

How ISO built one of the world's leading extranets

By Tom Jenkins, Chair and Chief Strategy Officer for Open Text Corporation

About ten years ago, a meeting of four people in Geneva led to the creation of a reference model for virtual communities. That ISO model has since been imitated throughout the world - from the largest multinationals to non-governmental organizations and agencies that, for example, deliver worldwide services for refugees.

During that meeting a whiteboard, the most important part of it, and a laptop computer connected to the Internet by a very fast phone line (24 Kbits/sec) were used. Using the laptop computer as motivation for the possibilities of the Internet, the group sketched a vision on the board that would become a reality for ISO, and serve as a beacon for the way to organize diverse groups of people all over the world. Open Text Corporation, then a start-up company, used a new technology that would become known as Enterprise Content Management (ECM).

Handling e-content

At the time, a big challenge for ISO was how to properly handle its information, in particular, electronic or e-content. Any large organization with an international presence knows that isn't easy. In addition to the problems arising from supporting collaborative work of more than 100 organizations from all continents, was another challenge: being able to access and exchange information from a variety of formats.

ISO is a federation of national standards bodies from 156 countries. Not surprisingly, the diversity of its membership, including not only the most modern and technologically advanced countries, but more than 100 developing countries, is a real challenge.

This structure can lead to some unique headaches, especially with regard to dealing with many different cultures, languages and technologies. However, ISO has managed to build a worldwide extranet which, all things considered, works quite well.

How did ISO do it? To answer this question, we must first examine the global vision for the organization in 2010, which is to develop standards that support facilitation of global trade, improvement of quality, safety, security, environmental and consumer protection, as well as the rational use of natural resources, and global dissemination of technologies and good practices, all of which contribute to economic and social progress.

Thousands of standards, different languages, constant updates

Complying with ISO standards, such as ISO 9000 for quality management is a must for any organization before it can compete in the modern global economy. Companies in every kind of business imaginable - from chemical to information technology - are required by their customers, to comply with particular ISO standards as a prerequisite to doing business. But developing, maintaining and distributing these standards involves a lot of effort - both for ISO itself and all those compliance requirements.

As we take a closer look, it's easy to see that maintaining and publishing content on more than 15,000 ISO standards is no simple task. The very success of the ISO programme depends on making sure that the most up-to-date, valid standards are made easily available to the countless number of worldwide users. What's more, most of these standards are maintained in two languages - English and French - and are re-evaluated and updated at least every five years.

The task begins at ISO's Central Secretariat in Geneva, Switzerland, where 150 employees produce e-content in every type of format for its tens of thousands of other users around the world.

At one time, that meant a lot of paper - but not anymore. ISO and Open Text began to work together a decade ago. Over the years they have developed a consistently cutting edge approach to information technology requirements, by constantly changing with the Internet environment, and adapting to meet the needs of ISO's membership.

Industry

International standards

Customer

ISO - International Organization for Standardization

Business Challenges

- Publish content for more than 15,000 ISO standards, all of which are maintained in English and French, and updated at least every five years.
- Manage the e-content of collaborative work by more than 100 organizations from all continents in many kinds of format.
- Access and exchange information from diverse cultures, languages and technologies - ranging from modernized to developing nations.

Business Solutions

- A worldwide extranet/intranet based on Livelink ECM technology from Open Text
- Livelink ECM - Web Content Management used for knowledge management, and content management for its bilingual Website (iso.org)
- ECM servers on Sun Solaris and Windows NT, using an Oracle database on both platforms.

Business Benefits

- Greatly reduced time to publish international standards
- Return on investment
- Enhanced development of standards
- Better service to members through the creation of a global community with daily interaction

These needs are challenging. As the Internet has expanded and bandwidth increased, the membership has demanded more functionality. ISO has served as an example for many other organizations that contemplate an extranet marketplace for a diverse international community.

Making the transition to e-communications

Using software called Enterprise Content Management (ECM) and marketed as "Livelink ECM" from Open Text, ISO has made an effective transition to electronic communications. Before that, it was paper-based and far from efficient. The manual, paper-based processes were slow, expensive and hard to control. Communication was difficult amongst developers of standards, and even more so between people inside and outside of ISO, resulting in project management overheads, long development times and significant costs, not to mention excessive amounts of paper.

Long before most companies had created even the most basic Web site, in the mid-1990s ISO had a vision of what the Internet should be, and started the deployment process of ECM software. It planned to be able to provide a robust, document-management base, an open architecture, and seamless integration of all the collaborative working tools needed to build Web-based intra/extranet business solutions.

ISO has since become a virtual organization and its Central Secretariat's Livelink ECM-based extranet is now on the verge of being one of the largest in the world.

The importance of being Web-based

The ISO's Central Secretariat uses ECM to effectively manage the entire standardization process - from development to distribution. ECM provides a long-term foundation for capturing knowledge and is Web-based, so it can ease the process of distributing information over the ISO extranet. This means customers have instant access to information directly from their Web browser, and they also have print-on-demand capability, which reduces operational costs.

Collaborating on technical content

At ISO, collaboration and the development of technical content and the dissemination of information are key to everything. Content is created in a collaborative process that encompasses 156 national standard bodies, more than 700 ISO technical committees and subcommittees and more than 50,000 technical experts. In order to effectively coordinate the development and to deliver this content via the Web, ISO needed an open solution able to provide robust, highly scalable services, and to interface with different systems and environments.

ECM is the application that cost-effectively met those needs for collaboration, knowledge management and content management.

Toward that end, ISO integrated Web Content Management capabilities with its ECM suite. The goal was twofold: first, to create a solution to help the ISO improve how it organized and published content; and second, to tie content publishing capabilities into the larger information repository on standards.

Today, ISO utilizes ECM to manage content for its bilingual Web site - www.iso.org - and also to manage content for its Web store. It can access and publish content from its repository, or for its Web store, and pull information from its product catalog residing in an Oracle database. It can

then publish on the Web site in response to queries from all those end users.

Documents in multiple formats

ISO is no ordinary organization when it comes to managing e-content. For instance, the number of users of Open Text's ECM includes the Central Secretariat, another 15 national standards bodies and the European Committee for Standardization (CEN); more than 700 ISO technical committees and subcommittees and more than 2,000 working groups, all of which must be supported. In total, there are about 400,000 documents in multiple formats to be managed for different purposes, along with some 2,000 electronic ballots per year (i.e. comprising the collection and compilation of comments) organized by the ISO Central Secretariat.

Daniele Gerundino, Strategic Advisor to the ISO Secretary-General, points out that "ECM is the foundation for the ISO repository, and supporting the ISO's Web content management is no simple task, since the organization has some 30,000 unique visitors to its site every day."

According to Daniele Gerundino, ECM was selected because of its native Internet technology and protocols and its scalable server-based architecture with the potential for disparate users to connect.

In making the original determination to use ECM software to solve these challenges, an ISO task force did a six-month, on-site evaluation and found ECM to be the best solution for its intra/extranet requirements. It then installed ECM servers on Sun Solaris and Windows NT, using an Oracle database on both platforms. Now employees at ISO Central Secretariat and those from ISO members and their representatives have complete but controlled access to ECM's integrated services.

The benefits of using ECM

The benefits have been significant, and today ECM allows ISO to:

- Manage thousands of projects and facilitate the publishing of more than 1,000 standards every year;
- Handle contributions from ISO members' networks and the hundreds of thousands of volunteers engaged by them in the process;
- Maintain tens of thousands of existing standards in multiple formats and languages;
- Support the public enquiry process engaging the whole ISO constituency (through the ISO electronic balloting application);
- Effectively support the organization's governance (providing structured access to all relevant documents and recorded decisions);
- Ascertain problems in the process and ensure swift resolution.

The concept of Internet-based access by the membership to documents from around the world is now a daily reality. ISO has led this industry in demonstrating how it is possible to create a global community that interacts daily at a very reasonable cost.

ISO has greatly reduced the time required to publish international standards, and can now manage all official documents and reports electronically. It is one of the first virtual Internet communities and today one of the largest virtual organizations in the world.

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