

Scenario1

Problem-statement :

The client notices that the connect cluster is down on control-center(localhost:9021). This is after an security audit removed some users from the super users list.

Troubleshoot and provide a secure solution for the client

Observation :

When I run docker-compose up -d then I observed that I have seen the kafka1, kafka2, kafka3 and connect component were not running.

Errors :

Expiring credential valid from Thu Nov 14 07:10:49 GMT 2024 to Thu Nov 14 13:10:49 GMT 2024
(org.apache.kafka.common.security.oauthbearer.internals.expiring.ExpiringCredentialRefreshingLogin:318)

org.apache.kafka.common.errors.TopicAuthorizationException: Not authorized to access topics: [connect-offsets]

[2024-11-14 07:24:56,560] INFO DefaultSessionIdManager workerName=node0
(org.eclipse.jetty.server.session:334)

[2024-11-14 07:24:56,561] INFO No SessionScavenger set, using defaults
(org.eclipse.jetty.server.session:339)

[2024-11-14 07:24:56,564] INFO Stopped http_8083@f09430e{HTTP/1.1, (http/1.1)}{0.0.0.0:8083} (org.eclipse.jetty.server.AbstractConnector:383)

[2024-11-14 07:24:56,565] INFO node0 Scavenging every 600000ms
(org.eclipse.jetty.server.session:132)

[2024-11-14 07:24:56,566] INFO node0 Stopped scavenging
(org.eclipse.jetty.server.session:149)

org.apache.kafka.common.errors.GroupAuthorizationException: Not authorized to access group: connect-cluster

Approach / Method :

☐ TLS AND MTLS (renewal of certificates) &&

- ☐ Assign the correct role to the user connectAdmin perform only some operations

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. **Assign the roles to the connectAdmin :**

Assign the Resourceowner role to the connectAdmin user for resource topic

1. [Connect-offsets](#)
2. [Connect-configs](#)
3. [connect-status](#)

Using commands below :

- `confluent iam rbac role-binding create --principal
User:connectAdmin --role ResourceOwner --resource
Topic:connect-configs --kafka-cluster
yvsrsf0LSLaWy5I07ycoYQ`
- `confluent iam rbac role-binding create --principal
User:connectAdmin --role ResourceOwner --resource
Topic:connect-status --kafka-cluster yvsrsf0LSLaWy5I07ycoYQ`
- `confluent iam rbac role-binding create --principal
User:connectAdmin --role ResourceOwner --resource
Topic:connect-offsets --kafka-cluster
yvsrsf0LSLaWy5I07ycoYQ`

Then I have tried to up the connector but I have got the error again

org.apache.kafka.common.errors.GroupAuthorizationException: Not authorized to access group: connect-cluster

Again I have added the role binding to the **connect-cluster**

- `confluent iam rbac role-binding create --principal User:connectAdmin --role ResourceOwner --resource Group:connect-cluster --kafka-cluster yvsrsf0LSLaWy5l07ycoYQ`

Conclusion :

If the containers are down log the containers first and then see the errors then troubleshoot with appropriate solution

- ☐ Check the kafka brokers health and troubleshoot
- ☐ By adding the connectAdmin user to the roles using rbac we can see the connector health in confluent cloud

