# Object Storage Service

# Getting Started

**Issue**       01

**Date**       2022-09-27

# Contents

# 1 General Process

OBS basic operations include creating a bucket and uploading or downloading an object.

**Figure 1-1** shows the general process of using OBS. This process may slightly vary depending on the way of accessing OBS you use. For details about accessing OBS in each way, see corresponding documents.

**Figure 1-1** General process of using OBS
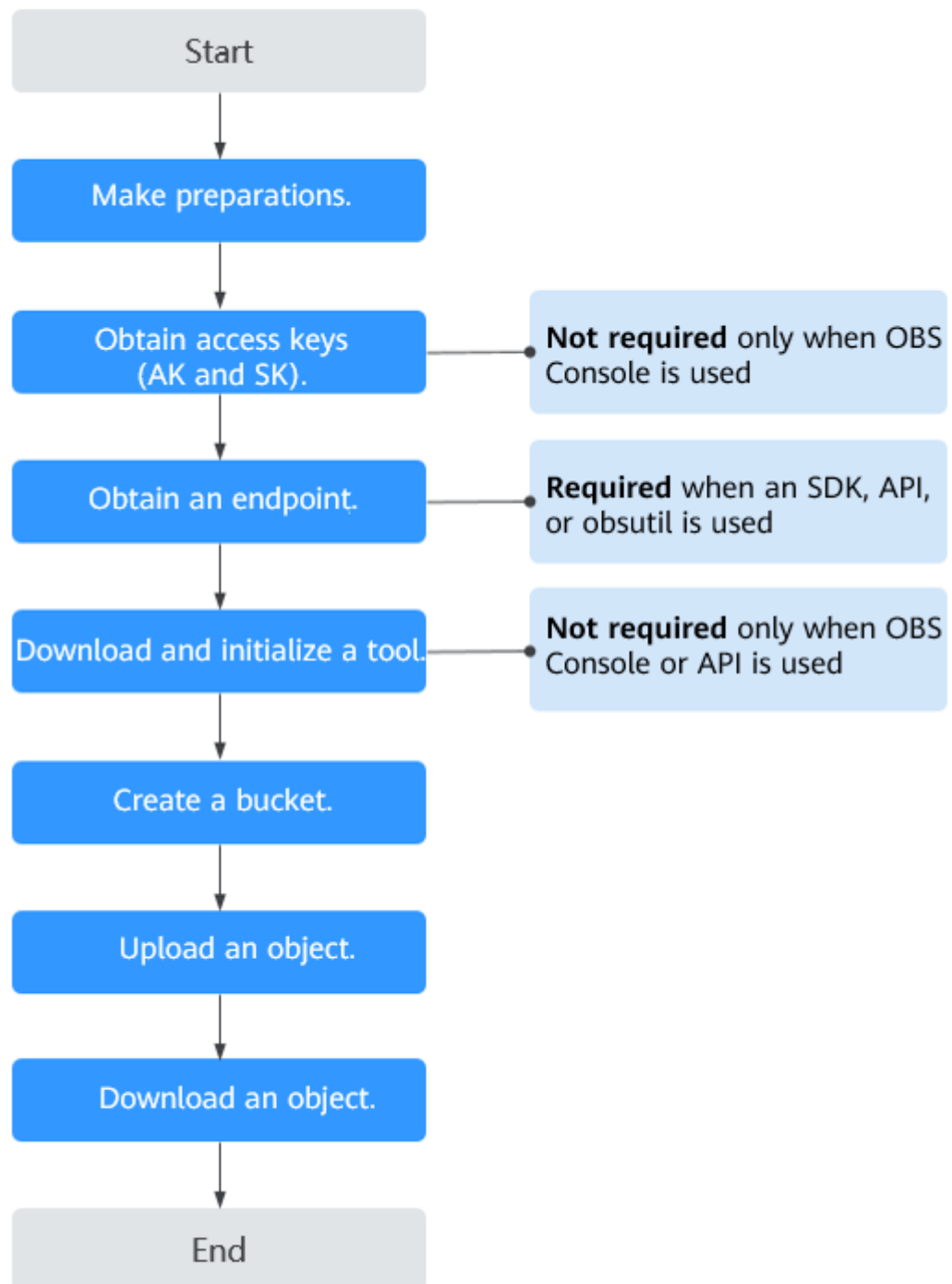


1. Create a HUAWEI ID and top it up. For details, see **Step 1: Making Preparations**.

2. Obtain the access keys (AK and SK) for authentication before accessing OBS using any methods other than OBS Console. For details, see **Step 2: Obtaining Access Keys (AK and SK)**.

3. Obtain the required endpoint if you are using SDKs, obsutil, or APIs for access. For details, see **Step 3: Obtaining Endpoints**.

4. Create a bucket. Buckets are containers for storing objects in OBS. Before you can upload objects, you must create a bucket. For details, see **Step 4: Creating a Bucket**. Operations on a parallel file system are similar to those on an OBS bucket.

5. Upload an object to OBS. For details, see **Step 5: Uploading an Object**. Operations on a parallel file system are similar to those on an OBS bucket.

6. Download an object from OBS. For details, see **Step 6: Downloading an Object**. Operations on a parallel file system are similar to those on an OBS bucket.

# 2 Step 1: Making Preparations

Before using OBS, you need to create a HUAWEI ID or an IAM user. This section describes how to create an ID, top up your account, purchase resource packages, and create an IAM user.

## Creating a HUAWEI ID and Enabling Huawei Cloud Services

If you already have a HUAWEI ID, skip this part. If you do not have one, perform the following steps:

1. Visit the **Huawei Cloud official website** and click **Sign Up**.
2. Complete the creation as instructed.

   After the creation is complete, you will be navigated to your ID information page.

## (Optional) Purchasing Resource Packages

OBS also provides yearly/monthly resource packages. You can purchase such packages based on your usage plan. These resource packages cover the following options: storage, multi-AZ storage, outbound Internet traffic, and pull traffic.

You can refer to the following steps to purchase resource packages. If you do not need them, skip this part.

**Step 1** Go to the **Buy Resource Packages** page.

**Step 2** Set the parameters as prompted.

**Step 3** Confirm the settings and click **Add**.

**Step 4** In the list, confirm the resource packages and click **Next**.

**Step 5** Confirm the order and click **Submit**.

If the order information is incorrect, click **Previous** to modify it and then continue with your purchase.

**Step 6** Pay for the order as prompted.

📖 **NOTE**

**Precautions for purchasing resource packages:**

Package renewal is supported but unsubscription is not. After a resource package has expired, you can still use OBS, and you will be billed for subsequent resources you use on a pay-per-use basis as long as you have sufficient balance in your account.

**Monthly reset rules for resource packages:**

Reset by subscription period means that after a resource package is purchased, its quota will reset at 24:00:00 on the same day (the purchase day) of each month. For example, after you purchase an internet outbound traffic package of 2 TB (each month) for 6 months on April 15, you will have 2 TB internet outbound traffic available to use from April 15 to 24:00:00 of May 15. Then, at 00:00:00 on May 16, another 2 TB Internet outbound traffic will be allocated to you, so you can use this 2 TB traffic between 00:00:00 on May 16 and 24:00:00 on June 15. The following months follow the same rule until the purchased package expires. If you did not use up your quota in a month, the remaining quota will be cleared in the next month.

**----End**

# 3 Step 2: Obtaining Access Keys (AK and SK)

## Scenarios

When you log in to OBS Console using your Huawei Cloud account or as an IAM user, OBS authenticates your account or IAM user information.

When you access OBS using the tools (OBS Browser+, obsutil, and obsfs), SDKs, or APIs, OBS requires the access keys (AK and SK) of your account or IAM user for authentication. Therefore, to use these tools to access OBS, you must obtain the access keys (AK and SK) first.

For details, see **Access Keys (AK/SK)**.

The following procedure describes how to obtain access keys (AK/SK). OBS also supports authentication using the temporary AK/SK and security token. For details about how to obtain them, see **Obtaining Temporary Access Keys and Security Token**.

## Prerequisites

The programmatic access has been enabled for the IAM user. For details, see **Viewing or Modifying IAM User Information**.

## Procedure

**Step 1** Log in to the management console.

**Step 2** Hover the cursor over the username in the upper right corner and choose **My Credentials** from the drop-down list.

**Step 3** In the navigation pane, choose **Access Keys**.

**Step 4** Click **Create Access Key**.

**Step 5** Enter the verification code your email, mobile phone, or virtual MFA device received.

**Step 6** Click **Download** to obtain the access key file.

☐ **NOTE**

Access keys can be downloaded only once and an access key disclosure will cause data leakage. For security purposes, you are advised to periodically change access keys and properly keep them.

For details about how to add, delete, enable, or disable access keys, see **Managing Access Keys**.

**----End**

# 4 Step 3: Obtaining Endpoints

## Scenarios

Before using SDKs, obsutil or APIs, you need to obtain the OBS endpoint, so that you can use it when calling APIs or initializing obsutil.

## Procedure

| Region Name | Region | Endpoint | Protocol Type |
|---|---|---|---|
| EU-Dublin | eu-west-101 | obs.eu-west-101.myhuaweicloud.eu | HTTPS/HTTP |

# 5 Step 4: Creating a Bucket

## Scenarios

Buckets are containers for storing objects in OBS. Before you can upload objects, you must create a bucket. You can create buckets in any of the following ways.

## Procedure

**Table 5-1** Creating a bucket in different ways

| Access Way | How to Create a Bucket |
|---|---|
| OBS Console | **Create a bucket using OBS Console.** |
| OBS Browser+ | **Create a Bucket using OBS Browser+.** |
| obsutil | **Create a bucket using obsutil.** |
| APIs | **Create a bucket with an API.** |

# 6 Step 5: Uploading an Object

## Scenarios

After you create a bucket, you can upload files to it in any of the following ways. OBS stores the uploaded files as objects.

## Constraints

- OBS Console puts limits on the size and number of files you can upload.
    - In regions where batch upload is supported, a maximum of 100 files can be uploaded at a time, with a total size of no more than 5 GB. If you upload only one file in batch upload mode, this file cannot exceed 5 GB in size.
    - In regions where batch upload is not supported, only one file can be uploaded at a time, with a size of no more than 50 MB.
- You can use OBS Browser+ and obsutil to upload files with a total size smaller than 48.8 TB. OBS Browser+ allows you to upload a maximum of 500 files at a time. There is no limit on the number of files you can upload using obsutil at a time.
- Using the PUT, POST, and append operations of SDKs or APIs, you can upload files with a total size smaller than 5 GB.
- Using the multipart upload of SDKs or APIs and the resumable upload of SDKs, you can upload files with a total size smaller than 48.8 TB.

## Procedure

**Table 6-1** Uploading an object in different ways

| Access Way | How to Upload an Object |
| --- | --- |
| OBS Console | **Upload an object using OBS Console.** |
| OBS Browser+ | **Upload an object using OBS Browser+.** |
| obsutil | **Upload an object using obsutil.** |

| Access Way | How to Upload an Object |
|---|---|
| APIs | **Upload an object using PUT.**<br>**Upload an object using POST.**<br>**Append an object.**<br>**Upload an object using a multipart upload.** |

# 7 Step 6: Downloading an Object

## Scenarios

You can download files stored on OBS in any of the following ways.

## Procedure

**Table 7-1** Downloading an object in different ways

| Access Way | How to Download an Object |
|---|---|
| OBS Console | **Download an object using OBS Console.** |
| OBS Browser+ | **Download an object using OBS Browser+.** |
| obsutil | **Download an object using obsutil.** |
| APIs | **Download an object with an API.** |

# 8 Practices

After finishing basic operations such as creating a bucket and uploading or downloading an object, you can use the commonly used OBS practices if needed.

**Table 8-1** Commonly used best practices

| Practice | | Description |
|---|---|---|
| Data backup | **Using Backup Software to Back Up Local Data to OBS** | Third-party backup software, such as Commvault and AnyBackup Cloud, can connect to OBS for data backup. Relying on the backup software, you can customize policies for secure and efficient backups. |
| Data access | **Accessing OBS Through an NGINX Reverse Proxy** | For security purposes, some enterprises need to configure a blacklist or whitelist for external addresses, so a fixed IP address is required for accessing OBS. But an OBS bucket does not have a fixed IP address, because Huawei Cloud DNS always resolves the bucket's access domain name to different IP addresses for secure access.<br><br>To address this problem, you can set up an NGINX reverse proxy server on an ECS to allow users to access OBS with a fixed IP address. |
| | **Using a User-Defined Domain Name to Host a Static Website** | If a company has a large number of static websites for users to access, but does not want to set up servers, it can host its static websites in an OBS bucket, so that users can access the hosted static websites using the domain name bound to the OBS bucket. |

| Practice | | Description |
|---|---|---|
| Data transmission | **Using the PostObject API to Upload Data from a Web Client to OBS** | You can use the PostObject API to directly upload files from a web client to OBS, which is called browser-based upload. With this method, you can directly upload data to OBS, without having to upload data to the app server first. This makes data transmission faster and does not impose pressure on the server. Additionally, direct transmission with a signature returned by the server is more secure. |
| | **Uploading Data from Mobile Apps to OBS** | OBS is widely used as the storage for mobile Android and iOS apps. To protect application data from leakage and unauthorized access, you are advised to use a temporary security credential or a presigned URL to upload data to OBS. |
| | **Uploading Data from Mini Programs to OBS** | Mini programs are now popular in a variety of scenarios. You can upload data to OBS from a mini program. |

# A Change History

| Release Date | What's New |
|---|---|
| 2023-06-20 | This is the second official release.<br>This issue incorporates the following change:<br>● Added **Practices**. |
| 2022-09-27 | This is the first official release. |