Skills Assessor 8.5.546

Manual Installation Guide

About Genesys
Genesys is the world's leading provider of customer service and contact software - with more than 4,000 customers in 80 countries. Drawing on its more than 20 years of customer service innovation and experience, Genesys is uniquely positioned to help companies bring their people, insights and customer channels together to effectively drive today's customer conversation. Genesys software directs more than 100 million interactions every day, maximizing the value of customer engagement and differentiating the experience by driving personalization and multi-channel customer service - and extending customer service across the enterprise to optimize processes and the performance of customer-facing employees. Go to www.genesys.com for more information.

Each product has its own documentation for online viewing at the Genesys Documentation website.

Notice
Although reasonable effort is made to ensure that the information in this document is complete and accurate at the time of release, Genesys Telecommunications Laboratories, Inc. cannot assume responsibility for any existing errors. Changes and/or corrections to the information contained in this document may be incorporated in future versions.

Your Responsibility for Your System's Security
You are responsible for the security of your system. Product administration to prevent unauthorized use is your responsibility. Your system administrator should read all documents provided with this product to fully understand the features available that reduce your risk of incurring charges for unlicensed use of Genesys products.

Technical Support from VARs
If you have purchased support from a value-added reseller (VAR), please contact the VAR for technical support.

Ordering and Licensing Information
Complete information on ordering and licensing Genesys products can be found in the *Genesys Licensing Guide*.

Released by: Genesys Telecommunications Laboratories, Inc.
http://www.genesys.com/

Document Version**:** 85_skillsassessor_manual_installation_04-2016_v8.5.541.00

Table of Contents

Genesys

Preface

Welcome to the *Genesys Skills Assessor Manual Installation Guide.* This *Installation Guide* has been designed to allow an administrator to install the Skills Assessor application.

This document is valid only for the 8.5.546 release of this product.

Note: For versions of this document created for other releases of this product, visit the Genesys Customer Care website.

For information about related resources and about the conventions that are used in this document, see the supplementary material starting on .

About Genesys Skills Assessor

Genesys Skills Assessor allows companies to use a combination of online tests, self-assessment, and observational feedback to assess the level of agent skills across their contact center. Agent skill levels are stored in a central skills database and can be combined with performance data from legacy systems— for example, CRM sales data and Learning Management System courses.

Centralizing agent skills information allows contact centers to build a "DNA profile" of skills for each agent to identify:

- What are the "must have" and "nice to have" skills for each job type?
- Who really knows what across the contact center?
- Who has what skills and skill levels?
- Who requires what type of training, and when?

Skillsroute enables companies to create and manage multiple agents, skills, and skill levels in Configuration Manager. Skill assessment results exported directly from Skills Assessor can be used to optimize multi-skilling and call routing, to ensure that the customer is always presented to the most knowledgeable agent available.

Intended Audience

This document is primarily intended for system administrators or other individuals who install Genesys Skills Assessor.

Making Comments on This Document

If you especially like or dislike anything about this document, feel free to e-mail your comments to `Techpubs.webadmin@genesys.com`.

When you send us comments, you grant Genesys a nonexclusive right to use or distribute your comments in any way it believes appropriate, without incurring any obligation to you.

Contacting Genesys Customer Care

If you have purchased support directly from Genesys, please read the Genesys Care Support Guide for On-Premises for complete information on how and when to contact Customer Care.

Related Documentation Resources

The following resources provide additional information that is relevant to this software. Consult these additional resources as necessary.

- The *Genesys Technical Publications Glossary,* which ships on the Genesys Documentation Library CD and which provides a comprehensive list of the Genesys and CTI terminology and acronyms used in this document.

The product documentation, Release Notes, and Product Advisories for this product, which are available on the Genesys Customer Care website after logging in at `https://genesyspartner.force.com/customercare/GenesysCommunityLogin`

1   Prerequisites

Server Software Prerequisites

Database Server prerequisites

- `Windows Server 2008 / 2008 R2 / 2012` (or higher) with latest available updates.
- `Microsoft SQL Server` of the following version / service pack (or higher)

    - `2008 SP4`
    - `2008 R2 SP3`
    - `2012 RTM`
    - `2014 RTM`
- Administrator access to the SQL Server.
- SQL Server Collation settings:
    - Database level collation: The collation setting of the Skills Management databases must match the collation of the SQL Server instance.

SQL Server Analysis Services must be available on the server

Note: This installation guide is based on SQL Server being set to allow Mixed Mode Authentication. If this is not the case you will need to adjust the steps detailed in this document.

Web server prerequisites

- `Windows Server 2008 / 2008 R2 / 2012` (or higher) with latest available updates.
- `Microsoft .NET Framework 4.0` with latest available updates including `KB 2656351` (if available for your OS) and `KB2468871`.

`Internet Information Services (IIS)`
- o IIS must be configured to allow `ASP.NET v4.0.30319`. For more information see: http://msdn.microsoft.com/en-us/library/k6h9cz8h.aspx
- o The IIS server role should have `Windows Authentication` installed (this is set through running Server Manager and selecting `Add Roles and Features`, then choosing `Web Server (IIS) > Web Server > Security` in `Server Roles`).
- o The application pools used for the web applications and services must allow 32 bit processes.
- `Microsoft Windows Identity Foundation (KB974405)` for the appropriate Windows version/architecture
  - o For operating systems prior to Server 2012, the required download is available here: http://www.microsoft.com/en-gb/download/details.aspx?id=17331
  - o Ensure you download the appropriate version for your web server.
  - o For Windows Server 2012: Run Server Manager, select the `Add Roles and Features Wizard` and enable `Windows Identity Foundation 3.5` in the `Features` tab. Click `Next` and continue to complete the feature installation.
- The following additional runtimes must also be installed to support the Crystal Reports functionality:
  - o `Java Runtime Environment` (http://java.com/en/download/index.jsp)
  - o `Crystal Reports Runtime`, available from: http://downloads.businessobjects.com/akdlm/cr4vs2010/CRforVS_redist_install_32bit_13_0_12.zip
    - ▪ `Note`: `Crystal Reports` functionality is only supported for `Internet Explorer version 8` or above and the latest versions of other browsers (e.g. `Chrome`, `Firefox` and `Safari`).
- Administrator access to the server

- To allow the application to import and process Excel (XLSX) files, you must install the 32-bit version of the `Microsoft Access Database Engine 2010 Redistributable` and the `2007 Office System Driver: Data Connectivity Components` from:
  - o https://www.microsoft.com/en-us/download/details.aspx?id=13255
  - o http://www.microsoft.com/en-us/download/confirmation.aspx?id=23734

Browser support: Web applications are supported in Microsoft Internet Explorer 8+ and latest versions of Chrome and Firefox. If using Internet Explorer, ensure that compatibility mode is disabled, and that it set to use the latest possible standards mode.

Service account considerations

The user account used to run the Performance DNA services must have log on a service rights. You can use a local machine account for this provided that:

The computer is not a member of a domain
or
The computer is a member of a domain and there is no group policy defining which accounts are able to log on as a service.

In the latter case, you must use a domain account as the service account.

Local user account

To give an existing local user account permissions to logon as a service:
- Run `secpol.msc` or open `Local Security Policy` from `Control Panel / Administrative Tools`
- In the left pane, expand `Local Policies` and select `User Rights Assignment`
- On the right, locate the `Logon as a service` entry, and double-click on it.
- If the user account in question does not appear in the list, add it using the `Add User or Group` option.
- Click `OK` to close the dialog.

Domain user account

- Your domain administrator will need to allow the account in question permissions to log on as a service.
- If you are installing Skills Management in a multi-server environment, a domain account is strongly recommended for ease of configuration.

Networking pre-requisites

To allow DNA to be enabled, the `MSTDC` service on the database server must be accessible over the network from the web application server (i.e. not blocked by a firewall) – for details on checking `MSDTC` connectivity, see: http://blogs.msdn.com/b/distributedservices/archive/2008/11/12/troubleshooting-msdtc-issues-with-the-dtcping-tool.aspx

Required Files

You should have a ZIP file containing the following folders:

`DB Installation Files`

o   This contains the files required to create the database.

`SkillsAssessor`

o   This contains the files and folders required to install the Skills Assessor web application.

`Services`

`Installation Guides`
Contains install and upgrade guides.

The release folder also includes the following installation MSI files:
AutoRankCalculationApplication_v4.6.0.msi
DNAImportSetup_v4.6.0.msi
EmailMessagingServiceSetup_v4.6.0.msi
LearningItemAutoAssignSetup_v4.6.0.msi
NotificationsUISetup_v4.6.0.msi
PrePostCourseAssessmentHelperSetup_v4.6.0.msi

The product will only be available for use once you have specified a valid software license. Please ensure you have this available before installing Skills Assessor.

2 Database Installation

Preparation

Copy the `DB Installation Files` folder to the SQL Server.

Note: Set the connection string to your `SkillsAssessor` Database wherever the connection string is called `OptimizerContext`. Similarly, set the database name of `PlannerContext` elements to your `TrainingManager` database and `ReportingContext` elements to the `PerformanceDNAReports` database.

Creating the Databases

Start SQL Server Management Studio and create 3 new databases called `TrainingManager`, `SkillsAssessor` and `PerformanceDNAReports.` Note: It is recommended that you create a new database user to allow the application to access these databases, although an existing user can be used if required. Grant the database user you have created/chosen the `db_owner` permission on each database.

Open the `DB Installation Files` folder from the copy on the web server.

Open the `makedb.config` file with `Notepad` or similar text editor.

Edit the values of the `connectionStrings` section of the file for the `PlannerContext`, `OptimizerContext` and `ReportingContext` elements to match your environment.

- The `Data Source` value should be the name of your database server.
- The `Initial Catalog` should be the name of the appropriate database.
- The `User` should be the name of the database user you have created / chosen.

- The `Password` should be the password for the database user.

```
<connectionStrings>
    <add name="PlannerContext" connectionString="Data Source=***;Initial
    Catalog=Planner;User=***;Password=***;MultipleActiveResultSets=True"
    providerName="System.Data.SqlClient" />
    …
</connectionStrings>
```

Save and close the file.

Run the `makedb.bat` application to create the structure of the databases.

Genesys

3   Web Application Installation

Configuring the Skills Assessor application

The next step to install the application is to update the application configuration file to reflect your configuration. In the folder you copied the Skills Assessor application files to, locate the file `web.config` and open it in a text editor. Once you have completed the following changes, save and close the file.

Database connection configuration

Locate the `connectionStrings` section near the top of the file.
Edit the `connectionString` of the line containing the `OptimizerContext` name in the configuration file to match the database settings you used when creating the database, following the template shown here (substituting the values with the settings you created in your environment):

```
<add name="OptimizerContext" connectionString="Server=sqlserve
rname;Database=databasename;UID=databaseusername;PWD=databaseu
serpassword;Trusted_Connection=False" />
```

ensuring you leave the quotes around the setting value intact.
An example is shown below:

```
<add name="OptimizerContext" connectionString="Server=SQLSERVERNAME;Database=Optimizer;UID=SLS
User;PWD=515U53r;Trusted_Connection=False" />
```

> Note: The connectionString setting should be entered as a single line with no breaks.

Training Manager database connection configuration for reporting

If you intend to use reports that will require data from a TrainingManager database, locate the ReportsPlannerDBConnectionString element inside the appSettings section:

```
<add key="ReportsPlannerDBConnectionString" value="Server=***;Database=***;UID=***;PWD=***;Tru
sted_Connection=False" />
```

Update the value of this element to match the database connection string details of your TrainingManager database:

> Note: The value setting should be entered as a single line with no breaks.

Logging configuration

Locate the LogPath element inside the appSettings section:

```
<add key="LogPath" value="***" />
```

Update the value of this element to the path of your logs directory.

Crystal Reports storage folder configuration

Locate the ReportsFolder element inside the appSettings section:

```
<add key="ReportsFolder" value="C:\WebsiteData\Reports" />
```

Update the value of this element to the location of the folder you created to hold uploaded reports

PDR Evidence storage folder configuration

Locate the StorageFolder element inside the appSettings section:

```
<add key="StorageFolder" value="C:\WebsiteData\Storage" />
```

Update the value of this element to the storage directory created previously.

Services configuration

Locate the `system.serviceModel` section.
If you want to use HTTPS rather than HTTP to access the services, you should locate the `bindings` section. There will be two bindings that are used by the services in Skills Management. For the bindings with the names `BasicServiceBinding` and `WinAuthServiceBinding`, change the lines:

```
<security mode="None">
<security mode="TransportCredentialOnly">
```

so that they both read:

```
<security mode="Transport">
```

In both cases, ensure the `clientCredentialType` entry for the `transport` element is left unchanged; it should be `None` for the `BasicServiceBinding` and `Windows` for the `WinAuthServiceBinding`.

Locate the following elements within the `client` section and update them to reflect the URLs of the matching services in your environment, remembering to change the `http` to `https` if you have updated the bindings as above:

```
<endpoint address="http://***/Services.Reporting/ReportAdmin.svc"
<endpoint address="http://***/Services.Optimizer.Menu/OptimizerMenuService.svc"
<endpoint address="http://***/Services.Questions/Questions.svc"
<endpoint address="http://***/Services.PersonalDevelopment/PersonalDevelopment.svc"
<endpoint address="http://***/Services.LearningItems/LearningItems.svc"
<endpoint address="http://***/Services.LmsInterface/LmsInterface.svc"
<endpoint address="http://***/Services.Optimizer.Users/OptimizerUsers.svc"
<endpoint address="http://***/Services.Dna/Dna.svc"
<endpoint address="http://***/Services.Assessments/Assessments.svc"
<endpoint address="http://***/Services.Tagging/Tagging.svc"
<endpoint address="http://***/Services.Auth/Auth.svc"
<endpoint address="http://***/Services.Events/Events.svc"
```

Accessing these service URLs from a browser on the web server should result in the display of a page titled with the service's name at the top.

IIS7: Enable runAllManagedModulesForAllRequests

If you are using IIS 7 (not IIS 7.5 or above), locate the following `system.webServer` section, and locate the `modules` element:

```
<modules>
```

Replace the empty `modules` element with:

```
<modules runAllManagedModulesForAllRequests="true">
```

Web service configuration

Configuring service database references

Skills Assessor database references

The following services require a reference to the Skills Assessor database.

- Services.Assessments
- Services.Auth
- Services.Events
- Services.Optimizer.Menu
- Services.Optimizer.Users
- Services.PersonalDevelopment
- Services.Questions
- Services.Settings
- Services.Tagging

Open each service's web.config file and locate the `OptimizerContext` connection string.

```
<add name="OptimizerContext" connectionString="Data Source=***;Database=Optimizer;UID=*
**;PWD=***;Trusted_Connection=False" providerName="System.Data.SqlClient" />
```

In each case, set the connection string information to match your environment, saving each config file after the change.

Training Manager database references

The following services require a reference to the Training Manager database.

- Services.Calendars
- Services.Meetings
- Services.MessageStorage
- Services.Places
- Services.Scheduling
- Services.Settings
- Services.Skills
- Services.Training
- Services.Users
- Services.Wfm

Open each service's web.config file and locate the `PlannerContext` connection string.

```
<add name="PlannerContext" connectionString="Data Source=***;Database=ReportingDB;UID=*
**;PWD=***;Trusted_Connection=False" providerName="System.Data.SqlClient" />
```

In each case, set the connection string information to match your environment, saving each config file after the change.

Reporting database references

Only one service requires a reference to the Reporting database.

- Services.Reporting

Open the service's web.config file and locate the `ReportingDB` connection string.

```
<add name="ReportingDB" connectionString="Data Source=***;Database=PerformanceDNAReport
s;UID=***;PWD=***;Trusted_Connection=False" />
```

Set the connection string information to match your environment, saving the file after the change.

DNA database references

Only one service requires a direct reference to the DNA database, although there should be one copy of this service per tenant.

- Services.DnaData

Open the service's web.config file and locate the **DnaContext** connection string.

```
<add name="DnaContext" connectionString="Data Source=***;Initial Catalog=DNADB;UID=***;
PWD=***;MultipleActiveResultSets=True" providerName="System.Data.SqlClient" />
```

Set the connection string information to match your environment, saving the file after the change.

Configuring logging

Most of the services include configurable elements for setting the location and verbosity of log files.

- Services.Assessments
- Services.Auth
- Services.Calendars

- Services.Dna
- Services.DnaData
- Services.Events
- Services.Iex
- Services.LearningItems
- Services.LmsInterface
- Services.Meetings
- Services.Optimizer.Users
- Services.PermissionManagement
- Services.PersonalDevelopment
- Services.Questions
- Services.Settings
- Services.Tagging
- Services.Wfm

Open each service's web.config file and locate the `appSettings` section.

```
<appSettings>
<add key="LogPath" value="***" />
<add key="Verbosity" value="Warning"/>
</appSettings>
```

In each case, set the LogPath value to the folder in which you want the services to place their log files (this folder must already exist), and optionally change the Verbosity setting to one of the supported logging verbosity levels (from least logging to maximal logging):

- Off
- Fatal
- Error
- Warning (the default)
- Info
- Debug
- Trace

Notes:
- Take care not to leave the service logging in 'trace' mode for extended periods as this may result in the creation of very large log files.
- Setting the logging level to Off will result in no log file entries being generated in the event of a system error.

Save each file after the change.

Configuring inter-service communications

Each of the following services has a reference to one or more other services. Open each service's web.config file and locate the `system.serviceModel` section.

If you want to use HTTPS rather than HTTP to access the services, you should locate the `bindings` section. There will be two bindings that are used by the services in Skills Management. For the bindings with the names `BasicServiceBinding` and `WinAuthServiceBinding`, change the lines:

```
<security mode="None">
<security mode="TransportCredentialOnly">
```

so that they both read:

```
<security mode="Transport">
```

In both cases, ensure the `clientCredentialType` entry for the `transport` element is left unchanged; it should be `None` for the `BasicServiceBinding` and `Windows` for the `WinAuthServiceBinding`.

For each referenced client service there will be one or more `endpoint` entries in the `client` section, which will resemble the following

```
<endpoint address="http://***/Services.Calendars/Calendars.svc" ...
```

In each case, update the endpoint of the services listed below each of the headings to match your environment – this will either be pointing to a service in the Services folder, or in some cases one inside the Skills Assessor application. If you changed the security modes to transport as above, ensure that you use HTTPS as the prefix for each address. Note that there may be other endpoints there that are configured programmatically. If an endpoint exists in the file and is not mentioned below, leave it unchanged.

- Services.Assessments
    - Services.Tagging

- Services.Calendars
    - Services.Users
    - Services.Places
    - Services.Training
    - Services.Meetings

- Services.Dna
    - Services.Settings

- o Services.DnaData

- Services.Events
  - o Services.LearningItems
  - o Services.Optimizer.Users
  - o Services.Settings
  - o Services.MessageStorage

- Services.LearningItems
  - o Services.Dna
  - o Both of the Optimizer/WS endpoints
  - o Services.Settings
  - o Services.LmsInterface

- Services.LmsInterface
  - o Services.Settings

- Services.MessageStorage
  - o Services.Settings

- Services.Optimizer.Users
  - o Services.Dna
  - o the Optimizer/WS endpoint
  - o Services.Settings

- Services.PermissionManagement
  - o Services.Optimizer.Users
  - o Services.Settings

- Services.PersonalDevelopment
  - o Services.Optimizer.Users
  - o Services.Settings
  - o Services.MessageStorage

- Services.Questions
  - o Services.Tagging

- Services.Scheduling
  - o Services.Iex
  - o Services.Calendars
  - o Services.Places

> o   the SkillsManagerWS/WS endpoint
> o   Services.Training
> o   Services.Meetings
>
> - Services.Wfm
>   o   Services.Iex

SkillsManagerWS

Locate the `SkillsManagerWS` folder and open the `Web.Config` file and locate the following section:

```
<client>
<endpoint address="http://***/Services/Services.Meetings/Meetings.svc"
binding="basicHttpBinding" bindingConfiguration="BasicServiceBinding"
contract="MeetingsService.IMeetings" name="MeetingsEndpoint" />
```

Update the endpoint address for the `Meetings.svc` to suit your environment. Save and close the file.

Open the `WebSettings.config` file. Open this file using `Notepad` or other suitable text editor. Locate the following section:

```
  <DBConnections>
<SkillsManager>Server=***;Database=Planner;UID=***;PWD=***;Trusted_Connection=False</Ski
llsManager>
  </DBConnections>
```

- Set `Server` to the database server's machine name.
- Set the `Database` to the `Training Manager` database (can be left at default if you left the database name at its default value when creating the database).
- Set `UID` to the name of the database account that you granted `db_owner` permissions to for the `Training Manager` database.
- Set `PWD` to the same account's password.

If you wish to map Training Manager users to Skills Assessor users locate the section:

```
  <Optimizer TenantId="***">http://***/Optimizer/</Optimizer>
```

Edit this section with the value of your Skills Assessor tenant ID and the URL to Skills Assessor. The Tenant ID can be found by opening the `Tenants` table in your Skills Assessor database and identifying the Tenant ID of the row for your tenant.

- If you want to disable the Skills Assessor link functionality, remove `Optimizer` from the `Features` section at the top of the file.

> Locate the `"LogFiles"` section in the file. In this section, there are several file paths, e.g.

`C:\WebSiteData\Logs\SkillsManagerWS\`
> This path sets the log location for the `SkillsManagerWS` web application. In `Windows Explorer`, either do the following:

- Create a new folder on the web server at the path:

`C:\WebSiteData\Logs\SkillsManagerWS\`

or

- Create a new folder on the IIS machine at any other preferred location. Then edit the file path in the `WebSettings.config` to match it.

Configuring the Invoker application

The Invoker application is required to support several Skills Management features.

To setup the Invoker application:

- Copy the `Apps.Invoker` folder from the release package to a suitable location on the web server.

- Open the `Apps.Invoker/Apps.Invoker.exe.config` file and locate the following web service endpoints:

```
<endpoint address="http://yourserver/Services.PersonalDevelopment/PersonalDevelopment.svc"
<endpoint address="http://yourserver/Services.DnaData/DnaService.svc"
<endpoint address="http://yourserver/Services.Wfm/Wfm.svc"
<endpoint address="http://yourserver/Services.LearningItems/LearningItems.svc"
```

If you require the Personal Development Email Notification feature, ensure that you edit the `PersonalDevelopment.svc` endpoint to match the location of the `PersonalDevelopment.svc` service in your environment.

If you require Skills Assessor with DNA, ensure that the `DnaService.svc` endpoint is updated to match the location of the `DnaService.svc` service in your environment.

If you require the Scheduling Training Requests via Portal feature, ensure that the `Wfm.svc` endpoint is updated to match the location of the `Wfm.svc` service in your environment.

If you require the automated learning item assignment feature (based on learning items associated with assessment content sections), ensure that the `LearningItems.svc` endpoint is updated to match the location of the `LearningItems.svc` service in your environment.

- Locate the following elements:

```
<add key="LogPath" value="***" />
<add key="Verbosity" value="Warning" />
```

Modify the value of the `LogPath` element to a suitable location that you wish to use for storing log files. Edit the value of the verbosity element to the required level of detail for the application's logs (valid options are, from least logging to maximal logging):

- Off
- Fatal
- Error
- Warning (the default)
- Info
- Debug
- Trace

Save and close the file.

Start Windows Task Scheduler and create a new task set to run on your determined schedule. The task should be set to run the Invoker application as its action. An argument must be specified when running the Invoker application. This argument can be one of the following:
1. DnaCubeEtl: use this argument if you are using Skills Assessor with DNA
2. ProcessQueues: use this argument if you require the automated assigning of learning items feature (via assessment content sections) or the rules engine.
3. WfmHierarchy: use this argument if you require the ability to create training requests via Portal
4. PdrReviewWindow: use this argument if you require PDR review window notification e-mails

The task action should be listed as, e.g.:
"C:\Program Files (x86)\Invoker\Apps.Invoker.exe" DnaCubeEtl

Note: If you will be using more than one of these features, create a new scheduled task for each required feature. Each scheduled task should have the Invoker application as its action with a different argument from the above list.

Installing the Invoker Service

Prerequisites

- The account that is specified during the installation under which the Invoker Service will run must have permissions to run as a service (see below).
- The `Invoker Service Installer` batch file must be present alongside the Invoker.exe
- The batch file must be run from an elevated command prompt (i.e. as an Administrator)
- DON'T TRY to right click on the batch file and select `Run as Administrator`. You'll need to start an elevated command prompt and change directory to the directory holding the `InstallInvokerService.bat` and the `Services.Invoker.exe`.

Service account considerations

The user account used to run the Skills Management services must have log on a service rights. You can use a local machine account for this provided that:
- The computer is not a member of a domain

  or

- The computer is a member of a domain and there is no group policy defining which accounts are able to log on as a service.

In the latter case, you must use a domain account as the service account.

Local user account

To give an existing local user account permissions to logon as a service:

1. Run `secpol.msc` or open `Local Security Policy` from `Control Panel / Administrative Tools`
2. In the left pane, expand `Local Policies` and select `User Rights Assignment`
3. On the right, locate the `Logon as a service` entry, and double-click on it.
4. If the user account in question does not appear in the list, add it using the `Add User or Group` option.

5. Click OK to close the dialog.

Domain user account

Your domain administrator will need to allow the account in question permissions to log on as a service.

Steps

Configure the Services.Invoker.exe.config file

Copy the Services.Invoker folder from the install package to a location on the server.
Open the Services.Invoker.exe.config file with Notepad or similar text editor.
In the appSettings section:

- Edit the value of the LogPath element to the folder that you want the service to use for storing log files

- If you wish, edit the Verbosity value to modify the detail level of the logs. The options are (from most detailed to least detailed): Trace, Debug, Info, Warning, Error and Fatal.

- Edit the value of the TimerFrequencySecs to affect how frequently the Service polls for new events to process (value is in seconds).

In the client section, edit the endpoint address value for the Events Service endpoint, e.g. http://localhost/Services.Events/Events.svc.

Save and close the file.

Install the service

Start an elevated command prompt.
Change directory to the location to which you copied the Invoker service files (e.g. cd D:\SLS\Applications\Services.Invoker)
At the command prompt, type InstallInvokerService and press Enter.
At the prompt Enter DOMAIN\UserName for service account: enter the user account to use to run the service (in the format DOMAIN\UserName).
At the prompt Enter password for service account: enter the password.

Note: The password specified will be displayed in plain text in the console window.

You should then see some text indicating that the service configuration has taken place:

```
[SC] CreateService SUCCESS
[SC] ChangeServiceConfig2 SUCCESS
[SC] ChangeServiceConfig2 SUCCESS

SERVICE_NAME: InvokerService
        TYPE               : 10  WIN32_OWN_PROCESS
        STATE              : 2  START_PENDING
                                (STOPPABLE, NOT_PAUSABLE,
ACCEPTS_SHUTDOWN)
        WIN32_EXIT_CODE    : 0  (0x0)
        SERVICE_EXIT_CODE  : 0  (0x0)
        CHECKPOINT         : 0x0
        WAIT_HINT          : 0x0
        PID                : 13784
        FLAGS              :
Press any key to continue . . .
```

Press any key to complete the process.
You can then close the command prompt.

Check service credentials

Verify the credentials you entered were correct by checking the `Services` Administrative Tool.

Locate the `PerformanceDNA Invoker Service` in the list of services, and ensure it is running. If it is not, this may be because the service account was not given log on as a service rights.
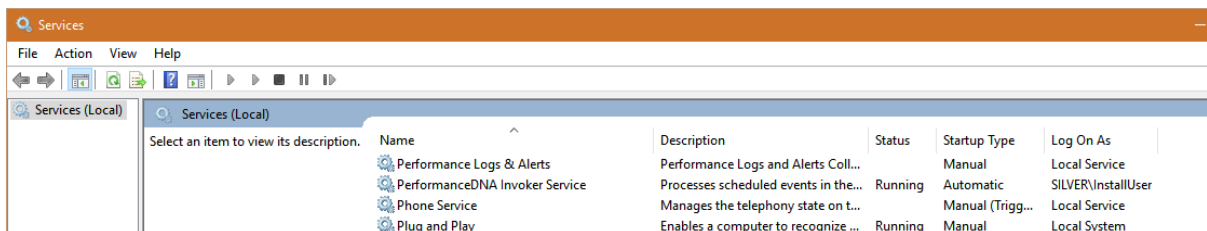
If the service is not running and you are using a local computer account (rather than a domain account) you can double-click the service and correct the credentials in the `Log On` tab.

If you are using a domain account, ensure that it has the rights to log on as a service and refresh the local group policy by running `gpupdate /force` from an elevated command prompt.

Genesys

4   Company Configuration

Tenant Administration

Login to the Tenant Administration part of the application

The Tenant Administration part of the application is by default only accessible through localhost via a web browser, e.g. http://localhost/SkillsAssessor.

Note: If you have set up Skills Assessor to be accessed as a root site, we recommend you create a binding in IIS (for example localhost, port 8888) so the administration site is accessible.

1. Go to the Skills Assessor site via localhost (for example `http://localhost/SkillsAssessor`).

2. The `Select Tenant` drop-down list should show `Tenant Administration`.

3. Use the (default) credentials `admin` and `password` to log into the Tenant Administration screens.

Licensing the Tenant Administrator User

On initial login, you will receive the message `The license key does not match the registered information.`

1. Click on the `Licensing` tab, and enter the following details.

    a. In the `Company Name` box, enter `Skills Assessor Tenant Administration`

    b. In the `Number of licensed users` box, enter `1`

    c. In the `License expiry date` box, enter `01/01/2020`

       d. In the `Host name` box, enter `localhost`

       e. In the `Enter License Key` box, enter the license key:
          `7D97V-12EL1-E4GC2-L0FE3-VBXQT`

2. You will receive the message `License key updated successfully.`

3. Log out of the site, then log back in again to complete the tenant administrator licensing process.

Creating a new tenant

- Once logged in you should see the Tenant Management screen.

- Click the `Create New Tenant` button.

- Enter the name and primary contact details for the tenant that will be using the application, then click `Next`. Note: These are usually the name of your organization or division within your organization, and the name of the main system administrator.

- Enter the license details for this tenant into the boxes provided then click `Next`.

- Enter the administrator user details to create a new administrator for the tenant.

- Click `Finish` to close the wizard.

If you wish to convert Skills Assessor to use Active Directory authentication rather than the default form-based login system, please consult the `Installing and configuring AD authentication via the SLS Secure Token Service` document.

- Enter the License details for this company into the boxes provided, then click `Next`.

- Enter the administrator user details for the new tenant.

- Click Finish to close the wizard.

If you have configured Skills Assessor to use DNA it will be necessary to setup the DNA Data Service URL:

- Login to the tenant as the administrator
- Go to the System Settings page
- Click the General Settings tab
- Enter the DNA Data Service URL into the field at the bottom of the form
- Click Save Changes

![Genesys logo]

5 Configuring DNA

Prerequisites

Prior to configuring DNA, ensure that SQL Server Analysis Services is running, and set to auto-start.

Notes:
*   If you are configuring DNA on a Skills Assessor instance which is set up on separate servers for the application and the database, you will need to create an identical (same username and password) account on both of these machines. This account must be added to the list of users in SQL Server and granted either the `sysadmin` or `SQLAgentOperator` or `dbo` role against the `MSDB` database. This user should also be set as the `identity` for the Skills Assessor application pool.

*   This guide assumes that Skills Assessor is being configured with one tenant that will use DNA. If multiple tenants are required, a separate DNA database and data service (`services.DnaData`) will be required per tenant. The DNA data service should be configured to access the appropriate database for each tenant. Once DNA is setup for the tenant, an administrator should login, access the system settings page and ensure the correct DNA data service is configured for each tenant.

Creating the DNA Database

*   Open `SQL Server Management Studio` and create a new blank database. The name of the database is not important; for illustrative purposes, the name used throughout this document is `DNA_Example`.

- Grant the Skills Assessor database user `db_owner` rights to this database.

Enabling DNA

1. In the `Tenant Management` screen, click on the `Setup DNA` link against the company you created; the `DNA Setup` screen will appear.

2. Complete the settings in the top half of the screen (above the `Save DNA Database Settings` button) as per your database setup:

   a. In the `Database Server` box, enter the name of the SQL Server.

   b. In the `Database Name` box, enter the tenant's DNA Database name (e.g. `DNA_Example`).

   c. In the `Username` box enter the Skills Assessor database user's name (e.g. `SLSUser`).

   d. In the `Password` box enter the Skills Assessor database user's password (e.g. `515U53r`).

3. Click the `Save DNA Database Settings` button to create the database structure.

Once the DNA database has been set, the supporting information for DNA must be entered to ensure that the packages are configured correctly.

1. Set SQL version to the version of SQL Server you are using for Skills Assessor and DNA. If you are using SQL Server 2012, choose Microsoft SQL 2008 here and follow the steps for configuring SQL Server 2012 in the following section.

2. In the `DNA Username` and `DNA Password` boxes, type in the username and password of a user that is a member of the `sysadmin` fixed server role in the SQL Server that is hosting Integration Services, or a user who has **dbo** access on the msdb database.

   Note: This information is not stored anywhere and is only used to create the SQL Server Agent job to execute the Integration Services package.

3. In the `SQL Analysis Server` box, enter the name of the server that is running SQL Server Analysis Services.

4. Click the `Save Package Settings` button to save the settings.

5. In the `DNA Database settings` section, click on the `DNA Enabled` checkbox

6. Click `OK` when requested to confirm that you want to enable DNA.

Genesys

Chapter

6 Configuring Optional Features

Enabling JZero LMS Learning Item Integration

Pre-requisites: DNA, a JZero LMS instance accessible from the Skills Assessor web server.

The JLMS learning item integration feature allows Skills Assessor administrators to assign Skills Assessor assessments to JZero LMS users. These assessments can then be viewed and launched from the JLMS.

Follow the steps below to enable JLMS Learning Item integration features.

Open the `web.config` document from the `Services.LmsInterface` folder on the web server.

Locate and edit the following element to match the location of the JLMS assessment.asmx web service in your environment:

```
<endpoint address="http://***/***/jzeroskillsassess/assessment.asmx"
```

Locate and edit the following element to match the location of the `Settings.svc` (Services.Settings) in your environment:

```
<endpoint address="http://***/Services.Settings/Settings.svc"
```

Edit the `LogPath` element to the logging directory in your environment.

Login to the tenant you wish to enable JLMS features for as a tenant administrator.

Click on the `System Settings` link.

In the `User Fields` tab create a new user field to hold users' JLMS user names.

Browse to the `System Settings` page and select the `General Settings` tab.

Tick the `LMS Integration Enabled` option.

Set the LMS Type dropdown to `Jzero`.

Specify the `LMS URL`, the `LMS Employee ID` value and the `LMS UserId Field` in the following controls.

Click `Save Changes`, then click the `Test LMS Settings` to confirm that the connection details are correct.

Go to the `Users & Hierarchy` page. For each user you wish to have access to the JLMS Learning Item functionality:

1. Right click on each user in the hierarchy
2. Click `Edit user details`
3. Select the user on the left side of the page.
4. Set a value for the `JLMS login` user field you created earlier. The username entered here must match a valid JLMS username in your environment.

Skills Assessor is now configured to support JLMS learning items. Any users with access to the Learning `Items` page will now be able to create JLMS course learning items, associate them with DNA components and assign them to users.

Learning Item Auto-Assignment Application

Pre-requisites: DNA

The Learning Item Auto-Assignment application can be used to automatically assign recommended learning items to users based on their DNA scores. This removes the need for administrators to manually assign learning items that fall into users' `recommended` ranges. Follow the steps below to install the application.

Double click the `LearningItemAutoAssignSetup_v.4.6.0.msi` in the release package.

Click `Next` on the Welcome to the Learning Item Auto-Assignment Setup Wizard screen.

Either leave the default installation location set or click the `Change` button to select an alternative location. Click `Next`.

In the Web Service Connections page:

Enter the URL for the `Learning Item Assignment service` in the first text box excluding the Service name and the last forward slash. For example, if your learning item assignment service is located at:

```
http://localhost/Services/Services.LearningItems/LearningItems
.svc
```

Enter the following into the first text box:

```
http://localhost/Services/Services.LearningItems
```

Enter the equivalent value for the `DNA Data Service` into the second text box.

Enter the Skills Assessor tenant ID into the third text box. This can be found by opening the Skills Assessor database and checking the ID of the tenant you wish to configure in the `dbo.Tenants` table.

The log file path text box sets the location of the application's log files. The log file path (4th text box) can either be left at its default value or an alternative folder can be selected.

Click the `Next` button.

Click the `Install` button.

Click the `Finish` button once the wizard has completed installing the application.

Once the application is installed it will be possible to start the application manually by browsing to the install location and double-clicking the `LearningItemAutoAssign_v4.6.0.exe` file. Alternatively, a scheduled task can be created on the server hosting application to run the task at a pre-defined schedule. Since the application may take some time to finish (depending on the number of users, KPIs and learning items) it is recommended that scheduled tasks running the application are set to run once per day.

Auto Rank Calculation Application

Pre-requisites: DNA

Learning items can be associated with DNA components. A priority can be assigned to the DNA component-learning item association. This priority can either be manually defined by administrators or automatically defined by the auto rank calculation application.

The auto rank calculation application correlates learning item results (e.g. assessments) with DNA component scores. Items are ranked highly if there is a positive correlation between a learning item's results and a subsequent

improvement in the associated DNA component score. Items that have a weak or negative correlation are left un-ranked by the application.

Follow the steps below to install the application.

Double click the `AutoRankCalculationApplication_v.4.6.0.msi` in the release package.

Click `Next` on the `Welcome to the Learning Item Auto-Ranking Setup Wizard` screen.

Either leave the default installation location set or click the `Change` button to select an alternative location.

In the `Web Service Connections` screen enter the URL for the `DNA data service` and `Skills Assessor`. Be sure to exclude the service name and last forward slash from the entered URLs, e.g.:

DNA data service: http://localhost/Services/Services.DnaData

Skills Assessor: http://localhost/SkillsAssessor

Click `Install` on the `Ready to install Learning Item Auto-Ranking` screen.

Browse to the install folder and open the `SilverLining.PerformanceDNA.Apps.PerformAutoRankCalculation.exe.config`

Once the application is installed it will be possible to start the application manually by browsing to the install location and editing the `SilverLining.PerformanceDNA.Apps.PerformAutoRankCalculation.exe.config` file. Edit the logpath so that it the value is set to a folder that will be used to store the application's log files.

`SilverLining.PerformanceDNA.Apps.PerformAutoRankCalculation.exe` file. Alternatively, a scheduled task can be created on the server hosting application to run the task at a pre-defined schedule. Since the application may take some time to finish (depending on the number of users, KPIs and learning items) it is recommended that scheduled tasks running the application are set to run once per day.

DNA Import Setup

Pre-requisites: DNA installed and configured (users, DNA components and blocks should be present prior to setting up the DNA Import Service)

Notes:

- This application is currently not compatible with Skills Assessor instances that use Active Directory (`STS`) authentication.
- The service must have network access to the Skills Assessor web server.

The `DNA Import Service` allows for the automated import of KPI spreadsheets via a user-defined import folder. The service automatically processes any valid KPI spreadsheet files that are placed in the import folder. Once the files are processed they are moved from the import folder to a user-defined archive folder.

Installing the DNA Import Service

Double click the `DNAImportSetup_v.4.6.0.msi` in the release package.

Click `Next` on the Welcome to the `DNA Import Service Setup Wizard` screen.

On the Destination Folder screen either leave the installation location at its default value or click the `Change` button to select an alternative location.

Click `Next`.

In the `Service account` screen you can specify whether to use an existing service account or a custom account.

Note: If you set the service to run under a custom user account then this account must have permissions to log on as a service.

Click `Next` once you have set the service/account under which the DNA Import Service will run.

Click `Install` on the `Ready to install DNA Import Service` screen.

Click `Finish` once the installation wizard has completed installing the service.

Configuring the DNA Import Service

Browse to the DNA Import Service installation location.

Open the `DNAImportService.exe.config` file with Notepad or similar text editor.

Locate the following element:

```
<value>http://***/SkillsAssessor/WS/ImportKpiData.asmx</value>
```

Edit the value to match the location of the `SkillsAssessor/WS/ImportKpiData.asmx` web service. Save the file.

Login to Skills Assessor as a tenant administrator.

Click the `Import Templates` link.

Click the `New import template` button.

Set a name for the new template in the `Template Name` field.

Set the `Import Template Type` dropdown box to `DNA`.

In the `Source Description` field enter the column label for the Skills Assessor username as it appears in your import spreadsheets.

Set the `Source ID` field to the number of the column in the spreadsheet. This value is zero-based so the first column in the spreadsheet has a Source ID of '0'.

In the `Maps To` dropdown select the user field that is used to authenticate users, e.g. Login ID.

In the `Date Field Description` enter the label of the column used to store the dates of the contained KPI values.

In `Date Field ID` enter the number of the column in the spreadsheet that holds the dates of the contained KPI values. As before, this value is zero-based.

Click the `Save` button.

An additional box will appear under the form along with an `Add mapping` button.

For each column in the import spreadsheet that holds users' KPI values:

- Click the `Add mapping` button to create an association between a spreadsheet column and a KPI.
- In the `Source Description` field enter the label of the column that holds KPI value records.
- In the `Source ID` field enter the number of the column (zero-based).
- In the `destination field` dropdown box select the KPI which is associated with this column.
- Click `Save`.

Each mapping can be edited and removed using the associated buttons in the mappings table.

Make a note of the `Template ID`, as displayed at the top of this page, as it is required to configure the DNA Import Service.

Open the `config.xml` file with Notepad or similar text editor.

Locate the following element:

```
<IMPORTS WebServiceURL="http://***/WS/Import/DNA.asmx" ArchiveFilesPath="***">
```

Edit the value of the `WebServiceURL` element to match the location of the `SkillsAssessor/WS/ImportKpiData.asmx` service.

Set the value of the `ArchiveFilesPath` element to the location of the archive folder, e.g. `C:\archive\`. The service will move files from the import folder to the archive folder once they've been processed.

Locate the following element:

```
<IMPORTDETAILS Folder="***" TenantID="***" MappingTemplateID="***" UserID="***"
AuthUserName="***" AuthUserPassword="***" />
```

Set the `Folder` value to the folder you wish to use as the import folder, e.g. `C:\DNAImport\`.

Set the `TenantID` to the ID of the tenant you are configuring the service for. This can be found by opening the `dbo.Tenants` table in the Skills Assessor database.

Set the value of the `MappingTemplateID` element to the ID of the mapping template you created earlier (as displayed at the top of the edit mapping template page).

The `UserID` element may be left at its default value.

Set the `AuthUserName` to the username of the Skills Assessor user for whom the service is being configured.

Set the `AuthUserPassword` to the password of the Skills Assessor user for whom the service is being configured.

Click `Start -> All Programs -> Administrative Tools -> Services`.

Locate the DNA Import Service in the Services (Local) list.

Right click on the service and click the `Restart` option. Changes made to the service's `DNAImportService.exe.config` or `config.xml` file will not be applied until the service is restarted.

Ensure that the service is set to `Automatic` in the `Startup Type` column.

If the service is not set to start automatically right click on the service and click the `Properties` button.

Set the `Startup` type dropdown to `Automatic`.

Click the `OK` button.

Using `Windows Explorer`, browse to the folder that contains the import folder you've created.

Right click on the folder and click `Properties`.

Click the `Security` tab.

Click `Add`.

In the `Enter the object names to select` field enter the name of the service or domain user account that is used to run the DNA Import Service.

Click the `Check Names` button.

Click the `OK` button.

Tick the `Full Control – Allow` checkbox for the added service/domain account.

Click the `Apply` button.

Click the `OK` button.

Repeat the above process for the archive folder.

The DNA Import Service is now configured. Copying files into the import folder will cause the service to import the KPI values into the Skills Assessor database and then move the file into the archive folder. The file will be renamed prior to being moved to the archive folder to prevent naming conflicts. The service produces a log of its activities which is accessible from the service's install location.

Configuring Skills Assessor Branding

Skills Assessor branding can be configured either via the `Branding` page or by using one of the existing branding presets. To modify your branding preset, open the `Skills Assessor Web.config` file and locate the following element:

`<add key="Branding" value="Default" />`

The possible values for this element are: `Default` and `Genesys`.

3rd Party Authentication

The latest version of Skills Assessor and Portal now allow for a 3rd party authentication scheme. This requires a software component provided by a customer to authenticate against a customer's database of users. This facility is provided as an alternative to the STS configuration.

When configured correctly the login screen will re-direct to a customer provided web site to enter user credentials. The 3rd party application will need to call a Web service provided by Silver Lining with an authentication token when the user is authenticated. The 3rd Party Application will then re-direct back to a landing page which will validate the authentication token and log the user in to the system.

Skills Assessor Configuration

The following settings must be provided in the System Settings for Skills Assessor to enable 3rd Party Authentication:

- The Tick box to enable 3rd Party Authentication must be ticked in order to make the other fields appear

- The 3rd Party Authentication login page.

- The 3rd Party Authentication logout page.

- The user field in Skills Assessor that identifies the user for login (e.g. LoginID, Employee Number).

Portal Configuration (via Training Manager)

The following settings must be provided in the Portal Settings page of Training Manager to enable 3rd Party Authentication:

- A drop down so you can choose whether to user the user name or employee name for authentication.

- The 3rd Party Authentication login page.

- The 3rd Party Authentication logout page.

Configuring 'Update Routing Skills'

Connectivity Overview

Skills Assessor updates routing skills in Genesys through the GIS SOAP webservice interface. Firstly a connection is made to the `SessionService` service to get a `GIS` Session token, then various calls are made to the `CSProxyService` service to retrieve and update information in `CME`.

Configuring Skills Assessor with GIS

Required database entry

Before the configuration options for GIS will appear in Skills Assessor, a new record needs adding to the Providings table. The following script will create the appropriate setting for all tenants:

```sql
INSERT INTO dbo.Providings(TenantID, SystemNumber, SystemName, SystemTitle,
        SystemVersion)
                SELECT  t.TenantID, 101, 'Genesys','Genesys','GIS'
                FROM    dbo.Tenants t
                WHERE   t.TenantID > 0
        AND NOT EXISTS (SELECT * FROM dbo.Providings WHERE SystemNumber=101 AND
                    TenantID=t.TenantID)
```

Please refer to the Skills Assessor Administrator Guide for remaining instructions on setting up the GIS authentication options via Skills Assessor.