

# Scenario 18

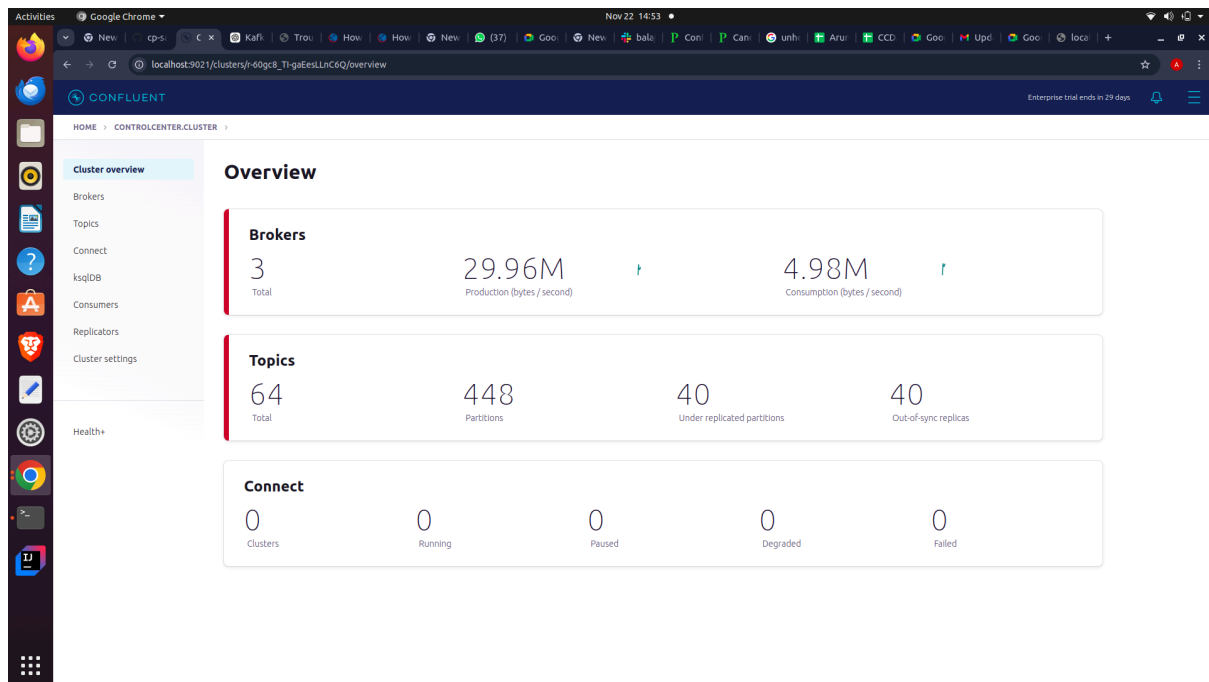
## Problem-statement :

The customer notices a red color for one of the panels in the control-center.  
Troubleshoot the cause for the red color in the control-center and propose a solution to fix the issue.

## Observation :

When I up the docker compose up -d command then containers have been built and 9 producers are up and running when I see the statuses of containers. When navigated to UI of the control center with localhost : 9021 port I have seen the brokers are with trouble and red marked

## Errors :



## Approach / Method :

- TLS AND MTLS (renewal of certificates) &&
- Tuning the broker configuration

## Detailed Solution :

### 1. Renewal of certificates :

While I up the docker-compose first I observed the kafka-brokers are down and then I logged the each containers then I have got the ssl certificate errors .then I have checked the certificate validities and passwords and correct paths and matched . I pointed out that error was due to certificate validity they have expired .

Then I have renewed the certificates of all brokers by using commands

```
keytool -keystore kafka.server.keystore.jks -alias localhost -certreq  
-file kafka-broker-new.csr
```

```
openssl x509 -req -CA ~/tasks/cp-sandbox/certs/ca-cert -CAkey  
~/tasks/cp-sandbox/certs/ca-key -in kafka-broker-new.csr -out  
kafka-broker-new-signed-cert.pem -days 365 -CAcreateserial
```

```
keytool -keystore kafka.server.keystore.jks -alias localhost -import -file  
kafka-broker-new-signed-cert.pem
```

Again then I have checked the certificates and then watched the validate the expiry date its good and updated for 365 days.

### 2. Tuning the broker configuration :

In server.properties of all the kafka brokers we need to change the retention policies logs produced from the consumer

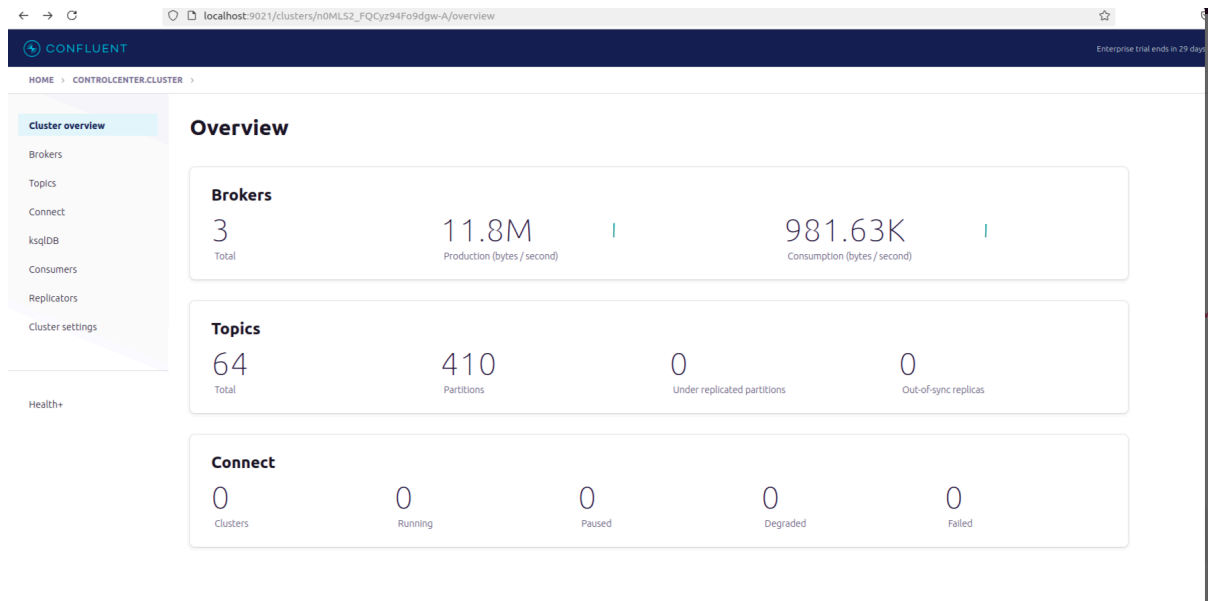
```
log.retention.hour=168 we need to reduce it >>>>>>  
log.retention.ms = 1000
```

```
log.retention.check.interval.ms=600000 reduce it to >>>>>  
log.retention.check.interval.ms=1000
```

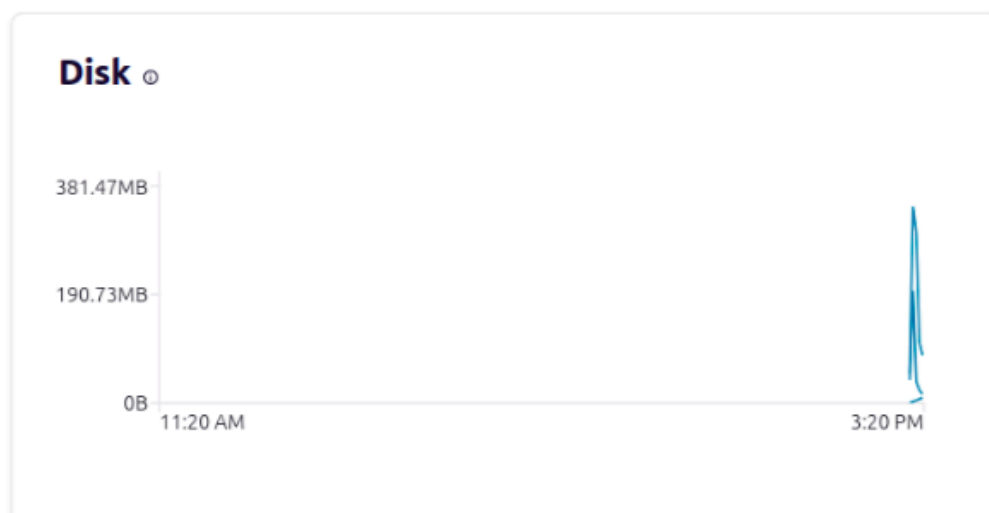
```
log.segment.bytes=390988788 reduce it to >>>>>>  
log.segment.bytes=10485760
```

```
log.retention.bytes=390988788 reduce it to >>>>>>  
log.retention.bytes=10485760
```

After changing these configs we then check the control center  
Then see the broker health it has changed to normal and  
production rate also consumption rate has also down



Brokers are healthy and there is no red that there is no issues with brokers



The above Disk graph will shows that utilization of the disk space by kafka topics or kafka data it is also normal.

## Conclusion :

- ☐ If the brokers are having issues like disk space usage then we need to check the production rate and retention periods of the logs or messages and then we need to configure the logs retention periods to ensure the disk space is not get loaded and ensure to clean the logs by decreasing the retention period e

- ☐ Another way to tuning this is vertically scaling up the brokers by adding disk spaces and adding nodes cluster to ensure the highthrouput and maintain the cluster health.