The Electronic Records Challenge

Computer System Security and Privacy Advisory Board
December 3, 2002

L. Reynolds Cahoon, CIO
National Archives and Records Administration
Overview

- NARA: Mission
- The Electronic Records Challenge
- NARA's Vision
- The Electronic Records Archives System
“The National Archives .... is a public trust on which our democracy depends. It enables people to inspect for themselves the record of what government has done. It enables officials and agencies to review their actions and helps citizens hold them accountable. It ensures continuing access to essential evidence that documents:

- the rights of American citizens
- the actions of federal officials
- the national experience”
NARA Strategic Goals

1: Essential evidence will be created, identified, appropriately scheduled, and managed for as long as needed.

2: Essential evidence will be easy to access regardless of where it is or where users are for as long as needed.

3: All records will be preserved in an appropriate environment for use as long as needed.

4: NARA's capabilities for making changes necessary to realize our vision will continuously expand.
Record

Documentary material of any form

➢ Made or received in the course of business or under law, and

➢ Kept because it
  ◆ provides evidence of organization, functions, policies, decisions, procedures, operations, or other activities of their creators, or
  ◆ contains valuable information
What's an Electronic Record?

A **record** in a form that requires the use of a computer for access.
What's an Electronic Record? Digital Document?

In a recordkeeping context
What's an Electronic Record?

The result of correctly processing digital data maintained in a recordkeeping context.
An electronic record requires computer processing

If something goes wrong in the process, the authentic record is not retrieved.
The Challenge: Preserving an Electronic Record

The process of preserving an electronic record is complete only when the record is reproduced.
NARA’s Electronic Records Challenge

➤ Preserve any type of record,
➤ Created using any type of application,
➤ On any computing platform,
➤ From any entity in the Federal Government and any donor.
➤ Provide discovery and delivery to anyone with an interest and legal right of access,
➤ Now and for the life of the republic
A Tidal Wave is Coming

Clinton Administration
- 40 million email messages

State Department
- 25 million electronic diplomatic messages

Department of Defense
- 54 million images from electronic official military personnel files annually

Census Bureau
- 600 to 800 million image files (2000 census)
The Challenge: Variety
(examples from NARA’s current holdings)

- White House e-mail from President’s Reagan, Bush, and Clinton
- Casualty records from the wars in Korea and Vietnam
- The American Soldier in World War II
- National Collaborative Perinatal Project, 1959-1974
- Fishing, Hunting, & Wildlife Recreation
- Abstracts of testimony, interviews, diaries from the Watergate Special Prosecution Force
The Challenge: Complexity

- Databases
- Geographic Information Systems
- Web sites
- Digital Photographs
- Computer Assisted Engineering Drawings
- Virtual Reality Models
- ?????
NARA’s Vision

The Electronic Records Archives will authentically preserve and provide access to any kind of electronic record, free from dependency on any specific hardware or software, enabling NARA to carry out its mission into the future.
What is the ERA system?
An Open Archival Information System

Producer

OAIS
Archival Information Packages

Query

Order

Consumer

Submission Information Packages

Response

Dissemination Information Package
NARA's Strategic Response - ERA

ERA Requirements

➢ Persistent
  ◆ To manage and access the records over time.

➢ Authentic
  ◆ To ensure that these are the original records
  ◆ Records that are created with attached documentary information

➢ Scalable
  ◆ To grow and adapt to increasing volumes and evolving types of electronic records
  ◆ To serve a variety of user groups
What is the ERA system?
(Virtual Workspaces)