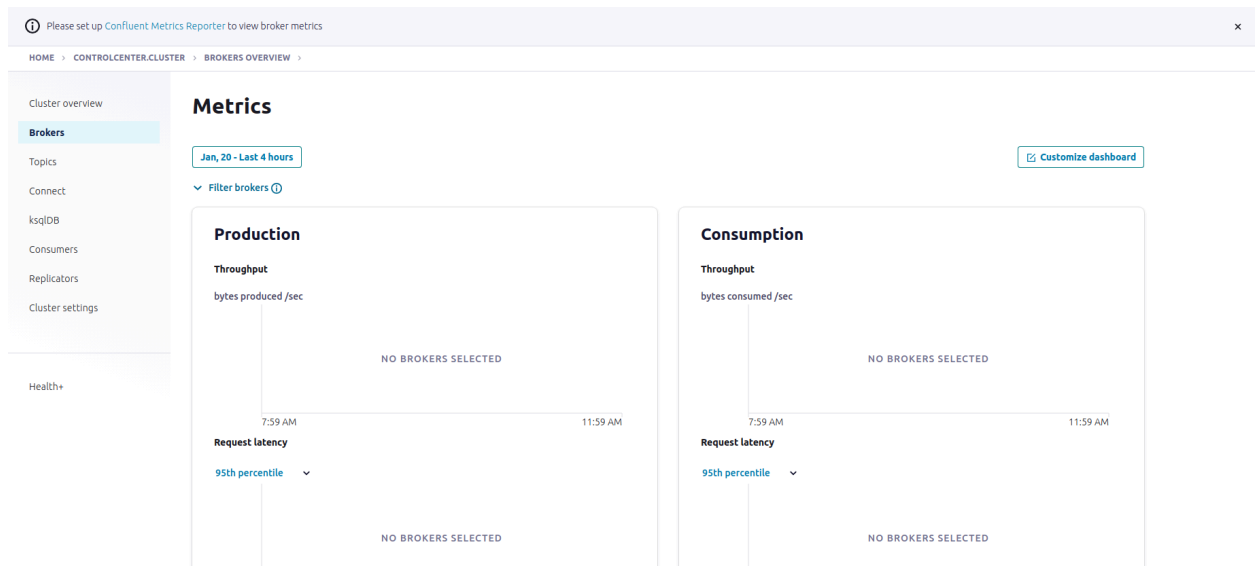


Scenario 21

Problem statement

There are no broker metrics captured in the control center. The control center has a message - Please set up Confluent Metrics Reporter to view broker metrics. The customer has setup Confluent Metrics Reporter but is still unable to view broker metrics.



Observation

It is noticed that there is no broker metrics being captured, and it shows an error message saying “Please set up Confluent Metrics Reporter to view broker metrics” at the top.

Root cause analysis

```
kafka1 [2025-01-20 08:32:54,236] WARN [Consumer clientId=confluent-netadata-auth-consumer-1, groupId=null] Connection to node 2 (kafka2/172.18.0.6:9093) could not be established. Broker may not be available. (org.apache.kafka.clients.NetworkClient)
kafka1 [2025-01-20 08:32:54,236] INFO [AdminClient clientId=adminclient-35] Node -2 disconnected. (org.apache.kafka.clients.NetworkClient)
kafka1 [2025-01-20 08:32:54,236] WARN [AdminClient clientId=adminclient-35] Connection to node -2 (kafka2/172.18.0.6:9095) could not be established. Broker may not be available. (org.apache.kafka.clients.NetworkClient)
kafka1 [2025-01-20 08:32:54,236] INFO [Consumer clientId=confluent-netadata-auth-consumer-1, groupId=null] Error sending fetch request (sessionId=982111156, epoch=INITIAL) to node 2: (org.apache.kafka.clients.FetchSessionHandler)
```

Observation

It is observed that the connection to node is refused which is using port 9095.

```
nandan@nandan-virtual-machine:~/scenarios/scenario21/cp-sandbox$ docker compose logs kafka1 | grep ERROR
WARN[0000] The "ADMIN_USER" variable is not set. Defaulting to a blank string.
WARN[0000] The "ADMIN_PASSWORD" variable is not set. Defaulting to a blank string.
WARN[0000] /home/nandan/scenarios/scenario21/cp-sandbox/docker-compose.yml: the attribute 'version' is obsolete, it will be ignored, please remove it to avoid potential confusion
kafka1 | [2025-01-20 07:19:23,916] ERROR Error checking or creating metrics topic (io.confluent.metrics.reporter.ConfluentMetricsReporter)
kafka1 | [2025-01-20 07:20:23,944] ERROR Error checking or creating metrics topic (io.confluent.metrics.reporter.ConfluentMetricsReporter)
kafka1 | [2025-01-20 07:21:24,073] ERROR Error checking or creating metrics topic (io.confluent.metrics.reporter.ConfluentMetricsReporter)
kafka1 | [2025-01-20 07:22:24,152] ERROR Error checking or creating metrics topic (io.confluent.metrics.reporter.ConfluentMetricsReporter)
kafka1 | [2025-01-20 07:23:24,173] ERROR Error checking or creating metrics topic (io.confluent.metrics.reporter.ConfluentMetricsReporter)
kafka1 | [2025-01-20 07:24:24,243] ERROR Error checking or creating metrics topic (io.confluent.metrics.reporter.ConfluentMetricsReporter)
kafka1 | [2025-01-20 07:25:24,296] ERROR Error checking or creating metrics topic (io.confluent.metrics.reporter.ConfluentMetricsReporter)
kafka1 | [2025-01-20 07:26:24,306] ERROR Error checking or creating metrics topic (io.confluent.metrics.reporter.ConfluentMetricsReporter)
kafka1 | [2025-01-20 07:27:24,341] ERROR Error checking or creating metrics topic (io.confluent.metrics.reporter.ConfluentMetricsReporter)
```

Observation

It is also observed that kafka brokers returns the above error messages which says the topic `_confluent-metrics` cannot be accessed. The `_confluent-metrics` topic is used by the **Confluent Metrics Reporter** to store operational metrics from brokers, producers, and consumers. It is primarily used to store data on broker metrics, cluster health etc.

Root cause analysis

The confluent metrics are set up in such a way that it uses SSL for communication in this case to ensure data integrity and security which uses port 9093 for SSL communications. But in the metrics configuration, it is configured to use SSL with the wrong port i.e 9095.

Solution to debug the problem

In all the brokers setup, change the port numbers from 9095 to 9093, which is the correct port for SSL communication. As Confluent Metrics Reporter are set up in such a way that it uses SSL communication in this case which is safe and ensures data integrity and security.

1. Check the setup of ports

```
# Listeners = SASL_PLAINTEXT://:9092,BROKER://:9093,TOKEN://:9094,USER://:9095
listeners=CLIENT://:9092,BROKER://:9093,TOKEN://:9094,USER://:9095

# Listener name, hostname and port the broker will advertise to clients.
# If not set, it uses the value for "listeners".
advertised.listeners=CLIENT://kafka1:9092,BROKER://kafka1:9093,TOKEN://kafka1:9094,USER://kafka1:9095

# security.inter.broker.protocol=SSL
inter.broker.listener.name=BROKER

ssl.truststore.location=/etc/kafka/kafka.server.truststore.jks
ssl.truststore.password=729999
ssl.keystore.location=/etc/kafka/kafka.server.keystore.jks
ssl.keystore.password=729999
ssl.client.auth=required

# Maps listener names to security protocols, the default is for them to be the same. See the config documentation for more details
listener.security.protocol.map=CLIENT:SASL_PLAINTEXT,BROKER:SSL,TOKEN:SASL_PLAINTEXT,USER:PLAINTEXT
```

Observation

Uses 9093 port for SSL communication.

2. Check the setup of metrics.reporter

```
# to point to your metrics kafka cluster.  
metric.reporters=io.confluent.metrics.reporter.ConfluentMetricsReporter  
confluent.metrics.reporter.bootstrap.servers=kafka1:9093,kafka2:9093,kafka3:9093  
confluent.metrics.reporter.security.protocol=SSL  
confluent.metrics.reporter.ssl.truststore.location=/etc/kafka/kafka.server.truststore.jks  
confluent.metrics.reporter.ssl.truststore.password=729999  
confluent.metrics.reporter.ssl.keystore.location=/etc/kafka/kafka.server.keystore.jks  
confluent.metrics.reporter.ssl.keystore.password=729999
```

Observation

It is setup to use SSL protocol for communication but with the wrong port 9095.

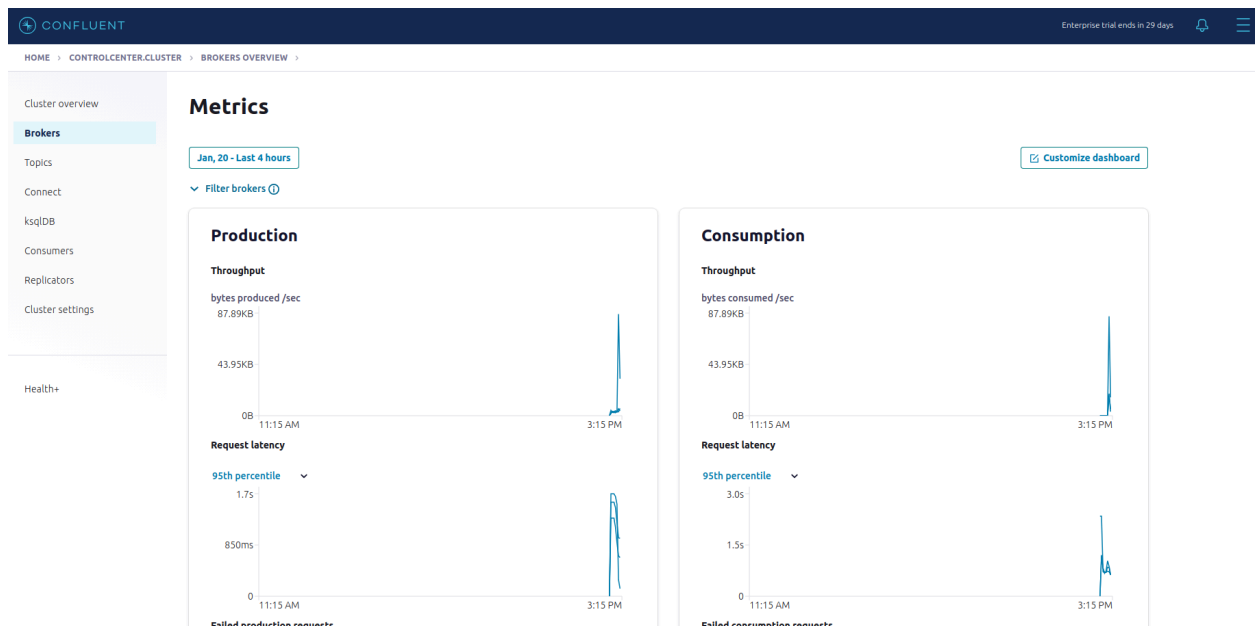
3. Change the port number to 9093 which is the correct port to use SSL protocol

```
metric.reporters=io.confluent.metrics.reporter.ConfluentMetricsReporter  
confluent.metrics.reporter.bootstrap.servers=kafka1:9093,kafka2:9093,kafka3:9093  
confluent.metrics.reporter.security.protocol=SSL  
confluent.metrics.reporter.ssl.truststore.location=/etc/kafka/kafka.server.truststore.jks  
confluent.metrics.reporter.ssl.truststore.password=729999  
confluent.metrics.reporter.ssl.keystore.location=/etc/kafka/kafka.server.keystore.jks  
confluent.metrics.reporter.ssl.keystore.password=729999
```

Observation

It is setup to use SSL protocol for communication but with the correct port 9093.

4. Restart the containers and check the control center for broker metrics



Observation

Successfully able to see the broker metrics.

Conclusion

Since the confluent metrics reporter was set up in such a way that it was specified to use SSL protocol but was mapped to wrong port 9095, re-mapping the ports to 9093 that is the actual port for SSL communication in all the server.properties files of all the brokers will be able to address our issue and we will be successfully able to see the broker metrics.