![NetEx - Network Executive Software logo]

H321 Bulk File Transfer (BFX™)
for HP-UX Systems

Release 3.1 N1B2

Memo To Users

June 7, 2000

Introduction

This product implements the Network Executive Software H321 Bulk File Transfer (BFX™) utility for HP9000 series computers running the HP-UX operating system. It has been tested on HP9000 Series 800 computers.

This document should be reviewed carefully prior to installation of H321.

Service Notes

- This release is targeted to a HP-UX B.11.00 running either a 32- or 64-bit version of the operating system.

- This release introduces large file support (> 2GB).

- The release has been repackaged to be installable using 'swinstall' or 'sam'. The only source code included is that which is necessary for the installation of user written block or record modules.

- A startup file 'S981bfx' has been added to '/sbin/rc2.d' to automatically start bfxjs after a system boot.

- This release of BFX attempts to conform to HP's version of the OSF/1 file system layout. This is documented in the HP publication 'HP-UX 10.0 File System Layout Whitepaper'. This required that all of the files for BFX and related applications be moved. The system default path is modified to include '/opt/bfx' in the users path. The following shows the old location and the new location:

OLD	NEW	
/usr/nsc/bfx	/opt/bfx	base directory
/usr/nsc/bin	/opt/bfx/bin	bin directory
/usr/nsc/bfx	/var/opt/bfx	Log/temp files
/usr/nsc/bfx/bfxinput	/etc/opt/bfx/bfxjsinput	BFXJS input file

- A number of scripts have been provided in the "/opt/bfx/bin" directory. This directory has been added to the default path.

  a. bfxstart – Starts bfxjs, must be root to run.

  b. bfxstop – Stops bfxjs, must be root to run.

  c. bfxsend – A script to send a file to another system. Creates a jobfile to be send to common system types. May need to be modified for specific systems at local site.

  d. bfxrecv – A script to pull a file from another system. As above this may need to be modified for the local system type mix.

  e. bfxtest – local loopback test. This should be the first job run to check out a new installation.

- BFX has been modified to dynamically detect and support an HP TRUSTED System installation.

- During a remote login to the HP9000 via BFXJS, a BFX jobfile is created in the /var/opt/bfx directory with the name JOBxxxxxxx. This file is deleted automatically upon completion of the job.

  In the case of a failed login attempt, the BFXJS log file (/var/opt/bfx/bfxjslog) will contain a message describing the reason for failure. The BFXJS log file is the only place failed login messages are logged.

- When using the UNIX 'cat' command in a remote job file to be sent to the H321 BFX Job Submitter (BFXJS), as described in the Remote Job Submission section of the *H321 Software Reference Manual*, it is imperative that the "EOF" delimiter be the last character string in each of the lines in which it appears. No trailing blanks, nulls, etc. are allowed if the command is to work successfully on the HP9000.

  An alternative to the 'cat' command is the following:

  ```
  echo "SEND TO hostname FILE abc ID TEST -" > bfx.in
  echo "MSGLVL 0 MODE CHAR" >> bfx.in
  ```

Installation Notes

The installation information contained in the *H321 BFX Software Reference Manual* for the HP9000 HP-UX operating system is obsolete. The HP-UX 11.00 installation uses 'sam' or the 'swinstall' command. BFX installs in the same fashion as all other HP software installs.

BFX is composed of one product, H321, which has one file set: BFX-RUN.

PRODUCT	SUB-PRODUCT	FILESET
H321		BFX-RUN

The H321 product contains everything necessary to run the BFX NETEX application..

Install the H321 Product Tape

The suggested installation procedure for the software is as follows:

1. Start swinstall (as super user type 'swinstall' with -s options etc if needed)

2. Set up the source depot to be your tape unit or the depot you have loaded BFX into. If you received a compressed TAR file rather than a tape, the following commands will load the software to the default depot.

   ```
   mkdir temp
   (cd temp; zcat ../file-name | tar  -xvf - )
   swpackage –s temp
   ```

   Note: The view will be products not bundles (only HP can make bundles)

3. Select the product H321 (arrow keys then press the space bar)

4. Choose Open Item from the Actions menu (tab 'a' to get to actions)

5. Choose Mark for Install from the Actions menu (tab 'a' then 'm')

   Note: At this point H321 will be marked as 'YES'

6. Choose Install (tab 'a' then 'i') from the Actions menu

7. Verify that 'bfxjs' starts automatically after a reboot

Note: On systems running HP_UX 10.xx, some BFX programs may indicate a missing dynamic library during execution. If you encounter this, contact NESi support. The solution usually is to provide a symbolic link to a version of the library that you do have installed.

Complete Installation

Execute the 'bfxtest' script that was included with the installation (in /opt/bfx/bin) to verify that BFX has been installed successfully.

Reference Manual Updates

There are pages provided as an update package to convert the existing *H321 (Rel 2.0) Bulk File Transfer (BFX™) Utility Software Reference Manual* in to compliance with changes made in release 3.1. These changes are incorporated into the new manuals shipped from NESi. If you have not received an updated manual or need to request the updated pages, please contact NESi Customer support.

To convert an existing manual:

● Replace pages: Cover page, i-vi, 1-2, 23-24, and 47-48.

Update Summary

3.1 N1B2

1. Added TZ (time zone) to the environment of spawned jobs.

2. Fixed naming of job output files to prevent repeats and strange names.

3. No longer report an error for a timeout during close processing.

4. Changed default Offer timeout back to 240 from 1800.

5. Changed linker flags to allow linking to H320 N3 release.

3.1 N1

1. BFX now supports large files (> 2GB).

2. A number of scripts have been provided in the "/opt/bfx/bin" directory. This directory has been added to the default path.

   a. bfxstart – Starts bfxjs, must be root to run.

   b. bfxstop – Stops bfxjs, must be root to run.

   c. bfxsend – A script to send a file to another system. Creates a jobfile to be send to common system types. May need to be modified for specific systems at local site.

   d. bfxrecv – A script to pull a file from another system. As above this may need to be modified for the local system type mix.

   e. bfxtest – local loop back test. This should be the first job run to check out a new installation.

3. The path to the BFX executables has been added to the system default path.

4. The product is now distributed as a swinstall package containing the executables only.

5. BFX has been modified to dynamically detect and support an HP TRUSTED System installation.

6. BFXJS will start automatically after a system boot.

Updates and corrections from previous releases

1. H321 BFX will no longer consider a time out caused by a missing disconnect after successfully receiving a file an error.

2. The RMAXL parameter is now the total amount of user data that will be transmitted. Instead of user plus BFX overhead data.

3. H321 will work with H320FD correctly.

4. H321 supports secondary host groups in BFXJS job files.

5. Compile time support for the Trusted System Feature has been added to H321. The TRUSTED_SYSTEM compile time variable must be set in order to utilize this feature. Inspect the Makedefs file for further details.