SpeechMiner Administration Guide

Setting Up the SQL Server for SpeechMiner

12/15/2025

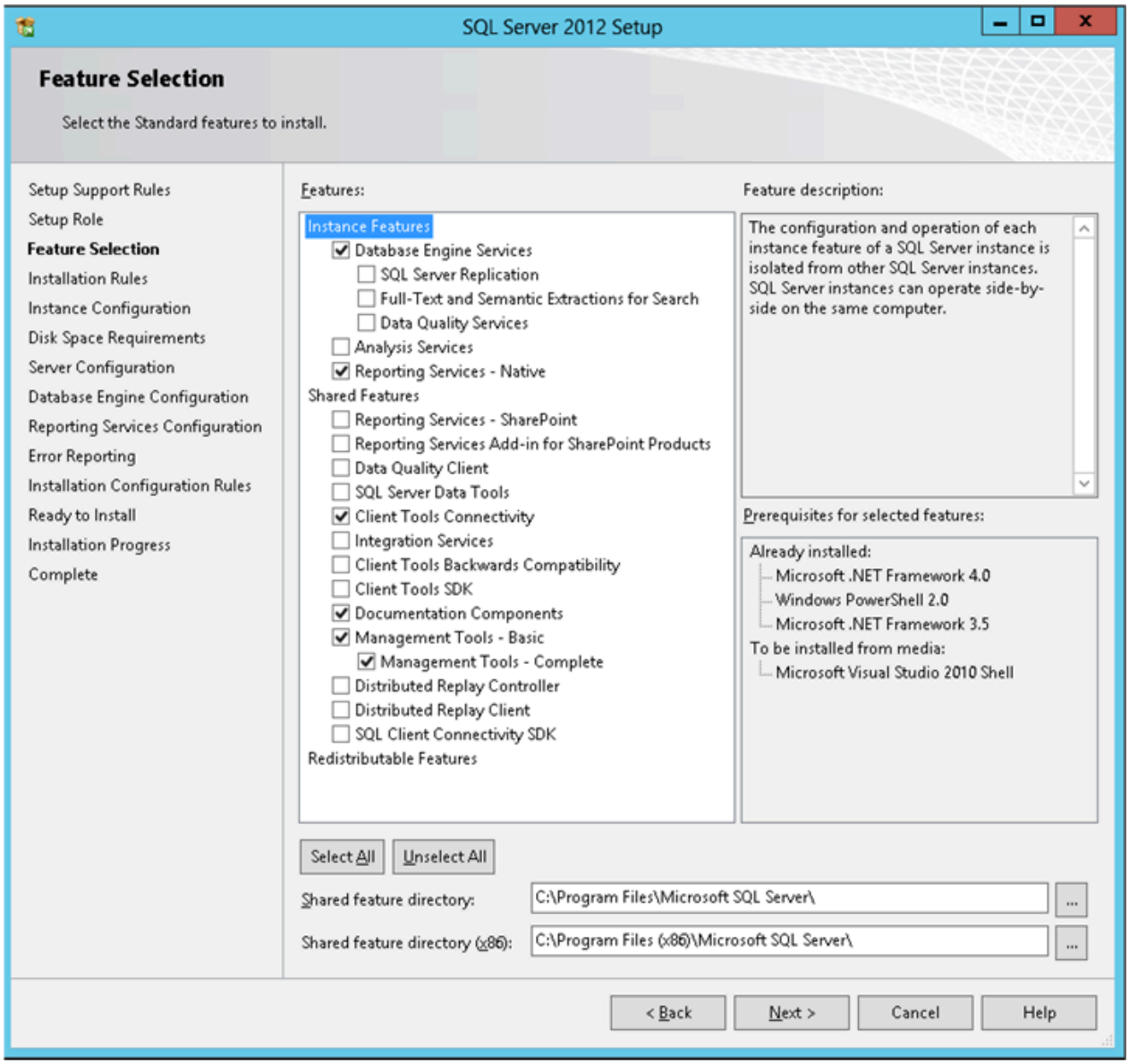
Setting Up the SQL Server for SpeechMiner

Installing SQL Server 2012

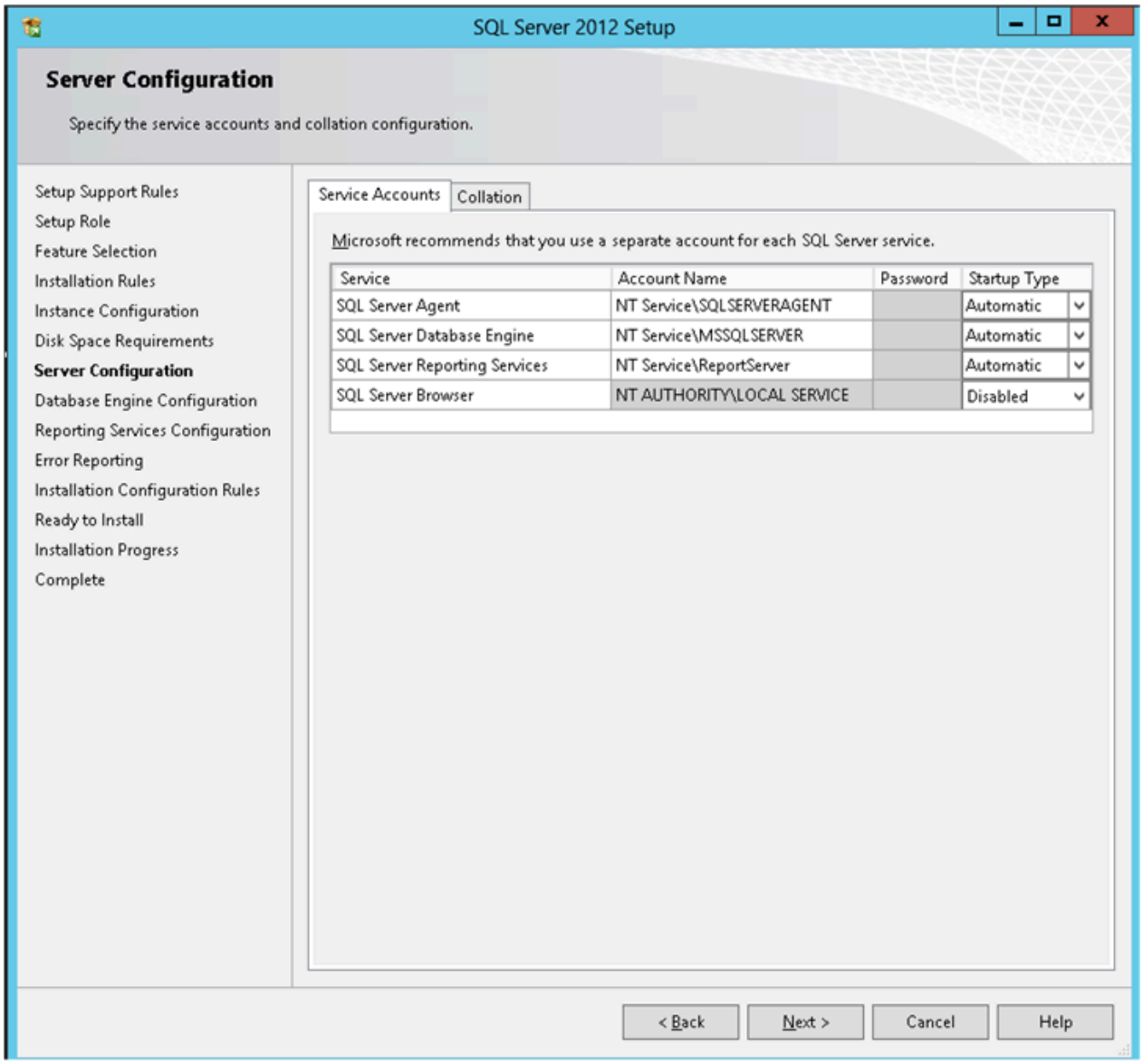
Installing SQL Server 2012

To install SQL Server 2012 for use with SpeechMiner, run the normal setup wizard first and follow the instructions.

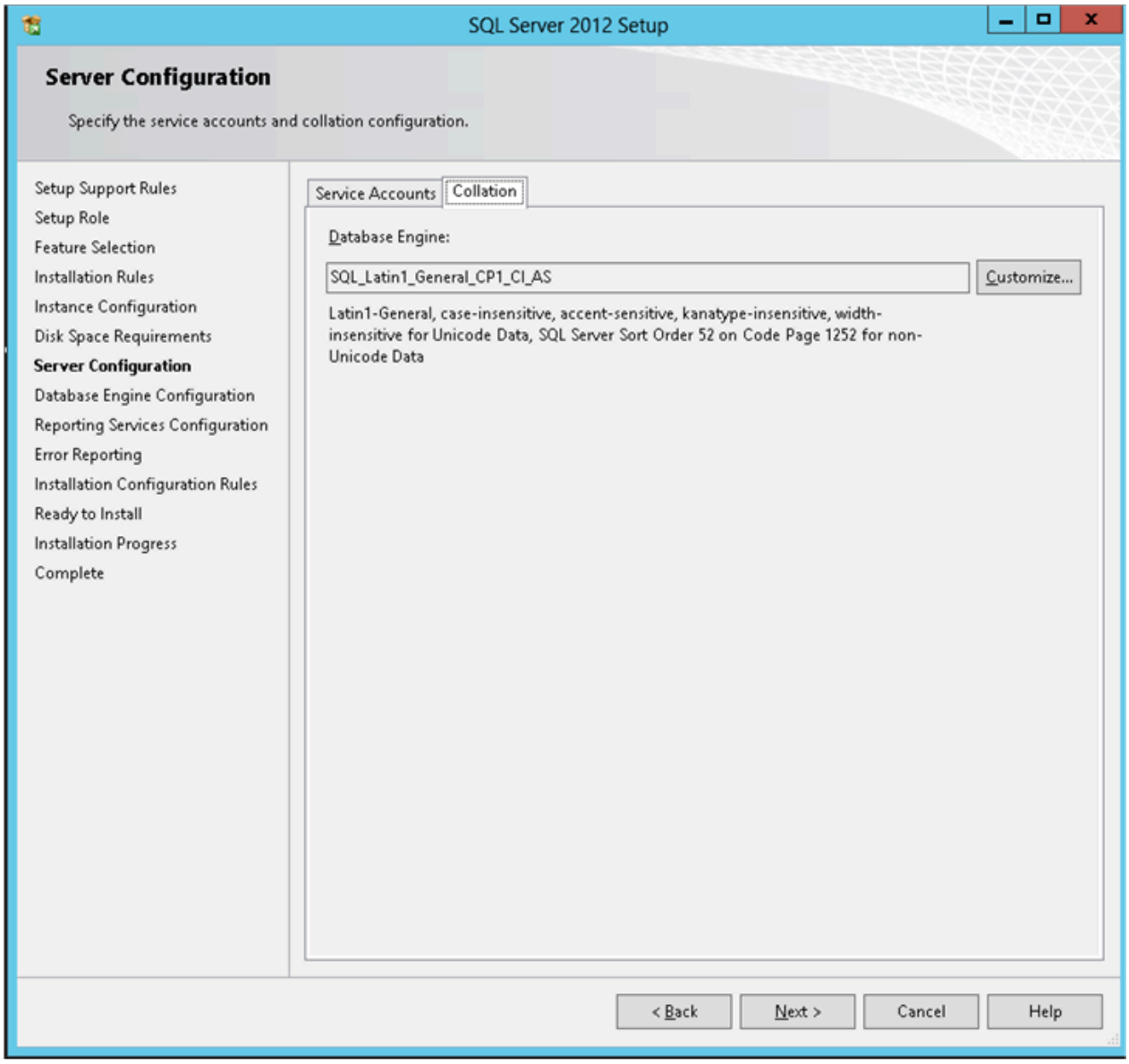
1. Run the installation program. The **SQL Server Installation Center** window opens, with the **Planning** screen open.
2. From the menu on the left, select **Installation**. The **Installation** screen opens. Select **New installation or add features to an existing installation**. The installation wizard opens.
3. Follow the on-screen instructions. When the screens mentioned below open, follow the instructions below to select the required settings and options for SpeechMiner.
4. From the **Setup Role** screen, select **SQL Server Feature Installation**.
5. From the **Feature Selection** screen, select the following options:
    - Database Engine Services
    - Reporting Services
    - Client Tools Connectivity
    - SQL Server Books Online
    - Management Tools Basic
    - Management Tools Complete



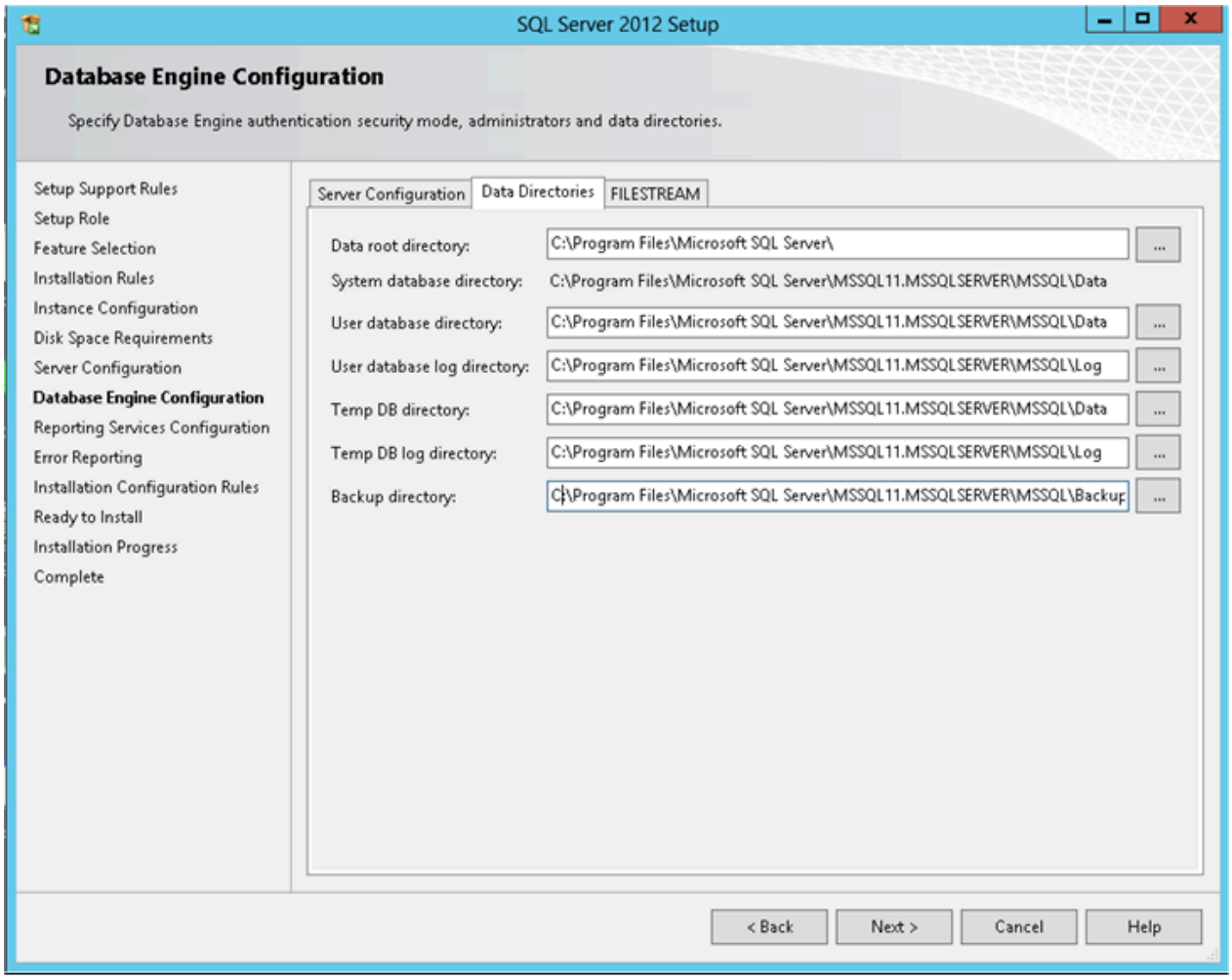
6. From the **Server Configuration** screen, in the **Service Accounts** tab, for the **SQL Server Agent**, **SQL Server Database Engine**, and **SQL Server Reporting Services**, do the following:
   - Enter the user account and password of the service account.
   - Under **Startup Type**, select **Automatic**.



7. From the **Server Configuration** screen, in the **Collation** tab, under **Database Engine**, select `SQL_Latin1_General_CP1_CI_AS` (the default value).



8. From the **Database Engine Configuration** screen, in the **Data Directories** tab, select the locations for the database folders. If possible, put the User database directory, the Temp DB directory, and the Backup directory on a separate drive from the other folders.



9. From the **Reporting Services Configuration** screen, select **Install the native mode default configuration**.
10. When you finish installing SQL Server, restart the machine on which you installed it.

Installing SQL Server 2014

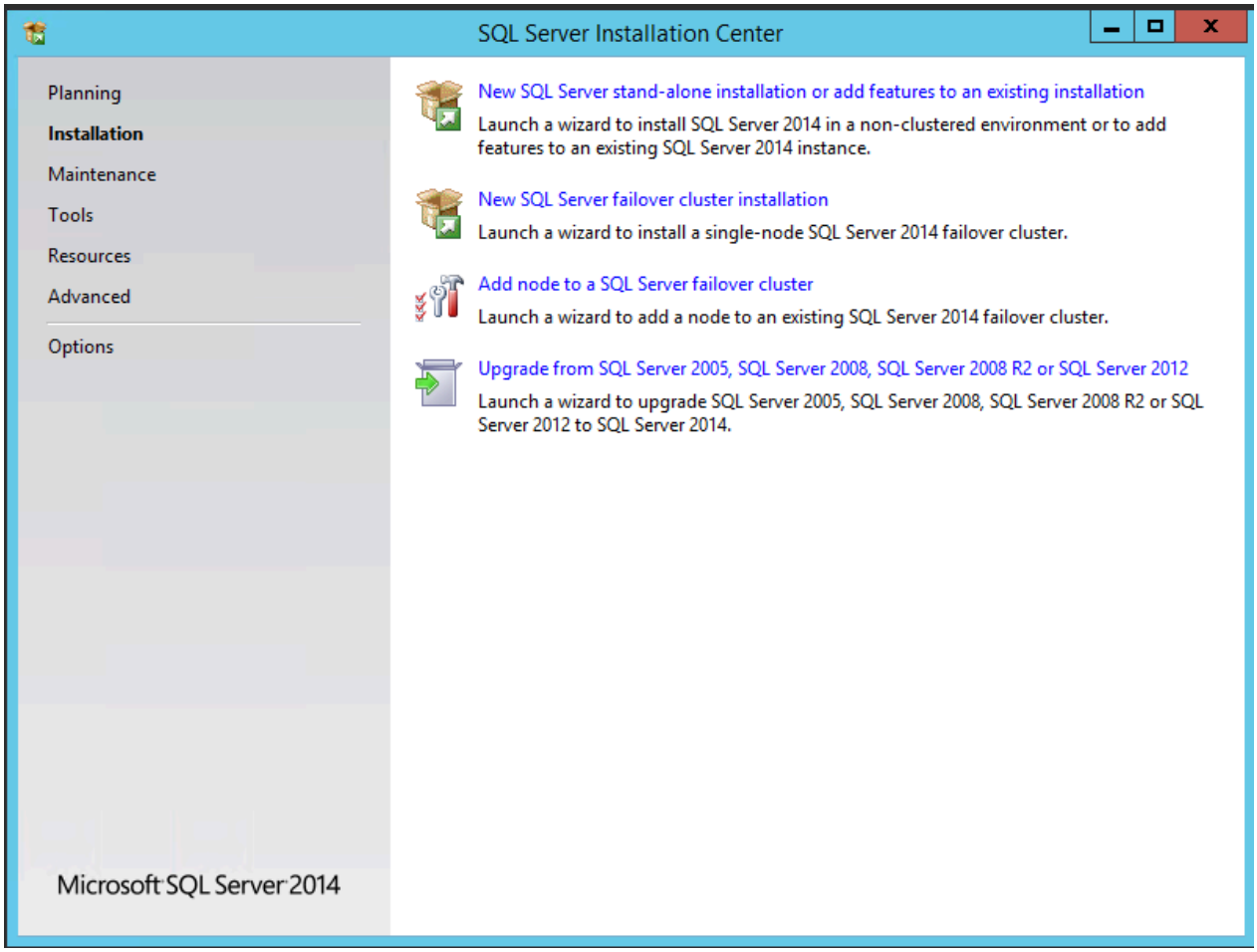
Installing SQL Server 2014

To install SQL Server 2014 for use with SpeechMiner, run the normal setup wizard first and follow the instructions.

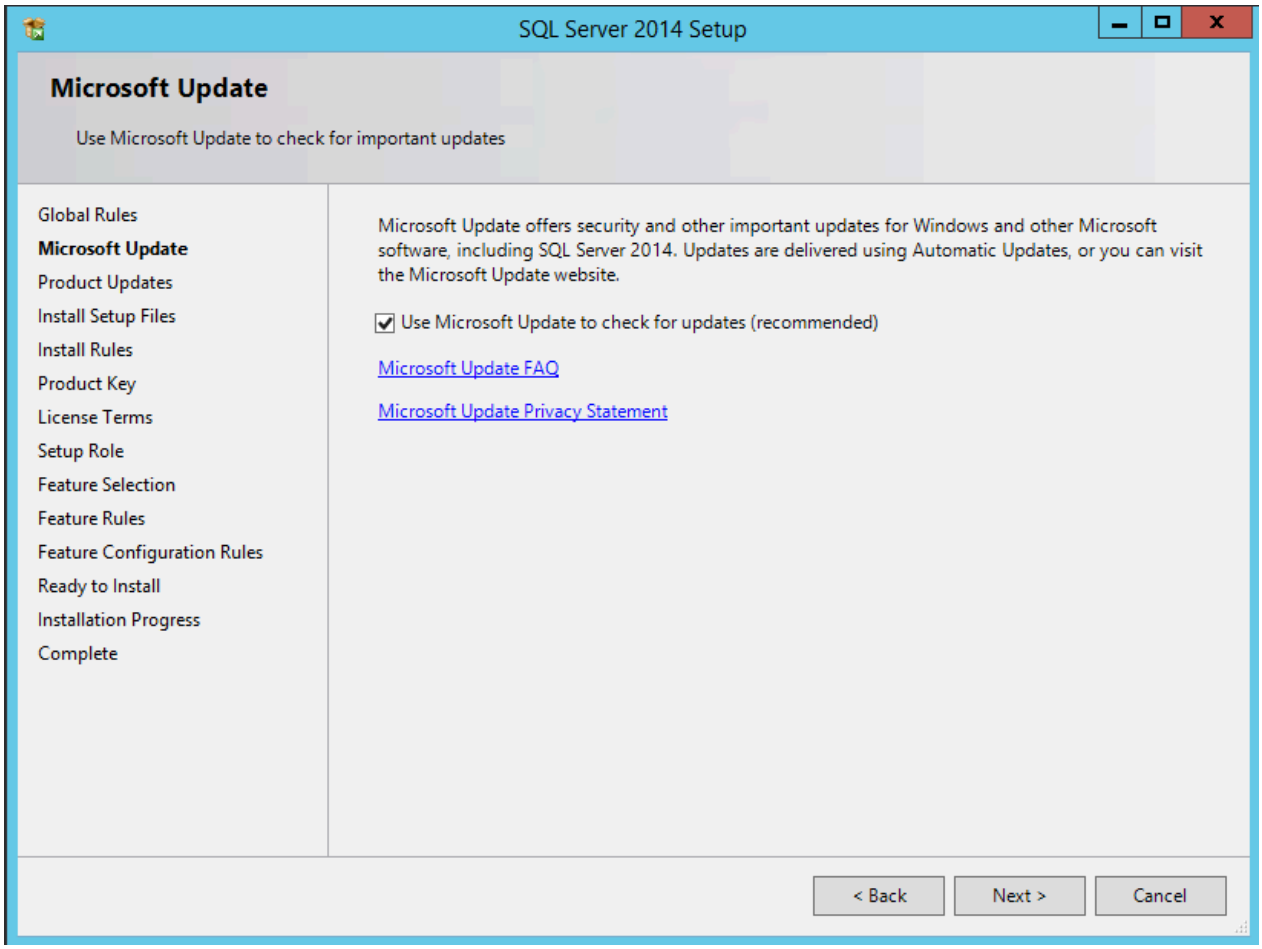
1. Run the installation program. The **SQL Server Installation Center** window opens, with the **Planning**

screen open.

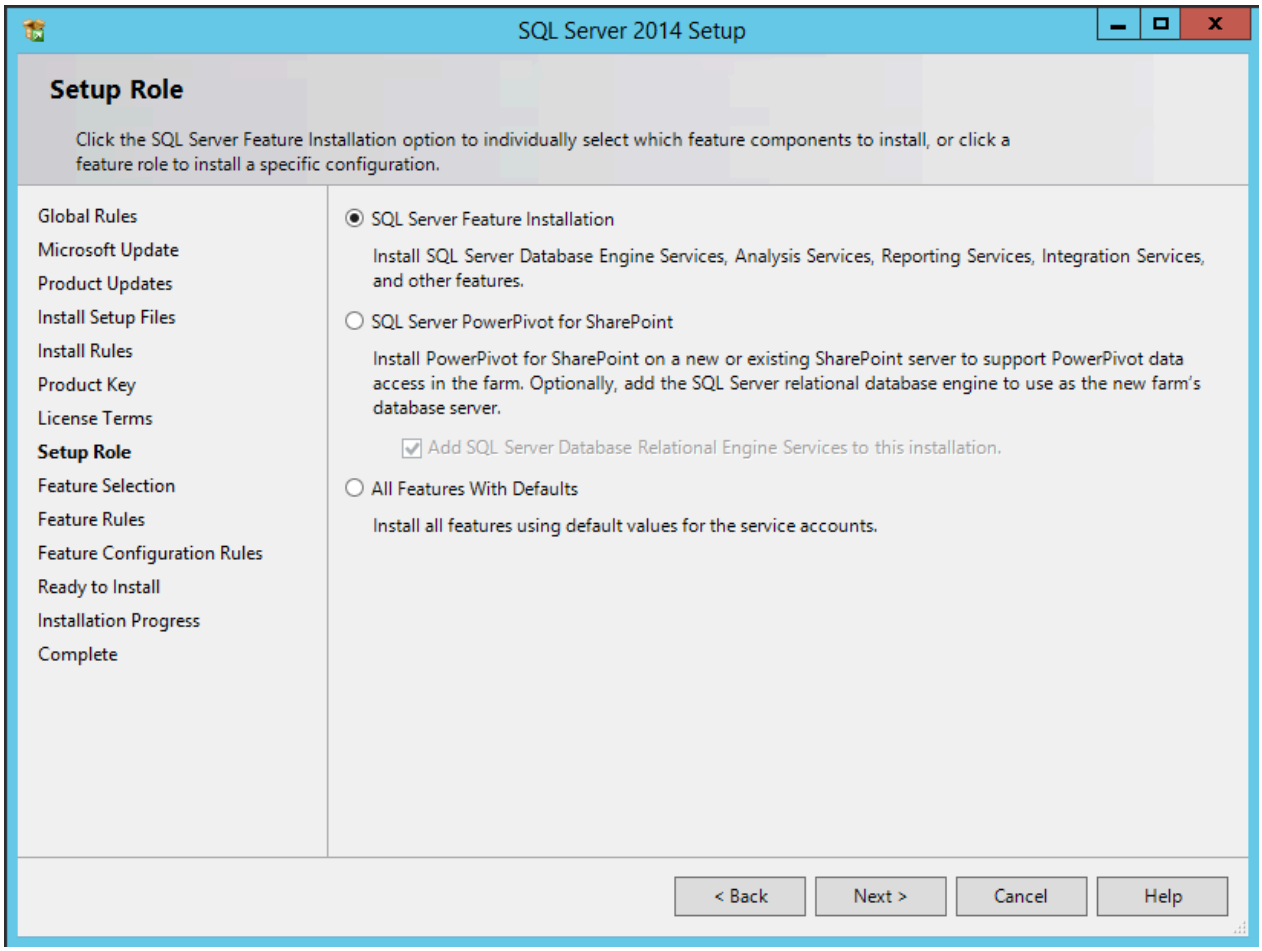
2. From the menu on the left, select **Installation**. The **Installation** screen opens.



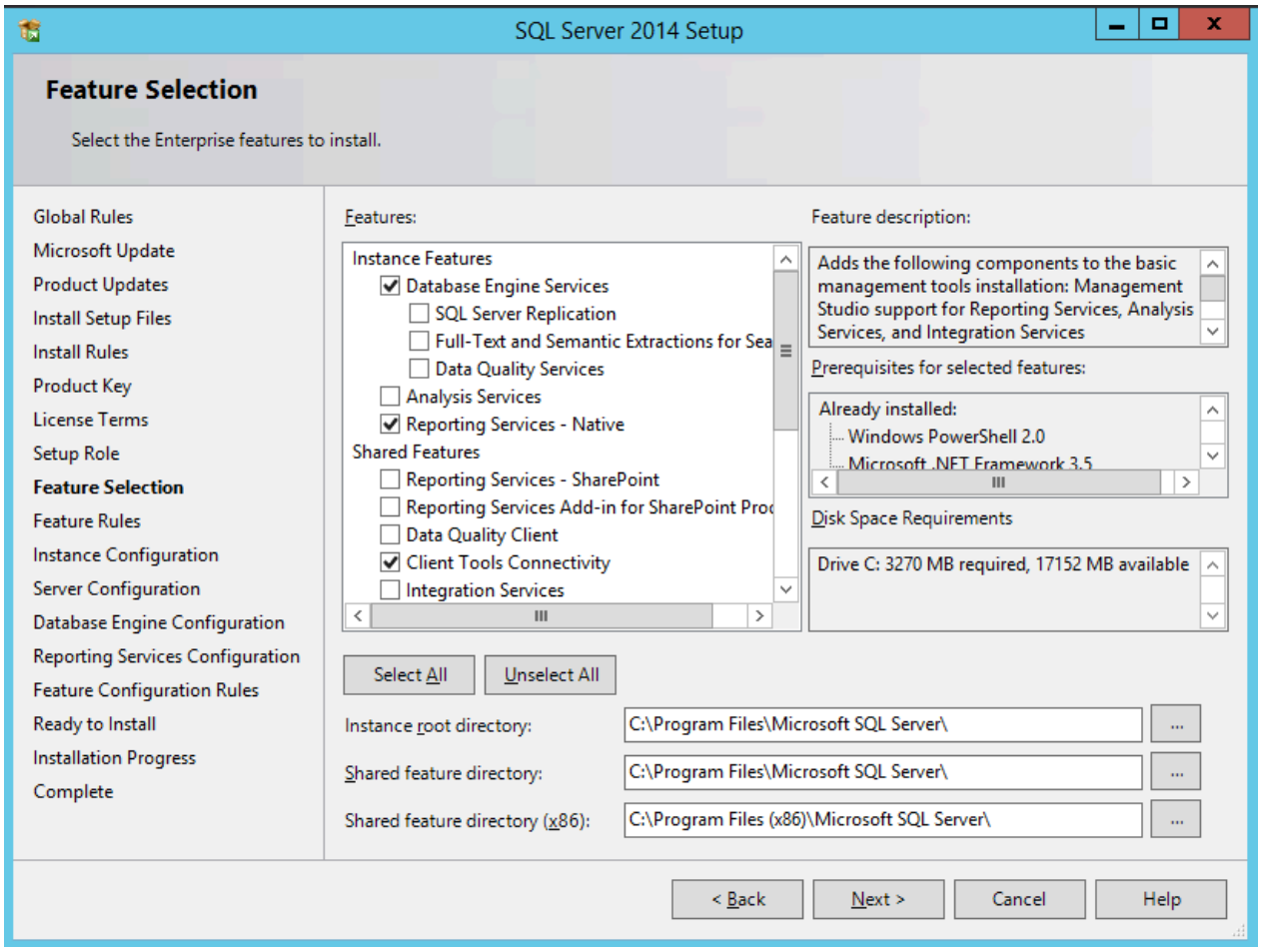
3. Select **New SQL Server stand-alone installation or add features to an existing installation**. The installation wizard is activated.
4. Follow the on-screen instructions. Refer to the instructions below to select the required settings and options for SpeechMiner.



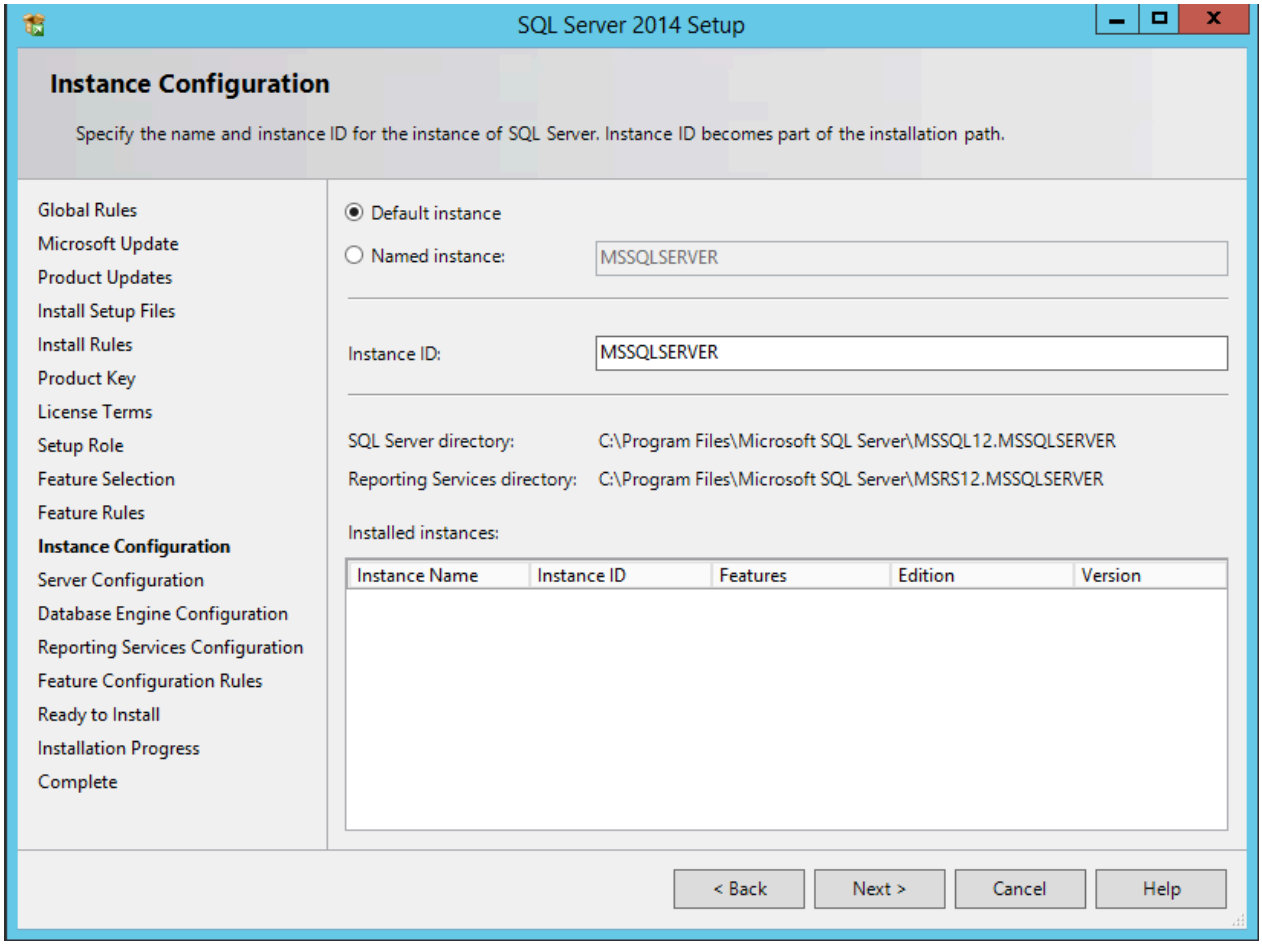
5. In the **Setup Role** screen, select **SQL Server Feature Installation** and click **Next**.



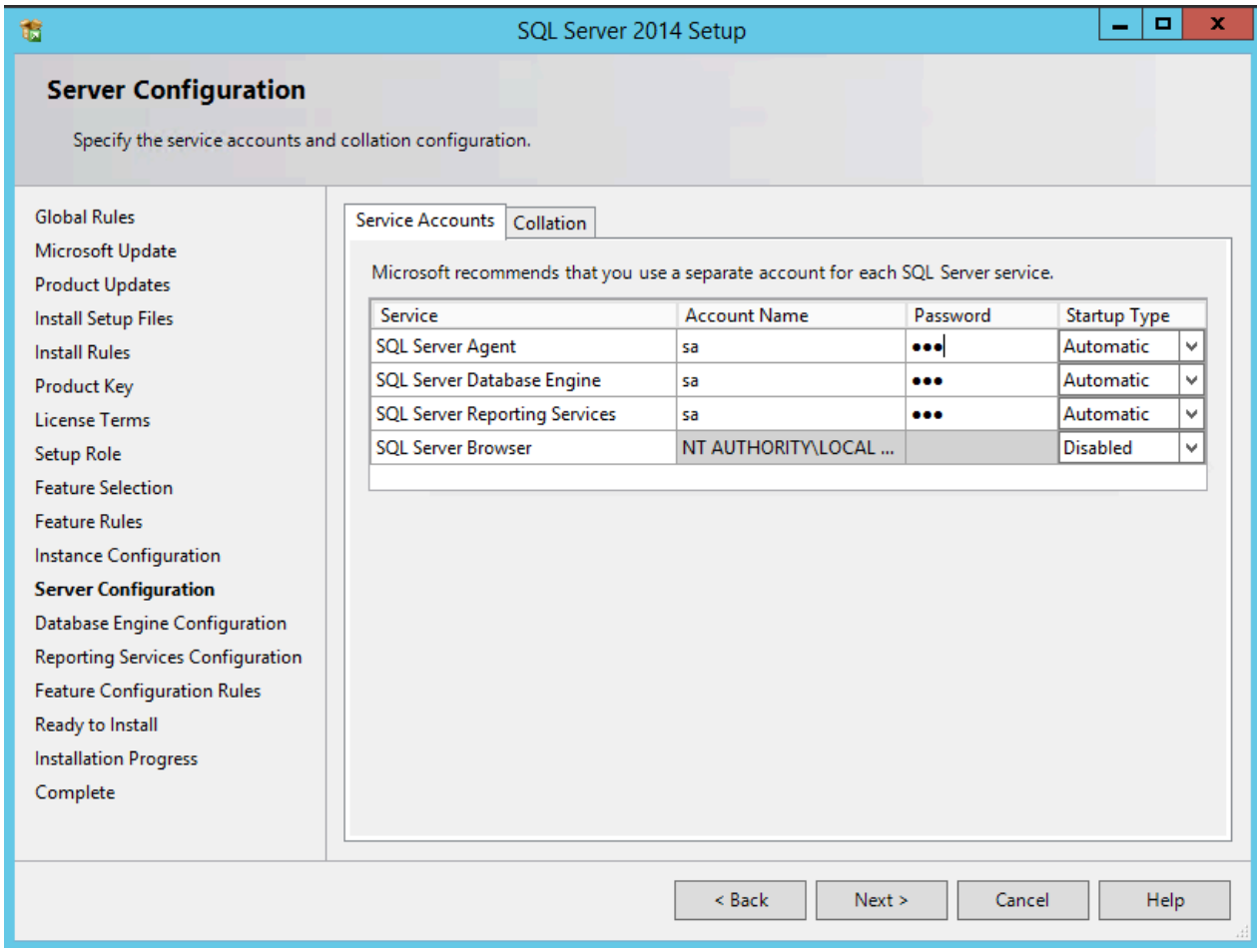
6. In the **Feature Selection** screen, select the following features, and click **Next**:
   - Database Engine Services
   - Reporting Services - Native
   - Client Tools Connectivity
   - Management Tools Basic
   - Management Tools Complete



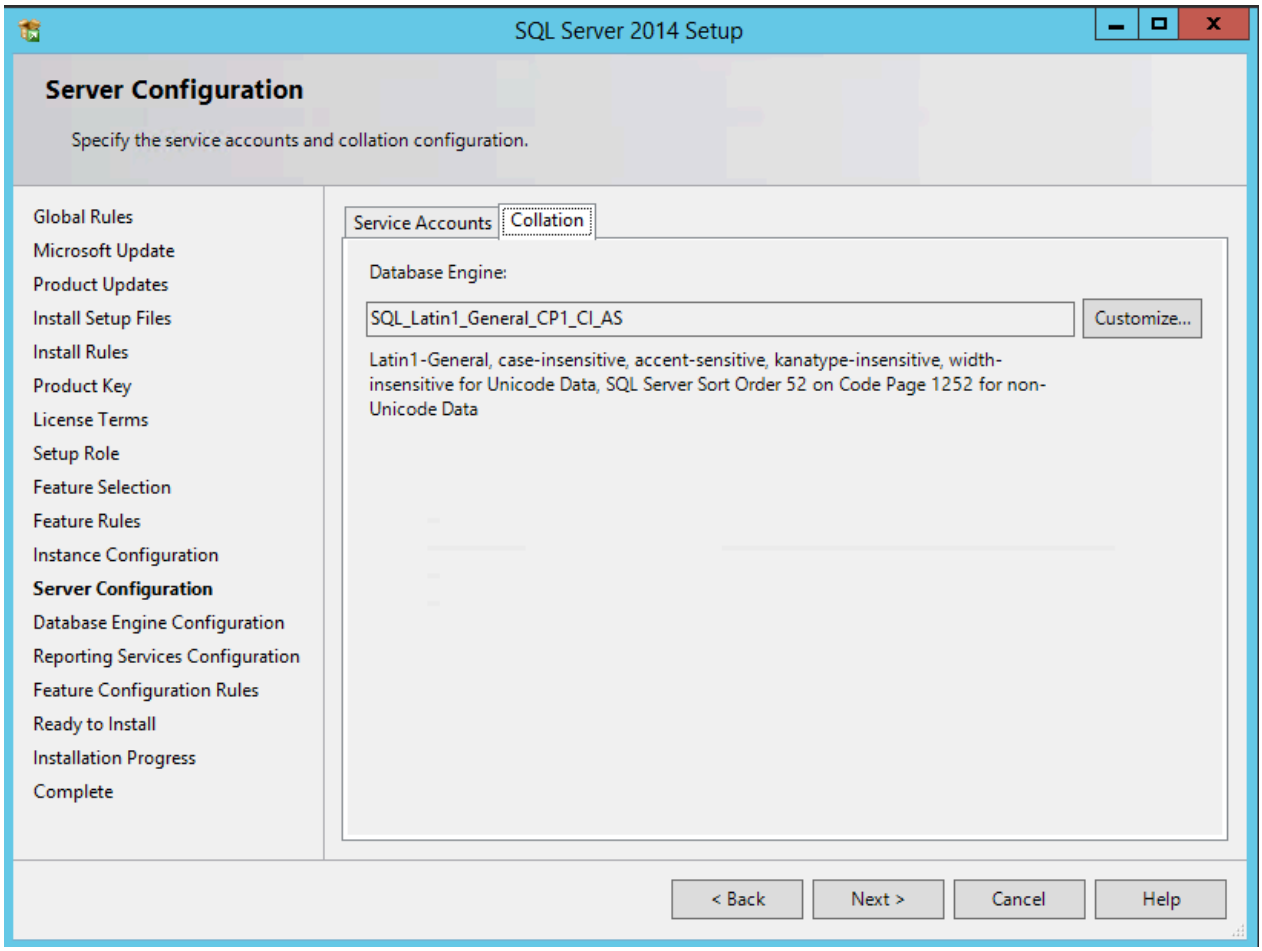
7. In the **Instance Configuration** screen select the **Instance Configuration** option and set the **Instance ID** name.



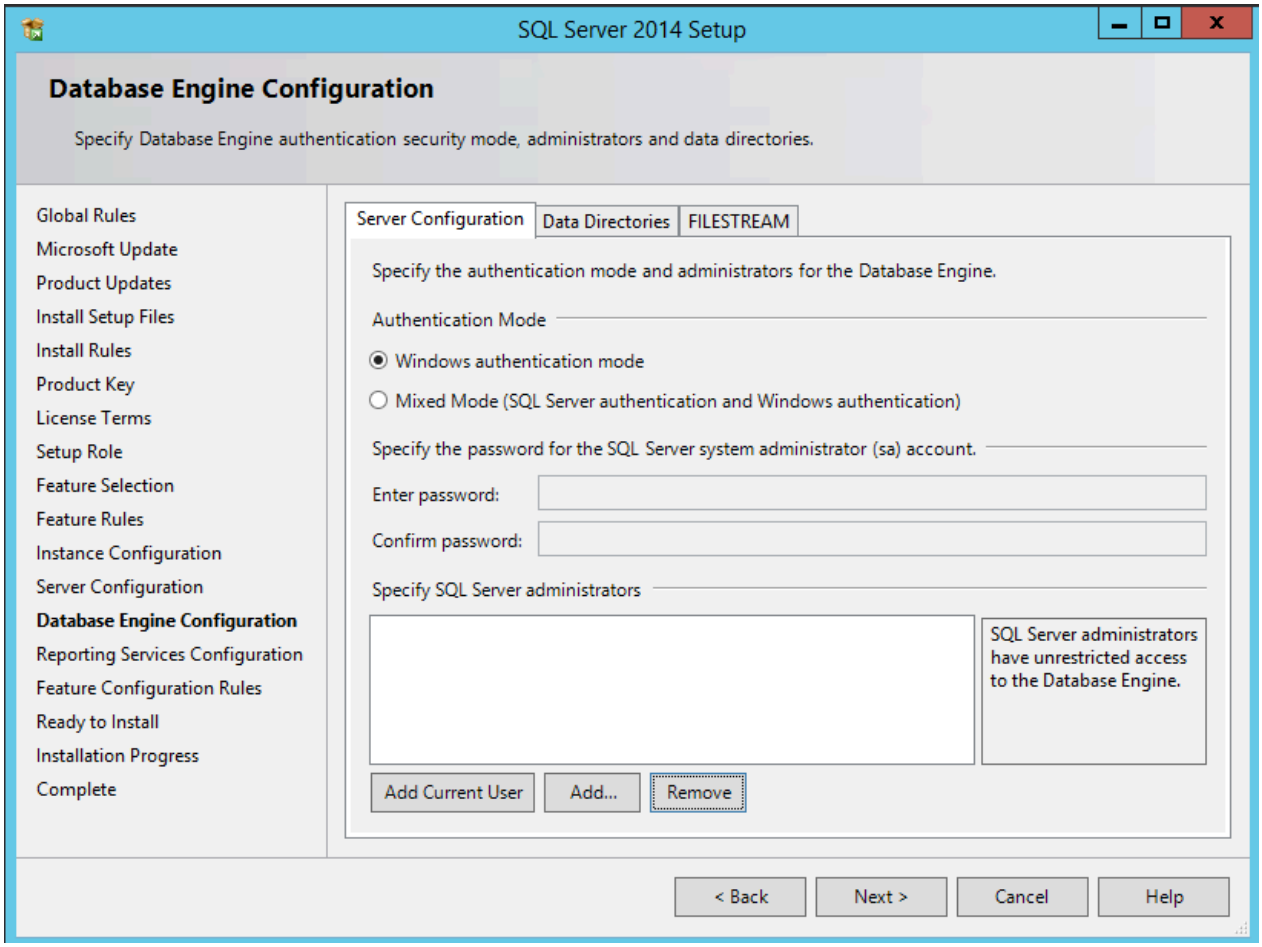
8. In the **Server Configuration > Service Accounts** tab, perform the following for the **SQL Server Agent**, **SQL Server Database Engine**, and **SQL Server Reporting Services** and click **Next**:
   - Enter the service **Account Name** and **Password**.
   - Under **Startup Type**, select **Automatic**.



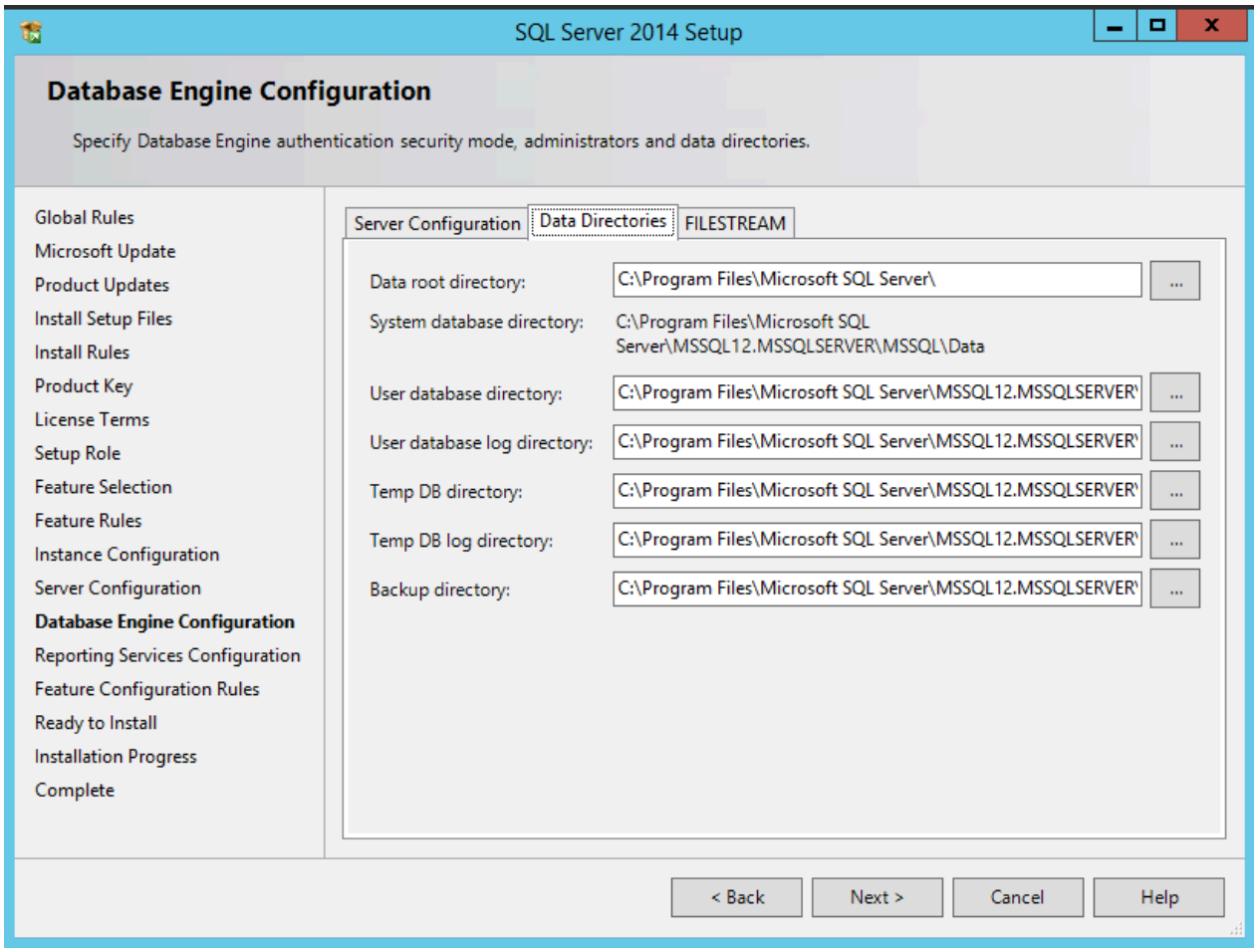
9. In **Server Configuration > Collation** tab, under **Database Engine**, select `SQL_Latin1_General_CP1_CI_AS` (the default value) and click **Next**.



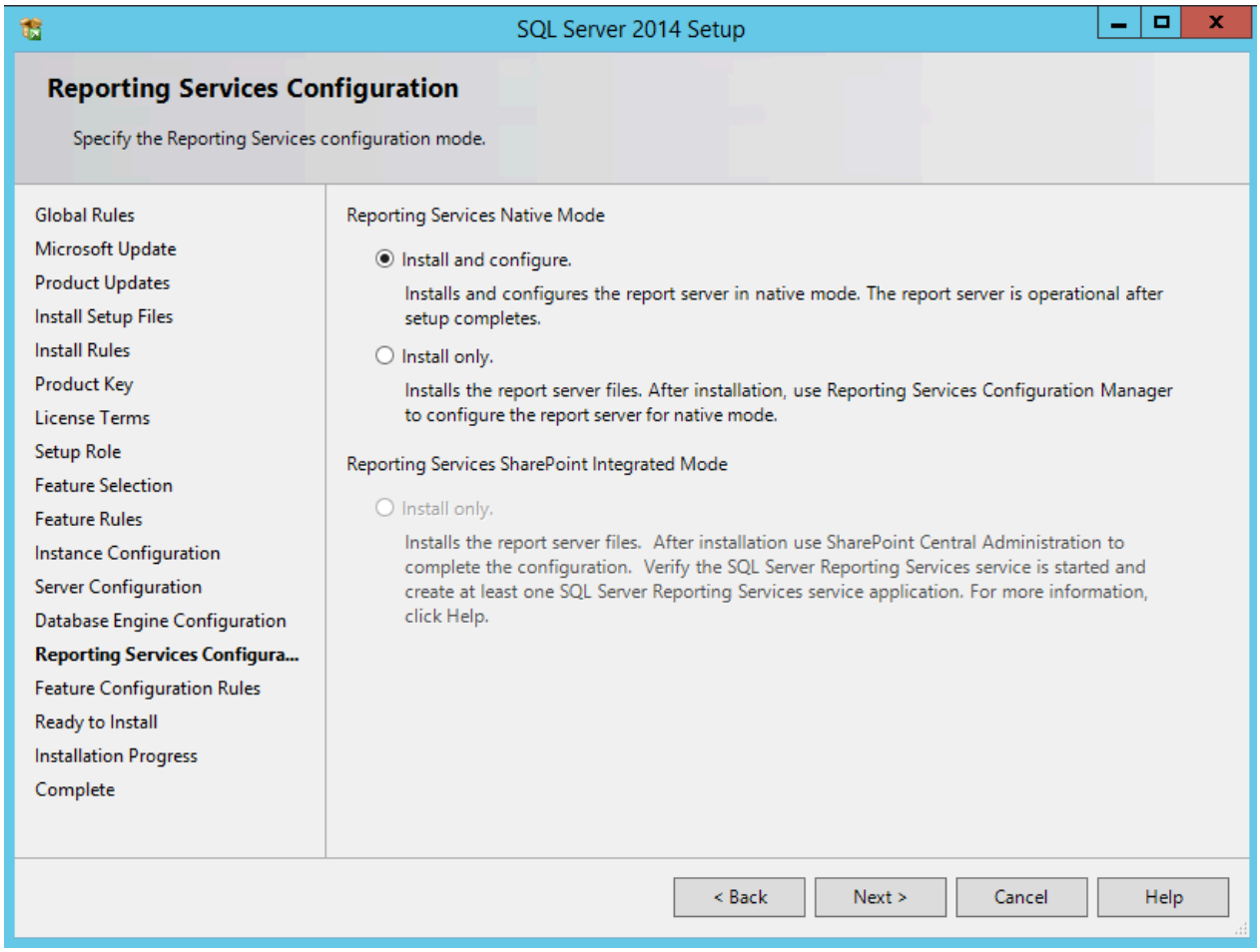
10. In the **Database Engine Configuration > Server Configuration** tab, select an **Authentication Mode** and click **Next**. If required specify the SQL Server administrators password.



11. In the **Database Engine Configuration > Data Directories** tab, select the database folder locations and click **Next**.
    Note: It is recommended that the **User database directory**, **Temp DB directory**, and **Backup directory** be located on a drive that is different from the Data directories.



12. In the **Reporting Services Configuration** screen, select **Install and configure** and click **Next**.



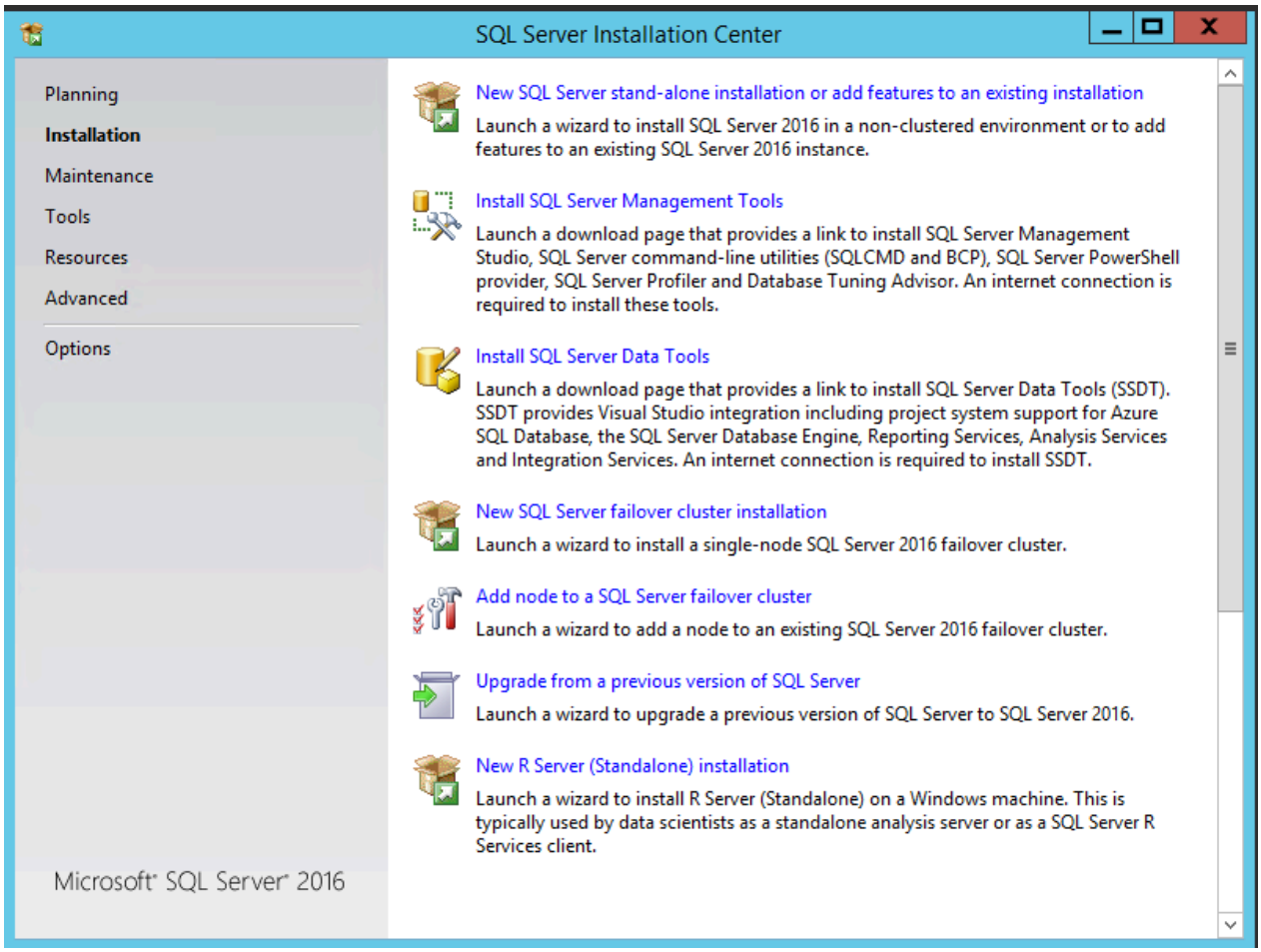
13. In the **Ready to Install** screen, click **Install**.
14. When you finish installing SQL Server, restart the machine on which you installed it.

Installing SQL Server 2016

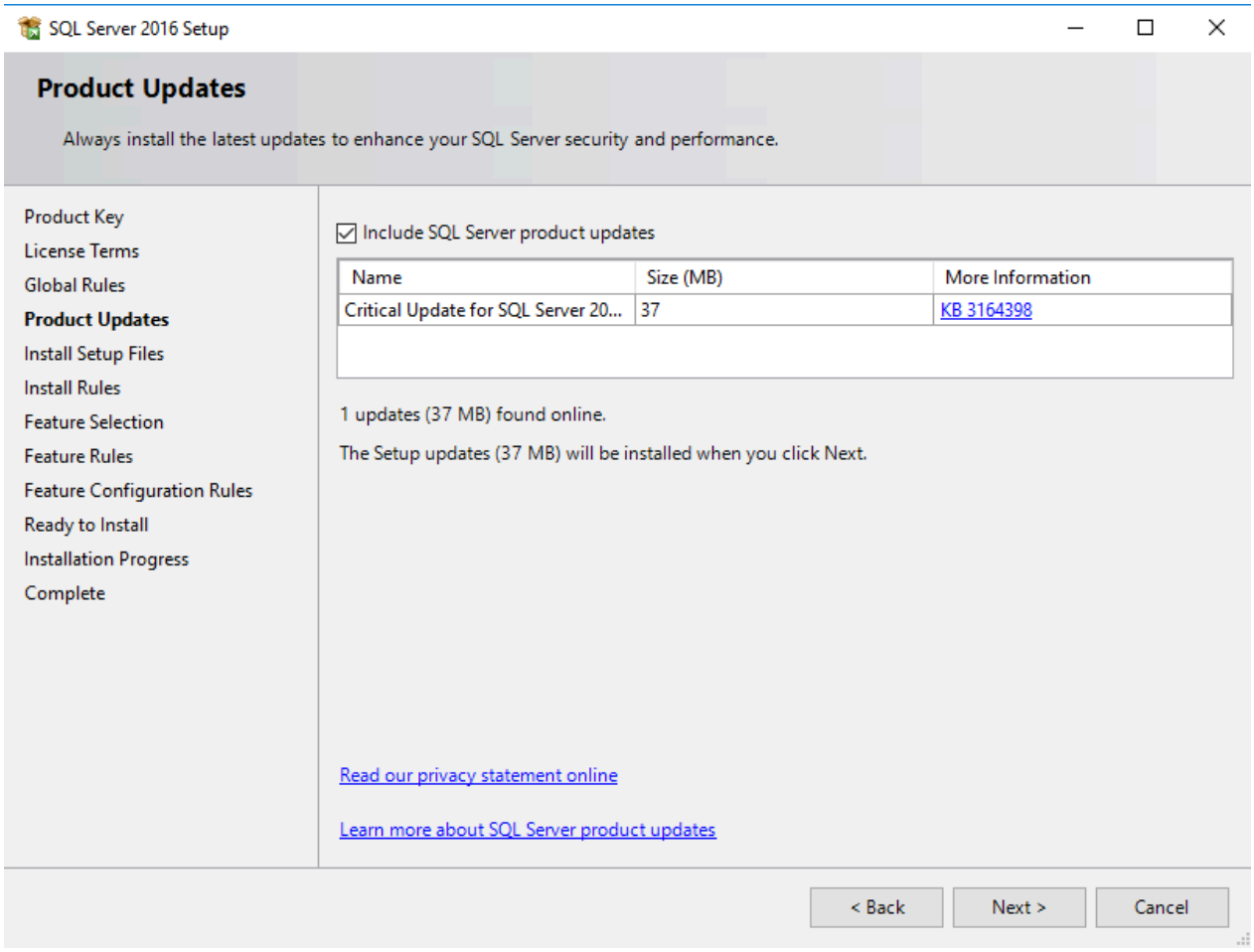
Installing SQL Server 2016

To install SQL Server 2016 for use with SpeechMiner, run the normal setup wizard first and follow the instructions.

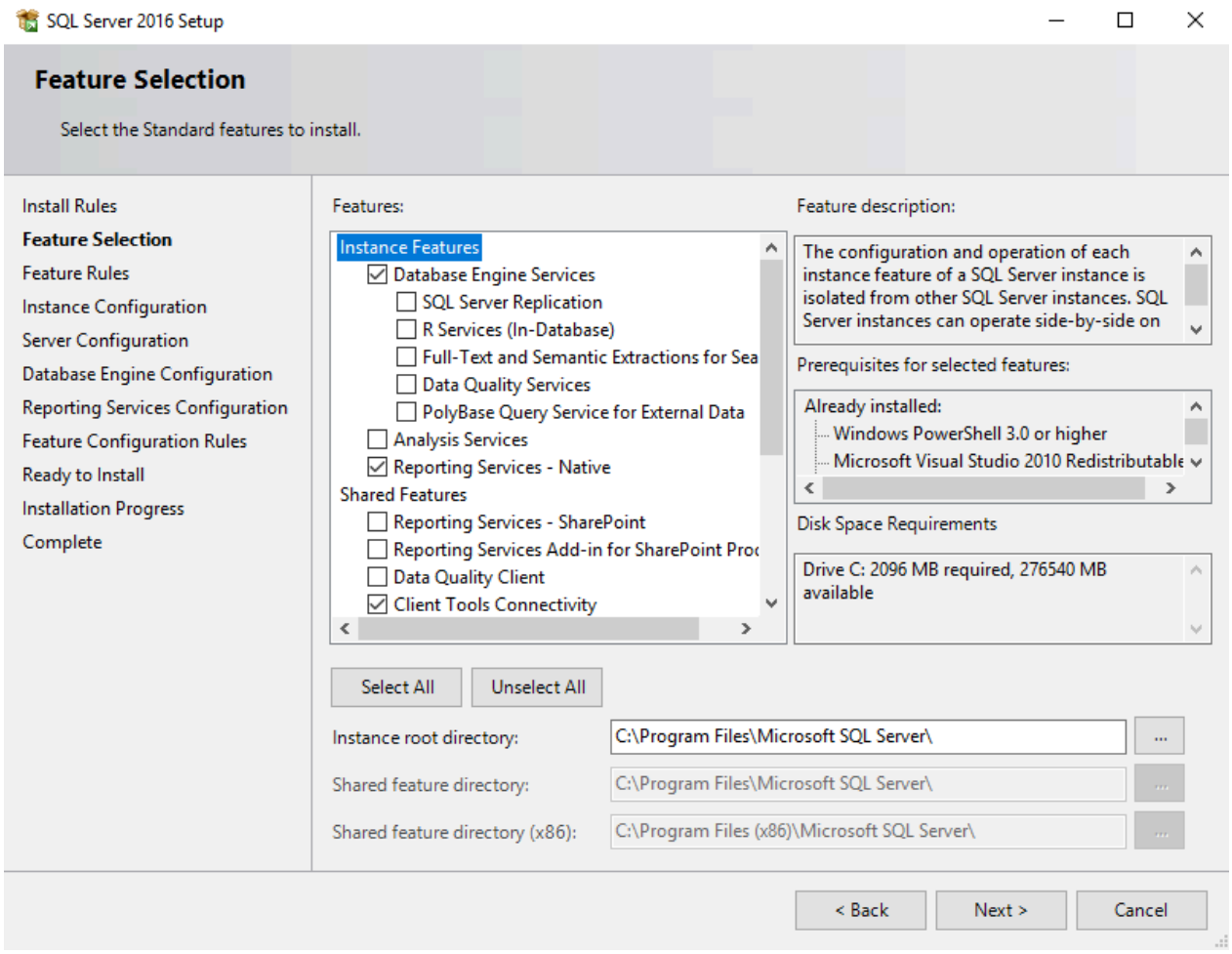
1. Run the installation program. The **SQL Server Installation Center** window opens, with the **Planning** screen open.
2. From the menu on the left, select **Installation**. The **Installation** screen opens.



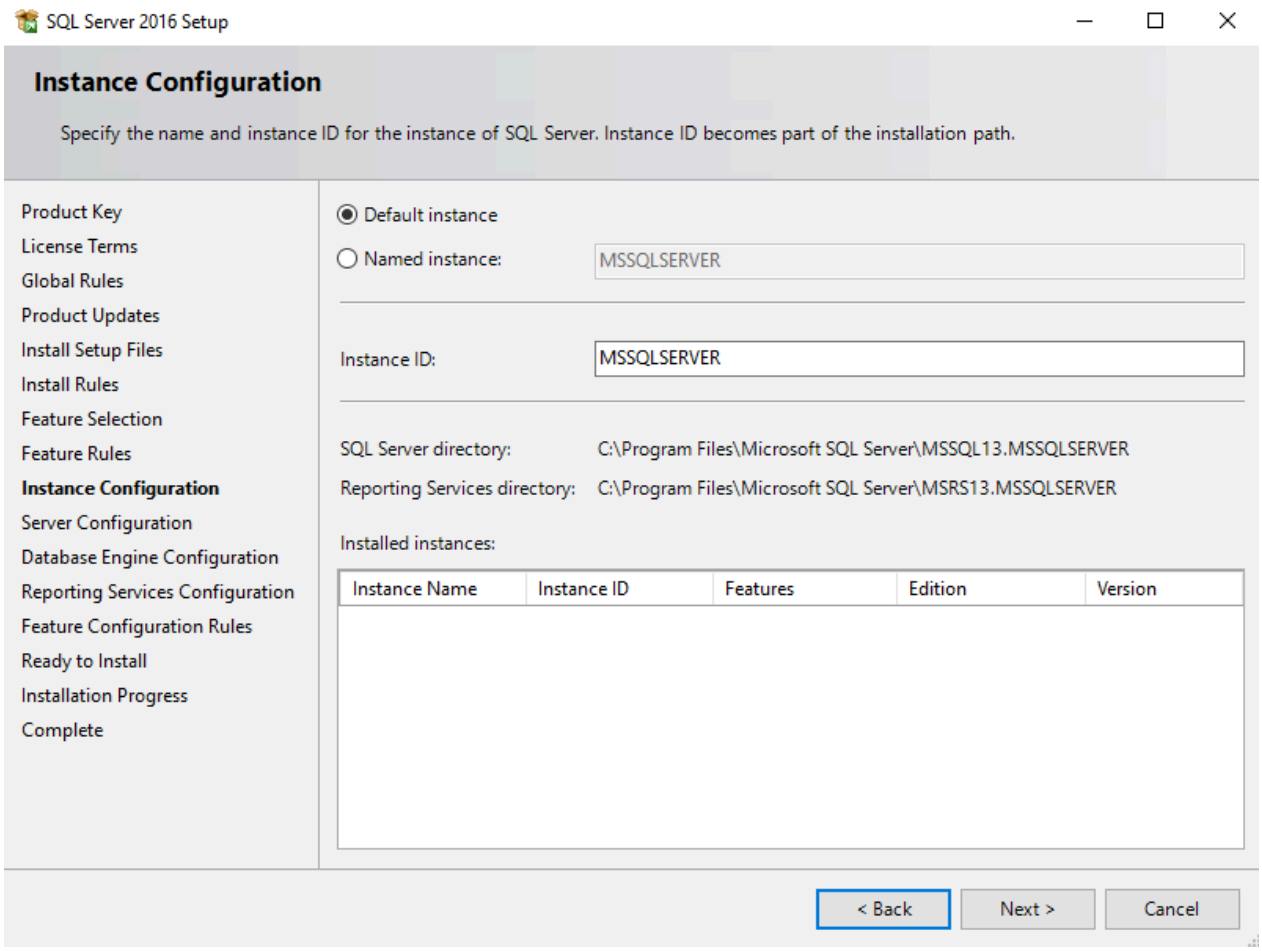
3. Select **New SQL Server stand-alone installation or add features to an existing installation**. The installation wizard is activated.
4. Follow the on-screen instructions. Refer to the instructions below to select the required settings and options for SpeechMiner.



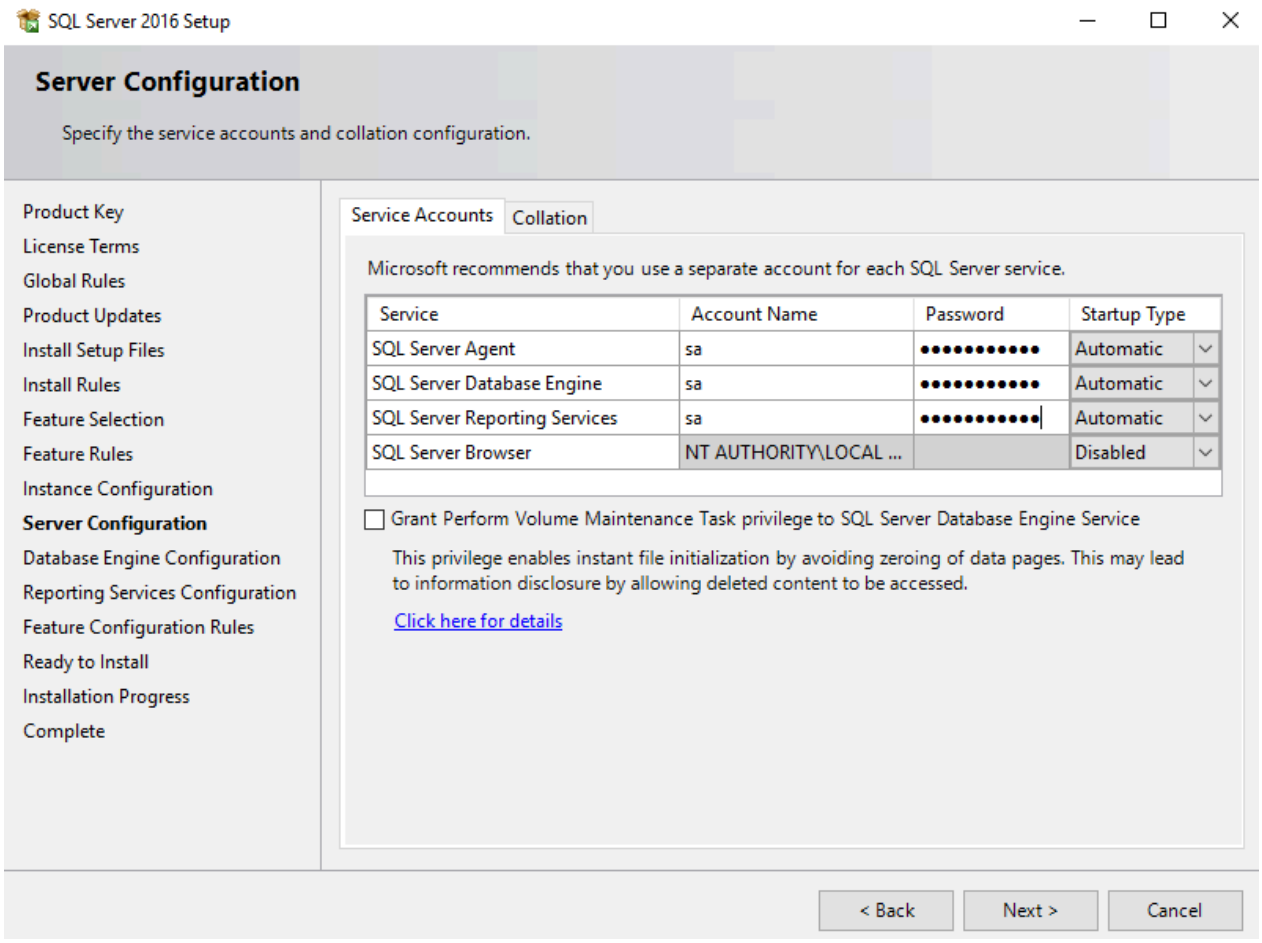
5. In the **Product updates** screen, click **Next**.
6. In the **Feature Selection** screen, select the following features, and click **Next**:
   - Database Engine Services
   - Reporting Services – Native
   - Client Tools Connectivity



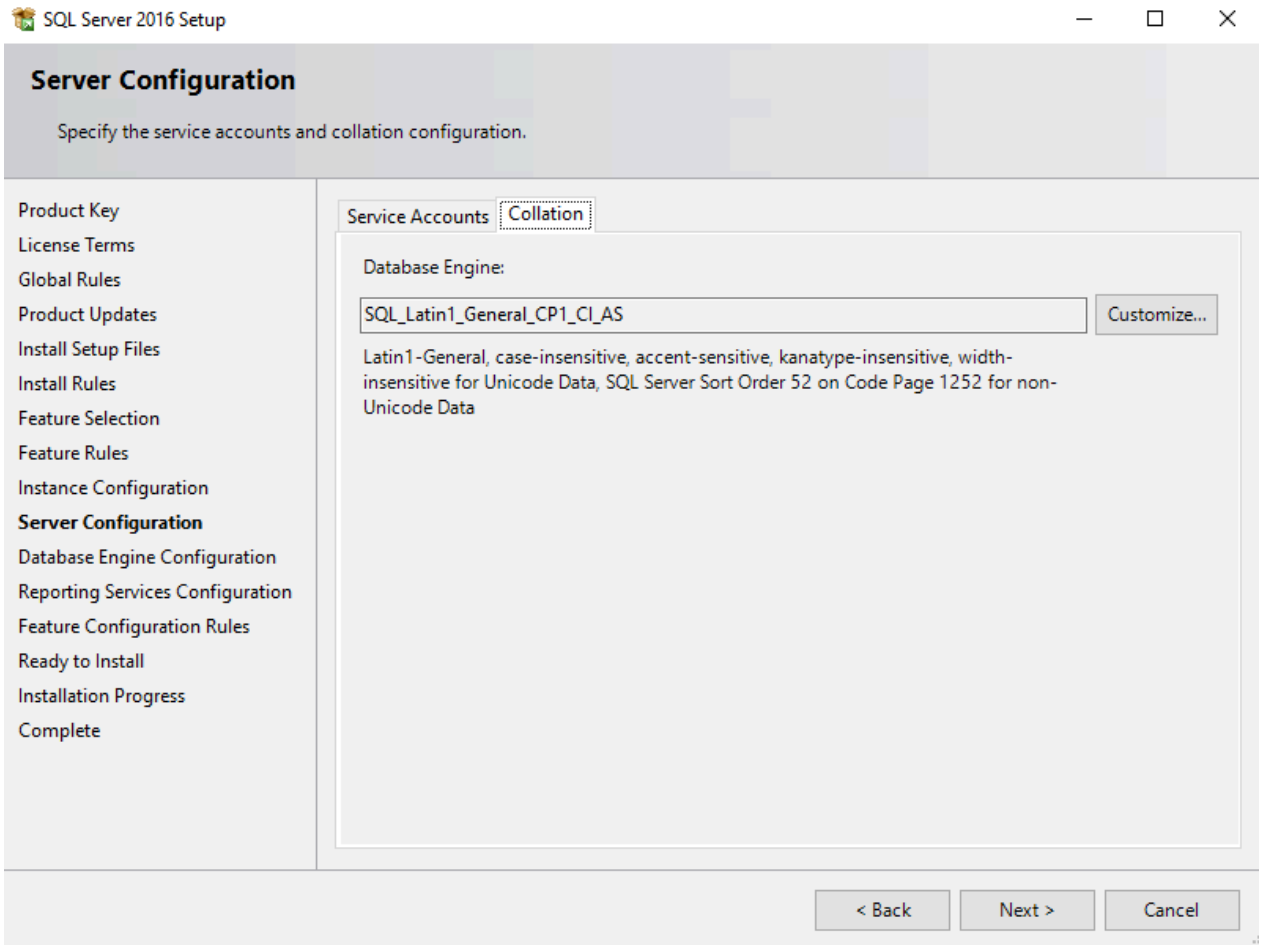
7. In the **Instance Configuration** screen select the **Instance Configuration** option and set the **Instance ID** name.



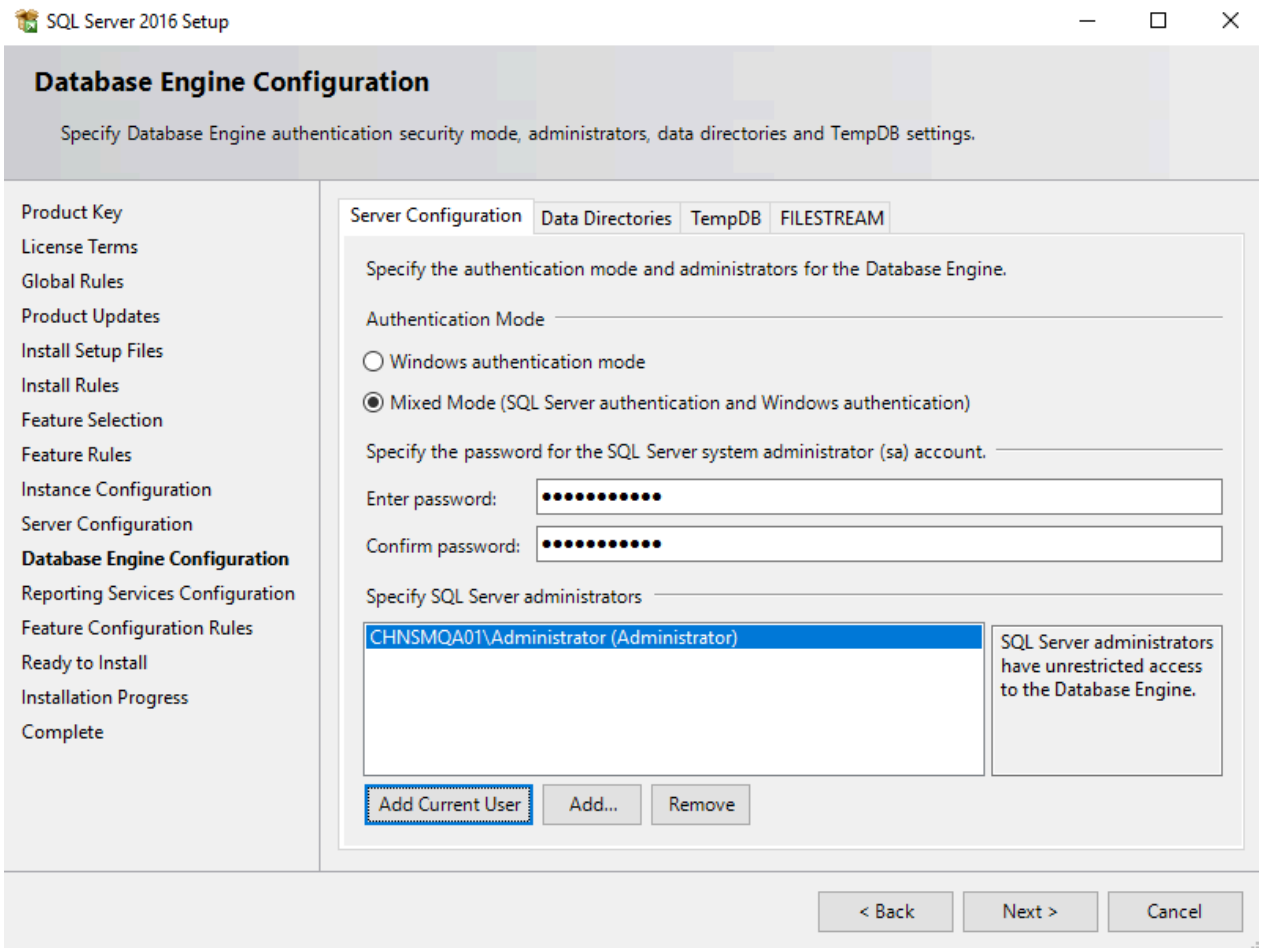
8. In the **Server Configuration > Service Accounts** tab, perform the following for the **SQL Server Agent**, **SQL Server Database Engine**, and **SQL Server Reporting Services** and click **Next**:
   - Enter the service **Account Name** and **Password**.
   - Under **Startup Type**, select **Automatic**.

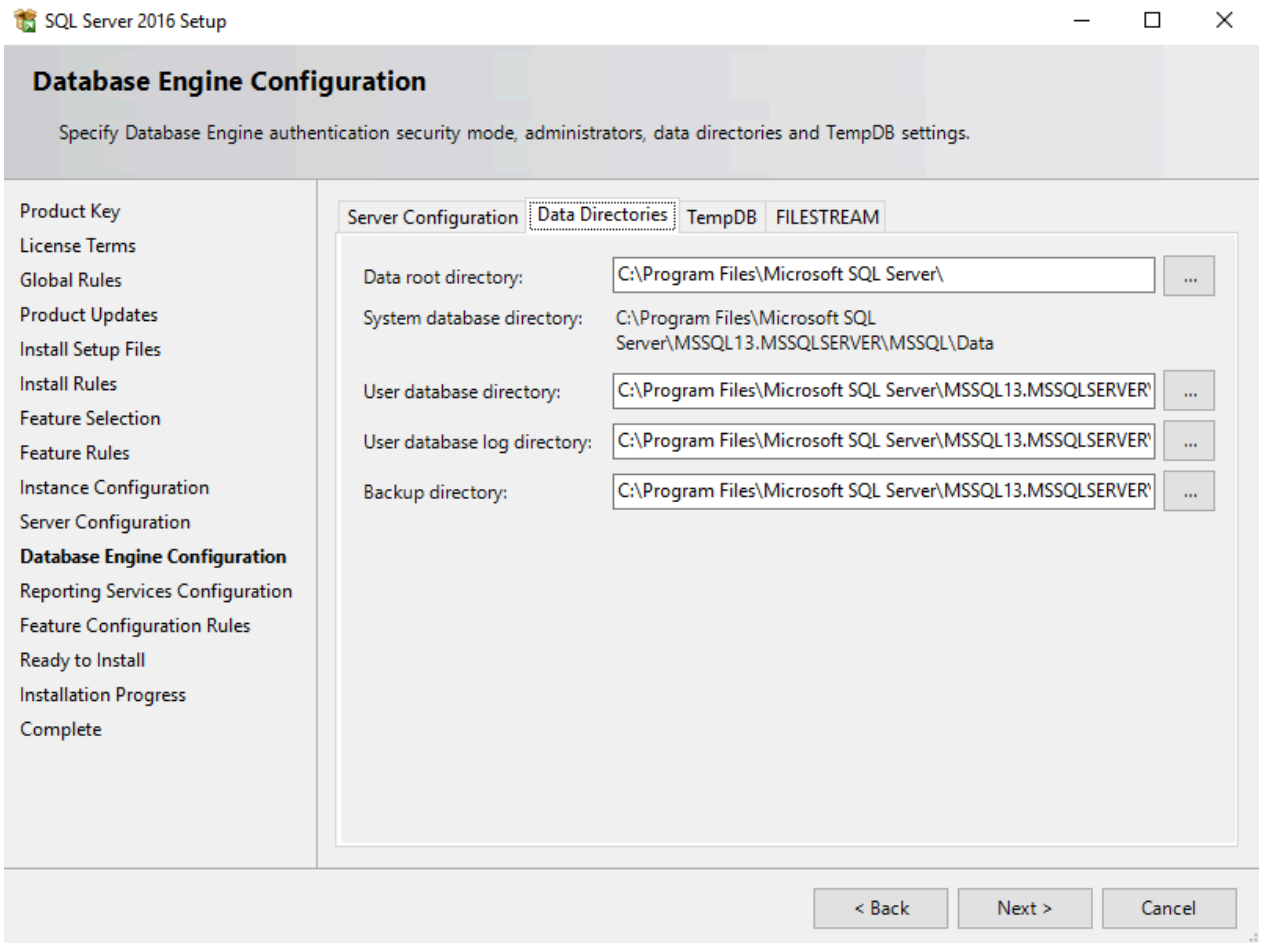


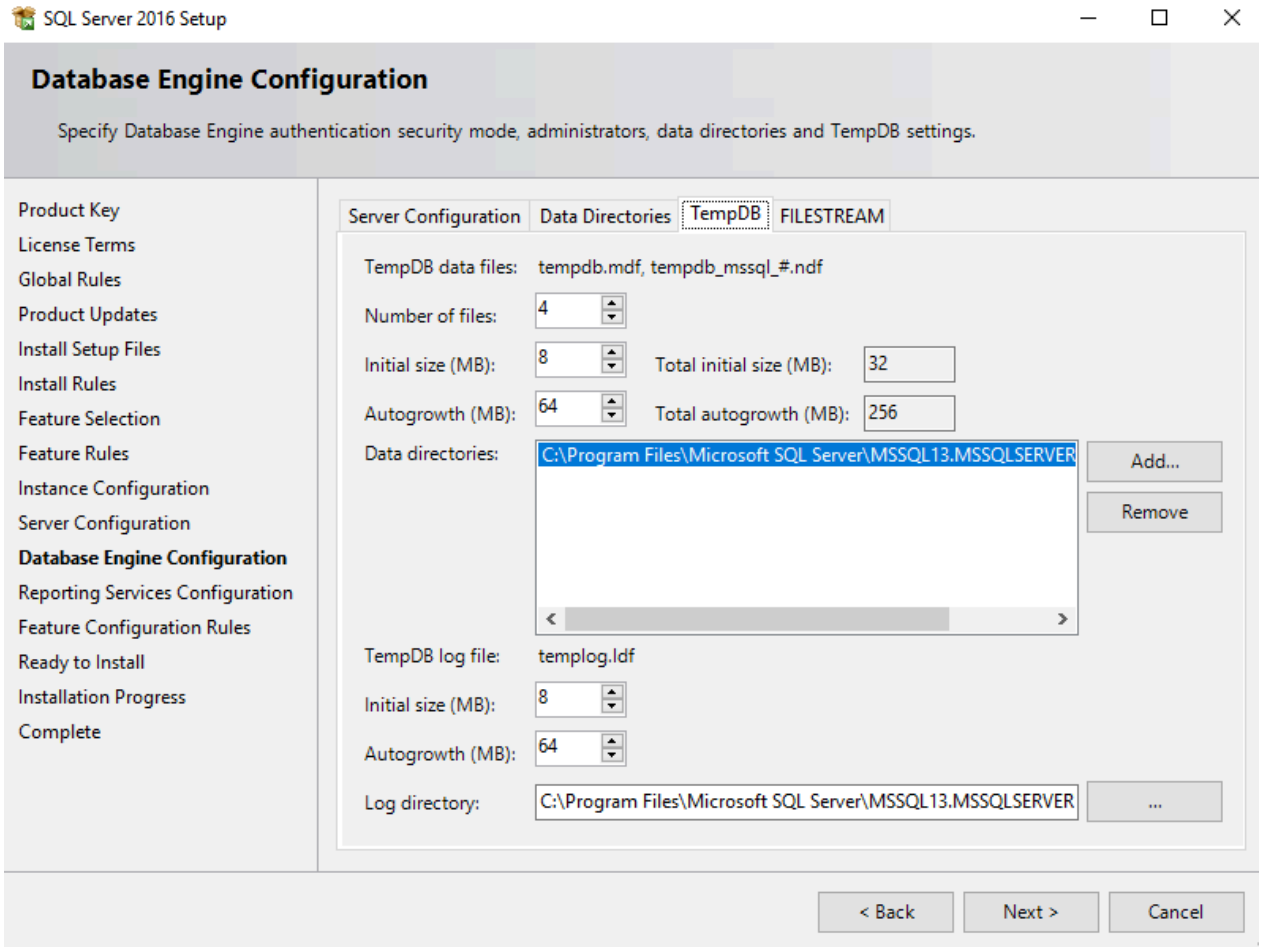
9. In **Server Configuration > Collation** tab, under **Database Engine**, select `SQL_Latin1_General_CP1_CI_AS` (the default value) and click **Next**.



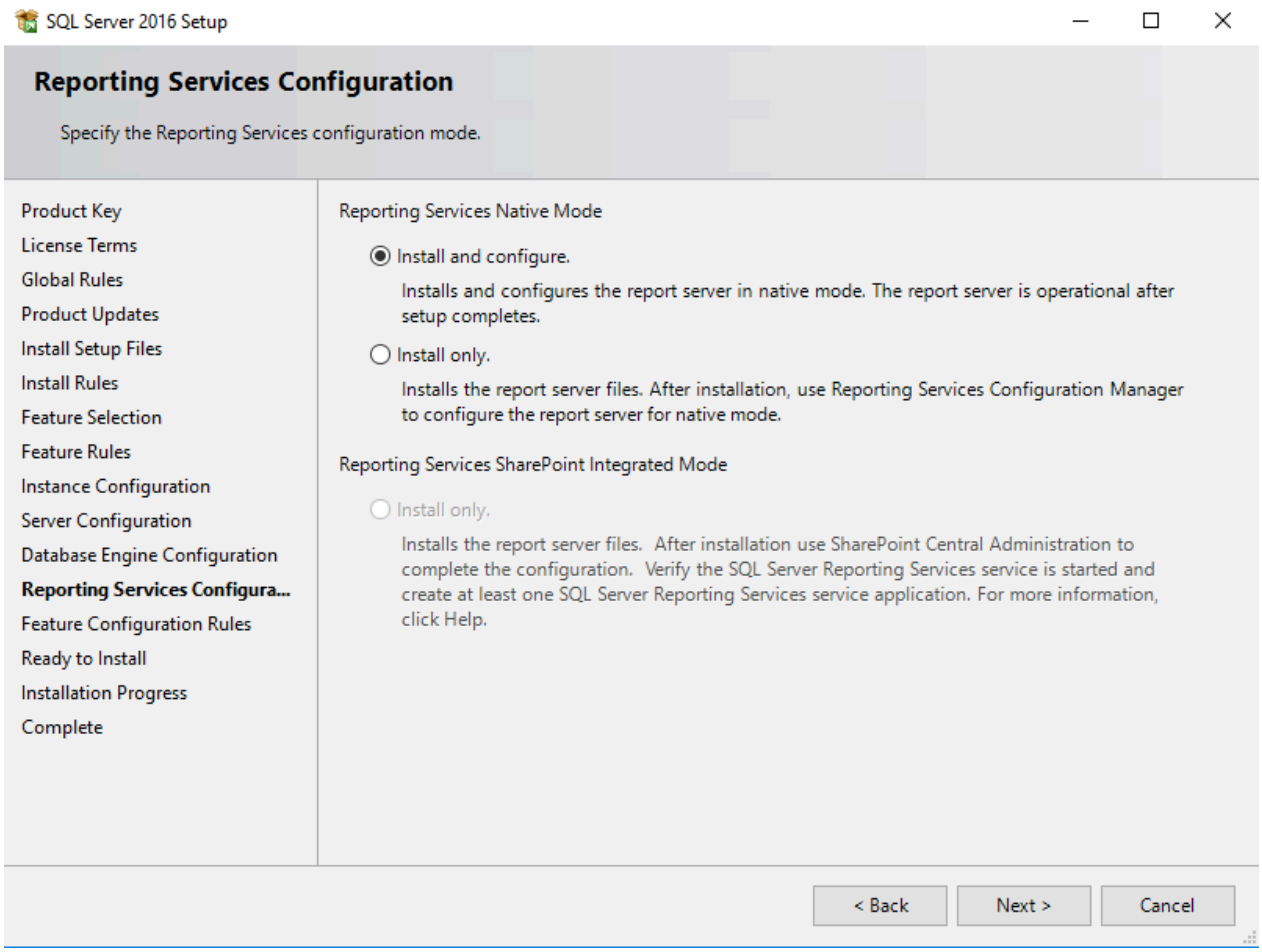
10. In the **Database Engine Configuration** screen, in the server configuration add the Authentication mode. In the **Data Directories** tab, select the locations for the database folders. If possible, put the User database directory, the Temp DB directory, and the Backup directory on a separate drive from the other folders. Click **Next**.


SQL Server 2016 Setup
Database Engine Configuration
Specify Database Engine authentication security mode, administrators, data directories and TempDB settings.
Product Key
License Terms
Global Rules
Product Updates
Install Setup Files
Install Rules
Feature Selection
Feature Rules
Instance Configuration
Server Configuration
Database Engine Configuration
Reporting Services Configuration
Feature Configuration Rules
Ready to Install
Installation Progress
Complete
Server Configuration
Data Directories
TempDB
FILESTREAM
Specify the authentication mode and administrators for the Database Engine.
Authentication Mode
Windows authentication mode
Mixed Mode (SQL Server authentication and Windows authentication)
Specify the password for the SQL Server system administrator (sa) account.
Enter password:
Confirm password:
Specify SQL Server administrators
CHNSMQA01\Administrator (Administrator)
SQL Server administrators have unrestricted access to the Database Engine.
Add Current User
Add...
Remove
< Back
Next >
Cancel


SQL Server 2016 Setup
Database Engine Configuration
Specify Database Engine authentication security mode, administrators, data directories and TempDB settings.
Product Key
License Terms
Global Rules
Product Updates
Install Setup Files
Install Rules
Feature Selection
Feature Rules
Instance Configuration
Server Configuration
Database Engine Configuration
Reporting Services Configuration
Feature Configuration Rules
Ready to Install
Installation Progress
Complete
Server Configuration
Data Directories
TempDB
FILESTREAM
Data root directory:
C:\Program Files\Microsoft SQL Server\
System database directory:
C:\Program Files\Microsoft SQL Server\MSSQL13.MSSQLSERVER\MSSQL\Data
User database directory:
C:\Program Files\Microsoft SQL Server\MSSQL13.MSSQLSERVER\
User database log directory:
C:\Program Files\Microsoft SQL Server\MSSQL13.MSSQLSERVER\
Backup directory:
C:\Program Files\Microsoft SQL Server\MSSQL13.MSSQLSERVER\
< Back
Next >
Cancel



11. In the **Reporting Services Configuration** screen, select **Install the native mode default configuration** and click **Next**.



12. When you finish installing SQL Server, restart the machine on which you installed it.

Installing SQL Server 2019

Installing SQL Server 2019

To install SQL Server 2019, refer to SQL Server installation guide.

Configuring the SQL Server Setting

Configuring the SQL Server Setting

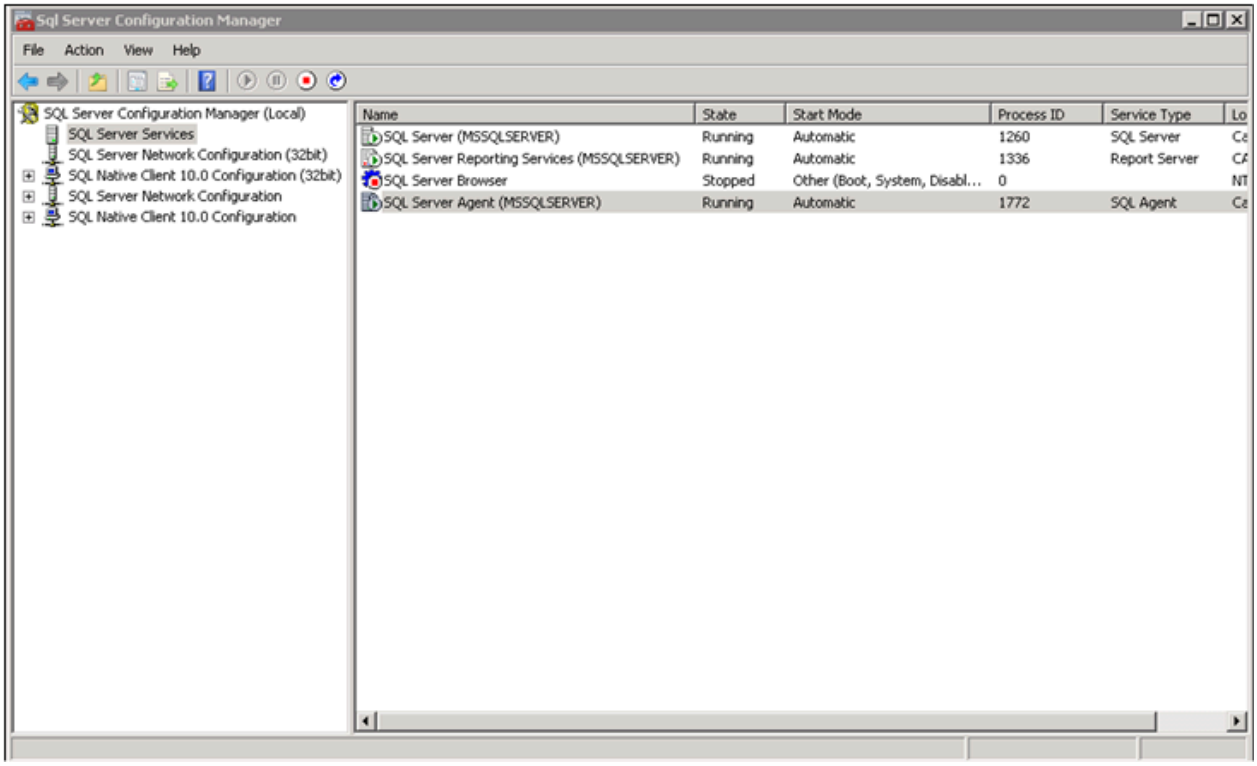
After the SQL server is installed, do the following:

- Ensure that the SQL server is running
- Configure the SQL server to start automatically
- Enable both the TCP/IP and the Named Pipes protocols

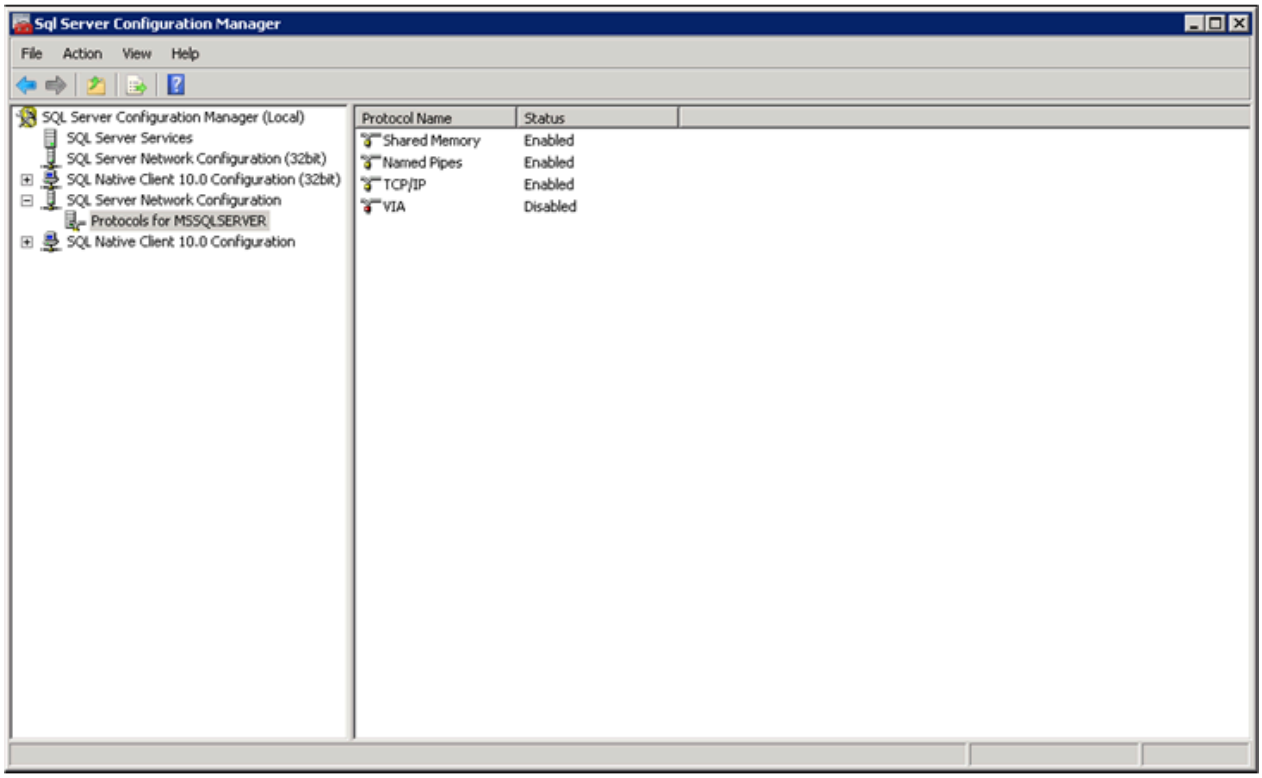
> **Important**
>
> After you install SpeechMiner, you also have to deploy the CLR assembly and set its permissions. See Installing the SpeechMiner Components > Installing the SpeechMiner Database > SQL CLR.

To configure the SQL server and enable the required protocols:

1. From the **Start** menu, navigate to **Microsoft SQL Server 2008 (or later) > Configuration Tools > SQL Server Configuration Manager**. The **SQL Server Configuration Manager** opens.
2. On the left side of the window, select **SQL Server Services**.



3. On the right side of the window, for **SQL Server Agent**, check that the **Status** is **Running**, and the **Start Mode** is **Automatic**.
4. If one or both of these values are not as they should be, do the following:
   - Double-click the row. The **Properties** window opens.
   - In the **Service** tab, set the **Start Mode** to **Automatic**.
   - If the service is not running, in the **Log On** tab, select **Start**.
   - Click **OK** to implement the changes.
5. On the left side of the **SQL Server Configuration Manager** window, select **SQL Server Network Configuration > Protocols for MSSQLSERVER**.



6. On the right side of the window, for **TCP/IP** and for **Named Pipes**, check that the **Status** is **Enabled**.
7. For each of these protocols, if it is not enabled, do the following:
   - Double-click the row. The **Properties** window opens.
   - In the **Protocol** tab, under **Enabled**, select **Yes**.
   - Click **OK** to implement the changes.

Configuring the Reporting Services

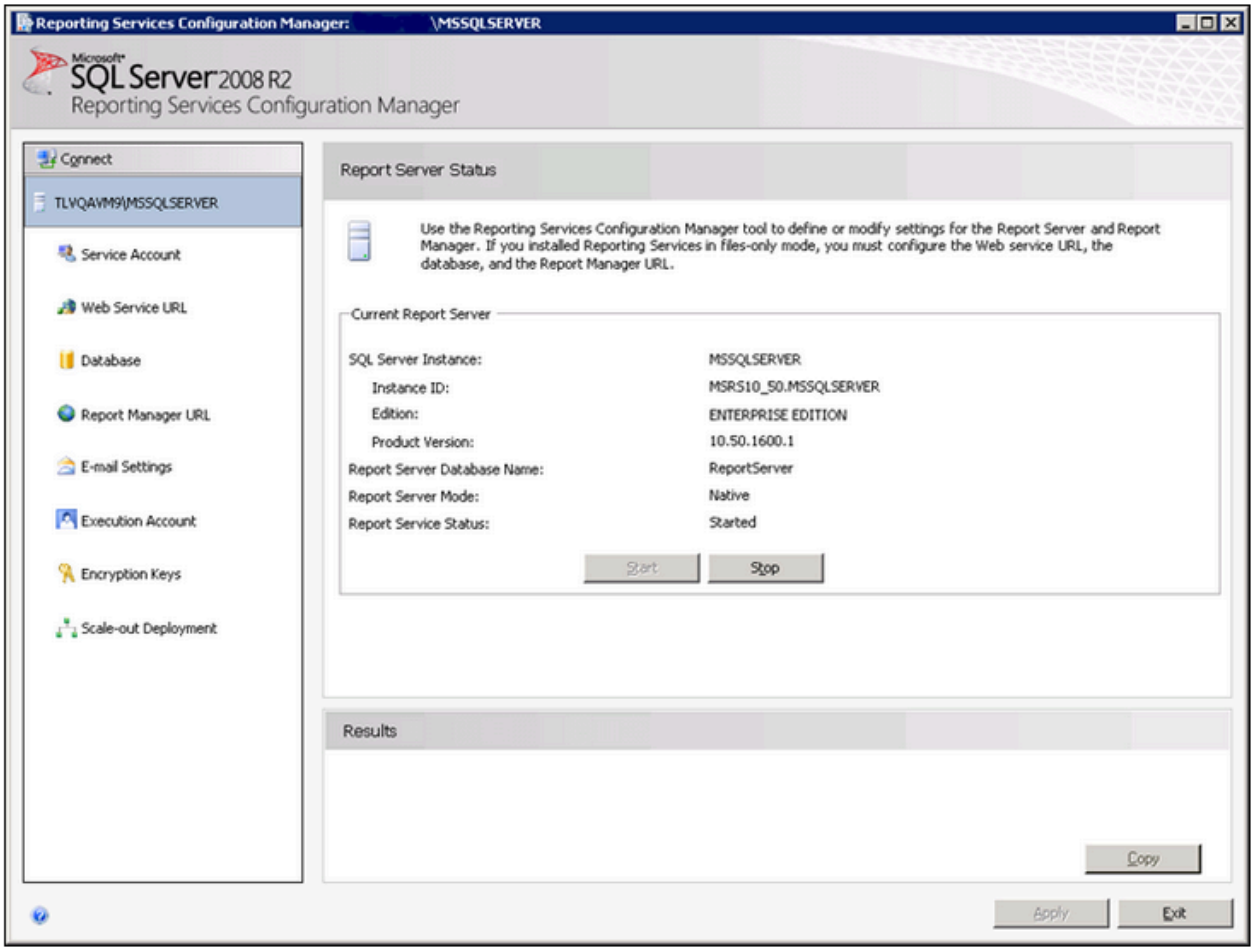
Configuring the Reporting Services (Pre SQL Server 2019)

The SQL reporting services should be configured as explained below.

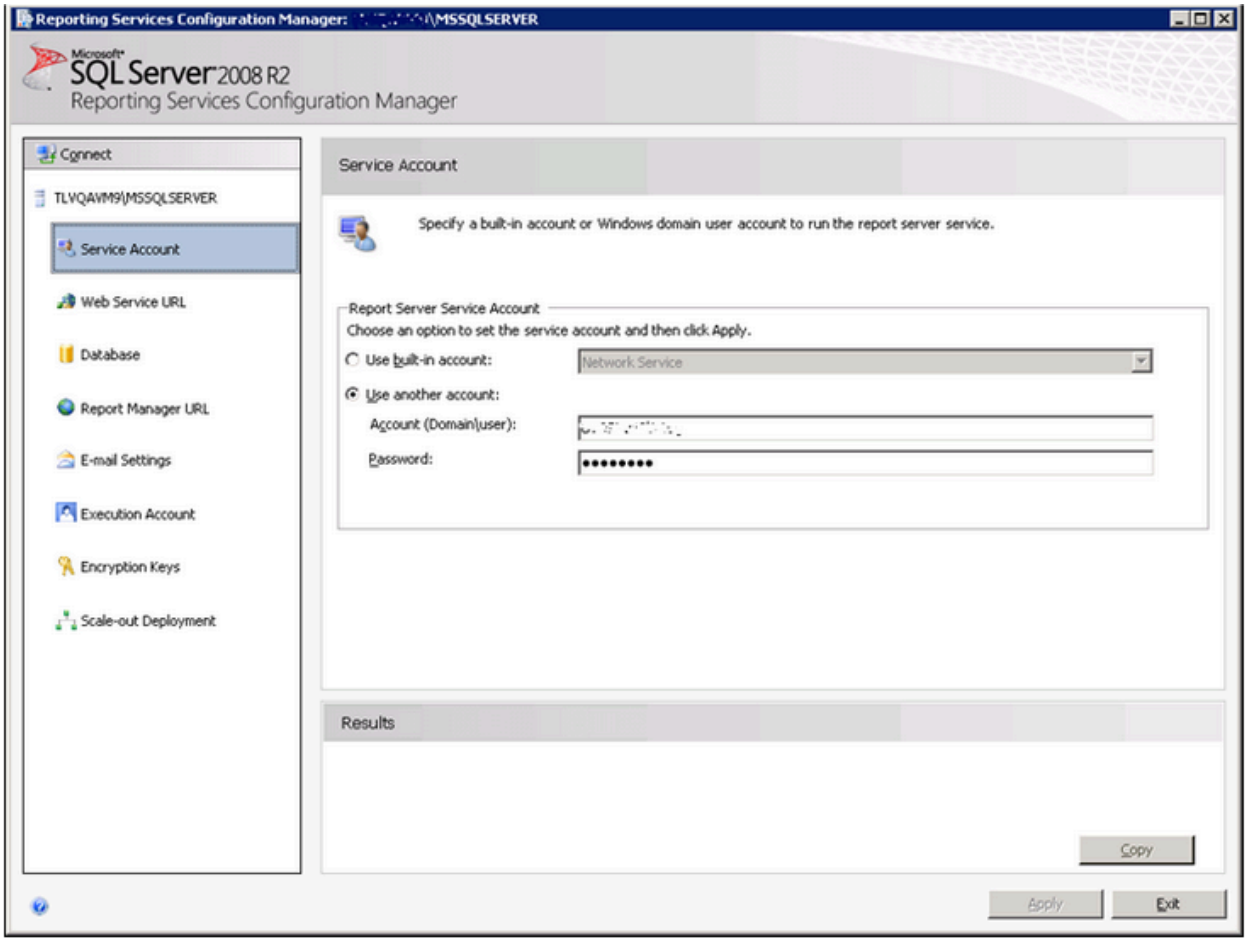
> **Tip**
>
> The default configuration for mhtml rendering is html3.2. This configuration does not support padding. In order to render web archive open the Report Server config file (for example C:\Program Files\Microsoft SQL Server\MSRS10_50.MSSQLSERVER\Reporting Services\ReportServer\rsreportserver.config) and change RenderingExtension (under EmbeddedRenderFormats) to HTML4.0. Once you are done, restart the report server.

To configure the SQL reporting services:

1. In the **Start** menu, under **All Programs**, select **SQL Server 2008 R2 > Configuration Tools > Reporting Services Configuration Manager**. The **Reporting Services Configuration Connections** window opens.
2. Enter the report server name and the instance name (if they are not already there), and click **Connect**. The **Reporting Services Configuration Manager** opens, with the **Report Server Status** screen displayed.



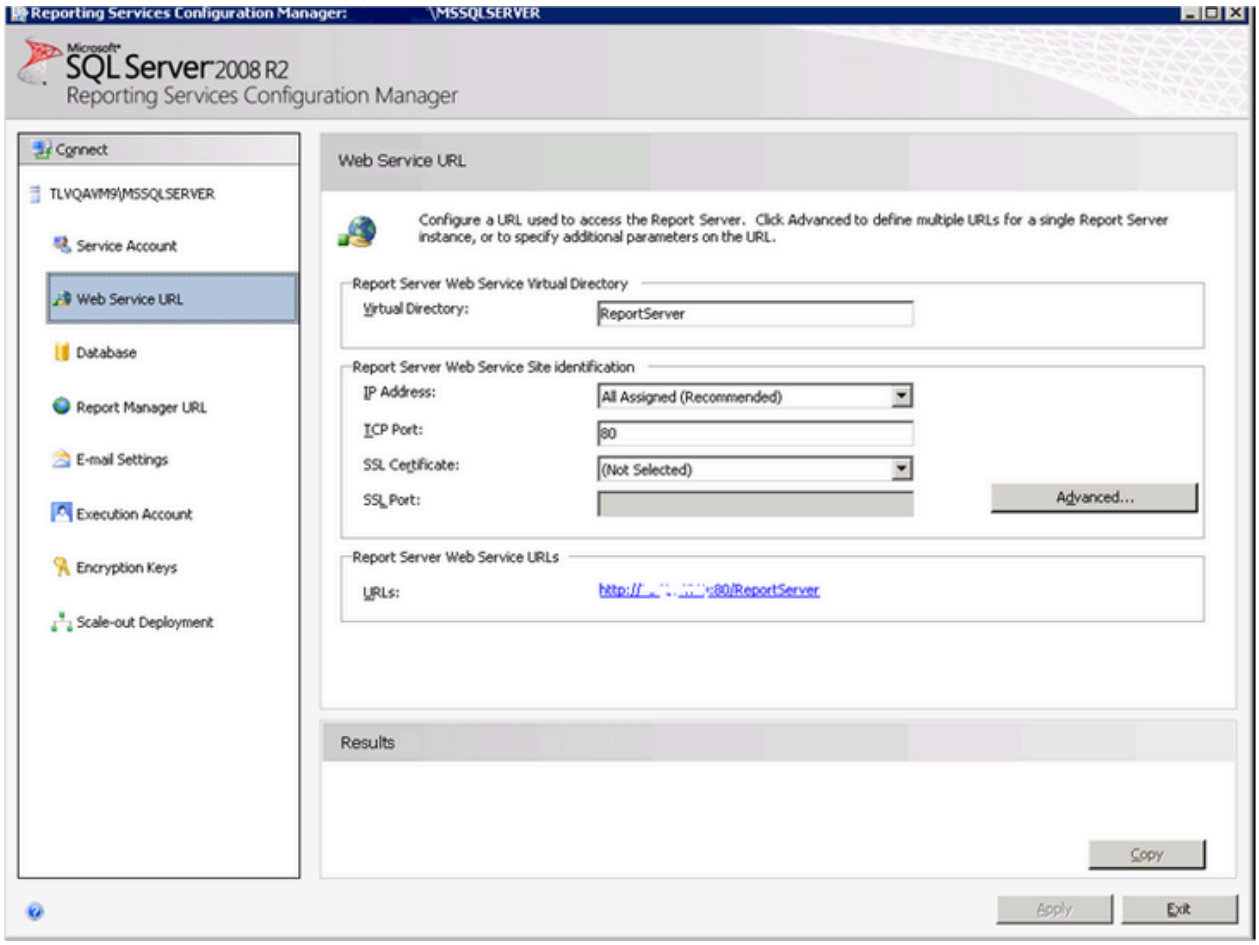
3. Check whether the report server is running. If it is not, click **Start**.
4. On the left side of the window, select **Service Account**.



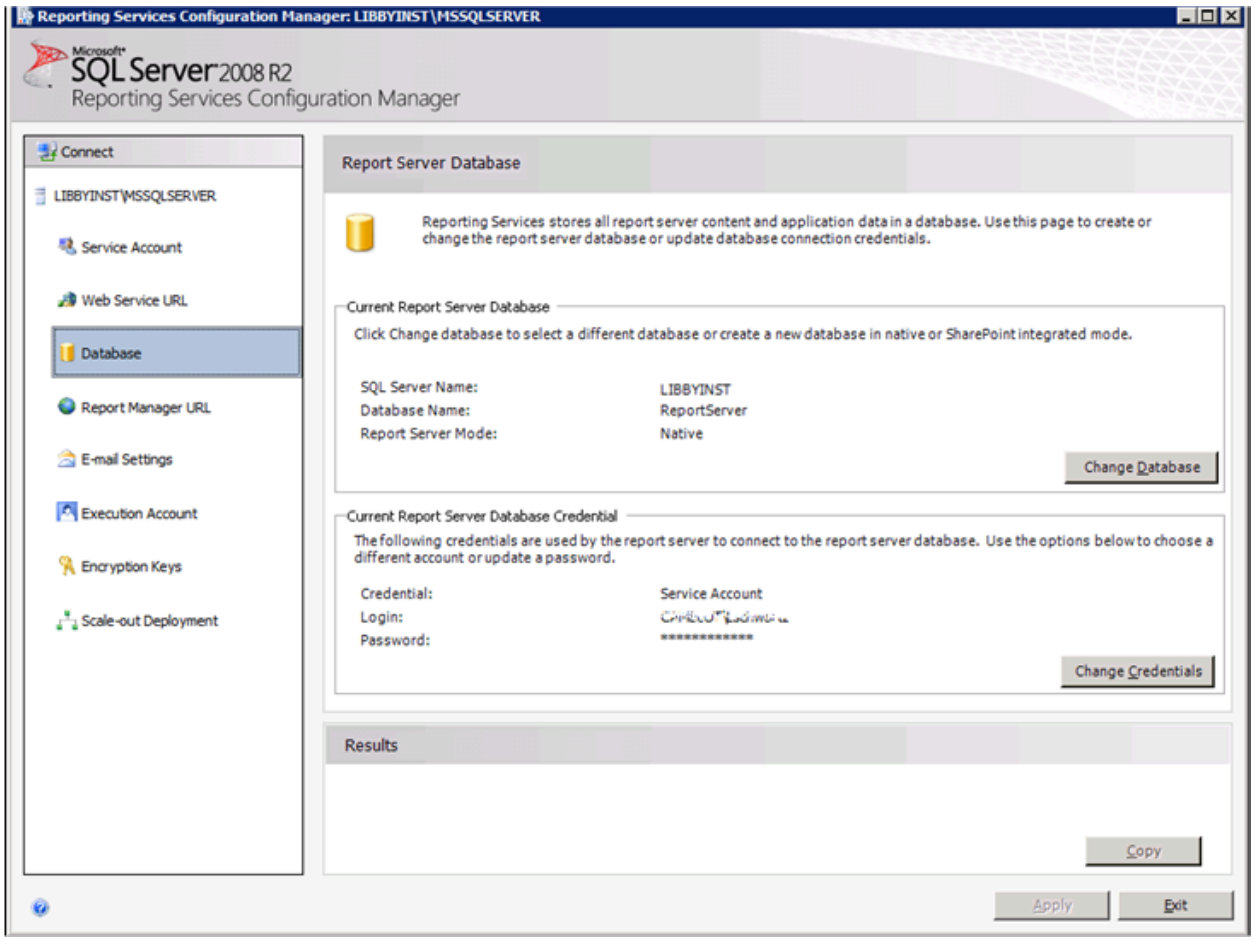
5. Configure the account name and password of the service account that will be used to run the report-server service, as required. Use either a local administrator account or an account that can log in as a service and run services on the local machine.

   The user must be a **Domain user**.

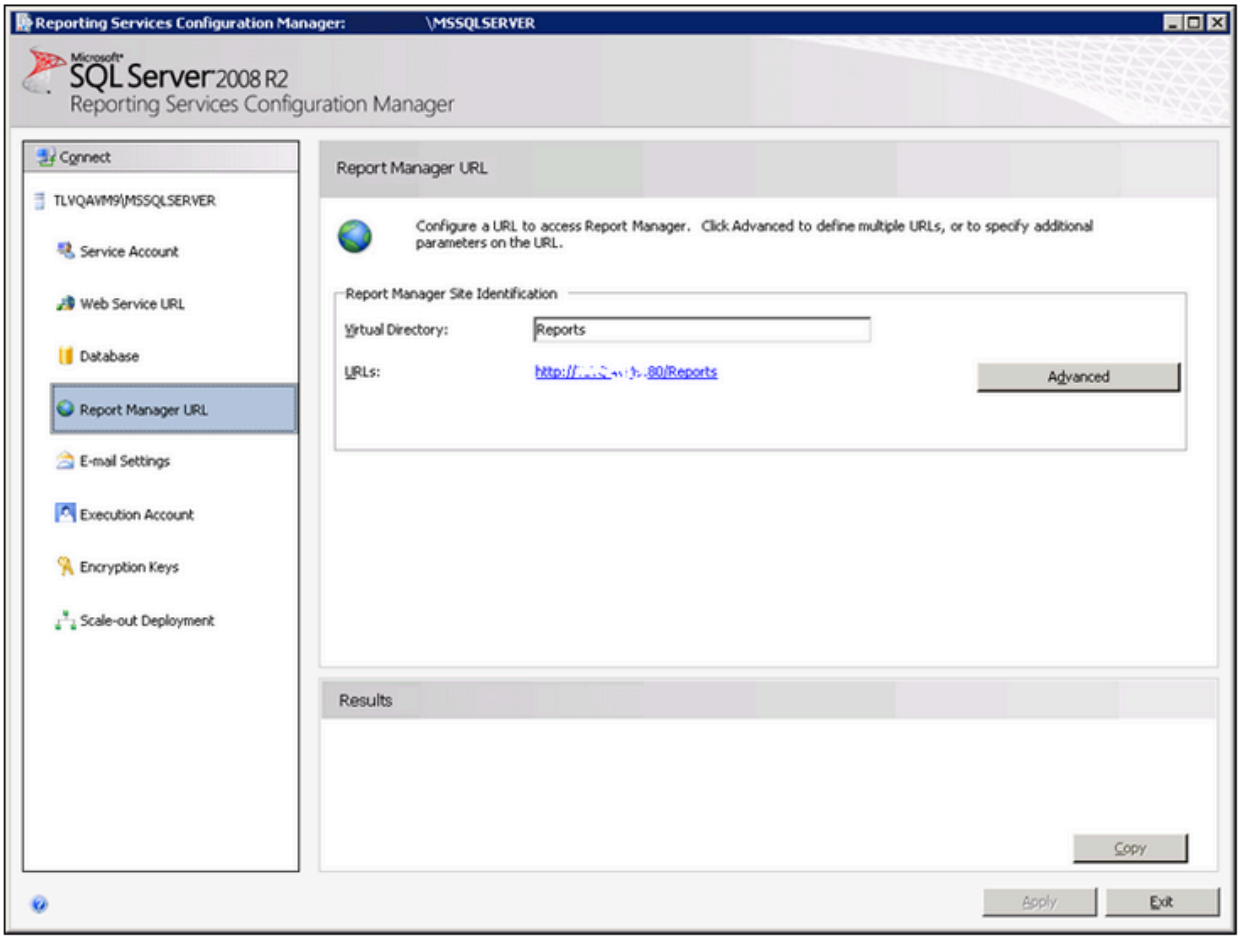
6. On the left side of the window, select **Web Service URL**; make sure the settings in the screen match the settings as follows:



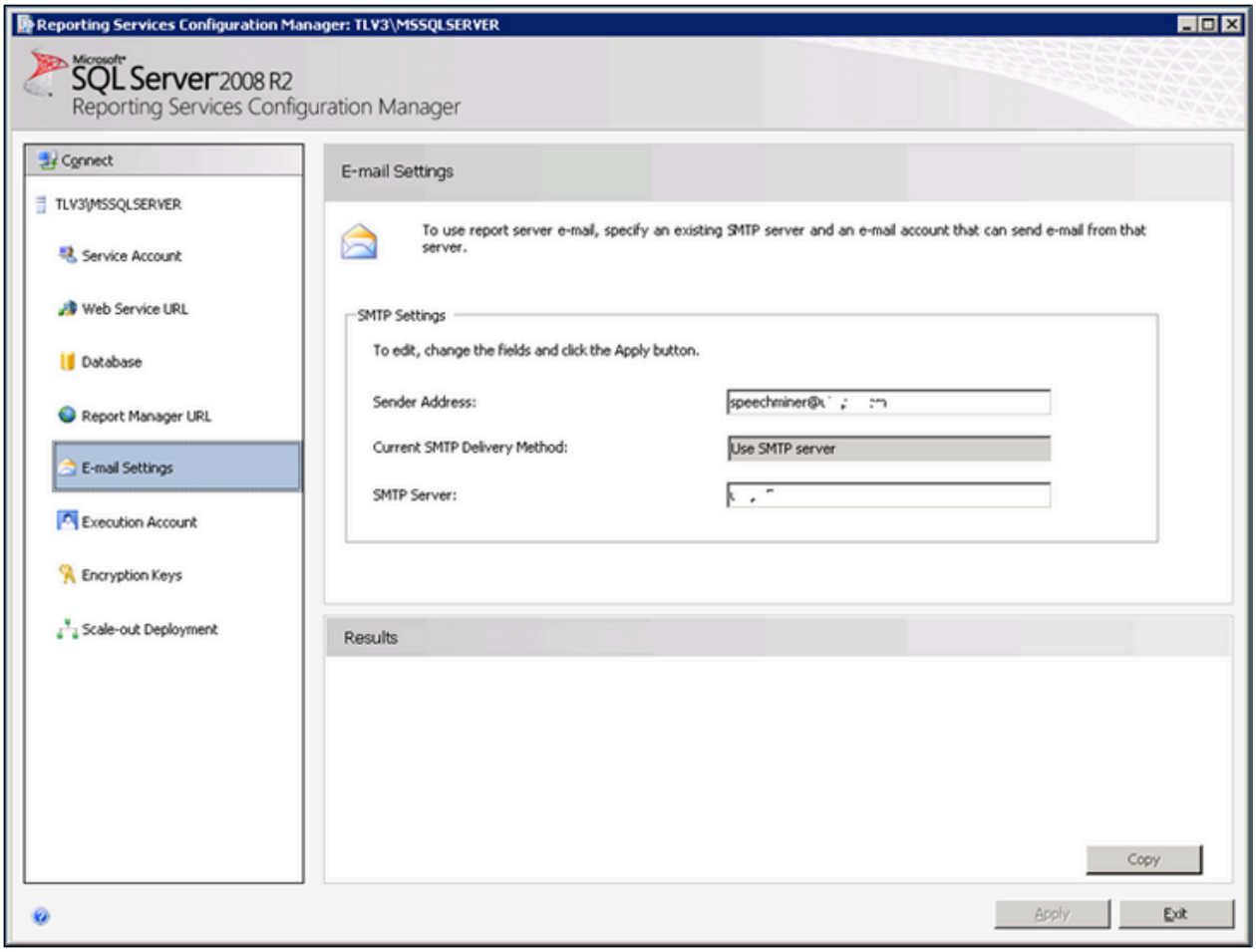
7. On the left side of the window, select **Database**. If you created a report-server database when you installed SQL Server, it appears under **Current Report Server Database**. If you did not, create it now.



8. On the left side of the window, select **Report Manager URL**; make sure the settings in the screen match the settings as follows:



9. On the left side of the window, select **E-mail Settings**.
10. Enter the settings for the e-mail account you want the report server to use to send reports to SpeechMiner users.



11. Click **Exit** to close the **Reporting Services Configuration Manager**.
12. In the **Report Server config** file (rsreportserver.config) change the **MaxActiveReqForOneUser** parameter value from 20 to 250.

    For more details see: http://msdn.microsoft.com/en-us/library/ms157273.aspx

Configuring the Reporting Services (SQL Server 2019)

The SQL reporting services should be configured as explained below.

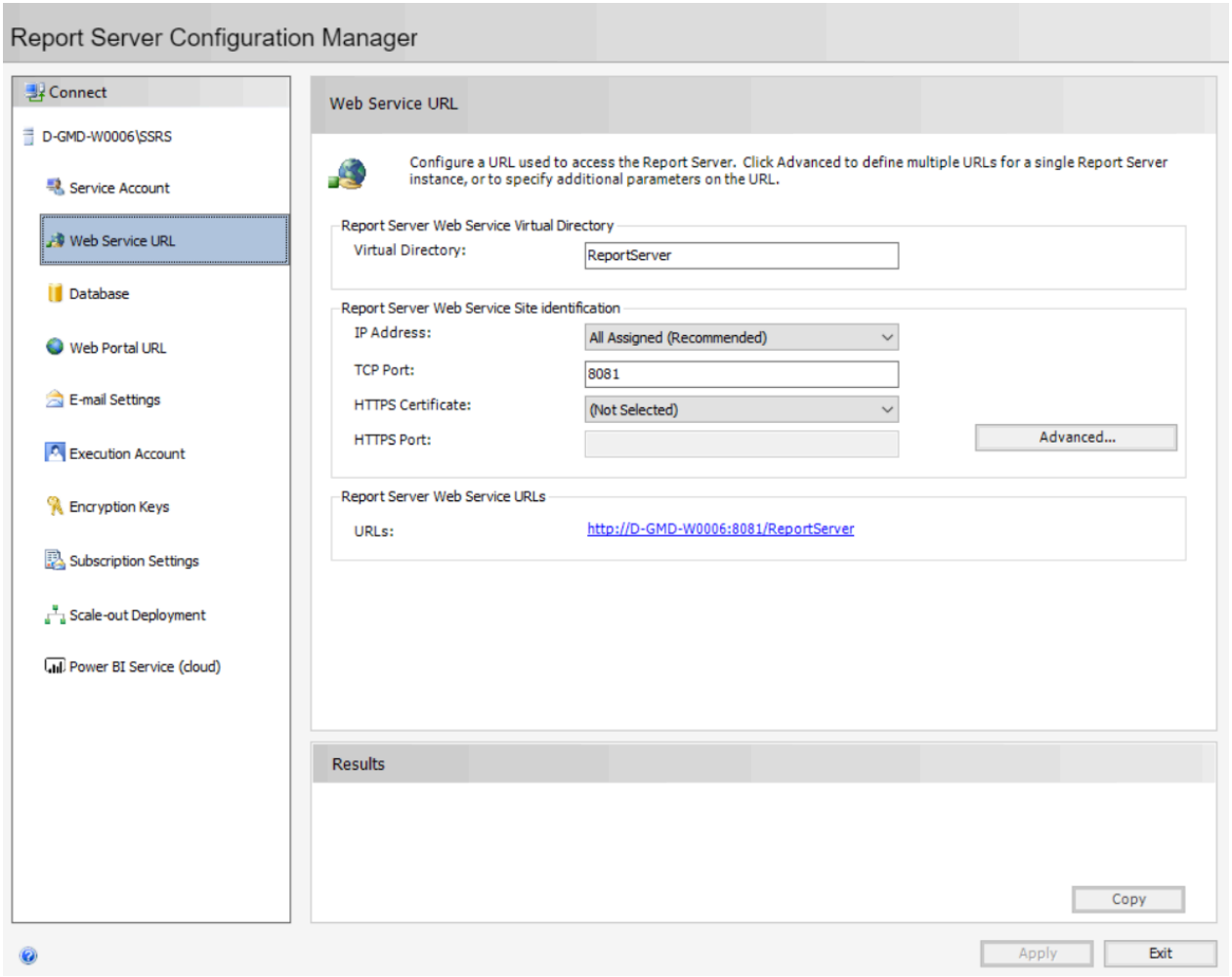
> Tip

> The default configuration for mhtml rendering is html3.2. This configuration does not support padding. In order to render web archive open the Report Server config file (for example C:\Program Files\Microsoft SQL Server\MSRS10_50.MSSQLSERVER\Reporting Services\ReportServer\rsreportserver.config) and change RenderingExtension (under EmbeddedRenderFormats) to HTML4.0. Once you are done, restart the report server.

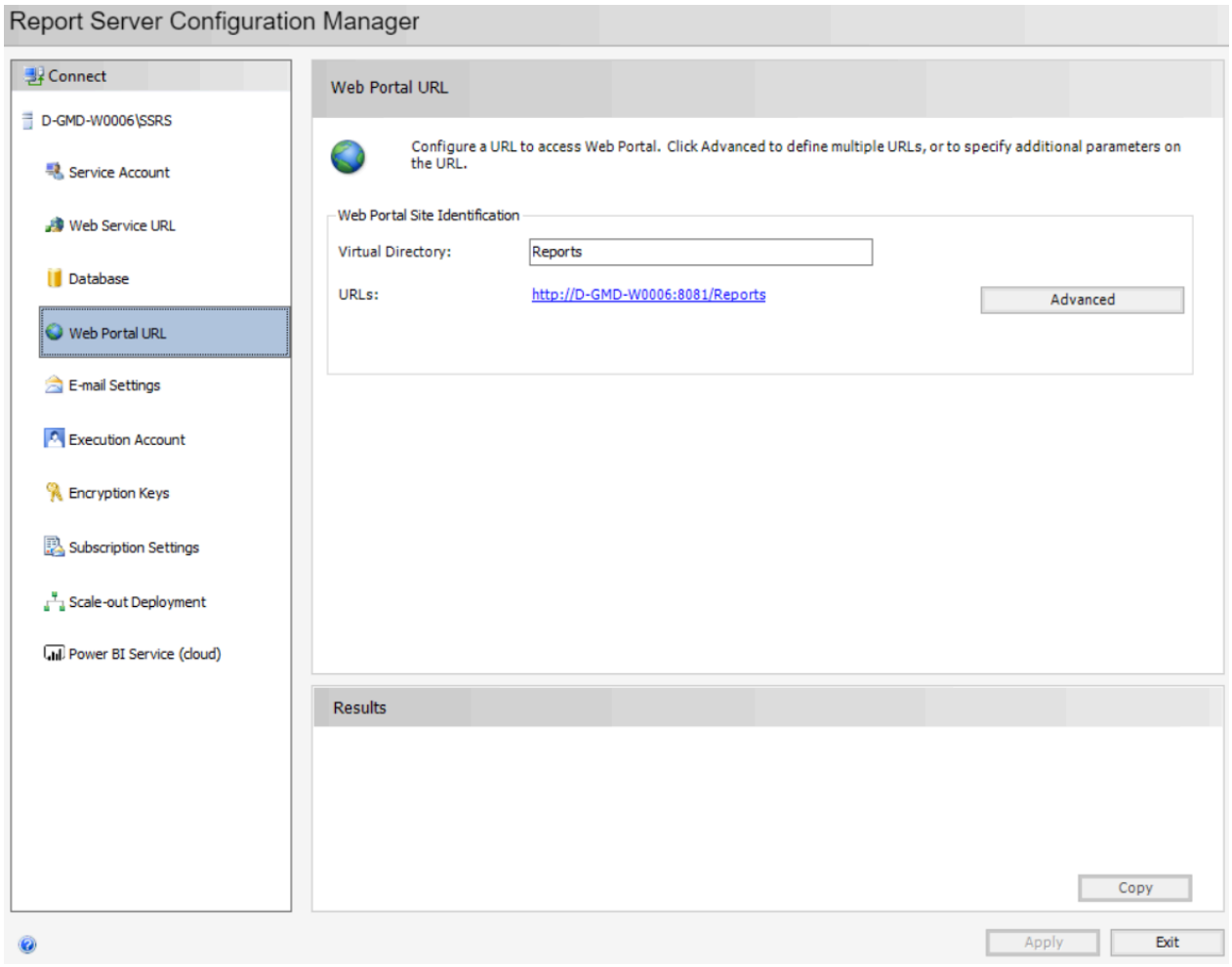
To configure the SQL reporting services:

1. In the **Start** menu, under **All Programs**, select **SQL Server 2019 > Configuration Tools > Reporting Services Configuration Manager**. The **Reporting Services Configuration Connections** window opens.
2. Enter the report server name and the instance name (if they are not already there), and click **Connect**. The **Reporting Services Configuration Manager** opens, with the **Report Server Status** screen displayed.
3. Check whether the report server is running. If it is not, click **Start**.
4. On the left side of the window, select **Service Account**.
5. Configure the account name and password of the service account that will be used to run the report-server service, as required. Use either a local administrator account or an account that can log in as a service and run services on the local machine.

   The user must be a **Domain user**.
6. On the left side of the window, select **Web Service URL**; make sure the settings in the screen match the settings as follows:



7. On the left side of the window, select **Database**. If you created a report-server database when you installed SQL Server, it appears under **Current Report Server Database**. If you did not, create it now.
8. On the left side of the window, select **Web Portal URL**; make sure the settings in the screen match the settings as follows:



9. On the left side of the window, select **E-mail Settings**.
10. Enter the settings for the e-mail account you want the report server to use to send reports to SpeechMiner users.
11. Click **Exit** to close the **Reporting Services Configuration Manager**.
12. In the **Report Server config** file (rsreportserver.config) change the **MaxActiveReqForOneUser** parameter value from 20 to 250.

    For more details see: http://msdn.microsoft.com/en-us/library/ms157273.aspx

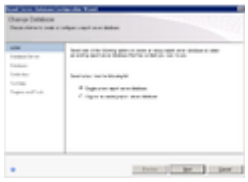
Creating the Report-Server Database

Creating the Report-Server Database

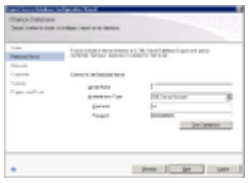
If the report-server database was not created automatically when you installed SQL Server, you can create it in the **Report Server Database Configuration Wizard**.

To create the report-server database:

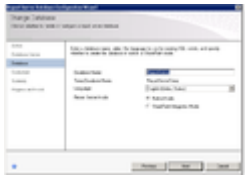
1. Open the **Reporting Services Configuration Manager**.
2. From the **Database** screen, under **Current Report Server Database**, click **Change Database**. The **Report Server Database Configuration Wizard** opens.
3. In the wizard, fill in the fields as they are filled in in the examples shown (except, of course, for the server name and the credentials, which you must specify as appropriate for your system). Click **Next** to progress from screen to screen until you have finished creating the database.

- 

  Action

- 

  Database Server

- 

  Database

- 

  Credentials

Click on the image to enlarge.

Configuring Report Server Load Value

Configuring Report Server Load Value

To ensure that the Report Server does not crash due to overload, verify that your Report Server is configured to enable a large amount of concurrent reports.

1. Open the report server configuration file. By default the configuration file can be found in `rsreportserver.config under \\SERVER_NAME\c$\Program Files\Microsoft SQL Server\MSRS12.MSSQLSERVER\Reporting Services\ReportServer`.
2. Change the value of **`MaxActiveReqForOneUser`** to the recommended value. The value of `MaxActiveReqForOneUser` depends on your deployment. Contact Customer Care for the value recommended for your deployment.

   > **Important**
   >
   > The report server has a limit of the number of simultaneous connections, when the limit is reached, the SSRS does not accept new requests and throws 503 errors.

3. Change the SME data source connection string:
   a. Go to the Report Server web interface. By default the location is `http://SERVER_NAME/reports`.
   b. Click on the database folder.
   c. Click **SME datasource**.
   d. Add the following string: `max pool size = 10000` to the end of the connection string field.
   e. Click **Apply**.

Setting the Maximum Memory Usage

Setting the Maximum Memory Usage

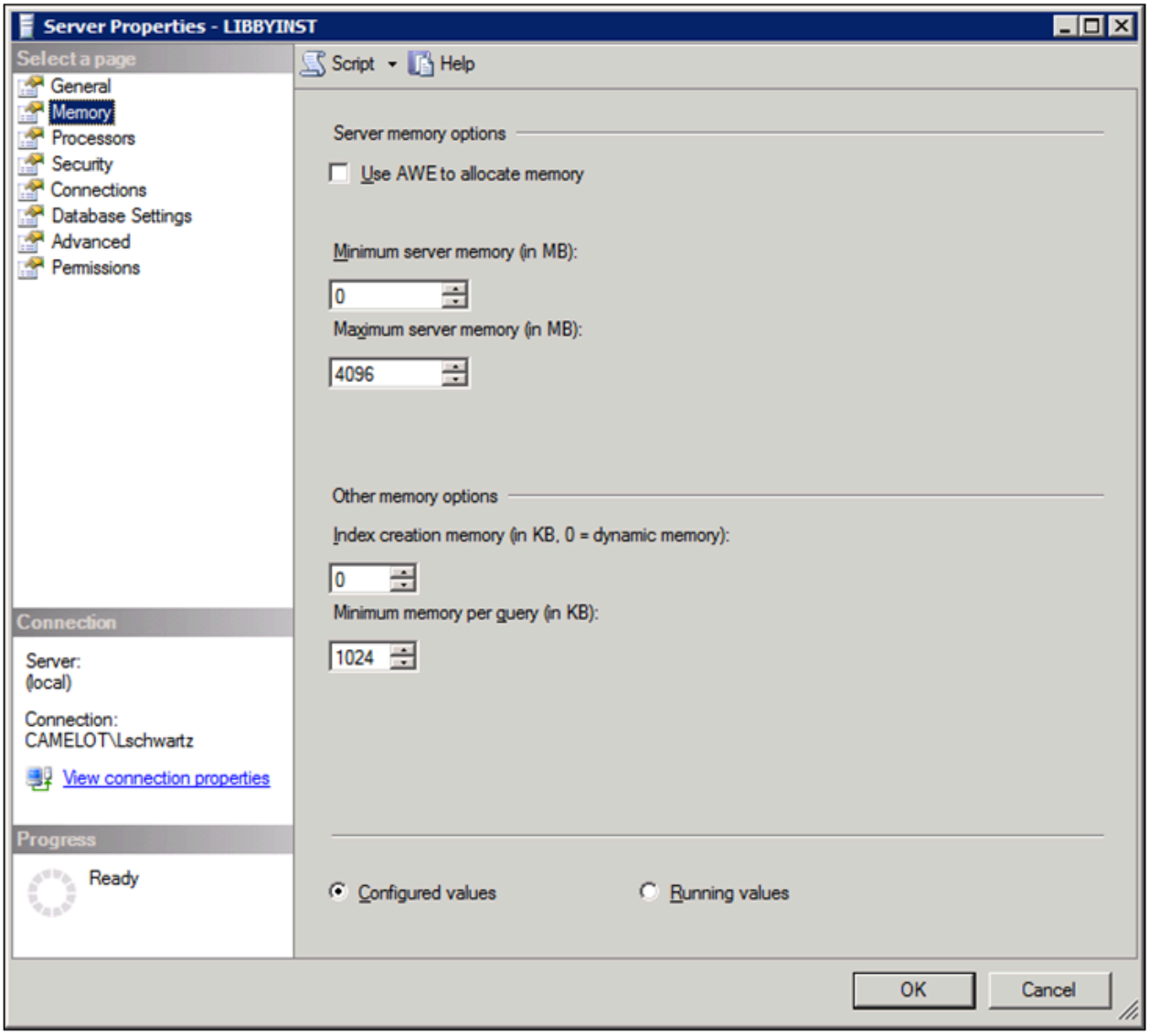
If the SQL-server's memory usage is not limited, it will consume all of the available memory. Therefore, it is recommended to limit the memory usage of the SQL Server by setting the max server memory value.

> **Important**
>
> In addition to the "server memory" that is limited by this value, the SQL server uses 2-4 GB of other memory. For this reason, it is recommended to set the max server memory to a value that is 2-4 GB lower than the maximum memory you want to allow the server to use. For additional details, see http://msdn.microsoft.com/en-us/library/ms178067.aspx.

You can see the current max server memory value, and modify it as required, in the **SQL Server Management Studio**.

To view or modify the max server memory value:

1. From the SQL server, open the **SQL Server Management Studio**. (For example, in the **Start** menu, under **All Programs**, select **Microsoft SQL Server 2008 R2 > SQL Server Management Studio**.)
2. On the left side of the window, right-click the SQL server and then select **Properties**. The **Server Properties** window opens.



3. On the left side of the window, select **Memory**. The memory settings are displayed.
4. Under **Maximum server memory (in MB)**, enter the value you want to use.
5. Click **OK**. The setting is implemented, and the window closes.

If you prefer, you can also set the max server memory property by executing a query:

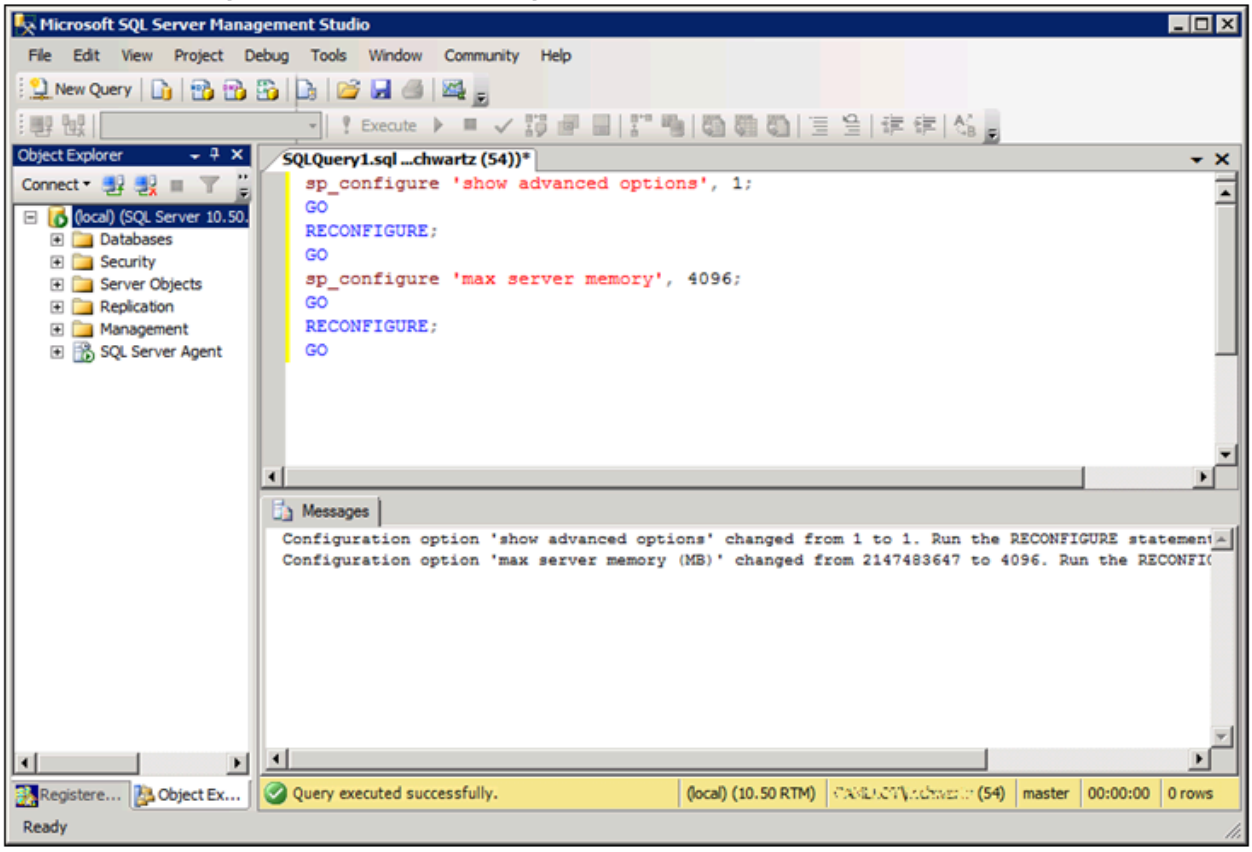
To set the max server memory by executing a query:

1. On the SQL server, open the **SQL Server Management Studio**. (For example, in the **Start** menu, under **All Programs**, select **Microsoft SQL Server 2008 R2 > SQL Server Management Studio**.)
2. On the left side of the window, right-click the SQL server and then select **New Query**. A blank text area opens on the right side of the window.

3. Copy the following commands and paste them into the text area:

```
sp_configure 'show advanced options', 1;
GO
RECONFIGURE;
GO
sp_configure 'max server memory', 4096;
GO
RECONFIGURE;
GO
```

4. The code sets the max server memory to 4GB (4096MB). If you want to set it to a different value, in the text area, change 4096 to the required value.
5. Above the text area, select **Execute**. The commands are executed. When the process is completed successfully, **Query executed successfully** appears at the bottom of the window.



Recommended SQL Server Configuration

Recommended SQL Server Configuration

1. On the SQL server, open the **SQL Server Management Studio**. (For example, in the **Start** menu, under **All Programs**, select **Microsoft SQL Server 2008 R2 > SQL Server Management Studio**.)
2. On the left side of the window, right-click the SQL server and then select **New Query**. A blank text area opens on the right side of the window.
3. Copy the following commands and paste them into the text area:

```
sp_configure 'show advanced options',1
reconfigure
exec sp_configure 'backup compression default',1
reconfigure
exec sp_configure 'cost threshold for parallelism',50
reconfigure
exec sp_configure 'remote admin connections',1
reconfigure
```