



Open VMS Environments

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The rules

- Often, the best way to learn is by doing
- This “Hands-on” will be in the form of a “game”
- In this game, each attendee plays the role of a departmental administrator on a shared, multi-architecture OpenVMScLuster.
- There will be one overall system manager (either an attendee or one of the instructors)
- There will be a CIO, likely your lead instructor, who will make high level choices.

The scenario

- Business Organization with tens of departments
- Small (1-3) system management team.
- Imperative to reduce number of persons holding privileges from:
 - Corporate management
 - CIO (decentralization of responsibilities to the extent possible)
 - **Auditors (both company-hired and regulatory)**

The system

- Mixed Architecture OpenVMS Cluster
 - **ALFA** Alphaserver (courtesy of HP)
 - **VICTOR** VAXserver (courtesy of Nemonix)
 - **INDIA** Itanium (we couldn't arrange for one for this class, but the principles are the same --- OpenVMS is OpenVMS!)
- 100 Mbps IEEE 802.3 Network
- For convenience, the “user” disks reside on the Alphaserver (in a production environment, they would be on external storage controller, likely connected using FibreChannel).

The goal

- System management without privileges
 - Admittedly, some tasks require privileges
 - But such tasks are not the majority of system management
- Fine control of access to programs and data
- Division of responsibility

The tasks

- Customize user environment by department and/or applications
- Control user access to different nodes in the cluster
- Control access to files on an individual user basis
- Manage batch queues
- Manage print queues

Your accounts

- You will draw two index cards associated with your role:
 - The larger card is a “sign”, identifying your role in the game to your colleagues
 - The smaller card has the account information associated with that role.
 - The smaller card will have three additional accounts for each and every student:
 - A normal user account in your department
 - An account in a generic group other than your primary identity
 - An account in the IT group with rights needed to be an alternate departmental administrator

Your accounts

- Each account has three privileges:
 - **TMPMBX** – Temporary Mailbox
 - **NETMBX** – Network Mailbox
 - **OPER** – Operator functions
- None of the problems will require more than the above

A small scheduling note

- There are more problems in this collection than can be done in the 4 hours (with breaks)
- We are not going to rush. The rate at which we can do problems depends upon many elements, including class size
- We expect to finish approximately six problem sets

The problems

- Controlling logons – Group Logon Scripts
- Controlling access:
 - Data files
 - Applications
 - Queues

The mechanism

- Most system managers are fairly familiar with OpenVMS – classic security:
 - System (groups \leq **MAXSYSGROUP**, or **SYSPRV**)
 - Owner (the UIC of the object's creator)
 - Group (users whose group is the same as the creator)
 - World (users who are not members of the categories above)
- Fewer are familiar with Identifier-based security
- **Identifier-based security** will be used as our basis for implementing **authorized capabilities**. DCL and ACLs will be our tools for accessing and manipulating Identifiers.

The tools

- `F$GETJPI("", "RIGHTLIST")`
- `SET ACL ...`
- Rooted, concealed logical names
- Hierarchical directories

The logo for HP World 2004 features the text "HP WORLD 2004" in a large, white, serif font, with "Solutions and Technology Conference & Expo" in a smaller, white, sans-serif font below it. A large, glowing yellow and white swoosh graphic arches over the text. The background of the top half of the slide is a night-time photograph of a city skyline with illuminated skyscrapers.

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Questions?

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