Sun Solaris Cheat Sheet

Compatibility note: This document is based upon Sparc Solaris 10

OBP

_ All the following commands are to be run from the OBP and not the OS. They are only valid on Sparc hardware that uses the openboot _rmware. The eeprom command can be used from the OS to view or set openboot _rmware variables.

Show the value of the auto-boot? variable
printenv auto-boot?

Set the system to not auto boot
setenv auto-boot? false

Restore the system default for auto boot
set-default auto-boot?

Show the default boot device
printenv boot-device

List the actual device path for the disk device alias
devalias disk

List all openboot variables, current, and default values
printenv

Show devices seen by openboot
show-devs

Show help on all OBP commands
help

Boot the system into single user mode from the CD ROM
boot cdrom -s

Boot the system into single user mode using the default device
boot -s

Reset the system
reset-all

Packages

Install the gcc package
pkgadd -d gcc-3.4.6-sol10-sparc-local

Check to see if gcc is installed on system
pkginfo SMCgcc /or/ pkginfo | grep gcc

Remove the gcc package
pkgrm SMCgcc

Check the installation of the gcc (SMCgcc) package
pkgchk SMCgcc

Show revisions of packages on system
showrev -p

Get expected _le info and source package for a _le
pkgchk -l -p /usr/sfw/bin/gcc

Verify all packages (and _les) on the system
pkgchk

Display information about a package
pkgchk -l SMCgcc

Display version information about an installed package
pkginfo -x SMCgcc

List all patches on the system
showrev -p /or/ patchadd -p

List patches applied to the SUNWckr package
pkgparam SUNWckr PATCHLIST

_ smpatch and updatemanager can be used to manage system patches.

Devices

Scan for new devices to the system
devfsadm

List (verbosely) all attachment points (con_gurable hardware)
cfgadm -val

List all disks on system
iostat -En

Tape unit { X = device number, n = no rewind
/dev/rmt/X n

_ The /dev directory contains links to /devices

_ (format) slice ags are:
wm { Writeable Mountable (ie: A _lesystem)
rm { ReadOnly Mountable
wu { Writeable Unmountable (ie: swap)

User Management

Add a user wfavorit to system (& create home dir) using default options
useradd -m wfavorit

View the default settings for the useradd command
useradd -D

Change the default useradd setting for base directory
useradd -D -b /export/home

Delete the password for user wfavorit, force new password on login
passwd -df wfavorit

List all user accounts that do not have passwords
logins -p

List _le system usage of the /zones _lesystem by user
quot /zones

Display login information for wfavorit
logins -x -l wfavorit

Change the default shell to ksh for user wfavorit
usermod -s /usr/bin/ksh wfavorit

Modify user accounts with usermod and delete accounts with userdel. Create group accounts with groupadd, modify group accounts with groupmod, and delete groups with groupdel

Files

/etc/vfstab { Filesystem mount table
/var/adm/loginlog { Log of login attempts
/etc/default/* { Important default settings
/etc/system { Kernel modules and con_g
/var/adm/messages { Syslog location
/etc/auto * { Automounter con_g _les
/etc/inet/ipnodes { IPv4 & v6 host _le (read before /etc/hosts)

ZFS

De_ne a (simple) zpool called projects on a single stripe
zpool create projects c0t1d0s7

De_ne a mirror zpool called datapool on stripe 7 of two disks
zpool create datapool mirror c0t0d0s7 c0t1d0s7

List the zpools and usage stats
zpool list

Remove the zpool called datapool
zpool destroy -f datapool

Create the zfs heirarchy / _lesystems
zfs create datapool/home

List all zfs _lesystems
zfs list

Limit the wfavorite _lesystem to 5 Gig
zfs set quota=5G datapool/home/wfavorite

Tasks

_ Force the system to look for new devices on restart
touch /reconfigure
_ Mirror root _lesystems (c0t0d0 to c0t1d0)
/, swap, /usr, and /var are on s0, s1, s3, and s4 respectively. s5 and s6 will be used for 10 meg metadb's on each disk. The steps are shown here with multiple reboots. This is to show the di_erence between each type of operation. Multiple reboots are not required.
. Duplicate c0t0d0's layout onto c0t1d0
prtvtoc /dev/rdsk/c0t0d0s2 | n
fmthard -s - /dev/rdsk/c0t1d0s2
. Set up two meta databases on each disk
metadb -a -f c0t1d0s5
metadb -a c0t1d0s6
metadb -a c0t0d0s5
metadb -a c0t0d0s6
Note: Multiple dbs can be put in a single slice using -c option.
. Encapsulate / on stripe 0
metainit -f d10 1 1 c0t0d0s0
metainit d0 -m d10
metaroot d0
lockfs -fa
shutdown -i6 -g0 -y
metainit d20 1 1 c0t1d0s0
metattach d0 d20
. Encapsulate /usr on stripe 3 (repeat this step for /var)
metainit -f d13 1 1 c0t0d0s3
metainit d23 1 1 c0t1d0s3
metainit d3 -m d13
vi /etc/vfstab (Put metadevices in place of slices)
shutdown -i6 -g0 -y
metattach d3 d23
. Encapsulate swap
metainit -f d11 1 1 c0t0d0s1
metainit d21 1 1 c0t1d0s1
metainit d1 -m d11
vi /etc/vfstab (Put metadevices in place of swap entry)
shutdown -i6 -g0 -y
metattach d1 d21
dumpadm -d /dev/md/dsk/d1
. Optional: Allow quorum at only 50%
vi /etc/system (Add line: set md:mirrored root flag=1)
. Setup \mirror" alias and boot-device setting in _rmware
ok nvedit
0: devalias mirror /pci@1f,0/pci@1,1/ide@3/disk@1,0
1: (Ctrl-C to exit)
ok nvstore
ok setenv use-nvramrc? true
ok setenv boot-device disk mirror
(This can also be done from the OS using the eeprom command.)
_ Restart the system
shutdown -i6 -g0 -y
_ HUP a process (myappsrv) by name
pgrep myappsrv (Use this to test your REGEX _rst)
pkill -HUP myappsrv
_ Turn on the system locator beacon (turn o_ with -f)
locator -n
_ Mount an ISO image (device /dev/lofi/1 may vary)
lofiadm -a /projects/solaris10 disk2.iso
mount -F hsfs -r /dev/lofi/1 /mnt
umount /mnt
lofiadm -d /dev/lofi/1
_ Check what _le system type is on metadevice d30
fstyp /dev/md/rdsk/d30

Other

_ smc is a graphical system management interface.

Networking

Show interfaces currently installed on system, speed, and duplex
dladm show-dev { (ndd can be used to adjust speed and duplex)
List network interfaces from the global zone only
ifconfig -aZ
Remove all host speci_c con_guration from the system (and restart)
sys-unconfig
_ Primary IP con_guration _les
/etc/hostname.interface
,! IP address for interface. Alternatively use ifconfig.
/etc/nodename
,! hostname for the system. Alternatively set with hostname.
/etc/defaultdomain
,! System domain name. (svcadm restart domain after change)
/etc/defaultrouter
,! gateway for the system. Alternatively set with route.
/etc/hosts
,! Linked to /etc/inet/hosts. For IPv4 addresses only.
/etc/inet/ipnodes
,! For IPv4 and IPv6 addresses. Should be in sync with hosts _le.
/etc/netmasks
,! This is not a symlink to /etc/inet/netmasks.
Temporarily set IP address on hme0
ifconfig hme0 plumb up 192.168.1.17 netmask 255.255.255.0
Temporarily create an alias on hme0 (hme0:1)
ifconfig hme0:1 plumb up 192.168.1.18 netmask 255.255.255.0
Create permanent alias on hme0 interface
echo 192.168.1.18 > /etc/hostname.hme0:1
Temporarily set the default route
route add default 192.168.1.1
Permanently add the same route as above
echo 192.168.1.1 > /etc/defaultrouter
Turn o_ tra_c on qfe3
ifconfig qfe3 down
Disable an Ethernet device (qfe3)
ifconfig qfe3 unplumb
List statistics on all interfaces on system
netstat -i
List all open ports on system
netstat -an | grep LIST
List all open TCP connections
netstat -f inet
Continuously ping a host
ping -s www.tablespace.net
_ Use the snoop command to capture network packets

NFS

_ Change startup parameters for the NFS daemon in /etc/default/nfs
Temporarily export /src directory
share /src
Permanently export by putting share command in /etc/dfs/dfstab
List all exported _lesystems (on local system)
dfshares /or/ showmount -e
Share all _lesystems listed in /etc/dfs/dfstab
shareall
Stop sharing all _lesystems (not just those in /etc/dfs/dfstab)
unshareall
List clients connected to NFS shares on this server
dfmounts
Soft mount the /proj directory from server paris
mount -F nfs -o intr,soft paris:/proj /proj
Show mount points on remote system called paris
showmount -e paris

Backup

Create snapshot of /var _le system using /u01 as a repository location
fssnap -F ufs -o backing-store=/u01 /var
Mount the previously created snapshot on /mnt
mount -o ro /dev/fssnap/0 /mnt
Delete the snapshot (repository will remain)
fssnap -d /var