BUILDING THE ARCHIVES OF THE FUTURE

THE ELECTRONIC RECORDS ARCHIVES (ERA): COLLABORATIVE APPROACHES ON A NATIONAL SCALE

The Committee on Institutional Cooperation
University Archivists Group Forum
East Lansing, Michigan
September 26, 2008

Rita M. Cacas
ERA Communications
National Archives and Records Administration

Overview

- **NARA's History, Mission, and Legal Contexts**
- **ERA Program History**
- **Electronic Records Challenges & Strategies**
- **ERA: Acquisition Strategies and Requirements**

- **Where we are today:**
  - NARA is using ERA to conduct some business transactions
  - Training NARA staff to use ERA

NARA's Mission

To ensure access to records of three branches of the U.S. Government.

These records:

- Protect **citizen's rights**
- Hold Government officials **accountable**
- Facilitate **historical understanding** of our national experience

NARA's Legal Contexts

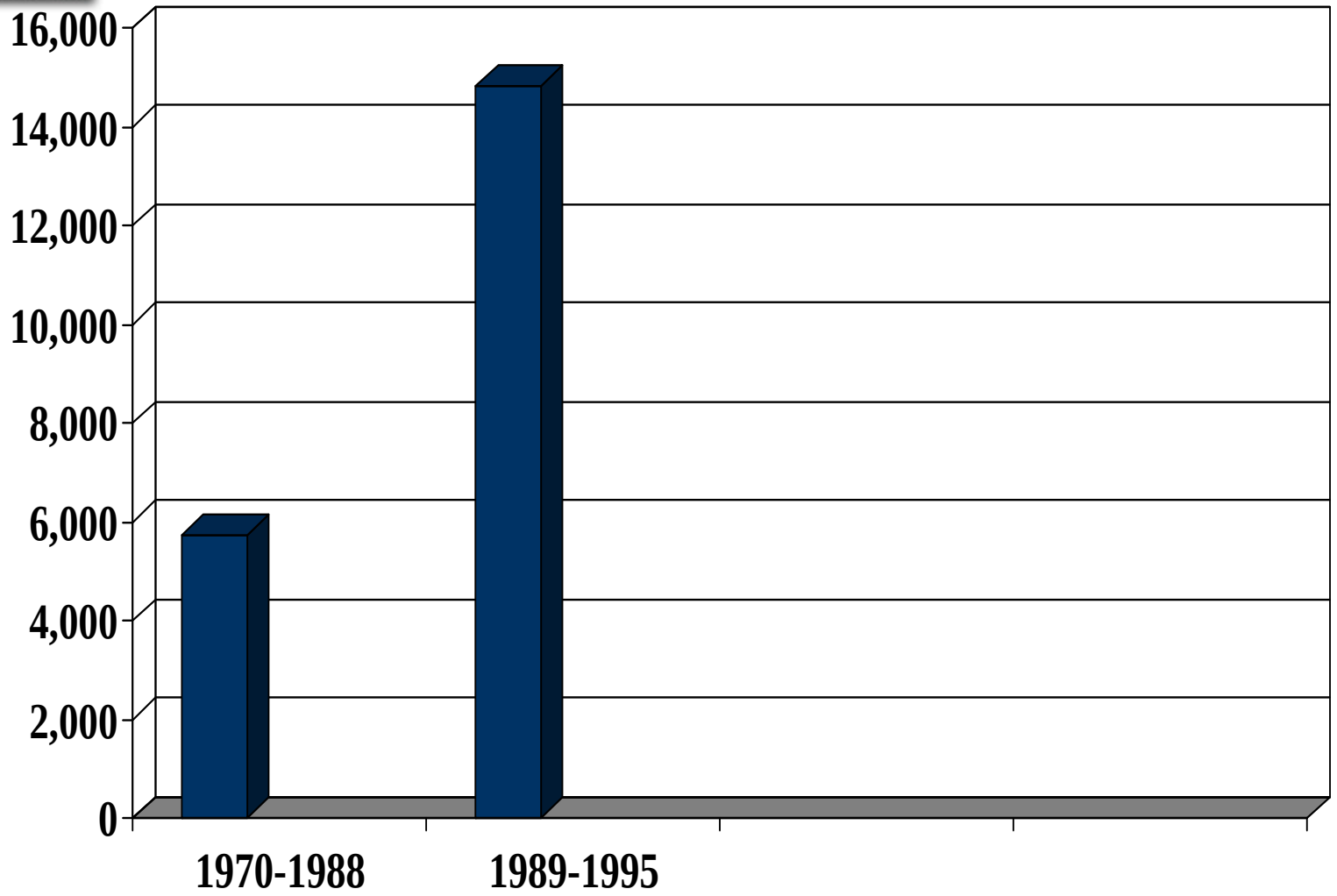
- **The Federal Records Act**
  - All agencies of the U.S. Government
- **The Presidential Records Act**
  - The President and Vice President
  - Officials and organizations which advise them
- **Donated Materials**
  - The Congress
  - The Supreme Court
  - Private persons

Access to Electronic Records

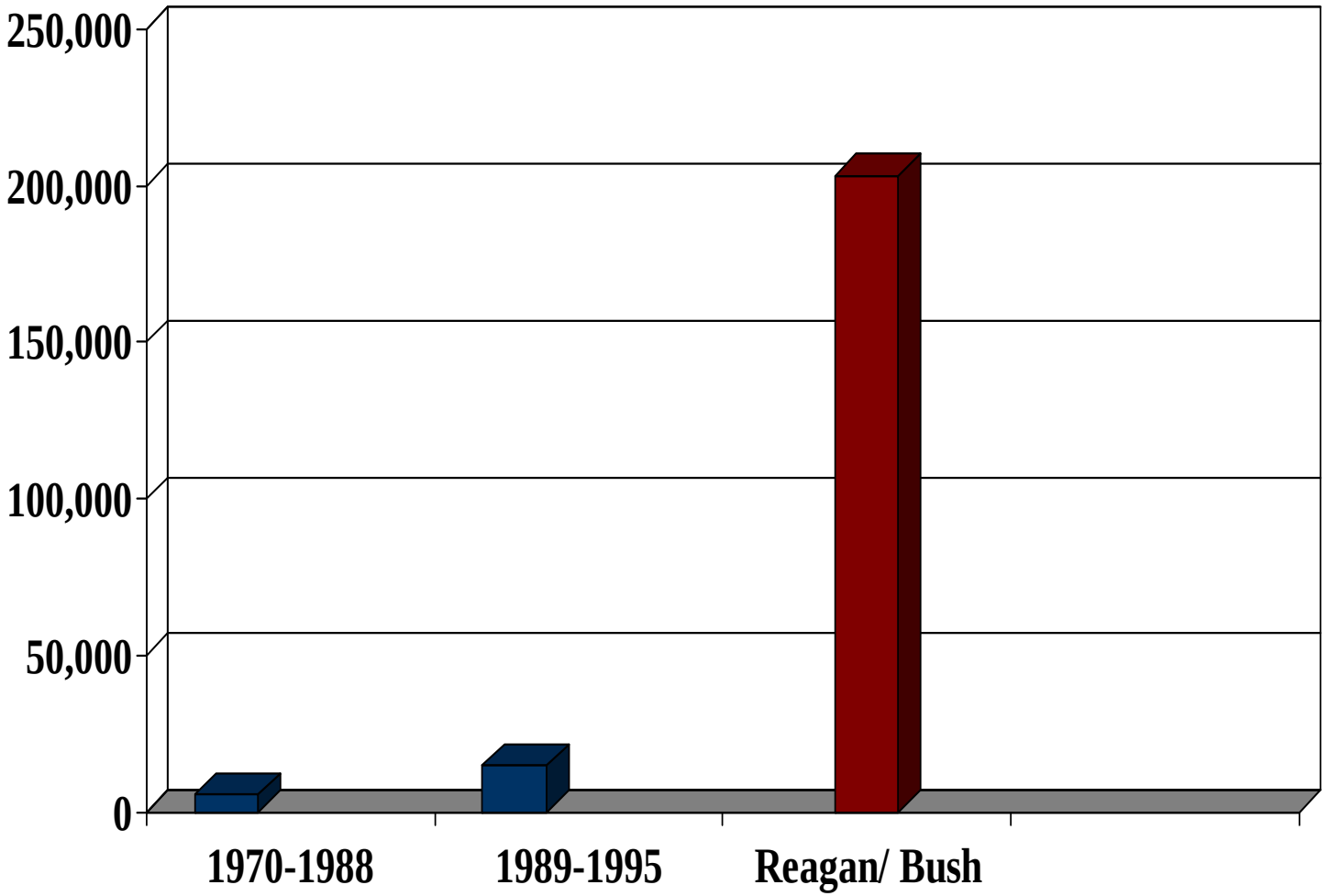
- **1960s - Present**
  NARA has over 40 years experience providing access to electronic records

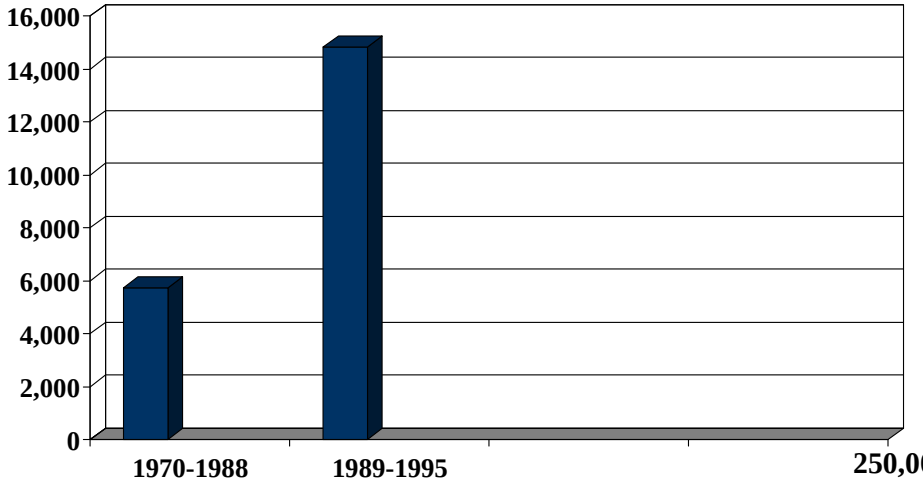
- **1970**
  First electronic records transferred to NARA, begin preservation

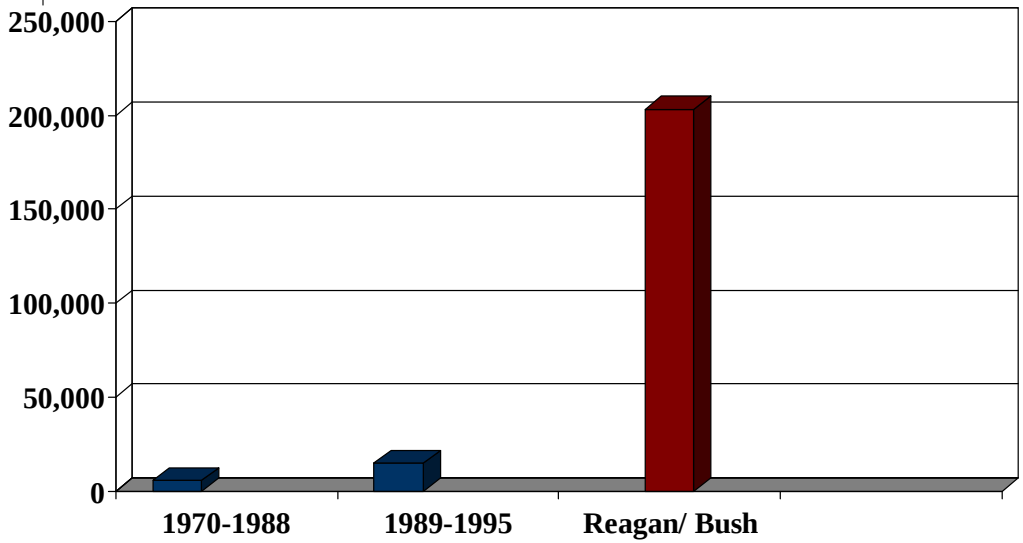
Transfers of Digital Files to NARA (in terrabytes): (1970 – 1995)



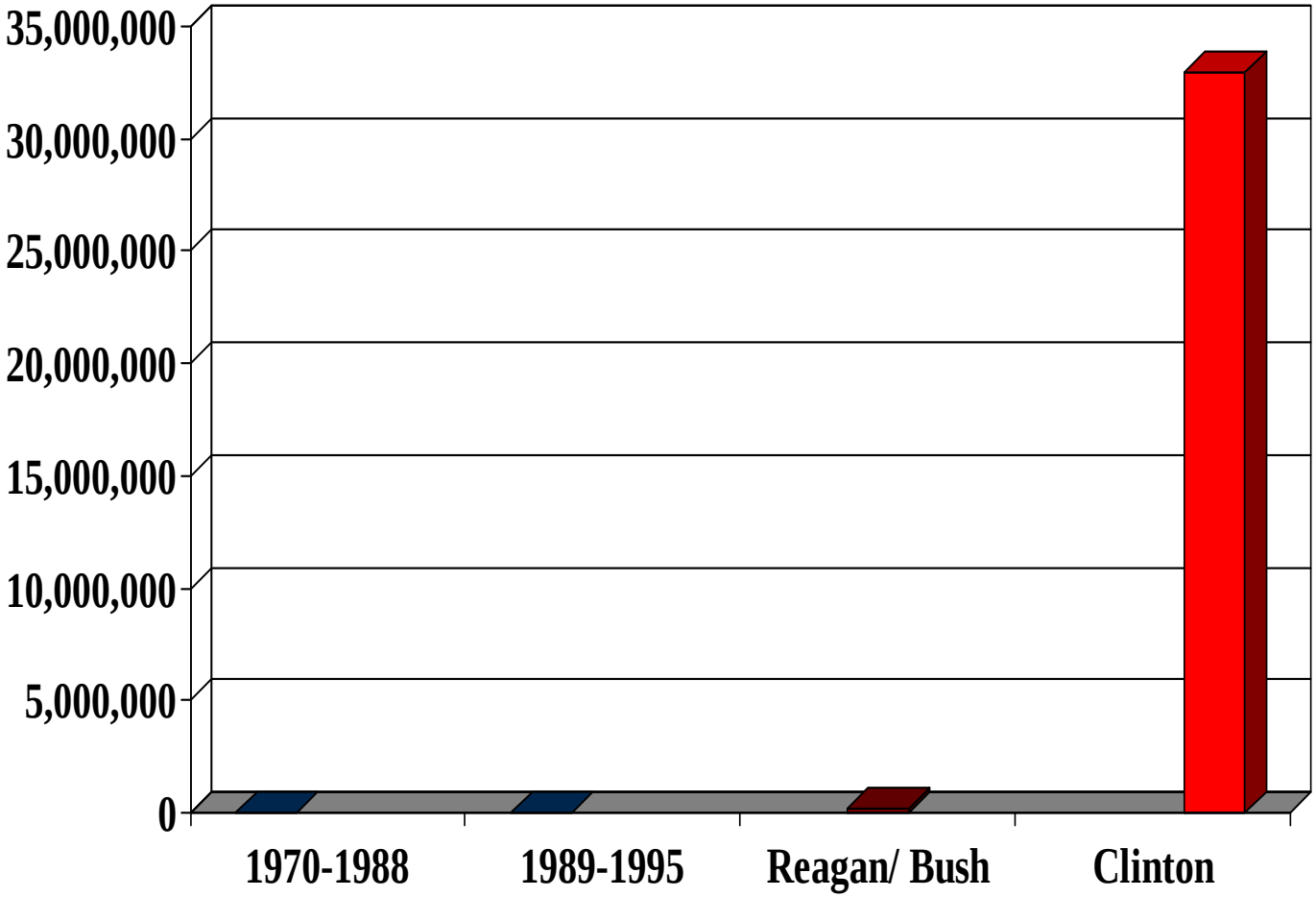
Transfers of Digital Files to NARA:
Reagan/Bush Presidential Records

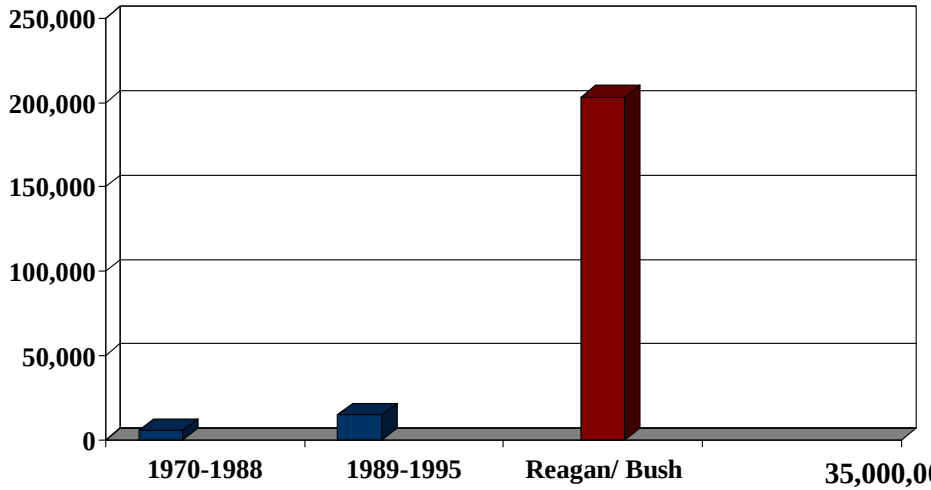


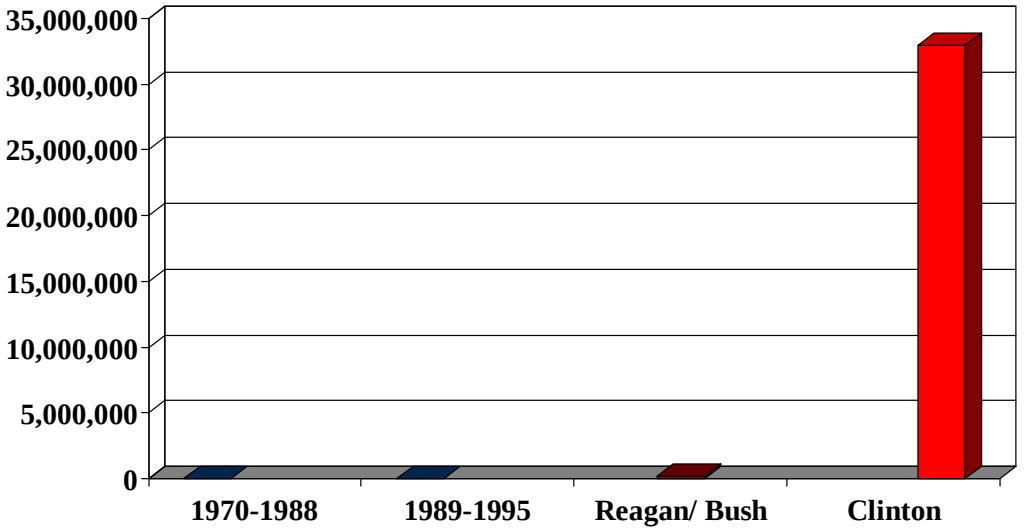

16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
1970-1988
1989-1995


250,000
200,000
150,000
100,000
50,000
0
1970-1988
1989-1995
Reagan/ Bush

Transfers of Digital Files to NARA:
Clinton Presidential Records




250,000
200,000
150,000
100,000
50,000
0
1970-1988
1989-1995
Reagan/ Bush


35,000,000
30,000,000
25,000,000
20,000,000
15,000,000
10,000,000
5,000,000
0
1970-1988
1989-1995
Reagan/ Bush
Clinton

ERA Program History

- 1960s - Present Over 40 years experience providing access to electronic records
- 1970 First electronic records transferred to NARA, begin preservation
- **1995 NARA is heading for mission failure**
- **1998 ERA Research Partners**
- **2000 ERA becomes an Official Program**

Electronic Records
NARA's Challenges

- **Scope** — **The entire U.S. Federal Government**
- **Obsolescence** — **Constantly Changing Technology**
- **Access** — **Ability to view records over time**
- **Volume** — **Large amounts of records arriving to NARA**
- **Variety** — **Different/Complex Types of Records**
- **Complexity** — **and Records Formats**

Examples of Variety & Complexity

The 9-11 Commission Records

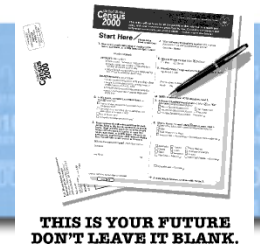
Office Automation Files

- Word processing documents
- Spreadsheets
- Presentations
- E-mail w/ attachments
- Scanned paper documents

Complex Formats

- Databases
- Digital Photography
- Satellite Imagery
- **Digital audio files**
- **HDTV**
- **Web pages**
- **Geospatial Information Systems**

U.S. Census Bureau



1890

2000

Building for the Future

1. Anticipate changes

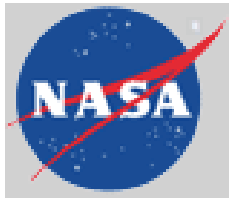
2. Recognize those things that will not or should not change

3. Make reasonable assumptions about the future

NARA's Strategic Response: The ERA Program

1. **Research** and exploratory development on technologies that offer promise for addressing electronic records challenges.
2. **Acquiring and building a system** that meets our requirements and our mission for NARA, the Presidential Libraries, and Federal Records Centers
3. Organizational and cultural **Change Management**

Some examples of
ERA Research *Partnerships*



Data-Intensive Cyber Environments (DICE) Group

National Science Foundation

National Computational Science Alliance

Global Grid Forum

National Coordination Office for Networking and Information Technology Research and Development

Army Research Laboratory

The Library of Congress

DIGITAL LIBRARY FEDERATION

InterPARES Project
International Research on Permanent Authentic Records in Electronic Systems

The ERA Research Prototype: Data Grid Technology

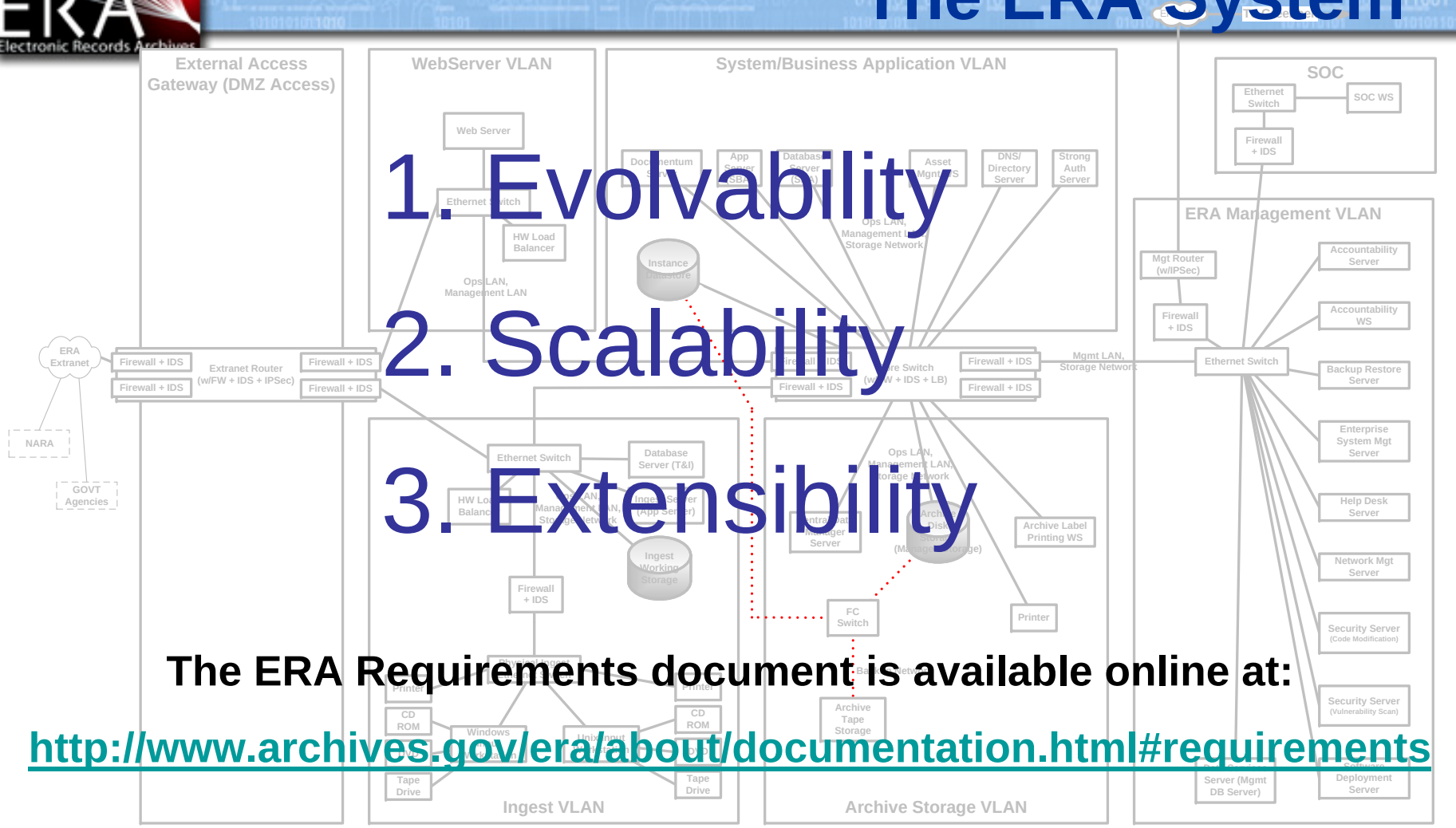
Electronic Records Stacks at Archives II

The *ERA Transcontinental Persistent Archive Prototype (TPAP)*

-- or NARA's "Grid"

Fundamental Requirements for The ERA System

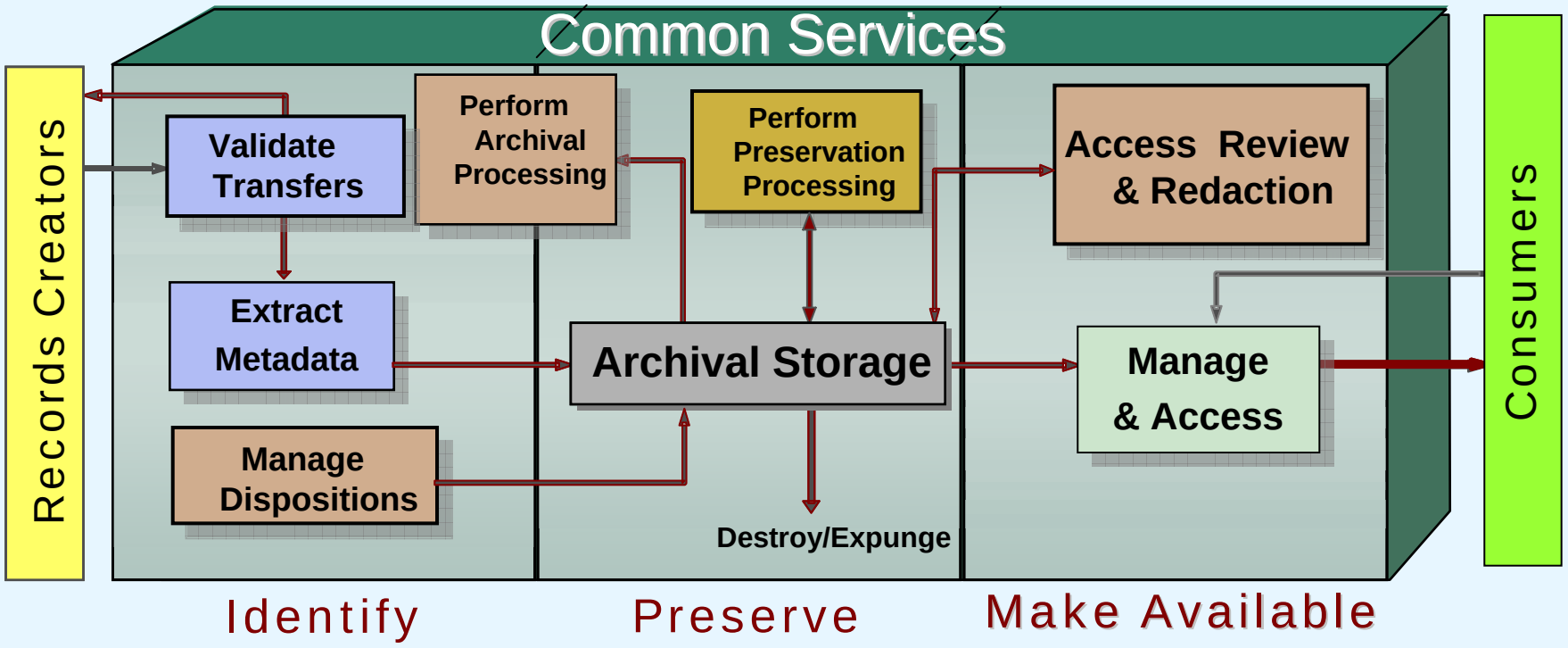
1. Evolvability
2. Scalability
3. Extensibility



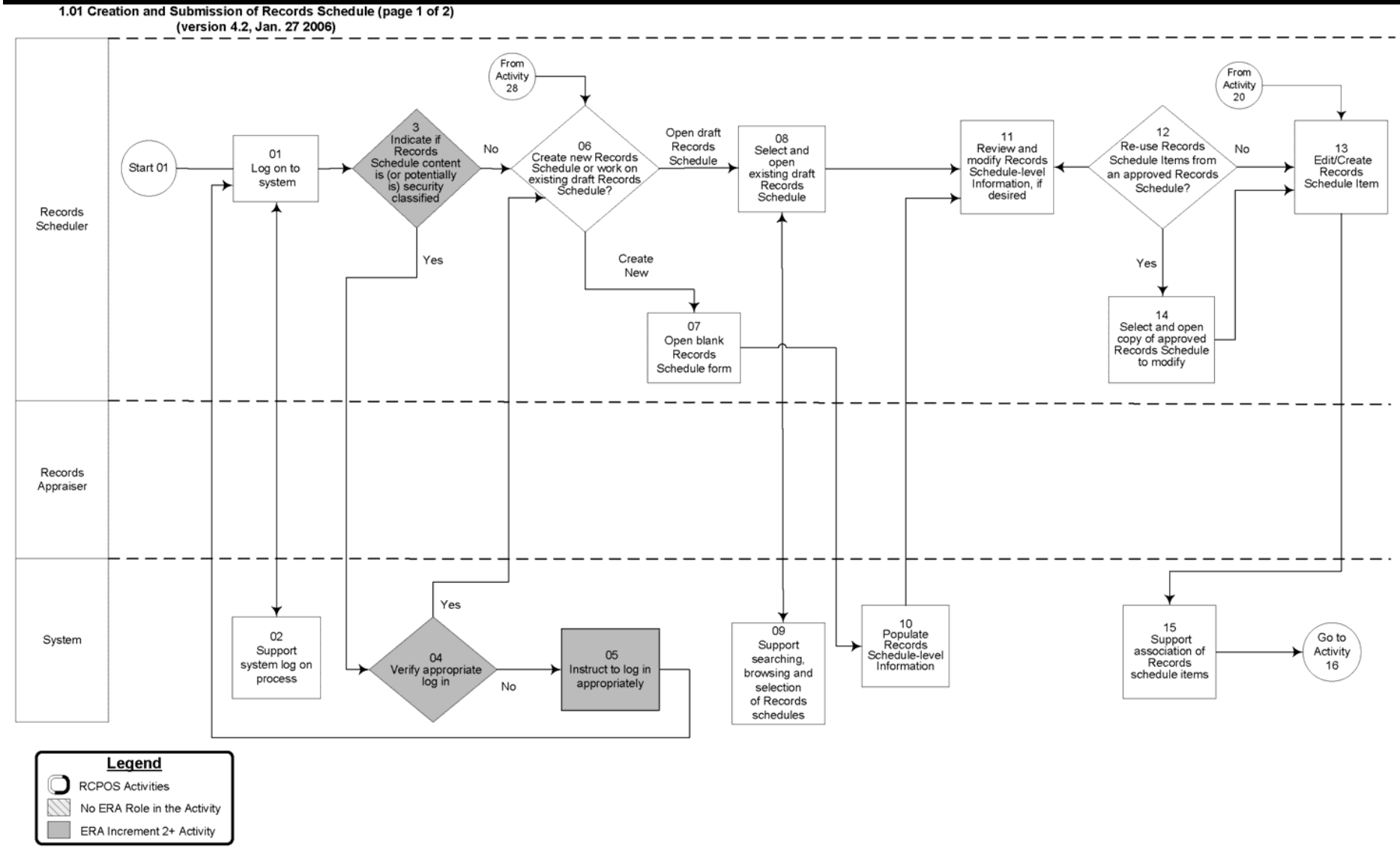
The ERA Requirements document is available online at:

http://www.archives.gov/era/about/documentation.html#requirements

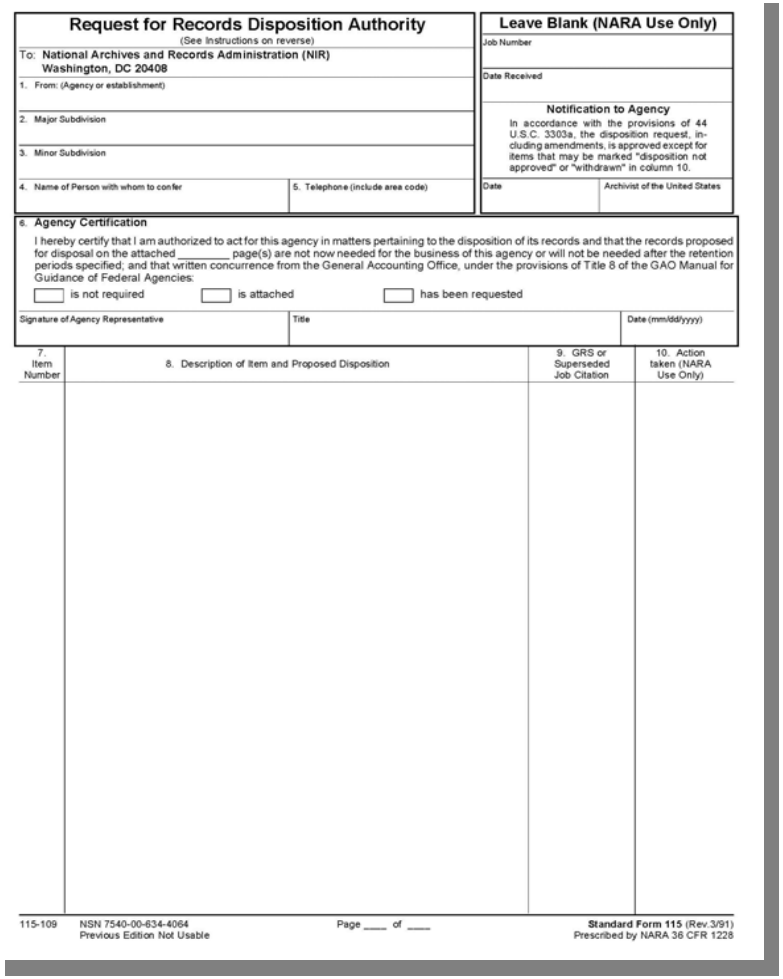
The ERA System is based on a **Service-oriented architecture**



Business Process Re-engineering:
Studying The Lifecycle of a Record



The Federal Records Scheduling Process:
Using a Standard Form (SF-115)



Request for Records Disposition Authority
(See Instructions on reverse)

To: National Archives and Records Administration (NIR)
Washington, DC 20408

1. From: (Agency or establishment)

2. Major Subdivision

3. Minor Subdivision

4. Name of Person with whom to confer | 5. Telephone (include area code)

Leave Blank (NARA Use Only)

Job Number

Date Received

Notification to Agency

In accordance with the provisions of 44 U.S.C. 3303a, the disposition request, including amendments, is approved except for items that may be marked "disposition not approved" or "withdrawn" in column 10.

Date | Archivist of the United States

6. Agency Certification

I hereby certify that I am authorized to act for this agency in matters pertaining to the disposition of its records and that the records proposed for disposal on the attached _____ page(s) are not now needed for the business of this agency or will not be needed after the retention periods specified; and that written concurrence from the General Accounting Office, under the provisions of Title 8 of the GAO Manual for Guidance of Federal Agencies:

☐ is not required ☐ is attached ☐ has been requested

Signature of Agency Representative | Title | Date (mm/dd/yyyy)

7. Item Number	8. Description of Item and Proposed Disposition	9. GRS or Superseded Job Citation	10. Action taken (NARA Use Only)

115-109 NSN 7540-00-634-4064 Previous Edition Not Usable Page ___ of ___ **Standard Form 115** (Rev.3/91) Prescribed by NARA 36 CFR 1228

Capturing Information about the records

Using ERA to schedule records online: *The e-115*

Records Schedule

* Required fields

General Info

General

*Records Schedule ID:
Schedule Subject:
*Agency or Establishment:
*Legacy Data:
Default Schedule:
Status:
*Internal agency concurrences will be provided:
*Record Group:

Records Schedule applies to:

Major Subdivision Schedule | Agency-wide | General Records

*Major Subdivision:
Minor Subdivision:

Background

Background Information:

GAO Concurrence

Not Required | Requested | Received

Items:

Records Scheduler

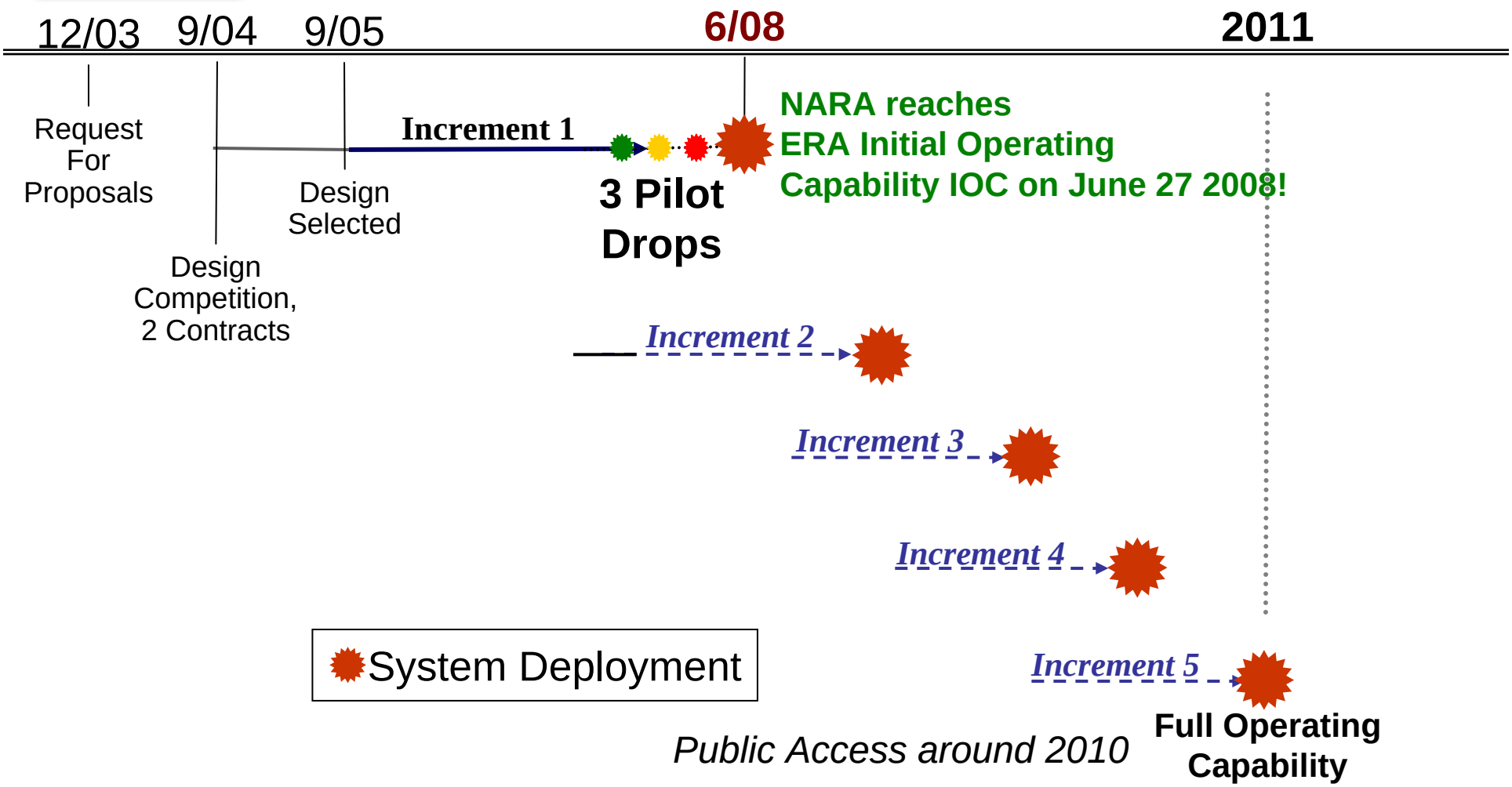
*First Name	*Last Name	*Title
EndUser1	Rsn	

Functions | Contact Persons

	First Name	*Last Name	Title	*Phone	Email
☐					

Save | Cancel

Acquiring and Building ERA in Increments



Managing the Lifecycle of Federal Records:
ERA System Functions as of June 27

- **Create, modify and submit NARA-Agency Business Objects:**
  - *Records Schedules (e-115)*
  - Transfer Requests (TRs, formerly the SF-135)
  - Legal Transfer Instruments (LTIs, formerly the SF-258)

- **Search for existing business objects**
  (and in some cases, use them to generate new ones)

- **Safely transferring and receiving electronic records:**
  - Securely package electronic records using ERA
  - Ability to Ingest, Open, and Verify electronic records that were transferred to NARA using ERA

The first four ERA Pilot Agencies

UNITED STATES PATENT AND TRADEMARK OFFICE

U.S. Bureau of Labor Statistics

National Nuclear Security Administration

NAVAL OCEANOGRAPHIC OFFICE
John C. Stennis Space Center
We maximize America's Sea Power by applying relevant oceanographic knowledge across the full spectrum of warfare

Some additional resources

- **Handouts:**
  - Access to Archival Databases (AAD) – online access to some permanent electronic records holdings
  - America's Story At Risk: Why NARA is Building the Electronic Records Archvives

- **Ambacher, Bruce,** editor. "Thirty Years of Electronic Records." Scarecrow Press, 2003.

- **Thibodeau, Kenneth.** "Building the Archives of the Future: Advances in Preserving Electronic Records at the National Archives and Records Administration,"
  D-Lib Magazine, February 2001, Volume 7 Number 2. Available online at: http://www.dlib.org.ar/dlib/february01/thibodeau/02thibodeau.html

- **The Electronic Records Archives (ERA) web site:** http://www.archives.gov/era

Your Contact in the ERA Program Office

ERA Communications

Rita.Cacas@nara.gov
(301-837-1564)