



Skills Assessor 8.5.546

Manual Upgrade Guide

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Preface

Welcome to the *Genesys Skills Assessor Upgrade Guide*. This *Upgrade Guide* has been designed to allow an administrator to upgrade the Skills Assessor application from an existing instance of Skills Assessor.

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

For information about related resources and about the conventions that are used in this document, see the supplementary material starting on [page 6](#).

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.

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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/customer care/GenesysCommunityLogin>



Chapter

1 Prerequisites

Server prerequisites

Database Server Software 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 should be available on the server

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)

- IIS must be configured to allow ASP.NET v4.0.30319. For more information see: <http://msdn.microsoft.com/en-us/library/k6h9cz8h.aspx>
 - The IIS server role should have Windows Authentication installed (through Add Roles and Features in Server Manager, then choosing Web Server (IIS) > Web Server > Security in Server Roles).
 - 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
 - For operating systems prior to Server 2012, the download required is available here: <http://www.microsoft.com/en-gb/download/details.aspx?id=17331>
 - Ensure you download the appropriate version for your web server.
 - 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:
 - Java Runtime Environment (<http://java.com/en/download/index.jsp>)
 - 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 should install the 32-bit version of the Microsoft Access Database Engine 2010 Redistributable and the 2007 Office System Driver: Data Connectivity Components from
 - <https://www.microsoft.com/en-us/download/details.aspx?id=13255>

- <http://www.microsoft.com/en-us/download/confirmation.aspx?id=23734>

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

An existing, working, version 4.2 (or later) application.

Browser support: Skills Assessor is supported in Microsoft Internet Explorer 8+, latest versions of Chrome and Firefox. If using Internet Explorer, ensure that it is not set to 'standards document mode'.

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.

If you are installing Skills Management in a multi-server environment, a domain account is 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-dtctping-tool.aspx>

Required Files

Your IP folder should contain the following files and folders:

- DB Installation Files
 - This contains the file required to upgrade the database
- SkillsAssessor
 - This contains the files and folders required to upgrade the web application
- Services
- Installation Guides

The release folder also includes the following installation MSI files:

- AutoRankCalculationApplication_vX.Y.ZZZZ.msi
- DNAImportSetup_vX.Y.ZZZZ.msi
- EmailMessagingServiceSetup_vX.Y.ZZZZ.msi
- LearningItemAutoAssignSetup_vX.Y.ZZZZ.msi
- NotificationsUISetup_vX.Y.ZZZZ.msi
- PrePostCourseAssessmentHelperSetup_vX.Y.ZZZZ.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.



Chapter

2 Database Upgrade

Preparation

- Copy the DB Installation Files folder to the SQL Server
- Login to SQL Server Management Studio
- Take a backup of your existing database
- If you don't have an existing database for Training Manager, create a blank database called **TrainingManager** and grant the database user assigned to the Skills Assessor database dbo permissions on the new Training Manager database.
- It is assumed that a **PerformanceDNARports** or **ReportingDB** is present in your environment from a previous version. If this is not the case, create a database called **PerformanceDNARports** and grant the **SkillsAssessor** database user dbo permissions on this database.
- Note: Any configuration file elements for connection strings labelled 'Optimizer' or 'OptimizerContext' should be set to the relevant values for your SkillsAssessor database. Similarly, any configuration file elements labelled 'Planner' should be set to the relevant values for your TrainingManager database.

Update the Databases

- Open the release package/DB Installation Files/ folder.
- Right click on the `makedb.config` file and choose to edit it with Notepad or similar text editor.
- Locate the `<connectionStrings>` element in the config file

- Update the connection string details for the Training Manager, Skills Assessor and PerformanceDNAReports databases.

Notes:

The reportingdb will be listed as PerformanceDNAReports in the config file and should be renamed in the connection string to match the name of your reporting database if it is not called PerformanceDNAReports.

- Run the `makedb.bat` file from the `release/DB Installation Files` folder to update the databases.



Chapter

3 Web Application Upgrade

Steps

Backup the existing web application and set file permissions

1. Locate the current application folder on the web server.
2. Copy the current application folder and all its contents to another location to serve as a backup.

Upgrade the application files

1. Locate the current application folder on the web server.
2. Delete the content of the SkillsAssessor folder.
3. Copy the entire contents of the SkillsAssessor folder from the install package to the empty SkillsAssessor folder on the web server.

Web Service Installation

Browse to the folder used to hold Skills Assessor web services.
Delete all of the existing service folders from the `Services` folder.
Browse to the release package/Services folder and copy all folders into your `Services` folder. The `Services.Notifications` folder can be excluded if you don't wish to use the STS service with the notifications client.

Open IIS manager and open the `Services` virtual directory.
Convert all services that appear as folders rather than applications to applications by following these steps (repeat for each service):

- Right click on the folder
- Click `Convert to Application`

- Click **Select** and choose the Skills Assessor application pool
- Click **OK**
- Click **OK**

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=PerformanceDNAResports;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

- Services.DnaData
- Services.Events
 - Services.LearningItems
 - Services.Optimizer.Users
 - Services.Settings
 - Services.MessageStorage
- Services.LearningItems
 - Services.Dna
 - Both of the SkillsAssessor/WS endpoints
 - Services.Settings
 - Services.LmsInterface
- Services.LmsInterface
 - Services.Settings
- Services.MessageStorage
 - Services.Settings
- Services.Optimizer.Users
 - Services.Dna
 - the SkillsAssessor/WS endpoint
 - Services.Settings
- Services.PermissionManagement
 - Services.Optimizer.Users
 - Services.Settings
- Services.PersonalDevelopment
 - Services.Optimizer.Users
 - Services.Settings
 - Services.MessageStorage
- Services.Questions
 - Services.Tagging
- Services.Scheduling
 - Services.Iex
 - Services.Calendars
 - Services.Places

- the SkillsManagerWS/WS endpoint
 - Services.Training
 - Services.Meetings
-
- Services.Wfm
 - 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=TrainingManager;UID=***;PWD=***;Trusted_Connection=False</SkillsManager>
</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 Skills Assessor 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 Skills Assessor application

The next step to install the application is to update the application configuration file to reflect your installation. 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:

```
<add name="OptimizerContext" connectionString="Server=sqlservername; Database=database; UID=databaseusername; PWD=databaseuserpassword; 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 Training Manager database, locate the `ReportsPlannerDBConnectionString` element inside the `appSettings` section:

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

Update the value of this element to match the database connection string details of your Training Manager 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 entitled 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">
```

Configuring the Invoker application

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

To setup the Invoker application:

1. Copy the `Apps.Invoker` folder from the release package to a suitable location on the web server.
2. 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 are using 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.

3. 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.

4. Start Windows Task Scheduler and create a new task set to run on your required 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:
 - a. DnaCubeEtl: use this argument if you are using Skills Assessor with DNA
 - b. ProcessQueues: use this argument if you require the automated assigning of learning items feature (via assessment content sections) or the rules engine.
 - c. WfmHierarchy: use this argument if you require the ability to create training requests via Portal
 - d. 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 require more than one of these features, create a new scheduled 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)
 - Right-clicking on the batch file and select `Run as Administrator` will not work in this case. It is necessary 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 as 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.

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 . . .

```

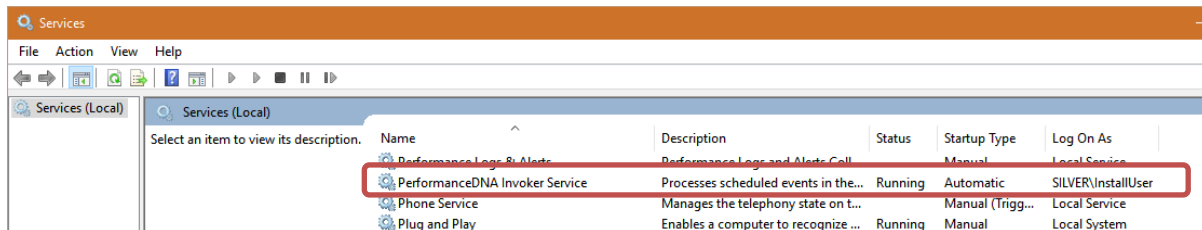
Press a key to complete the process.

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.

Upgrading DNA

Note: This section only applies if DNA was configured prior to the upgrade. Log into the Tenant Administration screen and then for each affected tenant, and click the **Setup DNA** option.

Disable DNA

Untick the `DNA Enabled` checkbox to temporarily disable DNA. This will allow the editing of the Data Service URL, and allow the database to be upgraded.

Update the DNA Data Service URL (if required)

If you have chosen to setup the site in HTTPS mode and the site was previously in a non-HTTPS configuration (or vice-versa) you need to reconfigure the DNA Data service endpoint for each DNA enabled tenant.

- Click the `Click to edit DNA Database settings` option.
- Change the `DNA Data Service URL` option to match the protocol now in use on your site (i.e. change the URL prefix to either `http://` or `https://` as appropriate)
- Click the `Save DNA Database settings` option

Re-enable DNA

- Re-tick the `DNA Enabled` checkbox.
- Click the `Test DNA Setup` button.
- Close the popup.

This will complete the DNA upgrade process.

Note: If your SQL Server instance includes the `RefreshDNACube.dtsx` package and/or a `SQL Server Agent` job for refreshing the DNA cube, both of these items can now be removed as they are no longer used by Skills Assessor.

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 v8.5.460` document.

4

Configuring Optional Features

Skills Assessor includes several optional applications/services that provide the ability to:

- Automatically import DNA KPI data via the `DNA Import Service` (installer: `DNAImportSetup_v4.6.0.msi`)
- Automatically assign learning items to users via the `Learning Item Auto-Assignment` application (installer: `LearningItemAutoAssignSetup_v8.5.460.msi`)
- Automatically calculate the correlation between KPIs and learning items via the `Learning Item Auto-Ranking` application (installer: `AutoRankCalculationApplication_v8.5.460.msi`)
- Allow administrators to create JZero LMS learning items and assign them to users via the JLMS Learning Item Integration functionality.

The following sections provide instructions for installing and configuring these optional components.

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 them 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.

In the **Web Service Connections** screen:

Enter the URL for the **Learning Items** 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>

you should 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

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 defined by admins manually or automatically 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 scores 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 directory and edit the

`SilverLining.PerformanceDNA.Apps.PerformAutoRankCalculation.exe.config` file.

Locate the `LogPath` element and change the value to a directory that the application should use to store its log files. Save and close the file.

Once the application is installed it will be possible to start the application manually by browsing to the install location and double-clicking the `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:

```
<setting name="DNAImportService_DNAWebServices_DNAWebServices"
    serializeAs="String">
    <value>http://***/DNA/DNAWebServices.asmx</value>
</setting>
```

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.

Template ID	2
Template Name	Key KPIs
Import Template Type	DNA
Unique Field Mapping	
Source Description	Login ID
Source ID	1
Maps To	Login ID
Date Field Mapping	
Date Field Description	date
Date Field ID	0
Save	

Source Description	Source ID	Destination Field		
Feedback	4	feedback (KPIs)	Edit	Remove

Add mapping

Details updated

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" ArchiveFilePath="****">
```

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

Set the value of the `ArchiveFilePath` 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:

Optimizer URL	<input type="text" value="http://localhost/optimizer"/>
Enable Third-Party Authentication	<input checked="" type="checkbox"/>
Third-Party Authentication Login Page URL	<input type="text" value="http://localhost/mockslsauth/userlogin/authenticate"/> *
Third-Party Authentication Logout Page URL	<input type="text" value="http://localhost/mockslsauth/userlogin/logout"/>
User Field for Third Party Authentication	<input type="text" value="Job Title"/>

- A Tick box to enable 3rd Party Authentication, this makes the other fields appear.
- The 3rd Party Authentication login page.
- The 3rd Party Authentication logout page.

- The user field in Skills Assessor to use for choosing which user to login.

Portal Configuration (via Training Manager)

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

<input checked="" type="radio"/> SLS Third Party	Authenticate with	<input type="text" value="User Name"/>
	Login URL	<input type="text" value="http://localhost/mockslsauth/userlogin/authenticate"/>
	Logout URL	<input type="text" value="http://localhost/mockslsauth/userlogin/logout"/>

- A drop down so you can choose whether to use 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:

```
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.

