

Guide to Surviving Digital Asset Chaos: Outwit, Outlast and Outsource

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The decision to adopt a new system to manage intellectual property is a major one in the life of any company. Often the realization that change is needed comes as conditions reach the breaking point. This scene is not uncommon in companies large and small.

Over the past 10 years, competitive pressures have pushed more companies, regardless of industry, to publish to the Web to satisfy demands from their customers for more and better services. Mergers and acquisitions have forced content from different systems to coexist. Collaboration on projects is required across time zones and continents. Assets that once lived their entire lives behind a firewall are being distributed around the world and must be protected and tracked.

Add to these issues the urgent need to control knowledge to comply with new corporate governance practices and it's easy to see why there is a surge in content management implementations.

Throwing more hardware at the problem does little good solving the larger business and strategic issues. Legacy software systems when they do exist are often homegrown or outdated. The affected department(s), accustomed to operating at a tangent to corporate IT control, is left with a problem to solve. After years of workers sneaking Macintoshes into their cubes and purchasing software not on the approved procurement list, the department is suddenly faced with the world of databases, interoperability, alien standards, taxonomies, security issues and an assortment of XML versions. Now what?

Five or 10 years ago, the lack of high-speed data infrastructure, expensive data storage and a dearth of affordable software presented obstacles to efficient distribution and control of digital assets. Some companies tried integrated services digital network (ISDN) communications and redundant arrays of inexpensive drives (RAID) storage schemes. Fewer companies still tried data warehousing. As a result, most of the software solutions available were designed for workgroups.

The good technology news is that a lot has changed. The better news is that technologies developed to power online commerce have evolved and migrated to content management and are in large part responsible for the way we now look at managing company and enterprise assets.

The problem today is that when the time comes to begin searching for a solution, it is difficult to match the needs of your company to product categories and solutions in a sea of acronyms.

The first objective of this guide is to present a list of project-related issues that should be considered before, during and after implementation of a new system by a non-technical executive, marketing and creative services system manager.

Our second objective is to define acronyms and terminology, and profile companies in each of the product categories. This is not a complete list; some companies have unfortunately been overlooked. This guide is meant to supplement the tried-and-true method you will inevitably follow by seeking out recommendations from trusted sources, attending trade shows and reading other publications.

Managing the Project

Content and digital asset management problems are typically felt first by the marketing and creative staff who work with them on a day-to-day basis. While issues such as raw data storage and distribution are recognizable and easy to solve, the more important business process issues involving content lifecycles, repurposing, security and access are more complex and can involve numerous technologies.

In small to medium-size companies, the project lead might be a non-technical stakeholder put in the position of making a business case, specifying a solution and overseeing implementation. The key member of the project team is exposed from the start to unfamiliar technologies and project management considerations. To be an effective lead and member of the team, it's vitally important for this person to understand and appreciate project management practices and methodologies, as well as the technology.

The most important knowledge that people from the creative side bring to the team is an understanding of the current system, ideas about how to make it better and the ability to communicate the process and findings to the eventual users. Projects often fail when a technology solution is applied to a dysfunctional

company culture. Lack of communication results in unclear or faulty expectations before, during and after installation, and inappropriate or immature technology being chosen as part of the solution. All of these issues can be identified and overcome during the planning and evaluation stage.

Project Management Methodology

One of the best ways to prepare for leading a project is to become acquainted with project management best practices. Best practices, such as those defined by the Project Management Institute (www.pmi.org), are directly applicable to managing a project for a new content management system. While becoming certified by PMI is unrealistic for most of us, becoming familiar with the Guide to the Project Management Body of Knowledge increases sensitivity to the issues that arise in managing projects large and small. The Guide presents a clear explanation of how to understand the company's business to make a solid business case, manage resources effectively and according to plan to achieve the business objectives, and effectively communicate with team members and senior staff throughout the project. Membership is inexpensive and access to its resources will prove invaluable throughout the project.

Key considerations for the project should include:

- Focusing on business objectives first, technology second.
- Conducting an internal audit of what content is being used and how.
- Setting a timeline for the project and milestones for evaluation before, during and after implementation.
- Considering the scope of the project to determine the level of disruption.

Communication Is Key

Successful installations all result from successful communications. Keeping stakeholders up to date with appropriate information is critical. Little things, such as identifying the project or new system with an acronym of its own, give team members a sense of ownership. Team members will rally around a code name like the STAR system (as in Simply Terrific Asset Repository), for example, better than "the new system" or so-and-so's CMS solution. T-shirts are always a nice option.

Buy-in at the Top

As with any re-engineering project, support from top management to get things off the ground and keep them on course is absolutely necessary. Major change is bound to open up political and philosophical issues that can only be resolved by consistent support from top management. Keeping top management in the loop throughout the project will also help when requesting approval to buy a system or invest in setting up a pilot

program. The importance of upper management support increases exponentially as the scope of the project and the level of disruption increases.

Making the Business Case

The three prevailing reasons for adopting a new system for knowledge management are: reducing costs through increased productivity; improving control to reduce liability risk and improve regulatory compliance; and reducing time to market to gain a competitive advantage.

When making a business case for a new system, it is important to associate higher productivity with a cost center model. A profit center model would show new sales from more easily accessed assets. A revenue center model would reflect additional sales from existing or new customers as a result of increased transactions or interactivity.

The starting point for choosing a new system must begin with a thorough understanding of the existing system and the business objectives you hope to achieve. Doing an internal audit will identify the scope of the project. An easy way to categorize business and workflow processes is in the broad context of content lifecycle management, which includes content creation, management, delivery and archiving.

Outsourcing

One of the key considerations at the start of the project is at what point (if at all) it's necessary to seek outside help. Large projects involving enterprise content management (ECM), enterprise resource planning (ERP) systems or business process management are often managed by consulting firms such as Accenture, EDS, SAP or [sbi.razorfish](http://sbi.razorfish.com) for large companies. The content or asset management component in this case is subsumed into the larger system. In addition to large consulting practices, information architects, workflow consultants and integrators are also available to help guide projects at different steps in the planning and implementation process. Information architects can conduct an in-depth audit of current processes and develop models to illustrate proposed process improvements.

Workflow consultants are fully engaged in the industry and can conduct a needs analysis to suggest single-source or best-of-breed solutions. Integrators can do all of the above, with the addition of supplying the solution, and act as a point of contact for training and support after the installation. This broad categorization is not meant to imply that workflow consultants don't do modeling or integrators don't have information architects on staff. Numerous vendors have a variety of services to suit your needs. (A future edition of THE SEYBOLD REPORT will focus on integrators, consultants and VARs operating in this industry.)

Regardless of how much of the screening or pre-qualification process is outsourced, the responsibility

Adobe Systems Inc.
adobe.com
www.adobe.com/products/server/graphics/main.html

Canto Software Inc.
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DocuShare Business Unit
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Documentum
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Category Overview

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The following categories and definitions characterize the majority of media management system types in use today. They are:

- Digital asset management (DAM),
- Content management,
- Enterprise publishing, and
- Records management

The general focus in all of these characterizations is on media management systems, from content creation through syndication. Other product categories, such as electronic data interchange, business intelligence and knowledge management, digital rights management, system monitoring and optimization, storage and archiving, and customer relationship management, are often included as part of a system or are available as an interoperable component.

Electronic workflow management, project management and job tracking systems are not covered in this guide but often co-exist with media management systems. Records management is an important niche and involves scanning, digitizing, enriching with metadata and storage for paper records.

Digital and media asset management is organized data storage and typically the first system adopted by most companies. It's an improvement over what is known as file management. Most DAM functionality is centered on file synchronization, searches based on filenames and metadata, version control and security. DAM is often known by the terms "data repository" or "content repository."

Archiving and data warehousing are typically not an

integral part of a DAM system, although both might be an extension of it. A digital asset management system has an integral database, usually one that is SQL-compliant, often with options for Web syndication of assets and interoperability with other SQL systems. Major differences between DAM systems include the types of files supported, system scalability and the extent to which the user interface can be customized.

Version Cue in Adobe Creative Suite applications is a new addition to the menu of collaborative DAM systems. Version Cue 1.0 provides tight integration with all Creative Suite applications and can be run from a local or dedicated machine. It features version tracking, overwrite protection, thumbnail browsing and metadata-based searching.

Rich media is an important technology that blends well with the other system types described in this guide. It is primarily an upstream technology that is part of the content creation process.

Files with metadata embedded upstream are, in effect, part of a distributed database of information about the creator of the file, the project it is part of, usage rights, how it is used in a publication and anything else a user chooses to include. Metadata is persistent and can be used for searching and identifying rights and workflow information. Synchronization with another intellectual property system is always possible.

Metadata included upstream can also be used to trigger automated workflow events and business processes. Rich media techniques can be applied to image, layout, spreadsheet and text files, among others. Using metadata has little effect on file size and no effect on file quality. Metadata originating in an application or

for understanding the fundamentals of the selection criteria still rests with the project lead. As the company's gateway for information, it is his or her responsibility to analyze options in the service of the business plan and disseminate the information to all stakeholders.

Choosing the Right System

The result of an audit of company processes and business goals is a system specification. The expectation at this point is that with all the products available, choosing a system that matches what you need is relatively easy. Unfortunately, it isn't.

Buying a system is the beginning of a partnership with the vendor. The vendor's support for customizing the system through technology partnerships, protocol support, or in-house custom development and consulting will be just as important as the products you choose. All DAM and CMS systems feature a core set

of functionality that suits a general set of conditions and industry requirements. It's important when choosing a product to look into the future and project whether the system can be adapted to suit new business conditions and opportunities. Although most companies in the same industry segment as yours have similar requirements, early adopters and companies that push the technology envelope indicate where system development is heading. It's important to know how the vendors you are considering are responding to technology trends and initiatives.

Return on Investment

A precise formula for measuring return on investment is difficult to pin down for digital asset and content management systems. Measurable increases in productivity, reduced time to market for new products, and increased sales as a result of improved transactions and

as a result of embedding with Adobe's Extensible Metadata Platform (XMP) can enhance any of the media management approaches mentioned in this guide.

Companies and institutions draw metadata from controlled vocabularies to bring uniformity to file characterizations. Standard sets are available for some industries and custom sets are developed for others. Adding a controlled vocabulary to a rich media strategy can be a crucial component in a user-based search product.

Content Management Systems

For some industries, the ability to extract content and manipulate it is a critical requirement. This is particularly important in Web-based content. Whereas a digital asset management system might provide customizable views of the stored files, a content management system will provide customizable ways to search the content.

The most common language used for content management is extensible markup language. A number of variants of XML are designed to deal with content in specific vertical industries. These include sharable courseware object reference model, or SCORM (e-learning), ebXML (e-commerce), XHTML (Web content), HL7 (healthcare) and XBRL (finance). Search engines used with content management systems can do searches based on metadata or natural language.

Enterprise content management is often applied to a platform or architecture that provides for storage and retrieval based on business rules. ECM is usually a suite of applications assembled to support the complete asset lifecycle, from creation to storage and destruction. Enterprise content management relies on database technology from companies such as Oracle or Microsoft (Enterprise Server). CMS includes a DAM often called a "data repository."

Brand resource management is primarily about syndication of data. The focus is less on the ability to manipulate

the contents than on providing access to them. Since protecting a company's brand identity is important, it's necessary to maintain the digital integrity of the source files.

Emphasis is also placed on extending the data repository model to include remote access, data security and digital rights management. Version tracking and data synchronization are also important. This category is also known as "brand asset management" and "marketing operations management." Brand management syndication is built on database technology from companies such as Oracle or Microsoft (Enterprise Server).

Enterprise publishing and portals are characterized primarily as a collaboration environment used to support a media type or types. The intent is to create a virtual workgroup that collaborates to build an edition of a publication or Web site by sharing content assets. The focus here is on managing the movement of files, maintaining the security of assets and automating the conversion of files for repurposing for different media. An effective system will improve productivity almost immediately. Electronic data interchange and XML are also key technologies used by enterprise publishing. An important component of this and any enterprise system is the database it sits on, typically an Oracle or Microsoft Enterprise Server.

Electronic Document Capture

In some companies and government agencies a large amount of content originates with paper documents. Converting paper to digital records is the specialty of a branch of the digital asset management industry. The solutions are a combination of hardware and software. Often, content is extracted from these documents and metadata is added to the database records to enrich record searches. The transition of unstructured paper documents to structured digital assets is the key attribute of this technology.

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an enhanced user experience are all likely outcomes of a successfully implemented system.

Most of the data is empirical. It can also be multifaceted. For example, in the pharmaceutical industry, an ROI might include protection against product litigation through secure content, automated syndication of marketing collateral to distributors and media outlets, increased time to market for new products, and corporate governance and compliance support. Any one of these might justify bringing in a content management system and combined they make an overwhelming business case. As more and more case histories are documented for specific industries, methods for determining ROI will be determined. Take advantage of case histories listed on vendors' Web sites as a starting point for ROI information. (See page 12 for a case study of content management at Hewlett Packard.)

To quote Michael Moon of Gistics, it is generally accepted that one out of 10 hours is spent managing files and a third of that time is spent searching. And one-third of the hour spent searching results in an unsuccessful search! By another measure, a production worker loses 36 hours per year conducting unsuccessful searches. Clearly, a well-organized system results in more productivity, and productivity gains can directly affect time to market for new products.

Key questions to ask when considering the value of an asset or content management system are:

- Total number of content objects handled.
- Time spent searching for objects in current system.
- Time spent redoing lost content.
- Time spent converting and managing files for reuse.

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Content Management

Company Name	Product	Intro. Date	Channels	Categories	Variants	Hosted
Adobe Systems Inc.	Adobe Graphics Server (formerly Altercast)	2002	OEM	Transformation engine used in DAM, CMS systems	Used in workgroup & OEM	N/A
	Creative Suite Version Cue	2003	Direct +	DAM	Workgroup collaboration	N/A
Canto Software Inc.	Cumulus	1992	Direct	DAM	Personal, workgroup, enterprise, Web	N/A
ClearStory Systems (formerly WebWare)	Radiant Enterprise Media Server	2004	Direct, VAR, integrator	DAM, MAM, ECM, CMS, BRM, BAM, MCM, MOM	Workgroup, enterprise, Web	Yes
CrownPeak	Advantage CMS	2001	Direct	CMS	Web	N/A
Ektron Inc.	Ektron CMS400.NET	2004	Direct, integrator	CMS	Enterprise, Web	Yes
EMC	EMC Documentum Digital Asset Manager	2002	Direct	DAM, CMS, ECM	Enterprise	No
eMotion	CreativePartner	1996	Direct	DAM, CMS	Workgroup, enterprise, Web	Yes
	ArchivePartner	2002	Direct	DAM	Workgroup, enterprise, Web	N/A
Extensis	Portfolio 7	1992	Direct, VAR, integrator, OEM	DAM	Personal, workgroup	Yes
Flow Systems	Catalog & Promotion Management Suites	2004	Direct, integrator	PIM, DAM, promotion management	Enterprise	Yes
Hannon Hill Corp.	ContentXML	2003	Direct, VAR	CMS	Enterprise	Yes
IBM	NICA (Networked Interactive Content Access)	1999	Direct	DAM	Workgroup, enterprise	Yes
Interwoven Inc.	TeamSite Web Content Management Server	1996	Direct, VAR, integrator	WCM	Workgroup to 50; enterprise & Web unlimited	No
	WorkSite (orig. iManage)	1997	Direct, VAR, integrator	ECM	Workgroup, enterprise, Web	Yes
	WorkSite MP	2001	Direct, VAR, integrator	DM, CDM, collaboration, CMS	Workgroup to 25; enterprise 250	No
iView Multimedia	iView Media Pro	2001	Direct, VAR	DAM	Personal, workgroup	N/A
ixiasoft	TextML Server	1999	VAR, integrator	OEM used for DAM, CMS, ECM, etc.	Workgroup, enterprise, Web	No
Mediasurface Inc.	Mediasurface 5, featuring Morello	2004	Direct, VAR	CMS	Workgroup, enterprise, Web	Yes
MetaCommunications	Virtual Ticket	2000	Direct, VAR, integrator	DAM	Workgroup, enterprise, Web	No
MetaMatrix	MetaMatrix Integration Server	2000	Direct, VAR, integrator	Enterprise information integration	Workgroup, enterprise	No
	MetaMatrix Metabase	2000	Direct, VAR, integrator	Enterprise information integration	Workgroup, enterprise	No
Modulo Systems	Concerto	2004	Direct, VAR, integrator, OEM	Editorial mgmt., DAM, CMS	Workgroup, enterprise, Web	Yes
North Plains	TeleScope	1998	Direct, VAR, integrator	DAM	Workgroup, enterprise	Yes
Picdar	Media Mogul DAM & Workflow Solutions	2000	Direct (integrator)	DAM, workflow, CMS	Workgroup, enterprise, Web	Yes
Quark Inc.	Quark Dynamic Document Server	2003	Direct, VAR, integrator	Server-based QuarkXPress, collaboration	Workgroup, enterprise, Web	No
	Quark Publishing System	1991	Direct, VAR, integrator	Server-based QuarkXPress, collaboration	Workgroup to 150; enterprise up to 600; Web up to 600	No
	Quark Content Manager	1998	Direct, VAR, integrator	Server-based collaboration	Workgroup up to 50; enterprise up to 600; Web up to 600	No
Red Bridge Interactive	Engenda	1997	Direct	CMS, ECM	Workgroup, enterprise, Web	Yes

Hosted \$	Client	Server	Prices	API	Inter Op.	Service/yr.	Demo
N/A	Based on solution	Solaris 7 or 8; Win NT 4.0, 2000	\$7,500 single CPU; \$60K for high-performance version	COM SDK, Perl, Java, command line	XMP, EXIF	N/A	N/A
N/A	Mac, Windows	Mac, Windows	Part of Adobe Creative Suite applications	N/A	N/A	N/A	Yes
N/A	Windows, MacOS	Windows, MacOS, UNIX, Solaris	Personal \$69.95; workgroup \$2,495-\$9,995; enterprise \$33K+; Web \$4,996	EJAPS	SQL, ODBC, XMP	15-20%	Yes
Users	Web Browser	Windows, Solaris, Linux	Workgroup \$10K+; enterprise \$75K; Web \$75K	Yes	SQL, ODBC, XML, XMP	20%	Yes
N/A	Internet Explorer 5.0+	All	\$3,000 per month entry	N/A	XML, XSL, SQL, ODBC	Included in monthly fees	N/A
N/A	Web Browser	N/A	N/A	Yes	SQL, XML	N/A	Yes
N/A	Windows, Mac	Windows, UNIX	Enterprise pricing model	Yes	SQL, ODBC, XML, XMP, DQL	N/A	No
Yes	Web Browser, Mac, Windows	Windows 2000/2003	Workgroup \$3-5K/mo.; enterprise \$5K+/mo.; Web \$3K+/mo.	N/A	N/A	Included in monthly fees	N/A
N/A	Web Browser, Mac, Windows	Windows 2000/2003	Workgroup \$2-5K/mo.; enterprise \$5K+/mo.; Web \$2K+/mo.	N/A	N/A	Included in monthly fees	N/A
N/A	Windows, MacOS	Windows, MacOS	\$200 Personal, \$8,500+ workgroup	Yes	SQL, ODBC, XMP	20%	Yes
Price based on number of users	Windows	Windows, MacOS, Linux	\$200-300,000 license, \$8K/month	Yes	SQL, XML, JDBC	18%	Yes
Price based on number of users	Web Browser	Windows, MacOS, Linux, Solaris	Enterprise \$29K; Web \$10K	Yes	SQL, ODBC, XML	20%	Yes
Price based on number of users and users	Windows, Mac	AIX, Solaris, Linux	Varies depending on modules and scale	Yes	SQL, ODBC, XML, XMP	Varies based on implementation	On-site demo for qualified customers
N/A	Mac, Windows, Solaris	Solaris, Windows, Linux (Redhat)	Workgroup \$49K; enterprise & Web \$159K	Yes	SQL, ODBC, XML, XMP, Web services	18-20%	Yes
N/A	Windows XP	Windows NT, 2000, XP	N/A	Yes	SQL, ODBC		Yes
N/A	Web browser, Office, Outlook, Lotus	Windows 2000, 2003, Solaris 8	Workgroup \$37K; enterprise \$187K+	Yes	SQL, XML, Web Services, SOAP, J2EE, .NET, COM	18%	Yes
N/A	Mac, Windows	N/A	Personal \$199	Yes, scripting and VisualBasic	XML, XMP	N/A	Yes
N/A	Windows	Windows, Unix avail. 2005	OEM	Yes	XML, XMP, OLEDB, WebDAV	18%	Yes
Price based on number of users		Yes	N/A	Yes	SQL, ODBC, XML, XMP	22%	Yes
N/A	Windows, MacOS 9.x & OSX	Windows 2000/2003	Workgroup \$4,000; enterprise \$30K; Web \$30K	Javascript, AppleScript	SQL, ODBC, XML, XMP, JDF	14%	Yes
N/A	Windows NT, XP	Windows XP, LINUX, Unix, Solaris	\$90K Workgroup	Yes	SQL, ODBC, XML, JDBC, SOAP, JMS, WSDL, XMI	N/A	Yes
N/A	Windows NT, XP	Windows XP, LINUX, Unix, Solaris	\$50K Workgroup	Yes	SQL, ODBC, XML, JDBC, SOAP, JMS, WSDL, XMI	N/A	Yes
Price based on number of users	Windows XP, 2000, MacOS 9.x & OSX	Windows 2000	N/A	Yes	SQL, ODBC, XML, XMP	17%	Yes
Users	Mac, Unix, Linux	Windows NT, Solaris	Workgroup \$100-200K; enterprise \$500K-3.5M	Yes	SQL, ODBC, XML, XMP	18-28%	Yes
Based on number of users or volume	Windows XP, 2000, MacOS 9.x & OSX	Windows XP, NT, LINUX, Unix, Solaris	Workgroup from \$25K; enterprise from \$75K; Web from \$25K	Yes, Media Mogul Web Services Interface	SQL, ODBC, XML, XMP	Around 15%	Yes
N/A	Windows, MacOS	Windows, MacOS	N/A	N/A	N/A	18%	Yes
N/A	Web Browser, Mac, Windows	Windows, Solaris, Mac	N/A	Yes	SQL, ODBC, XML, XMP	18%	Yes
N/A	Web Browser, Mac, Windows	Windows, Solaris	Enterprise \$200K ave.; Web \$200K	Yes	SQL, ODBC, XML, XMP	18%	Yes
Price based on number of users	Web Browser	Windows, Solaris	\$35-50,000	Yes	XML, XSL, SQL, ODBC	\$8-20,000	Yes

Content Management

Company Name	Product	Intro. Date	Channels	Categories	Variants	Hosted
SeeFile Software LLC	SeeFile 1.1	2004	VAR, integrator	DAM	Entry, bureau, corporate	Yes
SiberLogic Inc.	SiberSafe XML Enterprise	2000	Direct, VAR, integrator, OEM	CMS, KM	Workgroup, enterprise, Web	No
Stellent	Stellent Universal Content Manager	1996	Direct, VAR, integrator	ECM, DAM, WCM, RM, BDM, collaboration	Workgroup, enterprise, Web	Yes
WAM!NET	WAM!NET Content Management & Distribution Services	1994	Direct	Digital data dist. & content delivery network	N/A	Yes
WAVE Corp.	MediaBank	1995	Direct, VAR, integrator	DAM, remote proofing, file transfer, archive	Workgroup, enterprise, Web	Yes - through partners
	B.media	1999	Direct, VAR, integrator	DAM, CMS	Enterprise, Web	Yes - through partners
Xerox	Xerox DocuShare	1998	Direct, VAR, integrator, OEM	ECM w/DAM, collaboration, web publishing	Workgroup, enterprise, Web	Yes - through partners
Xinet Inc.	WebNative	1998	Integrator	DAM	Workgroup, enterprise, Web	No
	WebNative Venture	1998	Integrator	DAM	Workgroup, enterprise, Web	No
Zope Corp.	ZOPE Enterprise CMS	2004	Direct, VAR, integrator	ECM, WCMS	Enterprise, Web	Yes
	Zope4Intranets	2002	Direct, VAR, integrator	DAM, DMS, Intranet	Web	Yes

Buying or Renting

Matching the scope of the requirement to the resources available to invest in a system will often lead to a decision to buy or rent a DAM system. Renting offsite storage and Web-based access is becoming a popular first step for businesses regardless of their size. For certain implementations, it is a good place to start taking advantages of data management without a major disruption of day-to-day business. A rented system can often be purchased if more control is needed and the ROI is favorable.

Other Costs:

Hardware and Software Costs

Most of this discussion centers on digital asset management and content management systems. However, many installations will require new hardware and perhaps a new or upgraded network. Hardware and networking are commodities at this point, and the decision on what to buy will be relatively straightforward. Every DAM and CMS system has a basic set of requirements and sometimes recommendations for a high-performance system.

Hardware, networking and system interoperability are the domain of your IT department if you have one. IT's input in these matters is important, but outright abdication of responsibility is not a good idea. Managing the system might still fall outside of the IT department. Today, IT departments are being drawn into specifying and supporting DAM and CMS systems. A good relationship between creative staff and IT is cru-

cial to a successful system implementation; many underutilized and orphaned systems clutter up IT closets as a result of dysfunctional relationships.

Enterprise-level systems typically require an Oracle or Microsoft database. The costs will include a separate service agreement if it is not part of the total DAM or CMS solution.

Recurring Costs

System enhancements are often necessary to adapt the system to work in a particular environment or industry and can exceed the cost of the system. Recurring yearly service fees will range between 18-25% of the cost of the system. Checking whether referral sites are satisfied with the support and the timeliness of updates is an important consideration. The support agreement must reflect vendor and customer expectations. Service fees for most Web-based systems are included in the monthly fees.

Marketplace Trends

Convergence is taking place in the world of content management. Consulting companies are adding content management practices to their ERP consulting and suppliers of storage solutions are adding software companies to manage the data residing on their hardware. Content management companies are acquiring asset management companies and search technologies.

Technological synergy is drawing companies together to leverage user bases and technologies, and increase the likelihood of survival in an emerging industry. Whereas a content management company once would partner with a digital asset management devel-

Hosted \$	Client	Server	Prices	API	Inter Op.	Service/yr.	Demo
\$89/mo - 10 users, 20Gb	Web Browser	Mac, Windows, Unix, Linux	Entry \$1,200/20 users; bureau \$2,000/100 users; corporate \$4,000/unlimited users	Yes	N/A	Entry \$295/yr.; Bureau \$495/yr.; Corp. \$895/yr.	Yes
N/A	Web Browser	OS w/JVM support & database w/JDBC interface	\$2,999/seat + volume discounts; enterprise pricing available	C, Java, .Net	SQL, ODBC, XML, JDBC, DTD/Schema	20%	Yes
N/A	Web Browser	Windows, MacOS, Linux, Solaris	N/A	Yes	SQL, ODBC, XML	20%	Yes
N/A	Mac, Windows	N/A	N/A	Yes	XML	N/A	Yes
N/A	Web Browser, Mac, Windows	Solaris, Linux, MacOSX,	Workgroup \$15-100K; enterprise \$30-500K	Yes	SQL, ODBC, XML, XMP, EXIF	18%	Yes
N/A	Web Browser, Mac, Windows	Solaris, Linux, MacOSX, Windows	Enterprise \$180K-2M	Yes	SQL, ODBC, XML, XMP, EXIF	18%	Yes
Varies depending on partner	Web Browser	Windows, Solaris, Linux	Workgroup <\$5,000	Yes	SQL, ODBC, XML	N/A	Yes
N/A	Web Browser	Windows, MacOS, SUN, SGI	\$12,500	Yes	SQL, ODBC, XML, XMP	\$1,875	Yes
N/A	Web Browser	Windows, MacOS, SUN, SGI	\$20,000	Yes	SQL, ODBC, XML, XMP	\$3,000	Yes
Price based on number of users	Web Browser	Linux, Windows, MacOS	\$20K entry, \$6.5K per CPU, \$100K site license	Yes, Source avail. Zope Visual Source License (ZVSL)	SQL, ODBC, XML	25%	Yes
Price based on number of users	Browser	Linux, Windows, MacOS	\$10K Entry, \$8K per 1000 user increment	Yes	SQL, ODBC, XML	25%	Yes

oper to provide a total solution, they are now acquiring and seamlessly integrating this functionality into their system. In part, this is because customers are pushing for this functionality to enhance the system they currently have or as part of one they are considering.

This push from customers is driving the evolution of technology not at the standards level, but certainly at the functionality level. Regardless of the increasing number of mergers and acquisitions, technology and business partnerships are still the rule in delivering flexible and comprehensive solutions.

The Bottom Line

Most of the systems available today are content management systems of one sort or another. Content management systems store files that are deconstructed but structured, searchable and editable at a very granular level. This approach is very useful for automated page assembly from component parts and workgroup collaboration. DAM is a key component of content management systems. A variation on the content management system is the collaborative publishing system, with tools centered around specific media types, such as catalog, Web, and print and host applications — QuarkXPress and Adobe’s Creative Suite, for instance.

Some DAM systems can validate versions, automatically build composite documents, and use rules and metadata for process automation. DAM systems and variants such as brand resource management represent both an entry-level option and the right solution when storing, archiving and browsing digital images is the sole requirement. Metadata support to produce rich media is definitely a trend among DAM systems. So, too, is the addition of digital asset management functionality to operating systems.

The Guide

The objective of the Buyer’s Guide table (page 10) is to profile and categorize leading developers of key components and systems. This guide is a snapshot of what is available today. Companies and technologies are merged and acquired, and product specifications and pricing will change. Use this guide as a high-level view of systems worth considering. (A number of categories are not represented in the table.)

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About the Author

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