AIX 3.2.5 /usr Client Installation

Special Notices

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Note: The information in this document is **not** applicable for AIX 4.1.

About this Document

Update of a /usr client to AIX 3.2.5 from a /usr server at AIX 3.2.5 may fail when the procedure in the AIX 3.2 Installation Guide is followed. Use this document to circumvent this problem.

Start with step 1 below if you have not yet updated the /usr server to AIX 3.2.5. Start with step 2 if you have already updated the server.

Procedure

1. If you have already updated the /usr server to AIX 3.2.5, skip to step 2. Otherwise, continue with this step.

   a. Back up the /usr server and all /usr clients prior to beginning the installation process. Refer to "Backing Up Your System" in the AIX Version 3.2 Installation Guide.

   b. Prior to updating the /usr server to 3.2.5, create a backup directory on the server containing programs and libraries necessary to update /usr clients in a later step.

      ```
      mkdir /usr/oldlib
      cp -p /bin/bsh /bin/ksh /lib/libc.a /lib/libcfg.a /usr/oldlib
      ```

   c. Log in to all /usr clients as root on the console.

   d. Update the /usr server to AIX 3.2.5 using the procedures provided in the Release Notes or PMP Installation Instructions.

   e. Now skip to step 3.

2. If you followed the procedure in step 1, skip this step and proceed with step 3.

   a. Disconnect one of your /usr clients from the network and reboot it with the key in the "Normal" position. The boot process will take much longer than normal, but the /usr client will boot using its local /usr file system.

If during the boot process, you experience the problem of a blank LED display, a white blank screen, and a hung machine, follow these steps:

1. On the server, create a file called "list" with the following lines:

   ```
   /usr/lib/methods/cfg_graphics
   /usr/lib/methods/cfg_mid
   /usr/lib/methods/cfg_sgabus
   /usr/lib/microcode/8ee3c.01.01
   ```

2. On the server, with a formatted diskette in the diskette drive, run

   ```
   cat list | backup -ivf /dev/rfd0
   ```

3. Using your older version of maintenance diskettes, boot the client in maintenance mode and run

   ```
   getrootfs hdisk#
   ```

   where # is 0, 1, 2, etc. and hdisk# contains rootvg.

4. On the client, check the /usr/lib/methods and /usr/lib/microcode directories to see if the files in "list" are indeed missing. If they are missing, then, with the diskette used in step 2. in the client diskette drive, run

   ```
   restore -x
   ```

   Check to make sure the files are restored.

5. You can now reboot with the network disconnected.

   Note: An alternative to disconnecting from the network is to run the following before rebooting:

   ```
   mv /sbin/net.info /sbin/net.info.bak
   ```

   This works because the algorithm for mounting /usr remotely depends on /sbin/net.info being available.

   Later, when you want to bring the machine back up with /usr mounted remotely, restore net.info before rebooting by running

   ```
   cp /sbin/net.info.bak /sbin/net.info
   ```

   b. Once the client has booted, reconnect it to the network, and log in as root on the console.

   c. Copy old versions of programs and libraries from the client to a formatted diskette by executing the following commands on the client.

```
mkdir /tmp/oldlib
cd /tmp/oldlib
cp -p /bin/bsh /bin/ksh /lib/libc.a /lib/libcfg.a .
ls | backup -ip
```

d. Restore the old versions of programs and libraries onto the server from the diskette created in step 2c.by executing the following commands on the server.

```
mkdir /usr/oldlib
cd /usr/oldlib
restore
```

e. Mount the /usr file system from the server by executing the following command on the client, substituting the hostname of the server.

```
mount -oro server_hostname:/usr /usr
```

3. Execute the following commands on the server to circumvent a problem in the /usr client update process.

```
mv /usr/lpp/msg/En_US/codepoint.cat /sbin
ln -s /sbin/codepoint.cat /usr/lpp/msg/En_US
```

4. The /usr client should still be waiting at the root prompt, but all commands attempted will terminate with a "Killed" message due to incompatibility between the running kernel and new libraries. If the client has crashed, use the following procedure to bring the client to this unusable state.

   a. Disconnect the client from the network and reboot it with the key in the "Normal" position. The boot process will take much longer than normal, but the /usr client will boot from its local /usr file system.

   b. Once the client has booted, reconnect it to the network and log in as root on the console.

   c. Mount the /usr file system from the server by executing the following command on the client, substituting the hostname of the server.

```
mount -oro server_hostname:/usr /usr
```

5. Build a 3.2.5 boot image on the /usr client and reboot the client by executing the following commands on the client.

   Note: Always let the bosboot command complete so that your ipldevice is not damaged. It may take a while to complete!

```
export LIBPATH=/usr/oldlib
/usr/oldlib/ksh /usr/bin/bosboot -ad /dev/ipldevice \
       -p /usr/lib/boot/netdisk.proto
reboot
```

   If you get an error message from bosboot stating that there is not enough space in /tmp, do the following:

   a. Reboot the machine to come up locally.

   b. Run

```
chfs -a size=+<num> /tmp
```

where <num> is a number of 512-byte blocks by which you want to increase the file system. (For example, "chfs -a size=+2000 /tmp" will increase /tmp by at least 2000 512-byte blocks.)

c. Go back to step 2b.

6. Update the client using the SMIT installation option "Install / Update This Client From Remote /usr".

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