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Rocky Enterprise Linux 9.2 Manual Pages on command 'nvme-compare.1'

\$ man nvme-compare.1

NVME-COMPARE(1) NVMe Manual NVME-COMPARE(1)

NAME

nvme-compare - Send an NVMe Compare command, provide results

SYNOPSIS

nvme-compare <device> [--start-block=<slba> | -s <slba>]

 [--block-count=<nlb> | -c <nlb>]

 [--data-size=<size> | -z <size>]

 [--metadata-size=<metasize> | -y <metasize>]

 [--ref-tag=<reftag> | -r <reftag>]

 [--data=<data-file> | -d <data-file>]

 [--metadata=<meta> | -M <meta>]

 [--prinfo=<prinfo> | -p <prinfo>]

 [--app-tag-mask=<appmask> | -m <appmask>]

 [--app-tag=<apptag> | -a <apptag>]

 [--limited-retry | -l]

 [--force-unit-access | -f]

 [--dir-type=<type> | -T <type>]

 [--dir-spec=<spec> | -S <spec>]

[--dsm=<dsm> | -D <dsm>]
[--show-command | -v]
[--dry-run | -w]
[--latency | -t]
[--storage-tag-check<storage-tag-check> | -C <storage-tag-check>]
[--force]

DESCRIPTION

The Compare command reads the logical blocks specified by the command from the medium and compares the data read to a comparison data buffer transferred as part of the command. If the data read from the controller and the comparison data buffer are equivalent with no mismatches, then the command completes successfully. If there is any mismatch, the command completes with an error of Compare Failure. If metadata is provided, then a comparison is also performed for the metadata.

OPTIONS

-s <slba>, --start-block=<slba>

64-bit address of the first block to access.

-c <nlb>, --block-count=<nlb>

Number of blocks to be accessed (zero-based).

-z <size>, --data-size=<size>

Size of data to be compared in bytes.

-y <metasize>, --metadata-size=<metasize>

Size of metadata to be transferred in bytes.

-r <ref-tag>, --ref-tag=<ref-tag>

Reference Tag for Protection Information

-d <data-file>, --data=<data-file>

Data file.

-M <meta>, --metadata=<meta>

Metadata file.

-p <prinfo>, --prinfo=<prinfo>

Protection Information and check field.

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??

? ? ?

?Bit ? Description ?

??

? ? ?

?3 ? PRACT: Protection ?

? ? Information Action. When ?

? ? set to 1, PI is ?

? ? stripped/inserted on ?

? ? read/write when the block ?

? ? format?s metadata size is ?

? ? 8. When set to 0, metadata ?

? ? is passes. ?

??

? ? ?

?2:0 ? PRCHK: Protection ?

? ? Information Check: ?

??

? ? ?

?2 ? Set to 1 enables checking ?

? ? the guard tag ?

??

? ? ?

?1 ? Set to 1 enables checking ?

? ? the application tag ?

??

? ? ?

?0 ? Set to 1 enables checking ?

? ? the reference tag ?

??

-m <appmask>, --app-tag-mask=<appmask>

App Tag Mask for Protection Information

-a <apptag>, --app-tag=<apptag>

App Tag for Protection Information

-l, --limited-retry

Number of limited attempts to media.

-f, --force-unit-access

FUA option to guarantee that data is stored to media.

-T <type>, --dir-type=<type>

Optional directive type. The nvme-cli only enforces the value be in the defined range for the directive type, though the NVMe specification (1.3a) defines only one directive, 01h, for write stream identifiers.

-S <spec>, --dir-spec=<spec>

Optional field for directive specifics. When used with write streams, this value is defined to be the write stream identifier.

The nvme-cli will not validate the stream requested is within the controller's capabilities.

-D <dsm>, --dsm=<dsm>

The optional data set management attributes for this command. The argument for this is the least significant 8 bits of the DSM field in a write command; the most significant 16 bits of the field come from the directive specific field, if used. This may be used to set attributes for the LBAs being written, like access frequency, type, latency, among other things, as well as yet to be defined types. Please consult the NVMe specification for detailed breakdown of how to use this field.

-v, --show-cmd

Print out the command to be sent.

-w, --dry-run

Do not actually send the command. If want to use --dry-run option, --show-cmd option must be set. Otherwise --dry-run option will be ignored.

-t, --latency

Print out the latency the IOCTL took (in us).

--storage-tag-check=<storage-tag-check>, -C <storage-tag-check>

This bit specifies the Storage Tag field shall be checked as part of end-to-end data protection processing.

--force

Ignore namespace is currently busy and performed the operation even though.

EXAMPLES

No examples yet.

NVME

Part of the nvme-user suite

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