HDD smart info http://www.dslreports.com/forum/r28069039-hard-drive-HDD-smart-query

1. Updates

- Versions prior to 2.1.17 will require USB Installation Drive to move up to version 3 and later (current stable version: 3.4.4, soon to be 4+)

- Upgrading from version 1.1.3 would be like

Upgrade to 1.3

Upgrade to 2.0.22

Upgrade to 2.1.17

\*Installation Stick to 3.0.8, 3.2.3, or 3.3.4

Upgrade to 3.4.4

- Mac OSX 7.5 and later require version 3 and later to access web interface, and AFP transfers.

- Versions 2 and earlier are 32-bit Fedora, Versions 3 and later are 64-bit CentOS

       -can be manually installed if located on the Share, for example (all one command):

          - /usr/cache-a/bin/itv\_sw\_download -file /media/vtape/Cache3.4.4.tgz -nodownload

2. Trash

We do not support standard use through the Linux File Manager (Nautilus).  When files are 'deleted' using Nautilus, they aren't actually deleted, only moved to the /media/.Trash-0 folder.  Typically we would recommend using either Windows Explorer or Mac Finder to delete files over the network, the use of the 'Clear Cache-A Share' button, or even deleting files through the command line.

To delete trash in the .Trash-0 folder

# cd /media/

# rm -rf /media/.Trash-0/\*

-this deletes everything, WITHOUT asking for verification.

-don't mess this up

3. TOC errors - can possibly be fixed in the database, may be easier to manually recover the tape and re-archive.

To Manually Recover a Tar Archive:

>> Connect to the Cache-A over the command line:

<http://www.cache-a.com/ftpcommon/CATechBrief-CommandLine.pdf>

Enter each of the commands:

/etc/init.d/tapemgr stop

mkdir /media/vtape/recover

chmod -R 777 /media/vtape/recover/

mt -f /dev/nst0 rewind

while [ 1 ]; do tar -xvf /dev/nst0 -b 300 -C /media/vtape/recover/; done

recover is the file that you are trying to recover to (which is directly on the Cache-A Share).  You'll have to keep an eye on this process as it recovers.  When it reaches the end of the archive, you will get a \*huge\* series of 3-line repeated errors indicating that the files cannot be read.  Press ctrl+c to stop the command.  When it is complete, rewind the tape before you restart the tape manager:

mt -f /dev/nst0 rewind

/etc/init.d/tapemgr start

The command line is case sensitive, so make sure that you type each command exactly as is.

\*if running on a customer unit, may be preferable to run in a screen, in case the connection to the unit is dropped, or window closed.

4.  Sometimes after logging in, the login screen STAYS on the login screen.

-after entering credentials, edit the address in the address bar.

-example

-instead of <http://archive01.local/login.php?action=login>

-edit to <http://archive01.local/index.php>

5.  TEP STOP error (Database is marked as crashed)

Common causes are failing drives, overfilled drives, improper shutdown, or one might even run a database repair to 'clean up' catalog entries after manual deletion.

From the Cache-A Command Line:

    >> Stop the database:

    /etc/init.d/tapemgr stop

  /etc/init.d/httpd stop

  /etc/init.d/mysqld stop

  >> Database repair (all one command):

   myisamchk -rofm /media/catalog/database/mysql/catalog/\*.MYI

  >> Restart the database:

   /etc/init.d/mysqld start

  /etc/init.d/httpd start

  /etc/init.d/tapemgr start

6.  Permissions

- from the command line, you can list permissions with ls -l

- Incorrect permissions can cause files to not transfer properly, or to not show up in the web interface properly.

- From the Cache-A command line:

>> change ownership, remove any 'sticky bits', then open the permissions of the files on the share:

chown -R cache:users /media/vtape/\*

chmod -s /media/vtape/\*

chmod -R 777 /media/vtape/\*

The command line is case sensitive, so make sure that you type each of these three commands exactly as they are.

7.  External Drive issues

- Drives connected directly to the Cache-A using the HFS+ format (actually a LOT of our customers), require a format of Case-Sensitive, Non-Journalled.  A journalled drive will cause it to mount as 'read-only', while a case-INsensitive formatted HFS+ volume will cause inconsistent mount issues.  ALL formats must be 2 TB or less (partitioning larger drives to less than 2TB is also acceptable) unless using the Paragon software. eSATA drives are NOT hot-swappable, the unit must be powered down first.  I have seen cases where eSATA drives will cause a change to the boot order, leading to a unit trying to boot to the wrong drive.  Resetting the BIOS to default settings usually fixes this.

8.  A lot of issues are re-seating cables.  /dev/nst0 is unavailable issues are commonly fixed by re-seating the SAS cable to the tape drive, CRC errors can commonly be fixed by re-seating the hard drives... issues with libraries showing the correct number of drives, etc. can typically be fixed by making sure the cables are connected in the correct configuration (refer customers to the cabling pdf, because it has pictures =P).  I have faith that you guys understand this whole concept intimately.  It's right up there with 'have you rebooted the unit', which I forget all-to-often.

9.  System Status shows a lot.  If the RAID is over 90% full, this will show an error...if there's not a tape inserted, if /dev/nst0 (tape drive) is not available, if only one of the drives is working 'cat /proc/mdstat' will also show the RAID status if the size available is incorrect)... if the tape manager is stopped, this will show NOTHING.  Sometimes I have no clue why the tape manager won't start, but a reboot typically fixes that.  Sometimes a screenshot of this page is the easiest thing to get from a customer, and quickest to tell the issue, depending on what they're saying.

10.  Apple metadata seems to cause a lot of issues.  General consensus is that SMB is very much preferred over AFP, particularly with later versions of Mac OS.

-recommendations for reducing Apple metadata are as follows

Adding the Cache-A Share to the exclude list in Spotlight.  Apple Menu > System Preferences > Spotlight > Privacy.  Drag the whole, mounted, Cache-A share into that list.  That should prevent spotlight from trying to index it.

In conjunction with adding the Share to the exclude list in Spotlight, there is also a command to stop some metadata on attached network volumes.   Open Terminal (Applications > Utilities) and paste this command:

defaults write com.apple.desktopservices DSDontWriteNetworkStores true

Once you've ran that command, reboot the unit from the Cache-A Web Interface.

In addition to all of this, avoid opening the actual VTAPE folder from Mac Finder (or Windows Explorer).  Because this is the actual watch folder for archiving to the tape, any data that is changed while in this folder will be seen as a new file, and re-archived a second time.  Unfortunately, having the folder open constantly updates the metadata, and so having the folder open will cause a constant archive of these files.

11  For a system failing to boot and getting stuck at the Cache-A splash screen, try escaping from the splash screen into the text console ('ESC').  Typically, it'll end up on a 'enter root password for maintenance' prompt, and above that you can see some kind of error, either along the lines of /, sda2 or md0 requiring a manual FSCK.  A rule of thumb that I use is for md0:

fsck -C /dev/md0

or else:

mount -o remount,rw /dev/sda2

-to remount as read write system (opposed to read only)

touch /forcefsck

-creates a file that forces a fsck on the / partition upon reboot

shutdown -r now

-reboot

A system might also show the bad superblock issues here, and may require a RAID rebuild.

12.  Kernel panics typically end up with software re-installations, but using the Linux interface is unsupported and has been known to cause kernel panics as well.

13.  If they're having network issues, make sure that the Eth settings for the correct interface have both 'On Boot' and 'Network Up' boxes checked, this fixes a pretty large amount of connectivity issues (other than obviously bad settings).

I won't be totally unavailable to help out either, if you have any other questions.  Or if I messed this up bad enough that something doesn't make sense ;-)    ---also attached the text of this for your convenience.