

Admin Guide Speech and Text Analytics 8.5.2

2/23/2015

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SpeechMiner Administration Guide

The SpeechMiner 8.5.2 Administration Guide provides the instructions required to install and configure the SpeechMiner components. These pages are valid for all 8.5.2 releases of SpeechMiner. See the summary of the highlighted topics below:

About SpeechMiner	Installation and Configuration
Find out about SpeechMiner:	Find out about how to deploy the components:
Introduction New in this Release	SpeechMiner Components Installing SpeechMiner Configuring SpeechMiner

Introduction

SpeechMiner, Genesys Telecommunications Laboratories's speech-analytics platform analyzes call content as well as text-based interactions such as e-mails and chats. Speechanalytics leverages recorded customer interactions (from any recording system) and analyzes each interaction for critical business topics and events. With unmatched accuracy, the system "listens" to conversations between customers and contact-center agents, precisely identifies the topics that were discussed, and categorizes what took place within each interaction.

SpeechMiner supports three modes of operation:

- Analytics and Recording UI: SpeechMiner plays back and analyzes interactions recorded with Genesys Interaction Recording.
- **Recording UI Only**: SpeechMiner plays back the call audio for each interaction in the search results. The contents of the interactions are not processed by the speech-analytics system.
- **Analytics Only**: SpeechMiner imports interactions and their recorded call audio from any recording system. Once the interactions and their audio is imported SpeechMiner processes the contents of each interaction.

Important

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If you have purchased both Recording and Analytics licenses, it is recommended that you review the specific SpeechMiner setup instructions in the Genesys Interaction Recording documentation prior to commencing with the installation procedure. There may be some changes required to the generic analytics procedures in this SpeechMiner Administration Guide.

The SpeechMiner user interface is made up of two software components:

- SpeechMiner browser-based interface, Offers a variety of ways to access the audio of calls and the results of the interaction analysis performed by the system (when Analytics mode is in use). Users of the speech-analytics system can employ this interface to:
 - find interactions that have specific characteristics or that deal with particular topics

- identify and listen to the parts of calls that interest them
- audit and fine-tune SpeechMiner's call processing
- keep track of a range of system-metrics.
- **SpeechMiner Administration Tool (SMART)**, enables users of the speechanalytics system to configure it to search interactions for specific topics and other characteristics.

This manual explains how to install and configure SpeechMiner. It is intended for system administrators. Most of the steps described are only performed once, usually with the help of Genesys Customer Care.

New in this Release

This section describes the new features that were released in the 8.5.x version of SpeechMiner.

8.5.2 Release

- New Responsive Style User Interface: In this release, the Main page, Menus, Media Player, Search pages and grids have been updated with the new design.
- New Media Player with Video Playback Capability: The updated media player, now supports screen recordings. When working with GIR, audio and screen recordings can now be synchronized.
- Multiple QM Forms per Interaction: Multiple QM form evaluations can now be attached to a single interaction.
- Categorization Based on Spatial Relationships: Text interactions can now be categorized based on rules such as: "found abc within X words of xyz.".
- Wildcard Support for Text Interaction Topic Definitions: Like Voice interaction topic definitions, Text interaction topic definitions can now utilize wildcards.
- Recognition Improvements: Continuous recognition improvements were made in this release based on new customer and vertical training material.

8.5.001 Release

- Ability to add text interactions to saved lists: Similar to voice interactions, text interactions can now be added to saved lists.
- Ability to add comments to text interactions: Similar to voice interactions, comments can now be added to text interactions.
- Ability to search for numbers in text interactions: Numbers and special characters can now be used in search term definitions for text interactions.
- Events are displayed in text interactions: Similar to voice interactions, topic events are highlighted when they occur in text interactions.

- Topic filters in reports supports text interactions: The topic parameter in the Data Set Filters on the reports now works for text interactions.
- Support for wildcards in Spanish: Similar to English, wildcards are now supported for Spanish voice interactions.
- High Availability improvement for indexing: In the event of an index failure, the system will automatically switch to a backup index.

8.5.0 Release

- Interaction Recording Integration: SpeechMiner 8.5.x provides the UI for Genesys Interaction Recording - Voice Edition. This enables out of the box integration with Genesys' new recording product.
- Chrome Support: Support for Chrome on Windows for the Interaction Recording features.
- Chat Support: Support for chat interactions with multiple speakers.
- Genesys Branding: The web UI has been re-branded with the Genesys name, logos and colors.
- Configuration Server Integration: SpeechMiner now integrates with Genesys Configuration Server for centralized user management.
- Language Recognition Support: Support for Brazilian Portuguese and German language calls.

Deploying SpeechMiner

This section describes the SpeechMiner system and how to configure each component for your enterprise.

Components

SpeechMiner Components

The SpeechMiner system makes use of the following components:

- UPlatform service—Manages all the processing tasks of SpeechMiner—fetching (in the case of Analytics mode), recognition and exploration (in the case of Analytics and Analytics & Recording UI modes), categorization compression, and indexing (in all modes).
- **Recognition engine**—Nuance speech-recognition engine that transcribes call audio into text.
- **Nuance License Server** This server manages the Nuance engine. During installation, you need to either install a new instance of the Nuance License server, or provide the details of an existing server.
- **UConnector service**—Retrieves interaction data (audio or text) and metadata from the recording systems that is placed in the SpeechMiner input folder.
- Interaction Receiver—A web service which receives calls (audio and metadata) from the Genesys Interaction Recording system.
- **MS-SQL database**—The SpeechMiner database stores the interaction data and the results of interaction processing.
- Web service—Runs the SpeechMiner web-based interface that enables users to view and work with the interaction data after it has been processed.
- **ULogger**—The log viewer for the SpeechMiner logs.

System Software

Users employ the following software to work with SpeechMiner:

- SpeechMiner browser-based interface—Offers a variety of ways to access the audio of calls and the results of the interaction analysis performed by the system (when Analytics mode is in use). Users of the speech-analytics system can employ this interface to:
 - find interactions that have specific characteristics or that deal with particular topics
 - identify and listen to the parts of calls that interest them

- audit and fine-tune SpeechMiner's call processing
- keep track of a range of system-metrics.
- SpeechMiner administration tool (SMART)—An application that enables users to configure the speech-analytics system to search calls for specific topics and other characteristics.
- SMConfig—An application that is used by system administrators to configure SpeechMiner.
- **SMUpgrade**—An application used to upgrade the SpeechMiner database from the previous version to current version. For additional information refer to the *SpeechMiner Upgrade Guide*.

Install

Installing SpeechMiner

This section explains how to install SpeechMiner at your enterprise. This section includes pre-installation steps; setting up the system components, database, and the software steps that users employ to interact with the system. The components can be installed on a single machine, or on separate machines, as required by the particular configuration of your system.

Configure

Configuring SpeechMiner

This section explains how to configure SpeechMiner after it is installed. Most of the configuration is performed in the SMConfig application. This is a Windows application that can be installed on any machine on your network. Once it is installed, it can be used, from any machine on which it is installed, to configure the entire SpeechMiner system.

Installing SpeechMiner

This section describes how to prepare your environment before you install SpeechMiner, and how to install the SpeechMiner software. The SpeechMiner components can be installed on one or more servers, as required by the particular configuration of your system.

Important

Since the SpeechMiner supported environment may be different for each SpeechMiner version, the current SpeechMiner Administration Guide may

contain information that does not apply to your version of SpeechMiner. For detailed information about supported operating environments, see the Supported Operating Environment Reference Guide.

Getting Started

Before you install SpeechMiner, make sure of the following:

- The system requirements are met.
- The required third-party software has been installed on the machines in your system.
- The required permissions are set.

Then, review the Pre-installation Checklist before you begin the installation process.

System Requirements

Disk Space

Each server in the system should have at least the following amounts of available disk space before installing SpeechMiner:

- All servers: Approximately 1 GB of disk space for the recognition engine
- **Recognition server(s):** For the UPlatform service, 20 MB of disk space for the runtime folder plus approximately 10 GB for caching recognition packages. (The exact amount required for caching depends on the size of the implementation.)
- **Database server:** At least 20 GB for the SpeechMiner database. In addition, on some types of recording-system integrations that have a very high volume, a larger (10 GB-200 GB) storage area is needed for temporary files.

Important

- The initial size of the database is about 20 GB; it may grow larger, depending on the call volume and the call-purging policy.
- On relatively high-volume installations, UConnector may need its own dedicated server.
- Web server: About 20 MB for the SpeechMiner virtual folder, plus additional space for call audio. (The exact amount required for caching depends on user activity.)
- Interaction Receiver: About 15 MB for the Interaction Receiver virtual folder.
- Machines running SMART: About 1 GB of disk space for the recognition engine

Database

The database must run on a machine on which one of the following SQL servers is installed:

- Microsoft SQL Server 2008 with Reporting Services, SP1 or above (Enterprise edition is recommended for large installations.)
- Microsoft SQL Server 2012 with Reporting Services

Operating Systems

All machines must have Windows operating systems.

For detailed information about the Windows operating systems that are compatible with each SpeechMiner component refer to Supported Operating Environment Reference Guide.

Browser

The SpeechMiner web interface is compatible with Google Chrome and Internet Explorer (IE) versions 10 and 11.

Users of the SpeechMiner web application must have a functioning audio device on their desktop. Users browsing using Internet Explorer should have Windows Media Player version 10 or 11 installed.

Memory (RAM)

Machines running SpeechMiner servers and applications should have at least the following amounts of memory:

- Database server: 4 GB 128 GB (dependent on call volume)
- Web server: 4 GB
- SMART application: 2 GB
- Platform server: 8 GB (allow 1 GB per recognizer task, as a rule of thumb)

What Is Installed?

The following software will be installed on the machines in your system:

Machine	Components
On All Servers	 MS .NET Framework 4.5.1 with SP1 (aka 4.5.1)
On the Recognition Server(s)	UPlatform serviceNuance recognition engine
On the DB Server	 MS-SQL 2008 or 2012 Server, including MS Reporting Services (normally installed by the customer beforehand) SpeechMiner database UConnector service (when not working with GIR).
On the Web Server	SpeechMiner virtual folder
On the Interaction Receiver Server	Interaction Receiver virtual folder
On Every Machine Running SMART	Recognition engineSMART executable and runtime files (dlls)

Ports Used by the System Components

The following ports are used by SpeechMiner:



Web servers, Platform servers, SpeechMiner Administrator Workstations (SMConfig/ SMART)	Database server	tcp 1433
Database server, Web server, Platform servers, SpeechMiner Administrator Workstations (SMConfig/SMART)	MS-SQL report server	http 80 / https 443
SpeechMiner Administrator Workstations (SMConfig/SMART)	Web servers	http 80 / https 443
Genesys Interaction Recording server	Interaction Receiver Server	http 80 / https 443
Web Servers	Web servers	http 80 / https 443
SpeechMiner Administrator Workstations (SMConfig)	Platform servers, Web servers	tcp 135
Platform servers (recognition), SpeechMiner Administrator Workstations (SMART)	SpeechMiner Nuance License server	tcp 27000 + another port (can be configured in license file)
Web servers, Platform servers, SpeechMiner Administrator Workstations (SMConfig/ SMART)	File System	smtp over tcp 445
Web servers, SpeechMiner Administrator Workstations (SMConfig/SMART)	Active Directory	tcp 88
Web servers, Platform servers	Email server	smtp over tcp 25

Ports and Protocols Required for SpeechMiner UConnector

SpeechMiner UConnector requires access to the recording-system database and filestorage system. Access to the database is implemented using the TCP protocol with port 1433. (The port number can be configured on the database server.) Access to the filestorage system is implemented using SMB over TCP protocol with port 445. Other protocols can be used as well, if they are available in the underlying file-storage system.

Required Third-Party Software

This section explains how to install the required third-party software on the machines in your system.

Tip

You should install the required software before you install SpeechMiner.

.NET Framework

Installing the .NET Framework

Microsoft .NET Framework 4.5 SP1 (4.5.1) and .NET 2.0 must be installed on all machines that will run SpeechMiner components or interact with SpeechMiner

If you are installing the .NET Framework on machines that are running Windows Server 2008 R2 or Windows Server 2012:

- Enable .NET framework using the Add Features option in the Server Manager (Start > Administrative Tools > Server Manager).
- Verify that Windows Update is enabled.

If Windows Update is not enabled or you are using an operating system other than Windows Server 2008 R2 or Windows Server 2012, manually download and install .NET 4.5.1 from the following location: http://www.microsoft.com/en-us/download/details.aspx?id=40779

Microsoft Visual C++ 2013 Redistributable

Installing Microsoft Visual C++ 2013 Redistributable

Microsoft Visual C++ 2013 Redistributable must be installed on all machines that will run SpeechMiner components or interact with SpeechMiner. You can download the installation package at http://www.microsoft.com/en-us/download/details.aspx?id=40784.

Important

When installing Microsoft Visual C++ 2013 Redistributable on a 64 operating system you must install both 86 and 64 versions. When installing on a 32 operating system you must install the 86 version.

SQL Server

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Setting Up the SQL Server

Before you begin installing SpeechMiner, you must install the SQL server on the database server. You can use either Microsoft SQL Server 2008 with Reporting Services or Microsoft SQL Server 2012 with Reporting Services.

For information about installing and configuring the SQL Server for SpeechMiner, see Setting Up the SQL Server for SpeechMiner.

Internet Information Server

Installing IIS on the Web Server or Interaction Receiver Server

The Internet Information Server (IIS) must be installed and operational on the servers that will be used to run the SpeechMiner Web and the Interaction Receiver. You can install and configure:

- Windows Server 2008
- Windows Server 2012

Notes:

- The SpeechMiner and Interaction Receiver Application Pool must use .NET framework version 4.0. After you install the SpeechMiner web server, you should check that this is the version in use.
- It is recommended to enable HTTP Compression on the IIS server. For additional information, see http://technet.microsoft.com/en-us/library/cc771003(v=ws.10).aspx.

Report Viewer

Installing Report Viewer

SpeechMiner can be configured to use Microsoft's Report Viewer to run saved reports at night and cache their results. Using Microsoft's Report Viewer can significantly reduce the time required to load the SpeechMiner **Views** page, if it contains a large number of reports. If you want to use this feature, you have to install it and then configure it to run the jobs you want it to run. You can download the installation file at http://www.microsoft.com/en-us/download/details.aspx?id=21916.

For additional information about Report Caching see: Defining Caching Reports

Setting Up the SQL Server for SpeechMiner

Installing SQL Server 2008 R2

In order to install SQL Server 2008 R2 for use with SpeechMiner, run the normal setup wizard and follow the instructions. To install SQL Server 2008 R2:

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 installation or add features to an existing installation**. The installation wizard opens.
- 4. Follow the on-screen instructions. When the screens mentioned below open, follow the instructions below to select the required settings and options for SpeechMiner.

5. From the Setup Role screen, select SQL Server Feature Installation.

🚼 SQL Server 2008 R2 Setup	
Setup Role	
Click the SQL Server Feature Inst install a specific configuration.	allation option to individually select which feature components to install, or click a feature role to
Setup Support Rules Product Key License Terms Setup Role Feature Selection Installation Rules Disk Space Requirements Error Reporting Installation Configuration Rules Ready to Install Installation Progress Complete	 \$QL Server Feature Installation Install SQL Server Database Engine Services, Analysis Services, Reporting Services, Integration Services, and other features. \$QL Server DowerPivot for SharePoint Install PowerPivot for SharePoint on a new or existing SharePoint 2010 server to support PowerPivot data access in the farm. To use the New Server option, SharePoint must be installed but not configured. Add PowerPivot for SharePoint to: New Server All Features With Defaults Install all features using default values for the service accounts.
	< <u>B</u> ack <u>N</u> ext > Cancel Help

6. 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

Feature Selection	install.	
Setup Support Rules Product Key License Terms 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: Server features are instance- aware and have their own registry hives. They support multiple instances on a computer.
	Select All Unselect All Shared feature directory: C:\Program Files\Microsoft SQL Server\ Shared feature directory (x86): C:\Program Files (x86)\Microsoft SQL Server\	r\

- 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.

Specify the service accounts and o	ollation configuration.				
Setup Support Rules Product Key License Terms	Service Accounts Collation	se a separate account for each S	QL Server service	e.	
Setup Role	Service	Account Name	Password	Startup Type	
Feature Selection	SQL Server Agent	libbysql	•••••	Automatic	
Installation Rules	SQL Server Database Engine	libbysql	•••••	Automatic	-
Instance Configuration	SQL Server Reporting Services	libbysql		Automatic	-
Disk Space Requirements	SQL Server Browser	NT AUTHORITY/LOCAL S		Disabled	-
Reporting Services Configuration		<u>U</u> se the sa	ame account for a	II SQL Server ser	vices
Reporting Services Configuration Error Reporting Installation Configuration Rules Ready to Install Installation Progress Complete		<u>U</u> se the sa	ame account for a	all SQL Server ser	vices

8. From the Server Configuration screen, in the Collation tab, under Database Engine, select SQL Latin1 General CP1 CI AS (the default value).

Server Configuration		
Specify the service accounts and col	Ilation configuration.	
Setup Support Rules Installation Type Product Key License Terms 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	Service Accounts Collation Database Engine: SQL_Latin1_General_CP1_CI_AS 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	<u>C</u> ustomize

9. 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.

Specify Database Engine authentication security mode, administrators and data directories. Setup Support Rules Installation Type Product Key License Terms Setup Role Feature Selection Installation Rules Reporting Services Configuration Reporting Services Configuration Error Reporting Installation Configuration Rules Ready to Install Installation Progress Complete	SQL Server 2008 R2 Setup Database Engine Config	uration	
Setup Support Rules Account Provisioning Data Directories FILESTREAM Installation Type Data root directory: C:\Program Files\Microsoft SQL Server\ Product Key Data root directory: C:\Program Files\Microsoft SQL Server\ Setup Role Server\MSSQL10_S0.LIBBYINSTANCE\MSSQL\Data Feature Selection User database directory: D:\MSSQLData Installation Rules User database [og directory: C:\MSSQLData Installation Rules Imp DB directory: C:\MSSQLTempDB Instance Configuration Imp DB log directory: D:\MSSQLTempDB Database Engine Configuration Temp DB log directory: C:\MSSQLBackup Backup directory: D:\MSSQLBackup Error Reporting Installation Configuration Rules Backup directory: D:\MSSQLBackup Ready to Install Installation Progress Complete	Specify Database Engine authentica	tion security mode, administrators and data directories.	
	Setup Support Rules Installation Type Product Key License Terms 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	Account Provisioning Data Directories FILESTREAM Data root directory: C:\Program Files\Micros System database directory: C:\Program Files\Micros User database directory: D:\MSSQLData User database_log directory: C:\MSSQLDataLog Temp DB directory: D:\MSSQLTempDB Tgmp DB log directory: C:\MSSQLBackup Backup directory: D:\MSSQLBackup	soft SQL Server\ osoft SQL IBBYINSTANCE\MSSQL\Data

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

Installing SQL Server 2012

In order to install SQL Server 2012 for use with SpeechMiner, run the normal setup wizard and follow the instructions. To install SQL Server 2012:

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

1	SQL Server 2012 Setup	_ D X
Feature Selection Select the Standard features to	install.	
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:	Feature description: The configuration and operation of each instance feature of a SQL Server instance is isolated from other SQL Server instances. SQL Server instances can operate side-by-side on the same computer. v Prerequisites for selected features: Already installed: Microsoft .NET Framework 4.0 Windows PowerShell 2.0 Microsoft Visual Studio 2010 Shell
	Select All Unselect All Shared feature directory: C:\Program Files\Microsoft Shared feature directory (x86): C:\Program Files (x86)\Microsoft	: SQL Server\
	< <u>B</u> ack	Next > Cancel Help

- 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.

1	SQL Server	2012 Setup		_ 0	x
Server Configuration Specify the service accounts and o	collation configuration.				
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	Service Accounts Collation Microsoft recommends that you u Service SQL Server Agent SQL Server Database Engine SQL Server Reporting Services SQL Server Browser	se a separate account for each SQL Serv Account Name NT Service\SQLSERVERAGENT NT Service\MSSQLSERVER NT Service\ReportServer NT AUTHORITY\LOCAL SERVICE	ver service. Password	Startup Type Automatic Automatic Disabled	
		< <u>B</u> ack <u>N</u> ext >	Cancel	He	lp

7. From the Server Configuration screen, in the Collation tab, under Database

Engine, select SQL_Latin1_General_CP1_CI_AS (the default value).

1	SQL Server 2012 Setup	_ 🗆 X
Server Configuration Specify the service accounts and	collation configuration.	
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	Service Accounts Collation Database Engine: SQL_Latin1_General_CP1_CLAS 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	<u>C</u> ustomize
	< <u>B</u> ack <u>N</u> ext > Cancel	Help

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

	SC	L Server 2012 Setup	
Database Engine Config	guration		
Specify Database Engine authen	tication security mode, administra	ators and data directories.	
etup Support Rules etup Role	Server Configuration Data Dir	ectories FILESTREAM	
eature Selection nstallation Rules	Data root directory: System database directory:	C:\Program Files\Microsoft SQL Server\ C:\Program Files\Microsoft SQL Server\MSSQL11.MSSQLSERVER\MSSQL\Data	
istance Configuration isk Space Requirements	User database directory:	C:\Program Files\Microsoft SQL Server\MSSQL11.MSSQLSERVER\MSSQL\Data	
erver Configuration	User database log directory:	C:\Program Files\Microsoft SQL Server\MSSQL11.MSSQLSERVER\MSSQL\Log	
eporting Services Configuration	Temp DB directory:	C:\Program Files\Microsoft SQL Server\MSSQL11.MSSQLSERVER\MSSQL\Data	
ror Reporting stallation Configuration Rules	Temp DB log directory:	C:\Program Files\Microsoft SQL Server\MSSQL11.MSSQLSERVER\MSSQL\Log	
eady to Install	backup directory.	A nogram mes millione ode beref model i milone or her milone backa	
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- 9. From the **Reporting Services Configuration** screen, select **Install the native mode default configuration**.
- 10. When you finish installing the SQL Server, restart the machine on which you installed it.

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



To configure the SQL server and enable the required protocols:

- From the Start menu, navigate to Microsoft SQL Server 2008 > Configuration Tools > SQL Server Configuration Manager. The SQL Server Configuration Manager opens.
- 2. On the left side of the window, select SQL Server Services.

Sql Server Configuration Manager						IJŇ
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SQL Server Configuration Manager (Local)	Name	State	Start Mode	Process ID	Service Type	Lo
SQL Server Services	SQL Server (MSSQLSERVER)	Running	Automatic	1260	SQL Server	Ca
SQL Server Network Configuration (32bit)	SQL Server Reporting Services (MSSQLSERVER)	Running	Automatic	1336	Report Server	C#
SQL Native Client 10.0 Configuration (32bit)	CSQL Server Browser	Stopped	Other (Boot, System, Disabl	0		NT
SQL Server Network Configuration	SQL Server Agent (MSSQLSERVER)	Running	Automatic	1772	SQL Agent	Ca
	x[>

- 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.

File Action Wew Help Image: Sold Server Configuration Manager (Local) Sold Server Services Sold Server Services Image: Sold Server Network Configuration (S2bk) Image: Shared Memory Enabled Image: Sold Server Network Configuration (S2bk) Image: Shared Memory Enabled Image: Sold Server Network Configuration (S2bk) Image: Shared Memory Enabled Image: Sold Network Configuration Image: Shared Memory Image: Shared Memory Image: Sold Network Configuration Image: Shared Memory Image: Shared Memory Image: Sold Network Configuration Image: Shared Memory Image: Shared Memory Image: Sold Network Configuration Image: Shared Memory Image: Shared Memory Image: Sold Network Configuration Image: Shared Memory Image: Shared Memory Im
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SQL Server Services Status SQL Server Services Status Memory SQL Server Network Configuration (32bit) Enabled Protocols for MSQLEERVER Enabled SQL Native Clent 10.0 Configuration Status SQL Server Network Configuration Status SQL Server Network Configuration Status Protocols for MSQLEERVER Enabled SQL Native Clent 10.0 Configuration Status SQL Native Clent 10.0 Configuration Status

- 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

The SQL reporting services should be configured as explained below. To configure the SQL reporting services:

- 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.
- 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.

Reporting Services Configuration	Manager: \MSSQLSERVER		
SQL Server 2008 R Reporting Services Con	2 figuration Manager		
Cgnnect Cgnnect TLVQAVM9(MSSQLSERVER Service Account Web Service LRL	Report Server Status Use the Reporting Services O Manager. If you installed Re database, and the Report Ma	onfiguration Manager tool to define or modify settings for the Report S porting Services in files-only mode, you must configure the Web service nager URL.	erver and Report URL, the
Uatabase	SQL Server Instance:	MSSQLSERVER MSSSLS EN MSSSL SERVER	
Report Manager URL	Edition: Product Version:	ENTERPRISE EDITION 10.50.1600.1	
🚖 E-mail Settings	Report Server Database Name: Report Server Mode:	ReportServer Native	
Execution Account	Report Service Status:	Started Stop	
Linkrypoon keys			
	Results		
			Сору
0			dy Exit

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**.

eporting Services Configuration	Manager: 1017,01101/MSSQLSERVER		
SQL Server 2008 R Reporting Services Cor	2 nfiguration Manager		
Connect	Service Account		
TLVQAVM9\MSSQLSERVER			
3 Service Account	Specify a built-in acc	ount or Windows domain user account to run the report server se	ervice.
Web Service URL	Report Server Service Account	ten neeren and then shell Analy	
Uatabase	C Use built-in account:	Network Service	¥
Report Manager URL			
Consil Settings	Account (Doman(user):		
Call Called Seconds	Epone di		
Execution Account			
😤 Encryption Keys			
Scale-out Deployment			
	Results		
			<u>ς</u> οργ
			Apply Exit

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:

Ignnect	Web Service URL	
VQAVM9(MSSQLSERVER		
Service Account	Configure a URL to instance, or to spo	used to access the Report Server. Click Advanced to define multiple URLs for a single Report Server sofy additional parameters on the URL.
Web Service URL	Report Server Web Service V	/irtual Directory
	Virtual Directory:	ReportServer
Database	Report Server Web Service S	Ste identification
Depart Manager (10)	IP Address:	All Assigned (Recommended)
Report Hanager Onc	ICP Port:	80
E-mail Settings	SSL Certificate:	(Not Selected)
Execution Account	SSL Port:	Advanced
Encryption Keys	Report Server Web Service U	JRLs
	URLS:	http://%_101/v80/ReportServer
Scale-out Deployment		
	Results	

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.

Reporting Services Configuration	Manager: LIBBYINST\MSSQLSERVER		_ 🗆
Microsoft*			
SQL Server 2008 F	2		
Reporting Services Con	nfiguration Manager		
24 Connect	Report Server Database		
LIBBYINST			
	Reporting Services	stores all report server content and application data in a database. Use	this page to create or
💐 Service Account	change the report s	erver database or update database connection credentials.	
-Web Service URL	Current Report Server Database		
Database	Click Change database to sel	ect a different database or create a new database in native or SharePoin	tintegrated mode.
() Database			
Percet Manager LIPI	SQL Server Name:	LIBBYINST	
• Report Frankyer of the	Report Server Mode:	Native	
🚖 E-mail Settings			Change Database
			change <u>D</u> atabase
Execution Account	Current Report Server Database	e Credential	
A Encryption Keys	The following credentials are different account or update a	used by the report server to connect to the report server database. Use password.	the options below to choose
	Credential:	Service Account	
Scale-out Deployment	Login:	Contract of the second second	
	Password:	*****	
			Change <u>C</u> redentials
	Results		
			<u>С</u> ору
			Apply Bit

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

Reporting Services Configuration Ma	inager: \MSSQLSERVER	
Reporting Services Config	guration Manager	
1 Connect	Report Manager URL	
TLVQAVM9\MSSQLSERVER	Configure a URL to access Report Manager. Click Advanced to define multiple URLs, or to specify additional	
3 Service Account	parameters on the URL.	
A Web Service URL	Report Manager Site Identification Virtual Directory: Reports	
[] Database	UPLs: http://wib-80/Reports Advanced	
Report Manager URL		
🚖 E-mail Settings		
Execution Account		
ncryption Keys		
📩 Scale-out Deployment		
	Results	
		⊆ору
0	<u>Apply</u>	Exit

- 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.

Reporting Services Configuration Mar	nager: TLV3\MSSQLSERVER		
SQL Server2008 R2 Reporting Services Config	uration Manager		
2 Connect	E-mail Settings		
TLV3(MSSQLSERVER	To use recent canus a mail specify to avi	tion SMTD center and an avoid account that can could a road from that	
💐 Service Account	server.	ung omre server and an emilial account that can send emilial run that	
🔊 Web Service URL	SMTP Settings		1
🔰 Database	To edit, change the fields and click the Apply button		
Report Manager URL	Sender Address:	speechminer@v`, :~~	
🚖 E-mail Settings	Current SMTP Delivery Method:	Use SMTP server	
Execution Account	SMTP Server:	μ, ·	
RECEIVATION Keys			
Scale-out Deployment	Results		
		Cop	797
e		Apply	Exit

- 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

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.

port Sonner Gelebara Certilipunkkos Moland Zhonge Dattabase Dasse whether to smalle ar configer a report server 66down.	2 December 2	nar hörd hänna (andrigan skoland) 🗾 🖬 Hörda bössle entlem is condet an sovrägans a ressert annar defektione.	Payert forwer fold Alone Carlinger Alone Anno Mound Change Databasis Ossen whether to cover an overlaper a reset server deblere.	Hapert Society for Addientia Visional Configurational Wiscold Configurational Configurationana Configurational Configurational Configurationae
international and a set of the strange	are a dat	And a last and an and an and a last and and a set and a last a	Alternative and an experimental strategy and	Marcel Bench bandwich and and provide the straining of the st
tion	Data	abase Server	Database	Credentials

Click on the image to enlarge.

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:

- 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.

Server Properties - LIBBYIN	IST 💶 🛛 🗶
Select a page	Script - 📑 Help
General Memory Processors Security Connections Database Settings Advanced Permissions	Server memory options Use AWE to allocate memory Minimum server memory (in MB): 0 4096 4096
Connection Server: (ocal)	Other memory options
Connection: CAMELOT\Lschwartz	
Progress Ready	© Configured values © Bunning values
	OK Cancel

- 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:

- 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.
- 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.


Installing IIS on the Web Server or Interaction Receiver Server

Windows Server 2008

On Windows Server 2008, you can install and configure the Internet Information Services (IIS) in the Server Manager.

To install and configure the IIS component:

- 1. From the Start menu, select All Programs > Administrative Tools > Server Manager. The Server Manager opens.
- 2. On the left side of the window, select **Roles**.



3. On the right side of the screen, select Add Roles. The Add Roles Wizard opens.

Add Roles Wizard Select Serve	er Roles	×
Before You Begin Server Roles Web Server (IIS) Role Services Confirmation Progress Results	Select one or more roles to install on this server. Roles: Active Directory Certificate Services Active Directory Domain Services Active Directory Federation Services Active Directory Rights Management Services Application Server DHCP Server File Services Hyper-V Network Policy and Access Services Print and Document Services Remote Desktop Services Windows Deployment Services Windows Server Update Services Windows Server Update Services 	Description: <u>Web Server (IIS</u>) provides a reliable, manageable, and scalable Web application infrastructure.
	< Previous Next	> Install Cancel

4. From the list of roles, select **Web Server (IIS)**, and then select **Next**. An **Introduction to the Web Server** is displayed.

5. Select Next. The Role Services screen opens.

Add Roles Wizard			×
Select Role Servi	ces		
Before You Begin Server Roles Web Server (IIS) Role Services Confirmation Progress Results	Select the role services to install for Web Server (IIS): Role services:	▲ ▼	Description: Windows authentication is a low cost authentication solution for internal Web sites. This authentication scheme allows administrators in a Windows domain to take advantage of the domain infrastructure for authenticating users. Do not use Windows authentication if users who must be authenticated access your Web site from behind firewalls and proxy servers.

- 6. Under **Role Services**, make sure the following services are selected:
 - a. Under Common HTTP Features:
 - Static Content
 - Default Document
 - Directory Browsing
 - HTTP Errors
 - HTTP Redirection
 - b. Under Application Development:
 - ASP.NET
 - ISAPI Extensions
 - ISAPI Filters

Important

When you select ASP.NET, a window pops up, asking you to confirm that you want to "Add role services required for ASP.NET." Select **Add required role services**.

- c. Under Security:
 - Windows Authentication
- d. Under IIS 6 Management Compatibility:
 - IIS 6 WMI Compatibility
 - IIS 6 Metabase Compatibility
- 7. Click Next. A Confirm Installation Selections screen opens.

Confirm Installation Selections			
Before You Begin Server Roles Web Server (IIS) Role Services Confirmation Progress Results	To install the following roles, role services, or features, click Install.	4	
	Print, e-mail, or save this information < Previous	•	

8. Select **Install**. The installation process begins, and the **Installation Progress** screen is displayed. When the installation is completed, an **Installation Results** screen is displayed.

Add Roles Wizard			×
Installation Result	5		
Before You Begin Server Roles	The following roles, role services, or features	s were installed successfully:	
Role Services Confirmation Progress Results	The following role services were installed: Web Server Common HTTP Features Static Content Default Document Directory Browsing HTTP Errors HTTP Redirection Application Development ASP.NET .NET Extensibility ISAPI Extensions ISAPI Filters Health and Diagnostics HTTP Logging Request Monitor Security Windows Authentication Request Filtering Print, e-mail, or save the installation report		
		< <u>Previous</u> <u>N</u> ext > Close	Cancel

9. Click Close. The Add Roles Wizard closes, and the Server Manager lists the Web Server (IIS) role as installed.

🏪 Server Manager		_ 🗆
File Action View Help		
🗇 🔿 🗾 🖬 🛛		
Server Manager (LIBBYINST) Roles Roles Roles Roles Roles Roles Roles Roles Roles Roles Roles Roles Roles Roles Roles Roles Roles Roles Roles Roles Roles Roles Role	Roles View the health of the roles installed on your served	er and add or remove roles and features.
Storage	Roles Summary	Roles Summary Help
	 Roles: 1 of 17 installed Web Server (IIS) 	Add Roles
	Web Server (IIS) Provides a reliable, manageable, and scalable Web applicable	Web Server (IIS) Help
	Role Status Messages: None System Services: 4 Running, 1 Stopped Events: None in the last 24 hours Best Practices Analyzer: To start a Best Practices A go to the Best Practices Analyzer tile on this role's click Scan this Role	Go to Web Server (IIS)
	Role Services: 25 installed	Add Role Services
	Last Refresh: Today at 5:02 PM Configure refresh	

- 10. From the **Server Manager**, in the left pane, select **Features**, and then, in the right pane, select **Add Features**. The **Add Features Wizard** opens.
- 11. From the list of features, expand the **Background Intelligent Transfer Service** (BITS), and then select **IIS Server Extension**. A window pops up, asking you to confirm that you want to **Add role services required for IIS Server Extension**.

Add Features Wizard	×
Select Features	
Features Web Server (IIS) Role Services Confirmation Progress Results	Select one or more features to install on this server. Extrem ● Install Framework 3.5.1 Features (Installed) ● Background Intelligent Transfer Service (BITS) ● Compact Server ● Install Kocker Drive Encryption ● BranchCache ● Connection Manager Administration Kit ● Desktop Experience ● Instand Handwriting Services ● Instand Handwriting Services ● Internet Printing Client ● Internet Storage Name Server ● Per Name Resolution Protocol ● Oualitv Windows Audio Video Excerience Vert > Install Cance

- 12. Select Add required role services. The window closes.
- 13. From the list of features, select **SMTP Server**. A window pops up, asking you to confirm that you want to **Add role services required for SMTP Server**.

Add Features Wizard		×
Select Features		
Features Web Server (IIS) Role Services Confirmation Progress Results	Select one or more features to install on this server. Features: Internet Storage Name Server LPR Port Monitor Multipath I/O Network Load Balancing Peer Name Resolution Protocol Quality Windows Audio Video Experience Remote Assistance Remote Assistance Remote Server Administration Tools (Installed) RPC over HTTP Proxy Simple TCP/IP Services Storage Manager for SANs Subsystem for UNIX-based Applications Teinet Client Telnet Server TTTP Client Windows Biometric Framework	Description: SMTP Server supports the transfer of e-mail messages between e-mail systems. • • • • • • • • • •

14. Select Add required role services. The window closes.

Click **Next** three times, and then click **Install**. The installation process begins, and the **Installation Progress** screen is displayed. When the installation is completed, the **Installation Results** screen is displayed.

Add Features Wizard			×
Installation Results			
Features Web Server (IIS)	The following roles, role services, or features were	e installed successfully:	1
Role Services Confirmation Progress Results	Web Server (115) The following role services were installed: Web Server Health and Diagnostics Logging Tools Tracing ODBC Logging Management Tools IIS 6 Management Compatibility IIS 6 Management Compatibility IIS 6 Management Console Background Intelligent Transfer Service (BITS) The following features were installed:	e S Installation succeeded	
	The following reatures were installed: IIS Server Extension Remote Server Administration Tools The following features were installed: Feature Administration Tools SMTP Server Tools Print, e-mail, or save the installation report	✓ Installation succeeded ✓ </td <td>1</td>	1

15. Click **Close**. The **Add Features Wizard** closes, and the **Server Manager** lists the features you selected as installed.



Windows Server 2012

On Windows Server 2012, you can install and configure the Internet Information Services (IIS), version 8, in the **Server Manager**.

To install and configure the Internet Information Services (IIS) component:

1. Open the Server Manager.



2. From the upper-right side of the window, in the **Manage** menu, select **Add Roles and Features**. The **Add Roles and Features Wizard** opens.

Add Roles and Features Wizard
Add features that are required for Web Server (IIS)? The following tools are required to manage this feature, but do not have to be installed on the same server.
⊿ Web Server (IIS)
▲ Management Tools
[Tools] IIS Management Console
Include management tools (if applicable) Add Features Cancel

- 3. Select **Include management tools (if applicable)**, and then select **Next**. The **Installation Type** screen opens.
- 4. Select **Role-based or feature-based** installation, and then select **Next**. The **Server Selection** screen opens.
- 5. Select the server on which you will be installing the SpeechMiner web server, and then select **Next**. The **Server Roles** screen opens.
- 6. From the list of roles, select **Web Server (IIS)**. A window pops up, and asks you to confirm that you want to add the role services required for the web server.

b	Add Roles and Features Wizard	_ _ X
Select server ro	les	DESTINATION SERVER tlvqa4.us.int.genesyslab.com
Before You Begin Installation Type	Select one or more roles to install on the selected server.	Description
Server Selection Server Roles Features Confirmation Results	 Active Directory Rights Management Services Application Server DHCP Server DNS Server Fax Server ✓ File And Storage Services (Installed) Hyper-V Network Policy and Access Services Print and Document Services Remote Access Remote Desktop Services Volume Activation Services Windows Deployment Services Windows Server Update Services 	Web Server (IIS) provides a reliable, manageable, and scalable Web application infrastructure.
	< <u>P</u> revious <u>N</u> e	xt > Install Cancel

- 7. From the popup window, select Add Features. The pop-up window closes.
- 8. Select Next. The Features screen opens.
- 9. From the list of features, expand **Background Intelligent Transfer Service**, and then select **IIS Server Extention**. A window pops up, and asks you to confirm that you want to add the role services required for the IIS server extension.
- 10. From the popup window, select Add Features. The pop-up window closes.
- 11. From the list of features, select **SMTP Server**. A window pops up, and asks you to confirm that you want to add the role services required for the SMTP server.

a	Add Roles and Features Wizard	_ D X
Select features Before You Begin Installation Type	Select one or more features to install on the selected server. Features	DESTINATION SERVER tivqa4.us.int.genesyslab.com Description
Server Selection Server Roles Features Web Server Role (IIS) Role Services Confirmation Results	Remote Differential Compression Remote Server Administration Tools RPC over HTTP Proxy Simple TCP/IP Services SMTP Server SNMP Service Subsystem for UNIX-based Applications [Deprecat] Telnet Client Telnet Server TFTP Client ✓ User Interfaces and Infrastructure (Installed) Windows Biometric Framework Windows Identity Foundation 3.5 ✓	SMTP Server supports the transfer of e-mail messages between e-mail systems.
	< <u>P</u> revious <u>N</u> ext :	> Install Cancel

12. From the popup window, select **Add Features**. The pop-up window closes.

13. Select Next. The Role Services screen opens.

A	Add Roles and Features Wizard	_ D X
Select role service Before You Begin Installation Type Server Selection Server Roles Features Web Server Role (IIS) Confirmation Results	Select the role services to install for Web Server (IIS) Role services	DESTINATION SERVER tivqa4.us.int.genesyslab.com Description IIS 6 WMI Compatibility provides Windows Management Instrumentation (WMI) scripting interfaces to programmatically manage and automate tasks for IIS 8.0 Web server, from a set of scripts that you created in the WMI provider. This service includes the WMI CIM Studio, WMI Event Registration, WMI Event Viewer, and WMI Object Browser tools to manage sites.
	< <u>P</u> revious <u>N</u> ext	> Install Cancel

- 14. From the list of **Role services**, make sure the following services are selected: a. Under **Common HTTP Features**:
 - Static Content
 - Default Document
 - Directory Browsing
 - HTTP Errors
 - HTTP Redirection
 - b. Under Application Development:
 - ASP.NET
 - ASP.NET Extensibility
 - ISAPI Extensions
 - ISAPI Filters
 - c. Under **Security**:
 - Windows Authentication
 - d. Under IIS Management tools:

- IIS 6 Management Compatibility
- IIS Management Console
- 15. Select **Next**, and the select **Install**. The IIS server is installed with the roles and features you selected.

Pre-installation Checklist

Before you begin installing SpeechMiner, ensure the following:

- You have the required hardware (see System Requirements).
- · You have received the following from Genesys:
 - SpeechMiner installation package
 - Licenses
- Space check: The hard drives of the machines on which you are planning to install the system components have sufficient space available for those components (see System Requirements).
- OS check: All machines have supported operating systems (see System Requirements).
- Machine connectivity: All machines are functional and connected to the network.
- Admin user: The user account that will be used to install the components has Administrator permissions on all machines on which components will be installed.
- Verify that all of the following Required Third-Party Software is installed and configured:
 - .NET Framework
 - SQL Server
 - IIS installation
 - Report Viewer
- Audio capabilities: Machines on which the SpeechMiner web application will run have functioning audio devices, and Windows Media Player version 10 or 11 installed (see System Requirements).

Installing the SpeechMiner Components

The setup wizard is used to install all SpeechMiner components. You can run it separately on each machine on which you are installing SpeechMiner components. If you are installing multiple SpeechMiner components on the same machine, you can install them at the same time. For example, if you are installing the database server and the web server on the same machine, you can select both of them in the setup wizard. In most systems, SMConfig is installed on all server machines.

Installing Using the Wizard

Installing Using the Wizard

To install components using the setup wizard:

- 1. Open the installation package.
- 2. From the FullInstaller folder, run SpeechMinerInstall.exe. The setup wizard opens, with the Welcome screen displayed.
- 3. Click Next. The License Agreement screen opens.
- 4. Select I accept the terms of the license agreement, and then click Next. The Installation Type screen opens.

SpeechMiner 8.5 Setup			
Installation type Please choose the installation type			9
 Analytics and Recording UI 			
C Recording UI Only			
C Analytics Only			
Nullsoft Install System v2.44	< Back	Next >	Cancel

- 5. Select the installation mode:
 - **Analytics and Recording UI**: SpeechMiner plays back and analyzes interactions recorded with Genesys Interaction Recording.
 - Recording UI Only: SpeechMiner plays back the call audio for each interaction in the search results. The contents of the interactions are not processed by the speech-analytics system.
 - Analytics Only: SpeechMiner imports interactions and their recorded call audio from any recording system. Once the interactions and their audio is imported SpeechMiner processes the contents of each interaction.
- 6. Click Next. The Choose Components screen opens.

SpeechMiner 8.5 Setup				
Choose Components Choose which features of SpeechMiner 8.5 you want to install.				
Check the components you wa install. Click Next to continue.	ant to install and uncheck the com	ponents you don't want to		
Select components to install:	 ✓ Uplatform ✓ Smart ✓ Web ✓ SMConfig ✓ ULogger ✓ SMUpgrade ✓ Interaction Receiver Nuarce License 	Description Position your mouse over a component to see its description.		
Space required: 606.4MB	Database			
Nullsoft Install System v2.44	< Back	Next > Cancel		

- 7. In the list of components, select the components you want to install on the machine.
- 8. Click **Next**. Which screen you see next depends on the components you selected in the previous screen.
 - If you are installing the Uplatform, see Installing the UPlatform Server.
 - If you are installing SMART, see Installing SMART.
 - If you are installing the database, see Installing the SpeechMiner Database.

• Otherwise, the Choose Install Location screen opens.

 Important By default, 64-bit SpeechMiner is installed in the following location: C:\Program Files (x86)\Genesys\Software. 	
SpeechMiner 8.5 Setup	
Choose Install Location Choose the folder in which to install SpeechMiner 8.5.	9
Setup will install SpeechMiner 8.5 in the following folder. To install in a different folder Browse and select another folder. Click Install to start the installation.	r, dick
Destination Folder C:\Program Files (x86)\Genesys\Software Browse	
Space required: 358.9MB Space available: 9.9GB	
Nullsoft Install System v2.44	Cancel

9. Modify the default installation location if necessary, and then click **Install**. The installation process begins. When the process is completed, the following screen appears:



10. Select **Restart Now**, and then click **Finish**. A warning message appears, and reminds you to configure SpeechMiner before you open it.



11. Click **OK**. The server restarts.

Installing the SpeechMiner Database

Installing the SpeechMiner Database

The SpeechMiner database stores the interaction data and the results of interaction processing. It is usually installed on a dedicated machine. The following sections explain how to install the SpeechMiner database.

Setup Wizard

Running the Setup Wizard

To begin the installation of the database server, run the setup wizard as described under Installing the Components.

To install the database server:

1. On the database server machine, run the **Setup Wizard**, as described under Install Using the wizard.

2. Follow the instructions there, until the **Database Credentials** screen opens.

SpeechMiner 8.5	5 Setup	
Database creden Please enter the o	9	
🗌 Windows Auth	enticated user	
DB Server		
DB Name	speechminer_ver8_5	
DB User		
DB Password		
Nullsoft Install System	n v2,44	
	< <u>B</u> ack <u>N</u> ext >	Cancel

3. In the **Database Credentials** screen, fill in the fields as follows:

Field	Description
Windows Authenticated User	Select this option to use the Windows username and password you used to log into the machine as the DB User and DB Password. When you select this option, the DB User and DB Password become unavailable.
DB Server	Enter the name of the server on which you want to install the SpeechMiner database. If you want to install the database on an SQL Named Instance, the server name should be entered as server_name\instance_name.
DB Name	Enter the name of the database in the format speechminer_verX_Y (for example, speechminer_ver8_5).
DB User	Enter SA. (The credentials of the user name entered here will be used for the process of creating the SpeechMiner database.)

Note: This field is not available when **Windows Authenticated User** is selected.

Enter the DB password. Only a user with Administrator permissions can enter password credentials.

- DB Password Note: This field is not available when Windows Authenticated User is selected.
- 4. Click Next. The Choose Install Location screen opens.
- 5. Modify the default installation location if necessary, and then click **Install**. The installation process begins. When the process is completed select **Restart Now**, and then click **Finish**. A warning message appears.
- 6. From the warning message, click OK. The server restarts.
- 7. After the database-server installation is completed, check that the speechminer_verX_Y database is present. This can be done by opening SQL Server Management Studio on the SQL server (for example, in the Start menu, under All Programs, select Microsoft SQL Server 2008 R2 > SQL Server Management Studio) and reviewing the list of databases on the server.



Manual Installation

Manually Installing the SpeechMiner Database

An alternative way to perform the database installation is to use data_ver8_5_3_sql2005.bak (an SQL backup file) deployed in C:\Program Files (x86)\Genesys\Software\Support during any regular install. Restore this backup on the SQL server and choose settings based on the settings in the steps above. After restoration is complete, update the database properties as follows:

- For both the Data and Log files, change Options\Recovery Mode to Simple and change the Files\Autogrowth\File Growth parameter to 10%.
- In addition, run the following commands to create the dbuser user:
 - On the master database: create login [dbuser] with password='dbuser', check policy=OFF
 - On the new database: EXEC sp_change_users_login 'Auto_Fix', 'dbuser'

Important

When you manually install the SpeechMiner

Database, you must run the database purge using the SQL Server Service Broker.

To enable the SQL Server Service Broker:

1. Run the SP command: EXEC sp enableServiceBroker

The SP will try to enable the service broker with ENABLE_BROKER. If it does not succeed, it will run the command with NEW_BROKER. This SP will also use the current DB name correctly.

2. If sp_enableServiceBroker does not enable the Service Broker, run the following query:

ALTER DATABASE [DB_NAME] SET ENABLE_BROKER WITH ROLLBACK IMMEDIATE

3. Run the following query to verify that SQL Server Service Broker is enabled:

```
SELECT is_broker_enabled FROM sys.databases WHERE
database id=DB ID()
```

A value of 1 indicates that the Service Broker is enabled.

If the enable SQL Server Service Broker query fails:

- 1. Close all connections to the database.
- 2. Run the following query:

ALTER DATABASE [DB_NAME] SET ENABLE_BROKER WITH ROLLBACK IMMEDIATE

3. Run the following query to verify that SQL Server Service Broker is enabled: SELECT is broker_enabled FROM sys.databases WHERE database_id=DB_ID()

To disable the SQL Server Service Broker:

1. Run the following query: ALTER DATABASE [DB_NAME] SET DISABLE_BROKER WITH ROLLBACK IMMEDIATE

Default Database User

Change the Default Database User

If you want to change the default database user in SpeechMiner, you must assign the user the rights required to access the relevant tables in the database. The UTOPY and Reports roles give the user those rights. If you want to work with the pre-configured database user (dbuser), or a user that already has full access (for example, an administrative user) you do not need to assign the user new or different rights. To assign the default database user the correct roles:

- 1. Open the SQL Server Management Console.
- 2. In the new **SpeechMiner Database** folder select **Security > Roles > Database Roles**.
- 3. Assign the UTOPY and Reports roles to the new default database user.

Storage Partitions

Creating the Storage Partitions

If the database server is an Enterprise Edition, you must create the storage partitions on the database. To do this, after you install the database server, run the following SQL query on the SpeechMiner database:

EXEC sp_create_DB_storage_partitions

Important

For information about how to open SQL Server

Management Studio and run a query, see Setting the Maximum Memory Usage.

Maintenance Jobs

Configuring the Database Maintenance Jobs

When the database is installed, a database maintenance job (SpeechMiner_Maintenance_job - <database>) is automatically created. You should schedule it to run daily or weekly at a time when call volume is expected to be low. In addition to scheduling the job to run, you can also modify it to suit your requirements.

By default, the maintenance job does the following:

- · Shuts down the SpeechMiner UPlatform service
- Rebuilds fragmented database table indexes
- Restarts the system
- Purges logs of messages that are older than one month
- Purges logs of user events that are older than one year
- Purges the report agent filter by removing entries that are older than 30 days and creating a new list of agents

To open the maintenance-job script:

 From SQL Server Management Studio, under Databases > SQL Server Agent > Jobs, double-click the job.



🚭 Job Properties - SpeechMin	er_Maintenance_job - speech	miner_ver8_5	_ 🗆 🗙
Select a page	🔄 Script 👻 📑 Help		
General Steps	<u>N</u> ame:	SpeechMiner_Maintenance_job - speechminer_ver8_5	
Alerts	<u>O</u> wner:	dbuser	
Pargets	Category:	Database Maintenance	.
	Description:	No description available.	
Server:	Enabled	1	
Connection:	Source:		
View connection properties	Created:	1/30/2014 5:03:18 PM	
Progress	Last modified:	1/30/2014 5:03:18 PM	
Ready	Last executed:		
"V _{4D} 0"	View Job History		
		ОК Са	ancel

The job may optionally include the updateUntilYesterdayMaxChannels and sp_agentFilterCleanByDays jobs. In addition, any procedure that rebuilds indexes and purges old calls should be added as a step in the maintenance job.

Imp	ortant
•	If information about the agents and their hierarchy is not available through the UConnector, you can include the sp_createAgentsFromPartitions job in this job.

Changing the Job Owner

To enter change the job owner:

- 1. Open the SQL Management Tool.
- 2. Alter the Store procedure called sp createMaintenanceJob.
- 3. In the following procedure text replace dbuser with an existing database user.

```
@owner login name=N'dbuser'
```

4. Execute the updated Store procedure to create the correct job.

SQL CLR

Deploying the SQL CLR

After you install the database, you should deploy the SQL Common Language Runtime (CLR) assembly on the SQL server. To do this, on the Master, you must set the permissions of the XmlSerializers.dll and enable xp_cmdshell and CLR integration, as explained below.

Important

In order to set the permissions, the user running the

SQL services must have modify permissions on sqlclr.XmlSerializers.dll.

To deploy the SQL CLR:

- 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:

```
use [master]
CREATE ASYMMETRIC KEY SQLCLRTestKey FROM EXECUTABLE FILE =
'\\<Machine_Name>\c$\Program Files (x86)\Genesys\Software\
Support\sqlclr.XmlSerializers.dll'
GO
use [master]
CREATE LOGIN SQLCLRTestLogin FROM ASYMMETRIC KEY SQLCLRTestKey
GO
use [master]
GRANT EXTERNAL ACCESS ASSEMBLY TO SQLCLRTestLogin
```

4. In the text area, change <Machine_Name> to the name of the machine on which the SpeechMiner database was installed.



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.



```
example, C:\Program Files
(x86)\Genesys\Software\Support\
sqlclr.XmlSerializers.dll.
```

- 6. Open another New Query.
- 7. Copy the following commands and paste them into the New Query text area:

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

- 8. Above the text area, select **Execute**. The commands are executed. When the process is completed successfully, xp_cmdshell and CLR integration are enabled, and **Query executed successfully** appears at the bottom of the window.
- 9. Open another New Query.
- 10. Browse to C:\Program Files (x86)\Genesys\Software\Support.
- 11. Run the SQLCLR.sql script.

The clr assembly is created with EXTERNAL_ACCESS. To create an EXTERNAL_ACCESS or UNSAFE assembly in SQL Server refer to: http://msdn.microsoft.com/en-us/library/ms345106.aspx

Recovery Model

Configuring the Recovery Model

In order to save disk space, it is recommended to set the recovery model of the SpeechMiner database to Simple.

Important

6

If you use Log Shipping, set the recovery model to a full or bulk-logged recovery model. Ensure that logs are not written to the same hard drive as the database files.

To set the recovery model to Simple:

- 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 database and then select **Properties**. The **Database Properties** window opens.
- 3. On the left side of the window, select **Options**.

4. On the right side of the screen, under **Recovery model**, select **Simple**.

📔 Database Properties - spee	chminer_ver8_5			
Select a page	Script - 📑 Help			
General				
Files	Collation:	SQL_Latin	SQL_Latin1_General_CP1_CI_AS	
Pilegroups	- Recovered all	Cimala		
Change Tracking	Recovery model:	Simple		
Permissions	Compatibility level:	SQL Serve	r 2005 (90)	•
Extended Properties	Other options:			
Mirroring				
Transaction Log Shipping				
	Automatic			<u> </u>
	Auto Close		False	
	Auto Create Statistics		True	
	Auto Shrink		False	
	Auto Update Statistics		True	
	Auto Update Statistics Asynchro			
	Class Currer on Commit Eachlard			
	Default Cursor		GLOBAL	
			GLOBAL	
	ANSI NULL Default		False	
	ANSI NULLS Enabled		False	
Connection	ANSI Padding Enabled		False	
Server:	ANSI Warnings Enabled		False	
(local)	Arithmetic Abort Enabled		False	
Connection:	Concatenate Null Yields Null		False	
CAMELOT\Lschwartz	CAMELOT\Lschwartz Cross-database Ownership Chaini		False	
	Date Correlation Optimization Enabled		False	
view connection properties	Numeric Round-Abort		False	
	Parameterization		Simple	
Progress Ready	ANSI NULL Default			
			ОК	Cancel

5. Click **OK**. The setting is implemented, and the window closes.

Autogrowth

Configuring the Autogrowth

Important

6

It is recommended that you enable instant file initialization. For details refer to: http://msdn.microsoft.com/en-us/library/ ms175935.aspxshould

To modify the Autogrowth settings:

- 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 database and then select **Properties**. The **Database Properties** window opens.
- 3. On the left side of the window, select **Files**.

📒 Database Properties - spee	chminer_ver8_5					
Select a page	🔄 Script 🝷 🚺 H	elp				
General						
Flegroups	Database <u>n</u> ame:		speechmine	er_ver8_5		
Options	Qwner:		CANELOT	l sohvata		
Change Tracking	_					
Permissions	✓ Use full-text in	dexing				
Mirroring	Database files:					
Transaction Log Shipping	Logical Name	Ele Tune	Eleanun	Initial Size (MR)	Autogrowth	Path
	data ver8 5	Rowe	PRIMARY	276	Pv 1 MR uprestricted growth	C:\Pmgram Eles\A
	data_ver8_5	Log	Not Applicable	320	By 1 MB, diffesticted growth to 209	C:\Pmgram Files\A
	Jata_ver0_J	Lug	nor Applicable	020	by Fina, realicied growth to 205	
Connection						
Server:						
(local)						
Connection: CALINERS NewStarts						
Mew connection properties						
Progress						
Ready	•					<u> </u>
Page P					Add	Remove
						Ttemove
·						
					OK	Cancel //

- to the second se

4. On the right side of the screen select **Autogrowth** in the **Data File** row. The **Change Autogrowth** dialog box opens.

E Change Autogrowth for data_ve	er8_5 🛛 🗙
Enable Autogrowth	
File Growth	
O In <u>P</u> ercent	10 🕂
In Megabytes	1
Maximum File Size	
C Restricted File Growth (MB)	100 🔶
• Unrestricted File Growth	
	OK Cancel

- 5. Verify that Enable Autogrowth is selected.
- 6. Under **File Growth**, select **Mega Types**, and then, in the text box on the right enter **1024**.
- 7. Click **OK**. The setting is changed in the **Properties** window.
- 8. On the right side of the screen select **Autogrowth** in the **Log File** row. The **Change Autogrowth** dialog box opens.
- 9. Verify that Enable Autogrowth is selected.
- 10. Under **File Growth**, select **Mega Types**, and then, in the text box on the right enter **256**.
- 11. Click **OK**. The setting is changed in the **Properties** window.
- 12. In the **Properties** window, click **OK**. The setting is implemented, and the window closes.

QM Manager Role

QM Manager Role Conflicts

When installing SpeechMiner, the following query should be run on all 8.5.3 databases to avoid role ID conflicts with the new QM Manager role.

declare @QMRole int select @QMRole=roleId from rolesTbl where roleName='QM Manager' insert into rolesTbl select 20,roleName,internalRole,protectedRole,grantRoles,createdOn,createdBy,lastUpd from rolesTbl where roleId=@QMRole update rolesTbl set grantRoles=REPLACE(grantRoles,CAST(@QMRole AS varchar(10)),'20') update rolePermissionsTbl set role=20 where role=@QMRole delete rolesTbl where roleId=@QMRole

Installing the SpeechMiner Web

Installing the SpeechMiner Web

The SpeechMiner Web runs the interface to view and work with the interaction data after it has been processed. You can install the web server on one or more machines in your system, as required. To install the web server, run the Setup Wizard, as described under Install Using the wizard.



The SpeechMiner application pool uses v4.0 of the .Net framework. After you install the SpeechMiner web server on a machine verify that the SpeechMiner Application Pool is configured with:

- .Net Framework V4.0
- SMUSER account
Configure the SpeechMiner Application Pool with .Net Framework V4.0

- 1. In the Start menu, select Administrative Tools > Internet Information Server (IIS) Manager. The Internet Information Server (IIS) Manager opens.
- 2. In the left pane, expand the server name, and select **Application Pools**. The currently defined application pools are listed in the middle pane.



Application Pools

This page lets you view and manage the list of application pools on the server. Application pools are associated with worker processes, contain one or more applications, and provide isolation among different applications.

Filter:	🝷 🔐 Go 🕞 😽 Sh	ow <u>A</u> ll G	Froup by: No Grouping	-	
Name 🔺	Status	.NET Fra	ame Managed Pipeli	Identity	Application
asp.net v4.0	Started	v4.0	Integrated	ApplicationPoolIden	0
ASP.NET v4.0 Classic	Started	v4.0	Classic	ApplicationPoolIden	0
Classic .NET AppPool	Started	v2.0	Classic	ApplicationPoolIden	0
DefaultAppPool	Started	v2.0	Integrated	ApplicationPoolIden	3
interactionreceiver	Started	v4.0	Integrated	ApplicationPoolIden	1
speechminer	Started	v4.0	Integrated	ApplicationPoolIden	2
•					Þ

- 3. Under **.NET Framework Version**, check the version number listed for the SpeechMiner application pool. If the number is 4.0, you do not have to make any changes. If it is not, double-click the version number. The **Edit Application Pool** dialog box opens.
- 4. Under .NET Framework version, select v4.0.

Edit Application Pool	? ×
Name: DefaultAppPool	
.NET Framework version:	
.NET Framework v4.0.30319	-
Managed pipeline mode: Integrated	
Start application pool immediately	
OK Cance	el

5. Click OK.

Configure the SpeechMiner Application Pool with a SMUSER Account

 In the Start menu, select Administrative Tools > Internet Information Server (IIS) Manager.

The Internet Information Server (IIS) Manager opens.

- 2. In the left pane, expand the server name, and select **Application Pools**.
- 3. Right click the **SpeechMiner Application Pool** and select **Advanced Settings**

	NET Eramework Version		-
	ANET FLATIC/YOLK VELSION	v2.0	
	Enable 32-Bit Applications	False	
	Managed Pipeline Mode	Integrated	
	Name	speechminer	
	Queue Length	1000	
	Start Automatically	True	
Ξ	CPU		
	Limit	0	
	Limit Action	NoAction	
	Limit Interval (minutes)	5	
	Processor Affinity Enabled	False	
	Processor Affinity Mask	4294967295	
Ξ	Process Model		
	Identity	ApplicationPoolIdentity	
		· · · · · · · · · · · · · · · · · · ·	
ľ	Idle Time-out (minutes)	60	
	Idle Time-out (minutes) Load User Profile	60 False	
	Idle Time-out (minutes) Load User Profile Maximum Worker Processes	60 False	
	Idle Time-out (minutes) Load User Profile Maximum Worker Processes Ping Enabled	60 False 1 True	
	Idle Time-out (minutes) Load User Profile Maximum Worker Processes Ping Enabled Ping Maximum Response Time (seconc	60 False 1 True 90	
	Idle Time-out (minutes) Load User Profile Maximum Worker Processes Ping Enabled Ping Maximum Response Time (second Ping Period (seconds)	60 False 1 True 90 30	
	Idle Time-out (minutes) Load User Profile Maximum Worker Processes Ping Enabled Ping Maximum Response Time (second Ping Period (seconds) Shutdown Time Limit (seconds)	60 False 1 True 90 30 90	

- 4. Under **Process Model**, change the **Identity** to **SMUSER account**.
- 5. Click **OK**.

For additional details about the SMUSER account refer to Configuring Permissions

Installing the Interaction Receiver

Installing the Interaction Receiver

The SpeechMiner Interaction Receiver runs the service that receives the calls (audio and metadata) from the Genesys Interaction Recording system. To install the Interaction Receiver, run the Setup Wizard, as described under Installing Using the Wizard.

To allow Genesys Interaction Recording (GIR) to send a long audio file to SpeechMiner, configure the Request Filtering Feature in the IIS server, as explained in http://www.iis.net/ configreference/system.webserver/security/requestfiltering/requestlimits, and set the Maximum allowed content length to 345600000.

The Interaction Receiver application pool uses v4.0 of the .Net framework, and not a later version. After you install the SpeechMiner web server on a machine verify that the Interaction Receiver Application Pool is configured with:

- .Net Framework V4.0
- SMUSER account

Configure the SpeechMiner Application Pool with .Net Framework V4.0

- 1. In the Start menu, select Administrative Tools > Internet Information Server (IIS) Manager. The Internet Information Server (IIS) Manager opens.
- 2. In the left pane, expand the server name, and select **Application Pools**. The currently defined application pools are listed in the middle pane.



Application Pools

This page lets you view and manage the list of application pools on the server. Application pools are associated with worker processes, contain one or more applications, and provide isolation among different applications.

	Chattan				
Name 🔺	Status	.NET Frame	Managed Pipeli	Identity	Application
asp.net v4.0	Started	v4.0	Integrated	ApplicationPoolIden	0
ASP.NET v4.0 Classic	Started	v4.0	Classic	ApplicationPoolIden	0
Classic .NET AppPool	Started	v2.0	Classic	ApplicationPoolIden	0
DefaultAppPool	Started	v2.0	Integrated	ApplicationPoolIden	3
interactionreceiver	Started	v4.0	Integrated	ApplicationPoolIden	1
speechminer	Started	v4.0	Integrated	ApplicationPoolIden	2

- 3. Under **.NET Framework Version**, check the version number listed for the Interaction Receiver application pool. If the number is 4.0, you do not have to make any changes. If it is not, double-click the version number. The **Edit Application Pool** dialog box opens.
- 4. Under .NET Framework version, select v4.0.

Edit Application Pool	? ×	
Name:		
DefaultAppPool		
.NET Framework version:		
.NET Framework v4.0.30319		
Managed pipeline mode: Integrated		
Start application pool immediately		
OK Cance	ı _	

5. Click OK.

Configure the Interaction Receiver Application Pool with a SMUSER Account

1. In the Start menu, select Administrative Tools > Internet Information Server (IIS) Manager.

The Internet Information Server (IIS) Manager opens.

- 2. In the left pane, expand the server name, and select Application Pools.
- 3. Right click the Interaction Receiver Application Pool and select Advanced Settings

			-
	.NET Framework Version	v2.0	
	Enable 32-Bit Applications	False	
	Managed Pipeline Mode	Integrated	
	Name	speechminer	
	Queue Length	1000	
	Start Automatically	True	
Ξ	СРО		
	Limit	0	
	Limit Action	NoAction	
	Limit Interval (minutes)	5	
	Processor Affinity Enabled	False	
	Processor Affinity Mask	4294967295	
Ξ	Process Model		
	Idoptitu	ApplicationPoolIdeptity	
	ruenuty	whhicacious m	
I	Idle Time-out (minutes)	60	
	Identity Idle Time-out (minutes) Load User Profile	60 False	
	Identity Idle Time-out (minutes) Load User Profile Maximum Worker Processes	60 False	
	Identity Idle Time-out (minutes) Load User Profile Maximum Worker Processes Ping Enabled	False 1 True	
	Identity Idle Time-out (minutes) Load User Profile Maximum Worker Processes Ping Enabled Ping Maximum Response Time (seconc	False 1 True 90	
	Identity Idle Time-out (minutes) Load User Profile Maximum Worker Processes Ping Enabled Ping Maximum Response Time (second Ping Period (seconds)	False 1 True 90 30	
	Identity Idle Time-out (minutes) Load User Profile Maximum Worker Processes Ping Enabled Ping Maximum Response Time (second Ping Period (seconds) Shutdown Time Limit (seconds)	False 1 True 90 30 90	

- 4. Under Process Model, change the Identity to SMUSER account.
- 5. Click OK.

For additional details about the SMUSER account refer to Configuring Permissions

Installing the UPlatform Server

Installing the UPlatform Server

The UPlatform Server manages all the processing tasks of SpeechMiner—fetching, recognition, categorization, exploration, compression, and indexing. This section explains how to install the SpeechMiner UPlatform Server. It should be installed on all machines on which SpeechMiner processing tasks take place. You can install the UPlatform server on one or more machines in your system, as required.

- After you have installed the UPlatform server and created the required folders, it is recommended to turn off error reporting on the server. For additional information, see http://technet.microsoft.com/en-us/library/ cc754364.aspx.
- Regional settings in the Recognition server should be English US or the decimal point separator must be "." and the group separator must be ",", otherwise the recognition will not work well.

Procedure

- 1. To begin the installation of the Uplatform server, run the setup wizard as described under Installing Using the Wizard on the Uplatform server machine.
- 2. Follow the instructions, until the **Choose Components** screen opens.
- 3. Select the following components:
 - Uplatform
 - ULogger
 - Interaction Receiver
 - Nuance License
 - SMConfig
- 4. Click Next.

If you included Nuance License in the components, the Language Selection screen opens. Skip the next step. If you did not include Nuance License, the Nuance License screen opens.

5. In the **Nuance License** screen, enter the names of one or more Nuance license servers you want to use, as explained in the screen, and then click **Next**.

SpeechMiner 8.5 Setup			
Nuance License Please enter nuance license servers as a list of port@server combinations separated by semi-colon			
1			
Nullsoft Install System v2.44	< Back	Next >	Cancel
	< DOCK	incar >	Carreer

6. In the Language Selection screen, select the languages you want to install.

SpeechMiner 8.5 Setup	
Languages Selection Please select the languages you would like to install	9
American English Brazilian Portuguese Canadian French Catalan Australian English UK English UK English European French German Italian Latin American Spanish Latin American Spanish Nullsoft Install System v2,44	Cancel

- 7. Click Next. The Choose Install Location screen opens.
- 8. Modify the default installation location if necessary, and then click **Install**. The installation process begins. When the process is completed select **Restart Now**, and then click **Finish**. A warning message appears.
- 9. In the warning message, click **OK**. The server restarts.

Installing SMART

Installing SMART

The SpeechMiner Administration Tool (SMART) enables users to configure the Speech Analytics system to search interactions for specific topics and other characteristics. SMART should be installed on the work station of each user.

To install SMART on a user's computer:

- 1. On the Uplatform server machine, run the Setup Wizard, as described under Installing Using the Wizard.
- 2. Follow the instructions until the Choose Components screen opens.
- 3. Select the following components:
 - Smart
 - ULogger
 - Nuance Licence
 - SMConfig
- 4. Click Next.
 - If you included Nuance License in the components you selected, the Language Selection screen opens. Skip the next step.
 - If you did not include Nuance License, the Nuance License screen opens.
- 5. In the **Nuance License** screen, enter the names of one or more Nuance license servers you want to us, then click **Next**.

SpeechMiner 8.5 Setup			
Nuance License Please enter nuance license servers as a list of port@server combinations separated by semi-colon			
	_		
Nullsoft Install System v2.44 < Back Next >	Cancel		

6. In the Language Selection screen, select the languages you want to install.

SpeechMiner 8.5 Setup	
Languages Selection Please select the languages you would like to install	\bigcirc
American English American English Canadian Portuguese Canadian French Catalan Australian English UK English UK English European French German Italian European Spanish Latin American Spanish	
< Back Next >	Cancel

- 7. Click Next. The Choose Install Location screen opens.
- 8. Modify the default installation location if necessary, then click **Install**. The installation process begins. When the process is completed select **Restart Now**, then click **Finish**. A warning message appears.
- 9. In the warning message, click **OK**. The server restarts.

Required Folders

Creating the Required Folders

After you install the SpeechMiner components, manually create the shared folders as listed in the table. These folders will be used by SpeechMiner to store the audio, index, and backup files used by the system.

Ensure that enough storage space is available for these purposes on the machines on which you create the folders. By default, the minimum space

required for each folder is 15GB. The minimum space is configurable in the minimumFolderSpaceMB field in the monitorTbl table in the SpeechMiner database.

All SpeechMiner machines should have access to these shared folders, and they should be shared with all groups and users that require access to them. It is recommended to create the folders on the same LAN as the SpeechMiner system components.

The folder names listed below are recommended, for convenience, but you can actually use any names you choose. In addition, you can create multiple folders for most of the folder types, as explained below. For information about configuring SpeechMiner to use these folders, see <u>Sites & Machines</u>.

Important

When you configure the shares, make sure to specifically give write permissions to the user installing SpeechMiner and to the system user

(SMUSER), both under Sharing and under Security.

Folder Name	Description	Quantity
Input	Folder in which interactions data and metadata will be placed by Uconnector when it retrieves them from the recording system; fetchers collect the data from input folders, prepare it for processing by SpeechMiner, and then place it into store folders.	One folder for each fetcher task; if there are multiple recording systems, or multiple storage media used for storing the unprocessed data, a fetcher task must be created for each data source and for each input folder. For information about deciding how many fetchers to create, see Configuring Machines and Tasks.

Interaction Receiver Input	Folder in which the audio files that are received from the Genesys Interaction Recording solution will be placed, and later processed by the Interaction Receiver. Note: This is a different folder than the Input folder which is used by fetchers.	One for the entire system.
Store	Folder in which interactions will be placed by fetchers to await processing by SpeechMiner.	The system can have multiple store folders—for example, if there are multiple storage media used for storing the processed data, you can create a folder on each of them.
Filtered	Folder in which interactions with non-existant or inactive Programs will be placed.	One for each site in the system.
Grammar	The "package" folder, in which the rules for processing voice interactions, including those defined in SMART, are stored.	One for the entire system. Note: If you want to have more than one copy of the folder, you can create additional folders and configure SpeechMiner to use them. If you do this, SpeechMiner will save the same content in each of the folders, so that you will have backups.
Index	Folder in which the system will store an index of calls, metadata, and events, so that they can be found quickly during searches.	One for the entire system.
		One for the entire system.
Backup	Folder in which SpeechMiner will store backups of SMART definition sets (Program, Topic, and Category definitions).	Note: If you want to have more than one copy of the folder, you can create additional folders and configure SpeechMiner to use them. If you do this,

SpeechMiner will save the same content in each of the folders, so that you will have backups.

Uninstalling SpeechMiner

SpeechMiner components can be installed on one machine or numerous machines. If SpeechMiner components are installed on more than one machine, you must perform the following procedure on each machine.

Procedure

1. Double click **uninst.exe** in the C:\Program Files (x86)\Genesys\software. The SpeechMiner component is uninstalled.

Important

Uninstall does not remove **Nuance** data files from the Recognition computers. Delete the **Nuance Recognizer** folder from C:\Program Files

(x86)\Nuance if you do not plan on using this machine for recognition. Nuance data files are only located in machines on which UPlatform and SMART were installed

Configuring SpeechMiner

This topic explains how to configure SpeechMiner after it is installed. SMConfig is used to perform the majority of the SpeechMiner configuration. For information about installing SMConfig, see Installing the Components.

SMConfig is a Windows application that can be installed on any machine on your network. Once installed it can be used to configure the entire SpeechMiner system.

The following sections describe the steps that you must perform before you can begin working with SMConfig:

Permissions

Required Permissions

The user account from which SMConfig is opened must have read, write, and modify permissions on the local installation folder and files.

For most of the configuration changes you can perform using SMConfig, you will need Administrator privileges on the current machine or on other machines. For each configuration task described below, the required permissions are listed. If you are running SMConfig as a non-administrator user, and errors are generated during the configuration process, make sure that you have the right permissions for the task.

In Windows Vista and later versions of Windows, if **User Access Control** is enabled, SMConfig will automatically require you to run it with administrator privileges. If **User Access Control** is disabled, it is recommended to manually run SMConfig with administrator privileges. To do this, right-click the **SMConfig** icon, and then select **Run as administrator**.

For more information on the permissions required for the other SpeechMiner components, see Configuring Permissions.

Database Connection

Encrypting the Connection to the Database

The connection between SMConfig and the database can be encrypted to ensure that confidential data cannot be intercepted and viewed by unauthorized people. This option is configured by the system administrator on the SQL database server. Three encryption settings are defined there:

- Always use encryption
- Never use encryption
- Use encryption when the user requests it

If the latter setting is implemented in your system, you can choose to use an encrypted connection when you log into SMConfig. If the database server is configured to always

encrypt or not to encrypt at all, you cannot change this option when you log into SMConfig, and selecting one of the options has no affect.

Starting SMConfig

Starting SMConfig

SMConfig can be run on any machine in your system in which it is installed. During installation, an SMConfig icon is placed on the desktop of the machine.

You can log into SMConfig in one of the following ways:

- Using a SpeechMiner user account
- · Using the Windows account you used to log onto the PC
- Using a Genesys user account and connecting to a Genesys configuration server for confirmation

Important

Genesys Authentication is only implemented if SpeechMiner is deployed with GIR.

To open SMConfig:



1. On the desktop of the computer, double-click the **SMConfig** icon. The **SMConfig** - **Login** dialog box appears.

/ ^U SMConfig -	Login 🗙
SpeechMi	ner Authentication
C Windows	Authentication Authentication
Build:	7055
Username:	administrator
Password:	
DB Settings:	Þ
	OK Cancel

- 2. Select the type of user account you want to use to log into SpeechMiner:
 - **SpeechMiner Authentication:** Use a username and password that are managed by SpeechMiner.
 - Windows Authentication: Use the username and password you used to log into Windows.
 - Genesys Authentication: Use a Genesys username and password.

Genesys authentication users can only be set in Genesys Administration Extension (GAX).

3. In the **Username** and **Password** fields, type your username and password.

Imp	Important		
•	If you are logging in using Windows Authentication, your username and password are inserted automatically, and the username is in the form domain\username.		

4. If this is the first time you are opening SMConfig on this computer, or if you want to change the existing database settings, click the **DB Settings** arrow. The **Login** dialog box expands and displays the database settings.

Important	
 If you do not need to set or modify the database settings, skip this and the next step. 	

/ ^V SMConfig - Login	×
 SpeechMiner Authentication Windows Authentication Genesys Authentication Build: 7055 Username: administrator Password: DB Settings: 	DB Properties SQL Server Authentication Windows Authentication Server: demo Port: 51606 Username: sa Password: Database: ibby_instal Encrypt connection
OK Cancel	

5. Fill in the fields as follows:

Field	Description
SQL Server Authentication / Windows	Select SQL Server Authentication if the username and password for accessing the database are managed on the SQL server. SelectWindows Authentication if you log into the database using the same username and password you used to log into Windows.
Authentication	Note: If you are not sure which option to choose, consult your system administrator.

	The name of the database server
Server	Note: If the database is a named instance on the server, enter both the server name and the instance name, in the format server_name\instance_name.
	The port to use to connect to the database server
Port	Note: This should normally be left as <default>, even if the database is a named instance.</default>
	The username to use to connect to the database
Username	Note: This field is not available when Windows Authentication is selected. In this case, the username is automatically taken from the username used to log into Windows.
	The password to use to connect to the database
Password	Note: This field is not available when Windows Authentication is selected. In this case, the password is automatically taken from the username used to log into Windows.
Database	The name of the database
	If encrypting the connection to the database is optional in your system, select this option to activate encryption.
Encrypt connection	Note: If encryption is always turned on in your system, selecting or clearing this option will have no effect. If encryption is always turned off in your system, selecting this option will prevent SMConfig from connecting to the database server and you will not be able to log in. In this case, an error message stating, Could not connect to database. Please check database settings, will appear when you click OK .

6. If you have chosen to log in using Genesys authentication, an additional option, Configuration Server Settings, appears below DB Settings. If this is either the first time you are opening SMConfig on this computer, or you want to change the existing Genesys configuration server settings, click the Configuration Server Settings arrow. The Login dialog box expands and displays the configuration-server settings.

If you do not need to set or modify the Genesysauthentication settings, skip this and the next step.

/ ⁹ SMConfig - Login	×
SpeechMiner Authentication Windows Authentication Genesys Authentication Build: 7055 Username: Password: DB Settings: Configuration Server Settings:	Configuration Server Properties Server : Port:
Configuration Server Settings:	
OK Cancel	

- 7. Enter the name of the server and the port to use to verify the user information, as follows:
 - Server—Enter the name of the configuration server.
 - Port—The port to use to connect to the configuration server in order to verify the user information.

After setting or updating the configuration server host and port in SMConfig (either in the Login window, or in the Sites and Machines panel), the IIS should be restarted.

8. Click **OK**. You are logged into the system, and the **SpeechMiner Configuration Tool** (SMConfig) window opens with the first screen, **Sites and Machines**, displayed.

SpeechMiner Config	guration Tool - 8.5	
Sites & Machines	Sites & Machines	
License	Validate input, filtered, store and installation folders Cross ste processing allowed Prefer compressed remote audio Machines & Tasks Image: Start	
Sergices Audio	Package Folders	
Index	✓ Validate Report Server ✓ Validate Report Server Report Server Grad 100 Server Name: Grad 100 Protocol: http: Port: 80 Vitual Folder: Report Server Server Name: Grad 100 Port: 80 Vitual Folder: Report Server Default Language: American English Server Name: Select Languages Port: 2020	ave

The SMConfig interface contains panels (**Sites and Machines**, **Reports**, etc.) in which various categories of configuration settings can be accessed.

To open a panel:

• On the left side of the window, select the icon of the panel. The panel opens on the right side of the window.

Saving Changes

Saving the Changes in SMConfig

Changes you make in one panel of SMConfig are saved temporarily if you open a different panel. Nonetheless, you must click **Save** in each panel to save the settings in that panel.

After you click **Save**, before the settings are actually saved, some settings go through a validation process. Validation ensures that the locations specified for folders and files exist and can be accessed, and checks that certain important parameters are configured properly. Certain key settings are always validated when Save is selected; you can choose to have the system validate certain others if you wish.

During the validation process, a Progress window is displayed. The window lists the stages of the validation process as they are completed, with an icon indicating the status of each stage.

lcon	Description
\checkmark	Success: Validation of the stage was successful.
Â	Warning: Validation of the stage was successful, but some problematic issues were detected.
8	Failure: Validation of the stage failed, because of the problems indicated. No changes to the configuration were saved.

When the process is complete, the **Close** button at the bottom of the window becomes active. If validation was successful, the last line of the log says **Done**. If the **Progress** window contains any stages that failed (indicated by ³), the entire save process is cancelled. The following screenshots depict examples of each status:

Progress		
Messages		_
√ validating site 1 (Detroit)		_
✓ Done.		
		_
		<u> </u>
		-
	Close	
		11.

P	rogress	
		-
	Messages	1
	validating site 1 (Detroit)	
	Failed to access the report server Invalid URI: The hostname could not be parsed.	
	The new package folder "\\libbyinst\c\$\data\grammars\' could not be found. It was added to the system	
	Notify web on machine \\LIBBYINST failed. If this is the first time the system is being configured please ig	
	√ Done.	
		1
		1
	×	
	Close	
		/
]

Progress
Messages
√ validating site 1 (Detroit)
√ validating site 2 (Vancouver)
S Filtered folder is missing for site Vancouver
S There should be at least one store folder for site Vancouver
S Computer list is empty for site Vancouver
A Failed to access the report server Invalid URI: The hostname could not be parsed.
Close

To see details about a warning or failure:

• In the Progress window, select the item. Details are displayed at the bottom of the window.

Pro	gress	
Pro	Messages √ validating site 1 (New York) Notify web on machine \\LIBBYINST failed. If this is the first time the system is being configured please ig √ Done.	9
Z igy	lotify web on machine \\LIBBYINST failed. If this is the first time the system is being configured please gnore this warning. Veb service URL: http://\LIBBYINST:80/speechminer/webServices/notification.asmx	
	Qlose	

After the configuration changes are successfully saved, a **Restart Services** message appears.

Restart Services	×	
The changes you have made will not take effect until the UPlatform services are restarted.		
To choose which services to restart, or to start new services, go to the Services panel.		
Would you like to automatically restart all running services?		
Yes No		

Select **Yes** to restart all of the services, or **No** if you prefer to restart them later (either after you make additional configuration changes, or manually from the **Services** panel.)

Using SMConfig

This section describes how to use SMConfig to configure the Enterprise.

Using the SMConfig to Configure SpeechMiner

The section describes the sections of SMConfig.

Sites & Machines

Sites & Machines

The first panel of the **SMConfig** application, **Sites & Machines**, is used to configure the layout of the system as well as some other system-wide parameters.

This tool enables you to configure sites, machines and tasks, and system index searches.

	× □ •
Sites & Machines	Sites & Machines
Reports	Site Name: default Filtered Dir: \\ttr\fs1\QAStore\QA_data\sf Imput Folders Imput Folders Imput Folders Imput Fold
E. License	Validate input, filtered, store and installation folders Cross site processing allowed Rrefer compressed remote audio Machines & Tasks
Services	Name Tasks TLVQAVM02 WebServer InteractionReceiver ReportCaching(1) Index(1) Monitor(1)
Audio	Package Folders Backup Folders Nttv\gastore\ga_data\n_853
Q Index	Configuration Servers
Recording	Email Server: demo.com Alerts Email: demo@demo.com Index Folder: \\\\\\\\\Sharon\n_853_75
	Default Languages

Configuring Sites

A *site* is a single geographical location in which SpeechMiner servers are installed. One SpeechMiner system, which has one database, can have a number of sites. All the sites configured in the **Site** section of the **Sites & Machines** panel are locations that connect to the SpeechMiner database. If your SpeechMiner is set up in more than one location, configuring each location as a site helps to minimize the bandwidth needed for call processing.

Every SpeechMiner system has at least one site. The first site is created automatically, and is initially called "default." Immediately after SpeechMiner is installed, the "default" site is

automatically configured to include all the servers in the local network. You can change the name of the default site, and add sites, as required. If you create new sites, you can move servers that are listed under the default site to other sites.

Permissions

Required Permissions

Validation of the input, filtered, store, and installation folders can only be performed if the user account used to log into SMConfig has administrator permissions on the machine that is being configured. This is because SMConfig must use the \$ share to check that the installation folder exists.

Default Site

Configuring the Default Site

Some of the settings in the **Sites & Machines** panel are configured per site, and others are configured for the entire system. This section explains how to configure the default site by configuring the site and system settings defined in the **Sites & Machines** panel.

After you configure the settings, and click Save to save them, SMConfig automatically validates the key folders you specified by checking that they exist and are configured with the required permissions. Validation is always performed on the items listed under Machines and Tasks. Validation of other settings is optional, as indicated below. For additional information, see Saving Changes.

To configure the default site:

1. In the Sites & Machines panel, fill in the fields as follows:

Field	Description
Site Name	The name of the site. Initially, the site is called "default." Modify this field to change the name.
Filtered Dir	Enter the location of the folder called filtered that you created (see Creating the Required Folders). For example, the required path format is \\computer\data\input.

Input Folders	Click is to add a line to the list. Then, modify the line to give the location of the input folder you created (see Creating the Required Folders). If you will be using multiple input folders for this site, repeat this procedure to add additional lines to the list, as necessary. For example, the required path format is \\computer\data\input.
Store Folders	Click On add a line to the list. Then, modify the line to give the location of the store folder you created (see Creating the Required Folders). If you will be using multiple store folders for this site, repeat this procedure to add additional lines to the list, as necessary.
Validate input, filtered, store, and installation folders	Select this option if you want SMConfig to validate the input, filtered, store, and installation folders after you click Save (see Saving Changes).
Cross site processing allowed	If your system will have more than one site, select this option to enable processing of interactions from other sites at this site. When this option is selected, the Recognizers at this site will give priority to processing local files, but no local files need to be processed, they will process calls from remote locations. Selecting this option can improve the overall performance of the system, but it does mean that audio files will be transmitted over the network.
Prefer compressed remote audio	If cross-site processing is activated, select this option to give priority to compressed audio files if they are available. If this option is selected, when call data is transmitted from a remote site to this site for processing, the system will send the compressed versions of calls if they are available. In this case, the compressed audio will be decompressed before being processed by the Recognizer. Even so, the quality of the audio input may be diminished slightly, and this may impact the recognition quality.

	Note: This option is only available when Cross site processing allowed is selected.
Machines and Tasks	List all the SpeechMiner machines at the site, and configure the tasks that will run on each machine, as explained under Configuring Machines and Tasks.
Package Folders	Click is to add a line to the list. Then, modify the line to give the location of the grammars folder you created (see Creating the Required Folders). If you will be using multiple grammars folders in your system, repeat this procedure to add additional lines to the list, as necessary. For example, the required path format is \\computer\data\input.
Backup Folders	Click to add a line to the list. Then, modify the line to give the location of the backup folder you created (see Creating the Required Folders). If you will be using multiple backup folders in your system, repeat this procedure to add additional lines to the list, as necessary. For example, the required path format is \\computer\data\ input.
Validate Report Server	Select this option if you are configuring SpeechMiner to use a report server. SMConfig will check that the parameters are correct. Note: If you select this option, SMConfig will try to validate that the user who is running SMConfig has access to the report web service and can call methods using this web service. Therefore, the user account that was used to run SMConfig must have the Content Manager role on the report server (see Configuring Permissions for UPlatform). Folders Select this option if you want SMConfig to check whether the Package, Backup, and Index folders exist and are configured properly.
Report Server	Fill in the fields in this area as follows:

	 Server Name: The name of the machine on which the report server is installed Protocol: The protocol SpeechMiner must use to connect to the report server Port: The port SpeechMiner must use to connect to the report server Virtual Directory: The folder of the reports on the report server—usually named ReportServer. If the database is a named instance, enter both the folder name and the instance name, in the format ReportServer_ Note: If you plan to use the report server, select Validate Report Server.
Email	 Fill in the fields in this area as follows: Email Server: The name of the email server SpeechMiner must use to send alerts, notifications, and reports Alerts Email: The email address SpeechMiner must use as the sender address when it sends email notifications
Index Folder	Click to add a line to the list. Then, modify the line to give the location of the index folder you created (see Creating the Required Folders). For example, the required path format is \\computer\data\ index.
Default Language	Select the default language for new Programs that are opened in SMART. (If additional languages are installed in SpeechMiner, the languages of individual Programs can be changed in SMART when the Programs are created.) Note: Only the languages selected under Select Languages appear in the dropdown list.
Select Languages	Select all of the languages for which you will want to perform speech recognition. These languages will appear as language options in SpeechMiner and in SMART.

Note: In order to create and apply Programs in these languages, their language packs must also be installed. The language packs are installed as part of the SpeechMiner installation process (see Running the Setup Program and Installing SMART). **Note:**The language selections here do not affect the language of the webbased interface. The interface language is selected in the settings of the Web server, under **Machines & Tasks**.

If users will use Genesys credentials to log into any of the

SpeechMiner components from this site, Click is to add a line to the list and modify it so that it points to the location of the Genesys Configuration server (that is, <config_server>:<port>).

• **Server Name:** The name of the machine on which the Genesys configuration server is installed

Configuration• Port: The port SpeechMiner should use to connect to the
configuration server

To configure backup configuration servers, add additional lines with their details. After setting or updating the configuration server host and port in SMConfig (either in the Login window, or in the Sites and Machines panel), the IIS should be restarted.

 Click Save. The system validates the settings, and then, if the validation is successful, implements them. The Progress window opens and shows information about the implementation process.

Add a Site

Adding a Site

If your system will have servers at more than one site, you can add additional sites to the configuration in SMConfig. A new tab is added to the **Sites & Machines** panel for each site you create. The settings in the upper half of the panel, under **Sites** and **Machines and Tasks** are configured for each site. The settings in the lower half of the panel are configured for each site.

Before you begin adding the site, create filtered, input, and store folders on a machine at the new site (see Creating the Required Folders).

To add a site:

- 1. In the upper-left of the **Sites & Machines** panel, select:
- 2. Under **Site Name**, modify the name as required. The name of the tab is automatically updated.

Sites & Machines			
New York San Diego Site Site Name: Site Name: San Diego	Filtered Dir:		
Validate input, filtered, store and installation folders	Cross site processing allowed Prefer compressed remote audio		
Machines & Tasks			
Name Tasks			

3. Under Sites and Machines and Tasks, fill in the fields for the new site.

Configuring Machines and Tasks

The **Sites & Machines** panel must list all the machines used by SpeechMiner at each site, and the tasks they will run. Before you begin configuring the settings in this panel, map out the machines in your system, their specifications, the sites at which they are located, and the tasks that must be performed at each site. Using this information, you can decide which tasks to run on each machine.

In SMConfig, in the Sites and Machines panel, when the system tasks are saved, warning messages indicate that the system does not include

Categorizer, Active Search and Exploration tasks. These messages can be ignored when working in Recording UI Mode, since these tasks are not available in this mode.

Choose the Task

Choosing Which Tasks to Run on Each Machine

Before you can configure the machines and their tasks, you must decide which tasks to assign to each machine. Each machine can have a number of different roles at one site. The entire system must include machines that fill all of the following roles:

- Web server: Runs the SpeechMiner web-based interface.
- Interaction Receiver: Used for the Recording UI and Recording+Analytics modes. It receives interaction data and metadata from the Genesys Interaction Recording system, inserts it into the SpeechMiner database, and places the data files in the Store folder to await processing.
- Fetcher: Takes unprocessed interaction data and metadata from the input folder (where the UConnector placed it after retrieving it from the recording system), inserts it into the SpeechMiner database, prepares the data files for processing by SpeechMiner, and places it in the store folder to await processin.
- **Call Recognizer:** Processes call audio according to the requirements of the program to which the call belongs by transcribing the text and identifying topics and other events in it.
- Indexer: Maintains an index of calls, metadata, and events, so it can be searched quickly.
- **Report caching:** Runs reports that are included in active users' Views pages overnight so that they can be displayed quickly in their widgets when the users open their Views pages; the amount of time to store cached results is configured in the Reports panel.
- Active Search Manager: Enables the Active Search feature to work in the webbased interface.
- **Exploration:** Performs the data analysis required for the Exploration feature of the web-based interface.
- **Recategorizer:** Assigns Categories to the processed interactions in accordance with the Category definitions defined in the system.
- Text Recognizer: Processes written interaction input data and identifies Topics and other events in it.

Important

The Exploration and Active Search tasks use the Index folder. Machines that perform these tasks must be physically connected to the same LAN as the

be physically connected to the same LAN as the Index folder and the Index task).

Normally, each site will have:

- · One Web server
- One or more fetchers
- Several Recognizers, Recategorizers, Active Search Managers, and Monitors
- One or more Indexer tasks (The Indexer tasks should only be configured on machines that are located on the same local network as the index folder.)

Important

Monitors run on all computers in the system. Because of this, there is no option to assign the Monitor task to specific machines, and it does not appear in the list of roles above.

θ

It is recommended to run the Recategorizers and the Active Search Managers on the same machines as the Recognizers.

Optimizing the Number of Fetchers

To optimize the rate at which interaction data is fetched, multiple fetchers can run simultaneously. You can configure SpeechMiner to employ multiple fetchers on one or more machines. However, if too many fetchers run on a single machine simultaneously, the CPU

may not be able to run all of its tasks efficiently. The optimal number of fetchers to run on a single machine is a function of how powerful the CPU of the machine is. A general starting point on a new SpeechMiner installation is to assign 0.5 fetcher tasks per core on each fetcher machine. Normally, two fetchers will maximize the CPU usage on a quad-core machine.

Optimizing the Number of Call Recognizers

To maximize the speed of interaction processing, multiple Call Recognizers can run simultaneously. You can configure SpeechMiner to employ multiple Call Recognizers on one or more machines. However, if too many Call Recognizers run on a single machine simultaneously, the CPU may not be able to run all of its tasks efficiently. The optimal number of Call Recognizers to run on a single machine is a function of how powerful the CPU of the machine is and how many Topics must be recognized concurrently. A general starting point on a new SpeechMiner installation is to assign 1.5 Recognizer tasks per core on each Recognition machine. Normally, six Call Recognizers will maximize the CPU usage on a quad-core machine.

Important

The total number of recognition tasks cannot exceed

the number in the SpeechMiner license under <maxCallProcessing>xx</maxCallProcessing>.

The Call Recognizers in your system are run by a special Recognition process (uRecognizer.exe) that is distinct from the Platform process (uPlatform.exe). Each Recognition process can manage multiple Call Recognizers. You can configure the maximum number of Call Recognizers that should be managed by each Recognition process. If the number is too low, performance may be impacted; if it is too high, the process may run out of memory. Running more than six Call Recognizers per process is not recommended. Unless you are running the processes on a virtual machine(VM), it is recommended to configure the system to run at most six Call Recognizers per process. Then, if you encounter memory problems, reduce this number as necessary to eliminate the problems. On a virtual machine, it is highly recommended to run only two Call Recognizers per process. If you run more than two Call Recognizers simultaneously on a VM, they slow one another down considerably. This recommendation is relevant for virtual machines running either on VMware or Hyper-V servers.

Configure the Machine

Configuring the Properties of a Machine

You configure the properties of a machine by selecting the tasks it should perform.

To configure the properties of a machine:

1. Under **Machines & Tasks**, double-click the machine. A **Properties** window opens and displays the properties of the machine.

/ ⁹ Properties		×
Name:	LIBBY	
Installation Folder:	E:\Genesys\software	
🔽 Web Server		
Protocol:	http:	
Port:	80	
Virtual Folder:	speechminer	
Language:	English 💌	
📕 Search u:	sing remote web service	
Computer		
Interaction Rec	eiver Parameters	
Fetcher	2 🕂 Parameters	
Call Recognizer	r 6 📑 Parameters	
Indexer		
Report Caching)	
Active Search I	Manager	
Exploration		
🔽 Recategorizer		
🔽 Text Recognize	er	
(DK Cancel	//

2. Select all of the tasks the machine should perform.

- If you selected Web Server, select the protocol, specify the port and virtual folder, and select the langauge of the web-based interface. In addition, if the index folder used by the system is on a different network, it is recommended that you configure your web server to work with the remote web service. For additional information about this option, see Remote Index Search.
- 4. If you selected Interaction Receiver, click the Parameters button to its right. In the dialog box, enter the location of the Interaction Receiver Input folder in which the audio files received from the Genesys Interaction Recording solution will be placed, and then click OK. Note that the Interaction Receiver Input folder is not the same folder as the Input folder used by the fetchers.
- 5. If you selected **Fetcher**, configure the **Fetcher** settings as explained below.
- If you selected Call Recognizer, configure the Call Recognizer settings as explained below.
- 7. Click **OK**. The machine is added to the list of machines at the site.

Configuring the Settings of the Fetchers

To configure the settings of the fetchers:

- 1. To the right of the **Fetcher** checkbox, select the number of fetchers that should run on the machine.
- 2. Click the **Parameters** button. The **Fetcher Parameters** window opens and displays a list of all the input folders that are configured for the site.

1	⁹ Fetch	er Parameters	×
		Input Folder	Number of Fetchers
	•	\\tlv1\qastore\libby8_0\input	2
		OK Cancel	

- Under Number of Fetchers, specify how many fetchers should retrieve interaction data from each input folder. Modify the values so that the sum of all the fetchers defined matches the number of fetchers that you specified should run on the machine.
- 4. Click OK.

Configuring the Settings of the Call Recognizers

To configure the settings of the Call Recognizers:

- 1. To the right of the **Fetcher** checkbox, select the number of Call Recognizers that should run on the machine.
- 2. Click the **Parameters** button. The **Recognizer Parameters** window opens and displays a list of all the input folders that are configured for the site.

/ ¹⁹ Recognizer Parameters	×
Maximum number of recognizers per process	6
Server port range start	2001 🕂
Limit number of Active Search recognizers	0 -
OK Cancel	

3. Fill in the fields as follows:

Field	Description
Maximum number of recognizers per process	How many Call Recognizers can be handled by each process.
Server port range start	The ports that will be used by the Call Recognizers; the system will use multiple ports, as necessary, beginning with the port entered in this field. By default, this is port 2001. You can change this number if it conflicts with other port settings in your system.
Limit number of Active	Active Search is a feature that users can access from the SpeechMiner web-based interface. It allows users to reprocess calls in order to search for new terms that were not sought in the

original processing. Active Search uses the same Call Recognizers that are used for the original processing of calls. If Active Search is running at the same time as routine call processing, it may slow the routine processing down considerably by using its Call Recognizers.

Search

- recognizers If Active Search is frequently run during the time when routine call processing is performed, you may wish to limit the number of Call Recognizers that can be used by Active Search at any given time. To do so, enter the maximum number of Call Recognizers that Active Search can use at one time.
- 4. Click OK.

Adding Machines to a Site

You can add machines to sites as required.

To add a machine to a site:

- 1. Under Machines & Tasks, click ¹ A blank Properties window opens.
- 2. Fill in the name and properties of the machine.
- 3. Click **OK**. The machine is added to the list of machines at the site.

Configuring Remote Index Search

The index is a collection of system files. When SpeechMiner searches for calls in the index, it reads the index files from the hard drive on which they are stored. These index files can be on the hard drive of the machine performing the search (the Web server), on a different machine on the same LAN, or on a different machine on a remote LAN.

Whenever the index folder is on a different machine from the Web server performing the search, Windows sharing is used to enable the Web server to access the index files. If both machines are on the same LAN, this arrangement should not cause any performance issues. But when the Web machine and the index machine are on different sites that connect to one another over the internet, accessing the system files on the index machine directly, via Windows sharing, can be slow, especially if the index files are large.

To solve this issue, each Web machine can be configured to either search the index files directly or to use Web service calls.

Consider, for example, a SpeechMiner system that has two sites: Both sites have Web servers, and the second site also stores the index files. In this system, we configure the Web server at Site 2 to search the index files directly, because the index files are located on the same machine as the Web server. On the other hand, we configure the Web server at Site 1 to search the index using Web service calls to the Web server at Site 2. This arrangement is illustrated in the following diagram:



This configuration is set up in the **Properties** windows of each of the machines in the system.

/ ⁹ Properties	×
Name: LIBBY	
Installation Folder: E:\Genesys\software	
☑ Web Server	
Protocol: http:	
Port: 80	
Virtual Folder: speechminer	
Language: English	
Search using remote web service	
Computer:	
✓ Interaction Receiver Parameters	
Fetcher 2 Parameters	
Call Recognizer 6 Parameters	
Indexer	
Report Caching	
Active Search Manager	
Exploration	
Recategorizer	
Text Recognizer	
OK Cancel	///

To configure a Web server to search the system files directly:

• In the **Properties** window of the Web server, clear the **Search using remote web service** checkbox.

To configure a Web server to search the system files by calling the Web service on another machine:

• In the **Properties** window of the Web server, select the **Search using remote web service** checkbox. The **Computer** field becomes active.

• In the **Computer** field, select the Web server to which search requests should be sent.

Licenses

Licenses

For the system to process calls, enter the licenses you received from Genesys must be entered in the **Licenses** panel. The licenses are not included in the SpeechMiner installation folder.

		_ 🗆 🗡
	Licenses	
Sites & Machines	SpeechMiner License:	Browse
Reports	<pre><?xml version="1.0" encoding="utf-16"?> <utopy> clicense> <client>DEM0</client> <expiration>02/25/2015</expiration> <maxcallprocessing>10</maxcallprocessing> <maxversion>8{/maxVersion> </maxversion>8{/maxVersion> </utopy></pre>	
License	<matcomplianceenabled>False <smatenterpriseenabled>False</smatenterpriseenabled> <coachingenabled>False</coachingenabled></matcomplianceenabled>	-
	Nuance License:	Browse
Services	This is a license issued by Nuance Communications, Inc. This license certificate authorizes you to use the Nuance software specified below. This license created to fulfill order OR16242, ID 84930 Erceated on 2013-08-08-04-41:37.037 Created on 2013-08-08-04-41:37.037	1
Audio	VENDOR switningrid USE_SERVER INCREMENT osr_switner: switningrid 9.0.04-feb-2014 50 ISSUED=08-Aug-2013 \ INCREMENT osr_switner: switningrid 9.0.04-feb-2014 50 ISSUED=08-Aug-2013 \ SN=0R16242:84930 SIGN="1FD0 37C9 A078 FE8F 372C 0A0F 3E44 71FB \	-
Q Index		
Recording		
Logging		
		Save

To update the licenses:

- 1. Copy the text of the SpeechMiner license that was supplied.
- 2. In **SMConfig**, in the **Licenses** panel, paste the license text into the **SpeechMiner License** field.
- 3. Copy the text of the Nuance license that was supplied.
- 4. In **SMConfig**, in the **Licenses** panel, paste the license text into the **Nuance License** field.
- 5. Click Save.

Important

If the license texts are stored in separate files, as an alternative to the procedure described above, you

can browse to locate the files. When you open the relevant file, its contents are automatically copied into the appropriate field.

Services

Services

The **Services** panel is used to manage the SpeechMiner services. You can use it to:

- Register all the SpeechMiner services on each machine in the system
- Update the SpeechMiner configuration files on each machine
- Start, restart, and stop services

You must perform these actions at the end of the installation process, and also whenever you add, change, or remove services or machines to or from the system. You can also use the **Services** panel to restart or stop services whenever necessary.

Sites & Machines	Services Create Performance Counters Register services	Select/Deselect All Machine TLVQAVM02]
Reports	Update config files Encrypt config files Use encrypted SQL connections Credentials		
E:	Username Password Domain		
Services	 Restart Services and leave status as is Stop Services Undate Nuance license server 		
Audio			
Q Index			
Recording			
Logging			
			Save

Initial Configuration

After you install SpeechMiner and configure its components in SMConfig, you must register all of the SpeechMiner services, update the SpeechMiner configuration files on each machine, and start all Uplatform servers. In addition, whenever you make changes to the system, you should follow the same procedures, as explained below. To configure the services in your system:

1. In the **Services** panel, fill in the fields as follows:

Field

Description

Create

Update

Select this option to configure the performance counters on each of the selected machines.

Note: Performance counters should normally be configured only performance once for each machine. Select this option for all machines when counters you first install SpeechMiner. Then, if you add new machines to the system, select this option for the new machines. Select this option to register the relevant services on each of the selected machines. When you select this option, the **Credentials** area becomes active. Enter the credentials of the Windows user that will run the services (typically, SMUSER). Notes: Service registration should be performed once for each machine when SpeechMiner is first installed. It should be performed again if Register the credentials of the Windows user account running the services services are changed. Select this option for all machines when you first install SpeechMiner. Then, if you add new machines to the system, select this option for the new machines. If the credentials given are for a local user on each machine rather than a domain user, under **Domain**, enter a "." (dot). The Uplatform service will be registered but the user will not have the "Run as Service" role. You will have to manually go to the Windows services management tool on each machine, enter the password, and click **Apply**.

Select this option to update the SpeechMiner configuration files on each of the selected machines.

When you select this option, the **Credentials** area becomes active. Enter the Windows user that will run the services(typically, SMUSER). In addition, the encryption options become active. Select the required options.

config files **Note:** Updating of configuration files should be performed once for each machine when SpeechMiner is first installed. It should be performed again if the credentials of the Windows user account running the services are changed. Select this option for all machines when you first install SpeechMiner. Then, if you add new machines to the system, select this option for the new machines.

Restart Services / Stop Services	 All the Uplatform services must be restarted after the installation and configuration processes are completed. To do this, under Restart Services and, select change status to run. Then, under Machine, make sure all servers on which Uplatform is installed are selected. Note: The restart and stop options in this panel should also be used whenever you need to restart or stop any of the SpeechMine servers (see Starting and Stopping the System). 	
	If your Nuance license servers are installed on central machines, enter the list of servers and ports in this box. This will update the selected machines' environment variables so that they point to these license servers. Separate entries with semi-colons (;). If you want SMART to access a central license server, add this	
	environment variable to the machine on which SMART is installed: SWILicenseServerList-port@server	
Update Nuance license server	 Select this option for all machines when you first install SpeechMiner. If you relocate the license server to a different machine, add additional servers, or remove existing ones, run this option and select all the machines in your system. If you are updating the Nuance license servers on remote machines, the Remote Registry service must be running on those machines. If it is not running on one of the machines, the error "Failed to update Nuance license on [MACHINE NAME]. The network path was not found." will appear in the Progress window. If you want a machine to work with a local license server, clear the text box, verify that the check box is selected and save. 	
Select/ Deselect all	Select the checkbox to select all of the machines in the list below for updating. Clear it to clear all of the selections in the list.	
Machine	Select the machines for which you want to implement the options you selected on the left side of the panel.	

2. Click **Save**. The system begins to implement the settings you selected, and the **Progress** window opens and shows information about the implementation process.

Required Permissions

The user account used to log into SMConfig must have the required permissions in order for SMConfig to perform the actions selected in the **Services** panel. Some of the requirements are for permissions on the local machine (the machine on which SMConfig is currently running); others are for permissions on the selected remote machines. The various options in the panel have different permission requirements, as explained in the following table:

Option	Required Permissions	Additional Details
Create Performance Counters	 For remote machines: Administrator privileges on the selected machines For the local machine: Under Windows Server 2008, Power User privileges 	
Register Services	Administrator privileges on the selected machines.	Administrator privileges on the selected machines are required in order to register the Uplatform service. These privileges are required for running remote commands on the selected machines and for registering the services using the Windows Services API.
Update Config Files	Administrator privileges on the local machine and on all selected machines.	Administrator privileges on the selected machines are required in order to update the configuration files on the local machine and on the remote machines. These privileges are required for accessing the files using the \$ share and for encryption and decryption (if Encrypt config files is selected).

Restart/Stop Services	 For remote machines: Administrator privileges on the selected machines For the local machine: Power User privileges 	 To change the Uplatform service status on remote machines, Administrator permissions are required in order to get the service information and change it's status remotely using the Windows Services API. To change the Uplatform service status on the local machine Power User privileges on the local machine are sufficient.
Update Nuance license server	 For remote machines: Administrator privileges on the selected machines. For the local machine: Under Windows Server 2008, Power User privileges. 	Administrator permissions are required in order to update the registry key that controls the Nuance environment variables.

Starting and Stopping the System

You can start, restart, or stop SpeechMiner services in SMConfig in the **Services** panel. One case in which you must use this feature to start the Uplatform services is after the initial installation and configuration of the system (see Initial Configuration). You can also use these features to change the status of a service from run to idle, or vice versa, or to completely stop a service.

Important



To start, restart, or stop SpeechMiner services:

- 1. In the Services panel, clear the Create Performance Counters, Register Services, and Update Config Files checkboxes.
- 2. Select one of the following options:
 - **Restart Services and leave status as is**: Restarts the selected services, and leaves them in the mode they were in previously
 - **Restart Services and change status to run**: Restarts the selected services, and puts them into "run" mode
 - **Restart Services and change status to idle**: Restarts the selected services, and puts them into "idle" mode
 - Stop Services: Stops the selected services
- 3. In the list of machines, select the servers you want to restart or stop.
- 4. Click **Save**. The system begins to implement the options you selected, and the **Progress** window opens and shows information about the implementation process.

Audio

Audio

The **Audio** panel of SMConfig is used to configure the call-audio recognition and playback formats, retention periods for each format and site, and playback rates. Below is a summary of the audio formats that are supported for each audio function.

Sites & Machines	Recognition Audio Format Playback Audio Format Select the audio format for recognition: Create compressed audio file: MP3
Reports	WAV_PCM If compress format not available: If compress format not available: Play recognition file If compress format not available: Convert the recognition file on-the-fly to:
License	Site Format Retention Period (Hours) default WAV_PCM 72 default MP3 72
Services	Encryption
Audio	New Password:
Q Index	2. V0X 3. WAV_ADPCM 4. WAV_TRUESPEECH 5. WAV_GSM610 6. WAV_MULAW
Recording	7. WAV_ALAW 8. MP3 Recognition priorities: 1. WAV_PCM (Audio format saved for recognition) 2. MP3
Logging	Playback priorities: 1. MP3 (Audio format sent to the browser) 2. WAV_PCM
	Save

Configuring the Audio Settings

The Audio panel contains the basic audio setting options for the system.



database. Bear in mind that, if you do so, the configuration you defined in the database will not appear in the **Audio** panel. In this case, be careful not to click Save in this panel. If you do, the settings in the panel will overwrite the more complex configuration you defined in the database.

To configure call-audio settings:

1. In the Audio panel, fill in the fields as follows:

Field	Description
Select the audio format for recognition	Select the format of the call audio that must be used by SpeechMiner during the recognition process. If the audio received from the recording system is not in the format selected here, the fetchers will automatically convert it to this format (after they retrieve it from the input folders) before they save it in the store folders to await processing by SpeechMiner. If the system is used in the Recording UI mode or Recording and Analytics mode, the format must be set to WAV_PCM.
Create compressed audio file	Select the format of the call audio that must be used by SpeechMiner for playback in the web-based interface. After the audio of a call is processed, an additional compressed copy is made in this format and saved in a file in the store folders. If the system is used in the Recording UI mode, or Recording and Analytics mode, this must be set to Do Not Generate .
lf compress format not available	 Select one of the SpeechMiner actions to be performed if a user initiates playback of a call for which no compressed audio file is available. (If compressed audio is available, it is automatically used for playback.): Play recognition file: The player plays the recognition audio file directly without any format conversion. Convert the recognition file on-the-fly to: The player first converts the recognition audio file to the format selected here, and then play it for the user.

For Internet Explorer users, select the **Convert the recognition file on-the-fly to MP3** option.

Specify the retention policy, per site, for each of the audio formats selected above. Call data is deleted from the store folder automatically when it has been in the folder as long as the specified retention period. The values chosen should be based mainly on the disk space available for storing the call audio. Bear in mind that 1 MB of disk space can contain roughly one minute of uncompressed audio data or 15 minutes of compressed audio data.

Default values are automatically entered for each site in the system, with separate retention periods for each of the formats selected under **Recognition Audio Format** and **Playback Audio Format**, in hours. You can manually adjust the retention period for each item, as required. To do so, double-click the item, or select it

and then select . The **Retention Period** dialog box opens. Modify the value in the text field, and then click **OK**.

Retention Policies

If the system is used in the Recording UI mode or Recording and Analytics mode, set the retention policy of WAV PCM to 0.

Notes:

	 Selecting these options prevents the creation of unnecessary audio files and the storage of files for longer than is necessary. The recognition audio files of calls that have not been processed yet, and of calls that are included in Static Call Lists, are not deleted even when the retention period is over. If you do not want audio data to be deleted from the store folder automatically, enter the value -1. This value should only be used in static systems where the number of calls is limited and does not grow continuously.
Playback Speeds	Enter the playback speed options that must be available to users when they playback calls in the media player. For example, 1 means playback at the original speed, 2 means double-speed, and so on.

.. .

	By default, only 1 is available. To add an additional speed, click . A new line is added to the list. Modify the value in the line as required, and then press Enter .	
Encrypt	Select this option if you want the audio files to be encrypted before they are saved in the store folder.	
audio files	When you select this option, the New Password field becomes active. Enter the encryption password in the field.	

.. . .

. .

.

2. Click **Save**. The system implements the settings, and the **Progress** window opens and shows information about the process.

Summary

The Audio panel summary lists the preferred formats that SpeechMiner supports:

Item	Function	Description
Input folder expects	Fetcher	Audio formats supported by fetchers; call audio that is retrieved from the external recording system by UConnector must be saved in the input folder in one of these formats.
Recognition priorities	Recognition	Preferred audio formats for the recognition process, in order of preference; call audio that is processed by the Recognizers should ideally be in one of these formats.
Playback priorities	Playback	Preferred audio formats for the SpeechMiner media player, in order of preference; call audio that is played back should ideally be in one of these formats.

Index

Index

The **Index** panel enables you to manage index-related tasks: backup, restore, and index optimization.

See is thacknes Daby Index Backup Backup orey at at a backup: Daby backup Idade:		
Backup every day at [11:36:26 AM] Reports Backup loader Daily backup folder Backup to folder Backup to folder Backup Now Backup Now Backup Now </td <td>Sites & Machines</td> <td>Daily Index Backup</td>	Sites & Machines	Daily Index Backup
Wanual Index Backup Backup to folder Backup to folder Username Pessword Domain Backup Now Backup Now <td>Reports</td> <td>Backup every day at 11:36:00 AM Keep only last 5 backups Daily backup folder Browse</td>	Reports	Backup every day at 11:36:00 AM Keep only last 5 backups Daily backup folder Browse
Services Backup Now Backup Now Restore Index Folder Restore Index Folder. Use restore carefully, for example when the Hard drive of the index folder Crashes permanently High Availability Switch over in case of index failure Switch after Image: Switch after <tr< td=""><td>E) License</td><td>Manual Index Backup Backup to folder Backup to folder Use Different Credentials Username</td></tr<>	E) License	Manual Index Backup Backup to folder Backup to folder Use Different Credentials Username
Audio Restore Index Folder Restore Index Folder. Use restore carefully, for example when the Hard drive of the index folder Index High Availability Switch over in case of index failure Switch after index Weekly Index Optimization Optimize every week at Sunday 11:36:26 AM	Services	Password Domain Backup Now
Switch over in case of index failure Switch after Switch after Index Weekly Index Optimization Optimize every week at Sunday 11:36:26 AM	Audio	Restore Index Folder. Use restore carefully, for example when the Hard drive of the index folder crashes permanently High Availability Image: Careful Availability
Recording	Q. Index	Switch over in case of index failure Switch after Image: Switch after Image: Switch after
	Recording	Optimize every week at Sunday III:36:26 AM
Logging Save		Save

Backup the Index

Backing up the Index

You can back up the index automatically on a daily basis or manually as required. Note that no incremental backup is available; every time the backup is started, all of the index files are copied to the backup folder.

Daily Backup

You can set a time and specify a backup folder, and SpeechMiner will automatically back up the index every day at the specified time to the specified folder.

Daily Index Backup	
Backup every day at 2:16:00 PM 🔶	
Keep only last 5 🔅 backups	
Daily backup folder	Browse

To set up a daily backup of the index:

1. In the Index panel, in the Daily Index Backup region, fill in the fields as follows:

Field	Description
Backup every day at	Select the checkbox to activate the automatic daily backup, and then, in the time field, select the time at which you want to the backup to begin.
Keep only last	Select the number of backups to keep. Older backups will be deleted automatically.
Daily backup folder	Select the folder in which to store the backup data.

2. Select **Save**. The changes are saved, and a **Progress** window shows information about the saving process.

Manual Backup

You can select a folder and back up the index to that folder manually as necessary.

Manual Index Back	up		
Backup to folder		Browse	
Use Different Credentials			
Username			
Password			
Domain			

To run a backup of the index manually:

1. In the Index panel, in the Manual Index Backup region, fill in the fields as follows:

Field	Description
Backup to folder	Select the folder in which to store the backup data.
Use different credentials	If different credentials are required to access the index folder, select the Use Different Credentials check box, and then enter the required user credentials.

2. Select **Backup Now**. The backup is performed, and a **Progress** window shows information about the backup process.

Restore the Index

Restoring the Index

Restoring the index can be done in two different ways:

- Restoring the index from a backup, using SMConfig
- Creating_a_New_Index_from_Scratch|Deleting the existing index and creating a new one from scratch

Restoring the Index from a Backup

If you have a backup of the index, it is generally preferable to restore the index from it. Restoring the index from a backup is generally a much quicker process than creating it from scratch, especially if the database is large. The index task re-indexes the database at a pace of about 3,500 calls per minute. If you restore the index from a backup, only those calls that were indexed after the backup was created must be re-indexed. Calls that are included in the backup do not have to be re-indexed. As a result, you can start using the index almost immediately.

Two alternative methods for restoring the index from a backup are available:

- Use the backup folder as the current index folder.
- Restore the index from the backup folder to a new index folder.

In either case, you should not restore the index folder manually. Instead, use SMConfig to perform the restoration. Using SMConfig ensures that the process is performed properly, and, in addition, SMConfig also takes care of re-indexing all the calls that were indexed after the backup was created.

To restore the index from a backup:

1. In SMConfig, in the **Index** panel, select **Restore Index Folder**. The **Restore Index Folder** dialog box opens.

/ ⁹ Restore Index Fold	er X
Destination for restore	
To index folder:	C (Minimum WEB down time) Make the backup folder the new index folder
	(e) (Recommended for the long run) Restore the backup to a new index folder location
	New index folder path: Browse
Source for restore	
From backup folder:	Restore the latest valid daily backup
	C Restore from a manual backup folder
	Manual backup folder: Browse
Liser credentials	
Use different crede	entials
Username	
Password	
Domain	
	OK Cross

2. Fill in the fields as follows:

Field	Description
To index folder	Select (Minimum WEB down time) Make the latest valid backup folder the new index folder to use the backup folder as the new index folder, or (Recommended for the long run) Restore the backup to a new index folder location to create a new folder to use as the index folder. If you chose the second option, under New index folder path, select the folder to use as the new index folder. Note that this folder must be empty when you begin the restoration process.
From backup folder	Select Restore the latest valid daily backup to restore the index from the folder that contains the automatically generated backups of the index (specified in the Index panel under Daily Backup Folder), or Restore from a manual backup folder to use a manually generated backup.

If you chose the second option, under **Manual Backup Folder**, select the folder from which to take the backup.

Use If different credentials are required to access the index folder, select the **Use Different Credentials** checkbox, and then enter the required user credentials .

3. Click **OK**. The index is restored to the new index folder, and a **Progress** window shows information about the restoration process.

During the process, SMConfig will also do the following:

- Checks the validity of the new index folder, and, if it is not valid, abort the process.
- Inserts indexing requests into the index queue for all the calls that were processed or updated after the backup was created.
- Notifies the Web servers that the index folder was changed.
- 4. When the restoration process is finished, restart the platform servers.

Creating a New Index from Scratch

If you do not have a backup of the index, you can restore it by deleting the existing index and creating a new one. In addition, if the database is quite small, you may prefer to restore the index in this way even if you do have a backup.

Restoring an index by creating it from scratch is generally a much slower process than restoring it from a backup, especially if the database is large. The index task re-indexes the database at a pace of about 3,500 calls per minute. If you re-create the index from scratch, all of the calls in the database must be indexed.

To create a new index:

- 1. Stop all the Uplatform services that run index tasks.
- 2. Run the following SQL command: truncate table indexq
- 3. Delete all of the files in the index folder.
- 4. Run the following stored procedures in the database:
 - To re-index the calls, run exec dbo.sp_reindexCallsByParams 3,0, 0,
 - $\circ~$ To re-index the text interactions, run <code>exec</code>

dbo.sp_reindexTextDataByParams 3,0,0,

Important

Re-indexing the text interactions is only relevant in SpeechMiner versions from 7.3 and on, and only if your system handles text interactions as well as calls.

5. Restart the Uplatform services that you stopped before. After a minute or two, the index task will start to index the calls. Newer calls will be indexed first.

Optimize the Index

Optimizing the Index

The Index Optimization task optimizes the index files of the system, thus reducing their size. It is recommended to configure it to run at a time when the system is not in use, such as Sunday at midnight.

To configure the system to optimize the index:

- 1. In SMConfig, in the **Index** panel, in the **Weekly Index Optimization** region, select the **Optimize every week at** checkbox.
- 2. Select the day of the week on which to perform the optimization, and specify the time to begin the process.
- 3. Click **Save**. The setting is saved, and the **Progress** window opens and shows information about the saving process.

High Availability

High Availability is an automatic process for restoring an index backup. When the High Availability feature is selected in the SMConfig Index panel, the system will detect when the Index folder is not accessible and perform the following:

1. Switch the roles of the Index folder and the Daily Backup folder, so that the current backup becomes the primary folder and the current index becomes a secondary backup folder.

Indexing will take place on the new primary folder.

2. Re-index all the interactions that were indexed after the latest daily backup was created.

Whenever the primary folder becomes inaccessible, the folder roles will change.

The time between when the index is detected as inaccessible and when the switch over is performed can be configured in the **High Availability** section of the **Index** Tab. (That is, Switch after # minutes)

Reports

Reports

If you want to use any of the SpeechMiner reports, you must deploy both the MRS Library, which is a DLL that provides support for various report features, and all the required reports, on the report server. You can do this from the **Reports** panel of SMConfig. The DLL and the reports will be deployed on the machine that is identified in the **Sites & Machines** panel, specified as the **Server Name** parameter under the **Report Server** panel.

		_ 🗆 ×
Sites & Machines	Report Deployment Validate Report Server Report Server Server Name: Ity	
Reports	Protocol: http: Port: 80 Virtual Folder: ReportServer_thv39	
License	Set reports caching time (minutes) 60	
Services	Deploy Reports E:\Genesys\Software\reports Browse Select\Unselect All Depty/Parameter	
Audio	Hepott/Hesource Image: Comparison v4.rdl Image: Coaching Summary.rdl Image: Coaching Summary.rdl Image: QM Agent Summary.rdl	
Index	Leam Comparison v4.rdl	
Recording	T Help	
Logging	Deploy MRS Library To deploy MRS library you need to set a machine and a valid installation folder under the "Machines & Tasks" section in the "Sites & Machines" panel and apply. Deploy Reports To deploy reports you need to deploy the MRS library first or deploy both at the same time.	
		Save

Required Permissions

To check if the MRS Library has been deployed on the report server, and to deploy the MRS Library, SMConfig reads the report server's Registry to locate the report server's bin folder and then accesses the folder using the \$ share. Therefore, to deploy the MRS Library and any or all of the reports, the user account used to log into SMConfig must have administrator permissions on the report server.

Deploying the Reports

To deploy reports on the report server, you must first deploy the MRS Library on the server, and then deploy the required report templates. You can perform both actions simultaneously by selecting both options in the **Reports** panel. Once the MRS Library is deployed on the server, you can deploy additional reports without redeploying the library.

Important

When you select the Reports panel, SMConfig

checks whether the MRS Library is already deployed on the machine.

To deploy reports on the report server:

1. In the **Reports** panel, fill in the fields as follows:

Field	Description
Set reports caching time	If you chose to use report caching in the Sites & Machines panel, specify how long report results should be cached, in minutes. The results of reports that are included in active users' Views pages will be saved for the specified period of time. Users who open their Views pages during that time period will see the cached results. The recommended time period is 24 hours (i.e., 24*60=1440 minutes), because the report caching runs once every 24 hours.
Deploy MRSLibrary	If the MRS Library has not yet been deployed on the report server, select this option. Note: If this option is not selected, but the checkboxes in the Report/Resource list below are active, this means that the MRS Library is already deployed on the machine. In this case, it is not
	necessary to select this option.
Deploy reports	Enter the location of the reports folder. This folder is called reports, and is located in the SpeechMiner installation folder. For example, if SpeechMiner was installed in c:\Program Files (x86)\Genesys\Software, the path to enter would be c:\Program Files (x86)\Genesys\Software\reports.

Select\ Unselect All	Select the checkbox to select all of the reports in the Report/ Resource list below for installation. Clear it to clear all of the selections in the list.
	Note: If this option is not available, this means that the MRS Library has not yet been deployed on the machine. In this case, select Deploy MRSLibrary, and this option will become available.
	Select the reports you want to deploy on the report server
Report/ Resource	Note: If this option is not available, this means that the MRS Library has not yet been deployed on the machine. In this case, select Deploy MRSLibrary, and this option will become available.

2. Click **Save**. The system begins to deploy the reports on the report server, and the **Progress** window opens and shows information about the deployment process.

Recording

Recording

When working with a Recording mode, the following configurations are required in the Recording panel. The Recording panel only appears when you are working in a Recording + Analytics environment or a Recording Only environment:

Configuration

The following must be configured in the systems Configuration Server:

- Tenant
- Application Name
- Users Access Group

Interaction Receiver

In systems with Call Recording mode or Call Recording and Analytics mode licenses, the Program ID is normally assigned to calls by the recording processor. The recording processor adds the Program ID to the call's metadata. If the call arrives in the SpeechMiner system without a Program ID, SpeechMiner assigns it the default Program ID. By default, this value is default.

If you want to change this default value to a different value, perform the following:

- For Call Recording and Analytics Mode licenses, in SMART, create a Program with the name you want to use for the default Program, and apply it. Finally, in the SMConfig Recording panel, set Default Program to the Program's external ID.
- For Call Recording Mode set Default Program to the desired value.

Set **Extension Speaker Type** and **Trunk Speaker Type** as configured in the GIR system.

Important

For additional information see Recording Modes.

RP Authorization

Set the User and Password to the values configured for the RP.

MCP Authorization

Set the User and Password to the values configured for the MCP. The MCP authorization option is only available when working in an environment with SpeechMiner Analytics.

• Playback

- Set the RCS URI value using the format: http://rcs_host:port/rcs, or https://rcs host:port/rcs (Web Server connection).
- Set the External RCS URI value (when working with encrypted Screen Recording), using the format: http://rcs_host:port/rcs, or https://rcs_host:port/rcs (Browser connection).

Set the HTCC URL value (when working with Screen Recording), using the format: http://htcc_host:port, or https://htcc_host:port (Browser connection).

If you are not working with Screen Recording, leave the HTCC URL field empty.

Important

Use https for the RCS and HTCC connections if
 the connection to the SpeechMiner web server was configured with https.

Sites & Machines	Configuration
Reports	Tenant Environment Application Name Speechminer Users Access Group SpeechMiner Users
E n License	Update Agents Every 24 🐳 Hours
Services	Default Program default Extension Speaker Type agent Trunk Speaker Type customer
Audio	BP Authorization User Aladdin Password
Q Index	Playback RCS URI http://server_name/ External RCS URI http://server_name/
Recording	HTCCURL [http://server_name/]
	Save

Additional Configurations

The following configurations are recommended for the successful completion of the SpeechMiner configuration process:

Browser

Configuring the Browser

End users of SpeechMiner access its browser-based interface from Internet Explorer or Google Chrome, which connects to the SpeechMiner Web server through the local network. In order for the SpeechMiner interface to work properly, you must configure each user's browser as explained below. The configuration changes that must be implemented are to allow pop-ups from the SpeechMiner domain, to treat the SpeechMiner domain as part of the local intranet (or as a trusted site), and to enable automatic updating of cached web pages.

In addition, if Internet Explorer is running on a Windows Server 2008 machine or Windows Server 2012 machine, the Enhanced Security Configuration feature should be turned off. Refer to the *Turning Off the Enhanced Security Configuration Feature on Windows Server 2008 / Windows Server 2012* section below.

Tip

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To run SpeechMiner 8.5.3 you must use a minimum resolution of 1366X768. We recommend that you work with a 1680x1050 resolution.

Internet Explorer

Configuring Internet Explorer

1. In the Internet Options dialog box, in the Security tab, select Local Intranet.



- 2. Add the SpeechMiner domain to the list of web sites in the Local Intranet zone.
- Click Custom Level and select Miscellaneous > Access data sources across domains.
- 4. Under Access data sources across domains, select Enable.

Selecting Enable makes Screen Recording playback possible because it allows access from the browser to HTCC.

Security Settings - Internet Zone			
Settings			
Enable .NET Framework setup Disable Enable Miscellaneous Access data sources across domains Disable Enable Prompt			
 Allow META REFRESH Disable Enable Allow scripting of Microsoft web browser control Disable Enable Allow script-initiated windows without size or position constra 			
Takes effect after you restart Internet Explorer			
Reset custom settings Reset to: Medium-high (default) Reset			
OK Cancel]		

- 5. In the **Privacy** tab, add the SpeechMiner domain to the list of web sites that are permitted to open pop-ups.
- 6. In the General tab, under Browsing history, select Settings.
7. Under Check for newer versions of stored pages, select Automatically.

Temporary Internet Files and History Settings	×		
Temporary Internet Files Internet Explorer stores copies of webpages, images, and media for faster viewing later.			
Check for newer versions of stored pages: C Every time I visit the webpage C Every time I start Internet Explorer Automatically Never			
Disk space to use (8-1024MB) (Recommended: 50-250MB) Current location: C:\Users\schwartz\AppData\Local\Microsoft\Windows\Temporary Internet Files\			
Move folder View objects View files			
History Specify how many days Internet Explorer should save the list of websites you have visited. Days to keep pages in history: 20 📺			
OK Cancel			

8. Click **OK** to save the changes.



Turning Off the Enhanced Security Configuration Feature on Windows Server 2008 / Windows Server 2012

1. In the **Server Manager**, in the home page (the top level), expand the **Security Information** section. The current settings for the Enhanced Security Configuration feature appear under **IE Enhanced Security Configuration (ESC)**.

Security Information		🔐 Go to Windows Firewall
Windows Firewall:	Domain: Off	Configure Updates
Windows Updates:	Install updates automatically using a managed updating service	Check for New Roles Run Security Configuration Wizard Configure IE EEC
Last checked for updates:	Today at 2:02 PM	tonigure in ESC
Last installed updates:	12/11/2013 2:00 PM	
IE Enhanced Security Configuration (ESC):	Off for Administrators Off for Users	

2. If the current settings are not **Off** for **Administrators** and **Off** for **Users**, click **Configure IE ESC**. The **Internet Explorer Advanced Security Configuration** dialog box opens.

% Internet Explorer Enhance	ed Security Configuration	×
Internet Explorer Enhanced S exposure of your server to p	Security Configuration (IE ESC) reduces the otential attacks from Web-based content.	
Internet Explorer Enhanced S default for Administrators and	Security Configuration is enabled by d Users groups.	
Administrators:		
On (Recommend)	ded)	
😵 🕫 off		
Users:		
On (Recommend)	ded)	
😵 🕫 Off		
Mara shout Internet Evalurar	Enhanced Security Configuration	
More about Internet explorer	Enhanced Security Comiguration	
	OK Cancel	

- 3. For both Administrators and Users, select Off.
- 4. Click **OK** to save the changes.

Chrome

Configuring Chrome

1. In the Chrome browser, select **Customize and control Google Chrome**, and then select **Settings**.

100		J
	☆ 🔜 🔳	j
	New tab Ctrl+T	
	New window Ctrl+N	
	New incognito window Ctrl+Shift+N	
	Bookmarks 🕨	
	Recent Tabs	
	Edit Cut Copy Paste	
	Zoom - 100% +	
	Save page as Ctrl+S	
	Find Ctrl+F	
	Print Ctrl+P	
	Tools 🕨	
	History Ctrl+H	
	Downloads Ctrl+J	
	Sign in to Chrome	
	Settings	
	About Google Chrome	
	Help	
	Exit Ctrl+Shift+Q	

2. Select **Show advanced settings...**, and then under **Network**, click **Change proxy settings...** The **Internet Property** dialog box opens.

😭 Internet Properties	8 ×		
General Security Privacy Content Connections	Programs Advanced		
To set up an Internet connection, click Setup.	Setup		
Dial-up and Virtual Private Network settings			
	A <u>d</u> d		
	Add V <u>P</u> N		
	<u>R</u> emove		
Choose Settings if you need to configure a proxy server for a connection.	Settings		
Never dial a <u>connection</u>			
Dial whenever a network connection is not pres	ent		
Always dial my default connection			
Current None	S <u>e</u> t default		
Local Area Network (LAN) settings			
LAN Settings do not apply to dial-up connections. LAN settings Choose Settings above for dial-up settings.			
ОК С	ancel Apply		

- 3. On the **Connections** tab, add the SpeechMiner domain.
- 4. On the **Privacy** tab, turn off **Pop-up Blocker**.
- 5. In the General tab, under Browsing history, select Settings.
- 6. Under Check for newer versions of stored pages, select Automatically.
- 7. Click **OK** to save the changes.

Verify that Java Script is Enabled

To verify that Java Script is enabled:

1. In the Chrome Broswer, navigate to Chrome Settings/Show Advanced Settings/ Privacy/Content Settings.

Content settings	×
Cookies	
Allow local data to be set (recommended)	
Keep local data only until I quit my browser	
Block sites from setting any data	
Block third-party cookies and site data	
Manage exceptions All cookies and site data	
Images	
Show all images (recommended)	
Do not show any images	
Manage exceptions	
JavaScript	
Allow all sites to run JavaScript (recommended)	
Do not allow any site to run JavaScript	
Manage exceptions	
Handlers	
D	one

2. Under Java Script, select Allow all sites to run Java Script (recommended).

For more information about enabling Java Script, see http://support2.constantcontact.com/ articles/FAQ/1334?I=en_US&fs=RelatedArticle.

Date and Time

Setting the Date and Time

The webServiceParam table has two fields for configuring the date and time display:

- globalDateFormat which configures the date format, for example: MM/dd/yy
- globalDateTimeFormat which configures the time format, for example: hh:mm tt

For additional information about the options available, see http://www.w3.org/TR/NOTE-datetime.

When SpeechMiner's Spanish interface is used for the Web interface, the only formats supported for **globalDateTimeFormat** are the following 24-hour formats: H:mm:ss or H:mm.

Forget Password Configuration

Set the Forget Password Login Option

When configuring SpeechMiner you can give users the option of recovering forgotten passwords.

If you choose to enable users to recover their forgotten passwords, the SpeechMiner log in screen will contain a **Forget Password?** link.

When the user clicks the Forget Password? link, the user will be required to enter his email address.

The user will then receive an email with a **Reset Password** link.

By default the Reset Password link is only available for 4 hours. This default number can be changed.

To enable a user to recover his password perform the following:

- 1. Access the webServiceParam table.
- 2. Change the PasswordRecovery field from false to true.

To change the Reset Password link default:

- 1. Access the webServiceParam table.
- 2. Change the resetPasswordTokenExpirationTime field from 4 hours to the amount you prefer.

Important

If more than one user has the same email address, the Forget Password option will not be available.

To change the email message the user receives:

- 1. Access the webServiceParam table.
- 2. Change the resetPasswordMailBody field to the content you prefer the user to receive.

The email message content should contain <resetLink>. <resetLink> represents the Reset Password link.

3. Change the resetPasswordMailSubject field to the subject you prefer the user to receive.

Resource Type

Setting the Resource Type

The resourceTypeId table contains a list of all the possible resource types.

To enable/disable a resource type in SpeechMiner, update the *isEnabled* field in the resourceTypeId table with the relevant status.

VMWare

Configuring a VMWare Server

If you are installing SpeechMiner on virtual machines and using VMWare Server VSphere4, it is recommended to use the Scheduling Affinity feature, which dedicates specific logical CPUs for the virtual CPUs of particular VMs. Doing this can improve Recognition performance.

To use the VMWare Scheduling Affinity feature:

- 1. For each active Virtual Machine, check the VM Settings to see how many CPUs are configured for the machine.
- 2. In Setting\Resources tab\Advanced CPU\Scheduling Affinity, enter the serial numbers of the VMWare server's logical CPUs.

HTTPS for SpeechMiner

Enable HTTPS for SpeechMiner

Important

The following procedure is intended for a WIndows 2008 Server

- 1. Create a self signed server certificate to enable the https protocol:
 - a. Open the Microsoft Management Console (MMC).
 - b. Select File > Add / Remove Snap-in.
 - c. Select **Certificate** and click **Add**.
 - d. Click OK.
 - e. Select Computer account and click Next.
 - f. Selelct Local computer and click Finish and OK.
 - g. Under Certificates (Local Computer), right-click Personal, All Tasks, Request New Certificates

The following Certificate Enrollment window appears:

- h. Click Next
- i. Under Active Directory Enrollment Policy, Select Computer.
- j. Click Enroll and Finish.
- 11. Configure the Report Server:
 - a. Open the Reporting Services Configuration Manager.
 - b. Select Web Service URL.
 - c. Select Advanced.
 - d. Under **Multiple SLL Identities**, click **Add** and select the certificate you created.
 - e. Click OK and select the https URL.
 - f. Under **Multiple SSL Identities**, click **Add** and select the certificate you created.
 - g. Click OK and select the Report Manager URL.

- 8. Create an SSL Binding:
 - a. Open IIS Manager.
 - b. Select Default Web Site and in the right Action pane click Bindings.
 - c. Click Add.
 - d. In the Type list select https.
 - e. In the IP address list select All Unassigned.
 - f. In the **Port** field enter the relevant port number.
 - g. In the SSL Certificate list select the relevant SSL Certificate.
- 8. Configure SSL settings:
 - a. In the IIS Manager, click Default Web Site.
 - b. Under IIS, select SSL Settings.
 - c. Select **Require SSL** and click **Apply**.
- 4. Restart the **IIS Server**.

Important	
If the following error occurs after you restart the IIS Server, it maybe due to the fact that your Skype process is using the same ports and should be stopped:	
IIS Manager Error: The process cannot access the file because it is being used by another process. (Exception from HRESULT: 0x80070020)	

Additional information abouat SSL on IIS 7 can be found here: http://learn.iis.net/page.aspx/ 144/how-to-set-up-ssl-on-iis-7/

Recording Modes

Additional Configuration for Recording Modes

• Create a new application for SpeechMiner with a Genesys Generic Server template in the **Genesys Administration Extension**:

- Follow the Creating Applications Objects procedure in the **Procedures** tab of the **Applications** page in the Genesys Administration Extension document.
- Verify that the name of the application that you create is the same as the ApplicationName field in the configServer table of the SpeechMiner database.
- Creating a SpeechMiner application does not require configuring connections or options and is not integrated with LCA.

SpeechMiner Web Application

Configuring a SpeechMiner Web Application

Configure a new SpeechMiner Web application when your default web site is not sufficient for your systems demands.

- 1. Open the **IIS Manager**.
- Under Connections, select Sites > Default Web Sites and right-click SpeechMiner.
- 3. Click **Remove** to remove the existing SpeechMiner Web Application.
- 4. Under **Connections** right-click the web site to which you want to add the SpeechMiner Web Application.
- 5. Select Add Application.
- 6. In the **Application Name** field enter **SpeechMiner** for the new web application.
- 7. Click Select.
- 8. Open the Application Pool list and select SpeechMiner.
- 9. Click **OK**.
- In the Physical Path click the Browse button and select the Installation > Web folder. The default folder is c:\Program Files (x86)\Genesys\Software\utopy\product\ web.
- 11. Click **OK**.

The SpeechMiner Web Application appears under the web site to which you selected to add the SpeechMiner Web Application.

Enabling CMD for SMART

Configuring Command Line availability for SMART

To update the database configuration perform one of the procedures:

SMConfig

- 1. Log into SMConfig.
- 2. Select Services.
- 3. In the Services window, select **Update config files**.
- 4. Click Save.

SMART

- 1. Manually log into SMART.
- 2. Go to C:\Program Files (x86)\Genesys\Software\utopy\product\bin\release.
- 3. Make a copy of **smart.exe.config** and name the copy **smartc.exe.config**.
- 4. When asked to replace a file with the same name click Yes.

Define Caching Reports

Defining Caching Reports

All Caching tasks are listed in the Report Caching Params table.

In the default database there is one Caching task that caches all the reports in the expanded widgets for all the active partition sets during the last 30 days.

You can select different reports to cache then those defined by default. You can also delete the existing cache and create a new cache.

To define a new cache report:

- 1. Access the **Report Cache Params** table in the database and insert a new row.
- 2. Define the following parameters:

Parameter		Description
Enable	True	

Report	The query that retrieves the report id's and the partition strings
Query	associated with the report you want to cache.

Within the Report Query you can use the following parameters:

Parameter	Description
@templatesToExclude	The templates to exclude from caching.
@usersToExclude	The users to exclude from caching.
@daysUserIsActive	The users that should be cached. For example, if this is 7, then only users that are active in the last 7 days should be cached.
numberOfProcesses	The number of parallel threads that should be cached (at the same time).
keepLogMessages	The number of days log messages associated with caching tasks be should be kept.
NotificationMail	The email address belonging to the users to whom the caching task report should be sent when the caching is complete.
webComputerName	The name of the web server to which the reports are cached.
RunAtTime	Defines when the caching task will run within 24hrs. The maximum is 1440 minutes for 24hrs. For example, if you want the cache task to run at 12 midnight and your UTC difference is +2, enter -120. It is the difference between UTC and the local time you want it to run in. The difference is in minutes.
nextTimeToRun	The next time the Caching task is set to run. Set this parameter to a low value. During the initial run the task automatically sets the correct value.

- 3. Log into SMConfig.
- 4. Under **Machines & Tasks**, select one or more machines on which the Caching task will run.

If you select more than one machine the Caching task will be divided equally between the machines that run simultaneously. The more machines the faster the Caching task will be completed.

5. Click Edit.

The following Pro	operties v	vindow appears
/ ⁰ Properties		×
Name:	LVQAVM29	
Installation Folder:	NProgram Files	(x86)\Genesys\{
🔽 Web Server		
Protocol:	http:	
Port:	80	
Virtual Folder:	speechminer	
Language:	English	-
🔲 Search using	g remote web s	ervice
Computer:	TISRAEL	v
Interaction Receiv	er .	Parameters
Fetcher	1 *	Parameters
🔲 Call Recognizer	1	Parameters
Indexer		
Report Caching		
Active Search Mar —	nager	
Exploration		
Recategorizer		
Text Recognizer		_
OK	Car	ncel

- 6. Select Report Caching.
- 7. Click **Ok**.
- 8. Click Save.
- 9. Select the **Report** tab.

SpeechMiner Config	, uration Tool - 8.5.2 (8.5.2	200.125)	
Sites & Machines	Report Depl Set reports caching tim Deploy MRSLibu Deploy Reports	oyment le (minutes) 10 ary C:\Program Files (x86)\Genesys\Software\reports Browse Select\Unselect All	
License Gervices Audio		Report/Resource Image: Agent Subble Chart v4.rdl Image: Agent Trend v4.rdl <th></th>	
Index	Help Deploy MRS Library Deploy Reports	Image: System Load rdl Image: Team Comparison v4.rdl Image: Team Comparison v4.rdl Image: Top and Bottom Performers v2.rdl To deploy MRS library you need to set a machine and a valid installation folder under the "Machines & Tasks" section in the "Sites & Machines" panel and apply. To deploy reports you need to deploy the MRS library first or deploy both at the same time.	Save

The following **Report Deployment** page is opened:

- 10. In the **Set reports caching time (minutes)** field enter **1440** (this number represents 24 hours).
- 11. Select all the report templates and click **Save**.
- 12. Verify that the Caching task is running:
 - a. Access the reportCachingLog table.
 - b. Select the table records and verify that the Caching task ran.
 - c. Access the **ulogger** and verify that it is caching the selected reports.

Important

If the Report Caching task fails, the Partition Failure error will appear in the reportCachingLog table. To resolve this error copy the Microsoft.ReportViewer*.* dlls from the web\bin folder to the platform bin folder utopy\product\bin\release or Install MS Report Viewer 2005.

Report Server Email Configuration

Report Server Email Configuration

Configure the Report Server email as follows so that the report schedule and report deliverable functions operate as expected.

- 1. Access the Report Server machine.
- 2. Open Reporting Services Configuration Manager.
- 3. Click **Connect** to connect to the Report Server.
- 4. Select Service Account and define a user account with access to the SMTP server.
- 5. Click Apply.
- 6. Select E-mail Setting and define the SMTP Server and default Sender Address.
- 7. Click Apply.

Integrated Windows Authentication

Integrated Windows Authentication

Integrated Windows Authentication enables you to ensure that your SpeechMiner users are not required to log into SpeechMiner every time they want to access the application.

Tip

To configure your application to use Integrated Windows Authentication, you must use IIS Manager

- to configure your application's virtual directory security settings and you must configure the <authentication> element in the Web.config file.
- 1. Open IIS Manager and navigate to the level you want to manage. For information about opening IIS Manager, see Open IIS Manager (IIS 7).

For information about navigating to locations in the UI, see Navigation in IIS Manager (IIS 7).

- 2. In Features View, double-click Authentication.
- 3. On the Authentication page, select Windows Authentication.
- 4. In the **Actions pane**, click **Enable** to use Windows authentication and **Disable** to use Anonymous authentication.
- 5. In your application's Web.config file or in the machine-level Web.config file, ensure that the authentication mode is set to Windows as shown here.

```
...
<system.web>
...
<authentication mode="Windows"/>
...
</system.web>
...
```

Configuring Permissions

This section describes the permissions that must be set for the functional SpeechMiner domain user (SMUSER) and for users of SMART.

UPlatform

Configuring Permissions for UPlatform

SpeechMiner uses a domain user account as the credentials for all the registered SpeechMiner services. Your IT department must be able to create this account for you. The domain user must have assigned permissions on all machines on which the UPlatform service will run, as described below. The user account must be created and assigned the required permissions before you begin configuring SpeechMiner.

Important

In this guide, this functional user account is called **SMUSER**.

Groups

SMUSER must be added to the following groups:

- Power Users
- Performance Monitor Users (if this group exists on the machine)

Folder Properties

In the Properties of the following folders, assign permissions to SMUSER, as follows:

Important

Tab indicates the tab in the **Properties** dialog box in which the permission can be assigned.

Folder	Tab	Permission	Comments
Genesys installation folder	Security	Modify	Usually C:\Program Files (x86)\Genesys\Software
Genesys data folders	Security	Modify	<pre>For example, C:\data - where the data\input and data\ filtered folders are located</pre>

Genesys data folders	Sharing	Change	<pre>For example, C:\data - where the data\input and data\ filtered folders are located</pre>
C:\Program Files (x86)\Genesys\ Software\utopy\ product\WEB\App_Data	Security	Read/Write	This is for the impersonation user specified in the web.config file.

Report Server

On the report server, assign the Content Manager role to SMUSER, as follows:

1. On the database server, open a browser, and navigate to **//<database server** name>/reports. The SQL Server Reporting Services manager opens.

Important
 If the Windows UAC (User Account Control) is active on the server, open the browser by right-clicking its icon and then selecting Run as administrator.



2. Select the Folder Settings tab.

Important

If you cannot access this folder, because you are repeatedly asked for your credentials, and then the screen turns blank, do the following: In rsreportserver.config, remove the value RSWindowsNegotiate and ensure that

RSWindowsNTLM is specified. (For more information about this problem, and some other solutions, see http://blogs.msdn.com/b/lukaszp/ archive/2008/03/26/solving-the-reportingservices-login-issue-in-the-february-ctp-of-sqlserver-2008.aspx)

- 3. If SMUSER is not on the list, click **New Role Assignment** and add it. If it is on the list, click **Edit** to edit the existing account settings.
- 4. Select speechminer database > sme.
- 5. In the **Security** tab, click **New Role Assignment**. The **New Role Assignment** tab opens.
- 6. In Group or user name, enter the user name (SMUSER).
- 7. Select the Content Manager checkbox.

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

8. Click OK. The Content Manager role is assigned to SMUSER.

Directories Used by ASP.NET

Give SMUSER access permissions to the IIS metabase and other directories used by ASP.NET. To do this, an administrator can run this command:

aspnet regiis.exe -ga "{domain}\{user}"

Uconnector

Configuring Permissions for UConnector

A functional UConnector user should be assigned the permissions listed below. Note that you can use SMUSER for this purpose; it is not necessary to create a dedicated domain user for this.

- · Recording-system shared folder: Read permissions
- SpeechMiner input folder: Read/write permissions

SMART

Configuring Permissions for SMART

Any user who will run SMART should have the following permissions:

Folder	Permission	Comments
SpeechMiner installation folder	Read/write	Usually C:\Program Files (x86)\Genesys\ Software
Package Root Path	Read/write	The path configured in the Packages folders text box in the Sites and Machines section.
Nuance installation folder	Read/write	For example, C:\Program Files\Nuance

In addition, all SMART users should have permission to use .net encryption. To add this, an administrator can run the following command:

aspnet_regiis -pa "NetFrameworkConfigurationKey" "{domain}\{user}"

Web Server

Configuring Permissions for the Web Server

Once you have installed the SpeechMiner web server, you should set the following permissions:

- On the folder C:\Windows\Microsoft.NET\Framework\v2.0.50727\Temporary ASP.NET Files, give Modify permissions to the domain user that SpeechMiner will impersonate (For the SMUSER, see Configuring Permissions for UPlatform).
- Set read/write/modify permissions to the IIS user/group (IIS_IUSRS in Windows server 2008 and above) and the operational domain user (SMUSER) on the SpeechMiner installation folder.
- Set read/write/modify permissions to the IIS user/group (IIS_IUSRS in Windows server 2008 and above) on the windows temp folder.

Working with Chat Interactions

SpeechMiner supports numerous metadata for chat interactions.

This page describes the required system specifications for the successful implementation of chat interactions.

Supported Formats

Supported Formats for SpeechMiner 8.5 and Above

- Text File
- Chat XML file (.chtx)

File Format

Chat File Format Specifications

Text File

A chat interaction in a text file format only requires a subject and the conversation. The file does not require information about the participants.

The first line in the text file should be the subject. The second line in the text files should be empty. The remaining lines should contain the chat conversation.

For example:

Billing Issue

How can I help you today? I want to change my billing address. May I have your account number please?

It's been my pleasure to assist you today

Chat XML File (.chtx)

When using an XML file (.chtx format), the chat interactions should be configured as follows:<textFormat>XML</textFormat>

Additional information can be added as meta data in the interaction XML file.

Important

The .chtx format and specification that is described here is not an official format or standard. This file format was specifically created for SpeechMiner purposes. The assumption is that the UConnector or any other ETL tool will create the chat conversation in this format before sending the file to SpeechMiner.

A chat conversation in .chtx format can contain one subject, multiple conversation messages and a description of the parties in the conversation. The subject and each message is not limited to one line (they can contain multiple lines).

Each message element can contain the following:

- Time stamp the time format is ISO_8601. For example: '2013-12-04T18:26:46'
- Display name the display name of the message sender.
- **Party ID** the string identifier of the sender/party id. The party ID can be described in two places, in both cases the ID will be used to match the party/speaker type. If the

party ID cannot be found in one of these places it will be ignored and identified as a different party in the call.

- In the 'speakers' element in the meta data xml file
- In the 'parties' element in the chtx file (see below)

Messages without a party ID or messages with a party ID that were not found, will be treated as one party. This configuration is similar to the channels speakers configuration in dual channel calls

Each party element can contain the following:

- · Party ID used to match the id from each 'message' element
- **Party type** used to identify the type of the party/speaker when you configure categories with speakers or limit the search in the web to specific speakers.

If one of these attributes are missing this party configuration will be ignored.

```
Important
```

The additional information in each message is not mandatory.

The order of the messages in the file should be the original order. Since it's not mandatory, the system

will not sort the messages according to the time stamp value. If the sender name is not specified in the message the system will not use the speaker name from the speakers configuration (the UI will not show any name)

File Format Examples

Example 1:

```
<?xml version="1.0" encoding="us-ascii"?>
<chat>
<parties>
<party partyId="FIRST SPEAKER ID" partyType="FIRST SPEAKER TYPE"
/>
```

```
<party partyId="SECOND SPEAKER ID" partyType="SECOND SPEAKER TYPE"</pre>
/>
  . . .
 </parties>
 <subject>SUBJECT LINE</subject>
 <message time="FIRST MESSAGE DATE AND TIME" partyId="FIRST MESSAGE</pre>
    SPEAKER ID" displayName="FIRST MESSAGE SENDER NAME">
    FIRST MESSAGE CONTENT
 </message>
 <message time="SECOND MESSAGE DATE AND TIME" partyId="SECOND</pre>
MESSAGE
    SPEAKER ID" displayName="SECOND MESSAGE SENDER NAME">
    SECOND MESSAGE CONTENT
 </message>
 . . .
</chat>
```

Example 2:

```
<?xml version="1.0" encoding="us-ascii"?>
<chat>
 <parties>
  <party partyId="customer" partyType="customer" />
 </parties>
 <subject>Billing issue</subject>
 <message time="2013-04-18T12:10:42" partyId="agent"</pre>
   displayName="Agent 1"> How can I help you today?
 </message>
 <message time="2013-04-18T12:10:51" partyId="customer"</pre>
   displayName="Customer 1"> I want to change my billing address
 </message>
 <message time="2013-04-18T12:10:58" partyId="agent"</pre>
   displayName="Agent 1"> May I have your account number please?
 </message>
   . . .
 <message time="2013-04-18T12:15:23" partyId="agent"</pre>
   displayName="Agent 1"> It's been my pleasure to assist you today
 </message>
</chat>
```

Important

Any white space around the message content or subject content will be removed (including the first and last new lines). New lines inside the content will

be preserved. Since the format is XML, any reserved XML characters need to be encoded if they appear in the subject content, message content or attributes. Any other XML information will be ignored

PartyID Configuration

PartyID Configuration

PartyID can be configured in two places:

- In the chat meta xml file, in the speakers element. The speakers element in the meta xml file is used for mapping the interaction to an agent and work group. Since speakerType is defined in the meta xml file, the file is used as part of the parties configuration.
- In the parties element in the chtx file. The parties element contains parties that are not linked to the interaction as agents or work group (for example, a customer).

The chtx fetcher will search for each Partyld used in the message in the speakers configuration. If the Partyld does not exist in the speakers element, the chtx fetcher will check the parties element. If the Partyld is not defined in both places the Partyld will be ignored.

Example 1: 2 Parties (Agent + Customer)

In this example, the agent is defined as the speaker and the customer is defined in the parties element.

Meta XML File:

```
<?xml version="1.0" encoding="us-ascii" ?>
<callInformation>
<mediaType>Chat</mediaType>
```

```
<textFormat>XML</textFormat>
<textTime>2014-01-07T10:54:04</textTime>
<programID>english</programID>
<speakers>
<speaker id="ag1" speakerType="agent">
<workgroup>/W1/W2</workgroup>
</speaker>
</speakers>
</callInformation>
```

CHTX File:

```
<?xml version="1.0" encoding="us-ascii"?>
<chat>
 <parties>
  <party partyId="customer1" partyType="customer" />
 </parties>
 <subject>Billing issue</subject>
 <message time="2013-04-18T12:10:42" partyId="ag1"</pre>
  displayName="Agent 1"> How can I help you today?
 </message>
 <message time="2013-04-18T12:10:51" partyId="customer1"</pre>
  displayName="Customer 1"> I want to change my billing address
 </message>
 <message time="2013-04-18T12:10:58" partyId="ag1"</pre>
  displayName="Agent 1"> May I have your account number please?
 </message>
</chat>
```

As shown in the above example the agent with ag1 ID is configured in the speakers element, in the meta xml file and the customer with the customer1 ID is configured under parties in the chtx file.

Example 2: 3 parties - agent, supervisor and customer

In this scenario there are two options. You can configure the supervisor as a speaker (the common scenario) or as the party in the chat. When configured as the party a link to an agent or work group is not possible.

Option 1: Supervisor as a speaker - Meta XML File

```
<?xml version="1.0" encoding="us-ascii" ?>
<callInformation>
<mediaType>Chat</mediaType>
<textFormat>XML</textFormat>
<textTime>2014-01-07T10:54:04</textTime>
<programID>english</programID>
<speakers>
<speaker id="ag1" speakerType="agent">
<workgroup>/W1/W2</workgroup>
</speaker>
<speaker id="sup1" speakerType="supervisor">
<workgroup>/W1/Sup1</workgroup>
</speaker>
</speaker>
</speaker>
</speakers>
</callInformation>
```

Option 1: Supervisor as a speaker - CHTX File

```
<?xml version="1.0" encoding="us-ascii"?>
<chat>
 <parties>
  <party partyId="customer1" partyType="customer" />
 </parties>
 <subject>Billing issue</subject>
 <message time="2013-04-18T12:10:42" partyId="ag1"</pre>
   displayName="Agent 1"> How can I help you today?
 </message>
 <message time="2013-04-18T12:10:51" partyId="customer1"</pre>
   displayName="Customer 1"> I want to change my billing address
 </message>
 <message time="2013-04-18T12:10:58" partyId="ag1"</pre>
   displayName="Agent 1"> May I have your account number please?
 </message>
 <message time="2013-04-18T12:11:02" partyId="customer1"</pre>
   displayName="Customer 1"> I want to talk to supervisor!
 </message>
 <message time="2013-04-18T12:11:03" partyId="sup1"</pre>
   displayName="Supervisor A"> I'm the supervisor, how can I help
you?
 </message>
</chat>
```

Option 2: Supervisor is not a speaker - Meta XML File

Option 2: Supervisor is not a speaker - CHTX File

```
<?xml version="1.0" encoding="us-ascii"?>
<chat>
 <parties>
   <party partyId="customer1" partyType="customer" />
   <party partyId="sup1" partyType="supervisor" />
 </parties>
 <subject>Billing issue</subject>
 <message time="2013-04-18T12:10:42" partyId="ag1"</pre>
   displayName="Agent 1"> How can I help you today?
 </message>
 <message time="2013-04-18T12:10:51" partyId="customer1"</pre>
   displayName="Customer 1"> I want to change my billing address
 </message>
 <message time="2013-04-18T12:10:58" partyId="ag1"</pre>
   displayName="Agent 1"> May I have your account number please?
 </message>
 <message time="2013-04-18T12:11:02" partyId="customer1"</pre>
   displayName="Customer 1"> I want to talk to supervisor!
 </message>
 <message time="2013-04-18T12:11:03" partyId="sup1"</pre>
   displayName="Supervisor A"> I'm the supervisor, how can I help
you?
 </message>
</chat>
```