

NAME

mpathpersist – Manages SCSI persistent reservations on dm multipath devices.

SYNOPSIS

mpathpersist [**OPTIONS**] *device*

DESCRIPTION

This utility is used to manage SCSI persistent reservations on Device Mapper Multipath devices. To be able to use this functionality, the *reservation_key* attribute must be defined in the */etc/multipath.conf* file. Otherwise the **multipathd** daemon will not check for persistent reservation for newly discovered paths or reinstated paths.

mpathpersist supports the same command-line options as the **sg_persist** utility. Consult the **sg_persist (8)** manual page for an in-depth discussion of the various options.

OPTIONS

-verbose|-v level

Verbosity:

- 0 Critical messages.
- 1 Error messages.
- 2 Warning messages.
- 3 Informational messages.
- 4 Informational messages with trace enabled.

--device=DEVICE|-d DEVICE

Query or change DEVICE.

--batch-file=DEVICE|-f FILE

Read commands from *FILE*. See section "BATCH FILES" below. This option can be given at most once.

--help|-h

Output this usage message.

--hex|-H

Output response in hex.

--in|-i Request PR In command.

--out|-o

Request PR Out command.

--param-alltgpt|-Y

PR Out parameter 'ALL_TG_PT'.

--param-aptpl|-Z

PR Out parameter 'APTPL'.

--read-keys|-k

PR In: Read Keys.

--param-rk=RK|-K RK

PR Out parameter reservation key (RK is in hex, up to 8 bytes).

--param-sark=SARK|-S SARK

PR Out parameter service action reservation key (SARK is in hex).

--preempt|-P

PR Out: Preempt.

--clear|-C

PR Out: Clear registrations.

--preempt-abort|-A
PR Out: Preempt and Abort.

--prout-type=TYPE|-T TYPE
PR Out command type.

--read-full-status|-s
PR In: Read Full Status.

--read-keys|-k
PR In: Read Keys.

--read-reservation|-r
PR In: Read Reservation.

--register|-G
PR Out: Register.

--register-ignore|-I
PR Out: Register and Ignore.

--release|-L
PR Out: Release.

--report-capabilities|-c
PR In: Report Capabilities.

--reserve|-R
PR Out: Reserve.

--transport-id=TIDS|-X TIDS
TransportIDs can be mentioned in several forms.

--alloc-length=LEN|-I LEN
PR In: maximum allocation length. LEN is a decimal number between 0 and 8192.

EXAMPLE

Register the key "123abc" for the /dev/mapper/mpath9 device:

```
mpathpersist --out --register --param-sark=123abc /dev/mapper/mpath9
```

Read registered reservation keys for the /dev/mapper/mpath9 device:

```
mpathpersist -i -k /dev/mapper/mpath9
```

Create a reservation for the /dev/mapper/mpath9 device with the given reservation key:

```
mpathpersist --out --reserve --param-rk=123abc --prout-type=8 -d /dev/mapper/mpath9
```

Read the reservation status of the /dev/mapper/mpath9 device:

```
mpathpersist -i -s -d /dev/mapper/mpath9
```

Release the previously created reservation (note that the prout-type needs to be the same as above):

```
mpathpersist --out --release --param-rk=123abc --prout-type=8 -d /dev/mapper/mpath9
```

Remove the current key registered for this host (i.e. reset it to 0):

```
mpathpersist --out --register-ignore -K 123abc -S 0 /dev/mapper/mpath9
```

Remove current reservation, and unregister all registered keys from all I_T nexuses:

```
mpathpersist -oCK 123abc /dev/mapper/mpath9
```

BATCH FILES

The option **--batch-file (-f)** sets an input file to be processed by **mpathpersist**. Grouping commands in batch files can provide a speed improvement in particular on large installments, because **mpathpersist** needs to scan existing paths and maps only once during startup.

The input file is a text file that is parsed line by line. Every line of the file is interpreted as a command line (i.e. list of options and parameters) for **mpathpersist**. Options and parameters are separated by one or more whitespace characters (space or TAB). Lines can, but do not have to, begin with the word "mpathpersist".

The "#" character, either at the beginning of the line or following some whitespace, denotes the start of a comment that lasts until the end of the line. Empty lines are allowed. Continuation of `mpathpersist` commands over multiple lines is not supported.

All options listed in this man page, except `-f` and `-v`, are allowed in batch files. Both short and long option formats may be used. Using the `-f` option inside the batch file is an error. The `-v` option is ignored in batch files.

The multipath map on which to act must be specified on every input line, e.g. using the `-d` option. Commands acting on different multipath maps may be combined in a batch file, and multiple commands may act on the same multipath map. Commands are executed one by one, so that commands further down in the file see status changes caused by previous commands. If **`mpathpersist`** encounters an error while processing a line in the batch file, batch file processing is **not** aborted; subsequent commands are executed nonetheless. The exit status of **`mpathpersist`** is the status of the first failed command, or 0 if all commands succeeded.

If other options and parameters are used along with `-f` on the **`mpathpersist`** command line, the command line will be executed first, followed by the commands from the batch file.

Below is an example of a valid batch input file.

```
# This is an mpathpersist input file.
# Short and long forms of the same command
-i -k /dev/dm-1 # short form, this comment is ignored
mpathpersist --in --read-keys --device=/dev/dm-1

# Mixing of long and short options, variable white space
--out --register -S abcde /dev/dm-1

# Mixing of commands for different maps
-ir /dev/dm-0
-ir /dev/dm-1

mpathpersist --out --param-rk abcde --reserve --prout-type 5 /dev/dm-1
# This should now show a reservation
-ir /dev/dm-1
-oCK abcde /dev/dm-1
--in --read-reservation /dev/dm-1
```

SEE ALSO

`multipath(8)`, **`multipathd(8)`**, **`sg_persist(8)`**.

AUTHORS

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