

IntelliPort CMS

Content Management White Paper

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Content Management Defined

Content Management is a term that is not new to IT and marketing organizations. However, this terminology can take on several different meanings. The context discussed in this paper provides ordinary businesses with the ability to build meaningful Web content to author, structure, approve, and publish content to maintain a fresh and pleasing Web presence. This may even prove to be one of the largest projects that an IT department may be facing. If you are looking to accomplish the following tasks then keep reading:

- Create Content
- Manage Content
- Publish
- Present

Within the last several years many vendors and products have touted Content Management standalone software tools to accomplish these tasks. However, the software tools typically have a prohibitive pricing structure and no doubt require strict software customization and business processes that must be followed before deployment.

At the present time there is no Content Management software that can be utilized out of the box to: author, structure, approve, and publish Web content as depicted in the next figure:

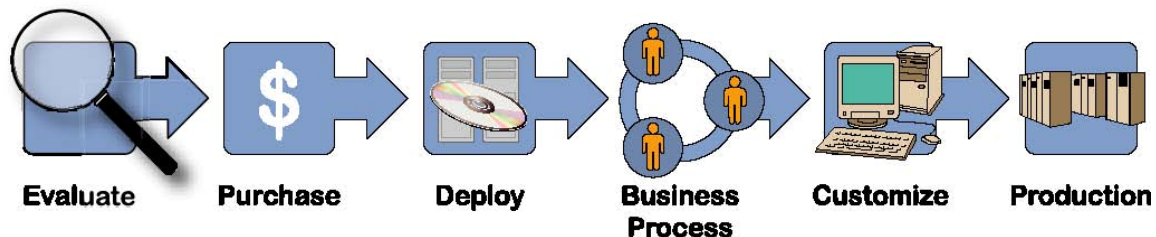


Figure 1: Utilizing Standalone Content Management Software

To comply with its commitment to provide better business solutions, Intelliport has entered the Content Management arena with *NetPage*, a solution for businesses of all sizes needing the services of a weighty Content Manager. Layered on their IntelliPort Portal is a framework with the flexibility, customization, and scalability of any stand-alone Content Management solution being on the market.

IntelliPort

Since *NetPage* is built on top of the IntelliPort Portal, you automatically have

use of all the features and flexibility of IntelliPort.

The IntelliPort Portal is a complete .NET enterprise and community portal framework. Built on the highly scalable platform of .NET, the IntelliPort Portal is a browser-based Content Management System (CMS) The IntelliPort Portal can be deployed within your current organization infrastructure, or utilized as a service based model complete with hosting and domain management.

Included with this very reliable and fast platform is a full range of features:

- . • **Browser Compatibility** – tested across major Web browsers (Internet Explorer, Netscape, Mozilla)
- . • **Authentication** – complete pluggable authentication services are available in the IntelliPort Portal framework, supporting configurable validation schemes: LDAP, database, custom solutions, or even a combination of multiple authentication sources.
- . • **Users** – multiple anonymous and secured accounts with varied security rights and privileges allow for a highly customized user experience. Unique user 'dashboards' allow for customization to specific user group defined by a portal administrator.
- . • **Hierarchical Security** – a full range of Role and Group-based security is built into the infrastructure. This allows the portal to maintain its own security structures, as well as providing the ability for custom applications to link in their own security and role structures into the portal. Multi-level Group structures may be created and managed through a Web-based user interface for authorized delegated administration.
- . • **Data-level Security** – data can also be secured by allowing specific pages, as well as specific components (i.e. press releases, events calendar, etc.) to be granted access for Users and Groups.
- . • **Personalization** – all personalization and customization features expected in an enterprise and community Portal framework provides configurable layouts, presentation components, and styles.
- . • **Searching** – IntelliPort uses open standard full text searching technology, and provides configurable search components to be bound to user defined categories.
- . • **.NET Reliance** – IntelliPort is built on the foundation of .NET specified technology and standards. This allows Intelliport's portal framework to be customized by your IT department for enterprise specific presentation components, back-end driven services, or workflow automation.

Intelliport's *NetPage*

Intelliport offers *NetPage* as a flexible and scalable base for implementing Content Management solutions. NetPage is an out of the box solution designed to decrease the time to production operation of an organization's specific content management needs.

At the same time, *NetPage* contains several features that you would hope to find in many of the desktop based content management products.

The following list shows key *NetPage* features:

- . • **Hierarchical** directory structured content repositories for storing and organizing content, with the opportunity to model Website structures in the content repositories.
- . • **Web-based** authoring tools to support the simpler needs of smaller organizations and departments for modifying pieces of the content including cross-browser WYSIWYG editor.
- . • **Versioning support**, saving changes to content as each revision occurs.
- . • **Publishing Portlets** inside the IntelliPort portal are options to make your portal deployment act as both your content management tool and your customer-facing website.
- . • **Content repository**-based security to give particular Users and Groups the privileges at multiple defined role levels: Coordinator, Editor, and Approver.
- . • **Simple workflow** approval process support allows Editors to make changes to new versions of the content, and construct approval requests, delivered to assigned Approvers, per repository.
- . • **Publishing framework** for pushing approved repository content to the production website.

Content Repositories Structure

NetPage is built on top of the IntelliPort portal that is designed to flexibly solve a whole range of business problems related to supporting multiple Portal/Website front ends and multiple shared and segregated back end data.

Intelliport prioritizes development efforts with its products and solutions, and Web-based management is no exception. Their goal is to remotely allow Administrators with the tool to build and manage multiple website structures through an easy-to-use HTML interface.

This structure makes it possible to deploy an infinite number of portal configurations, making *NetPage* fit an organization's requirements for storage and security.

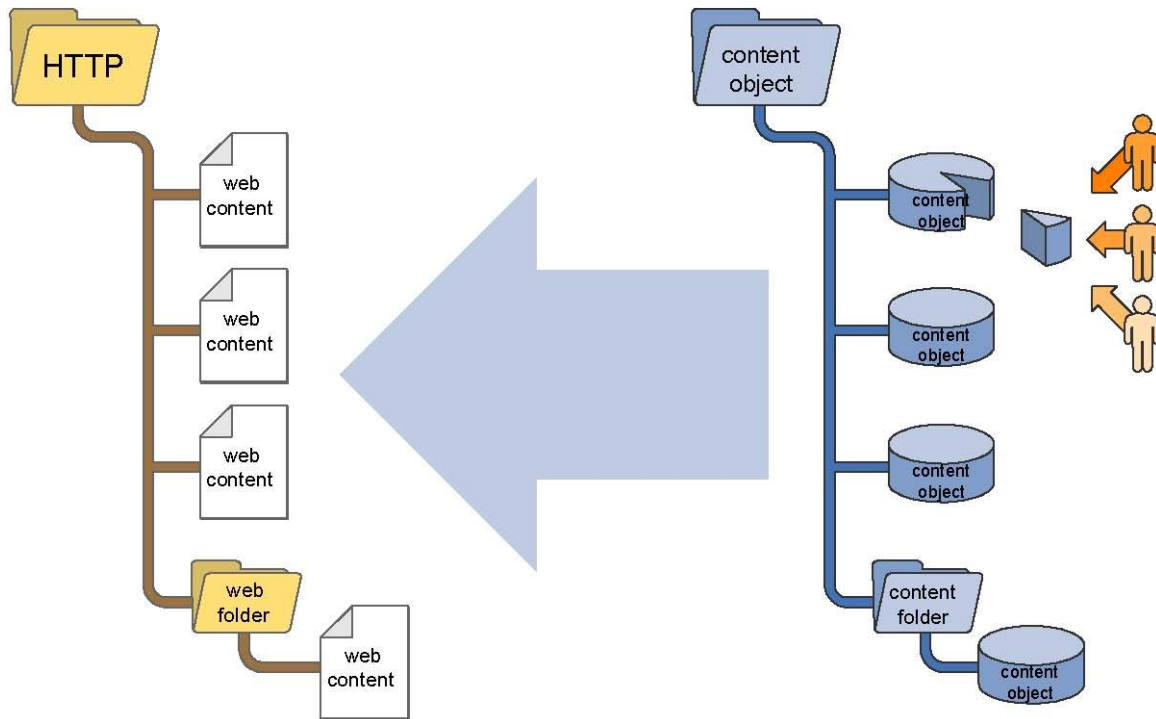


Figure 2: Deployment of Infinite Number of Portals

Meeting Content Management's Multiple Needs

Businesses have different needs when it comes to Content Management. They also have varied levels of personnel requirements to create, manage, and update the content. Typically, smaller organizations and departments can use personnel not as proficient in HTML programming skills to create and update their contents from a simple Web-based authoring tool. Conversely, larger organizations typically require those more proficient and skilled in HTML authoring to use a more powerful HTML editor for creating and updating Web content. *See Figure 3.*

The ideal framework supports both of these needs without locking any party into a particular tool set. Recognizing this, Intelliport has attempted to meet those needs by offering both Web-based authoring tools with standards-based support, seamlessly bridging into client-side HTML tools.

Because the content repository structures supply the base for *NetPage*, organizations are not tied into any one tool set for authoring content through the use of custom importing tools. Intelliport recognizes that each customer has their own process and people for authoring Web content. The *NetPage's* framework was built to recognize the clear divisions between storage, authoring, and publishing. *NetPage* allows for each of these three areas to be tailored to the deployment-specific needs.

The flexible nature of the *NetPage* provides HTML designers a means to author templates using complex desktop tools such as Dreamweaver,

PhotoShop or FrontPage, saving the HTML templates to the *NetPage* content repositories. From the same structure, administrative staff can use Web-based authoring tools to modify those same HTML templates with updated content. For both of these cases, the content repository structures within *NetPage* serve as the base for the varied authoring methods used.

One Editing Use Case

Company "A" requests for a Designer to build an HTML template for new product announcement. The page is built by the Designer in their tool of choice (Dreamweaver, Front Page, etc) and saved to a *NetPage* content repository through the use of template upload access to the content repositories. Later that week, the Administrative Staff is given a reference of a wording change and slight HTML format adjustment in the product announcement page. Through the use of the web-based Content Editor available in *NetPage*, the Administrative Staff opens the Component Content on the web and make the necessary change. Both individuals with varying skill sets and tools of choice were given the same opportunity to edit the content stored and managed by *NetPage*, showing the power and flexibility of Intelliport's Content Management framework for Company "A".

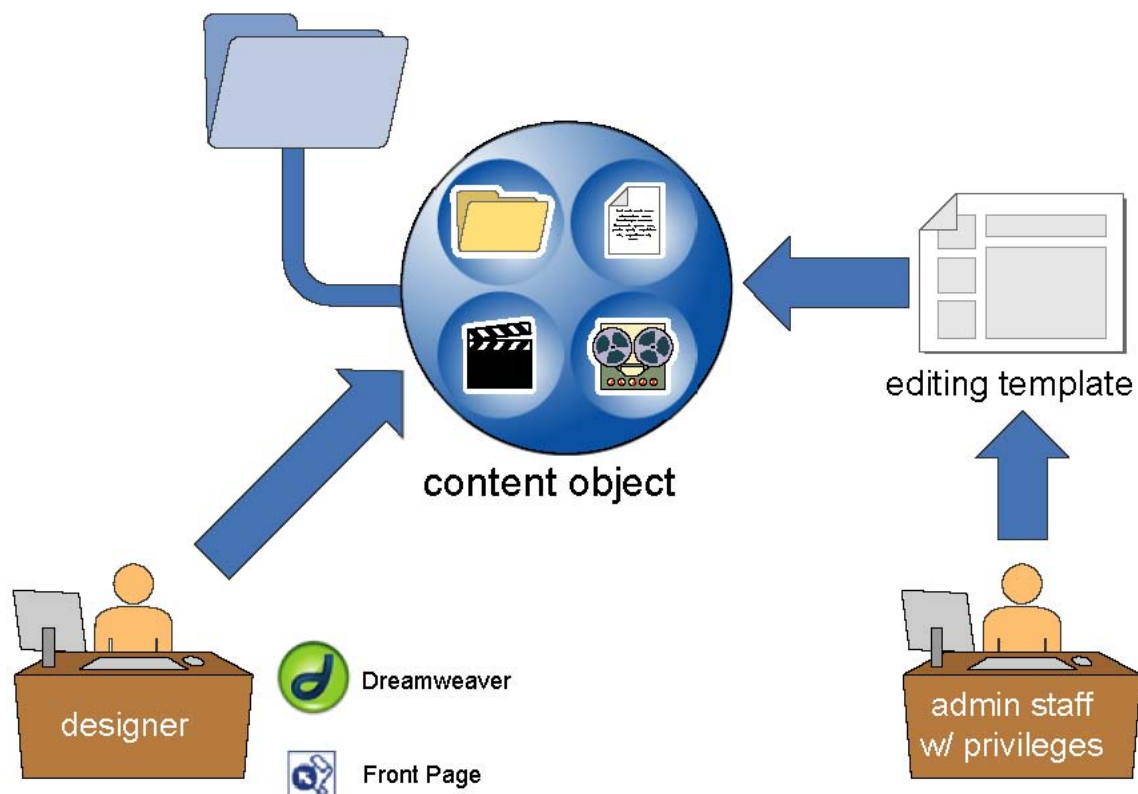


Figure 3: Varying Authoring Methods Using NetPage

Content Versioning

To complement the continued management of Websites, revisions and overhauls of site themes, or frequent updates to pages which often can occur, it is important for a complete content management solution support versioning of content.

Versioning automatically saves previous updates to content, allowing administrators to browse and publish previous changes to production websites. Each new update to a piece of content saves off the previous version. Quotas on the number of versions can be implemented at a repository level, and Web-based management of those versions is provided in an intuitive user interface.

As always, Intelliport's *NetPage* design allows our product to be flexible enough to customize solutions for a given organization's needs.

Integrating the Approval Process

The majority of content management business problems require some form of content approval prior to publishing. In larger systems, this becomes an absolute necessity, as the number of Editors and pieces of content increase. The communication between the people responsible for the approval of a specific repository and its editors can be difficult to manage as the content increases.

Our solution is to provide a way for Editors to make approval requests to Approvers involving set of "ready to be published" content. This simple workflow process allows Approvers to know what they should be approving, and allowing Editors to ensure their changes or additions to repositories are dealt with in a timely and efficient manner.

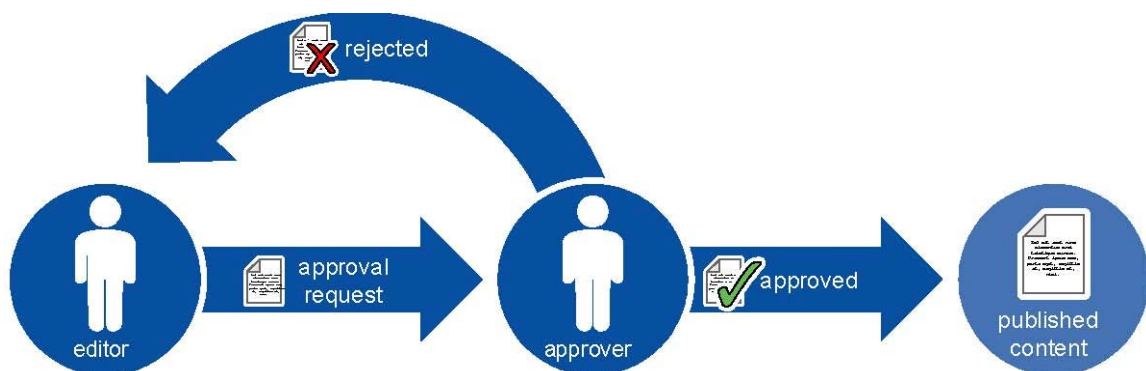


Figure 6: NetPage Approval Process

Intelliport's *NetPage* has an "out of the box" simple workflow process allows Editors to build approval requests, consisting of a collection of versions of content, through a Web-based interface. The approval request is then queued and available to Approvers for acceptance or rejection. If accepted,

the requested content versions are now available for publishing. If not, the requesting Editor is notified with comments on the reason(s) for the rejection.

Multiple Publishing Methodologies

By combining the tool set of the Intelliport *NetPage* with the powerful and flexible features of the IntelliPort portal framework, any number of processes may become an organization's publishing policy.

NetPage focuses on separating the content repository and storage from the authoring and the publishing methodologies.

This allows *NetPage* as the basis for any number of publishing forms as shown in the next bulleted list:

- . • **Publishing from the Production Website** – the flexibility of the *NetPage* framework allows a publishing process to be created and configured pushing an approved repository's content to a production website.
- . • **Publishing from back end Sources** – In some instances, it may be possible and necessary to push content from multiple publishing sources (i.e. Revenue systems, document management systems). *NetPage* supports this type of custom functionality by the very nature of its one, layered architecture.
- . • **IntelliPort Supporting Both Needs** – Because of the powerful flexibility of IntelliPort, it may easily be configured to serve as both the portal for serving the *NetPage* and for other business-related applications, and serving as the "de facto" customer-facing web presence for an organization. This may be accomplished in the many numerous ways through the use of IntelliPort's flexible Portal Engine and User and Group security.

Multiple Security Levels

Organizations have varied security needs and policies for their content management and publishing processes. *NetPage*, with the help of the IntelliPort security framework supports security in multiple progressively complex levels of security. Content repositories can be completely open, allowing global editing and publishing access. Through the IntelliPort fine-grained security framework, it is also possible to lock down whole repositories and portal structures, defining only specific Users and Groups with Viewer, Editor, or Approver rights.

NetPage, along with the IntelliPort portal's security framework, natively supports following levels of security:

- . • Role-based access to the content editing, approving, publishing, and repository management tools through the IntelliPort Role Management web-based interface
- . • Content repository-level assignment of Approvers and Editors through a web-based user interface, ensuring content is not seen, changed, or published apart from customer-defined security
 - Content Approvers – given all rights to their assigned content repositories for publishing, editing, and viewing content
 - Content Editors – with the ability to edit and view content and browse content repositories
- . • Optional simple open security per content repository, allowing publicly available and/or publishable content repositories
- . • Multiple configured content repositories, each with varied security definitions and access lists

***NetPage* vs. Content Management Products**

When choosing Intelliport's *NetPage*, the selection is not just a product to install and use, but it is also a complete solution for a real world business problem. Vendors focus their sales pitch on the simple fact that purchasing their content management product will be an out of the box solution for an organization's needs. But the reality is that eventually, needs for customization occur from all ranges and sizes of businesses, including the higher end systems.

Feature enriched products are often just that; full of unnecessary features that are unable to solve a customer's business problems. The complexity and business-specific needs involved with managing Websites and HTML content require that custom work be developed on top of these content management products. The customer is left paying for customizations as well as a laundry list of features, base-implementations, and configuration options; most of which are interesting but useless to the end solution, none of which help solve the immediate business problems that the customization addresses.

Intelliport understands that both Content and Website management is a problem needing a viable solution. With this in mind, *NetPage* is built to be the base for your Content Management solution, not the monolith for all Web-based publishing needs.

NetPage is designed to be flexible and cost effective, to allow efficient, simpler customization to meet customer requirements. At the same time, *NetPage* provides Web-based interfaces for configuring and defining content repositories, security structures, and approval processes enabling immediate benefits. These are powerful features provided within the

product, and are vastly superior when compared to the more costly Content Management products. In the end, the purchase with *NetPage* is the complete product and customization manager for government and business organizational needs for its specific content management problems solving abilities.

Conclusion

NetPage powered by the IntelliPort portal framework provides real solutions to real needs, with the customization, execution, and the expertise to ensure a business meets its content and website management dilemmas.

For more information on *NetPage*, the IntelliPort Series of portal frameworks, or any of Intelliport's products or solutions, our contact information:

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