

Alibaba Cloud DataV

Manage Data Sources

Issue: 20190809

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Generic conventions

Table -1: Style conventions

Style	Description	Example
	This warning information indicates a situation that will cause major system changes, faults, physical injuries, and other adverse results.	 Danger: Resetting will result in the loss of user configuration data.
	This warning information indicates a situation that may cause major system changes, faults, physical injuries, and other adverse results.	 Warning: Restarting will cause business interruption. About 10 minutes are required to restore business.
	This indicates warning information, supplementary instructions, and other content that the user must understand.	 Notice: Take the necessary precautions to save exported data containing sensitive information.
	This indicates supplemental instructions, best practices, tips, and other content that is good to know for the user.	 Note: You can use Ctrl + A to select all files.
>	Multi-level menu cascade.	Settings > Network > Set network type
Bold	It is used for buttons, menus, page names, and other UI elements.	Click OK .
Courier font	It is used for commands.	Run the <code>cd / d C :/ windows</code> command to enter the Windows system folder.
<i>Italics</i>	It is used for parameters and variables.	<code>bae log list --instanceid <i>Instance_ID</i></code>
[] or [a b]	It indicates that it is an optional value, and only one item can be selected.	<code>ipconfig [-all -t]</code>

Style	Description	Example
<code>{}</code> or <code>{a b}</code>	It indicates that it is a required value, and only one item can be selected.	<code>swich {stand slave}</code>

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1 Configure a database whitelist

This topic describes how to configure a database whitelist in DataV. Before you can add a data source in DataV, you must add the configure a whitelist for your database to ensure that DataV has access to it.

- If you are using a data source from Alibaba Cloud RDS database, see [Configure a whitelist](#). Add the following IP addresses to the whitelist of your RDS database.
- If you are using a data source from Alibaba Cloud ECS database, you must add the following IP addresses to the whitelist of the ECS [security group rules](#), system firewalls, and your database.
- If you are using a data source from the database on a local physical machine, you must add the following IP addresses to the whitelist of the system firewalls of this physical machine, the network firewalls, and your database.

According to your database connection scenarios, add the following IP addresses to the whitelist of your database.

Internet

Region	Whitelist
Singapore	47.88.235.235/0,47.74.136.56/0,47.88.250.141/0,47.88.235.217/0,47.74.136.64/0,47.74.136.22/0,47.74.136.12/0,47.88.235.207/0
Malaysia	47.254.212.25/0
Japan (Tokyo)	47.91.9.73/0,47.91.13.92/0,47.91.9.1/0,47.91.9.42/0
Germany	47.91.83.106/0,47.91.82.104/0,47.91.84.120/0,47.91.84.16/0,47.91.84.36/0
Hong Kong	47.90.68.215/0,47.75.228.154/0,47.91.171.160/0,47.90.68.160/0,47.75.228.234/0,47.91.172.161/0,47.91.172.151/0
US (Silicon Valley)	47.88.99.201/0,47.254.58.179/0,47.88.99.83/0,47.88.108.155/0,47.88.99.128/0
US (Virginia)	47.89.170.94/0,47.89.170.79/0,47.89.170.80/0,47.89.170.71/0,47.89.170.97/0

Intranet classic network

Region	Whitelist
Singapore	11.193.8.8/0,11.192.152.94/0,11.193.8.55/0,11.193.8.59/0,10.152.165.219/0,11.192.152.89/0,11.192.152.117/0,11.193.8.60/0
Malaysia	11.193.189.75/0,11.193.189.69/0,11.193.189.73/0,11.193.189.72/0
Japan (Tokyo)	11.192.149.155/0,11.192.149.118/0,11.192.147.75/0,11.192.149.66/0
Germany	11.192.169.2/0,11.192.168.143/0,11.193.107.16/0,11.192.170.80/0,11.192.170.221/0
Hong Kong	11.193.118.80/0,11.193.118.65/0,11.193.12.4/0,11.193.118.48/0,11.193.118.86/0,11.193.11.239/0,11.193.11.200/0
US (Silicon Valley)	11.193.216.239/0,11.193.216.224/0,11.193.216.227/0,11.193.216.234/0,11.193.216.184/0
US (Virginia)	10.152.235.192/0,10.152.235.29/0,10.152.235.171/0,10.152.235.194/0,10.152.235.191/0

**Notice:**

You may encounter the disconnection of 11 network segments when you configure the whitelist of Intranet classic network. To solve this problem, see [Solution to disconnection of 11 network segments..](#)

Intranet VPC network

Region	Whitelist
Singapore	100.104.13.0/24
Malaysia	100.104.133.64/26
Japan (Tokyo)	100.104.175.0/24
Germany	100.104.244.192/26
Hong Kong	100.104.188.0/24
US (Silicon Valley)	100.104.144.0/26
US (Virginia)	100.104.89.64/26

Solution to disconnection of 11 network segments.

If you encounter the disconnection of 11 network segments, execute the following command to add a router in `/etc/rc.local`.

```
sudo route add -net 11.0.0.0/8 gw 10.152.28.247
```



Note:

The IP address behind *gw* is the server gateway.

If the problem is unresolved, you can open a ticket and send it to ECS to inform Alibaba Cloud technical support engineers that the 11 network segments are unable to access your server.

2 Add data sources

2.1 Overview

Log on to the [DataV console](#), and select Data Sources in the left-side navigation pane to manage data sources.

DataV supports access to the following data sources:

- Database
- CSV file and static JSON
- API
- Others

Databases

DataV supports the following types of databases:

- [RDS for MySQL](#)
- [RDS for PostgreSQL](#)
- [RDS for SQLServer](#)
- [Table Store](#)
- [Oracle](#)
- [MySQL-compatible database](#)

If you are not using Alibaba Cloud and want to connect DataV to your own database, you must use the Internet IP address of the database to establish connection. We currently do not support IP whitelists. We recommend using an Alibaba Cloud database connection agent tool provide if you have any security concerns.

CSV and Static JSON

DataV supports the following types of static data:

- [CSV file](#)
- [Static JSON](#)

DataV currently does not support reading large data files from other file storage you may have.

APIs

DataV supports the following types of APIs as data sources:

- POP API
- [Alibaba Cloud API Gateway](#)

You can directly copy and paste an API address into the Data configuration panel. If your API has an authentication process, you must encapsulate the API in [Alibaba Cloud API Gateway](#), and access it through configurations of Alibaba Cloud API gateway.

The screenshot shows the configuration panel for a 'Basic Line Chart' in DataV. At the top, there are three icons: a menu icon, a code icon (highlighted with a red box), and a search icon. Below the title 'Basic Line Chart', there is a version indicator 'V1.4.8 | Basic Line Chart' and an 'Update version' link. The main configuration area includes three axis settings: 'x' (Customizable, Field not found), 'y' (Customizable, Field not found), and 's' (Customizable, Optional). A 'Data Source Type' dropdown menu is set to 'API'. Below this, the 'URL' field is highlighted with a red box and contains a blue link: 'Fail to request data? Check "cross-region" tutorial for solution'. A text area below the URL, also highlighted with a red box, contains the instruction: 'Configure callback parameter to URL, for instance: http://api.test?value=:value'. At the bottom, there are several checkboxes: 'Initiate a request from a server (HTTP proxy)' (checked), 'Cookie required (For use when proxy is not selected and cookie is required)' (unchecked), 'Data filter:' with an 'Add filter' button (unchecked), and 'Auto Data Request: Every 1 Second' (unchecked). A blue button labeled 'View Data Response' is at the very bottom.

Others

DataV data proxy service provides an open source database proxy service for you to deploy on your ECS. The data proxy service reduces the risks that may arise from the exposure of the Internet IP address of your database.

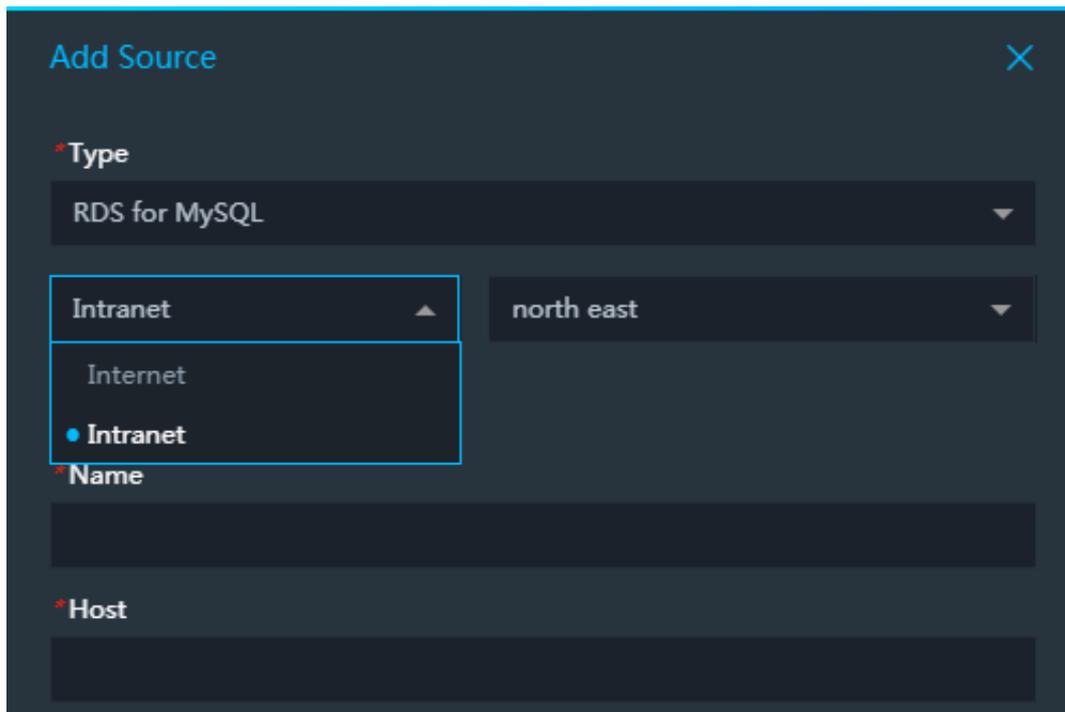
For more information about the deployment and installation of DataV data proxy services, see [DataV proxy configuration in Linux](#).

2.2 Add RDS for MySQL

RDS for MySQL for intranet

- Procedure

1. Log on to the [DataV console](#) and select Data Sources > Add Source.
2. Select RDS for MySQL from the Typedrop-down list.
3. Click the secondary drop-down list and select Intranet.

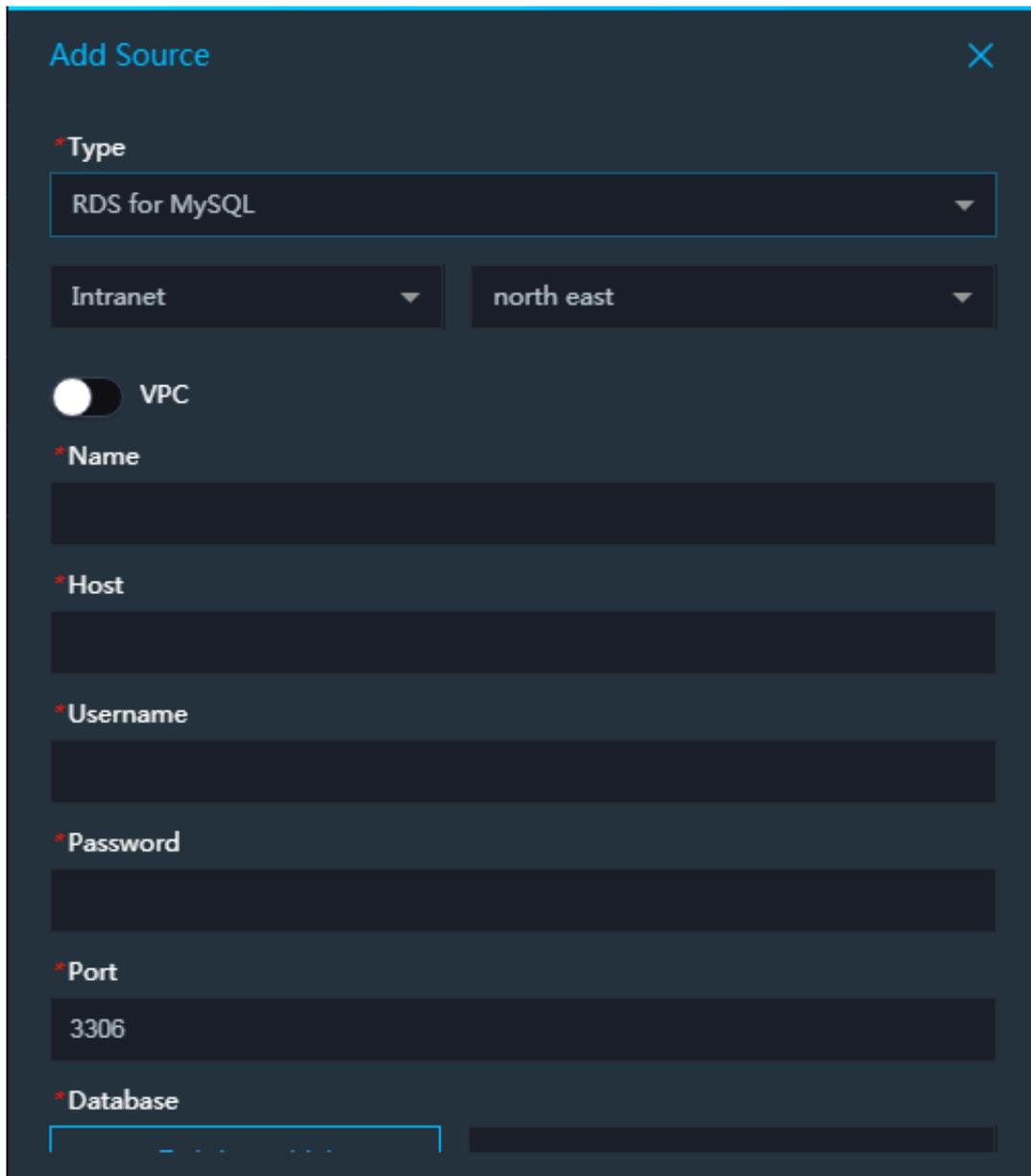


The screenshot shows the 'Add Source' dialog box. The 'Type' dropdown is set to 'RDS for MySQL'. The secondary dropdown is open, showing 'Intranet' selected. The 'north east' dropdown is also visible. The 'Name' and 'Host' fields are empty.

4. Enter the database information in the New Data Source dialog box.

Database type connections for Alibaba Cloud intranet IP connections of East China 1, East China 2, North China 2 and Internet IP connections are currently supported. IP whitelists are not supported.

If you want to create a new database, see [Create a Database](#).



Add Source ✕

*Type
RDS for MySQL

Intranet north east

VPC

*Name

*Host

*Username

*Password

*Port
3306

*Database

- **Name:** Displays the name of the data source.
- **Host:** The URL of your database. This cannot be the URL of your official website or your local IP. It must be a URL that the DataV server can use to

access your database through the Internet or intranet from the Alibaba Cloud data.

- **Username:** The username that you use to log on to your database.
- **Password:** The password that you use to authenticate your database account.
- **Port:** The IP address port number of your database.
- **Database:** The name of the currently selected database.

If all the parameters are configured, the system will test the data source connection automatically.

5. Click OK when the connection test is verified.

When a data source is added, it will be displayed in the data source list.

RDS for MySQL (Internet)

· Procedure

1. Log on to the [DataV console](#) and select Data Sources > Add Source.
2. Select RDS for MySQL from the `Type` drop-down list.
3. Click the secondary drop-down list and select Internet.

If you want to set an Internet address, see [Set Internet and intranet Address](#).

4. Enter the database information in the New Data Source dialog box.

The screenshot shows the 'Add Source' dialog box with the following fields and values:

- Type:** RDS for MySQL
- Secondary dropdown:** Internet
- Name:** (empty)
- Host:** (empty)
- Username:** (empty)
- Password:** (empty)
- Port:** 3306
- Database:** Database List (button highlighted with a red box)

- **Name:** Displays the name of the data source.
- **Host:** The URL of your database. This cannot be the URL of your official website or your local IP. It must be a URL that the DataV server can use to

access your database through the Internet or intranet from the Alibaba Cloud data.

- **Username:** The username that you use to log on to your database.
- **Password:** The password that you use to authenticate your database account.
- **Port:** The IP address port number of your database.
- **Database:** The name of the currently selected database.

If all the parameters are configured, the system will test the data source connection automatically.

5. Click OK when the connection test is verified.

When a data source is added, it will be displayed in the data source list.

2.3 Add RDS for PostgreSQL

RDS for PostgreSQL (for intranet)

- Procedure

1. Log on to the [DataV console](#) and select Data Sources > Add Source.
2. Select RDS for PostgreSQL from the Type drop-down list.
3. Click the secondary drop-down list and select Intranet.
4. Enter the database information.

If you want to create a new database, see [Create a Database](#).

The screenshot shows the 'Add Source' dialog box with the following fields and values:

- Type:** RDS for PostgreSQL
- Intranet:** Intranet
- Region:** north east
- VPC:** Toggle switch is turned off.
- Name:** [Empty text input field]
- Host:** [Empty text input field]
- Username:** [Empty text input field]
- Password:** [Empty text input field]
- Port:** [Empty text input field]
- Database:** [Empty text input field]

- **Name:** Displays the name of the data source.

- **Host:** The URL of your database. This cannot be the URL of your official website or your local IP. It must be a URL that the DataV server can use to access your database through the Internet or intranet from the Alibaba Cloud data.
- **Username:** The username that you use to log on to your database.
- **Password:** The password that you use to authenticate your database account.
- **Port:** The IP address port number of your database.
- **Database:** The name of the currently selected database.

If all the parameters are configured, the system will test the data source connection automatically.

5. Click OK when the connection test is verified.

When a data source is added, it will be displayed in the data source list.

RDS for PostgreSQL (Internet)

- Procedure

1. Log on to the [DataV console](#) and select Data Sources > Add Source.
2. Select RDS for PostgreSQL from the Type drop-down list.
3. Click the secondary drop-down list and select Internet.
4. Enter the database information.

If you want to create a new database, see [Create a Database](#).

The screenshot shows the 'Add Source' dialog box with the following fields and values:

- Type:** RDS for PostgreSQL
- Internet:** Internet
- Name:** (Empty text input)
- Host:** (Empty text input)
- Username:** (Empty text input)
- Password:** (Empty text input)
- Port:** (Empty text input)
- Database:** (Empty dropdown menu with a 'Database List' button)

- **Name:** Displays the name of the data source.
- **Host:** The URL of your database. This cannot be the URL of your official website or your local IP. It must be a URL that the DataV server can use to

access your database through the Internet or intranet from the Alibaba Cloud data.

- **Username:** The username that you use to log on to your database.
- **Password:** The password that you use to authenticate your database account.
- **Port:** The IP address port number of your database.
- **Database:** The name of the currently selected database.

If all the parameters are configured, the system will test the data source connection automatically.

5. Click OK when the connection test is verified.

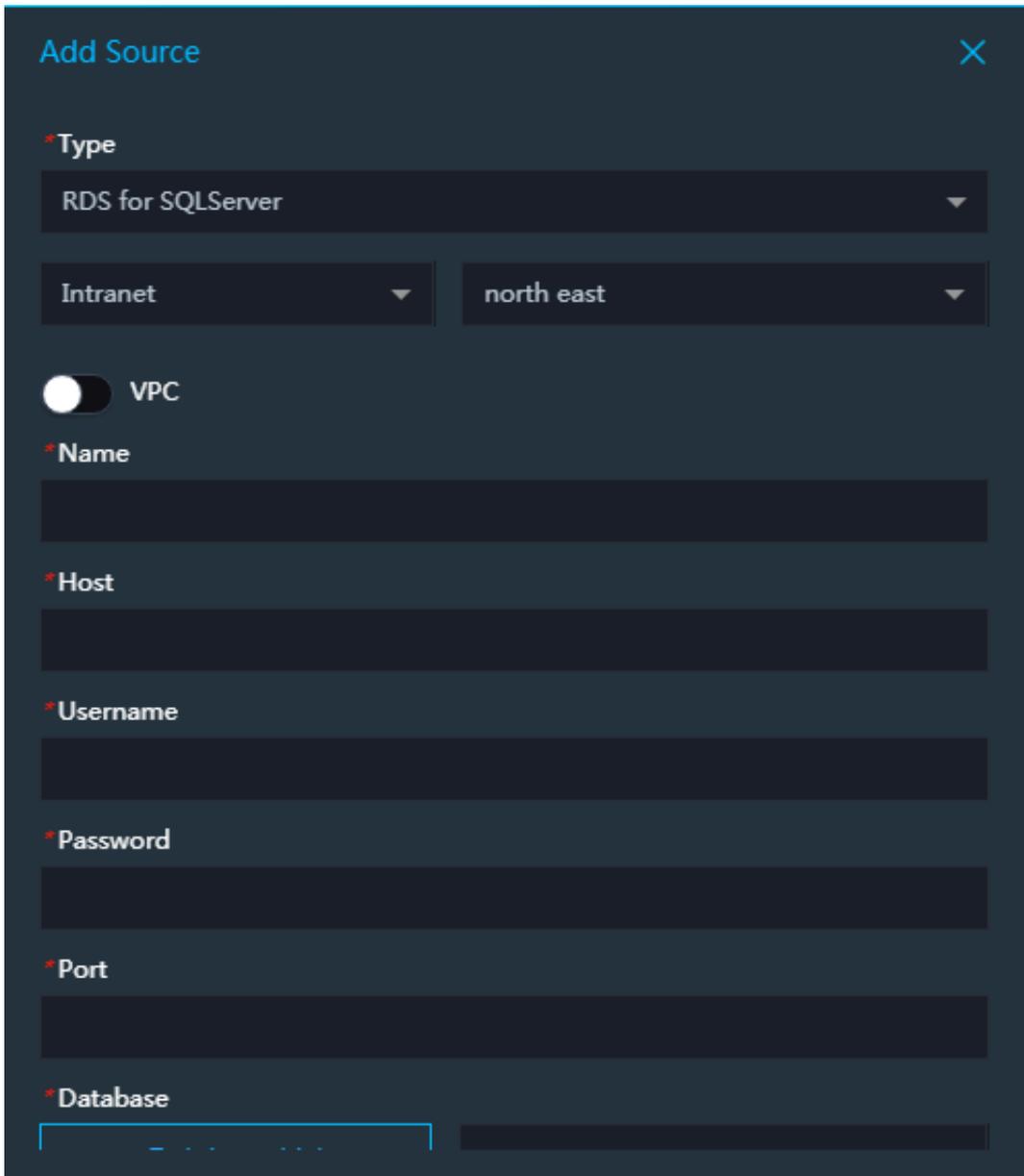
When a data source is added, it will be displayed in the data source list.

2.4 Add RDS for SQLServer

RDS for SQLServer (intranet)

- Procedure

1. Log on to the [DataV console](#) and select Data Sources > Add Source.
2. Select RDS for SQLServer from the Type drop-down list.
3. Click the secondary drop-down list and select Intranet.
4. Enter the database information.



The screenshot shows the 'Add Source' dialog box with the following configuration:

- Type:** RDS for SQLServer
- Intranet:** Intranet
- Region:** north east
- VPC:** Off
- Name:** (empty)
- Host:** (empty)
- Username:** (empty)
- Password:** (empty)
- Port:** (empty)
- Database:** (empty)

- **Name:** Displays the name of the data source.
- **Host:** The URL of your database. This cannot be the URL of your official website or your local IP. It must be a URL that the DataV server can use to

access your database through the Internet or intranet from the Alibaba Cloud data.

- **Username:** The username that you use to log on to your database.
- **Password:** The password that you use to authenticate your database account.
- **Port:** The IP address port number of your database.
- **Database:** The name of the currently selected database.

If all the parameters are configured, the system will test the data source connection automatically.

5. Click OK when the connection test is verified.

When a data source is added, it will be displayed in the data source list.

RDS for SQLServer (Internet)

· Procedure

1. Log on to the [DataV console](#) and select Data Sources > Add Source.
2. Select RDS for SQLServer from the Type drop-down list.
3. Click the secondary drop-down list and select Internet.
4. Enter the database information.

Add Source [X]

* Type
RDS for SQLServer

Internet

* Name

* Host

* Username

* Password

* Port

* Database
Database List

- **Name:** Displays the name of the data source.
- **Host:** The URL of your database. This cannot be the URL of your official website or your local IP. It must be a URL that the DataV server can use to

access your database through the Internet or intranet from the Alibaba Cloud data.

- **Username:** The username that you use to log on to your database.
- **Password:** The password that you use to authenticate your database account.
- **Port:** The IP address port number of your database.
- **Database:** The name of the currently selected database.

If all the parameters are configured, the system will test the data source connection automatically.

5. Click OK when the connection test is verified.

When a data source is added, it will be displayed in the data source list.

2.5 Add a Table Store data source

Table Store is a NoSQL database service built on Alibaba Cloud's Apsara distributed operating system.

Procedure

1. Choose Data Sources > Add Source.
2. From the Type drop-down menu, select TableStore.

3. Enter the Table Store data source information, as shown in the following figure.

Add Source ✕

*Type
TableStore

*Name

*AK ID

*AK Secret

*Internet

Before submission, ensure: 1. The database is Internet-facing.
2. The domain name of the database can be parsed.
3. The instance of the database has been started.
4. The database is not blocked by the firewall.

OK

- **Name:** The display name of the data source. You can customize the display name as needed.
- **AK ID:** The AccessKey ID of the account that can access Table Store.
- **AK Secret:** The AccessKey Secret of the account that can access Table Store.
- **Internet:** The [endpoint](#) of Table Store. You can enter an endpoint according to the Table Store instance to be accessed.

The system automatically tests connectivity after the data source information is set

4. After the connectivity test is successful, click OK.

The data source is automatically displayed in the data source list.

Use the Table Store data source

1. In the DataV console, click Projects, select the target project, and click Edit.
2. On the displayed page, select a widget. In the data pane, select TableStore for Data Source Type.
3. From the Select Data Source drop-down menu, select the Table Store data source you have configured before.
4. From the Select Action drop-down menu, select either of the following actions:
 - `getRow`: Corresponds to the `GetRow` API of Table Store. For more information, see [GetRow API](#).
 - `getRange`: Corresponds to the `GetRange` API of Table Store. For more information, see [GetRange API](#).
5. In the Select Action area, enter a SQL statement. The SQL statement must meet the following requirements:
 - Parameters in the SQL statement must be in the JSON format.
 - If you select `getRow`, the system reads data from a row according to the specified primary key.

The following is an example of the parameter format:

```
{
  " table_name ": " test ",
  " rows ": {
    " id ": 2
  },
  " columns ": [
    " id ",
    " test "
  ]
}
```

```
}
```

The parameters in the SQL statement:

- `table_name` : The name of the table to be queried.
- `rows` : The conditions for filtering a row. Only the rows that meet the conditions are displayed. To add a column as a condition, you must create an index for the column first.
- `columns` : The name of columns to be displayed.
- The `getRange` action is used to read data with specified primary keys. The parameter format is as follows:

```
{
  " table_name ": " test ",
  " direction ": " FORWARD ",
  " columns ": [
    " id ",
    " test "
  ],
  " range ": {
    " limit ": 4 ,
    " start ": {
      " id ": " InfMin "
    },
    " end ": {
      " id ": 3
    }
  }
}
```

- `table_name` : The name of the table to be queried.
- `direction` : The query sequence.
- `columns` : The name of the column to be displayed.
- `limit` : The maximum number of rows to be displayed.
- `start` : The start column in the displayed result. You must create indexes for the relevant columns.
- `end` : The end column in the displayed result. You must create indexes for the relevant columns.



Note:

You can use `InfMin` and `InfMax` to indicate the minimum and maximum values of the `start` and `end` parameters.

6. Click View Data Response to view the effect.

Example

1. Prepare data for the Table Store data source.

Log on to the [Table Store console](#), [create an instance](#), and [read or write data](#). In the following example, an instance named test1948 is created. This instance has three rows of data and each row has two columns named id (primary key in integer format) and test (in string format).



The screenshot shows the Table Store console interface for an instance named 'test'. The table has two columns: 'id(Primary Key)' and 'test'. The data is as follows:

id(Primary Key)	test
1	test1
2	test2
3	test3

The interface also includes a 'Table Data' header with 'Insert', 'Search', 'Update', and 'Delete' buttons. A green banner indicates 'Data Source: test' and 'Table can display up to 50 rows.' The bottom of the table shows 'Total: 3 Item(s) . Per Page: 10 Item(s)' and a pagination control.

2. Configure the data source, as shown in the following figure.

Edit Data ✕

*Type
TableStore

*Name
table store data

*AK ID
[blurred]

*AK Secret
[masked]

*Internet
https://test1984|cn-hangzhou.ots.aliyuncs.com

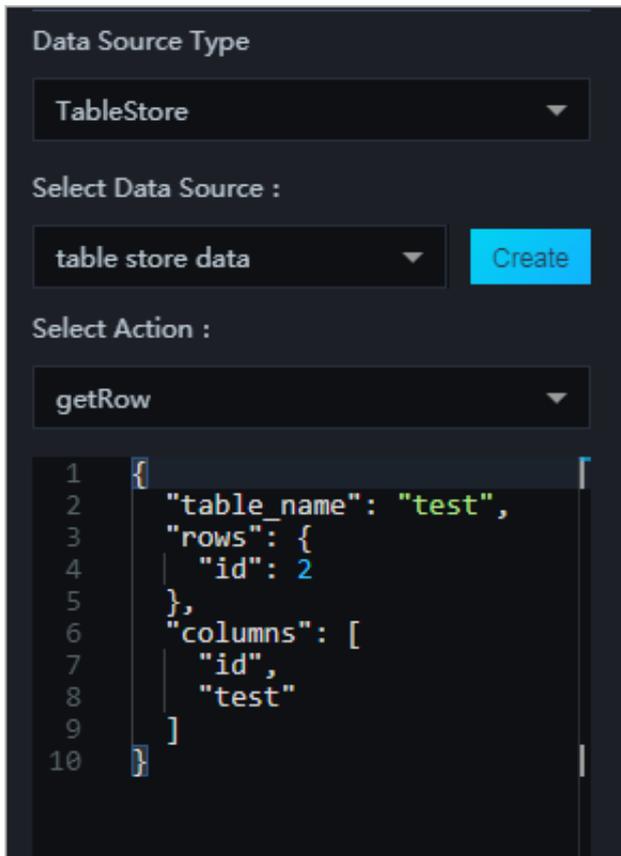
Before submission, ensure:

1. The database is Internet-facing.
2. The domain name of the database can be parsed.
3. The instance of the database has been started.
4. The database is not blocked by the firewall.

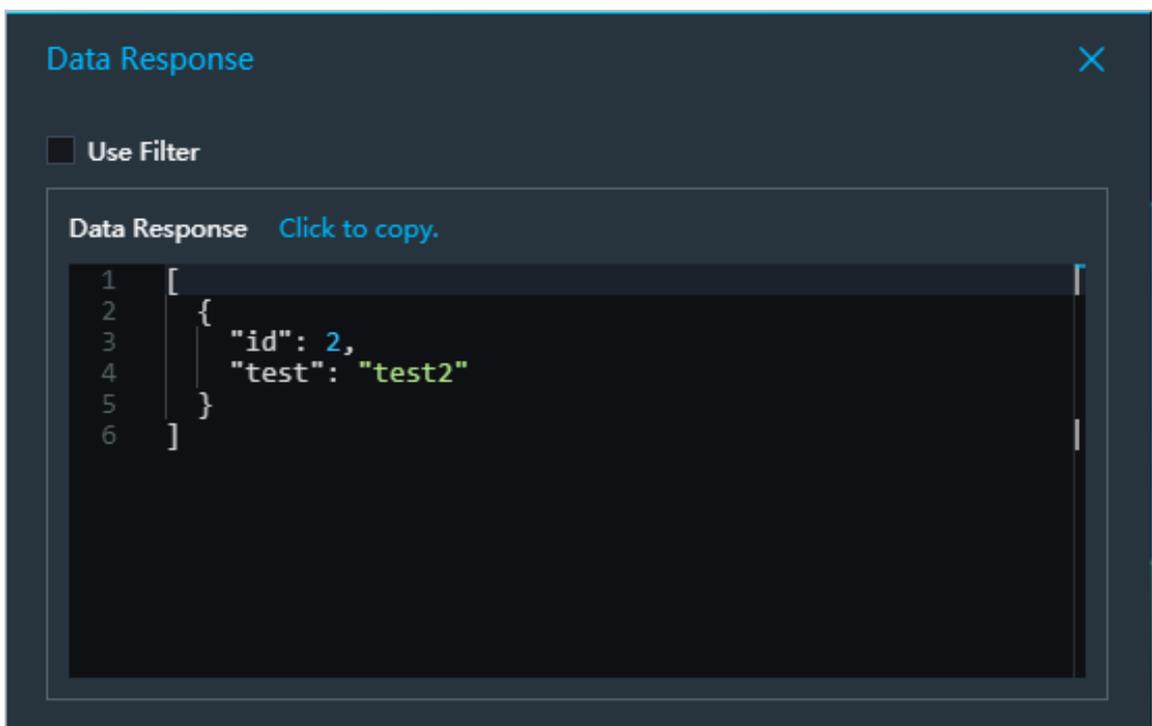
OK

3. Query parameters.

- `getRow`:



The data response is as follows.



- `getRange`:

Data Source Type

TableStore

Select Data Source :

table store data Create

Select Action :

getRange

```
1  {
2    "table_name": "test",
3    "direction": "FORWARD",
4    "columns": [
5      "id",
6      "test"
7    ],
8    "range": {
9      "limit": 4,
10     "start": {
11       "id": "InfMin"
12     },
13     "end": {
14       "id": 3
15     }
16   }
17 }
```

The data response is as follows.

Data Response ×

Use Filter

Data Response [Click to copy.](#)

```
1  [
2    {
3      "id": 1,
4      "test": "test1"
5    },
6    {
7      "id": 2,
8      "test": "test2"
9    }
10 ]
```

**Note:**

When you query the `getRange` parameter, if you set `start` to `id : InfMin` and `end` to `id : 3`, the values 1 and 2 are displayed for `id`. The reason for this is that the `getRange` parameter does not contain the end row, whose `id` is 3, because it is not within the range specified.

2.6 Add Oracle

Procedure

1. Log on to the [DataV console](#), and select **Data Sources > Add Source**.
2. Select Oracle from the Type drop-down list.

3. Enter the database information.

Add Source ✕

*Type
Oracle

*Name

*Host

*Username

*Password

*Port

*Service Name

Before submitting, please ensure:
1. the database is accessible to Internet. (IP Whitelist is not supported. Check details.)

- **Name:** Displays the name of the data source.
- **Host:** The URL of your database. This cannot be the URL of your official website or your local IP. It must be a URL that the DataV server can use to access your database through the Internet or intranet from the Alibaba Cloud data center.
- **Username:** The username that you use to log on to your database.
- **Password:** The password that you use to authenticate your database account.
- **Port:** The IP address port number of your database.
- **Service Name:** The service name of the currently selected database.

If all the parameters are configured, the system will test the data source connection automatically.

4. Click OK when the connection is verified.

When a data source is added, it will be displayed in the data source list.

2.7 Add compatible MySQL

Procedure

1. Log on to the [DataV console](#), and select Data Sources > Add Source.
2. Select MySQL Compatible Database from the Type drop-down list.

3. Enter the database information.

The screenshot shows a dark-themed 'Add Source' dialog box. At the top left is the title 'Add Source' and a close button 'X' at the top right. Below the title are several fields, each with a red asterisk indicating it is required:

- *Type**: A dropdown menu with 'MySQL Compatible Database' selected.
- *Name**: A text input field.
- *Host**: A text input field.
- *Username**: A text input field.
- *Password**: A text input field.
- *Port**: A text input field.
- *Database**: A dropdown menu with a 'Database List' button to its left.
- insecureAuth**: A toggle switch, currently turned off.

- **Name**: Displays the name of the data source.
- **Host**: The URL of your database. This cannot be the URL of your official website or your local IP. It must be a URL that the DataV server can use to access your database through the Internet or intranet from the Alibaba Cloud data center.
- **Username**: The username that you use to log on to your database.
- **Password**: The password that you use to authenticate your database account.
- **Port**: The IP address port number of your database.
- **Database**: The name of the currently selected database.

If all the parameters are configured, the system will test the data source connection automatically.

4. Click OK when the connection is verified.

2.8 Add DataV Data Proxy Service

DataV Data Proxy Service is a database connection tool that provides highly secure connections. If you are concerned about data privacy and security issues, you can use DataV Data Proxy Service. If your data cannot be accessed through the Internet, or you are not using Alibaba Cloud database services, you must expose the Internet IP address of your database to establish the connection.

Procedure

1. Use the HTTP protocol to enter the [DataV console](#), and select Data Sources > Add Source.
2. Select DataV Data Proxy Service from the Type drop-down list.



Note:

- This service SDK only provides HTTP services. If you need HTTPS services, you must apply for an HTTPS certificate recognized by Google Chrome.
- We recommend you enable HTTP services until the HTTPS certificate is applied.
-

3. Enter the database information.

Add Source [X]

*Type
DataV Data Proxy Service

*Name

*Host

*Port

*Key

*Secret

*Database
Database List

This approach requires you deploy open source code on ECS. Check tutorial: [Tutorial](#)

- **Name:** Displays the name of the data source.
- **Host:** The IP address of your server. If you are using an ECS server, you should configure it as the public IP of the ECS server.
- **Port:** The Port is automatically generated after the code package is downloaded and installed.
- **Key:** The Key is automatically generated after the code package is downloaded and installed.
- **Secret:** The Secret is automatically generated after the code package is downloaded and installed.

To obtain a Key and a Secret, see [DataV Proxy Configuration in Linux](#).

- Database: The name of the currently selected database.

If all the parameters are configured, the system will test the data source connection automatically.

4. Click OK when the connection is verified.

2.9 Add CSV files

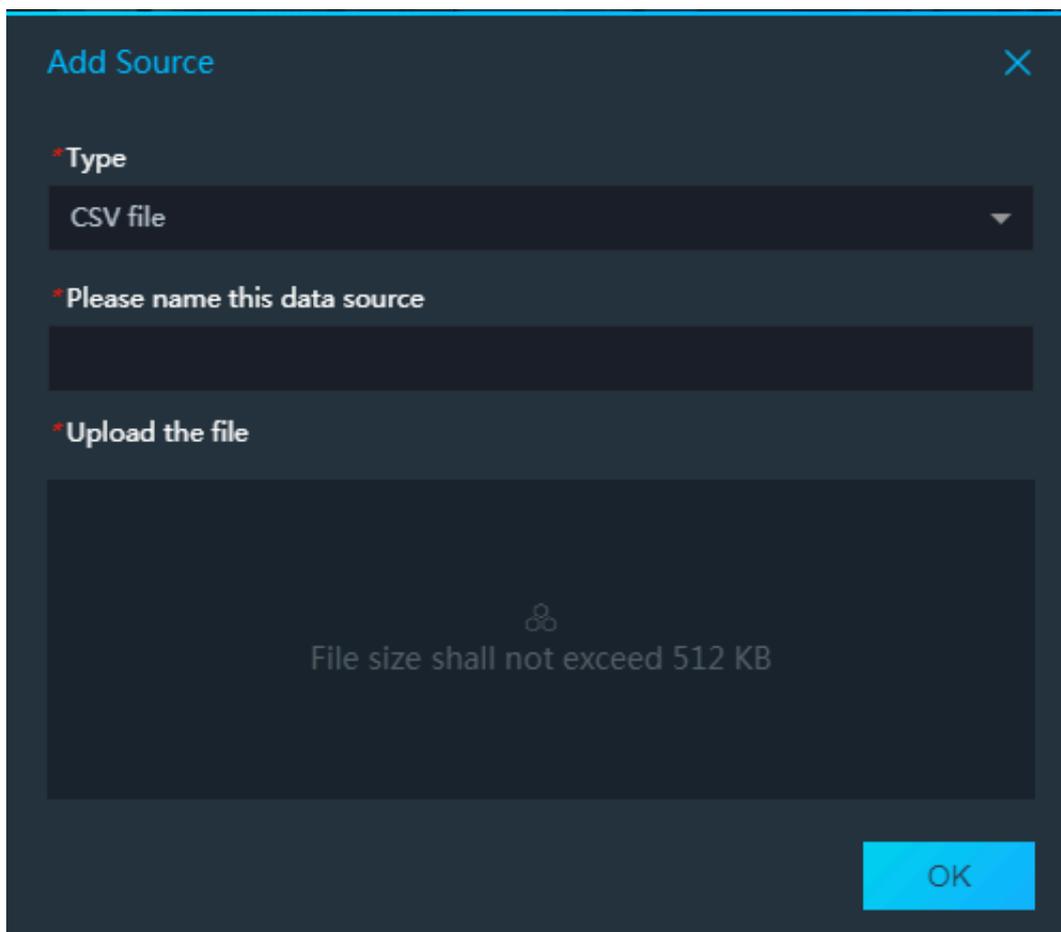
Procedure

1. Log on to the [DataV console](#), and select Data Sources > Add Source.
2. Select CSV file from the Type drop-down list.
3. Upload a CSV file.



Note:

Each CSV file must be smaller than 512 KB, click [here](#) to download the sample CSV file.

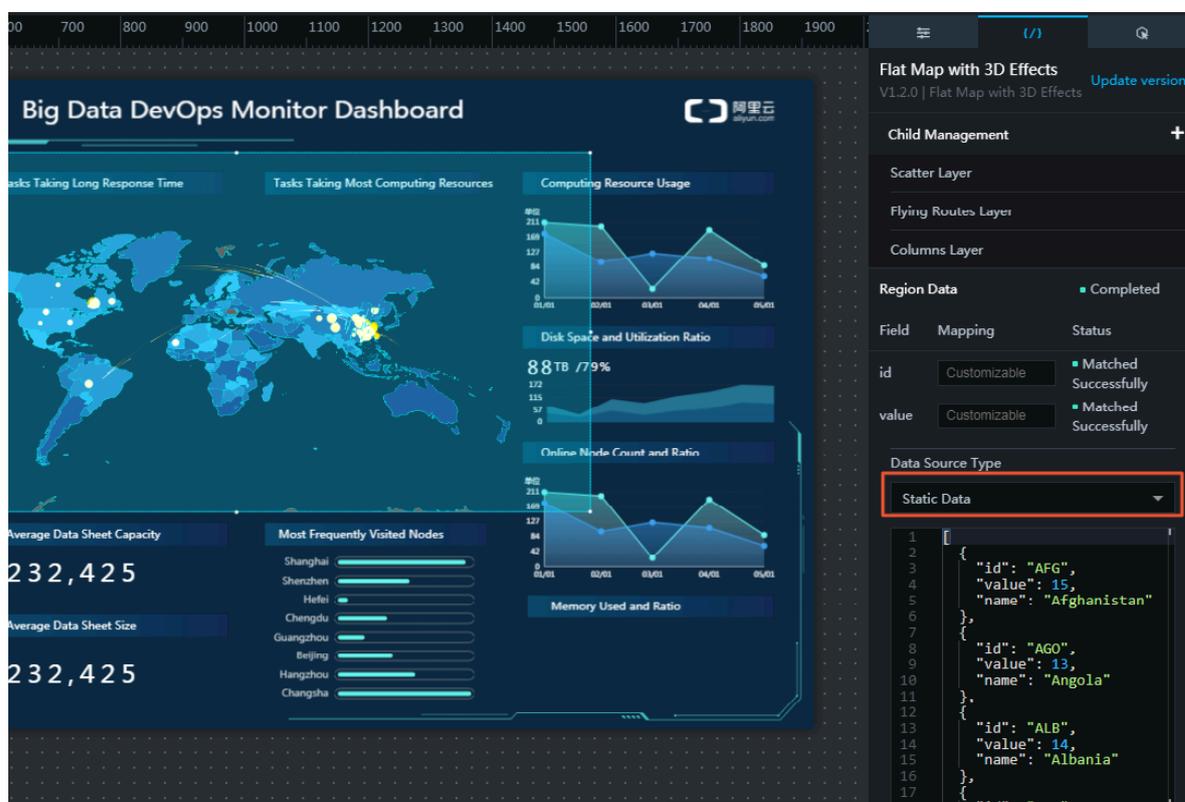


4. Click OK.

2.10 Add static JSON

Procedure

1. Log on to [DataV console](#), select **Projects > Create Project**.
2. Select a template from the menu on the left side of the screen.
3. Click **Create** to begin a visualization creation.
4. Select a widget to add to your canvas.
5. Click **Data** on the right side of the page.
6. Click the **Data Source Typedrop-down arrow** and select **Static Data**.



7. Paste the static JSON file.



Note:

Each file must be smaller than 600 KB.

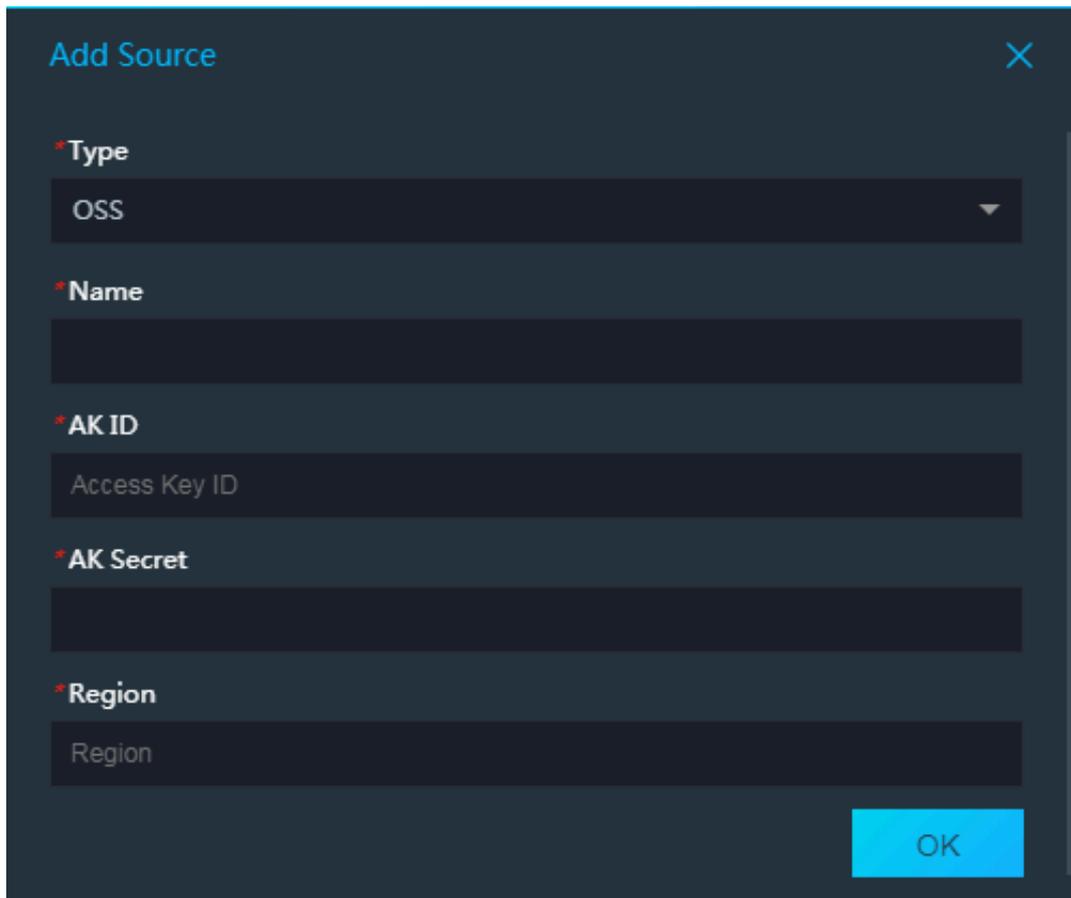
2.11 Add an OSS data source

Alibaba Cloud [Object Storage Service \(OSS\)](#) allows you to save and use unstructured data (text, image, audio, and video files) through the network at any time.

Procedure

1. **Choose Data Sources > Add Source.**
2. **From the Type drop-down menu, select OSS .**

3. Enter the OSS data source information, as shown in the following figure.



The screenshot shows a dark-themed dialog box titled "Add Source" with a close button (X) in the top right corner. The dialog contains several input fields, each with a red asterisk indicating it is required:

- *Type:** A dropdown menu with "OSS" selected.
- *Name:** An empty text input field.
- *AK ID:** A text input field with the placeholder text "Access Key ID".
- *AK Secret:** A text input field.
- *Region:** A text input field with the placeholder text "Region".

An "OK" button is located at the bottom right of the dialog.

- **Name:** The display name of the data source. You can customize the display name as needed.
- **AK ID:** The AccessKey ID of the account that can access OSS.
- **AK Secret:** The AccessKey Secret of the account that can access OSS.
- **Region:** The region to which the target OSS data source belongs. To obtain the region information, log on to the [OSS console](#) and click the target bucket name.

Domain Names

	Endpoint ?
Internet Access ?	oss-cn-shanghai.aliyuncs.com
Classic Network Access from ECS (Internal Network) ?	oss-cn-shanghai-internal.aliyuncs.com
VPC Network Access from ECS (Internal Network) ?	oss-cn-shanghai-internal.aliyuncs.com

Set region to oss-cn-shanghai. As shown in the preceding figure, the OSS bucket is in Shanghai.

The system automatically tests connectivity after the data source information is set

.

4. After the connectivity test is successful, click OK.

The data source is automatically displayed in the data source list.

Use the OSS data source

1. In the DataV console, click Projects, select the target project, and click Edit.
2. On the displayed page, select a widget. In the data pane, select OSS for Data Source Type.
3. From the Select Data Source drop-down menu, select the OSS data source you have configured before.
4. In the File Path area, enter the target file path. The format must meet the following requirements:
 - The file must be in the JSON format.
 - The file path format is as follows: `oss://bucket/file`. For example, if your bucket name is `myBucket` and your file name is `test.json`, you need to enter `oss://myBucket/test.json`.
5. Click View Data Response to view the effect.

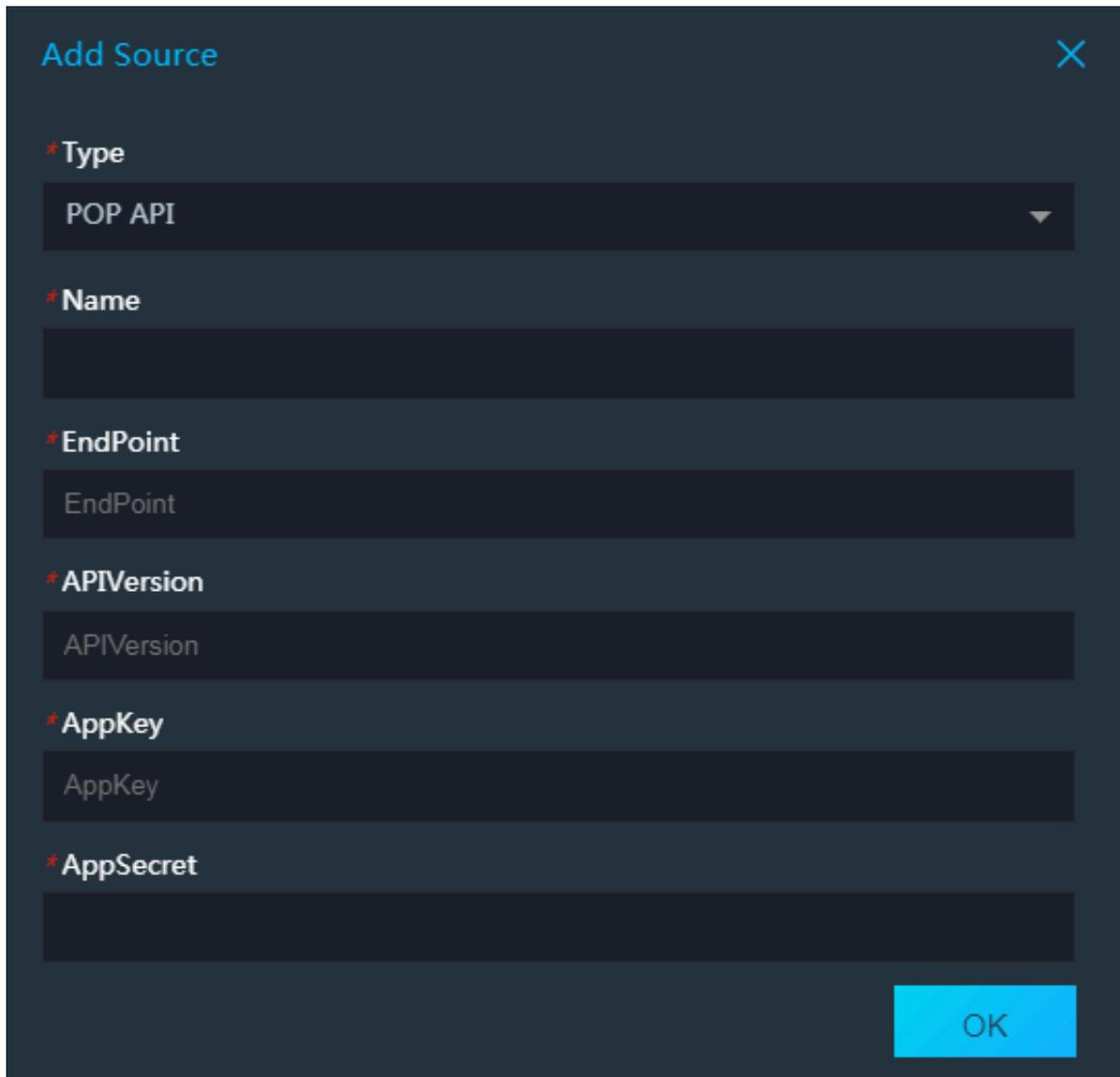
2.12 Add an API data source

An API is provided by Alibaba Cloud to call other APIs. In DataV, this API is often used to call other Alibaba Cloud APIs to obtain and display data.

Procedure

1. Choose Data Sources > Add Source.
2. From the Type drop-down menu, select POP API .

3. Enter the API data source information, as shown in the following figure.



The image shows a dark-themed dialog box titled "Add Source" with a close button (X) in the top right corner. The dialog contains several input fields, each with a red asterisk indicating it is required:

- Type:** A dropdown menu with "POP API" selected.
- Name:** An empty text input field.
- EndPoint:** A text input field containing the placeholder text "EndPoint".
- APIVersion:** A text input field containing the placeholder text "APIVersion".
- AppKey:** A text input field containing the placeholder text "AppKey".
- AppSecret:** A text input field containing the placeholder text "AppSecret".

An "OK" button is located in the bottom right corner of the dialog.

- **Name:** The display name of the data source. You can customize the display name as needed.
- **EndPoint:** The endpoint of the POP API. You can obtain an endpoint from the API documents of Alibaba Cloud products. For example, the [default endpoint](#)

of ECS is `ecs . aliyuncs . com` , and the **endpoint** of CloudMonitor in Hangzhou region is `metrics . cn - hangzhou . aliyuncs . com` .

- **APIVersion:** The API version of an Alibaba Cloud product. You can obtain an API version from the API documents. For example, the **API version** of CloudMonitor is `2017 - 03 - 01` .
- **AppKey:** The AccessKey ID of the account that can call the POP API.
- **AppSecret:** The AccessKey Secret of the account that can call the POP API.

The system automatically tests connectivity after the data source information is set .

4. After the connectivity test is successful, click OK.

The data source is automatically displayed in the data source list.

Use the API data source

1. In the DataV console, click Projects, select the target project, and click Edit.
2. On the displayed page, select a widget. In the data pane, select POP API for Data Source Type.
3. From the Select Data Source drop-down menu, select the POP API data source you have configured before.
4. In the Interface Name dialog box, enter the target API name (that is, the value of the Action parameter). You can obtain an API name from the API list of an Alibaba Cloud product, such as `QueryMetricList` of CloudMonitor.
5. In the Path of Responses dialog box, enter part of the POP API response.

The following is an example of the POP API response:

```
{
  " data ": [
    {
      " x ": 1 ,
      " y ": 2
    },
    {
      " x ": 2 ,
      " y ": 4
    }
  ]
}
```

If you enter data, the data response is as follows:

```
[
  {
    " x ": 1 ,
```

```
    " y ": 2
  },
  {
    " x ": 2 ,
    " y ": 4
  }
]
```

You can leave this field empty and convert data by using the data filter as needed.

6. Set the query parameters.

- The parameters must be POP API parameters and in the JSON object format.
- You must set the parameter names according to the input parameters of Alibaba Cloud APIs.
- You must set the callback ID in the value of a JSON object.

The following is an example of how to use the [QueryMetricList](#) API of CloudMonitor:

```
// Use the callback ID : myInstance Id
{
  " Period ": 600 ,
  " StartTime ": " 2018 - 11 - 20 11 : 30 : 00 ",
  " EndTime ": " 2018 - 11 - 21 11 : 30 : 00 ",
  " Metric ": " cpu_idle ",
  " Project ": " acs_ecs_da shboard ",
  " Dimensions ": "{ instanceId :': myInstance Id '}"
}
```

7. Click View Data Response to view the effect.

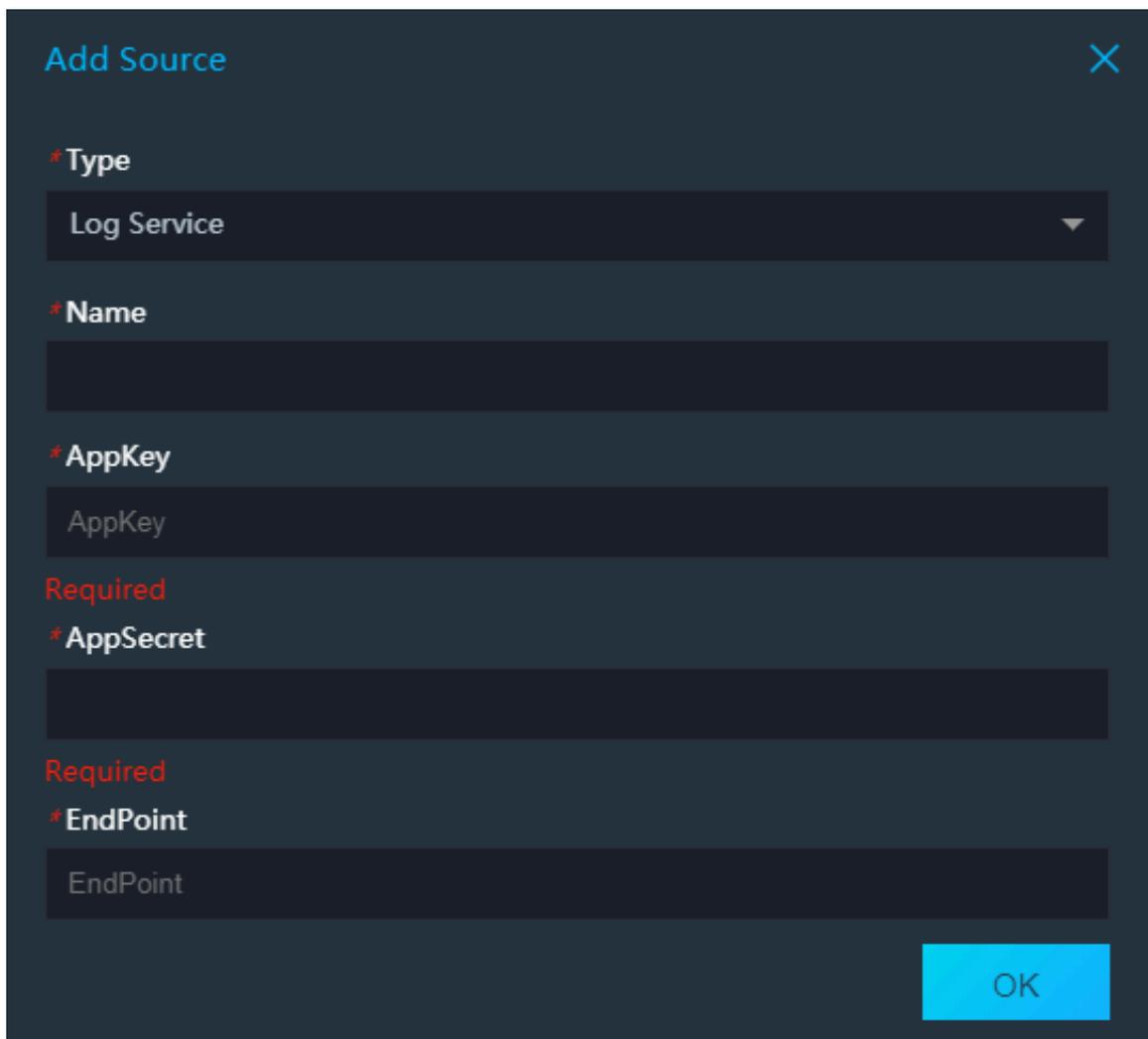
2.13 Add a Log Service data source

[Log Service](#) (formerly known as SLS) is an all-in-one service for real-time data management. With Log Service, you can collect, subscribe, transfer, and search for massive data.

Procedure

1. Choose Data Sources > Add Source.
2. From the Type drop-down menu, select Log Service.

3. Enter the Log Service data source information, as shown in the following figure.



The screenshot shows a dark-themed dialog box titled "Add Source" with a close button (X) in the top right corner. The dialog contains the following fields:

- *Type**: A dropdown menu with "Log Service" selected.
- *Name**: A text input field.
- *AppKey**: A text input field.
- Required *AppSecret**: A text input field.
- Required *EndPoint**: A text input field.

An "OK" button is located at the bottom right of the dialog.

- **Name**: The display name of the data source. You can customize the display name as needed.
- **AppKey**: The AccessKey ID of the account that can access Log Service.
- **AppSecret**: The AccessKey Secret of the account that can access Log Service.
- **EndPoint**: The endpoint of Log Service. You can enter an endpoint according to the network type and region to which the target Log Service instance belongs. For more information, see [Service endpoint](#).

For example, if the network type is VPC, you can set the EndPoint in Shanghai region to `https://cn-shanghai-intranet.log.aliyuncs.com`.

The system automatically tests connectivity after the data source information is set

4. After the connectivity test is successful, click OK.

The data source is automatically displayed in the data source list.

Configure Log Service

For more information about how to activate, configure, and use Log Service, see [Log Service](#).

Use the Log Service data source

1. In the DataV console, click Projects, select the target project, and click Edit.
2. On the displayed page, select a widget. In the data pane, select Log Service for Data Source type.
3. From the Select Data Source drop-down menu, select the Log Service data source you have configured before.
4. In the Query area, enter the query parameters. The parameters support the following formats:

- JSON object:

```
{
  "projectName": " test ",
  "logStoreName": " access - log ",
  "topic": " test ",
  "from": 1509897600 ,
  "to": 1509984000 ,
  "query": "",
  "line": 100 ,
  "offset": 0
}
```

- Query syntax: [Query syntax](#).

5. Click View Data Response to view the effect.

3 Edit data sources

After adding a data source, you can configure data and visualization widgets in the project editor.

It is recommended to edit the data source on the Canvas Editor page. In addition, you can add a filter to the data source or set the interval for automatic updates.

Procedure

1. Log on to the [DataV console](#).
2. To create a new project, click **Projects > Create Project**.
3. Select a template and click **Create**.
4. Select a widget on the canvas.
5. Click the **Data** tab on the right side and open the data editing menu of the selected widget.

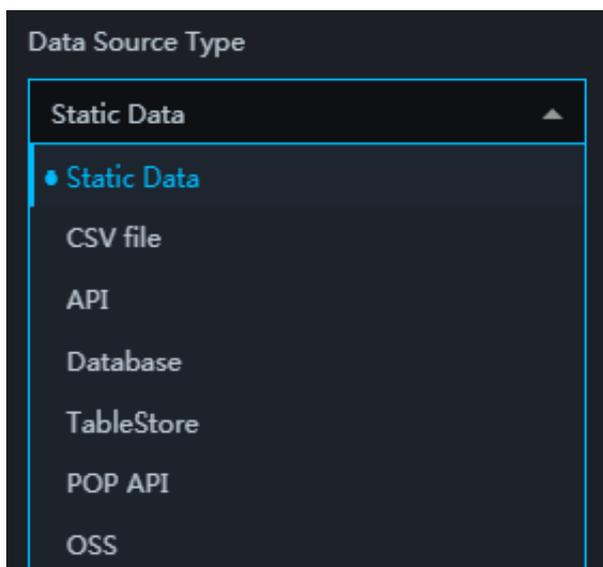
The screenshot displays the DataV Canvas Editor interface. On the left, a dashboard titled 'Monitor Dashboard' is visible, featuring various widgets such as 'Tasks Taking Most Computing Resources', 'Computing Resource Usage', 'Disk Space and Utilization Ratio', 'Online Node Count and Ratio', 'Memory Used and Ratio', and 'Most Frequently Visited Nodes'. A red box highlights the 'Computing Resource Usage' line chart widget. On the right, the configuration panel for the 'Basic Line Chart' widget is shown. The panel includes a 'Data Source Type' dropdown set to 'Static Data', a 'Data filter' section with an 'Add filter' button, and a code editor displaying JSON data for the chart. The JSON data is as follows:

```

1  [
2  3  {
4  4    "x": "2010/01/01 00:00:00",
5  5    "y": 211,
6  6    "s": "1"
7  7  },
8  8  {
9  9    "x": "2010/01/01 00:00:00",
10 10   "y": 180,
11 11   "s": "2"
12 12  },
13 13  {
14 14   "x": "2010/01/01 00:00:00",
15 15   "y": 345,
16 16   "s": "3"
17 17  },
18 18  ]

```

- To see more source types, click the Data Source Typedrop-down list. Select a source type that you need, for example, Static Data.



- Edit the content of the data source according to the sample in the following figure.

```
1  [
2  {
3    "x": "2010/01/01 00:00:00",
4    "y": 211,
5    "s": "1"
6  },
7  {
8    "x": "2010/01/01 00:00:00",
9    "y": 180,
10   "s": "2"
11  },
12  {
13   "x": "2010/01/01 00:00:00",
14   "y": 345,
15   "s": "3"
16  },
17  }
```

Mapping

In most cases, the system can automatically match the categories and values of a data source to complete data mapping. For complex cases, you must manually enter fields to complete data mapping.

After data are mapped successfully, the system displays Matched Successfully.

Field	Mapping	Status
x	Customizable	<input checked="" type="checkbox"/> Matched <input checked="" type="checkbox"/> Successfully
y	Customizable	<input checked="" type="checkbox"/> Matched <input checked="" type="checkbox"/> Successfully
s	Customizable	<input type="checkbox"/> Optional

Add filter

You can add a data filter to a data source to display the data in a clearer manner.

Deselect to hide the filter function.

Basic Line Chart Update version
V1.4.8 | Basic Line Chart

Basic Line Chart Interface Completed

Field	Mapping	Status
x	Customizable	Matched Successfully
y	Customizable	Matched Successfully
s	Customizable	Optional

Data Source Type
Static Data

```
1 {  
2   "x": "2010/01/01 00:00:00",  
3   "y": 211,  
4   "s": "1"  
5 },  
6 {  
7   "x": "2010/01/01 00:00:00",  
8   "y": 180,  
9   "s": "2"  
10 },  
11 {  
12   "x": "2010/01/01 00:00:00",  
13   "y": 345,  
14   "s": "3"  
15 },  
16 },  
17 }
```

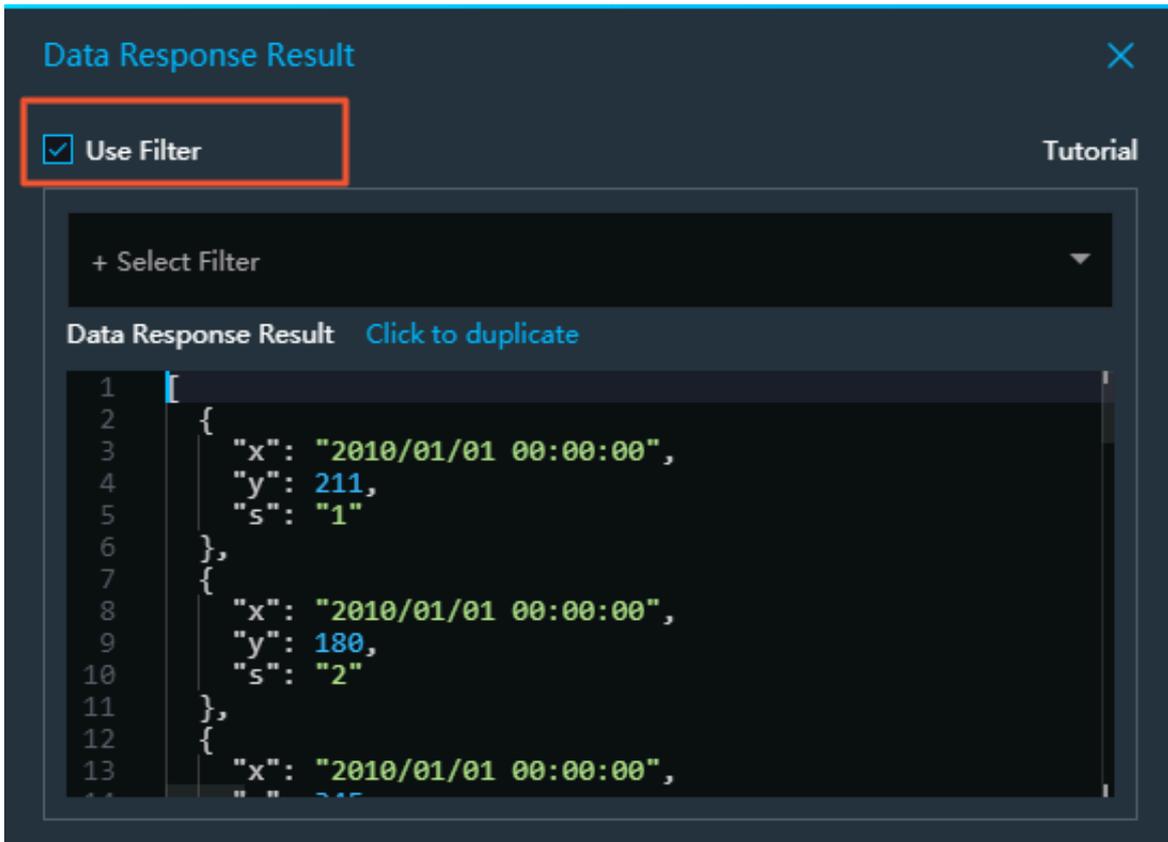
Data filter: Add filter

Auto Data Request: Every Second

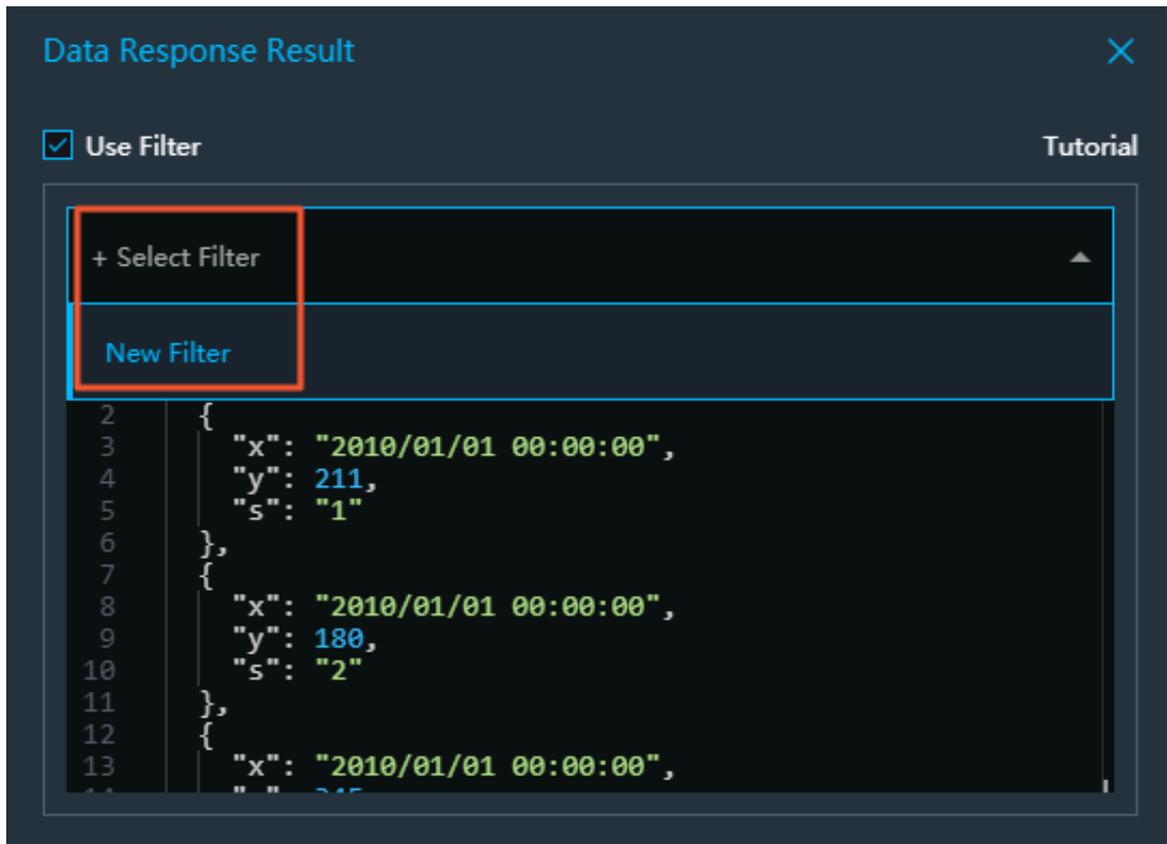
View Data Response

1. To open the filter editing menu, click Add filter.

2. Select Use Filter.



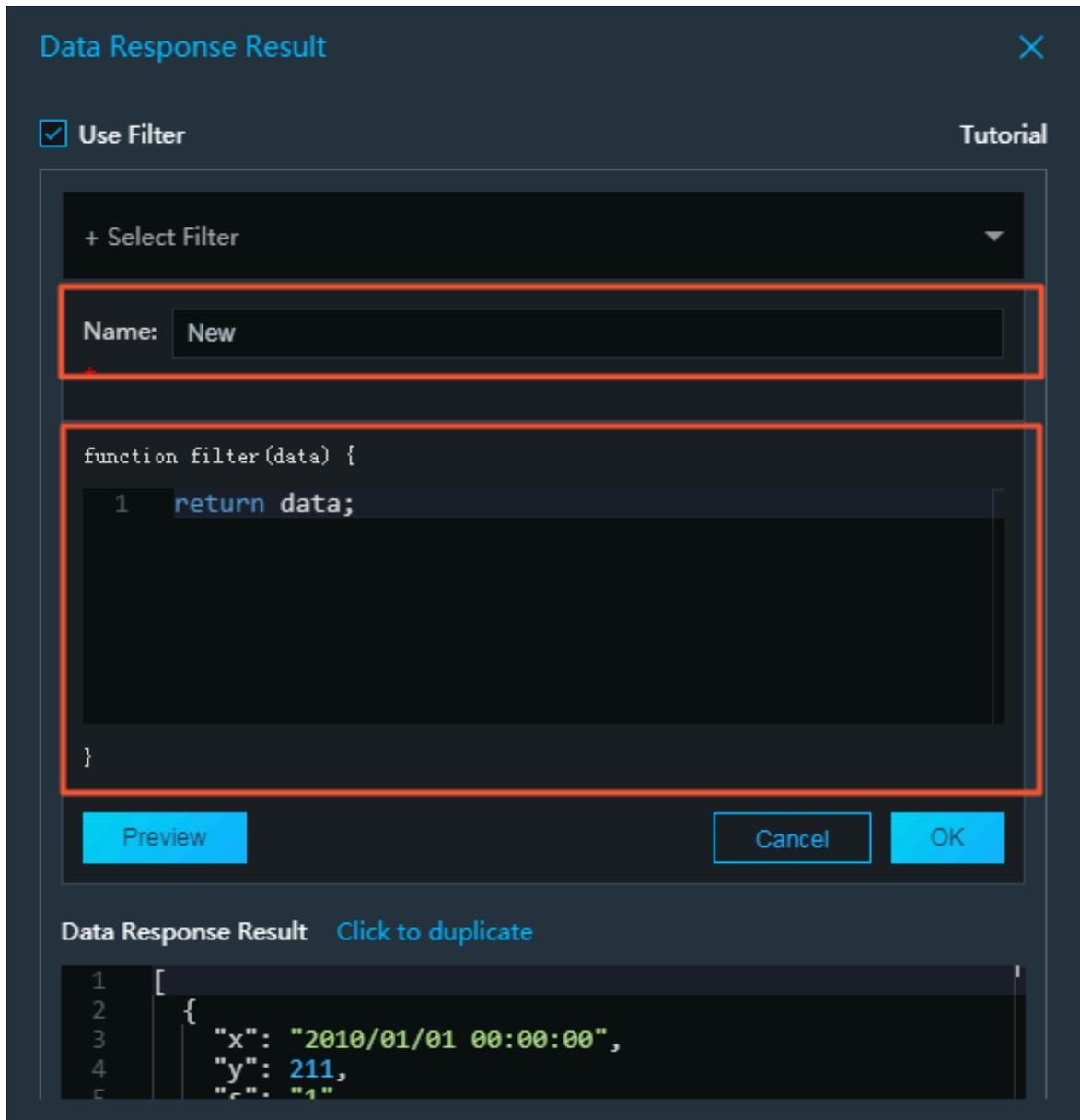
3. To see available filters, click Select Filter.



If there is an optional filter, the filter name is automatically displayed in the list. If no filter is available, you must create a filter by following the instructions.

4. Click New Filter.
5. Enter a name for the filter.

6. Edit filter scripts based on the needs for displaying data.



- To preview the effect of the data filter, click Preview.
- To cancel the current filter settings, click Cancel.
- To complete adding filter, click OK.

Automatic updates

You can automatically update data through the automatic updates function by entering the interval for updates.

Deselect Auto Data Request to hide the automatic updates function.

Basic Line Chart Update version
V1.4.8 | Basic Line Chart

Basic Line Chart Interface Completed

Field	Mapping	Status
x	Customizable	Matched Successfully
y	Customizable	Matched Successfully
s	Customizable	Optional

Data Source Type
Static Data

```
1 {  
2   "x": "2010/01/01 00:00:00",  
3   "y": 211,  
4   "s": "1"  
5 },  
6 {  
7   "x": "2010/01/01 00:00:00",  
8   "y": 180,  
9   "s": "2"  
10 },  
11 {  
12   "x": "2010/01/01 00:00:00",  
13   "y": 345,  
14   "s": "3"  
15 },  
16 {  
17   "x": "2010/01/01 00:00:00",  
18   "y": 123,  
19   "s": "4"20 }
```

Data filter: Add filter

Auto Data Request: Every Second

View Data Response

4 Filter data sources

You can filter data sources by type.

Procedure

1. Log on to the [DataV console](#).
2. Click Data Sources to go to the data source list.
3. In the right-side pane, click Sort by Data Source Type to show all data source types.



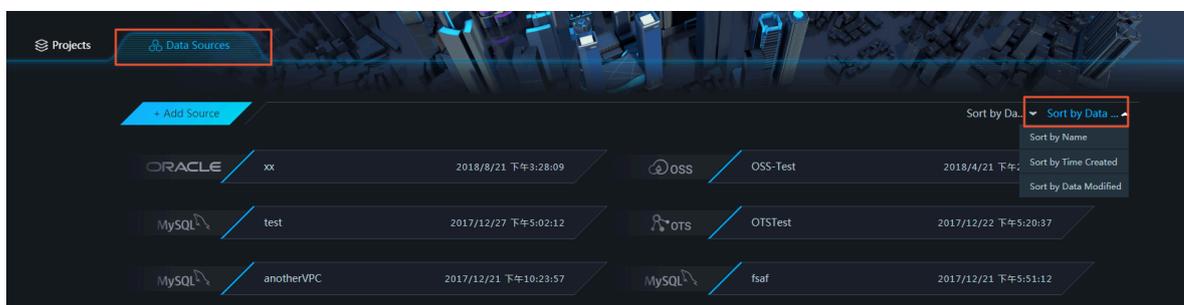
4. Click a type of data source to filter out only this type from all data sources.

5 Sort data sources

You can sort your data sources by Name , Time Created ,and Data Modified

Procedure

1. Log on to the [DataV console](#).
2. Click Data Sources to display the data sources list.
3. In the right-side pane, move the pointer over Sort by Data Modified (displayed by default) to show all sort types.



4. Select the sort type you want to use to order the data sources.



Note:

DataV provides three sort types: Name, Time Created, and Data Modified.

6 Remove data sources

You can remove data sources that you no longer use from the data source list.



Notice:

After data sources are removed, the data source cannot be restored.

Procedure

1. Log on to the [DataV console](#).
2. Click Data Sources to display the data sources list.
3. Select a data source and click the trash bin icon to remove the date source.

