**International Seminar on Priority Challenges
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Ensuring Appropriate Information Management and Data Quality

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Information Management in the Early Days

Social Security - Major Programs & Workloads

Program	Year Initiated	Annual Workload	
Enumeration	1936	5.1	million Social Security Numbers issued (more than 436 million issued to date)
		10.6	million name changes and cards reissued
		1.25	billion verifications of name and SSN
Earnings History	1937	250	million earnings postings - totaling more than $5 Trillion
Retirement & Survivors Benefits (RSI)	1939	3.9	million retirement applications
Disability Benefits (DI)	1956	4.5	million disability applications
Supplemental Security Income (SSI)	1974	290	thousand applications
Document Management Architecture (DMA)	2004	165	million documents added (more than 490 million to date)
		310	million pages added (more than 1,240 million to date)

SSA Information Technology Growth

IT Infrastructure Segment	2001	2009	2014 (est.)
Network Bandwidth - Millions of bits per second	2,216 Mbps	13,388 Mbps	18,589 Mbps
Mainframe Storage Capacity - Terabytes	12	1,054	3,300
Mainframe Processing Capacity - GP MIPS	4,400	50,182	62,000
Transaction Volume - Average per day (million)	27	70.4	130
Workstations Supported	107,000	130,448	146,500
Internet Transaction Volume - Page views per quarter (million)	101.2	1,000	3,900
Production DB2 database Instances	5	492	900
Total number of DB2 rows (million)	100	46,000	200,000
Telephone System - National 800 Number calls (million)	77	86	92.1

Ensuring Appropriate Information Management and Data Quality at SSA

Current challenges
- ▸ Rapidly growing workloads
- ▸ Employee retirement wave
- ▸ Aging legacy technologies & infrastructure
- ▸ Emerging technologies & rising customer expectations

SSA has developed three documents to guide information management initiatives:
- ▸ The Agency Strategic Plan
- ▸ The Information Technology Vision
- ▸ The Enterprise Data and Database Strategy

Collectively these documents call for:
- ▸ Improving core business services & eliminating backlogs
- ▸ Strengthening and modernizing IT Infrastructure
- ▸ Modernizing and revamping software and databases
- ▸ Improving process efficiency with a focus on data quality and reduced reliance unstructured data

Enterprise Data & Database Strategy - Strategic Themes

Data Access and Availability -
Diverse requirements create challenges

Responsive Systems -
New technologies challenge traditional methods

Standards -
Data proliferation increases complexity and costs

Enterprise Data & Database Strategy - Strategic Themes

1. Data Access and
 Availability -
 *Diverse requirements
 create challenges*

Strategy Objectives

- Secure access to data for internal
  and external stakeholders without
  compromising quality or integrity

- High data availability and
  continuous availability

- Prompt restoration of data in the
  event of catastrophic loss

Enterprise Data & Database Strategy - Strategic Themes

2. Responsive Systems -
New technologies challenge traditional methods

Strategy Objectives

- Agile systems development processes

- Data services that support seamless access

- Expanded enterprise data models and proactive governance that facilitate efficient system development

Enterprise Data & Database Strategy - Strategic Themes

Strategy Objectives

3. Standards -
Data proliferation increases complexity and costs

- High quality data with standard definitions, formats, and values

- Standards that facilitate the adoption of new technologies and mitigate the risk of the retirement wave

- Common data standards that facilitate links between SSA and external entities

Target Future Data & Database Architecture
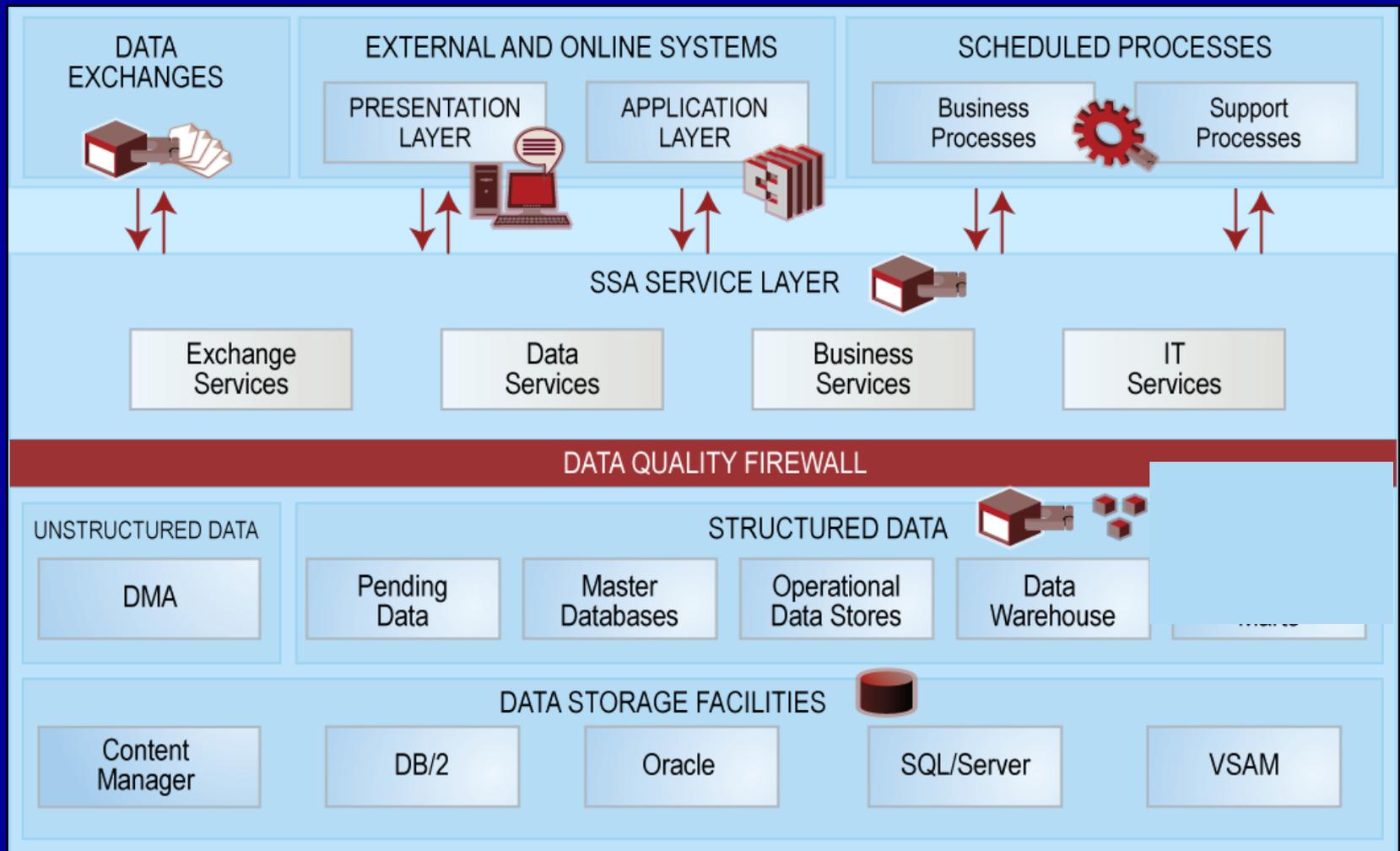
SSN, Name & Date of Birth

Verifications
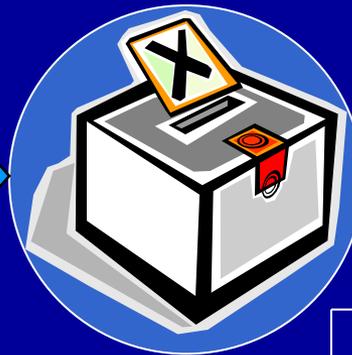
Pass / Fail

State Departments of Motor Vehicles

Other Federal Agencies
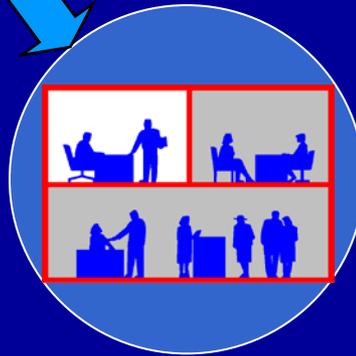
Bank/Lending Institutions

State Election Boards

Federal & State Benefit Paying Agencies

Employers

Does NOT confirm identity

11

Ensuring the Accuracy of SSA's Database of Social Security Numbers
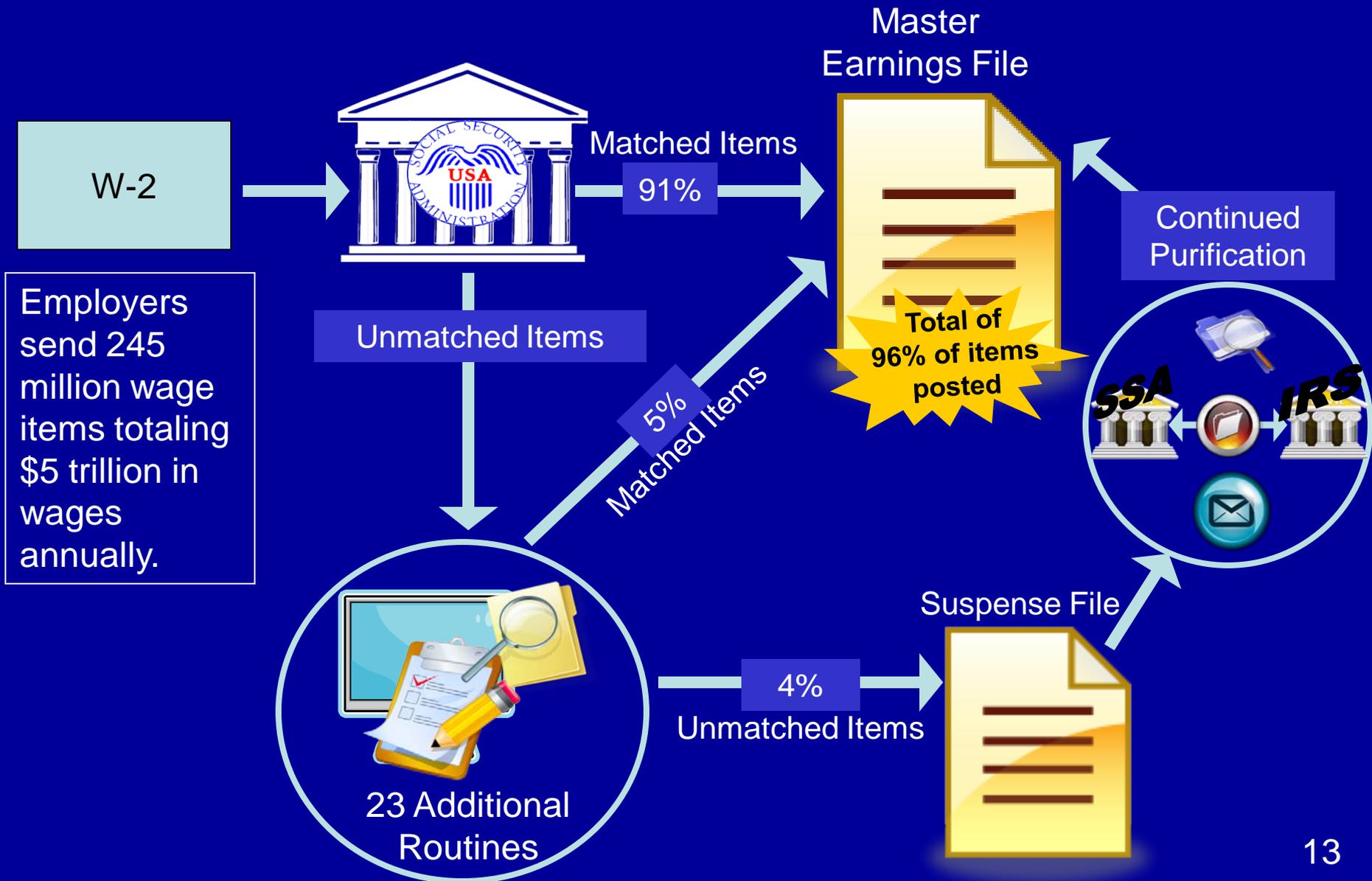
Require Supporting Evidence

Exchanges with other public/private agencies

Confirmation Routines

Automated Edit Checks

End-of-line Quality Reviews

Ensuring the Accuracy of SSA's Database of Earnings

W-2

Employers send 245 million wage items totaling $5 trillion in wages annually.

Matched Items
91%

Master Earnings File

Unmatched Items

5% Matched Items

Continued Purification

Total of 96% of items posted

SSA

IRS

23 Additional Routines

4% Unmatched Items

Suspense File

13

Effective Verification Processing Environment

Security/Privacy

High Availability
Redundancy
Failover
Portability
Scalability

Response time

Isolation

14
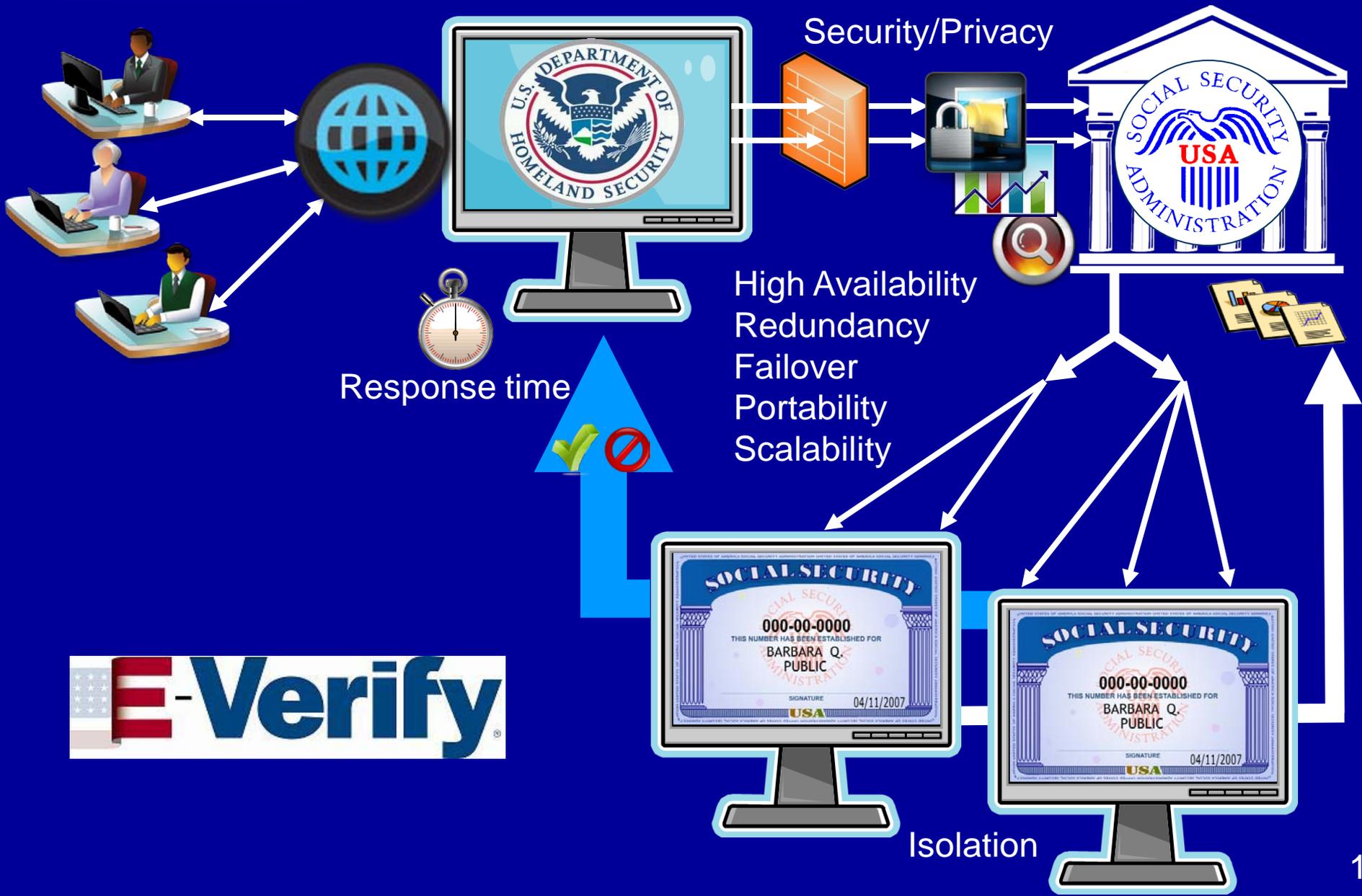
Current Disability Claims Processing System

Internet (eServices)

State Legacy Systems (54)

Hearing Process Systems

Electronic Folder Interface (EFI)

SSA Field Office Systems

Electronic Folder

Document Management Architecture (DMA)

Other Repositories

Health IT Structured Data Repository

Electronic Folder Structured Data Repository

Unstructured Data Repository
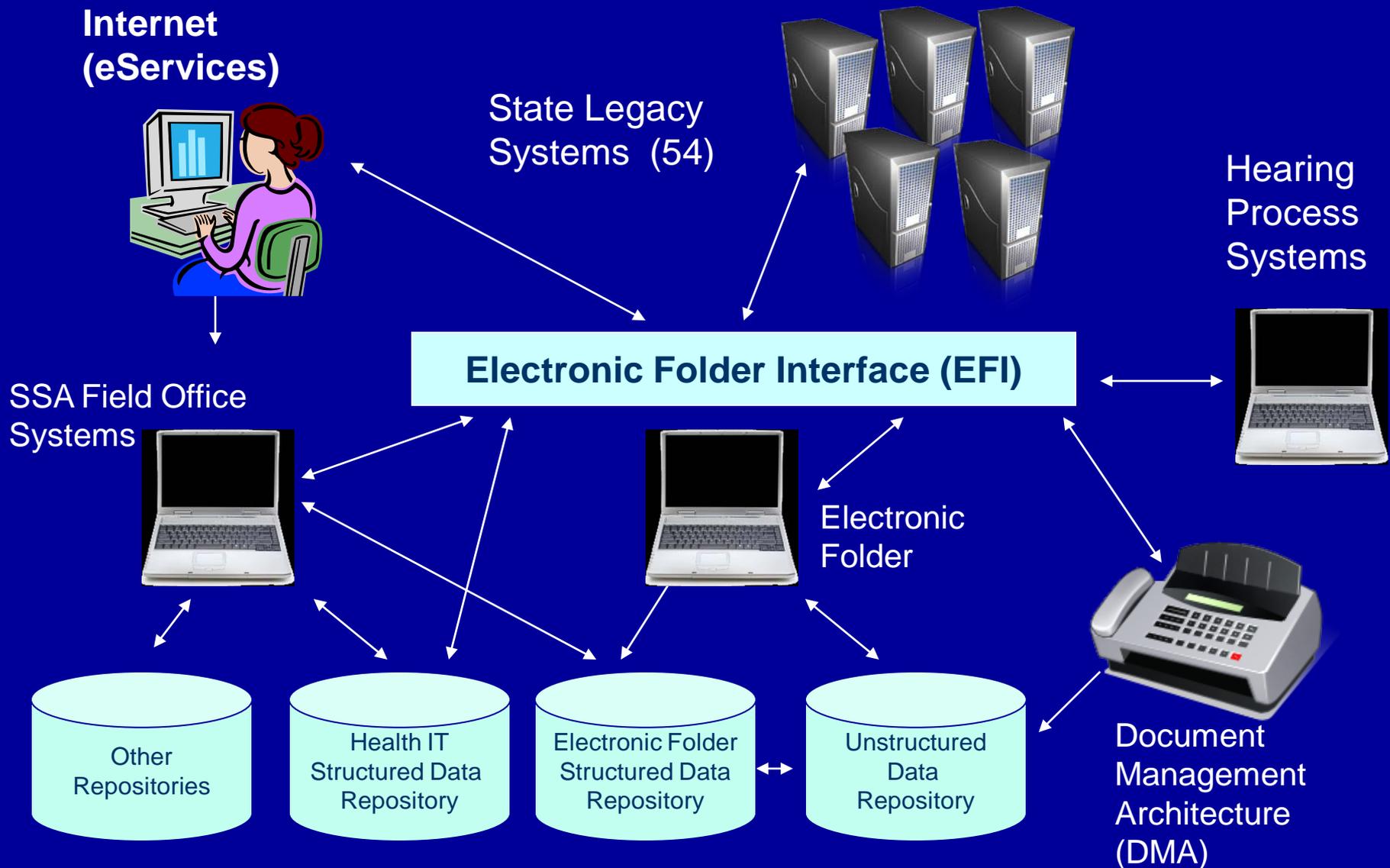
Future Disability Claims Processing System

Internet (eServices)

Electronic Folder → **Document Management Architecture (DMA)**

SSA Field Office Systems

Common State Disability System

Hearing Process Systems

Other Repositories

Health IT Structured Data Repository

Electronic Folder Structured Data Repository

Unstructured Data Repository

Questions and Answers