A/UX: How to Create an NFS Kernel (9/94)

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Security: Everyone

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TOPIC ----------

How do you create an NFS kernel?

DISCUSSION ----------

For A/UX 3.0, to make a kernel that supports NFS, open the Command Shell window and enter this command:

newconfig nfs

If this is the first time that the Ethernet driver has been included in a kernel on this computer, newconfig displays the prompts that allow you to define the TCP/IP connection for this machine. Regardless of whether the computer has already been configured to connect to a TCP/IP network, the newconfig command also prompts you for information about NIS.

In addition to making a new kernel, the newconfig command enables nfsd, biod, mount, rpc.statd, and rpc.lockd in the /etc/inittab file. Enabling nfsd is required for the computer to be an NFS client.

When newconfig is done, increase the number of kernel memory buffers by running the kconfig command:

kconfig /unix

NMBUFS=1000

(CONTROL-D)

If the computer has 8 MB or less of physical memory, you should also increase the value of MAXCORE by entering this command while running kconfig:

```
MAXCORE=0x60000
```

If the computer has more than 8 MB of physical memory, the memory allocation routines in the kernel dynamically adjust the value of MAXCORE. The new values for MAXCORE and NMBUFS cause the allocation of more of the kernel memory buffers that NFS uses, which improves server performance.

Choose Restart from the Finder's Special menu. When A/UX is up, the computer should be an NFS file server.

To verify, log in and run ps to see that the appropriate number of nfsd processes are running. You can determine that number by checking the nfsd entry in the /etc/inittab file. The default number is 4.

If the nfsd processes are not running, check the nfsd entry in /etc/inittab and restart your computer again. Next, verify that the pathnames specified in /etc/exports can be mounted. To do so, enter this command:

```
showmount -e
```

This is an example of the response, assuming that the entry is /etc/exports on hostname1 is

```
/usr/catman -access=hostname2
```

The response would be

```
export list for hostname1:
/usr/catman -access=hostname2
```

Finally, check /etc/inittab to verify that the entries in your file match the entries shown here:

```
nfs3:2:wait:/etc/nfsd 4              # set to "wait" for NFS server

nfs4:2:wait:/etc/biod 4              # set to "wait" for NFS client

nfs5:2:wait:/etc/rpc.statd           # set to "wait" for NFS status monitor

nfs6:2:once:/etc/rpc.lockd           # set to "once" for NFS lock manager

nfs8:2:once:/etc/mount -at nfs > /dev/syscon 2>&1   # set to "once" for NFS
```

For additional information, refer to the A/UX Network System Administration manual.

Article Change History:
06 Sep 1994 - Major changes to article to describe process for A/UX 3.0.
31 Aug 1992 - Reviewed for technical accuracy.

Support Information Services

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