Collecting Data for HANFS Problem Determination

Special Notices

Information in this document is correct to the best of our knowledge at the time of this writing. Please send feedback by fax to "AIXServ Information" at (512) 823-4009.

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.

About this Document

This document assumes that you are working with AIX Support under one of the service options. For information on 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

Non U.S. Customers can requests documents by dialing (from a fax machine) 514-855-4FAX.

This document describes how to collect the data that AIX Support needs to better understand your HANFS problem. Please do the following as accurately as possible. Put the collected data in /tmp/XXXXX, where XXXXX is the problem number.

Collecting Data on the Primary Server

1. Make sure no clients are using any of the file systems serviced by hanfs. If you need the backup to take over when the primary stops, make sure both SLIP and the primary interface are detached on the primary server. Then stop hanfs with "stopsrc -g hanfs".
2. On the primary server, copy the output from the following commands to the XXXXX directory:

```
netstat -ni
netstat -nr
mount
lsdev -Cc disk
lsvg <HANFS volumegroup>
```

Also collect copies of these files:

```
/etc/hanfs
/etc/exports.hanfs
```

3. Make sure you have a logfile (/tmp/hanfs.log) in your hanfs configuration. On the primary server, start hanfs with "startsrc -g hanfs". Then collect the output from the following commands.

```
netstat -ni
netstat -nr
lsvg <HANFS volumegroup>
mount
```

Copy the logfile (/tmp/hanfs.log) to the XXXXX directory. Since hanfs was just started, the logfile will include any data collected when hanfs was started.

4. Collect a listing of all the hanfs selective fixes on the machine. You can find a listing of these fixes in smit, or you can run "lslpp -haB |pg" and note all the selective fixes under hanfs.obj.

Collecting Data on the Backup Server

1. On the backup server, stop hanfs with "stopsrc -g hanfs". Stopping hanfs on the backup will not effect users if the primary server is running.
2. On the backup server, gather the output from the following commands:

```
netstat -nr
netstat -ni
lsdev -Cc disk
lsvg <HANFS VolumeGroup>
```

Also collect copies of these files:

```
/etc/hanfs
/etc/exports.hanfs
```

3. If the problem is with the backup taking over from the primary, execute the following steps:
   a. Start hanfs on the backup with "startsrc -g hanfs".
   b. Make sure you have a logfile available. Then shutdown the primary server machine so that the backup will try to take over.
   c. After the backup takes over, or after a problem occurs, collect output from the following commands:

```
netstat -ni
netstat -nr
lsvg <HANFS VolumeGroup>
mount
```

Also copy the logfile (/tmp/hanfs.log or the proper logfile).

4. If the problem is with hanfs not starting on the backup, do the following:
   a. Start hanfs on the backup with "startsrc -g hanfs".
   b. Collect the same data as in step 3 above.
5. Collect a listing of all the hanfs selective fixes on the machine. You can find a listing of these fixes in smit, or you can run "lslpp -haB |pg" and note all the selective fixes under hanfs.obj.

Sending Information to the Support Center

Please include a README file in /tmp/XXXXX with some description of the network topology. Also, make sure all the data you collected is in /tmp/XXXXX.

1. Compress and tar the whole /tmp/XXXXX directory with

   ```
   tar -cvf- XXXXX | compress > XXXXX.tar.Z
   ```

2. Tar the compressed tar file to a diskette or tape:

   ```
   tar -cvf /dev/(device) XXXXX.tar.Z
   ```

3. Please label the media with the problem number, the branch office number, and the command used to put the data on the media. Then send the tape or diskette by one of the methods in the following section.

Methods for Sending Information

Standard Mail or Overnight Delivery

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.

Internet

Service Use Agreement

International Business Machines Corporation
Internet Testcase Delivery Service
Service Use Agreement

This is a legal agreement to which you are consenting to be bound. If you do not agree to all of the terms of this license, do not use the service.

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Email Via Internet

Relatively small testcases can be sent via e-mail to aasc@austin.ibm.com. The allowable size of the testcase depends mostly on intermediate mail gateways. It is generally not advisable to send tescases larger than approximately 4MB via e-mail. Testcases sent via e-mail in the correct format are automatically processed, making them almost immediately available for analysis. See the "File Naming Convention" section of this document for more details.

FTP Via Internet

Sample file names for the tarred and compressed files:

```
ad1000.tar.Z          (item number.tar.Z)
1x234.001.tar.Z       (problem_report_#.branch_office_#.tar.Z)
1x234.1234567.tar.Z   (problem_report_#.customer_#.tar.Z)
```

FTP it to our testcase repository:

```
ftp 198.17.57.67       (or "ftp testcase.boulder.ibm.com")
login:  anonymous
password:  <your complete email address>
          (e.g., "customer@wallyworld.com")
bin                     (change to binary transfer mode)
cd aix
put 1x234.001.tar.Z   (for example)
ls -l
quit
```

File Naming Convention:

Note: Testcases should be archived into a compressed tar archive using relative path names. If FTPing, Do not create a separate directory on the testcase server.

Use of the following naming convention will allow our tools to automatically move the testcase to the proper directories and update the PMR to indicate that the testcase is available. Failure to use this naming convention could cause delays in processing the testcase.

If the testcase files cannot be associated with an existing PMR or XMENU item, they will be tagged as lost and eventually deleted.

Testcases associated with PMRs

```
ppppp.bbb.ccc.tar.Z
     |   |   |   | |
     |   |   |   | Indicates that the archive is compressed.
     |   |   |   | If you have the gzip command available,
     |   |   |   | this will be .gz rather than .Z.
     |   |   |   |
     |   |   |   Indicates a tar archive.
     |   |   |
     |   |   The 3 character country code.
     |   |   (May be omitted if the country code is 000.)
     |   |
     |   The 3 character branch office number.
     |
    The 5 character PMR number.
```

Testcases associated with XMENU items

```
xxxxxx.tar.Z
     |   | |
     |   | Indicates that archive is compressed.
     |   | If you have the gzip command available,
     |   | this will be .gz rather than .Z.
     |   |
     |   Indicates a tar archive.
     |
    The XMENU item number.
```

Creating a Compressed tar Archive

Testcases should be archived into a compressed tar archive using relative path names. The following is an example of how to create a compressed tar archive.

- Place the testcase files into a separate directory using commands similar to those in the following example. In this example, we'll use a directory named /tmp/testcase.

```
cd /tmp
mkdir testcase
cp file1 file2 file3 testcase
```

- Execute one of the following commands to create the compressed tar archive. Using the gzip command (if available), will generally produce a significantly smaller file.

```
With the gzip command:
tar -cf- testcase | gzip -9 >9x999.999.999.tar.gz
Without the gzip command:
tar -cf- testcase | compress >9x999.999.999.tar.Z
```

Testcases should be archived into a compressed tar archive using relative path names. The following example will uuencode and send the compressed tar archive created in the previous section. You should substitute the correct filename when sending your testcase.

```
| uuencode 9x999.999.999.tar.gz 9x999.999.999.tar.gz | \
| mail -s "AIX_Testcase:9x999.999.999.tar.gz" aasc@austin.ibm.com
```

VM (IBM Internal)

Reminder: If you have absolutely no other available electronic method of sending a testcase, you can send it through VNET. This method only works for IBM internal customers. It is not automated, which could cause delays in testcase processing. **FTP is the preferred method for sending testcases**.

The testcase should be combined into a single compressed tar archive and uploaded in BINARY format.

Please name the file PPPPPBBB TARZBIN, where PPPPP is the PMR number and BBB is the branch office number (without the "b").

node = AUSVMR userid = V3DEFECT

Reader's Comments

Please fax this form to (512) 823-4009, attention "AIXServ Information". You may also e-mail comments to: elizabet@austin.ibm.com. These comments should include the same customer information requested below.

Use this form to tell us what you think about this document. If you have found errors in it, or if you want to express your opinion about it (such as organization, subject matter, appearance) or make suggestions for improvement, this is the form to use.

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.

When you send comments to IBM, you grant IBM a nonexclusive right to use or distribute your comments in any way it believes appropriate without incurring any obligation to you.

Note: If you have a problem report or item number, supplying that number may help us determine why a procedure did or did not work in your specific situation.

Problem Report or Item #: Branch Office or Customer #:

Be sure to print your name and fax number below if you would like a reply:

Name: Fax Number:

01/31/96

END OF DOCUMENT (hanfs.debug.tcp)