A REPORT TO THE
INTERAGENCY COMMITTEE ON
GOVERNMENT INFORMATION

BARRIERS TO THE EFFECTIVE MANAGEMENT OF GOVERNMENT INFORMATION ON THE INTERNET AND OTHER ELECTRONIC RECORDS

BY THE

ELECTRONIC RECORDS POLICY WORKING GROUP

DR. MICHAEL J. KURTZ, CHAIR

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DRAFT

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The Current Environment

The Federal Government faces ever increasing barriers to the effective management of Government information on the Internet and other electronic records.[1] Changes in how the Government works, especially as Federal agencies move toward automated processes, have led to barriers that undermine the Government's ability to manage records and information as important business assets. In the best of cases, agencies are treading water, and in the worst of cases, an agency's inability to overcome these barriers is seen in the headlines: the FBI's handling of the Timothy McVeigh investigative records and the loss of records and information following the tragic events of September 11, 2001.

The lesson to be learned from these examples is that agencies need a coordinated strategy, implemented enterprise-wide, that will promote the effective management of agency information assets to ensure that they can be located and are available for as long as needed. Before Government can reach this goal, there must be a better understanding of the current business environment and the barriers to managing Government information assets. By recognizing the barriers, agencies will take the necessary first step toward creating a strategy to ensure that agencies are creating and maintaining information assets effectively.

To overcome the barriers, Federal agencies must address the realities of the current business environment. As explained further in the Introduction to this report, Government faces (1) a lack of agency processes supporting distributed records and information management, (2) rapid technological obsolescence of the hardware and software used to create and store electronic records and information, (3) an overwhelming volume of records and information, (4) difficulty assuring the authenticity, reliability, and integrity of electronic records, and (5) ineffective implementation of records management processes and procedures.

This description of the current business environment is reflected in the barriers identified by the ERPWG in Section 3 of this report. By promoting effective information management as part of coordinated records, information, and knowledge management strategies, agencies will be able to adapt to the demands of an evolving business environment.

The ERPWG Process

The Electronic Records Policy Working Group (ERPWG) was formed under the auspices of the Interagency Committee on Government Information (ICGI) that is charged with implementing Section 207 of the E-Government Act of 2002 (P.L. 107-347). This report

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[1] "Government information on the Internet" and "other electronic records," as defined in Section 2, comprise an agency's information assets.

details activities the ERPWG performed under its approved work plan to identify barriers to the effective management of "Government information on the Internet and other electronic records" (P.L. 104-347 Sec. 207 (e)(1)(A)), and proposes its initial approaches to dealing with those barriers. These activities directly support the ERPWG charge to develop for ICGI consideration recommendations for policies and procedures ensuring the effective management of Government information on the Internet and other electronic records. A more detailed description of the ERPWG process is described in Appendix A.

The Identified Barriers

As a result of this process, the ERPWG identified four broad barriers to the effective management of Government information assets (see Section 3):

- *Barrier 1:* Records and information are not managed as agency business assets.

- *Barrier 2:* Records management is not viewed as critical to agency mission. It is either not incorporated into business processes, or not incorporated early enough, particularly as these processes are automated.

- *Barrier 3:* Marginal support for records management has led to a lack of training, tools, and guidance for all staff within Federal agencies.

- *Barrier 4:* The records management and information technology disciplines are poorly integrated within Federal agencies.

Proposed Directions and Next Steps

In the next phase of its approved work plan, the ERPWG will evaluate various approaches and proposed directions for dealing with these barriers before presenting its final recommendations to the ICGI. The ICGI will then present all adopted recommendations to the Director of the Office of Management and Budget (OMB) and the Archivist of the United States. Following a detailed discussion of each barrier, this report provides an indication of proposed ERPWG directions and possible actions that will be considered as next steps and candidates for ultimate recommendations.

Many of the proposed directions leverage several ongoing and planned NARA initiatives that the ERPWG believes will address many of the identified barriers. For example, NARA's Records Management Initiatives (RMI) strategies for records management advocacy and training, and the Electronic Records Archives (ERA) program, are tools that will help agencies face the changing business environment and ensure that information assets are managed effectively.

In addition to NARA initiatives, the ERPWG is considering several other approaches. One proposal is to develop procedures for building records management requirements into agency capital planning processes for the design or enhancement of electronic systems.

The ERPWG also will develop toolkits with guidance and best practices to facilitate the integration of RM and IT requirements.

INTRODUCTION

The Current Environment

The Federal Government faces ever increasing barriers to the effective management of Government information on the Internet and other electronic records.[1] Changes in the complexity of how the Government works and interacts with its citizens and stakeholders, coupled with increases in the volume and formats of records and information being created, have led to barriers that undermine the Government's ability to manage records and information as important business assets. In the best of cases, agencies are treading water, struggling to manage a tremendous amount of information with limited resources. In the worst of cases, agencies read about their information management practices in the headlines:

- In March 2002, the FBI's handling of the investigative records of the Timothy McVeigh case was attributed to outmoded computer systems and systemic information management problems that created a last-minute delay in the execution of McVeigh. According to the report, thousands of pages of FBI investigation reports were not turned over to McVeigh's lawyers before the trial due in part to antiquated computer systems that could not locate and retrieve the needed information.

- On September 11, 2001, the tragic events at the World Trade Center and the Pentagon highlighted the importance of having continuity of operations plans in the event of a disaster. In both places, business operations were affected because critical information was destroyed. Without such plans, agency information assets and future business operations and services are at risk.

- Numerous allegations have been made concerning the Departments of Interior and Treasury destroying Indian trust account records related to a class action lawsuit filed against the Government. The plaintiffs allege that the Government has mismanaged and lost information on individual Indian trust accounts that will deprive the plaintiffs of billions of dollars in royalties.

To avoid similar situations, the Federal Government must address the issues involved in managing electronic records and information in agencies today. Issues relating to the volume, complexity, and diversity of formats of electronic records and information are daily challenges for agency staff working at the desktop, with the public and other stakeholders, or when involved in litigation. As illustrated in the examples, the realities of the current business environment support the need for a coordinated strategy, implemented Government-wide, that will promote the effective management of agency information

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[1] "Government information on the Internet" and "other electronic records," as defined in Section 2, comprise an agency's information assets.

assets, particularly those in electronic form, to ensure that they can be located and are available for as long as needed.

Before the Government can develop such a strategy, agencies need a better understanding of the current business environment and the barriers that affect the effective management of agency information assets. In doing so, agencies will take the necessary first step toward ensuring that they are creating and maintaining Government information on the Internet and other electronic records in accordance with the following goals:

- Federal agencies economically and effectively create and manage records necessary to meet business needs,
- Records are kept long enough to protect rights and assure accountability, and
- Records of archival value are preserved and made available for future generations.

Information Management in the Current Business Environment

To overcome the barriers to managing information assets, Federal agencies must address the realities of the current business environment. As described below, this environment is characterized by several overarching themes that are reflected in the barriers identified by the ERPWG in Section 3 of this report.

Lack of agency processes supporting distributed records and information management. The transition from centrally-managed records and information management to a decentralized environment where records and information management responsibility lies with the users at the desktop has created problems for the identification, management, and preservation of agencies' information assets. The traditional paradigm for managing paper records is not translating well to the current distributed environment. In the past, paper records were managed systematically by secretarial and other support staff who ensured that records could be found when needed. Records were stored in central file rooms and secretaries and file clerks controlled the receipt and dissemination of work products. Today, users are not applying the same controls and systematic procedures to the management of agency information assets. In short, while everyone is now a records manager, users do not understand the processes or have the tools to manage their records and information effectively. As a result, these assets are often difficult to locate, cannot easily be shared within and across agencies, and are at risk of being lost. This undermines the Government's knowledge base and thus, effective decision-making.

Rapid technological obsolescence. The rapid pace of technological evolution is an issue for electronic records and information that need to be available for long periods of time (e.g., more than 10 years). In many cases, agencies may need electronic records and information for 30 years or more to conduct ongoing business or to preserve rights, and in other cases, they may be needed indefinitely to document the national experience. For example, FAA needs access to aircraft safety records for as long as the aircraft is in use, FDA must retain reports of adverse drug reactions for as long as the drug is used, and DOE must keep long-term records of nuclear waste disposal. To guarantee that these records are

available for as long as needed, agencies must implement special measures to ensure that changes in technology do not make these records obsolete. If the records exist in electronic form, several migrations of hardware and software may be required.

Yet, there is a lack of awareness of the unique characteristics of electronic records and information that affect their continued access, such as hardware and software dependency, indexing requirements for retrieval, migration of software formats, and requirements for refreshing storage media. Indeed, even if agencies are aware of these concerns, there are still real issues keeping electronic records and information in usable formats given the rapid evolution of technology.

Related to this challenge is the timely production of guidance for agencies and users on how to manage agency information assets created using new technologies. Because of the rapid pace of technological change, and the resulting myriad of electronic formats and technologies, it has become nearly impossible to keep policies and procedures current. For example, agencies are still struggling to manage electronic mail, only to see the emergence of new instant messaging formats. Other technologies, such as PDAs (Personal Digital Assistants), perform similar functions and present different challenges.

Overwhelming volume. The volume of records and information that agencies need to manage is overwhelming users who are now responsible for creating, maintaining, and sharing records and information across the enterprise. The efficiency of electronic tools and software, when compared to the typewriter and the U.S. mail, has made it much easier for users to create and broadly disseminate information. In addition, advances in technology have produced many more formats in which users can create information. However, these advances have also brought new problems in controlling record identification, versioning, and preservation. The amount of information and variety of formats is growing exponentially while efforts to control and manage them are failing to keep pace.

Difficulty assuring the authenticity, reliability and integrity of electronic records. Because records must also serve as evidence, these characteristics relate more to "records" than "information." The unique features of electronic records complicate agency efforts to create and maintain authentic and reliable records that support agency business processes. Because it is easier to duplicate and disseminate electronic information, agencies typically create more of it, in multiple copies, and sent to multiple users who maintain it in various locations, making it difficult to identify the essential records, or versions of those records, that document the activities of the Government.

The critical problem is that agencies are not managing their records from the moment of creation in accordance with appropriate policies and procedures. As a result, the authenticity, reliability, and integrity of agency records cannot be guaranteed unless provisions controlling their creation and use are made to guard against tampering, and to ensure a full and accurate representation of the transactions, activities, and facts to which the records attest.

Ineffective implementation. Records and information management processes and procedures are not integrated into agency business processes and, as a result, their implementation fails. In some cases, agencies are not defining records and information management responsibilities for users, and in other cases, these responsibilities may be defined, but users are simply unaware of them. Unlike current guidelines for information security that are implemented as standards across the Government, it is more difficult to produce uniform guidance on records and information management for agencies, where agencies have different missions, are at different levels of technological sophistication, or have different needs based on the size of the agency or the culture of the workforce. There simply is no single standard way to implement policies and procedures and no one-size-fits-all solution.

Additionally, because these differences in mission, technology, and culture also exist within agencies, it is difficult to implement an enterprise-wide approach to records and information management within an agency. For example, until recently, the evaluation of software needs was not consolidated at the agency level, creating a situation where agencies had redundant stovepipe systems that could not share data across the enterprise. At the desktop, users do not have a standard set of metadata or indexing scheme for managing electronic records and information at the point of creation. As a result, there is no agency-wide consistency in how records and information are identified and maintained, which leads to difficulties in sharing and retrieving this information, not only within the creating unit, but also across the enterprise. Therefore, it is important that agencies integrate records and information management responsibilities and standards into work processes in order to capitalize on the combined available knowledge of the enterprise.

The Value of Effective Information Management

The rapid changes in the current business environment are making it more difficult for agencies to keep pace with their information management needs, especially regarding the effective management of electronic records and information. By concentrating on information management as part of coordinated records, information, and knowledge management strategies, agencies will be able to adapt to the demands of an evolving business environment and will realize the following benefits:

- Agency information assets can be found and are available for as long as needed, regardless of the format in which they were created.

- Agency information assets support policy formulation and managerial decision-making.

- Government business is conducted in an orderly and efficient manner. Implementation procedures are clear to users and consistent across the enterprise.

- Government is accountable to the public and other stakeholders, and public access to agency records and information is facilitated.

- Authentic and reliable records and information are created supporting agency business processes.
- A framework is established supporting the growth of institutional knowledge and the preservation of institutional memory.

Other benefits include (1) minimizing legal risks related to the inaccessibility of information, (2) preserving vital records and continuity of operations in the event of a disaster, and (3) ensuring legal and timely disposition for information no longer needed by agencies.

2 **DEFINITIONS**

Although the E-Government Act defines certain terms, *Government information on the Internet* and *other electronic records* are not defined in the Act. Definitions of these terms are critical to ensuring that the ERPWG addresses all appropriate records and information in its recommendations to the ICGI. The ICGI will then present recommendations to the Director of OMB and the Archivist of the United States. Appendix A discusses the working definitions the ERPWG used for this effort. Based on the findings obtained during the targeted outreach sessions, the ERPWG has defined *Government information on the Internet* as:

> Government information on the Internet includes, but is not limited to, information on Federal websites produced by Federal agencies (or by their contractors on behalf of the agency) that fulfills an agency business purpose; information exchanged via the Internet between a Federal agency and other Federal agencies or other branches of the Federal Government, the public (including businesses and private individuals), and other governmental entities (including state, local, tribal, and foreign); Government-enabled web services; and business transactions conducted over the Internet. For purposes of this definition, "Federal agency" has the meaning specified in 44 U.S.C. 2901 (14).

This definition of *Government information on the Internet* will be used by the ERPWG for subsequent proposed toolkit contents and its ultimate recommendations of policies to the ICGI.

44 U.S.C. 2901 defines a *Federal agency* as any executive agency or any establishment in the legislative or judicial branch of the Government (except the Supreme Court, the Senate, the House of Representatives, and the Architect of the Capitol and any activities under the direction of the Architect of the Capitol). This definition is not the same as the definition proposed by the Web Content Standards Working Group (44 U.S.C. 3502 as specified in Section 3601 by the E-Gov Act). Since any guidance issued by the Archivist of the United States as a result of ICGI recommendations is promulgated under the authority of 44 U.S.C. 2904, the ERPWG believes that the 44 U.S.C. 2901 definition of *Federal agency* applies.

The ERPWG also defined *other electronic records* according to the statutory definition of a Federal record per 44 U.S.C. 3301.

Effective management was defined as encompassing various management activities throughout the records and information life cycles, including providing for security and integrity of the information, and ensuring access to the information over time by addressing long-term custodianship, format compatibility, and migration issues.

3   BARRIERS TO THE EFFECTIVE MANAGEMENT OF GOVERNMENT INFORMATION ON THE INTERNET AND OTHER ELECTRONIC RECORDS

Changes in the current business environment, as described in the Introduction to this report, present a number of barriers that Federal agencies must address. The ERPWG identified the following four barriers after gathering information in the targeted outreach sessions and reviewing relevant Federal statutes, regulations, and guidance. The barriers are described below along with proposed directions or approaches for overcoming them. For a detailed description of the barrier identification process, please see Appendix A.

Barrier 1: Records and information are not managed as agency business assets.

Description: At the most fundamental level, agencies do not recognize that records and information are business assets that form the foundation supporting information management and knowledge management. Indeed, agencies fail to recognize that proper records management will facilitate the creation of accurate and relevant information and records and ensure that they are available when and where needed.

Another problem resulting from the movement of records and information management to the desktop is that agency information and records are not being managed as enterprise-wide assets. They are managed at differing levels – by individual, by unit, by office – but rarely as institutional knowledge to be shared, used, and re-used, across the enterprise. Also, there is no understanding, particularly by agency staff at the desktop, of the concept of life cycle management that ensures that information and records will be managed effectively as business assets for as long as needed.

Proposed ERPWG Directions: The primary approach for addressing this barrier involves providing training that reinforces the benefits of records and information management when applied as part of an integrated strategy. The ERPWG is also considering recommendations in line with NARA's advocacy program to demonstrate to senior agency officials why it is critical that agencies manage these assets effectively. Additionally, ERPWG toolkits and NARA's Electronic Records Archives (ERA) program will offer tools that will facilitate the management of records and information as business assets and also allow agencies to handle the larger problems related to technology, the volume of information, and the need for authentic and reliable records.

Barrier 2: Records management is not viewed as critical to agency mission. It is either not incorporated into business processes or not incorporated early enough, particularly as these processes are automated.

Description: A consistent theme identified in the targeted outreach meetings is that records management is not perceived as supporting the agency mission. Instead, agencies view it as an afterthought – an administrative support function performed at the end of a particular process when the records are no longer needed for current business and are eligible for disposition.

Because records management is not considered a critical agency function, the necessary procedures supporting the effective management of electronic records and information are not incorporated into agency work processes. Implementing these procedures has become a difficult task for agencies given the growth in the formats, complexity, and volume of records and information created. Nevertheless, agencies must address this problem by refocusing on the processes by which records and information are managed, particularly at the point of creation (i.e., as early as possible in business processes). Yet, these processes are viewed as burdensome to users (i.e., too many steps) if they are not integrated transparently.

Perhaps the greater problem for records and information created at the desktop is that users are either unaware or unsure of how and when to apply records and information management procedures. Most likely this is because the relevant guidance and procedures are unclear and are not incorporated into work processes. For example, electronic mail has been a longstanding problem for users who cannot determine which copy of the e-mail to save, at what point it should be saved, and when these steps should be completed. Similarly, agencies are unsure of how to manage web site records. Web sites are dynamic, often changing multiple times in one day, which makes it difficult to identify the versions to save. Also, web sites contain multiple file formats and hyperlinks that further complicate agency decisions on what to preserve and when.

For electronic information systems, records management requirements rarely are considered early enough in the design (e.g., requirements specification) or capital planning stages of development, but more often during implementation and deployment, when it is frequently too late to incorporate these requirements effectively. These records management considerations must be built into agency capital planning processes for new or enhanced electronic information systems. In all these cases, the effective management of records and information requires integrating records and information management into agency business processes as a critical function supporting agency mission.

Proposed EPRWG Directions: The ERPWG is considering multiple approaches for ensuring that agencies properly integrate electronic records and information into agency work processes. One approach is to incorporate records management as an underlying, cross-cutting layer in the Federal Enterprise Architecture Framework (FEAF). Currently, records management is represented as two individual sub-functions to lines of business in the Support Delivery of Services layer of the Business Reference Model (BRM v.2) of the FEAF. In order to promote both standardization in enterprise architectures across the Government and the realization that every line of business in the BRM requires integration of electronic records management requirements and functionalities, the ERPWG will explore, with the FEAF Program Management Office, a recommendation for incorporating records management as a cross-cutting layer of the BRM underlying all lines of business, much as NARA has proposed in its target enterprise architecture.

Building on the work of the Web Content Standards Working Group, another direction under consideration involves the "common characteristics of records" product that will

recommend a standardized set of item-level record metadata to be associated with records produced by lines of business in the FEAF Business Reference Model. Establishing a uniform metadata baseline would be a welcome start. Templates compatible with NARA's Electronic Records Archives also could be developed from the "common characteristics" document once that proposed recommendation has been vetted publicly by the ERPWG.

Also, the proposed ERPWG toolkits for legacy and new systems that produce Government information assets could address the (re)design of systems that would incorporate records management requirements as part of the systems development, particularly during agency capital planning processes. Another direction under consideration would be to re-engineer the agency planning and development process for new and legacy systems by incorporating records management requirements into the Federal Acquisition Regulations (FAR).

The ERPWG also recognizes that, as part of the Records Management Initiatives, NARA is developing training that will focus on the importance of integrating records management into agency processes. In addition, an advocacy program will be implemented to reinforce this goal with senior agency and program officials.

Barrier 3: Marginal support for records management has led to a lack of training, tools, and guidance in Federal agencies.

Description: The perception that records management is not important to agency operations leads to poor implementation of records management requirements and ineffective management of agency information assets. In the view of the participants at the targeted meetings, records management receives a low priority because managers perceive it as not facilitating program management, or, worse, interfering with the business process. Many participants saw management as unconcerned about its statutory responsibilities for records management, as there is no oversight or accountability for failure to carry out these responsibilities. Where records management is supported, it often depends on low-level staff not empowered to make decisions.

Because the benefits of strong records and information management practices are not apparent to management, the records management function is one that has low clout and is not provided with the resources to achieve its goals. Frequently, an agency's culture reinforces the view that records management is the domain of the file clerk and is not a professional discipline that can add value to agency operations. The targeted meeting participants strongly agreed that without management support, especially at senior levels, the efforts of the ERPWG would not succeed.

Also, marginal support for records and information management can be linked to the lack of training and tools for managing agency information assets effectively, especially at the highest levels within agencies. Some of the problem areas identified in the barrier review involve insufficient awareness of (1) what rules, regulations, and guidance (including NARA's records management targeted assistance) exist and where they are available, (2)

who is responsible for overseeing what, and (3) in general, how records management
activities are to be accomplished.

Proposed ERPWG Directions: This barrier presents problems that are difficult to solve,
particularly regarding the issues related to agency culture. The directions proposed by the
ERPWG and NARA will help, but in most cases, these efforts will take time to reach
fruition. At this point, the ERPWG toolkits and NARA's training initiatives should
enhance advocacy for records and information management activities within the agencies
and begin the process of overcoming the effects of this barrier.

***Barrier 4: The records management and information technology disciplines are poorly
integrated within Federal agencies.***

Description: Records management (RM) and information technology (IT) are not
integrated in agencies as cornerstones of an integrated information management strategy.
There is a lack of understanding of the importance of each discipline to the other's
successful operations, particularly as agencies rely more on electronic records and the
applications and systems that produce them to conduct agency business. As IT has moved
beyond data management to document management (and in some cases, on to data
warehousing), there is now a convergence of responsibilities between RM and IT that has
not been recognized by senior agency managers. Agencies must realize that capturing the
institutional knowledge of an agency demands a multi-disciplinary approach integrating
RM, IT, and the users who create the records and information.

Aspects of this barrier that are problems for agency records managers generally involve
moving from a "record-centric" to an "information-centric" approach. Records managers
need to expand their understanding of the current business environment beyond their
experiences with paper records (when RM and IT integration was not critical) and focus
more on the best ways to manage content (e.g., using new technologies, processes, and
procedures). Also, RM staff generally do not have the necessary technical training and
experience to talk with IT staff about their operations, and as a result, are often unable to
translate records and information requirements into specific system requirements that IT
can implement.

On the other hand, IT often is focused on building and deploying systems, not on managing
the information within those systems as business assets that need to be maintained for as
long as needed. This creates problems when records management controls are not built
into electronic systems, web sites, e-mail and office automation applications, and all other
tools developed or maintained by IT programs that contain records and information that
need to be managed as assets. In these cases, only the tools – not the content – are being
managed.

Where there is a lack of integration of the two disciplines, the authenticity, reliability, and
integrity of records and information may be undermined, leading to problems if agencies
are involved in litigation or must produce records pursuant to FOIA requests.

Proposed ERPWG Directions: As a step toward building institutional knowledge, agencies need to integrate RM and IT to ensure that electronic records and information can be located, shared, and accessed agency-wide whenever needed. Agencies must recognize that the records and information, as well as the tools, must be managed with both RM and IT programs working together. As noted in the outreach sessions, there needs to be more collaboration between RM and IT since the responsibilities for managing agency information assets are now shared. Indeed, RM staff should be included during agency capital planning processes for new and enhanced electronic systems.

NARA's Records Management Initiatives should address some of the awareness problems presented in this barrier by developing specific training modules for IT staff on RM issues. Likewise, training will be encouraged for RM staff to promote a better understanding of IT terminology and technical concepts that are difficult for RM staff to grasp but necessary in order to understand IT operations.

APPENDIX A
Barrier Identification Process

A-1   OVERVIEW

Under the authority of the E-Government Act of 2002 (P.L. 107-347), the Director of the
OMB established the Interagency Committee on Government Information (ICGI) (see
www.cio.gov/documents/icgi.html). The ICGI then formed several work groups to develop
deliverables and recommendations for review by OMB and the ICGI Executive Committee.
The Electronic Records Policy Working Group (ERPWG), chaired by NARA, is one of
these working groups.

The ERPWG began work in January 2004, charged with developing procedures and
policies for ensuring the effective management of Government information on the Internet
and other electronic records. By December 2004, the ERPWG must recommend to the
Archivist of the United States and to the Director of OMB the adoption of these policies
and procedures as well as timetables for implementing them.

To achieve these goals, the ERPWG involved stakeholders in defining pertinent elements
of the E-Government Act of 2002 (see Section A-2 of this Appendix). The ERPWG then
initiated a two-pronged approach to identify barriers. First, the ERPWG conducted six
professionally facilitated targeted outreach sessions with more than 200 stakeholders, both
internal and external to the Government, and one general public meeting (see Appendix B).
The ERPWG also requested written comments through a Federal Register notice and via
postings to several germane listservs (see Appendix C). Second, ERPWG members and
other NARA staff reviewed over 1,200 pages of relevant statutes, regulations, policy and
guidance (hereafter "authorities") that may be barriers.

A-2   WORKING DEFINITIONS

The terms below were proposed by the ERPWG and discussed with its stakeholders
through targeted outreach. The working definitions used to identify the barriers to the
"effective management of Government information on the Internet and other electronic
records" are as follows:

Barriers are defined as agency challenges identified in the targeted outreach sessions and
any language in the reviewed laws, regulations, and guidance that adversely affect the
effective management of Government information on the Internet and other electronic
records.

Effective management of Government information includes:
- managing information through the life cycle,
- addressing records management issues early in systems development plans,
- accessibility (i.e., access to records over time) and retrieval,
- security,

- consistency (ability to reproduce record),
- integrity over time,
- no loss of records,
- employing cost-effective and efficient records management processes,
- compatibility with standard formats,
- managing format changes (i.e., migration) and record location over time,
- long-term records storage issues,
- effective and timely scheduling of records, and
- long-term custodianship.

Government Information on the Internet:
- Information posted on Government web sites,
- Information exchanged between Federal agencies,
- Information exchanged between Federal agencies and the public,
- Information exchanged between Federal agencies and other governments,
- Government-enabled web services,
- Standard Government forms,
- E-Government business transactions.

Other electronic records include electronic information meeting the definition of a Federal record per 44 U.S.C. 3301. *Records* include:
- all books, papers, maps, photographs, machine readable materials, or other documentary materials,
- regardless of physical form or characteristics,
- made or received by an agency of the United States Government
  - under Federal law or
  - in connection with the transaction of public business
  - and preserved or appropriate for preservation by that agency or its legitimate successor
    - as evidence of the organization, functions, policies, decisions, procedures, operations or other activities of the Government or
    - because of the informational value of the data in them (44 U.S.C. 3301).

Comments on the Definitions by Internal Stakeholders

Participants at the meetings felt that these definitions caused some confusion concerning what was or was not covered for both the "Government information" and "other electronic records" categories. The participants asked for clarification on whether the following items were covered by the definitions of *Government information on the Internet*:

- Raw data entered into web-enabled Government forms,
- Contractor-created, Government-funded information,

- Government information on privately-owned but publicly-accessible web sites,
- Research results of Federally-funded Government grants posted to websites that are not necessarily in the **.gov** or **.mil** domain,
- Information posted to Federal agency intranets,
- Drafts and preliminary/superseded versions of content, since these are essential to understanding decisions at a later time.

They also additionally suggested:

- Explicitly stating whether letters and official correspondence are covered,
- Indicating that "Government-enabled web services" should be changed to "information exchanged through Government-enabled web services" or "transactions completed through Government-enabled web services."

Participants also identified other types of information-producing entities, about whose inclusion under the rubric *Government* (as in *Government information on the Internet)* they were unsure. These included:

- Quasi-governmental agencies such as the Pension Benefit Guaranty Corporation (PBGC)-type agencies,
- Corporations doing business with the Federal Government,
- International organizations,
- Non-governmental organizations (NGOs).

For "other electronic records," comments centered on the meaning of "a record," and whether the definition provided in the NARA authorities was too anachronistic. For example, the phrase "machine-readable" was taken to include not just electronic records, but also those on microfiche or microfilm. At the same time, participants cautioned that language that was too format specific could also lead to later difficulties of interpretation.

The participants sought clarity on the record status of the following electronic materials:

- Which is the record – the email and/or the attachments?
- What constitutes a web record?
- Which is the record copy when documents that were originally created in paper are scanned into an electronic format?
- What drafts and preliminary/superseded versions of documents need to be kept (since these are essential to understanding decisions later)?

Despite the confusion about what was included, most of the participants seemed to think that a broad interpretation of the definition offered the most value.

Comments on the Definitions by External Stakeholders

Participants external to the Government were confused also about what was included in the
working definitions. They too sought clarification about the inclusion of
information/records generated by other Federal and corporate bodies, such as:

- the Executive Office of the President,
- Congress,
- Judiciary branch agencies,
- State or local Governments,
- International organizations/agencies, and
- Contractors.

Other suggested additions to the definition of *Government information on the Internet*
included:

- Information that was once publicly available now being provided solely by
  commercial publishers,
- Government information available on Federal agency intranets,
- Publicly available information related to rulemakings,
- Information about grant awards and resulting products,
- Metadata required to be associated with Government information qualifying as
  record.

Language and the definition of electronic records was also a concern. Again, a broader
definition, including references to electronic databases or email, one more inclusive of the
design and architecture of electronic records, or more generally of what was included in
electronic records, was thought to be desirable.

Changes to the operating definitions of the ERPWG, on the basis of this targeted outreach,
are discussed in Section 2 of this report.

A-3   PROCESS FOR IDENTIFYING BARRIERS IN THE LAWS, REGULATIONS, AND GUIDANCE

The ERPWG reviewed the relevant portions of pertinent laws (i.e., statutes), regulations,
and agency guidance to evaluate whether these authorities create any regulatory barriers to
the effective management of Government information on the Internet and other electronic
records.

Objectives

In reviewing the authorities listed below, the ERPWG used the principles set forth in the E-
Government Act as a guide for evaluating whether the existing language in any of these
authorities presents any barriers for either the public or the Government in terms of the

creation, use, preservation, and access of Government records and information maintained and used in electronic form.

Specific questions used to guide this review include the following:

- Is existing language clear and specific enough?
- Are referenced policies, procedures, and terminology usable in the current business environment?
- Are there gaps where language is needed to ensure understanding and effective management of electronic records?
- Is records management referenced in the authorities as a critical tool for advancing the goals of the E-Government Act?
- Does existing language adversely affect the management, preservation, and accessibility of electronic information?
- Are all related information resources – records management, information technology – adequately defined, harmonized, and placed in the appropriate context?

Authorities Reviewed

The following authorities consisting of over 1,200 pages of text were reviewed in detail. The ERPWG identified these authorities as particularly relevant to the management of electronic records and information. In addition to the NARA laws, the ERPWG also selected related statutes such as the Government Paperwork Elimination Act, the Federal Information Security Management Act, and the Paperwork Reduction Act. As for regulations and guidance, the ERPWG reviewed selected OMB guidance, NARA regulations and guidance, GSA records management regulations, and certain guidance products issued by the National Institute of Standards and Technology (NIST).

While the list does not include all of the authorities related to records and information management, the ERPWG determined that the list was sufficient to identify the critical regulatory barriers in the time frame available for the review. The ERPWG notes that the Privacy Act, the Freedom of Information Act, and other recent privacy related statutes (e.g., COPPA, HIPPAA) also relate to records and information management.

LAWS

NARA Statutes

- Title 44 U.S.C. Chapter 21, National Archives and Records Administration
- Title 44 U.S.C. Chapter 29, Records Management by the Archivist of the United States and by the Administrator of General Services
- Title 44 U.S.C. Chapter 31, Records Management by Federal Agencies
- Title 44 U.S.C. Chapter 33, Disposal of Records

Related Public Laws

- Government Paperwork Elimination Act (GPEA)(codified at 44 U.S.C. 3504 note)
- Federal Information Security Management Act (FISMA) (codified at 44 U.S.C. 3541 et seq.)
- Paperwork Reduction Act (PRA) (codified at 44 U.S.C. 3501 et seq.)

REGULATIONS

NARA Records Management Regulations

- Title 36 CFR Parts 1220 – 1238, Records Management

GSA Regulations

- Title 41 CFR Part 102-192, Federal Management Regulation; Mail Management
- Title 41 CFR Part 102-193, Federal Management Regulation; Creation, Maintenance, and Use of Records
- Title 41 CFR Part 102-194, Federal Management Regulation; Standard and Optional Forms Management Program
- Title 41 CFR Part 102-195, Federal Management Regulation; Interagency Reports Management

GUIDANCE

The following NARA, NIST, and OMB guidance products, which are currently on their respective public websites and relate to Government information on the Internet and other electronic records, were reviewed.

NARA Records Management Guidance

- Agency Recordkeeping Requirements: A Management Guide. 1995.
- Documenting Your Public Service. 2000 Web Edition.
- Frequently Asked Questions about Records Inventories. October 2000.
- Frequently Asked Questions about Records Management in General. February 2001.
- Frequently Asked Questions about Records Scheduling and Disposition. February 2001.
- Guidance for Coordinating the Evaluation of Capital Planning and Investment Control (CPIC) Proposals for ERM Applications. 2003.
- Records Management Guidance for Agencies Implementing Electronic Signature Technologies (GPEA). October 2000.

- Records Management Guidance for PKI-Unique Administrative Records. March 2003.
- Vital Records and Records Disaster Mitigation and Recovery: An Instructional Guide. 1999 Web Edition.

NIST Guidance

- NIST Special Publication 800-34: Contingency Planning Guide for Information Technology Systems. June 2002.
- NIST Special Publication 800-45: Guidelines on Electronic Mail Security. September 2002.
- NIST Special Publication 800-64: Security Considerations in the Information System Development Life Cycle. October 2003.
- NIST Special Publication 800-60: Guide for Mapping Types of Information and Information Systems to Security Categories. Draft Version 2.0, Volume I. March 2004.

OMB Guidance

- OMB Circular No. A-11. Preparation, Submission, and Execution of the Budget. July 2003.
- OMB Circular No. A-130. Management of Federal Information Resources. Transmittal Memorandum No. 4. November 2000.

A-4   PROCESS FOR IDENTIFYING BARRIERS THROUGH TARGETED OUTREACH

The ERPWG sought stakeholders' opinions concerning the barriers to Government information on the Internet and other electronic records through targeted meetings, one public meeting, and Federal Register and listserv announcements requesting comments on the definitions and issues.

Over 200 individuals attended the targeted outreach meetings. Three targeted meetings were held for stakeholders internal to the Government. Participants included members of the CIO Council, Congressional staff, agency Records Officers, web content managers, agency General Counsels, librarians, Inspectors General, and representatives from the General Accounting Office (GAO) and the Government Printing Office (GPO). A fourth internal meeting was held for participants from the National Archives and Records Administration. Two targeted meetings were held for stakeholders external to the Government. Participants at these meetings included representatives from various Government "watchdog," library, historical, and archival organizations, and members of the education and research community. The seventh meeting was a general public meeting. Additional information about these meetings can be found in Appendix B.
In addition, in order to obtain as much input as possible, requests for comments were sent to several listservs, including GOVDOCS-L, RECMGMT-L, ERECS-L, FEDLIB-L, and listservs and mailing lists sponsored by the Society of American Archivists and the

National Coalition for History. These lists were also sent the announcement concerning the public meeting. Federal Register notices were published for the public meeting and the request for comments. The comment period was open from March 5, 2004, through April 5, 2004. The complete list of listservs and the text of the announcements can be found in Appendix C.

For a discussion of the barriers identified through the review of relevant authorities and targeted outreach, see Barriers 1 – 4 in Section 3 of this report.

APPENDIX B
Targeted Outreach Sessions Overview

Meeting Type	Date	Time	Location	Attendees	Groups Represented
Internal to Government	February 17, 2004	9-12:30	NARA, DC	30	CIO Council, Agency Records Officers, FIRM (Federal Information and Records Management) Board, Web Content Managers, Agency General Counsels
Internal to Government	February 18, 2004	9-12:30	NARA, DC	41	CIO Council, Agency Records Officers, FIRM (Federal Information and Records Management) Board, Web Content Managers, Agency General Counsels
Internal to Government	March 2, 2004	9-12:30	NARA, DC	35	Federal Librarians, CENDI, GPO, GAO, Congressional Staff, Agency Inspectors General
External to Government	March 3, 2004	9-12:30	NARA, DC	10	Library Associations, "Watchdog" Groups
External to Government	March 16, 2004	9-12:00	NARA,DC	11	Historical Associations, Archival Associations, Education & Research Community
General Public	March 30, 2004	1-4:00	National Capital Planning Commission, DC	59	General Public
NARA Internal	April 2, 2004	1-3:00	NARA, College Park, MD	44	NARA
TOTAL				230	

APPENDIX C
Targeted Listservs and Federal Register Notice Text

The request for comment (text following) was successfully sent to the following listservs/groups:

- FEDLINK Library Network News (FEDLIB-L). Send Announcement: fedlib-l@loc.gov
  Subscribe: listserv@sun7.loc.gov – posted message via FEDLIB@LOC.GOV

- Government Documents (GOVDOC-L). Send Announcement: govdoc-l@psuvm.psu.edu -
  posted message via L-Soft list server at LISTS.PSU.EDU (1.8e)

- Records Management - LISTSERV@LISTS.UFL.EDU – posted announcement via "L-Soft list
  server at LISTS.UFL.EDU (1.8d)"

- ERECS-L - LISTSERV@LISTSERV.ALBANY.EDU

- Archives & Archivists - http://listserv.muohio.edu/archives/archives.html - sent request to list
  owner at rschmidt@lib.muohio

- National Coalition for History - http://www.h-net.org/~nch/ - sent request to Bruce Craig at
  rbcraig@historycoalition.org

- Freedom of Information/Open Government - Access List -
  http://www.ombwatch.org/article/articleview/1485

- http://southwestarchivists.org/HTML/2004.htm - Society of Southwestern Archivists web site

- https://mail2.cni.org/Lists/GILS/Message/171505.html - mailing list GILS@cni.org

- http://egov.cathexes.net/archives/2004_03.php - E-Government web log

- http://www.ed.gov/news/newsletters/edreview/2004/0312.html - ED Review (Department of
  Education)

- http://www.scoe.org/nclb/docs/ed_review031204.pdf - reprint of above

- http://www.iforani.com/archives/000237.php - Information for Information Professionals web
  site

The following is the text of the notice sent to these listservs, as well as published in the Federal
Register, requesting comments for the Electronic Records Policy Working Group:

"The Electronic Records Policy Working Group is inviting interested persons to provide their
written views on issues relating to implementing Section 207(e)(1)(A) of the E-Government Act of

2002. That section calls for "the adoption by agencies of policies and procedures to ensure that chapters 21, 25, 27, 29, and 31 of title 44, United States Code, are applied effectively and comprehensively to Government information on the Internet and to other electronic records."

The Working Group is seeking feedback on the following topics in their meetings and this notice.

1.   The definition of "Government information on the Internet and other electronic records."
        The operating definitions currently used by the Working Group are as follows:

        A.   Government information on the Internet includes:
                • Information posted on Government web sites,
                • Information exchanged between Federal agencies,
                • Information exchanged between Federal agencies and the public,
                • Information exchanged between Federal agencies and other Governments,
                • Government-enabled web services,
                • Standard Government forms,
                • E-Government business transactions.

        B.   Other electronic records -- electronic information meeting the definition of a
                Federal record per 44 U.S.C. 3301. Records include:
                • All books, papers, maps, photographs, machine readable materials, or other
                  documentary materials,
                • regardless of physical form or characteristics,
                • made or received by an agency of the United States Government,
                • under Federal law or in connection with the transaction of public business,
                • and preserved or appropriate for preservation by that agency or its legitimate
                  successor,
                  • as evidence of the organization, functions, policies, decisions, procedures,
                    operations or other activities of the Government or,
                  • because of the informational value of the data in them (44 U.S.C. 3301).

2.   Perceived barriers to the effective management of "Government information on the Internet
        and other electronic records." The operating definition of effective management currently
        used by the Working Group includes:
        • managing through the life cycle,
        • addressing the digital factor early in systems development plans,
        • providing for accessibility and retrieval,
        • providing sufficient security,
        • ensuring consistency (ability to reproduce record),
        • providing for the integrity of records over time,
        • ensuring no loss of records,
        • employing cost-effective and efficient records management processes,
        • ensuring compatibility with standard formats,
        • managing format changes over time,

- providing for long-term record storage and migration of formats,
- managing the location of records over time,
- appropriate long-term custodianship.

3.   Guidance tools for Federal agencies that would assist in overcoming the identified barriers.

In order to solicit the opinions of those stakeholders who could not attend the focus group or public meetings, this message was sent to relevant lists: "Any comments concerning this topic should be sent to ERPWG@nara.gov no later than April 5. Please share this note with other persons and discussions interested in this topic, and please accept my apologies if you receive this notice more than once."

APPENDIX D
ERPWG Membership

Interagency Committee on Government Information (ICGI)
Electronic Records Policy Working Group (ERPWG) Membership

Name	Agency	Title	E-mail
Federal Agency Members			
Wendy Cleland-Hamnett[3]	EPA	Deputy Director, Office of Information Collection	cleland-hamnett.wendy@epamail.epa.gov
Deborah Williams		Chief, Record/FOIA/ Privacy Branch	williams.deborah@epamail.epa.gov
Bob Deyling	AOUSC	Senior Attorney, Office of Judges Programs	Robert_Deyling@ao.uscourts.gov
Michele Heffner	GSA	Director, Interagency Management Division	michele.heffner@gsa.gov
Jeffrey Levy, Web Content Standards WG representative	EPA	Web Content Lead	levy.jeffrey@epamail.epa.gov
Gladys Myatt	Treasury	Assistant Director Records & Information Mgmt.	gladys.myatt@do.treas.gov
Alternate Rosalye Settles		Records Officer	Rosalye.settles@do.treas.gov
Gopi Nair	DTIC	Project Manager	GNair@dtic.mil
Art Purcell	US PTO	Senior Security Advisor	art.purcell@uspto.gov
Jeanette (Jennie) Plante	DOJ	Special Assistant United States Attorney	jeanette.plante@usdoj.gov
Harriet Riofrio	DoD	Lead, Electronic Records Policy	harriet.riofrio@osd.mil
Kathy Schultz Alternate Yvonne Pollard	DHS	DHS Records Officer CIO Staff	kathy.schultz@dhs.gov yvonne.pollard@dhs.gov
Loise Russell	VA	Director, Records Management Service	Loise.Russell@mail.va.gov
John Tressler Alternate Linda Clark Tague	Education	Senior IM Administrator Senior Management Analyst	john.tressler@ed.gov linda.tague@ed.gov
NARA Members			
Michael Kurtz, Chair of Working Group	NARA	Assistant Archivist for Records Services – Washington, DC	michael.kurtz@nara.gov
Nancy Allard	NARA	Co-Manager ERM Initiative	nancy.allard@nara.gov
Fynnette Eaton	NARA	Electronic Records Archives (ERA)	fynnette.eaton@nara.gov
Mark Giguere	NARA	Co-Manager ERM Initiative	mark.giguere@nara.gov
Pamela Mason (secretariat)	NARA	Electronic Records Policy Specialist	pamela.mason@nara.gov

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[3] Ms. Cleland-Hamnet represented EPA on the ERPWG through April 16. Ms. Williams became the primary EPA representative at that time.