Log Tank Service

Getting Started

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HUAWEI

HUAWEI CLOUD COMPUTING TECHNOLOGIES CO., LTD.

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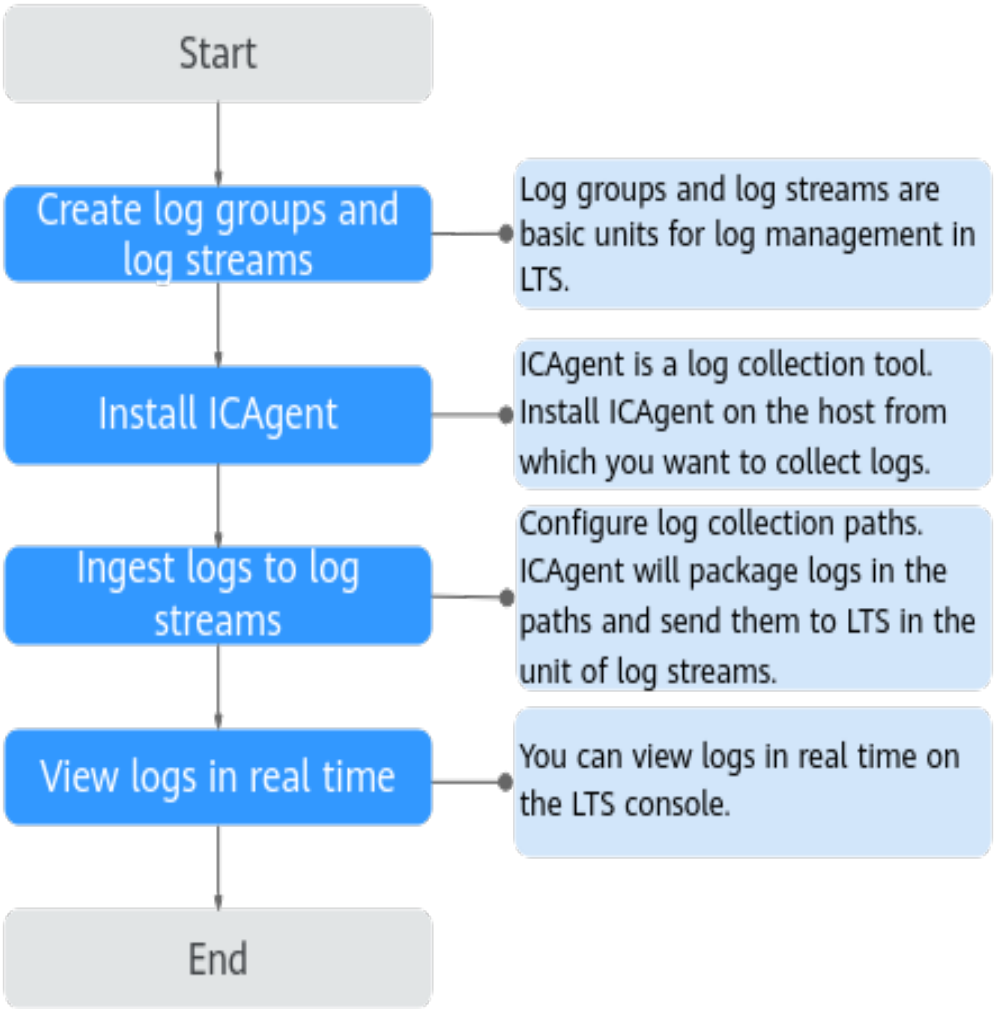
1 Overview

To help you quickly get started with Log Tank Service (LTS), the following sections will show you how to install ICAgent on a Linux host and ingest logs from the host to LTS.

Figure 1-1 Flowchart



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2 Step 1: Creating Log Groups and Log Streams

Log groups and log streams are basic units for log management in LTS. Before using LTS, create a log group and a log stream.

Prerequisites

You have registered with Huawei Cloud.

Creating a Log Group

1. Log in to the LTS console. On the **Log Management** page, click **Create Log Group**.
2. In the dialog box displayed, enter a log group name.

   NOTE

   - Collected logs are sent to the log group. If there are too many logs to collect, separate logs into different log groups based on log types, and name log groups in an easily identifiable way.
   - The log name can contain 1 to 64 characters, including only letters, digits, hyphens (-), underscores (_), and periods (.). It cannot start with a period or underscore or end with a period.

3. Set **Log Retention Duration**. You can set it to 1 to 365 days. If this parameter is not specified, logs are retained for 30 days by default.

   NOTE

   Currently, logs of whitelisted users can be retained for 1,095 days. If necessary, **submit a service ticket**.

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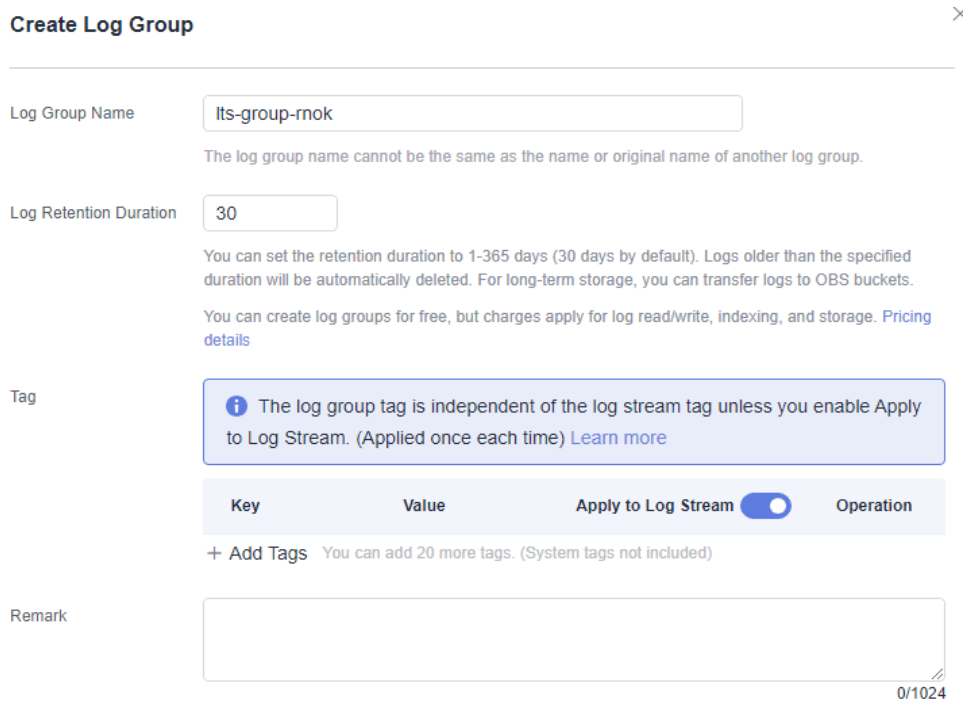
Figure 2-1 Creating a log group



LTS offers a free quota of 500 MB per month for log read/write, log retention, and log indexing. When the free quota is used up, you will be billed for excess usage on a pay-per-use basis.

4. Set the tag value in the *Key* = *Value* format, for example, a=b.
5. Enter remarks. The value contains 0 to 1024 characters.
6. Click **OK**.
   - In the log group list, you can view information such as the log group name, tags, and log streams.
   - Click the log group name, the details page of one of its log streams is displayed.
   - When multiple log groups are created concurrently, there may be a limit exceeding error.

Creating a Log Stream

1. Click ⌄ on the left of a log group name.
2. Click **Create Log Stream**.
3. In the dialog box displayed, enter a log stream name.

   NOTE

   - A log stream name can contain 1 to 64 characters, including only letters, digits, hyphens (-), underscores (_), and periods (.). It cannot start with a period or underscore or end with a period.
   - Collected logs are sent to the created log stream. If there are a large number of logs, you can create multiple log streams and name them for quick log search.

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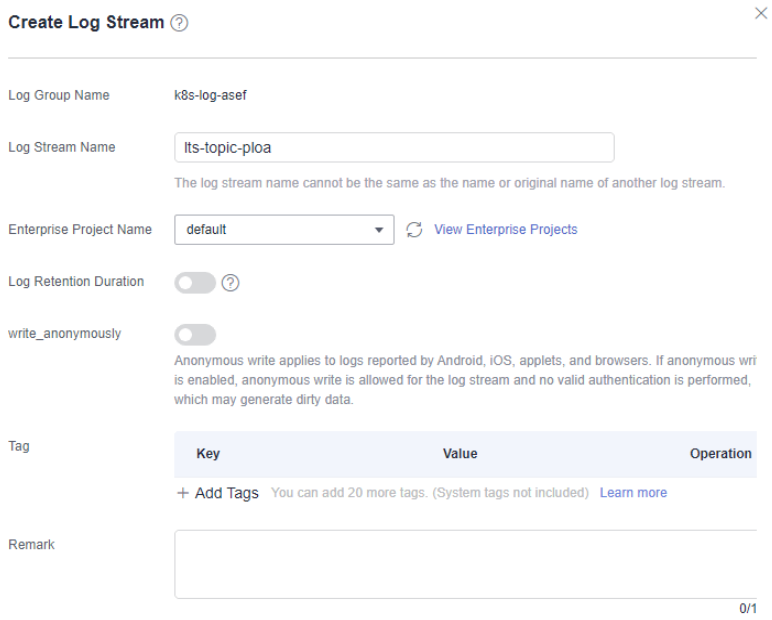
Figure 2-2 Creating a log stream



4. Select the required enterprise project in **Enterprise Project Name**. The default value is **default**. You can click **View Enterprise Projects** to view all enterprise projects.
5. Enable **Log Retention Duration** as required. If you enable it, you can set the log retention duration specifically for the log stream. If you disable it, the log stream will inherit the log retention setting of the log group.
6. Anonymous write is disabled by default and applies to log reporting on Android, iOS, applets, and browsers. If anonymous write is enabled, the anonymous write permission is granted to the log stream, and no valid authentication is performed, which may generate dirty data.
7. Set tags in the *Key* = *Value* format, for example, **a=b**.
8. Enter custom remarks. The value contains 0 to 1,024 characters.
9. Click **OK**. In the log stream list, you can view information such as the log stream name, enterprise project, and tags.

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3 Step 2: Installing ICAgent

ICAgent is the log collection tool of LTS. Install ICAgent on a host from which you want to collect logs.

If ICAgent has been installed on the host when you use other cloud services, skip the installation.

Prerequisites

Before installing ICAgent, ensure that the time and time zone of your local browser are consistent with those of the host.

Installing ICAgent

Step 1 Log in to the LTS console and choose **Host Management** in the navigation pane.

Step 2 Click **Install ICAgent** in the upper right corner.

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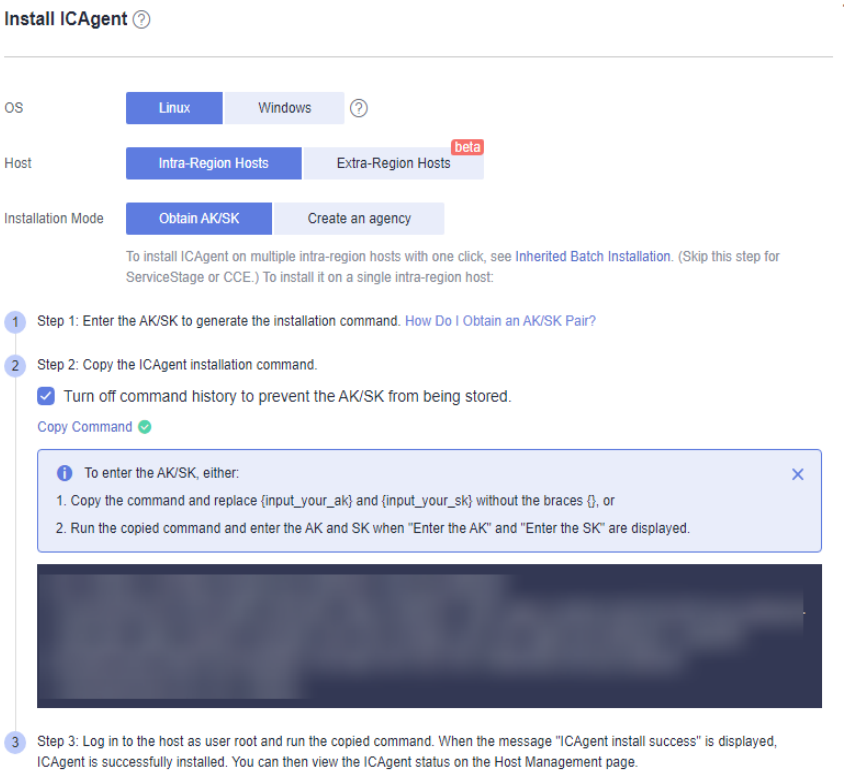
Figure 3-1 Installing ICAgent



Step 3 Set **OS** to **Linux**.

Step 4 Set **Host** to **Intra-Region Hosts**.

Step 5 Set **Installation Mode** to **Obtain AK/SK**.

NOTE

Ensure that the public account and AK/SK will not be deleted or disabled. If the AK/SK is deleted, the ICAgent cannot report data to LTS.

Obtain and use the AK/SK of a public account.

The Access Key ID/Secret Access Key (AK/SK) can be obtained on the **My Credentials** page. The procedure is as follows:

1. Hover the mouse pointer over the username in the upper right corner of the page and select **My Credentials**.
2. On the **My Credentials** page, choose **Access Keys**.
3. Click **Create Access Key** and enter a description.

   NOTE

   Up to 2 access keys can be created for each user. An access key can be downloaded only right after it is created. If the **Create Access Key** button is grayed out, delete an access key first before creating one.
4. Click **OK**, download the AK/SK, and keep it secure.

Step 6 Click **Copy Command** to copy the ICAgent installation command.

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Step 7 Log in as user **root** to the host (for example, by using a remote login tool such as PuTTY). Run the copied command and enter the obtained AK/SK pair to install ICAgent.

When the message **ICAgent install success** is displayed, ICAgent has been installed in the **/opt/oss/servicemgr/** directory of the host. You can then view the ICAgent status on the **Hosts** tab of the **Host Management** page on the LTS console.

----End

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4 Step 3: Ingesting Logs to Log Streams

The following shows how you can ingest host logs to LTS.

When ICAgent is installed, configure the paths of host logs that you want to collect in log streams. ICAgent will pack logs and send them to LTS in the unit of log streams.

Prerequisites

- You have created log groups and log streams.
- You have installed ICAgent.

Procedure

Step 1 Log in to the LTS console and choose **Log Ingestion** in the navigation pane.

Step 2 Click **ECS (Elastic Cloud Server)** to configure log ingestion.

Step 3 Select a log stream.

1. Select a log group from the drop-down list of **Log Group**. If there are no desired log groups, click **Create Log Group** to create one.
2. Select a log stream from the drop-down list of **Log Stream**. If there are no desired log streams, click **Create Log Stream** to create one.
3. Click **Next: (Optional) Select Host Group**.

Step 4 Select a host group.

1. In the host group list, select one or more host groups to collect logs. If there are no desired host groups, click **Create** in the upper left corner of the list. On the displayed **Create Host Group** page, create a host group. For details, see **Creating a Host Group (IP Address)**.

   NOTE

   You can choose not to select a host group in this step, but associate a host group with the ingestion configuration after you finish the procedure here. There are two options to do this:

   - Choose **Host Management** in the navigation pane, click the **Host Groups** tab, and complete the association.
   - Choose **Log Ingestion** in the navigation pane, click an ingestion configuration, and make the association on the details page.

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2. Click **Next: Configurations**.

Step 5 Configure the collection.

Configure the collection parameters. For details, see **Configurations**.

Step 6 (Optional) Configure structured logs.

Step 7 (Optional) Configure indexes.

Step 8 Click **Submit** Click **Back to Ingestion Configurations** to check the ingestion details. You can also click **View Log Stream** to view the log stream to which logs are ingested.

----End

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5 Step 4: Viewing Logs in Real Time

After the log ingestion is configured, you can view the reported logs on the LTS console in real time.

Prerequisites

- You have created log groups and log streams.
- You have installed ICAgent.
- You have ingested logs.

Viewing Logs in Real Time

1. Log in to the LTS console and choose **Log Management**.
2. In the log group list, click the name of the target log group.
3. Or in the log stream list, click the name of the target log stream.
4. On the log stream details page, click **Real-Time Logs** to view logs in real time.

   Logs are reported to LTS once every five seconds. You may wait for at most five seconds before the logs are displayed.

   You can control log display by clicking **Clear** or **Pause** in the upper right corner.

   - **Clear**: Displayed logs will be cleared from the real-time view.
   - **Pause**: Loading of new logs to the real-time view will be paused.

     After you click **Pause**, the button changes to **Continue**. You can click **Continue** to resume the log loading to the real-time view.

     NOTE

     Stay on the **Real-Time Logs** tab to keep updating them in real time. If you leave the **Real-Time Logs** tab, logs will stop being loaded in real time.

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6 Getting Started with Common Practices

After completing basic operations such as log groups and log streams, you can follow LTS's common practices to implement your services.

Table 6-1 Common practices

Practice	Description
Website O&M Analysis Based on LTS	This solution helps you quickly interconnect LTS with ELB and collect ELB logs for regular analysis in website O&M. When distributing external traffic, ELB logs record details of HTTP and HTTPS requests, such as URIs, client IP addresses and ports, and status codes. You can use ELB access logs for auditing or search for logs by time and keyword. You can also obtain external access statistics by running SQL aggregation queries. For example, you can check the number of requests with 404 responses within a day, or analyze the unique visitors (UVs) or page views (PVs) within a week.
Serverless Real-Time Log Analysis	This solution helps you collect, analyze, and archive ECS logs with a serverless architecture. It uses LTS to collect ECS logs, FunctionGraph LTS trigger to obtain logs and analyze alarms in logs, Simple Message Notification (SMN) to push alarms to users, and Object Storage Service (OBS) to archive alarms.

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