How-To Library

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Configuring private communication with Amazon Redshift using the Amazon Redshift V2 Connector

Abstract

This article describes how you can configure private communication to connect to Amazon Redshift using the Amazon Redshift V2 Connector.

Supported Versions

- Informatica® Cloud Data Integration Amazon Redshift V2 Connector
- Informatica® Cloud Data Integration

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Overview

You can configure a gateway endpoint on the AWS console to enable private communication to connect to Amazon Redshift from Cloud Data Integration.

You can configure Amazon Redshift V2 Connector to establish private communication with Amazon Redshift without exposing your traffic to the public internet. To establish a private connection with Amazon Redshift, ensure that the Secure Agent is a part of the subnet in the AWS Virtual Private Cloud (VPC). You can create a gateway endpoint and stage the Amazon S3 data to Amazon Redshift.

To configure private communication to connect to Amazon Redshift, create a cluster subnet group, create a Redshift-managed VPC endpoint, configure the gateway endpoint, and then configure the gateway endpoint in the Amazon Redshift V2 connection properties.

Prerequisites

To configure private communication to connect to Amazon Redshift using the Amazon Redshift V2 Connector, perform the following prerequisite tasks:

- Ensure that the Redshift instance is of the RA3 instance type.
- Enable the cluster relocation. For more information, see the AWS documentation.

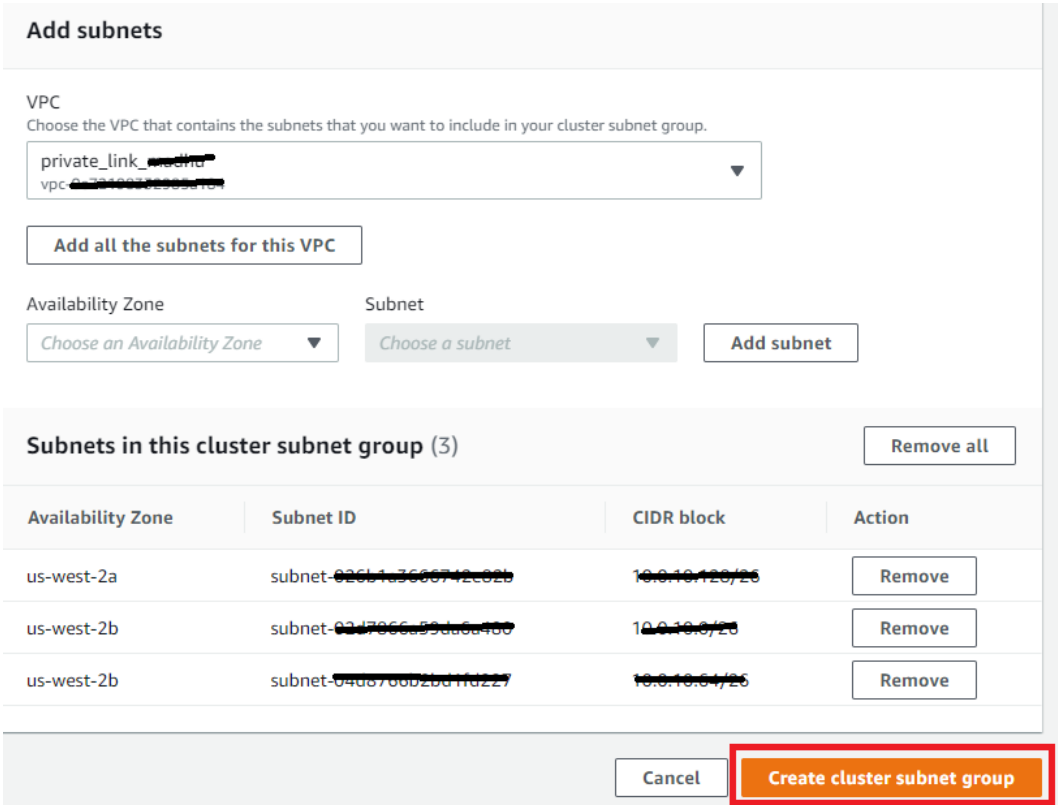
Step 1. Create a cluster subnet group

You must have at least one cluster subnet group defined to provision a cluster in a VPC.

Perform the following steps on the AWS console to create a cluster subnet group:

1. Log in to the **AWS Console**, and access the Amazon Redshift console.
2. Navigate to the **Configurations** section, and select **Subnet groups**.

3. Click **Create cluster subnet group**.
   The list of subnet groups is displayed.
4. Enter the cluster subnet group details such as the name and description, and select the VPC that contains the subnets that you want to include in the cluster subnet group.
5. Click **Create cluster subnet group** to create the group.
   The following image shows the page to create a cluster subnet group:



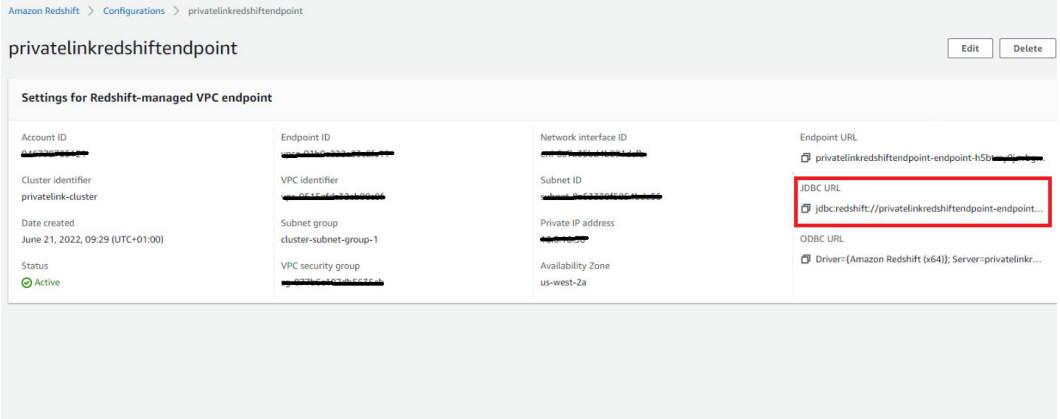
Step 2. Create a Redshift-managed VPC endpoint

Perform the following steps on the AWS console to create a Redshift-managed VPC endpoint:

1. Log in to the **AWS Console**, and access the Amazon Redshift console.
2. Navigate to the **Configurations** section, and click **Create endpoint**.
3. Enter the endpoint name, and choose the AWS account ID, cluster identifier, VPC, and the subnet group.
4. Click **Create endpoint**.

5. In the **Configurations** section, select the created endpoint, and copy the endpoint details.
   You need to enter the endpoint details in the Amazon Redshift V2 JDBC URL connection property.

   The following image shows the endpoint URL created for the endpoint:

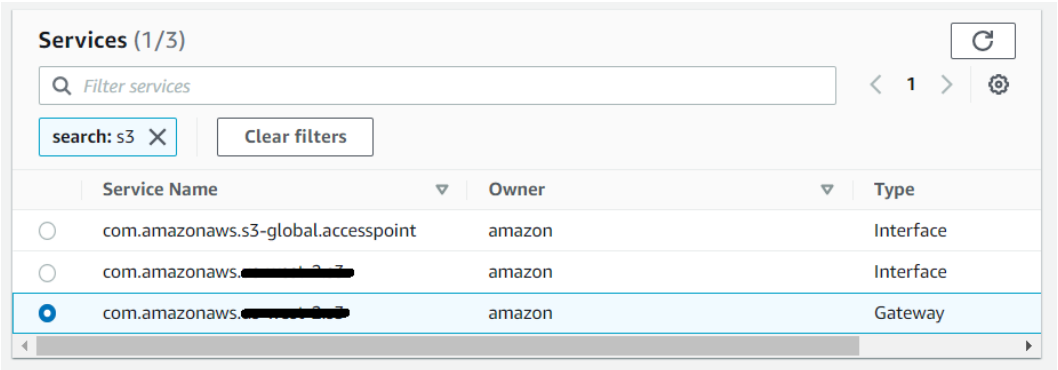


Step 3. Configure the gateway endpoint

Create a gateway endpoint to stage the Amazon S3 data and load it to Amazon Redshift.

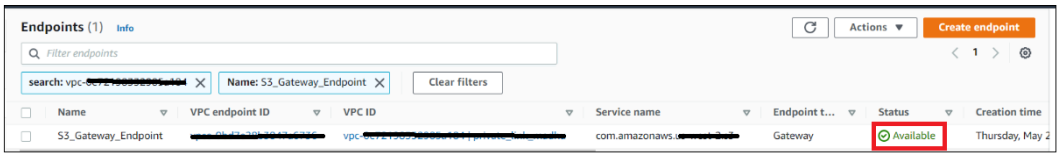
Perform the following steps on the AWS console to configure a gateway endpoint:

1. Log in to the **AWS Console**, and in the navigation pane, choose the region where you want to create endpoints.
2. On the **Search** tab, search for VPC.
   The VPC dashboard appears.
3. Click **Endpoints**.
4. Click **Create endpoint**.
   The **Create endpoint page** appears.
5. Enter a name for the S3 gateway endpoint.
6. Select **AWS services** as the service category.
7. In **Services**, search for S3, and select a service of the gateway type.
   The following image shows the service that you need to select:



8. From the list, select the VPC where you want to create the endpoint.
9. Select the route table that you created for the VPC.

10. Select **Custom** or **Full access** policy based on your requirement, and paste the policy in the text box. For the minimal Amazon IAM policy, see the Amazon S3 V2 Connector documentation.
11. Click **Create endpoint**.
    The gateway endpoint is created.
12. Go back to the **Endpoints** page to view the details of the gateway endpoint.
    The following image shows the gateway endpoint that you created:



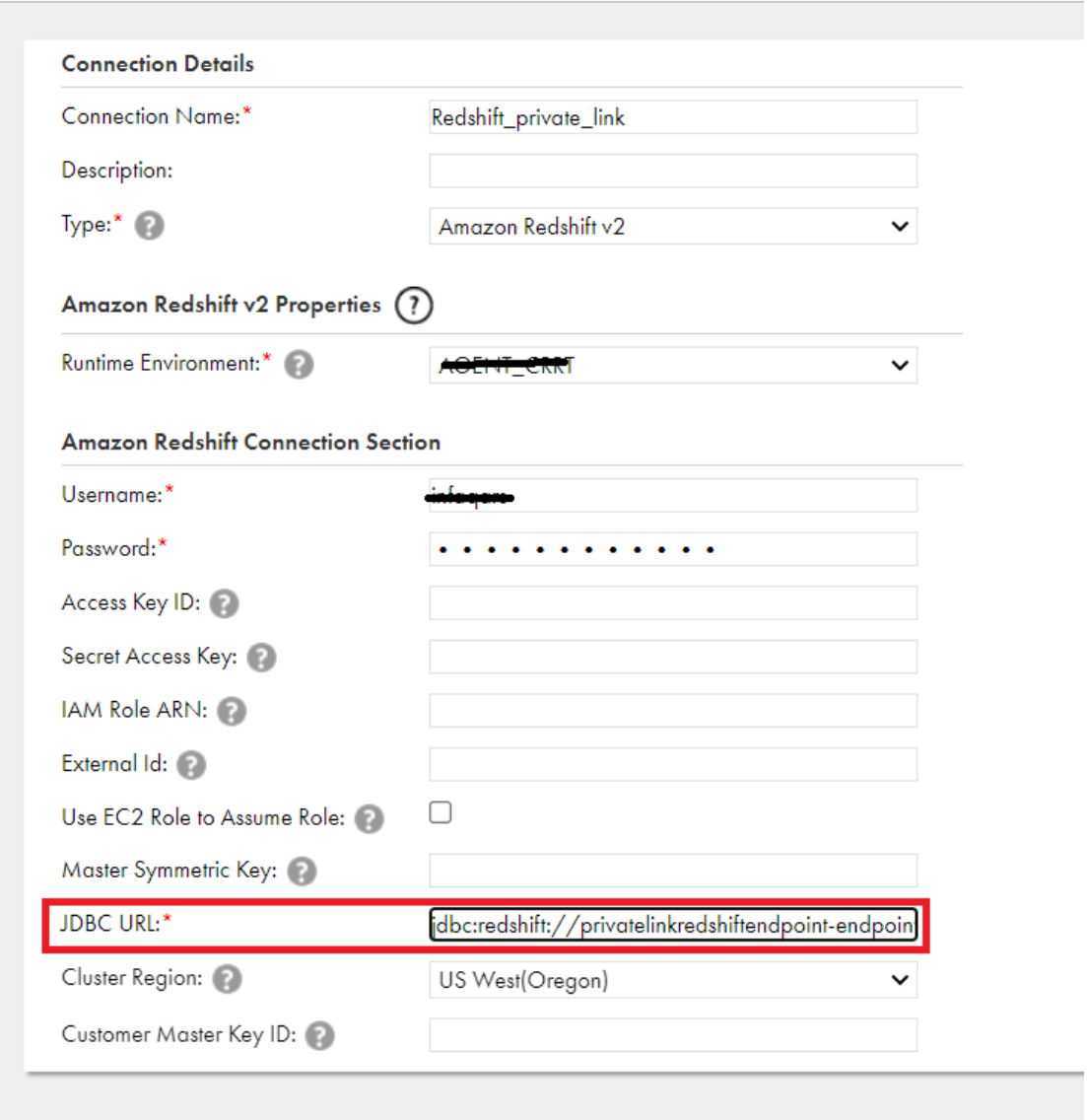
Step 4. Configure the JDBC URL of the endpoint in the connection properties

To enable private communication to connect to Amazon Redshift from Cloud Data Integration, enter the endpoint details in the JDBC URL connection property in Cloud Data Integration.

Enter the JDBC URL for the Redshift-managed VPC endpoint that you created in the following format:

```
jdbc:redshift://<endpoint name>-endpoint-<amazon_redshift_host>:<port_number>/<database_name>
```

The following image shows the JDBC URL for the endpoint that you enter in the connection properties:



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