Object Storage

There is a Ceph Object Storage service running on SMS lab which is accessible via the Openstack Swift API endpoint. It is primarily for testing rather than resilient and/or performant object storage and is currently only accessible from inside the SMS lab network at the url `https://api.sms-lab.cloud:6780`.

Authentication

The ceph `radosgw` instance is configured to authenticate via OpenStack KeyStone. Therefore, as explained in the **official ceph docs**, in order to access the S3 API a set of credentials must be generated with `openstack ec2 credentials create`. The `access` and `secret` fields of the generated credentials can then be used to as the 'AWS access key' and 'AWS secret key' when making requests to the API endpoint.

Python example

The following code demonstrates using the `boto3` python library (the official AWS python SDK) to interact with the object storage service:

```
import boto3

access_key = <AWS-access-key>
secret_key = <AWS-secret-key>

# Configure s3 client
session = boto3.session.Session()
s3_client = session.client(
        service_name='s3',
        aws_access_key_id=access_key,
        aws_secret_access_key=secret_key,
        endpoint_url='https://api.sms-lab.cloud:6780/',
)

# List existing buckets
response = s3_client.list_buckets()
print(response['Buckets'])

# Create a new bucket
bucket_name = <name>
s3_client.create_bucket(Bucket=bucket_name)

# Add a local file as a new object
response = s3_client.upload_file(<local-file-path>, bucket_name, <new-
object-name>)
print(response['Contents'])
```