

Multics: The First Fifty Years

Michael Pandolfo

May 29, 2014

Copyright © 2014 by Michael A. Pandolfo. All rights reserved.

Multics: The First Fifty Years

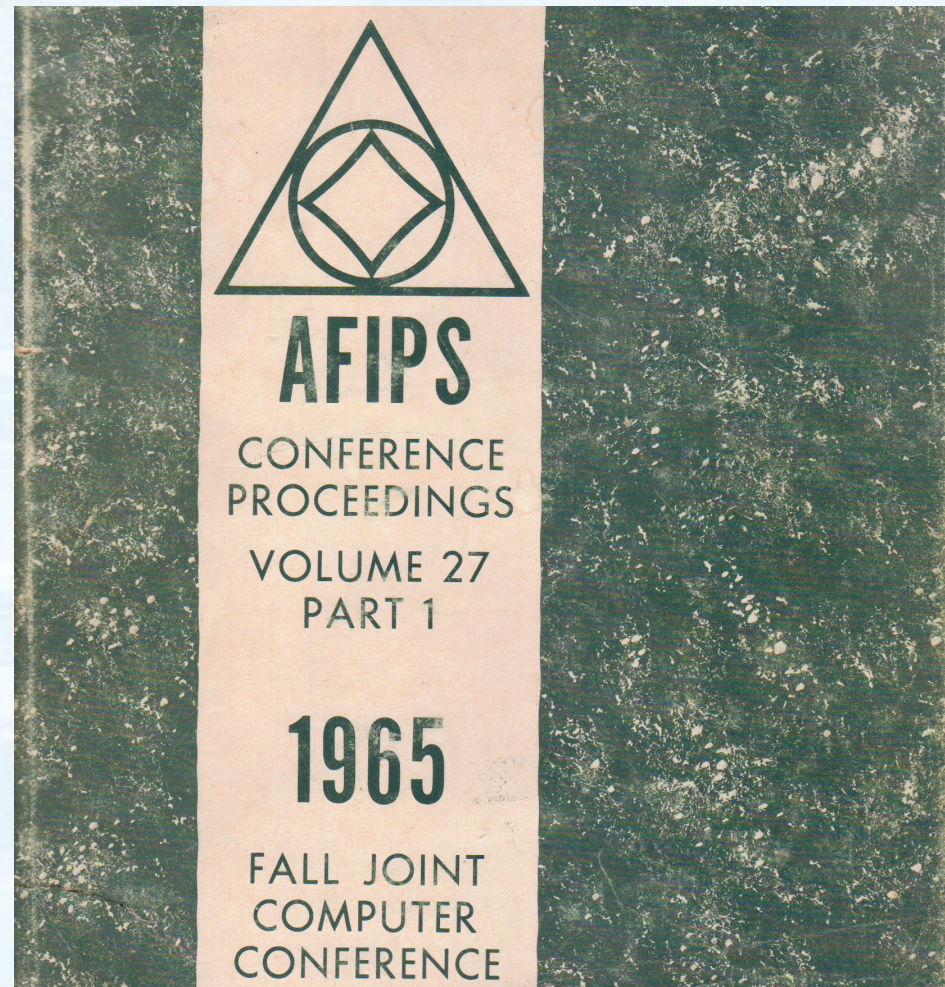
1964

1965

1967

1969

Multics: The First Fifty Years



Multics: The First Fifty Years

- Literature is based on Gen 1 Multics
- Gen 2 Multics improved upon Gen 1
- Gen 2 Multics included more features
- There is a gap in the Body of Knowledge
- For the fiftieth anniversary, update the model that academia sees.

Initiative 1: A New Text

- The follow-on processor was delivered as Organick's book was being published
- There is no equivalent comprehensive reference guide for the 6180/DPS8M
- Part one of an updated text can follow original book

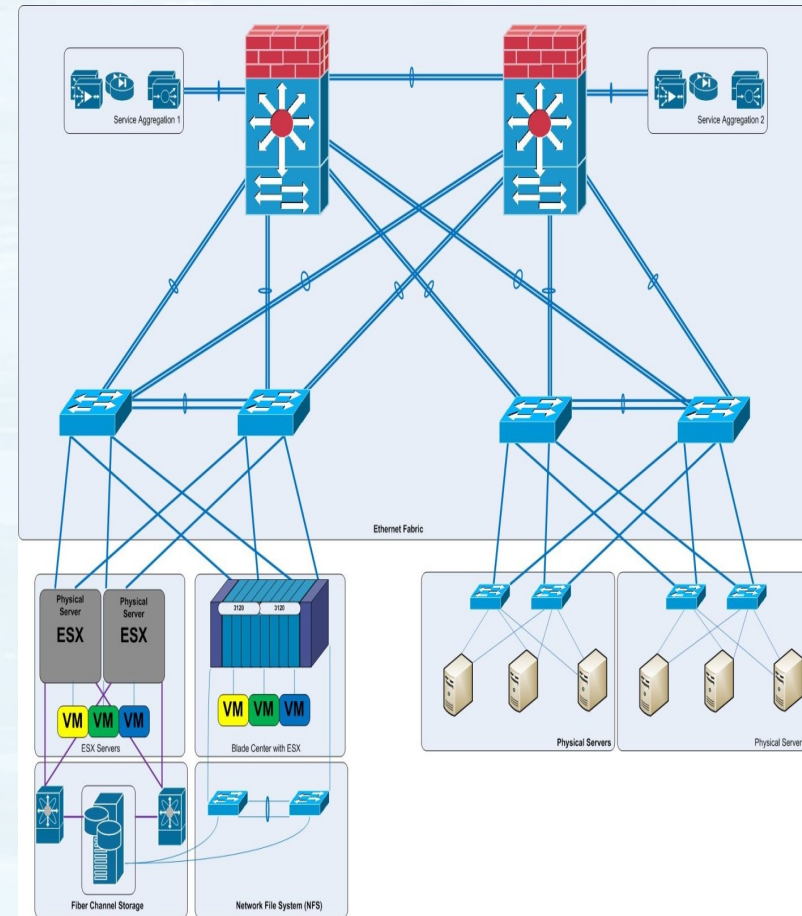
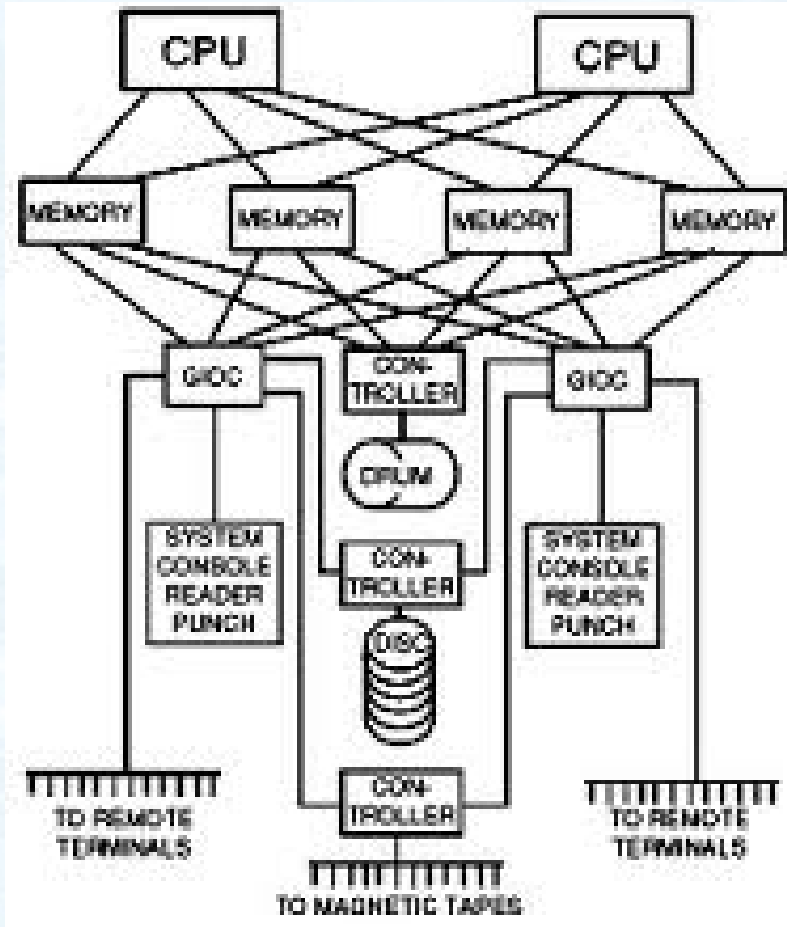
Initiative 1: A New Text

- Additional chapters can include important features added through Multics' history
 - Non-discretionary access control
 - Journalized file management
 - Relational database and query language
 - B2 certification
 - Communications and networking

Initiative 2: A Multics Conference

- A nostalgia conference won't work
- A fifty year retrospective of design
 - Include derived operating systems
 - Foster a sense of history
- “Comparative Anatomy” of key features
 - Can Linux on Intel do things better?
 - Contribute to Bull HN's goal for MR 12.5

Initiative 2: A Multics Conference



Initiative 2: A Multics Conference

- Nothing but questions
 - Who to approach
 - What to propose
 - Call for papers?
- Need to activate this initiative now
 - Fall 2015 is closer than you think
 - Logistics need to be locked in

Initiative 3: Multics in the Cloud



Initiative 3: Multics in the Cloud

- Complete a 6180/DPS-8M Virtual Machine
- Run Bull HN MR 12.5 on the VM
- Current efforts
 - Harry Reed emulation runs under SimH and uses SourceForge source control
 - Michael Mondy emulation runs under SimH and uses GitHub source control
 - Each appears stuck at the first page fault

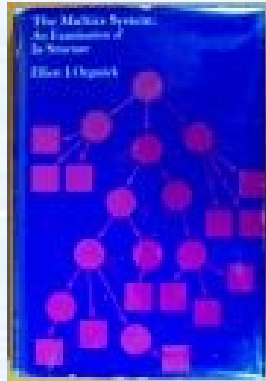
Initiative 3: Multics in the Cloud

- My role
 - Find university talent at this level
 - Broker talent to be brought to bear on development issues
 - Get my hands dirty if needed
 - Push for first light in the fall of 2015
- Possibility of undergrad work on emulator can lead to the conference call-for-papers

Initiative 1: Revisited

- Is the proposed text enough?
 - The model for introduction and use of Multics was Honeywell Education
 - How does the professor or student bring up a system and administer it?
 - What about the command repertoire?
- Are multiple volumes in order?

Initiative 1: Revisited



+

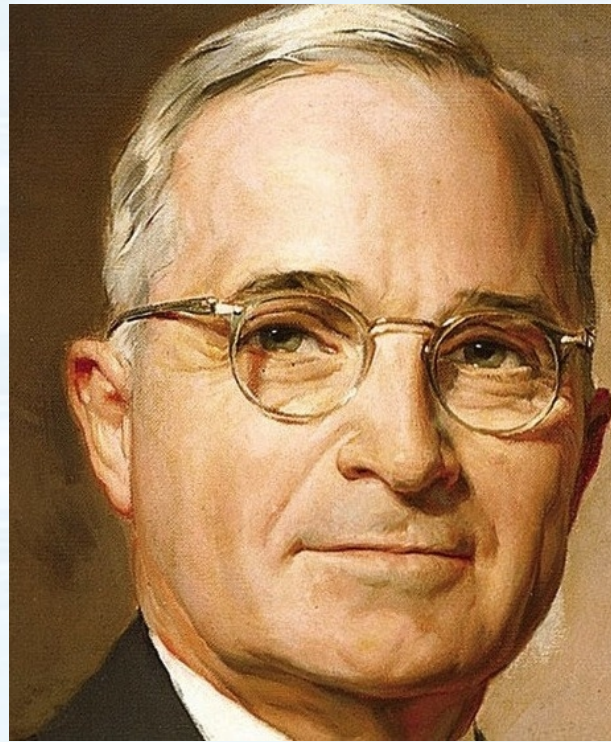


Multics: The First Fifty Years

- Bring up one or more Cloud Multics instances
- Conference (and call for papers) with a strong Multics (50 year) theme
- Text / User Guides to reinforce the conference and help run the Multics systems

Multics: The First Fifty Years

I cannot do this without your help



**It is amazing what you can
accomplish if you do not
care who gets the credit.**

- Harry S. Truman

Multics: The First Fifty Years

- Web presence at multics50.org
 - Web site will be up within a week
 - Email addresses for info and volunteering
 - Forum for general discussion

Thank You!!