DISTRIBUTED STORAGE IS EASIER NOW

Usability from Ceph Luminous to Nautilus

Tim Serong | tserong@suse.com

linux.conf.au 2019

THE STORY SO FAR

CEPH IS AWESOME

- Object, block and file storage
- Scale-out, no SPOF
- "Self-managing"

CEPH IS HARD

~~CEPH IS HARD~~

CEPH WAS HARD

~~CEPH IS HARD~~

~~CEPH WAS HARD~~

CEPH IS EASIER NOW

CEPH IS EASIER NOW

MIMIC

- "Dashboard v2"
- Centralized configuration management

NAUTILUS

- Placement group autoscaling
- Further dashboard enhancements
- ...

ceph

Status

Cluster Status	Monitors	OSDs	Manager Daemons
HEALTH_OK	1 (quorum 0)	5 total 5 up, 5 in	1 active 0 standby

Hosts	Object Gateways	Metadata Servers	iSCSI Gateways
1 total	1 total	1 active 0 standby	0 total

Performance

Client IOPS	Client Throughput	Client Read/Write	Client Recovery	Scrub
180	722.9 MiB/s	● Writes ● Reads	0 B/s	**Inactive**

Capacity

Pools	Raw Capacity	Objects	PGs per OSD	PG Status
7	● Used (35%) ● Avail. (65%)	1256	48	● Clean ● ~~Working~~ ● ~~Warning~~ ● ~~Unknown~~

ceph

OSDs List   Overall Performance

Scrub ▾ | ⚙ Set Cluster-wide Flags | ⚙ Set Cluster-wide Recovery Priority   ⟳ ▦ 10 ⬍   🔍 [   ] ✖

Host ⬍	ID ⬍	Status ⬍	PGs ⬍	Size ⬍	Usage ⬍	Read bytes ⬍	Writes bytes ⬍	Read ops ⬍	Write ops ⬍
suseleap	0	in up	47	10.1 GiB	35%			0.4 /s	0 /s
suseleap	1	in up	42	10.1 GiB	35%			0.4 /s	0 /s
suseleap	2	in up	46	10.1 GiB	45%			0 /s	0 /s
suseleap	3	in up	57	10.1 GiB	45%			0.4 /s	0 /s
suseleap	4	in up	48	10.1 GiB	42%			0.4 /s	0 /s

0 selected / 5 total

ceph

Edit mon_host

Name	mon_host
Description	list of hosts or addresses to search for a monitor
Long description	This is a comma, whitespace, or semicolon separated list of IP addresses or hostnames. Hostnames are resolved via DNS and all A or AAAA records are included in the search list.
Services	common

Values

global	Text
mon	Text
mgr	Text
osd	Text
mds	Text
client	Text

Save   Back

ceph

Dashboard | Cluster ▾ | Pools | Block ▾ | Filesystems | Object Gateway ▾

Pools

Pools List | Overall Performance

+ Add ▾ | | | | | 10 ⬍ | | 🔍 | | ✖

Name ⬍	Type ⬍	Applications ⬍	PG Status ⬍	Replica Size ⬍	Last Change ⬍	Erasure Coded Profile ⬍	Crush Ruleset ⬍	Usage ⬍	Read bytes ⬍	Write bytes ⬍	Read ops ⬍	Write ops ⬍
.rgw.root	replicated	rgw	8 active+clean	3	24		replicated_rule	0%			0 /s	0 /s
benchmark	replicated	rbd	32 active+clean	3	33		replicated_rule	43%			0 /s	0 /s
cephfs.a.data	replicated	cephfs	8 active+clean	3	22		replicated_rule	0%			0 /s	0 /s
cephfs.a.meta	replicated	cephfs	8 active+clean	3	21		replicated_rule	0%			0 /s	0 /s
default.rgw.control	replicated	rgw	8 active+clean	3	26		replicated_rule	0%			0 /s	0 /s
default.rgw.log	replicated	rgw	8 active+clean	3	30		replicated_rule	0%			0 /s	0 /s
default.rgw.meta	replicated	rgw	8 active+clean	3	28		replicated_rule	0%			0 /s	0 /s

0 selected / 7 total

NAUTILUS

- ...
- Blinky lights
- Orchestrator module(s)

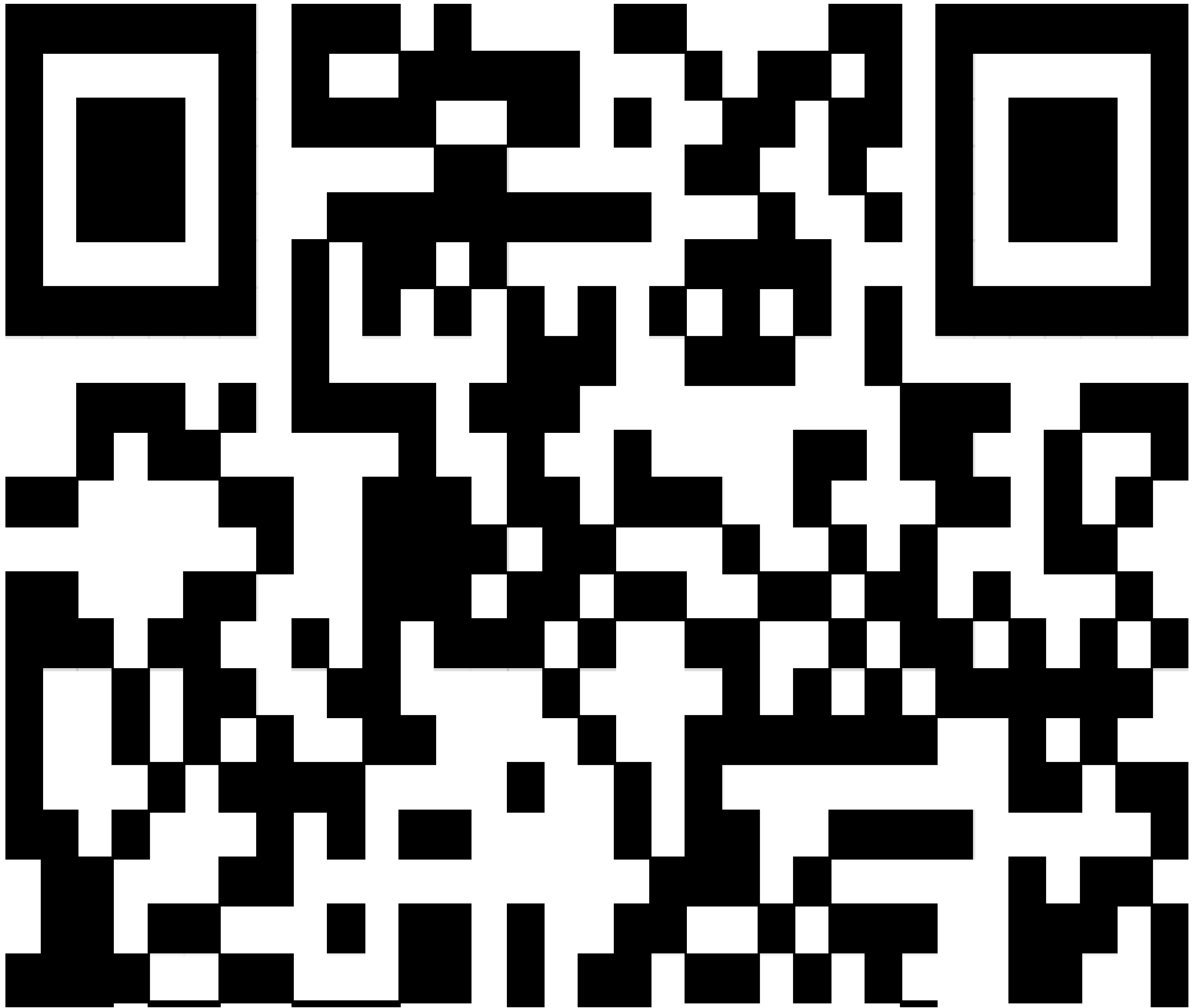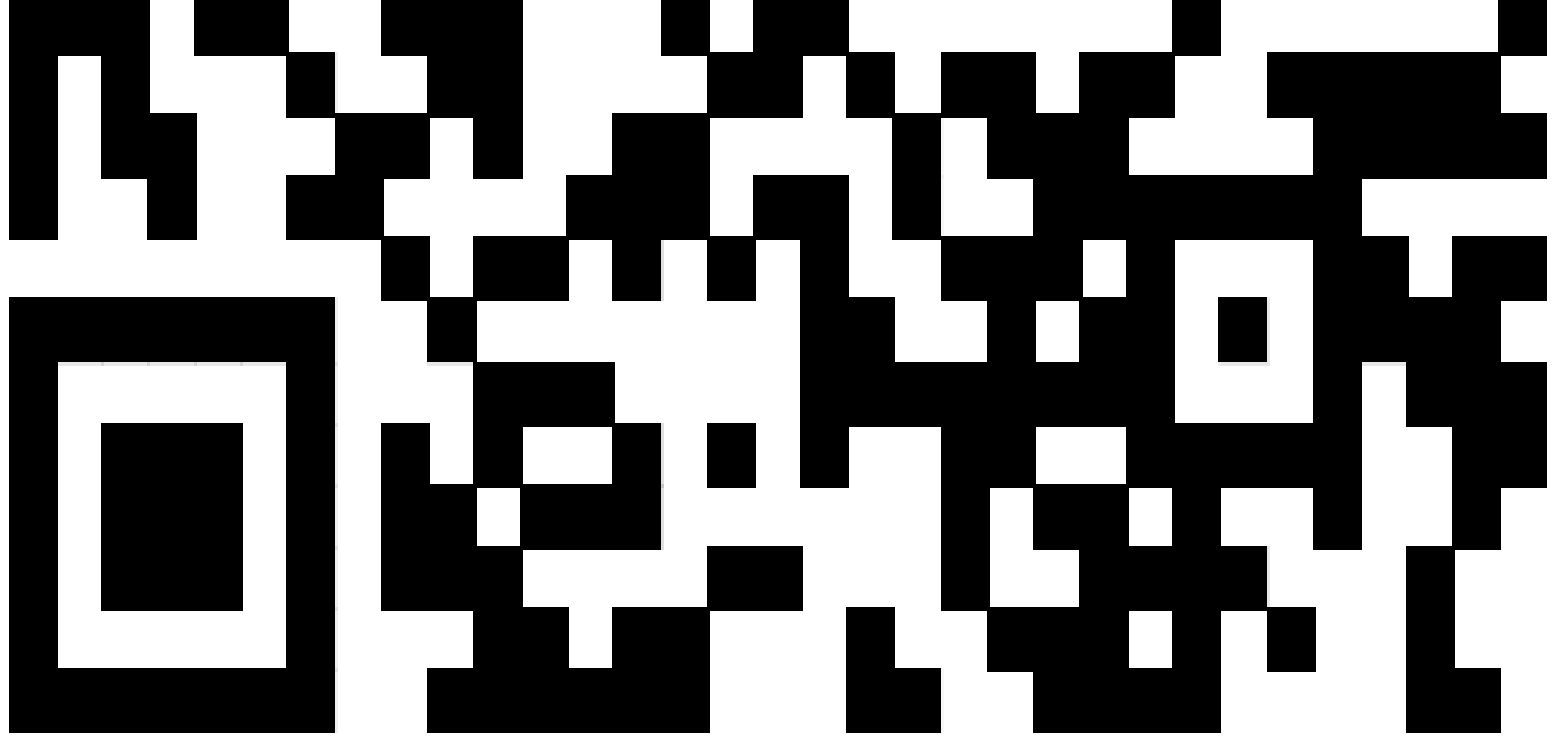# ORCHESTRATOR MODULE(S)

- Ansible
- DeepSea (Salt)
- Rook

OCTOPUS?

CEPHALOCON 2019

https://ceph.com/cephalocon/barcelona-2019

19-20 May (+ KubeCon & CloudNativeCon, May 20-23)

CFP closes Feb 1

https://tinyurl.com/y7gt9za8