



MicroCeph: Dev to Solutions

Billy Olsen
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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 $\neq$ 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.

user
learner
developer
operator

Micro is about the effort for the



Yes... micro.

user
learner
developer
operator

Micro is about the effort for the **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

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



Simple

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

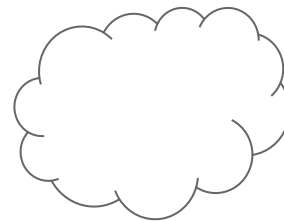
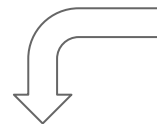


Developer



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

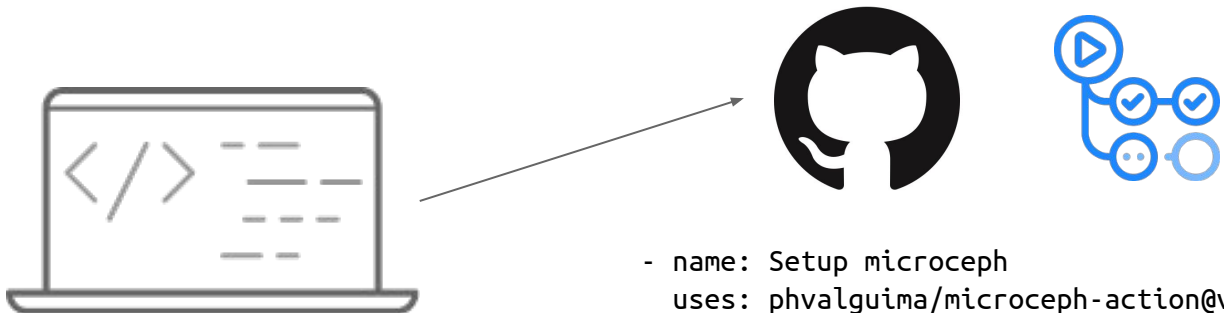
Restore



Backup



Developer



- name: Setup microceph
uses: phvalguima/microceph-action@v0.3
with:
 - channel: 'latest/edge'
 - devname: '/dev/sdi'
 - accesskey: 'accesskey'
 - secretkey: 'secretkey'
 - bucket: 'testbucket'
 - osdsiz: '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 $ 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>