Data Provider for SAP User Guide

Issue 01
Date 2022-12-08

HUAWEI TECHNOLOGIES CO., LTD.

Trademarks and Permissions


and other Huawei trademarks are trademarks of Huawei Technologies Co., Ltd.
All other trademarks and trade names mentioned in this document are the property of their respective holders.

Notice

The purchased products, services and features are stipulated by the contract made between Huawei and the customer. All or part of the products, services and features described in this document may not be within the purchase scope or the usage scope. Unless otherwise specified in the contract, all statements, information, and recommendations in this document are provided "AS IS" without warranties, guarantees or representations of any kind, either express or implied.

The information in this document is subject to change without notice. Every effort has been made in the preparation of this document to ensure accuracy of the contents, but all statements, information, and recommendations in this document do not constitute a warranty of any kind, express or implied.

Huawei Technologies Co., Ltd.

Address: Huawei Industrial Base
Bantian, Longgang
Shenzhen 518129
People's Republic of China

Website: https://www.huawei.com

Email: support@huawei.com

Contents

1 About This Document

This document describes how to install and uninstall the Data Provider for SAP. The details are as follows:

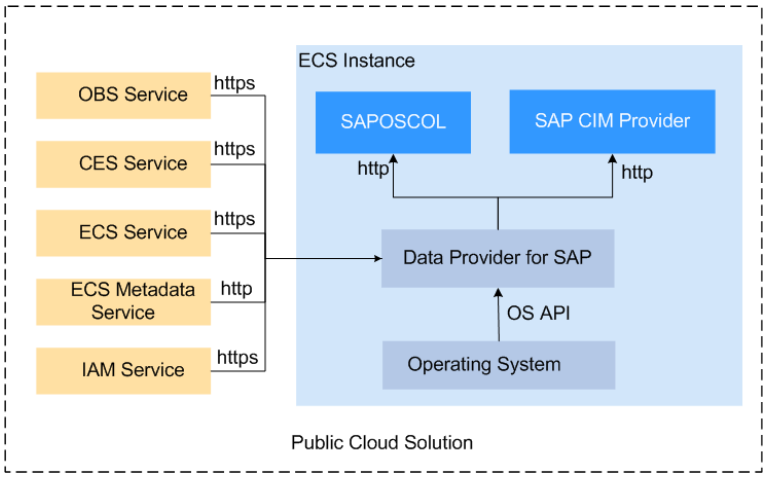
- Have the general knowledge of the technical requirements and required components for installing and operating Data Provider for SAP.
- Install or uninstall Data Provider for SAP.

2 Introduction

Huawei and SAP all realized that SAP systems are processing business transactions every day and are very important for customers' business. Therefore, SAP customers need to have capabilities to trace and process the performance of these transactions. Based on this, the SAP software has the extensive transaction monitoring capability to provide the relevant performance information about OSs and databases supported by SAP in a logical and stable manner. To provide the information, Huawei developed Data Provider for SAP.

Figure 2-1 shows the framework of Data Provider for SAP running on a cloud server.

Figure 2-1 Overall framework of Data Provider for SAP



Description:

- Data Provider for SAP collects key performance data, including metrics monitoring the OS, network, and storage that are related to the SAP architecture, and presents them to the SAP application for monitoring transactions. The performance data is collected from various resources, including Elastic Cloud Server (ECS) API, ECS metadata, and Cloud Eye, to ensure that the performance of the operating environment can be analyzed from all aspects.

- SAP Operating System Collector (SAPOSCOL) and SAP CIM Provider are the SAP components that will read data from the Data Provider for SAP.

3 Agency Configuration

The Data Provider needs to be granted with the permission to obtain information from the public cloud platform. Therefore, create an agency on the public cloud platform to obtain the platform information and assign the agency to a cloud server. Then, the Data Provider installed on the cloud server can obtain the platform information through the agency.

Procedure

Perform the following operations to create an agency.

Step 1 Log in to the management console.

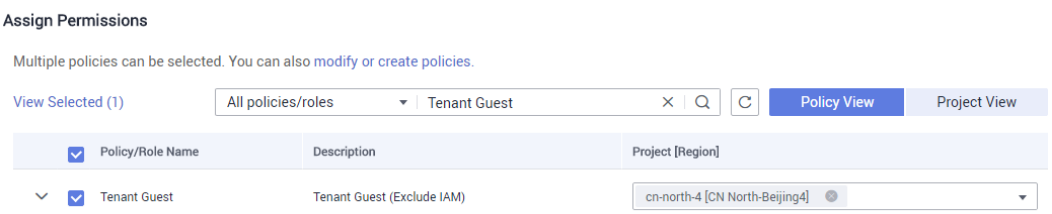
Step 2 In the navigation pane on the left, click ☰ and choose **Identity Access Management** under **Management & Deployment**.

Step 3 Click **Agencies** in the left pane, and then click **Create Agency** in the upper right corner. The **Create Agency** page is displayed.

Step 4 Set agency parameters.

- **Agency Name**: **DataProviderAccess**. This name is only for reference.
- **Agency Type**: **Cloud service**
- **Cloud Service**: **Elastic Cloud Server (ECS) and Bare Metal Server (BMS)**
- **Validity Period**: Retain the default setting.
- **Permissions**:
  a. Click **Assign Permissions** next to **Permissions**.
  b. In the displayed dialog box, enter **Tenant Guest** in the search box and select **Tenant Guest**. Select the target region in the **Project [Region]** column.

Figure 3-1 Assigning permissions



c. Click **OK.**

Step 5 Click **OK** to save the agency parameter configuration.

----End

Follow-Up Operations

On the cloud server provisioning page, set **Agency Name** to **DataProviderAccess** so that the agency can be used by the ECS.

4 Installation

4.1 Installing Data Provider on a Linux Cloud Server

Install Data Provider on cloud servers so that SAP technical support personnel can use this software to collect information of the platform where the cloud servers run, facilitating fault identification and analysis if the SAP system is faulty or the system performance deteriorates.

NOTE

Each time the cloud server starts, Data Provider automatically starts. You can start, stop, or restart Data Provider by following instructions provided in **6 FAQs**.

Prerequisites

Before installing Data Provider, you have configured time synchronization on the cloud servers to ensure that the system time on the servers is correct.

Procedure

Step 1 Log in to the cloud server as user **root** using a key or password.

Step 2 On the CLI, run the following command to download and decompress **huawei_dataprovider_linux_x86_64.rpm**:

Access the URL for your region. The following command uses the URL for CN-Hong Kong as an example:

wget https://obs-sap-ap-southeast-1.obs.ap-southeast-1.myhuaweicloud.com/dataprovider/huawei_dataprovider_linux_x86_64.rpm -P /opt/huawei

Table 4-1 Obtaining the required software package

Name	Description	How to Obtain
huawei_dataprovider_linux_x86_64.rpm	Software installation package	CN-Hong-Kong: wget https://obs-sap-ap-southeast-1.obs.ap-southeast-1.myhuaweicloud.com/dataprovider/huawei_dataprovider_linux_x86_64.rpm -P /opt/huawei
		AP-Bangkok: wget https://obs-sap-ap-southeast-2.obs.ap-southeast-2.myhuaweicloud.com/dataprovider/huawei_dataprovider_linux_x86_64.rpm -P /opt/huawei
		AP-Singapore: wget https://obs-sap-ap-southeast-3.obs.ap-southeast-3.myhuaweicloud.com/dataprovider/huawei_dataprovider_linux_x86_64.rpm -P /opt/huawei
		AF-Johannesburg: wget https://obs-sap-af-south-1.obs.af-south-1.myhuaweicloud.com/dataprovider/huawei_dataprovider_linux_x86_64.rpm -P /opt/huawei

Step 3 Run the following commands to install the software package:

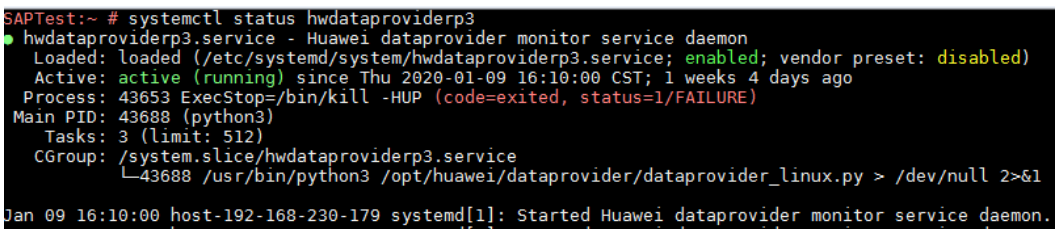
cd /opt/huawei

rpm -ivh huawei_dataprovider_linux_x86_64.rpm

Step 4 Run the following command to check whether Data Provider is normal:

systemctl status hwdataproviderp3

If the command output is similar to the following figure where the value of **Active** is **active (Running)** Data Provider is normal.



NOTE

- Run the **wget http://localhost:8888/test** command to view the monitoring data generated in the test file. The monitoring is functional if the values are not empty or not all values are 0.
- You can also run the following commands to view the log file:

  cd /var/log/huawei/dataprovider/

  ll

  If the **monitor.log** and **update.log** log files are generated, Data Provider is normal.

----End

4.2 Installing Data Provider on a Windows Cloud Server

Install Data Provider on cloud servers so that SAP technical support personnel can use this software to collect information of the platform where the cloud servers run, facilitating fault identification and analysis if the SAP system is faulty or the system performance deteriorates. M3 ECSs are supported.

This section describes how to install Data Provider on a cloud server running Windows.

Prerequisites

Before installing Data Provider, you have configured time synchronization on the cloud servers to ensure that the system time on the cloud servers is correct.

Procedure

Step 1 Log in to the cloud server on which the Data Provider for SAP is to be installed.

Step 2 Download the software installation packages using the browser and download **huawei_dataprovider_windows_x86.exe** to a directory.

Access the URL for your region. The following command uses the URL for CN-Hong Kong as an example:

https://obs-sap-ap-southeast-1.obs.ap-southeast-1.myhuaweicloud.com/dataprovider/huawei_dataprovider_windows_x86.exe

Table 4-2 Obtaining the required software package

Name	Description	How to Obtain
huawei_dataprovider_windows_x86.exe	Software installation package	**CN-Hong Kong**: https://obs-sap-ap-southeast-1.obs.ap-southeast-1.myhuaweicloud.com/dataprovider/huawei_dataprovider_windows_x86.exe
		AP-Bangkok: https://obs-sap-ap-southeast-2.obs.ap-southeast-2.myhuaweicloud.com/dataprovider/huawei_dataprovider_windows_x86.exe

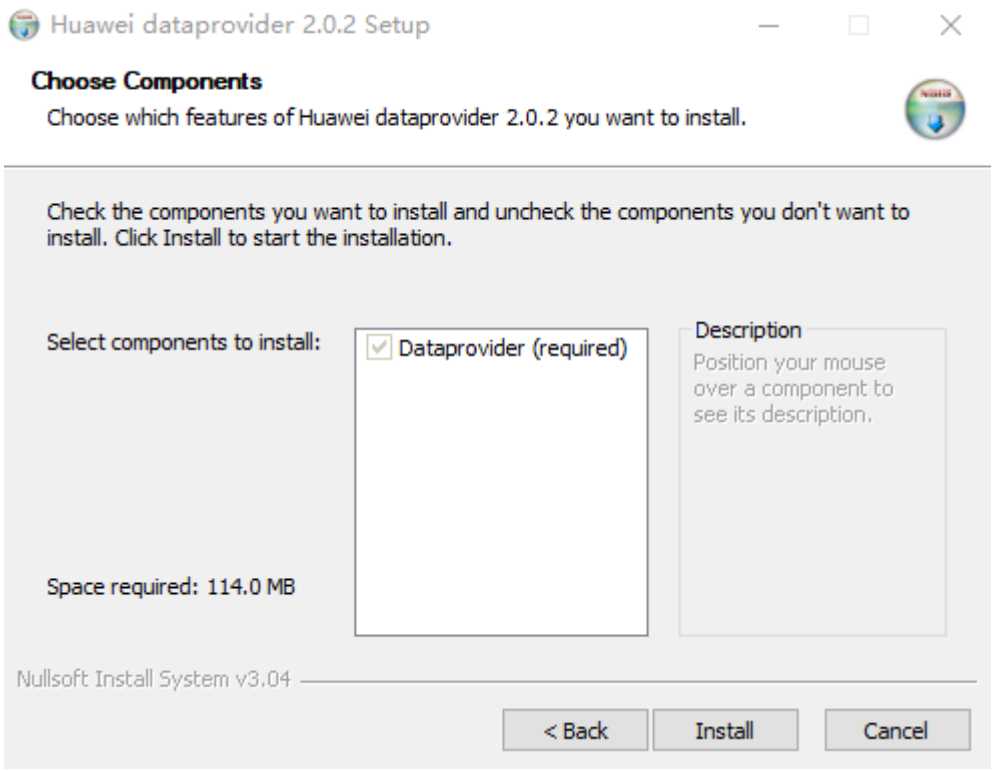
Name	Description	How to Obtain
		AP-Singapore: https://obs-sap-ap-southeast-3.obs.ap-southeast-3.myhuaweicloud.com/dataprovider/huawei_dataprovider_windows_x86.exe
		SA-Johannesburg: https://obs-sap-af-south-1.obs.af-south-1.myhuaweicloud.com/dataprovider/huawei_dataprovider_windows_x86.exe

Step 3 Double-click **huawei_dataprovider_windows_x86.exe** in the directory where the package is stored.

Step 4 On the installation configuration page, click **Next**. The following page is displayed.

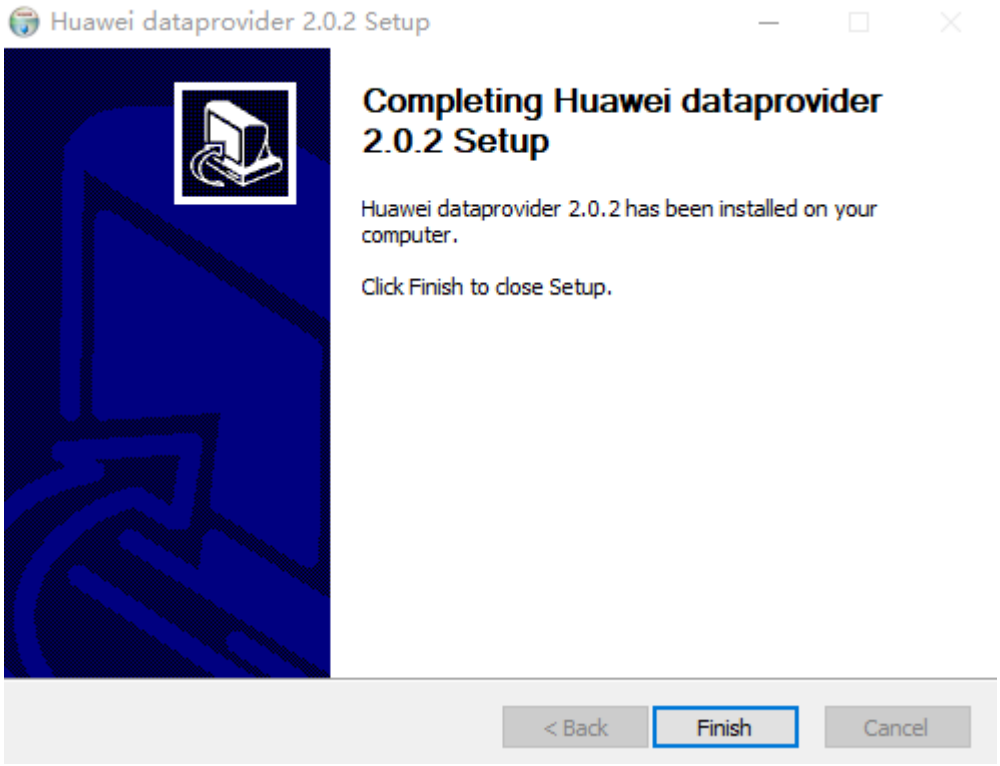
NOTE

By default, the required Python and its plug-ins are installed when Data Provider is installed. The plug-ins are Pywin32 and psutil.



Step 5 Click **Install**.

After the installation is complete, a dialog box is displayed, as shown in the following figure.



Step 6 Click **Finish**.

Step 7 Verify the installation.

- After the installation is complete, the software is installed in the specified directory. The default path is **C:\Program Files (x86)\Huawei\dataprovider**.
- Log in at **http://localhost:8888/** through a web browser and check whether the service is running properly. When the service is running, the metric page provided by the Data Provider is displayed.
- On the Windows Task Manager, the **HWDataProvider** service is running.

----End

5 Uninstallation

5.1 Uninstalling Data Provider from a Linux Cloud Server

This section describes how to uninstall Data Provider from a Linux Cloud Server.

Procedure

Step 1 Log in to the cloud server on which Data Provider has been installed.

Step 2 Run the following command to uninstall Data Provider:

rpm -evh dataprovider

Step 3 Check the uninstallation result.

Run the following command to check whether the process exists:

ps -ef | grep python | grep dataprovider

The Data Provider process is not displayed in the command output.

----End

5.2 Uninstalling Data Provider on a Windows Cloud Server

This section describes how to uninstall Data Provider on a Windows Cloud Server.

Procedure

Step 1 Log in to the cloud server on which Data Provider has been installed.

Step 2 In the installation directory of the Data Provider, click **uninstall.exe** to uninstall the Data Provider.

The default path is **C:\Program Files (x86)\Huawei\dataprovider**.

Step 3 After the Data Provider is uninstalled, a message is displayed indicating that the uninstallation is complete. Click **Close** to close the dialog box.

Step 4 Check the uninstallation result.

After the Windows Task Manager is started, the **HWDataProvider** process is not displayed.

----End

6 FAQs

6.1 How Do I Start Data Provider on a Cloud Server Running Linux?

During routine management, you need to start Data Provider.

Procedure

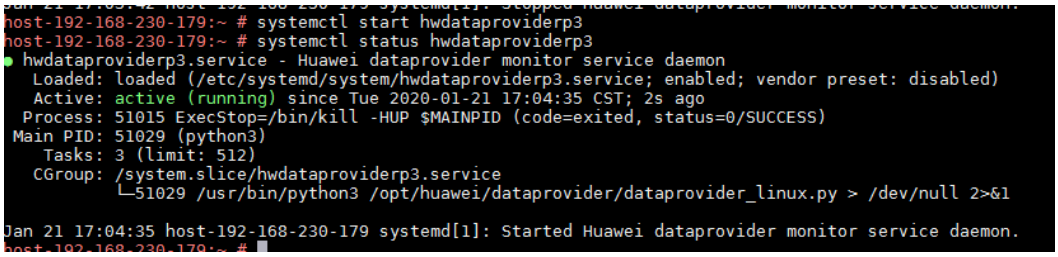
Step 1 Log in to the cloud server as user **root** using a key or password and enter the CLI mode.

Step 2 Run the **systemctl start hwdataproviderp3** command to start Data Provider on the cloud server.

systemctl start hwdataproviderp3

systemctl status hwdataproviderp3

Step 3 Run the **systemctl status hwdataproviderp3** command to check the status of Data Provider. If the command output is similar to the following figure, Data Provider is started.



----End

6.2 How Do I Stop Data Provider on a Cloud Server Running Linux?

During routine management, you need to stop Data Provider.

Procedure

Step 1 Log in to the cloud server as user **root** using a key or password and enter the CLI mode.

Step 2 Run the **systemctl stop hwdataproviderp3** command to stop Data Provider on the cloud server.

systemctl stop hwdataproviderp3

Step 3 Run the following command to check whether the process exists:

ps -ef | grep python | grep dataprovider

The Data Provider process is not displayed in the command output.

----End

6.3 How Do I Restart Data Provider on a Cloud Server Running Linux?

During routine management, you need to restart Data Provider.

Procedure

Step 1 Log in to the cloud server as user **root** using a key or password and enter the CLI mode.

Step 2 Run the **systemctl restart hwdataproviderp3** command to restart Data Provider.

systemctl restart hwdataproviderp3

systemctl status hwdataproviderp3

Run the **systemctl status hwdataproviderp3** command to check the status of Data Provider. If the command output is similar to the following figure, Data Provider is restarted.


```
host-192-168-230-179:~ # systemctl restart hwdataproviderp3
host-192-168-230-179:~ # systemctl status hwdataproviderp3
● hwdataproviderp3.service - Huawei dataprovider monitor service daemon
   Loaded: loaded (/etc/systemd/system/hwdataproviderp3.service; enabled; vendor preset: disabled)
   Active: active (running) since Tue 2020-01-21 17:05:18 CST; 3s ago
  Process: 51083 ExecStop=/bin/kill -HUP $MAINPID (code=exited, status=0/SUCCESS)
 Main PID: 51086 (python3)
    Tasks: 3 (limit: 512)
   CGroup: /system.slice/hwdataproviderp3.service
           └─51086 /usr/bin/python3 /opt/huawei/dataprovider/dataprovider_linux.py > /dev/null 2>&1
```

----End

6.4 How Do I Upgrade Data Provider on a Cloud Server Running Linux?

Upgrading Data Provider for SAP.

- After the server is restarted, the system checks the upgrade every 12 hours automatically by default.
- Run the following command to execute the script where the system automatically checks the upgrade:

  systemctl start hwdataproviderupdatep3

A Change History

What's New	Release On
This issue is the fourth official release, which incorporates the following change: Updated **4.1 Installing Data Provider on a Linux Cloud Server**.	2020-01-23
This issue is the third official release, which incorporates the following change: Added the descriptions about installing, starting, and stopping Data Provider on a BMS.	2019-07-12
This issue is the second official release, which incorporates the following change: Added the procedure for installing Data Provider on Windows.	2019-03-30
This issue is the first official release.	2018-11-23

