Introduction To OpenVMS System Management

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How do you…?

- Boot a system?

- Shutdown a system?

- Install software?

- Add / modify / delete a user account?

- See what jobs are running on the system?

- Monitor the system?

- Print a file?

- Tune the system?

- Troubleshoot a system?

How do you…?

- See available disk space?
- Set up a print queue?
- Backup files?
- Get help?
- Mount or dismount a device?
- See the current directory?
- See how much memory the system has?
- See other items of the system?
- Communicate with the system's users?

How do you…?

- Modify the startup procedure?

- Modify the shutdown procedure?

- Format a device?

- Set up privileges?

- Schedule a job to run?

OpenVMS overview

- Single systems have one SYSUAF file. Cluster has one common SYSUAF file

- Add users to each S/A system. Add user just once to cluster.

- S/A system is shut down individually. Cluster can be shutdown all at once.

- Software is added to each S/A system. Software is added just once to the cluster.

- Getting help: $ help

- Help files are located in SYS$HELP.

OpenVMS overview

- Text editors: EDT & TPU.

- File System: Keeps multiple versions of a given file. Each file has a version number. Foo.bar;56

- No selection of shells. Modify process environment with symbols.

- No mount points. Logical names. Root logical name.

- "Root" privileges are usually given to accounts with UICs with a group less than 10 (octal).

How do you…?

- Boot a system?
  - >>> Boot dqa0: !boots from the cd-rom.
    - Older systems use other cdrom device names. >>> show device ! Gives the list of device names.
- Shutdown a system?
  - $ @sys$system:shutdown
- Install software & patches?
  - $ @sys$update:vmsinstal
  - $ PRODUCT subcommand product-name[/qualifier1,…]
  - $ PRODUCT show history * ! See what's been installed.

How do you…?

- Add / modify / delete a user account?
  - $ mcr authorize add username !or modify or remove
- See what jobs are running on the system?
  - $ show system
- Monitor the system?
  - $ monitor system

How do you…?

- Print a file?
  - $ print /queue=sys$print systartup_vms.com
- Tune the system?
  - Edit sys$system:modparams.dat with new values
  - Then invoke @sys$update:autogen to update the changes
    - Examine the .report file to see the result of the changes
  - Sysgen utility can be used as well; however changes may only be good for the current boot of the system.
- Troubleshoot a system?
  - $ analyze/system
  - $ analyze/disk_structure
  - $ show errors

How do you…?

- See available disk space?
  - $ show device d/full

- Set up a print queue?
  - $ INITIALIZE/QUEUE/AUTOSTART_ON=(node::[device:] [,...]) queue-name
  - For IP-attached queues, you manage them within the IP product (e.g., Multinet)

How do you…?

- Backup files?
  - $ backup mydisk:[mydir]myfile.dat tape:saveset/save_set/owner_uic=original
  - $ backup mydisk:[mydir]myfile.dat backupdisk:[*…]*.*/owner=original
  - $ backup/image mydisk: backupdisk:mydisk.bck/save_set !saves the disk
  - $ backup/image backupdisk:mydisk.bck/save_set mydisk:/initialize !restore the disk
- Mount or dismount a device?
  - $ mount/system dka0: research
  - $ dismount/nounload dka0:
- See the current directory?
  - $ show default

How do you…?

- See how much memory the system has?
  - $ show memory
- See other items of the system?
  - $ show users/full
  - $ show queue/all/batch
  - $ show queue/all/device
- Communicate with the system's users?
  - $ reply/all/bell "Please log off the system."

How do you…?

- See intruders?
  - $ show intrusion
- System files: operator.log, accountng.dat, security files.
  - Type operator.log/page
  - Accounting/full/since=yesterday
  - Show audit

How do you…?

- Modify the startup procedure?
  - Edit SYS$STARTUP:SYSTARTUP_VMS.COM
    and make the appropriate changes
- Modify the shutdown procedure?
  - Edit SYS$SYSTEM:SYSHUTDOWN.COM
- Format a device?
  - $ initialize dka0: research
- Set up privileges?
  - Via AUTHORIZE
  - Some of them are: OPER, SETPRV,CMKRNL
  - Default privileges versus Authorized privileges

How do you…?

- Schedule a job to run?
  - INITIALIZE/QUEUE/BATCH/AUTOSTART_ON=(node:: [,...]) queue-name
  - $ Submit/queue=queue_name/notify/after=15:30 my_job.com

Documentation titles

- DCL Dictionary

- System Manager's Manual: Essentials

- System Manager's Manual: Tuning, Monitoring, and Complex Systems

- System Management Utilities Reference Manual

- Guide to System Security

- Upgrade and Installation Manual

- New Features and Documentation Overview

- Release Notes

Documentation titles

- Some OpenVMS books on Amazon.com:
  - **Getting Started With OpenVMS: A Guide for New Users**
    by Michael D. Duffy
  - **Getting Started With OpenVMS System Management**
    by David Donald Miller
  - **OpenVMS System Management Guide**
    by Lawrence Baldwin, Steve Hoffman (December 2003)

Web sites for OpenVMS

- http://h71000.www7.hp.com/ - HP's OpenVMS page
  - See the OpenVMS primer for system managers
- http://h71000.www7.hp.com/doc/ - HP's OpenVMS Doc page (Via PDF, html, CD)
- http://www.neurophys.wisc.edu/www/comp/vax_users.html - Various links

Web sites for OpenVMS

- http://www.compinfo-center.com/tpvms-t.htm - Various links

- http://w4.lns.cornell.edu/~pvhp/vms-web.html - Various links

- http://www.openvms.org/ - For system admin's

- http://www.hp.com/go/openvms/journal - OpenVMS Technical Journal

Thank You

- For further information, you may contact me at sdedalto@digitask.com or 212-682-6652

- Our website is http://www.digitask.com

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