Understanding LED 581 in AIX 3.2 and 4.1

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About this Document

This document describes what happens during the time that LED 581 is shown during boot up and what may cause an indefinite hang on LED 581. This document applies to AIX 3.2 and 4.1 on a RISC System/6000.

What Happens During LED 581

LED 581 is shown during the time that the Configuration Manager ("/usr/sbin/cfgmgr -s") configures TCP/IP and runs "/etc/rc.net" to do specific adapter/interface/hostname configuration.

Much of what happens during this time depends on factors such as network traffic, valid network addresses, network access, network hardware/microcode, and the number and type of adapter/interfaces being configured. TCP/IP over some interfaces (token ring, for example) will wait for replies. If there are no replies, it will eventually timeout on the attempt and mark the interface as down. Nevertheless, this will take some time (possibly between three to ten minutes) or may hang indefinitely.

Problem Determination for LED 581 Hang

To verify that the methods and procedures run by /etc/rc.net are causing the LED 581 hang, boot in Service mode and move the /etc/rc.net file to /etc/rc.net.save. Then, reboot in Normal mode to see if the system continues past the LED 581 and allows you to log in. (Note: The above steps assume that neither DNS or NIS is configured.)

If you determine that the procedures in /etc/rc.net are causing the hang (that is, the system continued past LED 581 when you performed the steps above), the problem may be one of the following:

- Ethernet or token-ring hardware problems (this is the cause of the majority of 581 problems). Run diagnostics and check the error log.
- Networks not accessible. Check gateways, nameservers, and NIS masters for an "up" condition.
- Bad IP addresses or masks. Use iptrace or ipreport for problem determination.
- Corrupt ODM. Methods/rules need to be established via reconfiguration.
- Premature name or IP address resolution. Named, ypbind/ypserv, or /etc/hosts may need correction.
- Extra spaces at the ends of lines in configuration files. On the /etc/filesystems file, use the "vi" editor with the "set list" subcommand.
- Bad LPPs. Reinstall the LPP.

Reader's Comments

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