Web Content Management

Managing the Project
Why a WCMS?

- Increased use of web for business outcomes
- Old, resource intensive technology solution
- Timing – redeveloping main web sites
- Database separate content and presentation
- Main functions
  - Templates drive consistency
  - Workflow drives quality control and automatic upload
  - Allows multiple entry points with one source
  - Provides automatic notification of review date
  - Manages the Information Architecture
Getting started

- Business Case for approval and budget
- Software decision
- Partner approach with IBM GS
- Statement of Work
- Getting the right people
Online Policy & Procedures
Information Management Strategy
Security Framework
Governance Framework
Change Management

Health Statistic
GP Online
Grants Mgt
Bio-Emergency Communications
HealthInsite
Health.gov.au
Seniors.gov.au
Employee Portal

Document Management
Data Repositories
Web Content Management
Business Intelligence
Business Applications

USER PORTAL
Personalisation
Security

External
Internal

Business Outcomes
- Improved Access to Right Info.
- Single Access Point
- Compliance with WoG Standards
- Efficient Business Processes
- Increased Staff Productivity
- Improved Corporate Image
- Effective Stakeholder Management
WCMS Project Process

March
Information Architecture

April
Blueprint

May
Technical Design

June
System Development

July
Content review

August
System Implementation

September
Migration Mapping

October
Content Migration

Health.gov.au live
Web Content Management

Building the product
The plan
The system - inner workings

These are the usual databases in a WCMS installation:

- **The WCMS Environment**
  - **Publishing**: Holds all pages, page components, styles, layouts, and system settings.
  - **User Profile**: Holds all user personalization data, and trackers of user activity.
  - **Feedback**: Holds all feedback data, variables, and processes that manage feedback.
  - **Control**: Controls database communication for sharing and user data.

**Development**
- **Master**: Stores components and templates. Not functional as a publishing database used only for storage of latest components.
- **Sandpit Development**: All development of components and design can be duplicated for multiple projects updated by developers from master.
- **Vamosa Development**
- **Technical Training**

**Pre Production / User Acceptance**
- **Master**: Stores components and templates for QA.
- **Vamosa content QA**
- **Manual content creation**
- **User Training**: Updated when training required.

**Production**
- **Final Database**
  - Content Editing
  - Content approval
- **Public Facing Internet**
  - Serves web pages to the internet
- **Publish**
- **Firewall**
The system - customisations

Helpers and custom agents
wizards
input fields
**Workflow Escalation**

LWWCM workflow functionality has been extended to include the ability to define an escalation period and group for each stage of a workflow. Also included is an agent that sends the escalation emails.

<table>
<thead>
<tr>
<th>Notes Design Elements:</th>
<th>Lotus Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td></td>
</tr>
<tr>
<td>• AdminWorkflow_Stage</td>
<td></td>
</tr>
<tr>
<td>• AAACustomSubForm_WFStage_PropSharing</td>
<td></td>
</tr>
<tr>
<td><strong>Script Library</strong></td>
<td></td>
</tr>
<tr>
<td>• dhaPerformSystemSettingLookup</td>
<td></td>
</tr>
<tr>
<td><strong>Agent</strong></td>
<td></td>
</tr>
<tr>
<td>• WorkflowEscalation</td>
<td></td>
</tr>
<tr>
<td><strong>View</strong></td>
<td></td>
</tr>
<tr>
<td>• UserWebPagesByInvestigationDate</td>
<td></td>
</tr>
<tr>
<td>• UserWebPagesByExtractionDate</td>
<td></td>
</tr>
<tr>
<td>• UserWebPagesByEmailSent</td>
<td></td>
</tr>
</tbody>
</table>

**LWWCM Components:**

<table>
<thead>
<tr>
<th>System Property</th>
</tr>
</thead>
<tbody>
<tr>
<td>• dhaEscalationBody</td>
</tr>
<tr>
<td>• dhaEscalationSubject</td>
</tr>
</tbody>
</table>

---

**Broken Link Checker**

This is a group of agents that combine to check the links in the body field of content and notify the content owner of any "broken" links.

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<td></td>
</tr>
<tr>
<td>• dhaGeneralUtility</td>
<td></td>
</tr>
<tr>
<td>• dhaLinkEmailUtility</td>
<td></td>
</tr>
<tr>
<td>• dhaLinkExtractionUtility</td>
<td></td>
</tr>
<tr>
<td>• dhaLinkInvestigationUtility</td>
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</tr>
<tr>
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<td>• dhaLinkEmailMessage</td>
</tr>
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<td>• dhaLinkEmailSubject</td>
</tr>
<tr>
<td>• dhaLinkInvestigationMax</td>
</tr>
<tr>
<td>• dhaLinkRetries</td>
</tr>
<tr>
<td>• dhaLinkSuccessCodes</td>
</tr>
<tr>
<td>• dhaLinkTimeout</td>
</tr>
<tr>
<td>• dhaLinkXSLStyleSheet</td>
</tr>
</tbody>
</table>
The system - customisations

### Customisations

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Components</th>
<th>Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metadata Subform</td>
<td>This subform contains all of the DoHA metadata fields. It also contains the code that is used to generate the rendered form of the metadata. Functionality also included in this subform is: • Style Formatter • Teaser Wizard</td>
<td>Notes Design Elements:  <strong>Form</strong> • DialogStyles • DialogTeasers <strong>Subform</strong> • ACAutoSubForm_ProfileWF_Notes <strong>Script Library</strong> • dhMetadata • dhAPlaceholder <strong>View</strong> • TeaserBlocks  <strong>LWWCM Components:</strong>  <strong>System Property</strong> • dhAIAudienceChoices • dhICompactivityChoices • dhIDateCreatedAccuracyChoices • dhIDateModifiedAccuracyChoices • dhIDefaultNoMetadataStyles • dhIElecOnlyChoices • dhIEscalationBody • dhIEscalationSubject • dhIFormatChoices • dhIIFunctionChoices • dhIHIcategoryChoices • dhIHTypeChoices • dhILiveHostname • dhIPriorityChoices • dhIPublisherChoices • dhIStatusChoices • dhISubStyleChoices • dhIWizardRelatedLinksFooter • dhIWizardRelatedLinksHeader • dhIWizardRelatedLinksLink • dhIWizardRelatedLinksLinkManual • dhIWizardTeaserAll • dhIWizardTeaserAllManual • dhIWizardTeaserLayouts</td>
<td>Lotus Notes</td>
</tr>
</tbody>
</table>
Creating the templates

Wireframe
The following defines the page components that makeup the Home Page template. The functional descriptions of these components are defined in the following section.
Outcome

Welcome to the Department of Health and Ageing

We seek to provide better health and healthier ageing for all Australians through a world-class health system.

Latest News

Government extends Medicare access to MRI services
21 February 2005
The Australian Government has announced the locations of 21 Magnetic Resonance Imaging (MRI) units that will soon have Medicare listings.

Australian Organ Donor Awareness Week: sign on to save lives
13 February 2005
The Australian Government will send every Australian household an organ donation consent form as part of a new campaign to increase organ donation rates.

Australian Organ Donor Awareness Week - sign on to save lives
To register your legally valid consent to organ donation now.

Minister's Awards for Excellence in Aged Care 2005
The Australian Government is recognising exceptional people working in aged care services.

Annual Report 2003-2004
The Annual Report for 2003–2004 has been tabled in Parliament.
Training

• Training was provided by IBM - Technical and Content Author Training
• There were approx 45 health webmasters who received content author training which consisted of a 1 day training session.
• Approx 10 health technical staff were trained on a 3 day intensive course.
• Additional training was required for many Webmasters, as the site framework had changed from original.
Creating the Webpage

Lotus Workplace Web Content Management

**Web Page Form**

- **Identification**: * Indicates a required field
  - Title *
  - Display Title *
  - Summary
  - Author *
  - Owner *

- **Workflow**
  - Approval Cycle *
  - Current Approval Stage: Draft
  - Current Approvers *
  - Additional Published Readers *
  - Stages: Draft, acd_private Approval, Technical Administration, Content Administrator

**Document**
- Created: 21/02/2005 16:47:03 (Initially)
- Modified: 21/02/2005 16:47:05 (Initially)
- Added: 21/02/2005 16:47:03 (In this file)
- Modified: 21/02/2005 16:47:05 (In this file)
- Modified by: WCMRD01/SVR/Health
- Accessed: 21/02/2005 (In this file)
The content author needs to format their text via the Notes text properties:
- Default sans serif
- 10 point size
- Normal weight
- Black

The author then uses a list of styles which we custom fitted to LWWCM rather than using the Lotus Notes text styles to produce webpages to the required standard.

Tables and images also need to be created/inserted following specific rules to meet accessibility requirements.
Workflow
The interface

Main Sections of WCMS User Interface

You can navigate to any section of the WCMS through the Main Navigation Screen:

- Notes menu bar
- Notes taskbar to move between open windows
- Action bar with key WCMS buttons. These change depending on the displayed view.
- WCMS navigator for accessing different views
- Document view

There are four main sections in WCMS, with each section providing tools for different roles.
Health WCMS
Automated Content Migration

Tuesday 22 Feb, 2005
Contents

1. Background
2. Vamosa overview
3. Benefit and risk comparison
4. Migration timeframe comparisons
5. Vamosa audit tool
6. Cost structures and risk – Automated Migration
7. Cost structures and risk – Manual Migration
8. Migration approach
9. Complexity with the product
10. Post Go-live
Background

Migration project
- 25,000 pages to be migrated
- To be conducted over 13 divisions of Health
- IBM does not have a migration tool with their WCMS

Migration automation
- The Vamosa product set was identified as potentially assisting in migration
- Provides tools to assist with:
  - Analysis of site to identify scope, size and structure of content
  - Mapping of old site structure to new structure
  - Mapping of old page layouts to new page templates
  - Moving content into the new WCMS
Vamosa Overview

Potential Benefits

- Lower timeframe and cost risk
- Reduced migration effort for Health
- Manages migration complexity
- Structured migration approach
- Consistency and control over process and output
- Migrated content would be QA’d by Health within WCMS
Content Audit

The outcome from the audit was used to present a clear understanding of the volume and value of objects sitting on Health’s website.

Vamosa Crawl
- Vamosa content analyser was used to identify all web content following all internal and external links to assess the size and structure of the website. Which included analysing the site for all documents - PDFs, word files, spreadsheets, presentations and applications.

Weblogs Interrogation
- The Content Inventory also included a List of HTML pages, and page access history. Which was used to determine when pages have been accessed, this detail was gathered by the web logs, however the information within the logs can only be as complete as the information contained within those logs.
Migration Timeframe Comparisons

**Manual Migration**

- Site Analysis
- Learn WCMS
- Learn Rules
- Migration Management
- Migration A
- Migration B
- Migration C
- ...  
  Assume 10 weeks, 8 resources for largest division
  Total 36 resources required

- Manual Migration
  - 28 June
  - 16 Aug
  - 11 Oct

**Automated Migration**

- Audit
- Design
- Build
- IA Maps
- Automated Migration
  - 14 June
  - 26 July
  - 6 Sept
  - 27 Sept
  - Assume 3 QA iterations

- Automated Migration
  - Mig A QA
  - Mig B QA
  - Mig C QA
  - Release
Migration Template Approach – Landing Page

The following identifies the mapping from an existing Landing Page, into the appropriate LWWCM template.

Requires logic to create the association between landing page and the content Items. This will result in the ability to maintain content listings dynamically, rather than requiring maintenance of the static links and text.
Once Health decided to go with Vamosa, we were reliant on the help of IBM Tech Team to work with Vamosa in all stages of development.

Inconsistencies with the IA maps for divisions were an issue for our tight timeframes.

Thorough QA was required to ensure content was migrated correctly.

Due to the size of the Health site, Vamosa was run several times to achieve the desired business outcomes.
Vamosa is planned to be used as part of Health's Intranet content migration in the WCMS
Handover – lessons learned

- Checklist
- Training – don’t underestimate
- Ongoing vendor support
- Mixed teams taking over support – clear roles and responsibilities
Lessons learned

Objectives

Below is a summary of objectives from extracted from the business case. On the whole the project achieved a majority of these objectives. Two are yet to be qualified as it is too early to qualify their outcomes.

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<th>Result</th>
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<td>Mostly achieved. There are still some “technical” skills required in terms of familiarity with the application features and formatting options available. Despite health being a notes user there is a need to invest efforts in training authors in using Notes, the customised product, accessibility, the new style guide, and how the IA relates to their content.</td>
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<td>Enable promotion of content through an authorisation process, increasing accountability, efficiency and timeliness.</td>
<td>Achieved. Work flows were provided that will continue to evolve as business processes are bedded down. Currently work flows enforce the review of all by Webs &amp; ICD.</td>
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<tr>
<td>Enable the Department to consistently meet legislative requirements, such as privacy, security, copyright protection and accessibility.</td>
<td>Mostly achieved. Accessibility support is still a concern. (Privacy no longer a concern as the issues has been resolved.</td>
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<td>Provide efficient, cost effective implementation of Department business requirements, such as branding.</td>
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### Performance Against Objectives

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<tr>
<td>Conduct a requirement analysis.</td>
<td>Achieved. Considerable requirements work was completed and documented by the project. These included stakeholder and functional requirements. The functional requirements were specific to the health.gov.au implementation and signed off by the Business Owner. The business requirements were not signed off which could be a risk. The only shortfalls surrounded the communication of these requirements to broader stakeholders enabling a clear understand of what was being delivered by the project.</td>
</tr>
<tr>
<td>Provide a technical mechanism for the implementation of the Internet information architecture (IA) strategy as defined by the Online Communications section.</td>
<td>Achieved. The Vamosa migration translated the current IA to the target IA and the LWWCM system enables the maintenance of the target IA to conform with any IA strategies developed in the future.</td>
</tr>
<tr>
<td>Develop and implement a communications plan that aligns with existing communications plans for the Department’s online presence.</td>
<td>Not achieved. The Online Communications Section agreed to develop a holistic communication strategy and plan which was not finalised. The Online Communications Section took responsibility for the bulk of the communication about the projects given their combined nature.</td>
</tr>
<tr>
<td>Enable the capture, management and output of Australian Government Locator Service (AGLS) metadata in accordance with legislative requirements and standards.</td>
<td>Achieved. Metadata definition and maintenance is a large component of the LWWCM application. Metadata can be entered by division and reviewed by Webs and ICD as part of the workflow. Metadata were it was available from the source documents was also populated by the Vamosa migration</td>
</tr>
<tr>
<td>Provide input into the development of an archiving policy for the WCMS and identify technical archiving options.</td>
<td>Achieved. Archiving facilities are provided by LWWCM enabling the manual and automated archiving of documents based on expiry dates and possible other business rules and further policy is developed.</td>
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### Lessons learned

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<td>Select a technical solution that assists in the management of content and meets online information legislative requirements and standards.</td>
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<td>Provide for a flexible and structured authoring environment, including template based authoring using desktop applications and existing web software.</td>
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<td>Align with governance strategies for the Internet and Intranet.</td>
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<td>Define and implement workflow, authoring and work practices.</td>
<td>Achieved. See above.</td>
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<tr>
<td>Draft a maintenance strategy, incorporating the technical and presentation requirements.</td>
<td>Not achieved. The requirements for maintenance and ongoing support of the application were not well defined.</td>
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<td>Provide training in the use of the selected software for existing webmasters and identified content authors.</td>
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<td>Liaise with the training unit on establishing an ongoing training course for future webmasters and content authors.</td>
<td>Not achieved. The training unit was not in a position to conduct training. Ongoing training will be provided by Webs.</td>
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<tr>
<td>Define the process for placing information online for webmasters and content authors.</td>
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