

Scenario 11

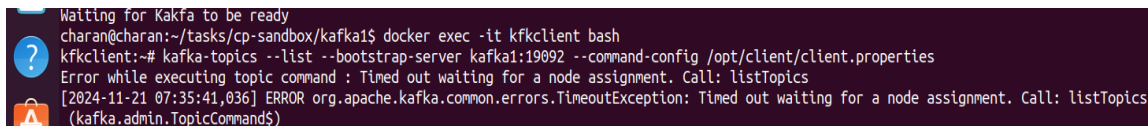
Problem-statement :

The client is unable to produce/consume from the topic `inventory_changes` using the command -

Observation :

All the containers are up but while listing the topics via port 19092 port of kafka1 broker with `sasl_plaintext` protocol not producing timeout error is coming . But while listing topics with other port 29092 and 39092 ports it is listing

Errors :



```
Waiting for Kafka to be ready
charan@charan:~/tasks/cp-sandbox/kafka1$ docker exec -it kfkclient bash
kfkclient:~# kafka-topics --list --bootstrap-server kafka1:19092 --command-config /opt/client/client.properties
Error while executing topic command : Timed out waiting for a node assignment. Call: listTopics
[2024-11-21 07:35:41,036] ERROR org.apache.kafka.common.errors.TimeoutException: Timed out waiting for a node assignment. Call: listTopics
(kafka.admin.TopicCommand$)
```

Error while executing topic command : Timed out waiting for a node assignment. Call: listTopics
[2024-11-21 07:35:41,036] ERROR
org.apache.kafka.common.errors.TimeoutException: Timed out waiting for a node assignment. Call: listTopics
(kafka.admin.TopicCommand\$)

Approach / Method :

TLS (renewal of certificates) &&

Checking the network connectivity issue (netcat, nmap methods, ping)

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

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. Check the network connectivity :

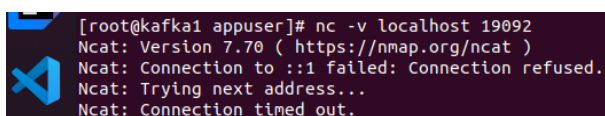
While the specific kafka1 port 19092 is not properly working when listing or producing creating the topics check the network connectivity like tcp connectivity so use netcat methods to check the connectivity for dns or host ports like ..

1) Nmap (tool) method to check the port access or status :

- `nmap -p 19092 kafka1` for this command after the output was been like that
Filtered means port has been **firewalled** or **blocked**
PORT STATE SERVICE
19092/tcp filtered unknown
- `nmap -p 29092 localhost`
PORT STATE SERVICE
29092/tcp open unknown
- `nmap -p 39092 localhost`
PORT STATE SERVICE
39092/tcp open unknown
- After adding available port by replacing filtered port 19092 by 19095 then when we check the port status
`nmap -p 19095 localhost`
PORT STATE SERVICE
19095/tcp open unknown

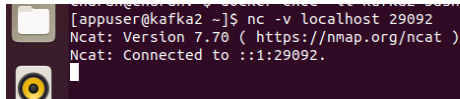
2) Netcat (tool) method to check the port access :

- Check for 19092 kafka1 inside the kafka1 container
Command : `ncat -v localhost 19092`
Failed to connect



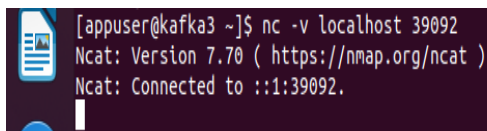
```
[root@kafka1 appuser]# nc -v localhost 19092  
Ncat: Version 7.70 ( https://nmap.org/ncat )  
Ncat: Connection to ::1 failed: Connection refused.  
Ncat: Trying next address...  
Ncat: Connection timed out.
```

- Check for 29092 kafka1 inside the kafka2 container
Command : `ncat -v localhost 29092`
Successfully connected



```
[appuser@kafka2 ~]$ nc -v localhost 29092
Ncat: Version 7.70 ( https://nmap.org/ncat )
Ncat: Connected to ::1:29092.
```

- Check for 19092 kafka1 inside the kafka1 container
Command : `ncat -v localhost 19092`
Connected successfully



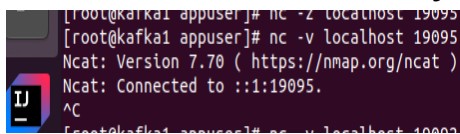
```
[appuser@kafka3 ~]$ nc -v localhost 39092
Ncat: Version 7.70 ( https://nmap.org/ncat )
Ncat: Connected to ::1:39092.
```

- Check the available ports and replace it by that
So after I changed the port number for the sasl_plaintext (plain module mechanism port) from 19092 >>> 19095

`listeners=CLIENT://:19095,BROKER://:19093,TOKEN://:19094`

`advertised.listeners=CLIENT://kafka1:19095,BROKER://kafka1:19093,TOKEN://kafka1:19094`

Then successfully connected



```
[root@kafka1 appuser]# nc -v localhost 19095
Ncat: Version 7.70 ( https://nmap.org/ncat )
Ncat: Connected to ::1:19095.
```

Conclusion :

- ☐ For the port if we get the metadata errors and NoLeaderOrFollower exception then we can move to check the network connectivity for that broker and then check the port accessibility using the netcat methods and nmap and also use ping method to solve that
- ☐ After that change to the available ports