

DataArts Studio

Preparations

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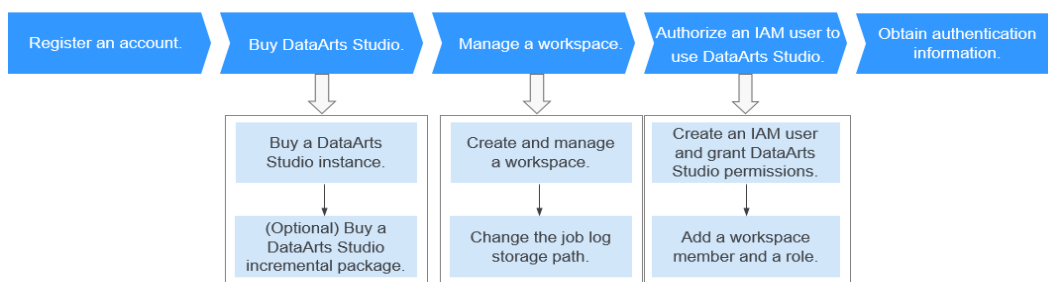
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1 Preparations

To use DataArts Studio, register a HUAWEI CLOUD account, buy a DataArts Studio instance, and authorize a user to use DataArts Studio.

For details about the preparations and operations, see later sections.

Figure 1-1 DataArts Studio preparation process



2 DataArts Studio Instances

2.1 a DataArts Studio Basic Package

DataArts Studio is billed based on the basic package and incremental package. The basic package refers to the DataArts Studio instance. For details about how to purchase a DataArts Studio instance, see [a DataArts Studio Basic Package](#).

Background

Only HUAWEI CLOUD account users with the **DAYU Administrator** or **Tenant Administrator** permissions can buy DataArts Studio instances or DataArts Studio incremental packages.

NOTE


Users with the **Tenant Administrator** permissions can perform all operations except IAM user management. For security purposes, you are not advised to grant the **Tenant Administrator** permissions to IAM users.

Prerequisites

You have obtained a VPC, subnet, and security group. You can also apply for them when you buy a DataArts Studio instance.

For details, see [Virtual Private Cloud User Guide](#).

Logging In to DataArts Studio Console

1. Log in to the management console.
2. In the upper left corner of the console, click , and choose **DataArts Studio** to access the DataArts Studio console.

a DataArts Studio Basic Package

Step 1 On the DataArts Studio console, click **Instance**.

Step 2 On the displayed page, set parameters for the DataArts Studio instance. [Table 2-1](#) provides descriptions of the parameters.

Table 2-1 DataArts Studio instance parameters

Parameter	Example	Description
Region	None	<p>The region where the instance resides. Resources in different regions cannot communicate with each other.</p> <p>When selecting a region, consider the following factors:</p> <ul style="list-style-type: none">• Location You are advised to select a region closest to your target users. This reduces network latency and improves access rate. However, Chinese mainland regions provide the same infrastructure, BGP network quality, and operations and configurations on resources. Therefore, if your target users are in the Chinese mainland, you do not need to consider the network latency differences when selecting a region.• Relationship between cloud services Cloud services in different regions cannot communicate with each other through an internal network.• Resource price Resource pricing may vary in different regions. <p>For details, see AZs.</p>

Parameter	Example	Description
Enterprise Project	default	<p>The enterprise project associated with your DataArts Studio instance.</p> <p>This parameter is available only when an enterprise project has been created. If you want to connect the DataArts Studio instance to a cloud service (such as DWS, MRS, and RDS), ensure that the enterprise project of the DataArts Studio instance is the same as that of the cloud service instance.</p> <ul style="list-style-type: none">You can buy only one DataArts Studio instance for an enterprise project.If you want to enable communication between DataArts Studio and another cloud service, ensure that the enterprise project of DataArts Studio is the same as that of the cloud service.
Version	Basic	<p>Select a DataArts Studio version. For details about the version differences, see Versions.</p> <p>NOTE</p> <p>The DataArts Studio instance contains a CDM cluster by default. You are advised to use this cluster as a connection agent. For data migration jobs, purchase a CDM incremental package of a higher version. For details, see Buying a CDM Incremental Package.</p>
Billing Mode	Yearly/Monthly	<p>The DataArts Studio basic package is billed on a monthly/yearly basis.</p>
Instance Name	DataArts Studio-test	<p>Name of the DataArts Studio instance The instance name cannot be changed.</p>
AZ	AZ1	<p>AZ to which the CDM cluster in the DataArts Studio instance belongs. The DataArts Studio instance communicates with other services through the CDM cluster.</p> <p>When you buy a DataArts Studio instance or incremental package for the first time, there is no requirement on the AZ. When you buy a new DataArts Studio instance or incremental package, determine whether to select the same AZ as the existing one based on your DR and network latency demands.</p> <ul style="list-style-type: none">If your application requires good DR capability, deploy resources in different AZs in the same region.If your application requires a low network latency between instances, deploy resources in the same AZ. <p>For details, see AZs.</p>

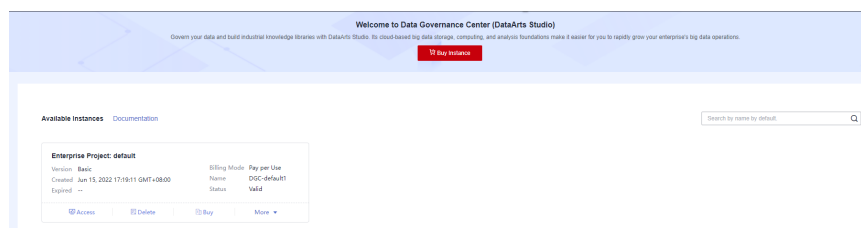
Parameter	Example	Description
VPC	vpc1	VPC, subnet, and security group to which the CDM cluster in the DataArts Studio instance belongs. The DataArts Studio instance communicates with other services through the CDM cluster. If you want to connect the DataArts Studio instance or CDM cluster to a cloud service (such as DWS, MRS, and RDS), ensure that the CDM cluster can communicate with the cloud service. If the CDM cluster and the cloud service are in the same region, VPC, subnet, and security group, they can communicate with each other by default. If the CDM cluster and the cloud service are in the same VPC but in different subnets or security groups, you must configure routing rules and security group rules. For details about the operations on VPCs, subnets, and security groups, see Virtual Private Cloud User Guide .
Subnet	subnet-1	
Security Group	sg-1	
Required Duration	1 year	Select a duration based on your requirements.
Auto-renew	N/A	You can select Auto-renew to automatically renew the subscription by month or by year. If you choose the monthly billing mode, your subscription will be automatically renewed each month. If you choose the yearly billing mode, your subscription will be automatically renewed each year.
Tag Key	key1	DataArts Studio instance tags can be used in the following scenarios: You can set tags when creating a DataArts Studio instance. <ol style="list-style-type: none">1. Enter a tag key in the text box or select a predefined tag key from the drop-down list. NOTE To add a predefined tag, you need to create one on TMS and then select it from the Tag key drop-down list. You can click View predefined tags to enter the Predefined Tag page of TMS. Then, click Create Tag to create a predefined tag. For details, see Creating Predefined Tags in <i>Tag Management Service User Guide</i>.2. Enter a tag value in the text box or select a predefined tag value from the drop-down list.3. Click Add to add the tag.

Parameter	Example	Description
Tag Value	asd	<p>NOTE</p> <ul style="list-style-type: none"> - A maximum of 20 tags can be added. - Only one tag value can be added to a tag key. - The key name must be unique in the same instance. <p>You can add tags after the instance is created. For details, see (Optional) Creating Instance Tags.</p>

Step 3 Confirm the settings and click **buy Now**.

Step 4 Click **Next**. After you pay for your instance, wait until the instance is created. The created instance is displayed on the homepage.

Figure 2-1 Viewing a DataArts Studio instance

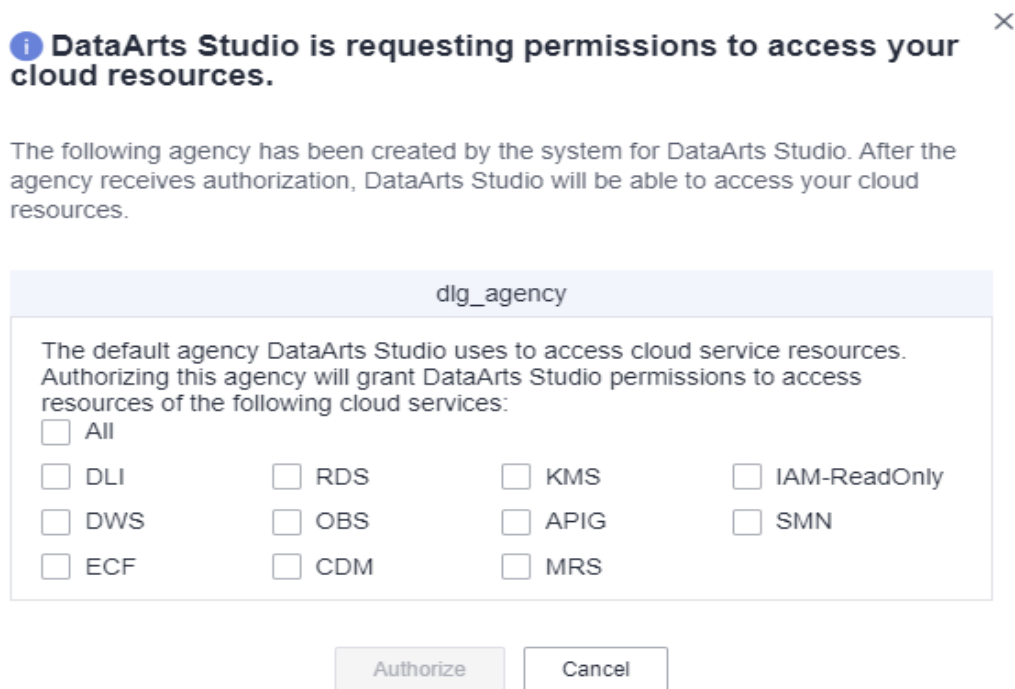


Step 5 When you return to the DataArts Studio management console, the **Authorize Access** dialog box is displayed, prompting you to authorize the listed services. DataArts Studio interacts with the cloud services and needs to collaborate with them. Therefore, you need to create a cloud service agency to delegate permissions to DataArts Studio so that DataArts Studio can use these cloud services and perform task scheduling and resource O&M on behalf of you.

Cloud service agencies include permissions related to DWS, MRS, RDS, OBS, SMN, and KMS. You can access the IAM agency page to view the agency scope. You do not need to apply for an agency for users. The agency of the account is used.

Select all services and click **Authorize**. The platform automatically creates an agency.

- After the authorization is complete, the **Authorize Access** dialog box will not be displayed when you access the DataArts Studio console homepage next time.
- If you select only some services for authorization, the system still displays the dialog box next time you access the DataArts Studio console homepage, prompting you to authorize access to unauthorized cloud services.

Figure 2-2 Authorize Access dialog box

Step 6 In the list of instances, locate your instance and click **Access** to access the DataArts Studio console.

----End

2.2 (Optional) buy an Incremental Package

DataArts Studio provides basic and incremental packages. If the basic package cannot meet your requirements, you can buy an incremental package. Before you buy an incremental package, ensure that you have a DataArts Studio instance.

DataArts Studio provides the following types of incremental packages:

- DataArts Migration (namely CDM) incremental package
CDM can migrate data to the cloud and integrate data into the data lake. It provides wizard-based configuration and management and can integrate data from a single table or an entire database incrementally or periodically. The DataArts Studio basic package contains a CDM cluster. If the cluster cannot meet your requirements, you can buy a CDM incremental package.
CDM incremental packages support the following billing modes:
 - **Buying a Pay-Per-Use CDM Cluster:** You can enable or disable the package as you like and you are charged by the usage duration.
 - **Buying a Yearly/Monthly CDM Cluster:** This mode is more cost-effective and a better choice if you want to use the package for a long time.
- DataArts DataService incremental package
DataArts DataService is a platform where you can develop, test, and deploy your data services. DataArts DataService ensures agile response to data service needs, easier data retrieval, better experience for data consumers,

higher efficiency, and better monetization of data assets. To use DataArts DataService Exclusive, you need to purchase an exclusive cluster incremental package in addition to the DataArts Studio basic package.

For details, see [a DataArts DataService Exclusive Cluster](#).

Background

- You can choose **More > View Packages** to view incremental packages.

Buying a Pay-Per-Use CDM Cluster

If you buy a pay-per-use incremental package, the system automatically creates a CDM cluster based on the specifications you select.

NOTE

You can buy a CDM cluster by buying an incremental package on the DataArts Studio console or buy a CDM cluster directly on the CDM console.

Note that the CDM clusters you buy on the CDM console can be used only in the default workspace on the DataArts Studio console. In addition, a CDM cluster bought on the DataArts Studio console can only use the incremental package bought on the DataArts Studio console, and a CDM cluster bought on the CDM console can only use the incremental package bought on the CDM console.

The former is recommended, and this section uses it as an example.

- Locate an enabled instance and click .
- On the displayed page, set parameters based on [Table 2-2](#).

Table 2-2 Parameters for the CDM incremental package

Parameter	Description
Package	Select CDM .
Billing Mode	Select Pay per Use .
AZ	<p>When you a DataArts Studio instance or incremental package for the first time, there is no requirement on the AZ.</p> <p>When you buy a new DataArts Studio instance or incremental package, determine whether to select the same AZ as the existing one based on your DR and network latency demands.</p> <ul style="list-style-type: none">If your application requires good DR capability, deploy resources in different AZs in the same region.If your application requires a low network latency between instances, deploy resources in the same AZ. <p>For details, see AZs.</p>
Workspace	Select the workspace where the CDM incremental package is to be used. For example, if you want to buy a CDM incremental package in workspace A of the test DataArts Studio instance, select A . After you buy the CDM incremental package, a CDM cluster will be displayed in workspace A .

Parameter	Description
Cluster	Customize the cluster name.
Instance	<p>The following CDM cluster flavors are available:</p> <ul style="list-style-type: none">● cdm.large: 8 vCPUs and 16 GB of memory The maximum and assured bandwidths are 3 Gbit/s and 0.8 Gbit/s. Up to 20 jobs can be executed concurrently.● cdm.xlarge: 16 vCPUs and 32 GB of memory The maximum and assured bandwidths are 10 Gbit/s and 4 Gbit/s. Up to 100 jobs can be executed concurrently. This flavor is well suited to TB-level data migration requiring 10GE high-speed bandwidth.● cdm.4xlarge: 64 vCPUs and 128 GB of memory The maximum and assured bandwidths are 40 and 36 Gbit/s, respectively. Up to 300 jobs can be executed concurrently.
VPC	<p>VPC to which the CDM cluster in the DataArts Studio instance belongs. A VPC is a secure, isolated, and logical network environment.</p> <p>If you want to connect the DataArts Studio instance or CDM cluster to a cloud service (such as DWS, MRS, and RDS), ensure that the CDM cluster can communicate with the cloud service. If the CDM cluster and the cloud service are in the same region, VPC, subnet, and security group, they can communicate with each other by default. If the CDM cluster and the cloud service are in the same VPC but in different subnets or security groups, you must configure routing rules and security group rules.</p> <p>For details about the operations on VPCs, subnets, and security groups, see Virtual Private Cloud User Guide.</p> <p>NOTE After the CDM instance is created, the VPC cannot be changed.</p>

Parameter	Description
Subnet	<p>Subnet to which the CDM cluster in the DataArts Studio instance belongs. A subnet provides dedicated network resources that are isolated from other networks, improving network security.</p> <p>If you want to connect the DataArts Studio instance or CDM cluster to a cloud service (such as DWS, MRS, and RDS), ensure that the CDM cluster can communicate with the cloud service. If the CDM cluster and the cloud service are in the same region, VPC, subnet, and security group, they can communicate with each other by default. If the CDM cluster and the cloud service are in the same VPC but in different subnets or security groups, you must configure routing rules and security group rules.</p> <p>For details about the operations on VPCs, subnets, and security groups, see Virtual Private Cloud User Guide.</p> <p>NOTE After the CDM instance is created, the VPC cannot be changed.</p>
Security Group	<p>Security group to which the CDM cluster in the DataArts Studio instance belongs. A security group is a set of ECS access rules. It provides access policies for ECSs that have the same security protection requirements and are mutually trusted in a VPC.</p> <p>If you want to connect the DataArts Studio instance or CDM cluster to a cloud service (such as DWS, MRS, and RDS), ensure that the CDM cluster can communicate with the cloud service. If the CDM cluster and the cloud service are in the same region, VPC, subnet, and security group, they can communicate with each other by default. If the CDM cluster and the cloud service are in the same VPC but in different subnets or security groups, you must configure routing rules and security group rules.</p> <p>For details about the operations on VPCs, subnets, and security groups, see Virtual Private Cloud User Guide.</p> <p>NOTE After the CDM instance is created, the security group cannot be changed.</p>

NOTICE

You cannot modify the specifications of an existing cluster. If you need higher specifications, create another cluster.

3. Click **Now**, confirm the specifications, and click **Next**.
4. View the CDM cluster in the corresponding workspace.

Buying a Yearly/Monthly CDM Cluster

If you want to enjoy the preferential price of the yearly/monthly incremental package, you can buy a yearly/monthly incremental package and then buy a pay-per-use incremental package which is in the same region and has the same specifications as the yearly/monthly incremental package.

NOTE

You can buy a CDM cluster by buying an incremental package on the DataArts Studio console or buy a CDM cluster directly on the CDM console.

Note that the CDM clusters you buy on the CDM console can be used only in the default workspace on the DataArts Studio console. In addition, a CDM cluster bought on the DataArts Studio console can only use the incremental package bought on the DataArts Studio console, and a CDM cluster bought on the CDM console can only use the incremental package bought on the CDM console.

The former is recommended, and this section uses it as an example.

1. Locate an enabled instance and click .
2. On the displayed page, set the following parameters:
 - a. Select **CDM** for **Package**.
 - b. Select **Yearly/Monthly** for **Billing Mode**.
 - c. Specify a validity period in **Usage Duration** for the package.
 - d. Enter the number of subscribed packages in **Purchase Quantity**. For example, if you specify **1 month** for **Usage Duration** and **2** for **Purchase Quantity**, you will have a 1490-hour quota and the validity period will be 1 month.
3. Click **Buy Now**. If there are no changes made to the specifications, submit the order.
4. After you buy the yearly/monthly package, the system will not automatically create a CDM cluster. You need to buy a pay-per-use incremental package in the same region and with the same specifications as the yearly/monthly package by following the instructions in [Buying a Pay-Per-Use CDM Cluster](#). Then you can enjoy the preferential price of the yearly/monthly incremental package.

a DataArts DataService Exclusive Cluster

Step 1 Locate an enabled instance and click .

Step 2 On the displayed page, set parameters based on [Table 2-3](#).

Table 2-3 Parameters for an exclusive DataArts DataService instance

Parameter	Description
Package	Select DataArts DataService .
Billing Mode	Currently, Yearly/Monthly is supported.

Parameter	Description
Workspace	The workspace for which you want to use the incremental package. For example, if you want to use DataArts DataService Exclusive in workspace A of the DataArts Studio instance, select workspace A. After an exclusive DataArts DataService cluster, you can view it in workspace A.
AZ	When you buy a DataArts Studio instance or incremental package for the first time, you can select any available AZ. When you buy another DataArts Studio instance or incremental package, determine whether to deploy your resources in the same AZ based on your DR and network latency demands. <ul style="list-style-type: none">• If your application requires good DR capability, deploy resources in different AZs in the same region.• If your application requires a low network latency between instances, deploy resources in the same AZ. For details, see AZs .
Name	N/A
Description	A description of the exclusive DataArts DataService cluster.
Version	Cluster version of the exclusive DataArts DataService cluster.
Cluster Details	The number of concurrent API requests supported varies depending on the instance specifications.
Enabling public IP address	If you select Enabling public IP address , external services can call the APIs created in exclusive instances through the Internet address.
Bandwidth	Bandwidth range on the Internet.
VPC	A VPC is a secure, isolated, and logical network environment. Cloud resources (such as ECSs) within the same VPC can call APIs using the private IP address of DataArts DataService Exclusive. Deploy the DataArts DataService Exclusive instance in the same VPC as your other services to facilitate network configuration and secure network access. NOTE After the DataArts DataService instance is created, the VPC cannot be changed.
Subnet	A subnet provides dedicated network resources that are logically isolated from other networks for network security. Deploy the DataArts DataService Exclusive instance in the same subnet of the same VPC as your other services to facilitate network configuration and secure network access. NOTE After the DataArts DataService instance is created, the subnet cannot be changed.

Parameter	Description
Security Group	<p>A security group is used to set port access rules, define ports that can be accessed by external services, and determine the IP addresses and ports that can be accessed externally.</p> <p>For example, if the backend service is deployed on an external network, configure security group rules to allow access to the IP address and listening port of the backend service.</p> <p>NOTE</p> <ol style="list-style-type: none">1. If Enabling the public IP address is selected, the security group must allow access from ports 80 (HTTP) and 443 (HTTPS) in the inbound direction.2. After the DataArts DataService instance is created, the security group cannot be changed.
Managing Cluster Resources Using an Enterprise Project	Enterprise project associated with the exclusive DataArts DataService cluster. An enterprise project facilitates management of cloud resources. For details, see Enterprise Management User Guide .
Nodes	N/A
Required Duration	N/A

Step 3 Click **Now**, confirm the settings, and click **Next**.

----End

3 (Optional) Creating Instance Tags

A tag is a key-value pair that identifies an instance. It consists of a key and a value.

DataArts Studio instance tags can be used in the following scenarios:

- If there are a large number of cloud resources, you can add tags to them (including DataArts Studio instances) by user, maintainer, or usage. Then you can use Tag Management Service (TMS) to identify tags and manage cloud resources easily.
- If there are multiple DataArts Studio instances, you can add tags to them by user, maintainer, or usage. Then you can search for and identify DataArts Studio instances by tag on the DataArts Studio instance list page.

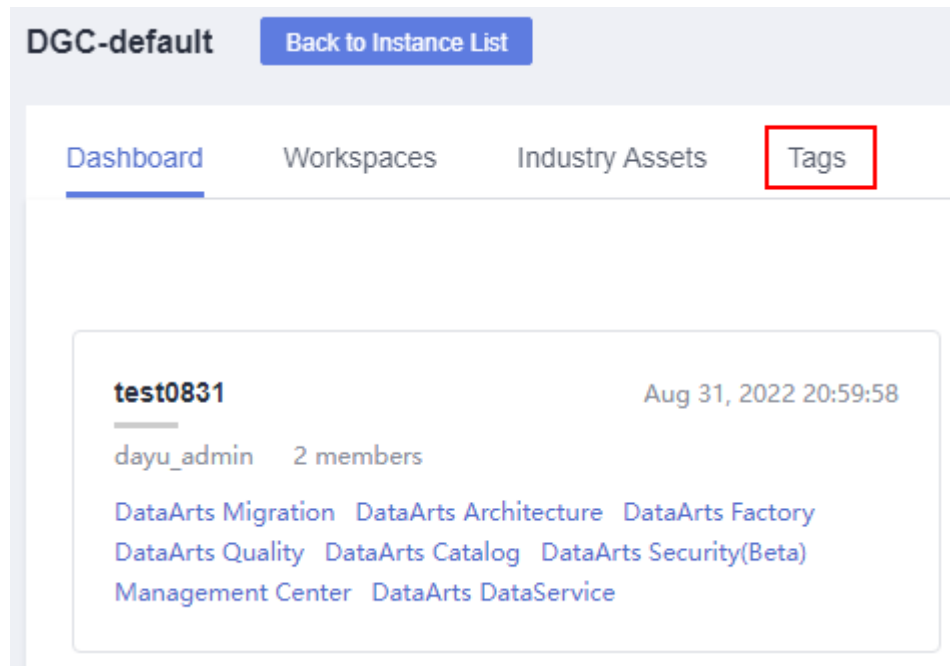
Constraints

- A DataArts Studio instance can have a maximum of 20 tags.
- Each tag key must be unique. Only one tag value can be added to a tag key.

Procedure

Step 1 On the homepage of the DataArts Studio console, click **Tags**.

Figure 3-1 Tags



Step 2 Click **Add/Edit Tag**. In the displayed dialog box, enter a tag key and a tag value and click **Add**.

Figure 3-2 Add/Edit Tag

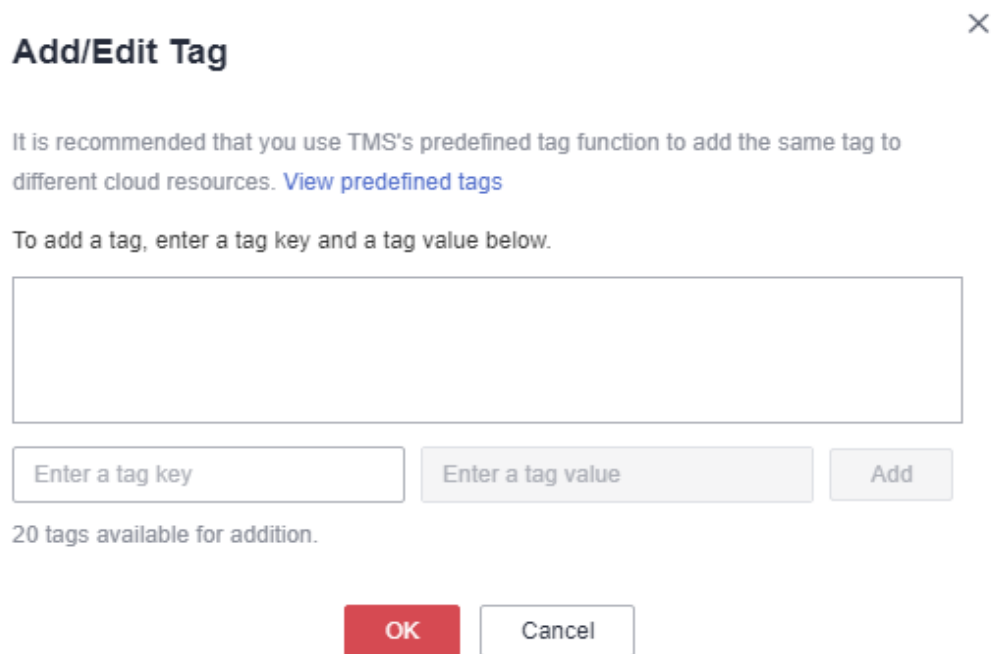


Table 3-1 Tag parameters

Parameter	Description
Tag Key	<p>DataArts Studio supports predefined tags and resource tags.</p> <ul style="list-style-type: none">• Predefined tags are created on TMS. They may suit your needs to manage multiple services by tag. To use a predefined tag, you must create one on TMS first. Then you can select it from the Tag key drop-down list. You can click View predefined tags to enter the Predefined Tag page of TMS. Then, click Create Tag to create a predefined tag. For details, see Creating Predefined Tags in <i>Tag Management Service User Guide</i>.• Resource tags are created when you add a tag. You do not need to define them in advance. Resource tags are suitable for you to manage DataArts Studio instances by tag. To use a resource tag, you can enter the tag key in the box. A tag key can contain a maximum of 36 characters, including letters, digits, hyphens (-), and underscores (_). The first and last characters cannot be spaces.
Tag Value	<p>You can specify the tag value in either of the following ways:</p> <ul style="list-style-type: none">• Predefined tags: Click the text box and select a predefined tag value from the drop-down list.• Resource tags: Enter a tag value in the text box. A tag value can contain a maximum of 43 characters, including letters, digits, hyphens (-), underscores (_), and dots (.). The first and last characters cannot be spaces.

----End

4 Managing a Workspace

4.1 Creating and Managing a Workspace

By default, a workspace will be automatically created after you buy a DataArts Studio instance. You will be automatically assigned the admin role and can use the default workspace or create a new workspace.

A workspace in a DataArts Studio instance is the basic unit for member management and role and permission allocation. It provides all DataArts Studio functions. Workspaces are allocated by branch or subsidiary (such as the group, subsidiary, and department), business domain (such as the procurement, production, and sales), or implementation environment (such as the development, test, and production environment). There are no fixed rules.

Admins can manage user (member) permissions, resources, and compute engines in a workspace. To enable users to work together, admins can add users to a workspace and assign the preset roles of DataArts Studio (admin, developer, operator, and visitor) to the users. Users other than admins can access Management Center, DataArts Migration, DataArts Architecture, DataArts Factory, DataArts Catalog, DataArts Quality, DataArts DataService, and DataArts Security only after they are added to a workspace and assigned relevant roles.

Constraints

The storage of job logs and dirty data depends on the OBS service. If the OBS service is unavailable, job logs and dirty data cannot be stored.

Prerequisites

A DataArts Studio instance has been buy. For details, see [a DataArts Studio Basic Package](#).

Background

- After you a DataArts Studio instance, you have the permission to create workspaces. DataArts Studio creates a default workspace for you and assign the admin role to you.

- In a DataArts Studio instance created by a master account, if an IAM user of the account needs to create a workspace, the IAM user must be assigned the **DAYU Administrator** or **Tenant Administrator** policy. By default, the master account has all the permissions for a DataArts Studio instance created by a sub-user.
- After workspaces are created, they cannot be deleted. You can disable workspaces when they are no longer needed. You can enable them again when you need these workspaces.
- Users assigned the **DAYU User** policy can access a workspace only after you add them as members of the workspace.

Creating a Workspace

1. Log in to the DataArts Studio console using the **DAYU Administrator** account.
2. Click the **Workspaces** tab.
3. Click **Create**. On the **Workspace Information** page, set the parameters based on [Table 4-1](#). After the configuration is complete, click **OK**.

Figure 4-1 Workspace information

The screenshot shows the 'Workspace Information' configuration page. It includes the following fields and options:

- Name:** A text input field containing 'aaa'.
- Description:** A text area containing 'aa' with a character count of 2/255.
- Enterprise Project:** A dropdown menu set to 'default'.
- OBS Bucket for Job Logs:** A text input field with a 'Select' button.
- OBS Bucket for DLI Dirty Data:** A text input field with a 'Select' button.
- * API Quota of DLM Exclusive:** A section with a 'Configure' button and the following values:
 - Used : 0
 - Allocated : 10
 - Total used : 4
 - Total allocated : 152
 - Total : 5,000

Table 4-1 Parameters for creating a workspace

Parameter	Description
Name	Workspace names can contain only letters, numbers, underscores (_), and hyphens (-). They cannot exceed 32 characters. In a DataArts Studio instance, workspace names must be unique.
Description	A description of the workspace.

Parameter	Description
Enterprise Project	<p>The enterprise project associated with your DataArts Studio instance.</p> <p>This parameter is available only when an enterprise project has been created. If you want to connect the DataArts Studio instance to a cloud service (such as DWS, MRS, and RDS), ensure that the enterprise project of the DataArts Studio instance is the same as that of the cloud service instance.</p> <ul style="list-style-type: none">You can buy only one DataArts Studio instance for an enterprise project.If you want to enable communication between DataArts Studio and another cloud service, ensure that the enterprise project of DataArts Studio is the same as that of the cloud service.
OBS Bucket for Job Logs	<p>The OBS bucket for storing logs of DataArts Studio data development jobs. To use the DataArts Factory module of DataArts Studio, workspace members must have the read and write permissions on the OBS bucket for storing job logs. Otherwise, the system cannot read or write job logs generated during data development.</p> <ul style="list-style-type: none">Click Select. You can select a created OBS bucket. The selected OBS bucket is globally configured in the current workspace.If this parameter is not set, job logs generated during data development are stored in the OBS bucket named dlf-log-{projectId} by default. {projectId} indicates the project ID, which can be obtained by referring to Obtaining a Project ID and Account ID.
OBS Bucket for DLI Dirty Data	<p>The OBS bucket for storing dirty data generated during DLI SQL execution in DataArts Studio Data Development. To use DataArts Studio DataArts Factory to develop and execute DLI SQL statements, workspace members must have the read and write permissions on the OBS bucket where DLI dirty data is stored. Otherwise, the system cannot read or write the dirty data generated during DLI SQL execution.</p> <ul style="list-style-type: none">Click Select. You can select a created OBS bucket. The selected OBS bucket is globally configured in the current workspace.If this parameter is not set, dirty data generated during DLI SQL execution is stored in the OBS bucket named dlf-log-{projectId} by default.

Parameter	Description
API Quota of DataArts DataService Exclusive	<p>The values of this parameter indicate the used quota, allocated quota, total used quota, total allocated quota, and total quota, respectively.</p> <p>If you use DataArts DataService Exclusive, you will be charged for the APIs you create. The default quota is 0, which means that no APIs can be created.</p> <p>The initial workspace has a trial quota of 10 APIs. The allocated quota can be modified. The allocated quota cannot be less than the used quota or greater than the sum of the total quota and the previously allocated quota minus the total allocated quota. (Used quota ≤ Allocated quota ≤ Total quota + Previously allocated quota - Total allocated quota)</p>

Editing a Workspace

1. Log in to the DataArts Studio console.
2. Select a DataArts Studio instance and click **Access**. Then, click the **Workspaces** tab.
3. On the **Workspaces** tab page, locate the target workspace and click **Edit** in the row that contains the workspace.
4. Click **Edit** at the top of the **Workspace Information** page to edit the workspace information and manage workspace members.
5. After the configuration is complete, click **Save** at the top of the **Workspace Information** page to save the settings.


Disabling a Workspace

After a workspace is created, it is enabled by default. You can disable or enable it as required.


NOTE

If you disable a workspace, you cannot access the workspace, edit the workspace content, or schedule jobs in the workspace.

CDM clusters in the workspace will still be billed.

1. Log in to the DataArts Studio console.
2. Select a DataArts Studio instance and click **Access**. Then, click the **Workspaces** tab.
3. On the **Workspaces** tab page, locate the target workspace, and turn off  in the **Status** column.
4. In the **Disable Workspace** dialog box displayed, read the impact of disabling a workspace. Click **Yes** to disable the workspace.

Enabling a Workspace

1. Log in to the DataArts Studio console.
2. Select a DataArts Studio instance and click **Access**. Then, click the **Workspaces** tab.
3. On the **Workspaces** tab page, locate the target workspace, and turn on  in the **Status** column.
4. In the **Enable Workspace** dialog box displayed, read the impact of enabling a workspace. If you want to continue, click **Yes** to enable the workspace.

4.2 (Optional) Changing the Job Log Storage Path

By default, job logs and Data Lake Insight (DLI) dirty data are stored in an Object Storage Service (OBS) bucket named **dlf-log-*{Project ID}***. You can customize a log storage path. DataArts Factory allows you to configure an OBS bucket globally based on the workspace.

Constraints

This function depends on the OBS service.

Prerequisites

To change the job log storage path, either of the following conditions must be met:

- You have administrator rights.
- You have been assigned the **DAYU User** policy and you are the admin of the current workspace.

Procedure

1. Log in to the DataArts Studio console using the **DAYU Administrator** or administrator account.
2. Click the **Workspaces** tab.
3. Click **Edit** in the **Operation** column.
4. On the **Workspace Information** page displayed, click **Edit** next to the workspace information.
Click the **Select** button next to **OBS Bucket for Job Logs** to reselect a path.

Figure 4-2 Changing the log path

Workspace Information Edit

* Name: cassie

Description: 0/255

Job Log Path ⓘ: obs://dlf-log-687df4b2bf0d424abaf43ebd2e Select

* API Quota of DLM Exclusive

Used:	0 USD
Allocated:	0 USD Edit
Total used:	12 USD
Total allocated:	312 USD
Total:	5,000 USD

Workspace Members

Add Remove Account Q

<input type="checkbox"/>	Account	Account ... ▾	Added	Role ▾	Oper...
<input type="checkbox"/>	User		Apr 13, 2021 18:08:1...	Admin	Edit

5. Click **Save**.

5 Authorizing Users to Use DataArts Studio

5.1 Creating an IAM User and Assigning DataArts Studio Permissions

Identity and Access Management (IAM) can be used for fine-grained permissions management on your DataArts Studio resources. With IAM, you can:

- Create IAM users for employees based on your enterprise's organizational structure. Each IAM user will have their own security credentials for accessing DataArts Studio resources.
- Assign users only the permissions required to perform a task.
- Entrust a HUAWEI CLOUD account or cloud service to perform efficient O&M on your DataArts Studio resources.

If you do not require individual IAM users for permissions management, skip this section.

Background

- Before assigning permissions to a user group, familiarize yourself with the DataArts Studio workspace role permissions that can be added to the user group and select permissions based on actual requirements. For details about the system permissions supported by DataArts Studio, see [DataArts Studio Permissions Management](#).
- For details on the system policies of other services, see [Permissions Policies](#).

Procedure

1. Create a user group and assign permissions to it. Log in to the IAM console using a HUAWEI CLOUD account, create a user group, and grant permissions of a common user (for example, **DAYU User**) to the group.

For details, see [Creating a User Group and Assigning Permissions](#).

 NOTE

- When configuring DataArts Studio permissions for a user group, enter **DAYU** in the search box to search for the permissions and select the permissions to be granted to the user group, for example, **DAYU User**.
 - If an IAM user wants to create a workspace, you must assign the IAM user the **DAYU Administrator** policy. Users with the **DAYU Administrator** policy can perform all operations on DataArts Studio.
 - DataArts Studio is a project-level service deployed in specific physical regions. If you select **All resources** for **Scope**, the permission takes effect in all projects of all regions. If you select **Region-specific projects** for **Scope**, the permission takes effect only for a specified project. When accessing DataArts Studio, the IAM user must switch to the region where they have been assigned the required permissions.
2. Create a user and add the user to the user group. Create a user on the IAM console and add the user to the group created in 1.

For details, see [Creating an IAM User and Adding It to a User Group](#).

5.2 Adding a Member and Assigning a Role

If you want to allow another IAM user to use your DataArts Studio instance, create an IAM user by referring to [Creating an IAM User and Assigning DataArts Studio Permissions](#), and add the user as the workspace member and configure a role for the user by following the instructions in this section.

A workspace role determines the permissions of a user in the workspace. Currently, four preset roles are available: admin, developer, operator, and viewer. For details about the permissions of the roles, see [DataArts Studio Permissions](#).

- **Admin:** Users with this role have the permissions to perform all operations in a workspace. You are advised to assign this role to the project owner, development owner, and O&M administrator.
- **Developer:** Users with this role have the permissions to create and manage work items, but cannot perform operations on workspaces, clusters, and reviewers. You are advised to assign this role to users who develop and process tasks.
- **Operator:** Users with this role have the permissions to perform operations such as O&M and scheduling, but cannot modify work items or configurations. You are advised to assign this role to users for O&M management and status monitoring.
- **Viewer:** Users with this role can only read data from DataArts Studio, but cannot perform operations on workspaces or modify work items or configurations. You are advised to assign this role to users who only want to view information in the workspace but do not perform any operation.

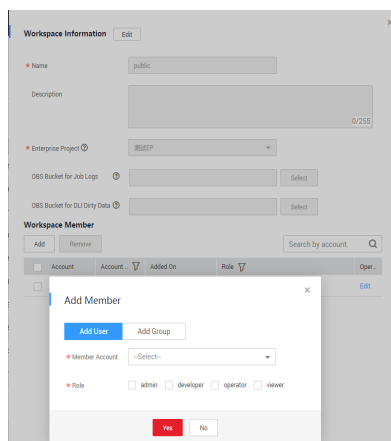
Background

- The **DAYU Administrator** account or the administrator can add members to the workspace.
- If permissions have been assigned to a created IAM user, but no workspace role has been added to the user, the IAM user may fail to access the DataArts Studio workspace.

Adding a Member and Assigning a Role

1. Log in to the DataArts Studio console and access the **Workspaces** page.
2. On the **Workspaces** page, locate the target workspace and click **Edit** in the **Operation** column.
3. Click **Add** under **Workspace Members**. In the displayed **Add Member** dialog box, select **Add User** or **Add Group**, select a member account from the drop-down list, and select a role for it.

Figure 5-1 Adding a member



4. Click **OK**. You can view or modify the members and roles in the member list, or remove members from the workspace.

Removing a Workspace Member

1. Log in to the DataArts Studio console and access the **Workspaces** page.
2. On the **Workspaces** page, locate the target workspace and click **Edit** in the **Operation** column.
3. On the **Workspace information** page, select the target member and click **Remove**.

NOTE

The creator of a workspace cannot be removed.

4. In the **Remove Member** dialog box displayed, click **Yes**.

6 (Optional) Obtaining Authentication Information

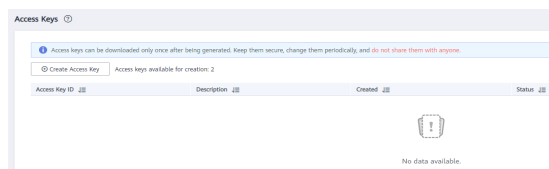
When creating OBS links, making API calls, or locating issues, you may need to obtain information such as access keys, project IDs, and endpoints. This section describes how to obtain such information.

Obtaining an Access Key

To obtain an access key, perform the following steps:

1. Log in to the management console, move the cursor to the username in the upper right corner, and select **My Credentials** from the drop-down list.
2. On the **My Credentials** page, choose **Access Keys**, and click **Create Access Key**. See [Figure 6-1](#).

Figure 6-1 Clicking Create Access Key



3. Click **OK** and save the access key file as prompted. The access key file will be saved to your browser's configured download location. Open the **credentials.csv** file to view **Access Key Id** and **Secret Access Key**.

NOTE

- Only two access keys can be added for each user.
- To ensure access key security, the access key is automatically downloaded only when it is generated for the first time and cannot be obtained from the management console later. Keep them properly.

Obtaining a Project ID and Account ID

You can obtain the project ID and account ID by performing the following steps:

1. Register with and log in to the management console.

2. Hover the cursor on the username in the upper right corner and select **My Credentials** from the drop-down list.
3. On the **My Credentials** page, obtain the account name and account ID, and obtain the project ID from the project list.

Obtaining a DataArts Studio Instance ID and Workspace ID

To obtain a DataArts Studio instance ID and workspace ID, perform the following steps:

1. On the DataArts Studio console, locate a workspace and click any module, such as **Management Center**.
2. On the **Management Center** page, obtain the values of **instanceId** and **workspace** in the browser address bar, which are the instance ID and workspace ID, respectively.

As shown in [Figure 6-2](#), the instance ID is **6b88...2688**, and the workspace ID is **1dd3bc...d93f0**.

Figure 6-2 Obtaining the instance ID and workspace ID



dayu/?workspace=1dd3bc...1d93f0&instanceId=6b88...2688

Obtaining an Endpoint

An endpoint is the **request address** for calling an API. Endpoints vary depending on services and regions.

DataArts Studio endpoints are in the following formats. Select an endpoint based on your service requirements.

- DataArts Migration (or CDM): `cdm.{region_id}.myhuaweicloud.eu`. See [Table 6-1](#) for details.
- DataArts Factory: `dayu-dlf.{region_id}.myhuaweicloud.eu`. See [Table 6-2](#) for details.
- Other DataArts Studio modules (such as DataArts Architecture, DataArts Quality, DataArts Catalog, and DataArts DataService): `dayu.{region_id}.myhuaweicloud.eu`. See [Table 6-3](#) for details.

Table 6-1 DataArts Migration endpoints

Region Name	Region ID	Endpoint	Protocol
EU-Dublin	eu-west-101	cdm.eu-west-101.myhuaweicloud.eu	HTTPS

Table 6-2 DataArts Factory endpoints

Region Name	Region ID	Endpoint	Protocol
EU-Dublin	eu-west-101	dayu-dlf.eu-west-101.myhuaweicloud.eu	HTTPS

Table 6-3 Endpoints of other modules

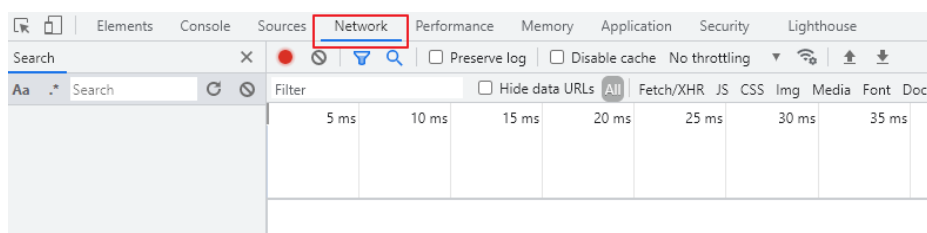
Region Name	Region ID	Endpoint	Protocol
EU-Dublin	eu-west-101	dayu.eu-west-101.myhuaweicloud.eu	HTTPS

Obtaining the GUID of DataArts Catalog

Each logical, technical, or metric asset has a GUID, which is the unique identifier of the asset. Some URLs in the calls to DataArts Catalog APIs require the GUID.

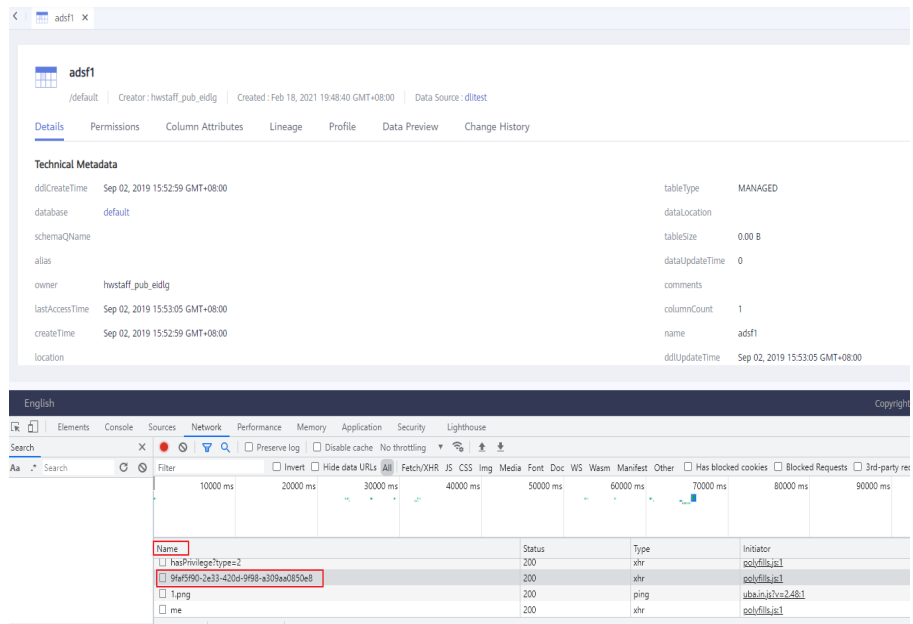
To obtain the DataArts Catalog GUID, perform the following steps:

1. On the DataArts Studio console, locate an instance and click **Access**. On the displayed page, locate a workspace and click **DataArts Catalog**.
2. Press **F12** to open the developer debugging tool and click the **Network** tab.

Figure 6-3 Network

3. On the **Dashboard** or **Data Catalog** page of the DataArts Catalog console, click the name of an asset to view its details.
 - a. In the network request, search for a long character string whose name is similar to **09318f28-939f-4ab6-a374-9e621096652c**.

Figure 6-4 Searching for a long character string



- b. Click the character string and obtain the GUID from **Request URL**.

Figure 6-5 Obtaining the GUID

