



WELCOME

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Welcome

2026-10-14 Robert Sander

Automating Ceph Deployments with Ansible

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Why and how?



- Many tasks need to be executed before Ceph orchestrator is able to run on a host
- cephadm-ansible community project
- <https://github.com/ceph/cephadm-ansible/>
- Unfortunately no Ansible Galaxy collection yet

Automating Ceph Deployments with Ansible

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- Unfortunately no Ansible Galaxy collection yet
- Some recommendations from me

Automating Ceph Deployments with Ansible Preflight



- Prepare Host
 - Uninstall Packages
 - ceph-osd, ceph-mon, ceph-mgr, etc.
 - Enable Ceph-Repo
 - community, rhcs, ibm or custom
 - Install Packages
 - chrony, podman, lvm2, ceph-common, cephadm
 - Preflight Check on RedHat
 - produces report

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- Configure chrony
 - MONs talk to external NTP sources
 - every other node talks to MONs
- Distribute downloaded cephadm
 - do not enable Ceph-Repo
- Configure podman
 - HTTP(s) Proxy
 - Registry Caches
 - Internal Registry

Automating Ceph Deployments with Ansible Bootstrap



- Preflight plus on admin node:
- Create cephadm account
 - Enable sudo
- Firewall configuration
 - if firewalld is present
- Bootstrap
 - `cephadm bootstrap --ssh-user=...`

Automating Ceph Deployments with Ansible

Adding Hosts



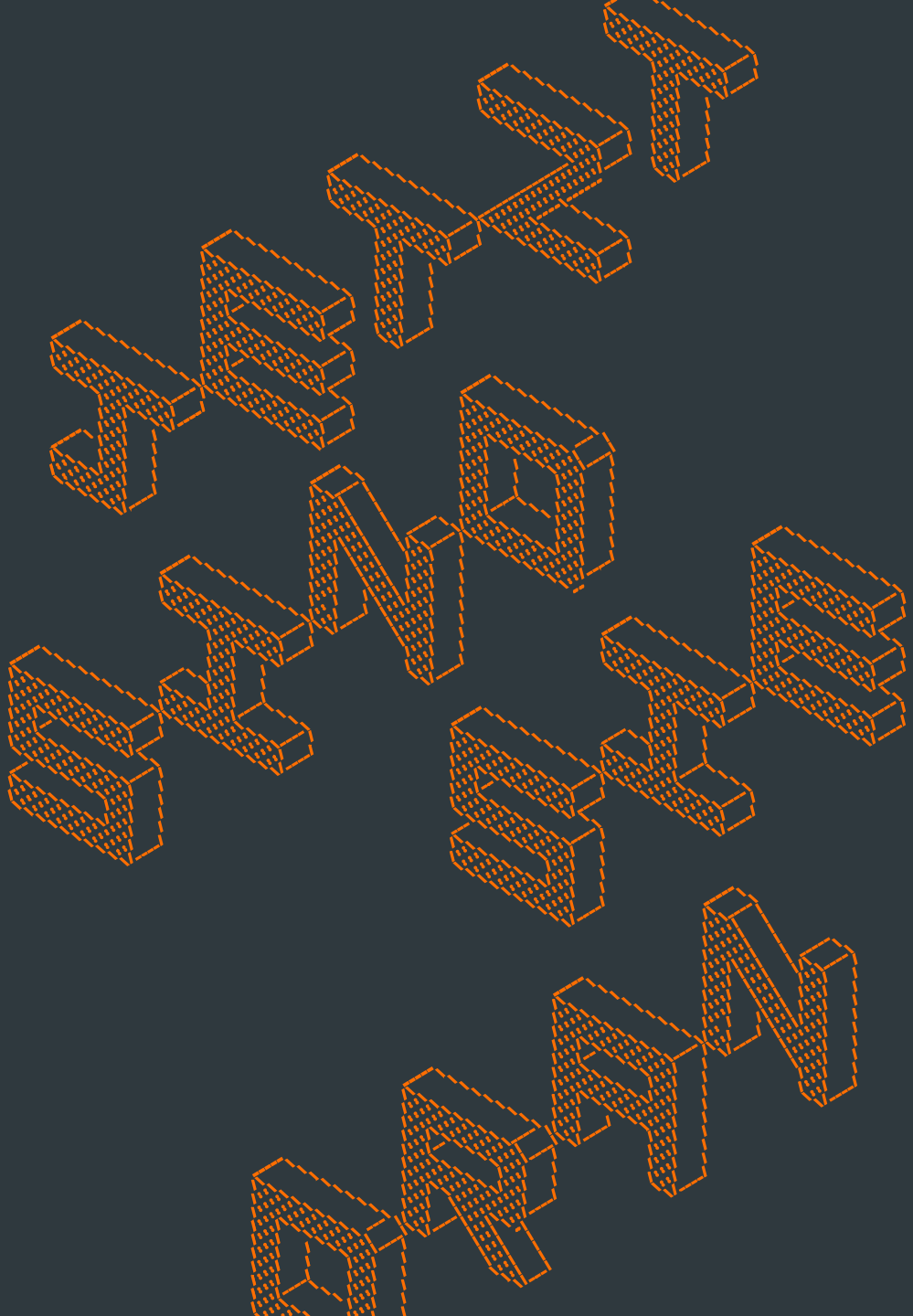
- Preflight plus:
- Create cephadm account
 - Enable sudo
- Firewall configuration
 - if firewalld is present
- Distribute the SSH key
 - `ceph cephadm get-pub-key`
 - `~/.ssh/authorized_keys` of the cephadm account
- Add host to the cluster
 - Labels via Ansible inventory group(s)

Automating Ceph Deployments with Ansible

Client Setup



- Generate minimal ceph.conf on admin/bootstrap node
- Copy to /etc/ceph/ceph.conf
- Create /etc/ceph/ceph.keyring if needed
- Needs to run every time the MONs change
- This could be done by the cephadm orchestrator
 - `ceph orch client-keyring set ...`
 - But do you want to grant it SSH access to the client hosts?



Q & A



Let's connect



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