AUSPEX

1 Software Architecture Lab

Purpose

This lab is intended to familiarize you with the general software structure of the M2000 though hands-on experience. As we have not covered specific configuration procedures, the focus will not be on specific components but rather how the new components of the M2000 fit together on the software level.

Configuration

There are four systems available. Each is configured with one 100baseT interface, and will be paired with a Solaris client.

M2000 Name	M2000 IP	Client Name	Client IP
piaget	172.16.65.72	tehipite	172.16.65.75
edum2k1	172.16.65.50	thunder	172.16.65.47
edum2k2	172.16.65.73	deerhorn	172.16.65.74
edum2k3	172.16.65.51	doodad	172.16.65.46

Procedure

1. Halt the system with the halt command and power the system off. If you are working with a multi-node system, turn off all nodes.

2. Power on the system (again, all nodes if a multi-node system).

   Observe the boot process, paying attention to the following:

▲ The light on the SCI cards of the host and each E-box. At what point in time do they come on during the boot process?

▲ The messages on the LCD display on each E-box. What appears to be the main progression of the messages (three or so main steps)?

▲ The link light on the fast ethernet interface and on the hub to which it is attached. When does it come on, and does it come up green (100baseT)?

▲ The disk activity LEDs. When do disks appear to spin up?

▲ The boot messages on the console. How do these match up with the other items mentioned, and and anything else you might notice?

   You may find that the multi-node system requires a second boot attempt (power the host off and on). Why is this?

3. Once the system is up, log in as root, and issue a reboot command.

4. Observe the boot messages as the system reboots. Again pay attention to the items in step 2, and pay special attention to the difference in timing on this go-round. Is it different, and if so, why?

5. Once the system is up again, log in as root and verify that the afe0 interface is up as expected. Issue the "ifconfig -a" command to list the state of configured devices. The interface should be listed as up and running at 100mhz and half-duplex. You should be able to ping your client.

6. Issue the command "ps -elf | more". What looks familiar?

7. Investigate the /usr/AXbase directory tree. Again, what looks familiar?

8. Look at files in /etc/rcN.d/. What file is actually being called to perform all Auspex initialization?

9. Perform an hpreboot, and note the messages that display as the system is coming back up.

10. Bang on the sytem as you see fit. Feel free to consult the manpages. Remember that we will be back here tomorrow to perform the actual configuration tasks to make the system do something more impressive than impersonate a Solaris box.

Student notes