MicroCeph: Dev to Solutions

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Introduction

Engineering Director at Canonical
Responsible for Ceph, OpenStack, OVN and HPC.

Work involving storage since 2004 and OpenStack
and Ceph since 2013.

Mission to bring Ceph, OpenStack, OVN to the
widest possible audience.

MicroCeph

Simplest possible way for users to adopt Ceph.

But... micro?

Micro ≠ cluster size

Yes... micro.

Micro is about the effort for the **user**

Yes... micro.

Micro is about the effort for the **user learner**

Yes… micro.

Micro is about the effort for the **user**
learner
developer

Yes... micro.

Micro is about the effort for the **user**
learner
developer
operator

Yes... micro.

Micro is about the effort for the **user**
learner
developer
operator
integrator

Yes… micro.

Micro is about the effort for **you**

µCeph

Snap Package

Universal packaging format

Application container

Secure by default (strictly confined)

Atomic updates including rollback

Content interfaces (for integrations)

Simple

$ sudo snap install microceph

Simple

quincy/stable
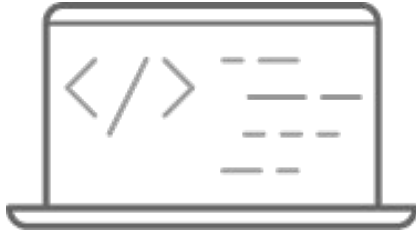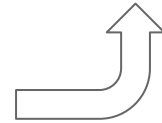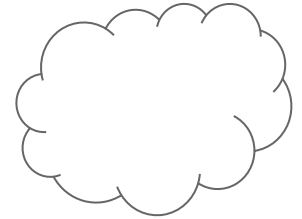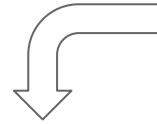$ sudo snap install microceph --channel **reef/stable**
squid/stable

Simple

$ sudo snap install microceph --channel reef/stable
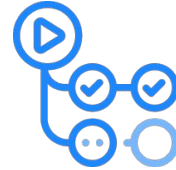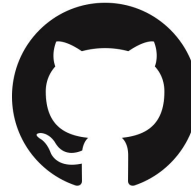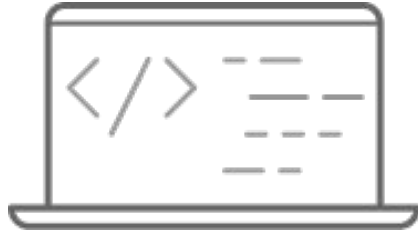
Developer

Restore

Backup

```
$ sudo snap install microceph
$ sudo microceph cluster bootstrap
$ sudo microceph disk add loop,4G,3
$ sudo microceph enable rgw
```

Developer

```
- name: Setup microceph
  uses: phvalguima/microceph-action@v0.3
  with:
    channel: 'latest/edge'
    devname: '/dev/sdi'
    accesskey: 'accesskey'
    secretkey: 'secretkey'
    bucket: 'testbucket'
    osdsize: '20G'
```

User / Learner

node00

```
node00 $ sudo microceph cluster bootstrap
node00 $ sudo microceph disk add ... [--encrypt]
```

User / Learner

node00   node01

```
node00 $ sudo microceph cluster add node01

node01 $ sudo microceph cluster join ...
Node01 $ sudo microceph disk add ... [--encrypt]
```

User / Learner

node00   node01   ...   nodeNN

```
node00 $ sudo microceph cluster add nodeNN

nodeNN $ sudo microceph cluster join ...
NodeNN $ sudo microceph disk add ... [--encrypt]
```

Integrations

openstack.

Limitations

No orchestrator support

No NFS Ganesha support

No integrated load balancers

Limited number of tunables

Does not use LVM

Thank you

Questions ?

We are hiring - https://canonical.com/careers