

# How to Configure Dynamic Data Masking 9.1.0 for SQL Server

## Abstract

This article provides the steps to configure Dynamic Data Masking 9.1.0 to work with a Microsoft SQL Server database.

## Supported Versions

- ◆ Dynamic Data Masking 9.1.0

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## Overview

You can use Dynamic Data Masking to mask data in a Microsoft SQL Server database.

Dynamic Data Masking must be installed and working properly before you configure it to mask data in a Microsoft SQL Server database. For more information about installing and configuring Dynamic Data Masking, see the Dynamic Data Masking Installation Guide and the Dynamic Data Masking Administrator Guide.

To configure Dynamic Data Masking to work with Microsoft SQL Server database, complete the following steps:

1. Download the SQL Server JDBC driver and copy it to the Dynamic Data Masking folder.
2. Download and configure the Dynamic Data Masking 9.1.0 files for SQL Server.
3. Set up a proxy in the activebasemssql.conf file.
4. Update the DNR.xml file.
5. On the Management Console, set up a database configuration and define the database connection.

After you configure Dynamic Data Masking to work with Microsoft SQL Server, test whether Dynamic Data Masking receives database requests and masks data properly.

## Step 1. Download the SQL Server JDBC Driver

Dynamic Data Masking requires the Microsoft JDBC Driver 4.0 for SQL Server to connect to a SQL Server database.

1. Go to the JDBC Driver 4.0 for SQL Server page of the Microsoft Download Center:

<http://www.microsoft.com/download/en/details.aspx?id=11774>

2. Download the Microsoft JDBC Driver 4.0 for SQL Server files.

The JDBC driver files are available in a self extracting zip file.

3. In the zip file, go to the following folder:

`\sqljdbc_4.0\enu\`

4. Copy file *sqljdbc4.jar* to the following folder:

```
<DDMInstallationDirectory>\lib
```

## Step 2. Download and Configure the Dynamic Data Masking 9.1.0 Files for SQL Server

Contact Informatica Global Services to get the files required for Dynamic Data Masking to work with a SQL Server database.

1. Download the Dynamic Data Masking 9.1.0 files for SQL Server from Informatica.

The Dynamic Data Masking 9.1.0 files for SQL Server are packaged as a zip file that contains the following files:

- ◆ *activebasemssql.conf*
- ◆ *InformaticaMSSQL.exe*
- ◆ *runGS.bat*

2. Copy the *runGS.bat* file to the Dynamic Data Masking root directory.
3. Edit the *runGS.bat* file and set the path for Dynamic Data Masking server directory.

The server directory is in the *\bin* folder of the Java instance used by Dynamic Data Masking:

```
<JavaInstallationDirectory>\jre\bin\server
```

4. Save and close the *runGS.bat* file.

## Step 3. Set Up the Proxy in the *activebasemssql.conf* File

The *activebasemssql.conf* file contains an initial proxy element that you can modify for the SQL Server database you want to use.

1. Go to the *gs* folder in the Dynamic Data Masking directory:

```
<DDMInstallationDirectory>\gs
```

2. Edit the *activebasemssql.conf* file.

The *activebasemssql.conf* file contains the proxy set up for the SQL Server databases.

3. Find the proxy element defined in the file and set the following parameters:

Parameter	Description
<i>proxy_name</i>	Name of the proxy server. This must match the name of the database you create in the Dynamic Data Masking Management Console.
<i>frontend_port</i>	Port number used by the Dynamic Data Masking Server to listen for and route requests to SQL Server database.
<i>backend_ip</i>	IP address of the SQL Server database.
<i>backend_port</i>	Port number of the SQL Server database. Default is 1433.

Do not modify the front *frontend\_ip* parameter.

4. Save and close the *activebasemssql.conf* file.

## Step 4. Update the DNR.xml file

The Dynamic Data Masking Server must not be running when you update the DNR.xml file.

1. Shut down the Dynamic Data Masking Server.

2. Go to the following directory:

```
<DDMInstallationDirectory>\cfg
```

3. Back up the dnr.xml file.

For example, rename the dnr.xml file to dnr.xml.bak.

4. Find the file named dnr.xml.sqlserver file and rename it to dnr.xml.

5. Start the Dynamic Data Masking Server.

## Step 5. Set Up a Database Configuration in the Management Console

The properties of the database you create in the Management Console must match the configuration specified in the `<DDMInstallationDirectory>\gs\activebasemssql.conf` file.

1. Log in to the Management Console.
2. Create a database and select the **MS SQL Server** option.

Set the following parameters:

Parameter	Description
Database Name	Name of the database configured in the Management Console. This is the name specified in the <i>proxy_name</i> parameter in <code>activebasemssql.conf</code> .
DDM Port	Port number used by the Dynamic Data Masking Server to listen for and route requests to SQL Server database. This is equivalent to the port number specified in the <i>frontend_port</i> parameter in <code>activebasemssql.conf</code> .
Server Address	IP address of the SQL Server database. This is the IP address specified in the <i>backend_ip</i> parameter in <code>activebasemssql.conf</code> .
Server Port	Port number of the SQL Server database. Default is 1433. This is the port number specified in the <i>backend_port</i> parameter in <code>activebasemssql.conf</code> .
Username	User name of the database user account to log in to the SQL Server database.
Password	Password for the database user account to log in to the SQL Server database.

3. Test the connection and click **OK**.

If the database is configured correctly and the connection is successful, create switching rules to specify the database requests to intercept and create security rules to implement data masking policies. Then send database requests from a client application to the SQL Server database. Verify that Dynamic Data Masking intercepts the requests correctly and that the results returned to the application are masked according to the security rules.

## Setting Up Multiple SQL Server Databases

You can set up Dynamic Data Masking to work with multiple databases. Each database configuration you set up on the Management Console must have a corresponding proxy element in the `activebasemssql.conf` file.

Add the proxy element to the `activebasemssql.conf` file before you configure a SQL Server database on the Management Console. The properties you set for the SQL Server database on the Management Console must match the parameters you set for the proxy in the `activebasemssql.conf` file.

To set up an additional SQL Server database:

1. Go to the `gs` folder in the Dynamic Data Masking directory:

```
<DDMInstallationDirectory>\gs
```

2. Edit the `activebasemssql.conf` file.
3. Make a copy of an existing proxy element with all its parameters:

```
[proxy]
proxy_name =
frontend_ip = 0.0.0.0
frontend_port =
backend_ip =
backend_port =
```

4. Change the proxy identifier for the new proxy element so that it is unique.  
For example, the identifier for the default proxy is `[proxy0]`. You can set the identifier for the new proxy to `[proxy1]`.
5. Set the parameters for the proxy.  
For more information, see “Step 3. Set Up the Proxy in the `activebasemssql.conf` File” on page 3.
6. Save and close the `activebasemssql.conf` file.
7. In the Management Console, set up a SQL Server database configuration.  
Set the properties to match the proxy parameters.
8. Test the connection.

Follow the same steps to set up each additional SQL Server database.

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