

White paper

Managing global Web sites

Localization, a never-ending story

Summary

Localization challenges

Organizations face many challenges when creating a constellation of global Web sites. They need to maintain brand consistency while allowing for variations that reflect local culture. Creating truly localized Web sites can be a daunting process, in which corporate and local marketing teams need to work together to provide relevant information to many different target audiences.

BluePrinting™

BluePrinting is a unique technology from SDL Tridion that allows organizations to manage constellations of Web sites. The separation of content, layout and other Web site elements enables organizations to adapt each of these elements separately and match the needs of local audiences.

Organizations can manage localization cost effectively using an inheritance model that allows multiple Web sites to use consistent structure, branding and content, allowing for local adaptation of content as needed.

This white paper provides examples about how organizations can use BluePrinting technology to achieve a smooth global Web operation and explains how organizations combine Content Management technology with translation technologies for even greater efficiency.

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1 Global Web Sites

“Without telling us, our French subsidiary had been working nights and weekends to completely translate our corporate Web site to French. So when they finished and proudly gave us the CD-ROM with the translated HTML files, great was our mutual disappointment. The corporate head office had been working on changing the graphic design of the site, so their HTML files were unusable. All of their work had been in vain.”

This customer anecdote provides an illustration of the types of frustrations that organizations experience when creating and managing global Web sites.

Organizations are beginning to understand that to sell a product or persuade an audience, Web sites must reflect the languages and cultures of their target audiences. Local Web sites build loyalty and lead to customer retention. Localized Web sites provide easier access to new markets.

For example, non-English content on the Internet has increased from around 20% in 1998 to up to 50% today and the number of non-English Web site visitors is growing even faster. Current estimates state that only 30% of today’s Web site visitors are native English speakers.

Furthermore, many organizations operate in diverse cultures whose attitudes, values and beliefs, market, and institutional structures require culturally sensitive localization of content.

1.1 Rising to the challenge

If organizations can make money by localizing, it is puzzling that many organizations lack great, localized Web sites. As the above anecdote illustrates, the task of localizing and coordinating Web site localization is not a trivial task. Organizations must overcome many challenges to do so.

This paper describes some of the challenges that your organization may face when localizing your corporate Web site for local offices. This paper also describes how you can use SDLTridion R5™, BluePrinting technology and workflow to create a localized, multilingual Web site.

1.2 The goals

This section examines the types of issues that your organization needs to address when localizing a Web site:

- Brand management
- Central control versus local empowerment
- Different depth of content for different country needs
- Translation and localization management
- The content life cycle

Brand management

Many organizations' initial attempts to globalize their Web sites results in locally created sites that look completely different from the central corporate Web site. The local Web sites of some car manufacturers provide some striking examples. A 2006 survey indicates that global corporations implement more than 80% of their own brand guidelines incorrectly.¹



Figure 1: Global brand consistency

¹ See http://www.magus.co.uk/aboutus/press_ActiveStandards.html

Organizations need to develop Web sites that maintain a consistent corporate and brand image while acknowledging local cultural and linguistic differences.

Figure 2 illustrates consistent branding within the context of a Web site designed specifically to capture the needs of a niche market. FlySN, a Belgian airline, discovered a niche market of Russian Jews that fly between Russia and Israel. To target this market, FlySN made their Web site available in Hebrew and Russian. This niche market would have been impossible to capture without the advantages of the Internet. The Hebrew and Russian Web sites provide FlySN with a competitive market to reach a specific market.

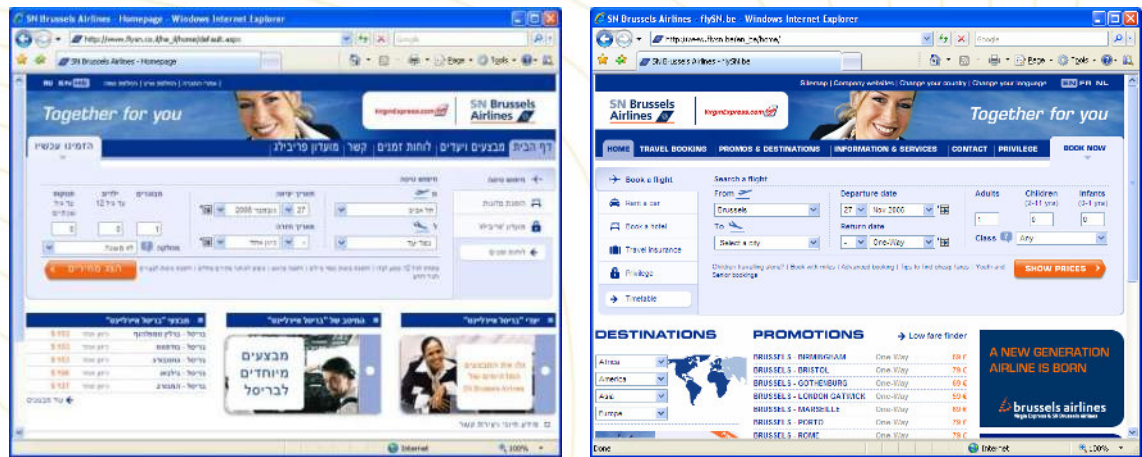


Figure 2: FlySN, niche market Web sites

"SDL Tridion's CMS has forced us to take a consistent approach to the changes we make to our Web site, as everyone is required to make amendments in a standardized format. This means that it will be that much easier to present a single image of Virgin Money when we look at rolling-out internationally and linking to other Virgin Group sites."

Erica Bell, Communications Manager at Virgin Money

Central control versus local empowerment

You may want to administer your corporate brand centrally. At the same, no one knows local audiences better than your local staff. Web masters need central control over some branding elements of your Web site to ensure consistency, while allowing local offices to address the needs of local customers by providing localized content.

Local communications managers can now focus on content rather than design, which is fixed and done automatically. It is fabulously easy to get new sites up and running."

Tim Godbehere, Online Communication Manager, Unilever

Different depth of content for different country needs

The extent to which you localize content can vary in scope depending on the size of your Web site. You need to control translation costs and investment in local/regional content management.

As illustrated in Figure 3, organizations can use a multi-tier approach for managing global Web site content in order to keep costs and coordination manageable. Organizations can design each tier for different markets and base localization and translation strategies on the size and characteristics of different markets:

- The first tier provides the foundation, with corporate, marketing and service information that applies most visitors.
- The second tier contains content for smaller markets and provides the basis of localized content. A second tier Web site may limit translation to archived press releases and product support documents.
- A third tier Web site for new markets may include only basic local contact information, new product information, and link to the international Web site for all other support information. The purpose of a third tier Web site may be to supply a local market presence for emerging markets. Organizations do not have to spend unnecessary time and effort to translate all available content.

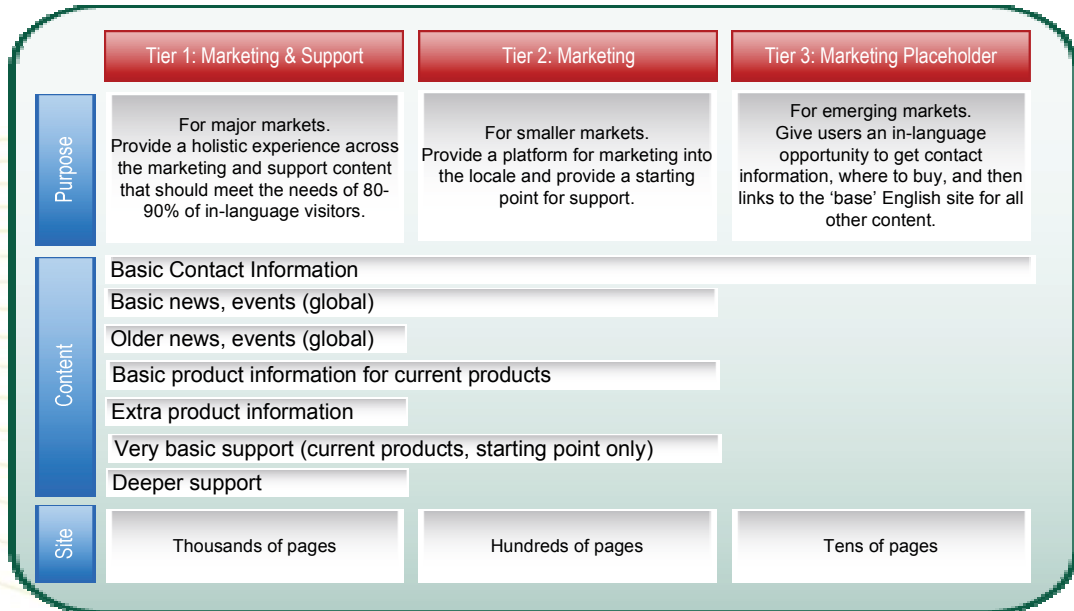


Figure 3: Different content levels for different country needs. Source: Ion Global

Organizations can prioritize content needs by assessing market opportunities. The information architecture can then reflect the business and user needs of different markets.

Translation management

Web site localization can be costly. Organizations need to decide what content to translate and offer alternatives to translated content.

Organizations can sometimes use translated content in multiple sites; however, this may not eliminate the need or desire to present localized content that addresses cultural differences. Organizations need to make cost effective translation choices based on their market strategy.

“With the help of R5 our international online marketing and sales have become much more efficient,” says Mul. “Now we roll-out marketing campaigns and sales promotions to more than sixty countries – in the local language – in just a few days. We only need to develop our campaigns and promotions once, which is a huge benefit, as it saves us a lot of time and money.

Alexander Mul, Director e-Marketing at KLM

Content life-cycle

Organizations produce both time-critical and general content. As a result, some content needs immediate translation into multiple languages, while other content can wait for translation. Content creation, translation, and localization needs to be synchronized yet flexible.

2 What is needed?

To meet the demands of an increasingly global economy, international organizations need efficient, manageable processes. Organizations need to maintain consistent branding across multiple Web sites while managing translation and localization requirements.

Considering the cost and frequency of changes to most Web sites, these processes need to offer both structure and flexibility.

Web site architecture needs to distinguish between content and layout that is global and content and layout that has been modified for local or regional Web sites. This type of architecture is only possible using a single, centralized, Web content management (WCM) system throughout the enterprise.

2.1 BluePrinting

SDL Tridion has created BluePrinting technology to manage a constellation of global and local Web sites. BluePrinting provides the following key elements:

- Content, templates, pages and structure are managed separately
- Multiple Web sites can share content, templates, pages and structure
- Local Web site contributors can localize shared content, templates, pages and structure
- Local Web site contributors can add local content, templates, pages and structure

Separation of content, layout, pages and Web site structure

R5 bases BluePrinting on the separation of content, layout, pages and Web site structure into different items, which are the building blocks of a Web site. These building blocks can be combined in various ways and enable organizations to assemble and deploy multiple Web sites and online portals.

Using the anecdote described at the beginning of this paper, the French subsidiary combined the content and layout in their translation. As a result, modifying content and ensuring consistency proved to be an impossible task.

In contrast, if the organization had managed this process using a content management system, the French subsidiary could have provided layout-independent, translated XML. The

corporate Web site could then easily assemble the new Web site reusing a corporate template. The separation of content and layout would enable the organization to rollout the translated Web site within a day.

Sharing building blocks in multiple Web sites

A Blueprint organizes building blocks within publications. A publication groups content and layout items. These items are often the building blocks of a Web site. A publication provides an organizational structure, a security model and content creation functionality.

Within the Blueprinting model, parent publications can share all items to other publications, called child publications. A Blueprint establishes the relationships between publications and enables your organization to share and manage items within multiple publications. The parent-child relationship enables the reuse of building blocks in multiple Web sites.

Figure 4 depicts a central parent publication that shares content to several local child publications. The relationships between publications create a Blueprinting hierarchy.

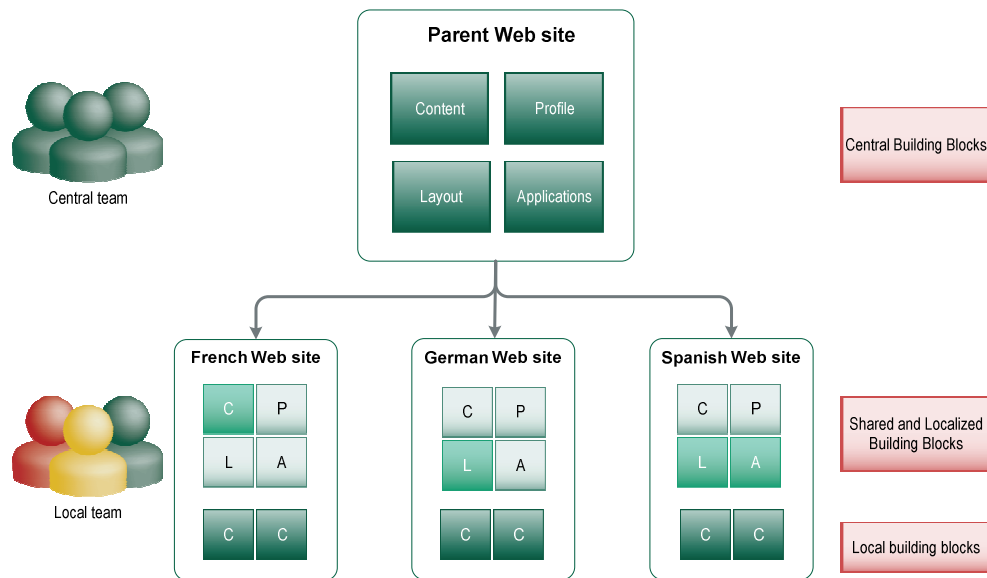


Figure 4 BluePrinting hierarchy

Creating local copies

In a BluePrinting hierarchy, child publications can contain a combination of the following:

- **Shared items** – items shared from a parent publications and are read-only (light blue in Figure 4)
- **Local copies of shared items** – editable copies of shared items (blue in Figure 4)
- **Local items** – items that exist in the child publication but not in the parent (navy blue in Figure 4)

A publication can use any combination of shared items, local copies, and local items. For example, the local copy of a page can contain shared items, local copies, and local items. By creating local copies and translating content, organizations can easily create a translated Web site using the same structure, pages and layout. Web site authors do not require any special knowledge to create translated pages.

Pages that require localized content can include local copies, shared items, and local items. Child publications automatically use local copies of any shared item. BluePrinting maintains the relationship between the original content (the shared item) and the translated or localized version (local copy).

Synchronizing content

One of the key benefits of using a BluePrint model to ensure that content is shared between publications, is that you can ensure that content is synchronized between various Web sites. This ensures message consistency and allows content contributors in different locations to coordinate their efforts.

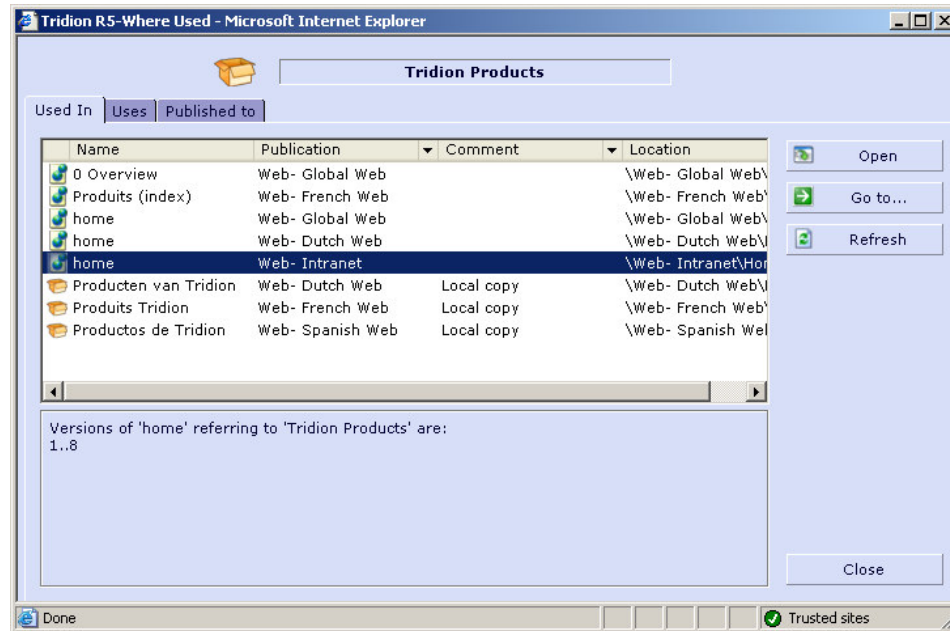


Figure 5 BluePrinting maintains the relationship between shared items and local copies

BluePrinting scenarios

Depending on the needs of an organization, each of the building blocks within a BluePrinting hierarchy can be managed on a central level (and reused and/or localized on a local level) or on a local level. The design of the BluePrinting hierarchy can reflect the needs of an organization.

This paper describes BluePrinting in the context of a localized or translated Web site. However, organizations can use BluePrinting to fulfill other business objectives such as brand management and multi-channel publishing.

2.2 Localized multilingual Web sites

This section provides a scenario that uses BluePrinting to create localized, multilingual Web sites using a fictional manufacturing company called Matrafa Inc.

Matrafa has markets in 80 countries. The Matrafa brand is strong and the organization wants to ensure all 80 countries use the brand in the same way. The organization decides to create separate Web sites for 75 of the 80 countries. Matrafa analyses the languages used in the 75

countries and decides to translate content into 15 different languages. All translation work is outsourced to a translation vendor.

The business in some countries justifies Web site localization and other countries will only translate or partially translate content using another language for the rest of the content. Some centrally managed content is updated regularly and needs to be translated quickly. This includes product information and press releases. In addition, some of the local offices will contribute local articles for local target groups.

The proposed solution

A three-level BluePrinting hierarchy addresses the Web site requirements:

- Parent publication (first level) – the parent publication contains the Web site structure, layout templates, pages and content. These building blocks will be present in all local Web sites. All content is in English, which is the Matrafa corporate language.
- Child publications (second level) – 15 publications act as language repositories. These are child publications of the first level publication, and only contain shared items and local copies. A local copy is created for all content that needs to be translated. Pages, layout and structure are shared since the organization wants to ensure that these remain the same throughout the organization.
- Child publications (third level) – 75 publications are created for each targeted country. Each of these publications can contain multiple languages. As a result, these publications can have more than one parent publication. These publications contain shared items from the first level and second level.

The third level publications contain the published pages, viewed by the Matrafa Web site visitors. Each of the third level publications is created for a specific group of visitors, taking into account any country, cultural or local needs. According to the needs of the local markets, the local publications can assemble a Web site using the building blocks shared from the first and second levels. Figure 6 shows part of the resulting BluePrinting hierarchy.

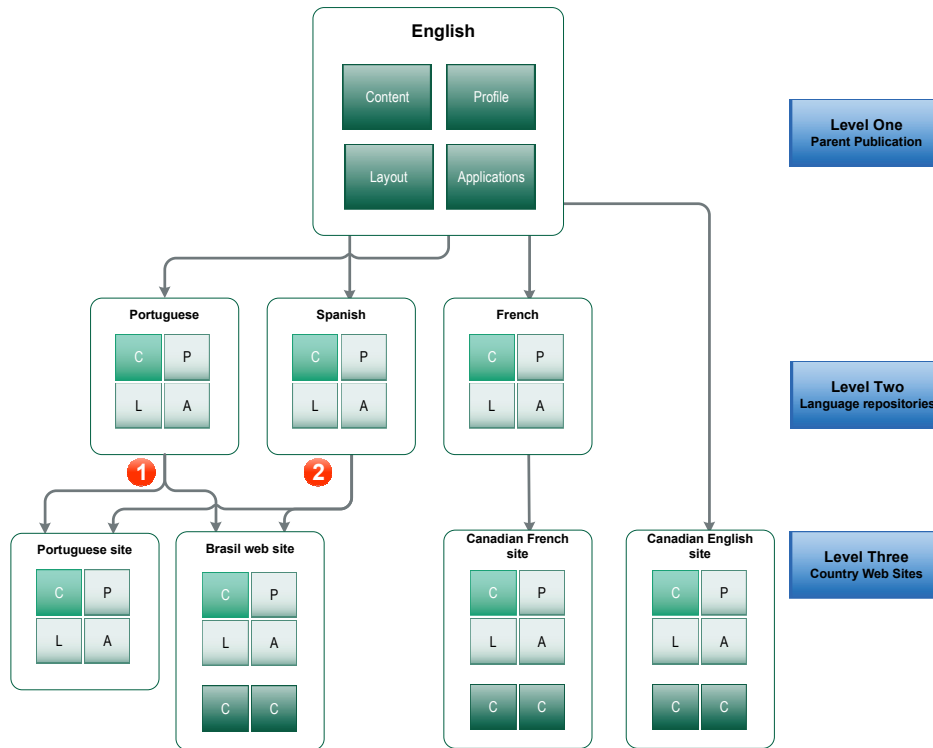


Figure 6 Multilingual, localized Web sites

In this example, the amount of localized and translated content varies. Portugal is a small market; as a result, the Portuguese site uses only translated content. In contrast, the Brazil site has localized content, structure and pages, and local content and pages.

For both the Portuguese and Brazil sites, Spanish is defined as a fallback language (indicated by 1 and 2). The Web site only displays English content if neither a Portuguese translation nor a Spanish translation is available.

Canada, a bilingual country, has two sites, an English site and a French site. The Canadian French Web site falls back to French content if a localized version is not available. If a French translation is not available, it falls back to English. Both sites contain some localized content and Pages and contain their own content and pages (local content).

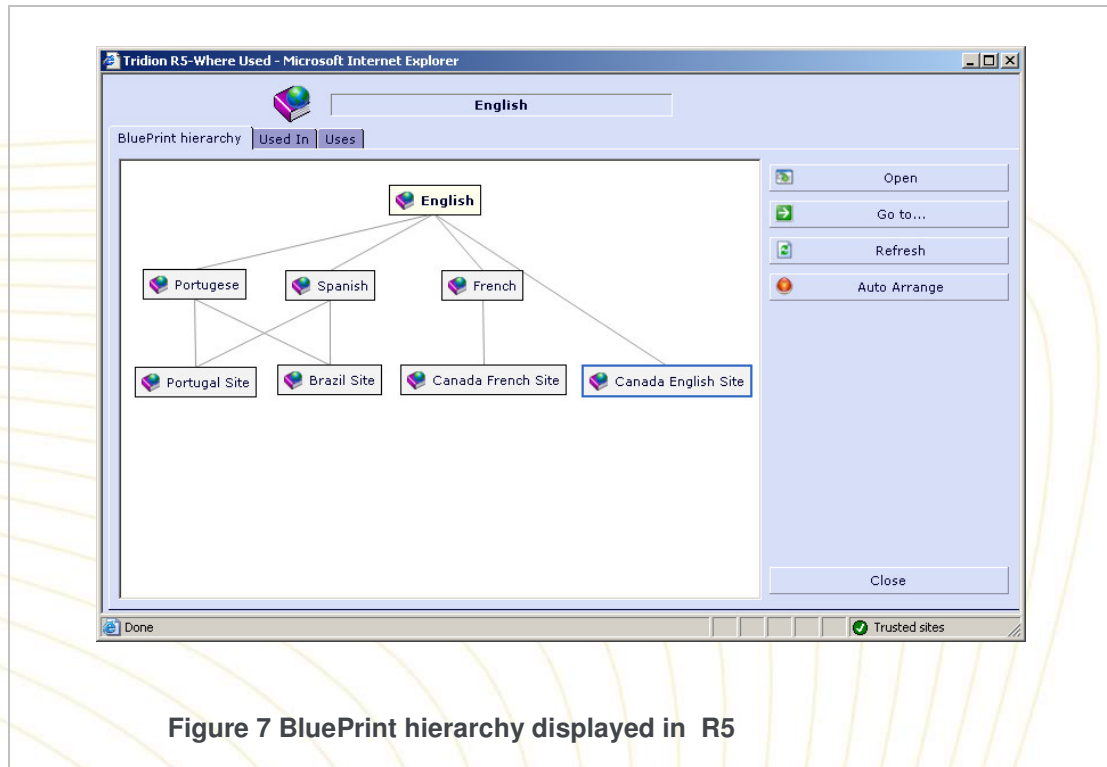


Figure 7 BluePrint hierarchy displayed in R5

2.3 The production cycle

This section describes the processes that organizations can use to translate and/or localize Web sites. In the anecdote from the first page in this paper, the French subsidiary and corporate office would have benefited from a coordinated effort, preventing time delays, lost business opportunities, and loss of morale for all of those involved.

The Matrafa example needs to manage a staggering 91 different publications and their mutual relationships. Without some form of an automated process, this is an impossible task.

Workflow

An automated workflow can tie the different levels together. A workflow process can handle all shared items that require translation or localization. A mix of manual and automated workflow activities can move content through a process of, for example, “creation”, “spell-checking”, “review” and “translation”.

Workflow can route the items through the required activities in the following ways:

- Using user input in which a user begins and finishes an activity
- Using item metadata. For example, metadata could specify the content type: weather report, press release, article, etc.

For example, a machine translation could translate a weather report using a fully automated process. A press release could follow a more complex process in which the press release is sent to a localization vendor and returned in two days. An article could be translated at a lower cost within a two week period.

Integrating with localization vendors

In the Matrafa case, content is created or modified in the first level parent publication. The fifteen publications at the second level, which serve as language repositories, require a simple translation process. A workflow process in the parent publication includes a “translation” activity. This activity automatically creates local copies in all 15 second level publications. The creation of these local copies prompts a translation workflow process in the language repositories.

The workflow process in the second level publication extracts the content and sends it to the localization vendor. Localization vendors such as SDL use Web-based translation services that allow customers to submit and retrieve translation jobs over HTTP.

R5 content is saved as XML. As a result:

- Content can easily be extracted and sent from Content Manager to the localization vendor
- XSLT can transform the XML to the format used by the localization vendor
- XSLT can add additional data to the XML, providing the localization vendor with all relevant information (for example the source and target languages)
- Translated content can be retrieved using HTTP and the translated content can be inserted in the local copies of the second level publications.

Localization vendor integrations join Content Manager workflow with translation vendor workflow in one logical process. Organizations can create a complete solution for Web site globalization by combining workflow and BluePrinting.

Consistent tone of voice

The tone of voice that organizations use in their content addresses customers in a uniform way, and expresses the values of an organization. In addition, a consistent tone of voice and consistent wording can lower translation costs.

For example, the words 'online' and 'check in' can be written as 'online', 'on-line' or 'on line', or 'check-in' or 'check in' respectively. For a global airline company with online check-in, these simple phrases are important. It is likely that different authors will use all six variants of these phrases resulting in higher translation costs, due to the need for a larger translation memory.

Organizations can integrate the translation memory technology inside of the authoring environment, enabling authors to check for correct spelling and to check for the correct use of commonly used phrases. This 'spell-checker on steroids' can provide suggestions for complete sentences if something similar has been written before, greatly increasing consistency in tone of voice while lowering translation costs.

Change notification

In the Matrafa case, the local offices manage 75 country sites. Each local office needs to know when content is added or modified in the first or second level in order to decide if further localization work is needed. Localization work is frequently context and culturally sensitive, so localization cannot be automated. Second level workflow can be used to send an email to the third level Web masters. The email can contain only contain a reference to a new article or a comparison of articles if content has been modified.

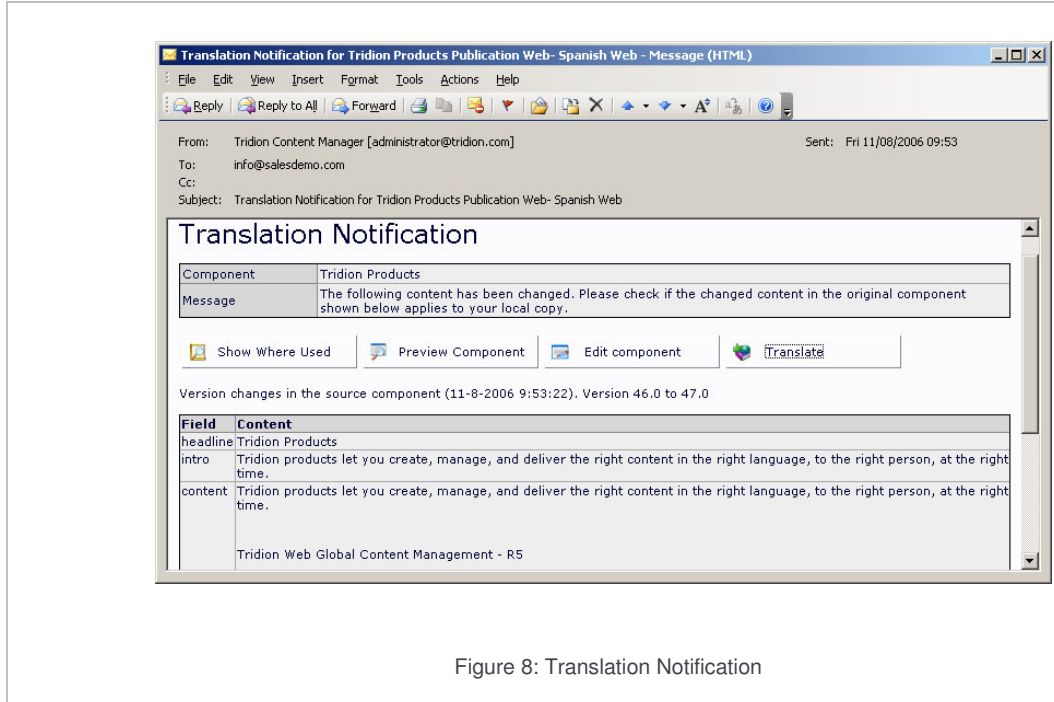


Figure 8: Translation Notification

“Being a multi-national organization poses its challenges when it comes to keeping information up-to-date and consistent across so many sites. Every time a detail changed, each territory had to make amendments on individual pages in different languages. In future, when a change is made to one site, it will ripple through all the other relevant ones, in the local language. We will therefore create content once, but use it many times.”

Paul Myerscough, Head of European IS at Honda Motor Europe

2.4 Return on investment

As shown in the examples above, global Web sites require design that reflects:

- A careful consideration of the information architecture
- A clear understanding of business processes

When initially creating a Web site in R5, this design requires additional 5-10% investment in comparison to other products. However, when rolling out additional Web sites in new languages, the cost is 25-50% lower than with other products. Figure 9 shows how the cost of setting up the initial Web site and subsequent Web sites differs between R5 and other products.

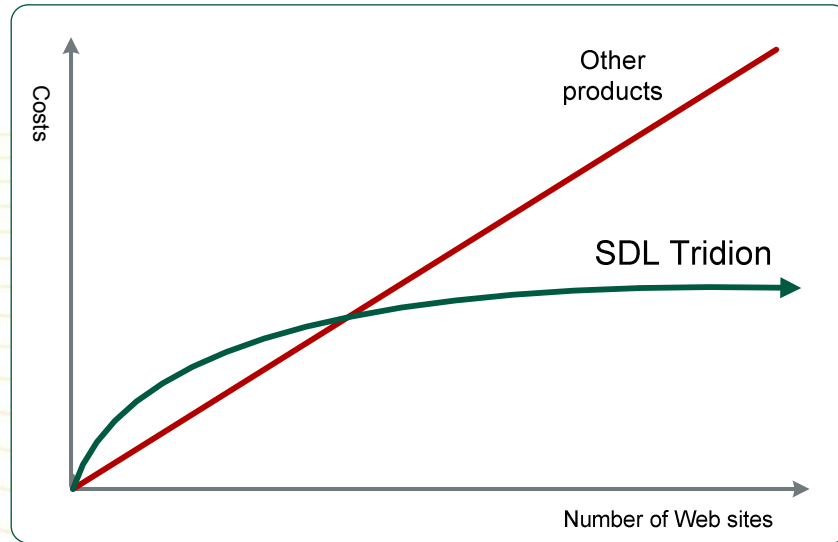


Figure 9: Web site costs

These cost savings depicted in this image shows only the initial investment, and does not even consider the saving that you can achieve in the ongoing operation of the Web sites. The individual cost of ownership figures provided by our customers further substantiate these benefits.

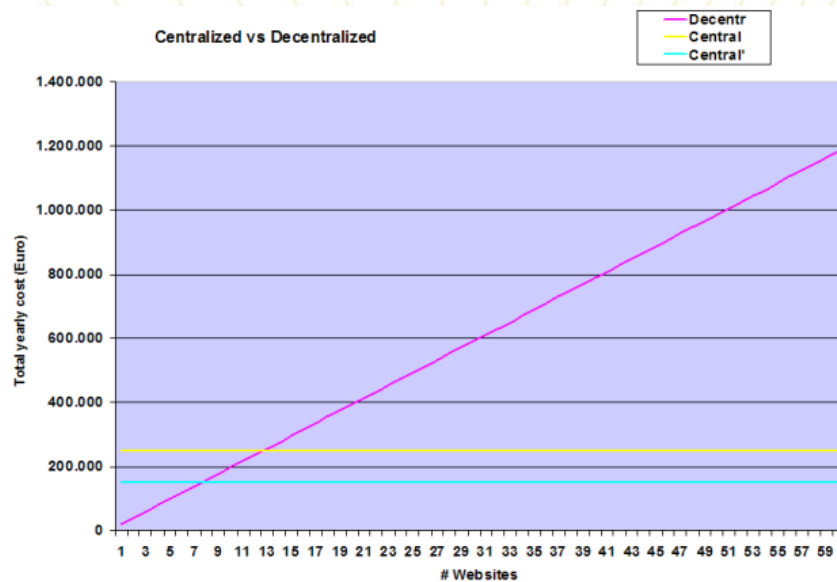


Figure 10: Puratos Group ROI

For example, the Puratos Group is a global group of over 100 companies that provide innovative ingredients and tailor made solutions to the bakery, patisserie & chocolate sectors. Puratos calculated the cost of using BluePrinting to centralize much of its content management process. As Figure 10 shows, Puratos' return on investment was considerable when managing more than seven sites. In their former decentralized model, each division required its own tools to build their Web sites.

"The cost savings that have been achieved from implementing R5 are higher than expected. Although we had no ROI calculations upfront, we are easily talking about savings already in the region of one million euros."

Joachim Verheyen, e-Technology Manager, Puratos

2.5 The right tools and technology

Using the right technology and methods, organizations can quite feasibly operate a multilingual Web site efficiently and effectively. As illustrated, international organizations need an enterprise-wide, language-aware web content management system such as R5.

Organizations need to invest in defining business requirements, Blueprint hierarchy and workflow processes for global Web sites. However, in light of the operational cost of maintaining a multilingual Web site, this investment is cost effective and enables organizations to thrive in the global marketplace.

2.6 Acknowledgements

We wish to thank all our global customers for their cooperation and for sharing their thoughts and challenges with us. They have truly shaped our vision and our software to create a useful and usable global Web Content Management solution. More specifically, we want to thank KLM, Canon and Emirates Airline for their close cooperation.

In addition, we wish to thank James Douglas from Ion Global for providing invaluable feedback and input.

3 About SDL Tridion

SDL Tridion is a global leader in Web Content Management (WCM) solutions. In addition to content creation, management, translation, delivery and archiving solutions, SDL Tridion provides brand management, targeted communication, multi-channel delivery and visitor interaction capabilities.

SDL Tridion enables organizations to provide a persuasive customer experience through all of their front office activities. Corporate communication, marketing and customer service can ensure that their communication connects with their key target audiences.

Unlike other WCM products, SDL Tridion's enterprise class WCM solution and unique BluePrinting technology enables organizations to deliver a consistent, interactive, and highly targeted customer experience in multiple languages and across multiple Web sites and channels.

More than 430 organizations rely on SDL Tridion solutions, including well-known global brands such as ABN AMRO, BBVA, breastcancer.org, Canon, Emirates, KLM, Lexus, Renault, Ricoh, Sanofi-Aventis, Scania, Toyota, Unilever and Yamaha. SDL Tridion has offices and partners throughout North America, Europe and Asia. For more information about SDL Tridion, please visit www.sdltridion.com

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