

CEPH-MGR ADMINISTRATOR'S GUIDE

MANUAL SETUP

Usually, you would set up a ceph-mgr daemon using a tool such as ceph-ansible. These instructions describe how to set up a ceph-mgr daemon manually.

First, create an authentication key for your daemon:

```
ceph auth get-or-create mgr.$name mon 'allow profile mgr' osd 'allow *' mds 'allow *'
```

Place that key into mgr data path, which for a cluster “ceph” and mgr \$name “foo” would be /var/lib/ceph/mgr/ceph-foo.

Start the ceph-mgr daemon:

```
ceph-mgr -i $name
```

Check that the mgr has come up by looking at the output of ceph status, which should now include a mgr status line:

```
mgr active: $name
```

CLIENT AUTHENTICATION

The manager is a new daemon which requires new CephX capabilities. If you upgrade a cluster from an old version of Ceph, or use the default install/deploy tools, your admin client should get this capability automatically. If you use tooling from elsewhere, you may get EACCES errors when invoking certain ceph cluster commands. To fix that, add a “mgr allow *” stanza to your client’s cephx capabilities by [Modifying User Capabilities](#).

HIGH AVAILABILITY

In general, you should set up a ceph-mgr on each of the hosts running a ceph-mon daemon to achieve the same level of availability.

By default, whichever ceph-mgr instance comes up first will be made active by the monitors, and the others will be standbys. There is no requirement for quorum among the ceph-mgr daemons.

If the active daemon fails to send a beacon to the monitors for more than mon mgr beacon grace (default 30s), then it will be replaced by a standby.

If you want to pre-empt failover, you can explicitly mark a ceph-mgr daemon as failed using ceph mgr fail <mgr name>.

USING MODULES

Use the command ceph mgr module ls to see which modules are available, and which are currently enabled. Enable or disable modules using the commands ceph mgr module enable <module> and ceph mgr module disable <module> respectively.

If a module is *enabled* then the active ceph-mgr daemon will load and execute it. In the case of modules that provide a service, such as an HTTP server, the module may publish its address when it is loaded. To see the addresses of such modules, use the command ceph mgr services.

Some modules may also implement a special standby mode which runs on standby ceph-mgr daemons as well as the active daemon. This enables modules that provide services to redirect their clients to the active daemon, if the client tries to connect to a standby.

Consult the documentation pages for individual manager modules for more information about what functionality each module provides.

Here is an example of enabling the dashboard module:

```
$ ceph mgr module ls
{
    "enabled_modules": [
        "restful",
        "status"
    ],
    "disabled_modules": [
        "dashboard"
    ]
}

$ ceph mgr module enable dashboard
$ ceph mgr module ls
{
    "enabled_modules": [
        "restful",
        "status",
        "dashboard"
    ],
    "disabled_modules": [
    ]
}

$ ceph mgr services
{
    "dashboard": "http://myserver.com:7789/",
    "restful": "https://myserver.com:8789/"
}
```

CALLING MODULE COMMANDS

Where a module implements command line hooks, the commands will be accessible as ordinary Ceph commands:

```
ceph <command | help>
```

If you would like to see the list of commands handled by the manager (where normal `ceph help` would show all mon and mgr commands), you can send a command directly to the manager daemon:

```
ceph tell mgr help
```

Note that it is not necessary to address a particular mgr instance, simply `mgr` will pick the current active daemon.

CONFIGURATION

`mgr module path`

Description: Path to load modules from
Type: String
Default: "<library dir>/mgr"

`mgr data`

Description: Path to load daemon data (such as keyring)
Type: String
Default: "/var/lib/ceph/mgr/\$cluster-\$id"

`mgr tick period`

Description: How many seconds between mgr beacons to monitors, and other periodic checks.
Type: Integer
Default: 5

mon mgr beacon grace

Description: How long after last beacon should a mgr be considered failed
Type: Integer
Default: 30