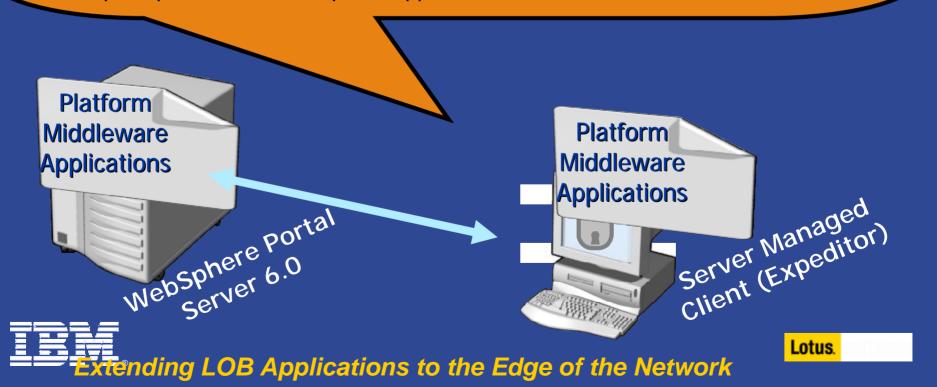


...and use them right away.



Composite Application Provisioning to Portal Client

- § Composite Applications are stored in a application catalog on the server
 - § Composite Applications are assembled from components
- § User installs core package (Network Client Installer) through a CD or from Portal
- § Core package then installs Expeditor client
- § Portal client installs apps based upon account preferences and user authorization
- § Eclipse update is used to update applications over time



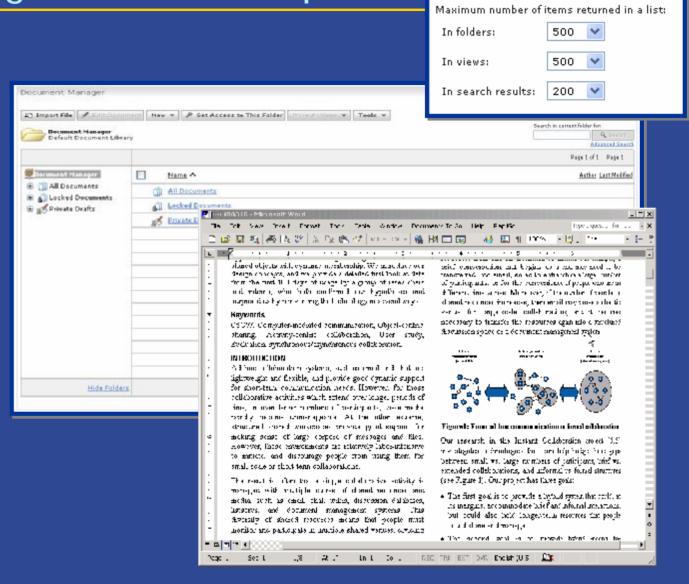
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Document Management - Web Experience

View, Add, Delete, and Modify documents and folders Control Access on folders and documents Version documents Approve changes Search folders and documents People awareness and notifications Seamless integration with native applications including Office Based on common data model and API delivered with JCR Integrated with Web Content Manager and Personalization Improved search Improved administration





Document Management - Desktop Integration

Desktop Integration appears under "My Network Places" and Office.

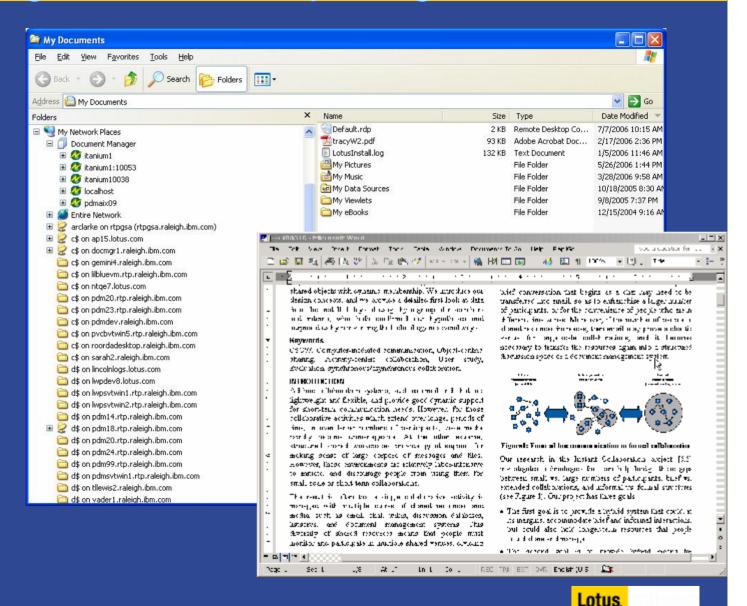
Users can work with Portal Managed documents like they were local files.

The files really reside on the server.

End users can connect to both WCS 2.x and Portal 6.0 servers

Supports multiple servers & libraries.

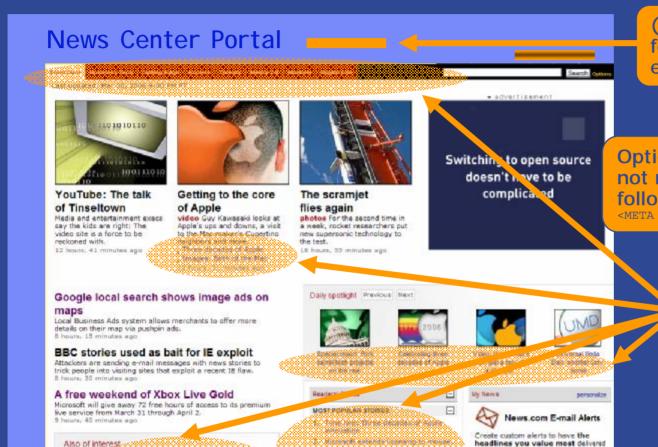
Can create/manipulate documents and folder like in the portlet.







A crawlable WebSphere Portal 6.0 Portal Site



Track the news by company, topic or keyword, and see your headlines matching headlines here, and on My

(Hidden) optional Sitemap for the crawler to efficiently crawl all pages

Optional robot directives to not require the crawler to follow links on the portal pages.
<META name="robots" value="noindex, follow">

URLs normalized (for a crawler)



Blogma: Farcot TV error be becaded for over hoods

Podcast: Tech business and the B.C. Ecobust gain

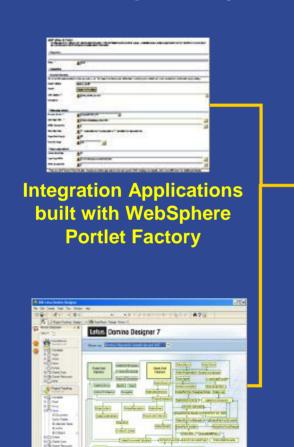
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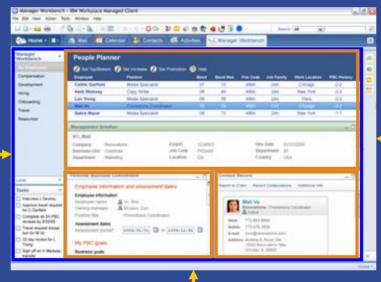
Building New Components

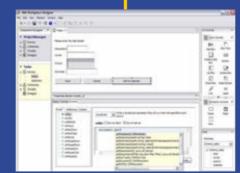
Components can be built with a variety of tools, and developer skills. Components can be built independently from assembly (composite).



Notes applications built with Domino Designer



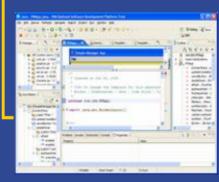




Collaborative applications built with Lotus Component Designer



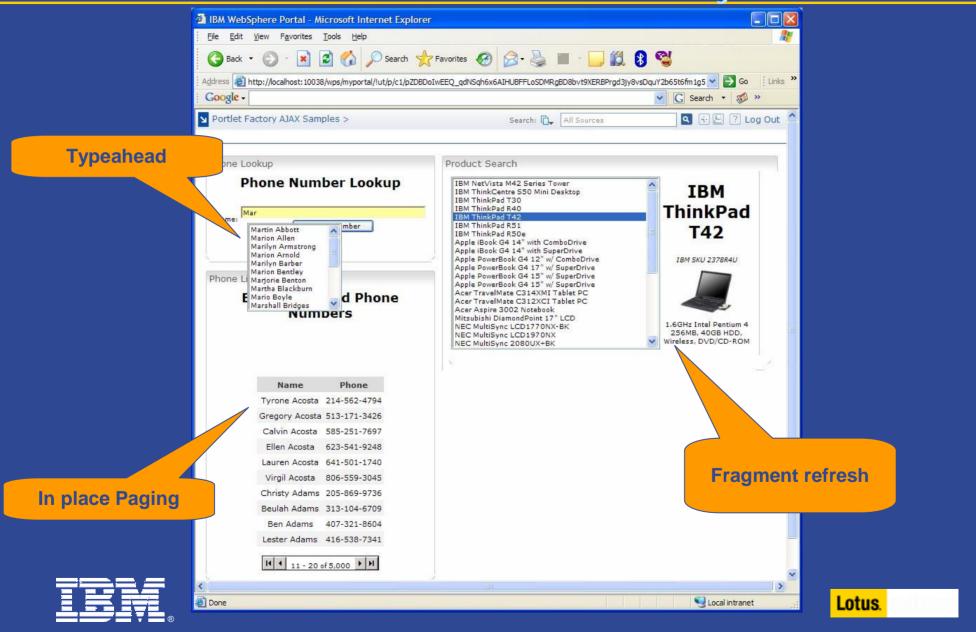
E-form built with Workplace Forms Designer



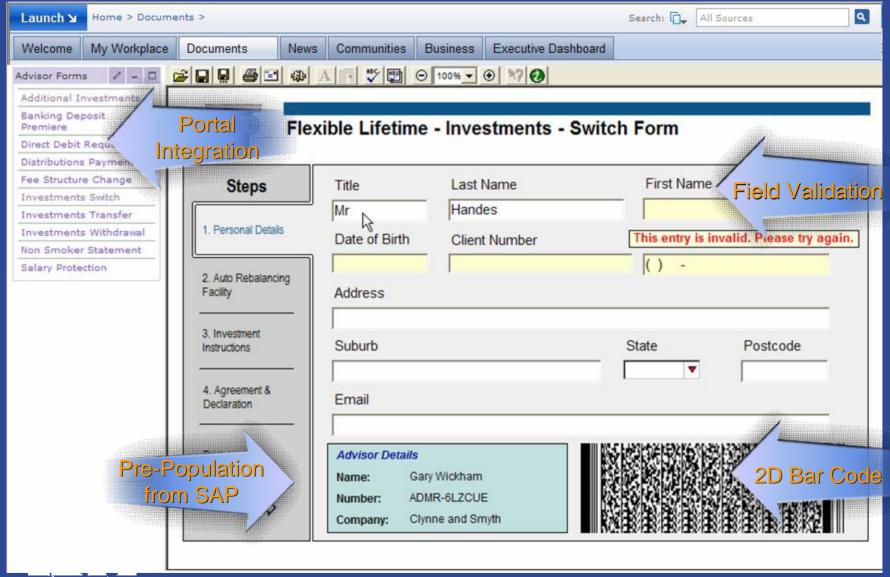
Portlet application built with Rational Application Developer

Lotus.

AJAX enabled Portlets with Portlet Factory



Workplace Forms Integrated with Portal





WebSphere Portal 6.0 Programming - New APIs

- § Support for Templateable Composite Applications
 - 4 Business Component APIs (templatable applications)
- § Extension Points (Eclipse)
 - 4 Themes and Skins with extension points
- § New and enhanced public APIs
 - 4 Content API
 - 4 Search API
 - 4 Policy API
 - 4 Edit Default Mode for Portlets
 - Workflow APIs (binder)
 - 4 Task management with WebSphere Process Server (HumanTaskManagerDelegate)
- § New and enhanced public SPIs
 - 4 Meta Data SPI (e.g. Page Meta Data)
 - 4 URL Generation SPI and State managent SPI
 - 4 Drag and Drop SPI
- § and much more....



Portlet API consolidation

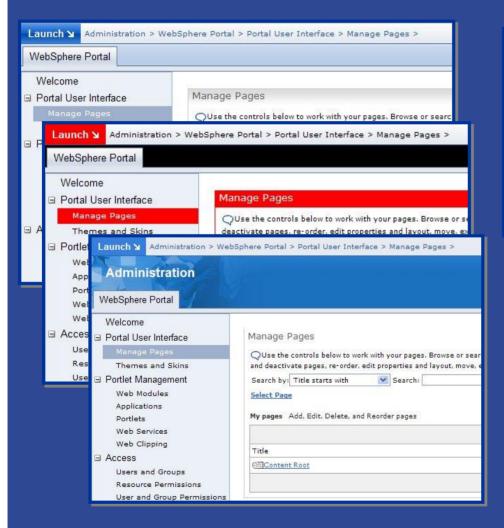
- § Since WP5.1 IBM recommends implementing Standard Portlets (JSR168).
- WebSphere Portal 6.0 deprecates the IBM portlet API
 - 4 Avoid any confusion for customers when selecting the right API for moving forward.
 - 4 The API will continue to be supported for the next releases, but no new functionality will be provided
 - 4 It is recommended to move portlets to the Standard Portlet API (JSR 168)
- § WP 6.0 adds new capabilities, some are only available for Standard Portlets some are for both APIs.

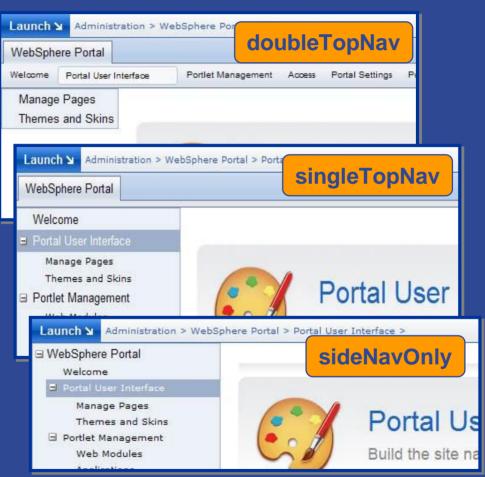
IBM leads JSR286 EG which will define the follow on version of the Portlet API.

The final version of JSR286 is currently expected by mid 2007.



Example: One Theme - Multiple Looks and Layouts







Lotus.

Content

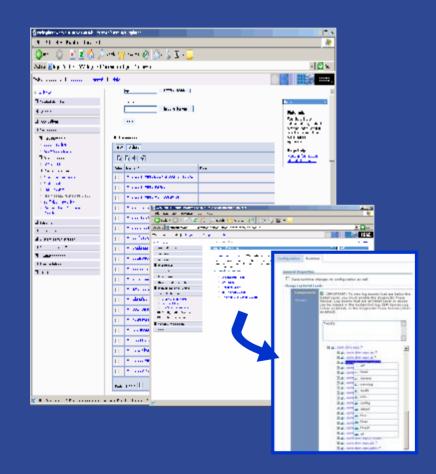
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Administration Console Integration

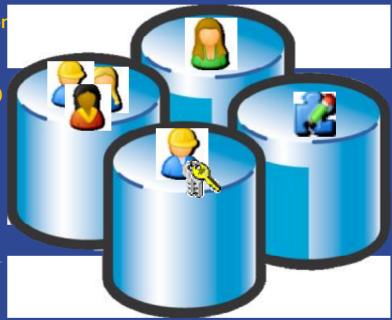
- § Portal configuration management integrated with WAS configuration management.
- § Full UI and script support for portal configurations.
- § Easier operation of clustered Portal installations.
- § Less manual steps and reduced risk for failure.
- § Trace configuration can be done in WAS UI or script. (Startup and runtime Settings





Portal Data Separation - Resilient Portal

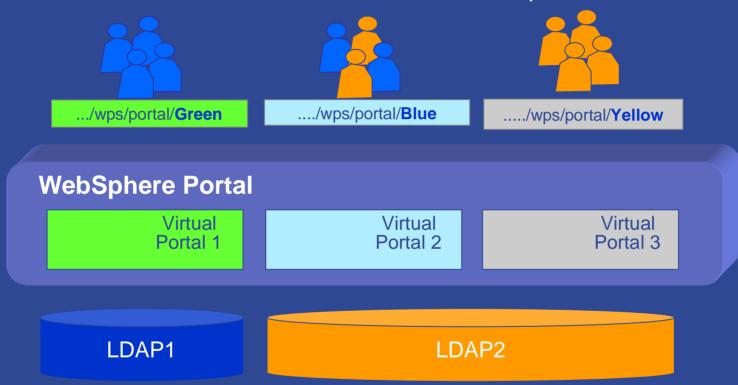
- § Why would I exploit data separation?
 - 4 Allows for 24/7 maintenance and upgrades, and easier back-up and restore
 - 4 Eases management of portal in cluster configurations
 - 4 Enables global deployment (with replicated user data)
- § Partition Portal configuration data into 4 logical buckets
 - 4 Configuration data: Class files and property files, etc.
 - 4 <u>Release data</u>: portal pages and the portlet instances + default modes and state
 - 4 Customization data: portlet data (user data)
 - 4 Community data: WCM, PDM, application instances





Multiple LDAP Support

Portal user communities can be distributed across multiple LDAP servers.

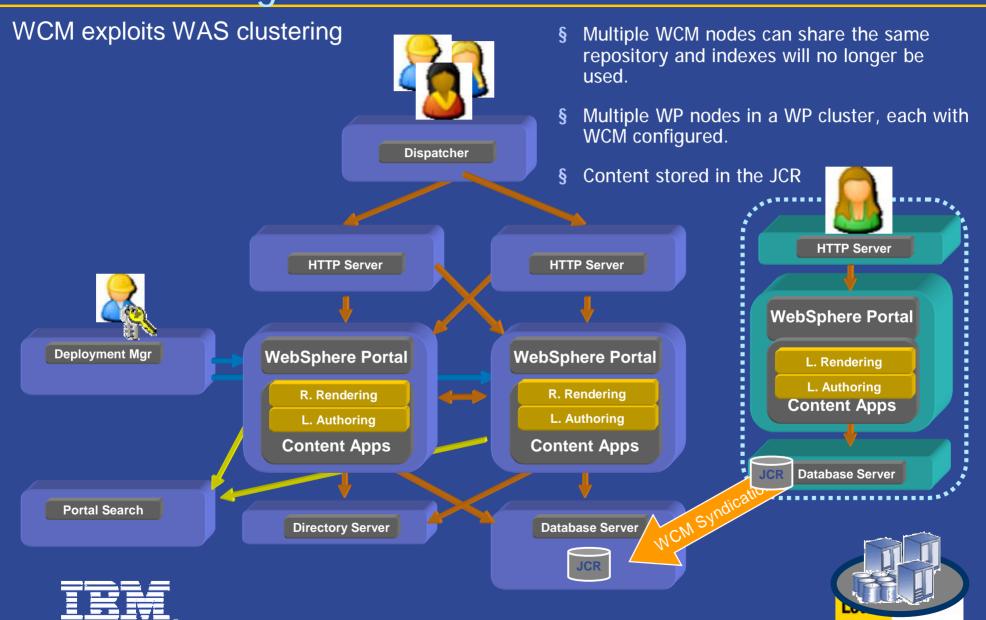


Example:

- LDAP for employees (corporate directory)
- LDAP for customers (website repository)
- LDAP for suppliers (supplier LDAP)



WCM Clustering



What's next?



WebSphere Portal Future:

The following material is directional in nature and does not imply any product plan commitment on the part of IBM.

Some of the ideas presented here may be delivered in future version of WebSphere Portal, but some will not.



Web 1.0 compared to Web 2.0

- § Web 1.0
 - 4 "Web Master" runs "web site"
 - 4 Few content editors publish content for users
 - Web site provides content and applications for users as views
 - View-only markup
 - 4 Users consume, with some level of customization
 - 4 Only human users
 - Accumulates relatively small amounts of data, generates limited server load
 à Limited potential for processor / storage sales

- Web 2.0
 - 4 "Users" collectively create the "web space"
 - 4 Every user is a content editor and rater
 - 4 Web space provides content and applications for users + the collective contributions of all users and views and data + mining/collab filtering
 - **4** Semantically tagged markup with useful meta-information
 - 4 Users consume and contribute
 - 4 Human users + programs/apps as "users"
 - 4 Accumulates big amounts of data, generates significant server load



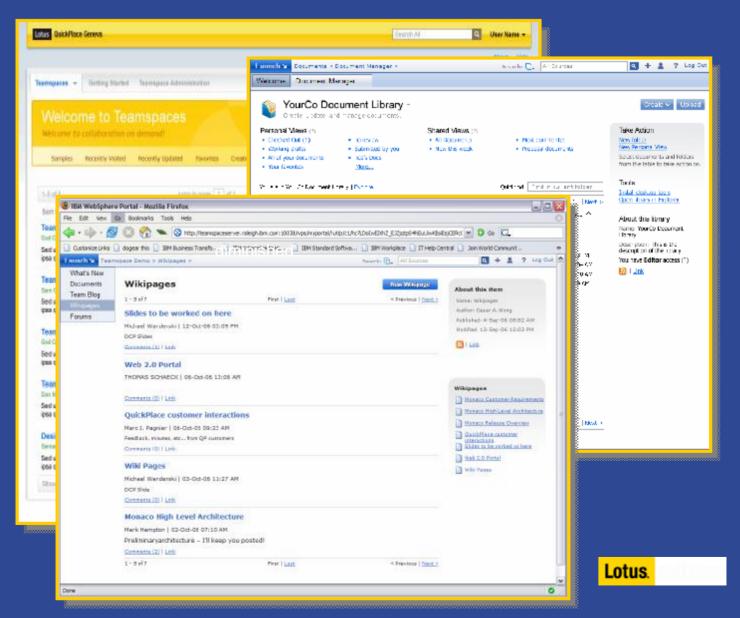




Team Productivity Enablement - IBM Lotus Quickr 8.0

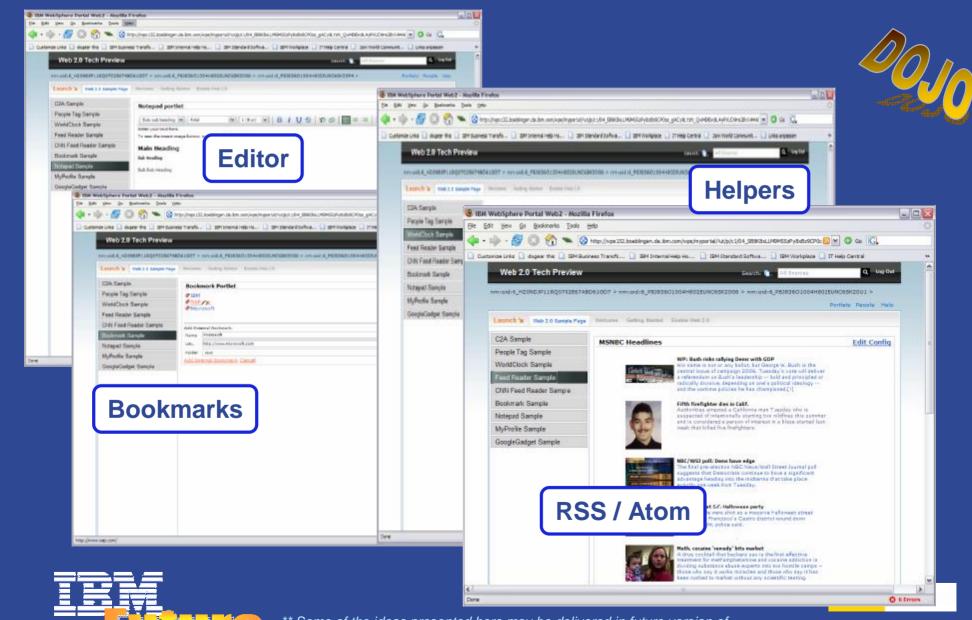
Team Spaces allow team collaboration by information driven components like...

Document
Libraries
Wiki
Blogs
Discussions
Lists
Team Tasks List
Feed
Consumption
Full-text search
Person Menu
Awareness/Chat



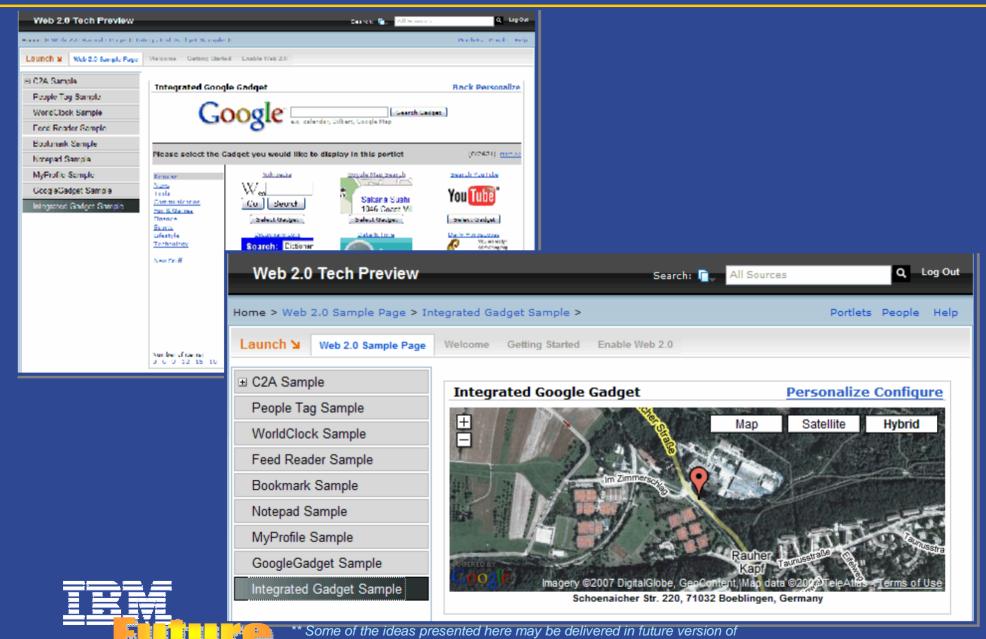


AJAX Portlets



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Google Gadget Integration – A Gadget integrated in WebSphere Portal as a portlet



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Semantic Web Support used by Context Info/Menus, Drag&Drop, End user programming, ...

Conference Participants



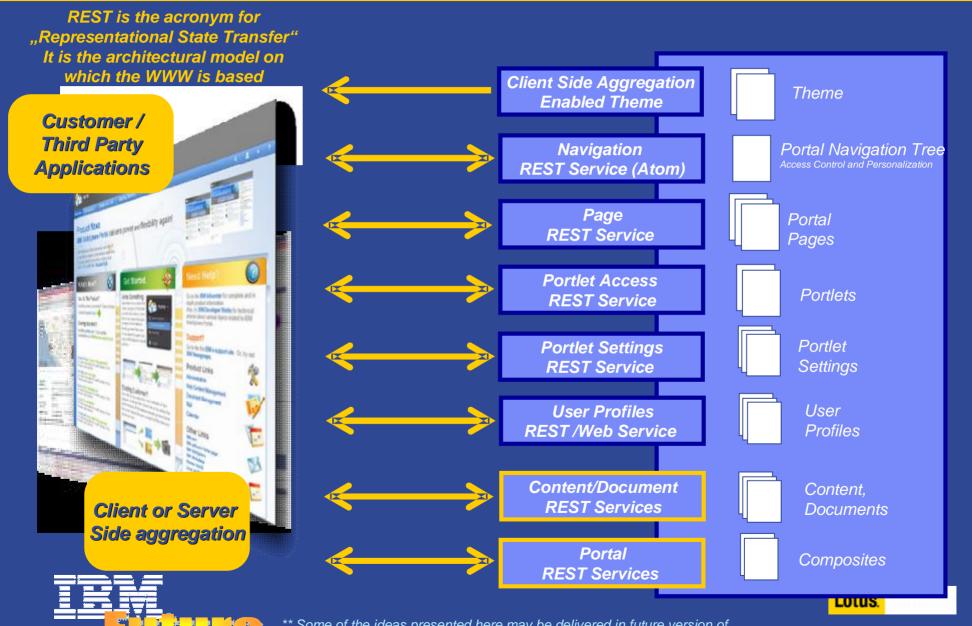
- Extensible set of well defined object types (user, person, address, phone number, document, company, calendar event, ...) and relations between them (Ontology)
- Allow marking content elements with types through semantic tagging
- Allow defining actions for object types
- Display context info and action menus based on semantic tag types
- Allow drag and drop driven UI based on (type, type+action),
 e.g. drag name into customer list to add



Lotus.

Web 2.0 Portal Vision - Open Architecture

Client Side Aggregation and Open REST Services



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Content

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OUESTIONS?







Thank You



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Additional Information and Resources

- **§** Websphere Portal and Workplace Catalog:
 - 4 http://www-3.ibm.com/software/genservers/portal/portlet/catalog
- **§** Webspere Portal Product Information:
 - 4 http://www-306.ibm.com/software/genservers/portal/enable/
- **§** WebSphere Portal Information Center documentation
 - 4 http://www-106.ibm.com/developerworks/websphere/zones/portal/proddoc.html



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