
WHITE PAPER



Real Business. Real Solution.

Content Management System

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Executive Summary

A Content Management System, or CMS, is a strategic tool that allows organizations to compete or bring their existing business online. It provides an economical and secure way to submit content and ideas for content by reducing the cost of creating and contributing content, while ensuring content accuracy through approval and workflow processes.

With its multiple languages capability, it is also an effective communication tool. CMS also reduces site maintenance costs while ensuring usability and corporate branding.

This White Paper will discuss the benefits in using CMS and how the use of a CMS will reduce the costs of web communication and how real return on investment could be realized.

Introduction

A web site is no longer a medium for an organization to define its corporate image and its presence to customers, employees, business partners and distributors of its product. Rather, it is now one of the most important collateral item an organization has to promote its image and products as it brings its existing business online.

While sites were once devoted to outdated static company information, they have evolved to allow business transactions and have grown, in some cases, in excess of 10,000 distinct pages.

Management of these sites has been further complicated by the linking of business applications, enabling the spontaneous creation of page content from databases, commonly known as dynamic content.

At the same time, the accuracy and speed of the information that is present is crucial to the way viewers perceive the organization and its services. It was this realization that forced many organizations to develop or search for commercially available automated CMS.

With a CMS, organizations are also able to maintain a single data repository, instead of multiple ones and use a single solution to publish content to sites on the Internet, intranets and extranets—creating operational efficiencies.

CMS first made its appearance in 1995 with the emergence of the web. Most were homegrown systems assembled out of necessity by IT departments struggling with the content load. The developers who created them, and often required complex coding and rigid formatting, could only manage these feature-poor solutions. They were also highly prone to error and expensive to manage.

A year later, the first packaged CMS hit the market promising to address the inefficiencies inherent in homegrown solutions. These second-generation CMS were designed to overcome an organization's dependence on programmers and make web content

management processes accessible to business users across all levels and all departments of an organization.

While the second-generation tools do help streamline the content management process, these CMS, like its predecessor, consistently fall short of delivering ease of use and flexibility to enterprises that require an efficient and comprehensive solution for managing their site content.

The second-generation CMS also do not leverage existing investment in technology and knowledge, and do not respond adequately to the key content management needs of global businesses. While most provided a framework for managing complex sites, common complaints range from long and expensive implementations to technology processes and tools far too complex for the business user.

Organizations that have invested millions of dollars purchasing and implementing the early CMS products find themselves grappling with many of the same issues as those that operate with no commercial CMS in place at all.

It was only in the late 1990s that the ideal CMS that delivers maximum efficiency and reliability to processes surrounding the creation and maintenance of a web site throughout an entire organization was introduced. These CMS allows each member of the development team to focus on their own area of expertise -- whether it is writing and editing content, designing look and feel, adding new functionality or back-end administration and it allows users across all departments to easily contribute content to a site -- without knowledge of any markup language such as HTML.

More importantly, these CMS reduce costs and helps overcome potential barriers to web communication by reducing the cost of creating and contributing content while ensuring content accuracy through approval and workflow processes. They also reduce site maintenance costs while ensuring usability and corporate branding.

Introducing SunFish CM

SunFish CM (Content Management) is an advanced content management system that allows companies to compete or bring their existing businesses online. It provides an economical and secure way to submit content and ideas for content by reducing the cost of creating and contributing content, while ensuring content accuracy through approval and workflow processes.

SunFish CM allows a company to manage its website, and keep it up-to-date by posting current articles, or changing its layout or appearance to maintain a fresh image. SunFish CM is user-friendly and easy to use, requiring only minimum training to operate. With its multiple languages capability, it is also an effective communication tool. SunFish CM also reduces site maintenance costs while ensuring usability and corporate branding



SunFish CM Overview

SunFish CM contains these features and benefits as standard:

- **Multiple web site management** - SunFish CM allows users to manage multiple website easily. If you should decide to create more than one website, you can easily switch between sites and manage a particular website.
- **Content Management Reporting** - This feature provides reports about the website, such as site statistics, number of visitors or hit rate, user report and article tracking.
- **Multi Language** - SunFish CM is available with multi-language facility, such as English, Chinese, German and Indonesian. This feature allows the website to be viewed (and understood) by people in different countries.
- **Role-Based Security System** - SunFish CM features an advanced role-based security system. It means that only authorized people will be allowed to edit the website.
- **Article Management** - This feature allows authorized users to manage articles in the website, such as adding, editing or deleting articles. Changes that are made in SunFish CM will appear immediately on the website, so no time is lost between editing and implementation.

CMS Benefits

Information is the driver of the new economy. Consumers can now have real-time market information streamed live to their desktops, allowing them instant access to all the news and numbers they need to make informed decisions.

CMS allows organizations to effectively distribute such information -- both internally and externally -- to stay ahead in today's economy. Clients, partners and organization will have access to the latest information 24 hours a day, seven days a week at minimal costs.

Besides making organizations remain relevant in the midst of evolving and changing information and technology, CMS also:

- **Reduces Mistakes**
CMS reduces mistakes and ensures content accuracy through approval and workflow processes. Any updates must pass through commissioning, creation and one or more predefined signoff steps before the system will publish it. The resulting audit trail provides accountability for each action.
- **Allows Job Sharing**
CMS promotes job sharing by notifying a member of the team that operates a site of an assigned task. A member can be alerted via email, SMS (short messaging service), fax or even by auto-generated letter. Members can also perform their task and view its results from anywhere with web access. And with a sensible security model, only authorized people can perform authorized tasks.
- **Makes Information Current**
CMS can also specify the dates and times for the content to go live and be archived or removed, along with the contents target audience segments. Review dates can also be imposed to ensure that information is not simply left on the site to rot until a new product replaces it. The responsible area will need to rubberstamp the content as still valid, commission a replacement or archive/delete it. If content is removed or archived, the CMS will ensure that the remaining content is still structurally consistent, without leaving orphaned links to the deleted asset.

- **Provides Speed To Market**

CMS provides an advantage in the time it takes to react to market intelligence since write, edit and publish updates can be easily completed in just minutes. Further, changes to visual design can be done almost immediately to give the site a fresh look, while restructuring a site, merging and splitting areas can be implemented without substantial manual intervention.

- **Reduces Maintenance Costs**

CMS automates the building of pages on a site, thus cutting substantially the cost of the site's maintenance. A reasonably content rich site could need 250 or more updates a day, each averaging around two man-hours to produce and test.

- **Controls Content**

CMS controls the content of a site by scheduling the date and time of the content to be posted on the site. A CMS can also manage the access to a content to reflect user's preferences and behaviors.

- **Permits Content Syndication**

CMS allows the pulling of content from, and pushing content to, systems run by other organizations. This allows organizations to pull headlines and articles from a relevant news site, or gain an income stream by syndicating their own material to other site. It could also be a way to share product specifications, prices, marketing information and availability with suppliers and vendors.

- **Ensures Smooth Information Flow**

CMS can act as a lever to ensure that product information flows smooth among the departments in an organization, thus reducing departmental conflict.

- **Lowens Litigation Risk And Adverse Customer Reaction**

CMS systemizes the publishing of content through automated workflows, ensuring that all content is checked and signed off before it is publicly exposed. This reduces the risk of publishing the wrong price or availability information that may result in a strongly negative PR and a possible lawsuit. Similarly, communicating the wrong information can have serious legal consequences.

The Economic Benefits Of A CMS

The overwhelming complexity of web sites makes effective web communication extremely expensive to achieve using manual processes.

To realize the benefits of web communication, organizations need tools that increase the manageability of and reduce the cost of publishing content.

CMS accomplish this by providing tools that automate the publishing process and providing users with the ability to create content when they recognize a customer need for information.

CMS helps organizations:

- Reduce content update costs and improve frequency of information publication.
- Increase web content value with workflow and approval processes.
- Standardize content structures, and maintain design control and branding across an organization.
- Maximize effectiveness of team skills by enabling business users to publish their own content and technical staff to work on site infrastructure.
- Leverage existing enterprise technologies and skills to deploy web applications.
- Reduce site creation, maintenance, and enterprise rollout costs by creating automated processes.



The Business Benefits of CMS

Many costs are involved in building and maintaining a web site, and these costs can increase exponentially as the size and complexity of a web site and its audience grows. A CMS automates many standard content and design management tasks, and can reduce costs.

The three biggest cost reductions can be realized in the areas of content updates and accuracy, reinforcement of corporate style and branding, and application development.

• Enables Faster, Cheaper Content Updates

A CMS enables non-technical users to publish their own content. Traditionally, a Webmaster whose main responsibility is the technology, not the content of the site, publishes content. CMS remove this middle step by putting content publishing in the hands of the content experts.

Organizations have discovered that by implementing a CMS, they can scale their technical team without adding new resources. This is accomplished by reallocation of publishing tasks to the content experts, which frees technical staff to build new applications.

• Enhances Content Accuracy, Quality, and Value

CMS put users in control of content creation, contribution, and updates, thus enhancing the value of the actual content on the site. Users, who are content experts, are more

likely to understand the value of accurate, relevant content than technical staff.

Organizations without CMS face delays in publishing new content or in correcting errors delays that can result in lost customers or revenue.

• Improves Information Retrieval Time

Web sites provide faster access to information than print or other traditional communication tools, resulting in significant cost savings. A CMS improves the information retrieval benefits of a web site by providing a standard navigation structure and content templates. This consistency results in increased site usability and faster information retrieval times.

• Centrally Manage Site Usability and Branding

A CMS provides templates and site structure tools that help enforce centralized control over site and corporate branding. Dynamic link management reduces the costs of manual link checking and correction while improving site usability through consistency.

The traditional web site model requires significant costs to maintain the structure and consistency of design or branding. Organizations must impose and police strict rules to ensure the integrity of the structure, or tolerate inconsistent site navigation and broken links. The result is either higher costs for technical staff or reduced effectiveness.

About DataOn

DataOn is a multinational company in the field of providing Information Technology (IT) solutions and consultations. Founded in 1999, DataOn has serviced the IT requirements of corporations around the world in order to gain an edge in the competitive business world.

DataOn's primary task is the development of customizable business systems based on an open Internet platform.

DataOn has spent the last few years developing complex Internet business applications.

The implementation of these systems to any new or existing Internet based system allows the system to create a strong growth platform, which will increase user satisfaction and company revenues.

All DataOn systems are built on a scalable modularized architecture. This design allows for rapid growth (increased traffic) and easy modification (new features) without affecting the core functionality of the system.

Our Vision

To be a leading global provider of customized eBusiness solutions by delivering individual solutions that meet the needs of every organization.

DataOn aims to be the leading provider of integrated business solutions for small, mid-market and corporate businesses. We help companies across the globe in their quest to realize their potential by providing cost effective, end-to-end business solutions that are integrated, upgradeable and adaptable.

With offices in six different countries around the world (Indonesia, Singapore, Germany, Thailand, Canada and Switzerland), DataOn provides quality customer service and after-sales support.

• Manages Site Development and Deployment

A CMS that combines a dynamic content repository and template-based publishing enables an organization’s web developers and designers to maintain control over the web site’s look and feel, layout, and navigation logic.

Developers are able to update sites rapidly by changing a few templates as opposed to updating each page manually. Once approved, template and content changes can easily be distributed to other sites. An organization can centralize its IT staff and reduce web development costs across the organization.

Alternatively, it is very costly to update the design and logic of typical, static, file-based web sites. Each page related to that logic must be updated to reflect changes, and the web site content cannot be updated while the logic changes are being made resulting in lost time and cumbersome revisions.

Keys to Achieving ROI

The keys to achieving return on a CMS investment are: choosing the right tool for a business’ requirements, and ensuring rapid implementation and development of the selected tool.

A CMS helps organizations realize returns on their investment by:

- Providing familiar tools to make teams immediately effective and to leverage existing organizational skill sets.
- Integrating existing IT infrastructure.
- Offering organization economies of scale.

With these, a CMS empowers organizations to be quick to the market and quick to react to change, while ensuring a low cost of ownership and implementation.

• Provides Familiar Tools

Providing familiar tools for both business and technical users ensures the system is quickly adopted and training costs are reduced. Use of familiar tools also leverages in-house team skill sets. Implementing a CMS decreases development maintenance costs and outside consultant costs.

Web developers and designers are also able to use their favorite HTML editing tools for creating site templates, making it unnecessary for them to learn any proprietary scripting languages to create site navigation and structure.

• Integrates Existing Infrastructure

By working with existing IT infrastructure, a

• Facilitates New Opportunities for Innovation

A CMS enables organizations to innovate on knowledge traditionally locked in static web pages and other documents throughout the organization. By providing a standard content platform on which the organization can build automated business applications and by enabling business users to take a direct role in the web site, a CMS opens the lines of communication between a company’s business users and customers to deliver real competitive advantage.

Organizations adopting CMS can build web sites throughout their enterprises using a standard content architecture and dynamic web content infrastructure. Organizations can then create new web applications that take advantage of the incredible richness of web content and, by doing so, adopt innovative communication tools such as internationalization, customer relationship management, personalization, syndication, application integration, and enterprise portals.

CMS provides return on investment in a number of ways -- leverages existing investments in IT infrastructure and IT training, speed the time to markets by integrating quickly with IT environments, and reduces maintenance costs by providing standard interfaces for user and server management.

Support for industry-standard technology also ensures ease of integration with other eBusiness applications. Web sites are not built in isolation and must integrate with existing and future implementations of data systems, e-commerce, and customer relationship management systems.

• Offers Economies of Scale

CMS provides enterprise-wide economies of scale, allowing an organization to leverage work done on one web site or application across its organization.

Templates, site structure, and content can be easily deployed and re-deployed for diverse applications including Internet, extranet, and intranet sites.

Further, team skills learned on one project can be transferable to future projects to achieve enterprise-wide return on investment and economies of scale from the web content management implementation.

The previous three factors should speed site development and maintenance, helping organizations realize quantifiable return-on-investment for their web applications.

ROI Calculator

To estimate the actual ROI of a CMS, organizations must first evaluate the level of improvement such a system provides by costing all factors. Then, to estimate the probable value of the investment, organizations must evaluate the probability that the system will be both adopted and used.

The following quantitative calculation determines the enterprise wide ROI of implementing a CMS, including the benefits of improved communication and content.

Return = (Cost Savings + Increased Content Value + Innovation) * Probability of Adoption, where:

- Cost Savings = standardization + resource utilization + cost of updates + retrieval time
- Content Value = message value * relevance * timeliness * accuracy * suitability + branding
- Innovation = developer tool suitability + integration compatibility * reduced time to deploy
- Probability of Adoption = IT compatibility * business user suitability * scalability

Investment = number of users * (process change + training costs) + system cost + design cost



Calculating ROI

The following calculation determines the specific return on investment realized by decreased costs of building and maintaining a site using a CMS. These decreased costs are a factor in the overall enterprise return on investment as indicated in the "Cost Savings" line of the previous equation.

These cost savings are realized when the real development costs of building a static site are compared to the costs of building a dynamically updated site that uses templates.

The following equation compares the costs of developing static pages to dynamic pages for technical staff. It does not include any costs of content development. The calculator provides rough estimates of costs.

Cost Savings = Cost of Developing Pages on Static Site – Cost of Developing Pages on Dynamic Site

- Cost of Developing Pages on Static Site = (web developer salary * 4 hours/page) + (web designer salary * 2 hours/page) * number of pages
- Cost of Developing Pages on Dynamic Site = (cost of template development / number of pages)
- Cost of Template Development = (web developer salary * 4 hours/template) + (web designer salary * 2 hours/template*1) * number of templates

- Note that this calculator deals with initial site building. Cost savings are also realized with the decreased maintenance costs of a template-based system.
- These estimates are based on between two and six hours to create a page template depending on the complexity of the template and the system. Template creation time will vary depending on the familiarity with the system and the complexity of the template. Templates that contain Web applications and extensive scripting make take longer to build.

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