

Spotlight Audit/RM - Silent Install Process 6.45

Blackchair Spotlight Spotlight Audit\Release Management

Silent Install Process

Version 6.45

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Folder Structure

Provided with the Spotlight software is a **cmd** file called **FolderStructure2.cmd**. This file can be used to create a uniformed folder structure in which to install the Spotlight components.

NOTE: *If possible the installation of the Spotlight software on the C: drive should be avoided unless requested to do so by the customer.*

To create the folders:

- Right click the file and select **Run as Administrator**
- Enter the data drive location – eg **D:** (If the customer request that the Spoltight folders be placed in a particular location enter the location accordingly e.g **D:\MyFolder**)
- Select **Enter**
- Enter the log drive location – eg **D:** (If the customer request that the Spoltight folders be placed in a particular location enter the location accordingly e.g **D:\MyFolder**)
- Select **Enter**
- Select **Enter** to close

```
C:\Windows\System32\cmd.exe
Enter the drive letter and location for the DATA folders.
IMPORTANT NOTE: Entry must NOT end with a back slash (\).

Enter location for data folders:D:\MyFolder

Enter the drive letter and location for the LOG folders.
IMPORTANT NOTE: Entry must NOT end with a back slash (\).

Enter location for log folders:D:\MyFolder

*** Folders created. ***

*** LogPurge.bat file created. ***

Hit enter to close.
```

The folder structure, and **LogPurge.bat** file, will now be created. One of the Spotlight folders created is called **...Blackchair\Software**. It is recommended that the Spotlight install files and any other Spotlight software provided by Blackchair is placed into this folder prior to installation.

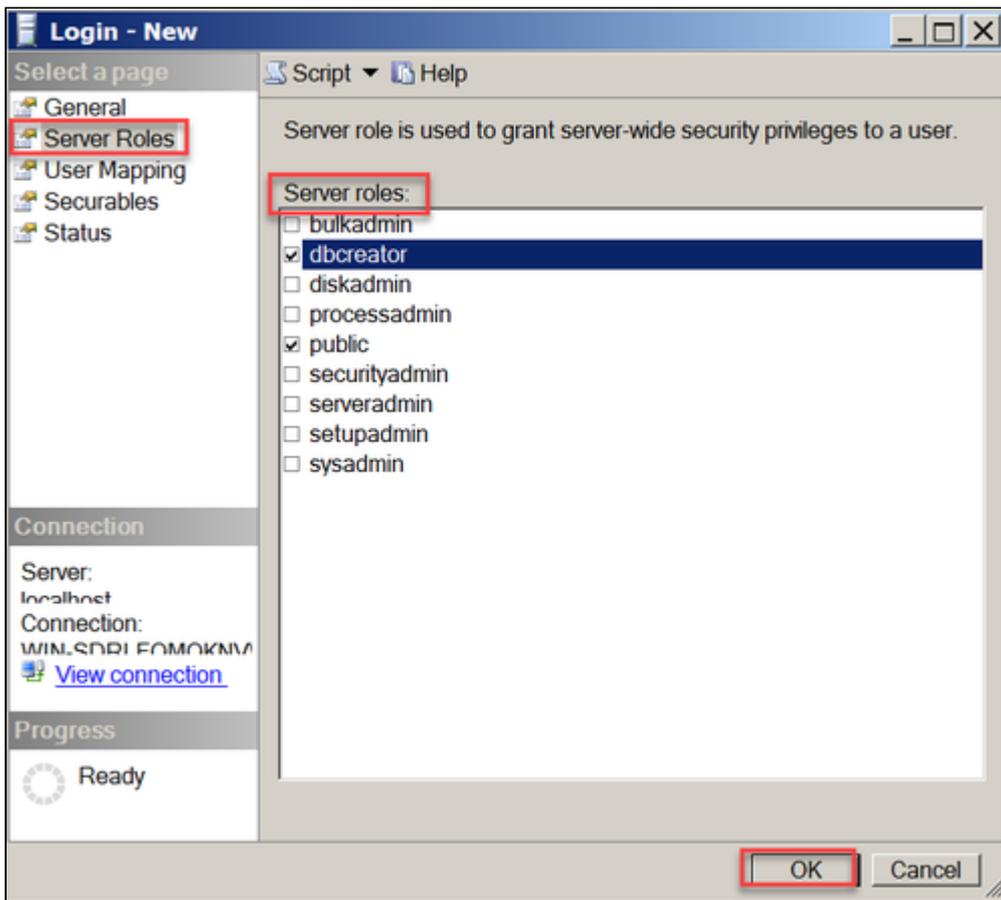
Database Owner

All Spotlight databases, configuration and model, are owned by the same **SQL Server** login. Using **SQL Server Management Studio** create a new login with SQL server authentication and no enforcement of password policy, as shown in the following example.

- Expand **Security**, right click **Logins** and select **New Login**



- Enter a Login Name, "**spotlight**" is recommended however any login name can be created.
 - Select **SQL Server Authentication**, then enter a password and confirm the password
 - Ensure **Enforce Password Expiration** and **User must change password at next login** are unchecked.
-
- In the Server Roles page ensure the new user has **dbcreator** role assigned



- Select **OK**

Prepare Installation Files

Locate and open in any text editor the "**DBSetup.csv**" file located in "**C:\Blackchair\Software\Spotlight Core Audit Installation v6.41\Silent Install**"

Amend the following:

- S1 - Databases already created - change from no to yes if they have been created
- S2 - Spotlight DB Host – host where spotlight and slconfig dbs will be created
- S3 - Slconfig DB Name

- S4 - Spotlight DB Name
- S5 - Spotlight DB Username – name of user to access Spotlight and slconfig dbs created previously
- S6 - Spotlight DB Password – password of user to access Spotlight and slconfig dbs created previously
- G1 - Genesys Version – 80, 81 or 85
- F1 - Output Folder – C:\Blackchair\Install Files if folder structure has been created as above

```
S1,Databases already created:,,no
S2,Spotlight database host:,,WIN-SDRLFQMKNV
S3,SLConfig database name:,,slconfig
S4,Spotlight database name:,,SpotlightPROD
S5,Spotlight database username:,,spotlight
S6,Spotlight database password:,,spotlight

G1,Genesys Version (80/81/85):,,81

F1,Install Assistant output folder:,,C:\Blackchair\InstallFiles
```

Save and close the file

Locate and open in any text editor the "InstallAssistant.csv" file located in "C:\Blackchair\Software\Spotlight Core Audit Installation v6.30\Silent Install"

Amend the following:

- S1 - SQL Server Instance – Named or Default
- S2 - Spotlight DB Host – host where spotlight and slconfig dbs will be created
- S3 - Slconfig DB Name
- S4 - Spotlight DB Name
- S5 - Spotlight DB Username – name of user to access Spotlight and slconfig dbs created previously
- S6 - Spotlight DB Password – password of user to access Spotlight and slconfig dbs created previously

```
S1,SQL Server Spotlight instance (Default or Named):,,Default
S2,Spotlight database host:,,WIN-SDRLFQMKNV
S3,SLConfig database name:,,slconfig
S4,Spotlight database name:,,SpotlightPROD
S5,Spotlight database username:,,spotlight
S6,Spotlight database password:,,spotlight
```

- C1 - Genesys Primary Config Server/Proxy IP Address
- C2 - Genesys Primary Config Server/Proxy Port
- C3 - Genesys Backup Config Server/Proxy IP Address
- C4 - Genesys Backup Config Server/Proxy Port
- C5 - Genesys Config Application Name
- C6 - Genesys Username
- C7 - Genesys Password
- C8 - TLS Enabled – True/False

- C9 - Genesys Primary Message Server IP Address
- C10 - Genesys Primary Message Server Port
- C11 - Genesys Backup Message Server IP Address
- C12 - Genesys Backup Message Server Port

```
C1,Config Server / CS Proxy Primary IP:,127.0.0.1
C2,Config Server / CS Proxy Primary Port:,2020
C3,Config Server / CS Proxy Backup IP:,127.0.0.1
C4,Config Server / CS Proxy Backup Port:,2020
C5,Config application name:,default
C6,username:,default
C7,password:,password
C8,Config Server TLS Enabled:,False
C9,Message Server Primary IP:,127.0.0.1
C10,Message Server Primary Port:,2050
C11,Message Server Backup IP:,127.0.0.1
C12,Message Server Backup Port:,2050
```

- E1 - Spotlight Environment Name
- E2 - Name of Timezone

```
E1,Spotlight environment name:,PROD
E2,Name of Time Zone from https://msdn.microsoft.com/en-us/library/ms912391.aspx,GMT Standard Time
```

- F1 - Loader Install Folder
- F3 - IIS Install Folder
- F4 - Application Log Folder
- F5,Install Assistant output folder
- F6,Comms installation folder
- F7,UI/Comms log folder

```
F1,Loader installation folder:,C:\temp
F2,Tomcat installation folder:,C:\temp
F3,IIS application folder (full path to wwwroot):,C:\inetpub\wwwroot
F4,Application log folder:,C:\logs
F5,Install Assistant output folder:,C:\installconfigs
F6,Comms installation folder:,C:\temp
F7,UI/Comms log folder:,C:\logs
```

NB: These values are optional. If not used, please remove from InstallAssistant.csv file

- X1 - GAX Server

- X2 - GAX Port
- X3 - GAX Username
- X4 - GAX PAssword
- X5 - GAX version if lower or equal to 8.5.1 - true/false
- X6 - Is GAX running on https - true/false

```
X1,GAX Server:,77.74.194.168
X2,GAX Port:,8040
X3,GAX Username:,default
X4,GAX Password:,password
X5,Is GAX Version lower or equal to 8.5.1, true
X6,Is GAX host running on https, false
```

NB:These values are optional. If not used, please remove from InstallAssistant.csv file

- SC1 - Enable https for IIS and Tomcat (true/False)
- SC2 - Encrypt passwords and conenction strings - true/false
- SC3 - Genesys TLS Enabled (True/False)
- SC4,IIS Certificate File - certificate location
- SC5,IIS Certificate Password
- SC6,Tomcat Certificate File - certificate location
- SC7,Tomcat Certificate Password

```
SC1,Use https for IIS and Tomcat on standard ports 443 and 8443:,true
SC2,Encrypt Passwords and Connection strings:,false
SC3,Is Genesys TLS enabled:,true
SC4,IIS Certificate File:,C:\temp\installfiles\blackchair.pfx
SC5,IIS Certificate Password:,blackchair
SC6,Tomcat Certificate File:,C:\temp\installfiles\blackchair.pfx
SC7,Tomcat Certificate Password:,blackchair
```

NB:These values are optional. If not used, please remove from InstallAssistant.csv file

- M1 - SMTP Host Server
- M2 - SMTP Port
- M3 - SMTP Username
- M4 - SMTP Password
- M5 - SMTP FROM

```
M1,SMTP Host Server: ,auth.smtp.1and1.co.uk
M2,SMTP Port: ,25
M3,SMTP Username: ,spotlight@theblackchair.com
M4,SMTP Password: ,sp0tllght
M5,SMTP FROM: ,donotreply@theblackchair.com
```

- Save and close the file

Install

- Open a Command Prompt window and navigate to the Silent Install folder – “**C:\Blackchair\Software\Spotlight Core Audit Installation\Silent Install**”
- Execute the following command - "**SpotlightInstallerSilent.bat DBSetup.csv InstallAssistant.csv true**"

Running this command, will complete the following tasks:

- Create Spotlight and slconfig databases
- Create slconfig environmental data and place in slconfig db
- Install Spotlight software - User Interface, Loader and Data Pipeline components
- Create Spotlight user

The Silent Install Process will create two logs, stored in the Install Files folder specified in the "**InstallAssistant.csv**" file:

- **Spotlightdbsetupcli.log** - displays the progress of the creation of the slconfig and Spotlight databases
- **Installassistantcli.log** - The Install Assistant checks the data provided in the csv files and prepares files ready for installation. This log displays this progress and indicates any errors.

Check both logs for any errors

When the install tasks are completed, the command prompt will display as screen shot below

```
C:\Blackchair\Software\Spotlight Genesys Core Audit Installation (RabbitMQ) U6.4
1 20180306\Silent Install>SpotlightInstallerSilent.bat DBSetup.csv InstallAssist
ant.csv true
Attempting to Deploy Data Source Environments
Data source Environments created successfully
Attempting to Deploy Data Source Spotlight
Data source Spotlight created successfully

C:\Blackchair\Software\Spotlight Genesys Core Audit Installation (RabbitMQ) U6.4
1 20180306\Silent Install>_
```

Licensing

Spotlight requires two licences to operate, and these will be provided by Blackchair along with the Spotlight software.

- **license.properties** - this file licences the Spotlight Data Pipeline Components
- **InstallLicense.dat** - this file licences the Spotlight Loader and Release Management module

Place a copy of "**license.properties**" in the **Audit Producer** folder (C:\Blackchair\SDP\Environment Name\GENAuditCON) and in the **Audit Consumer** folder (C:\Blackchair\SDP\Environment Name\GENAuditPRD).

Place a copy of the "**InstallLicense.dat**" file in the Spotlight Loader folder (C:\Blackchair\Loaders\Spotlight Loader).

If Release Management is also to be enabled, the "**InstallLicense.dat**" file also requires to be placed in the C:\Blackchair\IIS\Spotlight folder.

NB: The path to these folders may vary depending on the folder structure that has been created in the first step of the install process.

Rabbit MQ

Enable Rabbit MQ GUI

- From the Start Menu, open up '**RabbitMQ Command Prompt**'
- Enter - **rabbitmq-plugins enable rabbitmq_management** and then select return

Create RabbitMQ Queue

Next we require to create a queue within the **RabbitMQ Management UI** for the Genesys environment.

- In any web browser, go to <http://localhost:15672>, this is the **RabbitMQ Management UI**
- Log in as user **'guest'**, password: **'guest'** (not this user only works if you are actually local to the box)



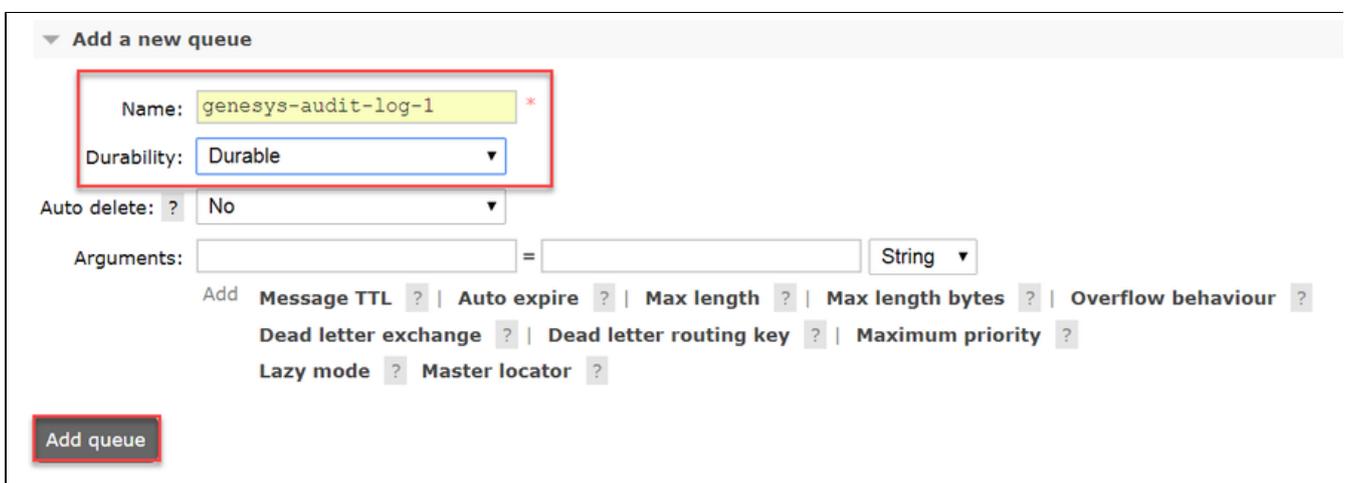
The image shows the RabbitMQ Management UI login page. At the top is the RabbitMQ logo. Below it are two input fields: 'Username:' and 'Password:'. Each field has a red asterisk to its right. Below the password field is a dark grey 'Login' button.

- Go to the **'Queues'** page



The image shows the navigation bar of the RabbitMQ Management UI. It contains five tabs: 'Overview', 'Connections', 'Channels', 'Exchanges', and 'Queues'. The 'Queues' tab is highlighted with a red border. To the right of the tabs is an 'Admin' link.

- Select **'Add A New Queue'**
- In the Name field, enter- **'genesys-audit-log-1'** - where the number is the same as the **environment id** of the spotlight environment in **slconfig Environments** table
- Ensure **'Durability'** is set to **'Durable'**
- Leave all other options and press **'Add Queue'**



The image shows the 'Add a new queue' form in the RabbitMQ Management UI. The form is titled 'Add a new queue' and has a red box around the 'Name' and 'Durability' fields. The 'Name' field contains 'genesys-audit-log-1' and has a red asterisk to its right. The 'Durability' field is a dropdown menu set to 'Durable'. Below these fields are 'Auto delete: ?' (set to 'No') and 'Arguments: ' (with an equals sign and a dropdown set to 'String'). At the bottom of the form are several optional settings: 'Add Message TTL ? | Auto expire ? | Max length ? | Max length bytes ? | Overflow behaviour ? | Dead letter exchange ? | Dead letter routing key ? | Maximum priority ? | Lazy mode ? | Master locator ?'. At the bottom left of the form is a red 'Add queue' button.

Baseline

Before tracking changes to the configuration, it is necessary to take a baseline copy of all the current objects in CME AND GAX

Services

- Set the following services to Startup Type “**Automatic Delayed Start**” and start
 - **Spotlight Loader Environment Name**
 - **Spotlight Comms Server** - if installed
- Set the following services to Startup Type “**Automatic**” and start
 - **Spotlight DP GENAuditCON**
 - **Spotlight DP GENAuditPRD**

Baseline CME

The Consumer has an embedded web server that provides baseline tool functionality. The server is bound to **localhost** and can therefore only be run from the server itself (for security reasons).

- Open the Baseline tool by entering in a web browser - **localhost:5670**
- Click on the **Start Sync** button This will open the SDK connection to Configuration Server and retrieve every object in CME one object type at a time.

The screenshot shows a web interface for 'SDP - Audit Consumer' with a 'Configuration Sync' tab. The main content area is titled 'Configuration Sync' and shows a 'Sync Status: Ready' indicator. Below this are two buttons: 'Start Sync' (blue) and 'Stop Sync' (red). At the bottom right, there are two buttons: 'Select All' and 'Select None'. Below these buttons is a table with three columns: 'Selected', 'Item Type', and 'Completed/Total'. The table is currently empty.

- For each object it receives it will:
 - Create a new, version 1 item if the object doesn't currently exist in Spotlight
 - Create a version n+1 object if the object does exist in Spotlight
 - Create a version n+1 delete object if the object **does** exist in Spotlight, but **does not** in CME
- As the baseline runs it will show a list of already processed object types as shown:

Configuration Sync

Sync Status: **Running**

Started: Mon Mar 12 2018 13:40:18 GMT+0000 (GMT Standard Time)

Current Object Type: CfgApplication

Start Sync Stop Sync

Select All Select None

Selected	Item Type	Completed/Total
<input checked="" type="checkbox"/>	CfgTenant	1/1
<input checked="" type="checkbox"/>	CfgHost	3/3
<input checked="" type="checkbox"/>	CfgActionCode	3/3
<input checked="" type="checkbox"/>	CfgAlarmCondition	30/30
<input checked="" type="checkbox"/>	CfgApplication	0/217
<input checked="" type="checkbox"/>	CfgAppPrototype	0/220

Once complete the status will return to **Ready**

The same tool can be used (if necessary) to resync the system. When doing so, users can:

- Resync all tables
- Choose which tables to resync using the relevant check box
- Stop the sync at any point

Configuration Sync

Sync Status: **Ready**

Start Sync Stop Sync

Select All Select None

Selected	Item Type	Completed/Total
<input checked="" type="checkbox"/>	CfgTenant	
<input checked="" type="checkbox"/>	CfgHost	
<input checked="" type="checkbox"/>	CfgActionCode	
<input checked="" type="checkbox"/>	CfgAlarmCondition	
<input checked="" type="checkbox"/>	CfgApplication	
<input checked="" type="checkbox"/>	CfgAppPrototype	

Baseline GAX

- If Spotlight is tracking **Genesys GAX**, in **SQL Management Studio**, execute the stored procedure – **sp_GAXSetSync**.
- Once the initial load is complete, run the stored procedure – **sp_GAXSetAudit**

- The same process can be used to resync GAX with Spotlight.

NB: in order to tell if the GAX data has loaded fully, check the spotlight database LoadParameter table. All GAX entries should now have a current date assigned unless there is no data in GAX for that GAX item

Release Management

Release Management (RM) is enabled by the following steps:

- Install the Release Management license file supplied by blackchair
- Set flags in the configuration database to switch on RM at the environment level

Install the License File

- The InstallLicense.dat referenced in earlier sections will include a feature for Release Management if purchased by the customer. Take a copy of the **InstallLicense.dat** and place it in the Spotlight website folder
- Restart IIS using IIS Manager.

Switch on Release Management

The availability of RM is set at the environment level in the configuration database. Usually availability will be set in all environments in the instance unless there is a specific reason to exclude certain environments.

- For each of the entries in the Environments table in the configuration database that correspond to a Spotlight environment (not genesys environment) ensure the **ENV_PERM_ENABLECONFIGPACKAGE AND ENV_PERM_ENABLEBASELINE** values are set to **TRUE**
- To take effect in the UI, you will need to restart IIS

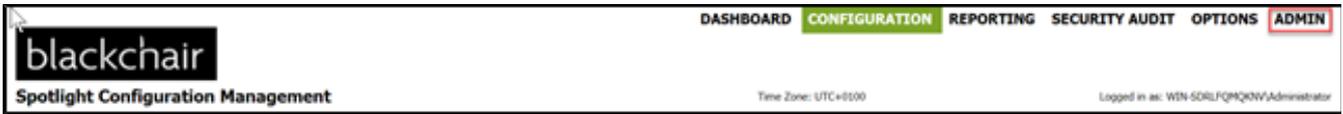
Commissioning

Once Spotlight has been installed and initial data loaded, there a number of actions that require to be performed in order to commission Spotlight to track changes in Genesys as follows:

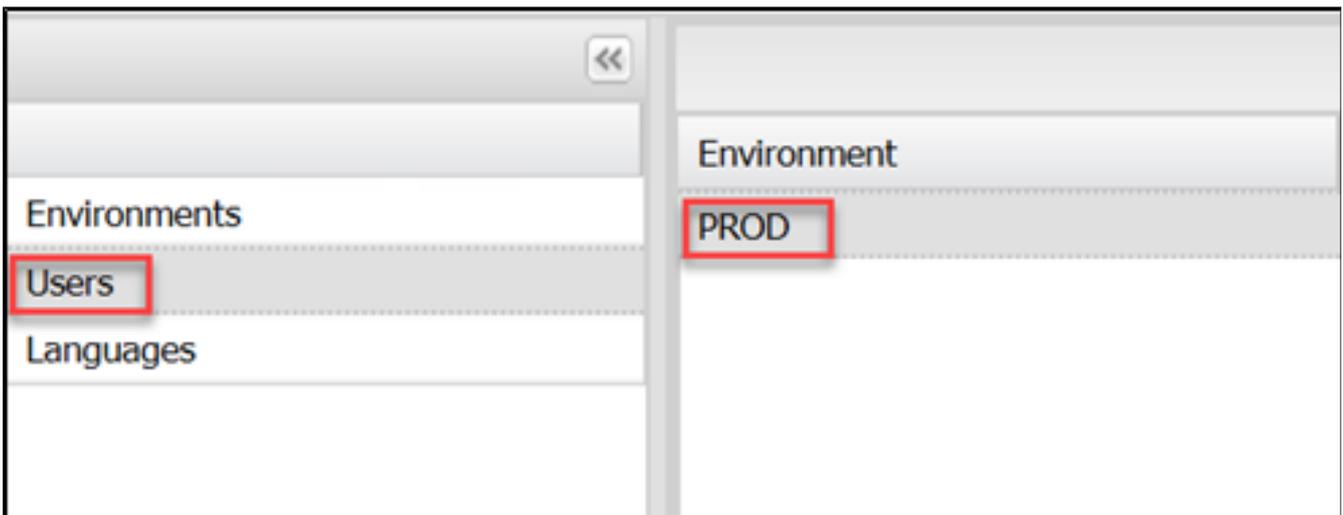
Website

The Windows user that the Install Assistant was run from is automatically made an administrator of the Spotlight system. This user must give themselves View permission to the Environment and its data in Spotlight. For full instructions see the user guide "**Spotlight Core Audit User Guide.pdf**"; the specific instructions are summarised here.

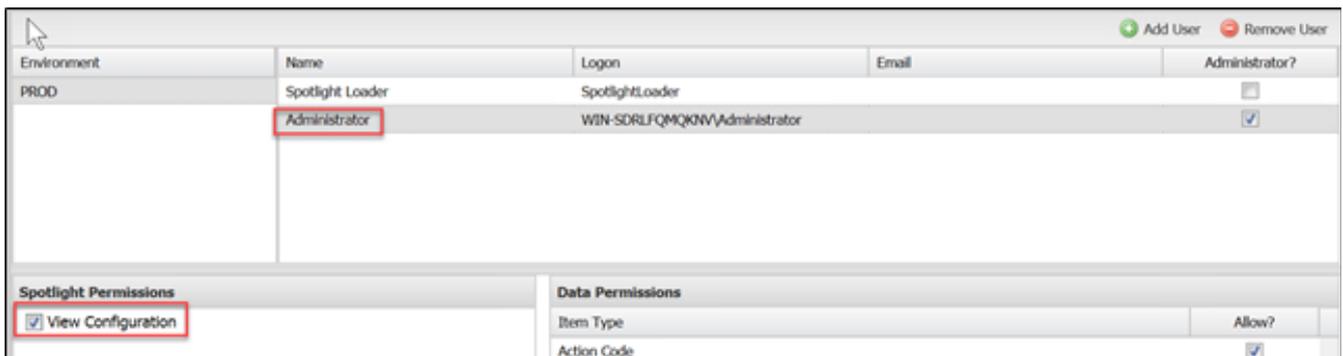
- On the Spotlight server login to the web UI at <http://localhost/spotlight>. If challenged for login credentials the username is domain/username, the password is the Windows password.



- Select the **Admin** tab, select users in the left-hand pane and select the environment name



- Select the Admin login
- In the **'Spotlight Permissions'** pane select **'View'**



Change Tracking Testing

To test change tracking in Spotlight, make a simple addition to the Genesys environment, for example create a test Person. When that new Person appears in the Spotlight website the data processing is current.

If the person does not appear in Spotlight, check the Spotlight logs for any exceptions, and escalate to Blackchair if necessary.

Log File Management

Logfiles are created in the folder you specified for application log files in the Install Assistant.

These logfiles should be managed by a daily scheduled job on the windows server that deletes files older than a specified age, 10 days is recommended. Use Windows Task Scheduler to run the batch **LogPurge.bat** provided with the install software.

The bat file contains the following code:

```
forfiles /p "<logfile folder>" /m *.log /c "cmd /c del @file" /d -10
```

Replace <logfile folder> with the actual folder for application log files you specified in the 'Install Assistant'. You can also alter the number of days that the logs will be kept for.

For example:

```
forfiles /p "D:\spotlightlogs" /m *.log /c "cmd /c del @file" /d -10
```

Filtering

Spotlight supports the ability to filter out changes to **Flexible Property** and **Application Option** key/value pairs and whole sections based on some simple text pattern matching rules.

The rules for these are stored in the **Loaders\SDPPROD\GENAuditCON\config\config\FilterList.json** file

```
1 {
2   "filters": {
3     "FlexProp": {
4       "excludeSectionsList": [],
5       "excludeKeysList": []
6     }
7   }
8 }
```

You place the pattern matching rules in the **excludeSectionList** and **excludeKeysList** sections of the file. Note that the [] denotes that it should contain a comma separated list of items.

There is a rudimentary pattern matching format which consists of a keyword followed by a string in single quotes. The keywords are:

- *contains* 'item1' - contains the string somewhere, similar to '%item1%'
- *starts* 'item1' - starts with the string
- *ends* 'item1' - end with the string
- *is* 'item1' - equals the string

Note: Pattern matching is case insensitive

Example 1 - Filter out all sections and keys that start with the string 'agent' and all sections that have a section name called 'virtual'.

```
1 {
2   "filters": {
3     "FlexProp": {
4       "excludeSectionsList": [
5         "starts 'agent'",
6         "is 'virtual'"
7       ],
8       "excludeKeysList": [
9         "starts 'agent'"
10      ]
11    }
12  }
13 }
```

Example 2 - Exclude property names that begin with 'customcontact' or 'contactucs'.

```
1 {
2   "filters": {
3     "FlexProp": {
4       "excludeSectionsList": [
5         ],
6       "excludeKeysList": [
7         "starts 'customcontact'",
8         "starts 'contactucs'"
9       ]
10    }
11  }
12 }
```

Aside from the keywords above, there are also 'negative' versions:

- notcontains
- notstarts
- notends
- isnot

It is unlikely these would be used in production as they will filter out all sections/keys apart from the ones that match. However they would be useful in development or test where you are testing changes to a single value.

Service Alerts

Service Alerts are used to indicate if each Spotlight database has been updated in the last day. If the answer is NO, an alert appears in the top right corner of each spotlight screen.



Service Alerts can be turned off for individual environments by entering new key values in the **EnvironmentsKV** siconfig table as follows.

- **Envid** – the environment id as found in the Environment table
 - **Envkey** – ENV_SHOW_ALERT
 - **Envvalue** - False
-