NetBase Release Notes
Version 9.7
May 1997

Requirements:

- Requires MPE/ix 5.0 or later.

- Only supports NetBase Global Installs. Account installs are no longer supported with the 9.7 Release.

- MPE/V systems are not supported with the 9.7 Release. The last supported release of NetBase for MPE/V is 9.6.

Enhancements:

Shadowing

- Integration of NetBase with TPS (Third Party Shadowing). Using TPS means that shadowing is faster and more reliable. This also makes the handling of Dynamic Transactions (DBX calls) much easier.

- NetBase interface with MPEX. This interface is to allow the safe use of MPEX in a shadowing environment.

Installation

- When the "INSTALL OMNIDEX" option is used with NBINST, a new CM segment is now added to RTMSL. The file CMOMNI.USL.NETBASE contains a segment called DISC'SW'TO'SYS which allows for CM programs calling the Omnidex procedures to switch to the NetBase Native Mode Omnidex procedures. This library was provided by DISC.

- A new file called, SLEXCLUD.DATA is now read by NBINST during installation. This file can contain the names of Third Party segments that you do not want added to RTMSL.PUB.SYS. The most common entry in this file is VESOFT@ to prevent NetBase from adding all of the VESOFT segments to RTMSL.PUB.SYS.

Configuration

- Increased the maximum users (Local + Remote) to 3192. Increased local user maximum to 2048 in NBCTRL.

- Removed many unused NBCTRL CONFIG options including all references to Account Installs and the LIMIT options.

- When the NetBase job is started, if the EOF of NBM.IPC is 0 and there are no accessors, NBCOP will "trim" the NBM file returning any unused disc space.

General

- NetBase Application Tracing now traces the COMMAND and HPCICOMMAND intrinsics.
- NBCOP is now a native mode program.

Bug Fixes:

- Fixed Editor aborting when texting remote files. (Fixed in 9.7m Upd 2 of the shell)
- Added support of Oracle Gateway for shadowing (Fixed in 9.7m Upd 2 of the shell)
- Fixed “Final Disposition Option” on HPFOPEN (Fixed in 9.7m Upd 2 of the shell)
- Fixed problem where NBIMPORT would not roll to next IQ file if NBPOST was reading from the same IQ file. (Fixed in 9.7 Upd 4 of NBIMPORT)
- Fixed the truncation of dataset names in DBEXPLAIN (Fixed in 9.7n Upd 2 of the shell)
- Fixed addition of additional FOPEN/FCLOSE in stdlists (Fixed in 9.7n Upd 2 of the shell)
- Fixed problem with Editor and modify remote files via NFA. The error in EDITOR was FCLOSE FAILURE (0) END OF FILE. (Fixed in 9.7n Upd 2 of the shell)
- Fixed problem of NBEXPORT returning to Default Queue whenever a SHOW EXPORT command in NBCTRL was executed. Now the SHOW EXPORT command will not reschedule the processing queue of NBEXPORT. Also, now allow numeric values for Default and Upshift Priorities for Export.
- NBPOST was modified to only allow 120 open databases at a time. If NBPOST is receiving transactions for more than 120 different databases, it will use a least recently used algorithm to close the databases that have not received any recent transactions. Fixed in 9.7 Upd 7 of NBPOST.
- Fixed problem with NBPOST aborting with a Data Memory Protection Trap in a PostUserExit if either the OLDDATA or NEWDATA parameters were accessed when no data was present. Fixed in 9.7 Upd 8 of NBPOST

NetBase and TPS (Third Party Shadowing)

Technical Overview

Requires IMAGE version C.06.13. In order to get this version of IMAGE, the following patch must be ordered from HP, Patch id TIXJX36. The patch can be ordered by calling the HP Response Center and ordering it by the patch id. At this time, the patch will not be part of the MPE/ix 5.5 release but may be incorporated into a power patch at a later date.

HP has added TPS (Third Party Shadowing) to IMAGE. This means that for every IMAGE DBPUT, DBUPDATE, or DBDELETE, NetBase will be called from within the IMAGE transaction. The advantage to NetBase is that

1) The write to the NBM file is a part of the IMAGE transaction,
2) Since IMAGE single threads the puts and deletes we no longer need to use SYNC@ files to synchronize the writes to the NBM file
3) Since IMAGE is passing the full preimage and postimage, as well as the record number, NetBase no longer needs to make IMAGE calls in order to build the shadow record. This eliminates the need for NetBase to do the additional DBOPEN Mode 5 on a database that is being shadowed.

The NetBase TPS procedures are in an XL named XLNETBSE.PUB.SYS. The file is created during the NetBase installation job.

With TPS Shadowing the ;SYNC option on FILE statements on the Master and the ;DBX option on SHADOW statements on the Shadow system are obsolete and not required.

Because the convention with a third party interface is that the third party interface returns errors in a range of n000-n999, NetBase has changed the error number returned if a fatal error occurs. In previous versions of NetBase, fatal errors were in the range 9001/9153. Now, NetBase fatal errors are in the range, 1801/1954 where the number minus 1800 corresponds to the NetBase fatal error number printed on the console.

DBUTIL has been changed to make it possible to enable or disable a database for TPS. If TPS is enabled on a database, but the database is not in the NetBase directory, shadowing will not occur. If a database is in the NetBase directory, but it is not enabled for TPS, shadowing will occur as it did in previous versions of NetBase.

Enabling a database for TPS

The first time that a database is enabled for TPS, it must be enabled programmatically via a utility called NBTPSUTL. The utility, NBTPSUTL, will TPS enable the database specified in the INFO string, or TPS enable all the databases listed in a file that is specified in the INFO string. This utility only enables a base for TPS. After a database has been enabled via the NBTPSUTL program, DBUTIL must be used to disable a database for TPS. DBUTIL can also be used to re-enable it.

The utility is run:

RUN NBTPSUTL;INFO="[^]name"

where name is the name of a database or, if preceded
by a carat (^), the name of a file containing
a list of databases

The program prints a message for every database that the program attempts to TPS enable. For example:

RUN NBTPSUTL;INFO="^BASELIST"

VISTA.DATA now enabled for TPS
BANNER now enabled for TPS
SWADB already enabled for TPS

END OF PROGRAM

A database can be enabled for TPS using DBUTIL. The command in DBUTIL is "ENABLE <database> FOR SHADOWING". To disable a database for shadowing enter "DISABLE <database> for shadowing". To display the current state of a database with regard to TPS enter "SHOW <database> FLAGS".

:DBUTIL.PUB.SYS
HP30391C.06.14 TurboIMAGE/XL: DBUTIL (C) COPYRIGHT HEWLETT-PACKARD COMPANY 1987

>>SHOW BANNER.DATA FLAGS
  For database BANNER.DATA

  Access is enabled.
  Autodefer is disabled.
  Dumping is disabled.
  Rollback recovery is disabled.
  Recovery is disabled.
  ILR is disabled.
  Mustrecover is disabled.
  Logging is disabled.
  Prefetch is disabled.
  Indexing is disabled.
  HWMPUT is disabled.
  Restart is disabled.
  Database last stored on SAT, FEB 15, 1997, 9:37 AM.
  Database has been modified since last store date.
  Shadowing is enabled for Netbase.
  Subsystem access is READ/WRITE.
>>

Implementing TPS Shadowing

If currently shadowing IMAGE databases with NetBase, follow the steps below for implementing TPS shadowing:

_____ 1. Install the Patch from HP which provides TPS shadowing.

_____ 2. Select the databases to be used for TPS.

_____ 3. Quiet the databases that are being shadowed - get the users out of the databases.

_____ 4. Flush any shadow transactions.
:RUN NBFLUSH.PUB.NETBASE,STOPWAIT;PARM=shadownode#

_____ 5. Enable the databases for TPS shadowing using NBTPSUTL.PUB.NETBASE
:RUN NBTPSUTL.PUB.NETBASE;INFO="DBNAME" OR INFO="^LIST"

_____ 6. Remove the ;SYNC option from the FILE statements in the NetBase directory.

_____ 7. Start the posting process on the shadow system
:RUN NBCTRL.PUB.NETBASE;INFO='START POST"

_____ 8. Allow users access to the databases on the Master system.

Note:
If you are currently shadowing with Dynamic Transactions (DBXBEGIN, DBXEND, DBXUNDO) and are using the ;DBX option on your SHADOW statements, you must RESYNC before you can begin using TPS shadowing. This is because with the previous implementation in NetBase we did not maintain an exact physical copy for DBX databases. Now with TPS we can maintain an exact physical copy.