# SQL2008 Server Installation and Configuration for SpeechMiner

## SQL 2008 Enterprise Edition Installation:

🏀 SQL Server 2008 R2 Setup	
Feature Selection Select the Enterprise features to insta	L.
Setup Support Rules Setup Role Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Reporting Services Configuration Error Reporting Installation Configuration Rules Ready to Install Installation Progress Complete	Eeatures:     Description:       Instance Features     Includes Books Online documentation for SQL Server 2008 R2 and SQL Server 2008 R2 Mobile.       Analysis Services     Reporting Services       Shared Features     Business Intelligence Development Studio       Client Tools Connectivity     Integration Services       Client Tools SoDK     SQL Server Books Online       Management Tools - Complete     SQL Client Connectivity SDK       Management Tools - Complete     SQL Client Connectivity SDK       Microsoft Sync Framework     Microsoft Sync Framework
	Select All       Unselect All         Shared feature directory:       C:\Program Files\Microsoft SQL Server\         Shared feature directory (x86):       C:\Program Files (x86)\Microsoft SQL Server\
	< <u>B</u> ack <u>N</u> ext > Cancel Help

Specify the service accounts and co	ullation configuration.			
Setup Support Rules Setup Role Feature Selection	Service Accounts Collation	a separate account for each SQL	. Server service.	
Installation Rules	Service	Account Name	Password	Startup Type
instance Configuration	SQL Server Agent		•••••	Automatic 💌
Disk Space Requirements	SQL Server Database Engine	\sqlserviceaccount	•••••	Automatic 💌
Server Configuration	SQL Server Reporting Services	sqlserviceaccount	•••••	Automatic 💌
Database Engine Configuration	SQL Server Browser	NT AUTHORITY\LOCAL S		Disabled
Installation Progress Complete				

Service Accounts Collation	
Database Engine:	
SQL_Latin 1_General_CP 1_CI_AS	Customize
Latin1-General, case-insensitive, accent-sensitive, kanatype-insensitive, width-insensitive for Unicode Data, SQL Server Sort Order 52 on Code Page 1252 for non-Unicode Data	
₿	

Specify Database Engine authentica	tion security mode, administrators ar	nd data directories.	
Setup Support Rules Setup Role	Account Provisioning Data Dire	ectories FILESTREAM	
Feature Selection	Data root directory:	C:\Program Files\Microsoft SQL Server\	
Installation Rules Instance Configuration	System database directory:	, C:\Program Files\Microsoft SQL Server\MSSQL10_50.MSSQLSERVER\MSSQL\Data	
Disk Space Requirements	User database directory:	D:\MSSQLData	
Server Configuration Database Engine Configuration	User database log directory:	C:\MSSQLLOG	
Reporting Services Configuration	Temp DB directory:	D:\MSSQLData	
Error Reporting Installation Configuration Rules	Temp DB log directory:	C:/MSSQLLOG	
Ready to Install	Backup directory:	D:\MSSQL}ackup	
Installation Progress			

Don't forget to restart the machine after the SQL installation is completed.

## **Configuration: SQL Server**

- 1. Go to Start menu, go to Microsoft SQL Server 2008 -> Configuration Tools -> SQL Server Configuration Manager.
- a. if you haven't done it during installation make sure SQL Agent is running and set to Automatic
- b. Make sure both TCP/IP and Named Pipes are enabled.

Ele deton type topo	👼 Sql Server Configuration Manager				
Configuration Manager (Loca)     So Server Configuration Manager (Loca)     So Server Network Configuration (State)     So Server Network Configuration (State)     So Server Network Configuration     Protocols for MSSOCRER     So Server Network Configuration     Protocols     Alases	Elle Action Yew Help				
Image: Solution Manager (Local)       Protocol Name       Solution         Image: Solution Solution       Image: Solution       Image: Solution         Image: Solution Solution       Image: Solution       Image: Solution         Image: Solution Solution       Image: Solution       Image: Solution         Image: Solution       Image: Solution       Image: Solutio	🗢 🔿 🔁 🕞 🗳				
	SQL Server Configuration Manager (Local)     SQL Server Network Configuration (32bR)     SQL Native Clerk 10.0 Configuration (32bR)     SQL Native Clerk 10.0 Configuration     SQL Server Network Serverer Network Server Network     SQL Server Network Server Network	Protocol Name There demony There demony Trop IP Trop IP Trop IP Trop IP Trop IP	Status Enabled Enabled Enabled Disabled		

2. Deploy CLR assembly. On new db servers you need to run the following sql commands under the Master in oder to set the dll's permissions (make sure the user running SQL services has change permissions on sqlclr.XmlSerializers.dll):

use [master]
CREATE ASYMMETRIC KEY SQLCLRTestKey FROM EXECUTABLE FILE =
'\\Machine_Name\c\$\utopy\Software\Support\sqlclr.XmlSerializers.dll'
GO
use [master]
CREATE LOGIN SQLCLRTestLogin FROM ASYMMETRIC KEY SQLCLRTestKey
GO
use [master]
GRANT EXTERNAL ACCESS ASSEMBLY TO SQLCLRTestLogin

In case the following error occurs

The certificate, asymmetric key, or private key file does not exist or has invalid format

Try to change the path to point at the local drive e.g. 'c:\utopy\Software\Support\sqlclr.XmlSerializers.dll' 3. Enable **xp\_cmdshell** and **CLR Integration -** run the following sql commands under the Master:

```
EXEC sp_configure 'show advanced options', 1
GO
RECONFIGURE
GO
EXEC sp_configure 'xp_cmdshell', 1
GO
EXEC sp_configure 'clr_enabled', 1
GO
RECONFIGURE
GO
```

#### **Configuration: Reporting Services**

Go to Start, All Programs, SQL Server 2008, Configuration Tools, Reporting Services Configuration Manager.

Make sure the report server is started:

Reporting Services Configuration Mana	ager: MSSQLSER¥ER		
Reporting Services Configu	uration Manager		
	Report Server Status		
📑 TLVQAVM9\MSSQLSERVER			
Service Account	Use the Reporting Services Co Manager. If you installed Repo database, and the Report Man	figuration Manager tool to define or modify settings for the Report Server rting Services in files-only mode, you must configure the Web service URL, ager URL.	and Report the
i Web Service URL	Current Report Server		
🔰 Database	SQL Server Instance:	MSSQLSERVER	
	Instance ID:	MSRS10_50.MSSQLSERVER	
Report Manager URL	Edition:	ENTERPRISE EDITION	
	Product Version:	10.50.1600.1	
🚖 E-mail Settings	Report Server Database Name:	ReportServer	
	Report Server Mode:	Native	
Execution Account	Report Service Status:	Started	
🌂 Encryption Keys		Stop	
Scale-out Deployment			
	Results		
			<u>С</u> ору
0		Арріу	<u>E</u> xit

Under Services Accounts use a local administrator user or a user that can logon as a service and run services on the local machine:

Reporting Services Configuration	Manager: 1007,00049\MSSQLSERVER		_ 🗆 >
Microsoft	_		
SQL Server 2008 R2 Reporting Services Con	2 Infiguration Manager		
hopenang eel nees een			
Propert Connect	Service Account		
TLVQAVM9\MSSQLSERVER	The second se		
Service Account		ound or windows domain user accound to run the report server service.	
🧀 Web Service URL	Report Server Service Account	ice account and then click Apply	
📙 Database	O Use <u>b</u> uilt-in account:	Network Service	<b>T</b>
Report Manager LIRI	⊙ <u>U</u> se another account:		
	Account (Domain\user):	L. WINGS N.	
🚖 E-mail Settings	Password:	•••••	
Execution Account			
Encryption Keys			
📇 Scale-out Deployment			
	Results		
			Conv
			Сорх
0			<u>Apply</u> <u>E</u> xit

#### In Web Service URL fill as the below:

Reporting Services Configuration N	1anager: \M55QLSER¥ER		_ 🗆
Reporting Services Con	iguration Manager		
Connect  TLVQAVM9(MSSQLSERVER  Service Account  Web Service URL  Database  Report Manager URL  Construction	Web Service URL         Image: Configure a URL used instance, or to specify instance, or tot specify instance, or to	to access the Report Server. Click Advanced to define multiple URLs for a single additional parameters on the URL. al Directory ReportServer dentification All Assigned (Recommended)	Report Server
Execution Account	SSL Certincate: SSLPort:	(Not Selected)	vanced
n Encryption Keys	Report Server Web Service URL:	:http://%%@/ReportServer	
	Results		<u>С</u> ору
0		Apply	<u> </u>

#### In Database:

Report Server Database	Configuration Wizard X				
Change Database					
Choose whether to create	or configure a report server database.				
Action	Select one of the following options to create an empty report server database or select				
Database Server	an existing report server database that has content you want to use.				
Database					
Credentials	Select a task from the following list:				
Summary					
Progress and Finish	<ul> <li>Create a new report server database.</li> </ul>				
	Choose an existing report server database.				
0	Previous <u>N</u> ext <u>Cancel</u>				

		-
Change Database		
Choose whether to create or	r configure a report server database.	
Action		
Database Server	Choose a local or remote instance of credentials that have permission to o	of a SQL Server Database Engine and specify connect to that server.
Database		
Credentials	Connect to the Database Server:	
Summary		F
Progress and Finish	<u>S</u> erver Name:	
-	<u>A</u> uthentication Type:	SQL Server Account
	<u>U</u> sername:	sa
	Pass <u>w</u> ord:	•••••
		<u>T</u> est Connection
۲		Previous <u>N</u> ext <u>C</u> ancel
remark Server Databace [r	poliguration Wizard	
Charles Database Co	onfiguration Wizard	
Change Database	onfiguration Wizard	
ceport server Database Co Change Database Choose whether to create or	onfiguration Wizard r configure a report server database.	
ceport server Database Co Change Database Choose whether to create or	onfiguration Wizard r configure a report server database.	
Change Database Co Change Database Choose whether to create or Action	r configure a report server database. Enter a database name, select the	language to use for running SQL scripts, and specify
Change Database Co Change Database Choose whether to create or Action Database Server	onfiguration Wizard r configure a report server database. Enter a database name, select the whether to create the database in n	language to use for running SQL scripts, and specify ative or SharePoint mode.
Change Database Co Change Database Choose whether to create or Action Database Server Database	r configure a report server database. Enter a database name, select the whether to create the database in n	language to use for running SQL scripts, and specify ative or SharePoint mode.
Change Database Co Change Database Choose whether to create or Action Database Server Database Credentials	r configure a report server database. Enter a database name, select the whether to create the database in n Database Name:	language to use for running SQL scripts, and specify ative or SharePoint mode.
Change Database Co Change Database Choose whether to create or Action Database Server Database Credentials Summary	onfiguration Wizard r configure a report server database. Enter a database name, select the whether to create the database in n Database Name: Temp Database Name:	language to use for running SQL scripts, and specify ative or SharePoint mode. ReportServer ReportServerTemp
Change Database Co Change Database Choose whether to create or Action Database Server Database Credentials Summary Progress and Finish	r configure a report server database. Enter a database name, select the whether to create the database in n Database Name: Temp Database Name: Language:	language to use for running SQL scripts, and specify ative or SharePoint mode. ReportServer ReportServerTemp English (United States)
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Change Database Co Change Database Choose whether to create or Action Database Server Database Credentials Summary Progress and Finish	r configure a report server database. Enter a database name, select the whether to create the database in n Database Name: Temp Database Name: Language: Report Server Mode:	language to use for running SQL scripts, and specify ative or SharePoint mode. ReportServer ReportServerTemp English (United States) ⓒ Native Mode ⓒ SharePoint Integrated Mode
Change Database Co Change Database Choose whether to create or Action Database Server Database Credentials Summary Progress and Finish	r configure a report server database. Enter a database name, select the whether to create the database in n Database Name: Temp Database Name: Language: Report Server Mode:	language to use for running SQL scripts, and specify ative or SharePoint mode. ReportServer         ReportServerTemp         English (United States) <ul> <li>Native Mode</li> <li>SharePoint Integrated Mode</li> </ul>
Change Database Co Change Database Choose whether to create or Action Database Server Database Credentials Summary Progress and Finish	r configure a report server database. Enter a database name, select the whether to create the database in n Database Name: Temp Database Name: Language: Report Server Mode:	language to use for running SQL scripts, and specify ative or SharePoint mode.
Change Database Co Change Database Choose whether to create or Action Database Server Database Credentials Summary Progress and Finish	r configure a report server database. Enter a database name, select the whether to create the database in n Database Name: Temp Database Name: Language: Report Server Mode:	language to use for running SQL scripts, and specify ative or SharePoint mode. ReportServer ReportServerTemp English (United States) Native Mode SharePoint Integrated Mode
Change Database Co Change Database Choose whether to create or Action Database Server Database Credentials Summary Progress and Finish	n configure a report server database. Enter a database name, select the whether to create the database in n Database Name: Temp Database Name: Language: Report Server Mode:	language to use for running SQL scripts, and specify ative or SharePoint mode.
Change Database Co Change Database Choose whether to create or Action Database Server Database Credentials Summary Progress and Finish	r configure a report server database. Enter a database name, select the whether to create the database in n Database Name: Temp Database Name: Language: Report Server Mode:	language to use for running SQL scripts, and specify ative or SharePoint mode. ReportServer ReportServerTemp English (United States) ▼ Native Mode SharePoint Integrated Mode
Change Database Co Change Database Choose whether to create or Action Database Server Database Credentials Summary Progress and Finish	r configure a report server database. Enter a database name, select the whether to create the database in n Database Name: Temp Database Name: Language: Report Server Mode:	Ianguage to use for running SQL scripts, and specify ative or SharePoint mode. ReportServer         ReportServerTemp         English (United States)         Image: Native Mode         SharePoint Integrated Mode

Report Server Database Conf	iguration Wizard	×
Change Database		
Choose whether to create or co	nfigure a report server database.	
		100
Action	Specify the credentials of an existing account that the report server will use to connect to	
Database Server	the report server database. Permission to access the report server database will be automatically granted to the account you specify.	
Database		
Credentials		
Summary	Credentials:	
Progress and Finish		
	Authentication Type: Service Credentials	
	User name: SQLServiceAccount	
	Password:	
0	Previous <u>N</u> ext <u>C</u> ancel	

In Report Manager URL:

Reporting Services Configuration Man	ager: \MSSQLSERVER	
Reporting Services Configu	uration Manager	
Connect Conne	Report Manager URL         Configure a URL to access Report Manager. Click Advanced to define multiple URLs, or to specify parameters on the URL.         Report Manager Site Identification         Virtual Directory:       Reports         URLs:       http://f.cl.2.av/b.80/Reports	y additional
ø		<u>Copy</u> Apply Exit

In E-mail Settings:

Reporting Services Configuration Mana	ger: TL¥3\MSSQLSER¥ER		
Reporting Services Configu	ration Manager		
Connect Conne	E-mail Settings  To use report server e-mail, specify an exis server.  SMTP Settings  To edit, change the fields and click the Apply button Sender Address: Current SMTP Delivery Method: SMTP Server:  Results  Results	ting SMTP server and an e-mail account that can send e-mail from that speechminer@u'; :m Use SMTP server u,	
@		Co	ipy <u>E</u> xit

#### Point the browser to //<dbserver>/reports

# 1. Click the Folder Settings tab Home - Report Manager - Windows Internet Explorer - 8 🗙 💌 🐓 🗙 💐 Live Search ۹. Elle Edit View Favorites Tools Help 🚖 Favorites | 🚖 🏉 Suggested Sites 🔹 🙋 Web Slice Gallery 🔹 🚵 • 🔝 - 🗔 👼 • Bage - Safety - Tgols - 😥 - 🎽 Home | My Subscriptions | Site Settings | Help 🛆 😫 💌 🔣 Installing SQL Server on 64bi... 🕱 SQL2008 Server Installation ... 🔛 Site Search - Yellow Fox 🦉 Home - Report Manager 🛛 🗙 SQL Server Reporting Services Home Search P 📸 New Folder 🕕 🧕 New Data Source 👘 📓 Report Builder 🕴 🕍 Folder Settings 🔹 🐧 Upload File Details View speechminer\_ver7\_2\_4035Beta 😼 Local intranet 🦓 + 🔍 100% + 2.

Note: If there is a problem to access this folder and you keep having to enter your user and domain credentials and eventually get a blank screen, do the following: In rsreportserver.config remove the value RSWindowsNegotiate and ensure RSWindowsNTLM is specified. (There is more information about this problem and some other solutions at http://blogs.msdn.com/b/lukaszp/archive/2008/03/26/solving-the-reporting-services-login-issue-in-the-february-ctp-of-sql-server-2008.aspx

- 3. If the domain user used by SpeechMiner is not on the list, click on New Role Assignment, otherwise Edit the existing account
- Give the account Content Manager role. Go to http://SQLServer/reports, click on speechminer database, click on sme, click on Security tab, click on New Role Assignment, type in user name, select Content Manager check box and click OK.

Home		
<b>A</b>	SQL Server Reporting Services	
r	New Role Assignment	
Use Grou Sele	this page to define role-based security for Home. p or user name:	
	Role 4	Description
	Browser Content Manager My Reports Publisher Report Builder	May view folders, reports and subscribe to reports. May manage content in the Report Server. This includes folders, reports and resources. May publish reports and linked reports; manage folders, reports and resources in a users My Reports folder. May publish reports and linked reports to the Report Server. May view report definitions.
	OK Cancel	

To enable remote access through SQL Management studio when Windows Firewall is on follow instructions at http://msdn.microsoft.com/en-us/library/ms175043.aspx

Otherwise, you may not be able to connect with SQL Management studio from your computer to the SQL server remotely.

### **SQL Server Configuration Best Practices**

# Memory Usage - if not limited SQL server will consume all available memory, therefore it is recommended to limit the memory usage of the SQL Server,

It can be done by limiting the max server memory

It is important to note that the **max server memory** is not all the memory used by SQL Server process and therefore it is recommended to set that to 2-4GB less than the desired size

The following example sets the max server memory option to 4 GB:

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

see more details at http://msdn.microsoft.com/en-us/library/ms178067.aspx

The users can alos change the max server memory setting using GUI by right click on the server name -> properties -> memory

#### **Recovery Model**

It is recommended to set the recovery model to simple in order to save disk space

📴 Database Properties - speechminer_ver7_2				
Select a page	🛒 Script 👻 📑 Help			
🚰 General				
🚰 Files	Collation	COL Latin1 Constr		
Filegroups	Collation.	SQL_Latin_dener		
Coptions	Recovery model:	Simple		<b>-</b>
Permissions	Compatibility level:	SQL Server 2005 (9	30)	
Extended Properties				
There are the second second	Other options:			
Transaction Log Shipping	<u>8∎ </u> 4↓ 📼			
	Auto Close		False	
	Auto Create Statistics		True	
	Auto Shrink		False	
	Auto Update Statistics		True	
	Auto Update Statistics Asy	nchronously	False	
	🗆 Cursor			
	Close Cursor on Commit En	abled	False	
	Default Cursor		GLOBAL	
	Miscellaneous			
	ANSI NULL Default		False	
Connection	ANSI NULLS Enabled		False	
Connection	ANSI Padding Enabled		False	
Server:	ANSI Warnings Enabled		False	
	Arithmetic Abort Enabled		False	
Connection:	Concatenate Null Yields Ni	all Chairine Euchlad	False	
sa	Lioss-database Uwnership	Chaining Enabled	False	
View connection properties	Numerie Round Abort	on Enabled	False	
_	Parameterization		Simple	
Progress				
Ready	ANSI NULL Default			
			ОК	Cancel

#### AutoGrowth

the default Autogrowth in SQL2008R2 is to enable Autogrowth of 1 Megabytes

E Change Autogrowth for data_	_ver7_2	×
Enable Autogrowth		
File Growth		
🔿 In Percent		10 🜲
<ul> <li>In Megabytes</li> </ul>		1 🗘
Maximum File Size		
O Restricted File Growth (MB)		100 🜲
<ul> <li>Unrestricted File Growth</li> </ul>		
	ОК	Cancel .::

we recommend changing that to 5 or 10 Percent.

Change Autogrowth for data	_ver7_2	
Enable Autogrowth		
File Growth		
<ul> <li>In Percent</li> </ul>		5 🗢
🔘 In Megabytes		1 🜲
Maximum File Size		
O Restricted File Growth (MB)		100 🜲
<ul> <li>Unrestricted File Growth</li> </ul>		
	ОК	Cancel;