Distributed Message Service for Kafka

FAQs

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1 Instances

1.1 Why Can't I Select Two AZs?

A Kafka cluster uses 3 ZooKeeper nodes regardless of instance specifications. Kafka uses the ZooKeeper cluster to manage configurations. If the ZooKeeper cluster is faulty, Kafka will not work properly.

At least two ZooKeepers are required for the cluster to run properly.

Assume that you select only two AZs. AZ1 has one ZooKeeper node, and AZ2 has two. If AZ1 is faulty, the instance can be used properly. If AZ2 is faulty, the cluster cannot be used. In this case, the availability rate is just 50%. Therefore, do not select 2 AZs.

1.2 Why Can't I View the Subnet and Security Group Information When Creating a DMS Instance?

This may be because you do not have the **Server Administrator** and **VPC Administrator** permissions. For more information about user permissions, see **Modifying User Group Permissions**.

1.3 How Do I Select Storage Space for a Kafka Instance?

The storage space is the space for storing messages. Storage space configurations for a Kafka instance include the disk type and disk size. Currently supported disk types are ultra-high I/O and high I/O. For more information, see **Disk Types and Disk Performance**.

For example, if the required disk size to store data for the retention period is 100 GB, the disk capacity must be at least: **100 GB x Number of replicas + 100 GB (reserved)**. In a Kafka cluster, each node uses a 33 GB disk to store logs and ZooKeeper data. Therefore, the actual available storage space is less than the purchased storage space.

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The number of replicas (3 by default) can be configured when you create a topic.

1.4 How Do I Choose Between High I/O and Ultra-high I/O?

- High I/O: The average latency is 1 to 3 ms, and the maximum bandwidth is 150 MB/s (read + write).
- Ultra-high I/O: The average latency is 1 ms, and the maximum bandwidth is 350 MB/s (read + write).

You are advised to select ultra-high I/O, because ultra-high I/O disks deliver much higher bandwidth than high I/O.

1.5 Which Capacity Threshold Policy Should I Use?

Currently, the following policies are supported:

- Stop production

  When the memory usage reaches 95% of the disk capacity threshold, new messages will no longer be created, but existing messages can still be retrieved until they are discarded. The default retention time is three days. This policy is suitable for scenarios where no data losses can be tolerated.

- Automatically delete

  When the memory usage reaches the disk capacity threshold, the earliest segment (1 GB) will be deleted to ensure uninterrupted services. However, data may be lost.

Select a proper policy based on requirements for data and service reliability. Both policies are only used for handling extreme scenarios. **To avoid extreme scenarios, buy sufficient disk space in the first place.**

1.6 Which Kafka Version Is Supported?

Kafka 1.1.0 and 2.3.0.

1.7 What Is the ZooKeeper Version of a Kafka Instance?

DMS ZooKeeper does not provide services externally. It is only used to serve Kafka instances.

You can use open-source Kafka clients to connect to Kafka instances and call the native APIs to create and retrieve messages.

1.8 Are Kafka Instances in Cluster Mode?

Yes. A Kafka instance is a cluster.

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1.9 Can I Modify the Connection Address for Accessing a Kafka Instance?

No. You must access a Kafka instance through one of the following ports:

- Accessing a Kafka instance **without** SASL:
  Use port 9092 for intra-VPC access and port 9094 for public access.
- Accessing a Kafka instance **with** SASL:
  Use port 9093 for intra-VPC access and port 9095 for public access.

Ensure that correct rules have been configured for the security group of the instance. For details, see **How Do I Select and Configure a Security Group?**

1.10 How Long Are Kafka SSL Certificates Valid for?

The certificates are valid for more than 15 years. You do not need to worry about certificate expiration. The certificates are used for one-way authentication when enabling SASL for Kafka instances.

1.11 How Do I Synchronize Data from One Kafka Instance to Another?

Unfortunately, you cannot synchronize two Kafka instances in real time. To migrate services from one instance to another, create messages to both instances. After all messages in the original instance have been retrieved or aged, you can migrate services to the new instance. For details, see **Migrating Kafka Services**.

1.12 How Do I Change the SASL_SSL Setting of a Kafka Instance?

The SASL_SSL setting cannot be changed once the instance has been created. Be careful when configuring this setting during instance creation. If you need to change the setting, you must create another instance.

1.13 Will a Kafka Instance Be Restarted After Its Enterprise Project Is Modified?

No. A Kafka instance will not be restarted if you modify its enterprise project.

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1.14 How Do I Enable Public Access for a Kafka Instance with 100 MB/s Bandwidth?

There are two types of Kafka instances with 100 MB/s bandwidth that are based on different underlying resources. One type supports public access, while the other does not.

If the underlying ECS resources used by an instance do not support public access, you cannot enable public access for the instance even after expanding its bandwidth. Bandwidth expansion is achieved by scaling out underlying nodes, which are of the same flavors before and after the expansion. Therefore, expanding the bandwidth does not solve the problem.

In this case, create another instance and specify a bandwidth higher than 100 MB/s.

1.15 Are Kafka Brokers and ZooKeeper Deployed on the Same VM or on Different VMs?

Kafka brokers and ZooKeeper are deployed on the same VM.

1.16 Can I Delete a Kafka Instance Billed in Yearly/Monthly Mode?

Yes. Log in to the Kafka console, locate the row that contains the instance, and choose **More** > **Unsubscribe**.

1.17 Which Cipher Suites Are Supported by Kafka?

For security purposes, TLS_ECDHE_ECDSA_WITH_AES_128_CBC_SHA256, TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256, and TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 are supported for instances created on and before March 20, 2021.
TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 is also supported for instances created after March 20, 2021.

1.18 How Do I Bind an EIP to an Old Instance?

Problem: Public access has been enabled for an old instance but an EIP cannot be bound to the instance.

Solution: First, disable public access. Then, when you enable public access again, bind an EIP to the instance. For details, see **Configuring Public Access**.

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1.19 Can I Change an Instance from Single-AZ Deployment to Multi-AZ Deployment?

No. The AZ configuration cannot be changed once the instance is created. To use multiple AZs, buy another instance.

1.20 Does DMS for Kafka Support Cross-AZ Disaster Recovery? Where Can I View the AZs Configured for a Purchased Instance?

DMS for Kafka supports cross-AZ disaster recovery. If you select multiple AZs for an instance, cross-AZ disaster recovery will be available.

You can view the AZs configured for an instance on the **Basic Information** tab page of the instance. If there are multiple AZs, cross-AZ disaster recovery is available.

Figure 1-1 Instance basic information



1.21 Do Kafka Instances Support Disk Encryption?

No. Kafka instances do not support disk encryption.

1.22 Does Specification Modification Affect Services?

No. Bandwidth, broker quantity, or storage space expansion does not affect services.

1.23 Can I Change the VPC and Subnet After a Kafka Instance Is Created?

No. Once an instance is created, its VPC and subnet cannot be changed.

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1.24 Where Can I Find Kafka Streams Use Cases?

You can find Kafka Streams use cases on the **official Kafka website**.

1.25 Can I Upgrade Kafka Instances?

No. Kafka instances cannot be upgraded once they are created. To use a higher Kafka version, create another Kafka instance.

1.26 Why Is the Version on the Console Different from That in Kafka Manager?

The version displayed on the console is used for your instance. Kafka Manager uses the common configuration of open-source Kafka 2.2.0. Therefore, the version displayed in Kafka Manager is 2.2.0, which is irrelevant to the version of your Kafka instance.

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2 Connections

2.1 Troubleshooting Kafka Connection Exceptions

Overview

This section describes how to troubleshoot Kafka connection problems.

Problem Classification

If the connection to a Kafka instance is abnormal, perform the following operations to troubleshoot the fault:

- **Checking the Network**
- **Checking Consumer and Producer Configurations**
- **Common Errors on Java Clients**
- **Common Errors on the Go Client**

Checking the Network

Before connecting to a Kafka instance, ensure that the client and the instance are interconnected. If they cannot be connected, check the network connection.

For example, if you have enabled SASL_SSL to access the Kafka instance, run the following command:

curl -kv {ip}:{port}

- If the network is normal, information similar to the following is shown:

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```
[root@ecs-5d2f ~]# curl -kv 192.168.0.52:9093
* Rebuilt URL to: 192.168.0.52:9093/
*   Trying 192.168.0.52...
* TCP_NODELAY set
* Connected to 192.168.0.52 (192.168.0.52) port 9093 (#0)
> GET / HTTP/1.1
> Host: 192.168.0.52:9093
> User-Agent: curl/7.61.1
> Accept: */*
>
Warning: Binary output can mess up your terminal. Use "--output -" to tell
Warning: curl to output it to your terminal anyway, or consider "--output
Warning: <FILE>" to save to a file.
* Failed writing body (0 != 7)
* Closing connection 0
```

- If the network is abnormal or disconnected, information similar to the following is shown:

```
[root@ecs-5d2f ~]# curl -kv 192.168.0.52:9093
* Rebuilt URL to: 192.168.0.52:9093/
*   Trying 192.168.0.52...
* TCP_NODELAY set
* connect to 192.168.0.52 port 9093 failed: Connection timed out
* Failed to connect to 192.168.0.52 port 9093: Connection timed out
* Closing connection 0
curl: (7) Failed to connect to 192.168.0.52 port 9093: Connection timed out
```

Solution:

1. Check whether the client and the Kafka instance are in the same VPC. For details, see **Do Kafka Instances Support Cross-VPC Access?**
2. Check whether the security group rules are correctly configured. For details, see **How Do I Select and Configure a Security Group?**

Checking Consumer and Producer Configurations

View logs to check whether the parameters printed during the initialization of the consumer and producer are the same as those set in the configuration files.

If they are different, check the parameters in the configuration file.

Common Errors on Java Clients

- **Domain name verification enabled**

  The following error is displayed:

```
        at java.lang.Thread.run(Thread.java:748)
Caused by: javax.net.ssl.SSLHandshakeException: General SSLEngine problem
        at sun.security.ssl.Alerts.getSSLException(Alerts.java:192)
        at sun.security.ssl.SSLEngineImpl.fatal(SSLEngineImpl.java:1709)
        at sun.security.ssl.Handshaker.fatalSE(Handshaker.java:318)
        at sun.security.ssl.Handshaker.fatalSE(Handshaker.java:310)
        at sun.security.ssl.ClientHandshaker.serverCertificate(ClientHandshaker.java:1639)
        at sun.security.ssl.ClientHandshaker.processMessage(ClientHandshaker.java:223)
        at sun.security.ssl.Handshaker.processLoop(Handshaker.java:1037)
        at sun.security.ssl.Handshaker$1.run(Handshaker.java:970)
        at sun.security.ssl.Handshaker$1.run(Handshaker.java:967)
        at java.security.AccessController.doPrivileged(Native Method)
        at sun.security.ssl.Handshaker$DelegatedTask.run(Handshaker.java:1459)
        at org.apache.kafka.common.network.SslTransportLayer.runDelegatedTasks(SslTransportLayer.java:402)
        at org.apache.kafka.common.network.SslTransportLayer.handshakeUnwrap(SslTransportLayer.java:484)
        at org.apache.kafka.common.network.SslTransportLayer.doHandshake(SslTransportLayer.java:340)
        ... 7 more
Caused by: java.security.cert.CertificateException: No subject alternative names matching IP address 10.166.37.165 found
        at sun.security.util.HostnameChecker.matchIP(HostnameChecker.java:168)
        at sun.security.util.HostnameChecker.match(HostnameChecker.java:94)
        at sun.security.ssl.X509TrustManagerImpl.checkIdentity(X509TrustManagerImpl.java:462)
        at sun.security.ssl.X509TrustManagerImpl.checkIdentity(X509TrustManagerImpl.java:442)
        at sun.security.ssl.X509TrustManagerImpl.checkTrusted(X509TrustManagerImpl.java:261)
        at sun.security.ssl.X509TrustManagerImpl.checkServerTrusted(X509TrustManagerImpl.java:144)
        at sun.security.ssl.ClientHandshaker.serverCertificate(ClientHandshaker.java:1626)
        ... 16 more
(kafka.admin.TopicCommand$)
```

  Solution: Check the **consumer.properties** and **producer.properties** files, in which the **ssl.endpoint.identification.algorithm** parameter must be left empty, indicating that domain name verification is disabled.

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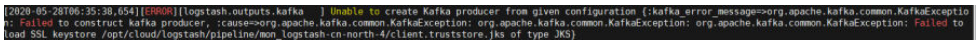
```
ssl.endpoint.identification.algorithm=
```

- **SSL certificate failing to be loaded**

  The following error is displayed:

  Solution:

  a. Check whether the **client.jks** file exists in the corresponding address.

  b. Check the permissions on the processes and files.

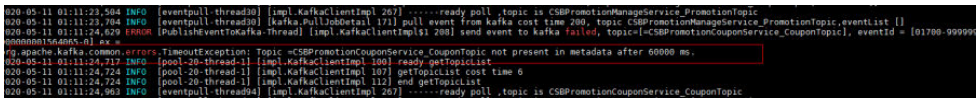
  c. Check whether the **ssl.truststore.password** parameter in the **consumer.properties** and **producer.properties** files is correctly set.

     ssl.truststore.password is the server certificate password, which must be set to **dms@kafka** and cannot be changed.

     ```
     ssl.truststore.password=dms@kafka
     ```

- **Incorrect topic name**

  The following error is displayed:

  Solution: Create another topic or enable the automatic topic creation function.

Common Errors on the Go Client

The Go client fails to connect to Kafka over SSL and the error "first record does not look like a TLS handshake" is returned.

Solution: If the instance was created before January 2021, enable the TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256 or TLS_RSA_WITH_AES_128_CBC_SHA256 cipher suite (both are disabled by default). If the instance was created in or after January 2021, enable the TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 cipher suite.

2.2 How Do I Select and Configure a Security Group?

To access a Kafka instance within a VPC or over public networks, configure the security group rules as follows:

- **Intra-VPC access**

  To access a Kafka instance, you must deploy your client on an ECS in the same VPC and subnet as the instance.

  In addition, before you can access the instance through your client, you must configure correct rules for the security groups of both the ECS and the Kafka instance.

  a. You are advised to configure the same security group for the ECS and Kafka instance. After a security group is created, network access in the group is not restricted by default.

  b. If different security groups are configured, you may need to refer to the following configurations:

NOTE

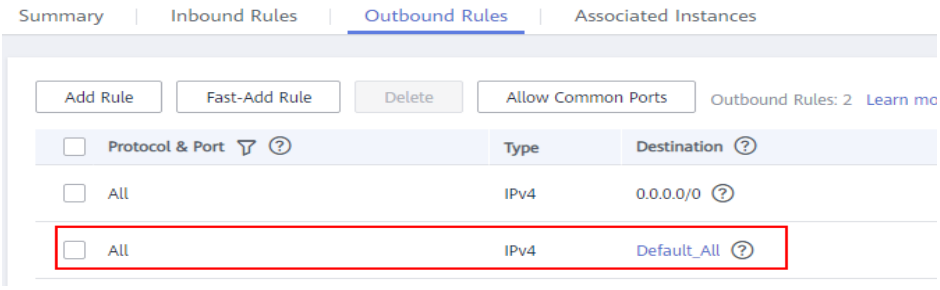
- Assume that security groups **sg-53d4** and **Default_All** are configured respectively for your ECS and Kafka instance.
- You can specify a security group or IP address as the remote end in the following rules.

To ensure that your client can access the instance, add the following rule to the security group configured for the ECS:

Table 2-1 Security group rule

Direction	Protocol & Port	Destination
Outbound	All	Default_All

Figure 2-1 Configuring security group for the ECS

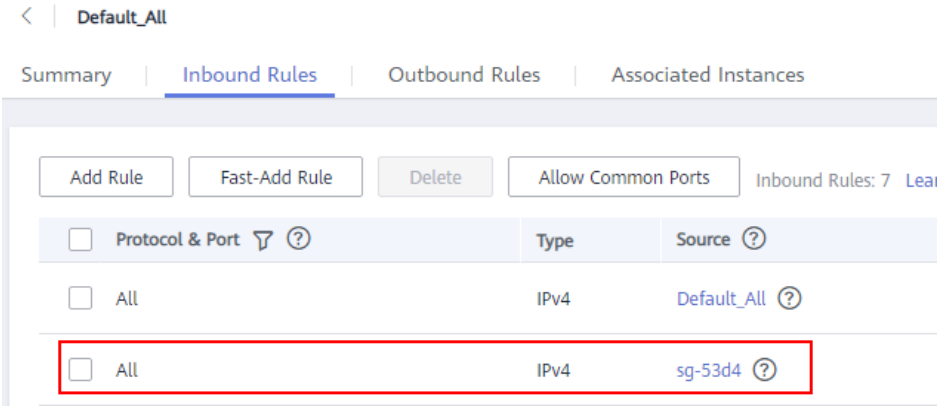


To ensure that your client can access the Kafka instance, add the following rule to the security group configured for the instance.

Table 2-2 Security group rule

Direction	Protocol & Port	Source
Inbound	All	sg-53d4

Figure 2-2 Configuring security group for the Kafka instance



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- **Public access**
  Configure security group rules according to **Table 2-3**.

  Table 2-3 Security group rules

Direction	Protocol	Port	Source	Description
Inbound	TCP	9094	0.0.0.0/0	Access Kafka through the public network (without SSL encryption).
Inbound	TCP	9095	0.0.0.0/0	Access Kafka through the public network (with SSL encryption).
Inbound	TCP	9999	0.0.0.0/0	Access Kafka Manager.

2.3 Can I Access a Kafka Instance Over a Public Network?

Yes. For details, see the **instance access instructions**.

2.4 How Many Connection Addresses Does a Kafka Instance Have by Default?

The number of connection addresses of a Kafka instance is the same as the number of brokers of the instance. The number of brokers varies according to instance specifications. For details, see **Specifications**.

2.5 Do Kafka Instances Support Cross-Region Access?

Yes. You can access a Kafka instance across regions over a public network or by using direct connections.

2.6 Can I Access a Kafka Instance Using DNAT?

Yes.

2.7 Do Kafka Instances Support Cross-VPC Access?

Yes. You can use one of the following methods to access a Kafka instance across VPCs:

- Establish a VPC peering connection to allow two VPCs to communicate with each other. For details, see **VPC Peering Connection**.

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- Create a cloud connection and load the VPCs that need to communicate with each other to the cloud connection. For details, see **Communications Among VPCs of the Same Account**.
- Use VPC Endpoint (VPCEP) to establish a cross-VPC connection. For details, see **Cross-VPC Access to a Kafka Instance**.

2.8 Do Kafka Instances Support Cross-Subnet Access?

Yes.

If the client and the instance are in the same VPC, cross-subnet access is supported.

If the client and the instance are in different VPCs, connect the two VPCs using VPC a peering connection. For details about VPC peering connection, see **VPC Peering Connection**.

You can also access an instance through the public access address bound to the instance.

2.9 Why Can't I Access Kafka Using SSL from a Go Client?

Symptom: A Go client fails to connect to Kafka over SSL and the error message "first record does not look like a TLS handshake" is displayed.

Solution: If the instance was created before January 2021, enable the TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256 or TLS_RSA_WITH_AES_128_CBC_SHA256 cipher suite (both are disabled by default). If the instance was created in or after January 2021, enable the TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 cipher suite.

2.10 What If Certificates Fail to Be Loaded for SASL Connection?

If the certificate fails to be loaded during SASL connections, add the following parameters to the configuration file:

```
# Disable certificate domain name verification.
ssl.endpoint.identification.algorithm=
```

For details, see the **Kafka configuration instructions**.

2.11 Does DMS for Kafka Support Authentication with Kerberos?

No, Kerberos authentication is not supported. Kafka supports client authentication with SASL and API calling authentication using tokens and AK/SK.

To access an instance in SASL mode, you need the **certificates** provided by DMS for Kafka. For details, see **Accessing a Kafka Premium Instance with SASL**.

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2.12 Does DMS for Kafka Support Password-Free Access?

Yes. You can access a Kafka instance **without SSL encryption**.

2.13 Obtaining Kafka Clients

Kafka premium instances are fully compatible with open-source clients. You can obtain **clients in other programming languages** and access your instance as instructed by the official Kafka website.

2.14 How Do I Obtain the Public Access Address After Public Access Is Enabled?

Click the name of your Kafka instance. On the **Basic Information** tab page, view **Instance Access Address** in the **Public Access** section.

For details about how to connect to a Kafka instance, see the **instance access instructions**.

2.15 Does DMS for Kafka Support Authentication on Clients by the Server?

No.

2.16 Can I Use PEM SSL Truststore When Connecting to a Kafka Instance with SASL_SSL Enabled?

No. You can only use JKS certificates for connecting to instances in Java.

2.17 What Are the Differences Between JKS and CRT Certificates?

JKS certificates are used for connecting to instances in Java and CRT certificates are used for connecting to instances in Python.

2.18 Which TLS Version Does DMS for Kafka Support, 1.0, 1.1, or 1.2?

TLS 1.2.

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2.19 Is There a Limit on the Number of Connections to a Kafka Instance?

Yes. The maximum allowed number of connections varies by instance specifications.

- If the bandwidth is 100 MB/s, a maximum of 3000 connections are allowed.
- If the bandwidth is 300 MB/s, a maximum of 10,000 connections are allowed.
- If the bandwidth is 600 MB/s, a maximum of 20,000 connections are allowed.
- If the bandwidth is 1200 MB/s, a maximum of 20,000 connections are allowed.

2.20 How Many Connections Are Allowed from Each IP Address?

For instances purchased in July 2020 and later, the Kafka server allows a maximum of 1000 connections from each IP address. For instances purchased before July 2020, the Kafka server allows a maximum of 200 connections from each IP address. Excess connections will be rejected. You can change the limit by **modifying the Kafka parameters**.

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3 Topics and Partitions

3.1 Is There a Limit on the Number of Topics in a Kafka Instance?

No, there is no limit on the topic quantity. However, there is an upper limit on the aggregate number of partitions of topics. After the partition limit is reached, you can no longer create topics.

The total number of partitions varies with instance specifications. For details, see **Specifications**.

3.2 Why Is Partition Quantity Limited?

Kafka manages messages by partition. If there are too many partitions, message creation, storage, and retrieval will be fragmented, affecting the performance and stability. If the total number of partitions of topics reaches the upper limit, you cannot create more topics.

The total number of partitions varies with instance specifications. For details, see **Specifications**.

3.3 Can I Reduce the Partition Quantity?

No. If you want to use fewer partitions, delete the corresponding topic, create another one, and specify the desired number of partitions.

3.4 Why Do I Fail to Create Topics?

Possible cause: The aggregate number of partitions of created topics has reached the upper limit.

Solution: Scale up the instance or delete unnecessary topics.

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3.5 Do Kafka Instances Support Batch Importing Topics or Automatic Topic Creation?

Automatic topic creation is supported, but batch topic import is not supported. Currently, you can only export topics in batches.

3.6 Why Do Deleted Topics Still Exist?

This may be because automatic topic creation has been enabled and a consumer is connecting to the topic. If no existing topics are available for message creation, new topics will be automatically created.

To solve this problem, disable automatic topic creation.

3.7 Why Can't I See "Create Topic" and "Delete Topic" Buttons on the Topic Management Page?

This may be because the account is in arrears. After you top up, the functions can be used.

3.8 Can I View Disk Space Used by a Topic?

Yes, you can view the disk space usage on the Cloud Eye console. On the **Queues** tab page, choose the target topic, and view the **Message Size** metric. The following figure shows this metric.

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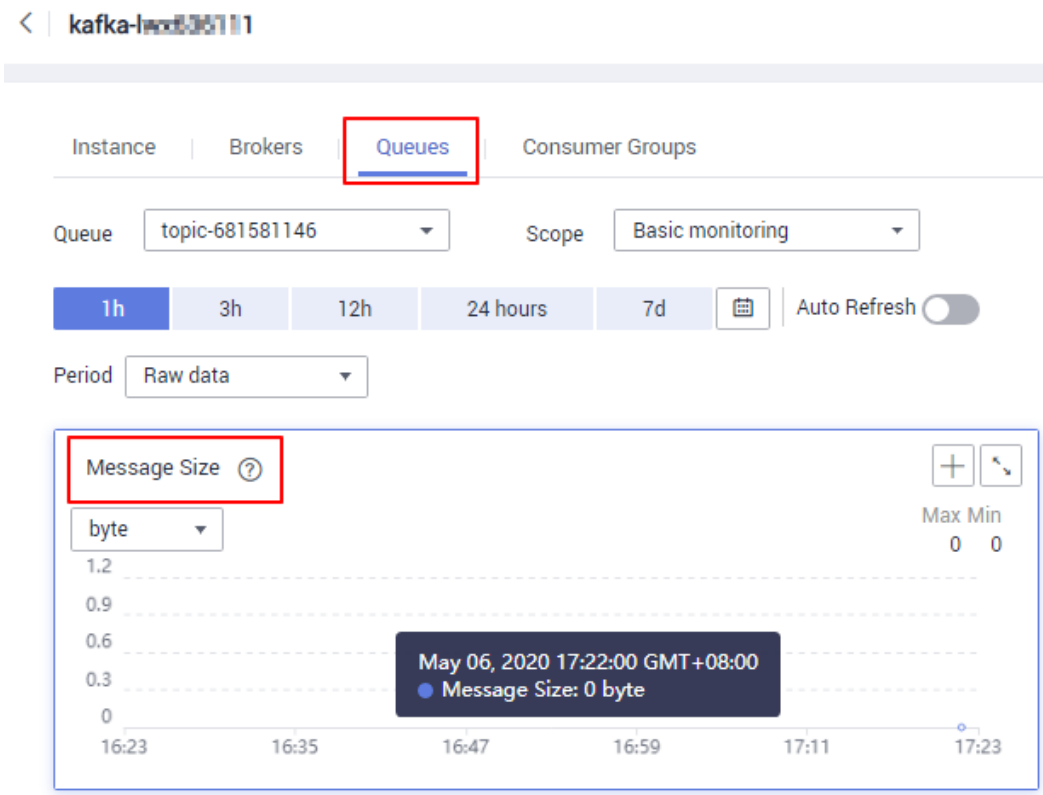

3.9 Can I Add ACL Permissions for Topics?

Yes. For details, see **Granting Permissions to a SASL_SSL User**.

3.10 How Do I Create a Topic?

You can create a topic by using one the following three methods:

- By using the Kafka console

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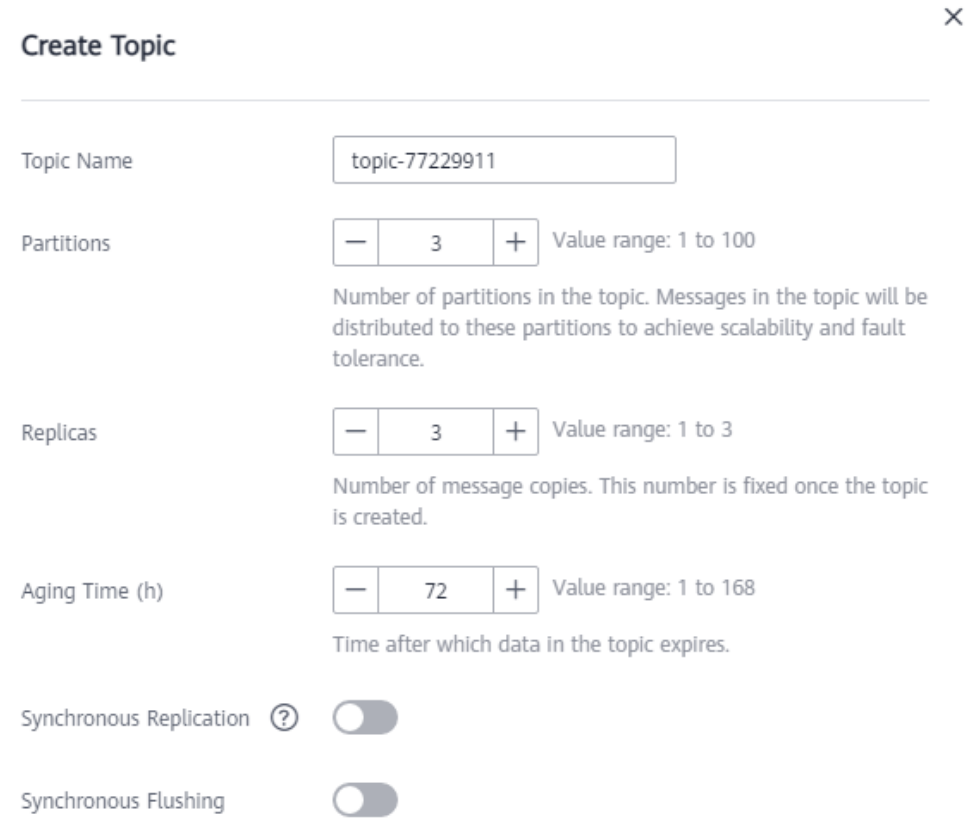
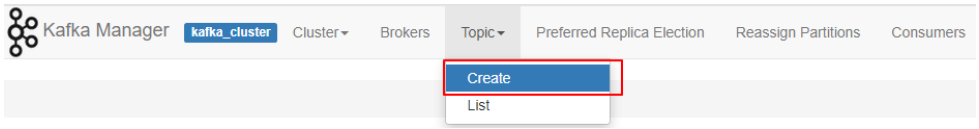


- By using Kafka Manager

  Log in to Kafka Manager, choose **Topic** > **Create**, and set parameters as prompted.

- By using **Kafka CLI**

  If your client is v2.2 or later, you can use **kafka-topics.sh** to create topics and manage topic parameters.

  - If SASL is not enabled for the Kafka instance, run the following command to create a topic:

    ```
    kafka-topics.sh --create --topic {topic_name} --bootstrap-server {broker_ip}:{port} --partitions {partition_num} --replication-factor {replication_num}
    ```

  - If SASL has been enabled for the Kafka instance, perform the following steps to create a topic:

    i. Create the **ssl-user-config.properties** file in the **/config** directory of the Kafka client and add the SSL certificate configurations by referring to **Accessing a Kafka Instance with SASL**.

    ii. Run the following command to create a topic:

    ```
    kafka-topics.sh --create --topic {topic_name} --bootstrap-server {broker_ip}:{port} --partitions {partition_num} --replication-factor {replication_num} --command-config ./config/ssl-user-config.properties
    ```

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3.11 Are Periods (.) Allowed in Topic Names?

No. When you create a topic on the console, the topic name cannot contain periods (.). For example, **topic.test** is an invalid topic name. If you used Kafka Manager or a CLI to create a topic whose name contains periods (.), Cloud Eye may fail to display Kafka monitoring data.

3.12 What Should I Do If Kafka Storage Space Is Used Up Because Retrieved Messages Are Not Deleted?

Messages are not deleted immediately after being retrieved. They are deleted only when the aging time expires.

To solve this problem, you can shorten the aging time or expand the storage space.

3.13 What Can I Do If Disk Usage Is as High as 96%?

You can shorten the aging time or expand the storage space.

3.14 How Do I Increase the Partition Quantity?

You can increase the partition quantity by increasing the bandwidth or adding brokers. For details, see **Modifying Instance Specifications**.

3.15 Will a Kafka Instance Be Restarted After Its Automatic Topic Creation Setting Is Modified?

Yes. A Kafka instance will be restarted if you enable or disable automatic topic creation for it.

3.16 How Do I Disable Automatic Topic Creation?

1. On the Kafka console, click the name of your instance.
2. On the **Basic Information** tab page, click  next to **Automatic Topic Creation** to disable automatic topic creation.

   You can view the execution status of the task on the **Background Tasks** tab page.

3.17 Can I Delete Unnecessary Topics in a Consumer Group?

Yes. To delete a topic, simply unsubscribe from it on the Kafka client.

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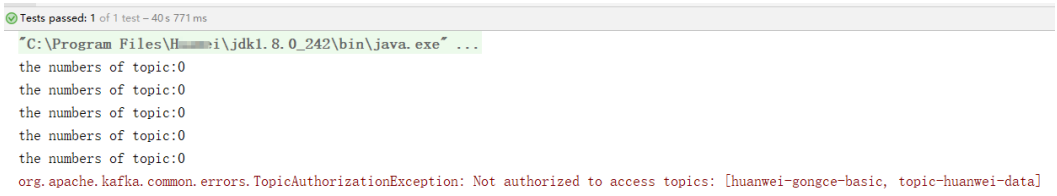
3.18 What Can I Do If a Consumer Fails to Retrieve Messages from a Topic Due to Insufficient Permissions?

Symptom: Different consumers in a consumer group have different topic permissions. When a consumer attempts to retrieve messages from a topic, the error message "Not authorized to access topics." is displayed, and the message retrieval fails.



Analysis: When assigning partitions, the leader of the consumer group does not consider the permissions of individual consumers. Instead, the leader assigns partitions based on the overall subscription of the consumer group. In this case, consumers may be assigned topics that they do not have access to.

For example, consumers A, B, and C are in the same consumer group. Consumer A has subscribed to and has permissions to access Topics 0, 1, and 2; consumer B has subscribed to and has permissions to access Topics 3, 4, and 5; consumer C has subscribed to and has permissions to access Topics 6, 7, and 8. Assume that each topic has only one partition. Based on the partition assignment determined by the leader, consumer A may be assigned Topics 0, 3, and 6; consumer B is assigned Topics 1, 4, and 7; and consumer C is assigned Topics 2, 5, and 8. In this case, consumer A does not have permissions to access Topics 3 and 6, resulting in the error.

Solution:

- If all consumers must be in the same consumer group (**group.id** is the same), grant the same topic access permissions to all the consumers.
- If the consumers do not need to be in the same consumer group, change the value of **group.id** to ensure that each consumer is in a separate consumer group.

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4 Consumer Groups

4.1 Do I Need to Create Consumer Groups, Producers, and Consumers for Kafka Instances?

No. They are generated automatically when you use the instance. After accessing an instance, you can directly start creating and retrieving messages. For details, see the **message creation and retrieval instructions**.

4.2 How Do I Delete Consumer Groups?

You can delete consumer groups from Kafka instances by using the Kafka command line tool of your **Kafka client**.

NOTE

Ensure that the client uses the same version as the Kafka instance.

- Querying consumer groups:

  kafka-consumer-groups.sh --bootstrap-server {Kafka instance connection address} --list

  ```
  [root@zk-server-1 bin]# ./kafka-consumer-groups.sh --bootstrap-server
  172.31.1.245:9091,172.31.1.86:9091,172.31.1.128:9091 --list
  Note: This will not show information about old Zookeeper-based consumers.
  KMOffsetCache-zk-server-1
  bbbb
  KMOffsetCache-zk-server-0
  ```

- Querying consumer group details:

  kafka-consumer-groups.sh --bootstrap-server {Kafka instance connection address} --describe --group {consumer group name}

  ```
  [root@zk-server-1 bin]#  ./kafka-consumer-groups.sh --bootstrap-server
  172.31.1.245:9091,172.31.1.86:9091,172.31.1.128:9091 --describe --group bbbb
  Note: This will not show information about old Zookeeper-based consumers.
  Consumer group 'bbbb' has no active members.

  TOPIC          PARTITION  CURRENT-OFFSET  LOG-END-OFFSET  LAG             CONSUMER-ID
  HOST           CLIENT-ID
  test           1          336             336             0               -               -
  test           0          334             334             0               -               -
  test           2          334             334             0               -               -
  ```

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- Deleting a consumer group:

  kafka-consumer-groups.sh --bootstrap-server {Kafka instance connection address} --delete --group {consumer group name}

  ```
  [root@zk-server-1 bin]# ./kafka-consumer-groups.sh --bootstrap-server
  172.31.1.245:9091,172.31.1.86:9091,172.31.1.128:9091 --delete --group bbbb
  Note: This will not show information about old Zookeeper-based consumers.
  Deletion of requested consumer groups ('bbbb') was successful.
  ```

  NOTE

  - If SASL authentication is enabled for the Kafka instance, the **--command-config *{SASL authentication configuration file consumer.properties}*** parameter must be added to the preceding commands. For details about the configuration file **consumer.properties**, see the CLI access instructions provided in **Accessing a Kafka Instance with SASL**.
  - For details on how to configure the Kafka client environment, see the CLI access instructions provided in **Accessing a Kafka Instance Without SASL** and **Accessing a Kafka Instance with SASL**.

4.3 Do I Need to Unsubscribe from a Topic Before Deleting a Consumer Group?

No. You can directly delete the consumer group.

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5 Messages

5.1 What Is the Maximum Size of a Message that Can be Created?

10 MB.

5.2 Why Do I Frequently Fail to Poll Due to Rebalancing?

Possible cause 1: The poll operation is not performed continuously. After a certain period of time, the server considers the client unavailable.

Possible cause 2: The interval between two polls is too long, which exceeds the heartbeat interval (max.poll.interval.ms). As a result, the server considers the client unavailable.

5.3 Why Can't I Query Messages on the Console?

- Possible cause 1: The message has been aged.
- Possible cause 2: The createTime timestamp of the message is incorrect.

  On the console, messages are queried based on the timestamp, which is generated by the client. Different clients have different processing policies. The default value may be **0** or **-1**. As a result, message may fail to be queried.

  To solve the problem, check whether the value of createTime is correctly configured.

5.4 What Can I Do If Kafka Messages Are Accumulated?

Symptom: An alarm is generated for the **Accumulated Messages** metric.

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Solution: Log in to Kafka Manager, find the consumer group where messages are accumulated, and check whether any consumer is retrieving messages in the consumer group. If yes, accelerate the retrieval on the service end. If no, delete unused consumer groups on the customer end.

5.5 Why Do Messages Still Exist After the Retention Period Elapses?

Symptom: Messages still exist after reaching the retention period (for example, after 72 hours).

Possible cause 1: The segment files are in use.

Solution: Wait until the segment is no longer in use or delete the topic where messages have reached their retention period.

Possible cause 2: In a topic, there is a message whose **CreateTime** is a future time. For example, assume that it is January 1, and the **CreateTime** is February 1. The message will not be aged after 72 hours from now. As a result, messages created subsequently will also not be aged.

Solution: Delete the topic where the **CreateTime** of a message is a future time.

5.6 Do Kafka Instances Support Delayed Message Delivery?

No.

5.7 Does the Message Query Function on the Console Show the Replica Message Quantity?

No.

5.8 How Do I View Accumulated Messages?

On the **Kafka client**, run the **kafka-consumer-groups.sh --bootstrap-server {Kafka Connection Address} --describe --group {Consumer Group}** command to view the accumulated messages in the consumer group.

NOTE

- If SASL authentication is enabled for the Kafka instance, the **--command-config *{SASL authentication configuration file consumer.properties}*** parameter must be added to the preceding commands. For details about the configuration file **consumer.properties**, see the CLI access instructions provided in **Accessing a Kafka Instance with SASL**.
- For details on how to configure the Kafka client environment, see the CLI access instructions provided in **Accessing a Kafka Instance Without SASL** and **Accessing a Kafka Instance with SASL**.

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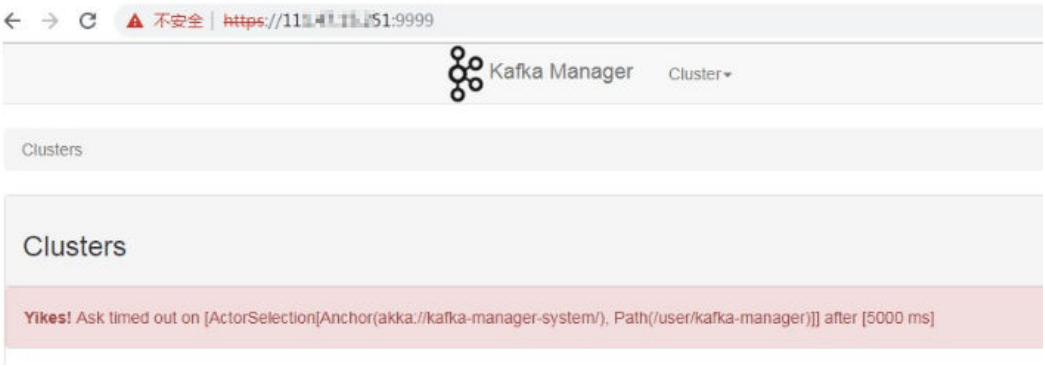
6 Kafka Manager

6.1 Can I Configure a Kafka Manager Account to Be Read-Only?

No. You cannot configure a Kafka Manager account to be read-only.

6.2 Why Can't I See Broker Information After Logging In to Kafka Manager?

Symptom: The Kafka Manager page is displayed, but the broker information cannot be displayed.



Cause: This is an issue with the open-source Kafka. To solve the problem, contact technical support and restart Kafka Manager.

6.3 Yikes! Insufficient partition balance when creating topic : projectman_project_enterprise_project Try again.

Symptom:

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The topic cannot be created in Kafka Manager, and the error message "Yikes! Insufficient partition balance when creating topic : projectman_project_enterprise_project Try again." is displayed.

Cause: The number of partitions exceeds the upper limit and no more topics can be created.

Solution: Increase the instance specifications, which will automatically increase the allowed number of partitions.

6.4 Can I Query the Body of a Message by Using Kafka Manager?

No. Kafka Manager does not support message body querying.

6.5 Can I Change the Port of the Kafka Manager Web UI?

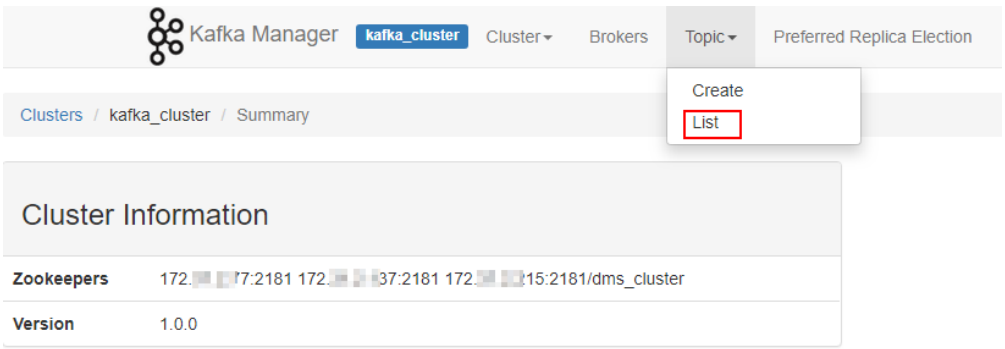
No.

6.6 Which Topic Configurations Can Be Modified on Kafka Manager?

On Kafka Manager, the following topic configurations can be modified: **max.message.bytes**, **segment.index.bytes**, **segment.jitter.ms**, **min.cleanable.dirty.ratio**, **retention.bytes**, **file.delete.delay.ms**, **compression.type**, **flush.ms**, **cleanup.policy**, **unclean.leader.election.enable**, **flush.messages**, **retention.ms**, **min.insync.replicas**, **delete.retention.ms**, **preallocate**, **index.interval.bytes**, **segment.bytes**, and **segment.ms**.

Perform the following steps to modify the topic configurations:

1. **Log in to Kafka Manager**
2. Click **kafka_cluster**.
3. Choose **Topic** > **List**.



4. Click a topic whose configurations you want to modify.
5. Click **Update Config**.

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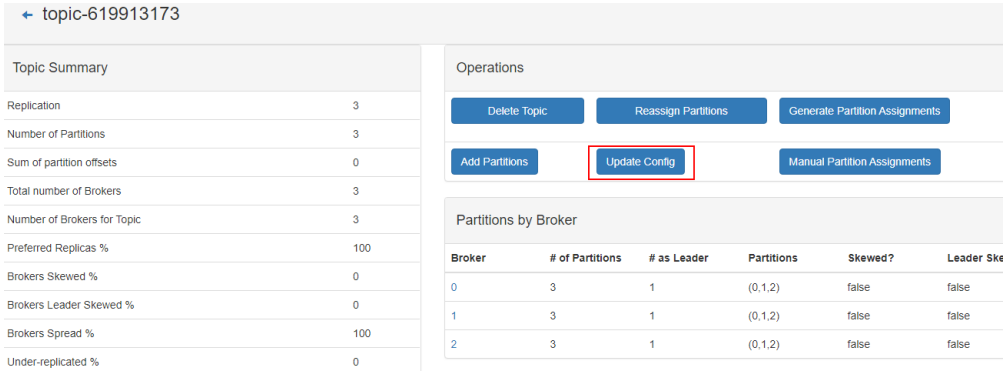


6.7 Why Is Information Displayed on Kafka Manager Inconsistent with Cloud Eye Monitoring Data?

Symptom: After a consumer group is deleted from the backend, the consumer group is not displayed on Cloud Eye but still exists on Kafka Manager.

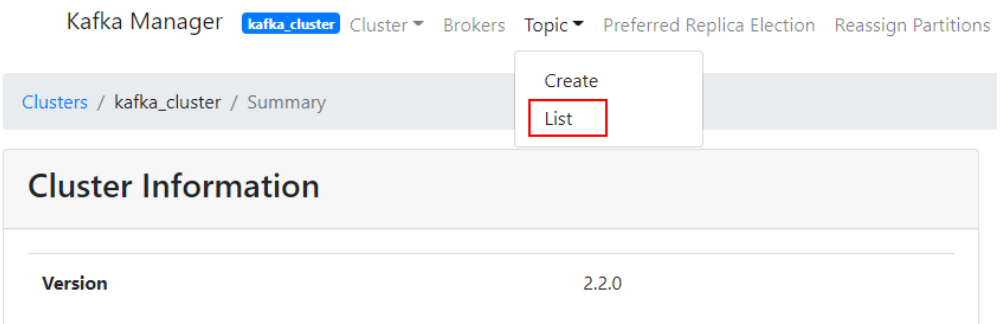
Cause: Kafka Manager has cache data.

Solution: Log in to the Kafka console, locate the row that contains the target instance, and choose **More** > **Restart Kafka Manager**.

6.8 How Do I Change a Partition Leader for a Topic in Kafka Manager?

Perform the following steps:

1. **Log in to Kafka Manager**.
2. Choose **Topic** > **List**.



3. Click the topic name (for example, **topic-test**) for which a partition leader is to be modified.

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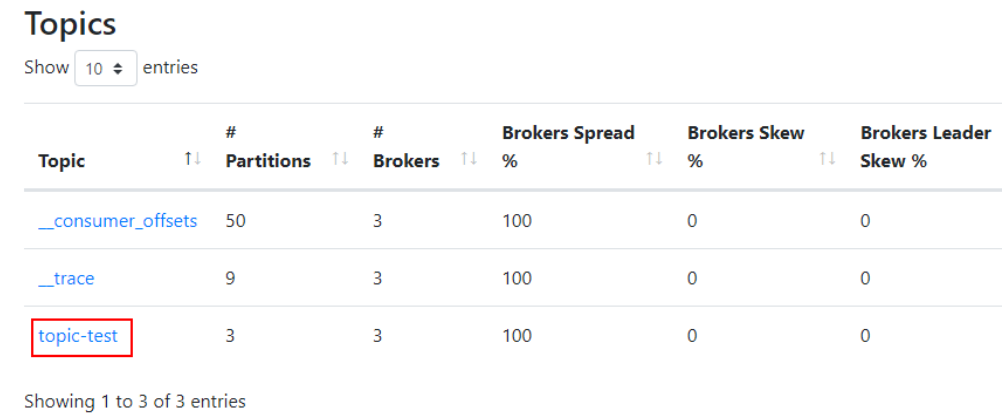


4. Click **Manual Partition Assignments**.

Figure 6-1 Topic details

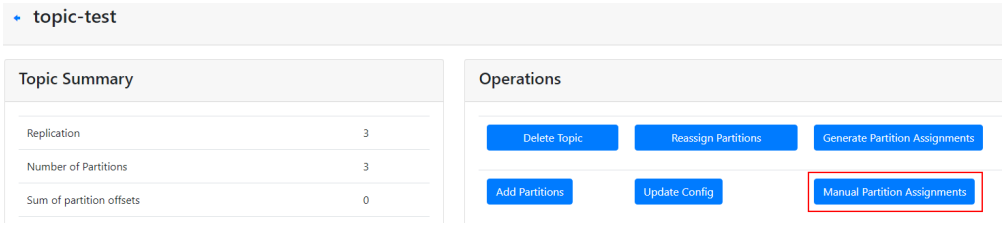
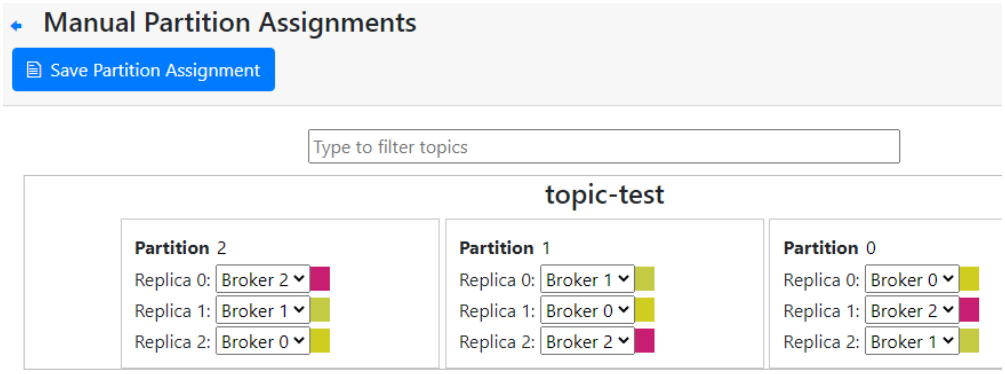
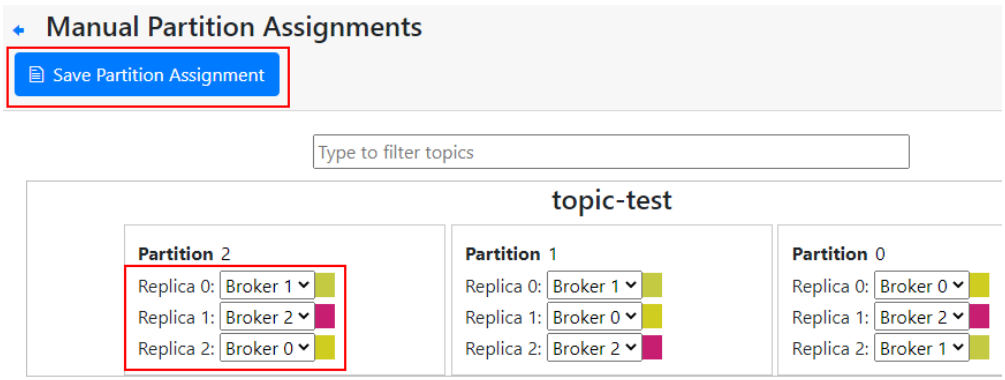


Figure 6-2 Page for modifying partition leaders



For example, in the preceding figure, the leader (Replica 0) of Partition 2 is on Broker 2.

5. Change the leader and click **Save Partition Assignment**.



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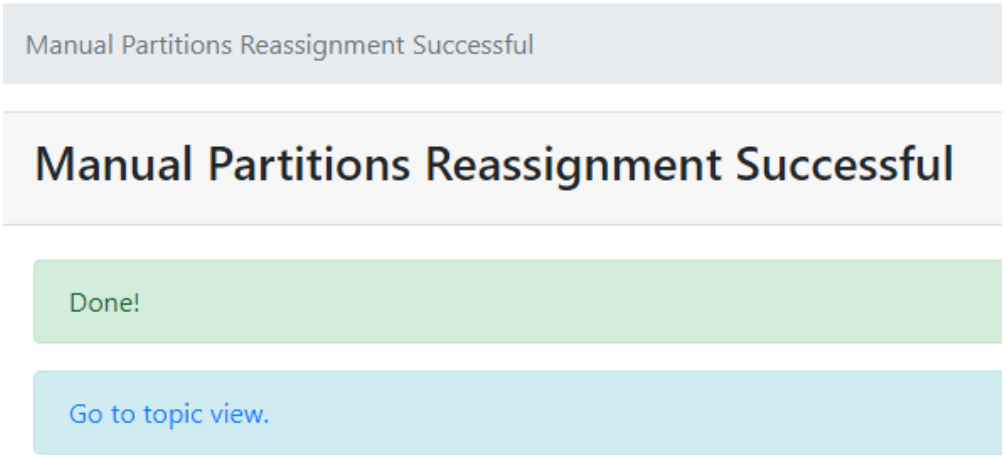
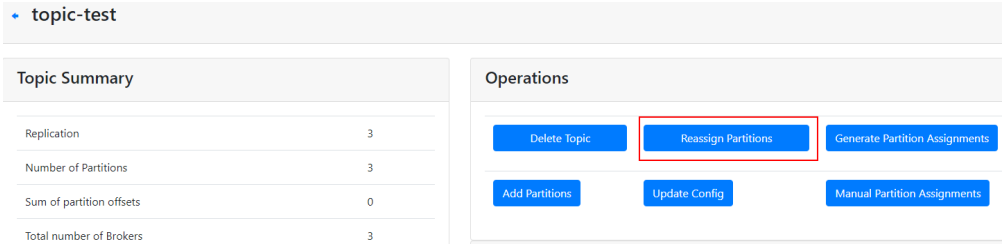
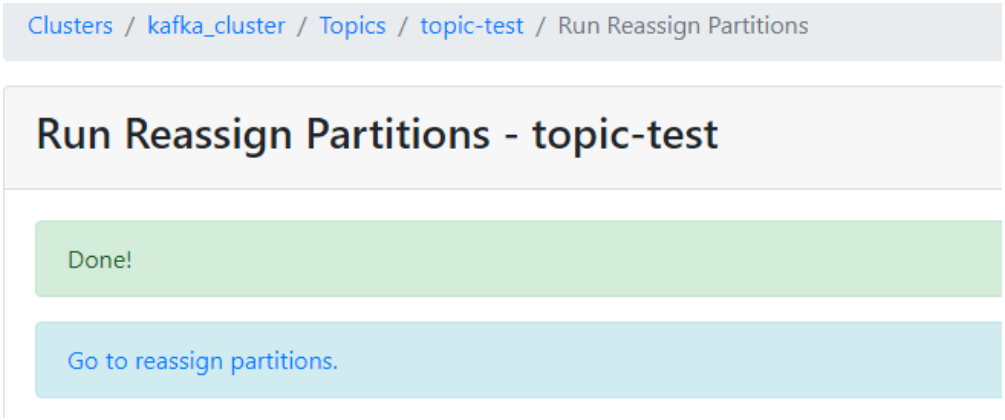
If the modification is successful, the information shown in the following figure is displayed.



6. Click **Go to topic view**.
7. Click **Reassign Partitions** to save the change.



After the change is saved, the information shown in the following figure is displayed.



8. In the breadcrumb navigation, click the topic name. On the topic details page that is displayed, view the partition details.

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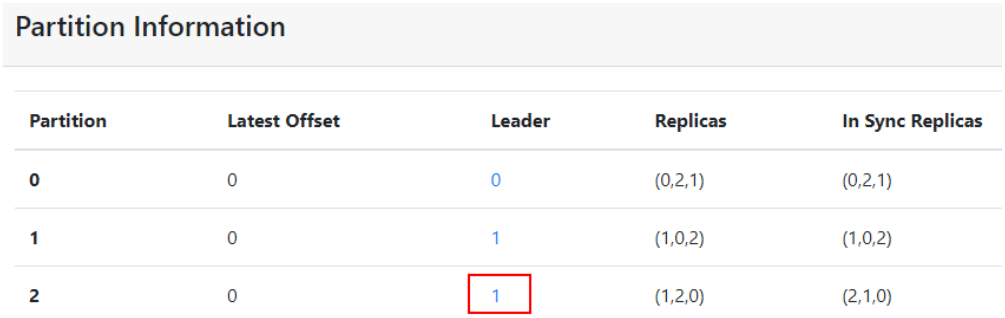

As shown in the preceding figure, the leader of partition 2 has been changed from 2 to 1.

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7 Monitoring & Alarm

7.1 Why Can't I View the Monitoring Data?

The possible causes are as follows:

- The topic name starts with a special character, such as a period (.) or underscore (_).
- The consumer group name starts with a special character, such as a period (.), underscore (_), or number sign (#).

To solve the problem, delete topics and consumer groups whose names contain the special character.

7.2 How Do I Configure Alarms for a Kafka Instance?

Configure alarms following instructions in **Configuring Alarm Rules** and handle the alarm based on the suggestions provided.

7.3 Why Is the Monitored Number of Accumulated Messages Inconsistent with the Message Quantity Displayed on the Kafka Console?

Symptom: The monitoring data shows that there are 810 million accumulated messages. However, the Kafka console shows that there are 100 million messages in all six topics of the instance.

Analysis: The two statistics methods are different. The Kafka console shows the number of messages that have not been retrieved. The monitoring data shows the number of accumulated messages in the topics multiplied by the number of consumer groups.

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7.4 Why Is a Consumer Group Still on the Monitoring Page After Being Deleted?

The monitoring data is reported every minute. The reported data will be displayed on the monitoring page after being sorted. This process takes less than 20 minutes. After deleting a consumer group, you can wait for a while before checking the latest monitoring data.

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8 Notes on Free-Trial Kafka Instances

Free-trial Kafka instances are labled "EXP". Each free-trial Kafka instance has only one broker and does not support logging in to Kafka Manager and the dumping function. These instances do not guarantee performance or reliability and are for trial use or testing only.

The trial edition is supported only in the CN South-Guangzhou region.

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