SpeechMiner Administration Guide

Genesys Interaction Analytics (GIA) 8.5.5

7/6/2020

Table of Contents

SpeechMiner Administration Guide

The following topics provide instructions required to install and configure the SpeechMiner components and describe new features of the latest SpeechMiner release.

About SpeechMiner

Find out about SpeechMiner:

Introduction

New in this Release

Installation and Configuration

Find out about how to deploy the components:

SpeechMiner Components

Installing SpeechMiner

Configuring SpeechMiner

Introduction

SpeechMiner® is the Genesys Telecommunications Laboratories's speech-analytics platform. It analyzes audio content and text-based interactions such as email, chat messages and so on. Speech-analytics leverages recorded customer interactions (from any recording system) and analyzes each interaction for critical business topics and events. The system analyzes interactions between customers and contact-center agents, precisely identifies the topics that were discussed, and categorizes the contents of each interaction.

SpeechMiner consists of a user interface (UI) and several back-end components that deliver key capabilities required for various products within the **Genesys Workforce Optimization** suite. These products include:

SpeechMiner UI: The SpeechMiner UI is a component of the SpeechMiner package and provides a single User Interface (UI) for all Genesys Interaction Recording, Quality Management and Genesys Interaction Analytics functionality. Through the SpeechMiner UI users can perform search and playback for voice and screen recordings, perform traditional quality management tasks such as evaluation of interactions through form based scoring, or advanced speech and text analytics capabilities such as topic analysis or trending and exploration analysis of transcripts.

SpeechMiner UI is comprised of two software components:

- **SpeechMiner browser-based interface**: Offers a variety of ways to access call audio and the results of the interaction analysis performed by the system (when Analytics mode is in use). Users of the speech-analytics system interface can do the following:

  - Find interactions that have specific characteristics or are about 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 speech-analytics system to configure it to search interactions for specific topics and other characteristics.

Genesys Interaction Recording (GIR): Genesys Interaction Recording (GIR) provides cradle to grave dual channel voice recording and screen recording for customer-ivr and customer-agent conversations as they occur within the Genesys Contact Center. Through deep integration with Genesys SIP and the TLib event model, GIR is able to automatically stitch together call segments and capture all relevant call meta data to provide the information you need to fulfill important use cases within your business including Compliance, Dispute Resolution and Workforce Training and Coaching. GIR utilizes components of the core Genesys Contact Center stack such as SIP Server and Media Server, but brings along its own components to deliver the full set of features within GIR. Additionally, the GIR User Interace (UI) is provided by the SpeechMiner UI, which is the unified interface for recording, quality management and interaction analytics capabilities within the Genesys suite.

Quality Management (QM): Quality Management (QM) enables you to monitor quality and evaluate agent performance on a periodic and consistent basis while minimizing effort through automated interaction selection to improve customer experience and engage with your staff. QM includes a robust and feature rich form designer along with a number of evaluation schedule types to meet the SLAs required by your business in providing core use cases around Quality Management as well as input to Coaching and Training through form based scoring of interactions. Interactions can be sourced from GIR or third party recording platforms, depending on the deployment

type selected. All QM functionality is provided through the SpeechMiner UI, which is the unified interface for recording, quality management and interaction analytics capabilities within the Genesys suite.

Genesys Interaction Analytics (GIA): Genesys Interaction Analytics (GIA) provides automated speech and text analytics capabilities on 100% of interactions to provide deep insight into customer-agent conversations. For voice interaction, GIA provides automated transcription and employs Speech-to-Phrase grammar based recognition along with non-linguistic analysis of recordings to create meaning from otherwise unstructured data. Organizations can use this data to fulfill key use cases around Agent Performance Improvement (for example, decrease AHT, increase FCR, Sales Conversion, and so on.), Compliance and Customer Satisfaction (for example, NPS). Additionally, for both voice and text interactions, GIA employs advanced unsupervised machine learning algorithms to surface salient or unexpected terms to enable use cases around Uncovering Emerging Trends or Discovery of New Phrases and Intents. All analysis and discovery functionality is provided through the SpeechMiner UI, which is the unified interface for recording, quality management and interaction analytics capabilities within the Genesys suite.

> ## Important
>
> Each of these products are sold separately and in different combinations based on the specific requirements of your organization.

SpeechMiner supports the following deployment modes:

- **Analytics and Recording UI**: Enables search, play back and analysis of interactions recorded using Genesys Interaction Recording. The QM module is also available is purchased.

- **Recording UI Only**: Enables search and play back of interactions recorded using Genesys Interaction Recording. The contents of the interactions are not processed by the interactions analytics system. The QM module is also available if purchased.

- **Analytics Only**: Imports interactions including their recorded call audio from any recording system using a UConnector. The UConnector is a Professional Services built ETL application that imports interactions and meta data from a third party recording system. After the interactions are imported, SpeechMiner processes the contents of each interaction for interaction analytics. The QM module is also available if purchased.

- **Analytics Only with PureConnect**: Imports interactions and their recorded call audio from a PureConnect deployment using the UConnector for PureConnect. This UConnector is a Professional Services built ETL application that imports interactions and meta data from PureConnect. After the interactions are imported, SpeechMiner processes the contents of each interaction for interaction analytics. The QM module is also available if purchased.

> ## Important
>
> If you have purchased both Recording and Analytics licenses, Genesys recommendeds that you review the specific SpeechMiner setup instructions in the SpeechMiner documentation before you begin the installation procedure. You might need to make changes to the generic analytics procedures in this *SpeechMiner Administration Guide*.

This manual explains how to install and configure SpeechMiner, and 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.

8.5.512 Release

This release contains the following new features and enhancements:

- **Interaction Search Improvements**:

    - **Search Results – Total Matches:** When a search is performed in the Interactions grid, the search results now show the total number of interactions within the system that match the specified filter criteria. **[+]**

        As shown in the following image, previously only the number of interactions returned was shown on the menu :
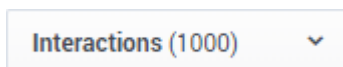
        Interactions (1000) ⌄

        Now the menu contains information about the number of interactions returned out of the number that match the search criteria in the server.

        Interactions (1,000 of 21,941) ⌄

    - **Pop-Out Media Player:** Users can now pop out multiple instances of the Media Player in separate Media Player windows to allow multiple interactions to be accessed at the same time. This also allows users with screen recordings to stretch out the Media Player to see more detail in the screen recording.

- **Quality Management Improvements**:

    - **Improved Scheduling and Distribution Options:** A number of changes have been made to the options available for Evaluation Session scheduling and distribution:

        - **Changes to Recurrence Parameters:** Recurrence options are now Days, Weeks and Months. The Hours and Minutes options have been removed to reduce the chances of creating too many unneeded evaluation sessions.

        - **Distributed Agent Evaluation Improvement:** The Exactly option is now available for Distributed Agent Evaluation types. This allows a specific number of interactions to be selected for evaluation for a specific set of agents for a given time (for example, in a month).

        - **Maximum Values for Exactly:** The system now has limits on the maximum value for Exactly. These are 1000 for Shared and Distributed Interaction Evaluation types and 30 for Distributed Agent. Note that these values are changeable in the database.

- **Multiple Evaluators Selection:** It is now possible to select multiple Evaluators for Distributed Interaction, Distributed Agent and Shared Evaluation types. When multiple Evaluators are selected, the resulting Sessions will be evenly distributed across Evaluators in a round robin fashion.

- **Evaluation Session Grid Search:** The Search Filter for Evaluation Sessions has been updated and now users can select the type of sessions (Active, Archived, Expired) and other filter criteria, prior to submitting a search. Previously, every change resulted in a new search that could cause delays in loading time.

- **Evaluation Session PDF Export Improvements:** When exporting an Evaluation Session as a PDF report, you can now see all text that was entered in a Free Form answer field. In addition, all comments associated with the underlying interaction are displayed in the PDF report.

- **Default Form to 100%:** To reduce clicks and save time when performing an evaluation, users can now select a toggle to default all answers in all forms within an Evaluation Session to 100% (or the maximum possible score). The default behavior when initially loading the form is configurable in the database. Also, a new permission to allow access to this toggle has been added. **[+]**

The following image shows the new Default scores to 100% option in the Evaluation Session page:


- **Trending Improvements:** (In a Genesys Interactions Analytics GIA deployment). A new View Trending Cluster Task Information permission was added to SpeechMiner Permissions.

  - **Clustering Information Visibility:** Users now have more flexibility about who can view and edit Clustering Tasks and their related information on the Trending page. Now, users with the View Clustering Task Information permission can view information without the need for elevated permissions to edit these tasks.

- **Language Enablement**

  - Recognition of Russian (ru-RU) and Russian UI (ru-RU) support has been enabled. Genesys Interactions Analytics (GIA) now operates on voice interactions and text interactions in Russian.

  - The Turkish Language pack (tr-TR) for interaction analytics has been improved with additional training material.

8.5.511 Release

This release contains the following new features and enhancements:

- **Interaction Search Improvements:**

  - **Search for Interactions with Screen Recording** (In a Genesys Interaction Recording GIR deployment): It is now possible to search for interactions that include or exclude screen recordings. Interactions that have an associated screen recording are tagged with the **Screen Recording** tag. This feature can be used in conjunction with Quality Management (QM) to exclusively perform evaluations on interactions that have screen recordings.**[+]**

The following **Tag** section **Explore > Search** page includes a Screen Recording tag. Previously, this tag did not appear in this list:
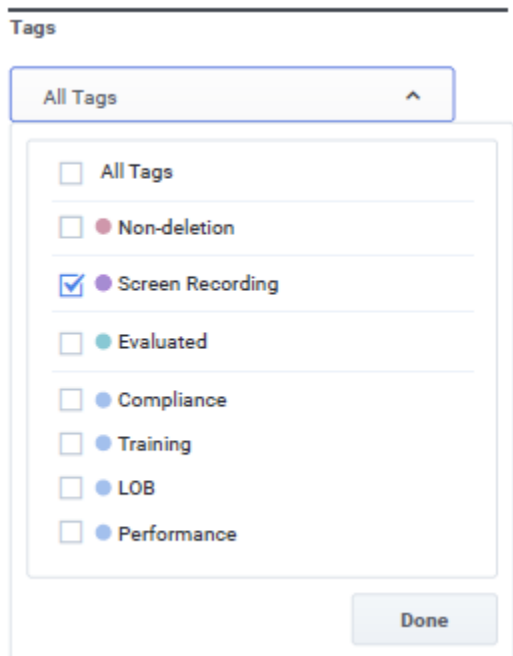
Note: This feature only works under the following conditions:

- Only for interactions that have been added to the system after **SpeechMiner** 8.5.511 was installed.

- The system must be configured with an external RWS to enable screen recordings.

- The solution requires **Recording Web Services (RWS)** version 8.5.202.69 or later.

- By default the Screen Recording tag is not enabled. To use the Screen Recording tag you must first configure SpeechMiner to enable tagging. For details refer to SpeechMiner Settings

- **Filter by Minute Granularity**: You can now search for interactions within the **Interactions** and **Events** grids with minute granularity. Also, the filter within the **QM Evaluations Manger** and **Trending** can now be specified with minute granularity. **[+]**

As seen in the following image the Custom date filter now contains hour and minute values:
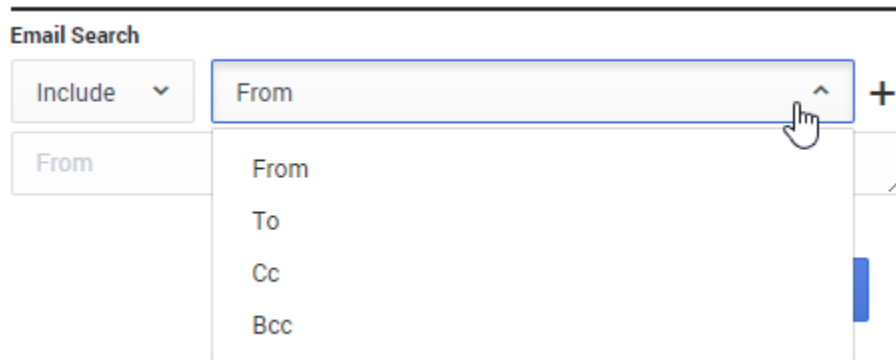
Previously, the Custom date filter did not contain hour and minute values.

- **Search E-mail Headers:** The search capability has been extended to include additional filters for e-mail headers. You can now search for e-mails according to header fields including To, From, Cc and Bcc fields. After upgrading to 8.5.511 you must re-index text interactions in order to be able to use the new email filters for existing data.**[+]**
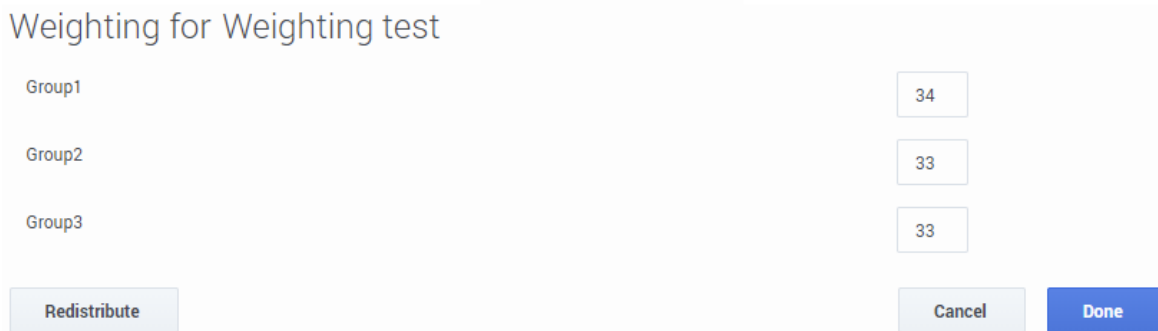
The following **Email Search** section has been added to the **Explore > Search** page:

- **Support for Elasticsearch**: The solution no longer uses Lucene to store the index for search and retrieval purposes. The solution now uses **Elasticsearch**, which is a more scalable search engine based on a distributed storage that streamlines the backup process and provides robust functionality around data integrity. As a result, all index data must be migrated from Lucene to Elasticsearch as part of the upgrade. For details, refer to Install, Configure and Run Elasticsearch

- **Quality Management Improvements**:

  - **Form Weighting:** It is now possible to provide up to two decimal places when assigning weights within forms, both at the group level and the question level. **[+]**

As seen in the following image, you can now enter a value with 2 decimal places:

Previously, you could only enter a whole number.

Weighting for Weighting test

Group1	33.34
Group2	33.33
Group3	33.33

Redistribute   Cancel   **Done**

- **Export Completed QM Sessions Improvement:** The exported data is now organized such that each question and related score are organized in separate columns for every group and form within the selected evaluations. Also, the export is limited to up to 10 selected evaluations for the chosen date range. Previously, all evaluations where exported. **[+]**

As seen in the following image, you can now select up to 10 evaluations:

Export Completed QM Sessions

Metadata Fields

Evaluation Session
Agent Name
Evaluator
Interaction ID
External ID
Segment
Interaction Time
Duration
Program
Form
Group
Question
Answers

Date Range

All	⌄

Evaluations *(maximum 10)*

3 Evaluations selected	⌄

*Downloading all completed QM sessions for the 3 selected Evaluations

Export

Previously, you could not select the evaluations for which you wanted to export evaluation data.

Export Completed QM Sessions

Exported Fields

Evaluation Session id
Evaluation Session
Agent Name
Evaluator
Interaction ID
External ID
Segment
Interaction Time
Duration
Program
Form:Group:Question:Answer
Metadata

*Downloading all completed QM sessions

Date Range

All ⌄

Export
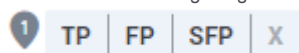
- **Text Interaction Improvements**:

  - **Storage of Text Interactions** (In a Text Analytics GIA deployment): The solution now stores text interactions in the file system instead of the database. This includes encryption of the file on disk if configured as well as a unique value for retention policy period for these text interactions. By migrating new and existing text interactions from the database to the file system, a large amount of database space can be freed.

  - **Text Attachments** (In a Genesys Interaction Analytics GIA deployment): The solution now stores and analyzes text attachments that are part of a text interaction. The system will analyze the content of the attachment in the same way it analyzes text interactions (for example, topic classification, searches and so on). The text attachment is displayed below the text interaction transcript with Attachment in the title. For example: **[+]**

    📎 **Attachment:** purchase-return-form_customer.txt

  - **Interaction Type:** You can now search for interactions according to the new **Text** interaction type.

  - **Raw Text Interactions Support** (In a Text Analytics GIA deployment): The solution can now analyze raw text interactions (that is .txt files) in the same way it analyzes audio, e-mail and chat interactions. You can also search for these interactions using the new **Texts** interaction type

- **In-Line Audit of Topic Events** (In a Genesys Interactions Analytics GIA deployment): Users can now audit topic events for Interaction Analytics in-line within the transcription viewer from the search page for all interactions types. This option is only available is the user has the correct privileges assigned. **[+]**

As seen in the following image events now appear in an interaction transcript with the option of marking the event with an audit value:


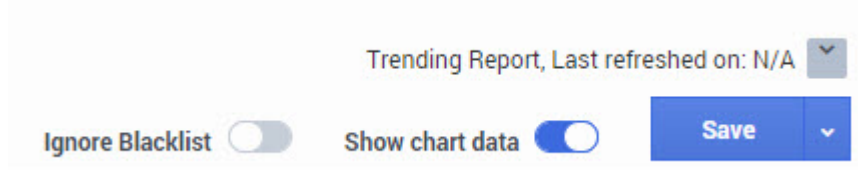Previously, the transcript events did not have the audit value options:.

- **Trending Improvements:** (In a Genesys Interaction Analytics GIA deployment)

  - **New Words More Prominent**: In **Trending** reports, when new terms are uncovered they are now shown more prominently in **Top Movers**.

  - **Layout Options**: User now have more flexibility in how the data is viewed on the **Trending** page. Users can now select one of three different layout options: **Combination**, **Chart** or **Table**. Combination shows the chart and table together, while Chart or Table show only one or the other. Also, the option to **Ignore Blacklist** is included as part of the layout options drop down. The selected option is persistent across sessions. **[+]**

The new **Trending** page combination option now includes a **Layout** menu:
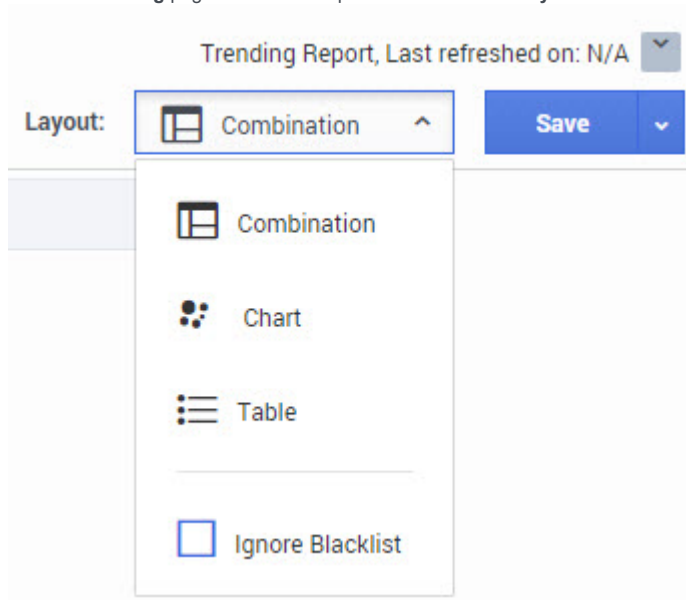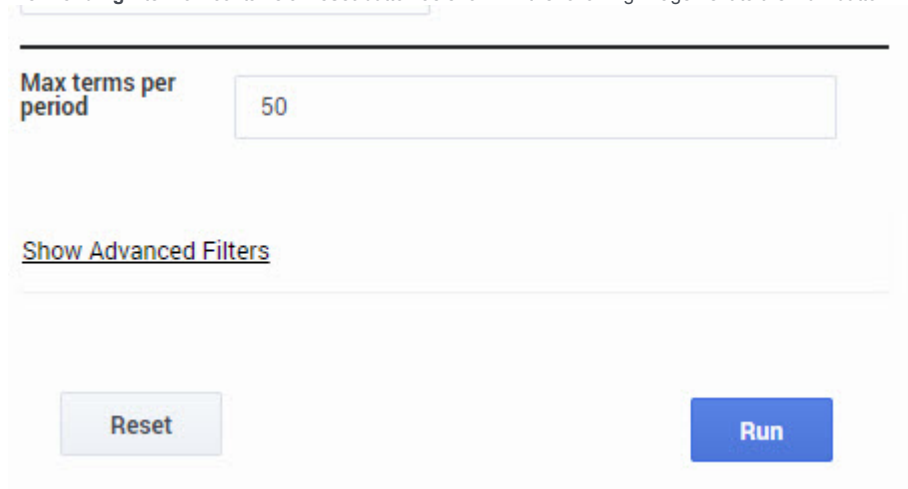
The previous **Trending** page options appeared as follows:
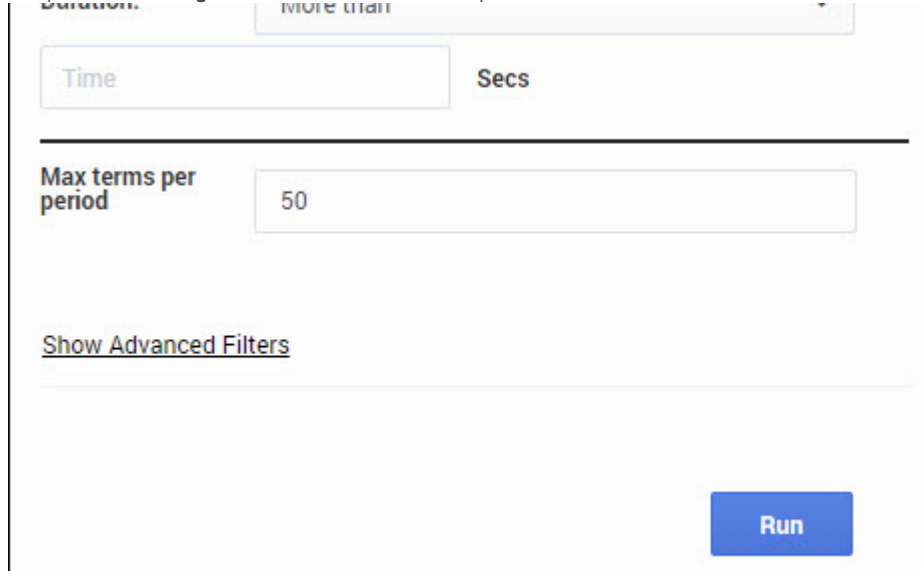
- **Reset Filters:** You can now reset the trending filters to the default state in Trending. **[+]**

The **Trending** filter now contains a **Reset** button as shown in the following image next to the **Run** button.
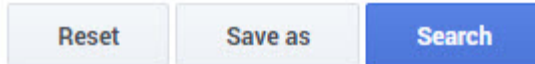

The previous **Trending Filter** did not contain a **Reset** option next to the **Run** button as shown here:

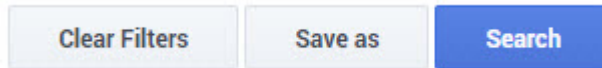The **Search Filter** page now contains a **Reset** button as shown in the following image next to the **Run** button.

The previous **Search Filter** page contained a **Clear Filters** option as shown here:

- **Language Enablement':**

  - Recognition of Dutch (nl-NL) and Dutch (nl-NL) UI support has been enabled. Genesys Interaction Analytics (GIA) now operates on voice interactions and text interactions in Dutch.

  - The US Spanish Language pack (es-US) has been updated to include improvements for Colombia and Mexican Spanish dialects.

- **PureConnect**: Product materials have been updated to reflect the integration of **PureEngage Genesys Interaction Analytics** and **PureEngage Quality Management** with **PureConnect**.

8.5.510 Release

This release contains the following new features and enhancements:

- **Interaction Search, Export and Add Improvements:**

  - **Sort by Agent:** Within the Interactions grid it is now possible to sort by the **Agent** column. Interactions with multiple agents will appear after (descending order) or before (ascending order) the alphabetized list of interactions with one agent. Subsequently, Interactions with multiple agents are sorted by the number of agents and then relevance. **[+]**

    The new **Agent** column heading now includes sorting options:
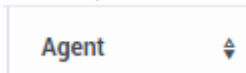
    The previous **Agent** column heading appeared as follows:
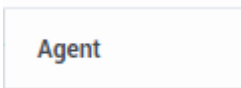
  - **Search by List of Interaction IDs:** It is now possible to search for a specific set of Interactions based on a list of Interaction IDs. A list of up to 50 Interaction IDs is supported. This can be useful when working with a specific set of interactions. **[+]**

The new **Interactions ID** field contains a new resize option in the bottom right corner of the field that enables you to view the interaction ID's:

Interaction ID:
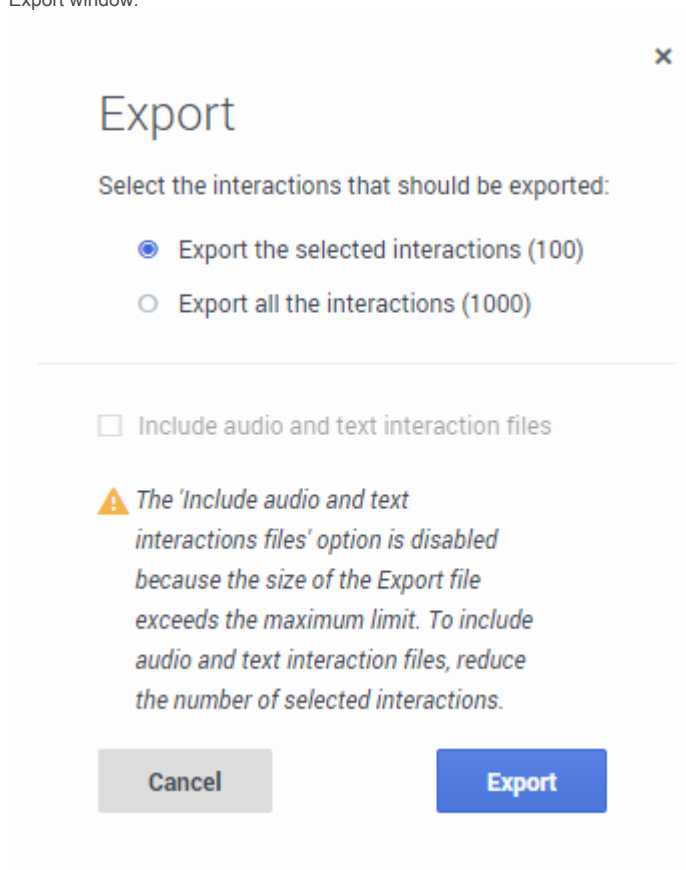
The previous **Interactions ID** field did not contain this option:

Interaction ID:

- **Export All Interaction Meta Data:** You can now easily export all the metadata associated with Interactions from an interaction search, up to the maximum number of listed interactions, without having to scroll through all interactions in the search results. **[+]**

The new **Export** window enables you to select the interactions that should be exported. The following window appears before the previous Export window:

Export

Select the interactions that should be exported:

- ⦿ Export the selected interactions (100)
- ○ Export all the interactions (1000)

☐ Include audio and text interaction files

⚠ The 'Include audio and text interactions files' option is disabled because the size of the Export file exceeds the maximum limit. To include audio and text interaction files, reduce the number of selected interactions.

Cancel   Export

The previous **Export** window did not contain this option:

Export Interactions

The file(s) you are exporting is encrypted with a strong encryption. When you unzip this file, you will be prompted to enter a password.

Password

🟠 This is a one-time generated password that will be used to decrypt the zip file and its contents.

| Create Password | | Generate Password |

Password must contain:
- ✕ A minimum of 12 characters.
- ✕ Uppercase letter (English)
- ✕ Lowercase letter (English)
- ✕ Numbers
- ✕ Special character

Cancel   Export

- **Add All Interactions to a List:** You can now easily add all Interactions from an interaction search to an Interaction List without having to scroll through all interactions in the search results. **[+]**

The new **Add To...** window enables you to select the interactions that should be added to the selected list:

Add To...

Coaching Session   **Interaction List**

Search

New Interaction List

itai new
Itai list #2
itai shared #1
gg
anat1
ab
1_test
Amit Test - ANZ
raymond test
test select All 389 interactions #2
select all 1000 interactions

Select the interactions to include in the selected interaction list

- ● Add the selected interactions (100)
- ○ Add all the interactions (1000)

Cancel   Add

The previous **Add To...** window did not contain this option:

- **Quality Management Improvements:**

  - **In-Line Rubric / Standards Definition: Forms** and **Questions** within Forms now have an expanded **Question Description** field that can be used to store the standard definition or rubric used by your Quality Managers to ensure consistency when performing evaluations of Agents. **[+]**

    The new **Question Description** field contains a new resize option in the bottom right corner of the field:

The previous **Question Description** field did not contain this option:

- **Form and Evaluation Manager Improvement:** The **Forms Manager** grid and the **Evaluations Manager** grid now includes a **Description** column; if a description is long, the full content is shown in a tooltip. In addition, when you hover over a Form or Evaluation name, a tooltip with the description of the specific Form/Evaluation is shown. **[+]**

When you hoover over the Form / Evaluation name, the description appears in the tooltip as shown in the following image:
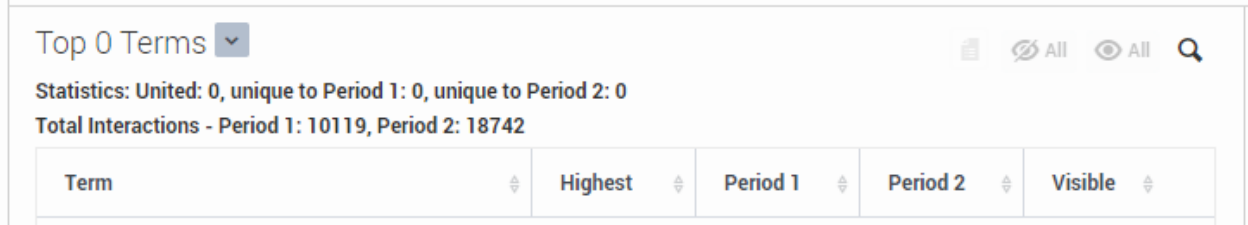
- **Trending Rank for Top Terms** (In a Speech Analytics deployment - GIA): **The Top Terms** table in the **Trending** report results now includes a **Rank** column for each period. The **Rank** column displays the relative importance and prominence of the specific term/phrase in the selected Period. **[+]**

The new **Rank** columns are now included in the **Top # Terms** table. The **Period 1** and **Period 2** column headings have been replaced with **Count (P1)** and **Count (P2)**. The table also includes a **Select Columns** option that enables you to change the columns in the table:

The previous **Top # Terms** table did not contain the **Rank** columns and the **Select Columns** option:

Top 0 Terms

Statistics: United: 0, unique to Period 1: 0, unique to Period 2: 0
Total Interactions - Period 1: 10119, Period 2: 18742

Term	Highest	Period 1	Period 2	Visible

- **Manual Text Categorization** (In a Speech Analytics deployment - GIA): You can now manually assign a category to a **Text Interaction** from the **Attributes** page of the interaction.

- **SMART Improvements** (In a Speech Analytics deployment - GIA)**:**

  - **Option to Re-categorize Interactions:** SMART users can now decide to re-categorize all existing interactions in the system or not when updating Category definitions. **[+]**

    The new **Recategorize** option now appears next to the changes menu:

    Apply Categories   ☑ Recategorize all existing calls

    The previous **Apply Changes** window did not contain this option:

    Apply Categories

  - **SMART Statistics Date:** You can now configure the default **Show Calls Since** date value in SMART to determine in advance the date range for the information that will be shown.

- **Reporting Improvements:**

  - **Agent Comparison by Segment report:** It is now possible to report on agents performance based on the Segments within an Interaction instead of just at the Interaction level only. Interactions can have multiple Segments, each involving a different Agent. Reporting by Segment provides more precise Agent Comparison information for multi-segment interactions.

  - **Agent Trend by Segment report:** It is now possible to report on agent performance trends based on the Segments within an Interaction instead of just at the Interaction level only. Reporting by Segment provides more precise Agent Trend information for multi-segment interactions.

  - **Team Comparison by Segment report:** It is now possible to report on teams performance based on the Segments within an Interaction instead of just at the Interaction level only. Interactions can have multiple Segments, each involving a different Agent from different Teams. Reporting by Segment provides more precise Team Comparison information for multi-segment interactions as only Segments where that Team was involved are included in the comparison report.

- **Language Enablement:** Recognition of Canadian French (fr-CA) and Canadian French UI support was enabled. Speech Analytics and Text Analytics now operate on voice interactions and text interactions in Canadian French**.**

- **SpeechMiner Web UI: Windows 10 64-bit Support:** SpeechMiner Web UI is now supported for all existing supported browsers (for example, Chrome and Internet Explorer) on systems running Windows 10 64-bit.

8.5.509 Release

This release contains the following new features and enhancements:

- **Genesys Logo:** The Genesys logo has been updated throughout the product based on new Genesys branding. **[+]**

The new logo now appears as follows:

The previous logo appeared as follows:

- **Access Control:** SpeechMiner now supports Configuration Server based Access Control for items within SpeechMiner for Genesys based user accounts. This functionality determines the agents and users that are visible to a logged in user based on their granted Read permissions. Additionally, access to items within SpeechMiner (For example, Forms, Evaluations, and so on.) is also limited based on read access to the creator of those items. Access Control is enabled in the following areas of the user interface:

  - All Agent Hierarchy filters, including those in Search, Evaluation Manager, Evaluation Sessions and Trending.

  - All Users filters, including those in Search, Evaluation Manager, Action Items, Saved Reports - Sharing, Saved Searches – Sharing, Interactions List - Sharing.

  - Forms, Evaluations and Evaluation Sessions.

  - Coaching and Alerts.

- **Improved Tooltips:** Tooltips in SpeechMiner in various locations now provide more detail; for cases where even more space is required, clicking on the element loads a modal window with all the information. Affected areas include: **Topics** and **Categories** in the **Interactions Grid**, **Current Filter** at the top of the **Interactions Grid**, and **Action Items** details.

- **Quality Management Improvements:**

  - **Evaluation Sessions Grid:** You can now filter the Evaluation Sessions grid according to the date on which the session was created as well as when the session was completed.**[+]**

In the following image of the Evaluation Sessions filter, you can see the new **Creation Date** and **Completion Date** parameters.

The following image represents the previous Evaluation Session filter (without the Creation Date and Completion Date options):

- **Evaluation Session Completion:** The workflow to close an Evaluation Session has been optimized to reduce the number of clicks required.

- **Language Enablement:** Recognition of Cantonese (zh-HK) and Cantonese UI support was enabled. Speech Analytics and Text Analytics now operate on voice interactions and text interactions in Cantonese.

- **Topic Analysis – Audits:** (In a Speech Analytics deployment - GIA) The header row in the **Topic Analysis – Audits** report is now fixed so users can always see the column titles. This functionality is only supported in the Chrome browser.

- **Trending Export:** (In a Speech Analytics deployment - GIA) You can now export all information shown in a **Trending** report. This capability is enabled only for users with the appropriate permissions.

- **Coaching Improvements:** (In a Speech Analytics deployment - GIA)

  - **Interaction Comments:** It is now possible to add comments from the Media Player that is available in the Coaching and Operations Search pages.**[+]**

The following image represents the updated **Coaching Media Player** with the **New Comment** option:
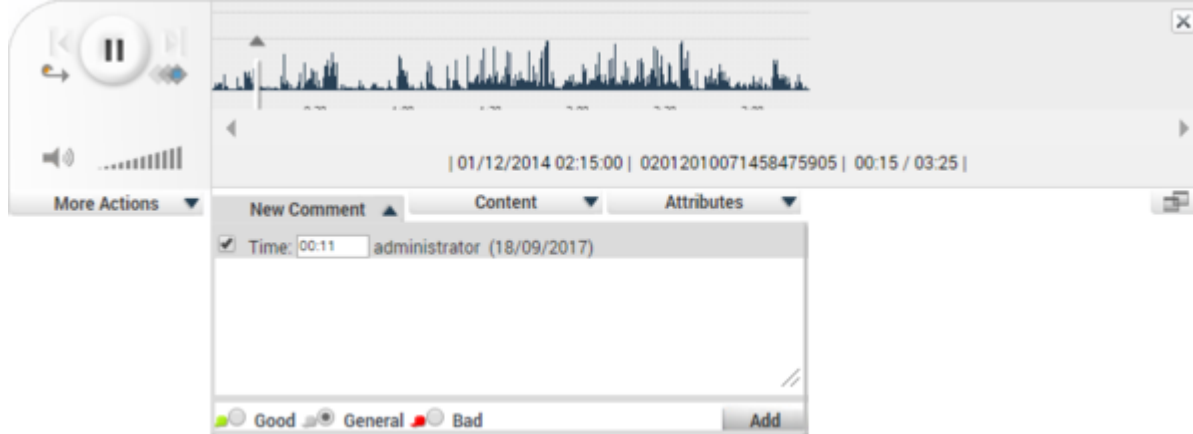
- **Session Subtype and Reason Code:** You can now add session subtypes (a secondary or subordinate session type that falls under the general classification of a specific session type) and a reason code (the cause, explanation or justification for completing a coaching session) to each Coaching Session.**[+]**

In the **Coaching > Session List** page, the **Session Types** button has been changed with the **Configure** button.

The **Session Types** window is now called **Configure**, since it now includes two tabs: **Session Types** and **Reason Codes**. The following 2

images represents the new **Configure** window:

The following image represents the previous Session Types window:

- **Updated Icons:** The Coaching Session summary page now includes a **Status** icon and a **Status** name that makes it easier to identify the status of a case at a glance.**[+]**

In the following image you can see that the **Status** column now includes a more easily discernible status, as the icons are more varied and the Status label is shown:

In the following image you can see that the previous **Status** column did not indicate the status label and the icons for each status were very similar:

8.5.508 Release

- **Search for Users:** (In a Recording and QM deployment) When using the **Users** filter option in the **Search Filter** in Search or Evaluation Sessions, or when selecting **Evaluators** in Evaluation Manager, the names are listed alphabetically according to the user's full name, also the filter now filters based on username and full name.

- **Events and Comments for Text Interactions:** (In a Speech Analytics deployment - GIA)

  - You can now add in-line comments to text interaction transcripts. Event markers are located throughout the text interaction based on where the event was detected in the text.

  - Event navigation is now available in text interaction transcripts from the events and comments list on the right side of the screen and from the transcript timeline. When clicking on an event marker the event will be highlighting in the transcript.

  - Interaction Transcript Search: When you view an interaction transcript, you can now search for specific terms within the transcript using the Search field above the transcript.

  - The text interaction timeline now contains both event and comment markers.

  - The new Search filter above the events and comments list now enables you to quickly filter the events and comments list for all interaction types. This filter can also be made persistent.

- **Trending:** (In a Speech Analytics deployment - GIA)

  - The Related Words option from the Trending chart, now produces the Related Words chart based on the Trending page filter selections.

  - The Trending chart can now include verbs. Previously, the chart only included noun phrases.

  - Custom Trending Cluster Tasks can now be defined with specific filter criteria, beyond the default cluster tasks, to ensure that the data and results shown on the Trending bubble chart fully reflect the specific data set that you are interested in exploring with this tool.

- The Header row of the **Topic Analysis - Audits** report is now static when the report is long and you must scroll down to view additional details. The static row is only supported when working with Chrome.

- SpeechMiner no longer supports Internet Explorer 10.

- **Screen Recording Grid:** (In a Recording and QM deployment) The SpeechMiner Screen Recording grid now includes two new columns (Agent First Name and Agent Last Name).

- **Usage Tracking Report:** In a Recording and QM deployment, the **Usage Tracking** report now logs separate entries for playing a voice interaction vs. selecting an interaction from the search results grid.

- **Audio Wave Graph:** When working with Chrome, the SpeechMiner Media Player, in a Recording and QM deployment (when Speech Analytics is not deployed), now contains an Audio Wave Graph that enables the user to see where there are silences in the audio. From the Audio Wave Graph (when dual-channel audio is available), the user can also distinguish between when one speaker is talking vs. the other.

8.5.507 Release

- **Auto Fail Report:** A drill down report that focuses on auto fail Quality Management questions and agents.

- **Auto Fail Permission:** A new Auto Fail permission has been added to enable the user to create, edit and/or view the Auto Fail report.

- **Distributed Evaluations Targeted to Specific Agents:** Provides supervisors with the ability to evaluate specific agents repeatedly over time.

- **Quality Management - Agent Notification:** Enables agent collaboration to provide agent feedback against evaluations and related scores.

- **Show Evaluation Session Score Permission:** Enables a user to turn on/off the evaluation session Show Score option.

- **Replace Interaction:** Enables a user (based on existing search criteria) to select an alternative interaction due to the interaction's quality.

- **Replace an Evaluation Session Interaction Permission:** Enables the user to replace the evaluation session interaction.

- **Interaction Tags:** Enables you to use user defined tags for a variety of uses (for example, compliance or training).

- **Define Tags:** Enables you to define tags for a variety of uses (for example, compliance or training).

- **Define Tags Page Permission:** Enables a user to define and edit an interaction tag.

- **Tag Interactions Permission:** Enables a user to tag an interaction.

- **Protect from Deletion:** Enables you to prevent an interaction from being deleted.

- **Protect Interactions from Deletion:** - A new permission has been added to enable you to protect interactions from deletion.

- **Tag Interactions as Evaluated:** Automatically adds an Evaluated tag when an evaluation session is completed.

- **Ad-Hoc Evaluation:** Enables you to launch an evaluation from the player against a specific media asset.

- **Create Ad-Hoc Evaluation Permission:** This permission will enable the user to evaluate interactions from the Explore page.

- **Trending Bubble – Drag and Drop:** Enables you to move a Trending bubble to a different location on the screen. This ability is useful in moving apart bubbles that are close together as the system has found that they are closely related. Once the Trending chart is re-run , the bubble returns to its original place.

- **Recognition Improvements:** Recognition enhancements to have been made for improved accuracy and detection results.

8.5.506 Release

- **Installation/Upgrade Prerequisite:** Before installing/upgrading SpeechMiner .NET 4.6.2 must be installed.

- **Export to PDF:** Enables users to export a completed evaluation session as a PDF file.

- **Export Completed QM Sessions:** Users can now export completed evaluation sessions according to a specific date range.

- **Recognition Improvements:** Recognition improvements have been made for Italian.

- **Alpha Numeric Operation IDs:** Operation IDs can now contain both letters and numbers.

8.5.505 Release

- **Improved Trending capabilities:** Enables users to monitor and analyze terms and phrases within conversations in conjunction with a variety of search criteria to better surface and analyze unforeseen or unexpected trends to improve business outcomes and agent performance.

- **Configuration Data:**

  - User lists now include only users associated with the context in which they are shown (for example, a list of evaluators will only include users with QM permissions).

  - Changes in the Configuration Database are visible immediately in the user interface (for example, when a user is given QM permissions, his/her name will appear in the evaluators list the next time you view the list).

  - Preset views are now supported for users with Genesys authentication.

- **Default Call List Order:** A new configuration option that enables you to determine the order of interactions in an interaction list. The new sort options are: Descending by Date Added, Ascending by Date Added, Descending Alphabetical and Ascending Alphabetical.

- **Database Optimization:** Database storage can now be significantly decreased by not storing events that were not found with a high enough confidence.

8.5.504 Release

- **Encrypt exported interactions:** Enables you to encrypt exported interactions, so that a password is required to access the interactions.

- **Export an Interaction List / Saved Search from a Coaching Session:** Enables you to export interaction lists and saved searches directly from a Coaching session.

- **Retrieve Original Interaction:** Enables you to export an interaction with its original audio or text file (including all attachments).

- **Export Coaching Session Permission:** A new permission has been added to enable or disable the option of exporting an interaction list and/or saved search from a Coaching Session.

- **Retrieve Original Interaction Permission:** A new permission has been added to enable or disable the option of retrieving original audio or text data for a specific interaction. This permission is only available in a SpeechMiner Analytics environment.

- **Language Support:** Support for the Catalan (ca-ES) language has been discontinued.

- **Search Page:** When the Search page is accessed, the Filter Panel will be opened and a search will not be run.

8.5.503 Release

- **Predictive Elements Report:** A report composed of two bar graphs that show the relationship between selected Categories and Target Categories.

- **Interaction Evaluation Summary Report:** A report that shows the evaluation score for the last evaluation session, associated with a specific evaluator and interaction.

- **Program Distribution Report:** A report that graphs the interaction volume for each Program.

- **Edit Call Comments Permission:** A new permission has been added to control which Users can edit an interaction comment; this permission is system wide for a given User.

- **Customer Sensitive Data Permission:** A new permission has been added to enable the user to display customer sensitive meta data (for example, attached data from CIM) in the SpeechMiner GUI. When this permission is enabled, the data is visible

- **Agent Sensitive Data Permission:** A new Recording Only permission has been added to enable the user to display agent sensitive meta data (for example, agent name) in the SpeechMiner GUI. When this permission is enabled, the data is visible

- **Interaction Evaluation Summary Permission:** A new permission has been added to enable or disable the Interaction Evaluation Summary report.

- **Timestamps in Comments:** Interaction display improvements have been made to include a timestamp in comments. Users will now see the date and time at which the comment was made/last edited.

- **Segment Filter:** Users can now filter the Search Results grid according to a specific number of segments. In addition, the search results can be restricted further using the greater than and/or less than options.

- **Support for MSSQL 2014:** SpeechMiner now supports MSSQL 2014

- **Recognition Improvements:** Recognition improvements have been made for the following existing languages: Arabic (ar-WW), Brazilian Portuguese (pt-BR), German (de-DE), Korean (kr-KO), Japanese (ja-JP).

- **Language Enablement:** Recognition of Indian English (en-IN) was enabled. Speech Analytics and Text Analytics now operate on voice interactions and text interactions in Indian English.

8.5.502 Release

- **Recognition Improvements:** Recognition enhancements to voice analysis have been made for improved accuracy and detection results for English and Spanish.

- **Shared Evaluations:** Creates evaluation sessions about an agent's performance during customer interactions without assigning the sessions to a specific evaluator(s). Instead, each evaluator associated with the session can select and assign himself/herself a specific session from the available pool of sessions.

- **Edit a Completed Evaluation:** Users with the correct permission can open, save, export, and close a completed evaluation session.

- **Filter Panel:** Users can now quickly and easily create retrieve evaluation session information by filtering the evaluation session list.

- **Export Incomplete Evaluation Session:** Users can now export an evaluation session that was saved but not completed.

- **Archive Completed Evaluation Sessions:** Users can now archive completed evaluation sessions automatically at a specific period of time or manually.

- **Interactions Report:** A new report that provides a list of all the interactions in the system.

- **Localization for Turkish:** User Interface localization was added for Turkish.

- **Analytics for Turkish:** Speech Analytics and Text Analytics now operate on voice interactions and text interactions in Turkish.

8.5.501 Release

- **Enhanced Segment Data and Metadata:** The **Attributes** page now contains data for interaction segments.

- **Localization for Arabic:** User Interface localization was added for Arabic.

- **QM Evaluation Score Visualization:** When a QM evaluation is completed and saved you can the evaluation score appears.

- **Screen Column Customization:** It is now possible to change the column order in the Interactions, Events and QM grids per user.

8.5.5 Release

- **Quality Management - Question Library:** When creating a Quality Management form, you can now select an existing group of questions and create a new group for future use.

- **SMUpgrade:** The new upgrade process is faster and no longer requires two databases. This one-step upgrade procedure can be performed from any version to any version on the customer's database (that is, a new database is not required).
  Note: SMUpgrade is not automatically included with SpeechMiner. Contact Customer Care to obtain the new upgrade procedure, and allow for one week to receive the required scripts.
  For additional details, refer to the *SpeechMiner Upgrade Guide*.

8.5.4 Release

- **QM Evaluations Manager - Media Player:** When you play back an interaction in the QM Evaluations Manager, the Media Player can be opened in a separate window.

- **Localization of new languages:** User Interface localization is available for the following languages:

  - German
  - Brazilian Portuguese
  - Japanese
  - Italian
  - Catalan
  - Mandarin
  - French

- **Related Words:** When you view the transcript of an interaction, you can use the Related Words option to graphically show which terms are commonly found within the same or similar term clusters as a selected term, and how frequently the terms are found together in the cluster.

- **Search by ID:** You can filter an interaction search query according to the interaction's ID.

- **Show/Hide Search Filter:** You can now select to show or hide the SpeechMiner Search filter.

- **SpeechMiner Command Line Configuration:** SpeechMiner can now be configured using the command line.

- **Transcript - Comments and Events display:** With a new Comments and Events panel, you can now view and edit a list of all the comments and events associated with the transcript you selected to view.

- **Playback speed:** When you play back an interaction you can now select the playback speed. 1.0 is the default speed and every number above is faster. For example, 2.0 is twice as fast as the default speed.

- **Column selections:** Column selections are now saved per user profile. The columns you select to view in a SpeechMiner grid are displayed until you select the "'Reset to defaults'" option. This option resets the grid to display the default column layout.

8.5.3 Release

- **New Quality Monitoring:** A completely new Quality Monitoring module features enhanced forms as well as improved workflows for scoring interactions and agents. Four new Quality Monitoring report templates are included in this release.

- **Exploration of text channels:** Text channels are now included in Exploration tasks. Term clusters can be generated for chat and email messages, and displayed in the Trending page.

- **Language enablement:** Recognition of Italian and Mandarin audio is enabled.

- **Functionality changes:** Three Dashboard widgets (Gauge, My Queues, and Recently QAed) and the QM Agent Summary report were removed from SpeechMiner 8.5.3.

8.5.2 Release

- **New Responsive Style User Interface:** 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:** Similar to Voice interaction topic definitions, text interaction topic definitions can now use wildcards.

- **Recognition Improvements:** 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 preconfigured integration with the new Genesys 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).

- **Interaction Receiver**: A web service which receives calls (audio and metadata) from the Genesys Interaction Recording system.

- **MS-SQL database**: The SpeechMiner database that stores the interaction data and the interaction processing results.

- **Web service**: Runs the SpeechMiner web-based interface that enables users to view and work with the interaction data after it is processed.

- **ULogger**: The log viewer for the SpeechMiner logs.

System Software

Users work with the following software to use SpeechMiner:

- **SpeechMiner browser-based interface**: Offers a variety of ways to access call audio and the results of interaction analysis performed by the system (when Analytics mode is in use). Users of the speech-analytics system can:

  - Find interactions that have specific characteristics or that are about particular topics.

  - Identify and listen to the parts of calls that interest them.

  - Audit and fine-tune SpeechMiner 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 that upgrades the SpeechMiner database from the previous version to the current version.

Install

Installing SpeechMiner

This section includes pre-installation steps; setting up the system components, database, and the software steps that users perform 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

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

SpeechMiner supports users defined in three places:

- **Internal (SpeechMiner):**

  Users are defined in the SpeechMiner interface.

- **Windows:**

  Users are defined in the SpeechMiner interface and are managed with the Windows Active Directory.

- **Genesys Configuration Server:**

  Users are defined in the Genesys Configuration Server. Refer to steps 1-5 and 11 in the Configuring SpeechMiner Users in the GIR Solution Guide.

> ### Important
> It is recommended that users be defined using only one type of authentication method. To set the authentication type, configure the `AuthenticationTypes` and `AuthenticationDefault` fields in the `WebServiceParams` table in the SpeechMiner database.

Language Support

SpeechMiner Language Support

SpeechMiner language recognition and user interface (UI) support is available for the following languages:

Language	Recognition Support	UI Support
Dutch - NL	X	Dutch - NL
English - USA	X	English - USA
English - UK	X	English - USA
English - Australia	X	English - USA
English - South African	X	English - USA
English - Indian	X	English - USA
French - Canadian	X	French - Canadian
Russian - Russia	X	Russian - Russia
Spanish - USA	X	Spanish - USA
Spanish - Columbian	X	Spanish - USA
Spanish - Mexican	X	Spanish - USA
Spanish - Spain	X	Spanish - Spain
German - Germany	X	German - Germany
Portuguese - Brazil	X	Portuguese - Brazil
Korean - Korea	X	Korean - Korea
French - France	X	French - France
Japanese - Japan	X	Japanese - Japan
Mandarin - China	X	Simplified Chinese (labeled as Mandarin)
Italian - Italy	X	Italian - Italy
Arabic - World Wide	X	Arabic - World Wide
Turkish - Turkey	X	Turkish - Turkey
Cantonese - Hong Kong	X	Traditional Chinese (labeled as Cantonese)

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
>
> The SpeechMiner supported environment might be different for each SpeechMiner version and the current SpeechMiner Administration Guide information might 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, confirm 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.
- The individual installing SpeechMiner must be a database owner.

Once the above are confirmed, review the Preinstallation Checklist before you begin the installation process.

Important Points to Remember

- When working with **Internet Explorer 11+**, the **Online Help** documentation may not appear as it should due to your **Internet Explorer > Compatibility View** settings. To view the Online Help properly, go to the **Tools** menu, select **Compatibility View Settings** and verify that **Display intranet sites in Compatibility View** is not checked.
- A **Text Interaction** with more than **100K** characters (with or without an attachment) is not supported.
- The following characters are not supported in Text interactions with xml formats (for example, chat and social): **& < >**.
- Phrases defined in SMART must be part of a single sentence. Phrases cannot be a combination of multiple sentences separated by a period. The period can only appear once at the end of the phrase.

System Requirements

Disk Space

Each server in the system requires at least the following 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, for some types of recording-system integrations that have a very high volume, a larger (10-200 GB) storage area is needed for temporary files.

Important

- The initial size of the database is about 20 GB; it might grow larger, depending on the call volume and the call-purging policy.

- On relatively high-volume installations, UConnector might need its own dedicated server.

- **Web server:** About 20 MB of disk space are needed 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

For detailed information about the SpeechMiner database refer to the *Supported Operating Environment Reference Guide.*

Operating Systems

SpeechMiner works on machines running Windows operating systems.
For detailed information about the Windows operating systems that are compatible with each SpeechMiner component, refer to the *Supported Operating Environment Reference Guide.*

Browser

When working with the SpeechMiner web application, you must work with specific operating systems, browsers and resolutions.

- For detailed information about SpeechMiner **operating system** and **browser** compatibility refer to the *Supported Operating Environment Reference Guide*.

- For additional information about **minimal desktop resolution** and **browser configuration** see: Configuring your Browser

Machines running SpeechMiner must have the following minimal **web client desktop** specification:

- 8 GB RAM

- Dual-core, 2GHz or faster CPU x64-bit processor

- 10 GB hard drive

Memory (RAM)

Machines running SpeechMiner servers and applications must have the following minimum memory requirements:

- 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)

What Is Installed?

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

Machine	Components
On the Recognition Server(s)	• UPlatform service
On the DB Server	• SpeechMiner database
On the Web Server	• SpeechMiner virtual folder

Machine	Components
On the Interaction Receiver Server	• Interaction Receiver virtual folder
On Every Machine Running SMART	• Recognition engine • SMART executable and runtime files (dlls)

Ports Used by the System Components

The following ports are used by SpeechMiner:

> **Important**
>
> The ports listed are the default ports. Most of them can be changed upon request.

Source	Destination	Protocol and Port Pair (ex. TCP 3389)
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)	WebServers	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
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
Platform Servers	Indexer Microservice	http 80
Elasticsearch Cluster	Elasticsearch Cluster	tcp 9300

Source	Destination	Protocol and Port Pair (ex. TCP 3389)
Indexer Microservice	Elasticsearch Cluster	http 9200

Ports and Protocols Required for SpeechMiner UConnector

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

Important

- Professional Services is responsible for the development, installation and configuration of UConnector and UConnector for PureConnect. For additional information about UConnector refer to Professional Services.

- Verify that your antivirus software and firewall configuration are not blocking SpeechMiner ports and protocols.

Required Third-Party Software

> **Important**
>
> You must install specific third-party software on the computers in your system before you install SpeechMiner.

.NET Framework

Installing the .NET Framework

Microsoft .NET Framework 4.7.2 SP2 or higher must be installed on all machines that run the SpeechMiner Web component. Machines that run SpeechMiner components and do not include the SpeechMiner Web component, must install a minimum of Microsoft .NET Framework 4.7.2.
.NET 3.5.1 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, Windows Server 2012 or Windows Server 2016:

- 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, Windows Server 2012 or Windows Server 2016, manually download and install .NET 4.7.2 from the following location: https://www.microsoft.com/en-us/download/details.aspx?id=53344

> **Important**
>
> Hosts on which the Indexer will be installed must have version 3.1 (see:https://dotnet.microsoft.com/download/dotnet-core/3.1). If the system does not have an Internet connection, obtain and install the Microsoft Visual C++ 2015 Redistributable (64-bit) before installing the ASP.NET Core/.NET Core: Runtime & Hosting Bundle.

Installing .NET Core 3.1 Runtime & Hosting

To ensure that the Indexer application is installed successfully, .NET Core 3.1 Runtime & Hosting must be installed and operational before you begin installing SpeechMiner.

Download and install .NET Core 3.1 Runtime & Hosting from the following location: https://dotnet.microsoft.com/download/dotnet-core/3.1

Microsoft Visual C++ Redistributable

Installing Microsoft Visual C++ Redistributable

The following Microsoft Visual C++ Redistributable's must be installed on all machines that will run SpeechMiner components or interact with SpeechMiner.

- Microsoft Visual C++ 2015 Redistributable: 2015 installation

Important

- When installing Microsoft Visual C++ 2015 Redistributable you must install both x86 and x64 versions.

- Hosts on which the Indexer will be installed must have version 3.1 (see:https://dotnet.microsoft.com/download/dotnet-core/3.1). If the system does not have an Internet connection, obtain and install the Microsoft Visual C++ 2015 Redistributable (64-bit) before installing the ASP.NET Core/.NET Core: Runtime & Hosting Bundle.

SQL Server

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 R2 with Reporting Services, Microsoft SQL Server 2012 with Reporting Services, Microsoft SQL Server 2014 with Reporting Services or Microsoft SQL Server 2016 with Reporting Services.

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

For details about which MS SQL is supported, refer to the Supported Database/DB Clusters section in the SpeechMiner page in the *Genesys Supported Operating Environment Reference Guide*.

Elasticsearch

Installing and Configuring Elasticsearch

Elasticsearch must be installed and operational before you begin installing SpeechMiner.

For information about installing and configuring Elasticsearch for SpeechMiner, see Install, Configure and Run Elasticsearch.

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 IIS on either:

- Windows Server 2008
- Windows Server 2012
- Windows Server 2016

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.
- We recommend 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

You can configure SpeechMiner to use Microsoft Report Viewer to run saved reports at night and cache their results. Using Microsoft Report Viewer can significantly reduce the time required to load the SpeechMiner **Views** page, especially if it contains a large number of reports. To use this feature, install Reporter Viewer and then configure it to run the reports you want it to generate. 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

Installing SQL Server 2008 R2

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

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

2. From the menu on the left, select **Installation**. The **Installation** screen opens.
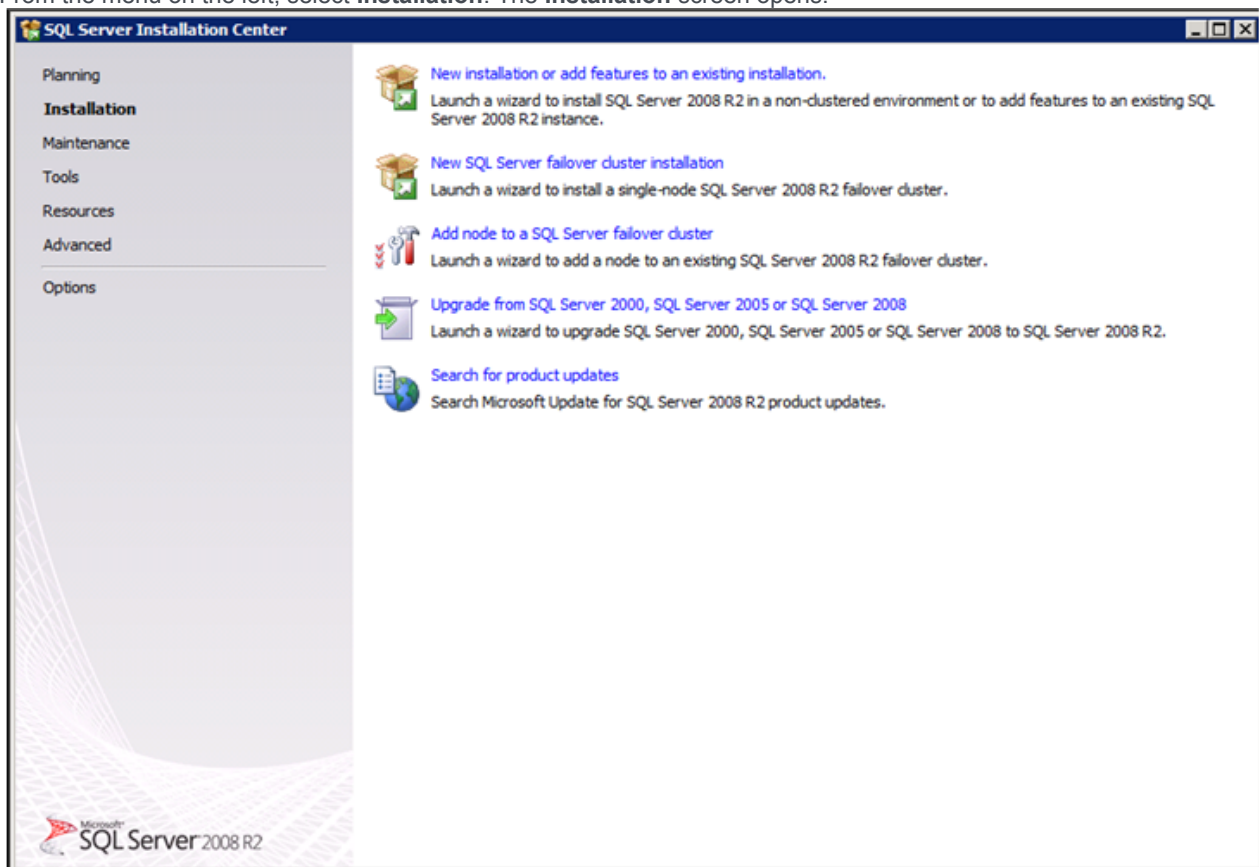
3. Select **New installation or add features to an existing installation**. The installation wizard opens.

4. Follow the on-screen instructions. When each screen opens follow the instructions to select the required settings and options for SpeechMiner.

5. In the **Setup Role** screen, select **SQL Server Feature Installation** and click **Next**.
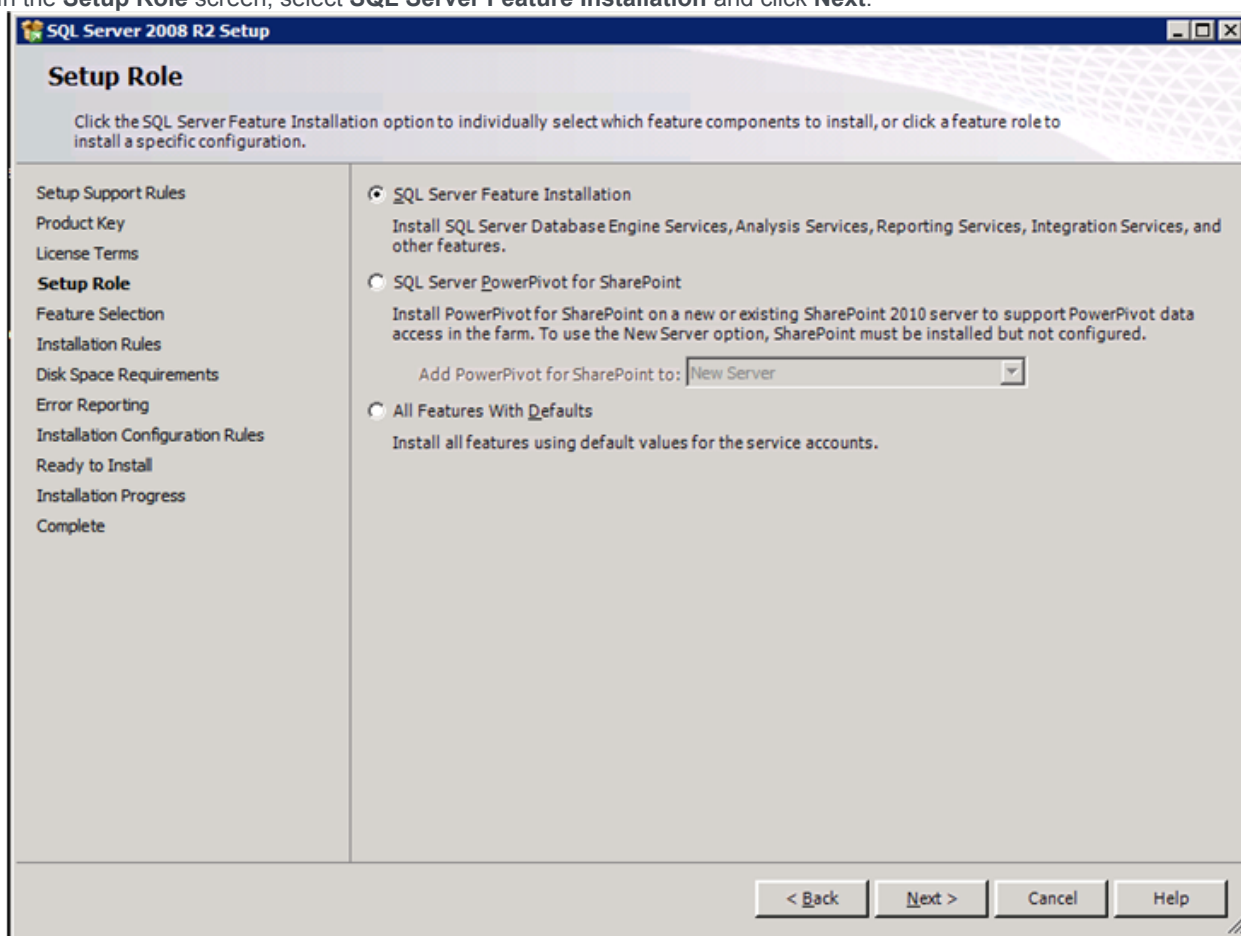
6. In the **Feature Selection** screen, select the following features, and click **Next**:

- Database Engine Services

- Reporting Services

- Client Tools Connectivity

- SQL Server Books Online

- Management Tools Basic

- Management Tools Complete
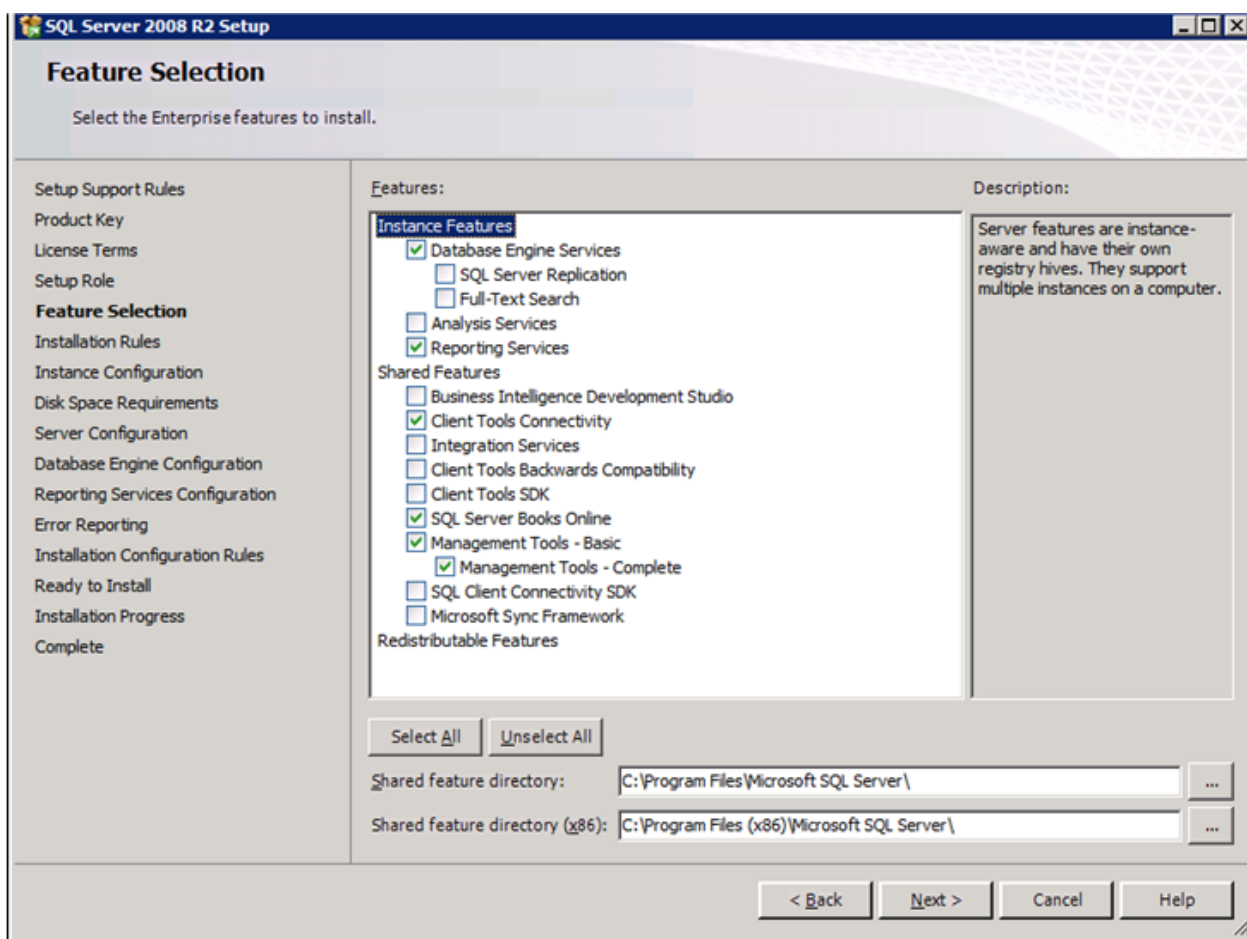
7. In the **Server Configuration** screen, in the **Service Accounts** tab, for the **SQL Server Agent**, **SQL Server Database Engine**, and **SQL Server Reporting Services**, do the following, and click **Next**:

• Enter the user account and password of the service account.

• Under **Startup Type**, select **Automatic**.
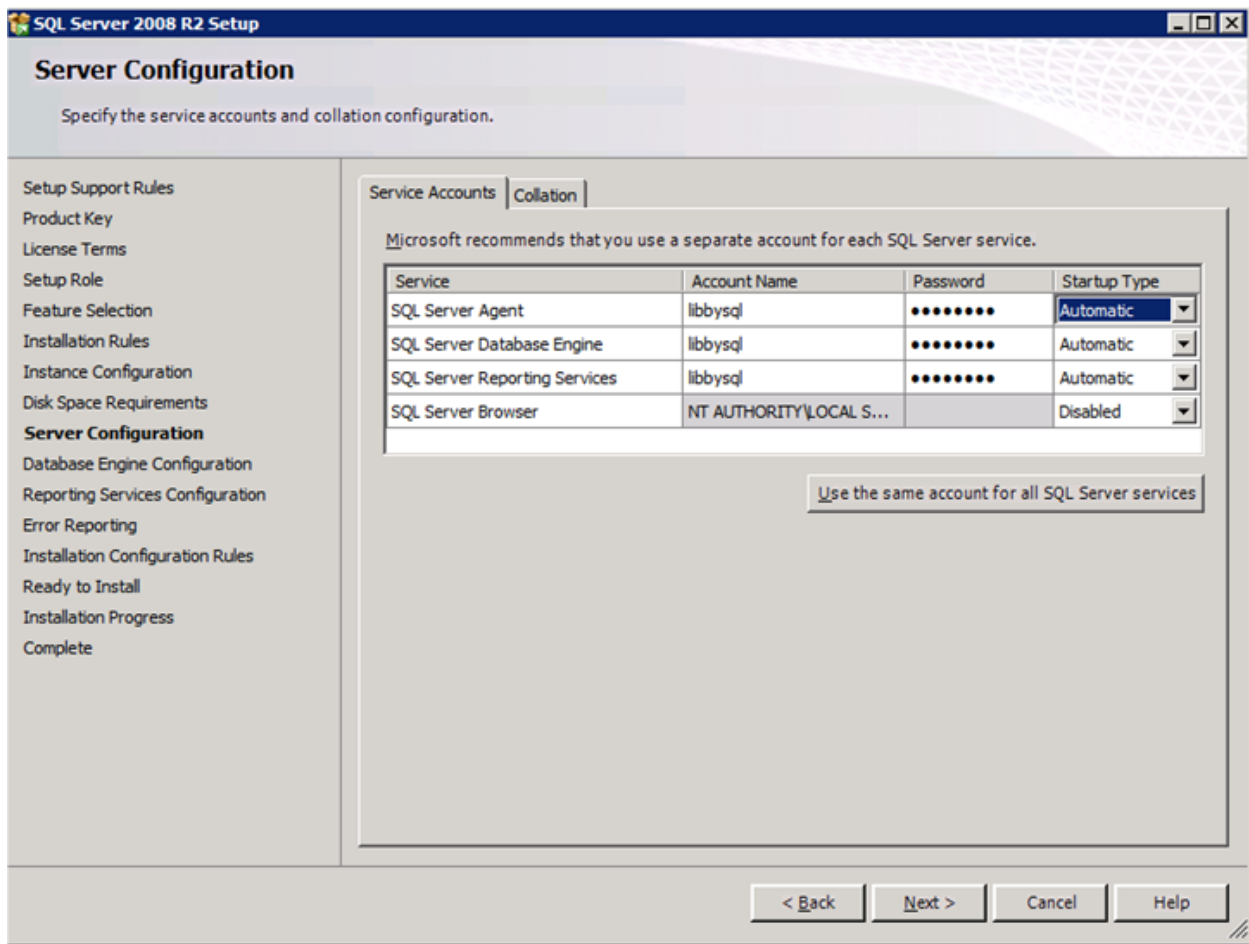
8. In the **Server Configuration** screen, in the **Collation** tab, under **Database Engine**, select
   `SQL_Latin1_General_CP1_CI_AS` (the default value). Click **Next**.
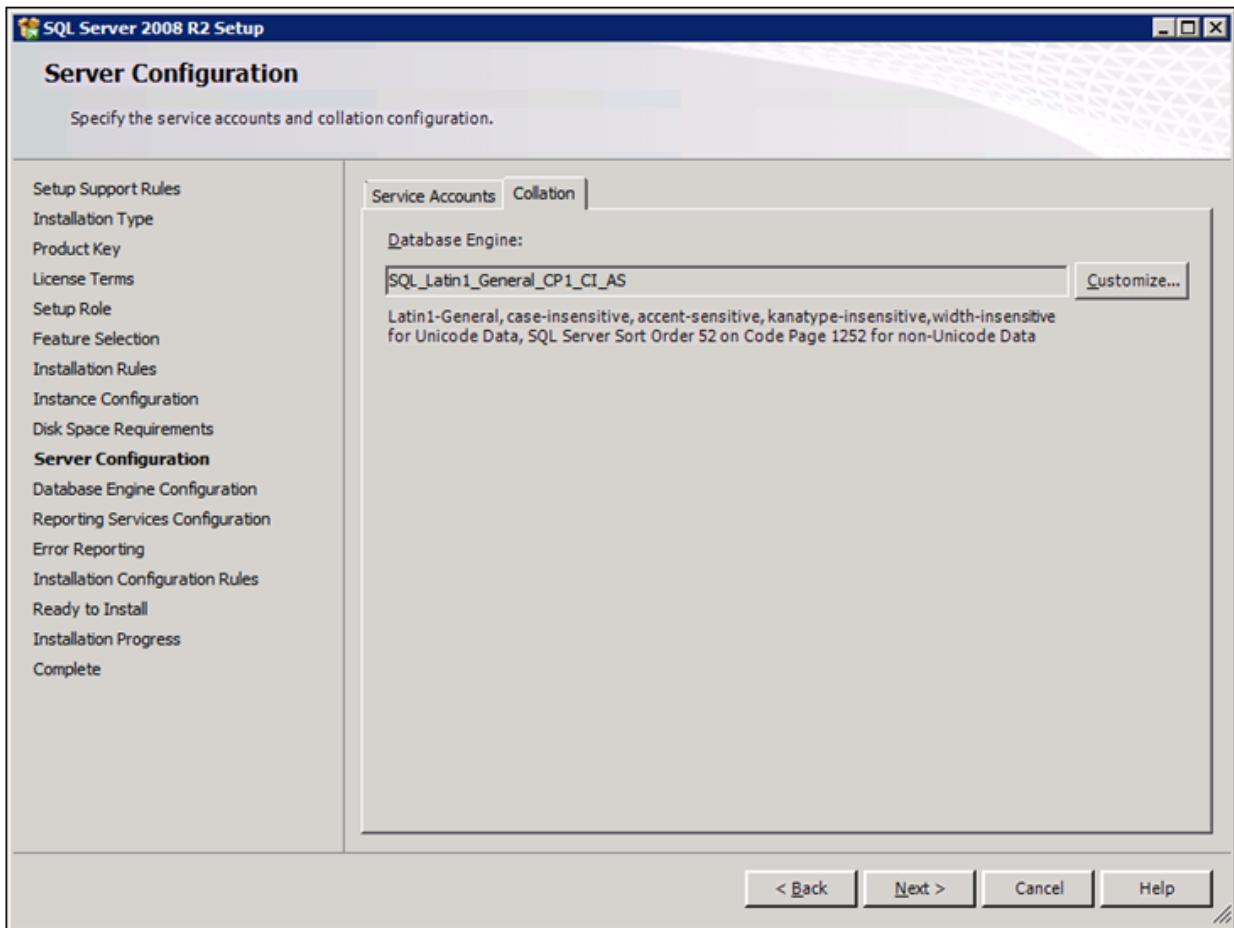
9. In the **Database Engine Configuration** screen, in the **Data Directories** tab, select the locations for the database
   folders. If possible, put the User database directory, the Temp DB directory, and the Backup directory on a separate

drive from the other folders. Click **Next**.
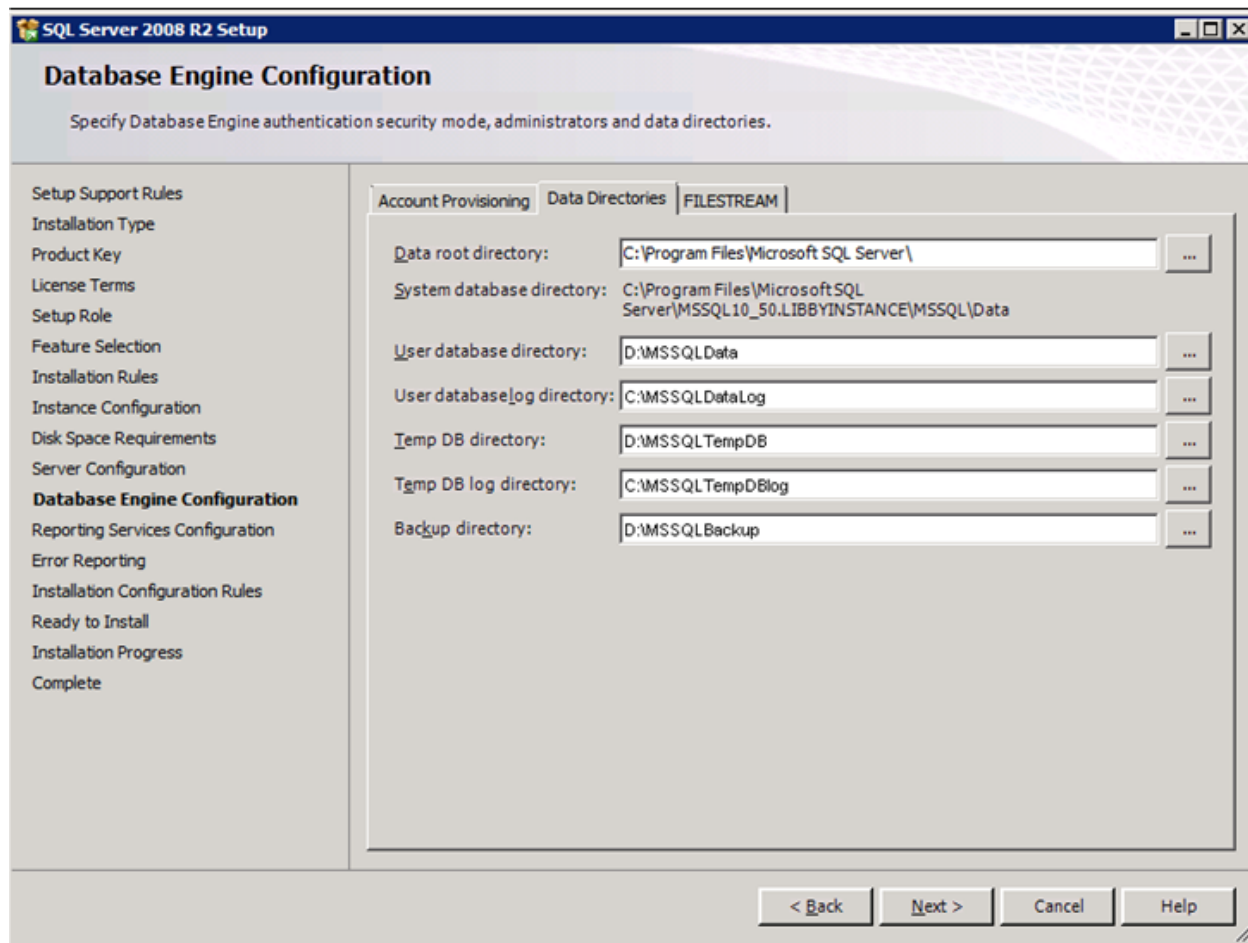
10. In the **Reporting Services Configuration** screen, select **Install the native mode default configuration**.

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

Installing SQL Server 2012

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

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

2. From the menu on the left, select **Installation**. The **Installation** screen opens. Select **New installation or add features to an existing installation**. The installation wizard opens.

3. Follow the on-screen instructions. When the screens mentioned below open, follow the instructions below to select the required settings and options for SpeechMiner.

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

5. From the **Feature Selection** screen, select the following options:

    - Database Engine Services

    - Reporting Services

    - Client Tools Connectivity

    - SQL Server Books Online

    - Management Tools Basic

    - Management Tools Complete
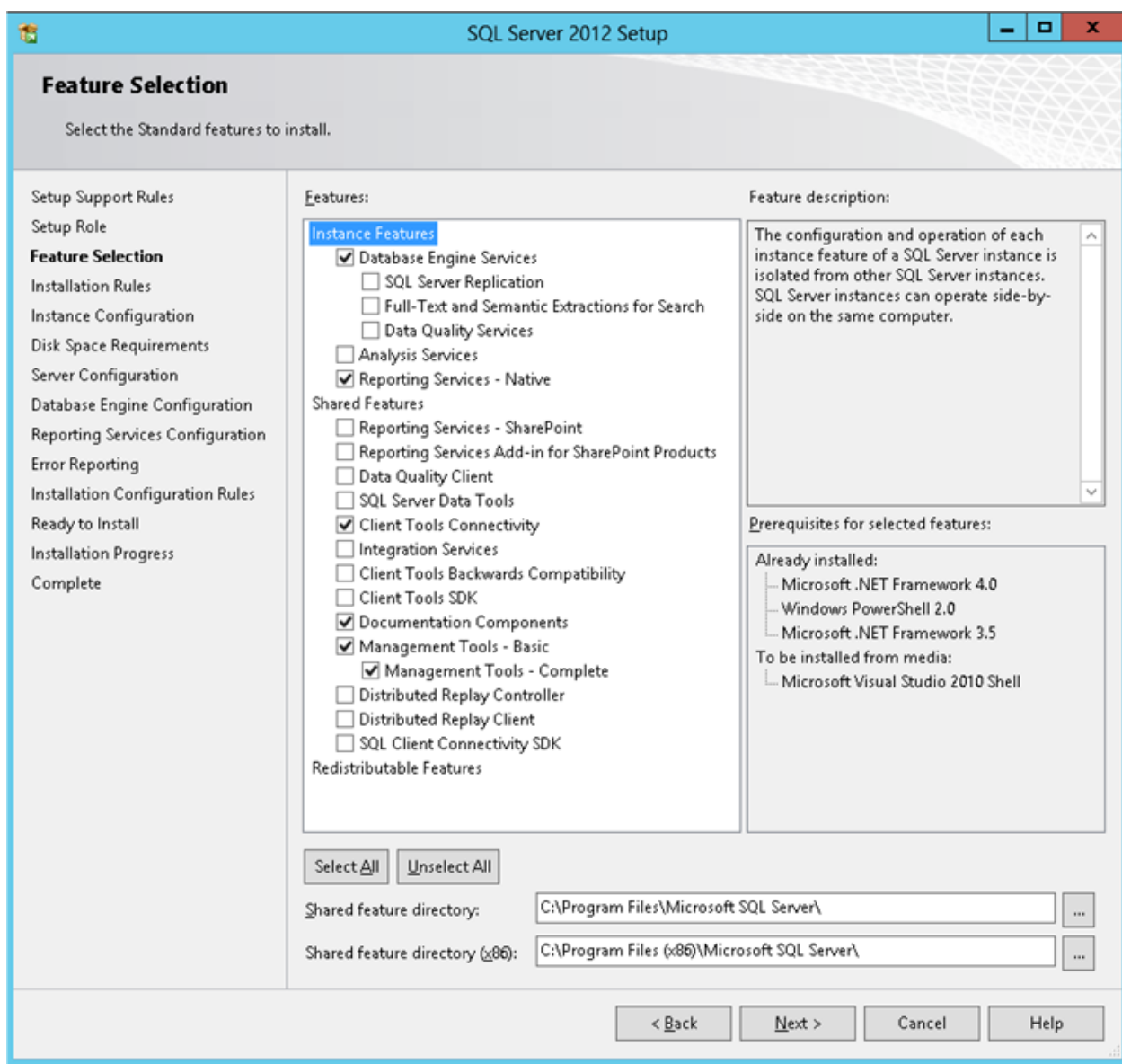
6. From the **Server Configuration** screen, in the **Service Accounts** tab, for the **SQL Server Agent**, **SQL Server Database Engine**, and **SQL Server Reporting Services**, do the following:

   • Enter the user account and password of the service account.

   • Under **Startup Type**, select **Automatic**.
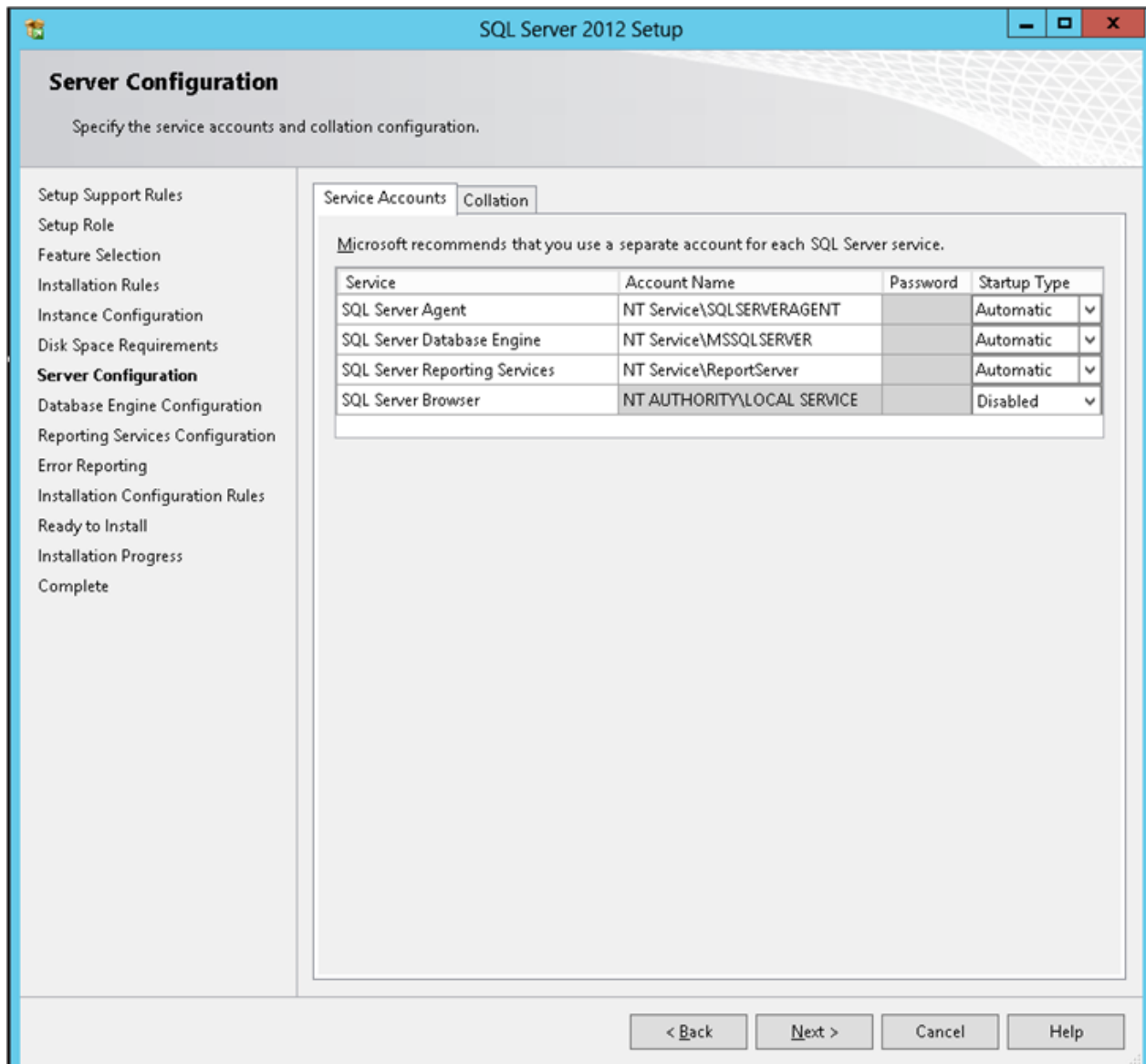
7. From the **Server Configuration** screen, in the **Collation** tab, under **Database Engine**, select
   `SQL_Latin1_General_CP1_CI_AS` (the default value).
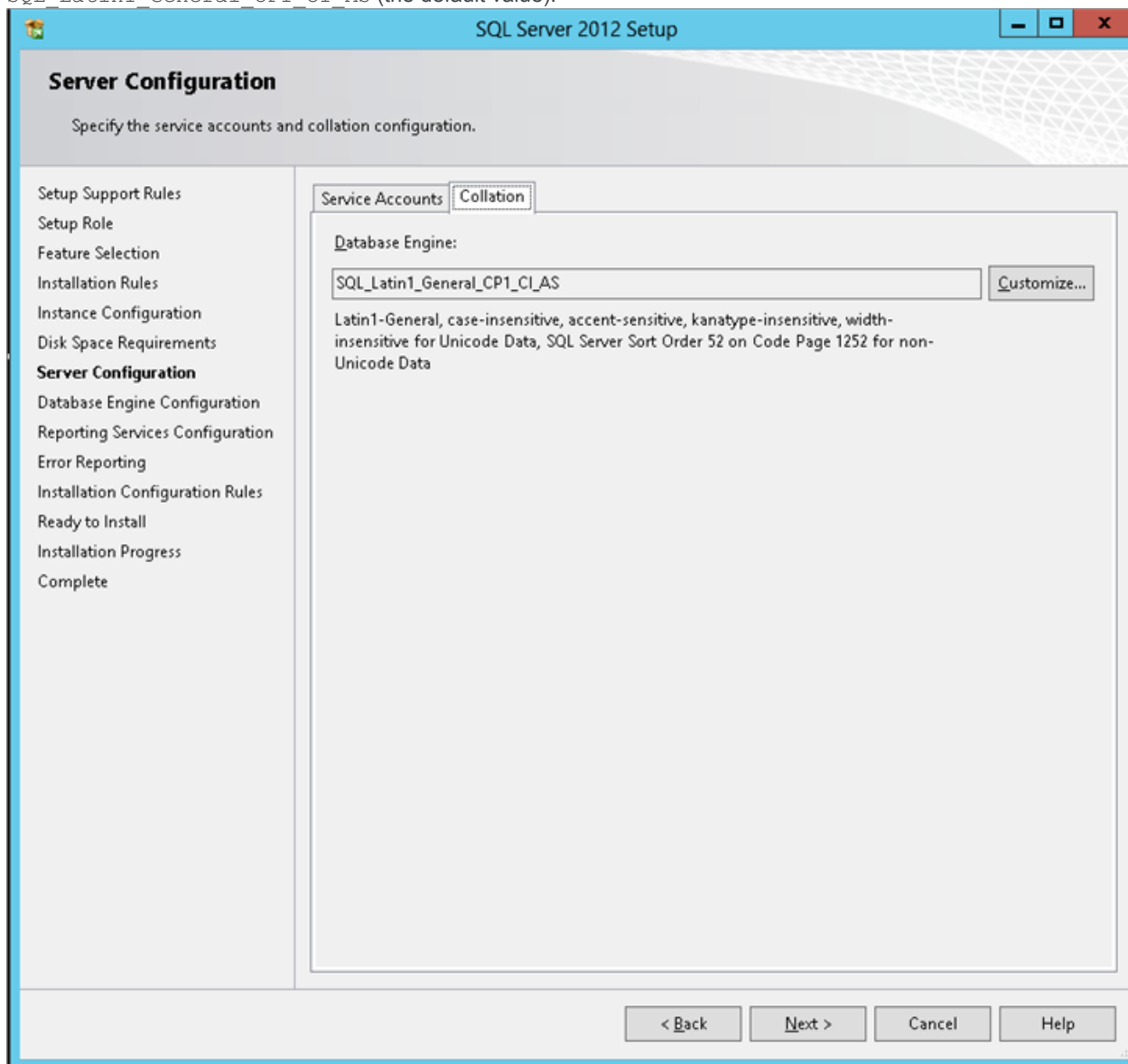
8. From the **Database Engine Configuration** screen, in the **Data Directories** tab, select the locations for the database
   folders. If possible, put the User database directory, the Temp DB directory, and the Backup directory on a separate

drive from the other folders.
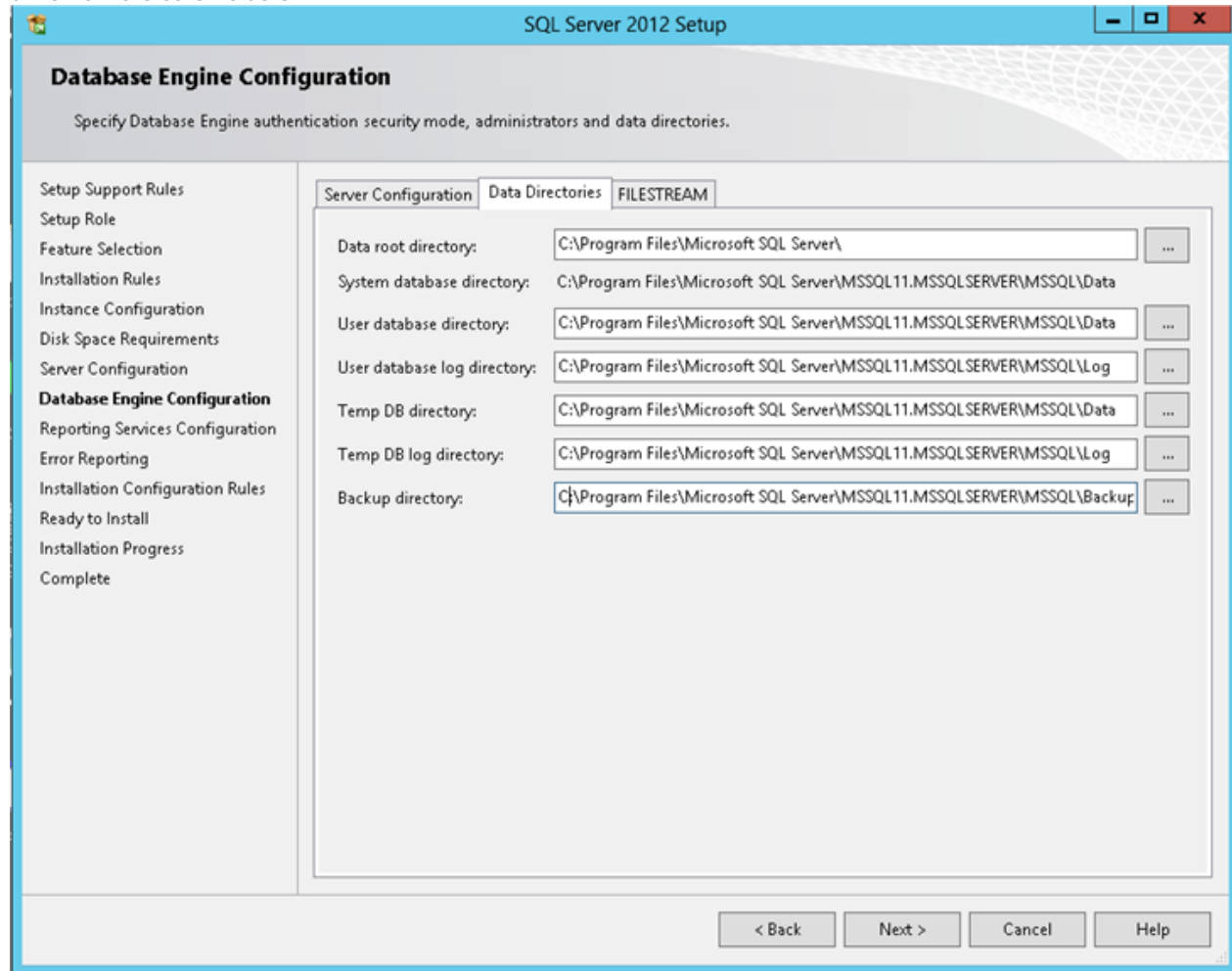
9. From the **Reporting Services Configuration** screen, select **Install the native mode default configuration**.

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

Installing SQL Server 2014

Installing SQL Server 2014

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

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

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

3. Select **New SQL Server stand-alone installation or add features to an existing installation**. The installation wizard is activated.

4. Follow the on-screen instructions. Refer to the instructions below to select the required settings and options for SpeechMiner.

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

6. In the **Feature Selection** screen, select the following features, and click **Next**:

  • Database Engine Services

  • Reporting Services - Native

  • Client Tools Connectivity

  • Management Tools Basic
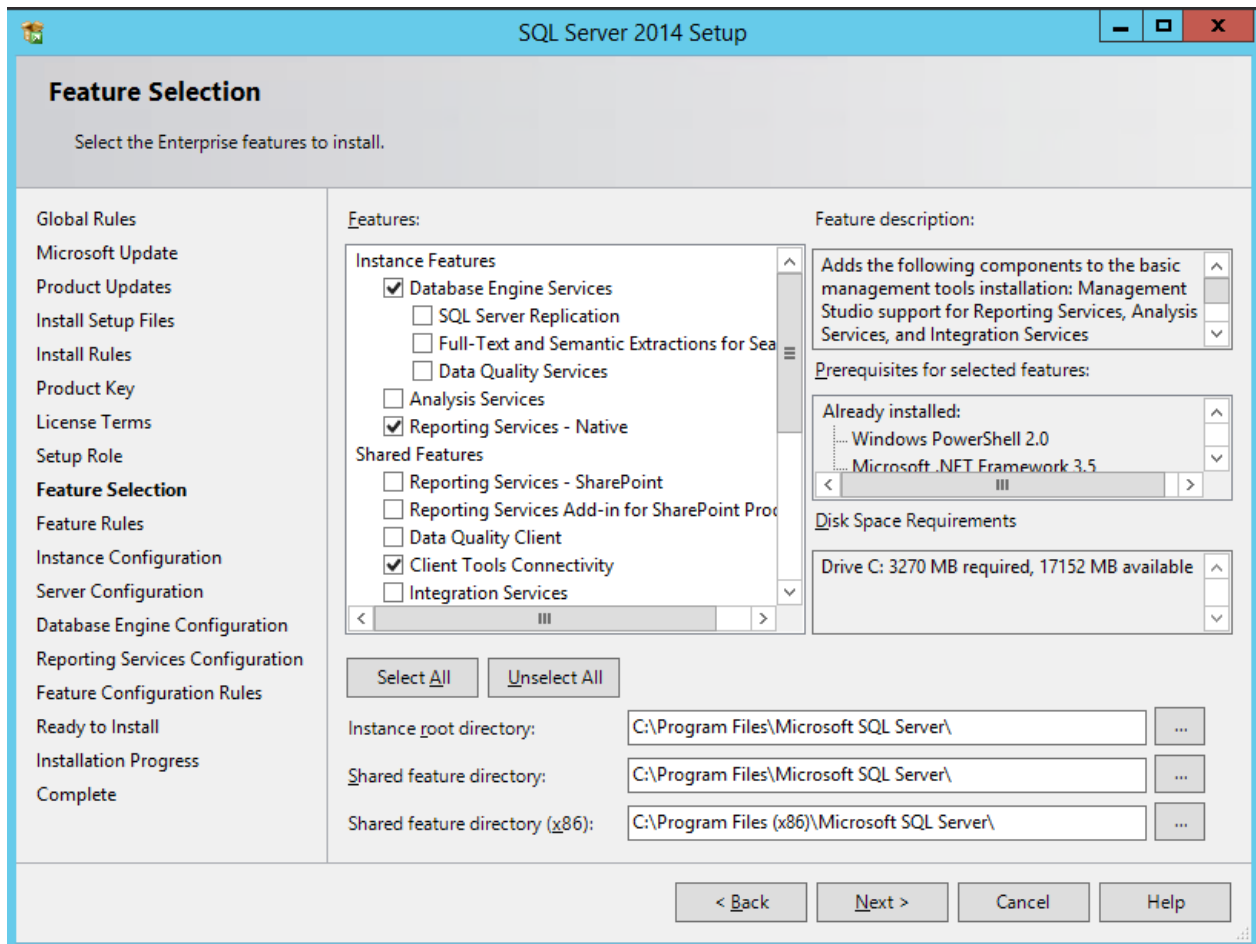
  • Management Tools Complete

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

8. In the **Server Configuration > Service Accounts** tab, perform the following for the **SQL Server Agent**, **SQL Server Database Engine**, and **SQL Server Reporting Services** and click **Next**:

   • Enter the service **Account Name** and **Password**.

   • Under **Startup Type**, select **Automatic**.
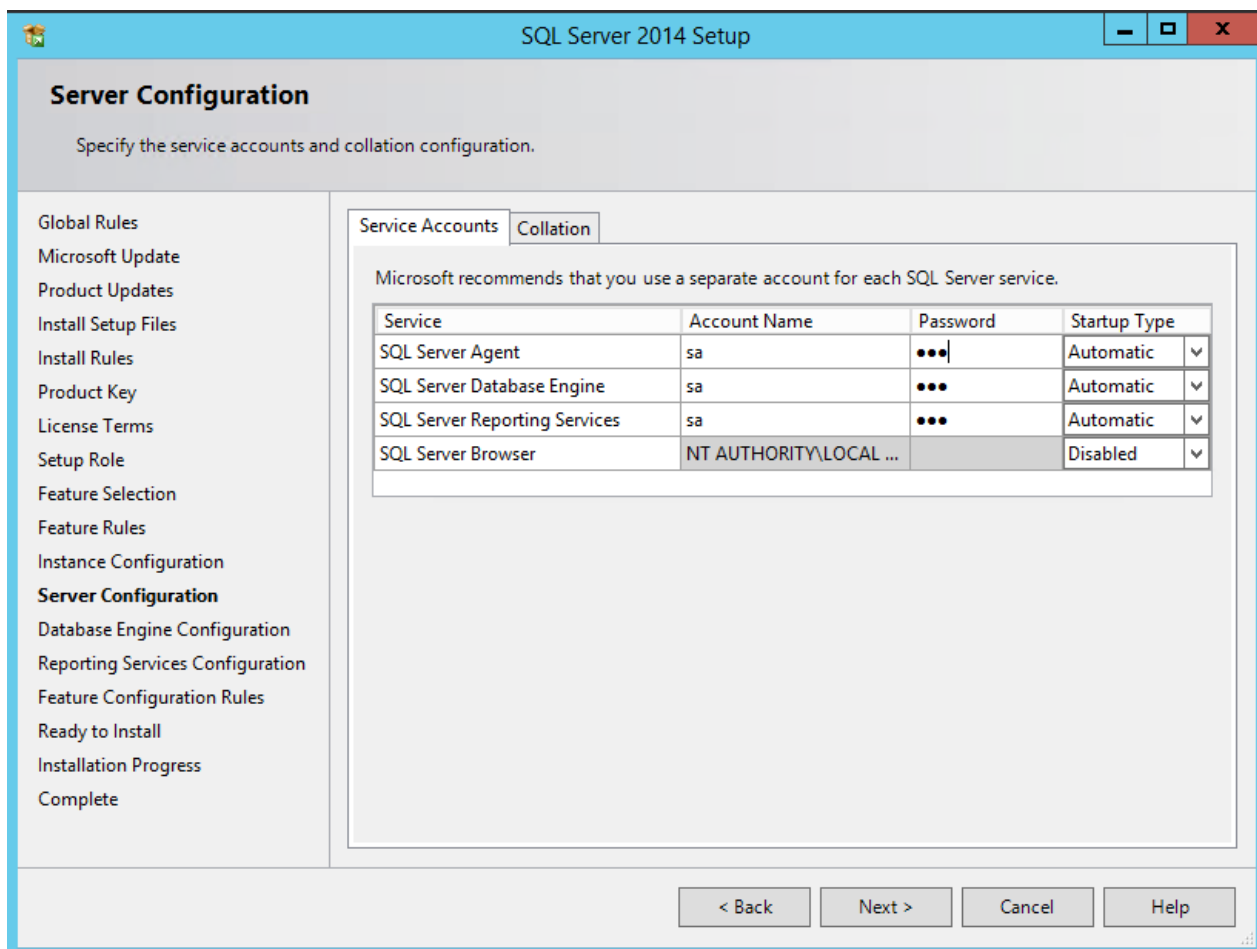
9. In **Server Configuration > Collation** tab, under **Database Engine**, select `SQL_Latin1_General_CP1_CI_AS` (the default value) and click **Next**.
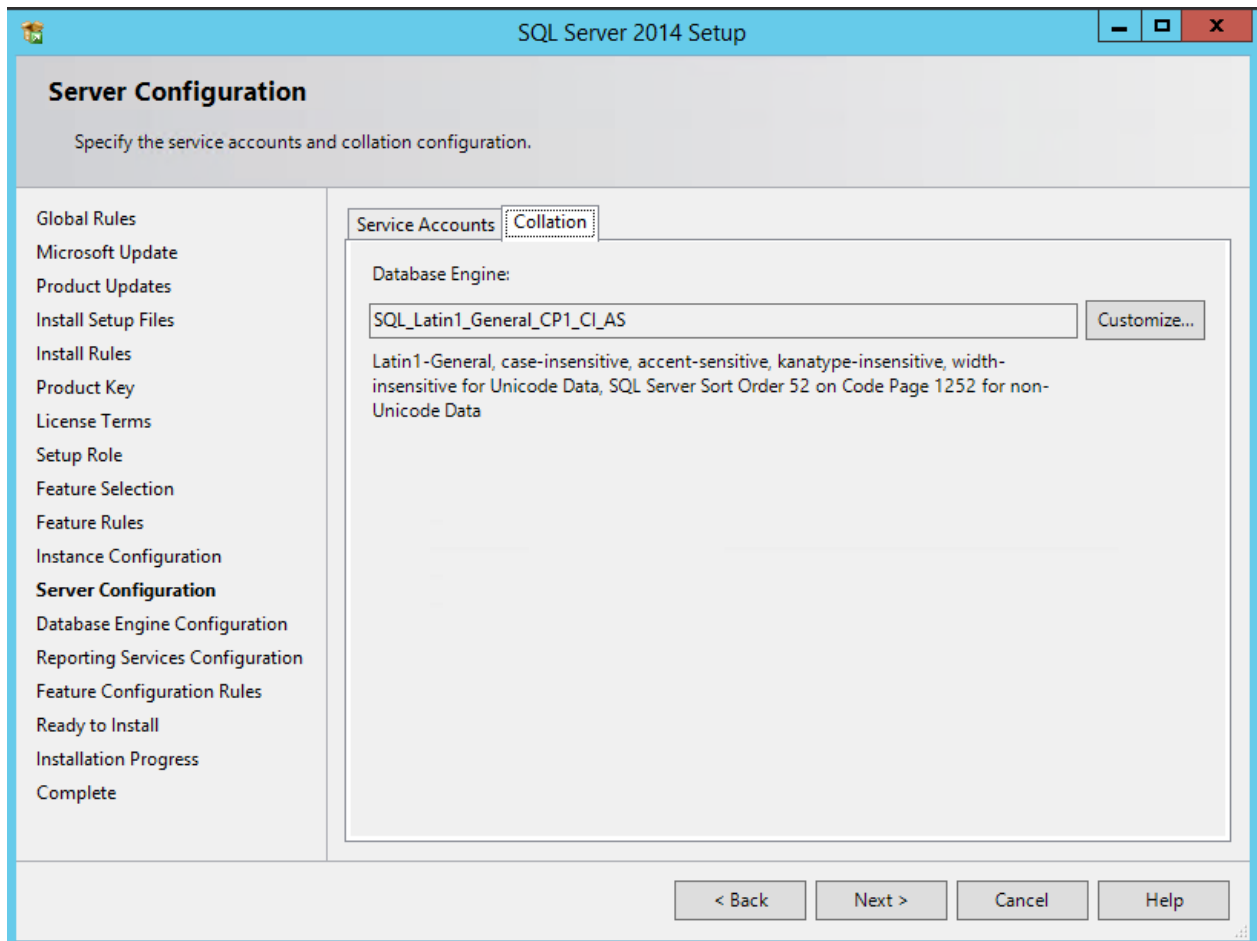
10. In the **Database Engine Configuration > Server Configuration** tab, select an **Authentication Mode** and click **Next**. If required specify the SQL Server administrators password.
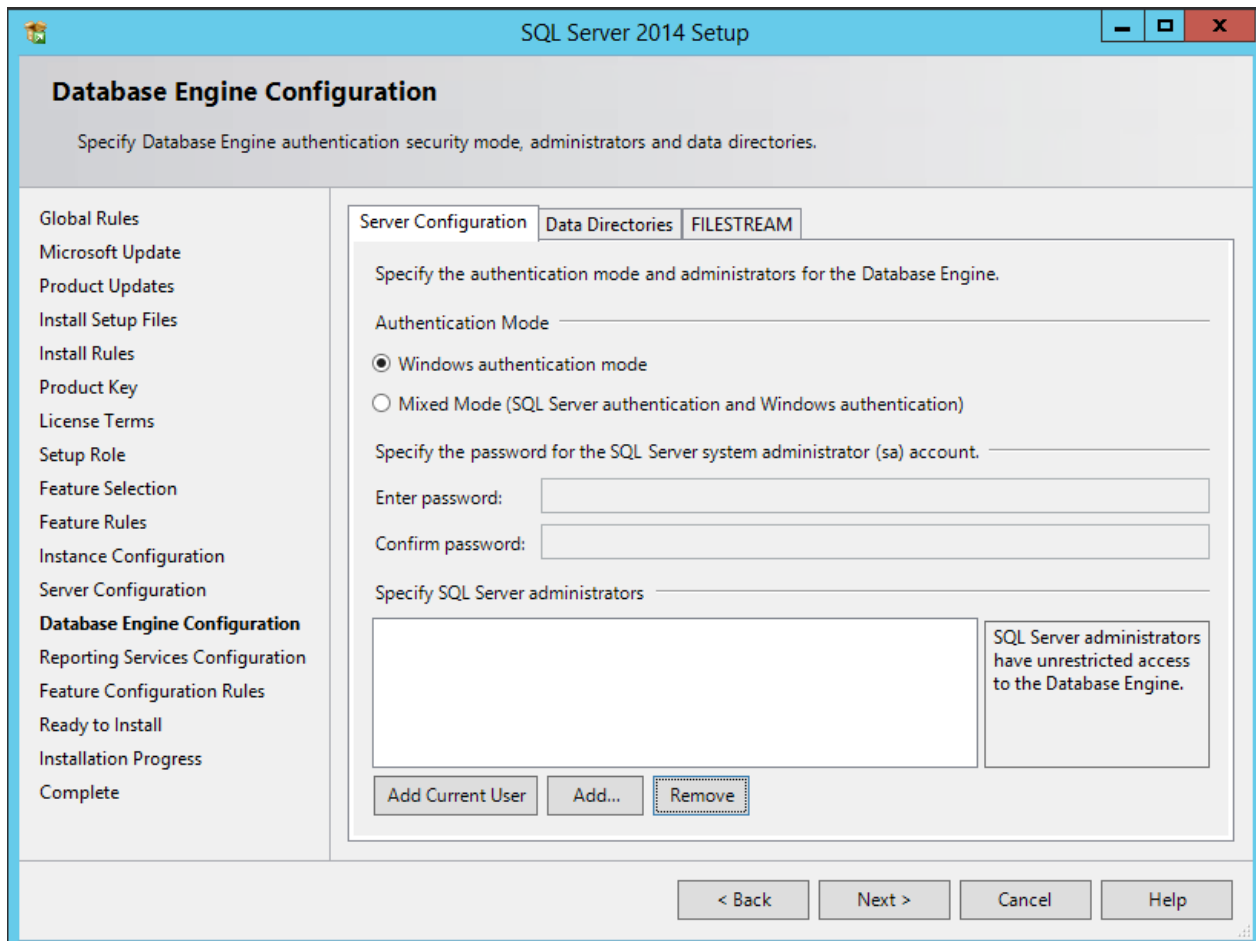
11. In the **Database Engine Configuration > Data Directories** tab, select the database folder locations and click **Next**.
    Note: It is recommended that the **User database directory**, **Temp DB directory**, and **Backup directory** be located on a drive that is different from the Data directories.
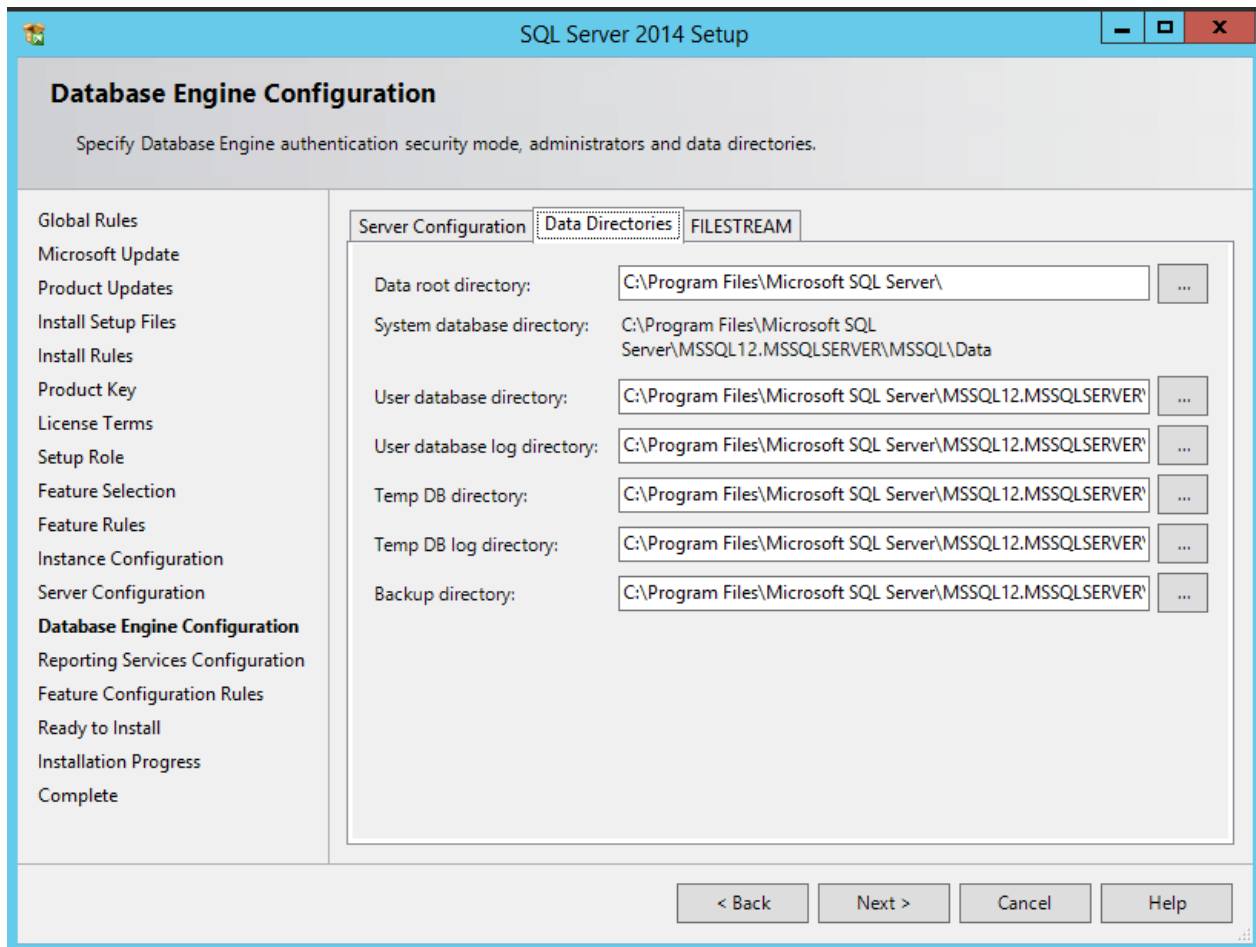
12. In the **Reporting Services Configuration** screen, select **Install and configure** and click **Next**.
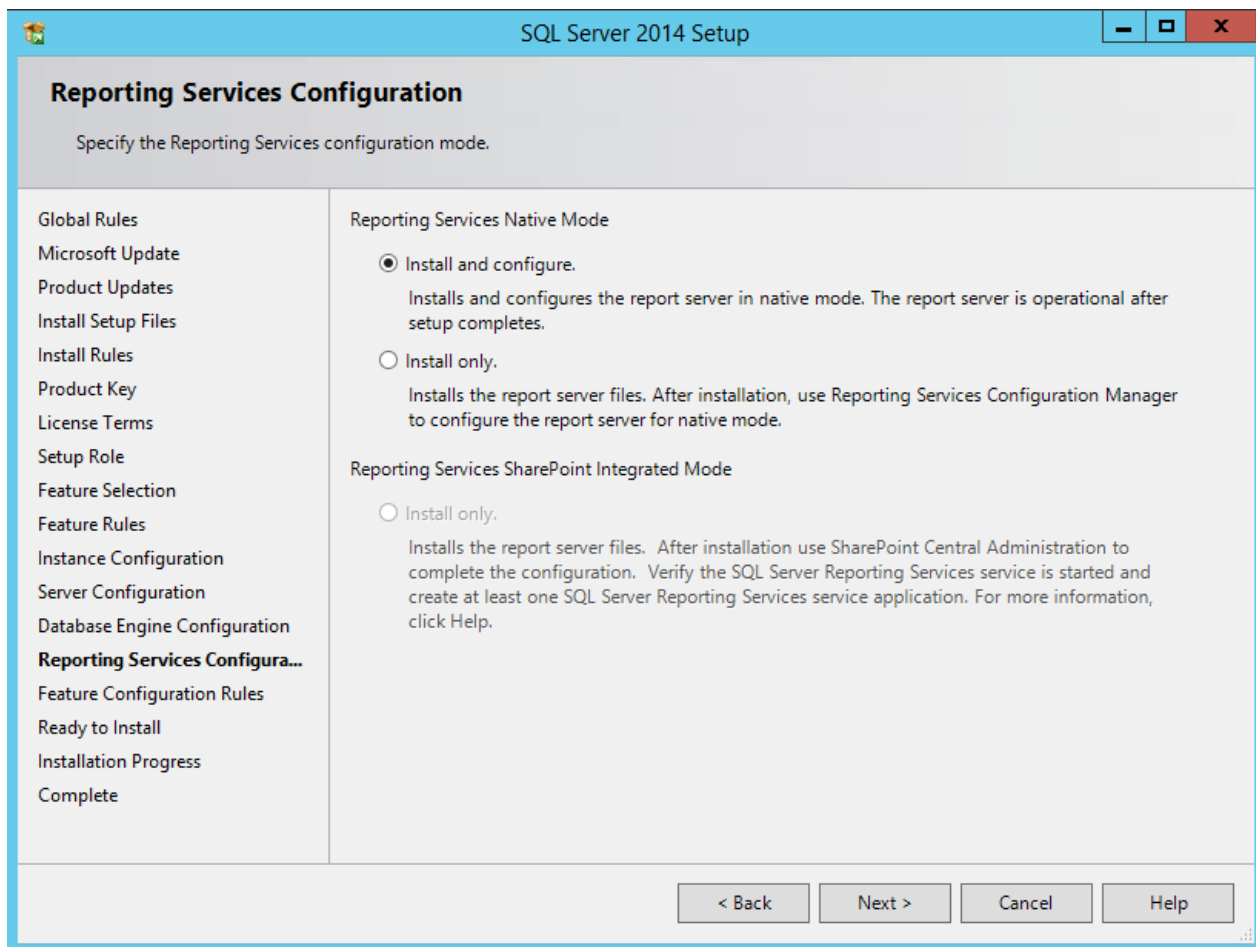
13. In the **Ready to Install** screen, click **Install**.

14. Once the SQL 2014 installation process is complete, restart the machine on which you installed SQL 2014.

Installing SQL Server 2016

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

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

2. From the menu on the left, select **Installation**. The **Installation** screen opens.
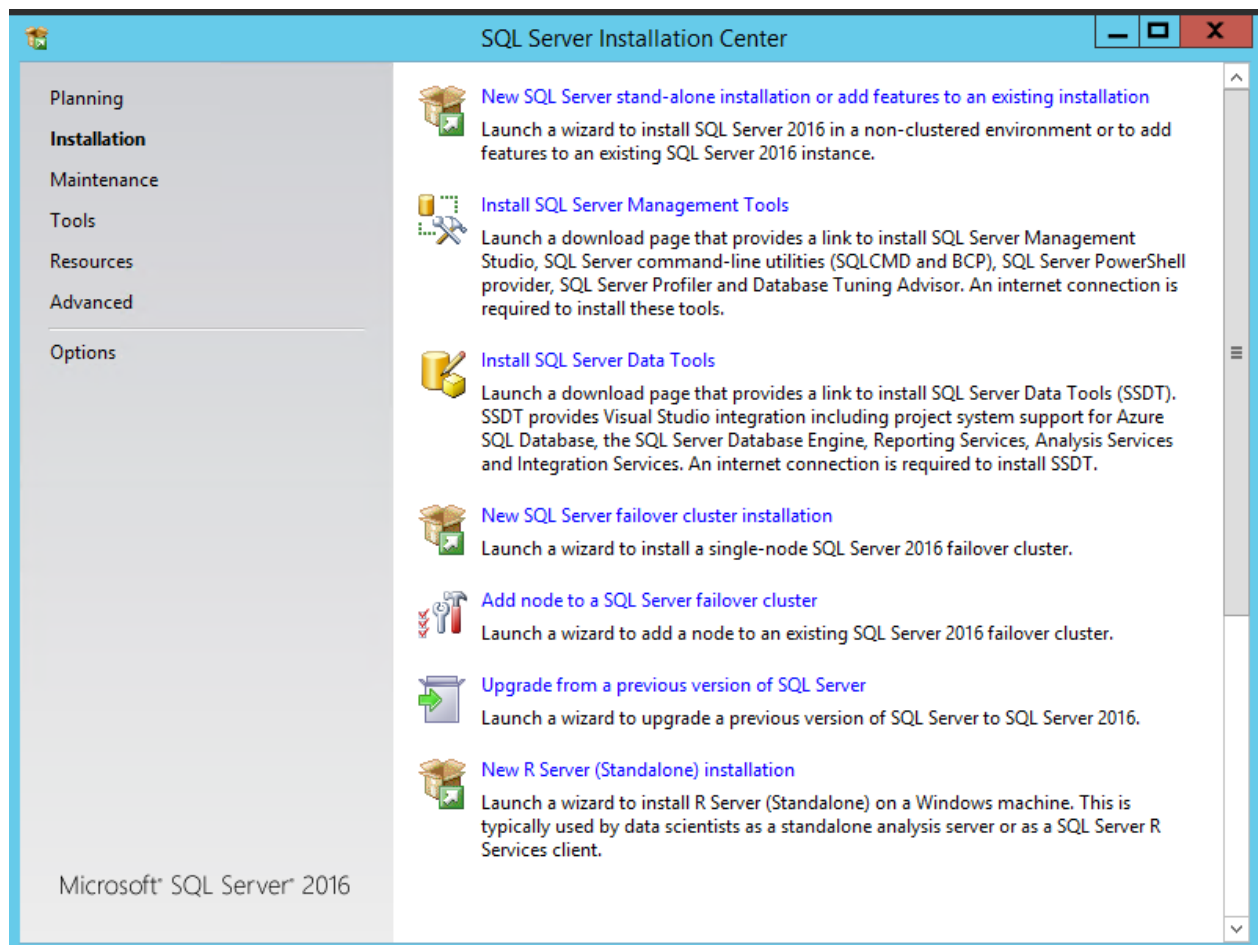
3. Select **New SQL Server stand-alone installation or add features to an existing installation**. The installation wizard is activated.

4. Follow the on-screen instructions. Refer to the instructions below to select the required settings and options for SpeechMiner.
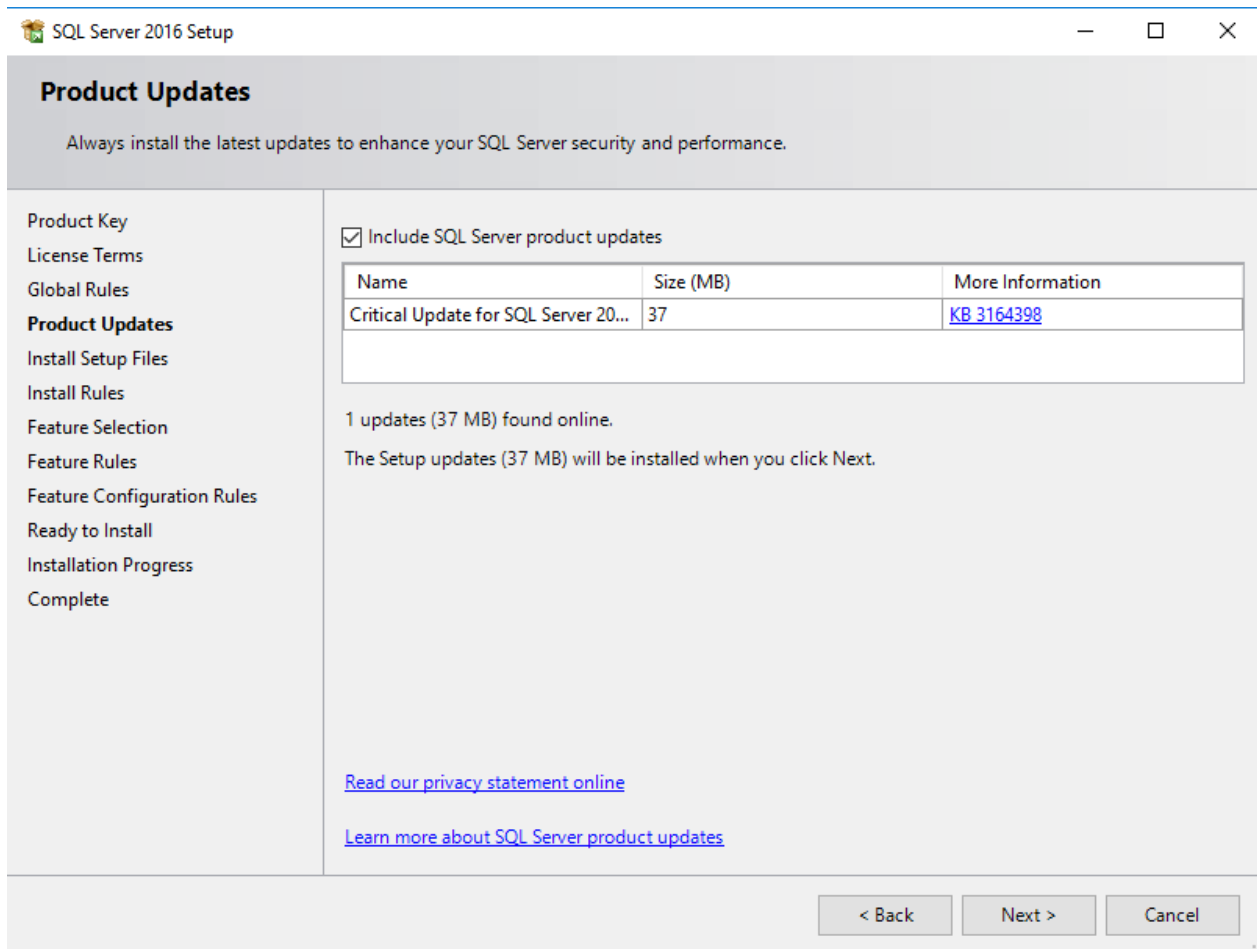
5. In the **Product updates** screen, click **Next**.

6. In the **Feature Selection** screen, select the following features, and click **Next**:

   • Database Engine Services

   • Reporting Services – Native

   • Client Tools Connectivity

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

8. In the **Server Configuration > Service Accounts** tab, perform the following for the **SQL Server Agent**, **SQL Server Database Engine**, and **SQL Server Reporting Services** and click **Next**:

   • Enter the service **Account Name** and **Password**.

   • Under **Startup Type**, select **Automatic**.

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

10. In the **Database Engine Configuration** screen, in the server configuration add the Authentication mode. In the **Data Directories** tab, select the locations for the database folders. If possible, put the User database directory, the Temp DB directory, and the Backup directory on a separate drive from the other folders. Click **Next**.
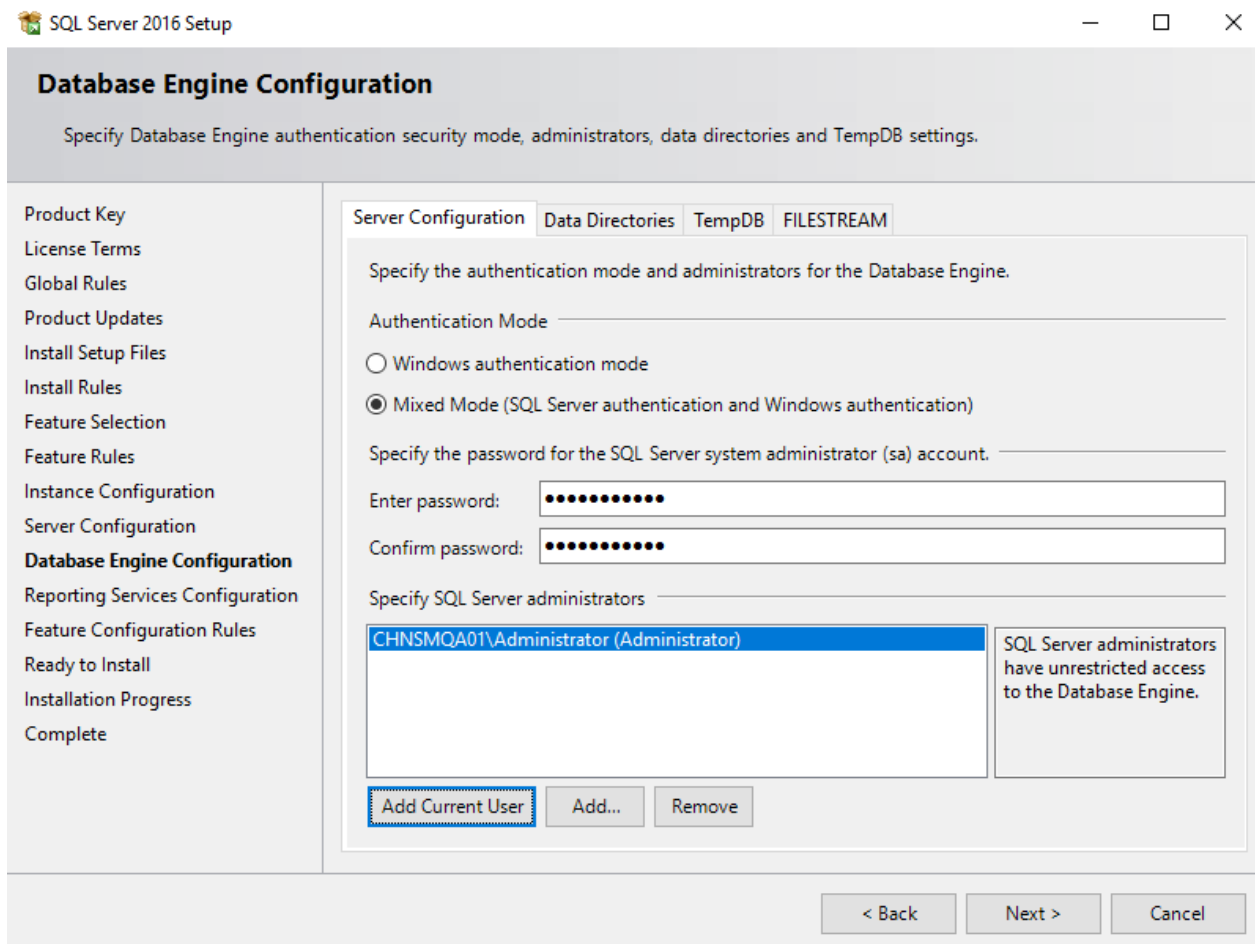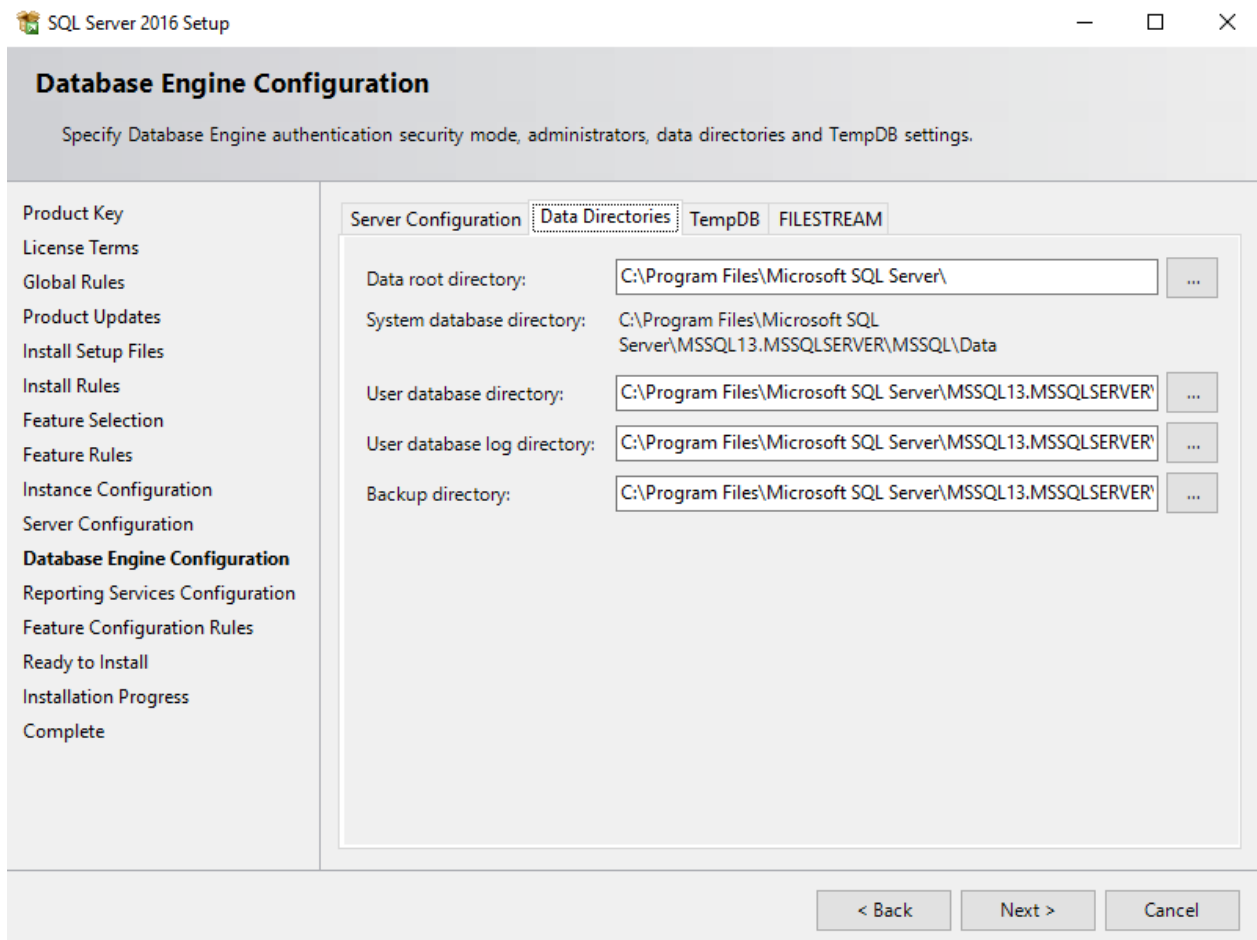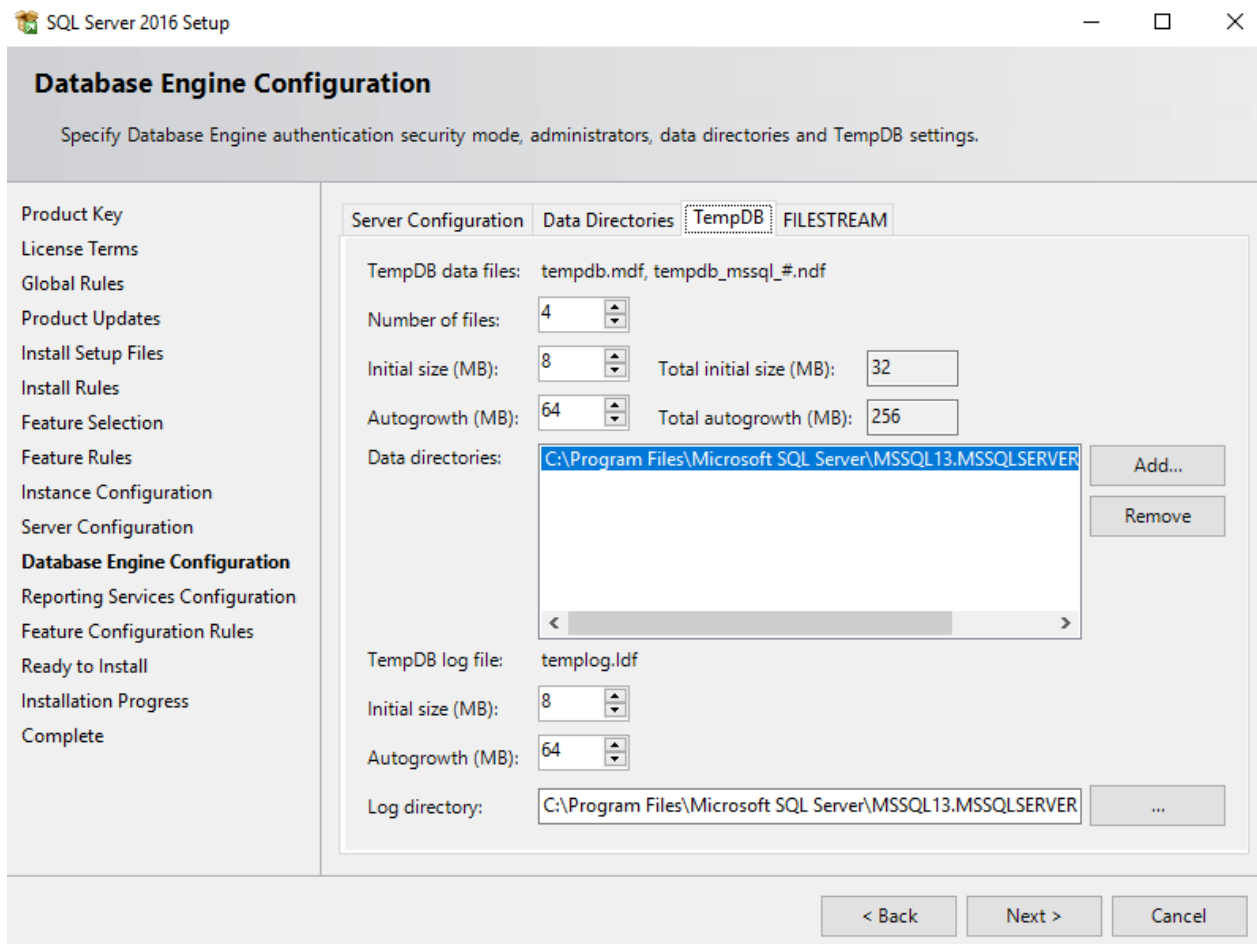
11. In the **Reporting Services Configuration** screen, select **Install the native mode default configuration** and click **Next**.
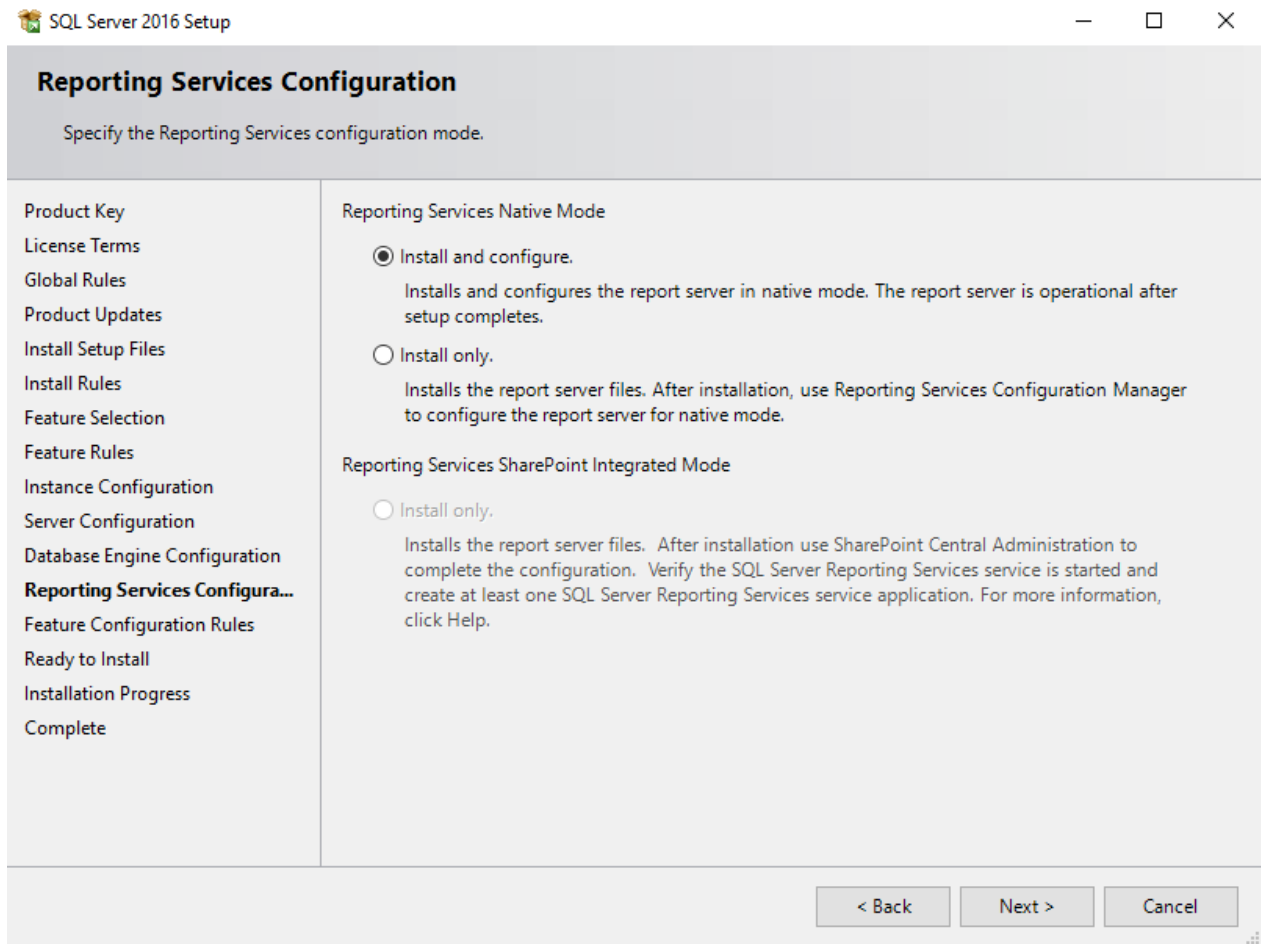
12. Once the SQL 2014 installation process is complete, restart the machine on which you installed SQL 2016.

Configuring the SQL Server Setting

After the SQL server is installed, do the following:

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

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

To configure the SQL server and enable the required protocols:

1. From the **Start** menu, navigate to **Microsoft SQL Server 2008 > Configuration Tools > SQL Server Configuration Manager**. The **SQL Server Configuration Manager** opens.

2. On the left side of the window, select **SQL Server Services**.
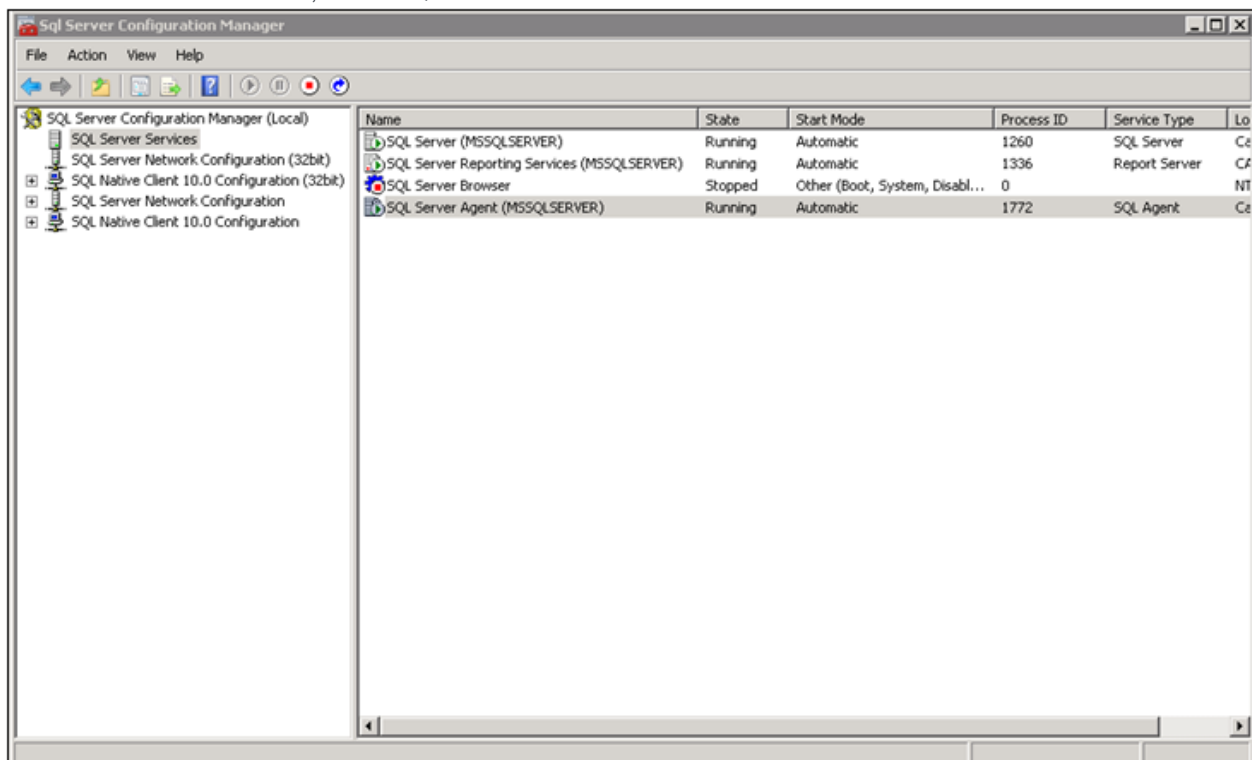
3. On the right side of the window, for **SQL Server Agent**, check that the **Status** is **Running**, and the **Start Mode** is **Automatic**.

4. If one or both of these values are not as they should be, do the following:

   • Double-click the row. The **Properties** window opens.

   • In the **Service** tab, set the **Start Mode** to **Automatic**.

   • If the service is not running, in the **Log On** tab, select **Start**.

   • Click **OK** to implement the changes.

5. On the left side of the **SQL Server Configuration Manager** window, select **SQL Server Network Configuration > Protocols for MSSQLSERVER**.
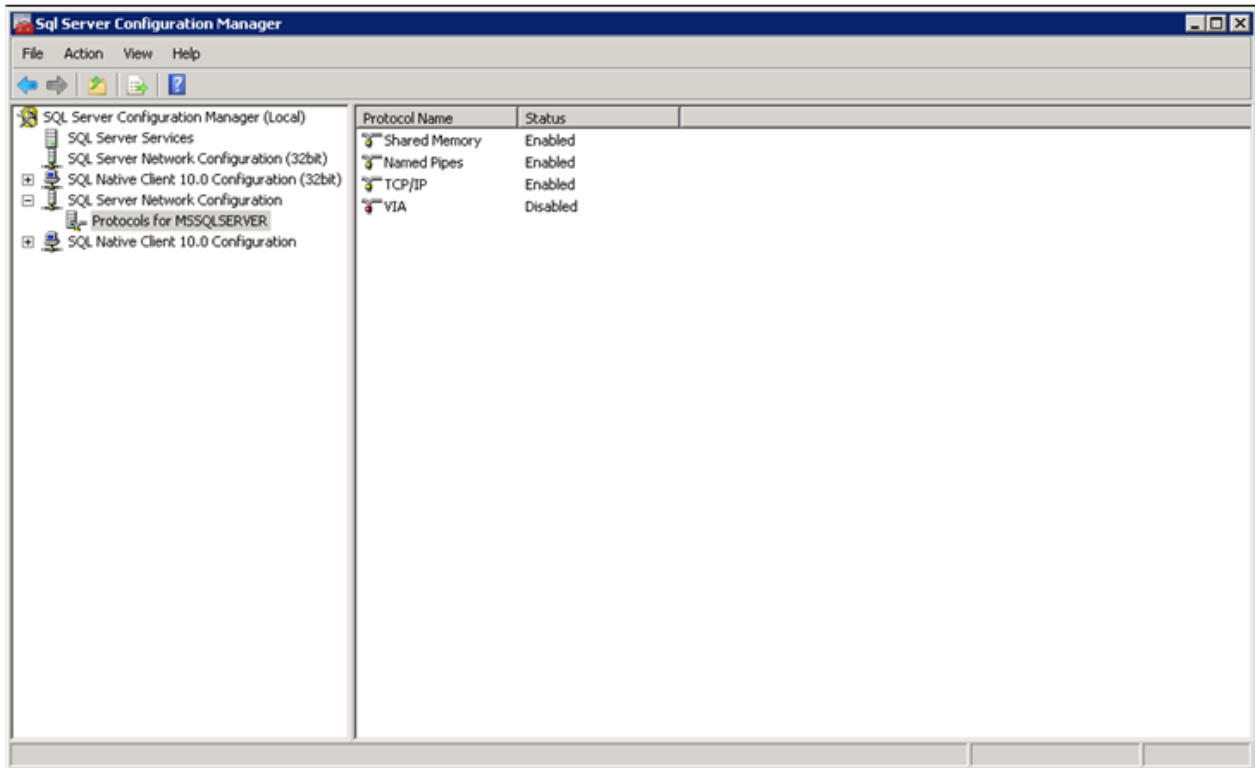
6. On the right side of the window, for **TCP/IP** and for **Named Pipes**, check that the **Status** is **Enabled**.

7. For each of these protocols, if it is not enabled, do the following:

    • Double-click the row. The **Properties** window opens.

    • In the **Protocol** tab, under **Enabled**, select **Yes**.

    • Click **OK** to implement the changes.

Configuring the Reporting Services

The SQL reporting services should be configured as explained below.

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

To configure the SQL reporting services:

1. In the **Start** menu, under **All Programs**, select **SQL Server 2008 R2 > Configuration Tools > Reporting Services Configuration Manager**. The **Reporting Services Configuration Connections** window opens.

2. Enter the report server name and the instance name (if they are not already there), and click **Connect**. The **Reporting Services Configuration Manager** opens, with the **Report Server Status** screen displayed.
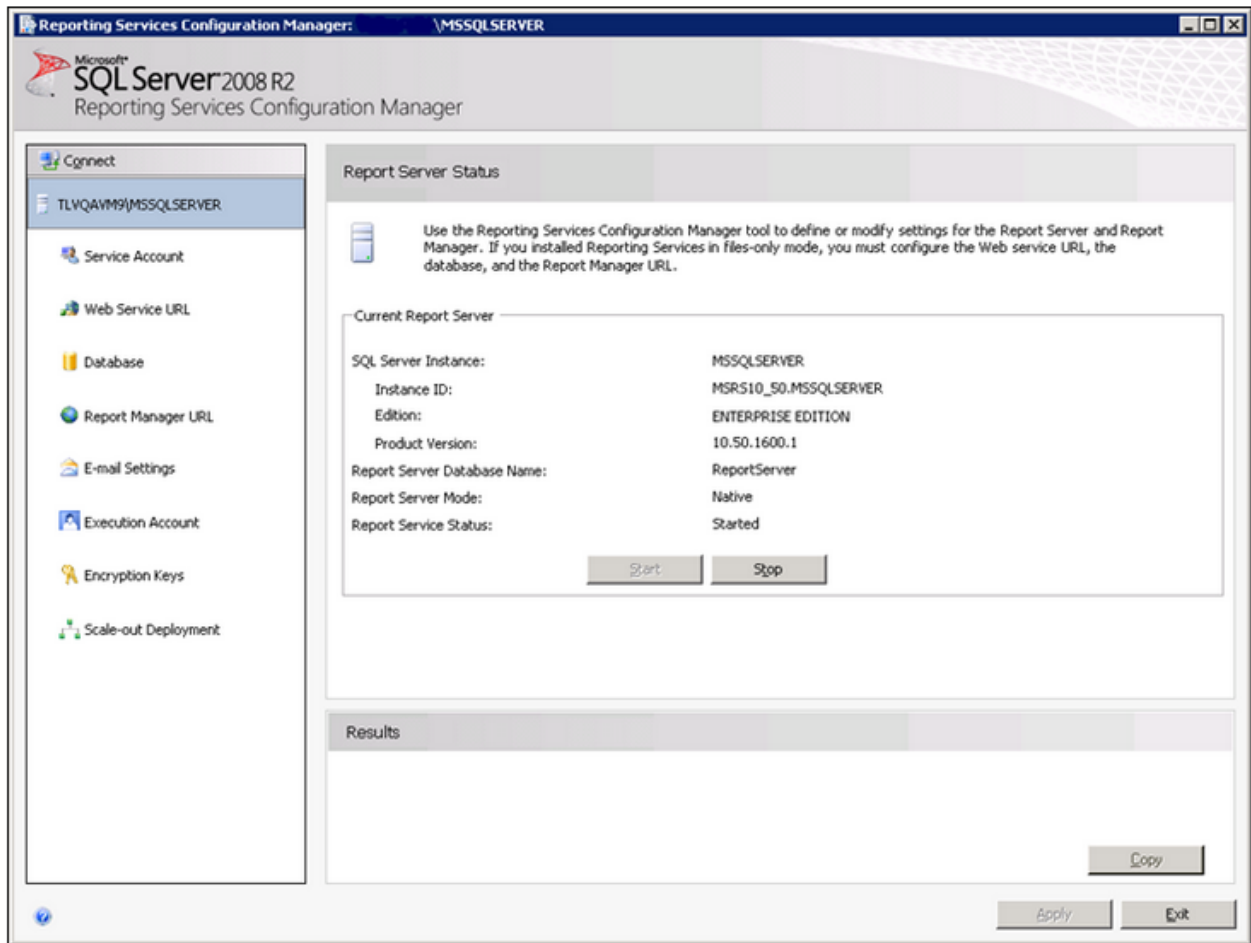
3. Check whether the report server is running. If it is not, click **Start**.

4. On the left side of the window, select **Service Account**.
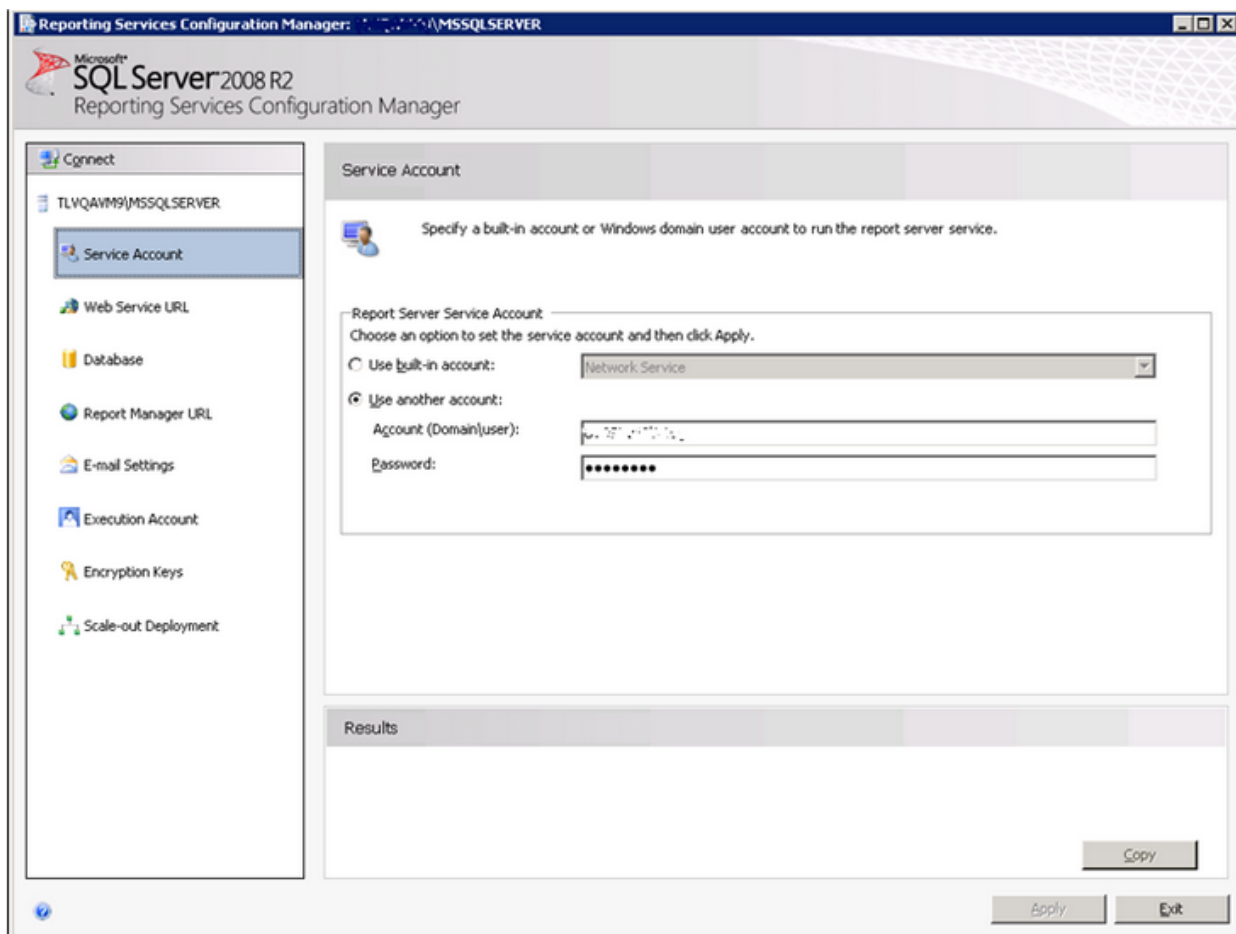
5. Configure the account name and password of the service account that will be used to run the report-server service, as required. Use either a local administrator account or an account that can log in as a service and run services on the local machine.

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

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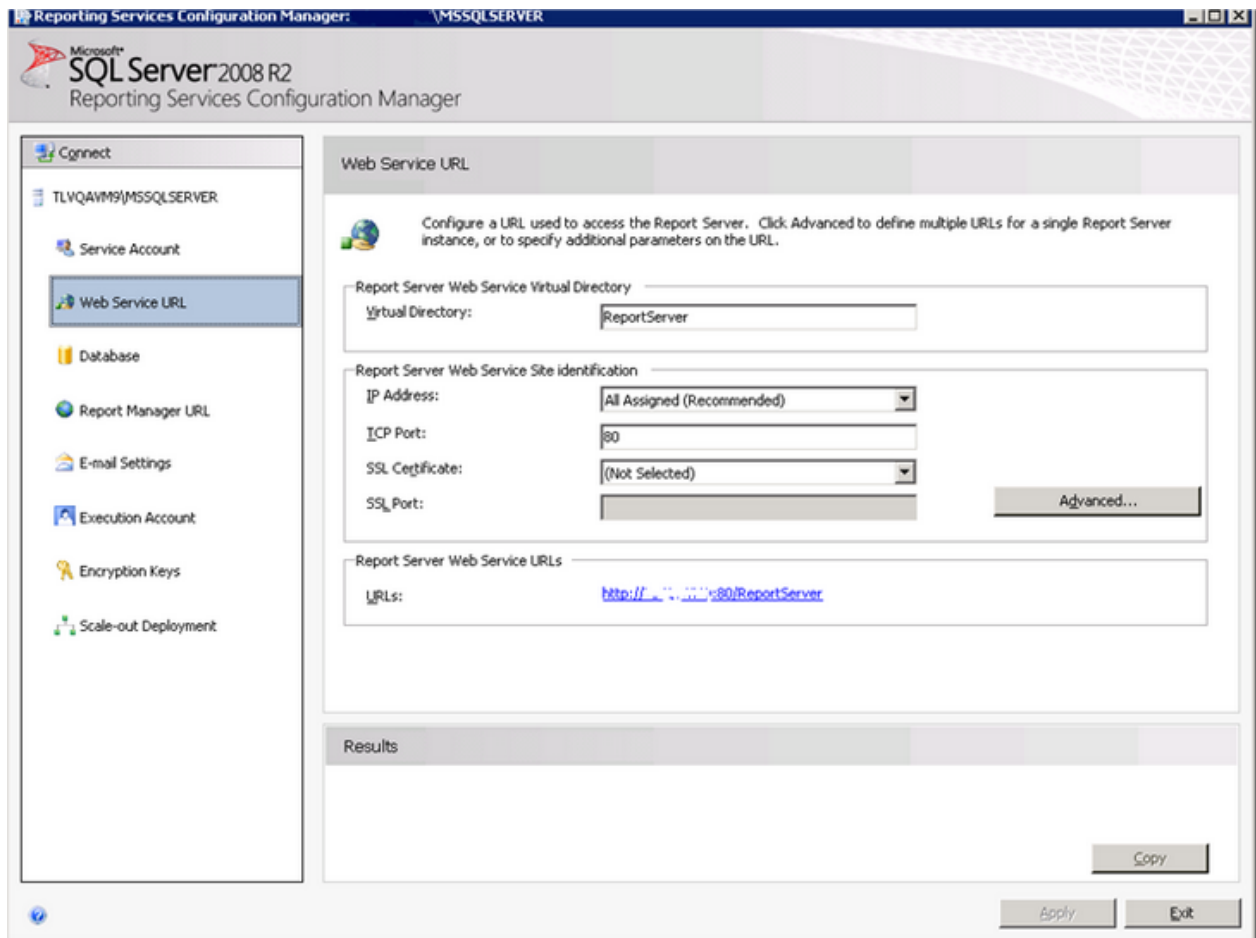
7. On the left side of the window, select **Database**. If you created a report-server database when you installed SQL Server, it appears under **Current Report Server Database**. If you did not, create it now.
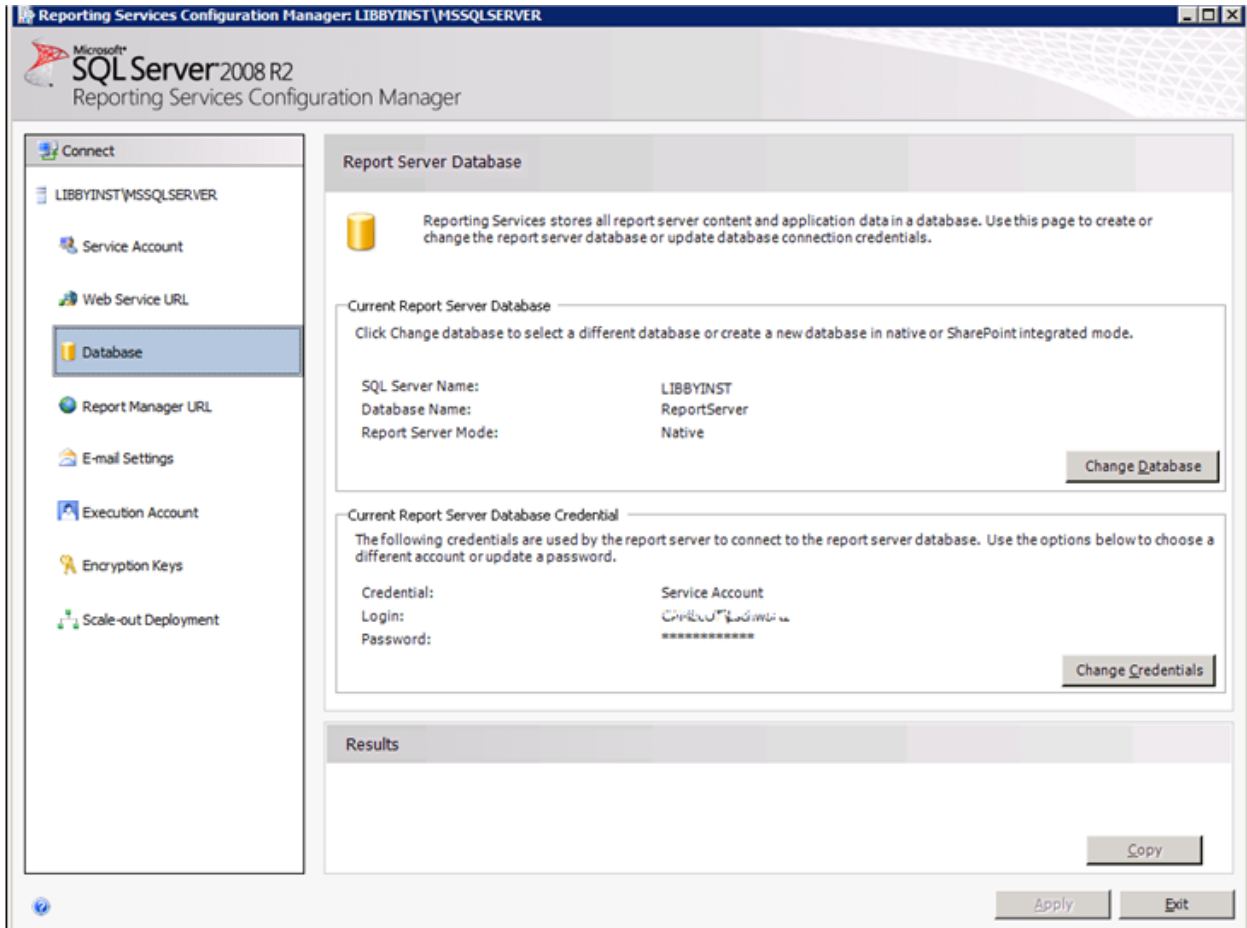
8. On the left side of the window, select **Report Manager URL**; make sure the settings in the screen match the settings as follows:
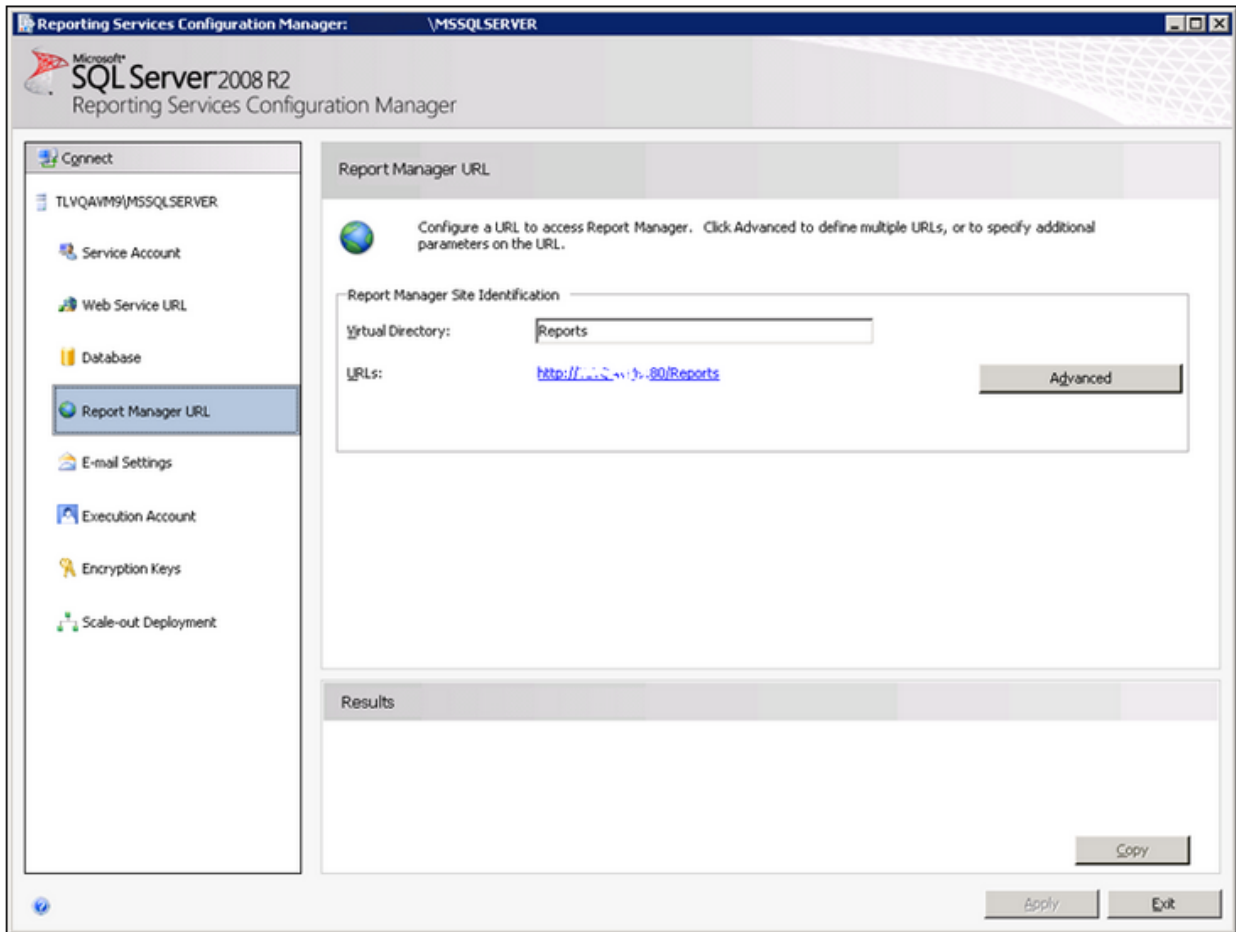
9. On the left side of the window, select **E-mail Settings**.

10. Enter the settings for the e-mail account you want the report server to use to send reports to SpeechMiner users.
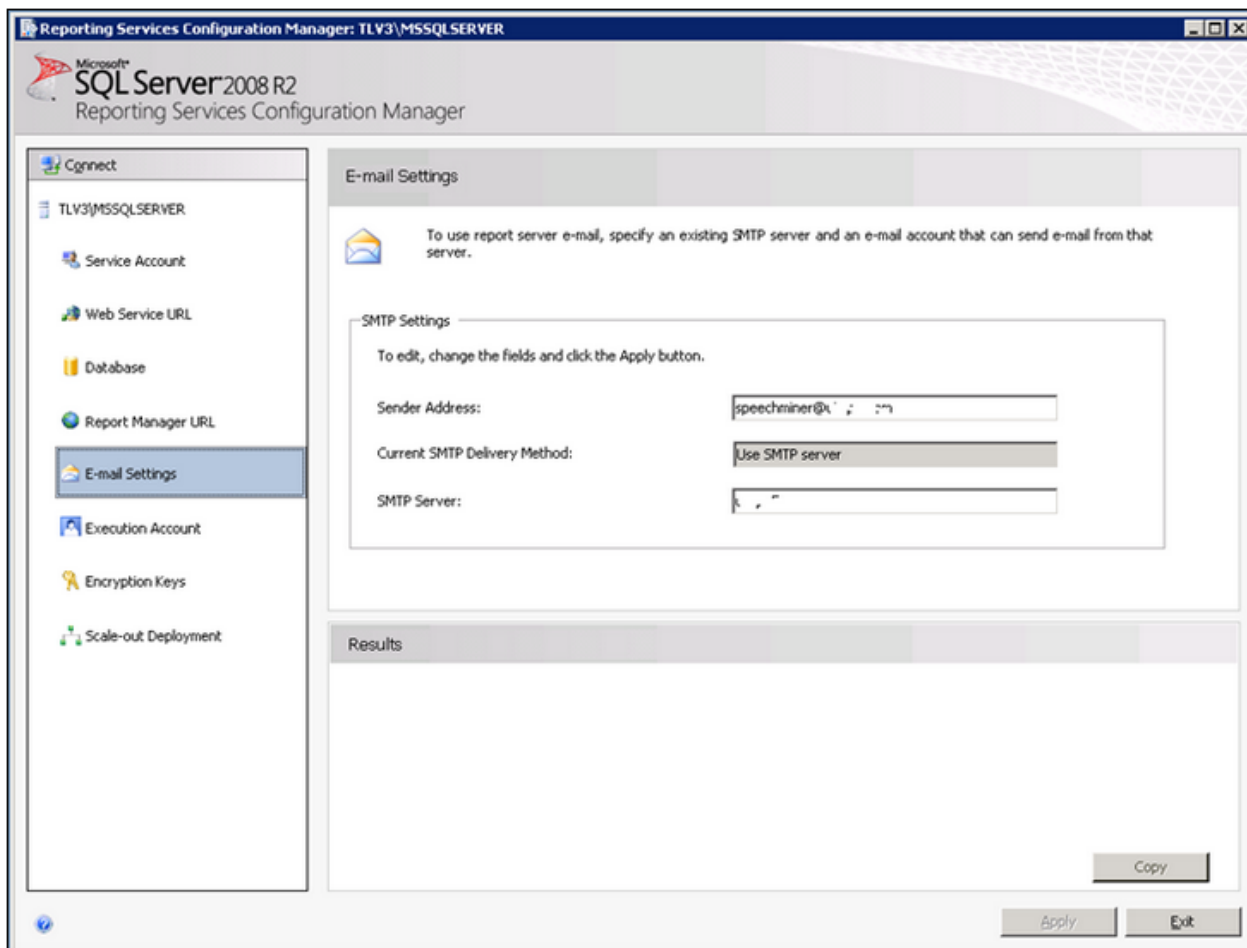
11. Click **Exit** to close the **Reporting Services Configuration Manager**.

12. In the **Report Server config** file (rsreportserver.config) change the **MaxActiveReqForOneUser** parameter value from 20 to 250.

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

Creating the Report-Server Database

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

To create the report-server database:

1. Open the **Reporting Services Configuration Manager**.

2. From the **Database** screen, under **Current Report Server Database**, click **Change Database**. The **Report Server Database Configuration Wizard** opens.

3. In the wizard, fill in the fields as they are filled in in the examples shown (except, of course, for the server name and the credentials, which you must specify as appropriate for your system). Click **Next** to progress from screen to screen until you have finished creating the database.

-

  Action

-

  Database Server

-

  Database

-

Credentials

Click on the image to enlarge.

Configuring Report Server Load Value

Configuring Report Server Load Value

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

1. Open the report server configuration file. By default the configuration file can be found in `rsreportserver.config` under `\\SERVER_NAME\c$\Program Files\Microsoft SQL Server\MSRS12.MSSQLSERVER\Reporting Services\ReportServer`.

2. Change the value of **MaxActiveReqForOneUser** to the recommended value. The value of `MaxActiveReqForOneUser` depends on your deployment. Contact Customer Care for the value recommended for your deployment.

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

3. Change the SME data source connection string:

    a. Go to the Report Server web interface. By default the location is `http://SERVER_NAME/reports`.

    b. Click on the database folder.

    c. Click **SME datasource**.

    d. Add the following string: `max pool size = 10000` to the end of the connection string field.

    e. Click **Apply**.

Setting the Maximum Memory Usage

Setting the Maximum Memory Usage

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

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

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

To view or modify the max server memory value:

1. From the SQL server, open the **SQL Server Management Studio**. (For example, in the **Start** menu, under **All Programs**, select **Microsoft SQL Server 2008 R2 > SQL Server Management Studio**.)

2. On the left side of the window, right-click the SQL server and then select **Properties**. The **Server Properties** window opens.
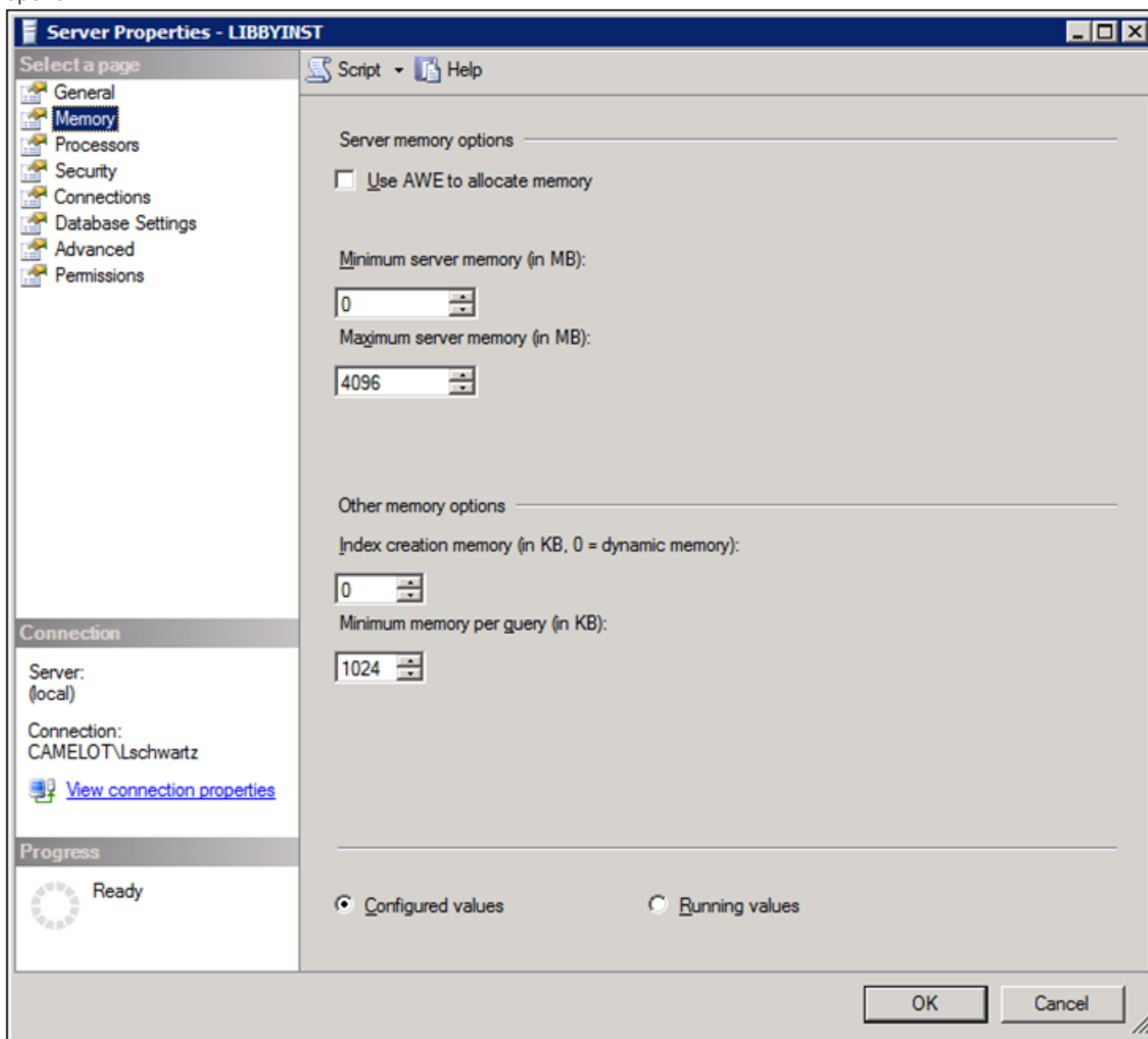
3. On the left side of the window, select **Memory**. The memory settings are displayed.

4. Under **Maximum server memory (in MB)**, enter the value you want to use.

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

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

To set the max server memory by executing a query:

1. On the SQL server, open the **SQL Server Management Studio**. (For example, in the **Start** menu, under **All Programs**, select **Microsoft SQL Server 2008 R2 > SQL Server Management Studio**.)

2. On the left side of the window, right-click the SQL server and then select **New Query**. A blank text area opens on the right side of the window.

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

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

4. The code sets the max server memory to 4GB (4096MB). If you want to set it to a different value, in the text area, change `4096` to the required value.

5. Above the text area, select **Execute**. The commands are executed. When the process is completed successfully, **Query executed successfully** appears at the bottom of the window.
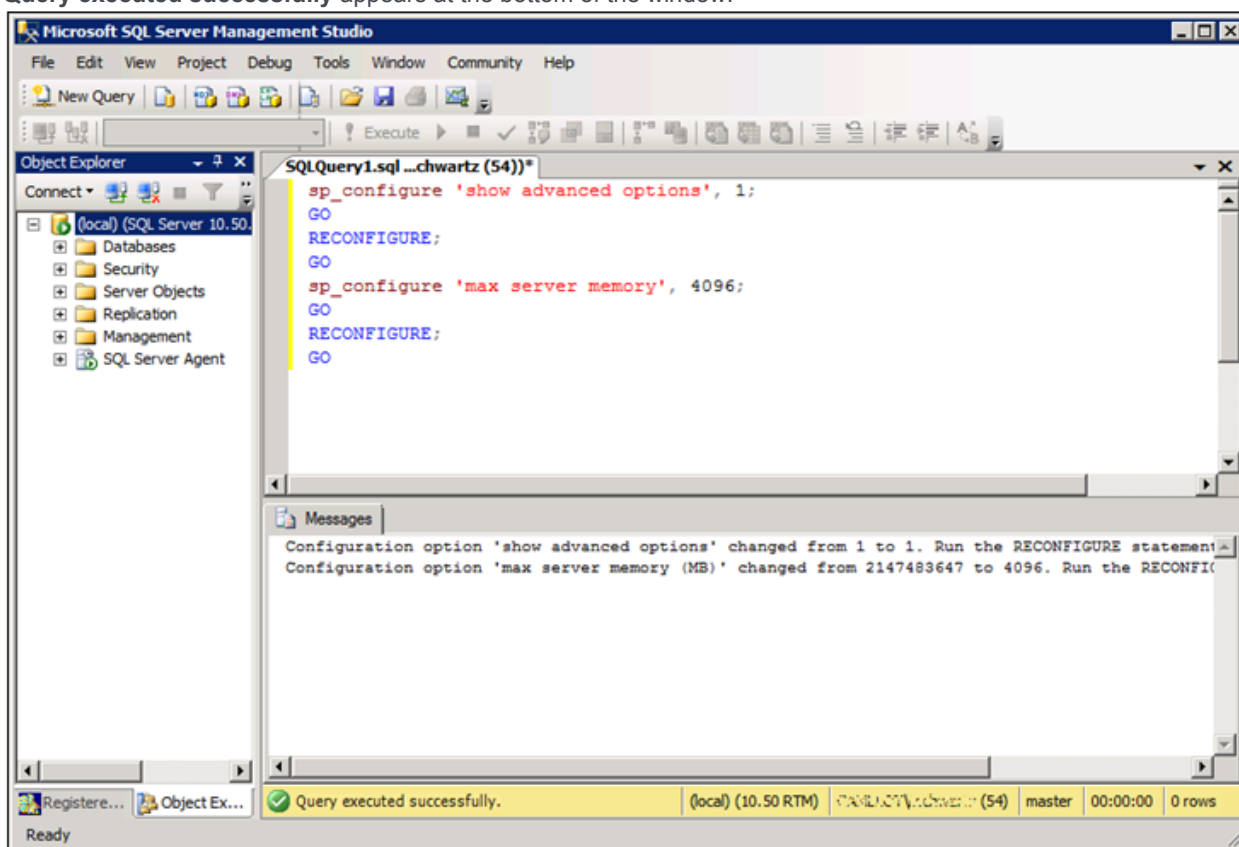
Recommended SQL Server Configuration

Recommended SQL Server Configuration

1. On the SQL server, open the **SQL Server Management Studio**. (For example, in the **Start** menu, under **All Programs**, select **Microsoft SQL Server 2008 R2 > SQL Server Management Studio**.)

2. On the left side of the window, right-click the SQL server and then select **New Query**. A blank text area opens on the right side of the window.

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

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

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**.
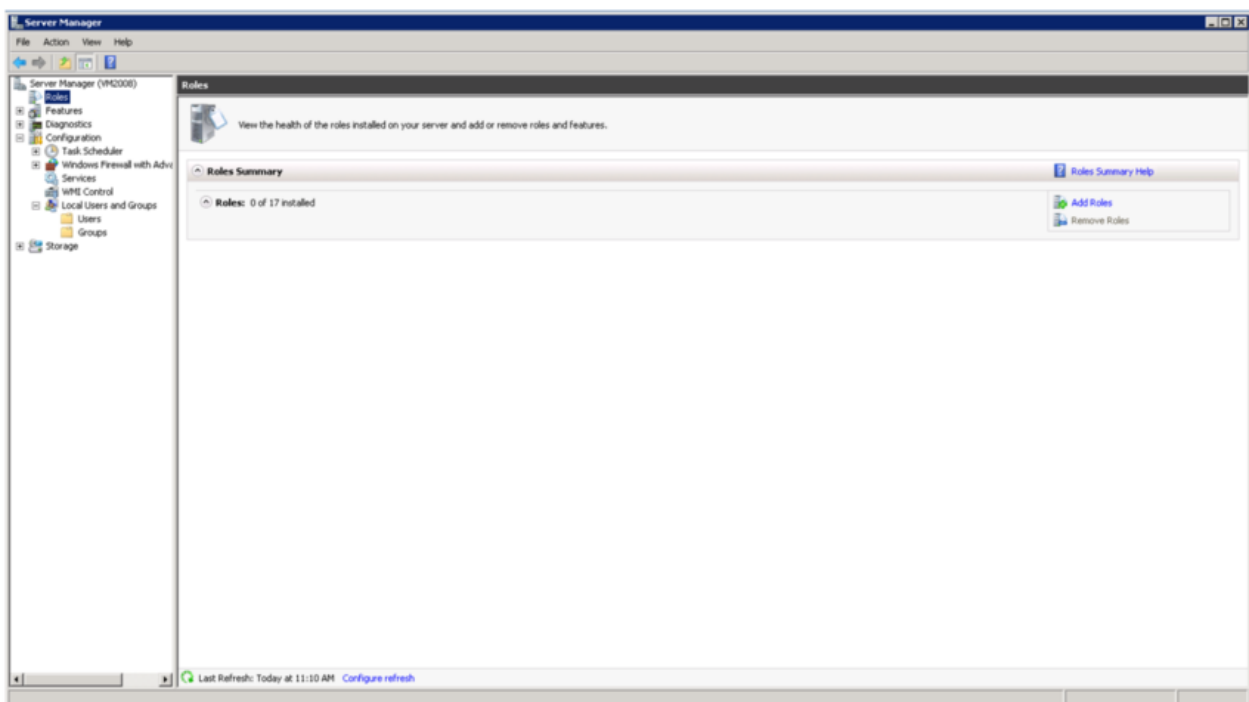
3. On the right side of the screen, select **Add Roles**.
   The **Add Roles Wizard** opens.
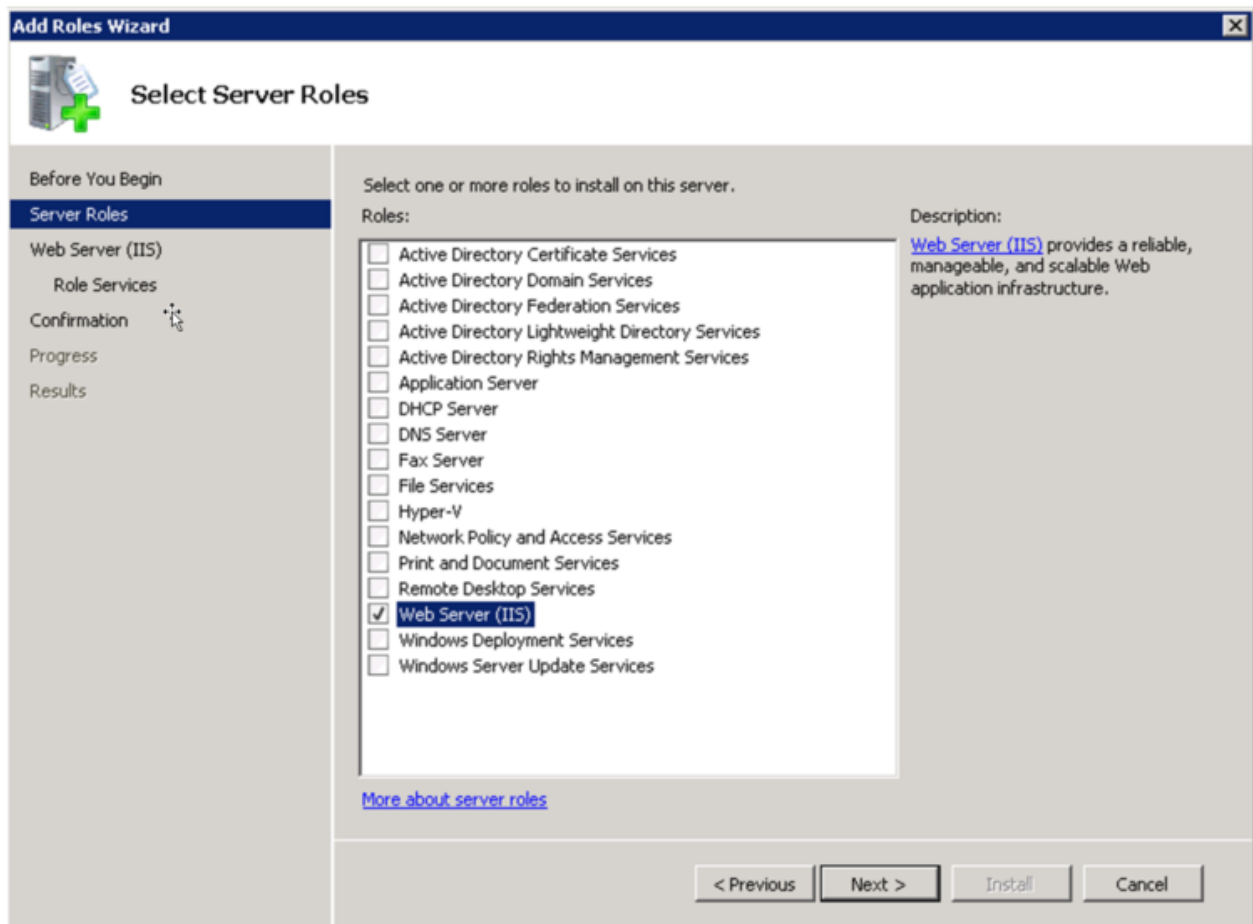
4. From the list of roles, select **Web Server (IIS)**, and then select **Next**. An **Introduction to the Web Server** is displayed.

5. Select **Next**. The **Role Services** screen opens.
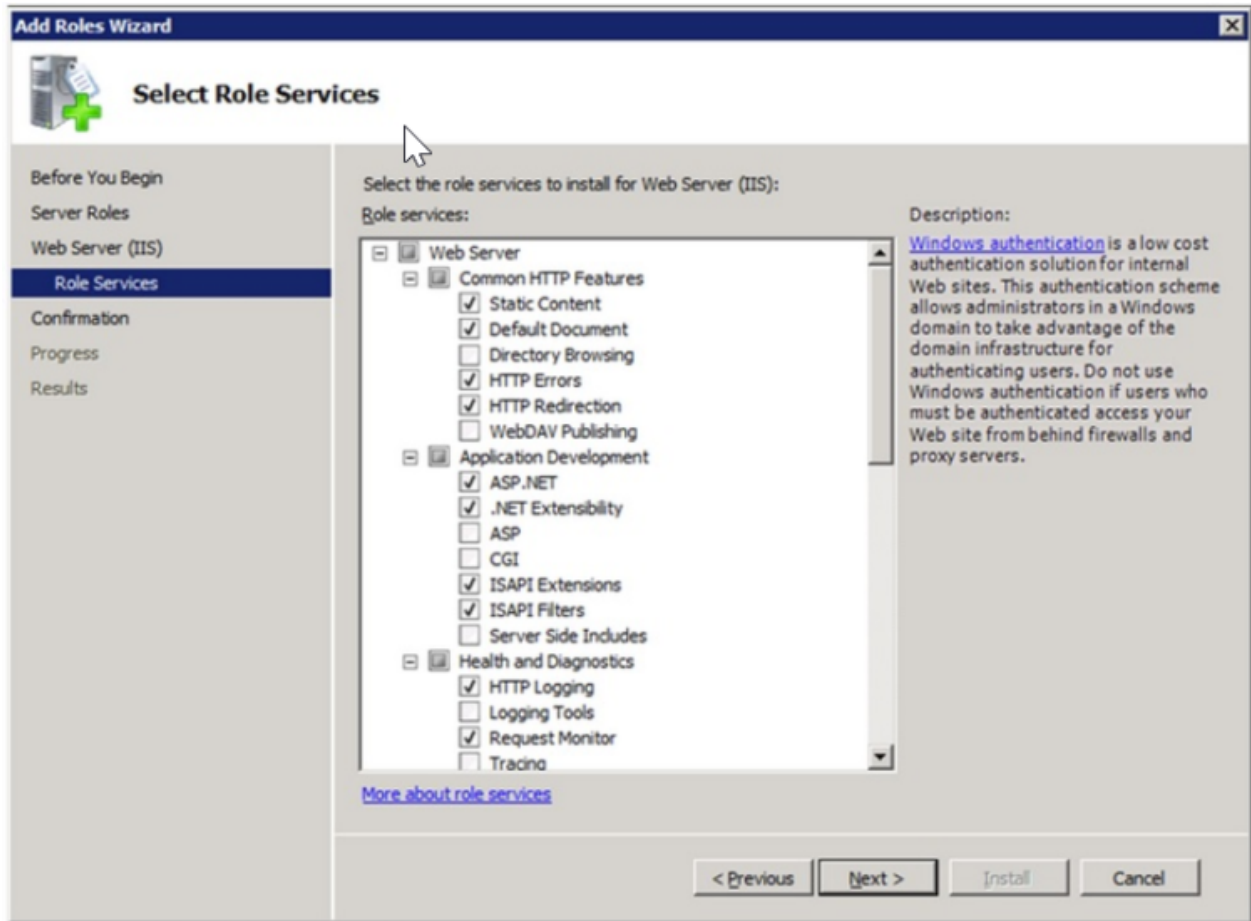
6. Under **Role Services**, make sure the following services are selected:

    a. Under **Common HTTP Features**:

        • **Static Content**

        • **Default Document**

        • **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.
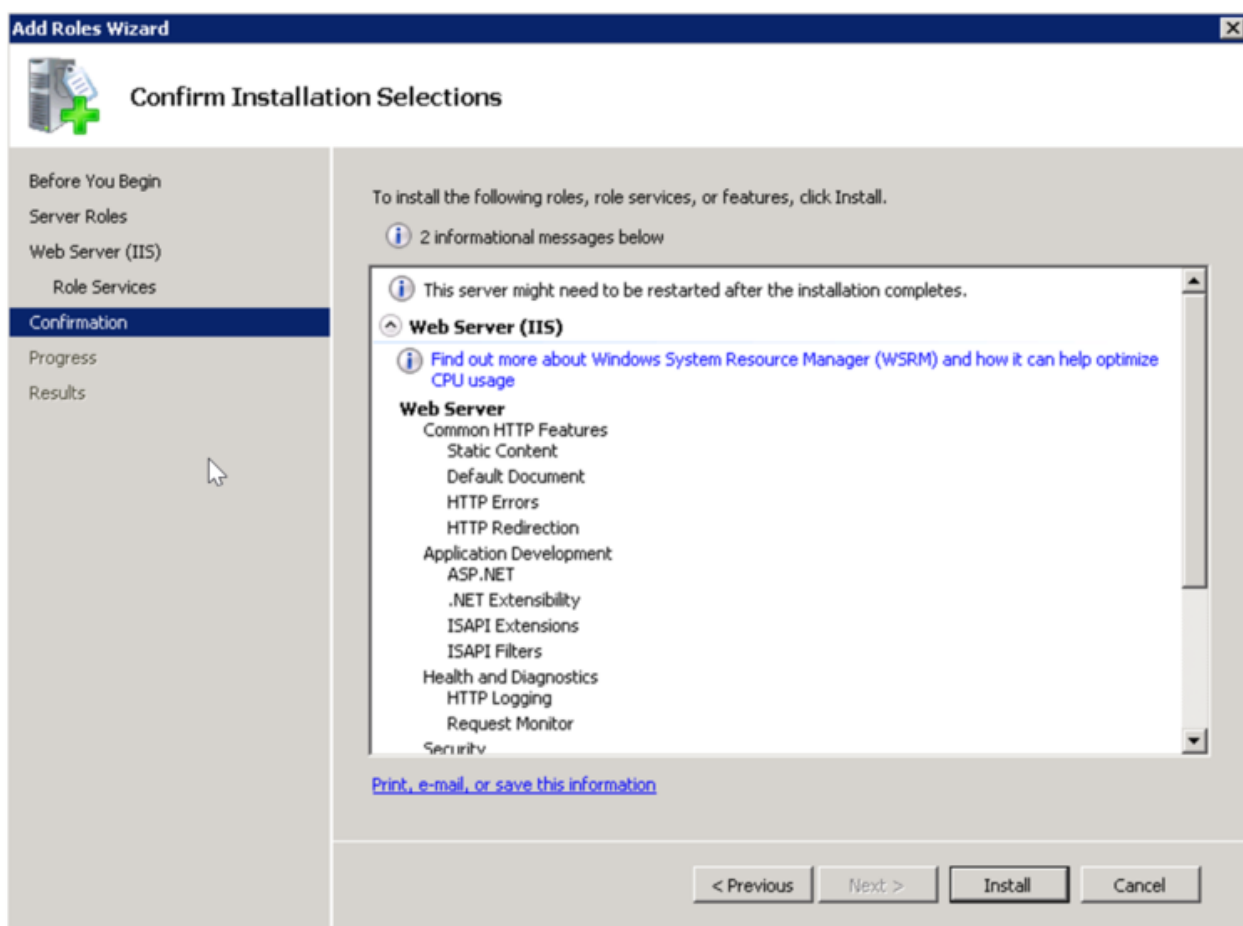
8. Select **Install**. The installation process begins, and the **Installation Progress** screen is displayed. When the installation is completed, an **Installation Results** screen is displayed.
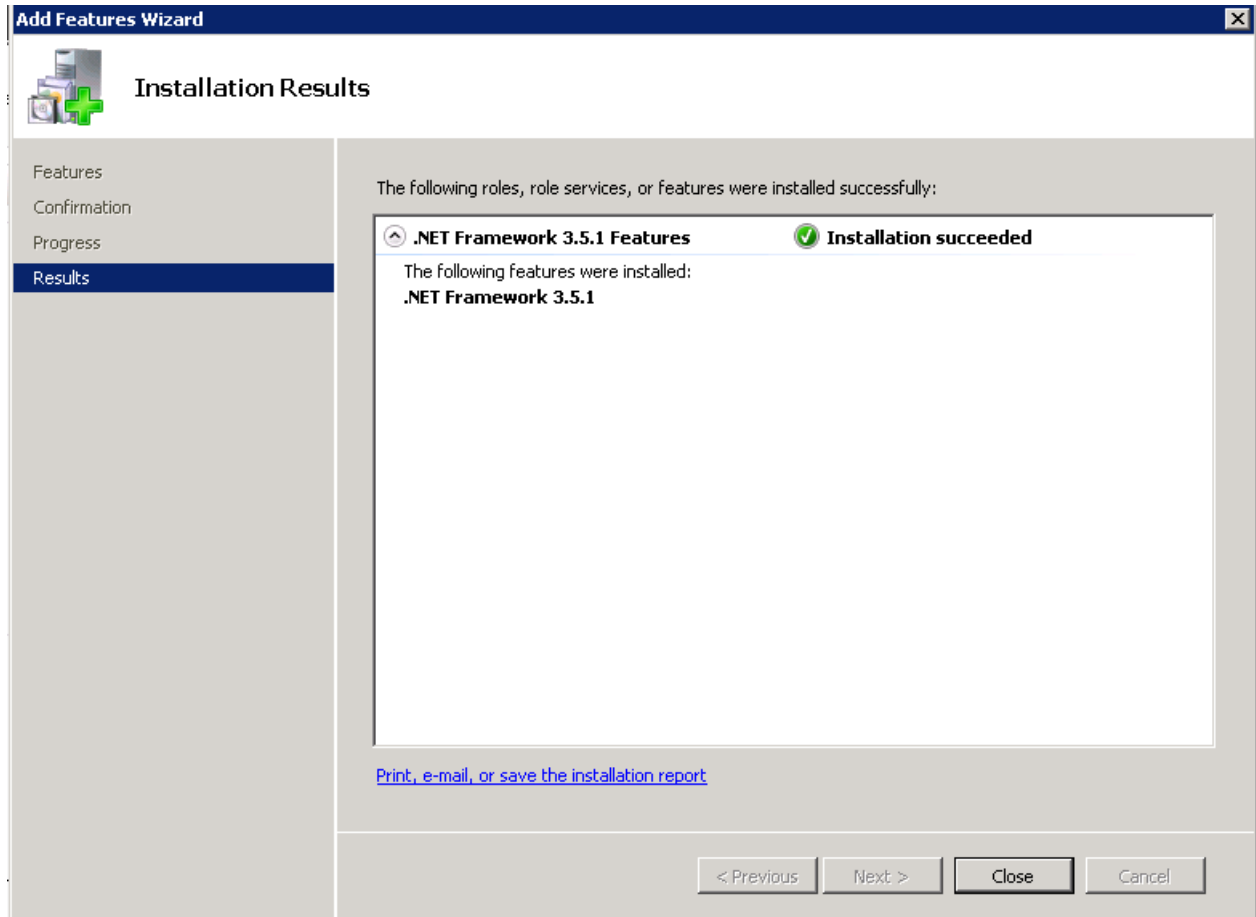
9. Click **Close**. The **Add Roles Wizard** closes, and the **Server Manager** lists the **Web Server (IIS)** role as installed.

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. 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.
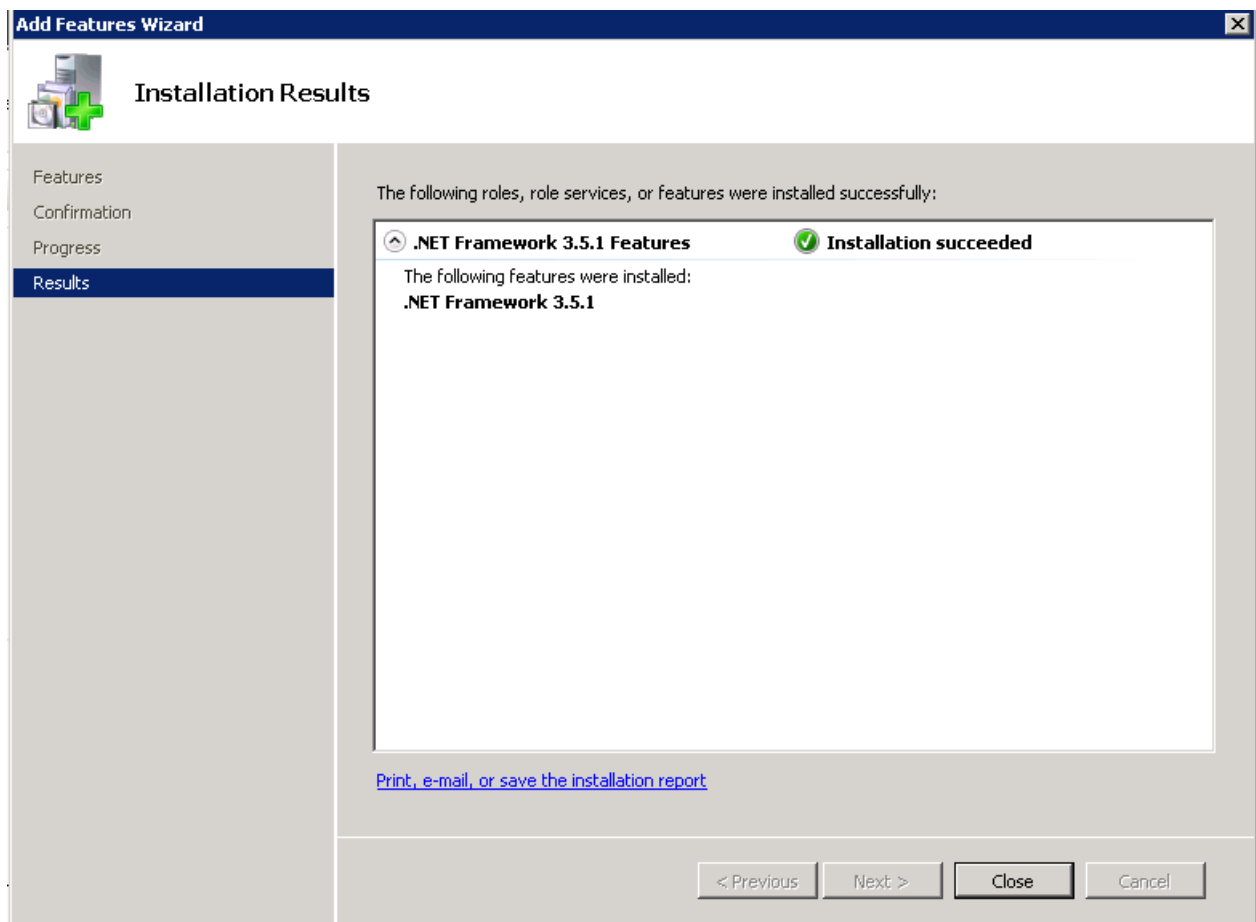
12. Click **Close**. The **Add Features Wizard** closes, and the **Server Manager** lists the features you selected as installed.
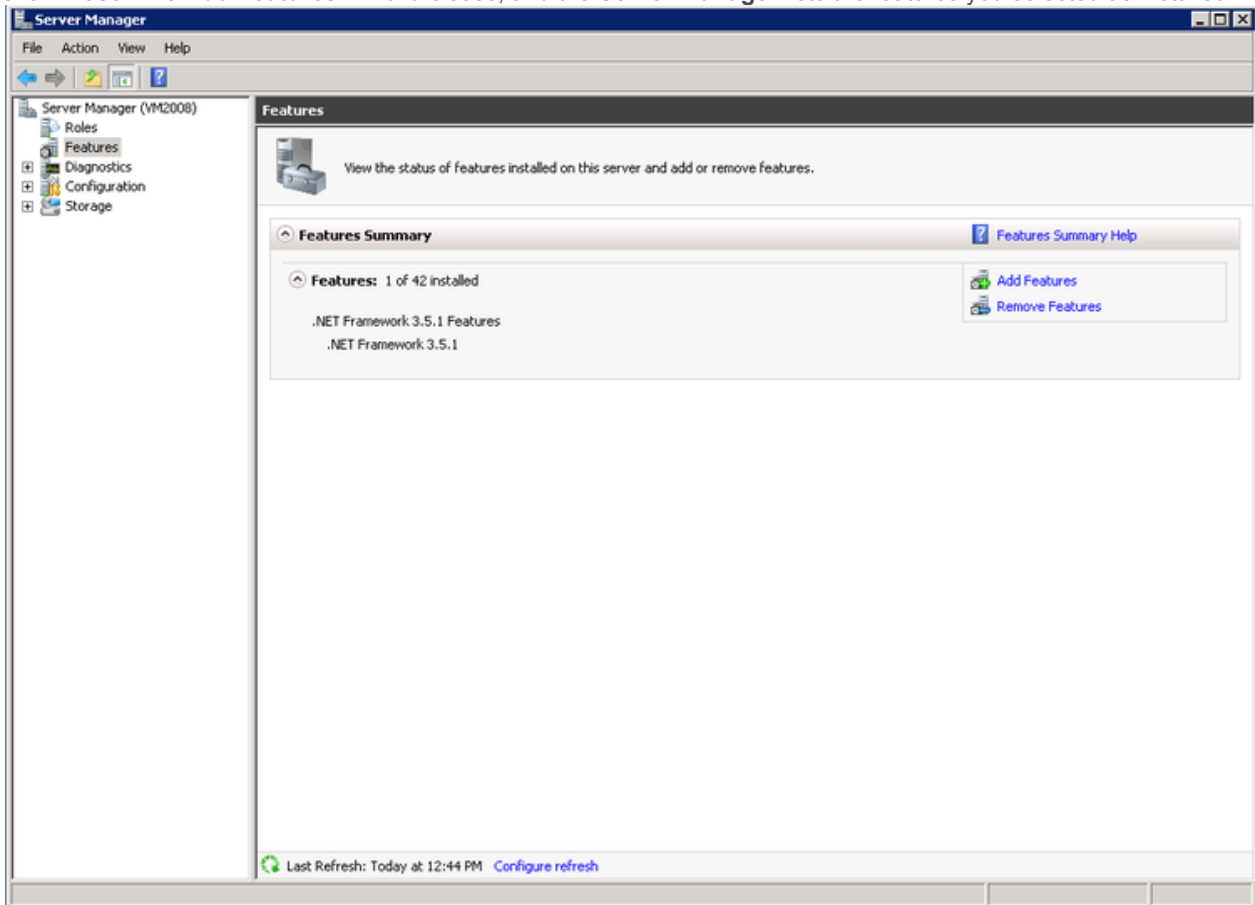
Windows Server 2012

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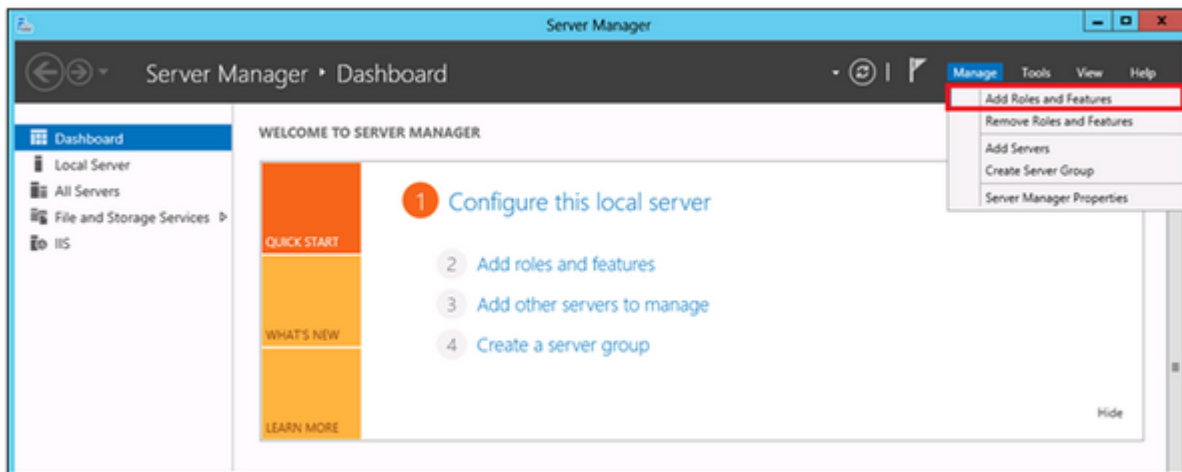
2. From the upper-right side of the window, in the **Manage** menu, select **Add Roles and Features**. The **Add Roles and Features Wizard** opens.

3. Click **Next**. The **Installation Type** screen opens.
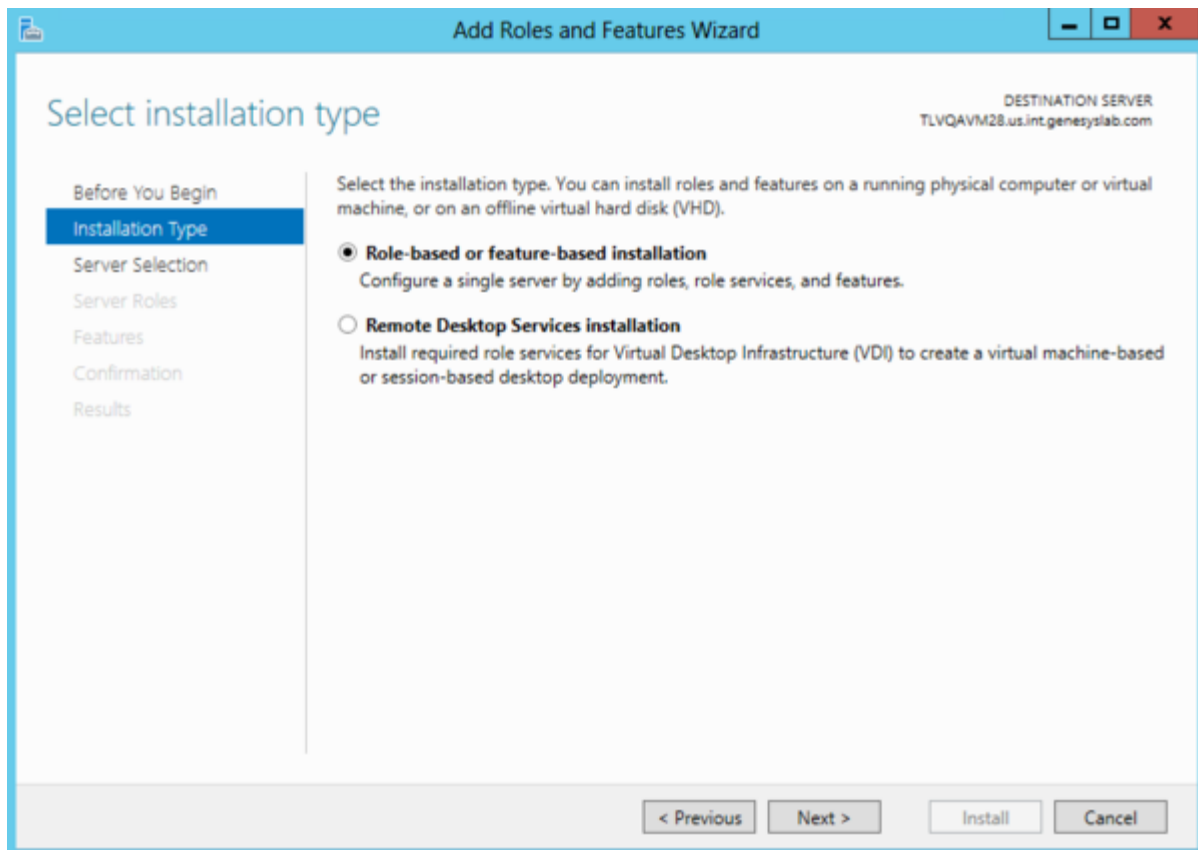
4. Select **Role-based or feature-based installation**, and click **Next**. The **Server Selection** screen opens.
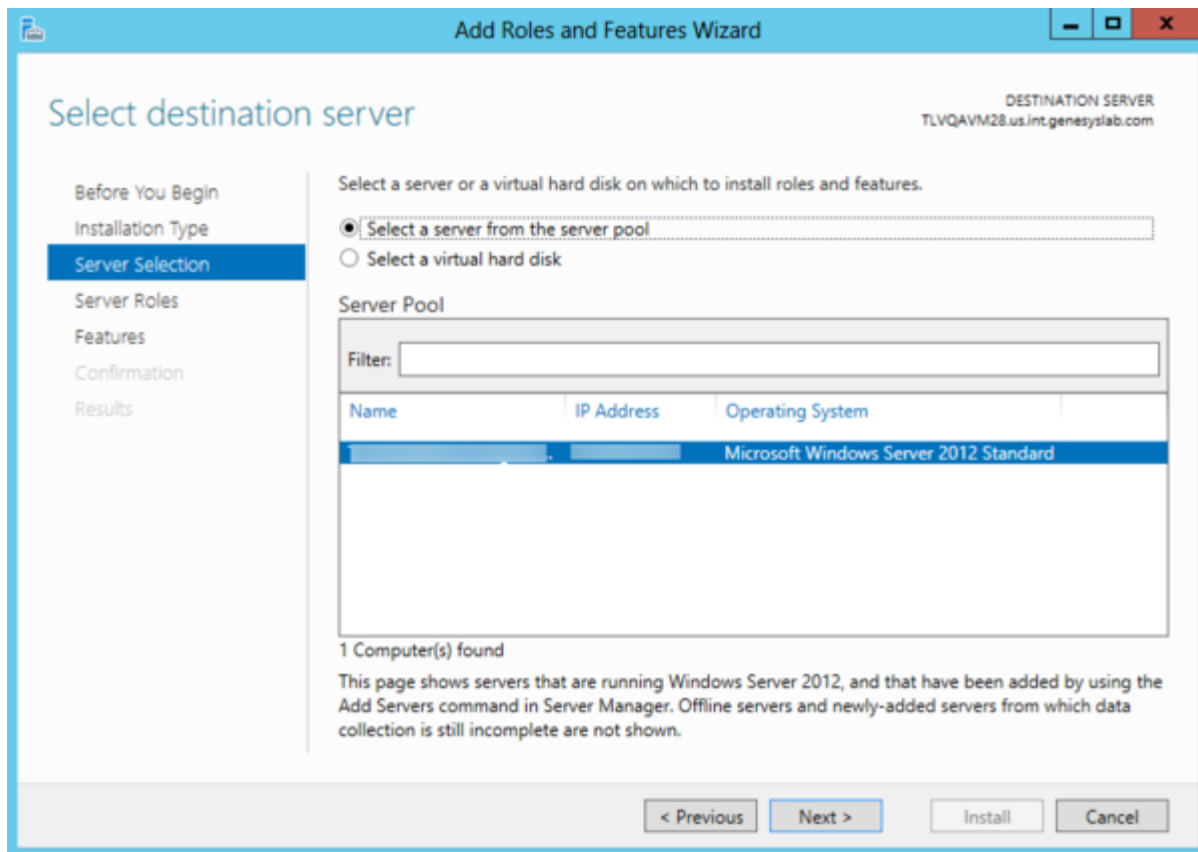
5. Verify that the **Select a server from the server pool** is selected and select the server on which you will be installing the SpeechMiner web server. Click **Next**. The **Server Roles** screen opens.
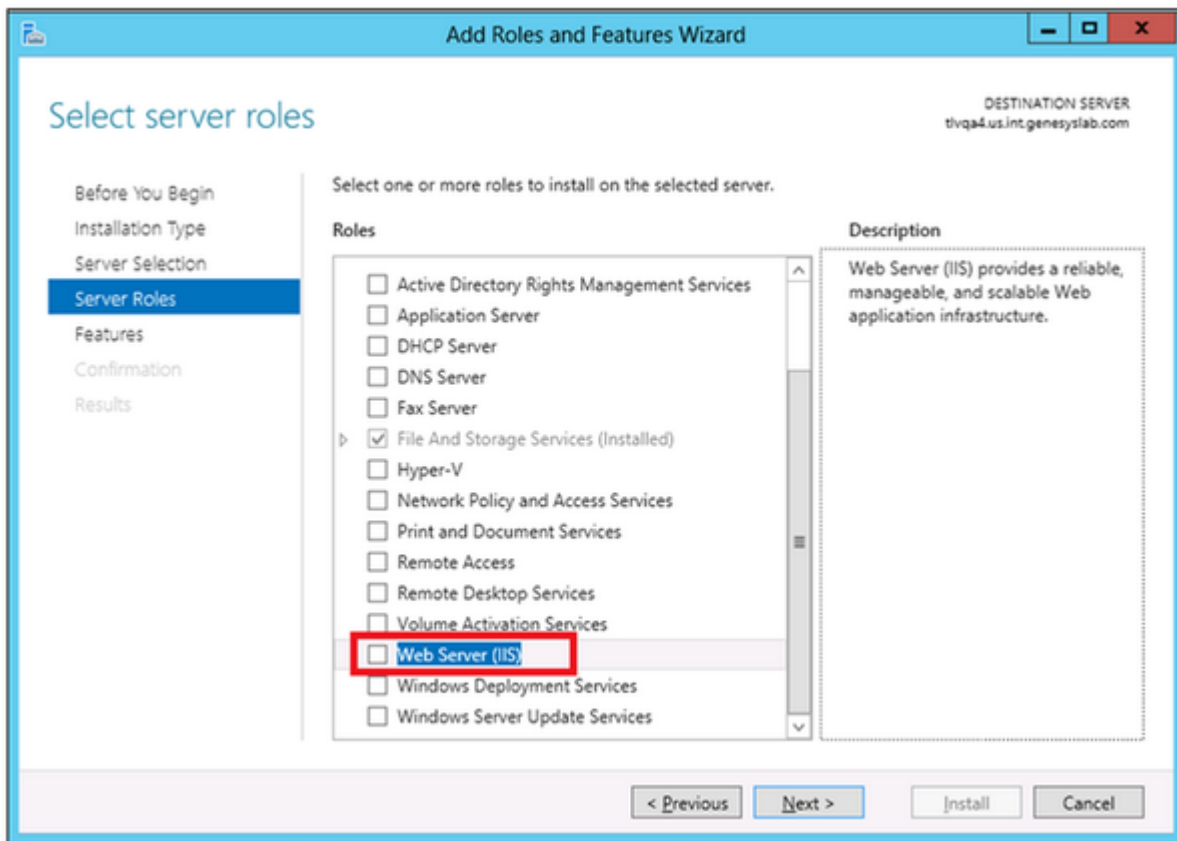
6. From the list of roles, select **Web Server (IIS)**. The following window pops up.
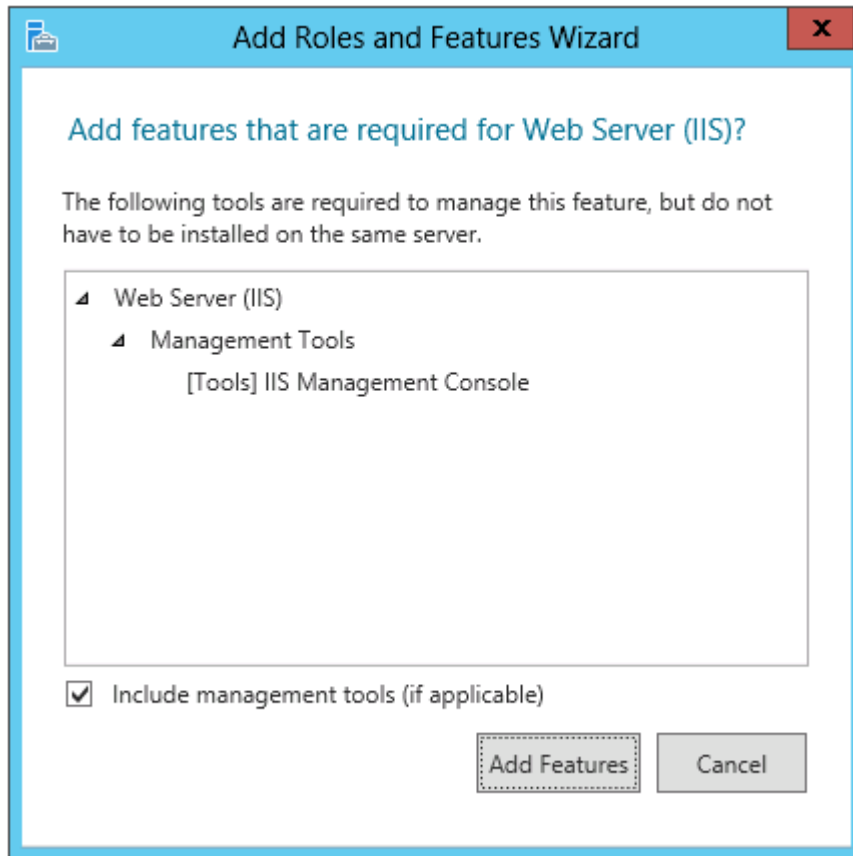
7. Select the **Include management tools (if applicable)** checkbox and click **Add Features**. The window closes.

8. Select **Next**. The **Role Services** screen opens.
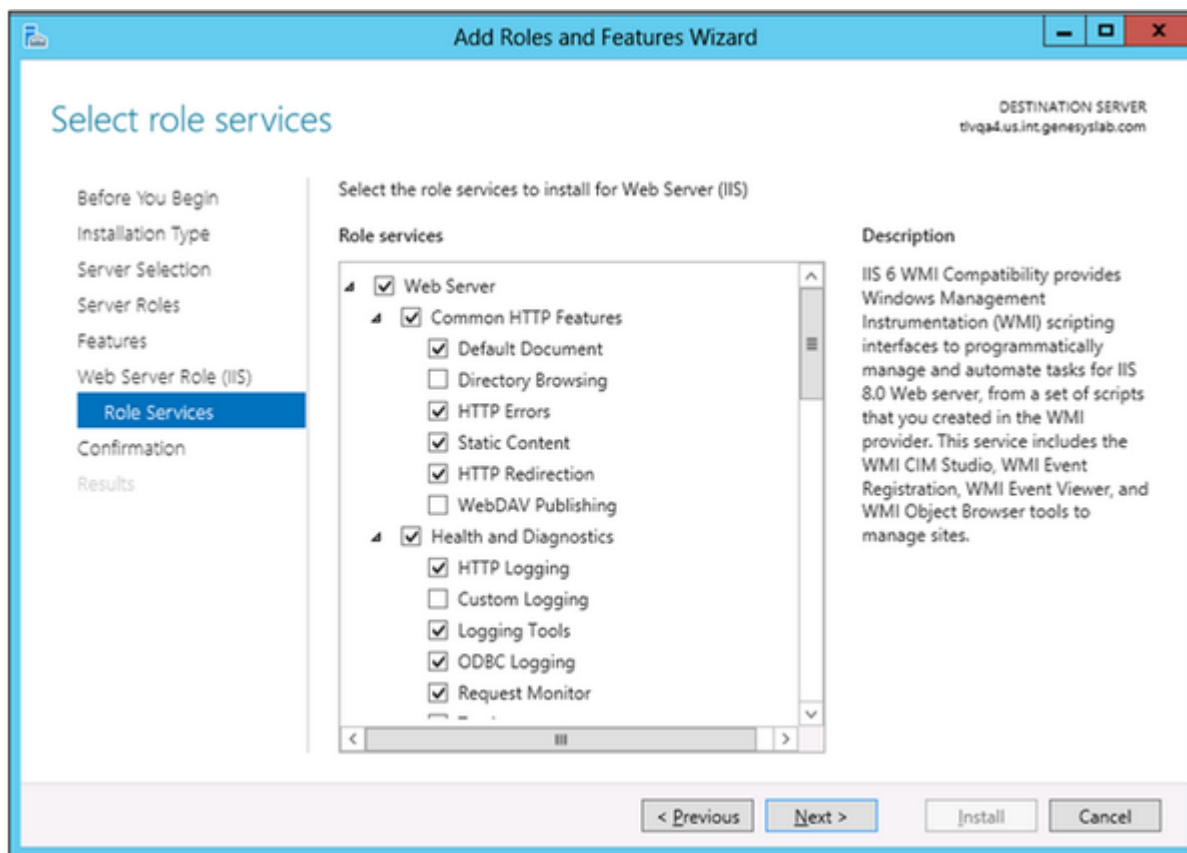
9. From the list of **Role services**, make sure the following services are selected:

   a. Under **Common HTTP Features**:

      • **Static Content**

      • **Default Document**

      • **HTTP Errors**

      • **HTTP Redirection**

   b. Under **Application Development**:

      • **Application Initialization**

      • **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**

10. Select **Next** and then select **Install**. The IIS server is installed with the roles and features you selected.

Windows Server 2016

On Windows Server 2016, 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**.
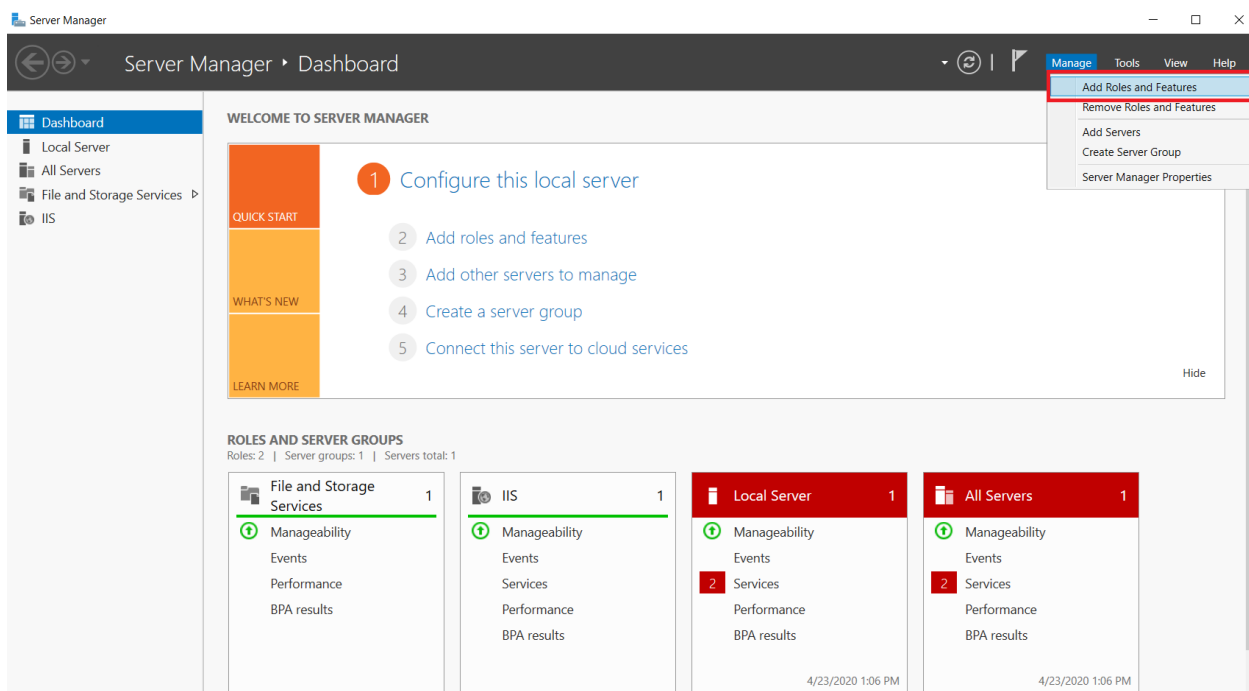
2. From the upper-right side of the window, in the **Manage** menu, select **Add Roles and Features**. The **Add Roles and Features Wizard** opens.
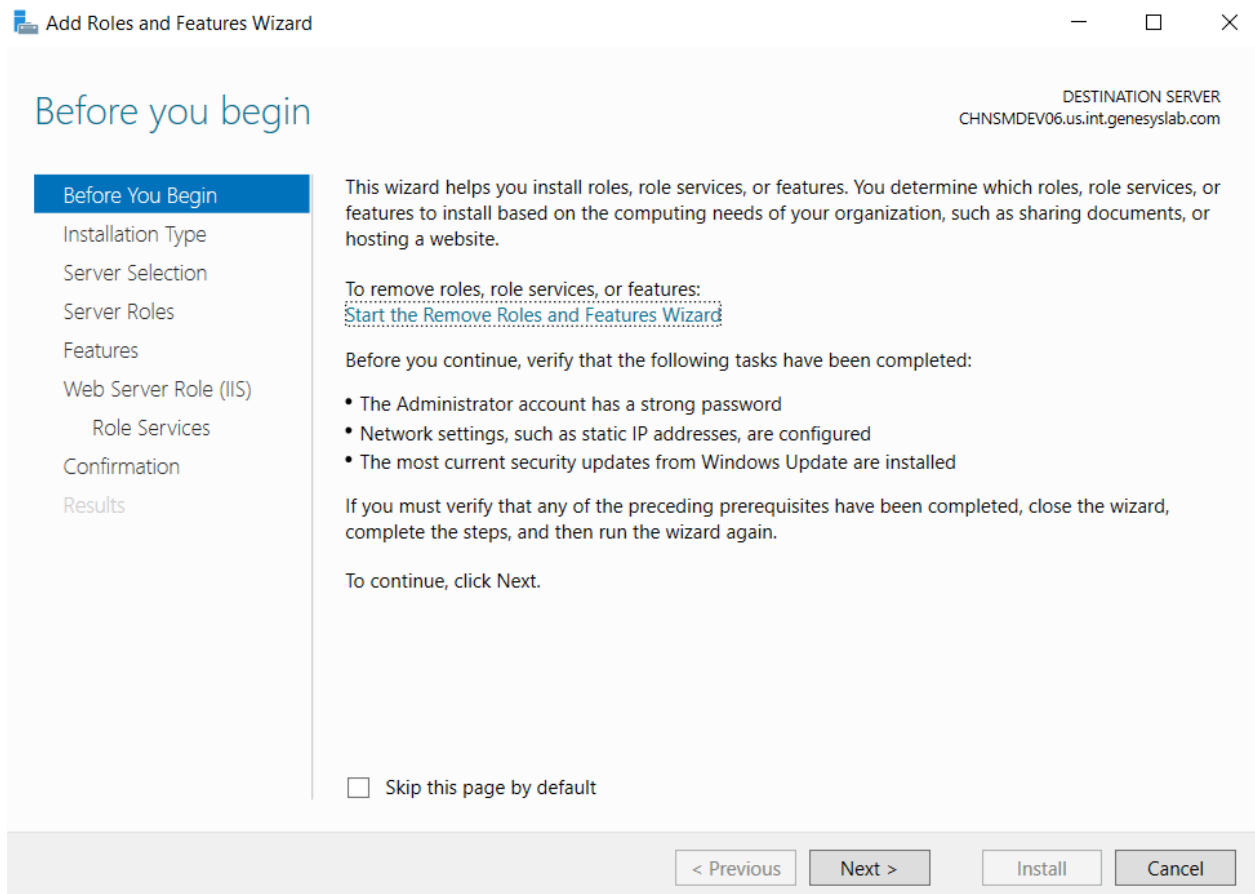
3. Click **Next**. The **Installation Type** screen opens.
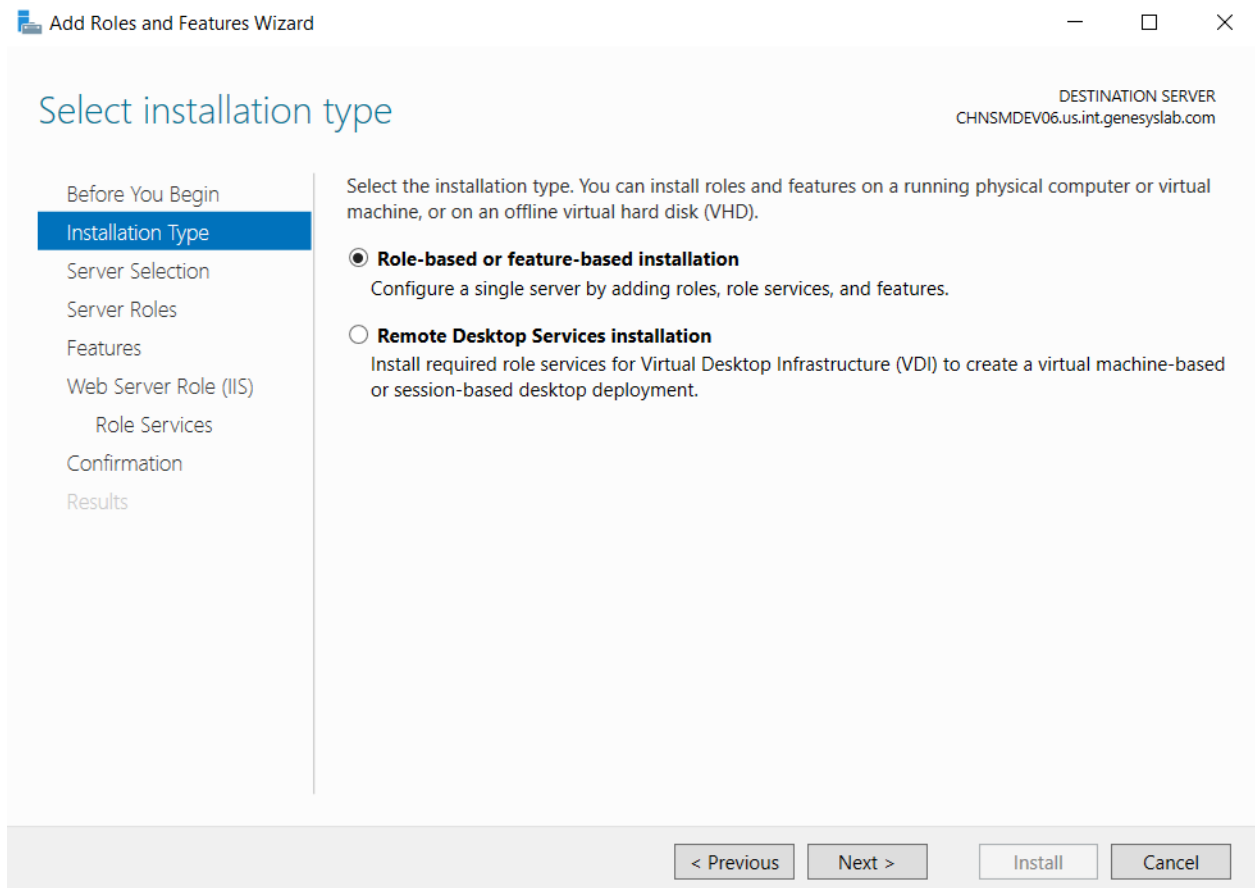
4. Select **Role-based or feature-based installation**, and click **Next**. The **Select destination server** screen opens.
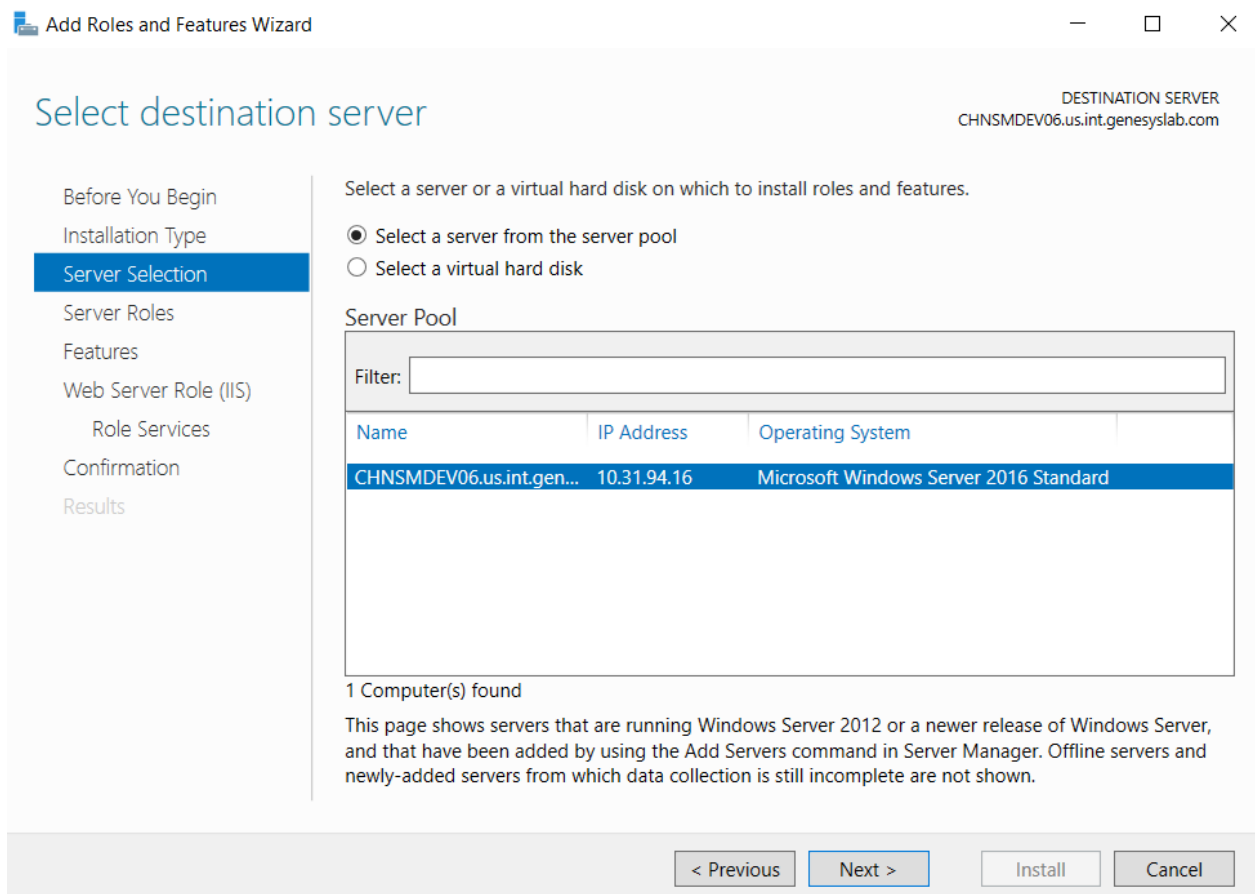
5. Select **Server Selection**, verify that **Select a server from the server pool** is selecte, and select the server on which you will be installing the SpeechMiner web server. Click **Next**. The **Select server roles** screen opens.
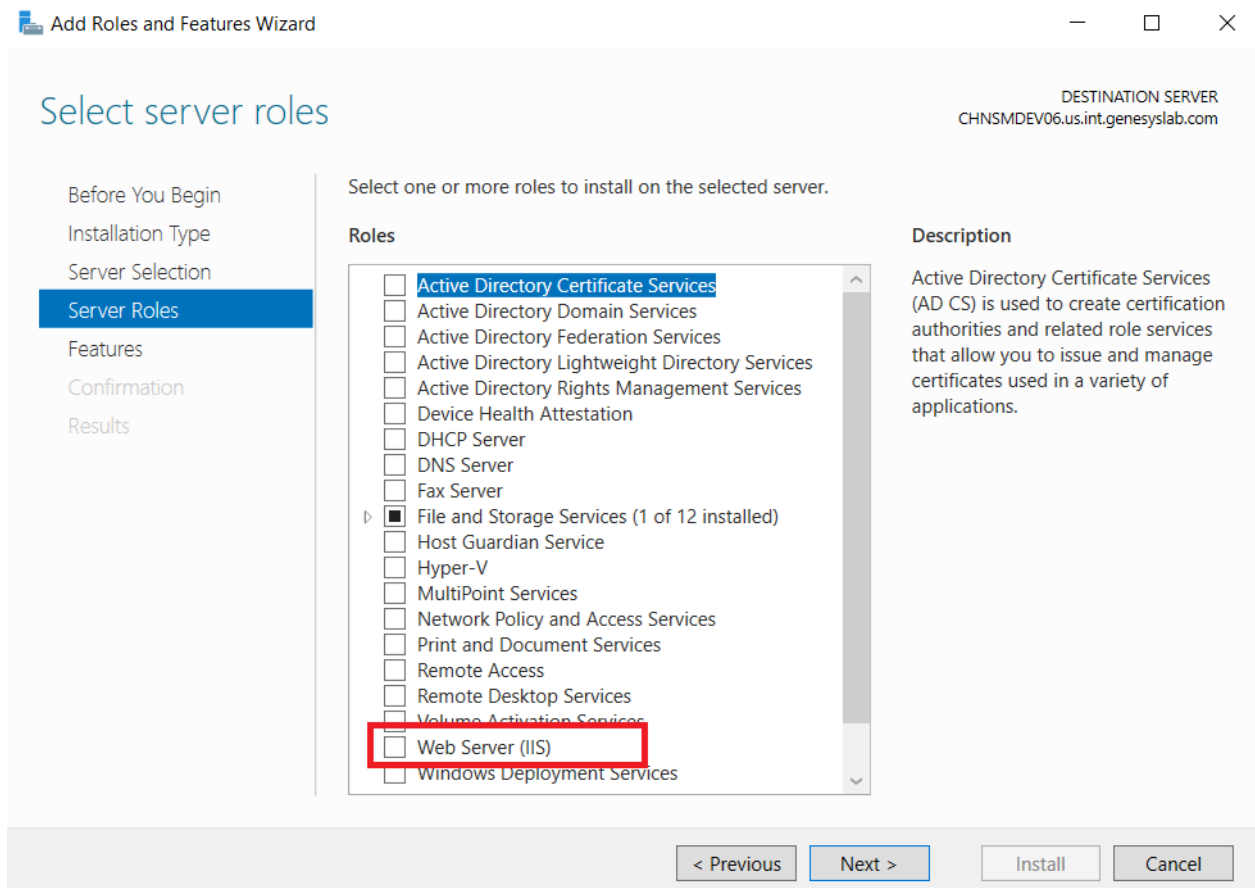
6. Select **Server Roles** and from the list of roles, select **Web Server (IIS)**. The following window pops up.
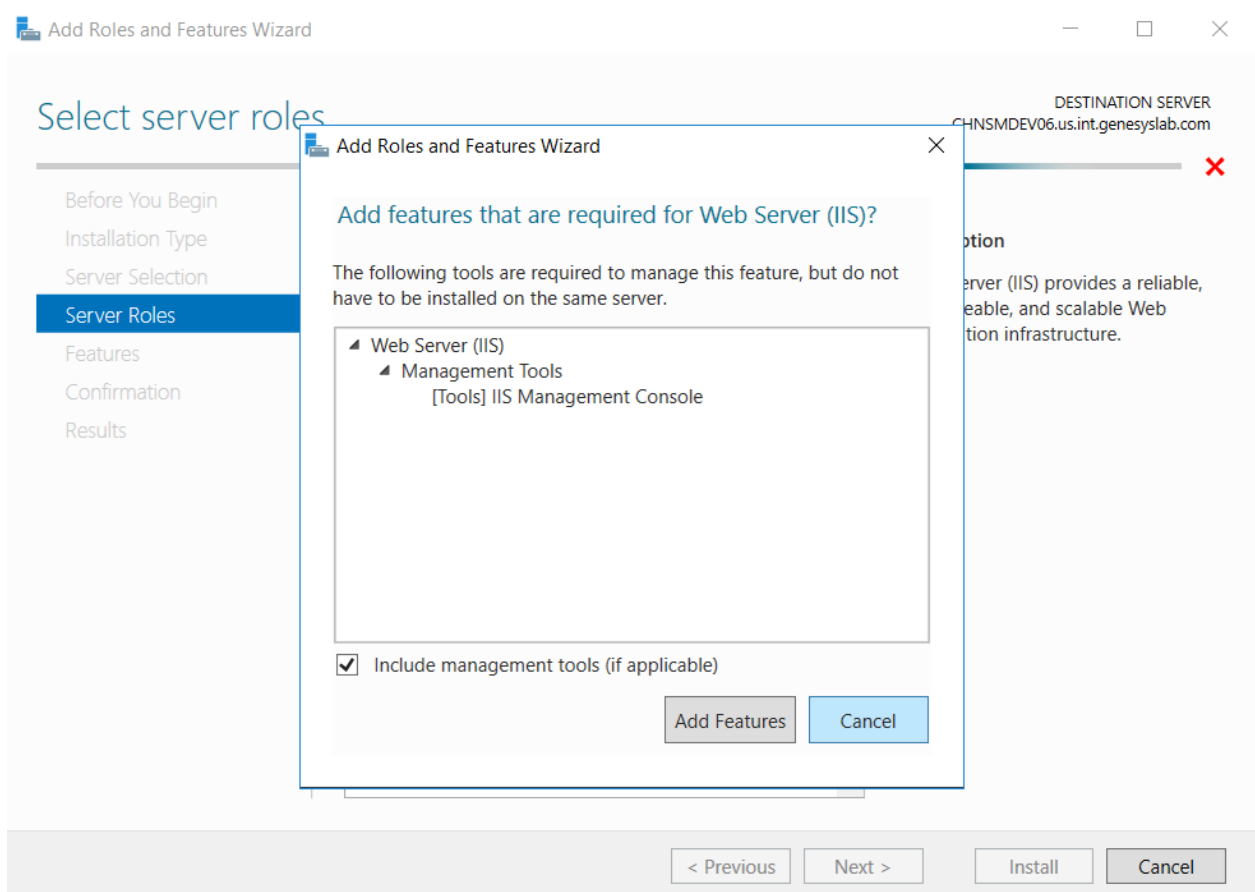
7. Select the **Include management tools (if applicable)** checkbox and click **Add Features**. The window closes and you are returned to the following **Select Features** screen.
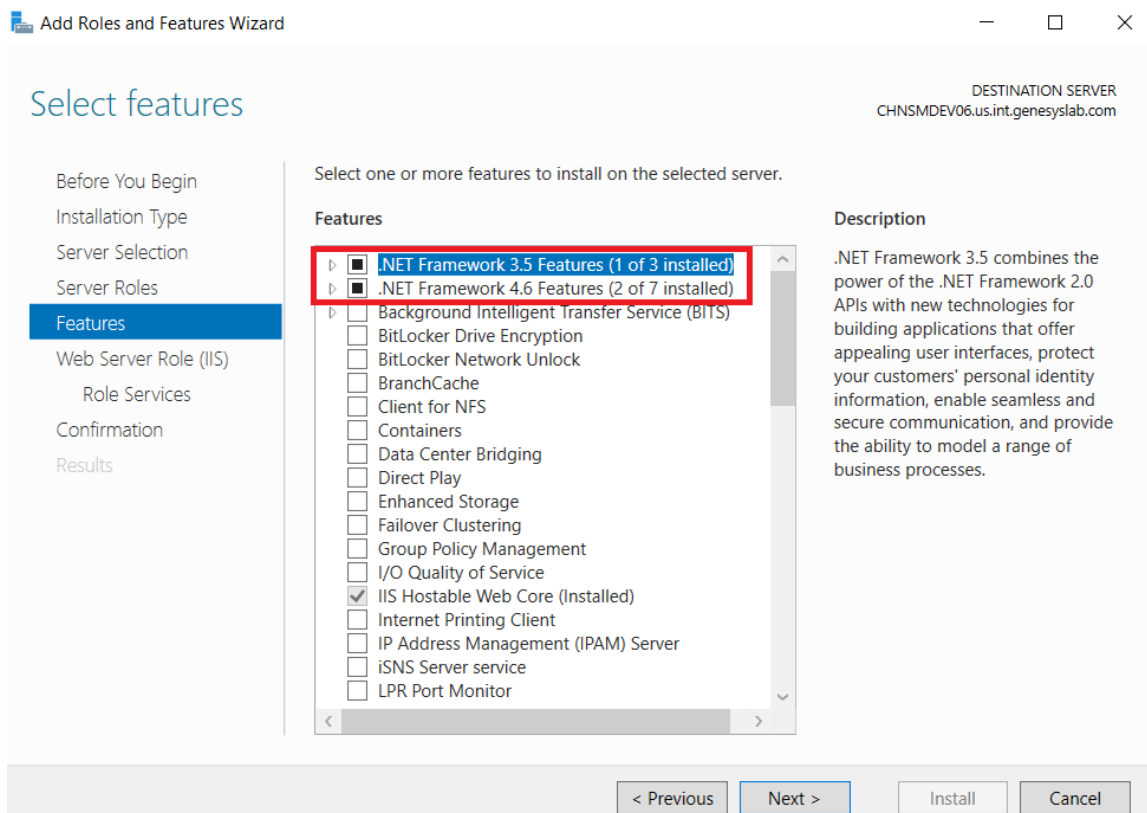
8. Select **Features**.

9. Select **.NET Framework 3.5 feature**s and **.NET Framework 4.6 features**.

10. Click **Next**. The **Select roles services** screen appears.
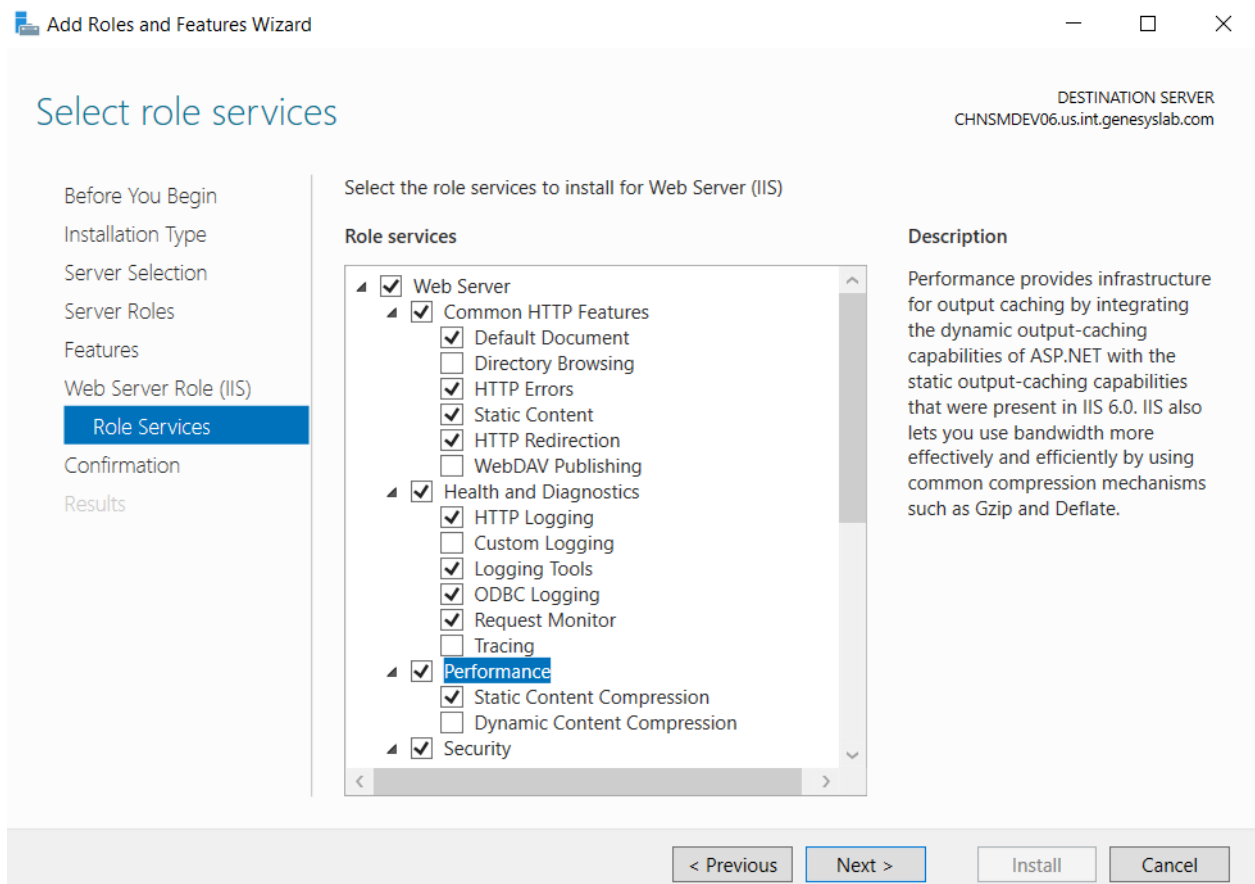
11. From the **Role services** list, select the following services:

- Under **Common HTTP Features**:
  Static Content
  Default Document
  HTTP Errors
  HTTP Redirection

- Under **Application Development**:
  Application Initialization
  ASP.NET
  ASP.NET Extensibility
  ISAPI Extensions
  ISAPI Filters

- Under **Security**:
  Windows Authentication

- Under **IIS Management tools**:
  IIS 6 Management Compatibility
  IIS Management Console

12. Select **Next** and then 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 Customer Support:
    - SpeechMiner installation package
    - Licenses

> ## Important
>
> If you are installing a deployment that includes SpeechMiner Analytics, you must supply the Genesys Customer Support Licensing team with your database servers network adapter (MAC) addresses.
>
> To gather all the enabled MAC addresses run the `getmac` command in a command prompt on each of the database servers and copy all the physical addresses.
>
> Verify that all network adapter addresses are enabled. If a network adapter is not enabled, its MAC address will not be listed in the list of physical addresses.

- **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
    - Elasticsearch
    - IIS installation
    - Report Viewer

- **Audio capabilities:** Machines on which the SpeechMiner web application will run have functioning audio devices.

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:

> **Important**
>
> Hosts on which the Indexer will be installed must have version 2.0.6 or higher (see: https://dotnet.microsoft.com/download/dotnet-core/3.1). If the system does not have an Internet connection, obtain and install the Microsoft Visual C++ 2015 Redistributable (64-bit) before installing the ASP.NET Core/.NET Core: Runtime & Hosting Bundle.

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.
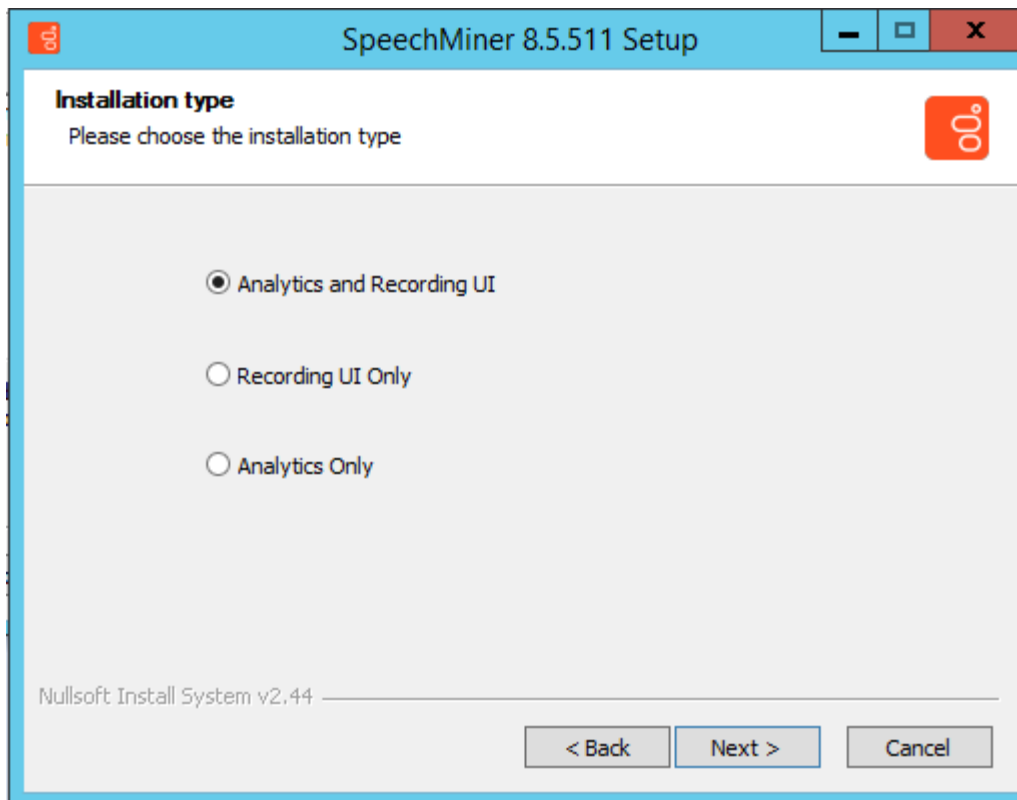
5. Select the installation mode:

- **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.
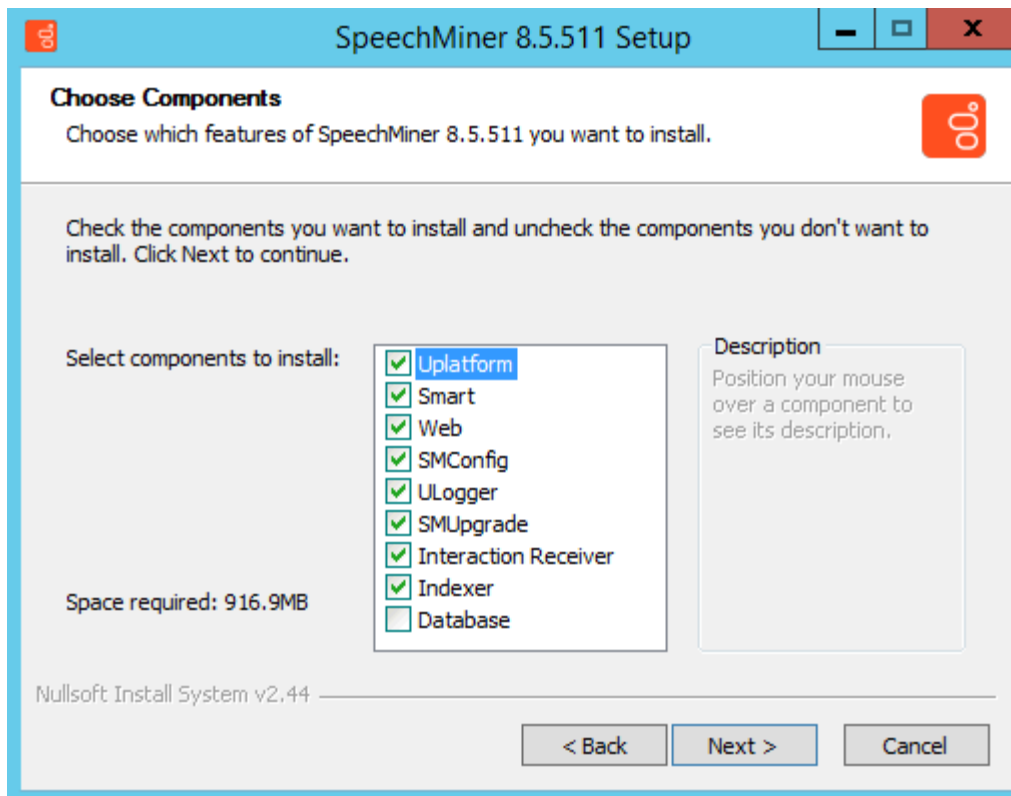
7. In the list of components , select the components you want to install on the machine.

8. Click **Next**. Which screen you see next depends on the components you selected in the previous screen.

> **Important**
>
> By default, 64-bit SpeechMiner is installed in the following location:
> C:\Program Files (x86)\Genesys\Software.
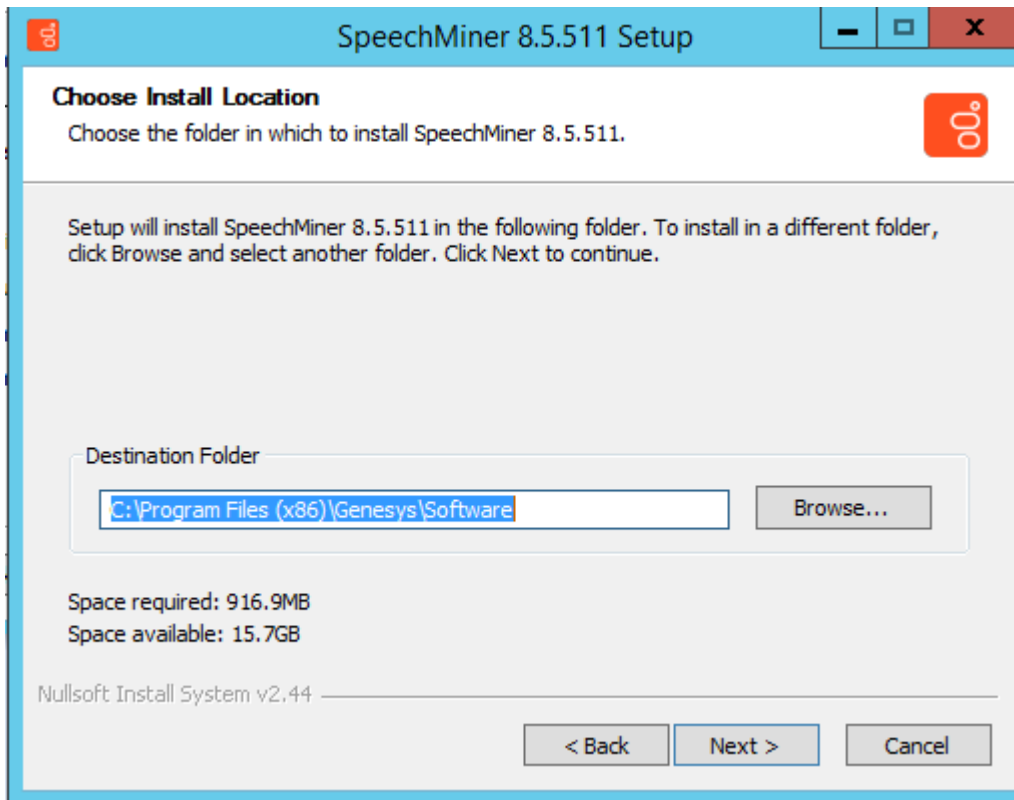
9. Modify the default installation location if necessary and then click **Next**.

10. If you selected **Indexer**, define a user and password in the **Authentication** tab and click **Next**
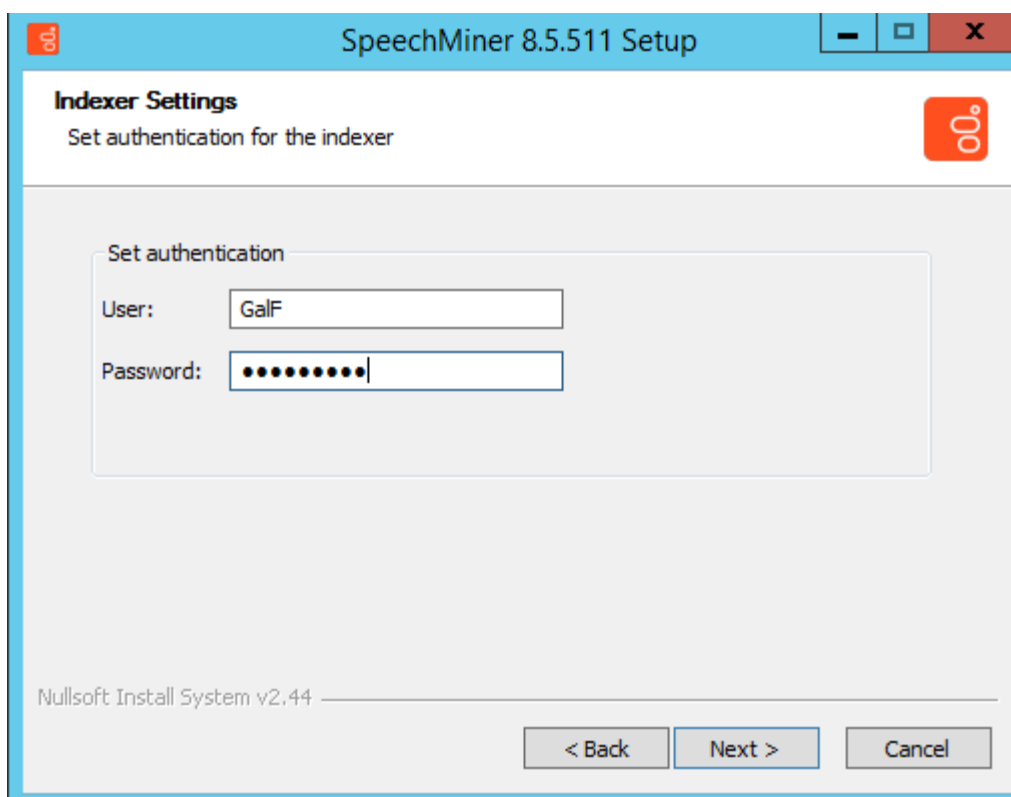
11. In the field provided enter the **Elasticsearch** data nodes (:9200) you created when installing **Elasticsearch** add click the **+** button to add the **datanode** to the list.
Do not add Master nodes to this list.

> ### Important
> If you want to edit, add and/or remove a data node, you must configure the **esNodes** environment variable. The value of the esNodes environment variable, must be a list of data node url's separated by a semicolon ;. For example,
> http://dataNode1:9200;http://dataNode2:9200;http://dataNod
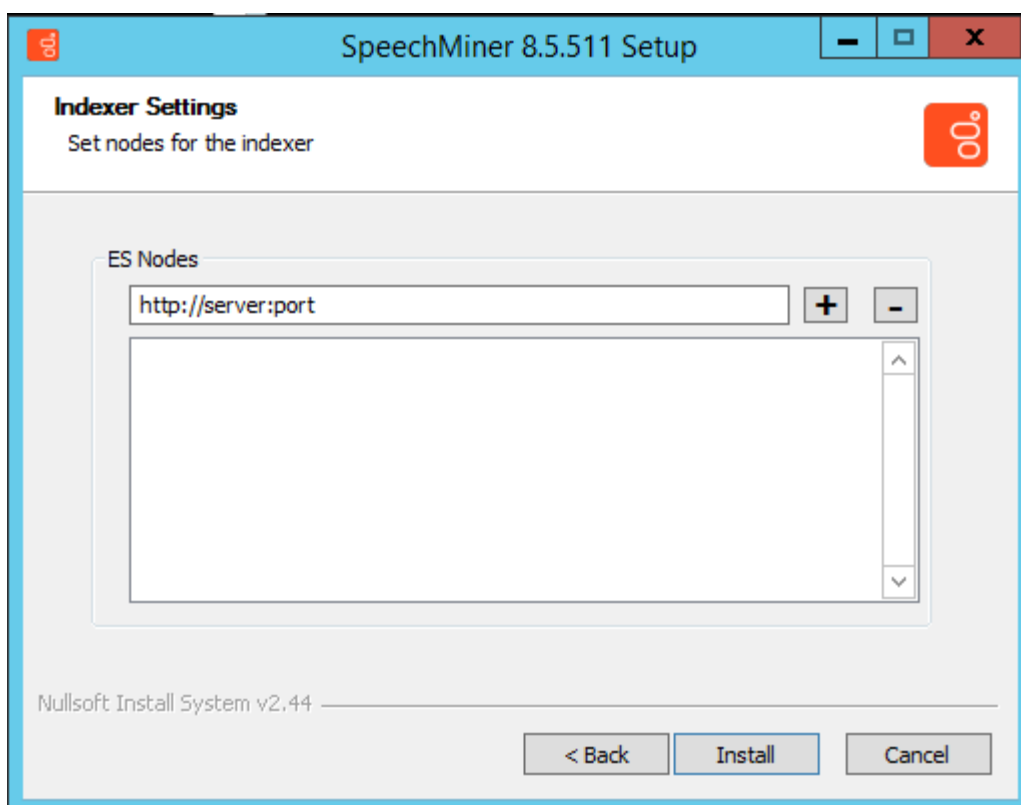
12. Click **Install**. The installation process begins. When the process is completed, the following screen appears:
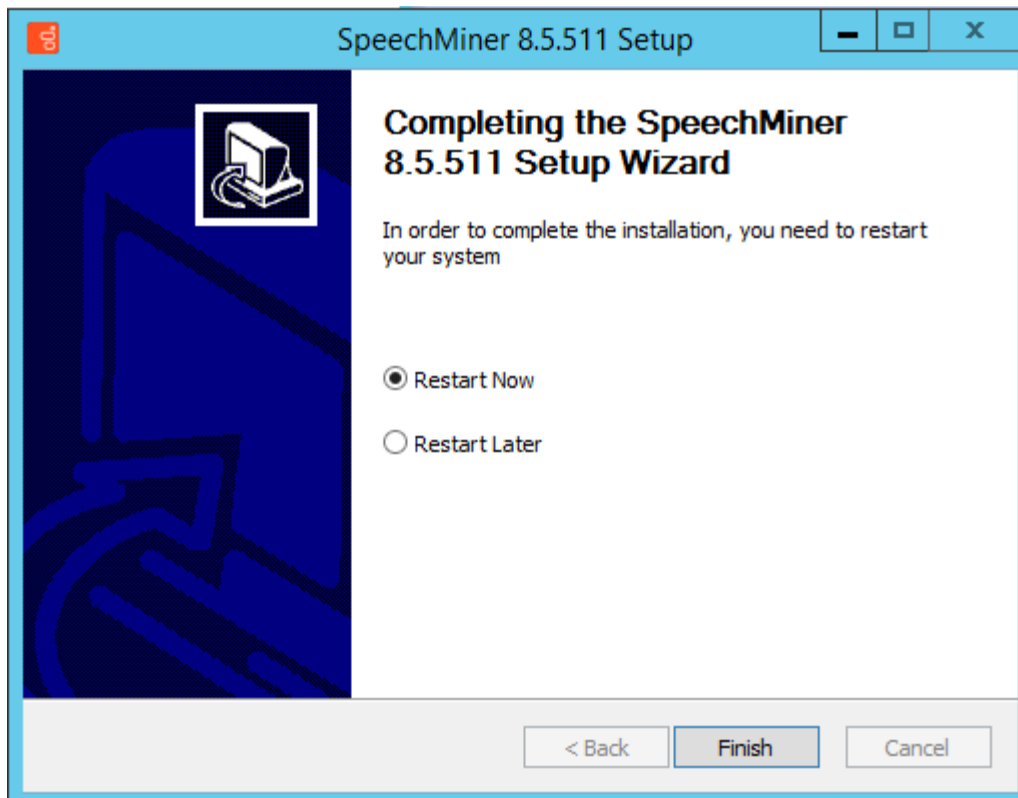
13. Select **Restart Now**, and then click **Finish**. A warning message appears, and reminds you to configure SpeechMiner before you open it.
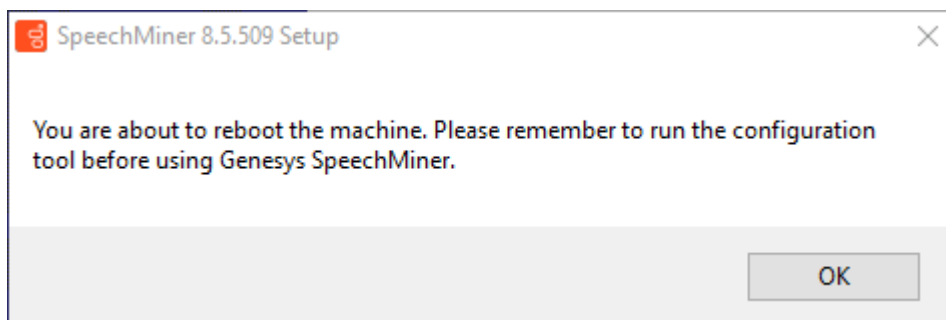
14. Click **OK**. The server restarts.

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

- Manual Installation

- Storage Partitions

- Maintenance Jobs

- SQL CLR

- Recovery Model

- Autogrowth

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.

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.)

Field	Description
	Note: This field is not available when **Windows Authenticated User** is selected.
DB Password	Enter the DB password. Only a user with Administrator permissions can enter password credentials. **Note:** This field is not available when **Windows Authenticated User** is selected. In addition, when creating a DB Password you cannot use **=** and **;** as part of the DB Password.

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.
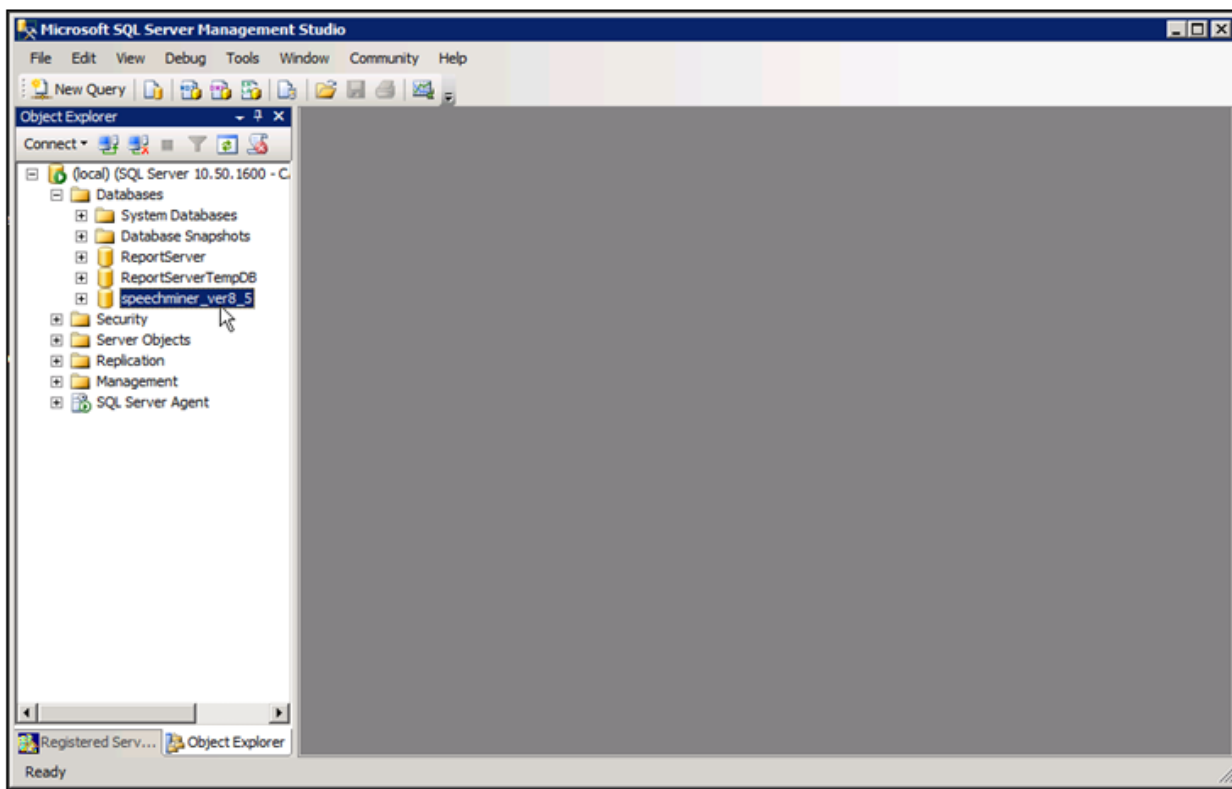
Manually Installing the SpeechMiner Database

An alternative way to perform the database installation is to use the SQL backup file (for example, `data_sql_2008.bak`) 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 `1024` MB for Data files and `256` MB for Log files.

Important
When you manually install the SpeechMiner Database, you must enable the SQL Server Service Broker to allow purging interactions from the database.

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
    ```

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.

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

> **Important**
>
> - When working with a system that includes text interactions, it is recommended to configure the system to purge text interactions older than # years.
>
> - It is recommended to delete (or archive) interactions whose topics/terms do not meet the strictness threshold after a configurable number of days. Doing this will reduce the number of interactions waiting to be re-indexed after SMART topic or program changes are applied. For additional assistance, contact Genesys Customer Care.

To open the maintenance-job script:

- From **SQL Server Management Studio**, under **Databases > SQL Server Agent > Jobs**, double-click the job.
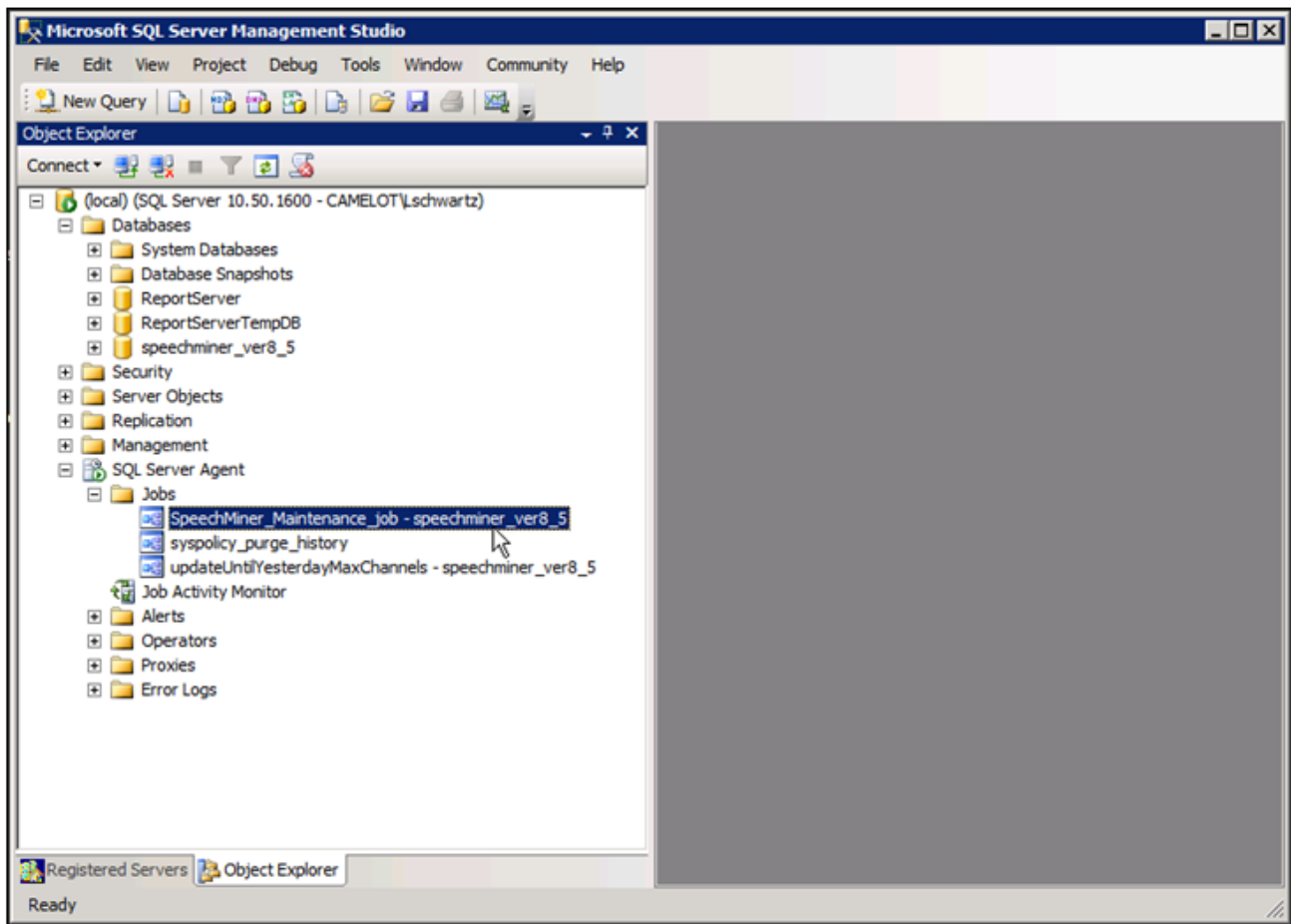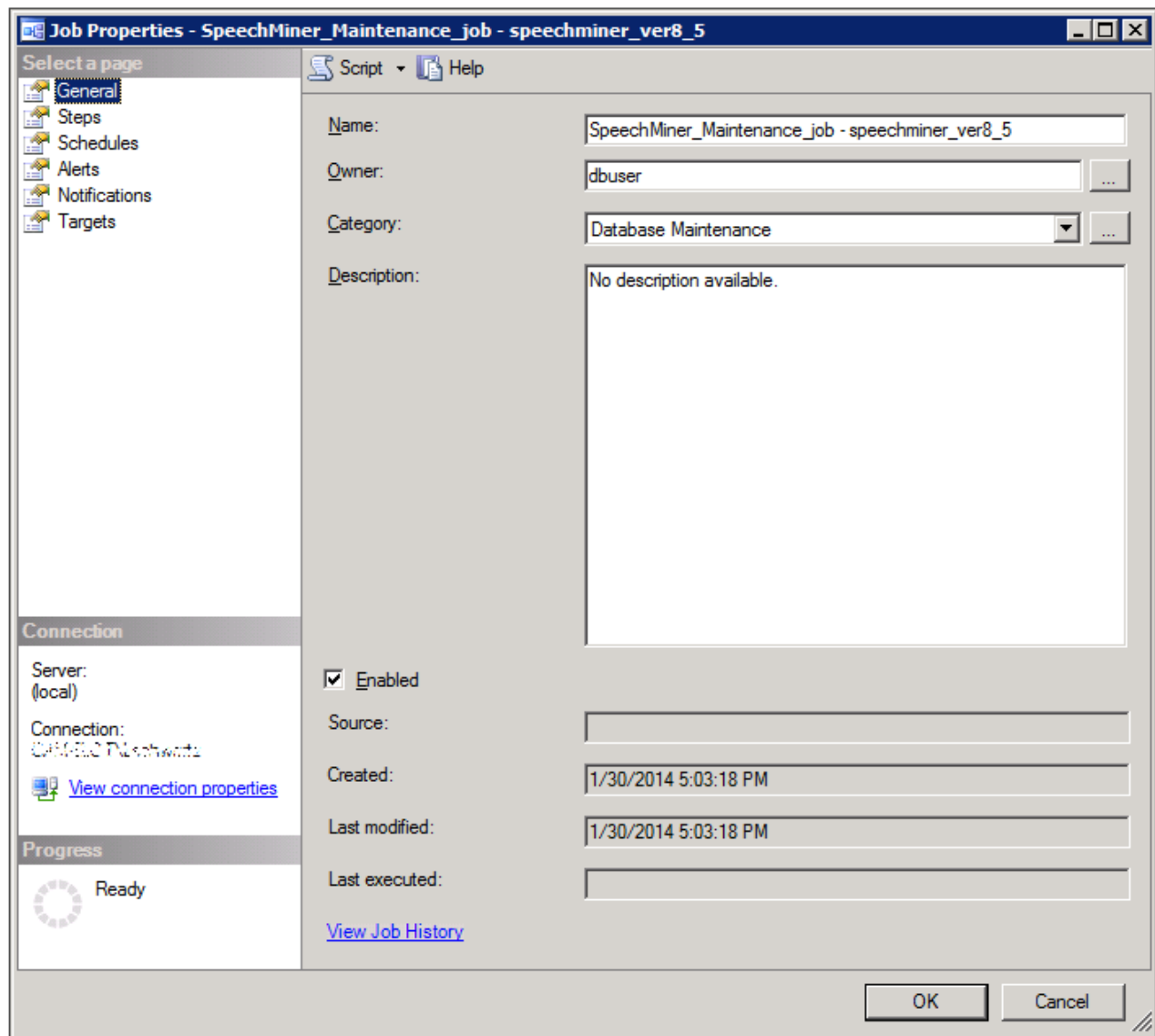
The job may optionally include the `sp_updateUntilYesterdayMaxChannels` and `sp_agentFilterCleanByDays` steps. In addition, any procedure that rebuilds indexes and purges old calls should be added as a step in the maintenance job.

Important

- When creating an Agent, if you create a username but you do not enter a firstname and lastname in the fields provided, the specific Agent's name will appear blank in the Search Filter > Agents & Work Groups list.

- When creating an agent hierarchy it is recommended that the hierarchy be created in the **Configuration Server** if you have the **Genesys Interaction Recording (GIR)** system or through the **UConnector** if you are working with an external recording system.

- Creating the agent hierarchy in both the Configuration Server and through the UConnector at the same time is not supported. You must work with one or the other.

- If both GIR and UConnector are not available you can use the stored procedure `sp_createAgentsFromPartitions` as a step in the maintenance job to create agents according to work group and agent partitions.

- The stored procedure is supplied as is. You may need to change it if it does not work well with your data. For example, if the names of work groups are repeated, you will not get the results you expect.

- For example, if your system has the following partitions:

1.
   - /WGA/WGB/AgentA

   - /WGC/WGB/AgentB

     You will see the following in the Agents filter after executing `sp_createAgentsFromPartitions`:

   - WGA/WGB/AgentA

   - WGA/WGB/AgentB

   - WGC/WGB/AgentA

   - WGC/WGB/AgentB

Changing the Job Owner

1. Open the SQL Management Tool.

2. Alter the Stored 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 Stored procedure to create the correct job.

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 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:

1. On the SQL server, open the **SQL Server Management Studio**. (For example, in the **Start** menu, under **All Programs**, select **Microsoft SQL Server 2008 R2 > SQL Server Management Studio**.)

2. On the left side of the window, right-click the SQL server and then select **New Query**. A blank text area opens on the right side of the window.

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

```
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.
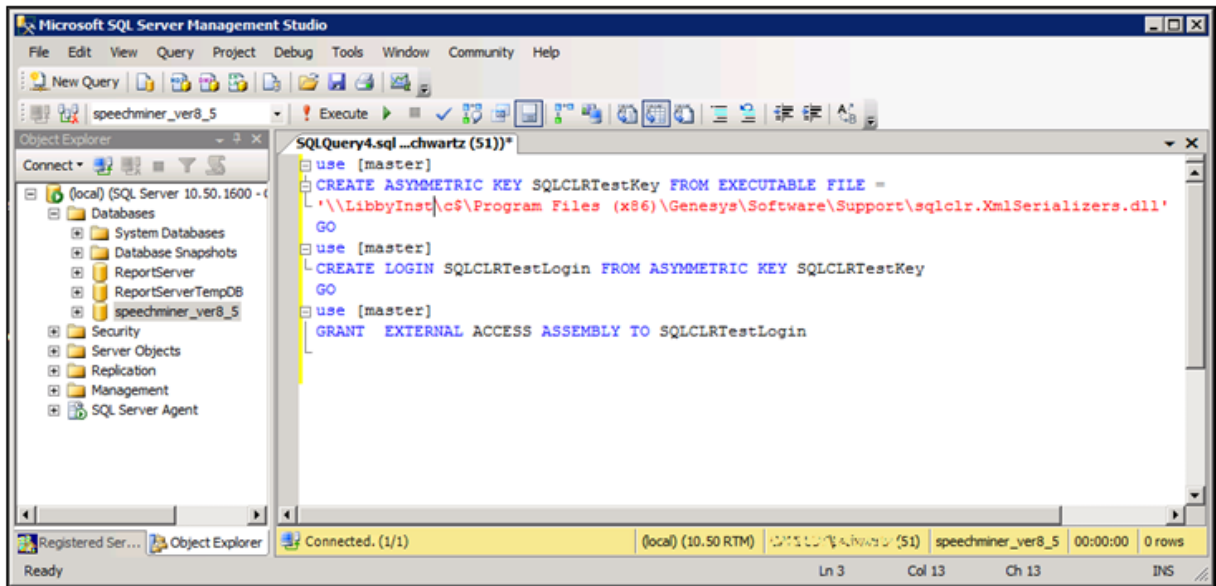
5. Above the text area, select **Execute**. The commands are executed. When the process is completed successfully, **Query executed successfully** appears at the bottom of the window.

> ### Important
>
> If you get an error message that says, "The certificate, asymmetric key, or private key file does not exist or has invalid format," try changing the path to point at the local drive—for 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, CLR integration is 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

> **Important**
>
> The sqlclr.sql script should be deployed in a SpeechMiner database or the SpeechMiner database should be selected in the Available Databases section when running the sqlclr.sql script.

> **Important**
>
> If a major change is made to the SQL Server (for example, a disk is moved), the .dll assembly changes its ID. This change may cause a sequence of SQL errors. To fix this issue, you must do the following:
>
> 1. Copy the following commands and paste them into the **New Query** text area:
>
> ```
> EXEC sp_configure 'clr_enabled', 0
> GO
> RECONFIGURE
> GO
> EXEC sp_configure 'clr_enabled', 1
> GO
> RECONFIGURE
> GO
> ```

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**
>
> 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:

1. On the SQL server, open the **SQL Server Management Studio**. (For example, in the **Start** menu, under **All Programs**, select **Microsoft SQL Server 2008 R2 > SQL Server Management Studio**.)

2. On the left side of the window, right-click the 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**.
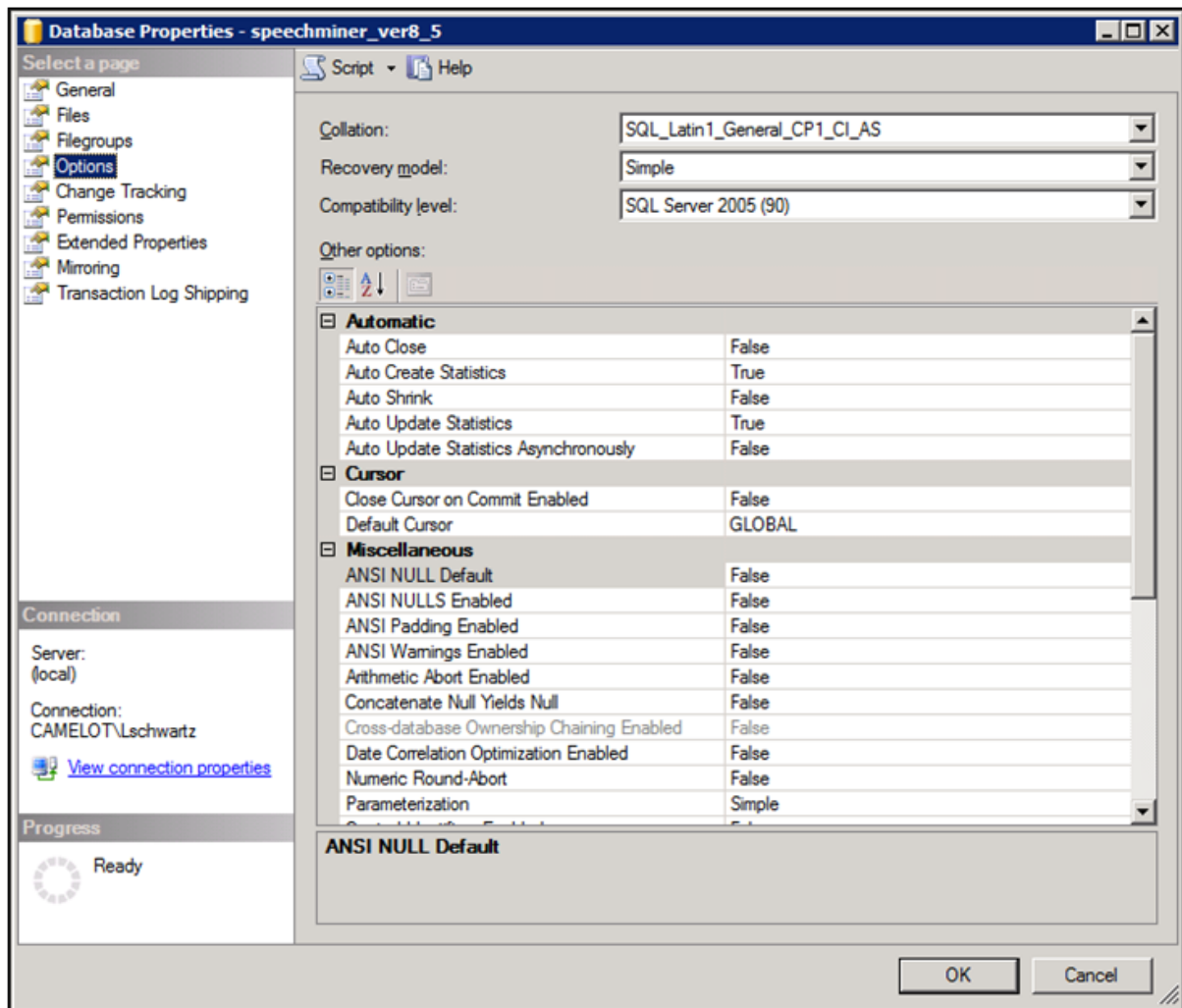
5. Click **OK**. The setting is implemented, and the window closes.

Configuring the Autogrowth

> **Important**
>
> 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:

1. On the SQL server, open the **SQL Server Management Studio**. (For example, in the **Start** menu, under **All Programs**, select **Microsoft SQL Server 2008 R2 > SQL Server Management Studio**.)

2. On the left side of the window, right-click the database and then select **Properties**. The **Database Properties** window opens.

3. On the left side of the window, select **Files**.
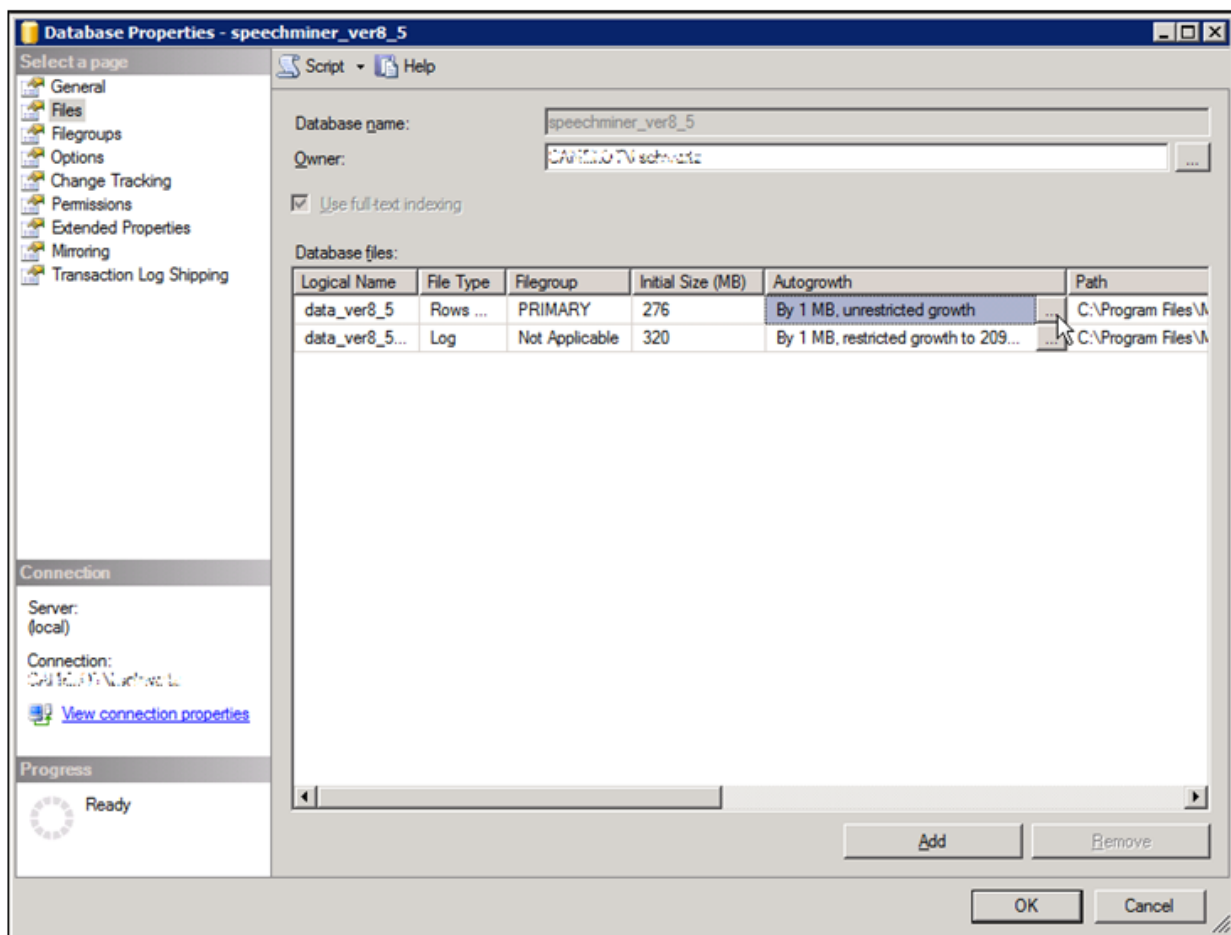
4. On the right side of the screen select **Autogrowth** [...] in the **Data File** row. The **Change Autogrowth** dialog box opens.
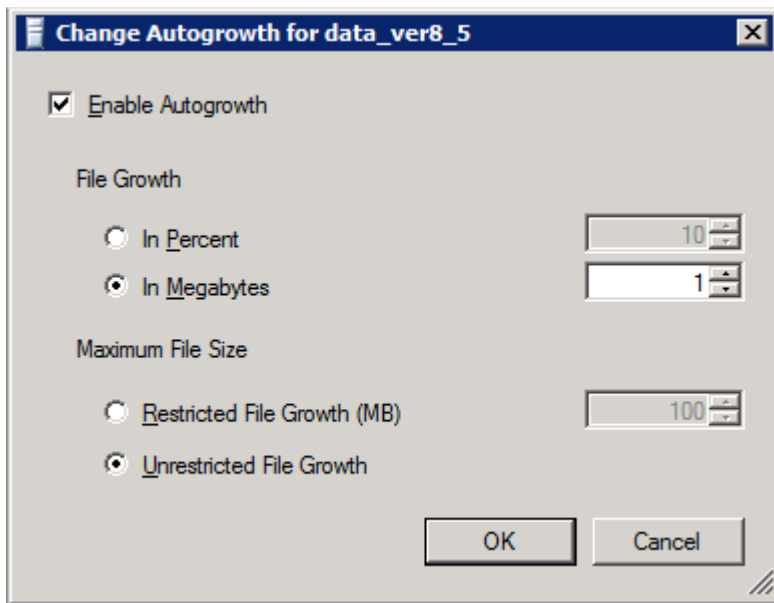
5. Verify that **Enable Autogrowth** is selected.

6. Under **File Growth**, select **Megabytes**, 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 **Megabytes**, 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.

</tabber>

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.

> **Important**
>
> Ensure that enough storage space is available to manually create the folders. By default, the minimum space required for each folder is 15GB. This minimum value is set in the minimumFolderSpaceMB field in the SpeechMiner database monitorTbl table. The recommended default value for free space is 25GB. This value is configured in the desiredFolderspaceMB field. If the free space is less than 25GB, the system will show a warning to let you know that you are reaching the recommended minimum value for the minimumFolderSpaceMB field.

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 Sites & Machines.

> **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	One for the entire system.

Folder Name	Description	Quantity
	placed, and later processed by the Interaction Receiver. **Note:** This is a different folder than the Input folder which is used by fetchers.	
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.
Backup	Folder in which SpeechMiner will store backups of SMART definition sets (Program, Topic, and Category definitions).	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

Folder Name	Description	Quantity
		folders, so that you will have backups.

Install, Configure and Run Elasticsearch

Elasticsearch is a fast, clever search engine with the power to handle large data volumes. It is a scalable search engine based on distributed data storage that performs real-time searches and supports multi-tenancy. Elasticsearch streamlines backup processes and ensures data integrity. It uses Javascript Object Notation (JSON) and Java application program interfaces (APIs) and automatically indexes JSON documents. With Elasticsearch each index can have its own settings and each index can be easily recovered if a server crashes.

Prerequisites

Before you install and configure Elasticsearch you must consider the following:

Elasticsearch:

* For details about the supported Elasticsearch version, refer to the **Prerequisites** section in the SpeechMiner page in the *Genesys Supported Operating Environment Reference Guide*.

* All **Elasticsearch** nodes should be located on the same local network.

Operating Systems:

* For details refer to the SpeechMiner page in the *Genesys Supported Operating Environment Reference Guide* .

Indexer:

* Indexer cannot be run on either **Linux** or **Docker**.

* **IIS Web Service** must run on the Indexer machine.

* Multiple indexers can be run with a **Load Balancer**.

Architecture:

* SpeechMiner does not support active-active site deployment. To create a backup of a cluster using Elasticsearch API refer to Elasticsearch - Shared File System Repository and Elasticsearch - Monitoring Snapshot Progress.

Shards and Nodes:

* 1 shard is required for every 2 million interactions in a Genesys Interaction Analytics (GIA) solution and 20 million in a Genesys Interaction Recording (GIR) solution. For example, for a GIA solution if you have 32 million interactions you must have 16 shards.

* The number of shards cannot be changed after SpeechMiner indices are created. SpeechMiner indices are created when the **Elasticsearch Migration Tool** is run or when you first run **Uplatform** (when migration is not required).

* You must have one **Data** node for every 8 shards (16 million interactions in a Genesys Interaction Analytics (GIA) solution and 160 million in a Genesys Interaction Recording (GIR) solution).

* A minimum of 2 Shards and 2 Data nodes are required for redundancy.

- It is recommended that you use 3 **Master** nodes. **Note:** if you only use 1 Master node, the entire system is down when your 1 Master node is down.

- You can use the same Elasticsearch node for both the Master and Data node when working with 5 or less Data nodes.

- If you have more than 5 Data nodes, we recommend that you have 3 separate Master nodes.

Install and Configure Elasticsearch on Windows

Install Elasticsearch on Windows

1. Download and run **java x64 JVM** version 8 or later.

2. Set the **JAVA_HOME** system environment variable:

    a. Enter the Variable name **JAVA_HOME**.

    b. Enter the Variable value. That is, the location of the **Destination Folder** in which you installed **java x64 JVM** version **8** or later. For example, C:\Program Files\Java\jre1.8.0_161

3. Download the **Elasticsearch Installer** from `https://artifacts.elastic.co/downloads/elasticsearch/elasticsearch-5.5.0.msi`.

4. Run `Elasticsearch.msi.`

5. Click **Next** in the **Locations** tab.

6. Click **Next** in the **Services** tab.

7. Set the **Configuration** tab as follow:

    - **Cluster Name:** Select a unique name.

        > ## Important
        > Use the same name in all the **ES Nodes** you install.

    - **Node Name:** Enter your computer name.

    - **Role:** Select **Master** or **Data** as needed and deselect **Ingest**.

        > ## Important
        > Elasticsearch should include at least one Data node and one Master node.

    - **Memory:** Select `~40%` of your available RAM memory and mark **Lock JVM** memory to prevent the **Elasticsearch** memory from being swapped.

    - **Network host:** Enter the server's **Hostname** or **IP Address**.

- **Discovery:** Enter the `(number of master nodes) / 2 + 1`.
  For example, set **2** if there are 3 master nodes in your cluster.

- **Unicast Hosts:** Add all the `master nodes host:port` to your cluster.

> ### Important
>
> If you choose to first install Data, you can configure **Unicast Hosts** later in `C:\ProgramData\Elastic\Elasticsearch\config\elasticsearch.yml`

8. Click **Next > Install**.

9. Verify that Elasticsearch is functioning successfully:

   a. Open your Browser and in the **Address** field type
   `http://<ElasticsearchMachineName>:9200/_cluster/health`.
   Elasticsearch is working as expected if the page opens and the **Status** attribute is green or yellow.
   If the page does not open or the Status attribute is red, contact Genesys Customer Care for assistance.

10. Install **SpeechMiner**. For details refer to SpeechMiner installation.

11. Verify that the Indexer is running and is able to connect to Elasticsearch:

   a. Enter `http://<IndexerHostName>/indexer/api/v1/status`. The Indexer is running and is able to connect to Elasticsearch if you see `isAvailable:true`.

Configure Elasticsearch on Windows

> ### Important
>
> - Edit your Elasticsearch configuration only in rare cases. For example, when adding an additional Master node to the system.
>
> - You can change the Data nodes indexer after the Indexer installation is complete. To do this, change the **esNodes Environment** value in the Indexer machine. You must use the following format: http://ES1:9200;http://ES2:9200;http://smithES2:9200
>
> - The number of shards and replicas are configured in the SpeechMiner database in the **indexParamsTbl** table in the **numberOfShards** and **numberOfReplicas** columns. You must configure the number of shards and replicas before you run UPlatform for the first time.
>
> - If the customer runs a Migration process, the number of shards and replicas should also be configured in the **LuceneToESMigration** tool configuration file.

1. Open `C:\ProgramData\Elastic\Elasticsearch\config\elasticsearch.yml`.

   a. Change the following settings:

      - `cluster.name`

      - `node.name`

- Set **bootstrap.memory_lock** to **true**.

- Set **network.host** as the hostname or the server IP address.

- Set **discovery.zen.minimum_master_nodes** to (number of master-eligible nodes / 2 + 1). For example, if there are three **Master-Eligible** nodes, then **discovery.zen.minimum_master_nodes** should be set to **2**.

- Set **discovery.zen.ping.unicast.hosts** to a list of **Master-Eligible** nodes.

b. By default, a node is a **Master-Eligible** node, a **Data** node and an **Ingest** node.

- To create a dedicated **Master-Eligible** node, add the following settings to the **[node]** section:
  node.master: true
  node.data: false
  node.ingest: false

- To create a dedicated **Data** node, add the following settings to the node section:
  node.master: false
  node.data: true
  node.ingest: false

2. Open **C:\ProgramData\Elastic\Elasticsearch\config\jvm.options**.

a. Change the **JVM heap'** *size to* ~40% *of your RAM memory. For example, if you have 32 GB RAM, ensure that both* -Xmx *and* -Xms *values are set to* 12g. *For example,* **-Xms12g** *and* **-Xmx12g**.

3. Restart the **Elasticsearch** service from the **Services** window to update the settings.

Upgrade Elasticsearch

To upgrade Elasticsearch using the Rolling Upgrades procedure refer to the Elasticsearch website.

See: https://www.elastic.co/guide/en/elasticsearch/reference/5.6/rolling-upgrades.html.

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.

SpeechMiner Silent Installation

A SpeechMiner Silent installation is a method of installing SpeechMiner without user interaction. That is, it is not necessary for the user to direct the installation process.

The SpeechMiner Silent installation bypasses all levels of user interaction by reading instructions that are coded within a `answers.ini` response file.
The `answers.ini` file contains replies to the prompts that the installer would get from the users input in a Wizard installation.

Before you begin a Silent installation, consider the following:

- The Silent installer ignores window errors (for example, "could not open file"). All errors will appear in the installation log located in the installation path.

- All of the options available in the Wizard installation can be configured in the `answers.ini` file. If the installer cannot find this file an error will appear in the log file and SpeechMiner will not be installed.

- The `answers.ini` file is divided into sections. These sections represent the Wizard installation pages.

- The Silent uninstall creates a log file in a directory that is configured by the user. This log contains errors and information about the unistall.

- When installing SpeechMiner, the installation path cannot be longer than 50 characters. A path longer than 50 characters will not enable you to install SpeechMiner.

Important

The **Indexer** component cannot be uninstalled using a SpeechMiner Silent Installation

To perform a SpeechMiner silent installation:

1. Prepare the `answers.ini` file.

   a. Open a text file and save it with the name `answers.ini`.

   b. Enter the following code to determine the SpeechMiner deployment you want to install (for example, an Analytics & Recording deployment):

   [Installation Mode]
   Mode=Analytics and Recording UI
   You can also install a **Recording UI Only** or a **Analytics Only** deployment.

   c. Enter the following list and select the components that should be installed. Only components that have the value **on** will be installed.

   [SMComponents]
   Uplatform=on
   Smart=on

Web=on
SMConfig=on
ULogger=on
Indexer=on
SMUpgrade=on
Interaction Receiver=off
Database=off

d. Enter the supported language list to select the language you would like to install. For the full list refer to
    SpeechMiner Language Support
    Only languages with the value **on** will be displayed.

    [Languages]
    Some lang=on
    Other lang=off

e. Set nodes for the Indexer:

    Enter the following to set several nodes for the Indexer: **Note:** the nodes path here is just an example.
    [SMComponents]
    ```
    Uplatform=on
    Indexer=on
    ```
    [Indexer]
    Nodes=http://esTest1:9200;http://esTest2:9200

    Enter the following to set a single node for the Indexer: **Note:** the nodes path here is just an example.
    [Indexer]
    Nodes=http://esTest1:9200

f. Enter the following database credentials list.
    If the database component **Windows Authenticated User** is set to **off**, the value of each row (that is, field)
    under the component should be empty.
    If the database component **Windows Authenticated User** is set to **on**, only the values in the last two rows
    should be empty.

    [Database]
    Windows Authenticated User=off
    DB Server=<server>
    DB Name=<Name>
    DB User=<User>
    DB Password=<Password>

g. Enter the following general information.
    If the **reboot value** is true, the computer will be automatically restarted after the installation.
    The **uninstall log path** must exist. The path for the uninstall log is the value of uninstall log path.
    If this value is empty, the path will be **C:\Temp**, and the user should verify that **C:\temp** exists. The
    uninstall log name is the value of uninstall log name. If this value is empty, the name will be
    SMuninstLog.txt.

    [General]
    reboot=false

uninstall log path=C:\Temp
uninstall log name=SMuninstLog.txt

h. Save the `answers.ini` file.

9. Open the **Command Line** as an administrator.

a. Run the following command in the folder that contains `SpeechMinerInstall.exe`:

`start "SpeechMinerInstall" /wait "SpeechMinerInstall.exe" /S`

If Indexer is also installed add `/auth=user:password` to the end of the command line. For example: `start SpeechMinerInstall /wait SpeechMinerInstall.exe` /S `/ANSWERS_PATH=C:\SMInstallation /auth=dummy:dummy`. The `user:password` value should be the same values used when you set the authentication for the indexer. See **Step #10** in the Installing the SpeechMiner Components > Installing Using the Wizard.

b. If the `answers.ini` file is not in the same folder as SpeechMinerInstall.exe, add the following to the end of the command:

`/ANSWERS_PATH=<answers file path>`

c. If the installation path is not `C:\Program Files(x86)\Genesys\Software` for a 64 bit machine or in `C:\Program Files\Genesys\Software` for a 32 bit machine, add the following to the end of the command. The installation path must be the last parameter used in the command line and it should not contain quotes (even if the path contains spaces).

`/D=<installation path>`

SpeechMiner is installed successfully.

> **Important**
>
> To uninstall SpeechMiner in Silent mode, run the following command in the `C` folder: `start "uninst" /wait "<uninst.exe path>\uninst.exe" /S` .

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.

- The web application user used to connect to the database must have db_datareader and db_datawriter roles.

- 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

To open SMConfig:

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

    file:Smconfigloginnew.png

2. Select the type of user account you want to use to log into SpeechMiner:

    - **SpeechMiner Authentication:** Use the username: administrator and the password: Enterprise.

    - **Windows Authentication:** Use the username and password you used to log into Windows.

    - **Genesys Authentication:** Use a Genesys username and password.

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

> 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.

file:Smconfiglogin-expanded.png

5. Fill in the fields as follows:

Field	Description
SQL Server Authentication / Windows Authentication	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. **Note:** If you are not sure which option to choose, consult your system administrator.
Server	The name of the database 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.`
Port	The port to use to connect to the database server

Field	Description
	Note: This should normally be left as `<default>`, even if the database is a named instance.
Username	The username to use to connect to the database **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.
Password	The password to use to connect to the database **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
Encrypt connection	If encrypting the connection to the database is optional in your system, select this option to activate encryption. **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. 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.

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

> ### Important
>
> If a user attempts to log into SMConfig with Genesys Authentication, before defining the Configuration Server in the **Sites and Machines** tab, an error occurs.

file:smconfig1.png

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.

Icon	Description
file:Smconfig_checkicon.png	**Success:** Validation of the stage was successful.
file:Smconfig_warningicon.png	**Warning:** Validation of the stage was successful, but some problematic issues were detected.
file:Smconfig_failureicon.png	**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 file:Smconfig_failureicon.png), the entire save process is cancelled. The following screenshots depict examples of each status:

file:Smconfig_successprogress.png

file:Smconfig_warningprogress.png

file:Smconfig_failureprogress.png

To see details about a warning or failure:

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

file:Smconfig_progress.png

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

file:Smconfig_restart.png

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 SMConfig panels.

> ### Important
>
> When you first configure your system:
>
> 1. Update the SMConfig Licenses Panel.
> 2. Save your changes and exit.
>
> 3. Open SMConfig to configure additional panels.

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.

For additional information, refer to the following sections:

- Configuring Sites
- Configuring Machines and Tasks
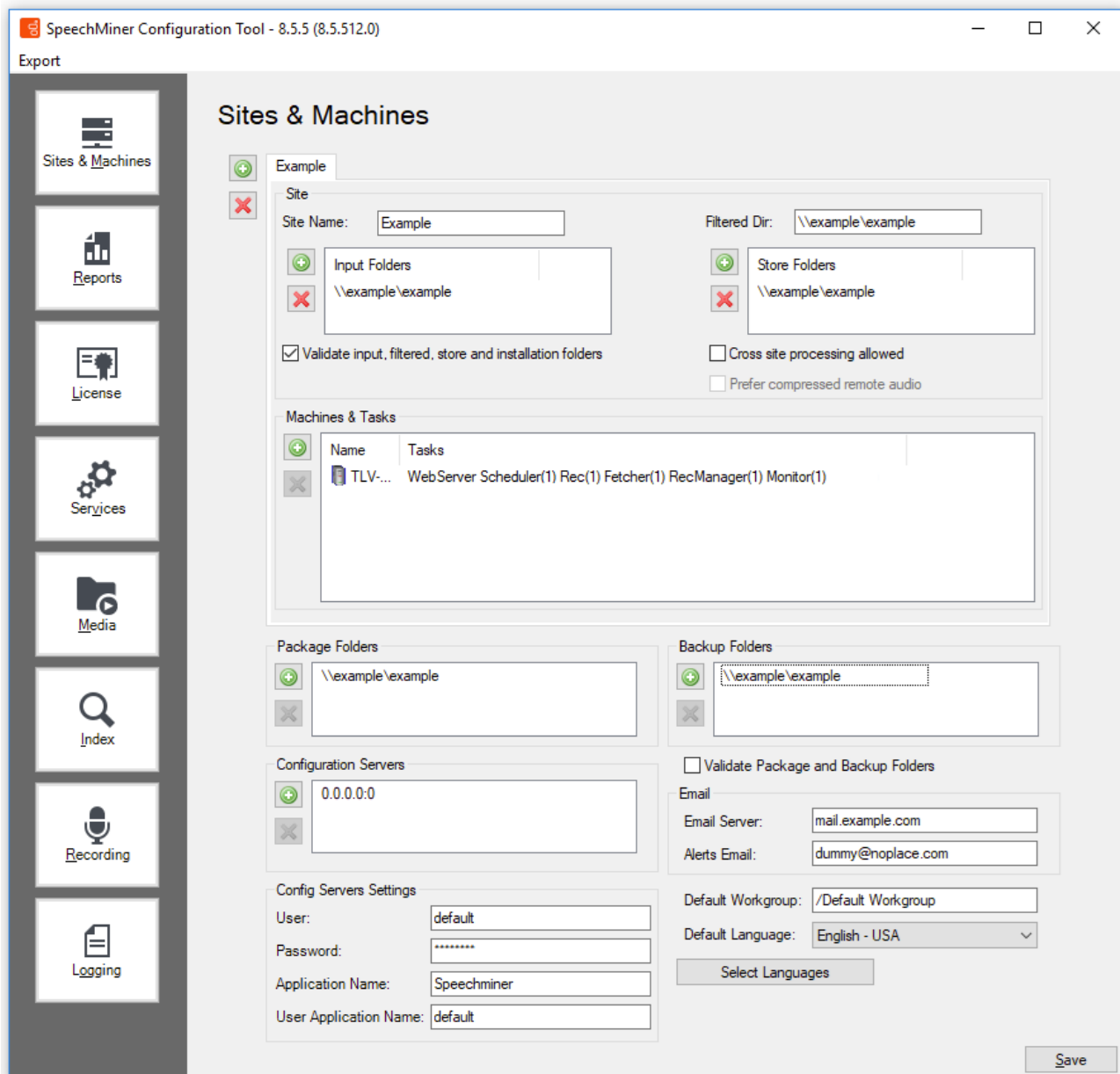
Configuring Sites

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.

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.

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 ![icon] 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`.

Field	Description
Store Folders	Click to 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 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

Field	Description
	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.`
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
Default Workgroup	Enter the default work group. If an interaction is not associated with a work group, the system will assign this work group to the specific interaction. **Note:** The default work group must include a slash (/) at the beginning of the work group name.
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.

Field	Description
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 web-based interface. The interface language is selected in the settings of the Web server, under **Machines & Tasks**.
Configuration Server	If users will use Genesys credentials to log into any of the SpeechMiner components from this site, Click 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 • **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.
Config Server Settings	The following must be configured in the systems Configuration Server: • **Configuration Server Username and Password**: The Configuration Server user and password that SpeechMiner applications should use when connecting to the Configuration Server. Verify that

Field	Description
	the specific user was given read and execute permissions for the tenant object in the configuration server and all its objects in the tenant object hierarchy. • **Application Name**: The prefix for the SpeechMiner applications. For example, if the prefix is 'Speechminer', the Web Server will use the Speechminer_Web and Speechminer_Web_node applications • **User Application Name**: The name of the Configuration Manager application object that will be used to validate user credentials. For details, see Configuring Permissions.

2. 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.

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 system, and thus are not changed when you add an additional 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 . A new tab is added to the site-setting area in the upper part of the panel.

2. Under **Site Name**, modify the name as required. The name of the tab is automatically updated.

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.

> ### Important
> In SMConfig, in the Sites and Machines panel, when the system tasks are saved, warning messages indicate that the system does not include Categorizer and Exploration tasks. These messages can be ignored when

> working in Recording UI Mode, since these tasks are not available in this mode.

Adding Machines to a Site

You can add machines to sites as required.

To add a machine to a site:

1. Under **Machines and Tasks** click ⊕.

2. In the **Properties** window, enter one of the following values for **<machine name>**:

    • Machine Name

    • Machine IP

    • Fully Qualified Domain Name (FQDN)

3. Click **OK**. The machine is added to the list of site machines.

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, 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.

• **Scheduler:** Sends data to the Indexer Service, creates Quality Management (QM) Evaluation Sessions and archives QM.

• **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.

• **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.

- **Monitor:** Enables the monitoring of the selected machine.

Normally, each site will have:

- One Web server

- One or more fetchers

- Several Recognizers, Recategorizers, and Monitors

- One or more Indexer tasks.

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. 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.

Optimizing Exploration Tasks

Optimizing exploration tasks speeds up the data analysis required for the web-based interface Trending. The Exploration task and all its sub-tasks are run simultaneously according to a scheduler mechanism and scheduling parameters (for example, continuously, once every 24 hours, and so on). A general starting point is to define one machine with Exploration. However, when working with a very large data set, having all the sub-tasks on the same machine as the Exploration task can impact performance due to the large CPU/Memory load required. To reduce the negative impact on performance and to avoid a single point of failure and a loss of redundancy, it is recommended that you define the Exploration task on more than one machine. Since the Exploration scheduler supports load balancing the tasks between several machines, there are more hardware resources available for each task and subsequently each task runs faster.
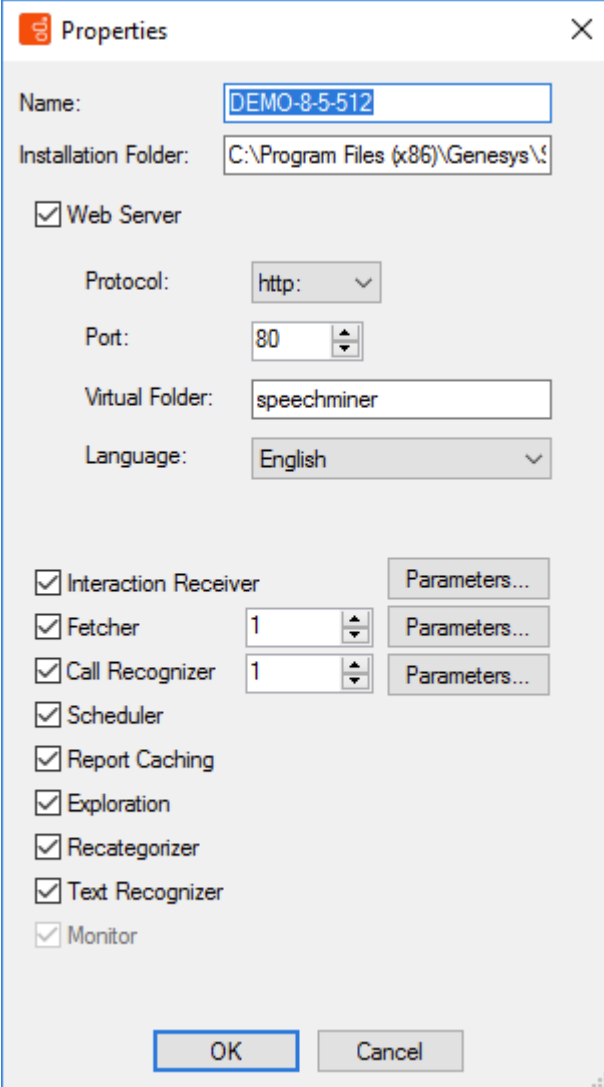
> ### Important
>
> To configure a Trending Cluster Task for a fixed period longer than two weeks, you must change the default purging fragments value. For details, see the Purging Fragments Configuration section in the Additional Configurations page.

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.

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

3. If you selected **Web Server**, select the protocol, specify the port and virtual folder, and select the language of the web-based interface.

> ## Important
>
> - It is recommended that in systems with Analytics the language selected here should be one of the languages selected in the Sites & Machines panel.

- For the language change to take effect you must update the configuration files in the web machines using the Service panel.

4. If you selected **Interaction Receiver**, click the **Parameters** button to its right. In the dialog box, select the protocol and specify the port. If you are working with an Analytics deployment, 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.

6. 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.
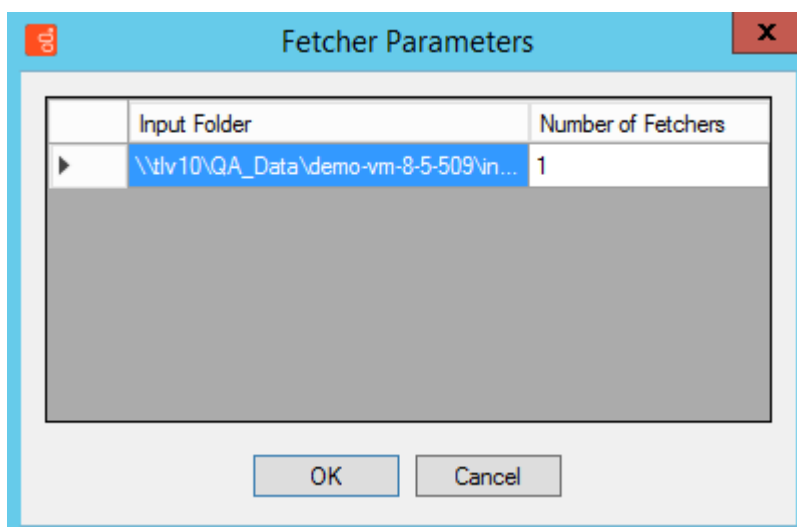
3. Under **Number of Fetchers**, specify how many fetchers should retrieve interaction data from each input folder. Modify the values so that the sum of all the fetchers defined matches the number of fetchers that you specified should run on the machine.

4. Click **OK**.

Configuring the Settings of the Call Recognizers

To configure the settings of the Call Recognizers:
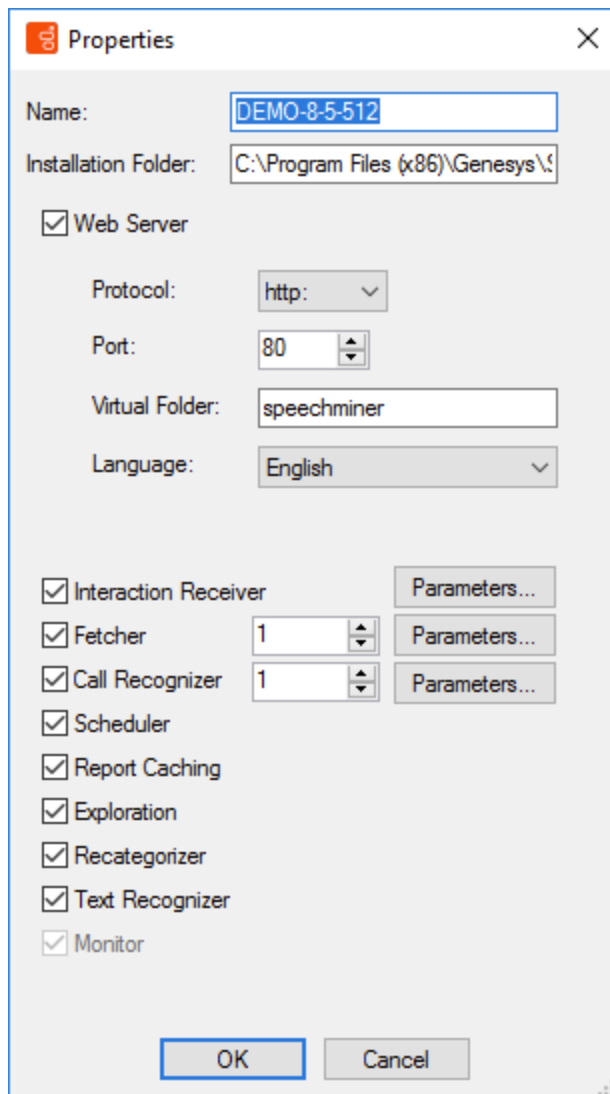
1. To the right of the **Fetcher** checkbox, select the number of Call Recognizers that should run on the machine.

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.
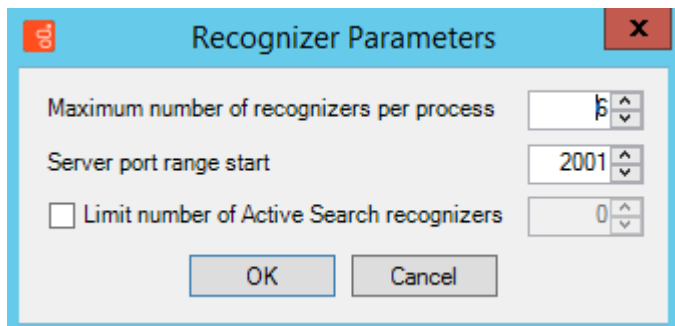
3. Fill in the fields as follows:

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.

4. Click **OK**.

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.

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
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).
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 Folder:** 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

Field	Description
	`<virtual report folder name>_<instance_name>.` **Note:** If you plan to use the report server, select **Validate Report Server**.
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. **Note:** For QM reports it is recommended that the cache setting be set to the minimum amount of 1 minute.
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

Field	Description
	case, select Deploy MRSLibrary, and this option will become available.
Report/Resource	Select the reports you want to deploy on the report server **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.

Configuring Reports on the Secondary Database

Running reports on the secondary database enables you to decrease the load on the main database.

To run reports on the secondary database:

1. Access the `http://<server name>/reports` in the web browser and open the SpeechMiner database folder (that is, the folder with the relevant database name).

2. Open the SME data source and change/add the connection string to the following: `data source=<SERVER_NAME>;initial catalog=<DB_NAME>;applicationIntent=ReadOnly;`

3. Click **Apply**.

4. Restart the **Report Server**.

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.
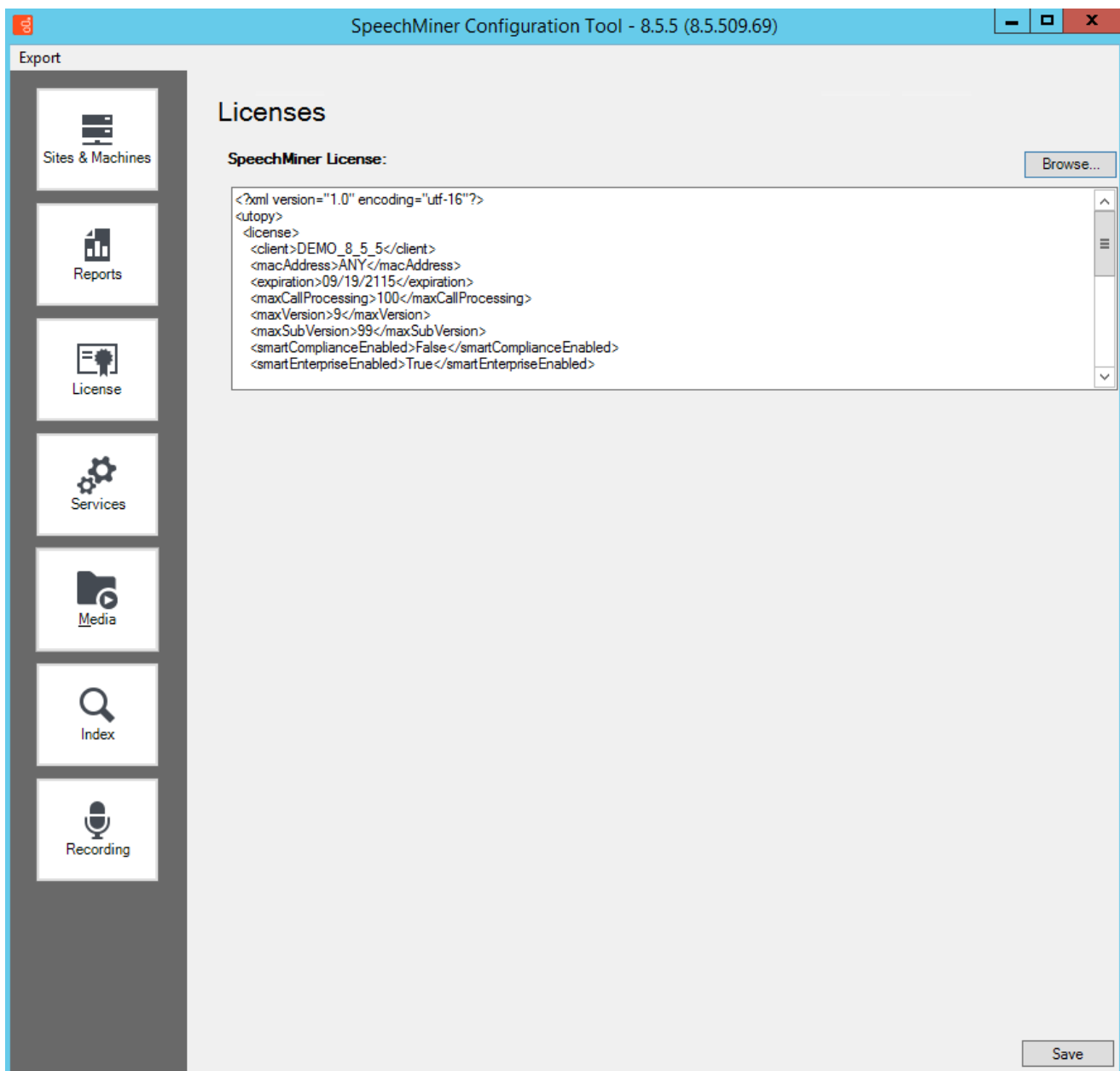
To update the licenses:

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. 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. See: Initial Configuration
- Update the SpeechMiner configuration files on each machine. See: Required Permissions
- Start, restart, and stop services. See: Starting and Stopping the System

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.
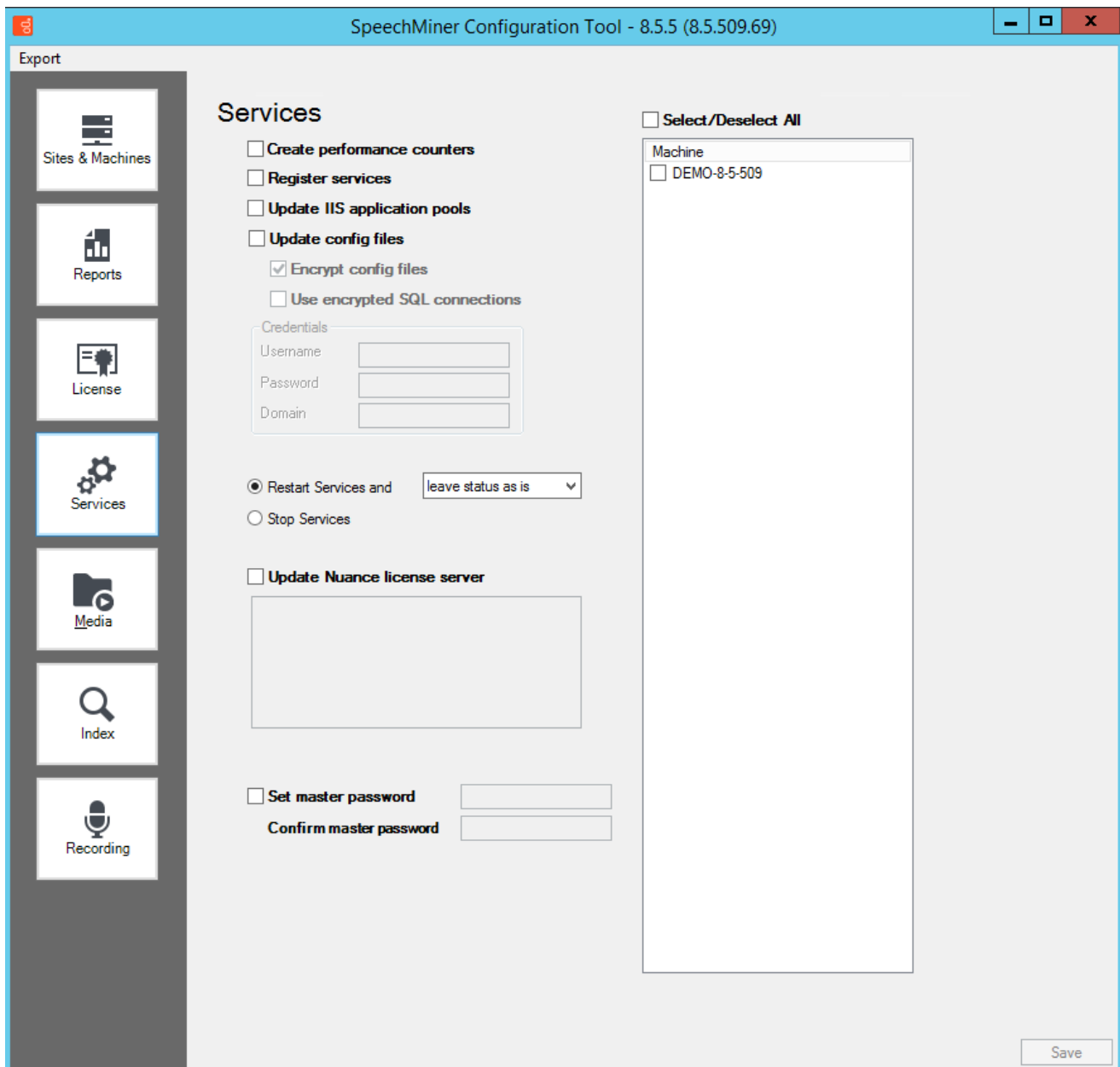
Initial Configuration

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 performance counters	Select this option to configure the performance counters on each of the selected machines. **Note:** Performance counters should normally be configured only once for each machine. 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.
Register services	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 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. 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**.

Field	Description
Update IIS application pools	Select this option to configure the Application Pools identity for SpeechMiner Web and Interaction Receiver. When you select this option, the Credentials area becomes active. Enter the credentials of the Windows user that will run the services.
Update config files	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. • **Encrypt config files** - This option will encrypt the SpeechMiner configuration files in the local system and remote system. • **Use encrypted SQL connections** - This option will start connecting the SpeechMiner database in encrypted mode (SSL). You should use this option only when you use SQL encryption. **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.

Field	Description
	Note: The restart and stop options in this panel should also be used whenever you need to restart or stop any of the SpeechMiner servers (see Starting and Stopping the System).
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.
Set master password	1. Select a machine from the list provided. 2. Select **Set master password** and enter the Master password used in the **Media panel**, so that the platform/web for the selected machine can decrypt audio files.

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 and Windows Server 2012, Power User privileges	Power User privileges should only be used when SpeechMiner services are registered on selected machines. Power User privileges should only be given by an Administrator user.
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

Option	Required Permissions	Additional Details
		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.

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**
>
> You can also toggle between "idle" status and "run" in the SpeechMiner web interface, in the System Monitor page.

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.

Media

Media

The **Media** 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.

> **Important**
> The Media panel is only available in an **Analytics Only** deployment.
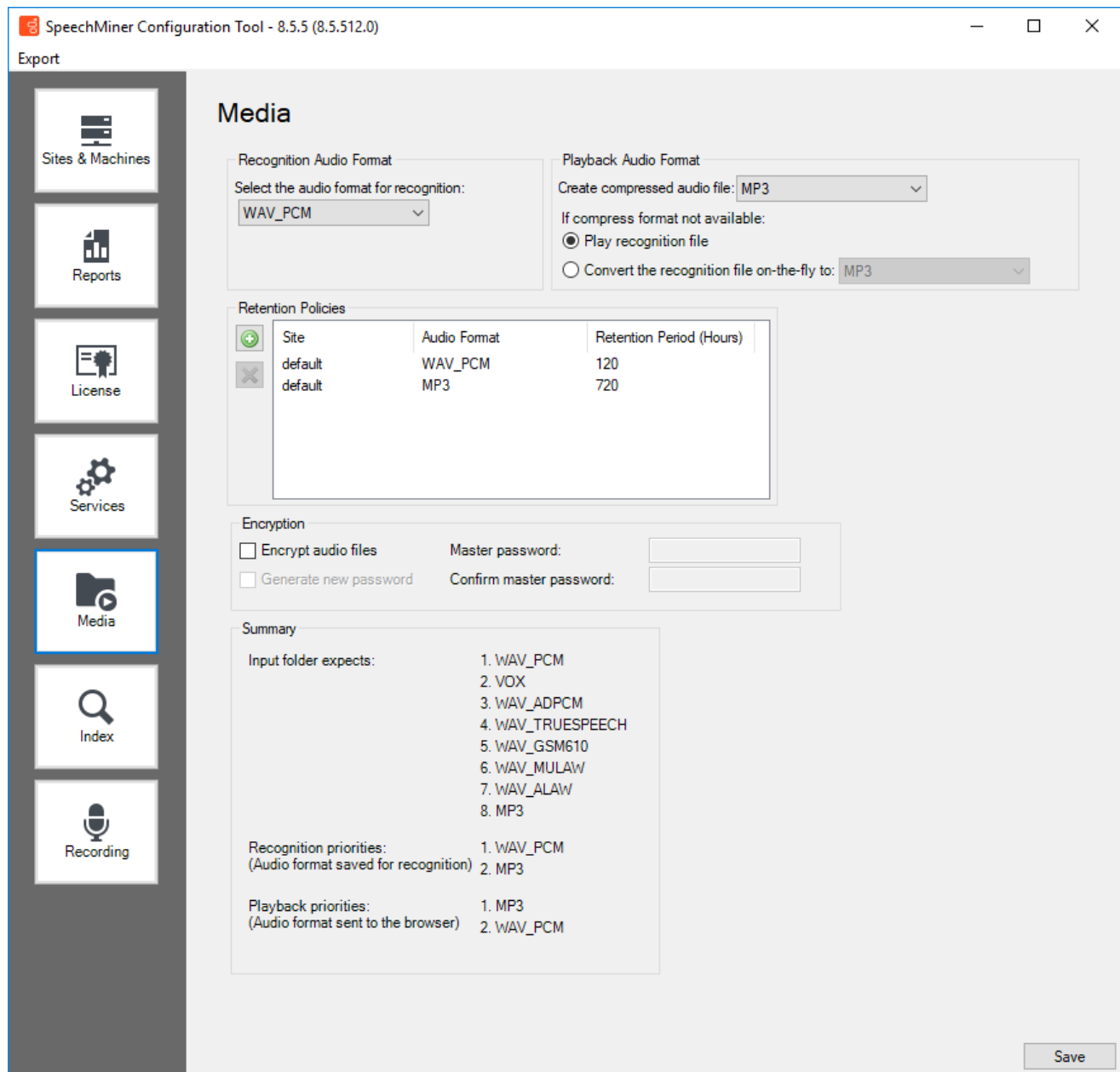
Configuring the Media Settings

The **Media** panel contains the basic audio setting options for the system.

> **Important**
>
> This panel includes the most common audio configurations. If you require a more complex configuration, you must manually define it in the 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 **Media** 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**.
If 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 plays it for the user.

Field	Description
	For Internet Explorer users, select the **Convert the recognition file on-the-fly to MP3** option.
Retention Policies	Specify the retention policy, per site, for each of the audio/text 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 interaction file. 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**. 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

Field	Description
	value should only be used in static systems where the number of calls is limited and does not grow continuously.
Encrypt audio files	Select this option to encrypt the audio/text files. **Note:** • If you do not have a key, **Generate new password** is automatically selected to generate a key. In this case, you must enter a Master password and confirm it. • If you want to generate a new key, select **Generate new password**, enter the Master password and confirm it. The Master password must be the same as the original Master password. The Master password is always the same. • The new Master password is not saved in the database. For that reason, you must save the Master password in a location of your choice. • The Master password is required for the machines selected in the **SMConfig > Services** panel. For additional information, refer to the **Set master password** description in the **Services panel** page.

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

Summary

The **Media** 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

Item	Function	Description
		played back should ideally be in one of these formats.

Index

Index

The **Index** panel enables you to configure the Indexer authentication and service location.
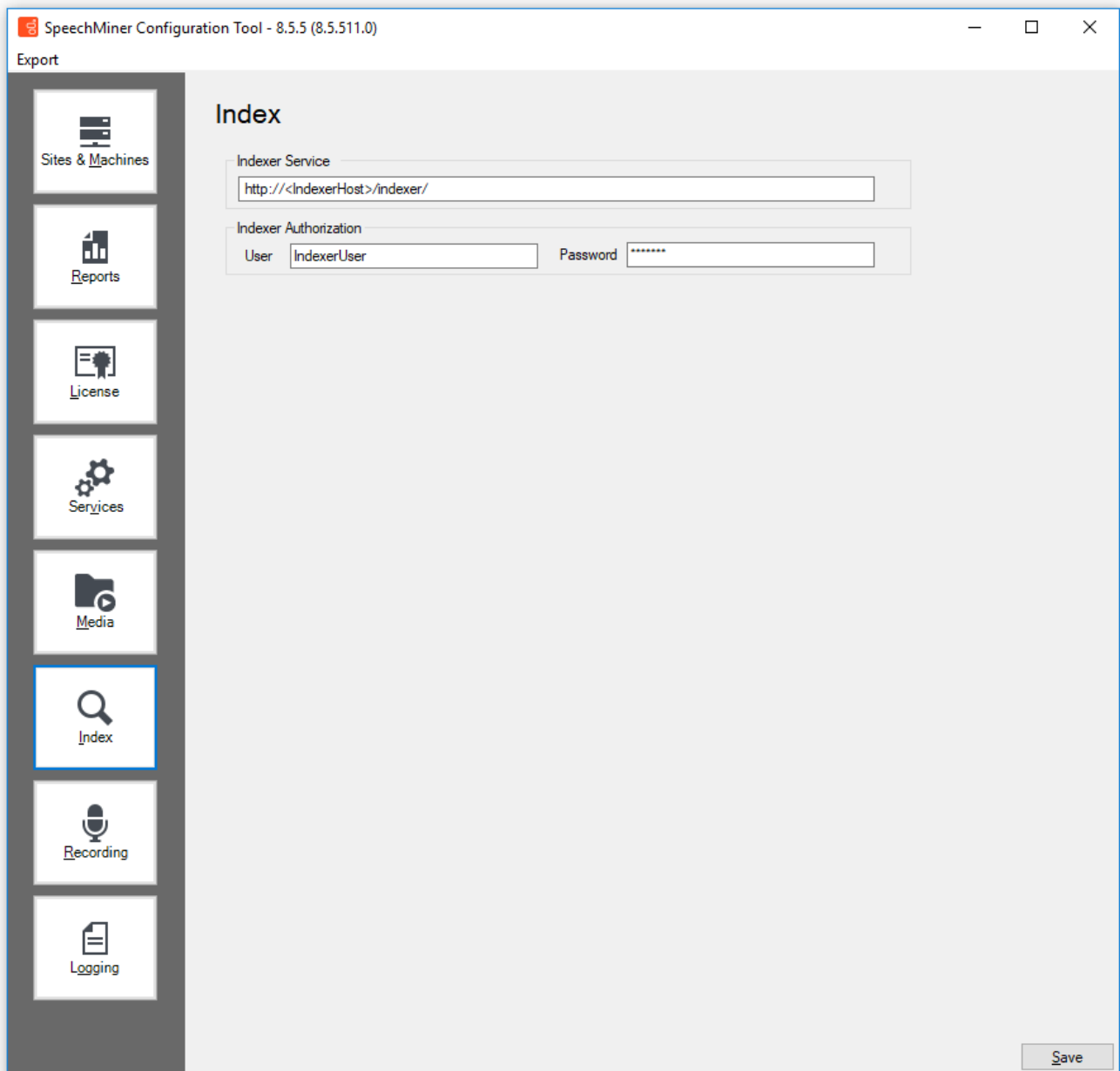
Indexer Service

Enter the Indexer Service with the location at which it was installed (for example, http://<IndexerHost>/indexer/). For additional information see Installing SpeechMiner using the Wizard.

Indexer Authorization

Enter the username and password defined in the **Authentication** tab during the Installing SpeechMiner using the Wizard procedure.

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**: The name of the tenant in the Configuration Server that contains the system configuration.

  - **Update Agents Every # Hours**: Indicates how often agents are updated with new recordings.

- **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**

  ## When working in a 8.5.510 environment [+]

    - Set the **RWS URI** value (when working with tagging, screen recording, encrypted screen recording, get audio),
      using the format: `http://rws_host:port.`

When working in a 8.5.512 environment [+]

- Set the **RCS URI** value using the format: `http://rcs_host:port/rcs`, or `https://rcs_host:port/rcs` (Web Server connection).

- Set the **RWS URI** value (when working with tagging), using the format: `http://rws_host:port`.

- 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 **External RWS URI** value (when working with Screen Recording, Encrypted Screen Recording, and Get Audio), using the format: `http://rws_host:port`, or `https://rws_host:port` (Browser connection).

  If you are not working with Screen Recording, leave the External RWS URI field empty.

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

Logging

Logging

The Logging panel enables you to configure the logging output for the following components:

- **Platform**: manages all the SpeechMiner processing tasks. For example, fetching, recognition, categorization, exploration, compression and indexing.

- **Web**: runs the SpeechMiner web-based interface that enables users to view and work with the interaction data after it has been processed.

- **Client Applications**: SpeechMiner applications such as SMART and SMConfig.

> ### Important
>
> The logging panel is only available when you do not set Configuration Servers. When a Configuration Server is set the logging parameters are taken from the Configuration Server. For details see: Site & Machines > Configuring Sites > Default Site.

For details see the Log Options and Log Output option descriptions below.

Log Options

> **Important**
>
> For applications configured via a configuration file, changes to log options take effect after the application is restarted.

Log Options	Description
check-point	Specifies (in hours) how often the application generates a check point log event, to divide the log into sections of equal time. By default, the application generates this log event every hour. Setting the option to 0 prevents the generation of check-point events. **Default Value**: 1 **Valid Values**: 0-24 **Changes take effect**: after restart
compatible-output-priority	Specifies whether the application uses 6.x output logic. **Default Value**: false **Valid Values**: • **true**: The log of the level specified by Log Output Options is sent to the specified output. • **false**: The log of the level specified by Log Output Options and higher levels is sent to the specified output. **Changes take effect**: after restart
expire	Determines whether log files expire. If they do, Expire sets the measurement for determining when they expire, along with the maximum number of files (segments) or days before the files are removed. This option is ignored if log output is not configured to be sent to a log file. **Note:** If an option's value is set incorrectly (out of the range of valid values) it will be automatically reset to 10. **Default Value**: false **Valid Values**: • **false**: No expiration; all generated segments are stored.

Log Options	Description
	• **\<number> file or \<number>**: Sets the maximum number of log files to store. Specify a number from 1–1000. • **\<number> day**: Sets the maximum number of days before log files are deleted. Specify a number from 1–100. **Changes take effect**: after restart
keep-startup-file	Specifies whether a log startup segment, containing the initial configuration options, is to be kept. If it is, this option can be set to true or to a specific size. If set to true, the size of the initial segment will be equal to the size of the regular log segment defined by the segment option. The value of this option will be ignored if segmentation is turned off (that is, if the segment option is set to false). **Default Value**: false **Valid Values**: • **false**: No startup segment of the log is kept. • **true**: A startup segment of the log is kept. The size of the segment equals the value of the segment option. • **\<number> KB**: Sets the maximum size, in kilobytes, for a startup segment of the log. • **\<number> MB**: Sets the maximum size, in megabytes, for a startup segment of the log **Changes take effect**: after restart
message_format	Specifies the log record headers format used by the application when writing logs in the log file. Using compressed log record headers improves application performance and reduces the log file's size. **With the value set to short:** • A log file header or the log file segment contains information about the application (such as the application name, application type, host type, and time zone), whereas single log records within the file or segment omit this information.

Log Options	Description
	• A log message priority is abbreviated to Std, Int, Trc, or Dbg, for Standard, Interaction, Trace, or Debug messages, respectively. • The message ID does not contain the prefix GCTI or the application type ID. **A log record in the full format appears as follows:** • 2002-05-07T18:11:38.196 Standard localhost cfg_dbserver GCTI-00-05060 Application started. **A log record in the short format appears as follows:** • 2002-05-07T18:15:33.952 Std 05060 Application started **Note:** Whether the full or short format is used, time is printed in the format specified by the time_format option. **Default Value**: short **Valid Values**: • **short**: An application uses compressed headers when writing log records in its log file. • **full**: An application uses complete headers when writing log records in its log file. **Changes take effect**: after restart
print-attributes	Specifies whether the application attaches extended attributes (if any exist), to a log event that it sends to the log output. Typically, log events at the Interaction log level and Audit-related log events contain extended attributes. Setting this option to true enables audit capabilities, but negatively affects performance. Genesys recommends enabling this option for Solution Control Server and Configuration Server when using audit tracking. For other applications, refer to Genesys Combined Log Events Help to find out whether an application generates Interaction-level and Audit-related log events. If such log events are generated enable the option only when testing new interaction scenarios.

Log Options	Description
	Default Value: false **Valid Values**: • **true**: Attaches extended attributes (if any exist) to a log event sent to log output • **false**: Does not attach extended attributes to a log event sent to log output. **Changes take effect**: after restart
segment	Specifies whether there is a segmentation limit for a log file. If there is, it sets the mode of measurement along with the maximum size. If the current log segment exceeds the size set by this option the file is closed and a new one is created. This option is ignored if the log output is not configured to be sent to a log file. **Default Value**: false **Valid Values**: • **false**: No segmentation is allowed. • **<number> KB or <number>**: Sets the maximum segment size (in kilobytes). The minimum segment size is 100 KB. • **<number> MB**: Sets the maximum segment size (in megabytes). • **<number> hr**: Sets the number of hours for the segment to stay open. The minimum number is 1 hour. **Changes take effect**: after restart
time_convert	Specifies the system in which an application calculates the log record time when generating a log file. The time is converted from the time in seconds since the Epoch (00:00:00 UTC, January 1, 1970). **Default Value**: Local **Valid Values**:

Log Options	Description
	• **local**: The time of log record generation is expressed as a local time, based on the time zone and any seasonal adjustments. Time zone information about the application's host computer is used. • **utc**: The log record generation time is expressed as Coordinated Universal Time (UTC). **Changes take effect**: after restart
time_format	Specifies how to represent (in a log file) the time when an application generates log records. A log record's time field in the ISO 8601 format appears as follows: 2001-07-24T04:58:10.123 **Default Value**: time **Valid Values**: • **time**: The time string is formatted according to the HH:MM:SS.sss (hours, minutes, seconds, and milliseconds) format. • **locale**: The time string is formatted according to the system's locale. • **ISO8601**: The date in the time string is formatted according to the ISO 8601 format. Fractional seconds are given in milliseconds. **Changes take effect**: after restart
verbose	Determines whether a log output is created. If the log output is created, Verbose specifies the minimum level of log events generated. The log events levels, starting with the highest priority level, are Standard, Interaction, Trace, and Debug. **Note:** For definitions of the Standard, Interaction, Trace, and Debug log levels, refer to the Framework Management Layer User's Guide, Framework Genesys Administrator Help, or to Framework Solution

Log Options	Description
	Default Value: all **Valid Values**: • **all**: All log events (that is, log events of the Standard, Trace, Interaction, and Debug levels) are generated. • **debug**: The same as all. • **trace**: Trace level log events and higher (that is, log events of the Standard, Interaction, and Trace levels) are generated, but Debug level log events are not generated. • **interaction**: Interaction level log events and higher (that is, log events of the Standard and Interaction levels) are generated, but Trace and Debug levels log events are not generated. Interaction is associated with Information messages. • **standard**: Standard level log events are generated, but Interaction, Trace, and Debug levels log events are not generated. Standard is associated with Warn, Error and Critical messages. • **none**: No output is produced. **Changes take effect**: after restart

Log Output Options

To configure log outputs, set log level options (all, standard, interaction, trace, and/or debug) to the desired types of log output (stdout, stderr, network, memory, and/or [filename], for log file output).

You can use:

• One log level option to specify different log outputs.

• One log output type for different log levels.

• Several log output types simultaneously, to log events of the same or different log levels.

You must separate the log output types by a comma when you are configuring more than one output for the same log level.
The log output options are activated according to the setting of the verbose configuration option.

> **Important**
>
> - If you direct log output to a file on the network drive, an application does not create a snapshot log file (with the extension *.snapshot.log) in case it terminates abnormally.
>
> - Directing log output to the console (by using the stdout or stderr settings) can affect application performance. Avoid using these log output settings in a production environment.

Output Options	Description
all	Specifies the outputs to which an application sends all log events. The log output types must be separated by a comma when more than one output is configured. For example: all = stdout, logfile **Note:** To ease the troubleshooting process, consider using unique names for log files that different applications generate. **Default Value**: no default value **Valid Values**: - **stdout**: Log events are sent to the Standard output (stdout). - **stderr**: Log events are sent to the Standard error output (stderr). - **network**: Log events are sent to Message Server, which can reside anywhere on the network. Message Server stores the log events in the Log Database. Setting the all log level option to the network output enables an application to send Standard, Interaction, and Trace levels log events to Message Server. Debug-level log events are neither sent to the Message Server and are not stored in the Log Database. - **memory**: Log events are sent to the memory output on the local disk. This is the safest output in terms of the application performance. - **file name**: Log events are stored in a file with a specified name. The default path used for all components is C:\Temp\SMLogs. Each component has its own path. You can save the files in a different path of your choice. Make sure the path is absolute (full).

Output Options	Description
	Changes take effect: after restart
trace	Specifies the outputs to which an application sends the Trace level and higher log events (that is, log events of the Standard, Interaction, and Trace levels). The log outputs must be separated by a comma when more than one output is configured. For example: trace = stderr, network **Default Value**: no default value **Valid Values** (log output types): • **stdout**: Log events are sent to the Standard output (stdout). • **stderr**: Log events are sent to the Standard error output (stderr). • **network**: Log events are sent to Message Server, which can reside anywhere on the network. Message Server stores the log events in the Log Database. • **memory**: Log events are sent to the memory output on the local disk. This is the safest output in terms of application performance. • **file name**: Log events are stored in a file with a specified name. You can save the files in a different path of your choice. Make sure the path is absolute (full). **Changes take effect**: after restart
debug	Specifies the outputs to which an application sends the log events of the Debug level and higher (that is, log events of the Standard, Interaction, Trace, and Debug levels). The log output types must be separated by a comma when more than one output is configured—for example: debug = stderr, /usr/local/genesys/logfile **Note:** Debug-level log events are never sent to Message Server or stored in the Log Database. **Default Value**: no default value

Output Options	Description
	Valid Values (log output types): • **stdout**: Log events are sent to the Standard output (stdout). • **stderr**: Log events are sent to the Standard error output (stderr). • **network**: Log events are sent to Message Server, which can reside anywhere on the network. Message Server stores the log events in the Log Database. • **memory**: Log events are sent to the memory output on the local disk. This is the safest output in terms of application performance. • **file name**: Log events are stored in a file with a specified name. You can save the files in a different path of your choice. Make sure the path is absolute (full). **Changes take effect**: after restart
interaction	Specifies the outputs to which an application sends the Interaction level and higher log events (that is, log events of the Standard and Interaction levels). The log outputs must be separated by a comma when more than one output is configured. For example: interaction = stderr, network **Default Value**: no default value **Valid Values** (log output types): • **stdout**: Log events are sent to the Standard output (stdout). • **stderr**: Log events are sent to the Standard error output (stderr). • **memory**: Log events are sent to the memory output on the local disk. This is the safest output in terms of application performance. • **file name**: Log events are stored in a file with a specified name. You can save the files in a different path of your choice. Make sure the path is absolute (full).

Output Options	Description
	Changes take effect: after restart
standard	Specifies the outputs to which an application sends the log events of the Standard level. The log output types must be separated by a comma when more than one output is configured. For example: standard = stderr, network. **Default Value**: no default value **Valid Values** (log output types): • **stdout**: Log events are sent to the Standard output (stdout). • **stderr**: Log events are sent to the Standard error output (stderr). • **network**: Log events are sent to Message Server, which can reside anywhere on the network. Message Server stores the log events in the Log Database. • **memory**: Log events are sent to the memory output on the local disk. This is the safest output in terms of application performance. • **file name**: Log events are stored in a file with a specified name. You can save the files in a different path of your choice. Make sure the path is absolute (full). **Changes take effect**: after restart

SMConfig Console

SMConfig Console

This page describes how to configure SpeechMiner using the command line.

> **Important**
>
> To configure SpeechMiner with the command line you must have SMConfig permissions. You must have the permissions required for logging in and configuring all SMConfig panels.

Before you begin consider the following:

- SMConfig creates an .xml file(s) that contains the details and selections you made in the SMConfig panel(s).

- Instead of configuring SMConfig from scratch every time you deploy SpeechMiner, you can simply run the same .xml file(s) on each environment.

- You can create an .xml file for each SMConfig panel or one .xml file that contains details for all the panels.

- Once the .xml file is created you can change the order in which the panels are configured by simply editing the panel order within the .xml.

- You can edit the .xml file so that it includes any combination and panel order you want. For example, the .xml file can contain the same panel more than once.

- Once the .xml file for the SMConfig panel(s) is created you can modify it for the specific system.
  If the deployment is the same as the previous system deployment you will only need to change the name and system credentials.

- If the command line configuration process fails, the process will stop the execution and it will not continue to the next SMConfig panel.

To configure SpeechMiner using the command line:

1. Export SpeechMiner configuration to an .xml file.

   a. Open **SMConfig** and configure its panels for the environment you are currently deploying.

      See pages above for details.

   b. Click the **Export** button in the SMConfig panel(s) whose details you want to deploy using the command line.

   > **Important**
   >
   > You do not have to click **Save** before you click **Export**.

   c. Select one of the following:

   - **All Panels:** to create an .xml file with all the SMConfig details and selections.

   - **Current Panel:** to create an .xml file with the SMConfig details and selections associated with the specific panel.

- Browse to the location in which you want to save the .xml file.

- Click **Save**.

- Configure SpeechMiner:

  a. Open your command line.

  b. Run the **SMConfigconsole.exe** (in the Installation folder in ...\utopy\tools\bin\release) with the path to the .xml file created in step #1.

  > **Important**
  >
  > To validate the input parameters run SMConfigconsole.exe with -v and the path to the .xml file.

  c. Review the command line results:

Exit Code	Name	Description
0	Success	All of the panels were configured successfully.
1	ExceptionOnConfig	An exception was thrown when configuring a panel.
2	FailedToConfig	The panel could not be configured.
3	FailedToLogin	The login failed.
4	FailedToTeadXML	The process failed to parse the XML.
5	InputMissing	Input is misssing.

A report will be written to the console. The report will include a status for each SMConfig panel.
If the command line results are a success SpeechMiner was configured successfully.

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 popups 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
>
> - To run SpeechMiner 8.5.5 you must use a minimum resolution of 1280X1024. We recommend that you work with a 1680x1050 resolution.
>
> - When working with Internet Explorer 11+, the Online Help documentation may not appear as it should due to your Internet Explorer compatibility view settings. To view the Online Help properly, go to the **Tools** menu, select **Compatibility View Settings** and verify that **Display intranet sites in Compatibility View** is not checked.

Refer to one of the following procedures to configure the browser-based interface:

- Configuring Internet Explorer
- Configuring Chrome

Configuring Internet Explorer

1. In the **Internet Options** dialog box, in the **Security** tab, select **Local Intranet**.
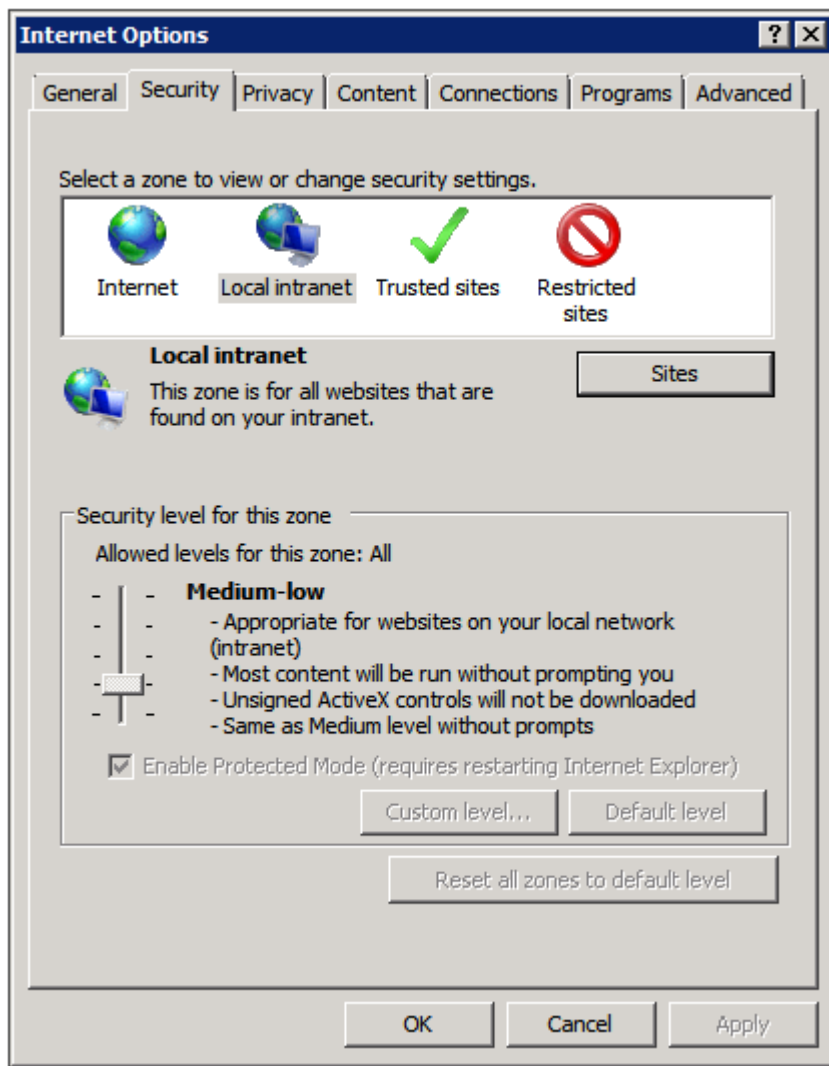
2. Add the SpeechMiner domain to the list of web sites in the **Local Intranet** zone.

3. Click **Sites > Advanced** and add the SpeechMiner web server URL to the list of safe websites. **Note:** This step is not required if you already turned off the Enhanced Security Configuration Feature.

4. Click **Custom Level** to customize the local intranet zone security.

5. Under **Miscellaneous > Access data sources across domains**, select **Enable**.

Selecting Enable makes Screen Recording playback possible because it allows access from the browser to HTCC.
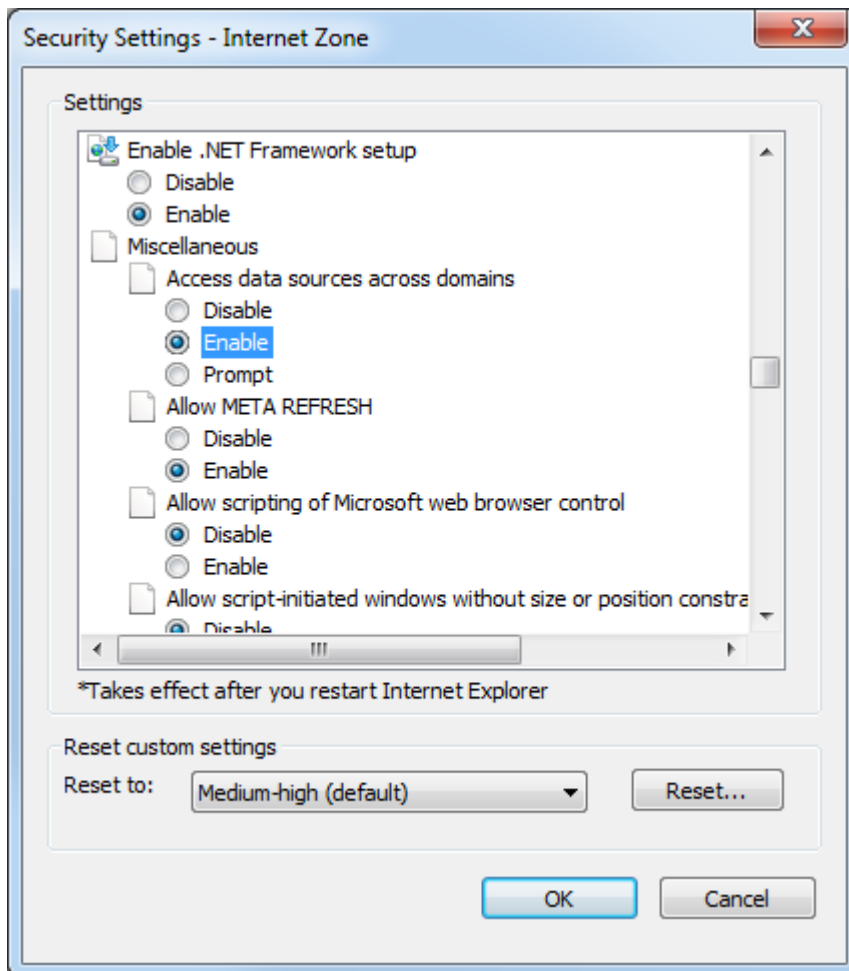
> ### Important
>
> Allowing access from the browser to HTCC is only relevant in a 8.5.512 environment

.

6. In the **Privacy** tab, add the SpeechMiner domain to the list of web sites that are permitted to open popups.

7. In the **General** tab, under **Browsing history**, select **Settings**.

8. Under **Check for newer versions of stored pages**, select **Automatically**.
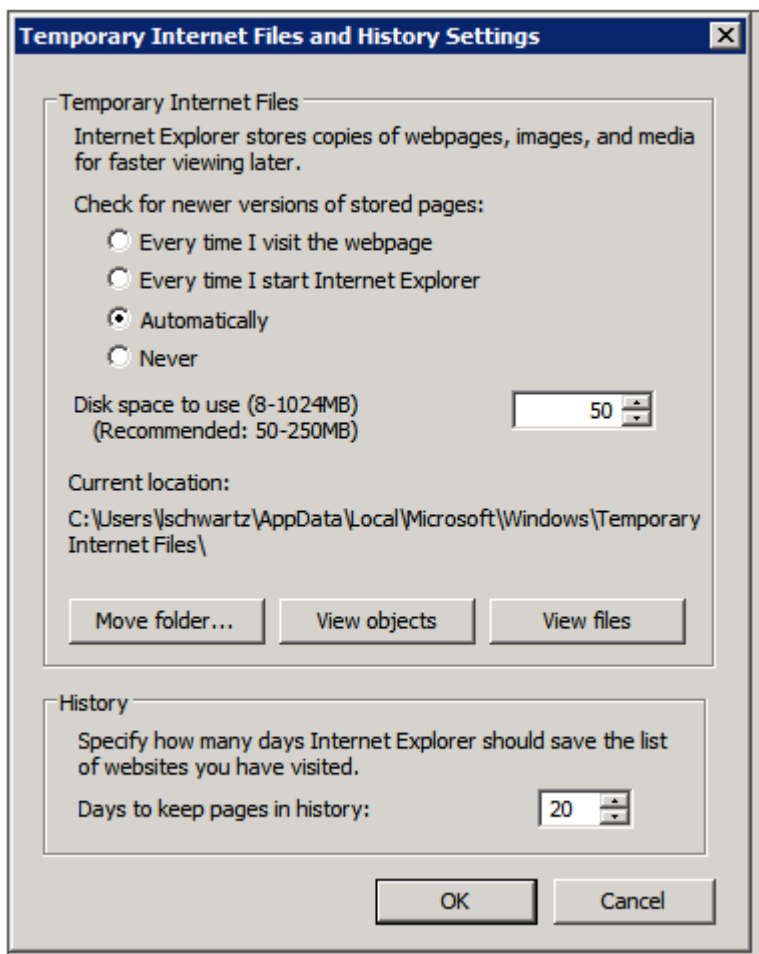
9. Click **OK** to save the changes.

> **Important**
>
> If the SpeechMiner domain is treated as part of the local intranet, **Local intranet** should appear in the **Status Bar** at the bottom of the Internet Explorer window whenever the browser is displaying a SpeechMiner page.
>
> .
>
> In newer versions of Internet Explorer, the same information can be found in **File > Properties**.
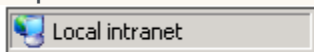
Turning Off the Enhanced Security Configuration Feature on Windows Server 2008

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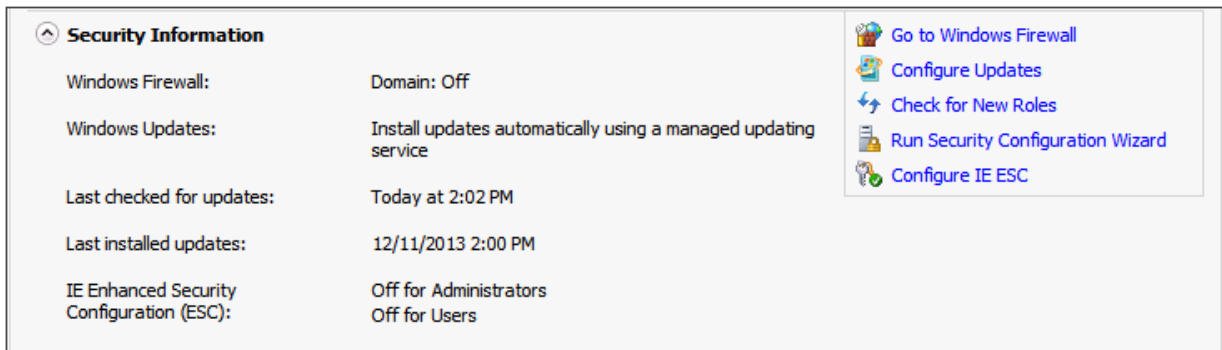
2. If the current settings are not **Off** for **Administrators** and **Off** for **Users**, click **Configure IE ESC**. The **Internet Explorer Advanced Security Configuration** dialog box opens.
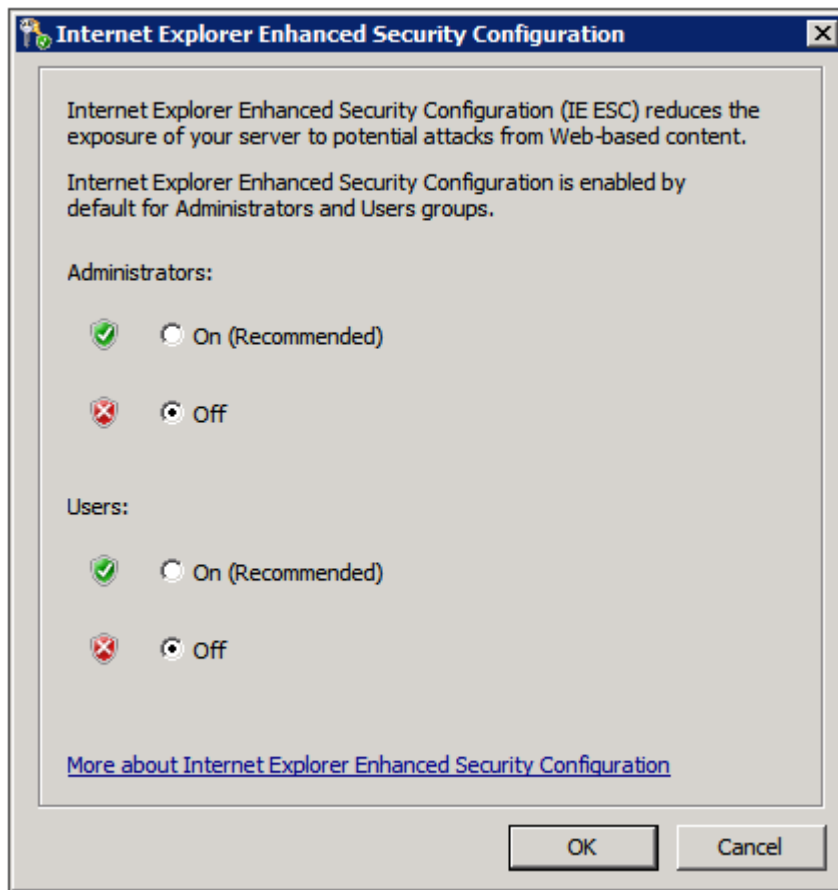
3. For both **Administrators** and **Users**, select **Off**.

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

Turning Off the Enhanced Security Configuration Feature on Windows Server 2012

1. In the **Server Manager**, in the home page (the top level), select **Local Server**.
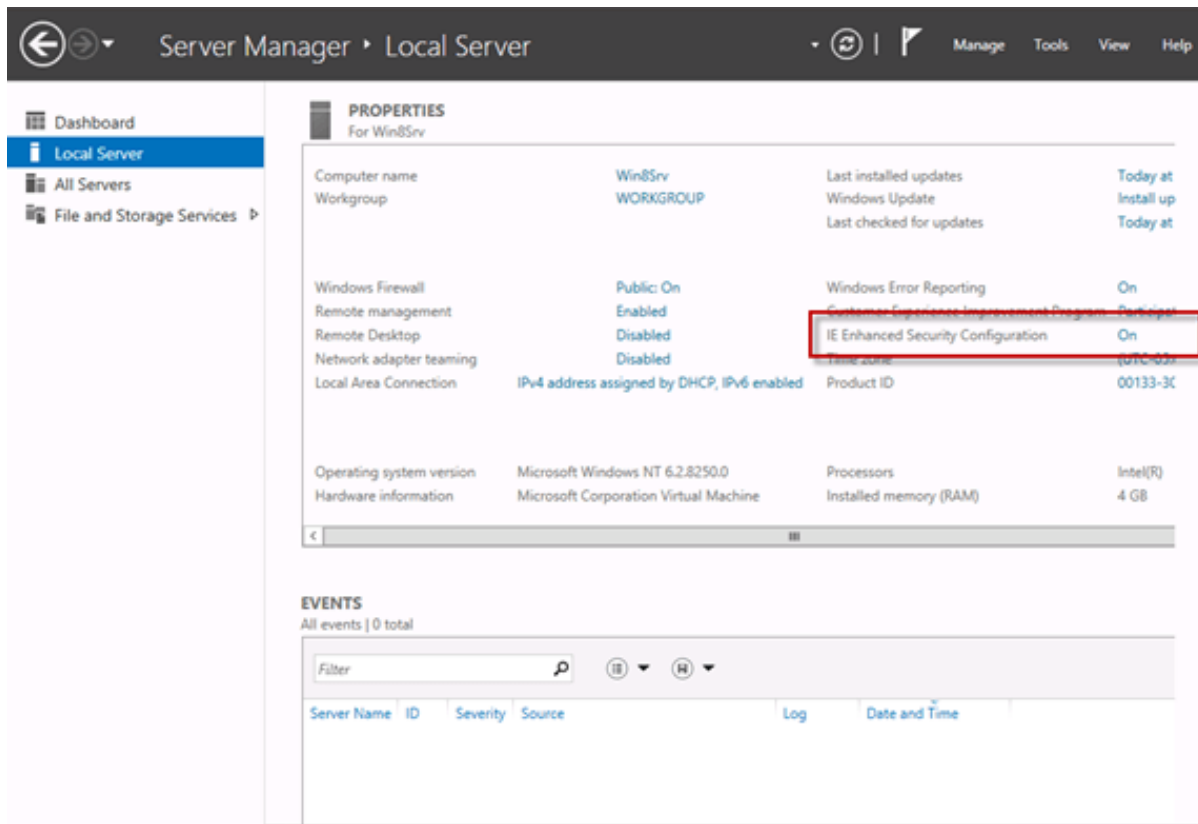
2. In the Server Properties for the Local Server, you will see the option for IE Enhanced Security Configuration. Click **On** to change the option.

3. At this point, you will be prompted with the options to turn off Internet Explorer Enhanced Security Configuration for Administrators and/or Users. For both **Administrators** and **Users**, select **Off** and click **OK**.
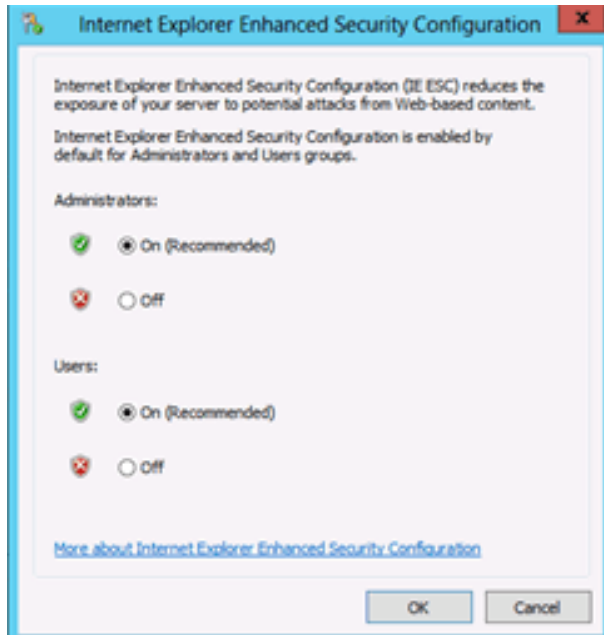
4. Click the **Refresh** button at the top of the Server Manager and the IE Enhanced Security Configuration should now show as **Off**.

Configuring Chrome

By default Chrome disables popups. For this reason, perform the following steps to to configure Chrome to work properly with the SpeechMiner UI:

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

2. Click **Advanced** at the bottom of the page and under **Privacy and security**, click **Content Settings...**.

3. Click **Popups** and verify that **Allowed** is enabled. If it is not enabled click the slide button to enable popups.

4. To allow popups for the SpeechMiner UI site:

    a. Click **ADD** in the **Allow** row.

    b. In the **Add a site** window under **Site** type the address **[*.]genesyscloud.com** in the field provided.

    c. Click **ADD** to add the site to the list of sites from which you allow popups.

> ## Tip
> To quickly enable popups for a specific specific site, click the area to the left of the site address inside the address bar. Select **Allow** from the **Popups** list.

Verify that Java Script is Enabled

1. In the Chrome Browser, navigate to **Chrome Settings > Show Advanced Settings > Privacy > Content Settings**.

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

For more information about enabling Java Script, see the following example https://support.google.com/adsense/answer/12654.

Tone Frequency Configuration

Tone Frequency Configuration

Tone frequencies are used to find non-linguistic events (for example, busy tone, dial tone, and so on). By default SpeechMiner is configured with tone frequencies according to US standards. Other countries may have different frequencies.

To change the tone frequency settings, you must modify the following tone frequency settings in the `NLEParams` table in the SpeechMiner database:

- `DTMF_VECTOR` - touch keys tones

- `BUSYTONE_VECTOR` - busy tone

- `DIALTONE_VECTOR` - dial tone

- `RINGBACK_VECTOR` - ring back tone

> ## Important
> SpeechMiner supports tone frequencies for multiple countries. To add tone frequencies for multiple countries, add additional rows to the NLEParams table. Do not change the remaining fields in the NLEParams table.

Wave Graph Visibility

Set Wave Graph Visibility for Long Recordings

Configuring the '*WaveGraphCallDurationLimit* parameter in the `webServiceParams` table enables you to limit the Media Player wave graph visibility for recordings that do not include Analytics.

It is recommended to limit the visibility to recordings of the Media Player wave graph that are no longer than 30 minutes.

Set the `WaveGraphCallDurationLimit` parameter to 1800 seconds (30 minutes).

Important

If the value of the `WaveGraphCallDurationLimit` parameter is longer than 30 minutes, users may experience performance issues.

Date and Time

Setting the Date and Time

The `webServiceParams` table includes the following parameters for configuring the date and time display:

- **globalDateFormat:** Configures the date format, for example: **MM/dd/yy**

- **globalDateTimeFormat:** Configures the time format, for example: **hh:mm tt**

- **globalDateTimeOffsetFormat:** Configures the timezone format, for example: **+/- nn:nn**

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

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

- German - Germany

- Spanish - Spain

- Spanish - USA

- French - France

- Italian - Italy

- Portuguese - Brazil

Archive Quality Management Evaluation Sessions

Archiving evaluation sessions, enables you to remove completed and expired evaluation sessions no longer needed online, but which must still be accessible at a later date if required. That is, archived sessions will be removed from the session grid, and will only be visible when the user filters to view archived sessions. By limiting the number of sessions that appear, archiving also enables you to maximize performance by minimizing search and filter response times.

There are two types of archiving options:

- **Automatic Archive** - Enables you to schedule archiving after a specific period of time.
- **Manual Archive** - Enables you to select specific sessions to archive.

Automatically Archive an Evaluation Session

Automatic archive is configured per system and after the entire system is installed and configured.

Automatic archive includes 2 tasks, that run on the platform and archive sessions x days after the sessions are completed and/or expired.

To change when Automatic archive is run, you must change the default values for the following parameters in the QMParams table:

- ArchiveCompletedSessionsAfterDays - Represents the number of days that must pass before the system archives sessions that have been completed.
- ArchiveExpiredSessionsAfterDays - Represents the number of days that must pass before the system archives sessions that have expired.

> **Tip**
>
> If the value of each parameter is -1, the automatic archive will not archive sessions.

Manually Archive an Evaluation Session

To manually archive an evaluation session refer to the *SpeechMiner User Manual > Quality Management > Evaluation Sessions > Archive an Evaluation Session*.

Export from Quality Management

Export evaluation and/or session data from Quality Management

To set the maximum number of evaluations and/or sessions from which data can be exported, you must set the following parameters in the `webServiceParams` table:

- Maximum number of evaluations (default 10): `MaxEvaluationsForQMSessionsExport`

- Maximum number of sessions (default 1000): `MaxExportedQMSessions`

Configure the Default Score to 100%

Configure the Default Score to 100%

When performing an Evaluation Session, the **Default scores to 100%** option enables you to turn on/off all the default answers in the forms associated with the the specific Evaluation Session.

When this option is turned on the form score is 100%. Also, when this option is turned on or off, all the information entered up to this point will be deleted.

Once the evaluator chooses to turn on the **Default scores to 100%** option, and subsequently answer all the questions in the form, the evaluator can change the default answers and reduce the score.

To activate the **Default scores to 100%** option in the Evaluation Session page, you must set the following parameter in the `QMParams` table:

- `AutofillSessionFormsByDefault`

    - 0 - Do not activate the **Default scores to 100%** option.

    - 1 - Activate the the **Default scores to 100%** option when an Evaluation Session is opened.

Configure the Quality Management Exactly Value

When creating or editing a new Quality Management evaluation (not including the Calibration Evaluation), you can limit the amount of interactions associated with each Evaluation Session created as a result of the specific evaluation. To do this, you must configure the **Exactly** parameter.

To define the maximum and default values for the **Exactly** parameter, configure the following fields in the **QMParams** table:

- **DefaultExactlyForDistributedInteractionEvaluation** (default = 100)

- **MaxExactlyForDistributedInteractionEvaluation** (maximum = 1000)

- **DefaultExactlyForDistributedAgentEvaluation** (default = 3)

- **MaxExactlyForDistributedAgentEvaluation** (maximum = 30)

- **DefaultExactlyForSharedEvaluation** (default = 100)

- **MaxExactlyForSharedEvaluation** (maximum = 1000)

Media Player Wave Graph

Display Media Player Wave Graph

To display the Media Player wave graph you must set the `WaveGraphVideoRendering` parameter in the `webServiceParams` table to **1**.

> ### Important
> It is not recommended to change this value since doing so will have negative impact on the Media Player's performance when playing a screen recording.

Agent Evaluation Configuration

Agent Evaluation Configuration

To configure the maximum number of agents that can be selected to create a **Distributed Agent Evaluation** session (that is, a nonrecurring evaluation), you must set the `MaxAgentsInOneTimeDistributedEvaluations` parameter in the `webServiceParams` table to a specific value.

The default value is `MaxAgentsInOneTimeDistributedEvaluations = 20`.

> ### Important
> If the value of `MaxAgentsInOneTimeDistributedEvaluations` is set to 0, the Distributed Agent Evaluation session cannot be created as a nonrecurring evaluation. A recurring evaluation can be created.

Configuring Ad Hoc Evaluation Expiry Date

Configuring Ad Hoc Evaluation Expiry Date

To change the default Ad Hoc Evaluation Expiry Date, you must change the `DefaultAdHocExpiration` parameter in the `webServiceParams` table to a specific value.

The default hour value is `DefaultAdHocExpiration = 24`.

Configuring IIS Recycling

Configure Internet Information Server (IIS) Recycling

The IIS default configuraion is a set to a period of 1740 minutes (29 hours). When a recycle is completed, the following system log message appears:

```
A worker process with process id of 'xxxx' serving application pool 'speechminer' has
requested a recycle because the worker process reached its allowed processing time
limit.
```

It is recommend that the recycling configuration of the SpeechMiner's application pool be set to a specific hour during the night, when no one is likely to be working with the system.

To configure the SpeechMiner application pool recycle:

1. Open the IIS Manager.

2. In the **Connections** pane, expand the server node and click **Application Pools**

3. In the **Application Pools** page, select the **SpeechMiner application pool**, and click **Recycling** in the **Actions** pane.

4. Select specific time(s), and in the corresponding box type a time at which you want the application pool to recycle daily (preferably during non-working hours. For example, 00:00 AM). The value that you enter is saved in the configuration based on a 24-hour clock.

5. Verify that **Regular time intervals** is not selected.

6. Click **Next**, select the events that should be logged when an application pool recycles and click **Finish**.

Encrypt Exported Interactions

Request a Password when Exporting Encrypted Interactions

To force the user to enter a password when extracting interactions from a zip file, you must set the following parameter to **True** in the **webServiceParams** table:

- encryptExport

> ## Important
>
> - If `encryptExport` is set to `True`, the user will not be able to export an Interaction List and/or a Saved Search from a Coaching Session.
>
> - To open an encrypted zip file you should not use the Microsoft Windows default zip tool. You must use an external tool.

Limit Export Audio Interactions Size

Set a limit for Exporting Audio Interactions

To limit the total exported audio files size, update the **LimitExportSize** parameter in the **webServiceParams** table.

The LimitExportSize value must be set in megabytes and the recommended limit is up to 1.5 GB.

If a limit is not set for LimitExportSize, the system may timeout when the amount requested for export is too large. When this happens, the export process will be aborted.

> ### Important
> The LimitExportSize configuration is only relevant in an Analytics only system.

Export from a Coaching Session

Export an Interaction List and/or a Saved Search from a Coaching Session

To enable a user to export an Interaction List and/or a Saved Search from a Coaching Session, you must set the following parameter to **False** in the **webServiceParams** table:

- encryptExport

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 `webServiceParams` table.

2. Change the `PasswordRecovery` field from `false` to `true`.

To change the Reset Password link default:

1. Access the `webServiceParams` table.

2. Change the `resetPasswordTokenExpirationTime` field from 4 hours to the amount you prefer and save.

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 `webServiceParams` 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 and save.

Session Timeout

Setting the Session Timeout Value

Web.config includes the following timeout parameter:

Timeout - Determines the period of time, after which the session expires and the user is logged out of the system.

To change the Session Timeout Value:

1. Open the `web.config` file.

2. Go to `<system.web>` under `<configuration>` and add the following line: `<sessionState timeout="enter the # in minutes"></sessionState>`

3. Run **IISReset** in the command line.

> ### Important
> The expiration time is reset when more than half the timeout interval has elapsed. The default `timeout` value is 20 minutes and the minimum value is 5 minutes.

Resource Type

Setting the Resource Type

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

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

The following Resource Types can be enabled/disabled for the Search filter:

- Call
- Email
- Chat
- Free Text
- Social

HTTPS for SpeechMiner

Enable HTTPS for SpeechMiner

The process of enabling HTTPS for SpeechMiner depends on how your system is configured. The following represent three different system configuration scenarios for which HTTPS can be enabled:

- Enable HTTPS for SpeechMiner when Internet Information Service (IIS) is configured with HTTPS.
- Enable HTTPS for SpeechMiner when Load Balancer is configured with HTTPS and IIS is configured with HTTP.
- Enable HTTPS for SpeechMiner when both Load Balancer and IIS are configured with HTTPS.
- Securing SpeechMiner Connections

> ### Important
> The following procedures are intended for a WIndows 2008 Server

Enable HTTPS for SpeechMiner on IIS

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. In the **Add or Remove Snap-ins**, select the **Certificates** snap-in from the list provided and click **Add**. The **Certificate snap-in** window opens.

   e. Select **Computer account** and click **Next**.

   f. Select **Local computer** and click **Finish** and **OK**.

   g. Under **Certificates (Local Computer)**, right-click **Personal, Select All Tasks, Request New Certificates**. The **Certificate Enrollment** window opens:

   h. Click **Next**

   i. Click **Active Directory Enrollment Policy** and **Next**.

   j. Select **Public Web Server with Export** and 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 may be 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 about SSL on IIS 7 can be found here: http://learn.iis.net/page.aspx/144/how-to-set-up-ssl-on-iis-7/

Enable HTTPS for SpeechMiner when Load Balancer is configured with HTTPS and IIS is configured with HTTP

> **Important**
>
> Refer to the **Redirect SpeechMiner URL to Load Balancer** tab in this page to ensure that SpeechMiner is redirected to the correct URL after it times out.

1. Download and install **Microsoft URL Rewrite Module 2.0** for **IIS**.

2. Add the following code to the **web.config** file in side **<system.webServer>**:
    ```
    <rewrite>
    <rules>
    <rule name="HTTPS_AlwaysOn" patternSyntax="Wildcard">
    <match url="*" />
    <conditions>
    <add input="{HTTP_REFERER}" pattern="genesyscloud.com" />
    </conditions>
    <serverVariables>
    <set name="HTTPS" value="on" />
    </serverVariables>
    <action type="None" />
    </rule>
    </rules>
    </rewrite>
    ```

> **Important**
>
> genesyscloud.com should be replaced with your Load Balancer URL.

3. Navigate to **IIS > Select your computer name > Sites > SpeechMiner**.

4. Select **URL Rewrite** and click **Add > Write HTTPS > OK**.

5. Restart **IIS**.

Enable HTTPS for SpeechMiner when Load Balancer and IIS are configured with HTTPS

1. Enable HTTPS for SpeechMiner when Internet Information Service (IIS) is configured with HTTPS.

2. Enable HTTPS for SpeechMiner when Load Balancer is configured with HTTPS and IIS is configured with HTTP.

Securing SpeechMiner Connections

TLS 1.2 Connections

You can configure SpeechMiner to work with TLS 1.2.
SpeechMiner supports all TLS 1.2 connections as long as the server is configured to use TLS 1.2 and the server certificate is trusted.

> ### Important
>
> - When configuring SpeechMiner to work with TLS 1.2, verify that the connection is specified in the client exactly the same as it appears in the certificate.
>
> - To ensure that the SQL server is working with an encrypted connection, the SQL connection must be configured to use a Protocol Encrypted Connection and a Trust Server Certificate. Both of these should be configured in the SQL Native client 11.0 Configuration Manager Properties window.

Configure UPlatform to work with TLS 1.2

For UPlatform to work with TLS 1.2, the name of the ODBC SQL driver should be manually changed in the UPlatform SpeechMiner Configuration file.

1. Install the latest ODBC SQL driver (version 13) in the UPlatform machine.

2. In the clients system, after completing the UPlatform installation, update the **Uplatform.exe.Config** file under **appSettings** the new **ODBC** driver as follows: **<add key="sql_driver_name" value="driver={ODBC Driver 13 for SQL Server};" />**

3. Restart UPlatform.

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**.

2. 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**.

10. 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.

Define Caching Reports

Defining Caching Reports

All Caching tasks are listed in the **ReportCachingParams** and **ReportCachingGlobalParams** tables.

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.

> ### Important
> Caching is only available for Saved reports.

To define a new cache report:

1. Access the **ReportCachingParams** table in the database and insert a new row.
2. Define the following parameters:

Parameter	Description
enabled	1
reportsQuery	The query that retrieves the report id's and the partition strings associated with the report you want to cache.
@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.
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. Access the **ReportCachingGlobalParams** table in the database and define the following parameters:

Parameter	Description
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.

Parameter	Description
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.

4. Log into SMConfig.

5. 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.

6. Click **Edit**.

The following **Properties** window appears:

7. Select **Report Caching**.

8. Click **Ok**.

9. Click **Save**.

10. Select the **Report** tab.

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

11. In the **Set reports caching time (minutes)** field enter **1440** (this number represents 24 hours).

12. Select all the report templates and click **Save**.

13. 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>
...
```

Multiple Language Support for the User Interface

Multiple Language Support for the User Interface

To enable your user interface to display in more than one language perform the following steps:

1. Create a copy of the SpeechMiner web folder (C:\Program Files (x86)\Genesys\Software\utopy\product\WEB).

2. In IIS create an additional SpeechMiner application and select SpeechMiner as the Application Pool.

3. Under **Advanced Settings** change the path of the new physical folder to the new web folder.

4. In the ...\utopy\product\web.config file change en-US to one of the supported languages.
   For a list of the supported languages, refer to SpeechMiner Language Support

Purging Fragments Configuration

Purging Fragments Configuration

By default, recognition fragments are stored in the database for two weeks. After two weeks the fragments are purged.

The default purge value can be configured so that when you create a Trending Cluster Task you can configure a filter criteria for fixed dates older than two weeks.

To change the default purging fragments value, set a different value in the `PurgeFragmentAfterXDays` field in the `CallRecognizer` database table.

Redirect SpeechMiner URL to Load Balancer

Redirect SpeechMiner URL to Load Balancer

After logging into SpeechMiner using Load Balancer, and the SpeechMiner session times out, SpeechMiner may be redirected to the wrong URL.

To verify that SpeechMiner is not redirected to the wrong URL, set the `externalApplicationBaseUrl` in the `webserviceparams` table to the correct Load Balancer URL (for example, http://lb/speechminer).

Once you assure that SpeechMiner is directed to the correct URL you can **Enable HTTPS for SpeechMiner when Load Balancer is configured with HTTPS and IIS is configured with HTTP**. For details refer to the **HTTPS for SpeechMiner** tab in this page.

Configure SMART Show Calls Since Value

Configure Default SMART Show Calls Since Value

The default **Show Calls Since** value can be configured so that users do not have to calculate and change the date themselves.

To change the default **Show Calls Since** value, set the `DAYS_FOR_TOPIC_AUDIT` field in the **SMARTConstants** table.

If you enter values lower or equal to zero or a null value (the default), 1/1/1970 will appear in the field.

If you enter other values, the field will contain the current date minus the value entered in the field (including the current date). For example, if today is November 6th, 2017 and the value is 5, the field will show November 2nd, 2017 and if the value is 1, the field will show November 6th, 2017.

Configure SMART Update Event Value

Configure Default SMART Event Update Value

When a new SMART Strictness value is applied, the **Update Event** value determines the number of previous days from which the system will fetch events to update. If this value is null, all events are updated with the new strictness value.

> Important
>
> When the SMART Event Update value is 0, previous events are not updated.

To change the default **Event Update** value, set the `DAYS_TO_UPDATE_EVENTS` field in the **SMARTConstants** table to # days.

Remove SpeechMiner Metadata Fields

Remove SpeechMiner Metadata Fields

To remove metadata fields from the SpeechMiner Metadata filter perform the following steps for each metadata field you want to remove:

1. Run the following **SQL** command:
   a. delete from `CallMetaExTypes` where fieldName=`'<FIELD_NAME>'`
   b. delete from `callMetaExTbl` where fieldName=`'<FIELD_NAME>'`

2. Mark all the interactions that should be re-indexed by running the following **SQL** command

```
exec dbo.sp_reindexCallsByParams 3,0,0,"
```

3. Restart the **SpeechMiner** platform.

> ### Important
> All of the SpeechMiner fields in the Metadata filter can be removed.

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	For example, `C:\data` - where the `data\input` and `data\filtered` folders are located
Genesys data folders	Sharing	Change	For example, `C:\data` - where the `data\input` and `data\filtered` folders are located
`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.

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.

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

```
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**, set `Modify` permissions to the domain user that SpeechMiner will impersonate (For the SMUSER, see **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.

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:

```
c:\Windows\Microsoft.NET\Framework64\v4.0.30319\aspnet_regiis.exe -ga
"{domain}\{user}"
```

Report Server

Configuring Permissions for the 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**.
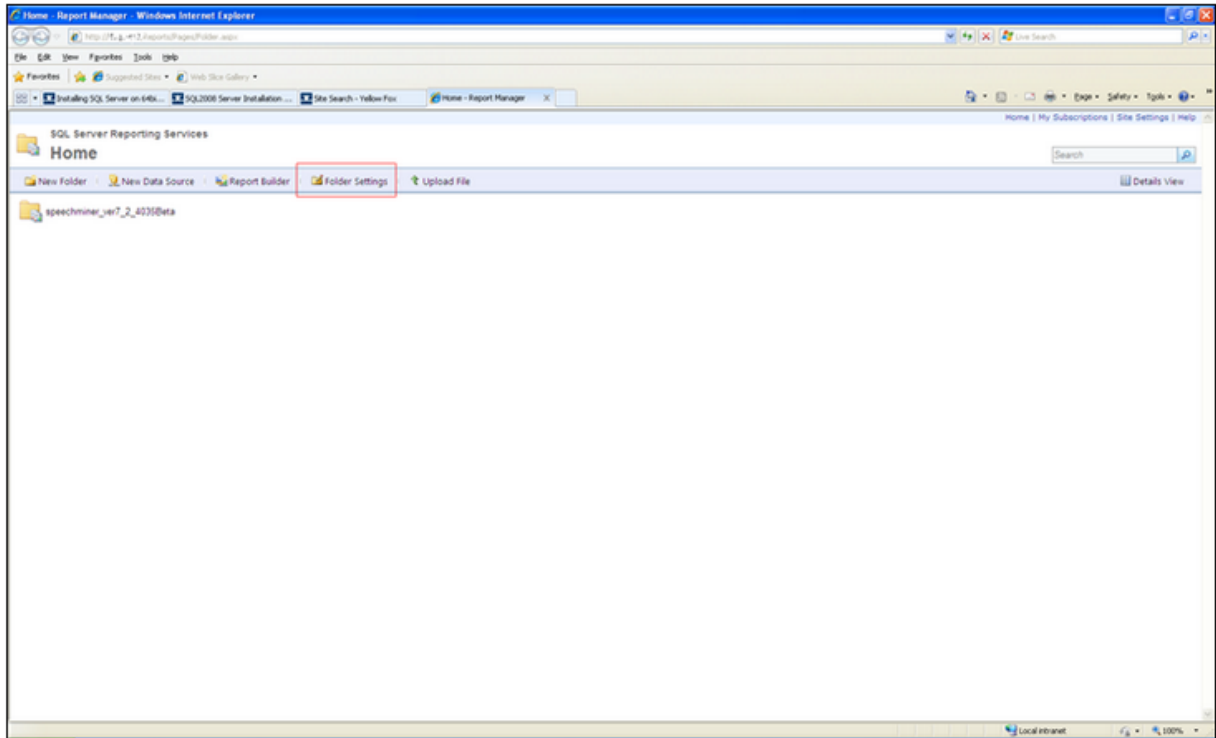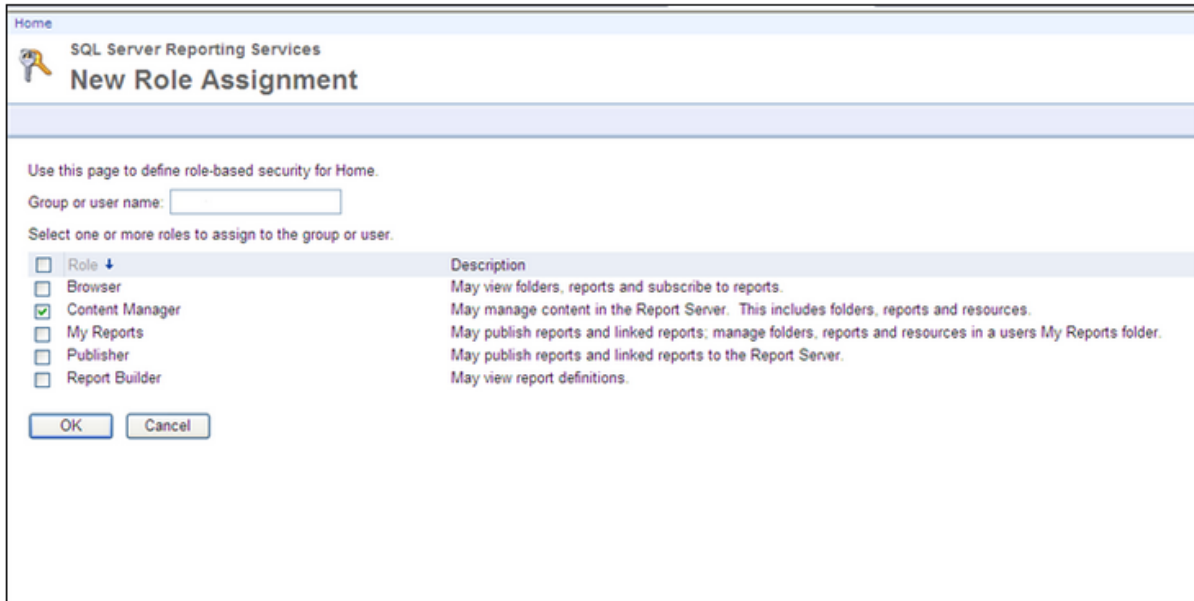
2. Select the **Folder Settings** tab.

> ### 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-reporting-services-login-issue-in-the-february-ctp-of-sql-server-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.

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

Working with ULogger

ULogger is a SpeechMiner tool that lets you view event logs associated with your system.

Before you begin working with ULogger consider the following:

- SpeechMiner logs are written to the Event Viewer and to files saved on your database.

- The SpeechMiner logs that appear in ULogger are the same logs that appear in Event Viewer > Applications and Services Logs > SpeechMiner.

- ULogger enables you to view SpeechMiner logs in a central location.

- ULogger view options conveniently enable you to separate information logs from warning and error logs.

- In Debug mode, the debug logs will not appear in the ULogger. The debug messages will only appear in the log files.

Procedure

1. Right click the ULogger icon and select **Run as administrator**.

    ULogger is opened.

2. Use one or more of the following ULogger options:

ULogger Options	Description
Pause	Click **Pause** ▐▐ to freeze the ULogger scroll bar so that you can read a specific log. Click **Pause** again to unfreeze the scroll bar.
Refresh	Click **Refresh** to reload logs according to the selected view (for example, View last 7 days) and source.
Machine	Indicates the machine for which the logs are created.
Find	Enables you to search for a specific log.
System	Enables you to select the system for which you want to view logs. If the system is only working with one Tenant, SpeechMiner will appear in the field.
Source	Enables you to view logs associated with a specific source: • **All**: view logs for all sources. • **Default**: view logs for components that are not connected to the database (for example, SMConfig before it logs into the database). Or, view logs for one of the components in the list (for example, Interaction Receiver, Uplatform, Web, etc.).

ULogger Options	Description
File Menu	Contains the following two options: • **Refresh**: enables you to view older logs and updated logs for a specific source. • **Clear**: enables you to either erase the logs from ULogger while keeping them in the database or you can completely delete the logs from the system. Click **Yes** to delete the log files from the Event Viewer and **No** to clear the ULogger screen.
View Menu	• **Split View**: divides the screen into two. The left side contains a list of information logs and the right side of the screen contains a list of error and warning logs. • **Merged View**: shows all the logs in one list (that is, information, error and warning logs). • **View All**: shows all the available logs. • **View last 7 days**: updates the screen with logs from the last 7 days. • **View last 24 hours**: updates the screen with logs from the last 24 hours. • **View last 60 minutes**: updates the screen with logs from the last 60 minutes. • **Fore Color**: enables you to change the log font color. • **Back Color**: enables you to change the log background color.

Working with Exploration (Trending)

The SpeechMiner Trending page is designed to help you monitor and analyze terms and phrases within conversations and identify and explore familiar and unexpected trends. To learn more about SpeechMiner Trending refer to the SpeechMiner 8.5.5 User Manual or *Online Help*.

> ## Important
>
> To manage Trending Cluster Tasks, you must be granted the **Manage Trending Cluster Tasks** permission. To learn more about SpeechMiner permissions refer to the SpeechMiner 8.5.5 User Manual.

If you intend to create a custom **Trending Cluster Task**, you must consider the following information:

Maximum Trending Cluster Tasks

By default you can define a maximum of five custom Trending Cluster Tasks. If you have too many Trending Cluster Tasks, your system may not have enough computational resources to handle the required data load.

To change the default maximum Trending Cluster Task number, change the value in the **MaxRunningClusterTasks** field in the **webServiceParams** database table.

Purging

The SpeechMiner default purge value is two weeks. To retrieve recording fragment information that is older than two weeks you must change the default purge value.

For details about how to change this value, refer to the Purging Fragments Configuration section.

Default Cluster Task

By default the SpeechMiner Trending feature includes cluster tasks. These default tasks are not as accurate as custom Trending Cluster Tasks and may exhaust system resources. If you increased the maximum Trending Cluster Tasks value and you do not mind waiting for a higher accuracy rate, and you know you do not require information from the default cluster tasks, you should disable the default cluster tasks so that they do not occupy your resources.

To disable the default cluster tasks, update the **ExplorationTasksParams** table and set the **ParameterValue** column to **false** where **taskid=3** and **ParameterName='generate-defaults'**.

Appendixes

The follow sections provide examples and supplementary information that can help you configure your Genesys Interaction Analytics (GIA) solution.

- Configuring Command Line Availability for SMART

SMART Command Line

SMART Command Line is useful when you are working with a development system and a production system. That is, the command line option enables the administrator to run a command in the production system, that imports and applies SMART programs and topics that were created in the development system. The programs and topics are exported from the development system as a UPF file.

> ### Important
> Before you perform the SMART Command Line, you must first configure which database should be used by the command line.

Configure which database should be used by the SMART Command Line

SMConfig

1. Log into **SMConfig**.
2. Select **Services**.
3. In the Services window, select **Update config files**.
4. Select the computer on which you want to run the SMART Command Line.
5. Click **Save**.

SMART

1. Go to **C:\Program Files (x86)\Genesys\Software\utopy\product\bin\release**.
2. Open `smartc.exe.config` and find the following section:

   ```
     <connectionStrings>
       <add name="web_con_str"
   connectionString="server=[DBServer];uid=[DBUser];pwd=[DBPassword];database=[DBName];Min
   Pool Size=10;Max Pool Size=1000;connection lifetime=10" />
      </connectionStrings>
   ```

3. Replace the code in the square brackets with the correct values and remove the square brackets.
4. Save the `smartc.exe.config` file.

Run the SMART Command Line

1. Open a command line, type `smartc` followed by the parameters you want to use and press **Enter**.

   For example: `smartc.exe [-i file.upf] [-a [-l Yes|No|Cancel]] [-u user -p password [-s|-g]]`

The following is a list of the parameters you can use:

Command	Description
-i file.upf	Import the file.upf file.
-a	Apply changes to production.
-l Yes/No/Cancel	Specify whether or not to unlock locked items.
-u user	User name.
-p password	User's password.
-s	Specify SpeechMiner authentication (default).
-g	Specify Genesys authentication.

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 must be in the original order. Since it's not mandatory, the system does 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" />
  ...
 </parties>
 <subject>SUBJECT LINE</subject>
 <message time="FIRST MESSAGE DATE AND TIME" partyId="FIRST MESSAGE
    SPEAKER ID" displayName="FIRST MESSAGE SENDER NAME">
    FIRST MESSAGE CONTENT
 </message>
 <message time="SECOND MESSAGE DATE AND TIME" partyId="SECOND 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"
   displayName="Agent 1"> How can I help you today?
 </message>
```

```
<message time="2013-04-18T12:10:51" partyId="customer"
  displayName="Customer 1"> I want to change my billing address
</message>
<message time="2013-04-18T12:10:58" partyId="agent"
  displayName="Agent 1"> May I have your account number please?
</message>
  ...
<message time="2013-04-18T12:15:23" partyId="agent"
  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 must 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 PartyID used in the message in the `speakers` configuration. If the PartyID does not exist in the `speakers` element, the `chtx fetcher` will check the `parties` element. If the PartyID is not defined in both places the PartyID 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"
  displayName="Agent 1"> How can I help you today?
 </message>
 <message time="2013-04-18T12:10:51" partyId="customer1"
  displayName="Customer 1"> I want to change my billing address
 </message>
 <message time="2013-04-18T12:10:58" partyId="ag1"
  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>
 </speakers>
</callInformation>
```

Option 1: Supervisor as a speaker - CHTX File

```
<?xml version="1.0" encoding="us-ascii"?>
<chat>
```

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

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

```xml
<?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>
```

Option 2: Supervisor is not a speaker - CHTX File

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

Working with Analytics Interaction Metadata

> ## Important
>
> - The following metadata interaction configuration details are not relevant for Genesys Interaction Recording configuration (GIR).
>
> - Every interaction in the Input folder should contain xml data that provides general information about the interaction (for example, interaction time, speakers, call length, and so on).
>
> - The name of the xml file must be unique and the same as the interaction file name.
>
> - The name of any attachment must be unique.

The xml file must include the following fields:

- **Call / Text Time:** The time the interaction started.

- **Program ID:** The external program name that processes the interaction.

- **Speakers:** The name of the agent and customer that participated in the interaction. This field is not mandatory for social interactions.

- **Audio / Text Format:** The interaction format (for example, eml, chtx, and so on).

- **Workgroup:** The agent's hierarchy. This field is not mandatory for social interactions.

- **Media Type:** The type of text interaction (for example, email, chat, text and/or social). This field is only mandatory and relevant for text interactions.

- **Other:** Metadata field and value characters. The valid metadata field and value characters are alphanumeric, spaces, parenthesis (), and backslash \. This field is only mandatory for social interactions and must include the title, text and url fields.

The following are examples of the structure of the xml files for each interaction type:

Audio Interactions [+]

<source lang="xml" enclose="div"> <?xml version="1.0" encoding="us-ascii" ?> <callInformation>

```
<callTime>2007-05-15T10:54:04</callTime>
 <programID>TESTPROG</programID>
```

```
<audioFormat>WAV_GSM610</audioFormat>
<encryptionKey>1</encryptionKey>
<speakers>
  <speaker id="a2" [startTime=xx] [endTime=yy] speakerType="zzz">
   <workgroup>/W1/W2</workgroup>
  </speaker>
  <speaker ... >
  </speaker>
  .
  .
</speakers>
```

<channels left="Customer" right="Agent" />

Email Interactions [+]

<source lang="xml" enclose="div"> <?xml version="1.0" encoding="us-ascii" ?> <callInformation>

```
  <mediaType>EMail</mediaType>
  <textFormat>EML</textFormat>
 <textTime>2007-05-15T10:54:04</textTime>
  <programID>TESTPROG</programID>
  <speakers>
    <speaker id="a2" speakerType="zzz">
     <workgroup>/W1/W2</workgroup>
    </speaker>
    <speaker ... >
    </speaker>
    .
    .
  </speakers>
  <customerGroupID>custGrp1</customerGroupID>
  <customerID>12345</customerID>
  <originalPath>//machine/folder</originalPath>
  <partitions>
      <partition>/A/B/C</partition>
      <partition>/X</partition>
    .
    .
  </partitions>
  <attachments>
      <attachment>attachment1</attachment>
      <attachment>attachment2</attachment>
  </attachments>
```

<originalInteractionURL>http://www.genesys.com/email.eml</originalInteractionURL>

Chat Interactions [+]

<source lang="xml" enclose="div"> <?xml version="1.0" encoding="us-ascii" ?> <callInformation>

```
<mediaType>Chat</mediaType>
<textFormat>Text</textFormat>
<textTime>2007-05-15T10:54:04</textTime>
<programID>TESTPROG</programID>
<speakers>
  <speaker id="a2" speakerType="zzz">
   <workgroup>/W1/W2</workgroup>
  </speaker>
  <speaker ... >
  </speaker>
  .
  .
</speakers>
<customerGroupID>custGrp1</customerGroupID>
<customerID>12345</customerID>
<originalPath>//machine/folder</originalPath>
<partitions>
    <partition>/A/B/C</partition>
    <partition>/X</partition>
  .
  .
</partitions>
<attachments>
    <attachment>attachment1</attachment>
    <attachment>attachment2</attachment>
</attachments>
```

<originalInteractionURL>http://www.genesys.com/socail.doc</originalInteractionURL>

Social Interactions [+]

<source lang="xml" enclose="div"> <?xml version="1.0" encoding="us-ascii" ?> <callInformation>

```
<mediaType>Social</mediaType>
<textTime>2007-05-15T10:54:04</textTime>
<programID>TESTPROG</programID>
<speakers>
  <speaker id="a2" speakerType="zzz">
   <workgroup>/W1/W2</workgroup>
  </speaker>
  <speaker ... >
  </speaker>
  .
  .
</speakers>
<customerGroupID>custGrp1</customerGroupID>
<customerID>12345</customerID>
<originalPath>//machine/folder</originalPath>
<partitions>
    <partition>/A/B/C</partition>
    <partition>/X</partition>
  .
  .
</partitions>
<attachments>
    <attachment>attachment1</attachment>
    <attachment>attachment2</attachment>
```

```
    </attachments>
```

<originalInteractionURL>http://www.genesys.com/socail.doc</originalInteractionURL>

Text Interactions [+]

<source lang="xml" enclose="div"> <?xml version="1.0" encoding="us-ascii" ?> <callInformation>

```
  <mediaType>Text</mediaType>
  <textFormat>TEXT</textFormat>
 <textTime>2007-05-15T10:54:04</textTime>
  <programID>TESTPROG</programID>
  <speakers>
    <speaker id="a2" speakerType="zzz">
     <workgroup>/W1/W2</workgroup>
    </speaker>
    <speaker ... >
    </speaker>
    .
    .
  </speakers>
  <customerGroupID>custGrp1</customerGroupID>
  <customerID>12345</customerID>
  <originalPath>//machine/folder</originalPath>
  <partitions>
      <partition>/A/B/C</partition>
      <partition>/X</partition>
     .
     .
  </partitions>
  <attachments>
      <attachment>attachment1</attachment>
      <attachment>attachment2</attachment>
  </attachments>
```

<originalInteractionURL>http://www.genesys.com/socail.doc</originalInteractionURL>