### Distributed Message Service for Kafka

## **Getting Started**

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## **1** Getting Started with Kafka for Message Production and Consumption

This section takes the example of creating a Kafka instance (ciphertext access and SASL\_SSL) and accessing it on the client (private network, within a virtual private cloud (VPC)) for message production and consumption to get you quickly started with Distributed Message Service (DMS) for Kafka.



#### Figure 1-1 Procedure for using DMS for Kafka

#### 1. Step 1: Preparations

A Kafka instance runs in a virtual private cloud (VPC). Before creating a Kafka instance, ensure that a VPC is available.

After a Kafka instance is created, download and install the Kafka open-source client on your ECS before producing and consuming messages.

#### 2. Step 2: Create a Kafka Instance

You can select the specification and quantity, and enable ciphertext access and SASL\_SSL when creating a Kafka instance.

When connecting to a Kafka instance with SASL\_SSL enabled, SASL is used for authentication. Data is encrypted with SSL certificates for high-security transmission.

#### 3. Step 3: Create a Topic

Topics store messages created by producers and subscribed by consumers.

This section uses the example of creating a topic on the console.

4. Step 4: Connect to a Kafka Instance to Produce and Consume Messages

Before connecting to a Kafka instance with SASL\_SSL enabled, download the certificate and configure the connection in the client configuration file.

#### **Step 1: Preparations**

**Step 1** Register a HUAWEI ID.

Before creating a Kafka instance, register a HUAWEI ID. For details, see **Signing Up for a HUAWEI ID and Enabling Huawei Cloud Services**.

If you already have a HUAWEI ID, skip this step.

**Step 2** Grant Kafka instance permissions.

To achieve fine-grained management of your cloud resources, create Identity and Access Management (IAM) user groups and users and grant specified permissions to the users. For more information, see **Creating a User and Granting DMS for Kafka Permissions**.

**Step 3** Create a VPC and subnet.

Before creating a Kafka instance, ensure that a VPC and a subnet are available. For details about how to create a VPC and a subnet, see **Creating a VPC and Subnet**.

The VPC **must** be created in the **same** region as the Kafka instance.

**Step 4** Create a security group and add security group rules.

Before creating a Kafka instance, ensure that a security group is available. For details about how to create a security group, see **Creating a Security Group**.

The security group **must** be created in the **same** region as the Kafka instance.

To connect to Kafka instances, add the security group rules described in **Table 1-1**. Other rules can be added based on site requirements.

| Directio<br>n | Protocol | Port | Source<br>address | Description                                                                          |
|---------------|----------|------|-------------------|--------------------------------------------------------------------------------------|
| Inbound       | ТСР      | 9093 | 0.0.0.0/0         | Accessing a Kafka instance<br>over a private network within<br>a VPC (in ciphertext) |

 Table 1-1
 Security group rules

#### D NOTE

After a security group is created, it has a default inbound rule that allows communication among ECSs within the security group and a default outbound rule that allows all outbound traffic. If you access your Kafka instance using the private network within a VPC, you do not need to add the rules described in Table 1-1.

**Step 5** Construct a client for message production and consumption.

This section uses a Linux elastic cloud server (ECS) as the client. Before creating a Kafka instance, create an ECS with an EIP, install the JDK, configure environment variables, and download an open-source Kafka client.

1. Log in to the console, click = in the upper left corner, click **Elastic Cloud Server** under **Computing**, and then create an ECS.

For details about how to create an ECS, see **Purchasing a Custom ECS**. If you already have an available ECS, skip this step.

- 2. Log in to an ECS as user **root**.
- 3. Install Java JDK and configure the environment variables **JAVA\_HOME** and **PATH**.
  - a. Download a JDK.

**NOTE** 

Use Oracle JDK instead of ECS's default JDK (for example, OpenJDK), because ECS's default JDK may not be suitable. Obtain Oracle JDK 1.8.111 or later from **Oracle's official website**.

b. Decompress the JDK. tar -zxvf jdk-8u321-linux-x64.tar.gz

Change jdk-8u321-linux-x64.tar.gz to your JDK version.

- c. Open the **.bash\_profile** file. vim ~/.bash\_profile
- d. Add the following content: export JAVA\_HOME=/root/jdk1.8.0\_321 export PATH=\$JAVA\_HOME/bin:\$PATH

Change /root/jdk1.8.0\_321 to the path where you install JDK.

- e. Press **Esc**. Enter the following line and press **Enter**. Save the **.bash\_profile** file and exit.
- f. Run the following command to make the change take effect: source .bash\_profile
- g. Check whether the JDK is installed. java -version

If the following message is returned, the JDK is installed.  $_{\rm java}$  version "1.8.0\_321"

- 4. Download an open-source Kafka client. wget https://archive.apache.org/dist/kafka/2.7.2/kafka\_2.12-2.7.2.tgz
- 5. Run the following command to decompress the package: tar -zxf kafka\_2.12-2.7.2.tgz

----End

#### Step 2: Create a Kafka Instance

#### **Step 1** Go to the **Buy Instance page**.

**Step 2** On the **Quick Config** tab page, set basic instance configurations shown in **Figure 1-2**. **Table 1-2** lists the configuration details.

| Parameter    | Description                                                                                                                                                                                                                  |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Billing Mode | Select <b>Pay-per-use</b> , which is a postpaid mode. You can pay<br>after using the service, and will be billed for your usage<br>duration. The fees are calculated in seconds and settled by<br>hour.                      |
| Region       | DMS for Kafka in different regions cannot communicate<br>with each other over an intranet. Select a nearest location<br>for low latency and fast access.<br>Select AP-Singapore.                                             |
| AZ           | An AZ is a physical region where resources use independent<br>power supply and networks. AZs are physically isolated but<br>interconnected through an internal network.<br>Select <b>AZ1</b> , <b>AZ2</b> , and <b>AZ3</b> . |

Table 1-2 Setting basic instance configurations

| Basic                                                                                                                     |      |
|---------------------------------------------------------------------------------------------------------------------------|------|
| Billing Mode                                                                                                              |      |
| Yearly/Monthly Pay-per-use                                                                                                |      |
| Region                                                                                                                    |      |
| AP-Singapore                                                                                                              |      |
| For low network latency and quick resource access, select the region nearest to your target users. Note that resources ca | Inni |
| AZ (?)                                                                                                                    |      |
| AZ1 AZ2 AZ3                                                                                                               |      |

Select one AZ or at least three AZs. Do not select two AZs.

**Step 3** Set the instance specifications and storage space, as shown in **Figure 1-3**. For details, see **Table 1-3**.

Dundle

| Parameter                   | Description                                                                                                                                                                                                                                                   |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bundle                      | Choose <b>Recommended</b> > <b>Starter</b> . This entry level can be managed, compatible with open-source Kafka. Ideal for cost-sensitive services or test environments that are tolerant to limited performance and latency.                                 |
| Storage Space per<br>Broker | Select the disk type and specify the disk size as required.<br>Total storage space = Storage space per broker × Broker<br>quantity. After the instance is created, you cannot change<br>the disk type.<br>Select <b>Ultra-high I/O</b> and enter <b>100</b> . |

#### **Table 1-3** Setting the instance specifications and storage space



| Recommended Custom                                                   |                                                              |                                                                  |                                                          |
|----------------------------------------------------------------------|--------------------------------------------------------------|------------------------------------------------------------------|----------------------------------------------------------|
| nce you create this instance, the broker quantity cannot b<br>onlig. | e decreased. The system disk type and size cannot be chang   | ed. The storage space cannot be decreased. The selected 3.x      | version will be fixed. For other specifications,Standard |
|                                                                      |                                                              | <b></b>                                                          |                                                          |
| Starter Recommended                                                  | Advanced Popular                                             | Bandwidth Preferred                                              | Storage Preferred                                        |
| Entry-level, can be managed, compatible                              | Popular choice for heavier services such                     | Large production or consumption                                  | Large storage space and bandwidth.                       |
| with open-source Kafka. Ideal for cost-s                             | as online production systems which req                       | bandwidth. Ideal for data processing an                          | Ideal for high read/write traffic and long               |
| Brokers                                                              | Brokers                                                      | Brokers                                                          | Brokers                                                  |
| 3                                                                    | 5                                                            | 7                                                                | 5                                                        |
| Flavor                                                               | Flavor                                                       | Flavor                                                           | Flavor                                                   |
| kafka.2u4g.cluster.small                                             | kafka.4u8g.cluster                                           | kafka.8u16g.cluster                                              | kafka.8u16g.cluster                                      |
| Bandwidth                                                            | Bandwidth                                                    | Bandwidth                                                        | Bandwidth                                                |
| 120 MB/s                                                             | 1000 MB/s                                                    | 2625 MB/s                                                        | 1875 MB/s                                                |
|                                                                      |                                                              |                                                                  |                                                          |
| 1 Note                                                               |                                                              |                                                                  |                                                          |
| For more about total traffic and service traffic, see L write.       | earn more 🙆. Reserve 30% of traffic to accommodate for flu   | ictuations. Total network bandwidth: 120 MB/s; Recommende        | d service bandwidth: 20 MB/s for read and 20 MB/s for    |
| orage space per broker 💿                                             |                                                              |                                                                  |                                                          |
| e system disk type and size cannot be changed. The sto               | rage space cannot be decreased.Select a disk type for your r | equired service I/O. Learn more 🕑                                |                                                          |
| pe                                                                   | Capacity                                                     | _                                                                |                                                          |
| Ultra-high I/O                                                       | ✓ − 100 +                                                    |                                                                  |                                                          |
| tal storage space = 300 GB (3 brokers × 100 GB per bro               | ker)Disk bandwidth per broker = 170 MB/s. Total disk bandwi  | J<br>tth = 510 MB/s (Disk bandwidth per broker × Number of broke | arc)                                                     |

**Step 4** Configure the instance network as shown in Figure 1-4. For details, see Table 1-4.

 Table 1-4 Configuring instance network

| Parameter      | Description                                                                                                         |
|----------------|---------------------------------------------------------------------------------------------------------------------|
| VPC            | After the Kafka instance is created, its VPC cannot be changed.<br>Select the VPC prepared in <b>Step 3</b> .       |
| Subnet         | After the Kafka instance is created, its subnet cannot be changed.<br>Select the subnet prepared in <b>Step 3</b> . |
| Security Group | Select the security group prepared in <b>Step 4</b> .                                                               |

Figure 1-4 Configuring instance network

| Network                                                                             |                                            |
|-------------------------------------------------------------------------------------|--------------------------------------------|
| VPC 💿                                                                               |                                            |
| vpc-test                                                                            | V Q Manage VPCs 🖸                          |
| A Fixed once the instance is created. For a different configuration, unsubscribe fr | rom the instance or delete and repurchase. |
| Subnet ⑦                                                                            |                                            |
| subnet-test (192.168.0.0/24) (available IP addresses: 249)                          | ~ Q                                        |
| Available IPs: 249; Required IPs: 1.                                                |                                            |
| Security Group ③                                                                    |                                            |
| default(a2fce38d-0cd2-4650-9c31-fec23ebd4247)                                       | V Q Manage Security Group []               |

Like a firewall, a security group is a logical group used to control network access.

**Step 5** Set the instance access mode, as shown in **Figure 1-5**. For details, see **Table 1-5**.

| Parameter          | Sub-<br>Parameter       | Description                                                                                                                                                                                                                                   |
|--------------------|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Private<br>Network | Access<br>Mode          | Select <b>Ciphertext Access</b> : Clients access a Kafka instance with SASL authentication.                                                                                                                                                   |
| Access             | Security<br>Protocol    | Select <b>SASL_SSL</b> : SASL is used for authentication.<br>Data is encrypted with an SSL certificate for high-<br>security transmission.                                                                                                    |
|                    | Private IP<br>Addresses | Select <b>Auto</b> : The system automatically assigns IP addresses from the subnet.                                                                                                                                                           |
|                    | SSL<br>Username         | Enter <b>test</b> . The username cannot be changed once ciphertext access is enabled.                                                                                                                                                         |
|                    |                         | A username should contain 4 to 64 characters,<br>start with a letter, and contain only letters, digits,<br>hyphens (-), and underscores (_).                                                                                                  |
|                    | Password                | A password must meet the following requirements:                                                                                                                                                                                              |
|                    |                         | Contains 8 to 32 characters.                                                                                                                                                                                                                  |
|                    |                         | <ul> <li>Contains at least three types of the following characters: uppercase letters, lowercase letters, digits, and special characters `~!@#\$%^&amp;*()= +\[[{}];:"',&lt;.&gt;? and spaces, and cannot start with a hyphen (-).</li> </ul> |
|                    |                         | <ul> <li>Cannot be the username spelled forwards or<br/>backwards.</li> </ul>                                                                                                                                                                 |

Table 1-5 Configuring the instance access mode

| Parameter                   | Sub-<br>Parameter | Description                                                                                           |
|-----------------------------|-------------------|-------------------------------------------------------------------------------------------------------|
|                             | SASL/PLAIN        | Check <b>SASL PLAIN</b> . The SASL/PLAIN setting cannot be changed once ciphertext access is enabled. |
|                             |                   | Enabling SASL/PLAIN supports both SCRAM-<br>SHA-512 (enabled by default) and PLAIN.                   |
| Public<br>Network<br>Access | -                 | Skip it.                                                                                              |

#### Figure 1-5 Configuring the instance access mode ^ Access Mode

| Private Network Access ③                                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------|
| Access Mode                                                                                                                      |
| Plaintext Access Ciphertext Access                                                                                               |
| Security Protocol                                                                                                                |
| SASL_SSL SASL_PLAINTEXT                                                                                                          |
| Data is encrypted for transmission for high security.                                                                            |
| Cross-VPC Access Protocol                                                                                                        |
| <b>1</b> SASL_SSL Fixed once the instance is created.                                                                            |
| Private IP Addresses                                                                                                             |
| Auto Manual                                                                                                                      |
| Public Network Access (?)                                                                                                        |
|                                                                                                                                  |
| SSL Username                                                                                                                     |
| test                                                                                                                             |
| The username will be used for accessing the instance with SSL authentication and cannot be modified once the instance is created |
| Password                                                                                                                         |
|                                                                                                                                  |
| Confirm Password                                                                                                                 |
|                                                                                                                                  |
| SASL/PLAIN                                                                                                                       |
| SASL PLAIN                                                                                                                       |
| Enable to support both SCRAM-SHA-512 (enabled by default) and PLAIN.                                                             |

**Step 6** Configure **Advanced Settings**, as shown in **Figure 1-6**. For details, see **Table 1-6**. Retain default settings for other parameters.

| Parameter     | Description                                                                                                                                                                                           |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Instance Name | You can customize a name that complies with the rules: 4–<br>64 characters; starts with a letter; can contain only letters,<br>digits, hyphens (-), and underscores (_).<br>Enter <b>kafka-test</b> . |

| Parameter                    | Description                                                                                                                                                                                                                                                                                                       |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enterprise Project           | This parameter is for enterprise users. An enterprise project<br>manages project resources in groups. Enterprise projects are<br>logically isolated.                                                                                                                                                              |
|                              | Select <b>default</b> .                                                                                                                                                                                                                                                                                           |
| Capacity<br>Threshold Policy | Select <b>Automatically delete</b> : When the disk reaches the disk capacity threshold (95%), messages can still be produced and consumed, but the earliest 10% of messages will be deleted to ensure sufficient disk space. Use this policy for services intolerant of interruptions. However, data may be lost. |

#### Figure 1-6 Configuring instance advanced settings

- () Kafka Manager is unavailable for new instances. For details about Kafka Manager on the console, see Connecting to Kafka Manager an Instance Name kafka-test Enterprise Project (?) 🔾 View Enterprise Project 🖸 default  $\sim$ Capacity Threshold Policy (?) Stop production Automatically delete Smart Connect (?) Smart Connect enabled Smart Connect is used for data synchronization between heterogeneous systems. Automatic Topic Creation (?) Enable automatic topic creation. If enabled, the system automatically creates a topic when a message is created in or retrieved from a non-existent topic. This topic has the defau Tags TMS's predefined tags are recommended for adding the same tag to different cloud resources. Create predefined tags 🕐 🕠 + Add Tag You can add 20 more tags Description 1
- Advanced Settings

- Step 7 Click Confirm.
- **Step 8** Confirm the instance information, read and agree to the *Huawei Cloud Customer Agreement*, and then submit the request.
- **Step 9** Click **Back to Kafka Instance List** and check whether the instance has been created.

It takes 3 to 15 minutes to create an instance. During this period, the instance status is **Creating**.

- If the instance is created successfully, its status changes to **Running**.
- If the instance is in the **Failed** state, delete it and try creating another one. If the instance creation fails again, contact customer service.

**NOTE** 

Instances that fail to be created do not occupy other resources.

**Step 10** After the instance is created, click its name to go to the instance details page.

Step 11 In the Connection area, view and record the connection address.

Figure 1-7 Kafka instance addresses (private network) for intra-VPC access Connection

| Username                                             | test O Reset Password                                            |                   |
|------------------------------------------------------|------------------------------------------------------------------|-------------------|
| Private Network Access                               | Plaintext Access                                                 |                   |
|                                                      | Ciphertext Access                                                |                   |
|                                                      | Address (Private Network, Plaintext)                             | 192.168.0.181:9 🗇 |
|                                                      |                                                                  |                   |
|                                                      | Security Protocol                                                | SASL_SSL          |
| Public Access ⑦                                      | Security Protocol Disabled                                       | SASL_SSL          |
| Public Access ⑦<br>SASL Mechanism                    | Security Protocol<br>Disabled<br>SCRAM-SHA-512,PLAIN             | SASL_SSL          |
| Public Access ⑦<br>SASL Mechanism<br>SSL Certificate | Security Protocol<br>Disabled<br>SCRAM-SHA-512,PLAIN<br>Download | SASL_SSL          |

#### ----End

#### Step 3: Create a Topic

- **Step 1** On the Kafka Instances page, click a Kafka instance.
- **Step 2** In the navigation pane, choose **Topics**.
- Step 3 Click Create Topic.
- **Step 4** Enter the topic name, specify other parameters by referring to **Table 1-7**, and click **OK**.

| Table 1-7 | Topic | parameters |
|-----------|-------|------------|
|-----------|-------|------------|

| Parameter                    | Description                                                                                                                                                                                                                                      |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Topic Name                   | Customize a name that contains 3 to 200 characters, starts with a letter or underscore (_), and contains only letters, digits, periods (.), hyphens (-), and underscores (_).                                                                    |
|                              | The name must be different from preset topics:                                                                                                                                                                                                   |
|                              | consumer_offsets                                                                                                                                                                                                                                 |
|                              | transaction_state                                                                                                                                                                                                                                |
|                              | •trace                                                                                                                                                                                                                                           |
|                              | connect-status                                                                                                                                                                                                                                   |
|                              | •connect-configs                                                                                                                                                                                                                                 |
|                              | connect-offsets                                                                                                                                                                                                                                  |
|                              | Cannot be changed once the topic is created.                                                                                                                                                                                                     |
|                              | Enter <b>topic-01</b> .                                                                                                                                                                                                                          |
| Partitions                   | If the number of partitions is the same as that of consumers, the larger the partitions, the higher the consumption concurrency.<br>Enter <b>3</b> .                                                                                             |
| Replicas                     | Data is automatically backed up to each replica. When one<br>Kafka broker becomes faulty, data is still available. A higher<br>number of replicas delivers higher reliability.<br>Enter <b>3</b> .                                               |
| Aging Time (h)               | How long messages will be preserved in the topic.<br>Messages older than this period cannot be consumed. They<br>will be deleted, and can no longer be consumed.<br>Enter <b>72</b> .                                                            |
| Synchronous<br>Replication   | Skip it. When this option is disabled, leader replicas are<br>independent from follower replica synchronization. They<br>receive messages and write them to local logs, then<br>immediately send the successfully written ones to the<br>client. |
| Synchronous<br>Flushing      | Skip it. When this option is disabled, messages are produced and stored in memory instead of written to the disk immediately.                                                                                                                    |
| Message<br>Timestamp         | Select <b>CreateTime</b> : time when the producer created the message.                                                                                                                                                                           |
| Max. Message<br>Size (bytes) | Maximum batch processing size allowed by Kafka. If<br>message compression is enabled in the client configuration<br>file or code of producers, this parameter indicates the size<br>after compression.<br>Enter <b>10.485.760</b> .              |
|                              |                                                                                                                                                                                                                                                  |

| Parameter   | Description |
|-------------|-------------|
| Description | Skip it.    |

#### Figure 1-8 Creating a topic

| Create Topic               | ×                                                                                                                                                                                |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Topic Name                 | topic-01                                                                                                                                                                         |
| Partitions ⑦               | -     3     +   Value range: 1 to 200                                                                                                                                            |
| Replicas ⑦                 | Cannot be decreased once the topic is created.                                                                                                                                   |
| Aging Time (h)             | -       72       +       Value range: 1 to 720         How long messages will be preserved in the topic. Messages older than this period will be deleted and cannot be consumed. |
| Synchronous Replication ⑦  |                                                                                                                                                                                  |
| Synchronous Flushing       |                                                                                                                                                                                  |
| Message Timestamp ⊘        | CreateTime ~                                                                                                                                                                     |
| Max.Message Size (bytes) 🧿 | - 10,485,760 +                                                                                                                                                                   |
| Description                | 0/200 %                                                                                                                                                                          |

----End

#### Step 4: Connect to a Kafka Instance to Produce and Consume Messages

**Step 1** Prepare the file for production and consumption configuration.

- 1. Log in to a Linux ECS.
- 2. Download the **client.jks** certificate and upload it to the **/root** directory on the ECS.

To obtain the certificate: On the Kafka console, click the Kafka instance to go to the **Basic Information** page. Click **Download** next to **SSL Certificate** in the **Connection** area. Decompress the package to obtain the client certificate file **client.jks**.

**NOTE** 

**/root** is the path for storing the certificate. Change it to the actual path if needed.

- 3. Go to the **/config** directory on the Kafka client. cd kafka\_2.12-2.7.2/config
- 4. Add the following commands in both the **consumer.properties** and **producer.properties** files (PLAIN is used as an example).

```
sasl.jaas.config=org.apache.kafka.common.security.plain.PlainLoginModule required \
username="*********" \
password="********";
```

```
sasl.mechanism=PLAIN
```

```
security.protocol=SASL_SSL
ssl.truststore.location={ssl_truststore_path}
ssl.truststore.password=dms@kafka
ssl.endpoint.identification.algorithm=
```

Description:

- username and password are specified when enabling ciphertext access during instance creation.
- ssl.truststore.location is the path for storing the certificate obtained in Step 1.2.
- ssl.truststore.password is certified by the server, which must be set to dms@kafka and cannot be changed.
- ssl.endpoint.identification.algorithm decides whether to verify the certificate domain name. In this example, leave this parameter blank, which indicates disabling domain name verification.
- Step 2 Go to the /bin directory on the Kafka client.

cd ../bin

#### **Step 3** Produce messages.

./kafka-console-producer.sh --broker-list \${connection address} --topic \${topic name} --producer.config ../ config/producer.properties

Description:

- {connection address}: the connection address obtained in Step 11
- *{topic name}*: the topic name obtained in **Step 4**

For example, **192.xxx.xxx:9093**, **192.xxx.xxx:9093**, **192.xxx.xxx:9093** are the connection addresses of the Kafka instance.

After running this command, you can send messages to the Kafka instance by entering the information as prompted and pressing **Enter**. Each line of content will be sent as a message.

```
[root@ecs-kafka bin]#./kafka-console-producer.sh --broker-list
192.xxx.xxx:9093,192.xxx.xxx:9093,192.xxx.xxx:9093 --topic topic-01 --producer.config ../config/
producer.properties
>Hello
>DMS
>Kafka!
>^C[root@ecs-kafka bin]#
```

#### Press Ctrl+C to cancel.

#### **Step 4** Consume messages.

./kafka-console-consumer.sh --bootstrap-server \${connection address} --topic \${topic name} --frombeginning --consumer.config ../config/consumer.properties

#### Description:

- *{connection address}*: the connection address obtained in **Step 11**
- {topic name}: the topic name obtained in Step 4

#### Sample:

```
[root@ecs-kafka bin]# ./kafka-console-consumer.sh --bootstrap-server
192.xxx.xxx:9093,192.xxx.xxx:9093,192.xxx.xxx:9093 --topic topic-01 --from-beginning --
consumer.config ../config/consumer.properties
Hello
Kafka!
DMS
^CProcessed a total of 3 messages
[root@ecs-kafka bin]#
```

#### Press Ctrl+C to cancel.

----End

#### **Related Information**

- Learn more about the basic concepts of Kafka.
- Learn more about Distributed Message Service for Kafka Pricing.
- To view messages on the console, see Viewing Kafka Messages.
- To view consumption offsets, see Viewing and Resetting Kafka Consumption Offsets.
- To view monitoring metrics of a Kafka instance, see Viewing Kafka Monitoring Metrics.

# **2** Common Practices

You can use the common practices provided by DMS for Kafka to meet your service requirements.

Table 2-1 Common practices

| Practice                                                    | Description                                                                                                                                                                 |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Using MirrorMaker to<br>Synchronize Data Across<br>Clusters | MirrorMaker can synchronize data from the source cluster to the target cluster.                                                                                             |
| Configuring an Alarm<br>Rule for Accumulated<br>Messages    | Configure an alarm rule so that the SMN service<br>will notify you by SMS or email when the number<br>of accumulated messages in a consumer group<br>exceeds the threshold. |