Manual Recovery Of An Informix Database On A Redundant Picture Perfect Server That Will Not Startup As Backup

Last Modified on 10/06/2022 4:18 am EDT

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Procedure Steps

Note: Prior to executing these procedures:
- Contact local Database Administrator and local IT and confirm this procedure can be executed
- Make a backup of the current database

Description

Primary - "The Picture Perfect Server that is running in Primary mode"
Backup - "The Picture Perfect server that is being recovered and will run as backup"

NOTE: If the system has experienced a failover, and the Backup Server has become the New Primary Server, you must bring up the failed server as the Backup Server.   This insures that you do not lose any activity history being generated by the New Primary Server. Once both servers have been brought back online successfully, a controlled failover can be executed to return the servers to their original role (Primary/Backup).

For all commands listed, the prompt at the start of the line will indicate which system user should execute each command:

– commands to be executed as *root*
$ – commands to be run as *ppadmin*

Procedure Steps

On the server running as the Primary Server, login as root and validate that Picture Perfect is running in the correct mode.

Run the profile for root:
. /cas/sbin/profile

tpsmode

tpsmode command should return: **Primary**
This indicates that the server is running Picture Perfect in "Primary" mode.

2.	Cleanup the /ppbackup/db/ directory by removing all Logical Logs and zeroing out the *ifxDBArch* file on the Primary Server

NOTE: Do not **remove** the ifxDBArch file; just zero it out as indicated below.

On Primary Server, run the following commands as root:

		Navigate to the /ppbackup/db/ directory:
	# cd /ppbackup/db

	 Delete all logical logs in the directory:
	# rm -f ifxDBLogical*

	 Zero out the ifxDBArch file:
	# >ifxDBArch

	 List files in the directory:
	# ls -l
At this point, look at the file listing and verify the following:
·	There should see no Logical Logs (filenames that start with *ifxDBLogical_Log*).
·	The only file present should be *ifxDBArch*.
·	*ifxDBArch* should have a file size of 0 bytes.

	Cleanup the /ppbackup/db/ directory by removing all Logical Logs and zeroing out the *ifxDBArch* file on the Backup Server

NOTE: Do not **remove** the ifxDBArch file; just zero it out as indicated below.

On Backup Server, run the following commands as root:

		Navigate to the /ppbackup/db/ directory:
	# cd /ppbackup/db

	 Delete all logical logs in the directory:
	# rm -f ifxDBLogical*

	 Zero out the ifxDBArch file:
	# >ifxDBArch

	 List files in the directory:
	# ls -l
At this point, look at the file listing and verify the following:
·	There should see no Logical Logs (filenames that start with *ifxDBLogical_Log*).
·	The only file present should be *ifxDBArch*.
·	*ifxDBArch* should have a file size of 0 bytes.

On the Primary Server, create a new Archive of the Database.

Change user from root to ppadmin
su - informix

Run the profile for ppadmin
$. /cas/bin/profile

Use the ontape command to create a new backup [0 = Zero]
$ontape -s -L 0
Screen will display:
Please mount tape 1 on /ppbackup/db/ifxDBArch and press Return to continue ...

Hit the Return key.

The following will display as the archive is being created:

10%
20%
40%
80%
100%

Exit from the ppadmin user session to return to root
$exit

Transfer new *ifxDBArch* file from the Primary Server to Backup Server

On the Primary Server, as the root user, navigate to the /ppbackup/db/ directory:
cd /ppbackup/db
b.
scp -p ifxDBArch :/ppbackup/db/

EXAMPLE: In a configuration where the Backup Server is named *pphost2*
scp -p ifxDBArch pphost2:/ppbackup/db/

The screen will display the progress on the file transfer as a percentage:
ifxDBArch 3,430Mbs   42345 10%

Once the archive file has completely transferred you are done working on the Primary Server.

On the Backup server as the root user

Navigate to the /ppbackup/db/ directory
cd /ppbackup/db

List the directory contents
ls -l

Validate that the *ifxDBArch* file on the Backup Server matches the size and date of the *ifxDBArch* file on the Primary Server. If these are not the same, return to Step 6 and transfer the file from the Primary to the Backup again.

Validate that the owner/group of the *ifxDBArch* file is informix:informix and the permissions are 777 (-rwxrwxrwx). If these are not properly set, use the Unix commands chown and chmod to properly set the owners/permissions.

Now you can recover the database Archive.

On the Backup Server, as root, ensure that informix is not running.

Run root profile
. /cas/sbin/profile

Run cleanmachine
cleanmachine

Run cleanmachine a 2nd time to ensure there are no active Shared Memory or Semaphores
cleanmachine

Change user to ppadmin
su - ppadmin

Run the profile for ppadmin
$. /cas/bin/profile

Run the ontape -p command to recover the database archive
$ ontape -p

The output will list the databases that will be restored from the archive.

You will be asked three questions:
Continue with restore? Y/N
Answer: **YES**
Do you want to backup Log files? Y/N
Answer: **NO**
Do you want to recover level 1 archives? Y/N
Answer: **NO**
When you get the command prompt back exit to root and run "cleanamachine" again, twice

Exit to root

$ exit

Run root profile
. /cas/sbin/profile

Run cleanmachine
cleanmachine

Run cleanmachine a 2nd time to ensure there are no active Shared Memory or Semaphores
cleanmachine

Change the database mode to secondary

Change to ppadmin user
su - ppadmin

Run the profile
$. /cas/bin/profile

Change the mode of the database to secondary
$ dbmode -m secondary -h

EXAMPLE: In a configuration where the Primary Server is named *pphost1*
dbmode -m secondary -h pphost1

When this completes, verify the database mode
$ dbmode -iv

This may take a minute to display. When the system returns the database information, validate that the Replication Mode is "Secondary".

EXAMPLE:
Local Hostname .... :
Online status .... : Online
Replication Mode .... : Secondary
Remote Hostname .... :
Last Logical Log ID Number .... : 198
Last Logical Log Page Number ...... : 10741
Checkpoint Logical Log Position ... : 0xa5b56b4

If the database is in Secondary mode, proceed.

Run cleanmachine and start the database on the Backup Server

Exit to root
$ exit

Run the root profile
. /cas/sbin/profile

Run cleanmachine
cleanmachine

Run cleanmachine a 2nd time to ensure there are no active Shared Memory or Semaphores
cleanmachine

Change to ppadmin
su - ppadmin

Run the ppadmin profile
$. /cas/bin/profile

Start the database
$ oninit

Check the status of the database and start Picture Perfect on the Backup Server

Run onstat -g dri to validate database status
$ onstat -g dri

SAMPLE OUTPUT:
IBM Informix Dynamic Server Version 11.50.UC8X4GE – **Fast Recovery** -- Up 0 days 22:17:24 -- 759924 Kbytes

Data Replication at 0x37087018:
Type   State   Paired server   Last DR CKPT (id/pg)   Supports Proxy Writes
secondary   on   pphosta   -1 / -1   NA

Run this command every 30 seconds until the text that reads **Fast Recovery** changes to **Updateable**. Once the database is updateable you can start Picture Perfect on the Backup Server.
Start Picture Perfect redundant on the Backup Server
$ pprscmd start backup

Applies To
Picture Perfect Redundant systems using an Informix database.

Additional Information
None

Applies To

Picture Perfect System

Additional Information