Multisite Web Content Management: A Balancing Act

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EXECUTIVE OVERVIEW

Businesses today face a proliferation of company Web sites, including multiple intranets, extranets, and public sites. This proliferation of sites brings increasingly challenging site development, maintenance, and deployment business problems, because companies must balance the needs of corporate headquarters and central IT groups with the needs of local business units, departments, satellite offices, and different geographic locations. Few Web content management systems on the market can keep pace with the Web site explosion, nor do they include a methodology to promote reuse, collaboration, customization, and decentralization within a controlled, managed environment.

To solve the multisite Web content management dilemma, organizations must implement a solution that addresses the different business requirements of central IT groups, business unit Web teams, and business users themselves. Additionally, the multisite Web content management solution must support the different business drivers and content management requirements characteristic of the various types of Web sites.

Oracle’s multisite Web content management solution, based on the Oracle Universal Content Management architecture and its unique methodology for Web content management, offers a three-tiered approach to multisite Web content management. Oracle Universal Content Management provides a single, unified architecture that allows organizations to deploy Web content management, document management, collaboration management, records management, and digital asset management applications on one platform. The solution addresses the unique needs of three main user groups—corporate IT, business unit Web teams, and business users. The solution is also equally effective at creating, maintaining, and deploying the different types of Web sites.
MULTISITE WEB CONTENT MANAGEMENT

The Explosion of Web Sites in Organizations

In today’s business world, the Web has become the standard for communication. Web sites are a convenient and relatively inexpensive and efficient way to disseminate information to specific audiences. But one Web site is seldom enough. Rapid improvements in technology, combined with rapid user adoption of the Web, have resulted in an ever-increasing consumer demand for new information and a never-ending need for organizations to distribute it to their customers, prospects, partners, employees, investors, analysts, and others. This dramatic increase in content has led to an explosion in the number of company Web sites, and the management of multiple Web sites is now a reality for most medium-to-large organizations.

The Business Problem

The proliferation of sites is not the real problem. In fact, site proliferation can be positive, a result of increasingly targeted marketing and communication. But few Web content management systems on the market can keep pace with the Web site explosion, nor do they have a methodology to promote reuse, collaboration, customization, and decentralization within a controlled, managed environment.

Organizations have multiple types of Web sites—notably intranets, extranets, and public sites. Each type has its own set of business drivers and requirements, but virtually all company Web sites face one common challenge: how to balance the need for centralized, consistent architecture, security, messaging, and branding guidelines with the flexibility to manage and respond locally to line-of-business requirements.

Without a supporting infrastructure to manage these sites, the process of creating and maintaining new sites is inefficient, inconsistent, and expensive. Often poor communication and collaboration within companies results in fragmented, simultaneous Web site development projects, with teams unaware of each other’s efforts or of the available, reusable information.

Many times, even if centralized standards, guidelines, and services are recognized, the demands placed on lines of business, departments, satellite offices, or other geographic locations create an urgency requiring an immediate solution. Business units need the freedom to create, manage, and customize their own Web sites to meet their specific requirements (see Table 1). Otherwise, the centralized guidelines and established process might be bypassed, leading to wasted time, energy, and money.
The Unique Needs of Various Types of Web Sites

The complexity of multisite Web content management increases when you consider the various types of Web sites. As seen in Table 2, not every site has the same business or content management requirements. Intranets, extranets, and public Web sites have similar levels of technical complexity for site development and management, but each presents different business challenges.

<table>
<thead>
<tr>
<th>BUSINESS DRIVER OR REQUIREMENT</th>
<th>INTRANETS</th>
<th>EXTRANETS</th>
<th>PUBLIC WEB SITES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of contributors</td>
<td>High</td>
<td>Medium</td>
<td>Low</td>
</tr>
<tr>
<td>Number of consumers</td>
<td>High</td>
<td>Medium</td>
<td>High</td>
</tr>
<tr>
<td>Volume of content</td>
<td>High</td>
<td>Medium</td>
<td>Low–Medium</td>
</tr>
<tr>
<td>Level of consumer security</td>
<td>High</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Level of contributor security</td>
<td>Medium</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Content volatility</td>
<td>High</td>
<td>Medium</td>
<td>High</td>
</tr>
<tr>
<td>Need for immediate content updates</td>
<td>Medium–High</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Need for workflow approval processes</td>
<td>Medium</td>
<td>High</td>
<td>High</td>
</tr>
</tbody>
</table>
### Table 2: Common business requirements for different types of Web sites

<table>
<thead>
<tr>
<th>BUSINESS DRIVER OR REQUIREMENT</th>
<th>INTRANETS</th>
<th>EXTRANETS</th>
<th>PUBLIC WEB SITES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree of personalization</td>
<td>Medium–High</td>
<td>High</td>
<td>Low–Medium</td>
</tr>
<tr>
<td>Importance of information dissemination</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Importance of revenue generation</td>
<td>Low</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td>Importance of branding</td>
<td>Low–Medium</td>
<td>High, multiple internal and external brands</td>
<td>High, often multiple internal brands</td>
</tr>
<tr>
<td>Support for commerce transactions</td>
<td>Low</td>
<td>Medium–High</td>
<td>Medium</td>
</tr>
<tr>
<td>Support for compliance regulations (for example, site rollback, version control)</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
</tbody>
</table>

### Intranets

Today, almost every organization has some type of internal Web site, or intranet. Examples include human resources portals, department home pages, and companywide knowledge management systems. And many organizations have multiple intranets. In fact, some have more than they realize. Because the primary purpose of intranets is to share information between and among groups of employees, it is critical that employees have an easy way to add, modify, and delete content. If intranets are effectively used, their content changes frequently, and the volume of information expands at a rapid rate.

To encourage employee adoption and enable intranets to be an effective alternative to e-mail, it is important for departments, business units, and small groups of employees to be able to easily set up their own areas for sharing information. However, decentralizing this administrative capability makes it even more difficult to control the volume of content while enforcing consistent standards (for example, metadata tagging).

Intranets serve as document management systems, collaboration areas, and, at times, records management systems. Beyond providing the Web content management capabilities needed to manage intranets, a multisite Web content management solution must also be able to support these different elements of content management.
Extranets

Extranets are the so-called middle ground between intranets and public Web sites. Extranets support business-to-business relationships and provide personalized, secure information for discrete, external audiences—including partners, customers, and franchisees—via customer support sites, secure partner sites, supply chain networks, and dealer and franchise sites.

Many extranets support revenue channels and can be integrated with associated commerce, customer relationship management, or other enterprise applications. Security requirements can be complex, requiring unique logins for each user at the partner company and restricting access to content based on partner ID as well as user role. As with intranets and public Web sites, extranet Web content can also serve as an official record of product offerings and communications; thus, compliance and records management requirements must be considered.

Branding and digital asset management are often critical requirements when implementing an extranet. Each partner site may have specific branding requirements that must be accommodated, in addition to the branding requirements of the primary organization. For parent companies with franchise- or dealer-focused business models, extranets are often used to disseminate corporate information and policies, collateral, contracts, and branding elements. Not only is there often a need for a franchise or dealer extranet, but many franchises or dealer stores also want to manage their own Web sites. Franchisee Web sites also must abide by the parent company’s branding and corporate messaging guidelines.

Public Web Sites

Compared with intranets and extranets, public Web sites often have less content and fewer content contributors. The content is less granular because public Web sites serve broader, multiple audiences—including customers, prospects, employees, investors, and the general public. Public Web sites include not only a company’s primary dot-com site, but also localized satellite sites for different geographic locations and microsites to highlight different products or services.

Because the public Web site is the external face of the company, branding consistency and control are of utmost importance and one of the overriding business drivers for this site. Companies strive to maintain a unified image while incorporating unique needs into satellite sites for international markets, new product launches, and specific marketing programs. With all external-facing sites, content updates are often critical and must be implemented rapidly within controlled workflow approval processes. Increasingly, the public Web site is also being treated as an official record of the company’s information—leading to complex compliance and records management requirements as well.
REQUIREMENTS FOR A MULTISITE WEB CONTENT MANAGEMENT SOLUTION

A multisite Web content management solution should support the creation, maintenance, and deployment of all the primary types of Web sites—intranets, extranets, and public sites. At the same time, it must solve the fundamental business problem of balancing the conflicting needs of the corporate IT group, business unit Web teams, and business users. The needs of these different groups are outlined in Table 3.

<table>
<thead>
<tr>
<th>REQUIREMENT</th>
<th>CORPORATE IT</th>
<th>BUSINESS UNIT WEB TEAM</th>
<th>BUSINESS USER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enforce corporate standards</td>
<td>High</td>
<td>Medium</td>
<td>Low</td>
</tr>
<tr>
<td>Leverage assets and expertise</td>
<td>High</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td>Ensure brand consistency</td>
<td>High</td>
<td>Medium</td>
<td>Medium–High</td>
</tr>
<tr>
<td>Control security</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Enable rapid site development</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Streamline maintenance</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Provide easy administration</td>
<td>High</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Provide ease of use, enable in-context editing</td>
<td>Low</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Provide intuitive workflow capabilities</td>
<td>Medium</td>
<td>Medium</td>
<td>High</td>
</tr>
</tbody>
</table>

Table 3: Multisite Web content management requirements by user group

According to Forrester Research, an independent technology research company that provides pragmatic and forward-thinking advice about technology’s impact on business, “WCM [Web content management] is not new, and a successful implementation depends greatly on how well a product matches the needs of content owners, contributors, site managers, and IT. But can any one product address the diverse needs of an organization—across intranet, extranet, and Internet sites?”

ORACLE UNIVERSAL CONTENT MANAGEMENT

To understand how Oracle solves the multisite Web content management dilemma, it is critical to first understand Oracle’s unique approach to enterprise content management—the Oracle Universal Content Management architecture.

Oracle Universal Content Management provides rapid success and distinct advantages to customers via its product functionality, breadth of content managed, unified architecture, and ease of use—all which enable fast implementations and quick user adoption. The Oracle Universal Content Management product suite offers a full array of enterprise content management functionality, including document management and imaging, Web content management, digital asset management, collaboration, and records management.

The scalable system manages and delivers the entire spectrum of unstructured content, from documents, graphics, and Web pages to scanned images, e-mail, and records. The system’s technology is standards-based, multiplatform, and service-oriented, and provides productized integrations to leading application server, portal, and enterprise resource planning applications.

Core Services

The Oracle Universal Content Management architecture is built upon one core, Web-based repository—the Oracle content server—and one Java code base. This means all content managed within the product, regardless of the content type, benefits from the same, complete set of underlying core services, including:

- **Library Services**: Check-in, check-out, revision control, and subscription services
- **Conversion Services**: Automatic native format conversion to Web-viewable formats such as PDF, HTML, and Wireless Markup Language
- **Personalization**: Based on rules, profiles, user preferences, and so forth
- **Workflow**: Automated business processes and e-mail notifications
- **Search**: Full-text and metadata searches
- **User Input**: Multiple check-in methods, such as via Web browser and e-mail, as well as automated integrations
- **Administration Services**: Security, metadata, and user management; content archived via a Web browser

Key Elements of Content Management

The content management market has several segments, each addressing a slightly different type of content and a different set of usage requirements. However, each element (or segment) depends on the availability of the same core services.

Oracle’s multisite Web content management solution leverages services from various content management modules within Oracle Universal Content
Management—all built on the same universal set of services and using the same repository. The content management modules are all fully integrated and can be used independently or in conjunction with each other. The modules—each of which addresses a primary component of content management—include

- **Web Content Management** for creating, managing, and deploying multiple Web sites
- **Document Management** for capturing, securing, and sharing digital and paper-based documents and reports
- **Records Management** for creating, declaring, classifying, retaining, and destroying business records
- **Digital Asset Management** for managing and providing access to rich media and digital assets

Oracle Universal Content Management’s core services and common repository, combined with packaged solutions for each of the key elements of content management, allow organizations to create the ideal content management solution for their business problem.

![Figure 1: Oracle Universal Content Management architecture](image)

**UNIVERSAL CONTENT MANAGEMENT: CRITICAL FOR MULTISITE WEB CONTENT MANAGEMENT**

Most content management vendors view the multisite Web content management problem as simply a Web content management problem. But as demonstrated in the discussion of intranets, extranets, and public Web sites, multisite Web content management extends beyond the scope of Web content management. Although Web content management is a necessary component, the added complexity of creating and managing multiple Web sites requires organizations to incorporate
other elements of content management into their multisite Web content management solution. Consider the diverse needs of these different types of sites:

- **Human Resources Department Intranet**—which includes scanned copies of employee contracts, noncompete agreements, and so forth

- **Partner Extranet**—which includes a shared workspace environment for collaboration on a joint product development project

- **Record Label’s Public Web Site**—which showcases artists’ latest song clips

Managing each of these Web sites obviously requires Web content management capabilities, but what other content management elements are involved?

- **Human Resources Department Intranet**: Document management for policies and procedures and for full-text indexing; records management for contracts, U.S. Equal Employment Opportunity Commission requirements, and so forth

- **Partner Extranet**: Collaboration management

- **Record Label’s Web Site**: Digital asset management

Oracle’s multisite Web content management solution frees organizations from having to decide which type of content management system to implement. With this solution, organizations have seamless access to the broad spectrum of Oracle Universal Content Management capabilities, within one unified platform.

**A THREE-TIERED APPROACH TO MULTISITE WEB CONTENT MANAGEMENT**

Oracle’s multisite Web content management solution uniquely addresses the needs of each of the three main user groups—corporate IT, business unit Web teams, and business users. The solution is also equally effective at creating, maintaining, and deploying the three different types of Web sites—intranets, extranets, and public sites.
Figure 2: A three-tiered approach to multisite Web content management

Oracle’s multisite Web content management solution provides a unique three-tiered approach that allows businesses to easily create and manage one, tens, hundreds, or even thousands of Web sites. Companies can centralize the control of site architecture, navigation, and presentation; distribute the actual site development, deployment, and ongoing management tasks to the business units; and give content owners the ability to easily add, modify, and approve content within the context of their Web sites—a framework that’s critical when managing hundreds or thousands of Web sites.

For Corporate IT

Using the Oracle multisite Web content management solution’s robust infrastructure, a central team of developers can create multiple sites based on a structured, metadata-driven application. The solution enforces intrinsic Web site creation principles, including

- Separation of content and presentation
- Separation of navigational structure and presentation

Oracle’s multisite Web content management solution also incorporates recommended methodologies, such as

- Hierarchical Web site structure
- Template-based pages composed of multiple regions
- Reusable content and XML-based fragments

The Oracle multisite Web content management solution presents the corporate IT group with all the necessary tools for easily creating and customizing libraries of reusable Web components or fragments. These components can include templates,
layouts, fragments, and navigation, as well as integrations with databases or enterprise applications such as application servers, portals, and commerce servers.

For Business Units

With corporate IT managing the architecture and standards for Web sites, the ownership of individual Web site design and ongoing maintenance may be distributed to business units, departments, or franchises. Using secured libraries of reusable components developed by the corporate IT group, Web site designers in the business units may design and customize their own sites within the approved constraints of corporate guidelines, thus maintaining a centralized, consistent look and feel. Little or no knowledge of HTML or other programming languages is required, yet Oracle’s multisite Web content management solution offers designers great power and flexibility with its advanced programming capabilities.
For Business Users

The Oracle multisite Web content management solution puts content in the hands of the subject matter experts. Business users can easily add, modify, or delete content using in-context editing, Web-based forms, or standard desktop applications like Microsoft Office. They can quickly edit content, preview changes, and propagate the changes to multiple Web pages at once. And they can rest assured knowing that new content can be routed for approval via an automated workflow, which can also be accessed within the context of the Web site.

![Business users can easily add, modify and edit content.](image)

THE BENEFITS OF ORACLE’S MULTISITE WEB CONTENT MANAGEMENT SOLUTION

As demonstrated in the following customer success briefs, Oracle’s multisite Web content management solution dramatically improves productivity, reduces time to market, reduces development and maintenance costs, and allows organizations to maintain accurate, timely, and current Web content with consistent branding and presentation across all corporate sites.

British Red Cross

The British Red Cross decided it needed to refresh and modify its intranet, known as the “RedRoom,” to maintain its timesaving benefits and user loyalty. The RedRoom was not meeting required standards in design or usability studies. It also became clear that the British Red Cross was not taking advantage of new content management technology that had entered the market since 2002. Oracle’s multisite Web content management solution widened the design possibilities for RedRoom through its easier integration capabilities, helping to enable the creation and deployment of a crisp and modern design. The RedRoom was updated, redesigned and went live in just 3 months. The new RedRoom delivered greater time efficiencies, refined the publishing process, and improved usability over the legacy system. These upgrades improved the internal reputation of the intranet and ensured that the British Red Cross remained efficient in managing content.
Cargill

Cargill, an international provider of food and agricultural products, uses more than 180 Web properties to communicate with the public, customers, prospects, and other external audiences. To maintain consistent branding and navigation across these sites and give its business units the freedom to manage their sites, Cargill used Oracle Universal Content Management to create a multisite Web content management infrastructure. This architecture allows the organization to deliver a quality Web experience and distribute near-real-time information, while making Web site publishing and maintenance cost-effective and efficient for its staff.

Premera Blue Cross

Premera found managing its public Web sites, portals, and intranet content to be an increasing challenge as the company quickly expanded. Manual publishing techniques created IT bottlenecks leading to outdated information, as well as inconsistent branding and messaging across the company’s Web properties. Premera chose Oracle Universal Content Management to power its multiple Web properties. Because the product distributes content ownership and Web publishing responsibilities to business users through workflow automation, Premera’s Web presence is kept up-to-date and on-brand. With Oracle Universal Content Management’s native-format contribution and automatic Web content conversion capabilities, each of Premera’s departments is responsible for ensuring the timeliness and accuracy of its respective portions of the company’s intranet. As a result of distributing Web content ownership to business users, the IT department can focus on more complex and critical projects.

CONCLUSION

The proliferation of company Web sites is not likely to slow down in the near future. To manage this explosion of Web sites, organizations must implement a multisite Web content management solution for developing, maintaining, and deploying Web sites. This solution must address the needs of three main user groups—corporate or central IT, business unit Web teams, and business users. In addition, multisite Web content management solutions must support the different requirements and business reasons behind all types of Web sites, including intranets, extranets, and public sites.

Oracle’s multisite Web content management solution, based on the Oracle Universal Content Management architecture and a unique Web content management approach, is well positioned to help organizations realize a rapid return on their investment. It also offers many benefits, including increased productivity, faster time to market, reduced development and maintenance costs, and the maintenance of accurate, timely, and current Web content with consistent branding and presentation across all corporate sites.