



**Australian Government**  
**Information Management Office**

# **MySource Matrix Assessment**

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Australian Government Information Management Office

## Document control

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### Reference Documents:

Document	Author
CMS Evaluation, January 2004	DCITA
Contract No. NCON/03/47 between Commonwealth of Australia and Squiz Pty Ltd	AGIMO
Implementation of an Open Source CMS, Case Study	AGIMO
AGIMO Web Logical Network	AGIMO
MySource Matrix user manuals and design documents	Squiz Pty Ltd
Guide to Minimum Web Standards	AGIMO

## Interviews:

Although not inclusive, the following AGIMO staff were interviewed during the course of this review:

<b>Person</b>	<b>Position / Organisation</b>
David MacKey	AGIMO
Peter Dale	AGIMO
Sarah Kawe	AGIMO
Amanda Brown	AGIMO
Ben Smith	AGIMO
Katie-Jane Barker	AGIMO
Avi Miller	Squiz Pty Ltd
Steve Barker	Squiz Pty Ltd

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# 1 Introduction

The aim of this report is to provide an independent and objective assessment of the white-branded version of MySource Matrix (v 3.1 RC 2), which will be made available to all government jurisdictions (federal, state and local) and not-for-profit organizations as an open source solution for web content management.

## 1.1 Scope of this document

The assessment covered the white-branded version of MySource Matrix in the following areas:

- Fitness for purpose - does it provide a robust functional platform for the management of web content within a Government context?
- Stability - does it provide a stable technical (software) platform for web content management?
- Value for money – does it provide a value-for-money option for other government and not-for-profit agencies embarking on similar projects?

The following areas were considered out of scope for this review:

- Contracts between AGIMO and Squiz Pty Ltd
- Project management processes relating to the implementation of MySource Matrix in AGIMO
- Specific content management roles and responsibilities within AGIMO
- Configuration of hardware supporting MySource Matrix within AGIMO
- Functional testing and source code review

## 1.2 Audience of this document

This document is intended for any government agency or not-for-profit organisation with an interest in the implementation of MySource Matrix as an open source content management solution.

## 1.3 Methodology

MySource Matrix is an open source web content management solution which was chosen as a result of a comparative evaluation of several proprietary and open source products against the *Whole of Victorian Government Content Management Requirements Definition Tool*<sup>1</sup>.

This assessment reviewed out-of-the-box functionality of the white-branded version against the original evaluation criteria to ensure that it continues to meet mandatory and desired requirements. The assessment was based on interviews and information provided by AGIMO and the vendor, Squiz Pty Ltd. Supporting information was provided in the form of specific internal documentation provided by AGIMO and product documentation provided by the vendor. Testing of the product to ensure it performs as described in the documentation was outside the scope of this assessment.

Whilst we have no reason to doubt the completeness and accuracy of the information provided, we cannot guarantee that all issues affecting the assessment of the product have been brought to our attention.

The results of the assessment should be considered in light of the above limitations.

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<sup>1</sup> Version 1.0, <http://www.egov.vic.gov.au/pdfs/WorksheetinWoVGWebCMRDRReportv1.pdf>

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## 2 Background

AGIMO embarked on a project to replace its web sites in early 2003. Following a comprehensive evaluation of both proprietary and open source products against the Step Two model for content management system (CMS) evaluation<sup>1</sup>, MySource was chosen as the preferred option. MySource is an open source solution developed by Squiz Pty Ltd, an Australian company with Endorsed Supplier status.

The first MySource implementation was undertaken as a proof of concept. In August 2003 the Publication Services Directory was re-launched on the MySource v2.8 platform. Following this initial development, a small website for the Indigenous Communities Co-ordination Taskforce was launched on the same platform, leveraging the work that had been conducted for the earlier implementation.

In October 2003 another proof of concept site was launched, this time using the MySource v3.0 (Matrix) platform. Following an evaluation of both pilot projects, the later version of MySource was selected as the preferred platform for all future implementations due to its advanced standards compliance and content handling capability.

A new corporate website was developed and launched in April 2004 supported by the content management capabilities of MySource Matrix. Several other sites have been migrated to the new platform since then.

These open source implementations are believed to be the first of their kind within the Australian Government. AGIMO is in the process of making the product set available for re-use across other government and not-for-profit agencies through "White-branding". This process has the backing of representatives from the Government's Chief Information Officer Committee and Information Management Strategy Committee.

## 3 Key Findings

### 3.1 Fitness for Purpose and Stability

#### 3.1.1 Creation and Publishing

The white-branded version of MySource Matrix provides a mature platform for centralised or decentralised creation, editing and approval of content items through a simple browser-based interface.

The asset-based nature of the product provides a highly-configurable environment where every item associated with a site is considered an asset, including sites, designs, pages, tables, images, metadata and workflow. This concept means that content can be created once and presented many times on one or more supported websites. When the content item is updated, the changes are applied in all locations. In-built integrity tools also ensure that links are maintained if content is removed or updated.

Asset classes can be created by non-technical users for specific types of content, allowing different workflow processes to be applied based on specific business rules. Asset classes also provide the ability to set pre-defined dates for review and expiry of content items belonging to a specific asset class.

The product supports a variety of file formats including graphics and rich media.

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<sup>1</sup> *Content Management System Evaluation, Version 2.0, DoCITA, January 2004.*

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### **3.1.2 Presentation and Discovery**

Content is separated from site design through the use of templates and style sheets, allowing the same content to be presented in a variety of contexts. Site visitors are able to create individual accounts and to customise content and design elements according to personal preferences.

Discoverability is aided through metadata and an in-built search engine. Searching can be configured to allow indexing of an entire site, part of a site or across multiple sites. Discoverability is managed at the asset level, allowing searching to be switched on or off for specific assets or asset classes.

The white-branded version of MySource Matrix is fully compliant with W3C Accessibility Guidelines, AGLS metadata standards, XHTML 1.0 Transitional and CSS2. The WYSIWYG editor and back-end processing force compliance with accessibility standards. Editing tools can also be configured to disallow non-compliant content.

### **3.1.3 Technical and Interdependencies**

PHP Apache is the web programming framework used by MySource Matrix. PHP is a widely used open source server-side scripting language used to create dynamic Web pages. An API is provided to develop custom connectors for additional functionality eg. interfaces to third party products.

MySource Matrix is a tightly integrated platform incorporating the content management solution combined with the Linux operating system, Apache web services and PostGRES SQL database. The workflow process is internalised into a single platform.

All interfaces to the product are browser-based. As all updating is browser-based, anyone with appropriate access can maintain the system anywhere there is a web connection. Email notifications based on workflow status are automatically generated by the system.

Comprehensive audit trails, versioning and rollback capability is supported enabling tracking of changes to assets and roll-back to sites at a specified point in time.

The white-branded product incorporates asset- and role-based security. All content (assets) may have access privileges individually controlled for different users and groups.

The white-branded product is not designed to run in a multi-server environment without some configuration of database replication. The vendor has stated directions to incorporate replication into future versions, however at this point in time, multiple servers (eg. Internet and Intranet) would require separate instances of the CMS. Synchronisation between multiple environments would require configuration/development effort. The product has limited data exchange support and syndication capabilities.

### **3.1.4 Support and Training**

Agencies selecting the Matrix product may choose to support internally or may engage a third party provider for development and support skilled in PHP and Linux. The vendor is able to provide helpdesk support, commercial modules, custom development, implementation support, training and website design.

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### **3.2 Value for Money**

The white-branded product is provided at no cost to government and not-for-profit agencies. Support and training can be purchased and development costs would be incurred to meet additional requirements beyond that provided by the white-branded product. The white-branded product would will meet the requirements for many small to medium agencies with minimal development (if any) required. The white- branded product is scalable and extensible and would suit most agencies.

## 4 Assessment against Evaluation Criteria

Source: *Whole of Victorian Government (WoVG) Web Content Management Requirements Definition Tool.*

Note: To preserve the integrity of the tool, the Core and Optional requirements were retained, however these were Core and Optional for the Whole of Victorian Government. Some of the Victorian Government requirements were not commissioned for development by AGIMO.

### KEY – the following symbols denote that:

\* The functionality was not considered core to AGIMO's requirements and therefore not commissioned to be built.

# The evaluation criteria is an agency-specific implementation issue that should be assessed independently of this review.

+ The evaluation criteria were substituted with equivalent Australian Government standards.

### 4.1 A - Creation and Publishing

A1	Content Creation	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
<b>Business Driver:</b> To enable Agency staff to effectively develop and maintain content for web services.					
A1.1	Ability to create, edit and spell-check text using a simple browser template option which must support the Agency standard operating environment (SOE) browser version.	Core		Yes#	<p>A What-You-See-Is-What-You-Get (WYSIWYG) editor provides full create, edit and visual spell-check functionality. The editor resembles a simple word processor-like interface.</p> <p>While current product documentation indicates limited browser support, an interview with the vendor confirmed that the current version of MySource Matrix now supports all major browsers and operating systems.</p> <p>MySource Matrix also requires Sun's Java Virtual Machine to be installed, however, this is a small file that can be downloaded for free from the Sun Java web site.</p>
A1.2	Ability to import content items from the Agency standard operating environment (SOE) (eg Microsoft Office, Lotus Notes, HTML).	Core		Yes#	Graphics and files (including rich media) and almost all standard file types, such as Word, Excel, PDF and MPEG, are able to be uploaded and embedded within web site assets.

A1	Content Creation	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
A1.3	Ability to import and manage images using a simple browser template option which must support the Agency standard operating environment (SOE) browser version.	Core		Yes#	MySource Matrix supports many different types of asset. A Standard Page asset allows images to be imported and managed through the WYSIWYG editor.
A1.4	Ability to create and edit links using a simple browser template option which must support the Agency standard operating environment (SOE) browser version.	Core		Yes#	The Standard Page asset also allows links to be created and edited through the WYSIWYG editor.
A1.5	Ability to import and manage attachments using a simple browser template option which must support the Agency standard operating environment (SOE) browser version.	Core		Yes#	The Standard Page asset also allows attachments to be imported and managed through the WYSIWYG editor.  Attachments, such as MS Word documents or PDFs, must be uploaded to the MySource Matrix repository first. They can then be linked to from any page within a site.
A1.6	Ability to edit content items without affecting the published work.	Core		Yes	Live content on a site is able to be changed without affecting the published work until the changes are approved.
A1.7	Ability to automatically replace a published version of content with a revised version of content following completion of the approval process.	Core		Yes	When a published content item is edited, approved and republished, the old Live asset is automatically replaced with the newer version.
A1.8	Ability to view content items in-context via a browser, to see how the content item will appear in the website - WYSIWYG (what you see is what you get) preview. The browser option must ensure the preview pages are not exposed to external search engines.	Core		Yes	A preview option allows content items to be viewed in-context within the site prior to it being published.
A1.9	Provide an authoring system that requires minimal training and can be used by non-technical users.	Core		Yes	MySource Matrix is specifically designed for non-technical users. It provides an intuitive and simple interface. Modifications can be made to site structure and associated schemas without the need for programming expertise.
A1.10	Support distributed content creation and contribution by a wide range of staff throughout the whole of Government including staff located in remote parts...		Optional-high	Yes	Fully devolved content creation and management is able to be performed through a web interface. Remote contributors are provided with a username and password which they can use to edit assets in-situ.

A1	Content Creation	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
A1.11	Support content contribution from external non-government parties.		Optional-high	Yes	Fully devolved content creation and management is able to be performed through a web interface. Remote contributors are provided with a username and password which they can use to edit assets in-situ.
A1.12	Ability to create customisable input forms (eg Feedback, Notification, and membership registration). The forms will validate input data within the form.		Optional-high	Yes	MySource Matrix provides a fully customizable form creation interface and validation options.  Both client-side and server-side validation is supported.

A2	Workflow Processes	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
<b>Business Driver:</b> To ensure all web content has appropriate Agency approval. This is critical when managing the creation of content by multiple parties.					
A2.1	<b>Workflow Approval</b>				
A2.1.1	Ability to establish a variety of roles within a workflow process.	Core		Yes	Multi-stage workflow processes involving single users or groups of users can be defined in addition to the standard workflow sequence in MySource Matrix.
A2.1.2	Ability to assign workflow to classes of content items as well as roles and individuals.	Core		Yes	Specific workflows can be assigned to any asset classes by non-technical staff with security privileges to do so.
A2.1.3	Ability to grant or withhold specific permissions based on role, type of content item and other criteria.	Core		Yes	Read, write and administrator permissions can be granted or denied to the public, a user or group of users. Permissions can also be restricted according to the status of an asset during workflow processes.
A2.1.4	Provide a workflow approval process that supports sequential approval steps.	Core		Yes	New workflow schemas can be designed by non-technical users to accommodate multiple sequential approval steps. Approval can also be sought from a single user or a group of users in the same approval step.

A2	Workflow Processes	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
A2.1.5	Provide a workflow approval process that supports parallel approval steps.		Optional-high	Yes	New workflow schemas can be designed by non-technical users to accommodate multiple parallel approval steps. Approval can also be sought from a single user or a group of users in the same approval step.
A2.1.6	Provide a workflow approval process that is configurable to support varying content item status during the authoring process (eg draft, awaiting approval, approved, published, archived etc)	Core		Yes	Multi-stage workflow processes involving single users or groups of users can be defined in addition to the standard workflow sequence in MySource Matrix.  The standard workflow and status are: <ul style="list-style-type: none"> <li>▪ Under construction</li> <li>▪ Live (published)</li> <li>▪ Safe Edit (changes to live content)</li> <li>▪ Up for review</li> <li>▪ Archive</li> </ul>
A2.1.7	Provide a workflow that is configurable to allow different approval processes based on the type of content item/template being created (eg news or policy).		Optional-high	Yes	Asset classes can be created for specific types of content and different workflows can be configured for specific asset classes.
A2.1.8	Provide a workflow that is configurable to allow different approval processes based on where the content item is being published (eg Intranet, Extranet and Internet).		Optional-high	Yes	Workflow processes can be easily customised by non-technical users for each site that is supported by MySource Matrix.
A2.1.9	Provide a workflow that is configurable to allow different approval processes based on how quickly the content item is to be published (eg routine or urgent).		Optional-high	N/A*	By design, all content must progress through the user-defined workflow. However, in an urgent situation it is possible for an administrator to bypass the workflow in order to render the content Live.
A2.1.10	Provide a workflow that is configurable to allow different approval processes if the content item is external (eg content received from external source may have a different approval cycle).		Optional-high	Yes	Content received from an external source can be treated as a specific asset class, which can have its own workflow process.
A2.1.11	Ability to review, approve and action content items held in any identified Web CMS repository, not just web page content for publication (eg review and approve images to be posted to an image library).		Optional-high	Yes	MySource Matrix is an asset-based system and images are a class of asset. Custom workflow processes can be designed for and applied to any asset class.
A2.1.12	Provide a workflow that is configurable to allow different approval processes for different businesses within the Agency.		Optional-high	Yes	Workflow processes can be defined for individual users or groups of users.

<b>A2</b>	<b>Workflow Processes</b>	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
A2.1.13	Provide a workflow approval process that is configurable to support review and approval of template and design creation.		Optional-low	Yes	MySource Matrix is an asset-based system. Templates and designs are a class of asset. Custom workflow processes can be designed for and applied to any asset class.
A2.1.14	Provide preconfigured workflow options that allow for different approval processes depending on Agency requirements and business rules.		Optional-low	Yes	Workflow options can be easily preconfigured according to specific Agency requirements.
<b>A2.2</b>	<b>Workflow Management</b>				
A2.2.1	Ability for authorized non-technical users to create and manage workflow processes. No scripting or programming should be required.	Core		Yes	MySource Matrix is specifically designed to support non-technical users. Programming and scripting knowledge is not required for customising workflow processes.
A2.2.2	Ability to view the status of a content item through the workflow process.	Core		Yes	A view-only option can be configured for all users to provide the ability to view the status of a content item.
A2.2.3	Ability to escalate workflow items.		Optional-high	Yes	Users with Administration privileges for a particular asset are able to force a change in the status of a workflow item.  Automated escalation rules are currently being considered for future versions.
A2.2.4	Ability to reassign workflow items.		Optional-high	Yes	Users with Administration privileges for a particular asset are able to force a change in the status of a workflow item.
A2.2.5	Ability to setup proxy workflow and have that proxy workflow invoked automatically based on Agency business rules.		Optional-high	N/A*	Assuming that "proxy workflow" refers to automated workflow processing, the white-branded version of MySource Matrix does not support this functionality, however, automated escalation rules are currently being considered for future versions.
A2.2.6	Ability to alter or override workflow dependencies to meet real-time needs (eg re-rout workflow tasks).		Optional-high	Yes	Users with Administration privileges for a particular asset are able to force a change in the status of a workflow item to meet real-time needs.
A2.2.7	Ability to include authenticated external users in a workflow.		Optional-low	Yes	Fully devolved content creation and management is able to be performed through a web interface. External users are provided with a username and password which they can use to edit assets in-situ.

<b>A2</b>	<b>Workflow Processes</b>	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
A2.2.8	Ability to manage user feedback generated through the submission of forms.		Optional-high	Yes	Feedback data generated through forms submissions are stored in the MySource Matrix repository and emailed to specified users.
<b>A2.3</b>	<b>Notification</b>				
A2.3.1	Provide a workflow approval process that notifies the appropriate persons when they need to perform a task in relation to an item (eg approval required).	Core		Yes	An internal messaging system for workflow approval alerts is provided with the ability to attach notes.
A2.3.2	Provide notification mechanisms that include email and integrate with Lotus Notes mail or Microsoft Exchange. Notification via email is optional for users.	Core		Yes#	Notification occurs both in MySource Matrix's internal messaging system and through standard email.  When a user changes the status of an asset to Live, each of the users in the first step of the workflow is notified via the internal messaging system and by email. As the asset passes through the steps in the workflow, the relevant users are notified.  Specific email addresses can be removed to prevent email notification, if required.
A2.3.3	Ability for non-technical users to configure notifications to various roles/individuals based on workflow status.	Core		N/A*	All workflow notifications are pre-configured and built into the workflow engine.

<b>A3</b>	<b>Content Publishing &amp; Quality Control</b>	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
<b>Business Driver:</b> To ensure a streamlined publishing process, eliminating, where possible, manual handling of production drafts and facilitating online review and approval.					
A3.1	Ability to publish/unpublish content items to one or many locations within a single site.	Core		Yes	Content is able to be created once and used in many places within a single site.

<b>A3</b>	<b>Content Publishing &amp; Quality Control</b>	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
A3.2	Ability to automatically publish/unpublish content items to one or many locations within a single site on a scheduled date and time.	Core		Yes	Content items can be published and unpublished on a specific date and time to any location on a single site or on multiple sites through the concept of future linking and future status, which is performed as part of the workflow process.
A3.3	Support delivery of content items based on completion of review/approval workflow processes.	Core		Yes	Content delivery to desired locations on completion of the workflow process is standard.
A3.4	Ability to set and change publishing, review and expiry dates of content items.	Core		Yes	Any user with permissions to edit the content item can set and change relevant dates through future linking and future status.
A3.5	Ability to manually override automatically generated review and expiry dates for content items based on role.	Core		Yes	Any user with permissions to edit the content item can change default dates through future linking and future status.
A3.6	Ability to view a list of content items based on status of review and expiry dates.	Core		Yes	MySource Matrix can be configured to display asset listings according to specific attributes such as status.
A3.7	Ability to maintain integrity of internal links within the CMS.	Core		Yes	Inbuilt integrity management tools ensure that links are maintained when content is moved or deleted. MySource Matrix does this by mapping the old URLs to the new URLs.
A3.8	Ability to check internal links in published content items and refresh across the website.	Core		Yes	Inbuilt integrity management tools ensure that links are maintained when content is moved or deleted.
A3.9	Ability to detect, notify, manage and allow maintenance of broken links.	Core		Yes	Inbuilt integrity management tools ensure that links are maintained when content is moved or deleted.
A3.10	Ability to view history of content changes.	Core		Yes	<p>Authorised users can view a full history of any asset within the MySource Matrix repository. The version history includes:</p> <ul style="list-style-type: none"> <li>▪ Version Duration: the date range for which this version existed</li> <li>▪ Time Since Version: the time between the current time and the time when the version was created</li> <li>▪ Version: the version number of the current version</li> <li>▪ View: view the asset at the time it version was created</li> </ul>

A3	Content Publishing & Quality Control	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
A3.11	Ability to view all changes of content in previous version.	Core		Yes	A rollback feature provides the ability to view a website and all its content on a specific date in the past, however, changes are not highlighted.
A3.12	Ability to publish/unpublish content items to more than one website generated by the Web CMS.		Optional-high	Yes	A single content item can be published and unpublished to multiple sites and multiple locations.
A3.13	Ability to publish/unpublish content items to more than one website generated by the Web CMS on a scheduled date and time.		Optional-high	Yes	Content items can be published and unpublished on a specific date and time to any location on a single site or on multiple sites through future linking and future status.
A3.14	Ability to publish/unpublish content items in bulk.		Optional-high	Yes	Content items belonging to the same asset class can be published in bulk.
A3.15	Ability to automatically set or change dates for review and/or expiry of a content item dependent on Agency business rules (eg author, content item type or site standard/policy for review dates).		Optional-high	Yes	Specific timeframes for review and expiry can be applied to any asset class.
A3.16	Ability to search, preview and replace a content item across the site or sites managed by the Web CMS based on Agency business rules.		Optional-high	Partial*	Search, preview and replace of content items is a standard function, however, cannot be automated based on business rules.
A3.17	Ability to publish a single item of content in multiple delivery environments with the option of different delivery requirements/templates (eg displayed on Intranet, Extranet and Internet sites).		Optional-high	Yes	A single content item can be published to multiple sites and multiple locations and to have different templates and designs applied to the content.
A3.18	Ability to publish multiple variations of a single content source to a variety of web page contexts on the same website or to different websites (eg for different audiences, languages, summary or full version of the content item).		Optional-high	Yes	Variations of a single content item can be displayed on multiple sites and in multiple locations, either together or as separate units.
A3.19	Support delivery of content items to a range of delivery channels and technologies, covering both on-line and off-line and including SMS/Mobile Phones, WAP, Palmtops, Interactive Digital TV, Interactive Voice Recognition, fax and print.		Optional-high	Partial*	This can be achieved assuming appropriate templates and designs are available. SMS can be achieved provided an SMS gateway is available. Interactive Digital TV and IVR are not currently supported. New functionality to support a further range of delivery channels is being developed.
A3.20	Ability to provide notification of details of links that will be affected by removal of an expired content item.		Optional-high	Yes	A pop-up message displays all other assets that have a link to an asset that is being removed or expired.

<b>A3</b>	<b>Content Publishing &amp; Quality Control</b>	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
A3.21	Ability to apply mandatory validation processes (eg for accessibility compliance, page size (and speed) and broken links).		Optional-high	Partial*	No built-in capability for validating against specified standards.  AGIMO currently validates for accessibility and coding standards using W3C compliance testing tools <sup>1</sup> .  Manual validation can also be built into the workflow process.

## 4.2 B - Presentation and Discovery

<b>B1</b>	<b>Content Presentation</b>	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
<b>Business Driver:</b> To ensure that information and services are presented in standard Agency styles.					
<b>B1.1</b>	<b>Templates</b>				
B1.1.1	Ability to separate design from content through the use of templates.	Core		Yes	Content assets are completely separated from design assets through the use of design templates and style sheets.
B1.1.2	Ability to select from a number of predefined and/or customisable templates to control the visual presentation of content items.	Core		Yes	Visual presentation of content items is dependent on site design and is fully configurable.
B1.1.3	Ability to generate delivery templates using Cascading Style Sheets (CSS).	Core		Yes	MySource Matrix is fully compliant with CSS2.
B1.1.4	Ability to create a number of predefined and/or customisable templates using a combination of elements such as: navigational elements driven out of metadata repository and defined taxonomy, static links to other internal/external sites, pages or applications, plain/formatted text elements, images and aggregated content items.		Optional-high	Yes	The asset-based nature of MySource Matrix provides the ability to combine various types of assets on a single page.

<sup>1</sup> <http://www.w3c.org/>

<b>B1</b>	<b>Content Presentation</b>	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
<b>B1.2</b>	<b>Accessibility</b>				
B1.2.1	Ability of the Web CMS to support content development that is compliant with...(W3C Accessibility Guidelines).	Core		Yes	The WYSIWYG editor and back-end processing force compliance with accessibility standards. Editing tools can be configured to disallow non-compliant content.
B1.2.2	Provide prompts and tools for the creation and delivery of websites to comply with the ...(W3C Accessibility Guidelines).		Optional-high	Yes <sup>+</sup>	The WYSIWYG editor and back-end processing force compliance with accessibility standards. Editing tools can be configured to disallow non-compliant content.
<b>B1.3</b>	<b>Customisation and Personalisation</b>				
B1.3.1	Provide logging/tracking tools to support customisation, ie the delivery of tailored or specific information and services to an anonymous site visitor.		Optional-high	Yes*	MySource Matrix supports user sessions (session id stored as cookie) to track anonymous user activities and allowing them to customize their experience during that session.
B1.3.2	Support explicit customisation of information, ie the delivery of tailored and specific information and services to a site visitor, based on an established user profile (eg specific content items presented to an Intranet user once they log in).		Optional-low	Yes	Provides web site users with the ability to create an account and to customise content according to individual preferences.
B1.3.3	Ability for users to personalise the look of the entry page (eg My Page concept) and choose to add a number of links/services to their customised page.		Optional-low	Yes	Provides web site users with the ability to create an account and to customise content according to individual preferences.
<b>B1.4</b>	<b>Multilingual Support</b>				
B1.4.1	Ability to deliver information and services in Languages other than English (LOTE).	Core		Yes	Asset classes can be created for the delivery of information and services in LOTE; this is only limited by an organisation's internal capability.
B1.4.2	Ability to display content items and search for content in LOTE.	Core		Yes	Asset classes can be created for the delivery of information and services in LOTE.
B1.4.3	Ability to build navigation structures in LOTE.	Core		Yes	Navigation structures can be created for the delivery of information and services in LOTE.

<b>B2</b>	<b>Content Discovery</b>	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
<b>Business Driver:</b> To ensure users are able to successfully find relevant information via searching or browsing, with a minimum of effort.					
<b>B2.1</b>	<b>Metadata Generation</b>				
B2.1.1	Ability to assign or generate content item keywords and Australian Government Locator Service (AGLS) metadata elements at the same time as content is created.	Core		Yes	AGLS compliant metadata is created as part of the content creation and approval process.
B2.1.2	Ability to review/approve metadata at the same time as the content item, as part of the one process/workflow.	Core		Yes	AGLS compliant metadata is created as part of the content creation and approval process.
B2.1.3	Support tools to facilitate metadata generation during content item creation, including keyword "pick lists" to allow metadata to be chosen from pre-established schema.	Core		Yes	Supports AGLS and other user-defined schemas.  AGLS compliant metadata is created as part of the content creation and approval process.
B2.1.4	Ability to interface with thesauri (eg Whole of Victorian Government and electronic document management thesauri).	Core		No**	Enables thesaurus based searching of content. It is planned to incorporate linkages to the NAA thesauri in future versions.
B2.1.5	Ability to include required metadata elements other than AGLS eg custom extensions.	Core		Yes	Custom metadata schemas are able to be created by users with Administration privileges.
B2.1.6	Support mandatory Victorian Electronic Records Strategy (VERS) metadata elements as per "Public Records Office Standard (PROS) 99/007 Version 2, Specification 2: VERS Metadata Scheme". <i>This is a mandatory requirement where the Web CMS contains permanent records, as defined in any relevant Records Authorities.</i>		Optional-high	Yes <sup>+</sup>	MySource Matrix is fully compliant with the <i>e-permanence</i> set of policies and guidelines, as issued by the National Archives of Australia.
<b>B2.2</b>	<b>Search</b> - The search function may be part of the Web CMS or it may be a third party search engine. The following requirements will be provided or supported by the Web CMS.				
B2.2.1	Provide comprehensive search facilities across the entire website, multiple sites or sub sites to support content publishing.	Core		Yes	MySource Matrix provides an internal search engine for searching across content repositories. The engine enables the creation of search pages, folders and lists.

B2	Content Discovery	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
B2.2.2	Support automatic indexing, keyword generation, and full-text indexing.	Core		Partial*	The search engine provides automatic and full-text indexing for supported web sites and is able to provide the same type of content discovery at the back-end. MySource Matrix has a search interface for the administration interface called "search folders".  Keyword generation is provided through full-text indexing. There is an automatic tool for generating a keyword list that can be used to populate a "keywords" metadata field. Keywords are ranked according to the number of times they appear in a content item.
B2.2.3	Support indexing of text and common attachments (eg Microsoft Office, Adobe PDF etc) within the Web CMS.	Core		Yes	MySource Matrix provides an internal search engine for searching across content repositories. This is not automated.
B2.2.4	Support separate indexing of content items for each supported website.	Core		Yes	Separate indices are created for each supported web site.
B2.2.5	Ability for the Web CMS to control access to items of content from search and/or site map indexing based on Agency business rules (eg permissions).	Core		Yes	Indexing can be turned off at the asset level.
B2.2.6	Support comprehensive external search facilities across the entire website, multiple sites or sub sites for end users.	Core		Yes	Search indices can be configured to allow searching across an entire site, part of a site or across multiple sites.
B2.2.7	Ability for the Web CMS to integrate simple and advanced search screens and result screens into the user interface.	Core		Yes	Simple and advanced search categories and related terms are supported based on meta data and asset trees.
B2.2.8	Support the use of Boolean operators (and; or; not) and proximity operators (near; with) to refine searches and accept phrases for full-text searches.	Core		No*	"And/or" searches are supported, but other Boolean operators are not, however, this functionality can be provided through interfaces with 3 <sup>rd</sup> party search tools.
B2.2.9	Ability for the Web CMS to control the discoverability of content items by external search engines.	Core		Yes	Indexing can be turned off at the asset level. Also supports the use of robots.txt files and Harvest Control Lists.
B2.2.10	Support ability to query and retrieve AGLS metadata.	Core		Yes	Search and retrieval of AGLS metadata can be performed at the back-end for content within the MySource Matrix repository.

<b>B2</b>	<b>Content Discovery</b>	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
B2.2.11	Support the measurement of the use/effectiveness of each keyword search query entered by a user in searching the website. This capability may be provided by a third party web metrics facility.		Optional-high	Yes*	Can interface with third party tools for this purpose, eg WebTrends.
B2.2.12	Support the automatic modification of search results based on site usage and search patterns (eg weighting the most popular sites/search results selected by the user to appear high in the search results list).		Optional-high	Yes	Relevance weightings can be applied at the asset level.
B2.2.13	Ability for the Web CMS to generate a plain english URL for key web pages for easy referencing by non-technical end users and search engines.		Optional-high	Yes	MySource Matrix is able to display an asset page name, rather than it's ID in the address bar of the end-user's browser. It also allows remapping of a specific URL to a virtual directory name.
B2.2.14	Ability for the Web CMS to interface with thesauri or allow import of thesauri data into search engine thesaurus for browsing, selection and searching.		Optional-high	Yes	Enables full text searching and thesaurus based searching of content.
B2.2.15	Support indexing of text and common attachments (e.g Microsoft Office, Adobe PDF etc) across a number of repository types such as file systems and databases.		Optional-low	No*	Only available for content within the MySource Matrix repository, however, the functionality could be provided through the use of 3 <sup>rd</sup> party tools.
B2.2.16	Support "pre-processing" of all search terms against the thesauri and automatically include related terms in the search.		Optional-low	No*	This functionality could be provided through the use of 3 <sup>rd</sup> party tools.
B2.2.17	Provide a soundex (sounds like) capability in the thesaurus function so that misspelled terms can be related to their correct spelling.		Optional-low	No*	This functionality could be provided through the use of 3 <sup>rd</sup> party tools.
<b>B2.3</b>	<b>Navigation Structure</b>				
B2.3.1	Ability to create new navigation structures with a minimum of effort.	Core		Yes	Navigation structures are managed through a hierarchical asset tree. A simple drag and drop functionality provides the ability to change existing structures. New structures are created by inserting new assets into the asset tree.
B2.3.2	Support automatic updating of navigation structures as the site structure and content items are updated.	Core		Yes	The navigation structure is automatically updated as assets are created, updated or expired.
B2.3.3	Ability to automatically generate and update a site map for each website.	Core		Yes	Site maps can be automatically generated by replicating the asset tree on supported web sites.

B2	Content Discovery	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
B2.3.4	Ability to modify a navigation menu look and feel.	Core		Yes	Navigation menus can be modified by updating associated design templates and style sheets.
B2.3.5	Provide navigation menus that support a minimum of four levels of navigation.	Core		Yes	Navigation menus can be created to support any level of navigation, as required.
B2.3.6	Ability to modify the navigation structure while automatically maintaining links to published content items.	Core		Yes	Inbuilt integrity management tools ensure that links are maintained if navigation structures are modified. MySource Matrix does this by mapping the old URLs to the new URLs.
B2.3.7	Ability to create automated breadcrumbs trail.		Optional-high	Yes	Breadcrumb trails are able to be created using asset page names in either long or short form.

### 4.3 C - Technical

C1	Compliance	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
<b>Business Driver:</b> To ensure that the Web CMS complies with industry standards so that the system is robust and integrates with existing platforms and applications.					
C1.1	Provide or support standards-based development tools (eg XML, CSS, DHTML, XSLT and other open standards).	Core		Yes	Native support for WML, XHTML and CSS2 is provided.  Form Builder Module allows for the creation of online forms without requiring technical skills. These forms may be set to email their output to nominated staff or to allow the output to be downloaded in CSV or XML format.
C1.2	Support Agency application servers and platforms.	Core		Partial*#	The white-branded version is provided as an integrated solution combining web server, database, CMS and operating system software. MySQL and Postgres SQL are supported through the PEAR database extraction layer. Oracle and MS SQL Server support are expected in the future.  Apache is supported on Windows and Linux.
C1.3	Support operating systems, browser and productivity	Core		Yes#	Supports Internet Explorer on Windows, Netscape on Windows, MacOS and Linux, and

C1	Compliance	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
	applications included in Agency SOEs.				Mozilla on Windows, MacOS and Linux browsers. For edit access the Sun Java Virtual Machine is required. The SOE would need to support the Sun Java VM.
C1.4	Support current industry standard web programming frameworks (eg J2EE or Microsoft .NET).	Core		Yes#	PHP Apache is the web programming framework used by MySource Matrix. PHP is an open source language. PHP Hypertext Preprocessor, or PHP, is a server-side scripting language used to create dynamic Web pages. <a href="http://www.php.net/usage.php">http://www.php.net/usage.php</a> usage statistics for August 2004 indicates that PHP is in use on over 16 million domains.  J2EE and .Net are not supported.
C1.5	Support standard messaging protocols (eg SMTP, MIME).	Core		Yes	Uses an internal messaging system that allows communication with other authors via a browser-based interface. Notifications can also be sent externally using SMTP.
C1.6	Support data exchange involving open standards and protocols for web services. This includes WSDL (web services definition language), UDDI (Universal Description, Discovery and Integration) and SOAP (Simple Object Access Protocol).		Optional-high	No*	There is limited data exchange support in the white-branded version of MySource Matrix.

C2	Product	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
<b>Business Driver:</b> To ensure the product meets the Agency requirements.					
C2.1	<b>Testing, Staging &amp; Deployment</b>				
C2.1.1	Support development, testing / staging and production environments, and control of movement between each.	Core		Yes	Provides staging and due to open source licencing can be deployed onto multiple servers. Workflow can be defined to provide development testing and staging environments which controls the movement between each. Note that this functionality is provided internally to Matrix as the current white

C2	Product	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
					branded version does not incorporate support for multiple instances and control of data between multiple systems.  The system manages its own staging environment so that editors may view the content as if it were live and operational without the content being available to the public.
C2.1.2	Ability to view history of all template changes.	Core		Yes	An audit trail is maintained of all changes
C2.1.3	Provide tools to support deployment of sites, including externally hosted sites.	Core		Yes	Deployment of sites can be managed through workflow and publishing functions. Note that externally hosted sites would require Matrix to be installed on the externally hosted server.
C2.1.4	Provide tools to support deployment of sites, including externally hosted sites, across a number of servers.	Core		No*	Replication support is not provided. It would be necessary to setup a Linux or database cluster to facilitate replication between other systems.
C2.1.5	Provide monitoring of deployment to production and notification deployment if it fails.	Core		Yes*	Publishing ie. changing an asset status from "Approved to go live" to "Live" is a manual process conducted by an Administrator. When a user changes the status of an asset to Live, each of the users in the first step of the workflow is notified via the internal messaging system and by email. As the asset passes through the steps in the workflow, the relevant users are notified.  If an error occurs during deployment to production, a system-generated error message is sent to the Administrator.
C2.1.6	Support central or decentralised content publishing.	Core		Yes	As all updating is browser-based, anyone with appropriate access can maintain the system anywhere there is a web connection,

C2	Product	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
C2.1.7	Support the Agency disaster recovery plan (eg storage and backup of content on multiple servers).		Optional-high	Yes#	Scripts are provided with the white-branded product that can be run on the server to automatically backup the system. Users of the system can have these files automatically secure-copied to another server for activation in the case of disaster recovery. All information to restore the system (excluding the server platform) is included in the backup tar file. Rollback capability is provided to enable rollback of the entire site at a specified date and time.
C2.1.8	Ability to access all parts of the Web CMS via the web browser.		Optional-high	Yes	The user can access and operate MySource Matrix in the same way that they would use a normal web page. By entering a username and password, it will allow the user access to special pages to enable them to add and manage the content for the website.
<b>C2.2</b>	<b>Reliability and Performance</b>				
C2.2.1	Provide a reliable and stable Web CMS with a proven capability and continuous high levels of up-time based on Agency service level agreement.	Core		N/A#	Performance will be subject to appropriate design and capacity planning including adequate hardware and agreed service levels.
C2.2.2	Response time will meet Agency requirements for both Web CMS users and end users.	Core		N/A#	Performance will be subject to appropriate design and capacity planning including adequate hardware and agreed service levels.
C2.2.3	Provide scalability as Agency sites, systems and site usage increases or decreases.	Core		Yes#	<p>MySource Matrix supports multiple sites. The only limitations relate to the capacity of the server hardware, database software and for users to operate highly complicated sites.</p> <p>MySource Matrix can be deployed across Linux clusters.</p> <p>The information architecture of MySource Matrix is highly scalable. Non-technical users are able to expand and change site structures as business requirements change.</p> <p>Scalability is subject to appropriate design and capacity planning.</p>

C2	Product	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
					Open source licensing does not restrict multiple servers, however replication/syndication across multiple servers is not currently provided in the white-branded version.
<b>C2.3</b>	<b>Audit Trail</b>				
<b>C2.3.1</b>	<b>Non-Permanent Records</b>				
C2.3.1.1	Ability to support audit logging of the history of content items after approval for publishing up until the content items, under control, are removed from the Web CMS.	Core		Yes	Comprehensive audit logs are automatically generated of every change to every asset in the system in the system log. For each entry a record is kept of the user that made the change and the time it was made. Logs may be recorded to file or database and may be divided into separate files and destinations if required.
<b>C2.3.2</b>	<b>Permanent Records - The following are mandatory requirements where the Web CMS contains permanent records, as defined in any relevant Records Authorities.</b>				
C2.3.2.1	Ability to support a sufficiently detailed audit trail for permanent records to meet the requirements of "PROS99/007 Version 2, Specification 1: System Requirements for Preserving Electronic Records" sections 3.1, 3.2, 3.5, 3.6.	Core		Yes <sup>+</sup>	<p>The product complies with the <i>Guide to Minimum Web Standards</i>, AGIMO, April 2003. Compliance is supported through audit logs and rollback functionality.</p> <p>Comprehensive audit logs are automatically generated of every change to every asset in the system log. For each entry a record is kept of the user that made the change and the time it was made. The audit logs can not be amended through the CMS.</p> <p>Entire versions of web sites are retained in the database and cannot be deleted through the CMS interface. The rollback functionality enables rollback of the site for any specified data or time. This will be only limited by the storage capacity of the database and supporting hardware.</p> <p>MySource Matrix maintains version numbers for every asset in the system with the format:</p>

C2	Product	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
		Core			<p>MajorNo.MinorNo.MicroNo. For example, an asset is created with the original version of 0.0.1 and with every change the micro number is incremented (e.g. 0.0.2, 0.0.3 etc). Each time an asset is made Live, the minor version number is automatically incremented. For example, when an asset is first made Live, its version number is automatically updated to 0.1.0.</p> <p>To associate the pages of a site with a release or checkpoint, an administrator has the ability to manually change the major version number of the asset, for example, set the version to 1.0.0. This change can be cascaded down to all the pages in a site.</p> <p>Administrators may view the history of the site and roll-back to view information from a specific release version/date.</p>
C2.3.2.2	Ability to keep the audit trail within the Web CMS long enough to be available when permanent records are exported to another system.	Core		Yes	Audit trails are retained and tied to the asset. Deletion of an asset will delete the audit trails associated with the asset. A record of the asset deletion is retained. If rollback functionality is enabled assets and associated audit trails could be retrieved through rollback.
C2.3.2.3	Ability to support audit logging of the history of content items (that are permanent records) after approval for publishing up until the content items, under control, are removed from the Web CMS.	Core		Yes	Comprehensive audit logs are automatically generated of every change to every asset in the system in the system log. For each entry a record is kept of the user that made the change and the time it was made. Logs may be recorded to file or database and may be divided into separate files and destinations if required.
<b>C2.4</b>	<b><i>Version Control - Temporal</i></b>				
C2.4.1	Ability to manage versions of individual content items and pages (eg including details of records such as publishing and revision dates, activities, content creator).	Core		Yes	Multiple versions are supported provided that the assets exist within Rollback. It is not possible to edit a previous version through the CMS.

C2	Product	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
					<p>MySource Matrix maintains version numbers for every asset in the system, with the format: MajorNo.MinorNo.MicroNo.</p> <p>Each time an asset is made live, the minor version number is automatically incremented. For example, when an asset is first made live, its version number is automatically updated to 0.1.0.</p> <p>To associate the pages of a site with a release or checkpoint, an administrator has the ability to manually change the major version number of the site. For example, set the version to 1.0.0. This change can be cascaded down to all the pages in a site.</p>
C2.4.2	Provide tools to roll-back site to the chosen version.	Core		Yes	Rollback can be performed to any specified version subject to configuration of rollback functionality.
C2.4.3	Provide version control management for content and templates in development, test/stage and production environments.	Core		Yes	Version Control includes a comprehensive versioning tool providing automatic version numbering when users make any changes to the system, and a manual over-ride to force a new "major" version. Subject to single installation.
<b>C2.5</b>	<b>Electronic Records Management - The records management function may be part of the Web CMS or it may be part of the electronic document management system.</b>				
<b>C2.5.1</b>	<b>Non-Permanent Records</b>				
C2.5.1.1	Capability to identify and track content objects or collections of content objects that constitute electronic records.		Optional-high	Yes	This functionality is provided for each asset. Objects and collections would need to be defined as an asset.
<b>C2.5.2</b>	<b>Permanent Records - The following is a mandatory requirement where the Web CMS contains permanent records, as defined in any relevant Records Authorities.</b>				
C2.5.2.1	Ability to export permanent electronic records in accordance with "PROS99/007 Version 2, Specification 1: System Requirements for Preserving Electronic Records", section 3.9, Specification 3: VERS Standard Electronic Record Format" and Specification 5: Export of Electronic	Core		N/A**	No export tools are provided with the CMS. It is not possible to export elements of a site without affecting the integrity of the links.

C2	Product	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
	Records to PROV", where the Web CMS is not integrated with another Victorian Electronic Records Strategy (VERS) compliant system in the organization.				
<b>C2.6</b>	<b>Content Aggregation and Syndication</b>				
C2.6.1	Ability to maintain synchronisation, automatically updating appropriate content used by multiple pages or sites so that it remains consistent.		Optional-high	Yes	Internally to the CMS synchronisation can be achieved.
C2.6.2	Ability for both inbound and outbound content syndication (eg news, weather, police alerting services).		Optional-high	Partial*	MySource Matrix can syndicate content through RSS (publish but not receive). The ability to receive information is planned for future versions.  RSS refers to RDF Site Summary or, Really Simple Syndication. RSS is an XML-document format intended to describe, summarise, and distribute the contents of a website as a 'channel', made available for access via an RSS reader
C2.6.3	Ability to aggregate and/or present information from external sources.		Optional-high	Yes*	A "remote content" tool is provided to enable presentation of content from other web-enabled systems. It works as a screen-scraper and redisplay the content in the context of the site design.
<b>C2.7</b>	<b>Content Migration</b>				
C2.7.1	Ability to migrate existing web content and structure into the Web CMS from legacy sites, systems and data repositories with a minimum of effort and re-working.	Core		No	Content migration must be performed manually.
C2.7.2	Ability to migrate content links to a new Web CMS.		Optional-high	No	Content migration must be performed manually.
C2.7.3	Ability to import/export content items into an agreed markup language (eg to make a copy of the website on CD-ROM).		Optional-high	No*	Export of a static web site can be performed using Httrack, an open source tool, which can be provided with the white-branded package.
C2.7.4	Ability to import/export associated content records (eg metadata).		Optional-high	No*	There is limited data exchange support in the white-branded version. However, a Harvest Control List makes assets available to external search engines.

C3	Security	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
<b>Business Driver:</b> To ensure the product meets Agency security standards.					
C3.1	Ability to integrate with Agency security requirements.	Core		N/A#	The product may have to be tailored to fit agency-specific security architectures. Matrix can authenticate with LDAP and Microsoft Active Directory.
C3.2	Ability to provide role based security (based on roles as defined in the Web CMS) across all templates, content, processes and repositories (eg for individuals, groups of users, individual files, directories or sites).	Core		Yes	<p>Users must be authenticated with a username and password, which may in turn be authenticated against an LDAP or AD server. Administrators can set levels of user permissions through the directory ensuring a single repository of user accounts.</p> <p>All content (assets) may have access privileges individually controlled for different users and groups (roles). User accounts are allocated to one of three general profiles:</p> <ul style="list-style-type: none"> <li>▪ Normal user: no authoring</li> <li>▪ Editor: may author</li> <li>▪ Administrator: administration interfaces</li> </ul>
C3.3	Provide flexibility and access to override all files and processes, given the rights to do this are limited to ensure compliance with "PROS99/007 Version 2, Specification 1: System Requirements for Preserving Electronic Records" sections 3.1, 3.2, 3.5, 3.6 and 3.7.		Optional-low	Yes <sup>+</sup>	Matrix includes manual over-ride by administrators to force a new "major" version. Workflow rules can only be over-written by a system administrator.
C3.4	Ability to interface with external directory services for security and authentication, using industry standard protocols (eg Lightweight Directory Access Protocol - LDAP).		Optional-high	Yes	<p>Users must be authenticated with a username and password, which may in turn be authenticated against an LDAP or AD server. Administrators can set levels of user permissions through the directory ensuring a single repository of user accounts.</p> <p>Security for editor access can occur through:</p> <ul style="list-style-type: none"> <li>▪ user login and password</li> <li>▪ IP based sessions</li> <li>▪ SSL encryption</li> <li>▪ IP address range restriction</li> </ul>

C3	Security	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
C3.5	Ability to restrict access by end users to designated areas of a website using authentication mechanisms such as user name and password.		Optional-high	Yes	You can deny users public read access to a site or section of a site, thus creating a "members only" area where users must login before gaining access.
<b>C3.6</b>	<b>Permanent Records</b> - <i>The following is a mandatory requirement where the Web CMS contains permanent records, as defined in any relevant Records Authorities.</i>				
C3.6.1	Where the Web CMS contains or generates the only instance of a permanent record, provide the ability for security controls to support the requirements of "PROS99/007 Version 2, Specification 1: System Requirements for Preserving Electronic Records" sections 3.1, 3.2 and 3.5. The audit trail will also need to be kept within the system long enough to be available when the records are exported to the PROV or another system.	Core		Yes <sup>†</sup>	Subject to the provision that database administrative access could be used to bypass the CMS security.  The audit trail is retained as long as the asset is retained within the rollback system.

C4	Content Repository	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
<b>Business Driver:</b> To ensure the effective and controlled management of content.					
C4.1	Provide a repository and/or repositories that may be accessed as and when required, by authorised users. The repositories will be used as the central and definitive content source (eg a central image repository, metadata repository and other digital assets that can be reused for content creation and display).	Core		Yes	Through the Asset Library Matrix stores commonly used images and files in a single location and display them in multiple sites.
C4.2	Support a wide range of common content types: structured content (eg database data, Microsoft Excel spreadsheets, forms and transactions); documents (eg Microsoft Word, Acrobat PDF, RTF, straight text, XML and HTML pages); presentations (eg Microsoft PowerPoint presentations, drawings, plans and maps, images, audio, video and other "rich" media).	Core		Yes	MySource Matrix allows you to upload and embed graphics and files (including rich media) – in fact, almost any standard file type is supported e.g. Word, Excel, PDF, MPEG etc. This allows for the easy creation of document libraries and image libraries.

C4	Content Repository	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
C4.3	Provide check-in/check-out control for each content item stored in the content repository.	Core		Yes	This is achieved through asset locking. All assets must be locked prior to making changes. This feature is essential to a multiuser authoring environment, as it prevents multiple users from working on the same piece of information at the same time. Asset locking takes place at the attribute level, so that it is not necessary to lock the whole asset to make a change. For example, one editor may safely change metadata for an asset, while another changes content on the page. This facilitates a multi-author environment where different authors have different roles.
C4.4	Support storage and retrieval of content in Agency standard software products (eg DBMS, EDMS and text files).		Optional-low	No*#	There is limited data exchange support in the white-branded version.
<b>C4.5</b>	<b>Permanent Records</b> - <i>The following is a mandatory requirement where the Web CMS contains permanent records, as defined in any relevant Records Authorities.</i>				
C4.5.1	Ability to render all content elements or collections of content elements, that are permanent records and that are created, managed or delivered through the Web CMS into PDF format (for document type objects) or TIFF (for plans) in accordance with "PROS99/007 Version 2, Specification 4: VERS Long Term Preservation Formats", sections 3.2 and 3.3.	Core		N/A**	Ability to render assets to PDF and other file formats is being investigated for future versions.

C5	<b>Reporting and Monitoring</b> - <i>The reporting function may be part of the Web CMS or it may be a third party product.</i>	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
<b>Business Driver:</b> To ensure comprehensive web metrics reporting on site usage and management.					
C5.1	Support Agency reporting tools to provide information and statistics on website usage by clients.	Core		Yes#	<p>Supports standard web server traffic logs.</p> <p>The sensible URL structure of MySource Matrix means it is easy to see which areas of the site are the most popular and how many visits they are receiving.</p> <p>Traffic logs may be generated by the web server in standard formats (eg NCSA) so that common statistics packages, such as WebTrends and its open source equivalents Webalizer and AW Stats, may analyse the data.</p> <p>These packages provide statistics such as:</p> <ul style="list-style-type: none"> <li>• Daily and hourly usage trends</li> <li>• Hits, visits, sites viewed, Kbytes downloaded, files downloaded</li> <li>• Most accessed pages</li> <li>• Pages by kbytes downloaded</li> <li>• Top entry and top exit pages</li> <li>• Top referrers</li> <li>• Top search strings used to access the site</li> <li>• Most used browsers</li> </ul>
C5.2	Ability to monitor workflow approval and notification processes for all content items.		Optional-high	Yes	Workflow approval and notification can be monitored by configuring search folders to display results based on business rules, such as workflow status.

#### 4.4 D – Interdependencies

D1	Interfacing with External Systems	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
<b>Business Driver:</b> To exchange information with other Organisations and to enable being part of a portal environment with other online service providers.					
D1.1	Provide an Application Programming Interface (API) and architecture to connect and interact with external systems.	Core		Yes	<p>The MySource Matrix API documentation can be viewed by running the PHP documenter tool against the source code.</p> <p>The API can be used to build custom connectors.</p>
D1.2	Ability to integrate with site analytics and reporting tools and services.	Core		Yes	<p>Supports standard web server traffic logs.</p> <p>The sensible URL structure of MySource Matrix means it is easy to see which areas of the site are the most popular and how many visits they are receiving.</p> <p>Traffic logs may be generated by the web server in standard formats (eg NCSA) so that common statistics packages, such as WebTrends and its open source equivalents Webalizer and AW Stats, may analyse the data.</p> <p>These packages provide statistics such as:</p> <ul style="list-style-type: none"> <li>▪ Daily and hourly usage trends</li> <li>▪ Hits, visits, sites viewed, Kbytes downloaded, files downloaded</li> <li>▪ Most accessed pages</li> <li>▪ Pages by kbytes downloaded</li> <li>▪ Top entry and top exit pages</li> <li>▪ Top referrers</li> <li>▪ Top search strings used to access the site</li> <li>▪ Most used browsers</li> </ul>
D1.3	Ability to integrate with link checking utility tools.	Core		Yes	Broken link checker is built into Matrix.
D1.4	Ability to interface with external search engines.	Core		Yes	Supports integration with third party search tools.

D1	Interfacing with External Systems	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
D1.5	Support content and metadata creation/contribution requirements for Victoria Online (www.vic.gov.au).		Optional-high	Yes* <sup>+</sup>	Complies with AGLS metadata requirements.
D1.6	Ability to integrate with organization engines (eg filter content, change presentation based user preferences).		Optional-high	Yes	Functionality is provided internally, does not require an external engine. Could be provided through a third party tool.
D1.7	Ability to interface with Victorian Electronic Records Strategy (VERS) compliant systems within the Organization (eg: Electronic Records Management System) if the Web CMS itself is not fully VERS compliant. <i>This is a mandatory requirement where the Web CMS contains permanent records, as defined in any relevant Records Authorities.</i>		Optional-high	N/A* <sup>+</sup>	There is limited data exchange support through the white-branded version. A custom connector would be required to be built.

D2	Interfacing with Internal Systems	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
<b>Business Driver:</b> To provide seamless information exchange across internal systems and integrate with existing business processes and infrastructure.					
D2.1	Ability to integrate with Lightweight Directory Access Protocol (LDAP) directories, in particular information from underlying directories that may be used for workflow routing and notifications.	Core		Yes	MySource Matrix verifies user name and passwords off LDAP/Active Directory. Administrators can also set levels of user permissions through the directory ensuring a single repository of user accounts.
D2.2	Ability to integrate with products included in Agency standard operating environment (SOE) (eg MS Office, Lotus Notes, reporting tools, search tools).	Core		Yes	Because the product is browser based. It is compatible with the client workstation SOE which generally includes browsers.  Editors require access to Java enabled versions of browsers. No client software is required other than a standard Java 2 enabled web browser (Internet Explorer 6.0+ and Mozilla). Through these two browsers, most common desktop operating systems are supported, and operation in organisation-wide Standard Operating Environments (SOE) is enabled.

<b>D2</b>	<b>Interfacing with Internal Systems</b>	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
D2.3	Ability to interface with Agency websites and portals through the exchange of metadata or equivalent process, in order to ensure that all published content is immediately discoverable.	Core		Partial	The Harvest Control List displays metadata in a format required by government search engines and other indexers, allowing immediate asset discoverability.  Matrix does not accept inbound metadata.
D2.4	Ability to run on the platform chosen by the Agency.	Core		Yes#	Linux and Windows are supported. Squiz have also indicated that the Matrix runs under Solaris, BSD and MacOSX.  It should be noted that the white-branded version is intended for shipment as an integrated appliance incorporating Linux, Apache, PostgreSQL and PHP.
D2.5	Provide open Application Programming Interfaces (APIs) for creation of custom connectors to other systems.	Core		Yes	The matrix API documentation can be viewed by running the PHP documenter tool against the source code.  The API can be used to build custom connectors.  Uses PHP as the web scripting language. Coding follows the PEAR development standard.
D2.6	Ability to interface with the Agency and WoG messaging systems for workflow tasking, scheduling and collaboration (eg Agency SOE mail messaging).	Core		Yes#	Workflow tasking, scheduling and collaboration is supported through in-built notification mechanisms. Also supports standard email messaging.
D2.7	Ability to integrate with Agency Electronic Document Management System (EDMS) workflow and other document management components.		Optional-high	No*#	Application connectors would need to be developed to provide this functionality.
D2.8	Ability to use XML to interface with other products.		Optional-high	Partial*	It is possible to publish XML through Harvest Control Lists, RSS and asset listings. XML can be accepted through the creation of a custom asset. The product is capable of accepting content that PHP is capable of reading. Some programming effort to display XML through the Matrix API may be required.

D2	Interfacing with Internal Systems	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
D2.9	Ability to operate with the Agency's chosen database products (eg Lotus Notes, Oracle and Microsoft SQL).		Optional-high	No*#	Uses the PEAR database abstraction layer and supports the following databases: <ul style="list-style-type: none"> <li>MySQL</li> <li>PostgreSQL</li> </ul>
D2.10	Provide connectors to the Agency Enterprise Resource Planning (ERP), Customer Relationship Management (CRM) or Human Resource (HR) systems.		Optional-high	No*#	Application connectors would need to be developed to provide this functionality.
D2.11	Ability to integrate with third party workflow processes.		Optional-high	No*#	Application connectors would need to be developed to provide this functionality.

#### 4.5 E - Support and Training

E1	Product Technical Support and Documentation	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
<b>Business Driver</b> - To ensure that the Web CMS continually performs at its optimal level, it has to be comprehensively supported.					
E1.1	The Web CMS will be well established in Australia with good local technical capability to support implementation and future upgrade path.	Core		N/A#	
E1.2	Provide system support options that meet Agency business needs. Support options may include a comprehensive phone and online help desk service 12x5, emergency support available 24x7 and service level agreements.	Core		N/A#	
E1.3	Provide online contextual help available within the Web CMS at the time of content entry by users.	Core		Yes*	Documentation is provided as outlined below. Tool-tips are available from the administration interface for contextual help.
E1.4	Provide soft and/or hard copy user and technical documentation with the Web CMS.	Core		Yes	Current documentation includes: <ul style="list-style-type: none"> <li>System Functional Overview - A high level description of the key functionality of MySource Matrix.</li> <li>Administration Editor Manual - Details all of the functionality available through the MySource Matrix Administration interface.</li> </ul>

E1	Product Technical Support and Documentation	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
					<ul style="list-style-type: none"> <li>▪ System Admin User Manual - Details the administration functionality of MySource Matrix.</li> <li>▪ Design Guide - Teaches web designers how to load their own designs to MySource Matrix.</li> </ul> <p>Documentation yet to be released includes:</p> <ul style="list-style-type: none"> <li>▪ Installation and system support guide - Will provide instruction on the installation of MySource Matrix and its ongoing maintenance.</li> <li>▪ Simple Editor Manual - Will provide support for users editing content through the simple edit interface.</li> <li>▪ Developers Documentation - Will provide a comprehensive list of all functions and their relationships in MySource Matrix.</li> </ul>
E1.5	Provide documentation within the Web CMS of all customisation, version control changes or additional development of the Web CMS.	Core		Yes	The upgrade and patching system is built into Matrix.
E1.6	The Web CMS will be supported by user groups and other non-official channels that the agencies and WoG can access to provide additional support for the Web CMS.		Optional-low	Yes	An online user forum for Matrix has been established.
E1.7	Provide wizards or walk-throughs to guide users through complex tasks or when first using the Web CMS. This is optional for the user.		Optional-low	No*	

E2	Training	Victorian Government Core Requirement	Victorian Government Optional Requirement	Complies?	Comment
<b>Business Driver:</b> To ensure staff are proficient in contributing content and managing the site.					
E2.1	Provide training options for staff in technical and specialist areas such as site management, creating templates and workflows.	Core		N/A#	
E2.2	Provide training options for staff to become proficient in the content creation, content maintenance, review and approval processes.	Core		N/A#	
E2.3	Provide train-the-trainer options.		Optional-high	N/A#	
E2.4	Provide online training with the Web CMS.		Optional-high	N/A#	