Describing Red Hat Ceph Storage Management Interfaces

Objectives

After completing this section, you should be able to describe and compare the use cases for the various management interfaces provided for Red Hat Ceph Storage.

Introducing Ceph Interfaces

Previous Ceph versions used the Ansible Playbooks from the `ceph-ansible` package to deploy and manage the cluster. Red Hat Ceph Storage 5 introduces *cephadm* as the tool to manage the whole lifecycle of the cluster (deployment, management, and monitoring), replacing the previous functions that `ceph-ansible` provided.

Cephadm is implemented as a module in the Manager daemon (MGR), which is the first daemon that starts when deploying a new cluster. The Ceph cluster core integrates all the management tasks, and Cephadm is ready to use when the cluster starts.

Cephadm is provided by the `cephadm` package. You should install this package in the first cluster node, which acts as the bootstrap node. As Ceph 5 is deployed in the containerized version, the only package requirements to have a Ceph cluster up and running are `cephadm`, `podman`, `python3`, and `chrony`. This containerized version reduces the complexity and package dependencies to deploy a Ceph cluster.

The following diagram illustrates how Cephadm interacts with the other services.

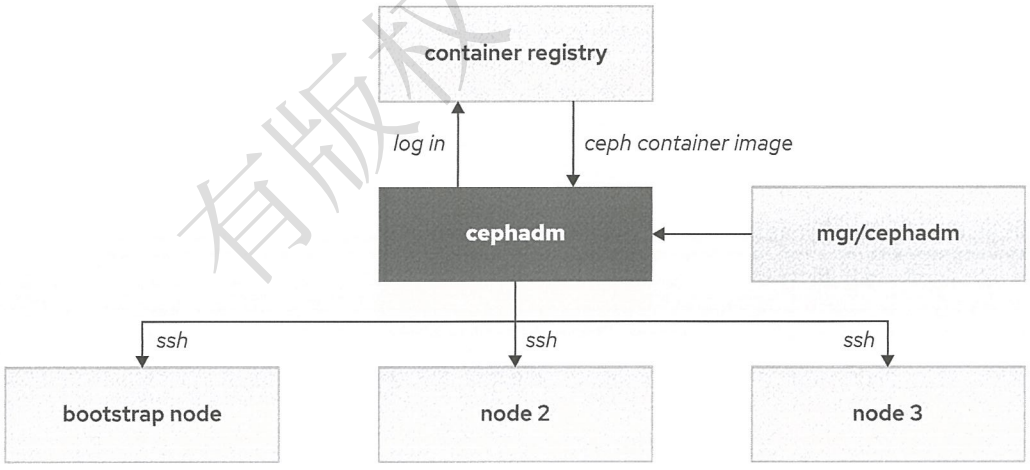

Figure 1.4: Cephadm interaction with other services

Cephadm can log in to the container registry to pull a Ceph image and deploy services on the nodes that use that image. This Ceph container image is necessary when bootstrapping the cluster, because the deployed Ceph containers are based on that image.

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