# UVS Cosbench Tutorial

## Environment:

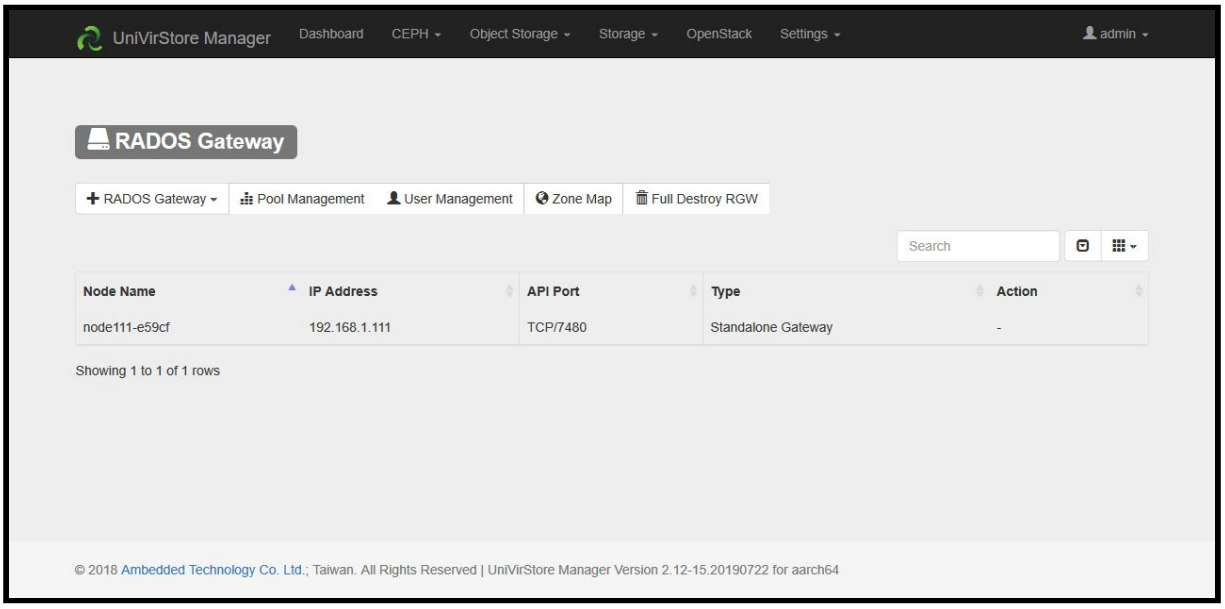
- Mars400 x1
- CentOS 7 client x1

## Step1:

Deploy Ceph RADOS Gateway on Mars400

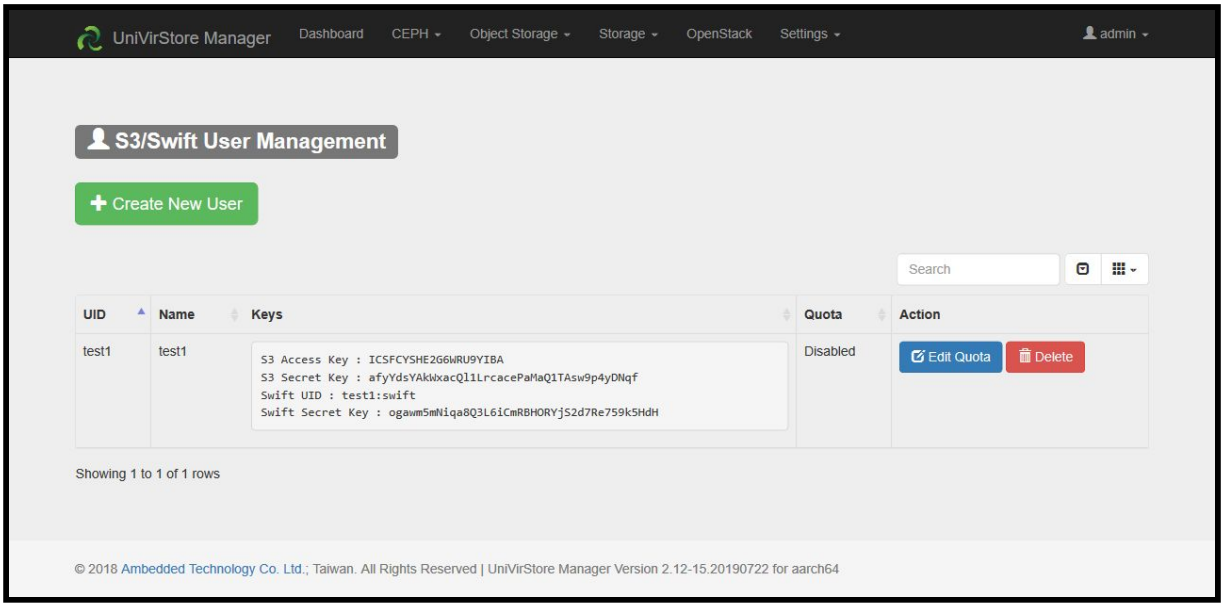
### 1-1:

Deploy “Standalone Gateway” or another type of Gateway.



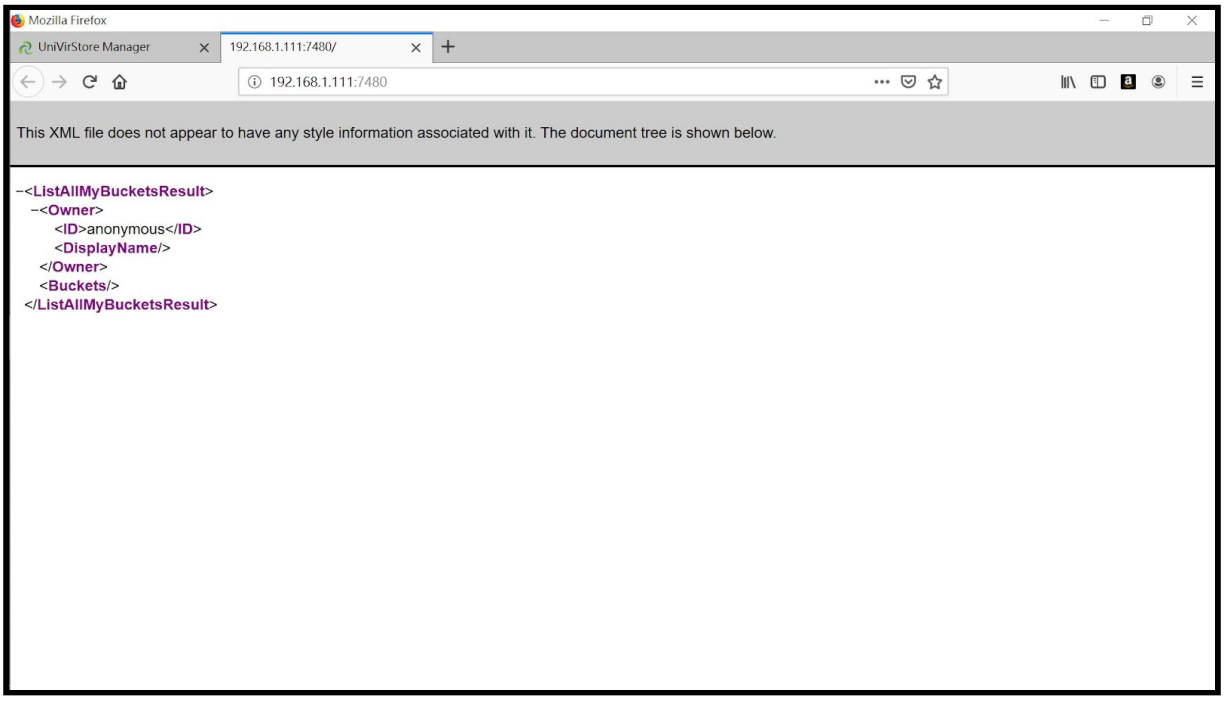

### 1-2:

Create S3 User and copy access & secret keys for cosbench.




## 1-3:

Test RADOS Gateway endpoint (http://RGW_IP:7480)




# Step2:

Install cosbench on CentOS 7 client.

## 2-1:

Download & Install cosbench
$ yum install java-1.7.0-openjdk nmap-ncat java
$ wget https://github.com/intel-cloud/cosbench/releases/download/v0.4.2.c4/0.4.2.c4.zip
$ unzip 0.4.2.c4.zip

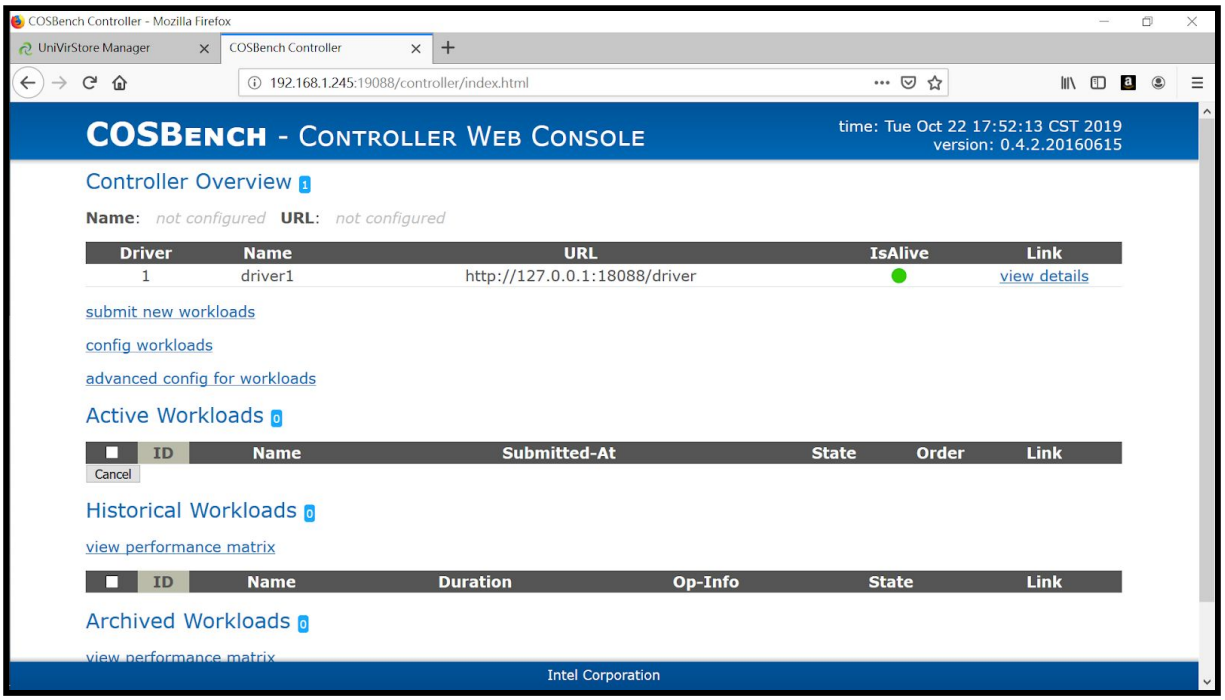
$ cd 0.4.2.c4
# Edit line 46 on cosbench-start.sh and add
“-Dcom.amazonaws.services.s3.disableGetObjectMD5Validation=true” for java
# /usr/bin/nohup java -Dcom.amazonaws.services.s3.disableGetObjectMD5Validation=true
-Dcosbench.tomcat.config=$TOMCAT_CONF …...
$ vi cosbench-start.sh
$ chmod +x *.sh
$ ./start-all.sh

```
Launching osgi framwork ...
Successfully launched osgi framework!
Booting cosbench driver ...
.
Starting    cosbench-log_0.4.2    [OK]
Starting    cosbench-tomcat_0.4.2    [OK]
Starting    cosbench-config_0.4.2    [OK]
Starting    cosbench-http_0.4.2    [OK]
Starting    cosbench-cdmi-util_0.4.2    [OK]
Starting    cosbench-core_0.4.2    [OK]
Starting    cosbench-core-web_0.4.2    [OK]
Starting    cosbench-api_0.4.2    [OK]
Starting    cosbench-mock_0.4.2    [OK]
Starting    cosbench-ampli_0.4.2    [OK]
Starting    cosbench-swift_0.4.2    [OK]
Starting    cosbench-keystone_0.4.2    [OK]
Starting    cosbench-httpauth_0.4.2    [OK]
Starting    cosbench-s3_0.4.2    [OK]
Starting    cosbench-librados_0.4.2    [OK]
Starting    cosbench-scality_0.4.2    [OK]
Starting    cosbench-cdmi-swift_0.4.2    [OK]
Starting    cosbench-cdmi-base_0.4.2    [OK]
Starting    cosbench-driver_0.4.2    [OK]
Starting    cosbench-driver-web_0.4.2    [OK]
Successfully started cosbench driver!
Listening on port 0.0.0.0/0.0.0.0:18089 ...
Persistence bundle starting...
Persistence bundle started.
---------------------------------------------
!!! Service will listen on web port: 18088 !!!
---------------------------------------------
```

```
=====================================================

Launching osgi framwork ...
Successfully launched osgi framework!
Booting cosbench controller ...
.
Starting    cosbench-log_0.4.2    [OK]
Starting    cosbench-tomcat_0.4.2    [OK]
Starting    cosbench-config_0.4.2    [OK]
Starting    cosbench-core_0.4.2    [OK]
Starting    cosbench-core-web_0.4.2    [OK]
Starting    cosbench-controller_0.4.2    [OK]
Starting    cosbench-controller-web_0.4.2    [OK]
Successfully started cosbench controller!
Listening on port 0.0.0.0/0.0.0.0:19089 ...
Persistence bundle starting...
Persistence bundle started.
---------------------------------------------
!!! Service will listen on web port: 19088 !!!
---------------------------------------------
```

## 2-2:

Browse cosbench homepage (http://CentOS_CLIENT_IP:19088/controller/index.html)




## 2-3:

Edit samplefile and run a test.
# Still in 0.4.2.c4 folder
$ cp conf/s3-config-sample.xml s3-rgw.xml
$ vi s3-rgw.xml
$ ./cli.sh submit s3-rgw.xml
Accepted with ID: w1

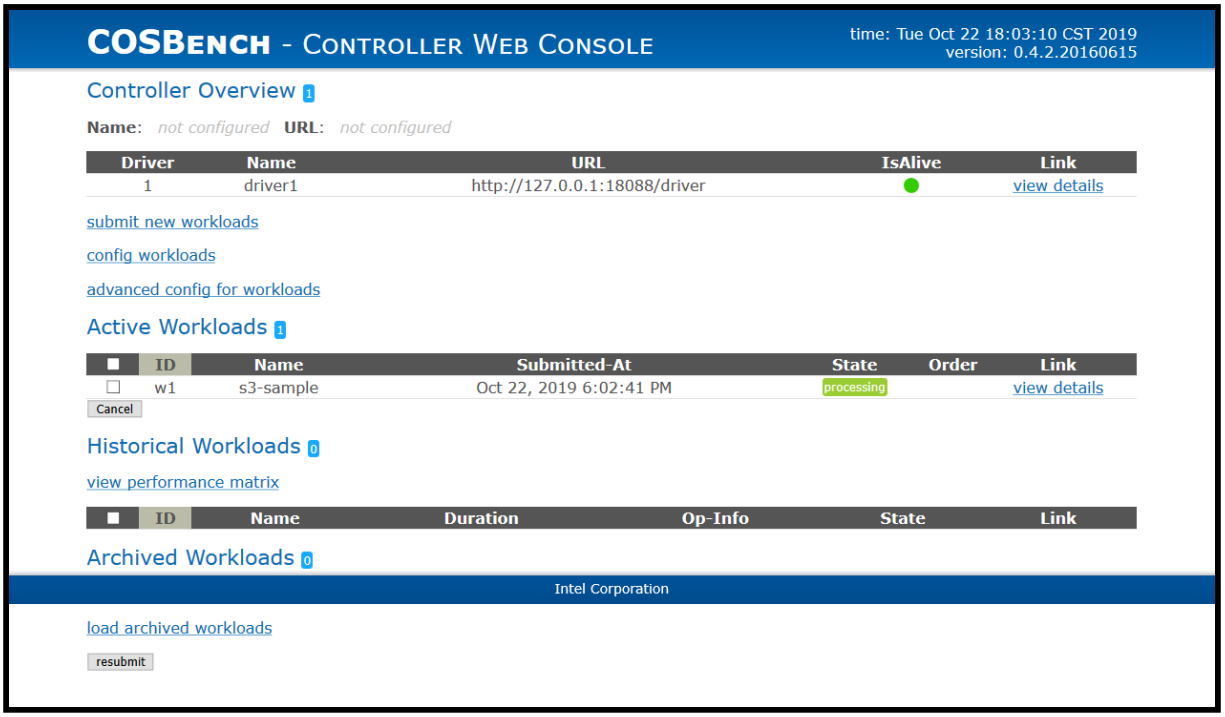
## s3-rgw.xml

```
# Red words, You should edit it
# Green words, You might want to edit it
<?xml version="1.0" encoding="UTF-8" ?>
<workload name="s3-sample" description="sample benchmark for s3">

  <storage type="s3"
config="accesskey=ICSFCYSHE2G6WRU9YIBA;secretkey=afyYdsYAkWxacQl1LrcacePa
MaQ1TAsw9p4yDNqf;endpoint=http://192.168.1.111:7480;path_style_access=true" />

  <workflow>

    <workstage name="init">
      <work type="init" workers="1" config="cprefix=s3testqwer;containers=r(1,2)" />
    </workstage>

    <workstage name="prepare">
```

```
    <work type="prepare" workers="1"
config="cprefix=s3testqwer;containers=r(1,2);objects=r(1,10);sizes=c(64)KB" />
  </workstage>

  <workstage name="main">
    <work name="main" workers="8" runtime="30">
      <operation type="read" ratio="80"
config="cprefix=s3testqwer;containers=u(1,2);objects=u(1,10)" />
      <operation type="write" ratio="20"
config="cprefix=s3testqwer;containers=u(1,2);objects=u(11,20);sizes=c(64)KB" />
    </work>
  </workstage>

  <workstage name="cleanup">
    <work type="cleanup" workers="1"
config="cprefix=s3testqwer;containers=r(1,2);objects=r(1,20)" />
  </workstage>

  <workstage name="dispose">
    <work type="dispose" workers="1" config="cprefix=s3testqwer;containers=r(1,2)" />
  </workstage>

 </workflow>

</workload>
```

## 2-4:

Test running



# COSBENCH - CONTROLLER WEB CONSOLE

time: Tue Oct 22 18:03:47 CST 2019
version: 0.4.2.20160615

index -> workload

## Workload

### Basic Info

**ID**: w1 **Name**: s3-sample **Current State**: finished

**Submitted At**: Oct 22, 2019 6:02:41 PM **Started At**: Oct 22, 2019 6:02:41 PM **Stopped At**: Oct 22, 2019 6:03:38 PM

more info

### Final Result

**General Report**

| Op-Type | Op-Count | Byte-Count | Avg-ResTime | Avg-ProcTime | Throughput | Bandwidth | Succ-Ratio |
|---|---|---|---|---|---|---|---|
| op1: init -write | 0 ops | 0 B | N/A | N/A | 0 op/s | 0 B/S | N/A |
| op1: prepare -write | 20 ops | 1.28 MB | 35.4 ms | 29.65 ms | 27.55 op/s | 1.76 MB/S | 100% |
| op1: read | 6.46 kops | 413.57 MB | 14.52 ms | 13.7 ms | 215.66 op/s | 13.8 MB/S | 100% |
| op2: write | 1.56 kops | 99.58 MB | 93.35 ms | 92.67 ms | 51.93 op/s | 3.32 MB/S | 100% |
| op1: cleanup -delete | 40 ops | 0 B | 23.55 ms | 23.55 ms | 42.37 op/s | 0 B/S | 100% |
| op1: dispose | | | | | | | |

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show peformance details

### Stages

| Current Stage | Stages completed | Stages remaining | Start Time | End Time | Time Remaining |
|---|---|---|---|---|---|
| | | | | | |

| ID | Name | Works | Workers | Op-Info | State | Link |
|---|---|---|---|---|---|---|
| w1-s1-init | init | 1 wks | 1 wkrs | init | completed | view details |
| w1-s2-prepare | prepare | 1 wks | 1 wkrs | prepare | completed | view details |
| w1-s3-main | main | 1 wks | 8 wkrs | read, write | completed | view details |
| w1-s4-cleanup | cleanup | 1 wks | 1 wkrs | cleanup | completed | view details |
| w1-s5-dispose | dispose | 1 wks | 1 wkrs | dispose | completed | view details |

There are 5 stages in this workload.

show error statistics details

**Performance Graph**

### Actions

download-log download-config

go back to index