

Solaris Admin Interview Questions & Answers

Question: According the SA-238 course book, the [Boot PROM](#) chip is permanently soldered to the main logic board (motherboard).

Answer : it can be replaced, but this think to be done by only SUN . they may give new ID number for that.

Question : What is the command to do an interactive boot from the ok prompt?

Answer: The Interactive [Boot Process](#):

At the ok prompt, type boot -a and press Enter. The boot program prompts you interactively

Answer 2:

After Power on,

press,

STOP+A

at the ok prompt type,

ok>boot -a

Question : Consider the following crontab entry: `?59 23 13 * 5 /wipe.disk?` What time will this cronjob run?

Answer : That means: on Black Friday, your [hard drive](#) will get wiped out.

==> (on 13th and Friday) 23:59, /wipe.disk will be running If the 13'th Day of the month is Friday, the [job](#) will run. (week day starts from Sunday day 1).

Question : How can i disable STOP+A utility on SUN machines, which brings system into OK> prompt???

Answer : in /etc/system set abort_enable=0 will disable STOP-A There are several ways to disable "STOP-A"

(1)Edit the /etc/default/kbd file

KEYBOARD_ABORT=disable

(2)Use the "kbd -a disable" command

(3) Edit /etc/system file

set abort_enable = 0

Question : How do we know how many LAN cards we have in server?

Answer : Just Type in the following command at prompt#`ifconfig -a`.That shall give the LAN Cards as well as total [Physical](#) and Logical IP Addresses `dmesg -` It displays all configured items on [systems](#).

Question : What is "Piping"?

Answer : piping:- sending the output of a command to the input of another is called piping.

some examples are:

```
$cal | wc
```

will output total line's,word's and character's

```
$cal | wc | wc
```

will output total line's,word's and character's

A unix pipe provides a one-way flow of [data](#).

For example, if a Unix [users](#) issues the command

```
$who | sort |lpr
```

then the Unix shell would create three processes with two pipes between them:

A pipe can be explicitly created in Unix using the pipe [system](#) call. Two file descriptors are returned--`filides[0]` and `filides[1]`, and they are both open for [reading](#) and writing. A read from `filides[0]` accesses the data written to `filides[1]` on a first-in-first-out (FIFO) basis and a read from `filides[1]` accesses the data written to `filides[0]` also on a FIFO basis.

When a pipe is used in a Unix command line, the first process is assumed to be [writing](#) to stdout and the second is assumed to be reading from stdin. So, it is common practice to assign the pipe write device descriptor to stdout in the first process and assign the pipe read device descriptor to stdin in the second process. This is elaborated below in the discussion of multiple command pipelines.

Question : Where are the templates stored that are copied into the user's home directories for their personal customizations?

Answer : /etc/skel

Question : Which NFS daemons are found on the NFS server?

Answer : nfsd
mountd
lockd
statd

nfslogd

These five daemons will be in [NFS server](#).

statd and lockd will be in NFS client too.

Question : What SPARC emergency keyboard sequence will take the system to the ok prompt (forth monitor) but will send output to TTYA?

Answer : stop+A

Question : What file controls [system](#) wide password aging?

Answer : /etc/shadow

Question : Which of the following can be an appropriate name for a cluster?

Answer : SUNWadm

Question : What flag used with patchadd will prevent a later back out by preventing patchadd from backing up files? If this flag is used, the patch cannot be removed.

Answer : You have to use the option "d" along with the patchadd command.
patchadd -d

Question : What file do you put the umask setting in?

Answer : The UMASK value for bourne and korn shell [users](#) can be modified system wide by editing the "umask" entry in the "/etc/profile" file. To change the default UMASK for the C [shell](#), modify the UMASK variable in "/etc/default/login" file.

Question : When using the admintool, the membership list for groups is separated by what?

Answer : commas

Question : Among the [applications](#) below, which one is not a client/server application?

Answer : cron

Question : What command will display the VTOC for disk c0t0d0s0?

Answer : prtvtoc /dev/rdisk/c0t0d0s0
PRTVTOC

Question : In order to save a template in /etc/format.dat, what two steps must occur?

Answer : name & save

Question : What command enables a printer?

Answer : enable

Question : Which of the following commands can tell you whether packets are being delayed or dropped on your network?

Answer : spray

Question : What file contains the location of the namespace configuration textfiles such as hosts.rev, named.local, etc..?

Answer : /etc/named.conf

Question : What file controls global variables for system wide values for the Bourne Shell?

Answer : /etc/profile

Question : Partition sizes can be set manually or from what configuration?

Answer : /etc/format.dat

Question : The hardware-level user [interface](#) that you see before the [operating system](#) has been started is called:

Answer : open boot

Question : Give the command that will display your default [boot](#) device.

Answer : the command would be
eeprom boot-device & not printenv as suggested

Question : How many different kill signals are there?

Answer : 47

EXIT HUP INT QUIT ILL TRAP ABRT EMT FPE KILL
[BUS](#) SEGV SYS PIPE ALRM TERM USR1 USR2 CLD PWR
WINCH URG POLL STOP TSTP CONT TTIN TTOU VTALRM PROF
XCPU XFSZ WAITING LWP FREEZE THAW CANCEL LOST XRES RTMIN
RTMIN+1 RTMIN+2 RTMIN+3 RTMAX-3 RTMAX-2 RTMAX-1 RTMAX

Question : What software install group do you need to select in order to load the compilers?

Answer : Devloper
sunwcplog

Question : The NVRAM is also soldered to the main logic board or motherboard.

Answer : It is a pluggable [IC](#) with yellow sticker on it, can be easily replaceble when it goes wrong.

Question : What command will install the patches: 123456-01 and 123457-01 if both are located in the /just.patches [directory](#)?

Answer : Check man for "patchadd"...

:)eNJOY

Question : What command can you use to display all of your groups?

Answer : On AIX You can use
groups -To Display full list
id -G - To display group id number

On [Solaris](#) you can use
groups - To display full list
id -a - To diaplsy full list of groups with group id numbers

Question : What field will cause the message Your password has expired to be displayed to the [user](#)?

Answer : The /etc/shadow file contains following fields.Login-id : Which indicates the username of that perticular user.Passwd : It Contains encrypted password.Lastchg : Indicates the number of days between 1-JAN-1970 and last passwd modification date.Min : Contains minimum no of days required between password changes.Max : Contains the maximum no of days the password is valid before the user's propted to enter a passwd at login.Warn : Contains the number of days the user is warn before the password expires.Inactive : Contains the number of inactive days allowed for that user before the user's [account](#) is locked. Expire : contains the [date](#) when the user account expires once exceeded. The user can no longer log in also it will display the message "Your password has been expired".

Question : What is the command for seeing a long listing of all the processes running on your [unix](#) box?

Answer : ps , ps -aux , ps -ef ,top

Question : What is sticky bit?

Answer : If a [directory](#) is writable and has sticky bit is set, files within directory removed or renamed only if one or more following is true:

- The [user](#) owns the file
- The user owns the directory
- The file writable by the User
- The user is "root"

chmod 1777 project_dir

The sticky bit is displayed as the letter t in the execute field for 'others'.

Sticky Bit is a permission bit that protects the files within a Directory. If the directory has sticky bit set, a file can be deleted by the owner of the file, the owner of the directory or root.

This Prevents a user from deleting other users files from public directories .

Question: How do you check the cron jobs of other [users](#), (as a super user)

Answer: The above would [work](#). You could also run: crontab -l Username

Question : What does this file /etc/path_to_inst contain and what is the importance of this file

Answer: /etc/path_to_inst contains each device, its instance name and number along with its [physical](#) name.

Question : What is the command can reconfigure devices with out reboot?

Answer: Either you can use

1.devfsadm

single command [solaris](#) 8 onwards in the backward we have to use

1.drvconfig

2.diskor tape..(Device type)

3. devlinks

then the device will configure properly.

Question : How to restore a corrupted file [system](#) or trouble shoot bad super blocks for a FS c0t2d0s5

Answer : get into single [user](#) mode from ok prompt by using the command below.

[boot](#) -s

use the newfs command to check the number of back ups for the superblock used.

use newfs -N to display the value for /dev/dsk/c1t1d0s0 as below.

```
newfs -N /dev/dsk/c1t1d0s0
```

use fsck command to fix the superblocks as below

```
fsck -F ufs -o b=75680 /dev/rdisk/c1t1d0s0
```

Now the blocks are replaced get to multiuser mode using init 3

[server](#) should boot fine.

Question : How will you add a virtual IP address to a server. Given the [interface](#) **qe0** and IP **10.10.1.150**

Answer : Syntax:

```
#ifconfig qe0:1 plumb
```

```
# ifconfig qe0:1 10.10.1.150 up
```

where "qe0" is an interface (e.g., le0) and N is a number between 1 and <MAX>. Removing the pseudo interface and associated address is done with "ifconfig qe0:1 10.10.1.150 down".

As with [physical](#) interfaces, all you need to do is make the appropriate /etc/hostname.qe0:X file.

Question : What are the different phases in boot process

Answer: [Boot](#) phases of Solaris Operating [Environment](#) are:

- 1.boot PROM
- 2.boot programs like bootblk,ufsboot
- 3.kernel initialization like loading modules
4. init phase

Question : How do you determine which Run Level the system is running

Answer : u can find out currently [system](#) run level

```
who -r
```

Question : How would you find out what version of Solaris is currently running?

Answer : Run the command showrev. There's a man page on showrev and there are switches to help you do whatever you're trying to do
Uname -r is the command to know the version of the OS and uname -s for the type of OS.

Question : What does reboot ?r do?

Answer : reboot -r (reconfigure the /dev & /devices)

Question : What is the difference between a probe-scsi and a probe-scsi-all?

Answer : Both these commands are run at obp (open [boot](#) Prom) probe-scsi will probe the internal scsi and probe-scsi-all will probe both internal and external scsi.

Maybe not the best explanation but not bad...The probe-scsi command [communicates](#) with all SCSI devices connected to on-board SCSI controllers.

The probe-scsi-all command additionally accesses devices connected to any host adapters installed in PCI [slots](#).

Question: What would a XIR signal do to a [server](#) and why would it be used?

Answer : XIR signal used by reset command in solaris.

reset (1M) allows you to reset one or more [domains](#) in one of two ways: reset the hardware to a clean state or send an externally initiated reset (XIR) signal. The default is to reset the hardware to a clean state. You will receive an error if the virtual keyswitch is in the [secure](#) position. An optional confirmation prompt is given by default. Refer to Chapter 6 in the System Management Services (SMS) 1.2 Administrator Guide for the Sun Fire 15K/12K [Systems](#) for more information.

An XIR signal (reset -x) also traps to low-level domain [software](#) (OpenBoot PROM or kadb), which retains control of the software. The domain must be rebooted manually.

Let me hope it will be useful info....

Question : How would you find out what kernel parameter SHMMAX is set to by one command?

Answer : using command call ndd

Question : What is after the VTOC on the root filesystem?

Answer: A solaris disk has an area called volume [table](#) of contents(VTOC) that stores information about disk structure and organization.

VTOC [stores](#) in 0th sector

After VTOC [Boot](#) Block is there from (1-15) sector

Question : What is difference between Process and Daemon?

Answer: A 'daemon' is a [software](#) process that runs in the background (continuously) and provides the service to client upon request. For example named is a daemon. When requested it will provide [DNS service](#). Other examples are:

xinetd (it is a super-daemon, it is responsible for invoking other Internet [servers](#) when they are needed)

inetd (same as xinetd, but with limited configuration options)

sendmail/postfix (to send/route [email](#))

Apache/httpd (web server)

'server process' run runs one time, when called by a daemon. Once done it will stop. For example telnetd (in.telnetd) or ftpd called from xinetd/inetd daemon . By calling server process from daemon you can save the load and memory. Use a server process for small services such as ftpd, telnetd

Question: How to install win xp after installing [solaris](#) for dual booting.....

Answer: I think "if you first installed [Solaris](#) then try to install XP, XP will overwrite the Solaris.Becoz XP is [single](#) boot, It is better to install XP first then install Solaris.."

Simple funda is First install [Workstation](#) then install Servers..

Question: You logged into the [system](#) using telnet.

As a system administrator, how would you figure out the system transaction is slow between the system you logged into and from the system you did [telnet](#) login?

Answer : you can simply use the time command on both systems.! For example:

```
time <<trans>>
```

out put will be like..

```
real 0m2.009s
```

```
user 0m0.000s
```

```
sys 0m0.000s
```

So, in actuality, It took a total of 2.009 seconds of my time to [watch](#) this command complete. But, as you can see, it used virtually no processing time.

For small transaction you may not find the much difference(sometimes no diff)

Question : Why we use / for mount any filesystem?

Answer: / represents the top most level of the OE [directory](#) hierarchy, therefore other sub directories have to be mounted under /

Question : What is the big difference between /dev/dsk and /dev/rdisk

Answer : In [Solaris](#) whenever you create a new slice using format command a raw [physical](#) slice or a Raw Device will be created which is addressed as /dev/rdisk/c#d#s# where # is the number for slice.

After formatting it with newfs command the slice will be addressed as /dev/dsk/c#d#s# which can now be used for mounting.

eg. newfs /dev/rdisk/c0d0s4

mkdir /oracle

mount /dev/dsk/c0d0s4 /oracle

After mounting /dev/dsk/c#d#s# is called as Block Device

/dev actually contains logical device names which are links (Shortcuts in windows terminology) to actual physical devices in /devices [directory](#).

Question : How many cpu's we can [connect](#) to a spark machine ?

Answer : Sun Fire 15K can have upto max of 106 processors

Question : How can we find RAM size in solaris [server](#) ?

Answer : #prtdiag command will help you to find the RAM size.

Question : How to configure mail [server](#) in sun solaris

Answer : 1. Install the sendmail recent package..

2. in /etc/mail/sendmail.cf file configure for localhost,mail server and [domain name](#).

3. Restart the sendmail service...

that's it .. getback to me if having any more doubt.

Question: How to find 32 or 64 bit [system](#) instances of OS?

Answer: On a 32-bit system, the two-part kernel is located in the [directory](#) /platform/?uname -m?/kernel.

On a 64-bit system, the two-part kernel is located in the directory/platform/?uname -m? /kernel/sparcv9

isainfo -b

the above command displays whether the processor is 32/64 bit

Question : When user login into solaris 8 it is repeatedly asking for username and

password.

What could be the reason and what files has to be checked to fix this and which log file we have to refer to know more details about the problem.

Answer: The user is existing in the /etc/passwd file and the [shell](#) is also properly configured and there is no specific [error messages](#) in the /var/adm/messages file.

Question : Which obp command has a premenent allais?

Answer: When NValias need is:

In case [system](#) can not boot from primary disk and it is needed to make another boot disk to access the [data](#) , nvalias command is used.

nvalias command makes the device alias and assigns an alternate name to a physical disk. Physical address of target disk is required which can be had by show-disk command on ok>.

```
ok> nvalias disk7
/iommu@f,e0000000/sbus@f,e0001000/dma@3,81000/esp@3,80000/sd2,0
```

The new aliased disk can be named as boot disk or can be used for booting by referring its name

```
ok> setenv boot-device disk7
```

```
ok>reset
```

or

```
ok> boot disk7
```

Question: 1) If in solaris 8 one [server](#) has more than one network interface cards, how do you determine which is primary?

2) In [solaris](#) 8 how do you determine how many Ram cards exist in a server and in which [slots](#) are they inserted?

Answer : You can find the information about your second question with "Prtdiag" command.

For first question, assume if you having Hme lan cards hme0 is primary, i am not sure about this, if its wrong please let me know right answer..

Solaris interview questions < COMMANDS >

1. **List the files in current directory sorted by size?** - `ls -l | grep ^- | sort -nr`
2. **List the hidden files in current directory?** - `ls -a1 | grep "^\."`
3. **Delete blank lines in a file?** - `cat sample.txt | grep -v '^$' > new_sample.txt`
4. **Search for a sample string in particular files?** - `grep .Debug.*.conf` Here **grep** uses the string `.Debug.` to search in all files with extension `.conf.` under current directory.
5. **Display the last newly appending lines of a file during appending data to the same file by some processes ?** - `tail .f Debug.log` Here **tail** shows the newly appended data into `Debug.log` by some processes/user.
6. **Display the Disk Usage of file sizes under each directory in current Directory ?** - `du -k * | sort .nr` (or) `du .k . | sort -nr`
7. **Change to a directory, which is having very long name ?** - `cd CDMA_3X_GEN*` Here original directory name is `.CDMA_3X_GENERATION_DATA..`
8. **Display the all files recursively with path under current directory ?** - `find . -depth -print`
9. **Set the Display automatically for the current new user ?** - `export DISPLAY=`eval 'who am i | cut -d"(" -f2 | cut -d")" -f1`` Here in above command, see single quote, double quote, grave ascent is used. Observe carefully.
10. **Display the processes, which are running under your username ?** - `ps .aef | grep Maheshvj` Here, `Maheshvj` is the username.
11. **List some Hot Keys for bash shell ?** - **Ctrl+I** . Clears the Screen. **Ctrl+r** . Does a search in previously given commands in shell. **Ctrl+u** - Clears the typing before the hotkey. **Ctrl+a** . Places cursor at the beginning of the command at shell. **Ctrl+e** . Places cursor at the end of the command at shell. **Ctrl+d** . Kills the shell. **Ctrl+z** . Places the currently running process into background.
12. **Display the files in the directory by file size ?** - `ls .ltr | sort .nr .k 5`
13. **How to save man pages to a file ?** - `man <command> | col .b > <output-file>` Example : `man top | col .b > top_help.txt`
14. **How to know the date & time for . when script is executed ?** - Add the following script line in shell script. `eval echo "Script is executed at `date`" >> timeinfo.inf` Here, `.timeinfo.inf.` contains date & time details ie., when script is executed and history related to execution.
15. **How do you find out drive statistics ?** - `iostat -E`
16. **Display disk usage in Kilobytes ?** - `du -k`
17. **Display top ten largest files/directories ?** - `du -sk * | sort -nr | head`
18. **How much space is used for users in kilobytes ?** - `quot -af`
19. **How to create null file ?** - `cat /dev/null > filename1`
20. **Access common commands quicker ?** - `ps -ef | grep -i $@`
21. **Display the page size of memory ?** - `pagesize -a`
22. **Display Ethernet Address arp table ?** - `arp -a`
23. **Display the no.of active established connections to localhost ?** - `netstat -a | grep EST`
24. **Display the state of interfaces used for TCP/IP traffic ?** - `netstat -i`

25. **Display the parent/child tree of a process ?** - `ptree <pid>` *Example: ptree 1267*
26. **Show the working directory of a process ?** - `pwdx <pid>` *Example: pwdx 1267*
27. **Display the processes current open files ?** - `pfiles <pid>` *Example: pfiles 1267*
28. **Display the inter-process communication facility status ?** - `ipcs`
29. **Display the top most process utilizing most CPU ?** - `top .b 1`
30. **Alternative for top command ?** - `prstat -a`

BEST OF LUCK
