## A VIEW OF SSA SYSTEMS FROM EARLY DAYS TO PRESENT



Dr. Renny DiPentima Former Deputy Commissioner of Systems Social Security Administration

- Initial Programs Were All Paper Processes
- Information by Life Cycles Set a Stage for Future

**Automation** 

- Independent Files by Lifecycle
  - Account Numbers
  - Earnings
  - Master Beneficiary



Early Automation - IBM
 Produced First Automated
 Machines

•1937-1950s IBM 007 Collator

**Sorting Machines** 

•Hollerith Cards, Paper Printout





#### In 1950, First Electronic Computing Device, IBM 604

- **Electronic Calculator to do Benefit**
- **Calculations**
- •By 1955/1956, IBM 705, General
  - **Purpose Computer for Accounting**
  - **Functions**
- Followed by Various IMB Larger

**Computers Throughout 1960s and 1970s** 

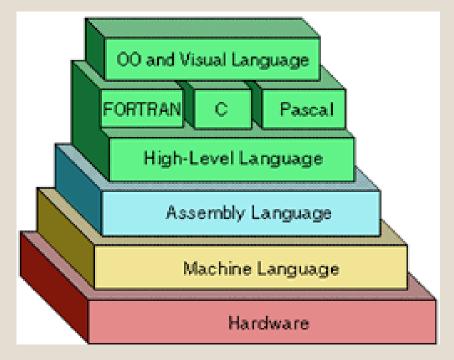


#### Software was Assembler Language, Fortran

#### No Thought of Integration

#### Many Different Data Definitions

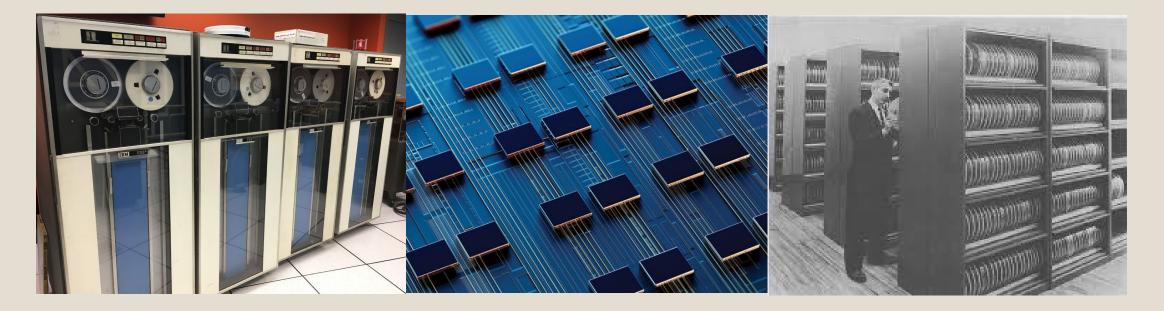




#### Breakthrough of Tape Drive, Eventually 2 Football

**Fields** 

#### Bureau of Automated Data Processing



# •SSI Crisis in 1974-75 Revealed Weaknesses in SSA Systems

- Immediate Need, Not 90-day Lead Time
- District Offices & Payment Centers All Paper





Receptionist

Claims Representative

Clerical Assistant

Data Input Specialist

Teletypist





#### First Modernization in 1980s



Congressman Brooks Confrontation, Old Machines,
 System Workloads Backlog

• Secured \$454 M Budget and Freed from Freeze



- In 1982, SSA IT Modernization Plan
- •3 Phases- Survival, Transition, State of the Art
  - Survival- brings earnings up to date and stabilize systems
  - Transition- data on disc and daily processing for many

internal and external systems

State of the Art

Customer Survey - Prefers
 Telephone Contact



- Programs for Modernization
- Online Data to Replace Tapes
- Network to Replace Teletype
- New Computer for Processing Power
- Modern Data Processing Management, New Data Center
- New Software systems for Modernizes Claims Processing





Intra-agency Teams for Systems, Operations, Policy,
 Administration, Human Resources

All with Authority from their Deputies

Software Un-integrated



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Model District Office

Two Pilot District Offices-

**Baltimore & York, PA** 



Two Pilot District Offices in Each Region

Phased Implementation of All Offices

- New Process Flows, Front-end Oriented, Connect to Backend Systems
- Basic Underpinning of Current Systems



- Followed with Local Area Networks & Wide Area Networks
  - (LAN/WAN), PC on Every Desk
- Online Access to Small Programs like Benefit Estimates
  and Employer Checks
- Software with On-line, Interactive



• Follow-on Modernization has been Basic Upgrades to Hardware and Attempts at DIB Modernization

What is Future Modernization Panel Recommending?

- SSA Business Driven
- More Customer Oriented
- More Intra-agency Integration



# **Useful Resources**



#### • SSA's 2017 IT Modernization Plan

□ Found here: <u>https://www.ssa.gov/agency/materials/IT-Mod-Plan.pdf</u>

#### SSA's IT Modernization Progress (via OMB's IT Dashboard)

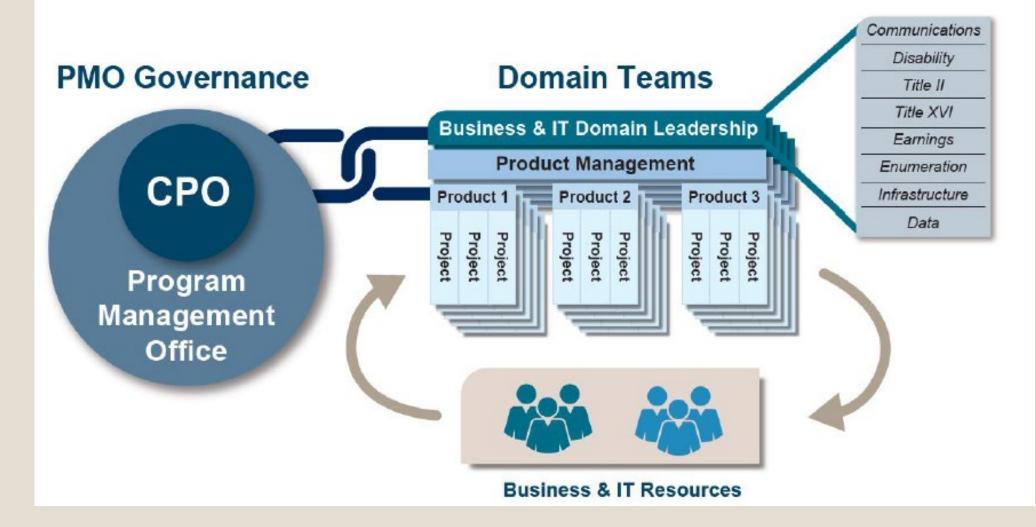


□ Found here: <u>https://itdashboard.gov/drupal/summary/016</u>

#### • SSA's 2020 IT Modernization Plan Update

Found here: <u>https://www.ssa.gov/open/materials/IT-Modernization-Plan-2020-Update.pdf</u>

### **PMO Operating Model** (SSA's IT Mod Plan, 2017, p. 61)



#### SSA's Transformation of Clients, Code & Data (SSA's IT Mod Plan, 2017, p. 46)

