WebSphere User Group

Do your business users control their own portal?

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Please Note

Agenda

- The Dilemma of Control

- Constrained Change

  – "Traditional" content

  – Less traditional content

  – Create simplified management experiences

- Approved Change

  – Devolved development

- Governance

Introductions

- *Me:*

  - Application Architect with IBM Software Services for Collaboration in the UK

  - Designing and developing solutions on the WebSphere Portal platform for about 12 years

- *You:*

  - How many people do we have here from:

    - Business?

    - Operations?

    - Development?

The Dilemma of Control

SHOULD business users have direct control over the portal?

- ***Business:***
  - Yes!
  - We pay for it
  - We know what our customers want
  - We see the opportunities in the market
  - **IT are too slow to respond**

SHOULD business users have direct control over the portal?

- **_IT:_**
  - "Gosh" no!
  - They will break it
  - If not the business functionality then they will miss:
    - Regulatory compliance
    - Security hardening
    - Performance
    - Accessibility
    - Internationalisation
    - ...

SHOULD business users have direct control over the portal?

- But what if business user control could itself be controlled?

  - Business make their own changes

  - But changes are constrained in scope, and / or

  - Reviewed and approved by IT

Benefits

- Increased organisational agility

- Sense of ownership within the business

- Innovation

- Reduced load on IT

  - *But not "no load", due to governance*

- But no chaos!

Constrained Change

Allowing <u>specific</u> changes by business

- Agree areas of the portal that will be under business control

  - Assess risks and benefits

  - Constrain the scope of the changes

  - Compare costs versus savings

Managing "traditional" content

"Traditional" site content

- Structured content within a designated location in the portal:
  - News
  - Events
  - CxO communications

- Would be unusual *not* to be under business control

Example: Create News Article

© 2014 IBM Corporation

Example: Display Latest News

Latest news

24 Jul 2014

Web site goes live!
This is just Phase 1 and consists of the OSS (Operational Support System) platform and the T2R (Trouble to Resolve) process.

24 Jul 2014

IBM Business Process Manager
Phase 1 delivers the business function T2R which is an IBM BPM-based ticketing system.

24 Jul 2014

IBM SmartCloud Control Desk
Phase 2, which will be delivered early next year (2015), will deliver the O2C (Order to Charge) process deployed on SCCD/Maximo.

Features

- Structured creation and editing experience
  - Template for each content type
  - Content appears in constrained area(s) and formats
  - Preview available

- Well-understood control mechanisms
  - Approval workflows
  - Versioning
  - Projects

Managing less traditional content

Can this be extended to other areas?

(OK, that was a leading question)

- More and more aspects of WebSphere Portal are being made manageable through WCM

- Straightforward use of the WCM APIs can take this further still

Managed Pages

- Classically, pages deployed to Release DB as part of an application release via XmlAccess

- With "Managed Pages":
  - Kept in both Release DB and a WCM library
  - Deployed via syndication
  - Includes:
    - Layout, portal instances, wires, styles, edit defaults settings, page metadata

Managed Pages benefits

- As expected for any "content":
  - Drafts
  - Preview
  - Approval workflow
  - Versions
  - Projects
  - Deployment via syndication

- Makes business control of portal pages feasible

Managed Pages caveats

- Some aspects not managed / deployed:
  - Private pages
  - Customisations
  - Tagging / rating
  - URL Mappings *(use "Vanity URLs" instead in V8.5+)*
  - Visibility rules

- Avoid these features
  - Mostly just be aware they are not promoted from authoring or staging environments

What else could be managed as content?

- Turn it around and ask – what would it be sensible to manage?
  - What do the business need or want to control?
  - What aspects might need to change outside the normal application release lifecycle?

- Examples:
  - Text, URLs and similar in the portal theme
  - Text, URLs etc. in non-content (transactional) portlets

Semi-static information in the theme

Content-managed information in the theme

- Disclaimers, copyright statements, promotions, tag lines, contact details

- URLs to external (to portal) addresses (e.g. organisation's main web site)

- Can use WCM API or JSP tags to retrieve in dynamic parts of theme (e.g. "footer.jsp")

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Content-managed information in the theme

Demo

```jsp
<%@ taglib uri="/WEB-INF/tld/wcm.tld" prefix="wcm" %>
...
<wcm:initworkspace user="<%=request.getUserPrincipal()%>">
</wcm:initworkspace>
...
<%
    String requestedURL = request.getRequestURL().toString();
    String wcmURL = "";
    if ((requestedURL != null) && (requestedURL.trim().length() != 0)){
        String contextPath = request.getContextPath();
        wcmURL = requestedURL.substring(0, requestedURL.indexOf(contextPath));
        wcmURL += "/wps/wcm";
    }
%>
...
<wcm:setExplicitContext
    wcmWebAppPath="<%=wcmURL%>"
    wcmServletPath="/myconnect"
    path="/Design Library/Configuration/Theme Text Items/">
</wcm:setExplicitContext>
...
<div class="wpthemeLeft">
    <ul>
        <li>
            <wcm:contentComponent type="content" key="Footer Copyright Text">
            </wcm:contentComponent>
        </li>
    </ul>
</div>
```

Content-managed information in portlets

- Non-WCM (e.g. transactional) portlets may still have some text needing business control or change outside the application release cycle

  - Help text

  - Validation error messages

- Again, can use the WCM API in the portlet code to retrieve

  - Create helper classes for reuse and standardisation

Create simplified management experiences

Is still more constrained change possible?

- Of course!

- IT can create user interfaces and processes for almost anything business users want to control

  - Or want *their* customers to control

- But it will need to be developed, so

  - Cost / benefit analysis required

Managing what and how?

- Anything under the control of the Portal SPIs

- For example:
    - Page hierarchy
    - Page layout and portlet instances
    - Users and groups *(if the portal has write access to the user repository)*

Bespoke page customiser example

- Simplified page creation user interface

- User guided through simple process of three screens

- Client-side refresh of page changes

  - e.g. portlet instance markup previewed immediately upon addition

- Portlet instance interaction prevented by mask

- Constrained environment for editing portlet preferences

Bespoke page customiser

Demo

Layers of the demo page customiser

Page Customizer Portlet *(Client Side)*

- Layout Selection
- Portlet Add & Remove
- Portlet Settings URL Creation
- Portlet And Page Rendering
- Portlet Settings Rendering

Page Customizer Portlet *(Server Side)*

- Portlet List
- API provided through serveResource()

WebSphere Portal

- Model SPIs
- REST Services
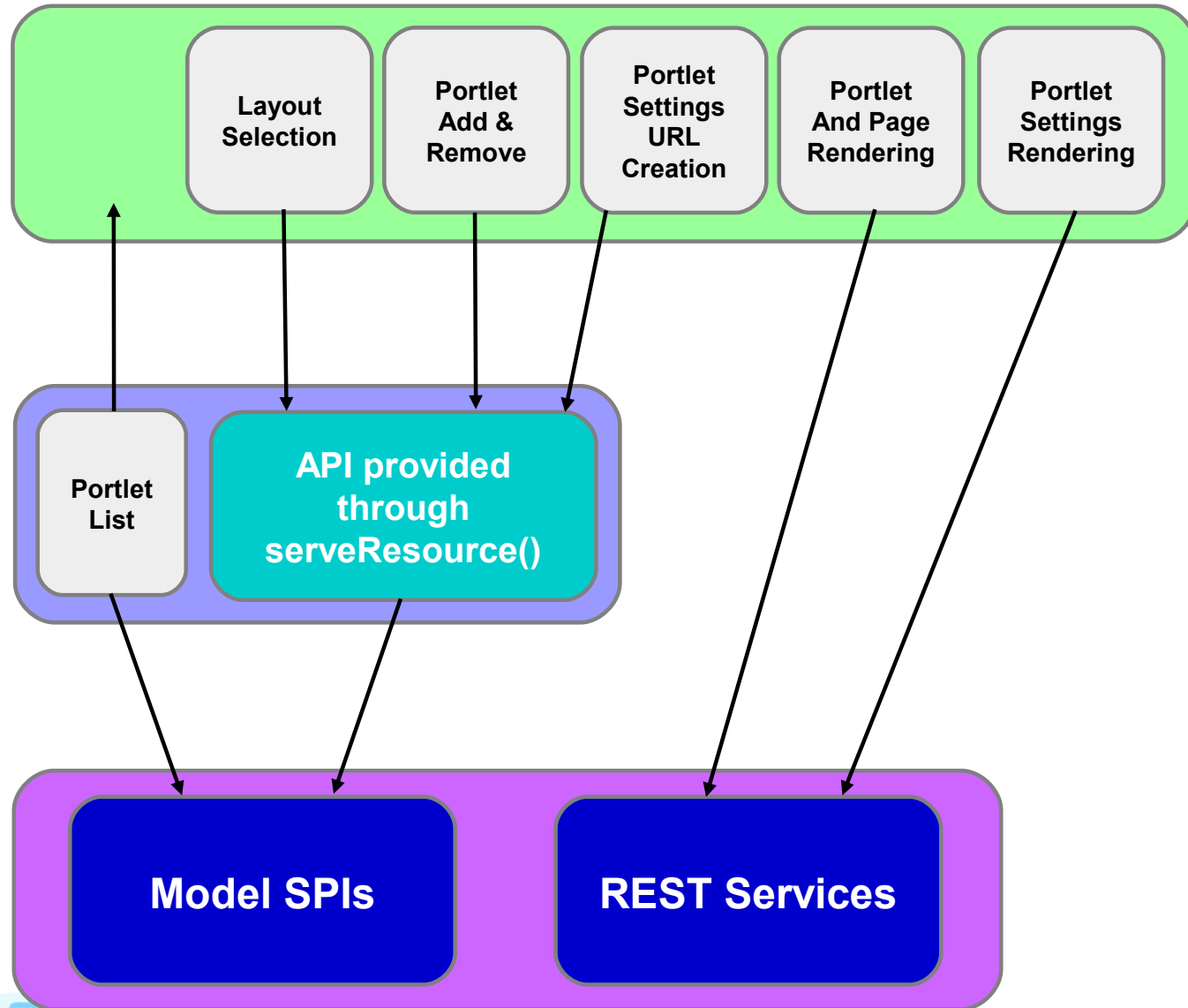
Approved Change

Allow broader changes...with review

- Agree further areas of the portal that will be under business control, but where changes require IT review and approval
  - Can allow a broader scope of changes
  - Risks and benefits can both be higher
  - Compare costs of governance versus benefits *(coming up)*

Devolved development

Business units try to circumvent IT anyway

- Want things faster than the IT department can deliver, due to:

    - Enterprise-scale standards and processes

    - Scalability considerations

    - Development resource constraints

- This has historically led to issues like:

    - Thousands of unmanaged Lotus Notes databases

    - Microsoft Access applications on servers under desks

Script Portlet is a potential game-changer

- Innocuous enough concept:

  - Create portlet instances with purely "client-side" functionality using HTML, CSS and JavaScript

- **But** JavaScript frameworks are powerful these days and there are many services for them to use

- **And** Script Portlet instances are managed in WCM

  - No "application deployment" required

  - Combine them with Managed Pages and we start to see some of the same benefits, but applied to complete "applications"

A Script Portlet application architecture

Presentation Layer
(User's Browser)

Portlet 1

Portlet 2

Portlet 3

Portlet 4

UI Services Layer
(WebSphere Portal, Other App Servers)

Portlet Hosting

Ajax Proxy

WEF Data Service

App Server UI Service

Remote Service Layer
(App Servers, Cloud)

Firewalled Service

UI Service Backend

Cloud Hosted Service
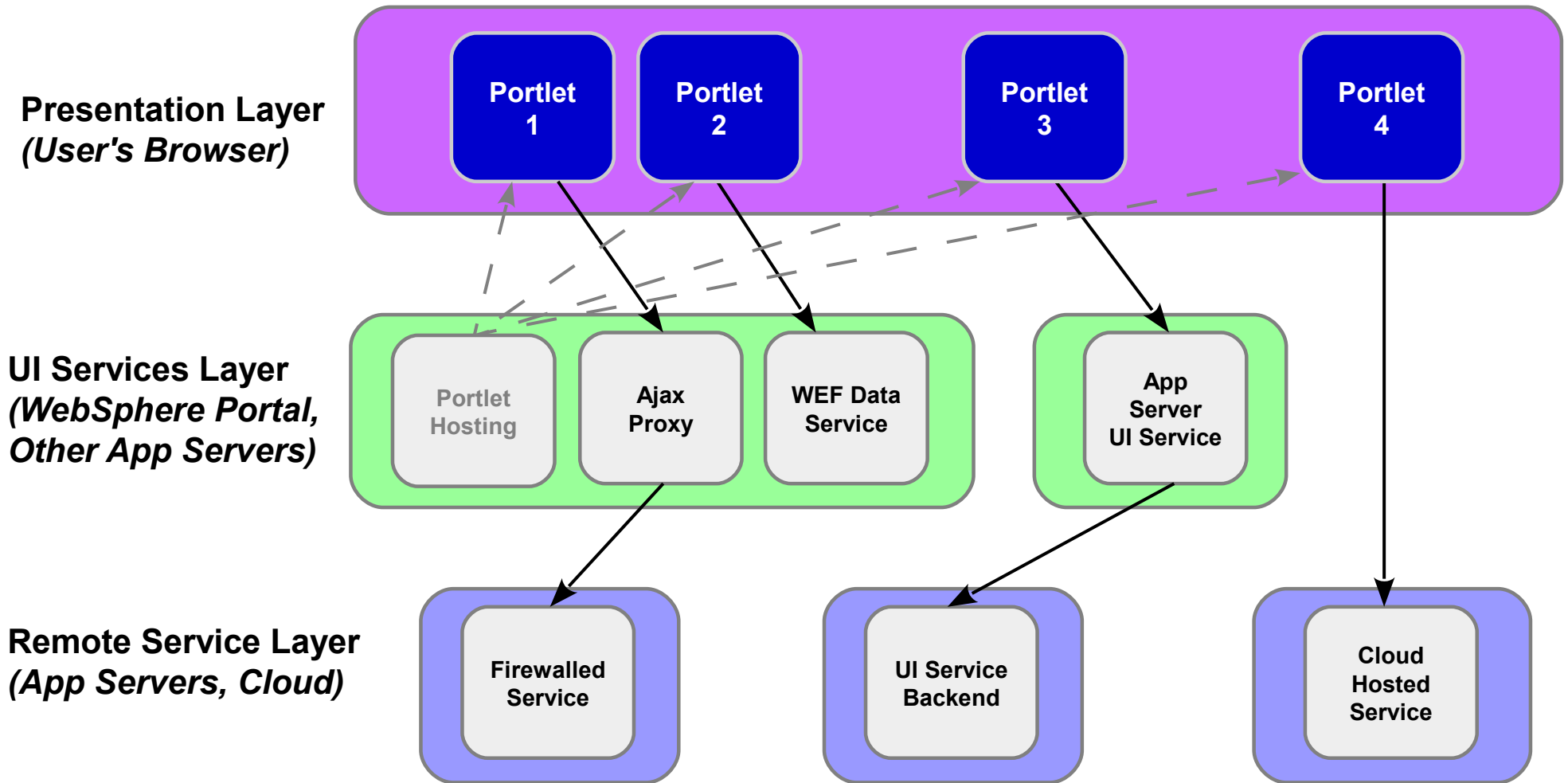
Developments are controllable

- IT can be involved in the application lifecycle just for review and approval

  – Capability provided by WCM projects and workflows

  – Much less effort for IT than running a full development lifecycle

- Content management of script portlet lifecycle brings other benefits, such as:

  – Versioning and rollback

Script Portlet development

- JavaScript and client-side framework skills can be easier to find than Java EE / Portal

- Provided Code Mirror development environment allows "live" preview of scripts

- Alternatively, developers can create complex applications in other tools and import

Portal facilities are available

- Ajax proxy for services not directly accessible by the client

- Inter-portlet communication with public render parameters or client-side events

- Access to user information

- WCM content integration via tags (WCM not JSP)

- Use WCM for libraries of reusable components

- Portlet preferences provide points of variability and reuse

Before we get too carried away...

- Some types of application are easier than others to create with the Script Portlet

- "Mashups" of existing data and services ideal
  - As long as they are available in the organisational estate or on the web
  - If not, then any server-side capabilities will need to be written outside the Script Portlet (e.g. persistence)
  - Easy to access WCM content and other portal facilities

IT can help

- Create reusable artefacts
  - Page templates
  - Script Portlet instances that can be copied

- Create services to be consumed
  - IBM Web Experience Factory (WEF) has data builders to produce JSON or XML-based services
  - In the cloud (e.g. IBM BlueMix)

Governance

Responsibilities

- Who must approve change?

- What are the SLAs?

- How much testing will be done?

  - And by whom?

- Who can roll back?

Example acceptance considerations

- What will be the additional load on the infrastructure?

- How will the overall user experience be affected?

- Does the change work on all required platforms?

- How has security been impacted?

More acceptance considerations

- Is the change compliant with all regulatory restrictions?

- Does the change meet accessibility standards and goals?

- Is the change properly internationalised (if relevant)?

Questions?

Thank you!

For Additional Information

- **IBM Digital Experience Solutions**
  http://www-01.ibm.com/software/collaboration/digitalexperience

- **WebSphere Portal and IBM Web Content Manager Information Center Wiki**
  http://www-10.lotus.com/ldd/portalwiki.nsf/

- **IBM Digital Experience Demonstrations:**
  http://www.youtube.com/user/IBMXWebX

- **IBM Digital Experience Developer:**
  http://developer.ibm.com/digexp

- **IBM Collaboration Services Business Solutions Catalog**
  https://greenhouse.lotus.com/catalog/