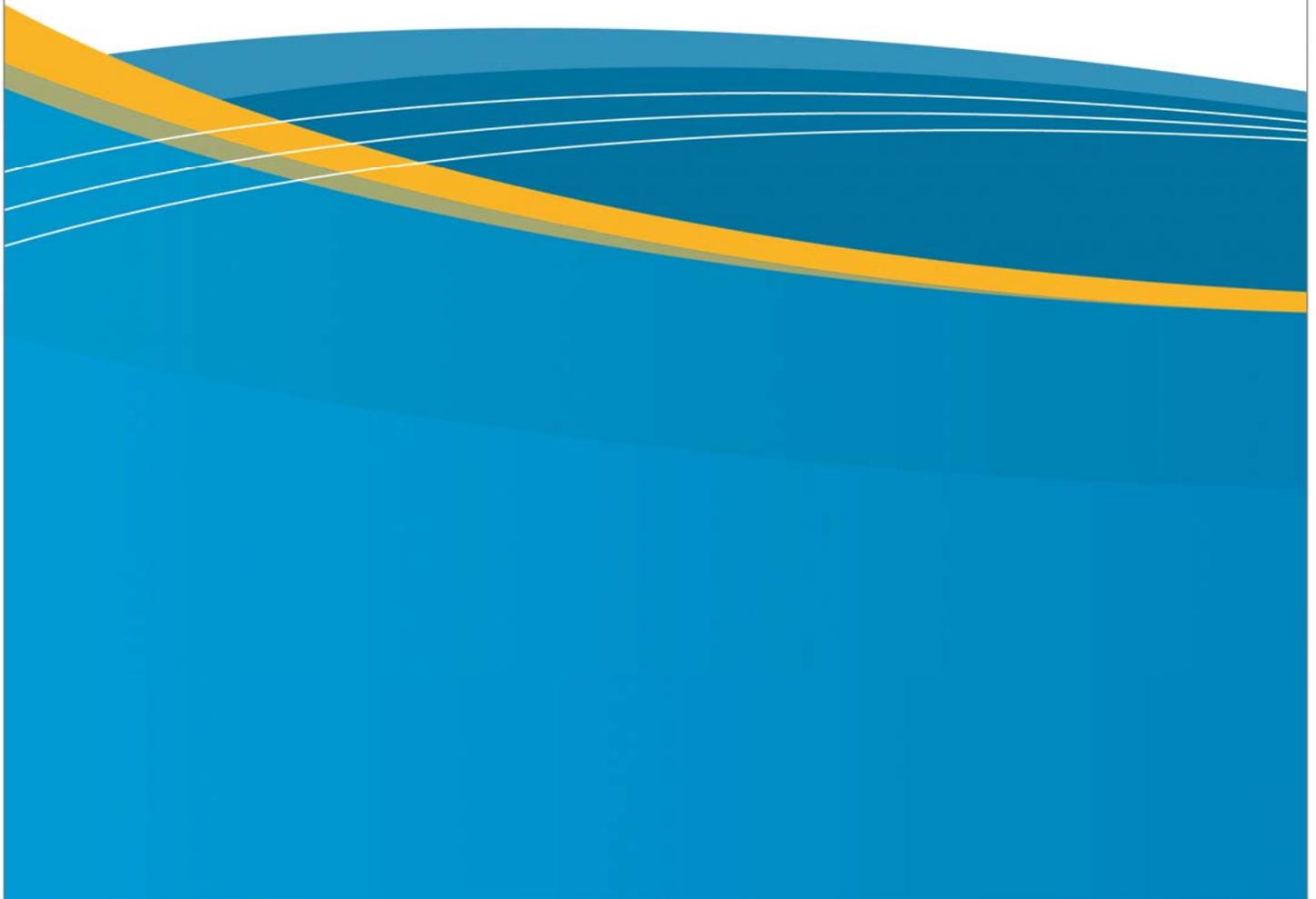


# OPEN TEXT

The Content Experts™

## ■ Enterprise Content in Context A White Paper by Open Text and Accenture

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## Executive Summary

Enterprise Content Management has emerged through the consolidation of diverse technologies. Enterprises create content every day; intentionally and unintentionally within the context of business processes. Managing the growing range of content type, and the growing volumes of content, isn't just important compliance housekeeping - it underpins the use of information to drive innovation and value creation. A strategic approach is required for the effective management of content, but more important is the focus upon the connections between people and content, and must also address behavioral barriers in the workplace.

## Content Evolution and Proliferation

What is a document? Based on their personal experience, most people feel they understand what a document is and how it records and communicates information within an organization. But their understanding is typically outdated or overly narrow, especially if they have been in the workforce for some time.

Until recent years, the primary challenge to organizations was to change from using paper documents in support of processes to using electronic ones. Now, a rapidly growing range of content types beyond the traditional document are used to transmit information within and between organizations. Where a bank once had to associate customer correspondence to customer data, it may now also have to store a video of that customer using an automated banking machine (ABM)! Vital information can be in emails, voice mails, instant messages, photographs, videos, websites, spreadsheets, presentations, blogs, wikis, podcasts, engineering drawings, and many other formats. Adding to the complexity, content formats can be combined. For example, an email message might also have a voice mail or video clip included as an attachment. Given recent history and emerging trends, the range of content types and "mashup" combinations will very likely continue to grow in the foreseeable future.

The recent growth in the number of content types is matched by concurrent growth in the total number of content files and their average size continues to increase on an exponential basis. This creates management, storage and compliance challenges, but most critically, it makes it difficult for staff to expeditiously find the information they need. Organizations must understand that planned access to relevant content needs to be part of key business processes, not an optional adjunct. Poor information access creates expense and inefficiencies.

## The Costs of Difficult Access

Results of an online survey<sup>1</sup> conducted by Accenture of more than 1,000 middle managers at large companies in the United States and United Kingdom uncovered wide-ranging trends about the way that survey participants gather, use and analyze business information. One of the key findings was that participants often conduct searches for meaningful business information and often fail to get the results they are after.

The survey also highlights the manifestation of so called “information silos” as one of the key challenges in finding meaningful information:

- More than half of the managers in the survey (57 percent) indicated they must go to multiple sources (or sites) to compile information.
- Managers said that they spend up to two hours per day searching for information and more than fifty percent of the information they obtain has no value to them.
- Nearly three out of five respondents (59 percent) said that as a consequence of poor information distribution, they miss information that might be valuable to their jobs almost every day because it exists somewhere else in the company and they just can't find it.
- 42 percent of US and UK respondents said they accidentally use the wrong information at least once a week.

Assuming 20 working days a month, the impact over six months is significant. The overall effect is 12-30 days (two business weeks to over a full month) of inefficiency. This can translate to project cost or schedule variance of approximately 10 to 25 percent in lost productivity.

In daily operations, 42 percent of staff may be using the wrong information in their work activities at least once a week. Negative impact on sales, lower customer satisfaction, higher operational margin, and potential litigation risk are all hidden costs.

While the Accenture survey was on “information” in general, it is well recognized that, today, unstructured and semi-structured content (the “new” multi-format documents) account for approximately 80 percent of organizational information. In our experience, this content represents an even larger proportion of the access challenge.

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<sup>1</sup> Accenture Survey of US and UK Middle Managers, 2006

## Repository Maturation and Effectiveness

Several factors have made content access difficult. Among these challenges, the presence of multiple content repositories in most organizations is one of the most significant. Repository proliferation has been driven by a combination of technological evolution and organizational behavior.

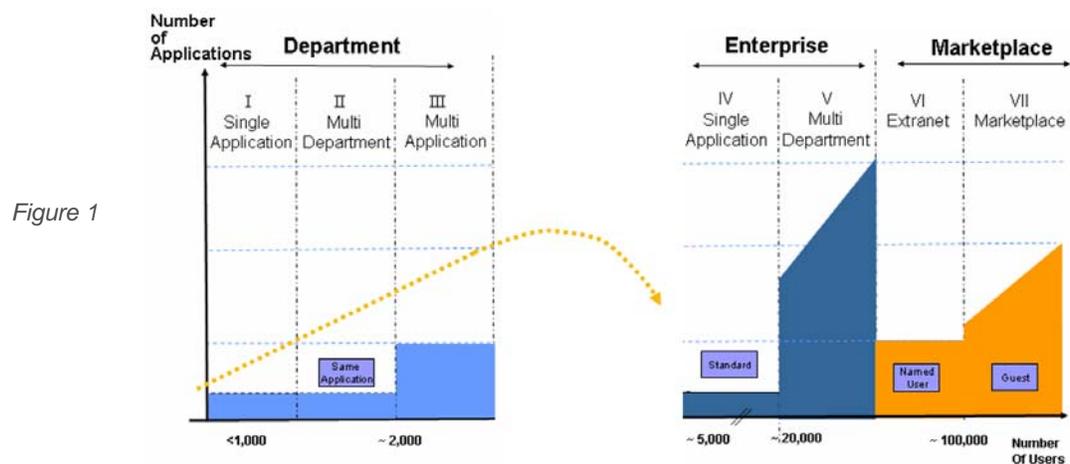
As each new electronic content format appeared, specialized tools and repositories were developed to manage that type. Organizations typically have many, relatively specialized repositories of documents, forms, websites, email, voice mail, rich media and collaborative workspaces. Fortunately for their future plans, the content management field has undergone considerable maturation and consolidation in the last few years. The result is the emergence of broadly-capable Enterprise Content Management (ECM) systems that can serve as both a repository and an archive for all common content types.

However, a repository alone is not enough – content must be readily available to support business processes. Fortunately, ECM systems are now able to integrate with other enterprise-class business systems and do so in a manner that better utilizes the strengths of each type of system. Where an Enterprise Resource Planning (ERP) system might have been “pushed” to serve as a repository of content, such as scanned customer correspondence or internal procedural documentation, it can now be readily linked to an ECM system that effectively manages all versions of multiple content types along with the associated metadata that enables easy, and preferably context specific, location and retrieval.

ECM systems have proven to be very effective in supporting business content throughout its entire lifecycle. They balance the needs of availability and efficient use of different storage media to reduce long term costs, while ensuring compliance with regulatory demands for retention and ultimately scheduled destruction. This lifecycle approach is in contrast to a common “disk is cheap” strategy of keeping all content of certain types, such as email, without an ability to index, rapidly retrieve or retire it in accordance with defined rules. This “store everything” approach compounds liability and risk over time, and merely postpones the inevitable decision-making required to properly disposition that content.

## Crossing the Enterprise Chasm

Progressive organizations have begun incorporating the concept of a single enterprise-wide content management system as part of their overall content management strategies. However, experience has shown that organizational behaviour remains a formidable barrier to effective use of content across an organization. Even if a company manages to implement a single ECM system, without careful management, the system is typically deployed in a manner that effectively creates information silos. While information silos have been a well known challenge, the volumes, diversity of content, and the varied ways in which that content is used, make developing an enterprise-wide content strategy particularly challenging – only a few organizations have done so successfully. Open Text refers to this as the ‘Enterprise Chasm’ (*Figure 1*).



ECM systems can manage a wide range of content types; however, within a given organizational unit such as a department, a narrower range is typically sufficient. The taxonomies and metadata applied to even the same content types may be quite unique and reflect the background, culture and specific needs of departmental members; documents that sales personnel describe as "proposals" may be considered by legal counsel as "contracts."

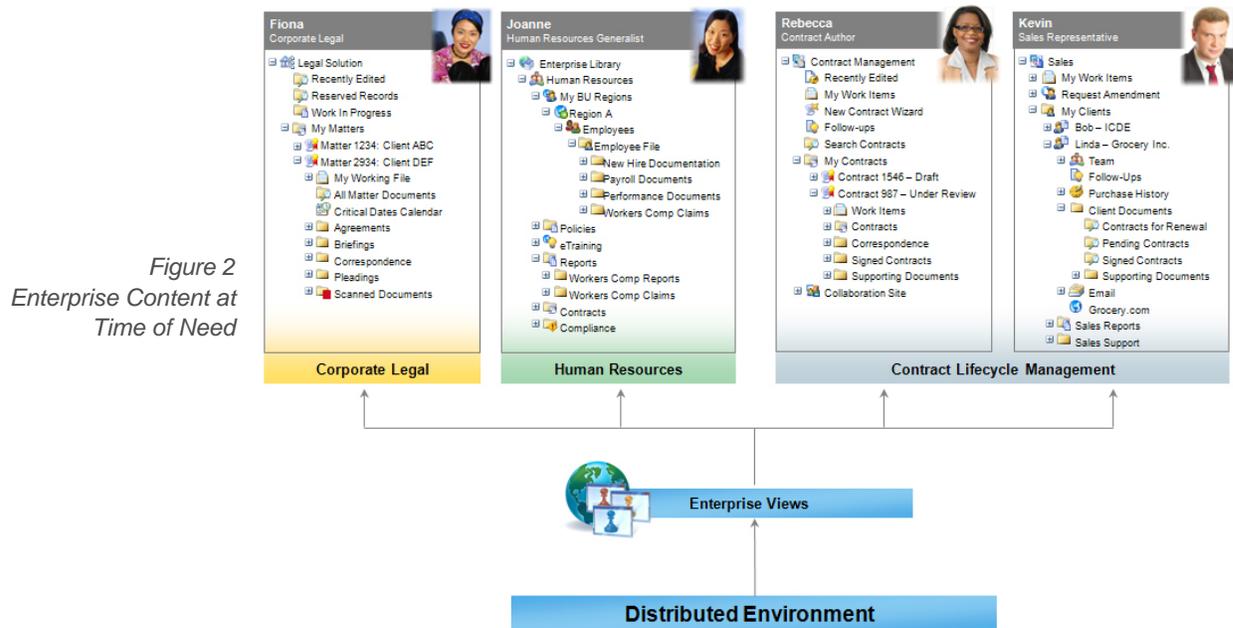
Successful ECM implementations have tended to focus on the narrower and more specific needs of users within one department. The approach is often to "silo" content in a manner that is hard for staff outside that department to find or even understand if they do locate it. It seems "obvious" to sales departments to organize customer information, such as correspondence and presentations, by the executive that "owns" the account, but in contrast, product support departments will use the customer ID as the primary method of organizing that information. Attempts to break down

organizational silos are generally doomed to fail if they do not account for the different orientation and expectations of staff across dissimilar departments. Replacing existing systems in which there has been significant economic and resource investments purely to support enterprise-wide goals are similarly unsuccessful.

These observations support the need for another level of abstraction to enable enterprise-wide information flow if the Enterprise Chasm is to be crossed. When content is passed from one group to another, its name, format, associated metadata and managing workflow may all need to be transformed to best leverage existing practices and expectations. What different groups understand by an apparently standard term such as “customer” often differs markedly, so “customer information” may have to be transformed to “account information” as it passes between two departments.

The tools that users understand and prefer to use also differ by organizational unit and job function. While almost everyone knows how to use a Web browser, it may not be the interface they most commonly use in performing their work. Given this, users may prefer to have content presented through other commonly used applications. This can produce the benefit of providing content exactly at the point of need for the business user.

In most organizations the closest thing to a universal interface is the email system that manages information by date, participants and priority. Additional and relevant information can be conveniently assembled from ECM and other enterprise systems to be presented in the context of an email message. In the image below, we see the advantages of enabling content access through appropriate channels according to need. This approach of surfacing repository-managed content is in marked contrast to the common, current practice of attaching content items to an email. Work streams managed by this approach lack stage-specific context and risk becoming outdated before completion.



A few years ago there was not a widespread understanding of workflow technology. Most people did not appreciate its benefits or felt that it was too intrusive. As workflows have been enabled through simple “one-click to approve” email messages, users are becoming more comfortable with the approach and, with more general technology experience, understand its supportive value. Workflow engines provide the opportunity for more predictability (as well as control if required) so that email can serve as a “channel” but not a primary repository of content.

In many organizations, ERP systems already manage defined business processes. It is likely that some of the first enterprise-spanning applications of ECM will serve as a supplement to existing ERP-managed processes with relevant content.

The history of successful ERP deployments also demonstrates that beginning at the departmental level and then spreading successes to other departments in a staged fashion is likely to be more successful than “big bang” enterprise deployments. But these staged efforts need to recognize that successful departmental deployments must be adapted to address the departmental differences already discussed.

## Generation Gaps and Web 2.0

The preferences of users not only differ based on their organizational unit, but also their age. There are marked differences in the preferred tools and approaches of those who learned information technology through consumer-oriented sites, such as Google, eBay, MySpace and Facebook, compared to those who remember when documents were typed on paper by stenographers. Younger staff may find existing enterprise tools to be awkward and slow, and may feel that the familiar external tools they use in their personal lives are essential for them to successfully carry out their work-related responsibilities. Older staff often find the wiki paradigm that allows anyone to amend a “document” to be incompatible with the level of control they are accustomed to. However, through home computing experience, even older staff have experienced the benefits of an intuitive interface and increased speed that come with Web 2.0 technologies: “If I can search the Web in a fraction of a second through Google, why can’t I find anything at work?” is a common refrain!

Newer technologies better enable timely and more flexible responses, but they also reduce opportunities for a more considered approach. It is much easier for an executive to spontaneously communicate with staff through an email than traditional, planned and scheduled staff meetings. Balancing business concerns and compliance with user needs and the immediacy provided by new technologies is increasingly challenging.

## Information to Drive Innovation

Since companies tend to organize themselves according to their functional roles and internal value chains, driving the smooth flow of essential content between organizational units is one of the most effective ways to support the innovation that creates competitive differentiation. Innovation requires better information as well as assimilation of knowledge from multiple sources. But we are all limited by the number of information sources and the amount of information that we can evaluate and leverage at one time (e.g. at a given point of a business process). A limited set of highly relevant, accurate, and up-to-date information should be presented at the time of need, and in the application of choice, irrespective of the source.

Good information management seems costly, but bad information management makes these costs pale in comparison. To summarize, the key challenges of information management are<sup>2</sup>:

1. **Meaningful information is costly to obtain.**

Today, one of the key challenges is capturing useful information in the enterprise in order to make it available for use and analysis. Thus, this is one of the reasons why ECM, Business Intelligence, and Web 2.0 are such hot topics today. Each company is looking for effective tools to capture or create meaningful information.

2. **Information is costly to store.**

ECM repositories, warehouses, applications, data storage, network capacity, etc. are costs of doing business in the information age. However, the inability of users to cross silos of information can multiply these costs through duplication, while a lack of lifecycle management prevents archiving, destruction of outdated information, and recovery of storage for documents that are no longer required. Additionally, keeping those documents past their intended lifespan could raise your legal risk in litigation, and multiply this cost.

3. **Information is costly to manipulate and retrieve.**

Once that information is captured and stored, how do we use this information effectively? How do we leverage information across systems and repositories? Customer Relationship Management (CRM) systems, supply chain, executive metrics dashboards, and portals are all sources of information. Unfortunately, we require our users to go to individual systems and perform the information correlation on their own. Businesses can realize greater efficiency and insight through better information management that links the source and the business processes to the common objectives.

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<sup>2</sup> The Black Swan: The Impact of the Highly Improbable, Nassim Nicholas Taleb, 2007

Given these inherent costs, CIOs must establish an effective information management strategy that maximizes return on investment by addressing all three challenges of acquisition, management, and retrieval. While the benefits of enterprise information integration are generally appreciated, many companies today lack a strategic ECM plan focused on the content needs of the knowledge worker. But this is changing. A recent Accenture survey<sup>3</sup> found that CIOs are increasingly including ECM in their overall information strategies. ECM is infrastructure, and requires strategy, planning, and implementation to drive value.

Executives are looking to information management to drive value across the business, create flexibility in responding to market changes, and accelerate innovation. The goal is to reduce the focus on any one information source and identify value greater than the total of its parts through knowledge synthesis. This requires a framework that enables the business to create value by leveraging a wide range of information sources while lowering the associated costs of acquiring and storing this information through consolidation and effective system management.

Information is created and consumed everyday by those who carry out business operations. How much useful information is lost at the end of a task that needs to be recreated later in support of another task (cost of acquisition)? How do organizations effectively store, organize, and apply metadata for content in order to use it later (storage and management cost)? How do we leverage this information in future transactions to gain better insight, lower the cost of service, and drive value to the business (cost of retrieval)?

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<sup>3</sup> Accenture CIO Survey: Information Management Trends in Portals and Content Management, 2007

## Summary and Recommendations

Building and executing on a strong ECM strategy is one key to leveraging content as information and is critical to managing the three information challenges outlined in this paper. An ECM strategy needs to accommodate the ways in which information is captured, stored and retrieved in the context of the business, and also must take into account the organization's information technology architecture. Enterprise content can be thought of as a "diary of the enterprise." It captures the collective knowledge for historical reference, consistency, analysis, and correlation. Innovation throughout the enterprise typically precedes innovation in the marketplace. The competitor that can best use the available information gains the advantage.

In brief, a strategy for ECM must:

- *Define the corporate goals and governance for content.*

The ECM strategy must align with and support the corporate goals and objectives, while reflecting the organizational model and value chain.

- *Identify the risks and address legal and compliance requirements for content identified as business records.*

The strategy must facilitate the application of corporate knowledge and streamline the management of any legal risk. A good strategy includes an approach to deal with records retention, legal holds, file plans, archiving, and overall risk management.

- *Understand the key business processes and the content that drives them.*

Know how content in its many forms is created or used in the enterprise in the context of business processes. In doing so, organizations create opportunities to achieve significant and tangible value.

- *Understand the unique challenges of content management and the need to integrate it with other more structured information.*

By definition, content has little organized structure, but it is rich and diverse. Companies can derive value and enable innovation if they ensure that their staff has access to the right information at the point of need, irrespective of the sources of that information or the supporting business applications.

- *Know how you will deal with content silos and encourage thinking outside the "departmental" box to enable enterprise-wide, content-enabled processes.*

Departmentally-oriented content silos are almost a tradition in organizations. Effective change management should be driven by cross-department opportunities.

- Rationalize the existence of various information repositories, especially for unstructured content.

By having a well defined set of vendors, tools, and infrastructure, greater cost control can be achieved through leveraging return on existing (for future) investments. These repositories must be able to include all content types as outlined in this paper. One of the major trends in 2007 for ECM vendors included integration with the growing number of Microsoft SharePoint sites that exist in many organizations and offering solutions to bring SharePoint content into a common ECM repository.

- *Identify a taxonomy approach that enables finding and using content in the context of business processes.*

Use metadata to define attributes that include security (content sensitivity), user role, personalization, document type, and business process context, but recognize that business practices in different parts of an organization may require different perspectives.

- *Recognize and accommodate the diverse taxonomies employed by different groups even in a single organization.*

A common taxonomy for all business content can be extremely hard to develop and tends to be perceived by users as introducing unnecessary complexity to their work lives. Instead, understand how to transition content between different groups as required by established business processes.

- *Establish an ECM framework that enables existing and future business applications.*

A good framework provides mechanisms for content acquisition, storage, retrieval, and records policy that can be leveraged across applications.

## Conclusion

Effective enterprise information management strategies must include ECM if they are to successfully maximize value and drive innovation. However, there are aspects of ECM that require very different approaches than have previously proved successful for structured data and processes with their associated business intelligence approaches. As a relatively new field, which at the same time addresses the largest proportion of enterprise information, the elements of ECM continue to evolve rapidly in response to the proliferation of content types and combinations, together with exponentially growing volumes. Against this background of change, organizations must also address shifting user expectations based on their personal experiences with Web 2.0 technologies, while effectively addressing organizational tendencies to silo information. Organizations that follow these recommendations will be better positioned to realize significant cost reductions, increase workforce productivity, create customer and brand loyalty, and uncover new revenue-generating opportunities as a result.

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P. Thomas Jenkins is Executive Chairman and Chief Strategy Officer of Open Text Corporation based in Waterloo, Ontario, Canada. He has served as a Director of Open Text since December 1994 and as its Chairman since June 30, 1998 and most recently as its Executive Chairman since June 30, 2005. From July 1994 to July 1997 Mr. Jenkins was President of Open Text and from July 1997 until July 2005, Mr. Jenkins served as Chief Executive Officer of Open Text. Mr. Jenkins was appointed Chief Strategy Officer of the Company in August 2005 and currently serves in that capacity. From December 1986 until June 1994, Mr. Jenkins held several executive positions with DALSA Inc., an electronic imaging manufacturer based in Waterloo, Ontario, Canada. Prior to these positions, Mr. Jenkins was employed in a variety of technical and managerial capacities at a variety of information technology based companies in Canada.

In addition to his Open Text responsibilities, Mr. Jenkins is currently a member of the board of BMC Software, Inc. a software corporation based in Houston, Texas. He is also an appointed member of the Government of Canada's Competition Policy Review Panel and an appointed member of the Social Sciences and Humanities Research Council of Canada.

Mr. Jenkins received an M.B.A. in entrepreneurship & technology management from Schulich School of Business at York University, an M.A.Sc. in electrical engineering from the University of Toronto and a B.Eng. & Mgt. in Engineering Physics and Commerce from McMaster University.

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#### **Accenture Information Management Services**

During his more than 23 years experience in management consulting, technology and outsourcing services, Royce Bell has worked with a range of large multinational companies, notably Shell and BP, and several government institutions. Mr. Bell sits on the board of the Oxford University Business Economic Programme. He has lived and worked for extensive periods in the Far East and France. Royce has a Bachelors and Masters in Natural Sciences and Law from Cambridge University. A keen theatre supporter, he also sits on the corporate advisory group of the National theatre in the UK.

## About Open Text

Open Text™ is the world's largest independent provider of Enterprise Content Management software. The Company's solutions manage information for all types of business, compliance and industry requirements in the world's largest companies, government agencies and professional service firms. Open Text supports approximately 46,000 customers and millions of users in 114 countries and 12 languages. For more information about Open Text, visit [www.opentext.com](http://www.opentext.com).

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Accenture is a global management consulting, technology services and outsourcing company. Combining unparalleled experience, comprehensive capabilities across all industries and business functions, and extensive research on the world's most successful companies, Accenture collaborates with clients to help them become high-performance businesses and governments. With 178,000 people in 49 countries, the company generated net revenues of US\$19.70 billion for the fiscal year ended Aug. 31, 2007. Its home page is [www.accenture.com](http://www.accenture.com).

## About Accenture Information Management Services

Accenture Information Management Services is a global cross-industry organization focused on bringing clients solutions to better manage their business, interact with customers and make strategic, financial and operational decisions. This network of 13,000 professionals\* specializes in business intelligence, portals and content management and data management and architecture services. For details, visit [www.accenture.com/informationmanagement](http://www.accenture.com/informationmanagement).

\*as of August 1, 2007.

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