



grass valley

A **BELDEN** BRAND

# **GO! REMOTE PRODUCTION SUITE**

REMOTE USER MANAGEMENT

## **Installation Guide**

Issue 2 Revision 1

2018-10-22

[www.grassvalley.com](http://www.grassvalley.com)

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# toc

## Table of Contents

<b>1 Overview .....</b>	<b>1</b>
Description .....	1
Pre-requisites .....	1
Microsoft SQL Server .....	1
Media Transformer Licenses .....	1
<b>2 Installation and Configuration .....</b>	<b>3</b>
Install and Configure a Non-resilient Database .....	3
Install Microsoft SQL Server .....	3
Set up the User Management Database .....	7
Run Scripts to Generate the Database .....	8
Install and Configure a Resilient Database .....	9
Restore a Copy of the Database on the Mirror .....	9
Run the Wizard to Set-up Mirroring and Fail-over .....	12
Managing Error Messages .....	17
Media Transformer Configuration .....	18
Media Transformer Web Server .....	18
Configure Authentication in IIS .....	19
Disabling User Management .....	20
Add Client Access Licenses (CALs) .....	20
Verify the Installation .....	21
Anonymous Login in User Management .....	22
Control of Default Timeout Period .....	23



# 1 Overview

## Description

A properly configured deployment of the Go! Production Suite provides an Enterprise grade user management system in addition to the rich API, thick and thin applications that are available.

It allows administrators to control the login of users, and the tasks and roles accessible to different levels of users.

The User Management software is installed with the Media Transformer but requires some specific additional components and configuration.

## Pre-requisites

### Microsoft SQL Server

An installation of Microsoft SQL Server Standard or Express is required:

- A trial of Microsoft SQL Server Standard is suitable for demo and POC systems, but has restrictions. It is freely available, but registration may be required.
- A fully licensed copy of SQL Server Standard is recommended for operational deployments as it provides numerous levels of resilience. While Grass Valley can provide the SQL Server software, it is likely that the customer can provide suitable SQL Server Standard licenses at a far lower cost than Grass Valley can due to internal Volume License Agreements between the customer and Microsoft.

On a small system with the recommended one or two dedicated load balancers, the user management database can live on the Load Balancer(s) hardware, with the main and mirror database sitting on the two load balancers, and the third witness running on a lower spec machine.

For larger or very busy systems, a separate resilient installation of SQL Server Standard is recommended for maximum resilience and system loading without performance drops at peak times.

General information about the setup and configuration of SQL server can be found here:

<https://msdn.microsoft.com/en-us/library/ms187048.aspx>

### Media Transformer Licenses

Each Transformer still requires a GenQ license - either using dongle or MAC code - to run, so ensure the installed software and VM instance of the Media Transformer are correctly licensed as has been the case previously.



# Installation and Configuration

# 2

## Install and Configure a Non-resilient Database

This installs a single database that is not resilient or redundant, suitable only for POC, demonstration or non-mission critical deployments.

### Install Microsoft SQL Server

Install MS SQL Server as follows:

- 1 Run **setup.exe**.
- 2 Select **Installation**.
- 3 Select **New installation or add features to an existing installation**.

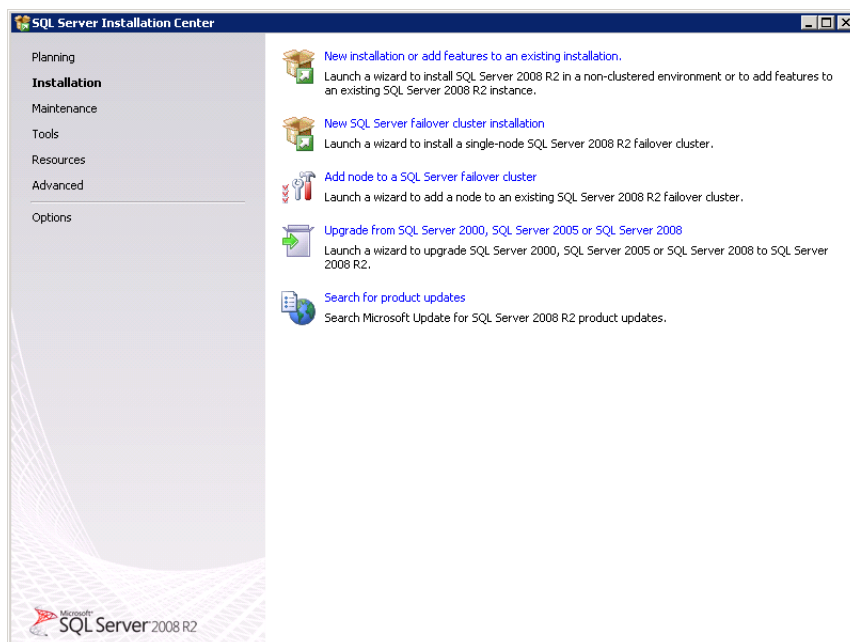


Fig. 2-1: SQL Server Installation Center - Start Dialog

4 Enter the Product key or specify an Evaluation:

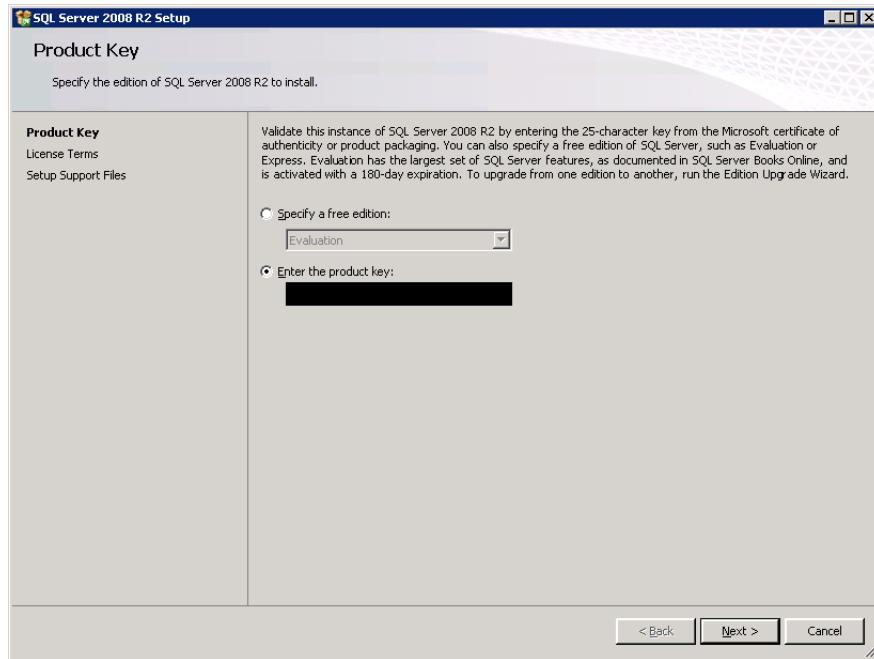


Fig. 2-2: SQL Server Installation Center - Product Key Validation

- 5 Press **Next** and accept terms.
- 6 From Setup Support Files, press **Install**.

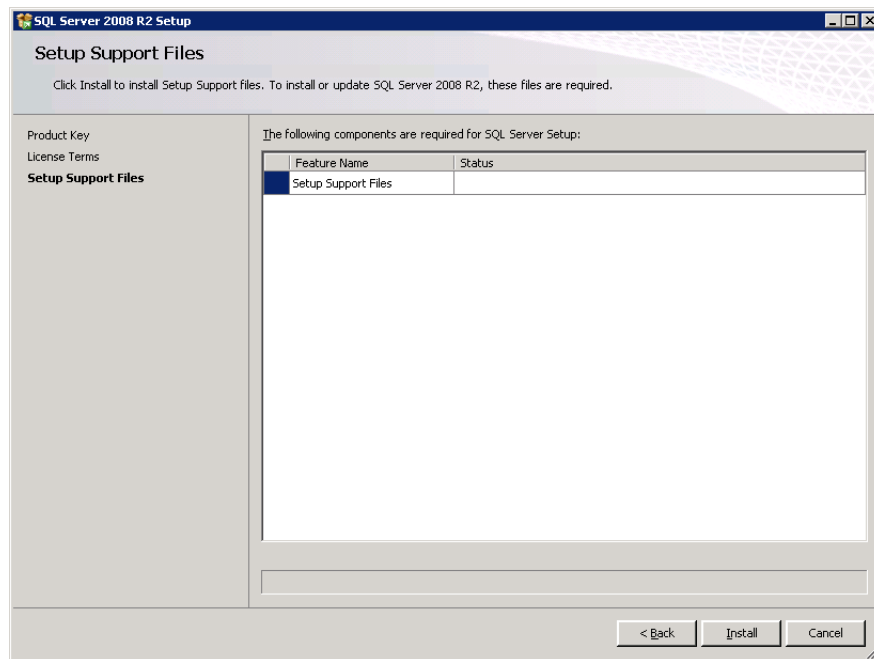


Fig. 2-3: SQL Server Installation Center - Support File Setup



7 From Setup Role select **SQL Server Feature Installation**. Press **Next**.

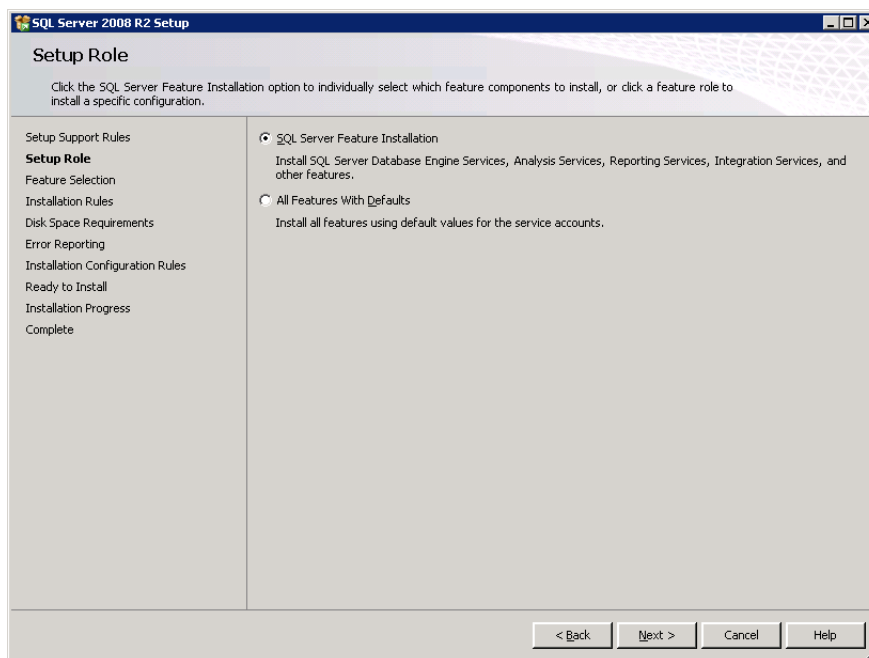


Fig. 2-4: SQL Server Installation Center - Role Setup

8 From Feature Selection, select the following:

**Instance Features**

- Database Engine Services
  - Full Text Search

**Shared Features**

- Client Tools Connectivity
- Management Tools
  - Management Tools Complete

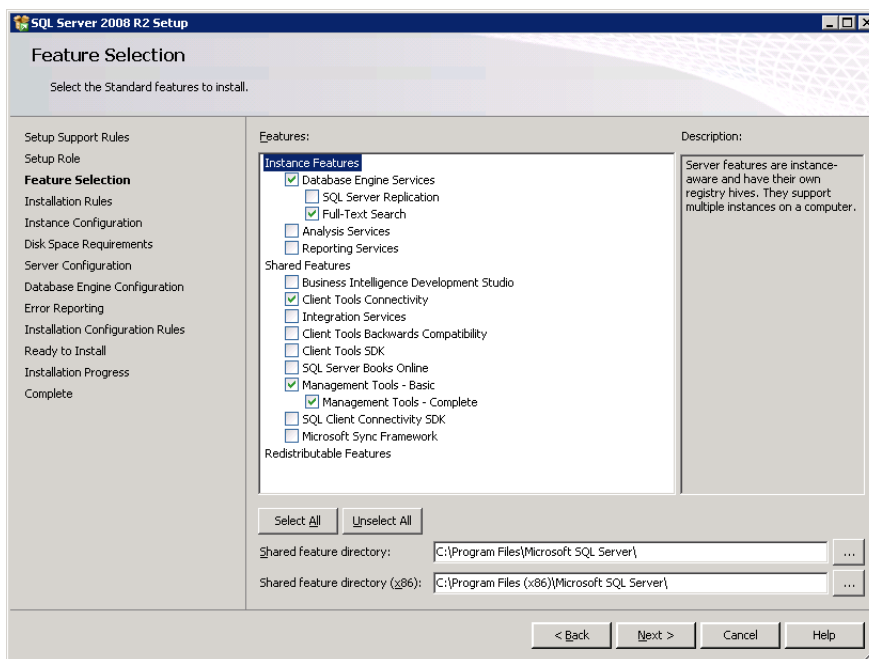


Fig. 2-5: SQL Server Installation Center - Feature Selection

9 Press **Next**.

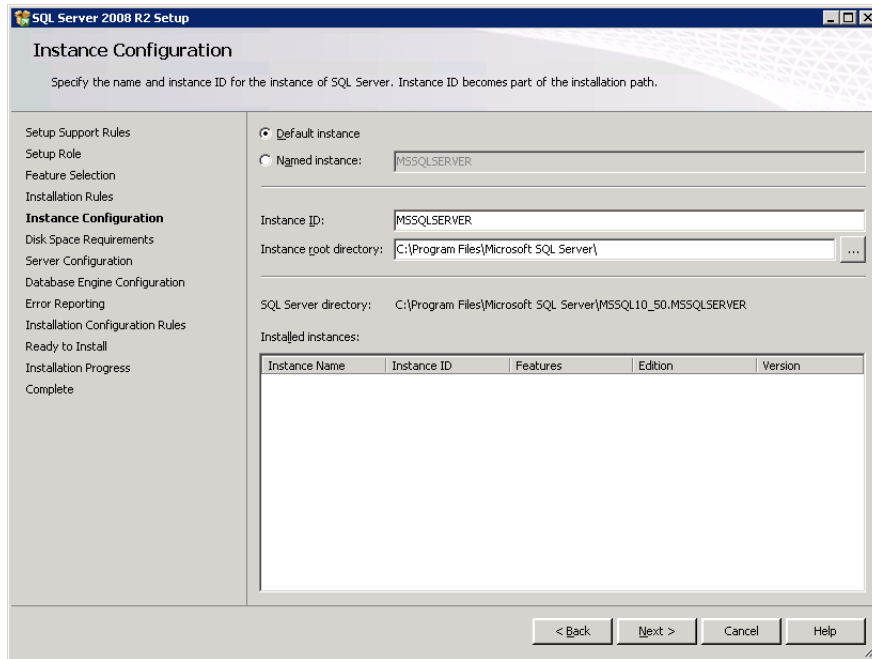


Fig. 2-6: SQL Server Installation Center - Instance Configuration

10 From Instance Configuration select **Default instance**. Press **Next**.

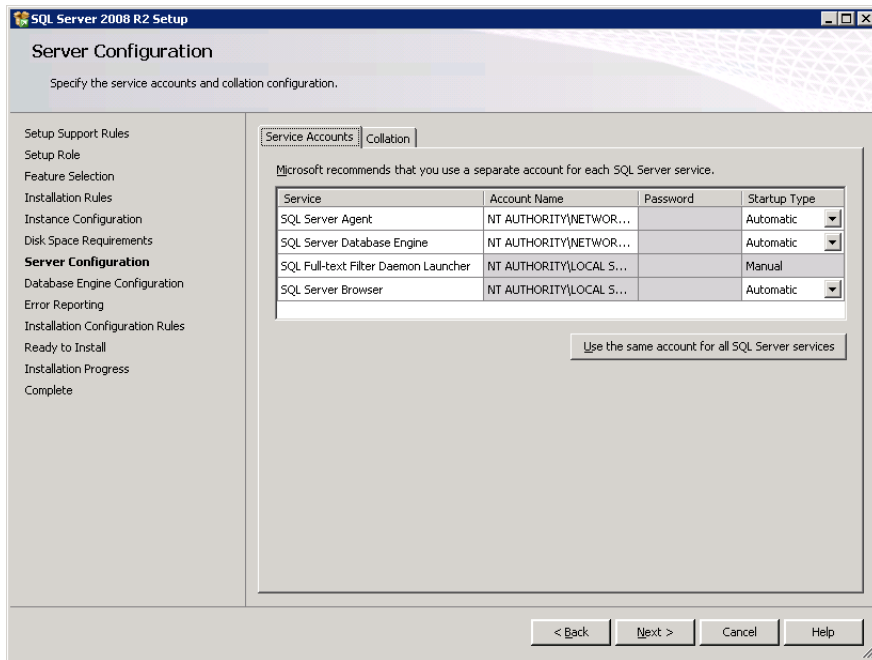


Fig. 2-7: SQL Server Installation Center - Server Account Configuration

- 11 Press **Next** until the Server Configuration option displays, then set start-up type to **Automatic** for **SQL Server Agent**, **SQL Server Database Engine** and **SQL Server Browser**.
- 12 Press **Next** to go to Database Engine Configuration.
- 13 Under Authentication Mode, select the Mixed Mode radio button and set the following password for the **sa** account: **0Sam0@1Sam1**

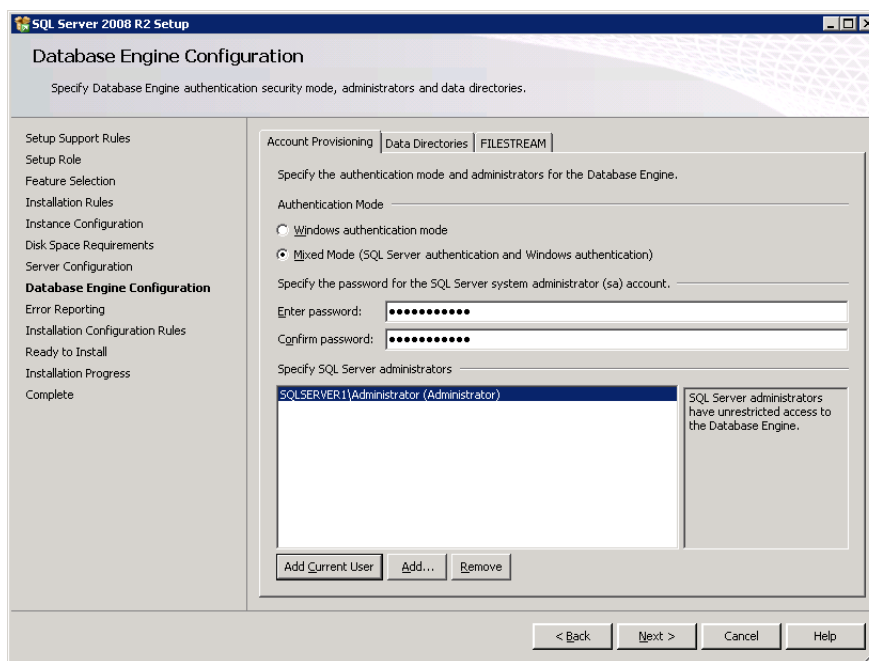


Fig. 2-8: SQL Server Installation Center - Database Engine Configuration

- 14 Press **Add Current User**.
- 15 Press **Next** for all the remaining options and at the final screen press **Close** to complete installation.

## Set up the User Management Database

Once the SQL set-up is complete, launch **SQL Server Management Studio** to login to the SQL Server Engine / Instance using the following credentials:

Item	Description
Server Name	IP address of the server the MS SQL Server is installed on
Authentication	SQL Server Authentication
Login	<b>sa</b>
Password	<b>0Sam0@1Sam1</b>

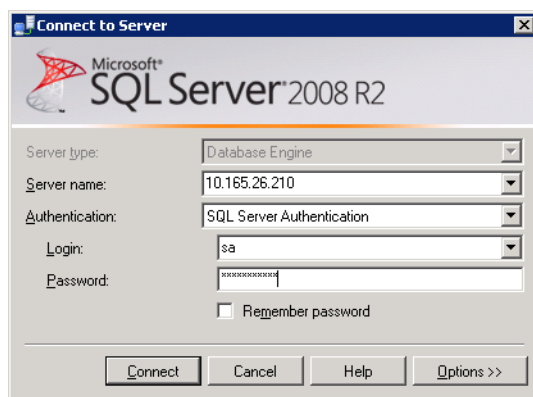


Fig. 2-9: SQL Server Login Dialog

- Press **Connect**. Once logged in the following displays:

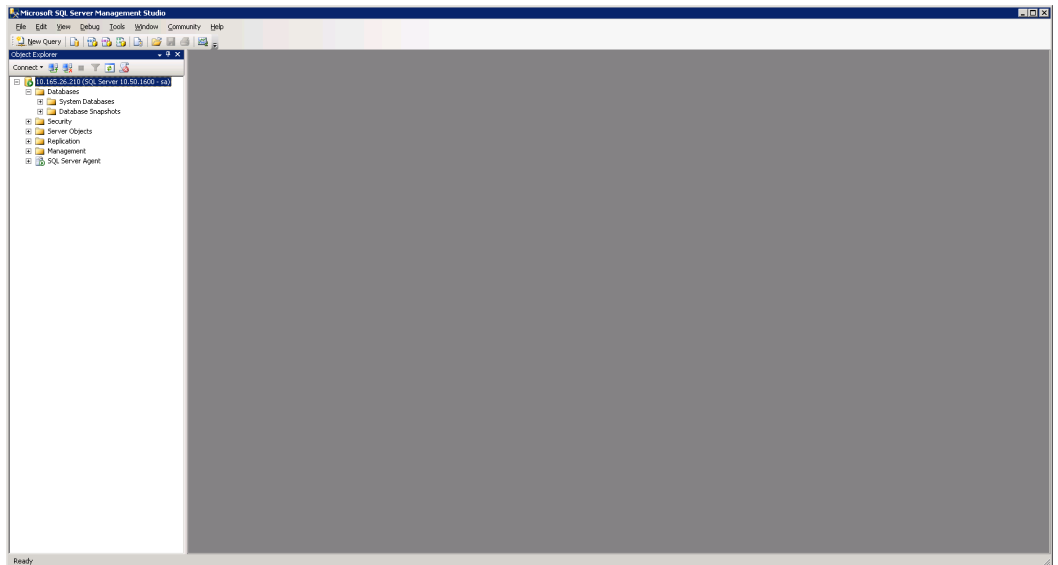


Fig. 2-10: SQL Server Management Studio

### Run Scripts to Generate the Database

Before starting, request the **Go! Production Suite Database Setup Scripts** from Technical Support. These are included in a zip file that must be decompressed before use.

- 1 Create a folder in **C:\Data\Usermanagement**.
- 2 Run the scripts below in the order specified. In the SQL Management Studio to run a script, press **Ctrl + O**.
  - a Inside the uncompressed ZIP file navigate to:  
**Usermanagement\_InstallScripts\DB\_Gen\_and\_Scheduled\_Jobs\**
  - b Select the required .SQL file.
  - c Once loaded, press **F5**.

Repeat the above steps for all the following scripts in the folder **in this order**:

- **1.** Session\_DB\_GenScript\_with\_Data
- **2.** CleanupCurrentLoginsTable
- **3.** DeleteOldEntries
- **4.** UpdateNotesOnEndOfPayout\_Job

Running these scripts sets up the database with one user with the following credentials:

Item	Details
Username	admin
Password	quantel@

Ensure that the SQL Server Agent is running by checking that the green play button is part of the icon.

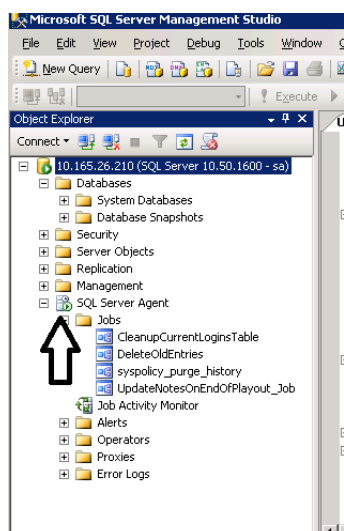


Fig. 2-11: SQL Server Management Studio Showing SQL Server Agent Running

## Install and Configure a Resilient Database

Setting up SQL Server for redundancy and fail-over uses three instances, each set-up with the following role:

- Principal
- Mirror
- Witness

Before proceeding, ensure three instances of SQL are running.

Setting up the SQL Server for high availability requires the following steps:

- 1 Restore a copy of the Principle database in NO RECOVERY MODE on the mirror
- 2 Install SQL Server as the witness (no manual configuration is required).
- 3 Configure all three databases to be aware of each other.
- 4 Modify the User Management **web.config** to point to the fail-over SQL Server cluster.

### Restore a Copy of the Database on the Mirror

- 1 The restore is best performed when there are minimal or no logged on users.
- 2 On the principal SQL machine, right click on **session\_db > Tasks > Back up**. Select the correct database and set backup type to **Full**.
- 3 Press **OK**.

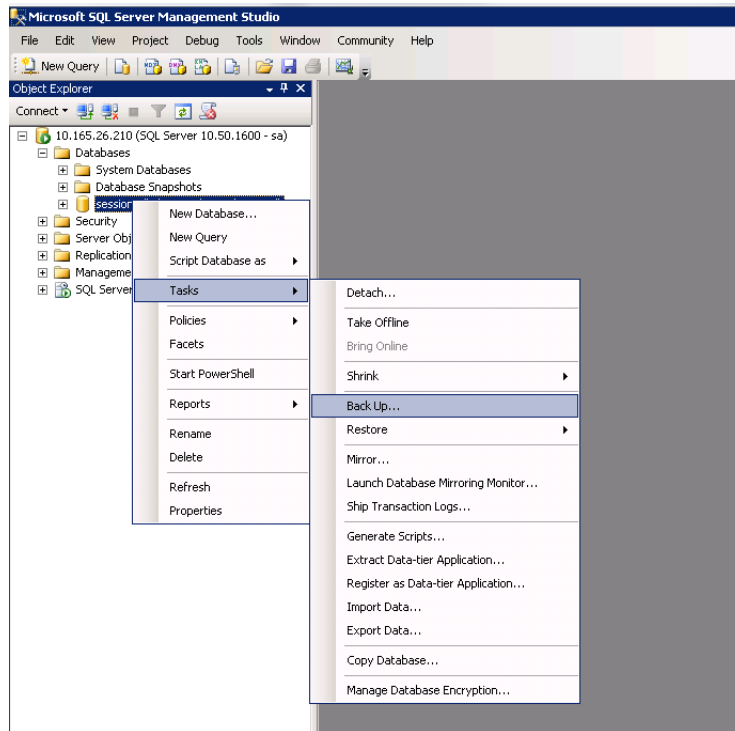


Fig. 2-12: SQL Server Management Studio - Backing up the Session Database

4 Copy the **.bak** file onto the Mirror machine.

In SQL Server Management Studio, right click on databases and select **restore database**.

5 In the To database field as enter **session\_db** and specify the source to point to the **.bak** file.

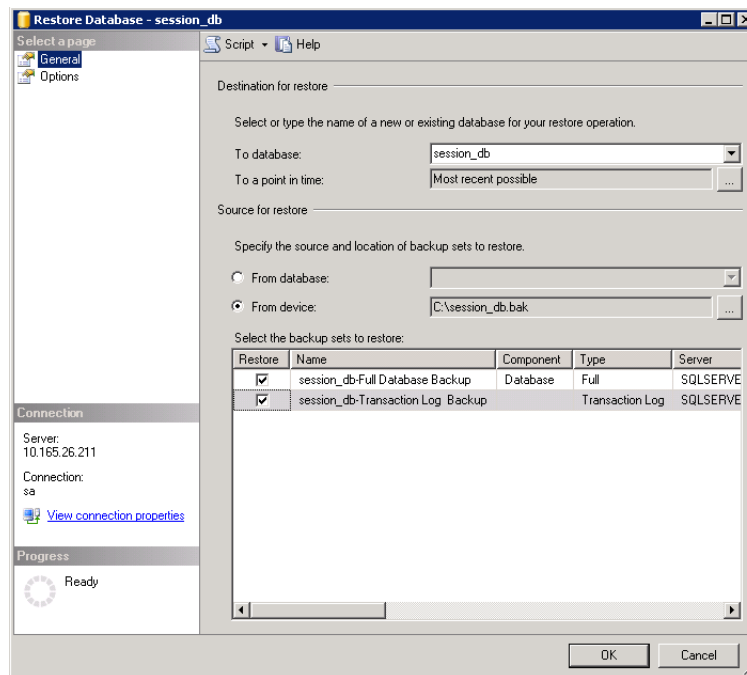


Fig. 2-13: SQL Server Management Studio - Restoring the Session Database

6 Select **Options** from the left column and set Recovery state to "...(RESTORE WITH NORECOVERY)"

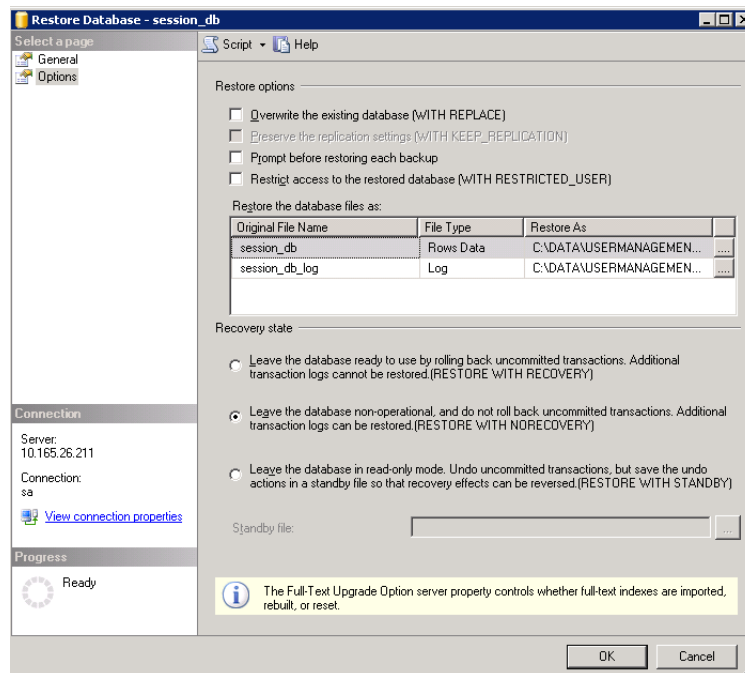


Fig. 2-14: SQL Server Management Studio - Setting Restore Options

7 Press **OK**, and session\_db is restored in read-only mode.

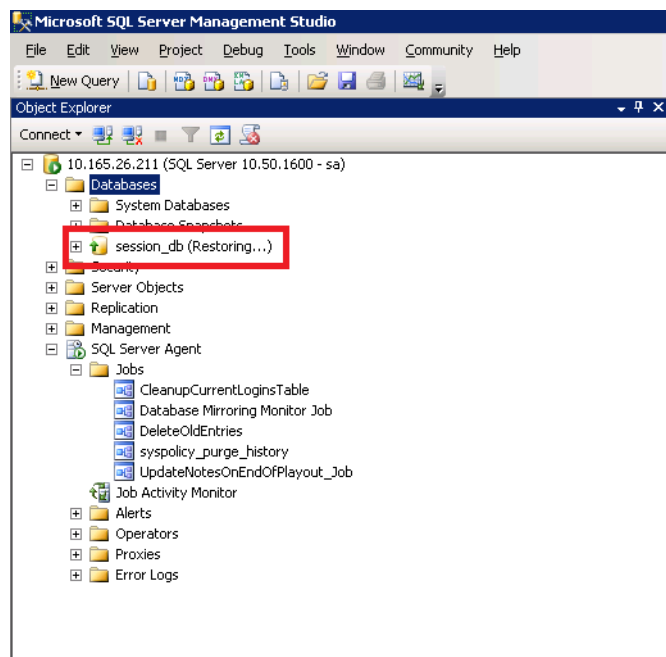


Fig. 2-15: SQL Server Management Studio - Session Database Restored

As long as SQL Server is installed properly, witness does not require any manual configuration.

## Run the Wizard to Set-up Mirroring and Fail-over

- 1 On the **Principal** SQL instance, right click on the database and select **Tasks**, then **Mirror**.

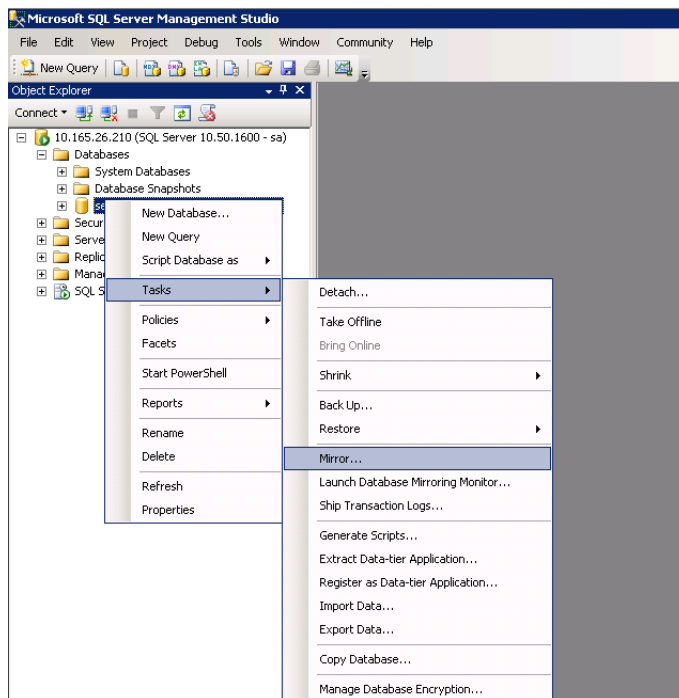


Fig. 2-16: SQL Server Management Studio - Session Database Restored

1. Select **Configure Security**.

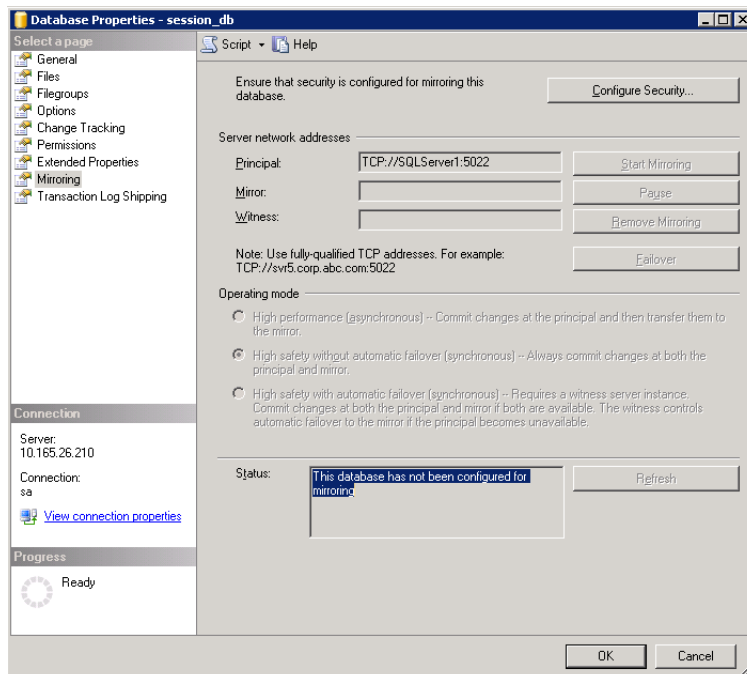


Fig. 2-17: SQL Server Management Studio - Session Database Restored

2. Select the **Yes** radio button.



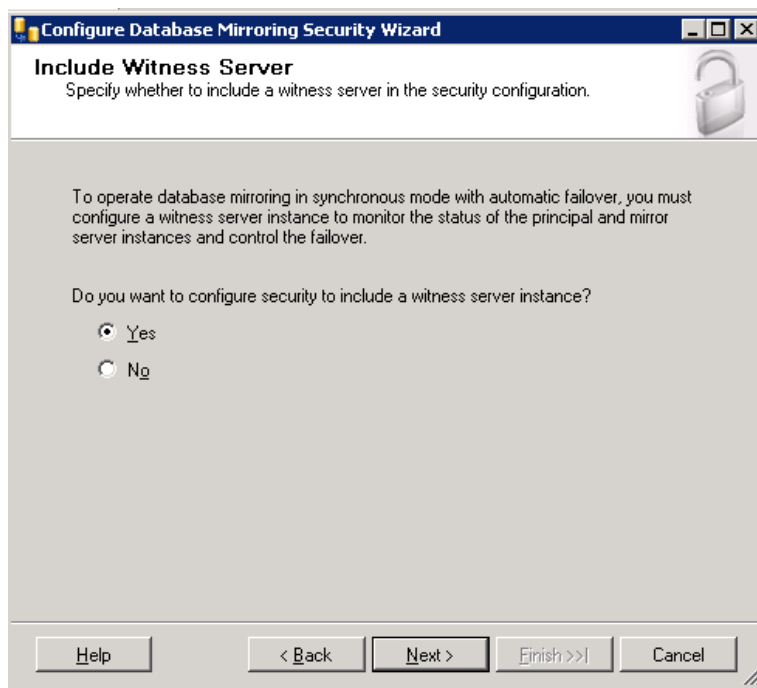


Fig. 2-18: SQL Server Management Studio - Session Database Restored

- 2 Press **Next**.
- 3 Specify the mirror and witness instances and connect to them as per the following screens.

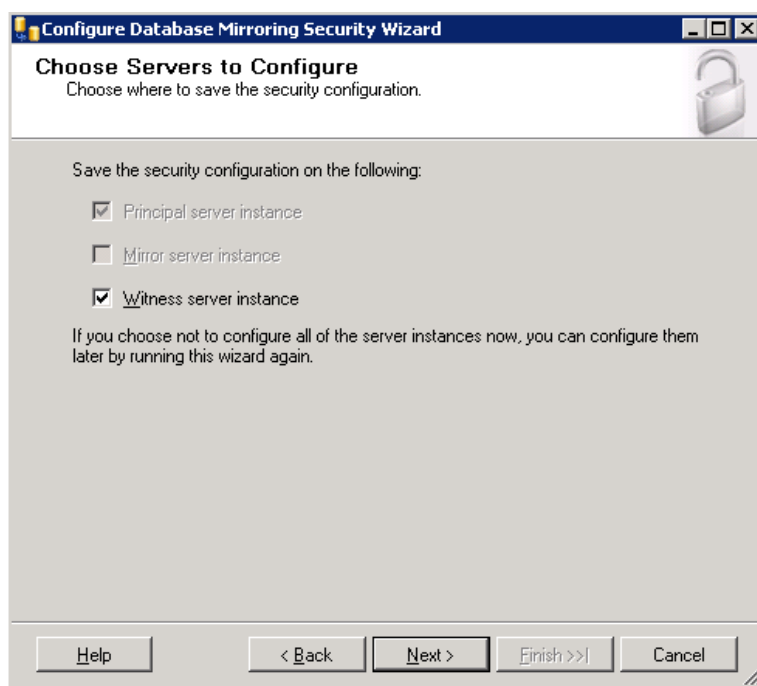


Fig. 2-19: SQL Server Management Studio - Session Database Restored

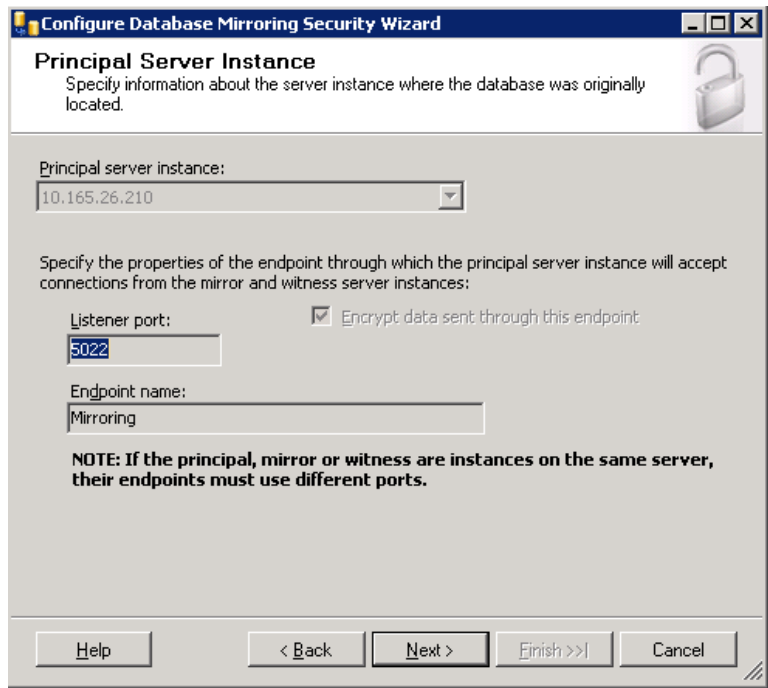


Fig. 2-20: SQL Server Management Studio - Session Database Restored

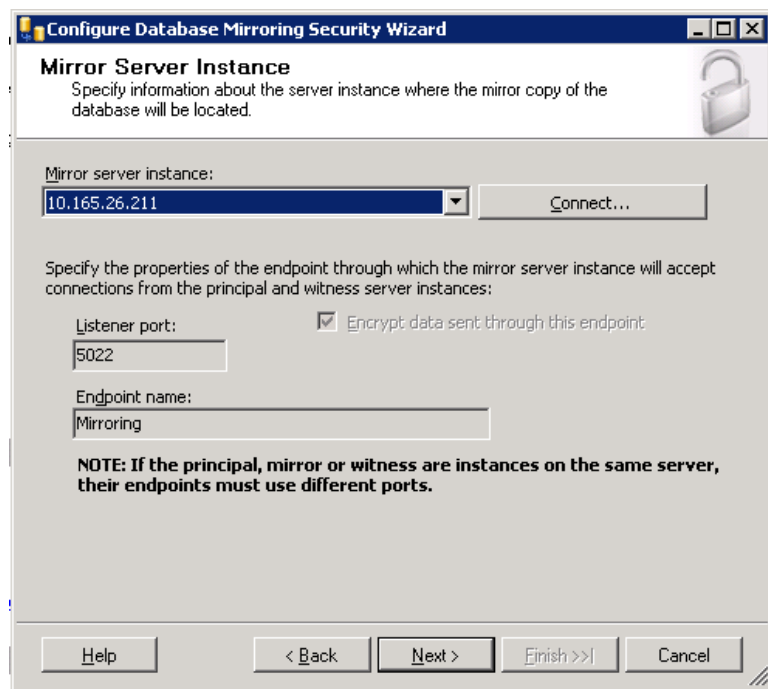


Fig. 2-21: SQL Server Management Studio - Session Database Restored

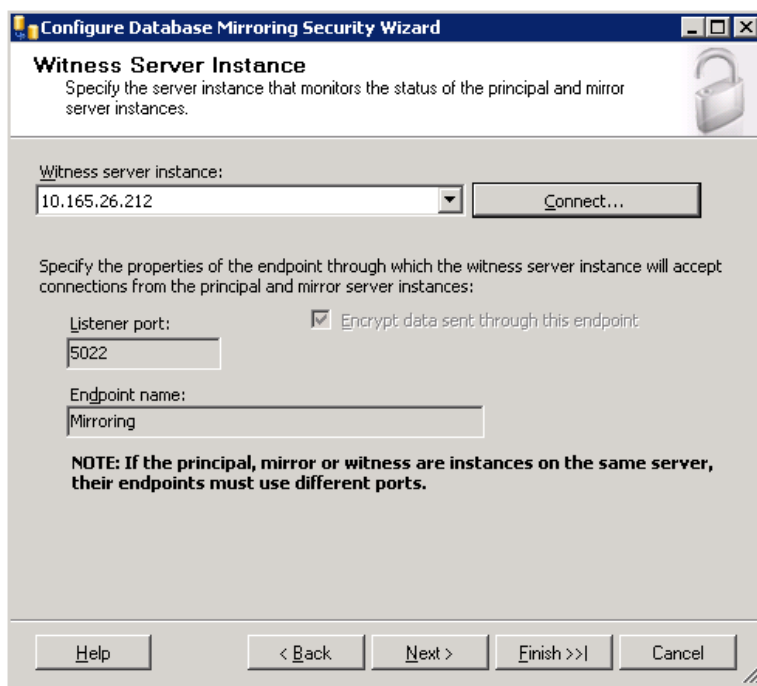


Fig. 2-22: SQL Server Management Studio - Session Database Restored

- 4 Press **Finish**.
- 5 Leave the service accounts fields empty.

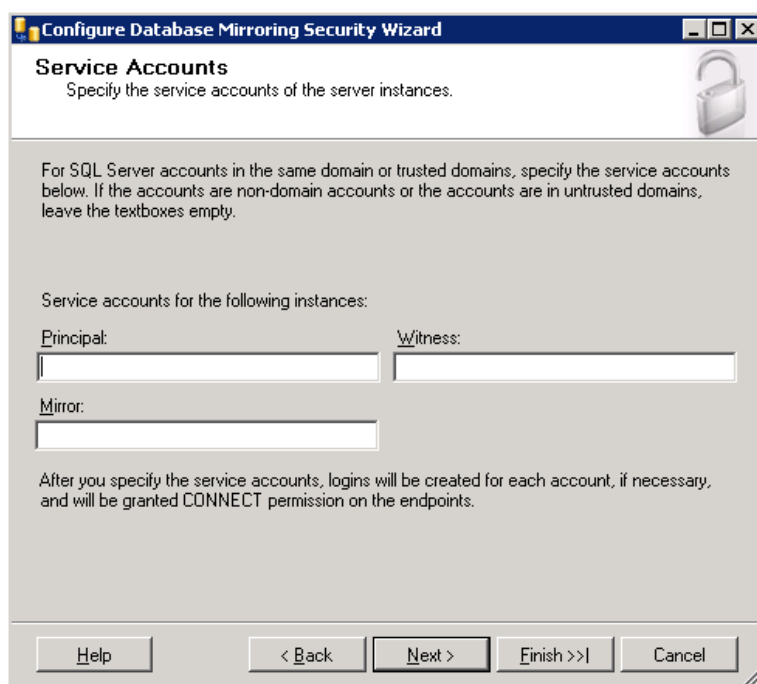


Fig. 2-23: SQL Server Management Studio - Session Database Restored

- 6 Press **Next**.

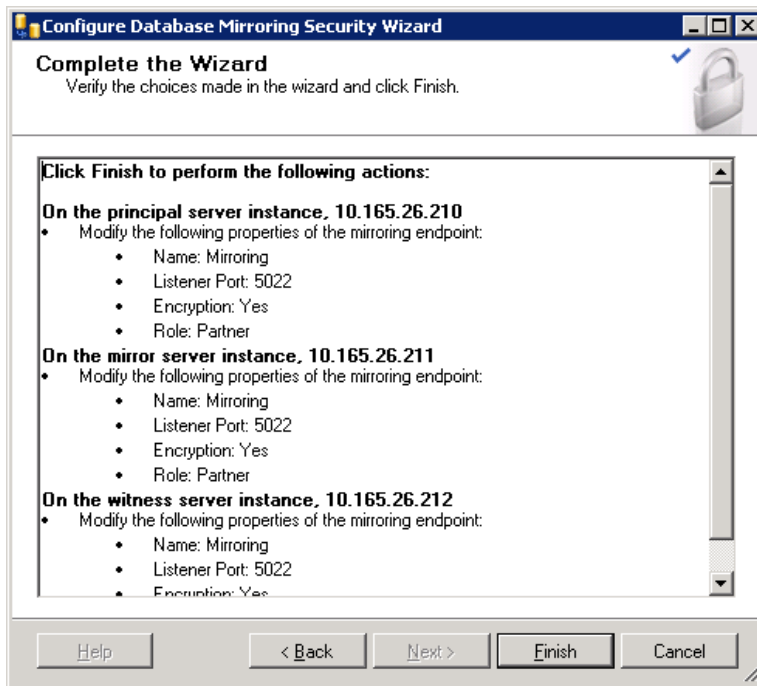


Fig. 2-24: SQL Server Management Studio - Session Database Restored

7 Press **Finish**.

The Configuring Endpoint screen displays the status of the configuration.

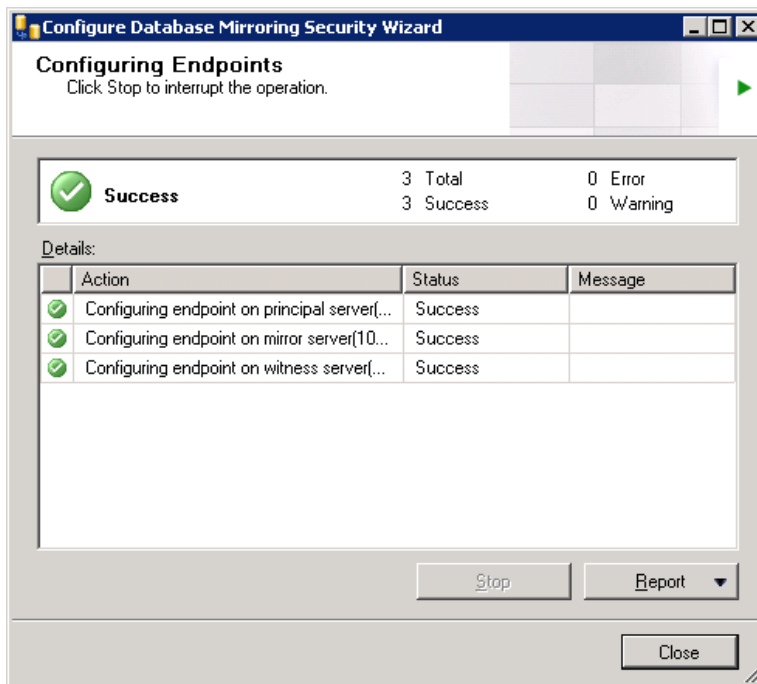


Fig. 2-25: SQL Server Management Studio - Session Database Restored

8 As long as the status indicates 'Success', press **Close**.

- From the Database Properties screen, press **Start Mirroring**. Synchronization progresses as shown by the status messages.

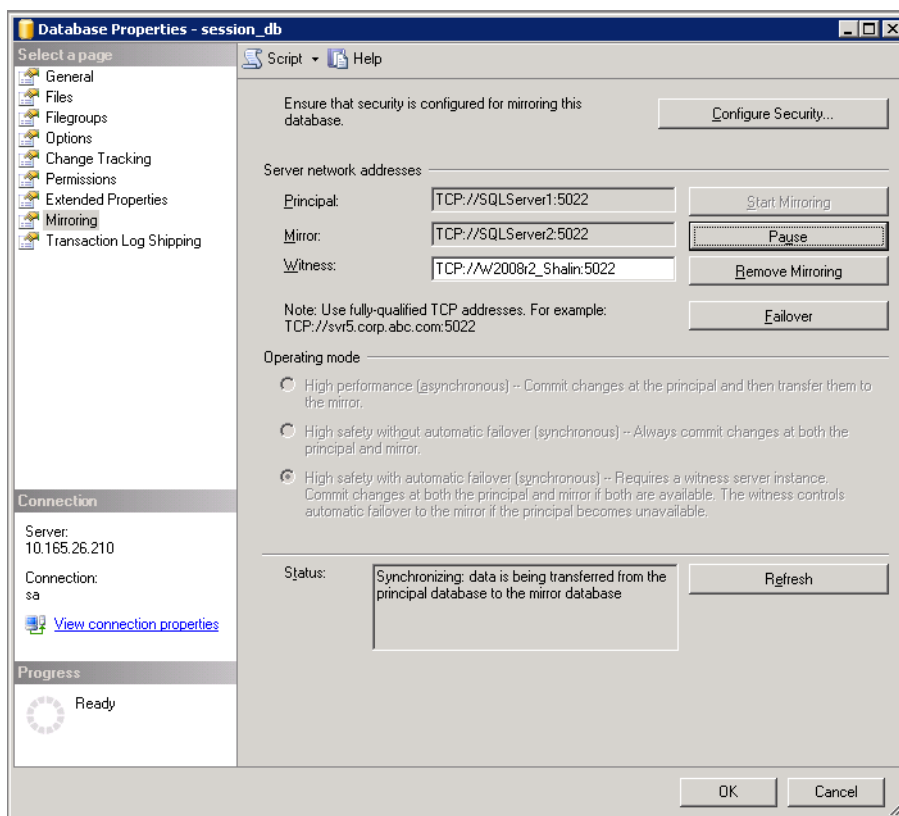


Fig. 2-26: SQL Server Management Studio - Session Database Restored

## Managing Error Messages

If the following error message displays:

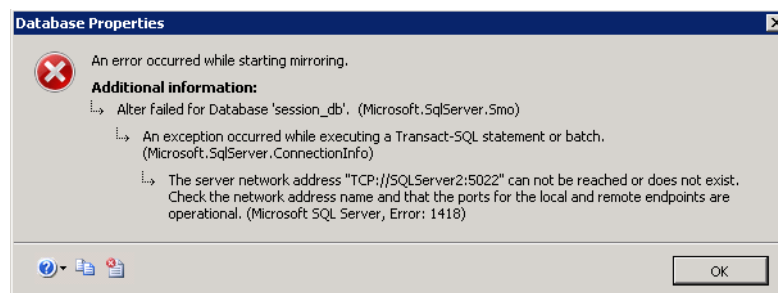


Fig. 2-27: SQL Server Management Studio - Session Database Restored

- Backup and restore the transactional logs from Principal to Mirror instance.
- Try changing the user account running SQL Server and Server agent to **Administrator** and running the wizard again.

To add a user as SQL admin, run the following commands in an SQL Query window and press **F5**:

```
CREATE LOGIN [SQLServer1\Administrator] FROM WINDOWS
GO
exec sp_addsrvrolemember @loginname='SQLServer1\Administrator',
@rolename= 'sysadmin'
GO
```

## Media Transformer Configuration

### Media Transformer Web Server

Each Media Transformer is configured using the Settings menu accessed from the Windows Start menu, select:

**Start > All Programs > Grass Valley > Media Transformer V7.3.0 Settings**



Fig. 2-28: Media Transformer Settings Menu

Use the Settings menu to configure the following:

- 1 Set credentials for the user management database so that the GV Media Transformer web application can access and authenticate users trying to login.
- 2 Enter the correct IP address of the SQL Server and set the password to be **0Sam0@1Sam1**
- 3 Configure a non-resilient database by leaving the **Failover SQL Server** field blank.
- 4 Restart the Media Transformer after changing the Settings.

---

**Note:** Configure each instance of the Media Transformer, including any VMs that may be offline during configuration; run everything up during configuration.

---

## Configure Authentication in IIS

Configure authentication in IIS as follows:

- 1 Open **Internet Information Services (IIS) Manager**.
- 2 Select **Authentication**.

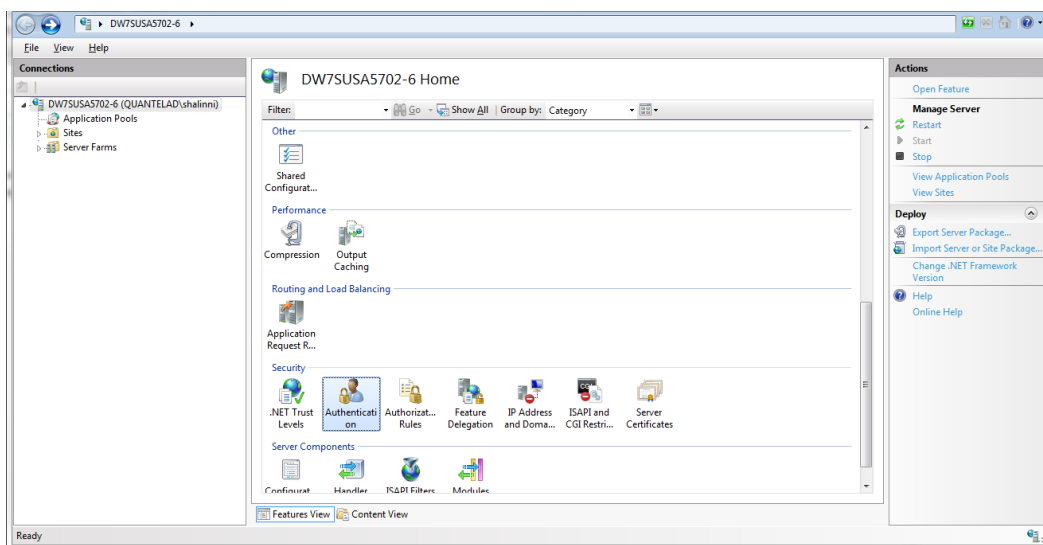


Fig. 2-29: Media Transformer Settings Menu

- 3 Enable **Anonymous** and **Forms** authentication.

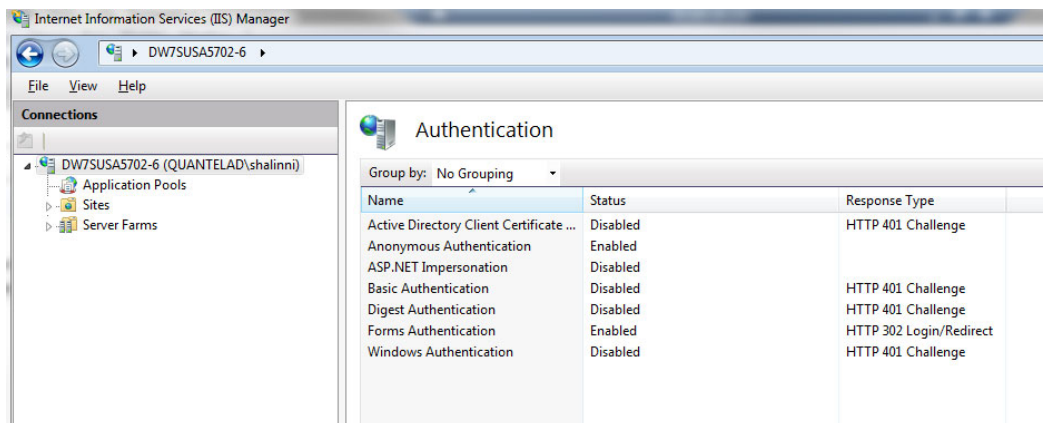


Fig. 2-30: IIS Manager Authentication Settings

- 4 Select **Sites > Default Web Site** and enable the **Anonymous** and **Forms** authentication there too.

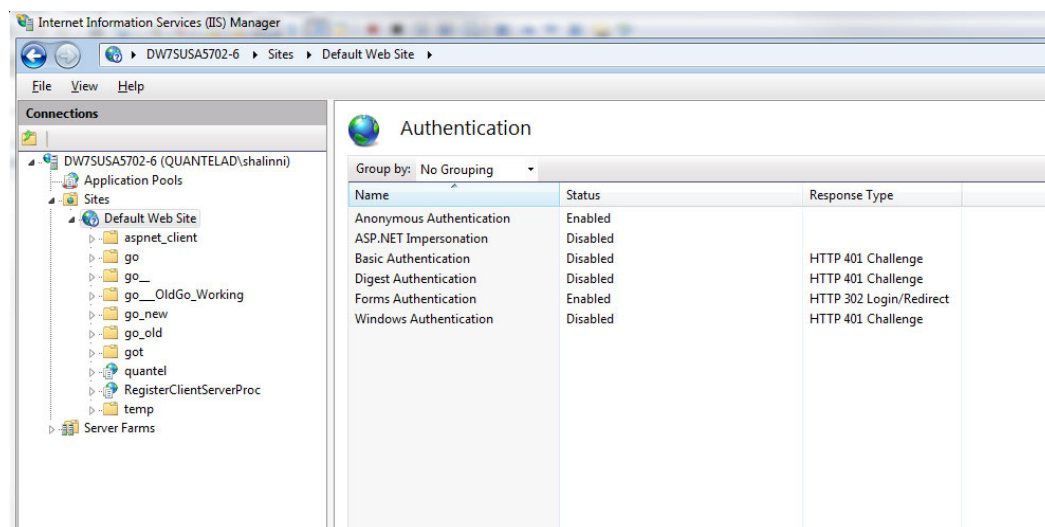


Fig. 2-31: IIS Manager Default Website Authentication Settings

- 5 Restart IIS.
- 6 Run Transformer software.

## Disabling User Management

You can choose to disable the Go! user login authentication dialog by adding option **173** to your license.

## Add Client Access Licenses (CALs)

Once the Microsoft SQL database engine and User Management is installed, you need to add CALs to enable users to login. At least one CAL Key must be added to the system. This is 1 kB of encrypted text that contains:

- Number of CALs purchased
- System name
- System time zone
- A **valid from** start date and time for the CALs
- An expiry date and time for the CALs
- IP address of the User management system
- CAL version, currently at v3

- 1 These details are entered into **TransformerGenerator.exe** tool at Grass Valley, available to Support, Project or Sales Admin.
- 2 The tool creates the 1Kb CAL Key that can be emailed to the customer.
- 3 The customer logs on to User management and goes to the License dashboard where they can enter the CAL Key.
- 4 If accepted, the CALs are live and that number of users can log on concurrently. Multiple CAL Keys can be added and run concurrently adding to the cluster total. CALs are automatically removed from the cluster total when they expire.



## Verify the Installation

From a browser window navigate to `http://<Transformer_IP>/GV/um/Default.aspx` to display the following page:

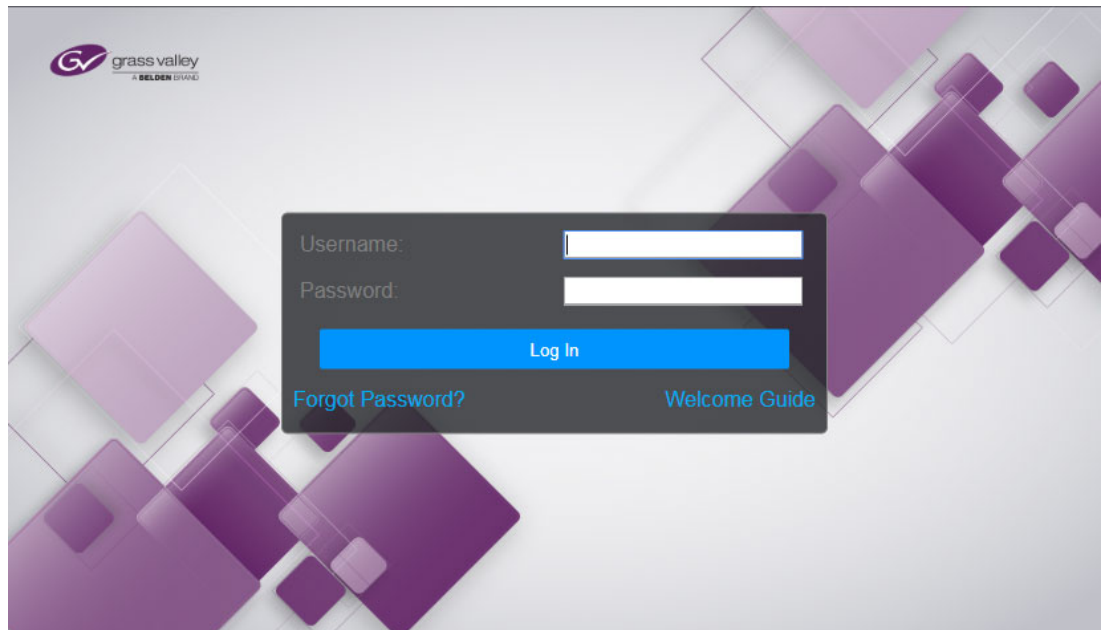


Fig. 2-32: Go! Login Screen

Log in with the following credentials:

Item	Details
Username	admin
Password	quantel@

Navigate to the **License** task to view the correct number of CALS purchased:

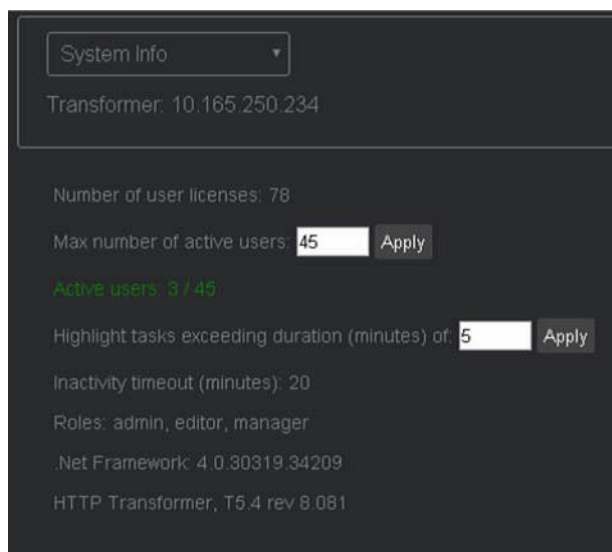


Fig. 2-33: Go! Licensing Screen

## Anonymous Login in User Management

The anonymous login feature allows standard Go! Editor-level users to access Go! without needing to log in. When enabled, instead of encountering the login page, entitled users are immediately forwarded to Go! and other associated Editor-level pages. If a user attempts to access a Manager-level page (e.g., the Manager Dashboard) or Admin-level page (e.g., Admin Dashboard), then they will be required to login using their named Manager or Administrator account and password. Anonymous login applies only to Editor-level pages.

To enable Anonymous logins:

- 1 Log into the User Management MS-SQL database (session\_db).
- 2 Go to the user management table **dbo.UMSettings**
- 3 Add a row **AnonymousLogin** with a value of **1**, see Figure 2-34.

If there is no entry for **AnonymousLogin** or if the value is **0**, then anonymous login is disabled.

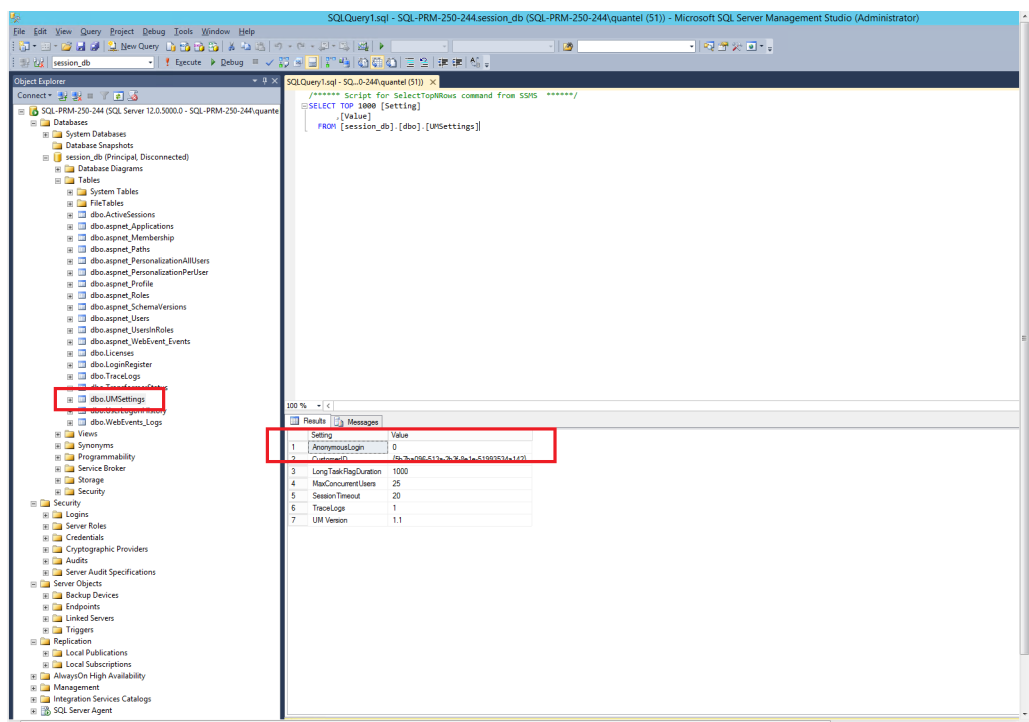


Fig. 2-34: Enabling Anonymous Login in the Database

If named users have already been added to the system (e.g., AndrewSmith@xyz.com, DawnSmith@xyz.com, JohnSmith@xyz.com, etc.) anonymous login will detect the first available *offline* Editor-level user, and assign this login to the physical user.

---

**Note:** The person AndrewSmith may not be physically logged-in, but Go! UserManagement will use this account as it is currently unused.

---

If named users have not been pre-added, Go! UserManagement automatically generates the Editor-level users: anon-1, anon-2, anon-3, etc.

You can still track which pages Editors are visiting (using the Manager and Admin dashboards), however, the system is unable to connect physical users with their online personae.

**Note:** The UserManagement application polls the Go! MS SQL database for the AnonymousLogin setting only once, at start-up. If you later enable or disable AnonymousLogin in the database, restart UserManagement (by restarting the IIS Service) on all affected Windows computers (e.g., on each Media Transformer in the cluster.)

## Control of Default Timeout Period

A new configurable timeout function allows the administrator either to define a period of inactivity after which a user session is timed-out, or to disable the session timeout completely.

A Go! session will currently timeout, by default, after a period of inactivity longer than 20 minutes.

To change the default 20 minute timeout on UserManagement, the system requires the following changes:

- Modify IIS web.config
- Edit the field **Idle Time-out (minutes)** for that application pool to change
- Restart IIS.

These changes need to be made for each Transformer in the cluster.

To set the timeout duration:

- 1 Log into the UserManagement console as Administrator.
- 2 Go to the **System Info** page, see Figure 2-35.

The screenshot shows the 'System Info' page for a transformer with IP address 10.165.250.232. It includes a configuration field for 'Inactivity Timeout (minutes)' set to 520. Below this is a table with columns for IP Address, Heartbeat (UTC), Transformer Version, WebApp Version, .NET version, and Inactivity Timeout (minutes). The table lists various transformers with their respective versions and heartbeat times.

IP Address	Heartbeat (UTC)	Transformer Version	WebApp Version	.NET version	Inactivity Timeout (minutes)
10.162.64.11	2007/2018 07:52:17	Media Transformer_T7 R&D	1.0.0.0	4.0.30319.42000	Timeout:520 - TransformerTimeout:20 - QueuedTimeout:0 - Please restart Transformer
10.162.64.157	29/03/2018 09:06:03	Media Transformer_T7.3.0.241	1.0.0.34	4.0.30319.42000	Timeout:520 - TransformerTimeout:120 - QueuedTimeout:120 - Please restart Transformer
10.162.64.2	12/06/2018 09:27:37	None	1.0.0.0	4.0.30319.42000	Timeout:520 - TransformerTimeout:20 - QueuedTimeout:20 - Please restart Transformer
10.162.64.226	29/05/2018 13:24:31	Media Transformer_T7.3.0.270	1.0.0.51	4.0.30319.42000	Timeout:520 - TransformerTimeout:20 - QueuedTimeout:20 - Please restart Transformer
10.162.64.67	01/06/2018 10:36:55	Media Transformer_T5.3 R&D	1.0.0.0	4.0.30319.42000	Timeout:520 - TransformerTimeout:30 - QueuedTimeout:0 - Please restart Transformer
10.165.248.224	21/09/2018 08:36:16	Media Transformer_T7.3.0.315	1.0.0.75	4.0.30319.42000	Timeout:520 - TransformerTimeout:20 - QueuedTimeout:20 - Please restart Transformer
10.165.250.228	04/10/2018 13:09:41	Media Transformer_T7.3.0.320	1.0.0.76	4.0.30319.42000	Timeout:520 - TransformerTimeout:30 - QueuedTimeout:30 - Please restart Transformer
10.165.250.232	05/10/2018 10:57:45	Media Transformer_T7.3.0.321	1.0.0.76	4.0.30319.42000	Timeout:520 - TransformerTimeout:30 - QueuedTimeout:520 - Please restart Transformer
10.165.250.233	05/10/2018 10:57:17	Media Transformer_T7.3.0.321	1.0.0.76	4.0.30319.42000	Timeout:520 - TransformerTimeout:520
10.165.250.234	03/05/2018 08:17:39	Media Transformer_T7.3.0.258	1.0.0.51	4.0.30319.42000	Timeout:520 - TransformerTimeout:20 - QueuedTimeout:20 - Please restart Transformer
10.165.250.235	09/05/2018 14:41:28	Media Transformer_T7.3.0.260	1.0.0.51	4.0.30319.42000	Timeout:520 - TransformerTimeout:20 - QueuedTimeout:20 - Please restart Transformer
192.168.175.1	14/05/2018 18:02:20	Media Transformer_T7.3.0.240	1.0.0.41	4.0.30319.42000	Timeout:520 - TransformerTimeout:120 - QueuedTimeout:20 - Please restart Transformer

Fig. 2-35: UserManagement System Info Screen

- 3 In the field **Inactivity Timeout (minutes)** set the value to the required timeout period, within the following limits:

- Minimum value: 5 minutes
- Maximum value: 10080 minutes (1 week)

- 4 Click **Apply**.

- 5 After applying the new timeout value, restart each Transformer in the cluster.

On restart, the Transformers detect the new timeout value and apply it to their **web.configs** and application pools.

Once the Transformer has been restarted and the new value has been applied, the column **Inactivity Timeout** in the table **SystemInfo**, should change color to green and display the message:

**Timeout:50 - TransformerTimeout:50**

If the Transformer is not restarted, the column **Inactivity Timeout** in the table **SystemInfo**, will display the following message in red:

**Timeout: 50 - TransformerTimeout:20 - QueuedTimeout:50 - Please restart Transformer**

Where:

- **Timeout: 50** shows the new timeout value which will be applied at restart
- **TransformerTimeout:20** shows the original timeout value to be removed at restart
- **QueuedTimeout:50** shows the new timeout value, currently queued for application.