Making a Tape Drive the Primary Dump Device in AIX 3.2

Special Notices

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Please use this information with care. IBM will not be responsible for damages of any kind resulting from its use. The use of this information is the sole responsibility of the customer and depends on the customer's ability to evaluate and integrate this information into the customer's operational environment.

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

Procedure

(There are references in this fax to another fax entitled "System Crashes in AIX 3.1 or 3.2". To receive this fax, order document # 1803 from 1-800-IBM-4FAX. Outside the U.S., the fax can be order by calling 415-855-4FAX from a fax machine phone.)

BE AWARE that if you set the primary dump device to be a tape drive, that the tape drive becomes a dedicated dump device. This means that YOU CANNOT USE THE TAPE DRIVE FOR BACKUP AND RESTORE PURPOSES while it is designated as the primary dump device.

1. Place a blank tape in the tape drive. (Make sure that it is not write-protected.)
2. Change the primary dump device, either via SMIT or with the command "sysdumpdev -P -p/dev/rmt0". To use SMIT, enter "smit", choose Problem Determination--System Dump-- Change Primary Dump Device, and enter "/dev/rmt0" as the "primary dump device".
3. Wait for the next dump to occur.
4. After the dump occurs (flashing 888s will appear in the LED), note the LED codes after the 888 (for example, 888-102-700-0c0-888). You will not be able to verify this dump with the crash command; that is why the LED codes are very important. If the LED code in the position of 0c0 in the example is something other than 0c0 or 0c4, you probably do not have a good dump.

Call defect support before sending this tape to us, and tell us what LED codes you have.

5. Remove the tape from the tape drive. Leaving room on the label for more information to be added later, write on it "dump file only" and the LED codes found in step 4.
6. Now, power the system off and back on.
7. Log in as root.
8. Place another blank tape in the tape drive. (Make sure that it is not write-protected.)
9. Run the following command to set the primary dump device back to /dev/hd7:

   ```
   sysdumpdev -P -p /dev/hd7
   ```

10. Run the following command to collect information to a temporary directory (/tmp/ibmsupt):

    ```
    /usr/sbin/snap -gfkD
    ```

    (If you get errors from the "snap" command, refer to the section ADDITIONAL SNAP INFORMATION, in the "System Crashes in AIX 3.1 or 3.2" fax. That fax can be ordered free of charge from 1-800-IBM-4FAX. The document number is 1803.)

11. Run the following commands to remove the dump.Z file from directory /tmp/ibmsupt/dump (since that is not the correct dump information; the correct dump information is on the first tape):

    ```
    cd /tmp/ibmsupt/dump
    del dump.Z
    ```

12. Copy the information in the /tmp/ibmsupt directory to tape:

    ```
    cd /tmp
    tar -cvf/dev/rmt0 ./ibmsupt
    ```

    Leaving room on the label for more information to be added later, label this tape "snap tar dump".

13. Verify the tape with

    ```
    tar -tvf /dev/rmt#
    ```

    In your output, you should see two lines that look similar to the following:

```
-rw-r--r--   0 0   791604 Dec 14 15:09:49 1992 ./ibmsupt/dump/unix.Z
-rw-r--r--   0 0     4327 Dec 14 15:08:51 1992 ./ibmsupt/general/errpt.out
```

Note that the size of unix.Z in this example is 791604 bytes. It is crucial that the unix.Z file does not have 0 bytes. If it does, something is wrong. In that case, you should not send this information to the support center. Double-check your steps, and write down any error messages that were dis-

played on the screen. Call the Austin AIX Support Center if you continue to get a 0 byte unix.Z file.

Although it is helpful if the size of errpt.out is something other than zero bytes, errpt.out is not as important as unix.Z.

14. With the following command, determine the block size used to back up the tape:

    ```
    lsattr -E -l rmt# | grep block_size
    ```

    Sample output:

    ```
    block_size  512 BLOCK size (0=variable length)  True
    ```

    Note the number where "512" is in this example. That number is the block size.

15. Add the following information to the label of both tapes:

    ```
    <customer name>
    <problem #, branch office #>
    tape block_size = xxx   (obtained in step 14.)
    ```

16. Send both tapes to:

    Note: Look at the "file Naming Convention" section of this document and name testcases accordingly.

    IBM Corp. / Zip 2900 / Bldg 42
    Attn: AIX Testcase Dept. J66S
    11400 Burnet Road
    Austin, TX 78758-3493
    Extension 3-4050

    Note: NO overnight delivery service delivers directly to bldg. 42, instead they are delivered to IBM Receiving. Please keep this in mind when choosing a delivery time.

    If you specify Saturday delivery you must first make special arrangements with an AIX Support specialist (1-800-225-5249 or 1-800-call-aix), otherwise there could be a delay of several days.

17. If you want the tape drive to remain the primary dump device, repeat steps 1 and 2.

If you need to use the tape drive for backups, you need to do the following step:

Change the primary dump device, either via SMIT or with the command "sysdumpdev -P -p/dev/hd7". To use SMIT, enter "smit", choose Problem Determination--System Dump-- Change Primary Dump Device, and enter "/dev/hd7" as the "primary dump device".

Note: *** If your system crashes (with 888s) while you are doing the backups, the dump will be written to /dev/hd7. (To tell whether the dump is good or not, refer to the section VERIFYING THE DUMP INFORMATION, in the "System Crashes in AIX 3.1 or 3.2" fax, which is document # 1803 from 1-800-IBM-4FAX.)

When you are done with your backups, if you want the tape drive to be the primary dump device again, repeat steps 1 and 2.

Reader's Comments

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