Cloning Linux Images on VM

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Preparatory Steps

- Step A: Divide filesystems by major hierarchy on separate minidisks (eg, /usr, /bin, /lib, etc on separate disks)
- Move writable files to /var/config/<*original location*> and symlink to original location.
  - Note: must be symlink as hard links cannot cross partitions
- Step B: Generate statically linked /etc/mount and /etc/ifconfig.
- Step C: Recode startup rc scripts to explicitly call static version of utilities when necessary.

Build the New Machine…

- Process:
  - Generate CP directory entry linking /usr, /bin, /lib, /etc as RO links to master copy
  - Add RW minidisks for root, swap, and /var
  - DDR initial root and swap from master copy to RW minidisks and IPL Linux.

Configure…

- Populate /var using initial tar file unpacked from /usr/setup/files to configure system as 192.168.1.2
- Allocate IP address and write CMS NAMES format file on configuration disk using a DVM
  - Hostname
  - IP address
  - Netmask
  - Default GW
  - Root password
  - Disk list.
- Export disk with CMS NFS to 192.168.1.2
- Shutdown/reipl of Linux

Final Configuration

- Mount configuration minidisk via NFS
- Modify /etc/rc.0 to look for /etc/rc.runonce
  - Uses hcp command to identify virtual machine.
  - Read config file written by DVM and deposit items accordingly in Linux config files.
  - Shutdown –r now

Next?

- Preconfigured pools of ids
  - Halt at 2nd reboot allows them to be created and then allocated at need with single write of CP directory and completion of the config file.
  - Use of a pooled id generates a CMS Batch job to create a new id in the background.
  - Cuts creation time to < 10 secs.