

Forrester Consulting

MAKING LEADERS SUCCESSFUL EVERY DAY

Prepared For EMC

July, 2008

Archiving For Compliance And Good Information Governance

A commissioned study conducted by
Forrester Consulting on behalf of EMC

FORRESTER®



Headquarters

Forrester Research, Inc., 400 Technology Square, Cambridge, MA 02139 USA
Tel: +1 617.613.6000 • Fax: +1 617.613.5000 • www.forrester.com

Table Of Contents

Executive Summary	3
Current State Of Archiving	4
Archives Are Out Of Control But Will Be Consolidated	4
Compliance, Governance, And Specific Regulations Are Primary Drivers For Archive Investments	6
Records Management Leads Set Of Features For Future Archive Enhancements	7
Current And Future State Of Content Categories	8
Email Archiving — Still Needs Improvement	9
Unstructured Office Data — Respondents Are Trying To Get Control	11
Unstructured Business Content — The Initial Driver For Archive Repositories	13
Computer Output Is Well Managed — But Opportunities Exist To Drive Value From Archive....	15
Structured Data — Important To Archive And But Still Some Access Problems	16
Emerging Content Types — Driven By Web 2.0	18
Conclusions And Recommendations.....	19
Appendix A: Leading Compliance Standards, Laws, And Regulations Affecting Companies In The United States	20
Appendix B: Leading Compliance Standards, Laws, And Regulations Affecting Companies In Western Europe.....	21
Appendix C: Study Methodology	22

© 2008, Forrester Research, Inc. All rights reserved. Forrester, Forrester Wave, RoleView, Technographics, TechRadar, and Total Economic Impact are trademarks of Forrester Research, Inc. All other trademarks are the property of their respective companies. Forrester clients may make one attributed copy or slide of each figure contained herein. Additional reproduction is strictly prohibited. For additional reproduction rights and usage information, go to www.forrester.com. Information is based on best available resources. Opinions reflect judgment at the time and are subject to change.

Executive Summary

The ability to archive content is increasingly important. Firms with poorly managed archives face consequences such as heavy fines, increased discovery costs, punitive damages, and threats of lost business. On the operational side, poorly archived content can lead to unnecessary costs and poor support for business processes requiring value-added capabilities, such as cross-repository search.

Companies view the archive as a foundational component and as critical to records management, electronic discovery, and improved access. Despite their importance, companies today struggle with management of current archives. In fact, most archives are scattered between different departments and managed in diverse technology silos that inhibit access to and the ability to find critical content.

EMC commissioned Forrester Consulting to conduct a study of 252 compliance and archiving decision-makers to understand their current approaches to data archiving. The results of this study suggest that organizations do not have clearly stated archive policies coupled with integrated records management. Management of diverse content types — from computer output to instant messaging — has not been deployed in the context of a broader enterprise content management (ECM) or good information governance strategy. Research found that litigation, discovery concerns, and compliance are the strongest drivers for archive and information management. The US was much more concerned than western Europe about cost, compliance issues, and litigation and discovery in every content category that we covered. Companies are not satisfied that current archive capabilities are adequate to meet compliance needs, particularly for content supporting less-structured business processes, such as email and office applications. In addition, research showed that the content archived today is not leveraged in terms of search, records management, business intelligence, and business process management.

Improving access to content and the desire for archive consolidation were dominant themes from the data. Across all content types, firms struggled with providing online access and finding needed content. In addition, they struggled with the costs of administering so many different archives within the organization. Overall, firms were less concerned with archive costs, or the ability to analyze archived data.

Forrester divided content into six categories to isolate differences in how different content types were being managed. The six content categories studied are: computer output (such as reports and customer statements); structured data (such as databases, enterprise applications, and transaction systems); unstructured business content (such as customer account forms or contracts); unstructured office data (such as MS Word, Excel, and PowerPoint documents); email; and emerging content forms (such as blogs, Wikis, and IMs). Firms had the most trouble rapidly finding unstructured business content — reflecting the overall importance of this content type — which consists of official business records such as contracts, statements, and customer forms. Firms were most concerned with email content for potential eDiscovery costs and not surprisingly, emerging content types represent the least concern to firms across all areas.

Forrester recommends that companies develop a holistic archive strategy across archives and content types, but to determine policies based on the context and usage of content, e.g., emails between executives and SEC filings would have archive policies based on their value to the organization. To develop a successful strategy, companies first need to educate themselves about the difference between archiving and backup procedures; not understanding this difference will prevent companies from meeting emerging compliance procedures. Finally, Forrester believes that

companies should look to consolidate their archives as a first step to improving overall enterprise content management support.

Current State Of Archiving

In the spring of 2008, EMC commissioned Forrester Consulting to conduct a study of 252 compliance and archiving decision-makers at large organizations to determine the current state of archiving, how compliance is driving the need for archiving, and desired future archiving capabilities. Both North American and European firms were included in the study, and respondents represented a variety of industries.

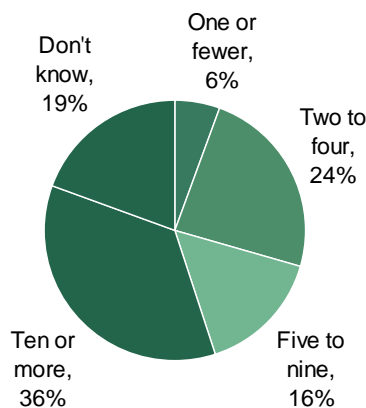
For the purpose of this survey, archives refer to information that must be retained for business purposes (as well as the repositories and services associated with holding this information) for historic, compliance, or corporate needs in unalterable format. Archiving incorporates value-added features to identify information for archive, migrate content to the appropriate location, provide online search and retrieval, and provide operational features such as compression. Over the years, to meet specific regulations or improve governance, firms have installed archives for specific business processes or to support departmental needs. Compliance, litigation, and better support of business processes are encouraging firms to develop comprehensive archive strategies.

Archives Are Out Of Control But Will Be Consolidated

Over the years, the number of archives has grown for many organizations. They have grown to support a specific departmental need; for example, the insurance claims department and the underwriting departments may have separate archives for their content. They have also grown to individually support a content type — whether this is for email, computer output (such as reports and statements), or images like new account forms. Add to this the growing archive needs for office output, such as Excel and MS Word documents, and it is easy to understand the large number of archives reported in our survey (see Figure 1).

Figure 1: Current State Of Archiving

“How many archives does your company support today?”



Base: All respondents

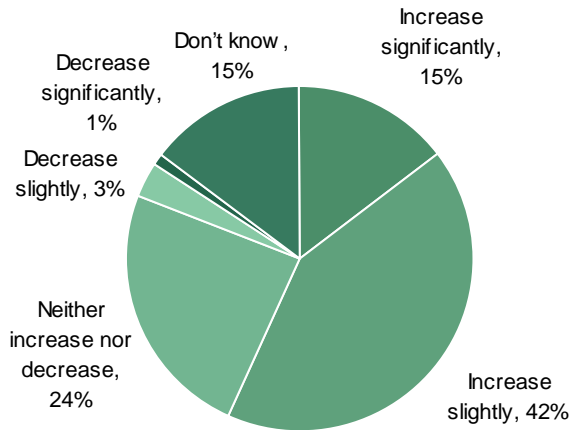
Please note that percents are rounded and may not equal 100%

Source: Online survey of 252 compliance and archiving decision-makers, conducted by Forrester Consulting on behalf of EMC

- **The number and diversity of archives is likely to change as 50% of firms will consolidate their archives within the next year.** Specifically, 20% are currently working to consolidate their archives while 30% of respondents are planning to consolidate within the next 12 months. An additional 32% are interested in consolidation but have no current plans.
- **The budget seems to be there to support the consolidation, as 57% plan to invest (see Figure 2).** Companies will increasingly spend primarily to improve management in order to meet current and emerging compliance needs. While there was no significant difference between the number of archives reported in the US and western Europe, western Europe is twice as likely to increase investment to eliminate aging platforms (see Figure 3).

Figure 2: Over Half Of Firms Plan To Increase Investment In Archiving In The Next 12 Months

“Are you planning to increase or decrease your investments in archiving in the next 12 months?”

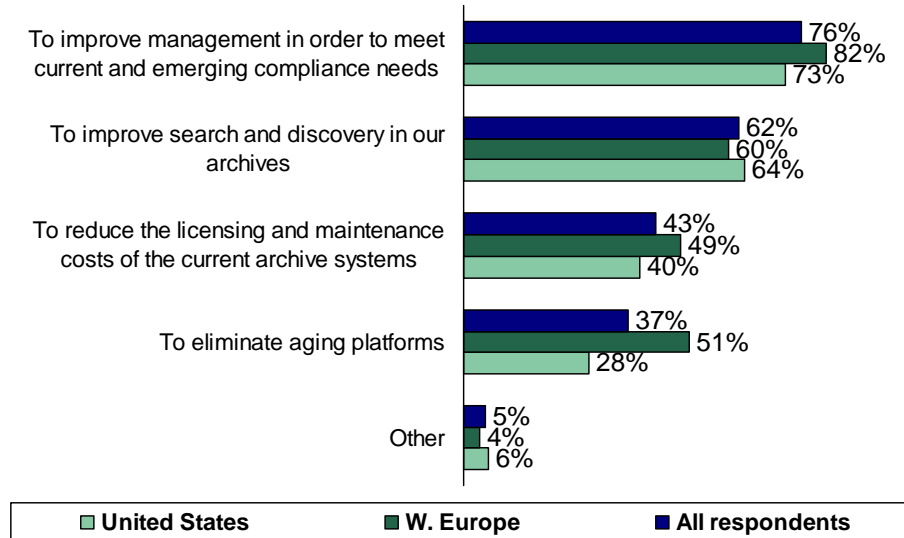


Base: All respondents

Source: Online survey of 252 compliance and archiving decision-makers, conducted by Forrester Consulting on behalf of EMC

Figure 3: Why Companies Are Increasing Investments In Archiving

“If you are increasing your investments in archiving over the next 12 months, why are you increasing your investments?”



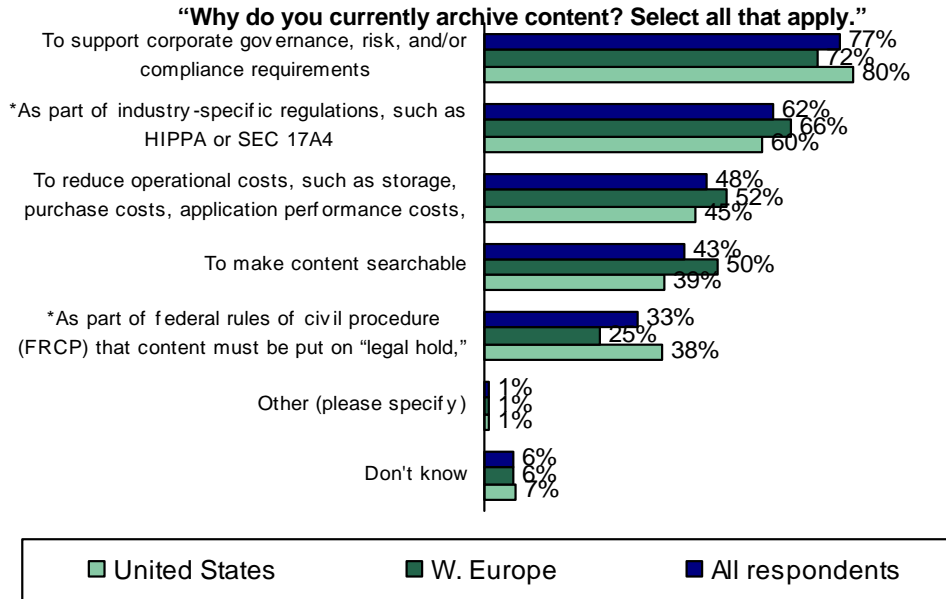
Base: 143 respondents who are increasing their investments in archiving in the next 12 months
 Source: Online survey of 252 compliance and archiving decision-makers, conducted by Forrester Consulting on behalf of EMC

Compliance, Governance, And Specific Regulations Are Primary Drivers For Archive Investments

Respondents cited corporate governance, risk and/or compliance, and specific regulations, such as HIPPA or SEC Rule 17a-4, as the main driver for archiving (See Figure 4). Specific regulations require that important records be archived (see Appendices A and B). For example, in financial services the SEC 17a-4 requires that the electronic storage media must preserve the records in a non-rewriteable, non-erasable format, verify automatically the quality and accuracy of the storage media recording process, and have the capacity to readily download indexes and records to any medium.

- Fifty-four percent of respondents rated the support of corporate governance, risk, and/or compliance requirements as their number one reason for archiving content.** While nearly all United States respondents rated “as part of industry-specific regulations” as a “top 3” issue, only 84% of western European respondents were concerned with this issue. It should also be noted that western European companies were much less concerned about potential eDiscovery costs, with only 60% ranking this as a top 3 reason, compared to 90% of US companies.

Figure 4: Compliance Requirements Top The Reason Why Companies Currently Archive



Base: All respondents

*Questions about regulations were updated to specifically reflect the respondents' location
 Source: Online survey of 252 compliance and archiving decision-makers, conducted by Forrester Consulting on behalf of EMC

Records Management Leads Set Of Features For Future Archive Enhancements

After basic archive capabilities, records management capabilities are the most important enhancement. Record management applies policies to electronic and paper-based information that govern the length of retention, the accessibility, and the manner of destruction. Records management is important to respondents because of more stringent government regulations, explicit federal rules of civil procedure (FRCP), and the increasing reliance on information as an organizational asset.

- **Seventy-seven percent of respondents feel it is important to have the ability to administer records management policies across all archives.** Seventy percent will have record management policies in place within the next 12 months.
- **Companies are looking to incorporate other capabilities into their archives.** While records management was the most important, 76% of companies felt it was important to have “enterprise search” across all archives; 31% of companies plan to incorporate this into their archive functionality within the next 12 months in addition to the 29% of companies that currently have this capability. Companies also desire the ability to manage all content types in one repository and a general reduction in the total number of archives.

Current And Future State Of Content Categories

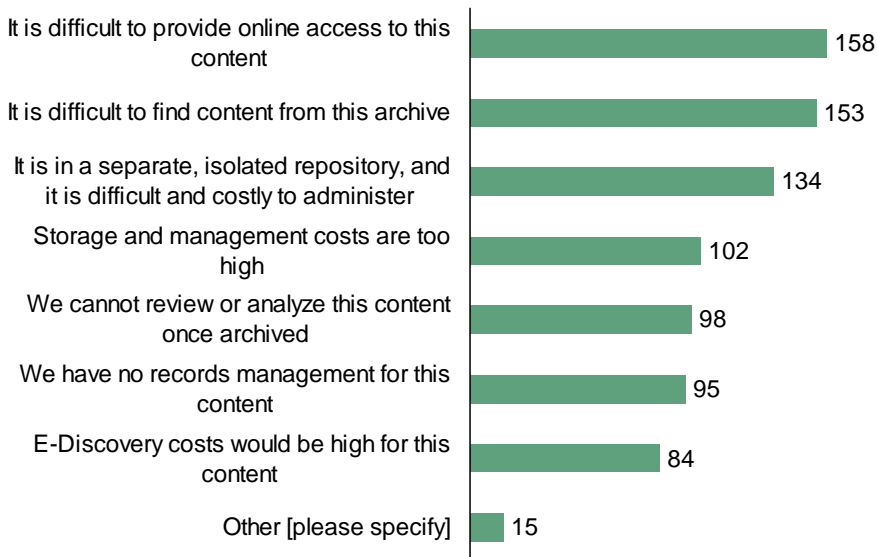
The needs to improve the access to content and establish archive consolidation were dominant themes from the data. Across all content types, firms struggled with providing online access and finding needed content. In addition, they struggled with the costs of administering so many different archives within the organization (see Figure 5). These concerns are probably related, as the ability to provide a federated search capability across diverse archives is generally not supported today. Overall, firms were less concerned with archive costs or the ability to analyze archived data. The US was much more concerned than western Europe about cost, compliance issues, and litigation and discovery in every content category that we covered.

Forrester divided content into six categories to isolate differences in how different content types were being managed, the problems that firms experienced, and whether firms attached different levels of importance (from an archive perspective) to different content types. The six content categories studied are: computer output (such as reports and customer statements); structured data (such as databases, enterprise applications, and transaction systems); unstructured business content (such as customer account forms or contracts); unstructured office data (such as MS Word, Excel, and PowerPoint documents); email; and emerging content forms (such as blogs, Wikis, and IMs). We found that that all content types are not treated equally from an archiving perspective. Firms had the most trouble finding and providing online access to unstructured business content, reflecting the overall importance of this content. Firms were most concerned with email content for potential eDiscovery costs and, not surprisingly, emerging content types represent the least concern to firms across all areas.

The inability to distinguish archiving from backup and other operational procedures represents a risk to firms going forward as this understanding is important to meet emerging compliance concerns. Much of the data suggests that enterprises had trouble distinguishing archive functions from more standard operational functions such as backup and recovery. Backup uses software to copy data from a single machine or from selected computers in a network to a secondary storage medium. Backup can be scheduled at periodic intervals, or individual files can be automatically backed up right after they have been updated, for recovery purposes. However, the goal of backup is to protect current data — backup is not focused on historical, compliance, and unalterable management of content. Backup systems also lack the level of value-added features that archives do — such as compliance and retention management, records management, or eDiscovery.

Figure 5: Across All Content Types, Difficulty Providing Online Access Was Cited The Most Often As The Reason For Poor Content Management

“Which of the following areas are reasons why you believe your online content is not well managed? Select all that apply.”



Base: Respondents who felt at least one content category was not well managed

Source: Online survey of 252 compliance and archiving decision-makers, conducted by Forrester Consulting on behalf of EMC

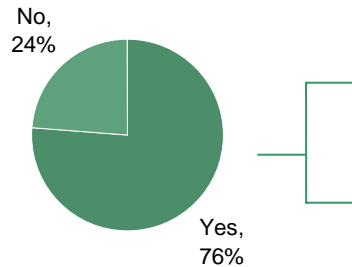
Email Archiving — Still Needs Improvement

Electronic communications are now a vital part of most businesses. Communication methods such as email are, in many cases, the preferred method of sending and receiving information. In some industries, such as brokerage, the preservation and retention of these communication sessions is a requirement — e.g., under SEC Rule 17a-4. Yet even outside of financial services, firms are feeling the pressure to organize email to lower discovery costs, and they want to improve access to email repositories when needed.

- **Consistent with this, 81.3% of all respondents, regardless of if they currently archive email, feel it is important to archive email, even though only 76% of respondents are currently doing it.** The majority of companies, over 80%, feel that their email archival is well managed (see Figure 6). The high percentages seen here may reflect the difficulty the market has distinguishing between email backup and email archival.
- **The respondents who felt their email is not well managed pointed to the inability to access and locate needed content.** Many of these respondents felt that this content was in isolated repositories, making it difficult and costly to administer, and respondents could not review or analyze the content once it was archived.
- **Our survey showed that respondents were extremely concerned with litigation and discovery and compliance and less so with cost issues.** Forty-three percent of companies were extremely concerned with litigation and discovery and compliance, compared to only 31% of organizations that were extremely concerned about cost.

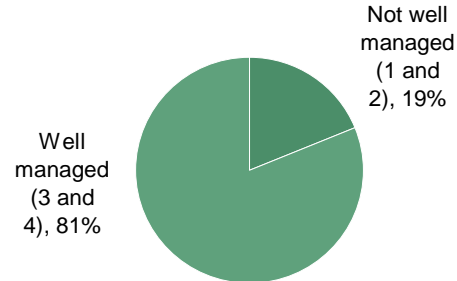
Figure 6: Current State Of Email Archiving

“Does your company currently archive email?”



Base: All respondents

“How would you rate the management of your current archive solution for email, where 1 is not well managed and 4 is well managed?”



Base: 192 respondents who currently archive email

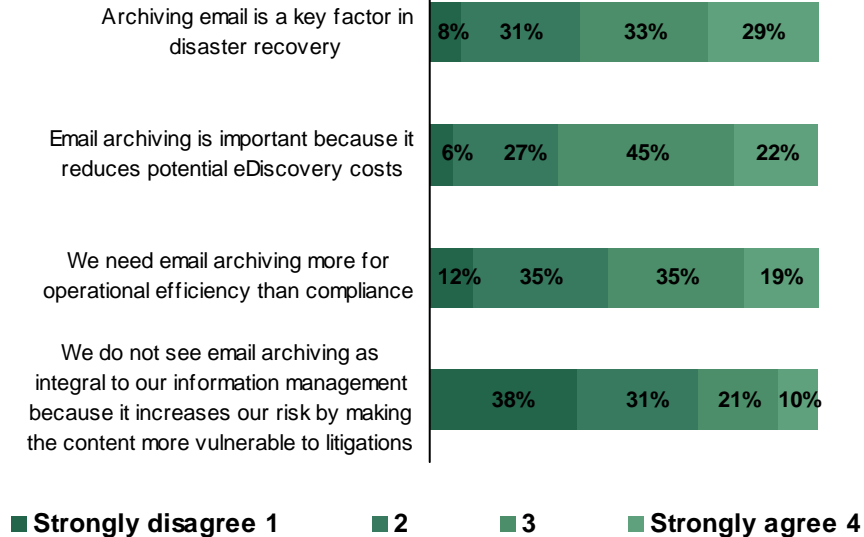
81.3% of all respondents, regardless of if they currently archive email, feel it is important to archive email.

Source: Online survey of 252 compliance and archiving decision-makers, conducted by Forrester Consulting on behalf of EMC

- **Email concerns are not only about litigation and compliance.** A large percentage of companies agreed that archiving email was important to have as part of a disaster recovery plan. And while discovery was more important, many respondents agreed that the operational efficiencies — such as reduced storage costs — gained from archiving email had a high value to their enterprise (see Figure 7). And, consistent with other content type, US respondents were much more likely to agree with the statement “Email archiving is important because it reduces potential eDiscovery costs” than their western European counterparts.

Figure 7: Sixty-Seven Percent Agree That Email Archiving Is Important Because It Reduced Potential eDiscovery Costs

“On a scale of 1 to 4, where 1 equals strongly disagree and 4 equals strongly agree, how do you feel about the following statements regarding email archival?”



Base: All respondents

Please note that percents are rounded and may not equal 100%

Source: Online survey of 252 compliance and archiving decision-makers, conducted by Forrester Consulting on behalf of EMC

Unstructured Office Data — Respondents Are Trying To Get Control

Unstructured office data is the largest pain point for customers. It is growing in volume and importance due to the broader scope of legal discovery and recognition of the intellectual property contained in correspondence, Excel spreadsheets, PowerPoint documents, and other personal productivity tools. Faced with the emphasis in this area and the productivity available with collaboration tools, such as Microsoft SharePoint, firms are storing office content on shared file servers or SharePoint repositories. Neither of these provides true archive functions and may only represent a short-term solution to a growing problem.

This point was not lost on our respondents as our survey found that 58% of all respondents, regardless of if they currently archive unstructured office data, feel it is important to archive unstructured office data, such as MS Word, Excel, and PowerPoint documents.

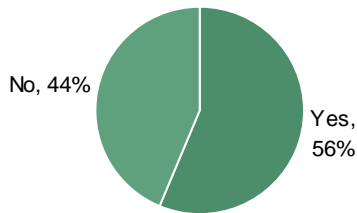
- **Respondents in western Europe were more likely to find it important to archive unstructured office data.** Sixty-nine percent of western European companies felt this was important, compared to only 51% in the US. This gap may result from better control around this type of content in Europe than in the United States, where it is not uncommon for work groups to produce ad-hoc shared workspaces that are not closely monitored by the companies.
- **Only 64% felt the current management of this content was well managed (see Figure 8).** Respondents who feel their unstructured office data is not well managed pointed to the inability to access and locate needed content. Almost half of these respondents felt that this

content was difficult and costly to administer because it is in isolated repositories and cannot be review or analyzed once archived (see Figure 9).

- **Respondents felt nearly equal concern across litigation and discovery, cost and compliance issues.** While slightly less concerned about these issues in comparison to other content categories, 66% of companies were concerned with compliance issues, while 64% were concerned with both litigation/discovery and cost.

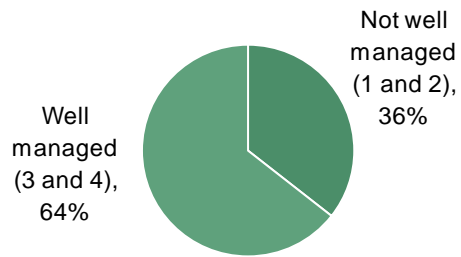
Figure 8: Current State Of Unstructured Office Data

“Does your company currently archive unstructured office data, such as MS Word, Excel, and PowerPoint documents?”



Base: All respondents

“How would you rate the management of your current archive solution for unstructured office data, where 1 is not well managed and 4 is well managed?”



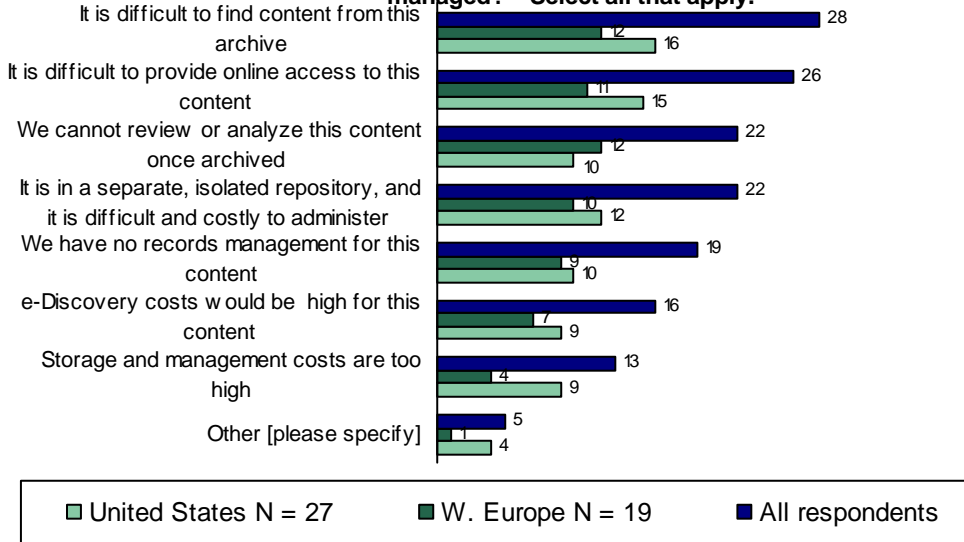
Base: 142 respondents who currently archive unstructured office data

57.9% of all respondents, regardless of if they currently archive unstructured office data, feel it is important to archive unstructured office data, such as MS Word, Excel, and PowerPoint documents.

Source: Online survey of 252 compliance and archiving decision-makers, conducted by Forrester Consulting on behalf of FMC

Figure 9: Over Half Of These Respondent Found This Content Difficult To Find From The Archive

“Which of the following areas are reasons why you believe your unstructured office data is not well managed?” Select all that apply.



Base: 46 Respondents who feel their unstructured office data is not well managed

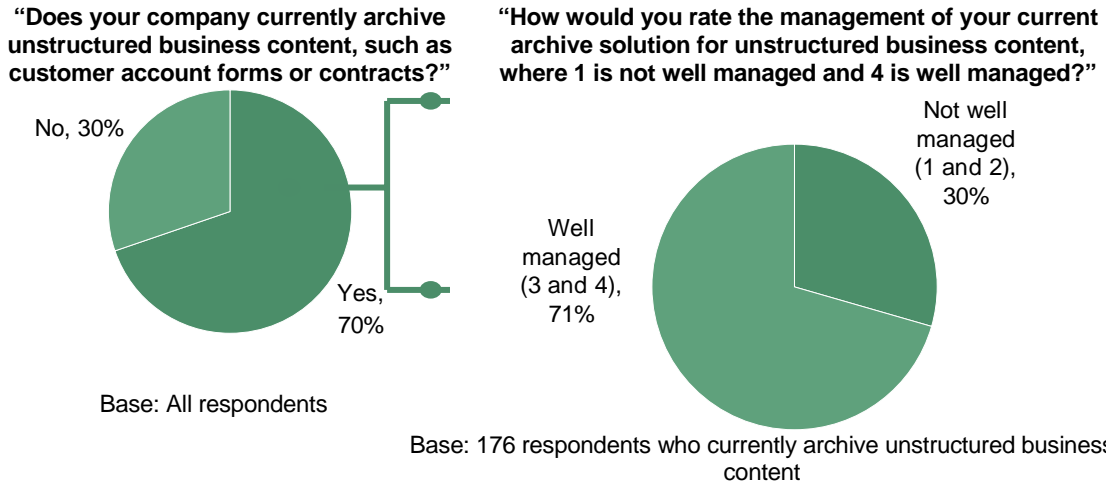
Source: Online survey of 252 compliance and archiving decision-makers, conducted by Forrester Consulting on behalf of EMC

Unstructured Business Content — The Initial Driver For Archive Repositories

Unstructured business content consists of customer contracts, account forms, and other official customer records. These are unstructured since they may be in a variety of formats such as images, faxes, or electronic forms. These are almost always important customer records and will benefit from improved archive functionality to improve search, analysis, records management, and eDiscovery.

- **Not surprisingly, 76.2% of all respondents, regardless of if they currently archive unstructured business content, feel it is important to archive this unstructured business content.** However, only 70% of companies are actually archiving this data today. Seventy-one percent of those currently archiving feel that unstructured business content is well managed (see Figure 10).
- **Of the respondents who felt their unstructured business content is not well managed, the majority (62%) pointed to the inability to access and locate needed content.** Many also felt that that this content was in isolated repositories, making it difficult and costly to administer (see Figure 11).

Figure 10: Current State Of Unstructured Business Content



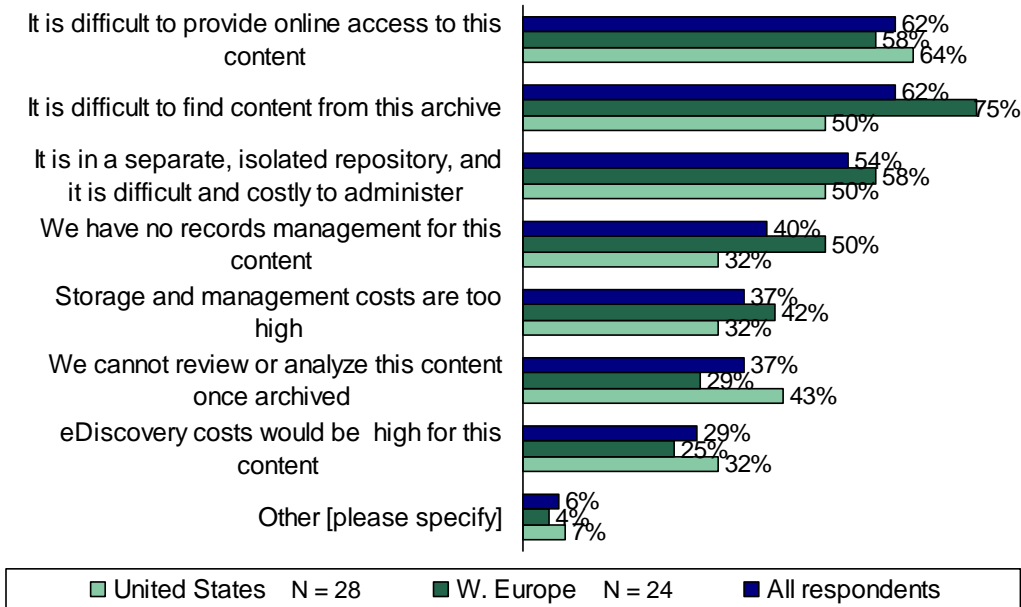
76.2% of all respondents, regardless of if they currently archive unstructured business content, feel it is important to archive unstructured business content, such as customer account forms or contracts.

Please note that percents are rounded and may not equal 100%

Source: Online survey of 252 compliance and archiving decision-makers, conducted by Forrester Consulting on behalf of EMC

Figure 11: Why Companies Feel Their Unstructured Business Content Is Not Well Managed

“Which of the following areas are reasons why you believe your unstructured business content is not well managed? Select all that apply.”



Base: 52 respondents who feel their unstructured business content is not well managed

Source: Online survey of 252 compliance and archiving decision-makers, conducted by Forrester Consulting on behalf of EMC.

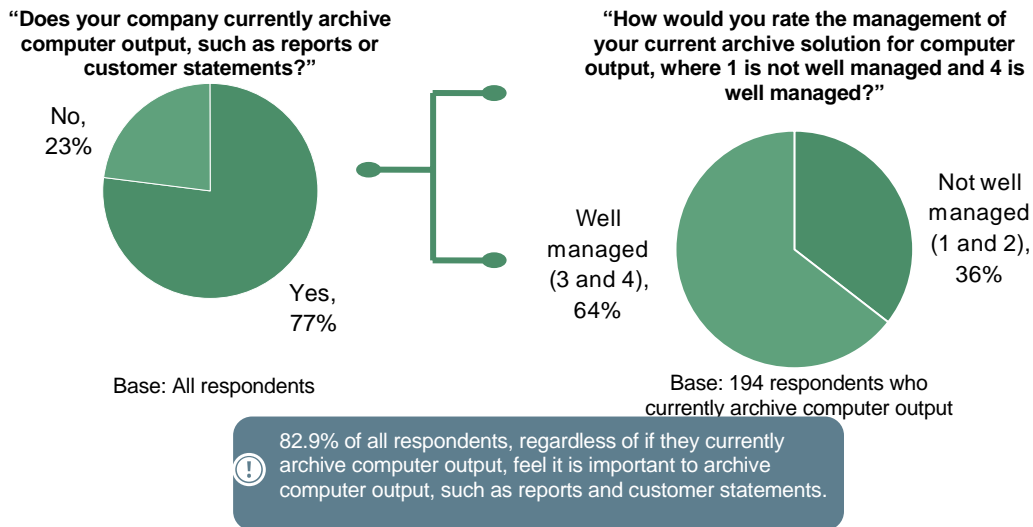
Computer Output Is Well Managed — But Opportunities Exist To Drive Value From Archive

Computer output in this study referred to routinely produced reports — usually to manage operations related to a business process or statements — created as part of an ongoing customer relationship and sent via mail or electronically delivered. Computer output is often under regulatory mandate and must be archived for a period of years.

A strong archive platform can derive more value from computer output. For example, mainframe reports were often designed poorly and created many more pages than needed to support an operation. Improved access to the archive can allow custom views of data (perhaps across reports) to be made — and in effect turns the report archive into a searchable data set. Retention schedules can be managed by having records management applied to computer output.

- **Seventy-seven percent of responding companies archived their computer output with 64% satisfied with the current archive approach (see Figure 12).** Of those companies that cite dissatisfaction with the management of their computer output archival, more than half struggle with finding needed content and getting online access and are frustrated with the separate isolated repositories that are difficult and costly to administer (see Figure 13).
- **While 80% of companies are concerned with compliance issues, it was not the only concern.** Seventy-seven percent of companies are worried about the costs associated with archiving computer output, and 75% were concerned in regards to litigation and discovery.

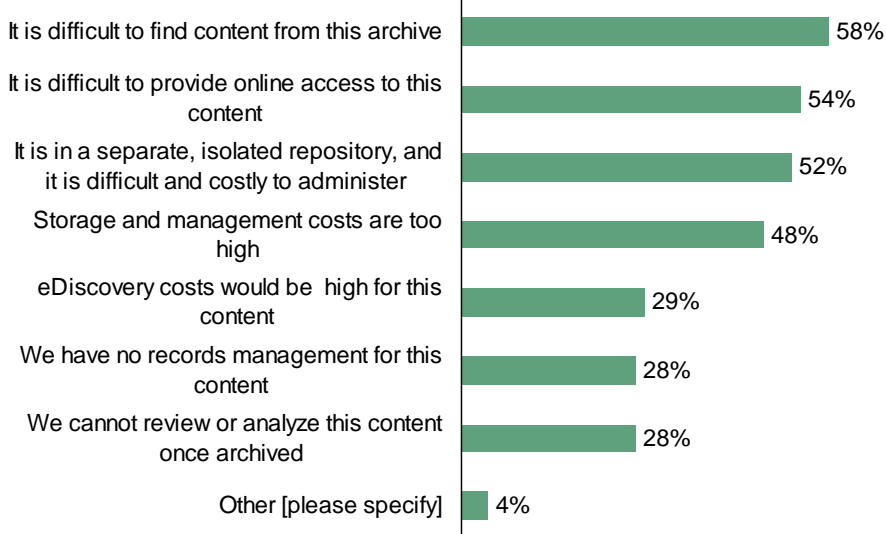
Figure 12: Current State Of Computer Output



Source: Online survey of 252 compliance and archiving decision-makers, conducted by Forrester Consulting on behalf of EMC

Figure 13: Why Companies Feel Their Computer Output Is Not Well Managed

“Which of the following areas are reasons why you believe your computer output is not well managed? Select all that apply.”



Base: 69 respondents who feel their computer output is not well managed

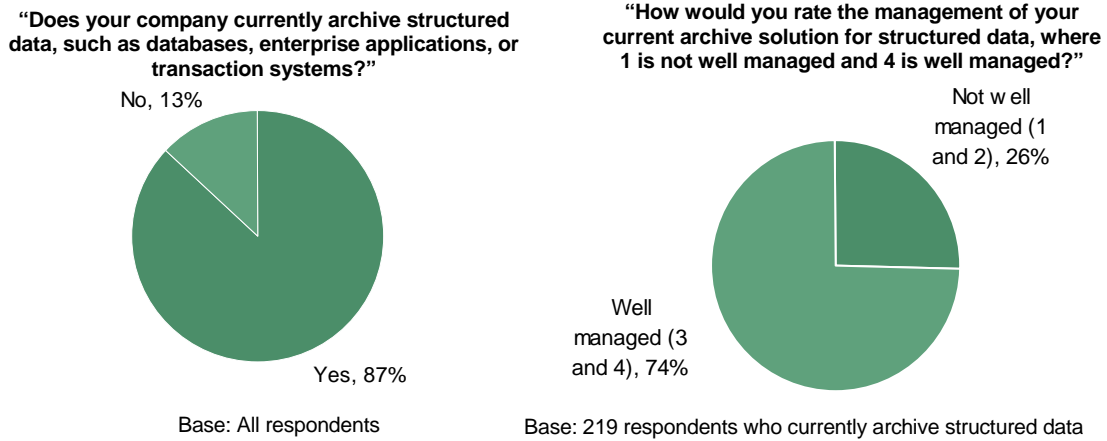
Source: Online survey of 252 compliance and archiving decision-makers, conducted by Forrester Consulting on behalf of EMC

Structured Data — Important To Archive And But Still Some Access Problems

Structured data is the most mature managed content in the majority of organizations according to Forrester’s survey. It is not surprising that structured data such as those contained in the “official” customer database or critical transaction system often drive the primary business processes in the organization. Despite this maturity, firms still struggle with providing access to structured data that exists in separate departmental systems and is accessible only through the primary applications. Given the maturity of the structured data relative to other content types, it is surprising that access issues still remain. Enterprise search and business intelligence applications are often deployed to improve access but can be greatly aided by an enterprise retention and archive approach. In addition, eDiscovery and records management policies are becoming necessary for structured content and will push structured data to be managed from the enterprise content management perspective.

- **Ninety-two and half percent of all respondents, regardless of if they currently archive structured data, feel it is important to archive structured data, such as databases, enterprise applications, or transaction systems.** Management of these content assets does not appear to be a problem since 74% of respondents felt that the current archive approach to structured data was well managed (see Figure 14). The respondents who feel their structured data is not well managed point to difficulty of accessing and finding structured content (see Figure 15).
- **Respondent were equally concerned about cost and compliance issues.** Seventy-five percent of those currently archiving structured data cited cost and compliance issues as a concern. Sixty-nine percent also cited litigation or discovery as a concern.

Figure 14: Current State Of Structured Data

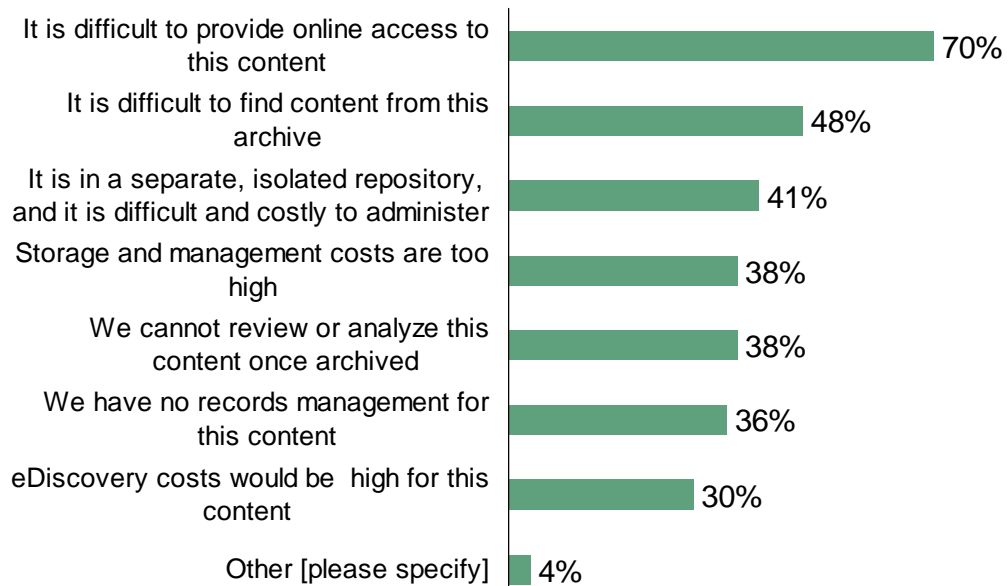


92.5% of all respondents, regardless of if they currently archive structured data, feel it is important to archive structured data, such as databases, enterprise applications, or transaction systems.

Source: Online survey of 252 compliance and archiving decision-makers, conducted by Forrester Consulting on behalf of EMC

Figure 15: Why Companies Feel Their Structured Data Is Not Well Managed

“Which of the following areas are reasons why you believe your structured data is not well managed? Select all that apply.”



Base: 56 respondents who feel their structured data is not well managed

Source: Online survey of 252 compliance and archiving decision-makers, conducted by Forrester Consulting on behalf of EMC

Emerging Content Types — Driven By Web 2.0

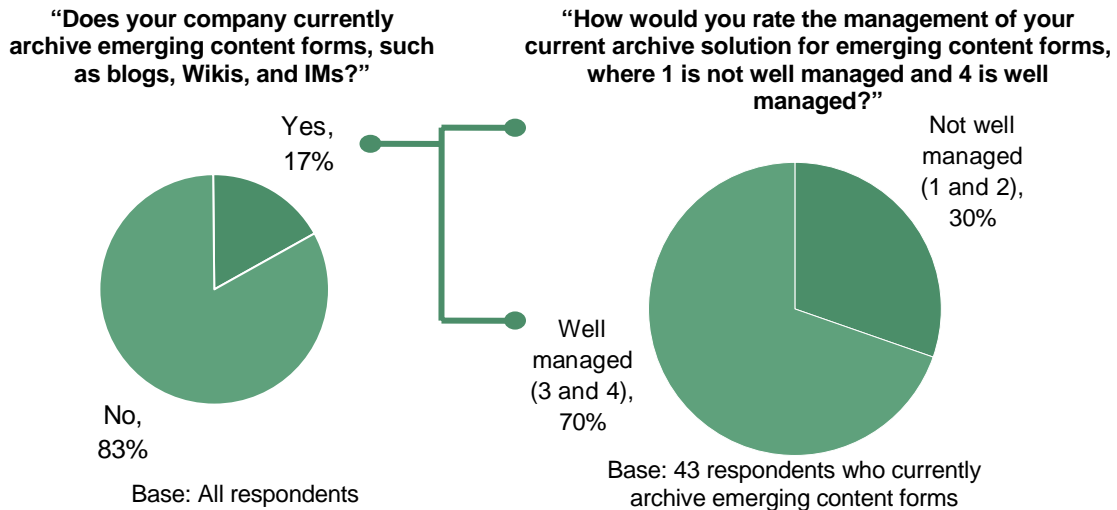
Records management and eDiscovery increasingly focus on managing the retention and disposition of all electronic and physical content, not just "official" records that have reached the end of their life and are now destined for archives, filing cabinets, or warehouses.

Emerging Web 2.0 content types such as Instant Messaging, blogs, and Wikis, while not mainstream today, are discoverable electronic content and will need an archive strategy soon. Enterprise instant messaging came into prominence as a publicly available consumer technology, which very quickly infiltrated the enterprise due to its inherent ability to find relevant stakeholders and customers to establish stronger communications. Blogs change the dynamics around communication and the validation of ideas and opinions. And Wikis enable groups of people to work together to generate and publish content and are being used to develop documentation and policies, record meeting agendas and minutes, perform competitive analyses, support new product development, and brainstorm ideas and strategies.

However, the benefit of emerging content types will come at a cost. Business users leveraging emerging content types pose a threat with regard to security, privacy, governance, and compliance. Information and knowledge management (I&KM) professionals need to develop an archive strategy to protect the interests of the organization.

- **While 33% of companies feel it is important to archive emerging content forms, only 17% of companies are currently doing so.** Yet, despite the low level of management, 70% believe emerging content is being well managed (see Figure 16). Of the respondents who currently archive emerging content forms, the majority were motivated by litigation and discovery and cost concerns.

Figure 16: Current State Of Emerging Web 2.0 Content Forms



⚠ Only 32.5% of all respondents, regardless of if they currently archive emerging content forms, feel it is important to archive emerging content forms, such as blogs, Wikis, and IMs.

Source: Online survey of 252 compliance and archiving decision-makers, conducted by Forrester Consulting on behalf of EMC

Conclusions And Recommendations

Management of the six content types in the study, from computer output to emerging content types, have not been deployed in the context of a broader enterprise content management (ECM) or good information governance strategy. As a result, firms struggle with providing online access and finding needed content in their archives. In addition, they struggle with the costs of administering so many different archives within the organization.

But it can get worse. Firms with poorly managed archives face consequences such as heavy fines, increased discovery costs, punitive damages, and threats of lost business. On the operational side, the cost on managing diverse archives and inability to provide value-added capabilities, such as cross-depository search, are evident in the responses that Forrester received.

The US is more concerned than western Europe about cost, compliance issues, and litigation and discovery in every content category we covered — yet western Europe was equally focused on the problem of too many archives and showed strong desire to consolidate.

To solve these problems and clean up retention management practices, enterprises must:

- **Distinguish between Archive and backup procedures.** Enterprises have trouble distinguishing archive functions from more standard operational functions such as backup and recovery. Backing up shared file servers, for example, does not provide a foundation for online search and access, records management, inalterability, or electronic discovery. The inability to distinguish these represents a risk to firms as this understanding is important to meet emerging compliance concerns.
- **Develop a holistic archive strategy.** Take stock of your content and archives. Distinguish between content types, considering their business context and value, and develop appropriate policies for each. Use technology point solutions to address burning pains, such as message archiving to ease discovery of emails, but slowly evolve centrally managed archive strategies across the full enterprise. Create a formalized information management team that can act as a lens to diverse archive repositories.
- **View the archive as a foundational component.** A strong archive approach is a required first step to an overall enterprise content management strategy. Records management, electronic discovery, improved enterprise search, and retention management all depend on an archive foundation.
- **Look to consolidate archives.** A significant number of surveyed firms had too many archives, were planning to reduce them, and had allocated funds to do so. Consolidation can improve search and online access and reduce operational costs. Less obvious reasons for consolidation are providing stronger governance and policy over enterprise content and, as stated, providing that foundation to meet future governance goals.

Appendix A: Leading Compliance Standards, Laws, And Regulations Affecting Companies In The United States

Regulation Title	Description
SEC 17a-4	Requires electronic records to be stored in a non-rewritable, non-erasable format. Records retention and the ability to capture, store, and manage correspondence/ communications regarding business transactions are also regulated. Affects financial services such as brokers, dealers, and exchange members.
Sarbanes-Oxley 404 (SOX 404)	Monitors the process involved in producing and changing financial records. Affects all publicly traded companies, public accounting firms, auditors, brokers, and securities analysts.
Sarbanes-Oxley 409	Discloses information on material changes in the financial condition or operations of the issuer on a rapid and current basis.
HIPAA	Protects "individually identifiable health information;" that is, any data identified by name, social security, address, or birth date whether it is electronic, paper, or oral. Also requires patient notification of privacy policies.
IRS Rev. Proc. 97-22	Provides guidance to taxpayers that maintain books and records by using an electronic storage system that either images their hardcopy (paper) books and records or transfers their computerized books and records to an electronic storage media.
Gramm-Leach Bliley Act	Requires financial services companies to implement safeguards for customers' current and legacy information. Affects financial services such as brokers, dealers, and exchange members.
21 CFR 11	Defines the recommendations for managing audit trails, access control, and electronic records retrieval. Affects healthcare and pharmaceutical companies.
Dept. of Defense 5015.2, version 2	Defines the basic requirements based on operational, legislative, and legal needs that must be met by records management application (RMA) products acquired by the Department of Defense (DoD) and its components.
Government Paperwork Elimination Act	Requires federal agencies to accept electronic information and transactions. Also requires that they maintain electronic records.

Appendix B: Leading Compliance Standards, Laws, And Regulations Affecting Companies In Western Europe

Regulation Title	Description
Basel II	The Basel II Agreement For International Convergence Of Capital Management And Capital Standards was created to promote greater consistency in the way banks and banking regulators approach risk management across national borders.
Data Protection Directives (DPD)	The European Union, as well as each of its member countries, has adopted clear laws regarding how personal information is collected, stored, processed and protected. These are collectively known as the Data Protection Directives (DPD).
Markets In Financial Instruments Directive (MiFID)	Markets In Financial Instruments Directive is a European Union law that provides a harmonized regulatory regime for investment services across the 30 member states of the European Economic Area (the 27 member states of the European Union plus Iceland, Norway, and Liechtenstein). The main objectives of the Directive are to increase competition and consumer protection in investment services.

Appendix C: Study Methodology

In the spring of 2008, Forrester Consulting conducted an online survey of 252 compliance and archiving decision-makers and influencers across the United States and western Europe. In this survey:

- Sixty percent of respondents were from North America, and 40% were from Europe.
- Twenty-six percent of respondents were from companies with approximately 1,000 to 4,999 employees worldwide; 17% were from companies with 5,000 to 9,999 employees; 10% were from companies with 10,000 to 19,999 employees, and 47% were from companies of 20,000 or more employees.
- All respondents were decision-makers or influencers responsible for compliance issues, archiving, data management, enterprise content management, and risk mitigation decisions.
- Respondents were from a variety of industries.
- In this study, questions about regulations specifically reflected the respondent's location; for example, reference to industry specific regulations in the US gave examples such as HIPPA or SEC17A4, while European respondents had examples such as EU privacy directives.