

LVM

The backend of ceph-volume lvm is LVM, it relies heavily on the usage of tags, which is a way for LVM to allow extending its volume metadata. These values can later be queried against devices and it is how they get discovered later.

Warning: These APIs are not meant to be public, but are documented so that it is clear what the tool is doing behind the scenes. Do not alter any of these values.

TAG API

The process of identifying logical volumes as part of Ceph relies on applying tags on all volumes. It follows a naming convention for the namespace that looks like:

```
ceph.<tag name>=<tag value>
```

All tags are prefixed by the ceph keyword to claim ownership of that namespace and make it easily identifiable. This is how the OSD ID would be used in the context of lvm tags:

```
ceph.osd_id=0
```

METADATA

The following describes all the metadata from Ceph OSDs that is stored on an LVM volume:

TYPE

Describes if the device is an OSD or Journal, with the ability to expand to other types when supported (for example a lockbox)

Example:

```
ceph.type=osd
```

CLUSTER_FSID

Example:

```
ceph.cluster_fsid=7146B649-AE00-4157-9F5D-1DBFF1D52C26
```

DATA_DEVICE

Example:

```
ceph.data_device=/dev/ceph/data-0
```

DATA_UUID

Example:

```
ceph.data_uuid=B76418EB-0024-401C-8955-AE6919D45CC3
```

JOURNAL_DEVICE

Example:

```
ceph.journal_device=/dev/ceph/journal-0
```

JOURNAL_UUID

Example:

```
ceph.journal_uuid=2070E121-C544-4F40-9571-0B7F35C6CB2B
```

ENCRYPTED

Example for enabled encryption with luks:

```
ceph.encrypted=1
```

When encryption is not supported or simply disabled:

```
ceph.encrypted=0
```

OSD_FSID

Example:

```
ceph.osd_fsid=88ab9018-f84b-4d62-90b4-ce7c076728ff
```

OSD_ID

Example:

```
ceph.osd_id=1
```

BLOCK_DEVICE

Just used on **bluestore** backends. Captures the path to the logical volume path.

Example:

```
ceph.block_device=/dev/mapper/vg-block-0
```

BLOCK_UUID

Just used on **bluestore** backends. Captures either the logical volume UUID or the partition UUID.

Example:

```
ceph.block_uuid=E5F041BB-AAD4-48A8-B3BF-31F7AFD7D73E
```

DB_DEVICE

Just used on **bluestore** backends. Captures the path to the logical volume path.

Example:

```
ceph.db_device=/dev/mapper/vg-db-0
```

DB_UUID

Just used on **bluestore** backends. Captures either the logical volume UUID or the partition UUID.

Example:

```
ceph.db_uuid=F9D02CF1-31AB-4910-90A3-6A6302375525
```

WAL_DEVICE

Just used on **bluestore** backends. Captures the path to the logical volume path.

Example:

```
ceph.wal_device=/dev/mapper/vg-wal-0
```

WAL_UUID

Just used on **bluestore** backends. Captures either the logical volume UUID or the partition UUID.

Example:

```
ceph.wal_uuid=A58D1C68-0D6E-4CB3-8E99-B261AD47CC39
```
