The following arguments are available:

`k`
The number of data chunks that are split across OSDs. The default value is 2.

`m`
The number of OSDs that can fail before the data becomes unavailable. The default value is 1.

`directory`
This optional parameter is the location of the plug-in library. The default value is `/usr/lib64/ceph/erasure-code`.

`plugin`
This optional parameter defines the erasure coding algorithm to use.

`crush-failure-domain`
This optional parameter defines the CRUSH failure domain, which controls chunk placement. By default, it is set to `host`, which ensures that an object's chunks are placed on OSDs on different hosts. If set to `osd`, then an object's chunks can be placed on OSDs on the same host. Setting the failure domain to `osd` is less resilient because all OSDs on a host will fail if the host fails. Failure domains can be defined and used to ensure chunks are placed on OSDs on hosts in different data center racks or other customization.

`crush-device-class`
This optional parameter selects only OSDs backed by devices of this class for the pool. Typical classes might include `hdd`, `ssd`, or `nvme`.

`crush-root`
This optional parameter sets the root node of the CRUSH rule set.

key=value
Plug-ins might have key-value parameters unique to that plug-in.

`technique`
Each plug-in provides a different set of techniques that implement different algorithms.

Important
You cannot modify or change the erasure code profile of an existing pool.

Use the `ceph osd erasure-code-profile ls` command to list existing profiles.

Use the `ceph osd erasure-code-profile get` command to view the details of an existing profile.

Use the `ceph osd erasure-code-profile rm` command to remove an existing profile.

Managing and Operating Pools

You can view and modify existing pools and change pool configuration settings.

- Rename a pool by using the `ceph osd pool rename` command. This does not affect the data stored in the pool. If you rename a pool and you have per-pool capabilities for an authenticated user, you must update the user's capabilities with the new pool name.
- Delete a pool by using the `ceph osd pool delete` command.