NAME

 pnfsdsfile - display a pNFS data storage file's location(s) and/or modify the "pnfsd.dsfile" extended attribute for them

SYNOPSIS

 pnfsdsfile [**-qz**] [**-s** *dshostname*] [**-c** *old-dshostname,new-dshostname*] [**-m** *mirror_level*] [**-r** *dshostname*] *mdsfile*

DESCRIPTION

 The **pnfsdsfile** command displays the data storage file's location(s) for a pNFS service and/or modifies the "pnfsd.dsfile" extended attribute on the *mdsfile*. A pNFS service maintains a data storage file for each regular file on the MetaData Server (MDS) on one or more of the Data Servers (DS). If mirroring is enabled, the data storage file will be on more that one of the DSs. Unless command options are specified, this command displays the location(s) of the data storage file for the MDS file *mdsfile*. It must be used on the MDS and the *mdsfile* must be a file on the exported local file system and not an NFSv4.1 mount. This information is stored in the "pnfsd.dsfile" extended attribute for this *mdsfile*. The command line options allow the information in the "pnfsd.dsfile" extended attribute to be changed.

 The following options are available:

 -q This option suppresses printing of the DS file's location(s).

 -z This option specifies that the file handle field of the pnfsd.dsfile extended attribute is to filled with all zero bits. This forces the pNFS MDS to do a Lookup RPC against the DS to acquire the file handle to update it. Normally this will only be necessary after the DS file has been recovered from a backup, causing the file handle to change.

 -s *dshostname*

   This option can be used with **-z** so that the zeroing out of the file handle is only done if the DS server is the one specified by this option.

 -c *old-dshostname,new-dshostname*

   This option allows a sysadmin to replace the host IP# for the DS in the pnfsd.dsfile extended attribute. The old-hostname must resolve to the IP# already in the pnfsd.dsfile extended attribute or the replacement will not be done. If the old-dshostname matches, then the IP# is replaced by the first AF_INET or AF_INET6 address that getaddrinfo(3) returns for the new-dshostname. Changing a DS server's host IP# should be avoided, but this option will allow it to be changed, if the change is unavoidable.

 -m *mirror_level*

This option adds entrie(s) to the extended attributes with IP address set to 0.0.0.0 to bring the number of entries up to "mirror_level". It can be used by a system administrator to prepare a file for mirroring via the pnfsdscopymr command with **-r** option.

-r *dshostname*

This option sets the IP address of the extended attribute entry for the *dshostname* to 0.0.0.0 so that it will no longer be used.

This is meant to be used when mirroring is enabled and the *dshostname* DS is disabled, so that it can be re-enabled once it is repaired. This needs to be done for all files in the exported MDS tree where the data may not be up-to-date on the repaired DS when it is re-enabled. After being re-enabled, the command pnfsdscopymr(1) with the "-r" option will be used to copy the file's data to this repaired DS and then update the extended attribute to use it.

A typical use of this will be within a find(1) for all regular files in the MDS's exported tree.

For example, if the disabled DS is nfsv4-data3:
cd <top-level-exported-directory-on-MDS>
find . -type f -exec pnfsdsfile -q -r nfsv4-data3 {} \;

SEE ALSO

find(1), getaddrinfo(3), nfsv4(4), pnfs(4), nfsd(8), pnfsdscopymr(8), pnfsdskill(8)

HISTORY

The **pnfsdsfile** command first appeared in FreeBSD 12.0.