Installation V8.0

Required SW/HW for SpeechMiner

Database

- Microsoft SQL Server 2005 with Reporting Services (Enterprise edition recommended for large installations) (SP3 or above)
- Microsoft SQL Server 2008 with Reporting Services (Enterprise edition recommended for large installations) (SP1 or above)

OS

- Servers (DB, Platform and Web): Windows Server 2003, Windows Server 2008 - 32 and 64 bit editions, Windows Server 2008 R2.
- SMART clients: Windows Server 2003, Windows server 2008, Windows XP Professional (SP3 or above), Windows Vista Business 32 bit , Windows 7 Professional 32 bit
- SpeechMiner Users (web access): Windows XP Professional (SP3 or above),Windows Vista Business 32 bit , Windows 7 Professional 32 bit, Windows Server 2003, Windows Server 2008, Windows Server 2008 R2.

Browser

For all browsers SpeechMiner application does not require JAVA, .NET framework or ActiveX.

- Internet Explorer (IE) 7
- Internet Explorer (IE) 8
- Internet Explorer (IE) 9

Memory (RAM)

- DB Server: 4GB - 32GB
- Web Server: 4GB
- SMART client: 1 GB/2 GB Minimum/Recommended
- Platform server: 4GB-8GB (1GB per recognizer task as a rule of thumb)

General

- SMTP support: SMTP server with permissions to send emails (used for emailing reports to SpeechMiner users)
- Microsoft .NET Framework 3.5 SP1

What is installed

On all Platform servers

- UPlatform service - 20MB disk space for entire runtime folder (+ ~10 GB for recognition packages caching. depends on implementation size)
- On the Recognition server(s) - Recognition Engine ~1GB disk space

On the DB server

- MS-SQL 2005/2008 Server (normally installed beforehand). **Must include MS Reporting Services**
- SpeechMiner Database – initial size is about 20 GB, It may grow depending on call volume and call purging policy.
- SpeechMiner Index - Initial size is about 20 GB, It may grow depending on call volume and call purging policy
- UConnector service - 20MB disk space for entire runtime folder. To integrate with recording systems with very high call volume, a larger (10-200GB) storage area is needed for temporary files, or in some cases a separate server.

On the Web server

- SpeechMiner virtual folder - 20MB (+ space for cached reports and call audio, depending on user activity)

On a user machine running SMART

- Recognition engine - 1GB disk space
- SMART executable and runtime files (.dlls)

Required Credentials and Permissions

- Functional ID (domain user) with Power Users (and Performance Monitor Users, where applicable) privileges on the machines running

CONFIDENTIAL. Copyright © 2012, UTOPY Inc. All rights reserved.

SpeechMiner (UPlatform.exe). This user is used as the credentials for the registered SpeechMiner service. (SMUSER)
- Add SMUSER to "Power Users" group and "Performance Monitor Users" group, if it exists (on each computer)
- Give SMUSER "modify" permissions on (Security tab of a folders properties)
  - UTOPY installation folder (c:\utopy) (where UTOPY installation exists)
  - Utopy data folders (e.g. C:\data) (where data\input and data\filtered exist)
- On data folder: in the sharing tab - > permissions - > add SMUSER with "change" permissions
- Add SMUSER as "content manager" in the reporting server (//webhost/reports properties)
- Give access permissions to SMUSER to the IIS metabase and other directories used by ASP.NET. To do this, an administrator can run:

```
aspnet_regiis.exe -ga "{domain}\{user}"
```

- Functional ID UConnector
  - Have read permissions on the recording system shared folder (Note: it is possible to use SMUSER, no need for dedicated domain user).
  - Have read/write permissions to SpeechMiner data\input folder
- SMART Users (Any user that will run SMART)
  - Read/write access to UTOPY installation folder (c:\utopy)
  - Read/Write access to the "Package Root Path" (see SMConfig documentation)
  - Read/Write access to the Nuance installation folder, for ex: C:\Program Files\Nuance
  - Permission to use .net encryption. To add this, an administrator can run:

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

Installation files Check List

Provided by customer

- Windows Installation Media
- Microsoft SQL Server Installation Media

Provided by UTOPY

- SpeechMiner setup
- Licenses

⚠ Compare existing hardware to the original hardware specifications

Prerequisites

1. **Space check**
   Make sure there is more than 2 GB of free disk space on the hard drive where you are planning to install.
2. **OS Check**
   Verify that all machines have supported operating system.
3. **Machines connectivity & admin user**
   Verify all machines are functional and connected to the network and that the installing user account is an administrator on all of them.
4. **Adding operational windows user to Power User group**
   Add the designated windows user (operational user) that will run the SpeechMiner services to the Power Users group of all machines.
5. **.NET Framework**
   Install on all machines Microsoft .NET Framework 3.5 SP1 (can be downloaded directly from MS at http://download.microsoft.com/download/2/0/e/20e90413-712f-438c-988e-fdaa79a8ac3d/dotnetfx35.exe).

   ⚠ **Windows Server 2008 R2**
   In Windows Server 2008 R2, the .NET Framework is a feature and installing it is different than on older versions of the Windows Operating System. In previous versions, one could either download the .NET Framework 3.5.1 install binaries from the link above. Starting with Windows Server 2008 R2, the method of installing .NET Framework 3.5.1 has changed. Follow this link http://support.microsoft.com/kb/2027770 for explanation how to verify that .NET Framework 3.5.1 is installed and if it is not installed how you can add it.

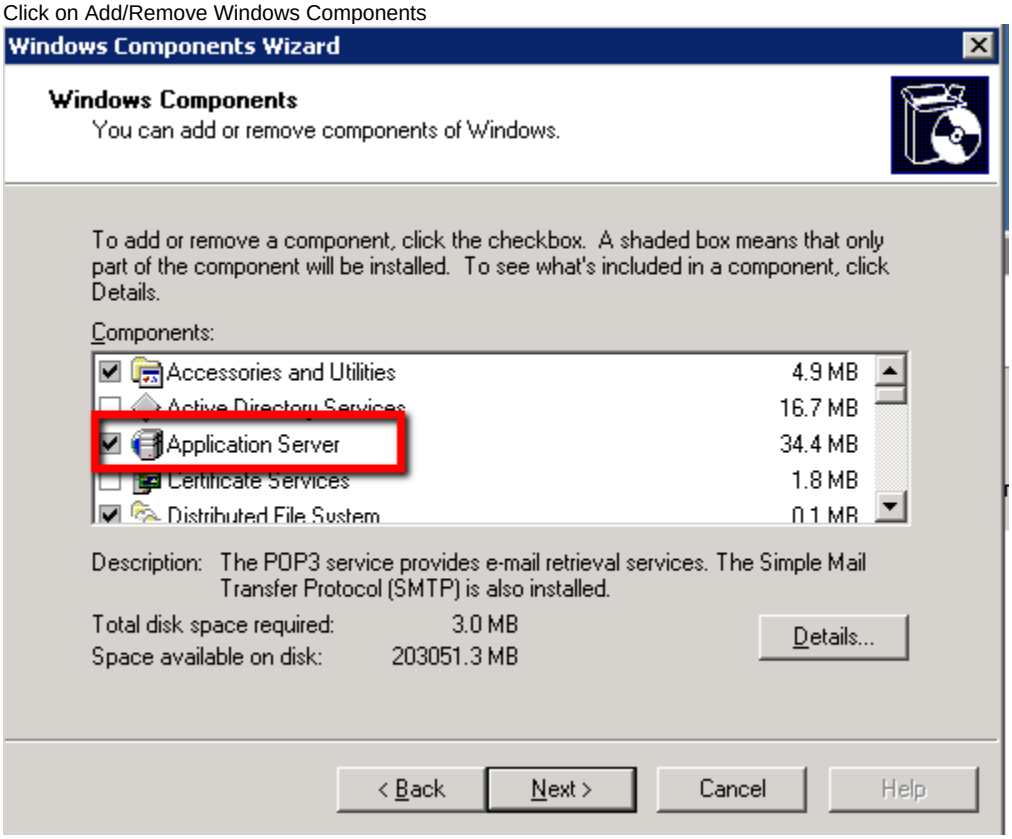
6. **SQL Server installation**
   Microsoft SQL Server 2005 with Reporting Services (follow instructions at SQL2005 Server Installation and Configuration for SpeechMiner)or Microsoft SQL Server 2008 with Reporting Services (follow instructions at SQL2008 Server Installation and Configuration for SpeechMiner)

CONFIDENTIAL. Copyright © 2012, UTOPY Inc. All rights reserved.

7. **IIS configuration on Web app machine**
   Make sure Internet Information Server component is installed and operational. Make sure you complete all the following steps:

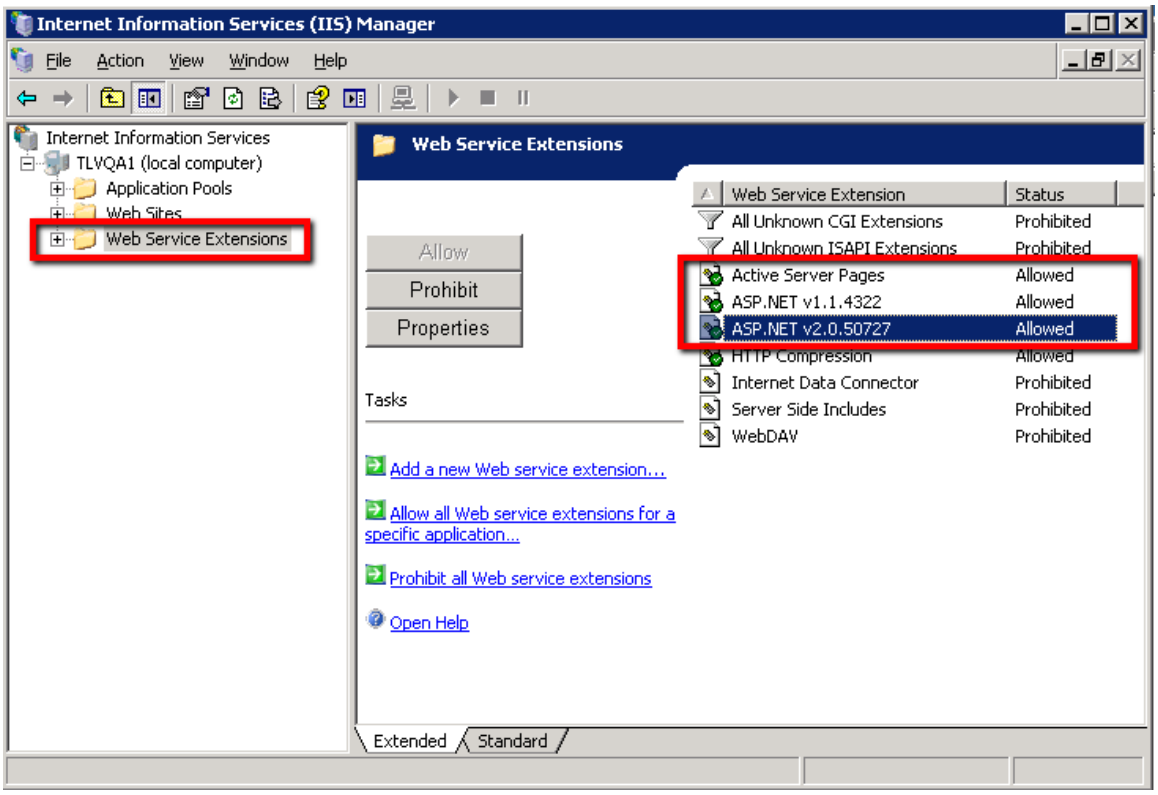
   Windows Server 2003:

   a. In Control Panel open Add or Remove Programs
   b. Click on Add/Remove Windows Components



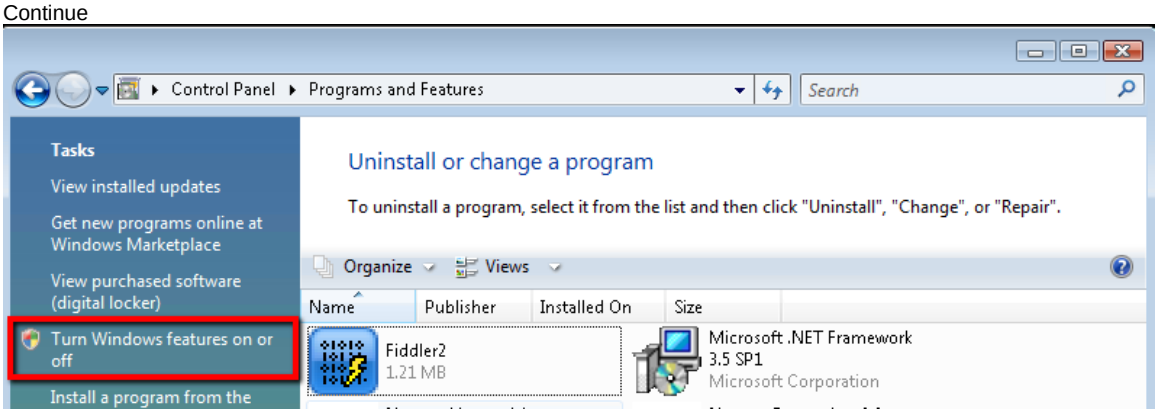
   c. Click Next and Finish to complete the installation
   d. When the installation is completed open Internet Information Services Manager (Start -> Run and type inetmgr)
   e. Click on Web Service Extensions
   f. Make sure that ASP.net and ASP are set to "Allowed"

CONFIDENTIAL. Copyright © 2012, UTOPY Inc. All rights reserved.



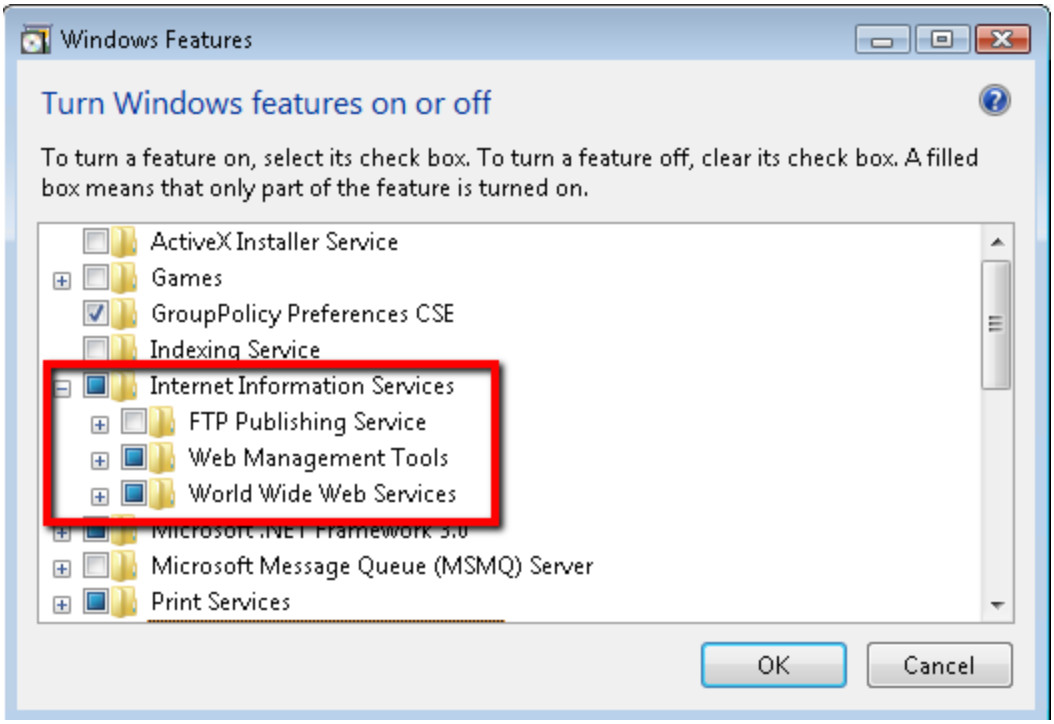
Windows Vista & Windows 7:

a. In Control Panel click on Programs and click on Turn Windows features on or off. If the User Access Control dialog appears click Continue



b. Expand Internet Information Services, make sure that the following items are selected:
   - Web Management Tools
   - World Wide Web Services

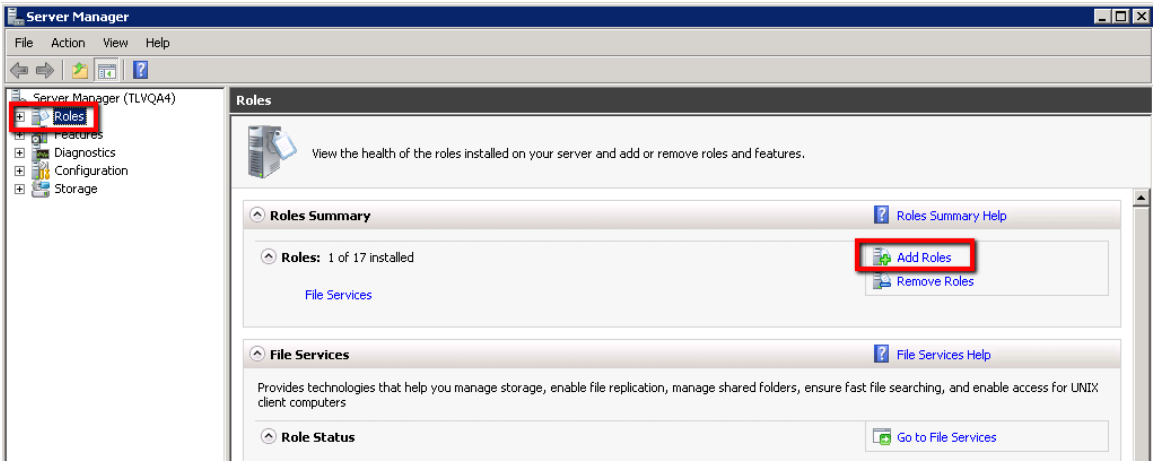
CONFIDENTIAL. Copyright © 2012, UTOPY Inc. All rights reserved.



c. Expand World Wide Web Services, make sure that the following items are selected:
   i. Under Common HTTP Features:
      - Static Content
      - Default Document
      - Directory Browsing
      - HTTP Errors
      - HTTP Redirection
   ii. Under Application Development Features:
      - ASP.NET
      - ISAPI Extensions
      - ISAPI Filters
   iii. Under Security:
      - Windows Authentication
d. Expand Web Management Tools, expand IIS 6 Management Compatibility, make sure that the following items are selected:
   - IIS 6 WMI Compatibility
   - IIS Metabase and IIS 6 configuration compatibility
e. Click OK to complete the installation

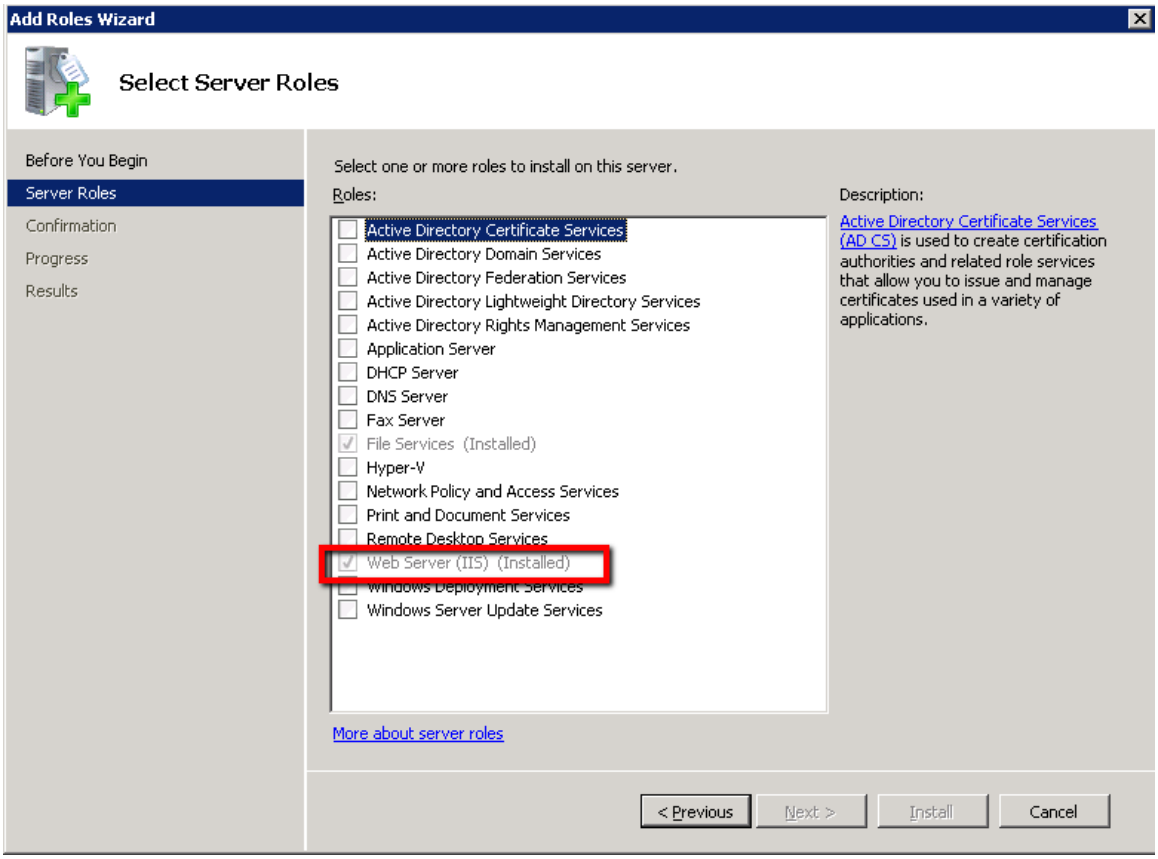
Windows Server 2008:

a. Click Start Menu -> All Programs -> Administrative Tools -> Server Manager.
b. Select Roles and click on Add Roles

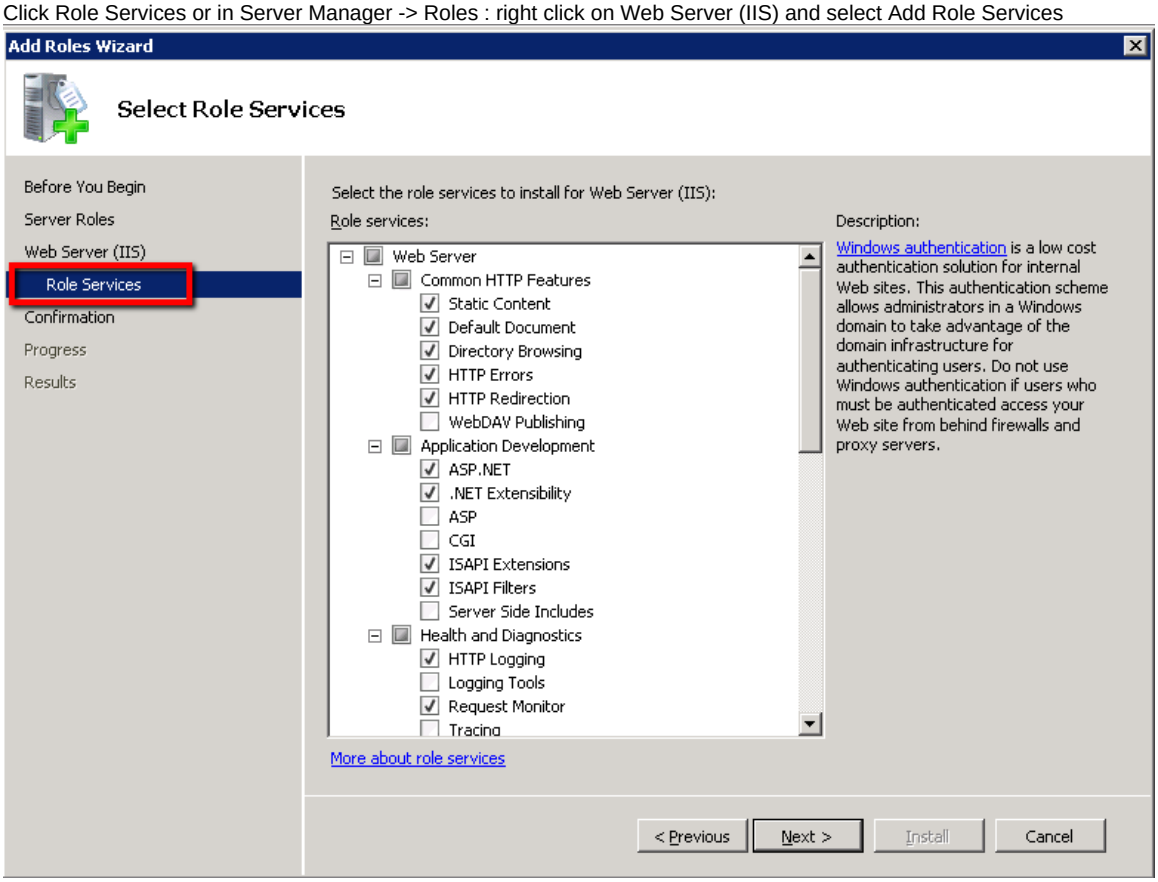


c. In the wizard select Web Server (IIS), in the popup dialog click Add Required Role Services

CONFIDENTIAL. Copyright © 2012, UTOPY Inc. All rights reserved.



d. Click Role Services or in Server Manager -> Roles : right click on Web Server (IIS) and select Add Role Services



e. Make sure that the following items are selected:
    i. Under Common HTTP Features:
        - Static Content
        - Default Document

CONFIDENTIAL. Copyright © 2012, UTOPY Inc. All rights reserved.

- Directory Browsing
- HTTP Errors
- HTTP Redirection

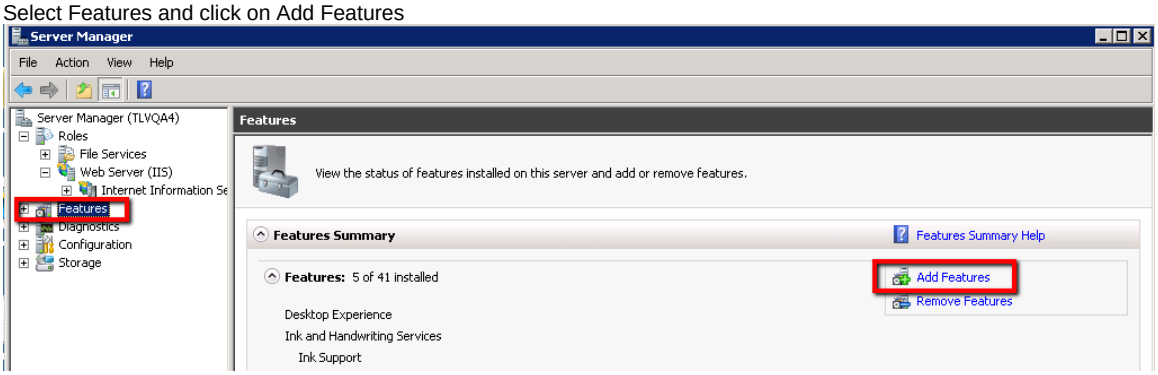
ii. Under Application Development:
- ASP.NET
- ISAPI Extensions
- ISAPI Filters

iii. Under Management Tool:
- IIS 6 WMI Compatibility
- IIS 6 Metabase compatibility

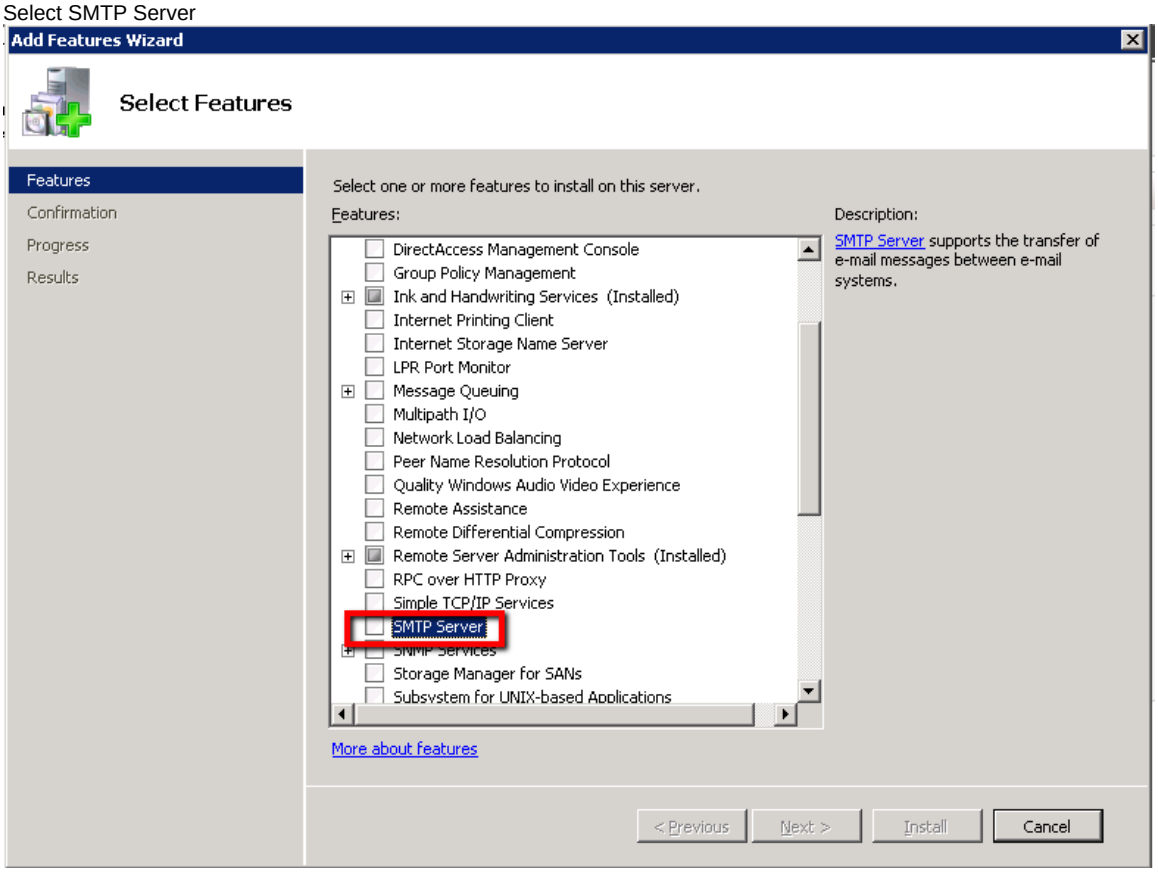
iv. Under Security:
- Windows Authentication

f. Click Next and Install. When the installation is completed close the wizard

g. Select Features and click on Add Features

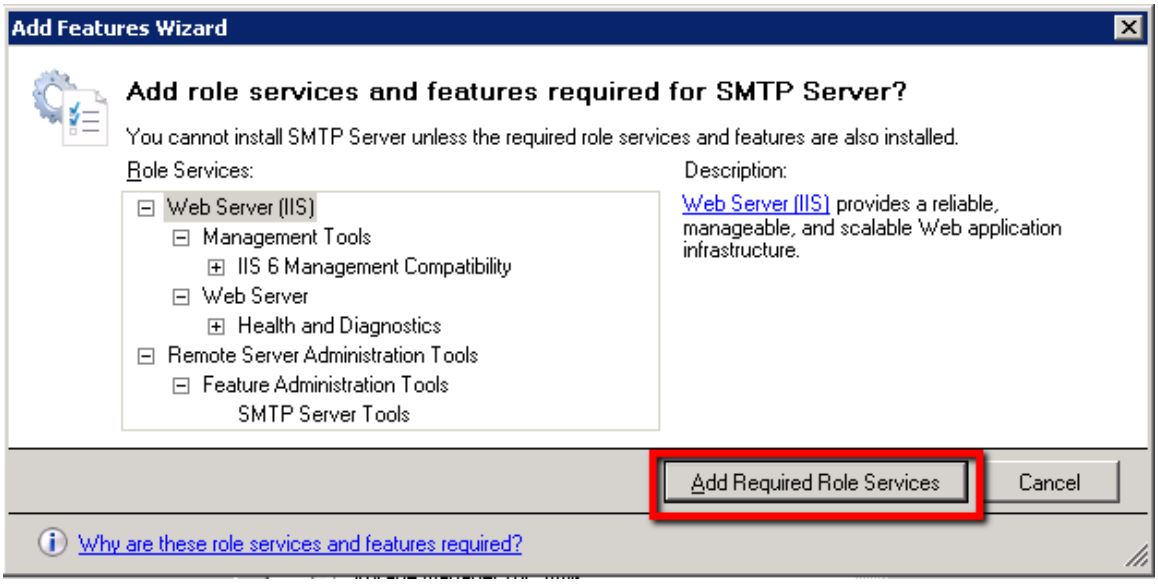


h. Select SMTP Server



i. In the popup dialog click Add Required Role Services

CONFIDENTIAL. Copyright © 2012, UTOPY Inc. All rights reserved.

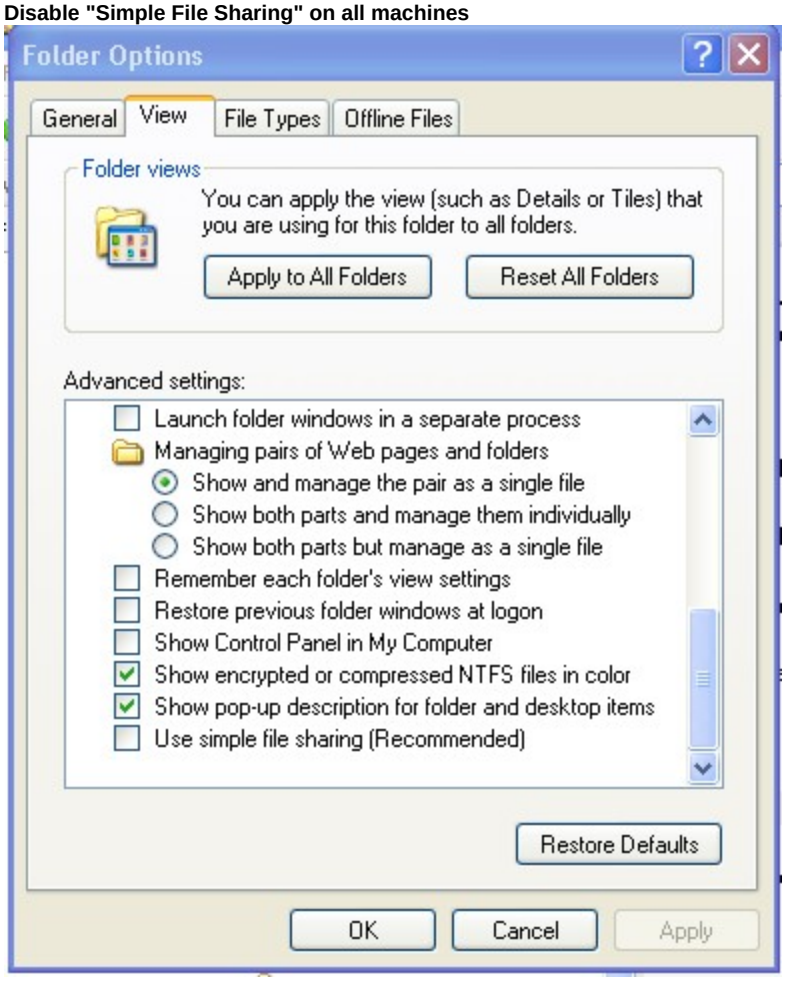


j. Click Next, Next, Next and Install

General:

a. Give "Modify" permissions to the domain user that SpeechMiner will impersonate on this folder: C:\<Windows>\Microsoft.NET\Framework\v2.0.50727\Temporary ASP.NET Files
b. Make sure the application pool uses v2.0 of the .Net framework, and not a later version.

8. **Disable "Simple File Sharing" on all machines**

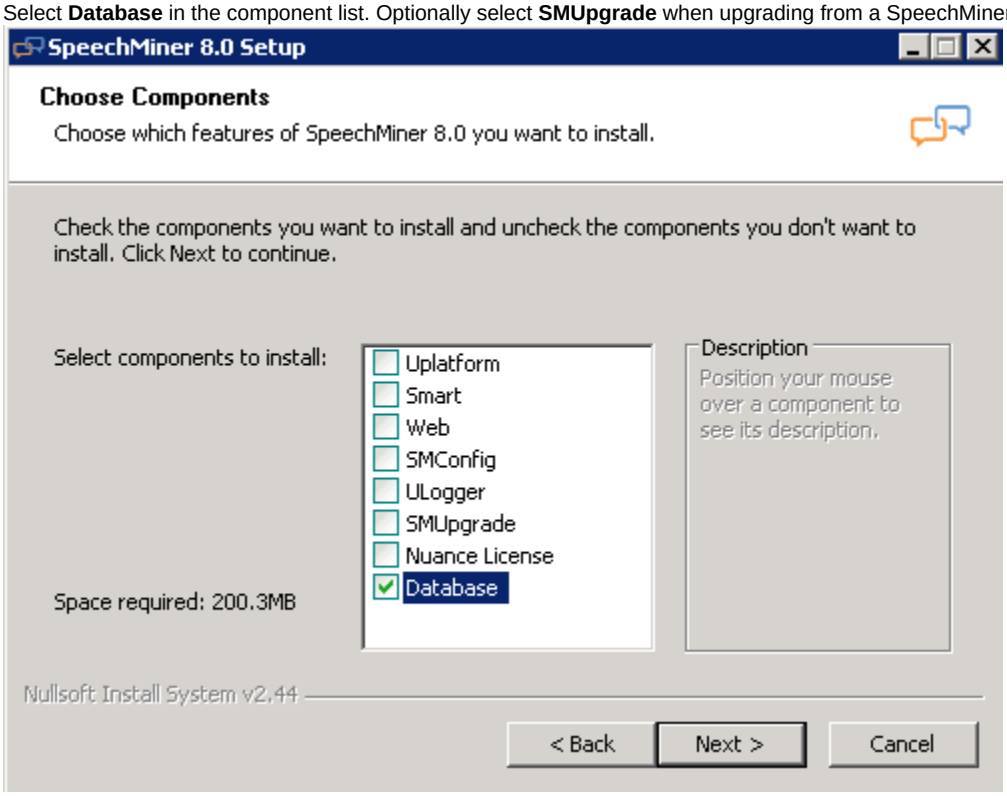


9. **Audio capabilities** - Users of the SpeechMiner web application must have a functioning audio device on their desktop and Windows Media Player version 10 or 11 installed.

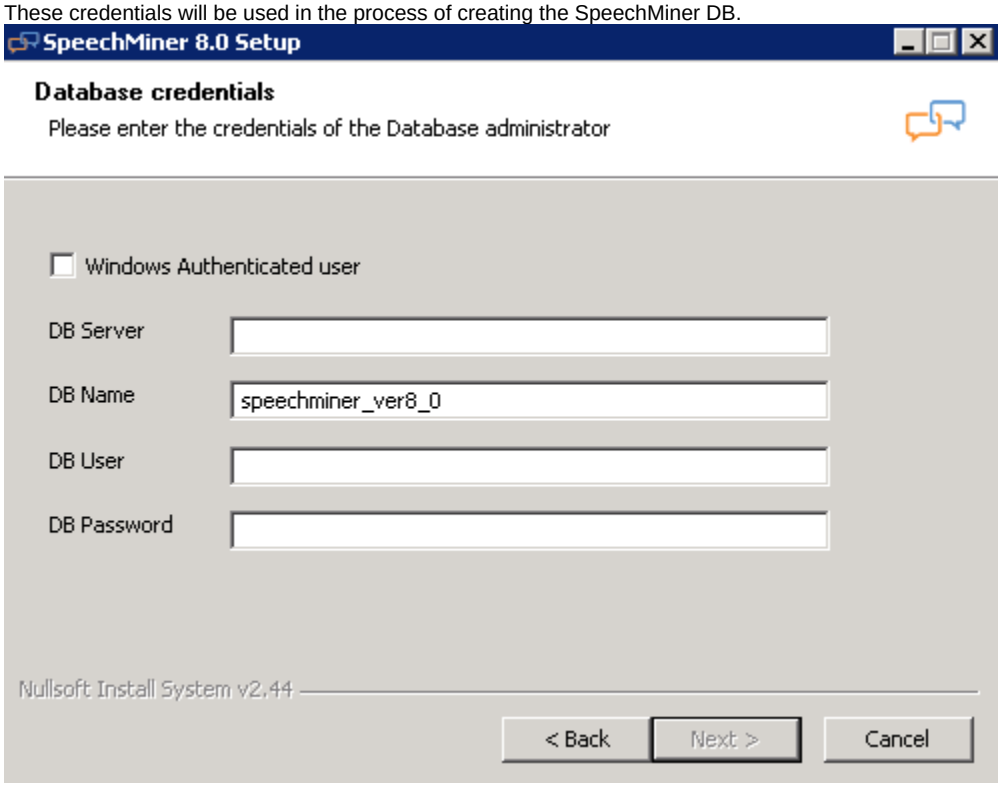
CONFIDENTIAL. Copyright © 2012, UTOPY Inc. All rights reserved.

DB Server Installation

1. **Run SpeechMiner setup on DB Server machine**
2. Select **Database** in the component list. Optionally select **SMUpgrade** when upgrading from a SpeechMiner 6.0 version.

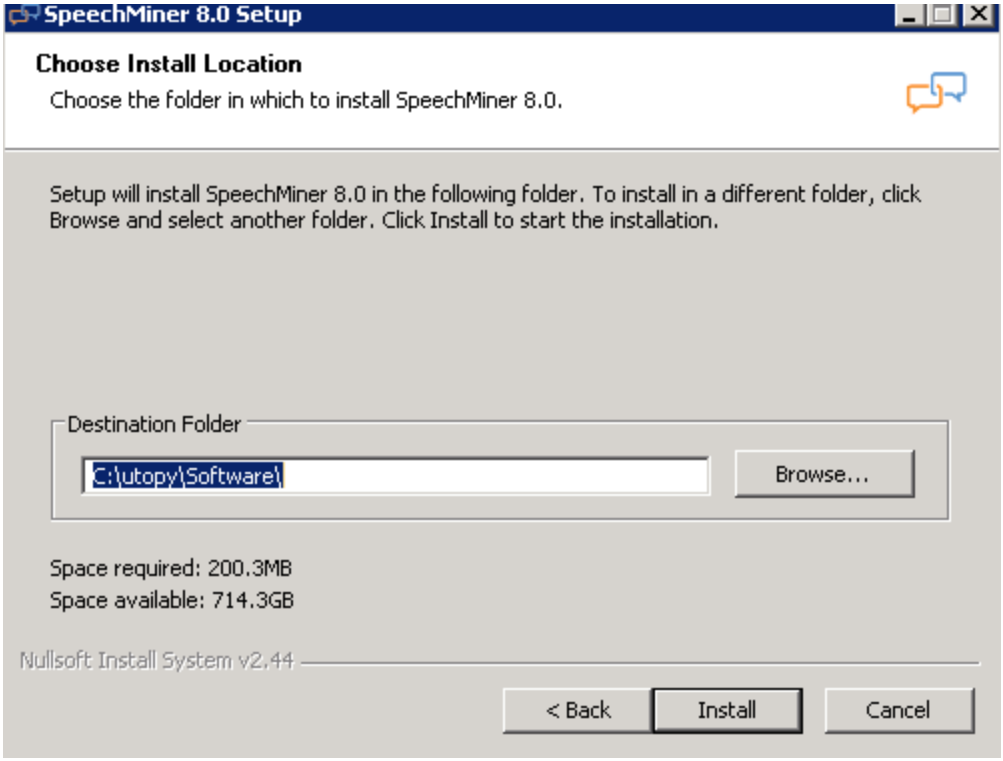


3. Use **SA** credentials in the **Database credentials** dialog. Database name should be speechminer_verX_Y (i.e. speechMiner_ver7_3). These credentials will be used in the process of creating the SpeechMiner DB.



4. In **Choose Install Location** dialog, it is recommended to select <DRIVE>:\Utopy\software (default value)

CONFIDENTIAL. Copyright © 2012, UTOPY Inc. All rights reserved.



After the DB Server installation check that speechminer_verX_Y database is present. This can be done by opening SQL Server Management Studio and reviewing the list of databases on the server

An alternative way to perform DB installation is to use data_ver8_0_sql2005.bak (a SQL backup file) deployed in C:\utopy\Software\Support during any regular server install. You should restore this backup on the SQL server and choose settings based on the setting in the steps above.
In addition you should run the following commands to create the dbuser user:
on the master database: create login [dbuser] with password='dbuser',check_policy=OFF
on the new database: EXEC sp_change_users_login 'Auto_Fix', 'dbuser'

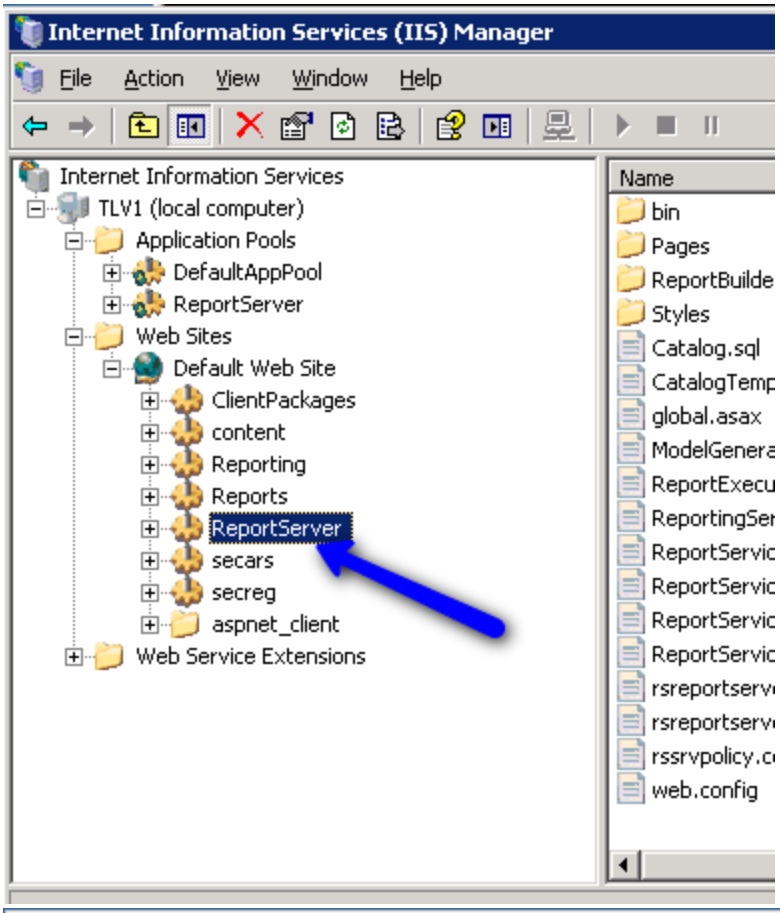
5. **Manual steps**:
   a. Run SMConfig and deploy the MRSLibrary and the reports (see SpeechMiner Configuration V8.0)
   b. If you need alternative call queue management, replace sp_GetNextCallFromQ with sp_GetNextCallFromQ_alternative. (This is an advanced setting. If you don't know that you need this, just ignore this step).
   c. If the DB server is an Enterprise Edition, run "EXEC sp_create_DB_storage_partitions".
   d. Review and modify the DB job for maintenance, and schedule it to run on a regular basis. The job is created by the installer when a database is created. The job's name is SpeechMiner_Maintenance_job - <database>. The job may include (optional) the **updateUntilYesterdayMaxChannels** and **sp_agentFilterCleanByDays**. In addition, any procedure to rebuild indexes and purge old calls should be added as a step to this job. This job should run daily or weekly at a predefined time window when call volume is as low as possible. If information about the agents and their hierarchy is not available through the UConnector, you may include in this job **sp_createAgentsFromPartitions**.

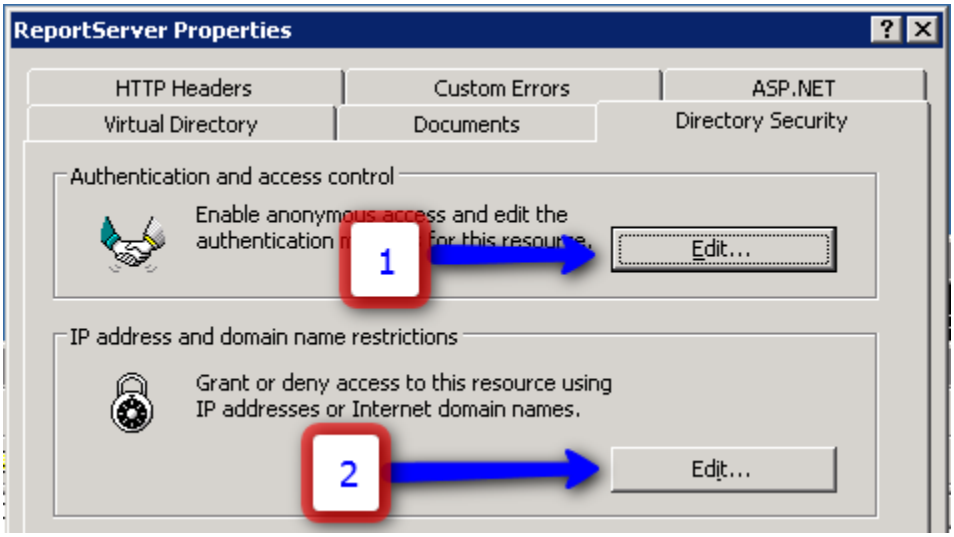
      In order to allow the 'updateUntilYesterdayMaxChannels' job to run, you need to insert sa credentials into the Owner field. Click on SQL Server Agent -> Jobs. Double click on 'updateUntilYesterdayMaxChannels' job. The Properties window will pop up. Under the General section there is an Owner field. If the entry is 'dbuser' change it to be 'sa'. Click OK to submit the change.

      The database contains a stored procedure that creates such a maintenance job. You can review it and use it as a base for your job.

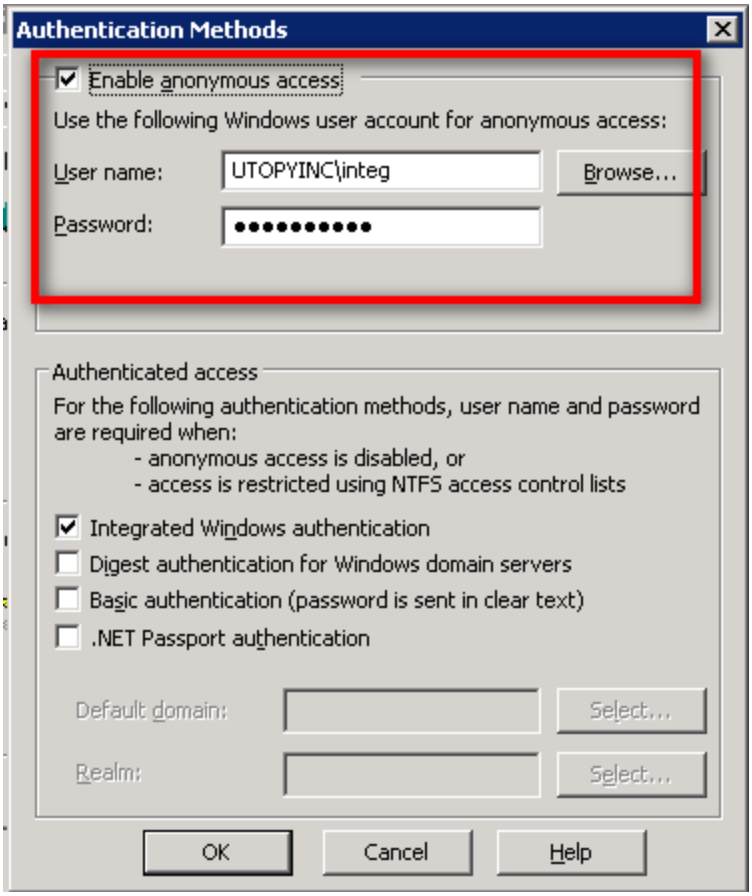
   e. To boost the performance of the reports rendering in the web server, allow anonymous access to the ReportServer virtual directory. For security reasons grant access only from the web server(s) IP address(es).
      See below for specific configuration.
      i. Right click the "ReportServer" virtual directory, and select "Properties"

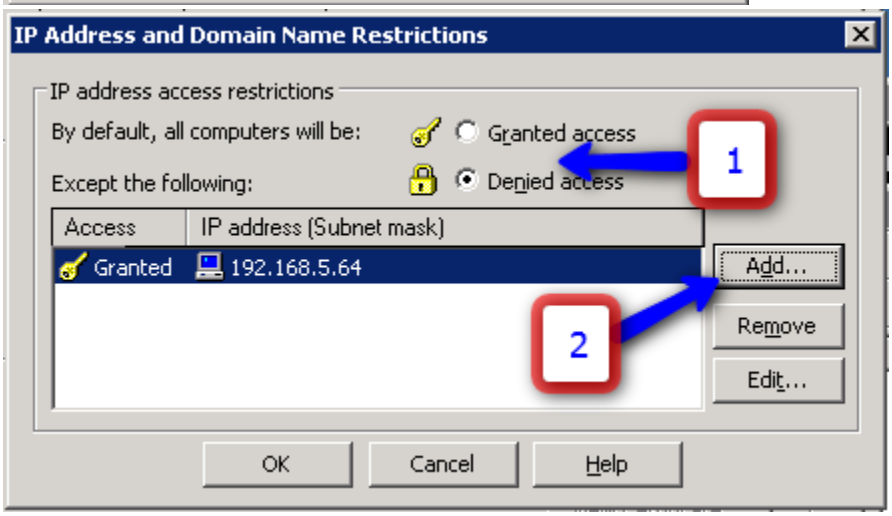
CONFIDENTIAL. Copyright © 2012, UTOPY Inc. All rights reserved.





CONFIDENTIAL. Copyright © 2012, UTOPY Inc. All rights reserved.





f. In order to deploy the SQLCLR please set the permissions of the XmlSerializers.dll. Under Master DB run the following commands (after copying sqlclr.XmlSerializers.dll from the InstallFolder\support files to a new folder - sqlclrDeploy and changing DB_SERVER in the first command to be the name of the dvserver)

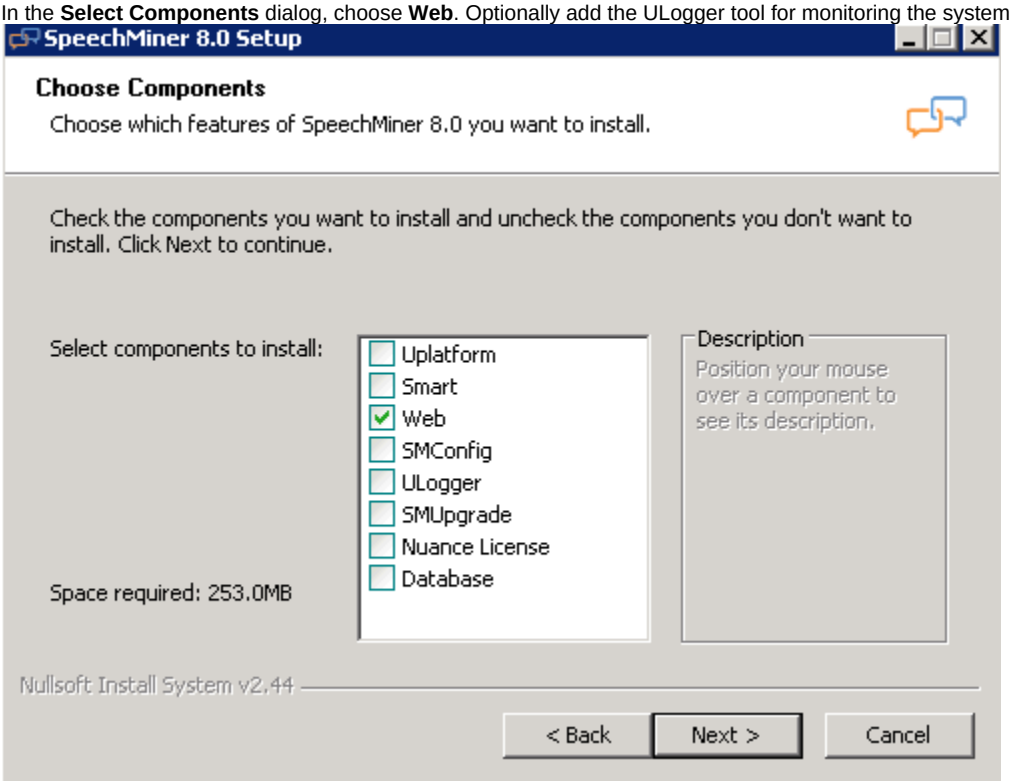
```
CREATE ASYMMETRIC KEY SQLCLRTestKey FROM EXECUTABLE FILE =
'\\DB_SERVER\C$\sqlclrDeploy\sqlclr.XmlSerializers.dll'
CREATE LOGIN SQLCLRTestLogin FROM ASYMMETRIC KEY SQLCLRTestKey
GRANT EXTERNAL ACCESS ASSEMBLY TO SQLCLRTestLogin
```

Web Server Installation

SQL Requirement for Web Server - Make sure the system on which you plan to install the Web Server has either SQL Server Client or SQL Server Database Server installed (not required if DB Server and Web Server are the same machine).

CONFIDENTIAL. Copyright © 2012, UTOPY Inc. All rights reserved.

1. Run SpeechMiner setup
2. In the **Select Components** dialog, choose **Web**. Optionally add the ULogger tool for monitoring the system log.



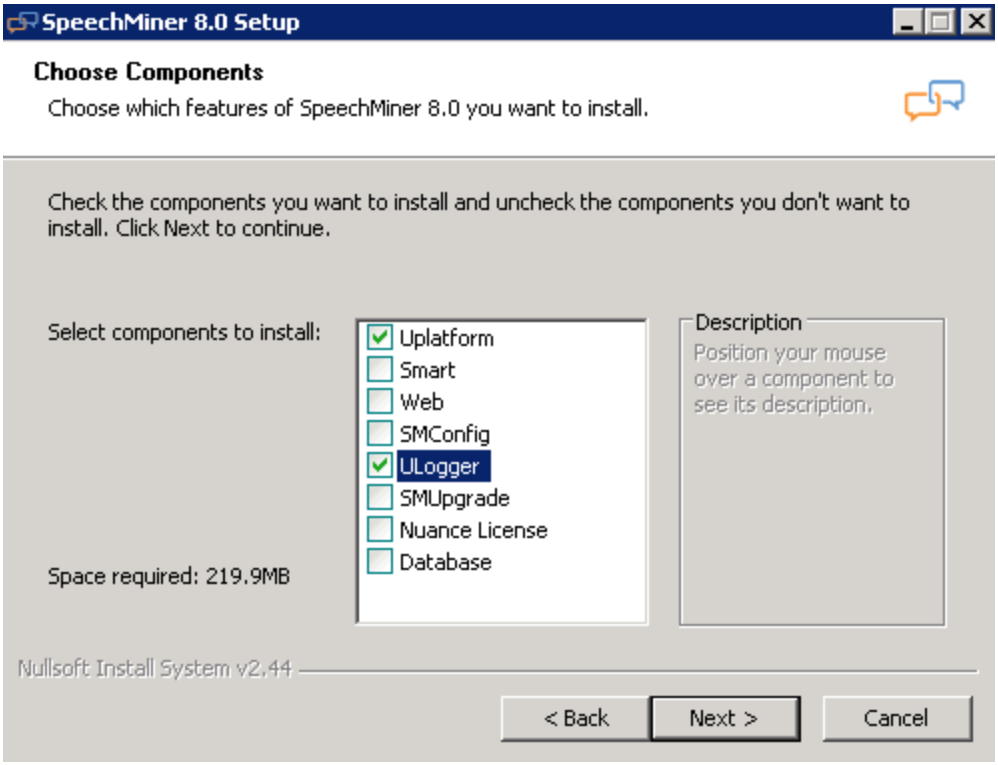
3. In "Choose Destination Location" it is recommended to select <DRIVE>:\Utopy\software (default value)
4. Select DB credentials for the configuration files.
5. After installation is done set the following permissions:
    - Set read/write/modify permissions to the IIS user/group (IUSR_XXX in Windows XP or Network Service group in Windows Server 2003 and above) and the operational domain user (SMUSER) on the SpeechMiner installation folder.
    - Set read/write/modify permissions to the IIS user/group (IUSR_XXX in Windows XP or Network Service group in Windows Server 2003 and above) on the windows temp folder.

Recommended: Enable HTTP Compression on the IIS server

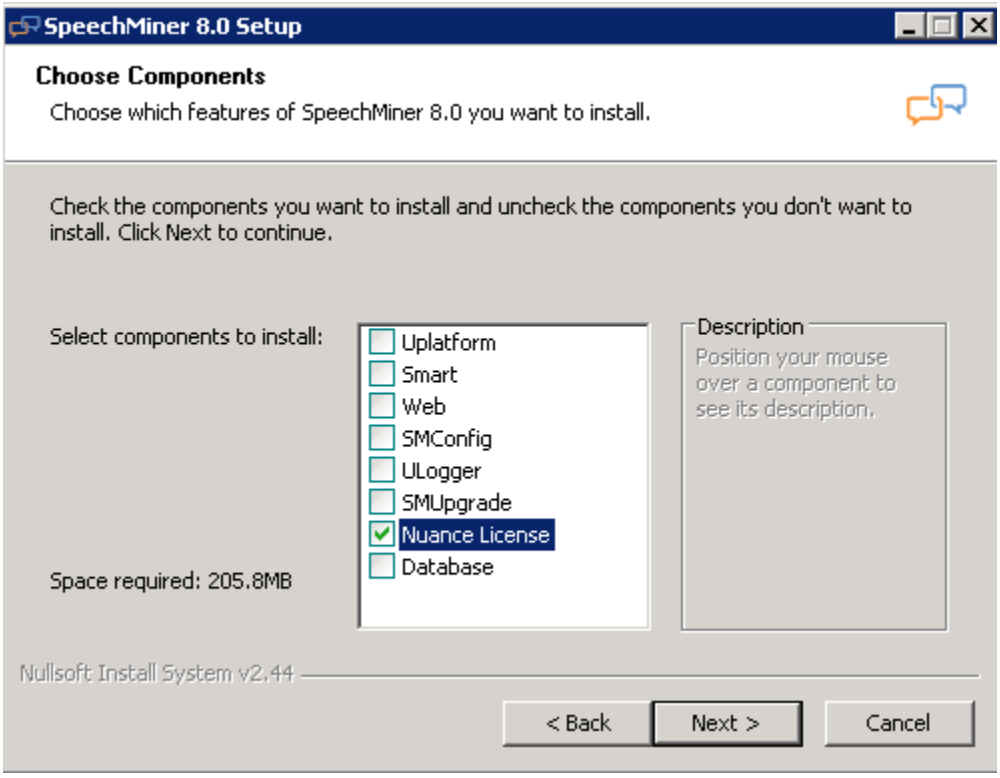
Platform Server Installation

1. On the **Choose Components** dialog, choose **UPlatform and ULogger**.

CONFIDENTIAL. Copyright © 2012, UTOPY Inc. All rights reserved.

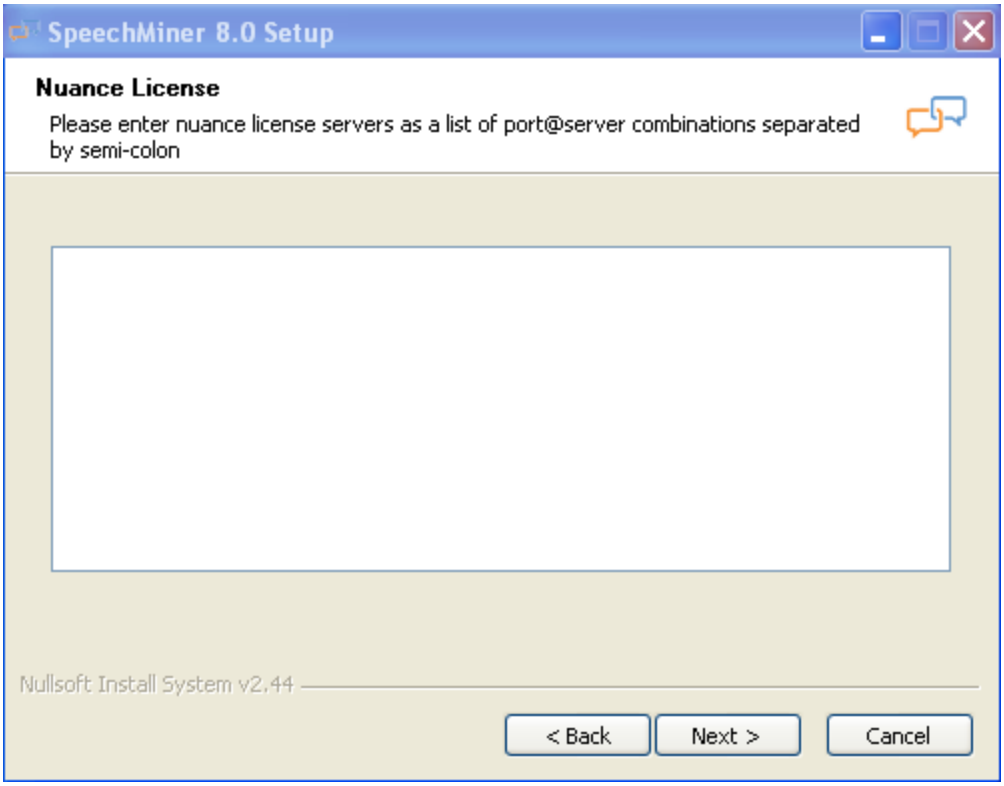


1. In "Choose Destination Location" it is recommended to select <DRIVE>:\Utopy\software (default value)
2. You should either install Nuance license server or enter the name of an existing server:
   a. Install Nuance license server

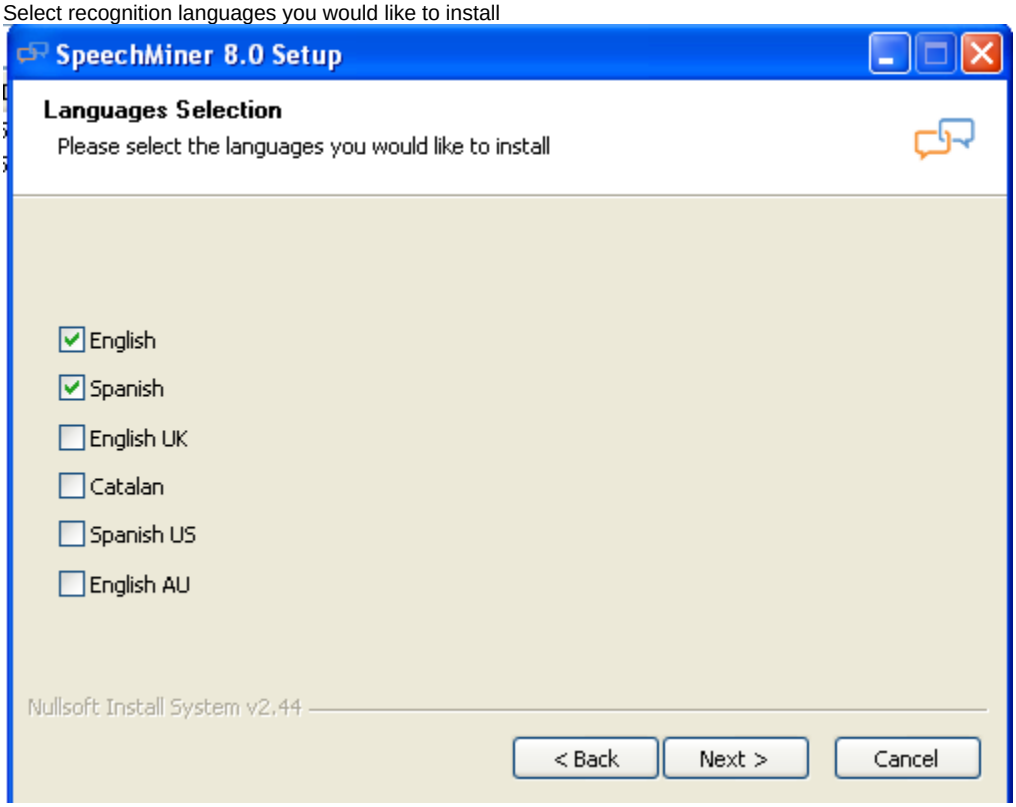


   b. Enter the information of an existing Nuance license server

CONFIDENTIAL. Copyright © 2012, UTOPY Inc. All rights reserved.



3. Select recognition languages you would like to install



1. Manual steps
    a. Create the input, store, filtered, and grammar shared folders. Note - all SpeechMiner machines should have access to these shared folders.
    b. Consult with http://support.microsoft.com/kb/895980/ if you have AMD based servers, in case you need to install some updates.
    c. Optional: turn off error reporting (http://support.microsoft.com/kb/310414) :

To access the settings for the reporting feature:

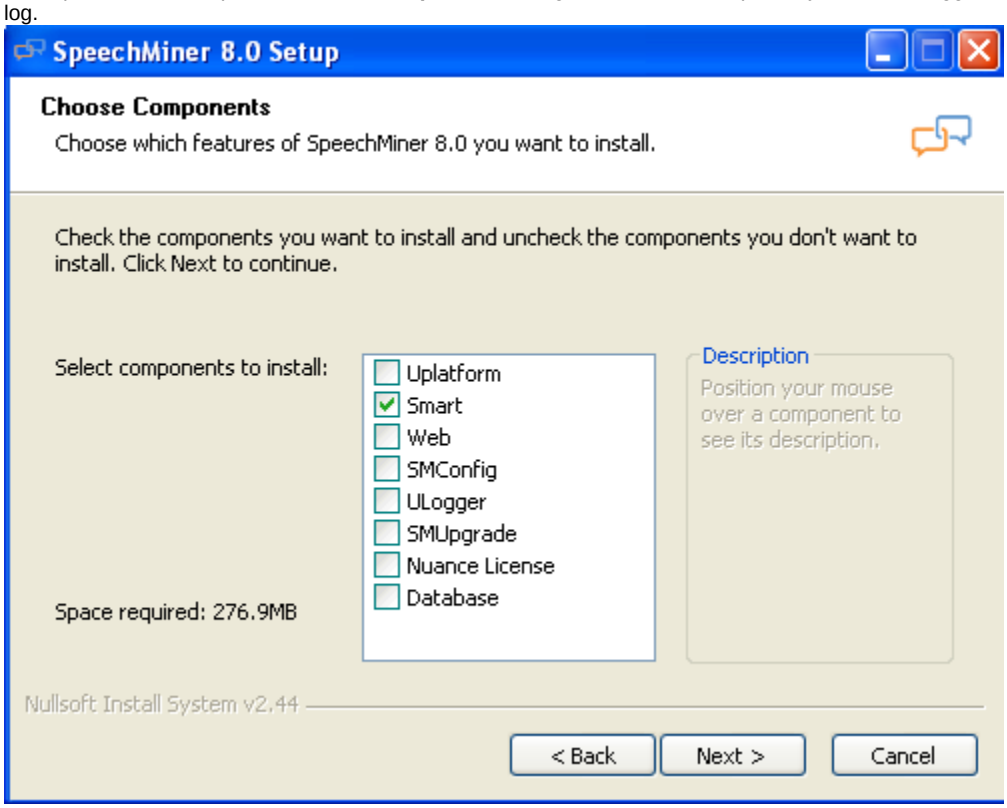
1. *Click Start.*

CONFIDENTIAL. Copyright © 2012, UTOPY Inc. All rights reserved.

2. *Right-click My Computer, then click Properties.*
3. *Click the Advanced tab.*
4. *Click Error Reporting.*

SMART Installation (user desktop)

1. Install the .NET 3.5 Framework (with SP1)
2. Run SpeechMiner setup. In the **Select Components** dialog, choose **Smart**. Optionally add the ULogger tool for monitoring the system log.



3. Select destination folder (Leave default if not sure)
4. Restart computer

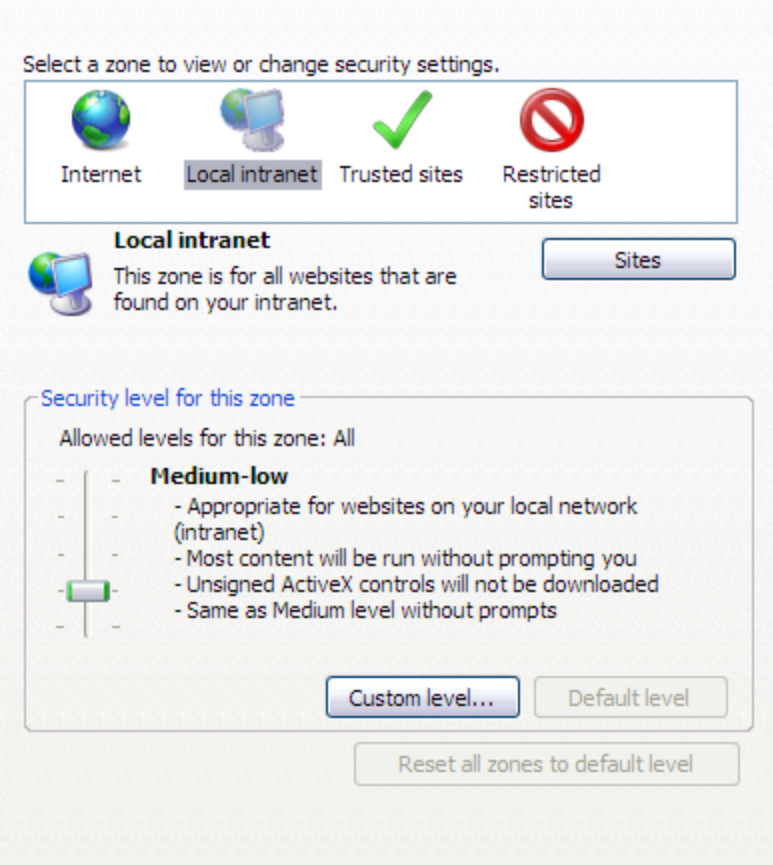
User Desktop (IE Settings)

⚠ On the end user's desktop, the Internet Explorer has to be set with to following for the SpeechMiner domain:

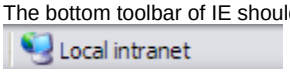
- Allow popups
- Set as "Trusted Sites" zone or as "Local Intranet" as explained below

* Set the SpeechMiner domain as a "Local Intranet" browser zone. This is done in the security panel of the IE settings dialog.

CONFIDENTIAL. Copyright © 2012, UTOPY Inc. All rights reserved.

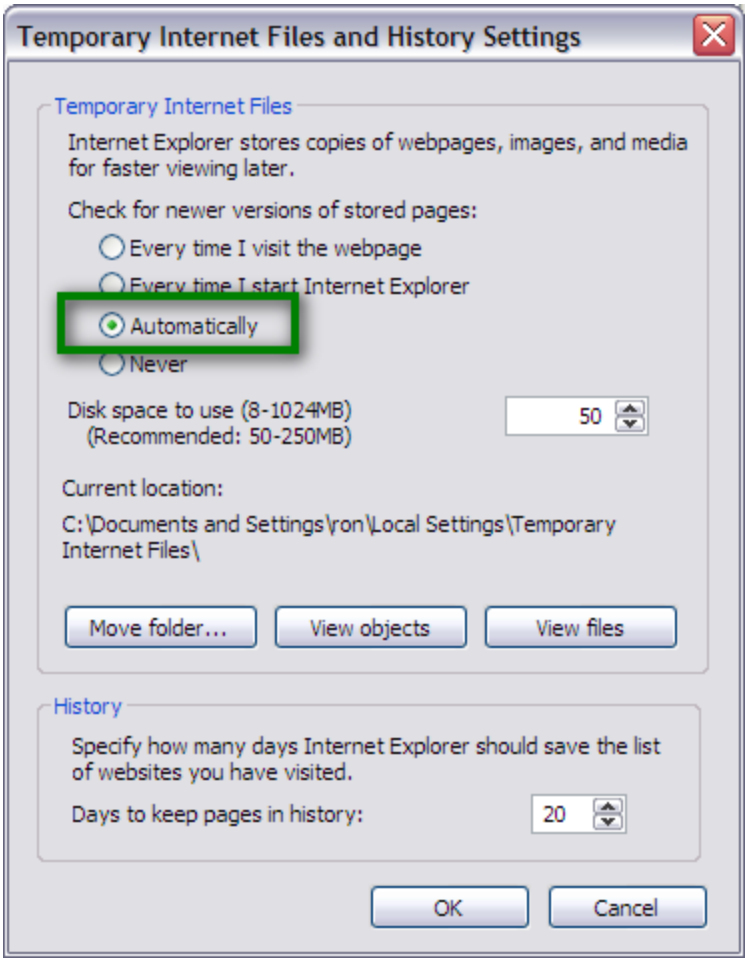


The bottom toolbar of IE should say "Local Intranet" when browsing the SpeechMiner application pages.



- Set the caching setting, under "check for newer versions of stored pages" to "Automatically".

CONFIDENTIAL. Copyright © 2012, UTOPY Inc. All rights reserved.



CONFIDENTIAL. Copyright © 2012, UTOPY Inc. All rights reserved.