Working with a public Swift container

Prerequisites

In order to create a Swift container, be sure that you have installed and configured the required command-line interface (CLI) tools.

Creating the container

To create a public container (that is, one whose contents can be accessed without credentials), use the following command:

OpenStack CLI **Swift CLI**

```
$ openstack container create --public public-
container
+---------------------------------------+-----------------
+-------------------------------------------------+
| account                               | container       | x-
trans-id                                      |
+---------------------------------------+-----------------
+-------------------------------------------------+
| AUTH_30a7768a0ffc40359d6110f21a6e7d88 |
public-container |
tx00000d4f7d958e3e0c9aa-00638dc6ac-300de11-
default |
+---------------------------------------+-----------------
+-------------------------------------------------+
```

Retrieving container information

```
$ swift post --read-acl ".r:*,.rlistings" public-
container
```

h your current set of credentials, use this command:

This command produces no output.

OpenStack CLI **Swift CLI**

```
$ openstack
container list
+------------------
+
|
Name
|
+------------------
+
| private-
container |
| public-
container  |
```

```
+------------------
+

$ swift list
private-
container
public-
container
```

detailed information about an individual container, you can also use this command. Observe that the Read access control list (ACL) contains the entry `.r:*,.rlistings`, which enables read access to all objects in a container, and to a list of objects included in the container.

OpenStack CLI **Swift CLI**

```
openstack container show public-container
+---------------+--------------------------------------+
| Field         | Value                                |
+---------------+--------------------------------------+
| account       |
AUTH_30a7768a0ffc40359d6110f21a6e7d88 |
| bytes_used    | 0                                    |
| container     | public-container                     |
| object_count  | 0                                    |
| read_acl      | .r:*,.rlistings                      |
| storage_policy | default-placement                   |
+---------------+--------------------------------------+

$ swift stat public-container
                  Account:
AUTH_30a7768a0ffc40359d6110f21a6e7d88
                Container: public-container
                  Objects: 0
                    Bytes: 0
                 Read ACL: .r:*,.rlistings
                Write ACL:
                  Sync To:
                 Sync Key:
               X-Timestamp: 1670235997.87682
X-Container-Bytes-Used-Actual: 0
           X-Storage-Policy: default-placement
            X-Storage-Class: STANDARD
              Last-Modified: Mon, 05 Dec 2022
10:26:37 GMT
                X-Trans-Id:
tx00000cd9e7c26095ab862-00638dc78a-301ddeb-
default
      X-Openstack-Request-Id:
tx00000cd9e7c26095ab862-00638dc78a-301ddeb-
default
             Accept-Ranges: bytes
              Content-Type: text/plain; charset=utf-8
```

local test file:

```
$ echo "hello world" > testobj.txt
```

Then, upload the file (as a Swift object) into your container, and read back its metadata:

OpenStack CLI **Swift CLI**

```
$ openstack object create public-container
testobj.txt
+------------+-----------------+----------------------------------+
| object     | container       |
etag                             |
+------------+-----------------+----------------------------------+
| testobj.txt | public-container |
6f5902ac237024bdd0c176cb93063dc4 |
+------------+-----------------+----------------------------------+

$ openstack object show public-container
testobj.txt
+---------------+--------------------------------------+
| Field         | Value                                |
+---------------+--------------------------------------+
| account       |
AUTH_30a7768a0ffc40359d6110f21a6e7d88 |
| container     | public-container                     |
| content-length | 12                                  |
| content-type  | text/plain                           |
| etag          |
6f5902ac237024bdd0c176cb93063dc4     |
| last-modified  | Mon, 05 Dec 2022 10:28:09
GMT         |
| object        | testobj.txt                          |
+---------------+--------------------------------------+

$ swift upload public-container testobj.txt
testobj.txt

$ swift stat public-container testobj.txt
             Account:
AUTH_30a7768a0ffc40359d6110f21a6e7d88
           Container: public-container
              Object: testobj.txt
        Content Type: text/plain
      Content Length: 12
       Last Modified: Mon, 05 Dec 2022 10:28:09
GMT
                ETag:
6f5902ac237024bdd0c176cb93063dc4
       Accept-Ranges: bytes
         X-Timestamp: 1670236089.75015
          X-Trans-Id:
tx0000075bca59e9149bc53-00638dc7fa-301ddeb-
default
X-Openstack-Request-Id:
tx0000075bca59e9149bc53-00638dc7fa-301ddeb-
default
```

container, you can use the following

OpenStack CLI **Swift CLI**

```
$ openstack object
save --file - private-
container
testobj.txt
hello world
```

The `--file -` option prints the file contents to stdout. If instead you want to save the object's content to a local file, use `--file <filename>`.

If you omit the `--file` argument altogether, `openstack object save` will create a local file named like the object you are downloading (in this case, `testobj.txt`).

```
$ swift download -
o - private-
container
testobj.txt
hello world
```

The `-o -` option prints the file contents to stdout. If instead you want to save the object's content to a local file, use `-o <filename>`.

If you omit the `-o` argument altogether, `swift download` will create

a local file named
like the object you
are downloading (in
this case,
testobj.txt).

However, this being a public container, you can *also* retrieve your object using any regular HTTP/HTTPS client, using a public URL. This URL is composed as follows:

1. The Swift API's base URL, which differs by Cleura Cloud region (`https://swift-<region>.citycloud.com:<port>/swift/v1/`),
2. the container's account string, starting with `AUTH_` ,
3. the container name (in our example, `public-container`),
4. the object name (in our example, `testobj.txt`).

Rather than composing the public URL manually, you can also retrieve it by parsing the CLI's debug output:

OpenStack CLI **Swift CLI**

```
$ openstack object show --debug public-
container testobj.txt 2>&1 \
  | grep -o "https://.*testobj.txt"
https://swift-fra1.citycloud.com:8080/swift/
v1/
AUTH_30a7768a0ffc40359d6110f21a6e7d88/
public-container/testobj.txt
https://swift-fra1.citycloud.com:8080
"HEAD /swift/v1/
AUTH_30a7768a0ffc40359d6110f21a6e7d88/
public-container/testobj.txt
https://swift-fra1.citycloud.com:8080/swift/
v1/
AUTH_30a7768a0ffc40359d6110f21a6e7d88/
public-container/testobj.txt
```

you can fetch the object's contents
le uses `curl` :

```
$ swift stat --debug public-container
testobj.txt 2>&1 \
```

```
$ curl https://swift-fra1.citycloud.com:8080/swift/v1/
AUTH_30a7768a0ffc40359d6110f21a6e7d88/public-container/testobj.txt
hello world
```

```
public-container/testobj.txt
```

Last update: 2022-12-05

Created: 2022-12-05

Authors: Florian Haas