CACHE-A
ARCHIVE APPLIANCES

TECHNICAL BRIEF

Topic : **Using Cache-A Appliances to Read Data Written by 'tar' on Non-Cache-A Devices**

Reference Release: **v1.2**   **Date :**   **May 19, 2010**

Summary:
Cache-A Archive Appliances when used normally can only read tapes made by Cache-A devices. However, since each archive appliance includes a full version of Linux plus all the hardware required, users can utilize the command-line interface to restore data from non-Cache-A tapes. This is limited to the ability to read any LTO tape written with a POSIX compatible version of tar and to tapes that are within the supported range of the drive (LTO-4 drives can also read LTO-2 and LTO-3 tapes, LTO-5 drives can also read LTO-3 and LTO-4 tapes).

Procedure:

1. Set up access to the command-line (by either mouse monitor & keyboard, or via SSH) – refer to our Command-line tech brief if you are not familiar with this procedure. While running the commands below, ignore any messages the web UI may display, they will not be pertinent to your operations.

2. Insert the tape to be restored into your Cache-A drive

3. Make sure you have enough free space on the Cache-A VTAPE to easily fit everything you expect to be restored from your tape. Verify this by checking the **Remaining** field under **System Status** in the web UI. Dismiss any pop-ups that appear using the '**x**' close button to bypass them.

   You can also check available space using the command-line by running:
   ```
   df –h
   ```
   and looking at the `Avail` column on the `/media` line

4. Next, change directory to **/media/vtape** location of the share to be in the correct place to begin restoring your files:
   ```
   cd /media/vtape
   ```
   you can verify this was successful by running `pwd` (by itself) and see that it returns **/media/vtape**

5. Create a directory as a destination for the restore files by typing:
   ```
   mkdir restore_directory
   ```
   where restore_directory is your choice for an appropriate location name (restore_directory appears in all further examples, substitute as needed)

6. Change the ownership and permissions on the newly created directory by running the following two commands:

```
chown -R cache.users restore_directory
chmod -R 777 restore_directory
```

7. Now make sure your tape is rewound by typing:

```
mt -f /dev/nst0 rewind
```

8. Next execute the un-tar command using the following form:

```
tar xvf /dev/nst0 -C /media/vtape/restore_directory
```
(this may not work correctly – see the notes below)

9. Repeat this tar command for each tar session on the tape – if you don't know how many sessions are on tape, run that tar command repeatedly until all data is recovered

10. Once at the end of tape, run the following to eject:

```
mt -f /dev/nst0 eject
```

11. All files that were restored can now be found on the share in the restore_directory folder within the VTAPE area, accessible from mounting the share on a client.

12. Reboot the machine when you are finished using your non-Cache-A tapes in order to regain full functionality of the UI.

Notes:
If the tar command format specified above does not work, additional switches may need to be used depending upon how tar was used when the tape was written. This information should be available from the originator by referencing the form of the tar command that was used to write the tape.