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HANFS Helpful Information

Special Notices

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> **Note:** The information in this document has **not** been verified for AIX 4.1.

About this Document

This document contains tips for setting up HANFS and resolving HANFS problems.

Sources of Information for HANFS Setup

- Communication Concepts and Procedures, GC23-2403, Chapter 12 — This document can be ordered from your local branch office. Chapter 12 has a complete description of how to install HANFS on your system.
- File /usr/lpp/hanfs/lpp.README — This file includes all changes that may apply to the chapter mentioned above. It also includes any specific instructions for your AIX OS level and HANFS LPP. It is important to refer to this document if you experience problems setting up HANFS.

Cases You May Observe During Configuration

- Cannot see the volume group on the primary, on the backup, or on both at the same time — Make sure you have the same major number on both the primary and backup. Run "ls -li /dev/HA1", where HA1 is the shared volume group, on both the primary and the backup. The "lvlstmajor" command will show you the next free major numbers on a system; you may need to use it on both systems to help you select the major number.
- Cannot select the integrated Ethernet card from HANFS SMIT menu — Make sure you have PTF U407099. (You can check for this PTF on your system with "lslpp -ah U407099".) You may see this problem if you are

using the integrated Ethernet card on your system (i.e., RISC System/6000 model 340).

- Cannot pick up all external disks in your HANFS string — Make sure you set a unique ID for each disk, including the internal disks on both primary and backup. Choose an ID in the range 0-5 for external disks. The "lsdev -Cc disk" command will list disks and their IDs. HANFS requires SCSI adapters with part number 31G9722 and adapter-to-device cables with part number 00G0959. Running HANFS with any other SCSI adapter cables can cause serious errors.
- The backup cannot take over — Make sure HANFS is running on the backup and the SLIP is working. The "lssrc -g hanfs" command will show status of hanfsd.
- SLIP is not working — Make sure you are selecting a valid tty for SLIP. SLIP must use one of the two serial ports on the system. To configure SLIP, run commands similar to the following example:

```
ifconfig sl0 down
ifconfig sl0 detach
ifconfig sl0 9.3.20.61 9.3.20.60 netmask 0xffffff00 up
slattach tty0
```

  In the above example, 9.3.20.61 is the source, 9.3.20.60 is the destination, and 0xffffff00 is the netmask. Set values specific to your configuration. You must also follow the same process for the other machine.

Cases You May Observe After HANFS is Running

- HANFS cannot redirect routing for the primary adapter when HANFS is brought up on the primary — You will need APAR IX35223. (You can check for this PTF on your system with "lslpp -A IX35223".)
- The "startsrc -g hanfs" command reports that HANFS started when it really did not — This indicates an invalid configuration. Run "smit hanfs" and check your configuration parameters under "Configure HANFS". Also make sure the hostname on the machine is the same as that in the /etc/hanfs file.
- The hanfs.log file contains the error message "hanfsd: Back-level SCSI adapter(s) detected." If they are using SCSI-2 Fast and Wide, APAR IX42625 must be installed. The APAR contains the code necessary to enable HANFS to run with SCSI-2 Fast and Wide adapters.
- Error code 231 is displayed in the HANFS log file — One or more SCSI adapters are down level. Use a SCSI adapter with part number 31G9722.
- Error code 233 is displayed in the HANFS log file — Cannot get valid configuration information because alternate hardware address was not set properly. On the BACKUP server, go to HANFS/configure devices/ network adapter, and choose the adapter that will back up the primary adapter. Make sure you have the hardware address of the primary adapter as an

alternate address. Also, make sure the same is done on the primary adapter.

- IX31659 - Description: HANFS DUPLICATE CACHE NOT HANDLED PROPERLY.
- IX28332 - Specifying HANFS output can hang HANFS daemon.
- On a network with heavy NFS activities, you may need to add "dupcachsize=1000" to /etc/hanfs file. 1000 should be good for up to 8 clients. In general, add 1000 for every 8 clients. This will increase the number of records the NFS server can cache for duplicate NFS requests from clients.

Notes

Fixes (PTFs) for AIX 3.2.5 and later can be downloaded via Internet with the FixDist service. For FixDist information and instructions, order fax number 1228 from 1-800-IBM-4FAX. If you don't have access to Internet or if your machine is at a pre-3.2.5 AIX level, you can request a specific fix number from 1-800-CALL-AIX. All other services from 1-800-CALL-AIX which are not Program Services require a software support contract.

If you work with AIX support on your problem, it is useful for you to provide the following:

- HANFS logfile that may capture the output of the error causing the problem.
- Small topology for your HANFS setup.
- How to recreate the problem.

For information on support available from the AIX Support Family and Program Services (IBM's base support for code-related problems), request these faxes from 1-800-IBM-4FAX:

1537 Overview of AIX Support
1760 Using Program Services
2464 The AIX Support Family

Reader's Comments

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If you need technical assistance, contact your local branch office, point of sale, or 1-800-CALL-AIX (for information about support offerings). These services may be billable. Faxes on a variety of subjects may be ordered free of charge from 1-800-IBM-4FAX. Outside the U.S. call 415-855-4329 using a fax machine phone.

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