

## Product Assessment

The following summarizes the Web CMS Implementation Committee’s assessment of Hannon Hill Cascade Server and serves to document its recommendation to proceed with deployment of the system at UC Davis.

The committee’s evaluation and endorsement of the product are framed by the goals and objectives set forth in the UC Davis Web CMS Initiative as well as the specific functional and technical requirements defined in earlier phases of the project, and reflect the extensive experience gained during the testing, configuration and implementation of the system over the course of 2008.

The Web CMS implementation committee includes technologists, communicators and other staff from units and departments across the campus who have agreed to participate in the testing and deployment of the Web CMS, and who have volunteered to be among the first to adopt the system. The conclusions of this assessment have been reviewed, discussed and agreed upon by the following members:

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The conclusions of this assessment and endorsement of Cascade Server were reaffirmed by a committee vote of **15-0** in favor of proceeding.

		Yes	No	Comments
	Technical Requirements			
1	Open APIs	X		<p>The vendor provides documentation describing its APIs and a code library (“CAST”) that ties in with Cascade Server.</p> <p>The product also employs a Java-based plug-in API architecture for additional product enhancement. During the course of testing and configuration, the implementation committee was able to successfully customize and deploy a Java plug-in that integrates Cascade authentication with campus CAS systems.</p> <p>Cascade Server offers substantial extensibility “out of the box” within its inherent capabilities and feature set. The implementation committee has successfully leveraged the product’s XSL and XML underpinnings to enhance the system significantly.</p>
2	WYSIWYG content editor	X		Cascade Server uses TinyMCE – a third-party, open source component - as the product’s integrated WYSIWYG content editor. There are some minor issues associated with the editor itself, but the overall function of the tool is within acceptable tolerances.
3	Automatically generate bread crumb links	X		The implementation committee has successfully integrated automated bread-crumbs generation functions into the template system.
4	Scalable to meet campus requirements	X		The system is capable of hosting at least hundreds of independent sites “out of the box.” Because the system does not host published Web sites, traffic is not a significant concern. However, the system allows for load-balanced and scaled deployments, if required.
5	Maintain full content and client functionality across browsers and platforms	X		The Web CMS has been tested and confirmed to be functional in Internet Explorer 6 and 7, Safari (Mac and PC), Firefox (Mac and PC) and Google Chrome.
6	Spell check	X		Integrated spell check capabilities can be triggered manually, by default, or automatically as part of a workflow process.
7	High availability/reliability	X		Throughout testing the product has been very stable, with no significant errors to report. The vendor quickly addresses bugs and provides frequent patches which are easily deployed with little downtime.

		Yes	No	Comments
8	Supports staging environments	X		Cascade Server allows content to be published to multiple target destinations. Workflows can be employed to publish site content to a staging server before it is "released" and re-published to a live hosting environment.
9	Audit logging	X		Hannon Hill Cascade Server logs all user activities and make log information available via an intuitive tool called the "Audit Trail." Administrators can see a summary of activities performed in the system by a particular user, group, role, or for the entire system. Selecting the audit trail for a group or roles will display the actions performed by all users belonging to that group or role. A date/time filter is provided as part of the Audit Trail view and is useful for filtering the results into a more specific timeframe.
10	Log changes to content	X		See above.
11	Meets UC Davis CyberSecurity policies	X		Level I priorities will be managed by system administrators and data center personnel. The system is not intended to house personal information; administrators will train and rely upon users to adhere to cybersecurity policy.  Hannon Hill has indicated that they are committed to timely compatibility with security patches from major software vendors.
12	Must support multiple database platforms on the back-end	X		Supports MySQL, MS SQL, Oracle and others.
13	Must function under multiple OS and platforms supported by UC Davis	X		Server application has successfully been installed under Windows, Mac OS and Linux platforms.
14	Product is compliant with UC Davis accessibility requirements		X	Product interface is not fully compliant with UC Davis PPM 310-70.
15	Product generates Web sites/content that is compliant with UC Davis accessibility standards	X		Output is dependent upon template design and user practices. The system is inherently capable of generating compliant content.

		Yes	No	Comments
16	Product is compliant with W3C standards for CSS and XHTML	X		Tested and verified.
17	Product generates Web sites/content that is compliant with W3C standards for CSS and XHTML	X		Tested and verified.
18	Supports multiple character sets on web pages, and any UI is also internationalized	X		Minor issues with the generation of Unicode characters observed in instances where content is generated outside of WYSIWYG environment and/or in meta data fields. May be constrained to Windows platform. Requires additional testing.
19	Built-in search capabilities with system and for published content	X		Capabilities integrated into Web CMS interface and accessible for front-end Web use via APIs. However, most clients choose to employ an external search tool such as Google Search, etc.
20	Create backups	X		Tested and verified.
	Functional Requirements			
21	Manage system accounts	X		Multiple roles, ability to establish groups and assign permissions at the group level.
22	Manage system security	X		Cascade Server allows for the granular management of roles/access at the content/object level. Campus CAS authentication implemented and verified.
23	Author content	X		System allows for WYSIWYG, HTML code or data-form level content generation.
24	Log into system	X		Tested and verified.
25	Edit content	X		System allows for WYSIWYG, HTML code or data-form level content editing. Built-in preview mechanism.

		Yes	No	Comments
26	Submit content for approval	X		Tested and verified.
27	Request editorial review	X		Tested and verified.
28	Format content	X		Tested and verified.
29	Save content	X		Tested and verified.
30	Create new pages	X		Tested and verified.
31	Delete pages	X		Tested and verified.
32	Export/import data/content	X		Migration of midsize-large sites via "import" is tedious and requires significant preparatory work. Import of assets (images, PDF and other files, etc.) via ZIP import functions as advertised. Database import capabilities not tested.
33	Create web links	X		Tested and verified.
34	Choose page layout/templates	X		Page layouts and template options will be made accessible via meta data driven system developed by implementation committee.
35	Control template access	X		Tested and verified. Ability to create pages based on specific templates is governed by access to related asset factories.
36	Maintain workflows	X		Tested and verified. Cascade Server employs a flexible, XML-based workflows system.

		Yes	No	Comments
37	Customize CMS features and GUI access	X		WYSIWYG editor and other select system components can be restricted on a per-user or group basis.
38	Set up new sites	X		Tested and verified.
39	Manage site structure	X		Tested and verified. Content can be moved, copied, etc. across site objects.
40	Turn on/off CMS modules and other Web site components	NA	NA	Cascade Server is not modular in nature. All components are enabled by default.
41	Role based access to and control of resources	X		Cascade Server allows for the granular management of roles/access at the content/object level.
42	Create multiple Web templates (skins or themes)	X		Tested and verified. The implementation committee has successfully developed and deployed several options and is developing additional layouts as part of a template system.
43	Approve/decline site modifications	X		Tested and verified.
44	View unpublished content	X		Tested and verified. Built-in preview mechanism and ability to publish to staging environment, if required.
45	Contact/communicate with members of creation chain/workflow	X		Tested and verified. Built-in messaging capabilities allows for inclusion of comments with each step of the workflow process.
46	Publish/unpublish content	X		Tested and verified.
47	Set embargo and expiration dates	X		Tested and verified.

		Yes	No	Comments
48	Edit content in place		X	NA due to system platform. Decoupled Web CMS products are inherently incapable of editing "live" content in place.
49	Ability to set/enforce content and scripting policies	X		Code access can be selectively restricted.
50	Check link integrity	X		Tested and verified. Cascade Server also warns users of actions such as page modifications or file/asset deletions that may impact link integrity or other dependencies.
51	Rollback – ability to revert pages to previous version	X		Tested and verified. Multiple versions (administrator defined) supported.

Implementation			
	Criterion	Notes	Comments
52	Centralized or Decentralized	Does system force a centralized or decentralized implementation?	Administration and deployment of the CMS is centralized. Management and publishing of content is distributed.
53	Infrastructure	Will current infrastructure be dramatically changed/customized with implementation of system?	Little change is required by participants. The product supports a variety of publishing targets and allows for the integration of dynamic content and code regardless of the technology platform employed.
54	Ease of implementation	How easy is it to implement the CMS at a specific site? Across the university? How much technical expertise is required? How much functional expertise is required?	As with any system deployment, significant cultural and business process changes will be required from system users.  Significant technical expertise, human resources and policy decisions are required for a campuswide, centralized deployment.
55	Customization	Is a great deal of customization required to implement the system across the university? How easy is it to customize something? Will it cost more to customize?	Significant customization is required to adapt the product to meet the scope and objectives of the Web CMS initiative. The function and nature of the product are not intrinsically modified in the course of this customization process, and there is no additional cost for integration of necessary enhancements. Future upgrades will not "break" customizations.
56	Training	How much training is required for technical and functional staff? Will it be offered for free when the system is implemented? Is on-site training available? Is on-line training available?	Staff who will participate in the administration of the system will require substantial training. Content managers will require a moderate amount of training. Site managers, publishers and approvers will require less training.  Vendor-based training is available, but much of the training is driven by the context of the deployment, business rules employed by the system, templates and desired usage.

57	Consulting	Is technical/functional consulting available during implementation? How costly is it?	Technical and functional consulting is available. UC Davis has acquired a set quantity of consulting time as part of the product purchase.
58	Bug fixes	If we find a bug in the system, are we guaranteed it will be fixed prior to implementation of system?	Bugs are collaboratively identified and prioritized by product users. Vendor addresses bugs in regularly scheduled product patches based on priority.