Hanwell
Ultimate peace of mind

Part of the Ellab Group

-

IM5995
Hanwell EMS

Installation Guide

hanwell.com

Intentionally Blank

Document History

Document Number: IM5995

Issue No.	Issue Date	Changes	By
1	11 July 2018	First Issue	I Ralls
2	15 August 2018	Updates to reflect changes to interface	I Ralls
3	1 November 2018	Addition of information on creating a CFG file.	I Ralls
4	11 January 2019	Minor Correction to page 64	I Ralls
5	8 February 2019	Addition of warning regarding Database Collation	I Ralls
6	31st July 2019	Minor amendments, plus addition of information relating to *Layout.xml* file.	I Ralls
7	9th August 2019	Removal of out of date Apache Version Number	I.Ralls
8	16th October 2019	Corrections to cross-references on pages 72 and 75	I.Ralls
9	30th January 2020	Changes to take account of the release of EMS Version 1.0.10	I Ralls
10	10th June 2020	Addition of warnings that EMS only compatible with Microsoft SQL 2012 onwards.	I Ralls
11	22nd June 2020	Addition of information on resolving issue of EMS 1.0.12 Installer being blocked by Anti-Virus software.	I Ralls
12	9th December 2020	Minor amendment to Step 4 on page 43	

Contents

Document History **1**

1 SQL **6**

1.1 Existing Microsoft SQL Instance 6

2 Installation **7**

2.1 EMS Server Components 7

2.1.1 Multi-Site Example 7

2.2 TCP/IP Ports and Addresses 8

2.3 Computer Specification 10

2.4 Internet Information Services (IIS) Web Server Configuration 11

2.4.1 For Windows 7 and Windows 10 11

2.4.2 For Windows Server 2008, 2008 R2, Sever 2012 R2 and Server 2016 12

2.5 Windows Server 2008, 2008R2, Server 2012R2 Prerequisites 13

2.5.1 Checking if .Net 3.5.1 is enabled 13

2.5.2 Enabling .Net Framework 3.5.1 13

3 EMS W900B Preparation **15**

3.1 User Credentials 15

3.2 W900B SQL LAN Connection 15

3.3 Potential Installation Issues 15

4 Upgrades **16**

4.1 Preparation 16

4.2 Upgrading 16

4.2.1 SQL Express/.Net Framework 16

4.2.2 Same Version Components 16

4.2.3 Service Shutdown 16

4.2.4 Settings 17

5 Connecting to a CR2 USB or AWO4 Device **18**

5.1 Windows 7 and Windows 10 - USB Suspend Disable Procedure 18

6 Hanwell EMS Installation Procedure **19**

6.1 EMS Installation Procedure - Beginning the Installation of Hanwell EMS (W900A and W900B) 19

6.2 EMS Installation Procedure - Installing EMS Server Components 23

6.3 Upgrade from Synergy/Notion to EMS 23

6.4 EMS Installation Setup 27
6.4.1 EMS Installation Setup for an EMS W900A installation 27
6.4.2 EMS Installation Setup for an EMS W900B installation 34
6.5 EMS Installation Procedure - Installing the EMS Server 39
6.5.1 Installing the EMS Server for an EMS W900A Installation 39
6.5.2 Installing the EMS Server for an EMS W900B Installation 41
6.6 EMS Installation Procedure - Installing the EMS Server Instance 45
6.6.1 Installing the EMS Server Instance - EMS W900A Installation 45
6.6.2 Installing the EMS Server Instance - EMS W900B Installation 49
6.7 EMS Installation Procedure – Continued 52
6.7.1 Installing EMS SR2 Service 52
6.7.2 Installing the EMS Mobile Application Service 57
6.7.3 Installing the IceSpy Base Utility 63
6.7.4 Installing EMS Remote Management Tools 67
6.7.5 Installing the EMS Backup Archive Tool 70
7 Additional System Configuration 74
7.1.1 Server 2008, 2008R2, 2012R2 and 2016 - Disabling Internet Explorer Enhanced Security Configuration 74
7.2 Service Reinstall 76
8 Firewall Configuration 77
9 New Database Configuration 78
9.1 Pre-Configuration Operations 78
9.2 New Database Configuration - EMS W900A 81
9.3 New Database Configuration - EMS W900B 82
9.3.1 EMS W900B - No SQL Servers Shown 82
9.3.2 EMS W900B - SQL Servers Shown 85
9.3.3 W900B Remote SQL Server 86
9.4 Creating a New Database 87
9.5 Counter Signatures (W901 Only) 92
9.6 Create .CFG File 92
10 RadioLog 94
10.1 RadioLog Data Import 94

10.1.1 Pre-Conversion and Import 94
10.1.2 Obtaining the RadioLog Data File Set 96
10.1.3 RadioLog Data Conversion Instructions 97
10.1.4 Importing Converted RadioLog Setup and Data 103
10.1.5 iSense Sensors 115
11 Reports Folder 116
12 Licensing 117
12.1 Online Activation (Basic Procedure) 117
12.2 Manual Activation 118
12.3 Online Licence Deactivation 122
12.4 Counter Signatures (W901 Only) 123
13 Adding Company Details 125
13.1 Adding Company Details to the EMS Website 125
13.2 Adding Company Logo to Generated Reports 128
14 Log Files 131
14.1 Viewing Log Files 131
14.2 Clearing Log Files 132
15 Database – Hanwell Maintenance 134
15.1 Upgrade 134
16 Connection Test 135
16.1 Default Administrator User 135
17 Upgrading an Installed EMS System 136
17.1 Preparation 136
17.2 Upgrading 136
17.2.1 SQL Express/.Net Framework 136
17.2.2 Same Version Components 136
17.2.3 Service Shutdown 136
17.2.4 Settings 137
18 EMS Server Removal 138
18.1 Uninstall EMS all Operating Systems 138
19 Contact Hanwell Solutions 140

IMPORTANT

You must read Sections 1 and 3 before proceeding with the installation process.

Failure to comply with the instructions in these Sections may cause problems.

The procedures outlined in this manual apply to all operating Systems that EMS can be installed on and operate with.

The style of controls displayed during this process depends on both target operating System type, and the target machine configuration; as such the style of controls shown on your machine may vary from those shown in this manual.

Where a unique procedure needs to be performed for a specific operating System, this is identified in the procedure's description.

1 SQL

EMS uses Microsoft SQL and is shipped in two variants:

- **W900A** is distributed with an SQL Express 2014 (with tools) Bootstrapper, which will install SQL and Microsoft SQL Server Management Studio on the EMS Server.
- **W900B** is distributed without SQL and is intended for installation where the customer wishes to use an existing SQL instance.

  Note: EMS **ONLY** supports versions of Microsoft SQL from 2012 onwards.

During **W900A** installation, the System Administrator password is set to **P3nd13H0us3**. This is done solely to provide a password without user interaction; EMS does not use the System Administrator account.

Restoring an SQL database requires all other connections to the database to be closed. If doing this from SSMS or similar, run the MS Services MMC (Microsoft Management Console) and make sure that Apache and all of the EMS services are stopped first; also, close any open SSMS edit windows connected to the database being restored.

1.1 Existing Microsoft SQL Instance

If there is an existing Microsoft SQL Server, on the target Server or LAN, that you wish to use for EMS, then the following conditions must be met:

- **EMS W900B** must be used.
- The existing Microsoft SQL Server must be a version from 2012 onwards.
- SQL Instance must be set to SQL login and Windows Authentication mode.
- The installing Windows login should be a member of the **sys admin** role and must have full **Administrator** privileges on the SQL Instance.
- SQL Server Browser service must be running during EMS install and EMS Config Utility operation.
- SQL Server Management Studio (SSMS) must be installed.

2 Installation

2.1 EMS Server Components

When installing the EMS Server, the install will check for and install the following software:

- .Net framework 4
- .Net Framework 3.5, 3.5.1 or 4.5
- MS SQL 2014 Express
- EMS Data Service – includes various components and EMS web files.

2.1.1 Multi-Site Example

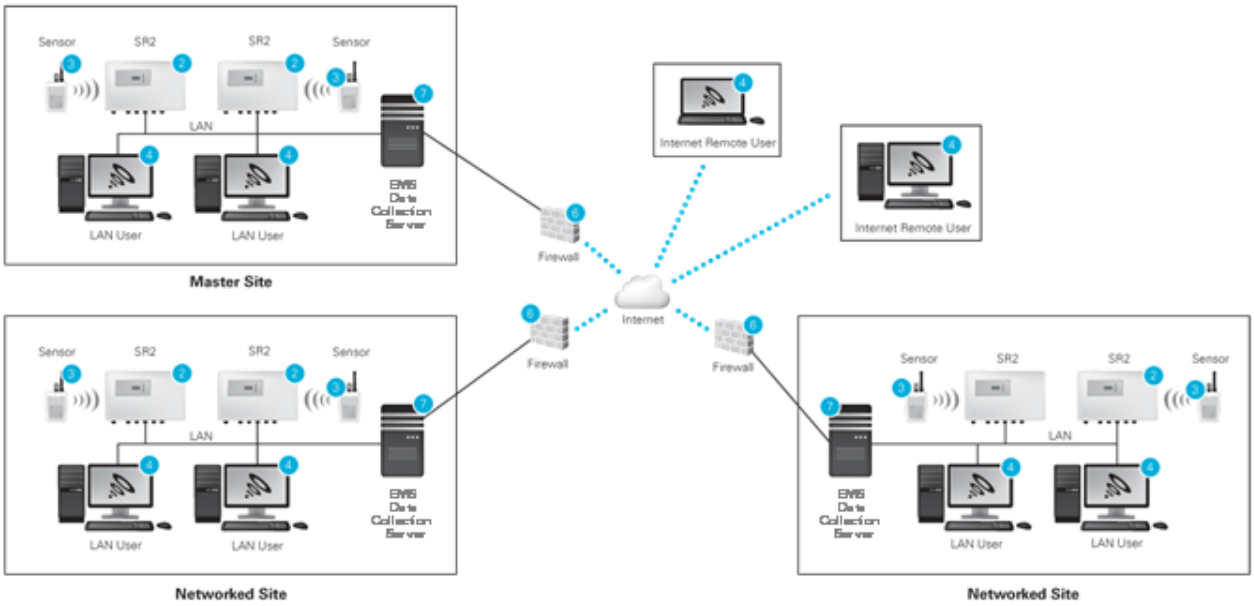


Figure 1

Figure 1 above shows a possible multi-site installation; it assumes that the customer has an inter-site VPN in place.

In this scenario, the Installing Engineer would install the following components:

- **Server:** EMS Server Components, SR2 Service, CR2 USB Service.
- **Workstation A**: SR2 Service.
- **Workstation B:** CR2 USB Service.

The **EMS Remote Management Tools** will also need to be installed on an EMS Administrator's workstation or the EMS Server

The Host machine will need a network connection to the EMS Server and at least one spare USB port.

When installing distributed Hardware Services, the EMS IP Address / hostname must be set during installation of the Hardware Service. This must match the address of the EMS Server where the Data Service is installed.

Note: For this System, at least one SR2 Service and one CR2 USB Service will need to have non-default Service names set during installation; the non-default Service name would then need to be added to the ***Hardware Service*** dialog box, when creating the new System from the EMS Config Utility.

The Customer is responsible for installing browsers on the **Computers** and **Laptop**, and for configuring **Firewalls** to enable the SQL connection from the EMS Management Tool to the EMS Server, inter-site communications and external HTTP access to the Server for the **Laptop**.

2.2 TCP/IP Ports and Addresses

- If the Customer wishes to connect to remote SR2 or CR3 units where no intranet is in place, then the Customer must ensure that all Firewalls are configured to allow connections between the remote networks over the requisite TCP/IP Ports.
- For completeness, Table 1 below lists all default **Hanwell** Service Port Numbers; not all are included with EMS.
- There are no IANA registered Port Numbers for EMS; instead, it uses unassigned Port Numbers.

  Reference: https://www.iana.org/assignments/service-names-port-numbers
- If a conflict arises on the host machine, EMS TCP/IP Ports can be configured during installation.
  - ➢ For the majority of Systems, the Default Ports will suffice.
- Where Port Numbers need to be changed, care should be taken to avoid well known and assigned Port Numbers; consult the IANA website and do not use Port Numbers below 1024.
  - ➢ If Port Numbers are altered, make a note of any changes and then modify the matching service data during database configuration.
  - ➢ Where Hardware Services are installed on distributed machines, Port Numbers can be shared amongst the distributed machines.
- The EMS IP Address / Hostname and Port Number can be set during installation of the Hardware Services.
- This must match the address of the **EMS Server** and the **Data Service Port No.** set for the Hardware Services during initial System Configuration.

- The **Hardware Service Command Listening Ports** will be automatically updated by the **Data Service** when each Hardware Service initially makes contact; therefore, these can be altered without manually updating the database.
- The Debug Ports are solely used by the **Service Debug Viewer** for **Hanwell** maintenance purposes; therefore, again, these can be altered without modifying the database.
- Debug Port Numbers are altered by editing the Hardware Services setup.xml file, found in the service's Common Application Data Folder.

Service	Data	Command	Debug
EMSSR2Service	n/a	10992	11002
EMSDataService	10991(DB set)	n/a	11004
EMS WCF Connection	8083	n/a	n/a
EMSArchiveService	8082	8082	11010
EMSCR2USBService	n/a	10996	11007
Hanwell SMS Module	10997(DB set)	n/a	n/a

Table 1

- The System will also require Port 1433, or a Customer Specified Instance Port Number, for a **W900B/W906B** installation for connection to the Microsoft SQL Server and Port 1434 for an SQL Client Install. Port 80 (http) is required for the Apache Server.

  Note: EMS **ONLY** supports versions of Microsoft SQL from 2012 onwards.

- These Ports are all IANA registered Port Numbers and should be available.
- If using iSense or a CR3 GPRS, EMS will connect to the **Hanwell** Remote Data Service to collect data on Port 8081.
- For Firewall rules purposes, the SQL Ports require TCP and UDP, all other Ports are TCP.
- The Customer MUST enable inbound connections for the above Ports on any Server firewall prior to installation. If using iSense or CR3 GSM (CR2GPRS), the Customer MUST also enable outbound connections on Port 8081 on Server and corporate firewall(s) prior to installation.
- EMS WCF Connection is local to the EMS Server.

2.3 Computer Specification

Hanwell recommends the computer specifications below as a ***minimum*** to run EMS.

Windows 2008 R2 or 2012 R2 Server, Windows Server 2016, Windows Server 2019

Processor		2.5GHz or faster
Ram		8GB
Hard Drive:	**Physical Machine**	x2 250GB set up as RAID
	Virtual Machine	70GB
Media		DVD-ROM drive
USB		USB ports minimum 2 spare
Network		1GB Ethernet network port

Note: The Host machine must **NOT** be configured as a Web Server (IIS), if the Web Server Role is enabled on the target Server, remove the Role before installation. instructions on how to configure this setting can be found in Section 2.4.

EMS W900A or **W906A** must NOT be installed on a Domain Controller. SQL Server security restrictions mean that the installation will usually fail.

EMS can NOT be installed, if the operating System GUI has been uninstalled.

Windows 7 Professional/Enterprise*, Windows 10 Pro/Enterprise – Very Small Installations

**Not recommended due to End of Life Status*

Very small installations would typically consist of up to 25 sensors, one Site, up to two SR2s, and up to five users with LAN-only browser access. EMS for such a Site may be installed on a dedicated Windows 7 Service Pack1 or later machine, with the specification below. The operating System must be a Professional or Enterprise variant.

Processor	2.5GHz or faster
Ram	2GB (32-bit) 4GB (64-bit)
Hard Drive	250GB
Media	DVD-ROM drive
USB	USB ports minimum 2 spare
Network	1GB Ethernet network port

Note: Ensure that the host machine for EMS has all the latest Windows updates before installing the EMS software.
Failure to meet minimum computer specification may result in poor performance and incorrect operation.

The Customer should provide a backup System, with Microsoft SQL integration, appropriate to their data protection requirements. The **Hanwell** Group strongly recommends the use of an appropriately rated uninterrupted power source, with automatic shutdown technology.

2.4 Internet Information Services (IIS) Web Server Configuration

The instructions below describe how to turn off the IIS (Internet Information Services) on a Windows 7 machine and Windows Servers.

2.4.1 For Windows 7 and Windows 10

1. Navigate to the **Control Panel**.
2. Select **Programs and Features**.
3. Navigate to the left-hand pane and select **Turn Windows Features on or off**.
4. Then uncheck **Internet Information Services** and **Internet Information Services Hostable Web Core**. See Figure 2 below:

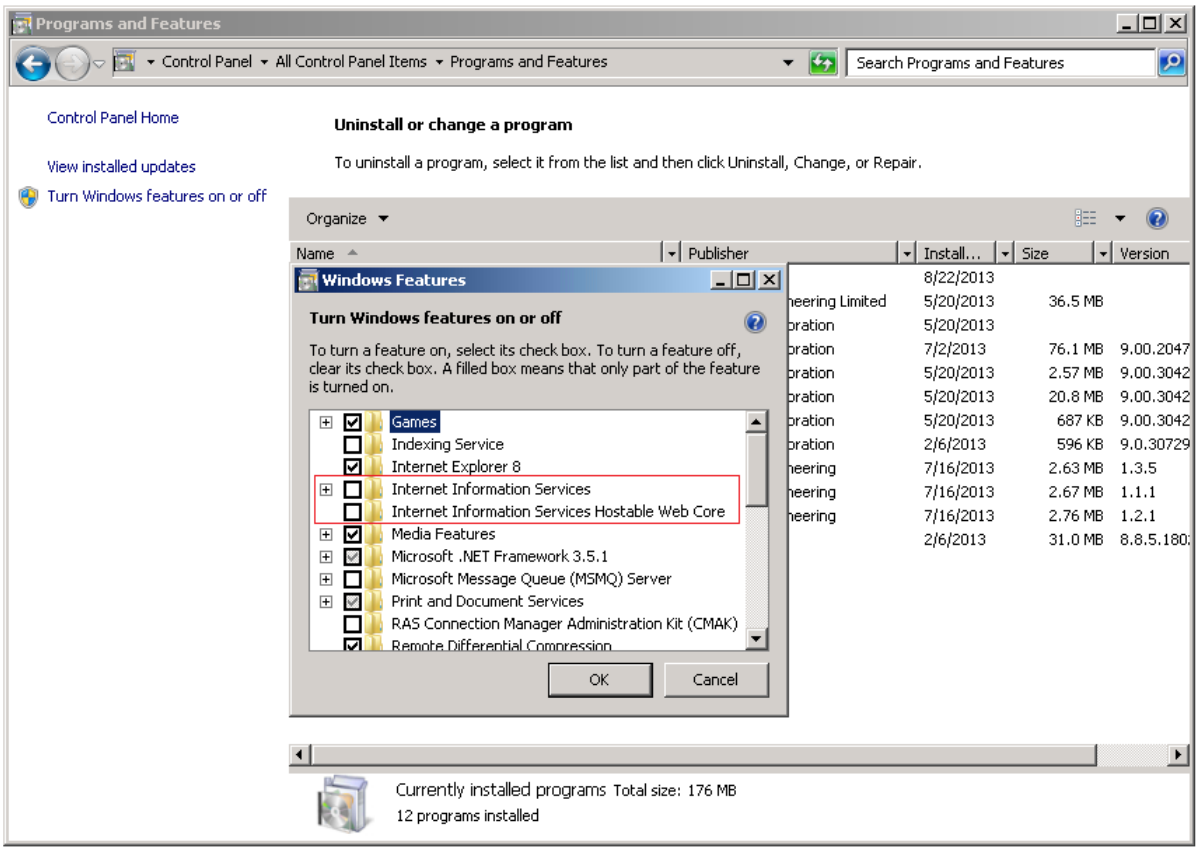


Figure 2

2.4.2 For Windows Server 2008, 2008 R2, Sever 2012 R2 and Server 2016

1. Open **Windows Server Manager** from the **Start** menu.
2. Click **Roles** in the tree on the left.
3. Click **Remove roles** on the right (if Web Server (IIS) is installed).
   - ➢ The **Remove Roles Wizard** is displayed. See Figure 3 below.
4. Uncheck **Web Service (IIS)**.
5. Click **Remove Dependant Features**.
6. Click the **Next >** button.
7. Click **Remove**.

Note: A System Restart may be required after this process has completed.

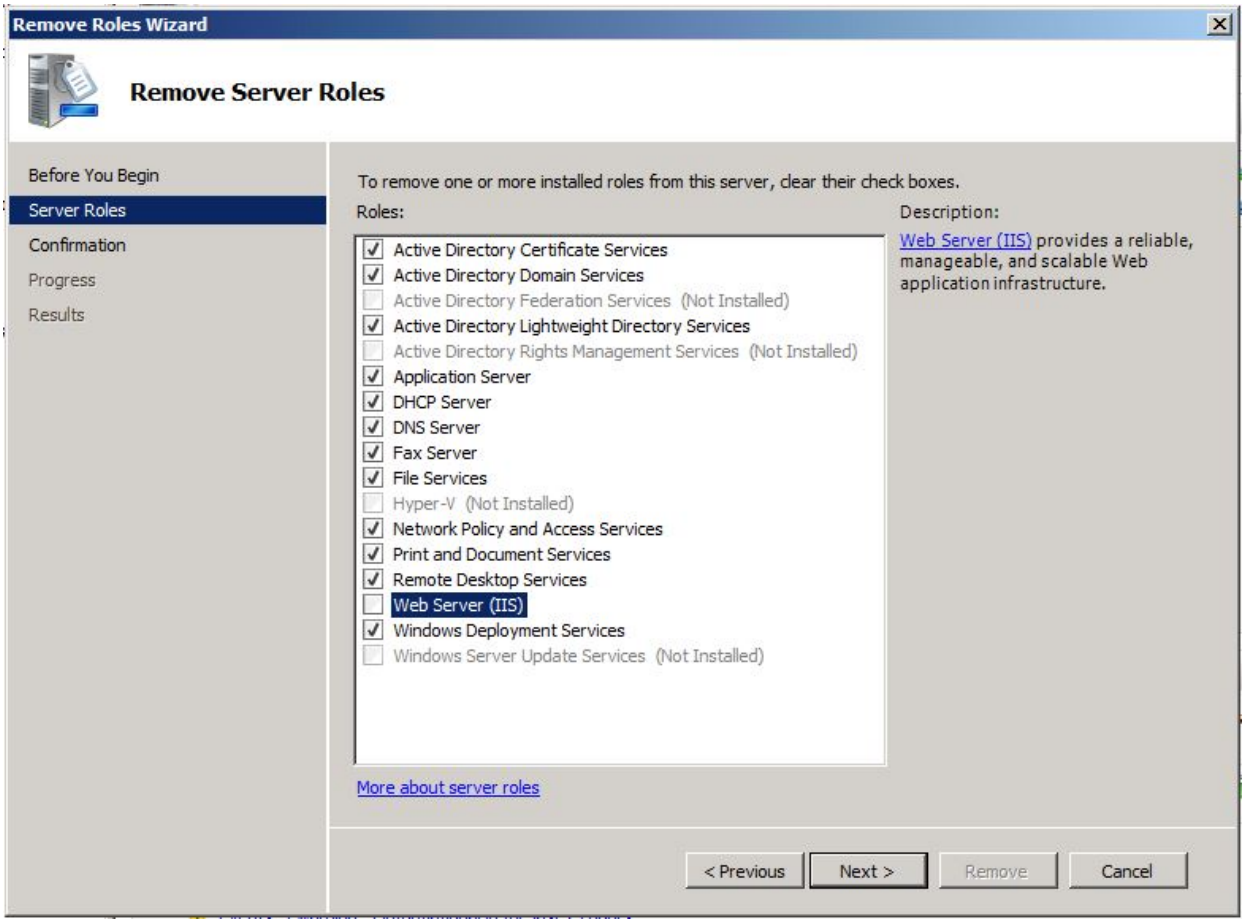


Figure 3

2.5 Windows Server 2008, 2008R2, Server 2012R2 Prerequisites

The Installer includes bootstrappers for the Microsoft .Net Framework (3.5 and 4.5) and will install automatically, where required, during the install process.

However, on machines running Windows Server 2008 or Server 2012 onwards, you must enable the .Net Framework manually on the Server, prior to EMS installation.

2.5.1 Checking if .Net 3.5.1 is enabled

The procedure below describes how to **check** if .Net 3.5.1 is enabled on the Server:

1. Start the **Server Manager**.

   This can be started from either the **Administrative Tools** window, or the **Taskbar**.

   Server 2008 / 2008R2

   Within the **Server Manager** interface:

   i. Click **Features**.

      * This will display all installed features in the right-hand pane.

   Server 2012

   i. From the Dashboard, select **Local Server**.

   ii. Scroll down to **Rolls and Features** section.

2. Verify that **Net Framework 3.5.1** is listed.

The instructions below describe how to enable the .Net Framework if it is not listed as stated above.

2.5.2 Enabling .Net Framework 3.5.1

1. Start the Server Manager.

   This can be started from either the **Administrative Tools** window, or the **Taskbar**.

   Server 2008/2008R2

   Within the Server Manager Interface:

   i. Select **Add Features**.

      * This will display a list of possible features.

   Server 2012

   i. From the Dashboard select **Add roles and features**.

   ii. On the **Add Roles and Features Wizard**, select **Server Selection**.

   iii. Make sure that the Local Server is selected.

   iv. Select **Features**.

2. In the **Select Features** Interface, click on **Expand .Net Framework 3.5.1 Features**.

   ➢ Once expanded you will see two tick boxes, one for **.Net Framework 3.5.1** and the second for **WCF Activation**.

3. Check the box next to .**Net Framework 3.5.1**.

4. Click **Next**.

   If you do not expand **.Net Framework 3.5.1 Features** and check it, you will get a pop-up titled **Add Features Wizard** as shown in Figure 4 below.

   If this happens:

   i. Click **Cancel**.

   ii. Expand **.Net Framework 3.5.1 Features**.

   iii. Check **.Net Framework 3.5.1** tick box below it.

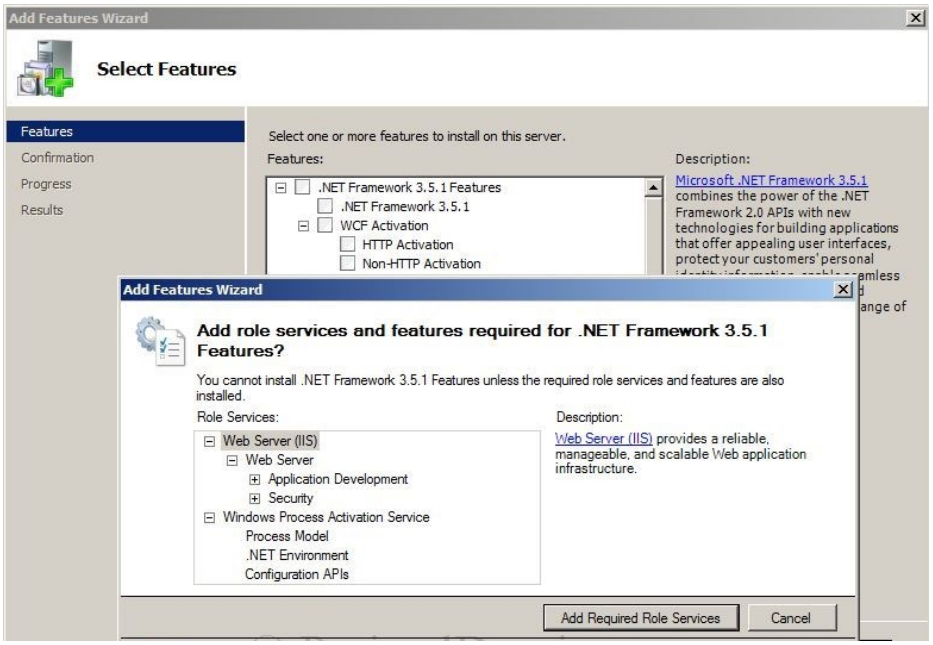


Figure 4

You cannot install .NET Framework 3.5.1 Features unless the required Role Services and Features are also installed.

In the **Confirm Installation Selections** interface:

1. Review the selections

2. Click **Install**.

3. Allow the installation process to complete and then click **Close**.

Where **Hanwell** is supplying a pre-built System, this can be done using the Server Manager's **Microsoft Management Console**.

3 EMS W900B Preparation

3.1 User Credentials

If W900B is to operate a Microsoft SQL Server running on a separate machine, EMS will require **Windows Network Login Credentials** to operate. The login username and password will be required at various stages during the installation process.

Note: EMS **ONLY** supports versions of Microsoft SQL from 2012 onwards.

- The login used for EMS **MUST** have password set to never expire.
- This login **MUST NOT** be the login used to install EMS.
  Using the same login will cause database creation to fail and would, in any case, result in a worse security situation post install, as the EMS services would be left running as Administrator on the local System and as an SQL Administrator on the SQL Server.

Customers should **not** add this EMS System login to their SQL Server. The login will be added automatically during EMS installation.

- Allowing the installation to add the EMS Service logins to the SQL Server gives the best security situation, because the service login will only be granted access to the databases created for EMS, with the minimum roles required to operate the System.

Hanwell recommends that Customers create a Network User login specifically for the EMS System.

3.2 W900B SQL LAN Connection

Various EMS services and tools will need connectivity to the Microsoft SQL Server. The Customer **MUST** ensure connectivity to the SQL Server from the EMS Server machine. This may include the necessity to create Firewall rules to allow TCP and UDP access on either **Port 1433** or a Customer Specified Instance Port Number to the SQL Server (**Port 1434** for Client Install).

3.3 Potential Installation Issues

Some anti-virus programs may detect a false positive on the EMS Installer. If this happens, you should disable your antivirus program during the installation process.

If installation of the EMS Server Components is interrupted or fails for any reason, you should perform a complete removal of the EMS Server Components before attempting a re-installation, following the procedure described in **Section 18 EMS Server Removal** to completely remove any existing EMS Server Components.

4 Upgrades

4.1 Preparation

Hanwell recommends that customers back up all their data, prior to any major maintenance task, such as a System Upgrade.

- If new columns and/or tables need to be added to the database, then the Install will detect that the System is being upgraded and add the required objects.

Note: Unless specifically instructed to do so by **Hanwell, DO NOT** uninstall EMS components prior to an upgrade. Doing so may result in incorrect operation after the System has been upgraded.

4.2 Upgrading

To upgrade an EMS Server installation, run the latest version of the EMS Installer on the existing Host machine.

- Do **NOT** attempt to upgrade an **EMS W900A** System with **EMS W900B**, or vice versa.
- Do **NOT** attempt to upgrade an **EMS W900** System with **EMS W906**, or vice versa.

The upgrade process is largely the same as the primary System installation, except for as follows:

4.2.1 SQL Express/.Net Framework

Where these are already installed, the Install will detect this and quietly move on to the next installation step.

4.2.2 Same Version Components

Where a component with the same version is already installed, the Install will detect this and either: give the User the option to keep or repair the current installation or show an error that the component cannot be installed; this is normal and should be ignored.

Unless you believe the current version of a component to be damaged, it is recommended that you keep the current version.

4.2.3 Service Shutdown

During Upgrade, the installer will need to stop EMS Services that are running, in order to upgrade the executable code. In these cases, you will be presented with dialog boxes similar to the ones shown in Figure 5 and Figure 6 overleaf:

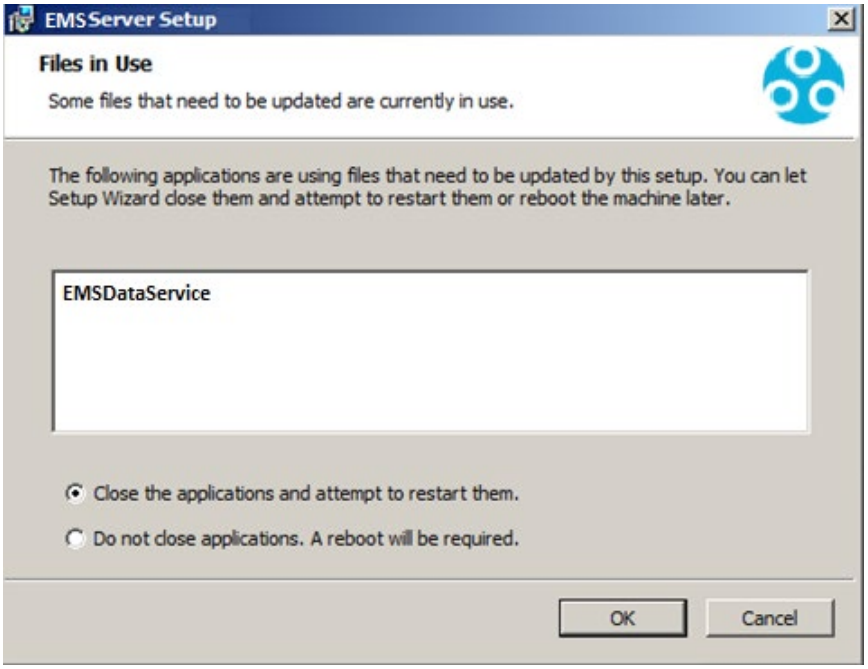


Figure 5

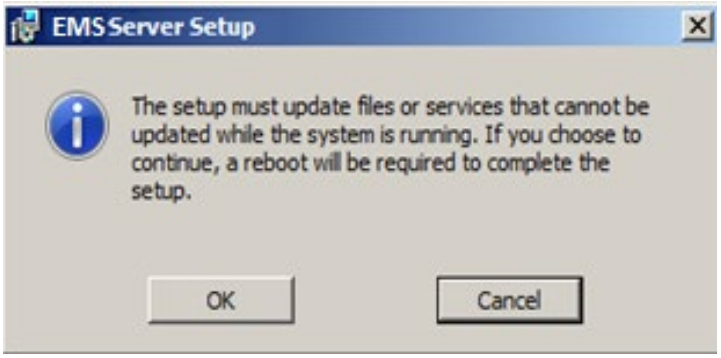


Figure 6

- Keep the default selections and click OK to continue.

4.2.4 Settings

The Install will read your current settings and use these values to populate the initial values of the User entry fields.

5 Connecting to a CR2 USB or AWO4 Device

5.1 Windows 7 and Windows 10 - USB Suspend Disable Procedure

If you wish to connect a CR2 USB or AW04 device via USB, then **USB Suspend** must be disabled in **Advanced Power Settings** on all machines that the CR2 USB(s) or AW04 are connected to.

Note: This procedure is not applicable to Server Operating Systems.

To disable **USB Suspend**:

1. Select **Start > Control Panel**.

   ➢ The **Windows Control Panel** is displayed.

2. Select **View by: Small icons** (or **Large icons**).

2. Select **Power Options**.

3. Select **Change Plan Settings** (for either power plan).

4. Select **Change Advanced Power** settings.

5. The windows **Power Options** dialog box is displayed. See Figure 7 below:

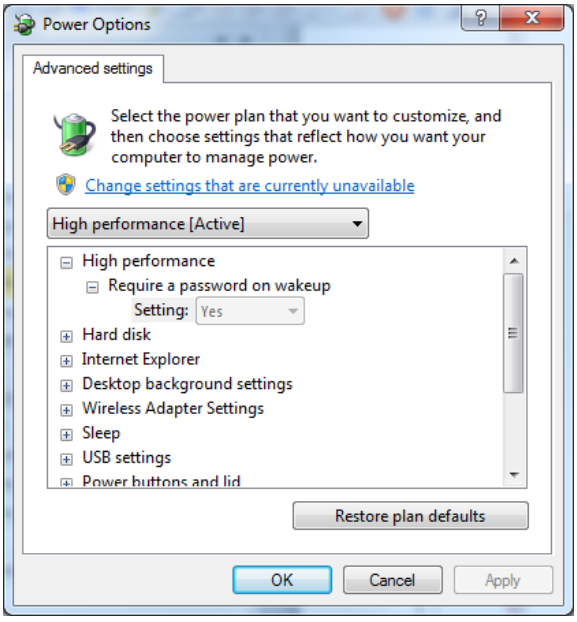


Figure 7

6. Click the + sign next to **USB settings**.

7. Click the + sign next to **USB selective suspend setting.**

8. Select **Enabled.**

9. Select **Disabled** from the pull-down menu.

10. Click **OK**.

6 Hanwell EMS Installation Procedure

You must follow each of the following installation steps carefully and ensure that you fully understand what you are changing if making a change during the installation.
An incorrect change could potentially render EMS non-functional.

6.1 EMS Installation Procedure - Beginning the Installation of Hanwell EMS (W900A and W900B)

1. Insert the EMS DVD and click **Run Installation**.
2. Double-click on the **Run Install.exe** icon.

   ➢ If **User Account Control** is enabled, the **User Account Control** window will be displayed. See Figure 8 below.

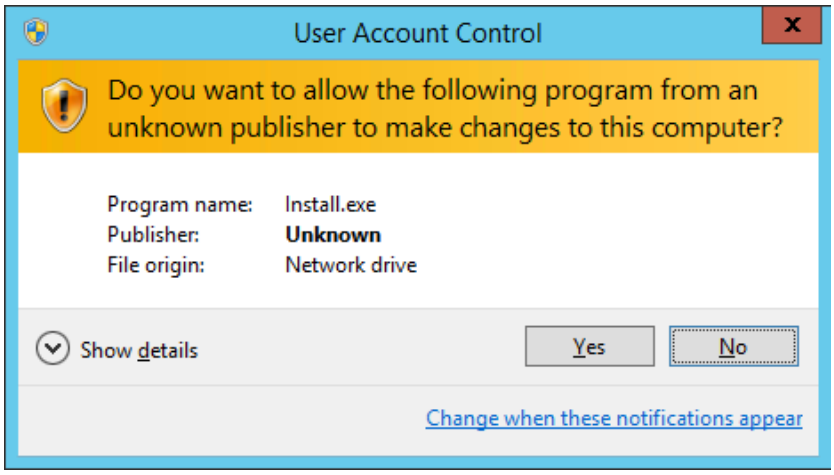


Figure 8

   ➢ If **User Account Control** is not enabled, this step will be skipped and the **EMS Install** window will be displayed.

Note: The **Install.exe** file which comes with the latest EMS installer (V1.0.12) may be quarantined/deleted by Windows Defender or other anti-virus software.

If this happens, restore the EMS **Install.exe** file from the Windows Defender (or other anti-virus software) Quarantine list.

- See here for details on restoring files quarantined by Windows Defender:

  https://docs.microsoft.com/en-us/windows/security/threat-protection/microsoft-defender-antivirus/restore-quarantined-files-microsoft-defender-antivirus

3. If the **User Account Control** window is displayed, click **Yes**.

   ➢ If .NET Framework 4.7.2 is not installed, the following window will be displayed. See Figure 9 overleaf:

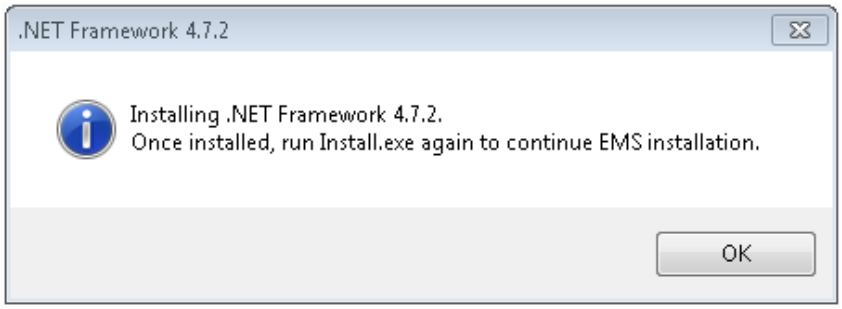


Figure 9

a) Click on **OK**.

* A series of windows will be displayed as files are extracted, followed by the .NET logo and **.NET Framework 4.7.2 Setup** window. See Figure 10 and Figure 11 below:

Figure 10

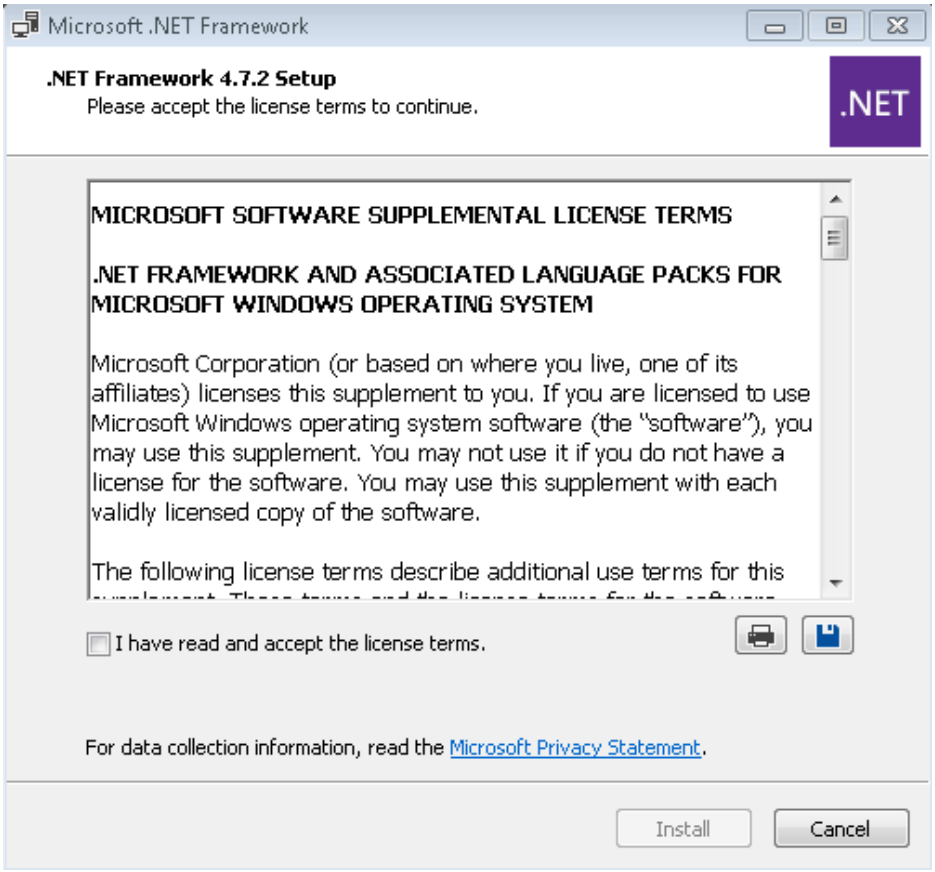


Figure 11

b) In the **.NET Framework 4.7.2 Setup** window, tick the **I have read and accept the license terms** box.

c) In the **.NET Framework 4.7.2 Setup** window, click **Install**.

* A **.NET Framework Setup** window is displayed with bars illustrating the progression of the .NET Framework 4.7.2 installation.

* When the .NET Framework 4.7.2 installation is complete, the following window will be displayed. See Figure 12:

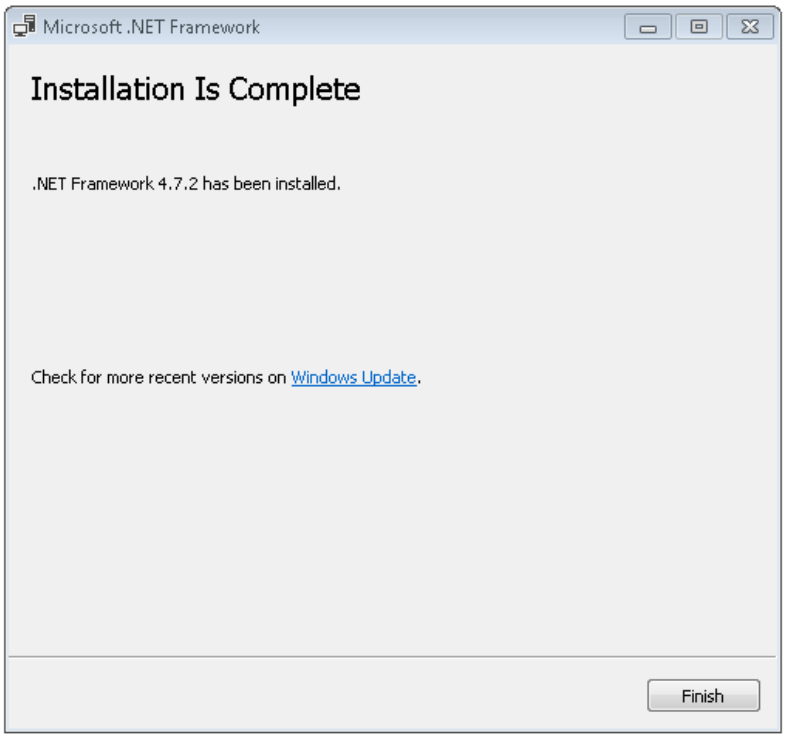


Figure 12

d) Click on **Finish** in the displayed window.

* The **EMS Installer** window is displayed. See Figure 13 overleaf:

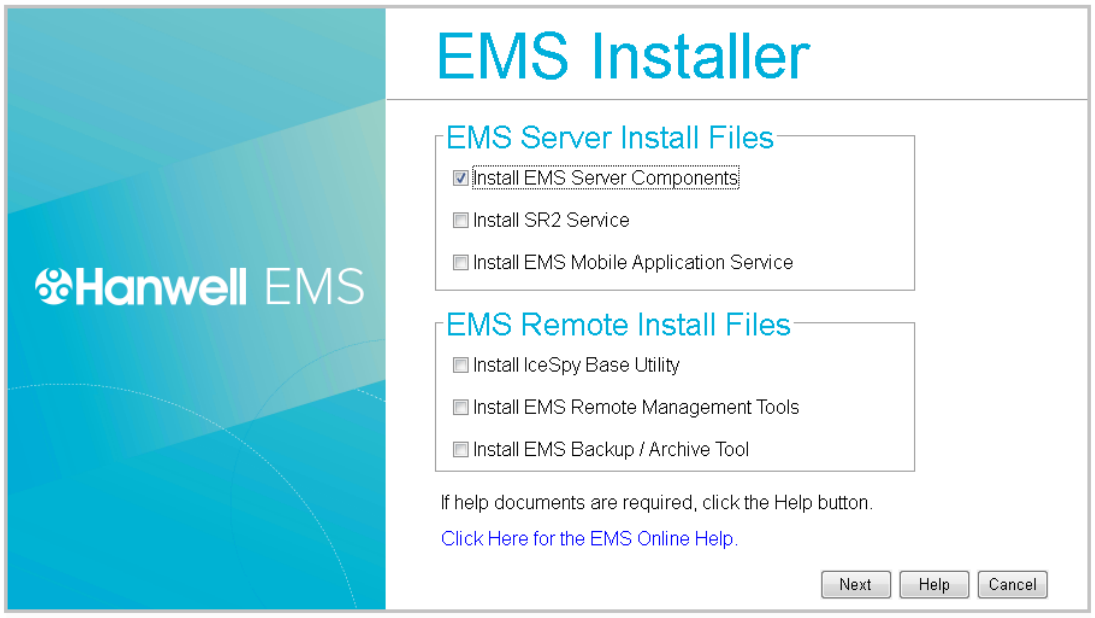


Figure 13

4. If this is the EMS Server, tick **Install EMS Server Components**. See Figure 13 above.
5. If you wish to Synchronise sensors from this machine, tick the **Install EMS Remote Management Tools** box.
   - The **EMS Remote Management** Tools must be installed on a machine on the EMS Server LAN, with any necessary Firewall changes made to allow SQL access to the EMS Server.
   - There must be a HTTP (**Port 80**), connection enabled between the **Remote Management Tools** and the **EMS Server**.
   - Refer to Document **IM6000 - EMS Remote Management Tool Manual** for further details.
6. If SR2s will be controlled from this machine, tick the **Install SR2 Service** box.
   - Any necessary Firewall changes must be made to allow data and command port connections between the **SR2 Service** and the **EMS Server**.
7. If you are installing Selsium, a **Hanwell ARB Module** or a **Hanwell SMS Module**, you will need to tick the **Install IceSpy Base Utility** box to install the **IceSpy Base Utility** on either the EMS Server or another machine on the LAN.See Figure 13 above.
   - Refer to Document **IM5994 IceSpyBaseUtility Manual** for further details.
8. If you wish to use the **EMS Mobile Application**, tick the **Install EMS Mobile Application Service** box to enable a link between the Mobile App's interface, the EMS functionality and your data. See http://www.help.emsprocloud.com/Mobile/
9. To enable EMS Backup and Archive functionality, tick the **Install EMS Backup/Archive Tool** box.

6.2 EMS Installation Procedure - Installing EMS Server Components

Click **Next** on the **EMS Installer** dialog. See Figure 13 above.

Either:

The install will progress to upgrading from a previously installed Synergy or Notion System. Go to **Section 6.3**.

Or:

The install will progress to the EMS Installation Setup. Go to **Section 6.4**.

6.3 Upgrade from Synergy/Notion to EMS

If an existing install of **Synergy** or **Notion** is detected at this point, the Installation will proceed to upgrade the existing System to EMS.

- The Upgrade process should be automated and require no user interaction unless an issue is encountered.

The Upgrade process goes through the following steps to upgrade the System to EMS, displaying a series of windows informing the User of the progress of the Upgrade.

Phase 1

1. If Synergy or Notion installs are detected, the following windows, including the Upgrade Dialog window are displayed. See Figure 14 and Figure 15 below:

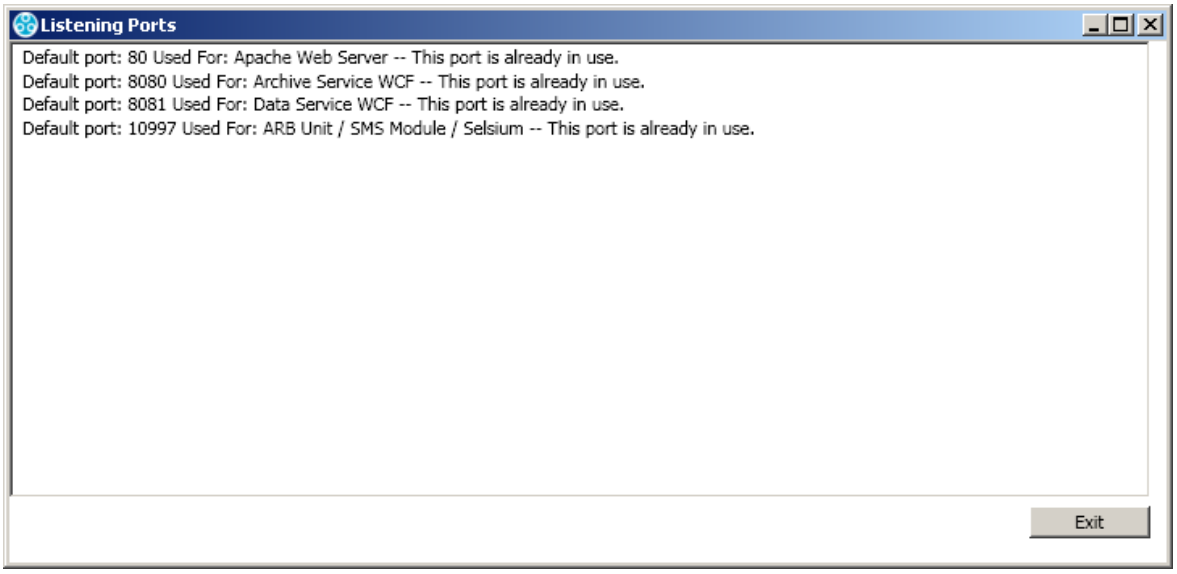


Figure 14

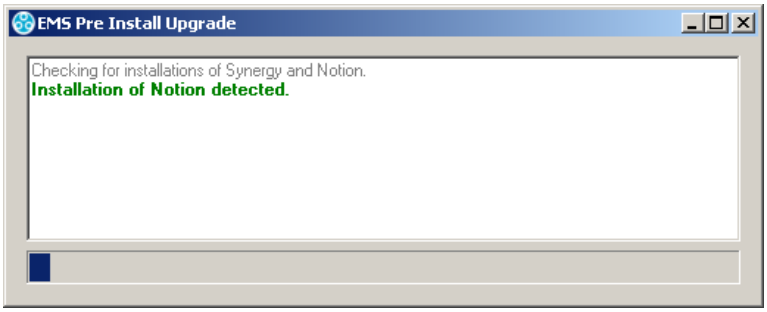


Figure 15 - Upgrade Dialog Window

2. The Upgrade Tool detects whether **Synergy** or **Notion** is installed.

   ➢ If Notion is detected, the Upgrade Tool will try to detect the **NotionOPCServer**. If this is detected, the upgrade is aborted as **NotionOPCServer** is not supported.

3. The Upgrade Tool modifies all setup files to EMS and copies them to their appropriate EMS location.

4. Old Archive files are moved to EMS. See Figure 16 below:

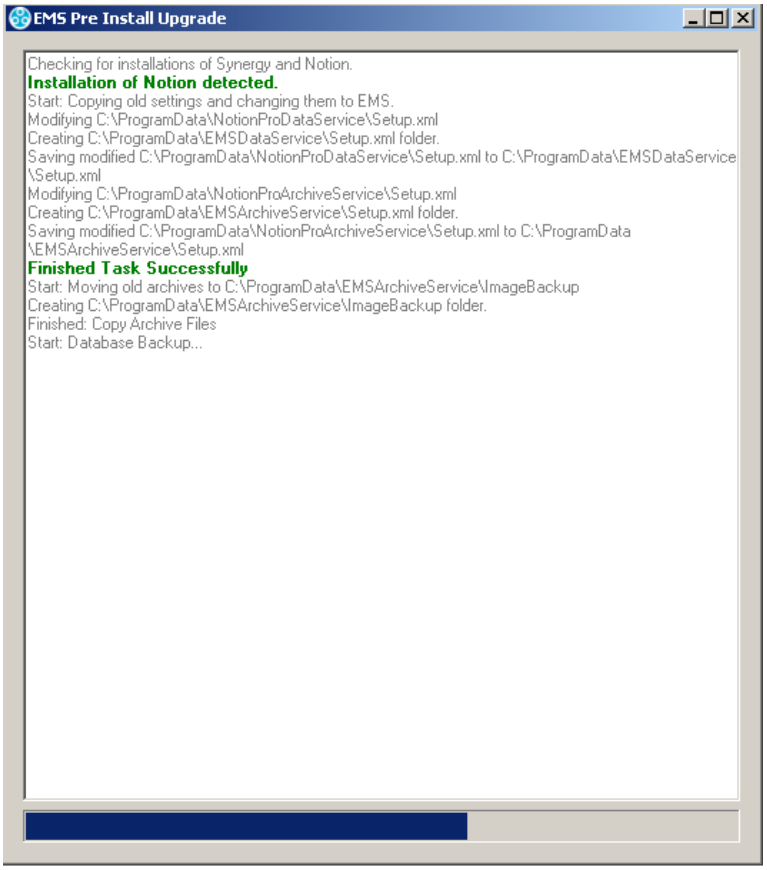


Figure 16

5. The Database is backed up.

Phase 2

If Phase 1 completes without errors, the **Upgrade Tool** will continue onto the following stages:

1. The detected, existing, installed software is uninstalled. See Figure 17 below:

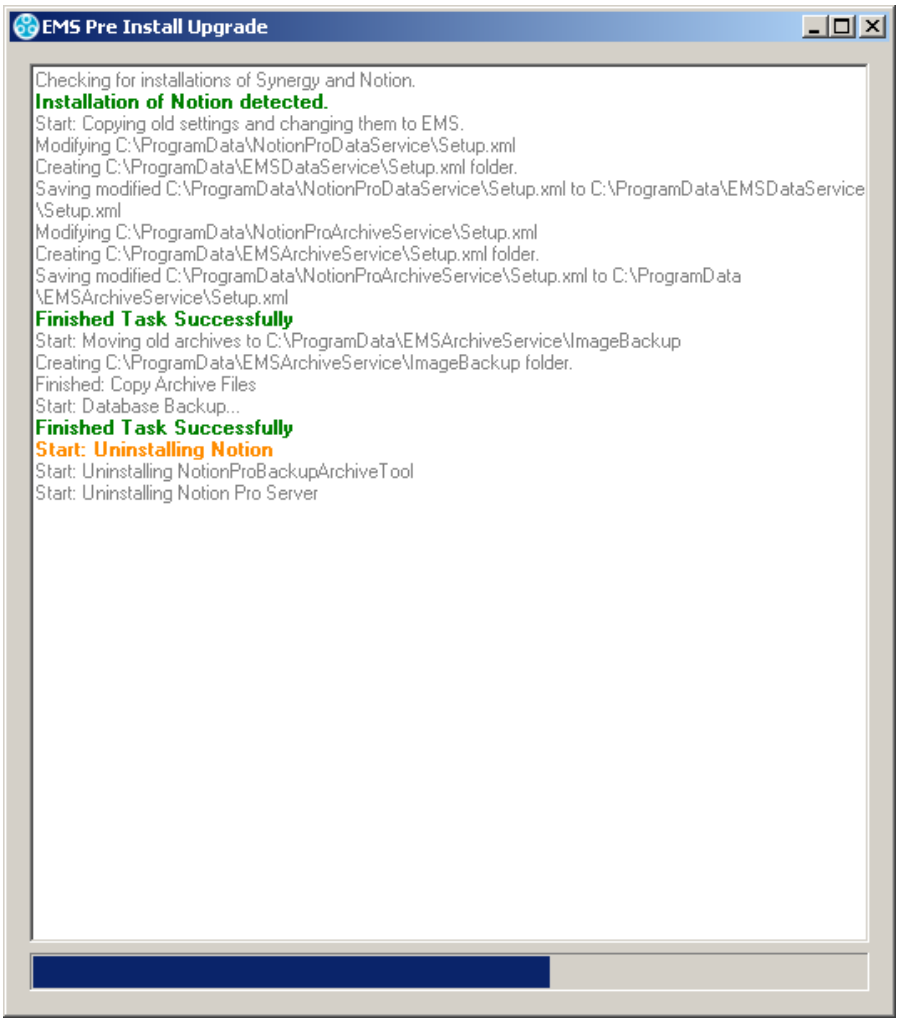


Figure 17

2. Any remaining files and folders from the existing installed software are deleted.
3. Deprecated Users are deleted, preventing them from accessing the Database.
4. The Database is updated using the Tool's Upgrade Script.
5. The version of **Install** is updated in the Database.
6. The Database is renamed **EMS**.

Once all of the above completes, the **upgrade exe** will tell the user that it has completed without errors and automatically close after 10 seconds. See Figure 18 overleaf:

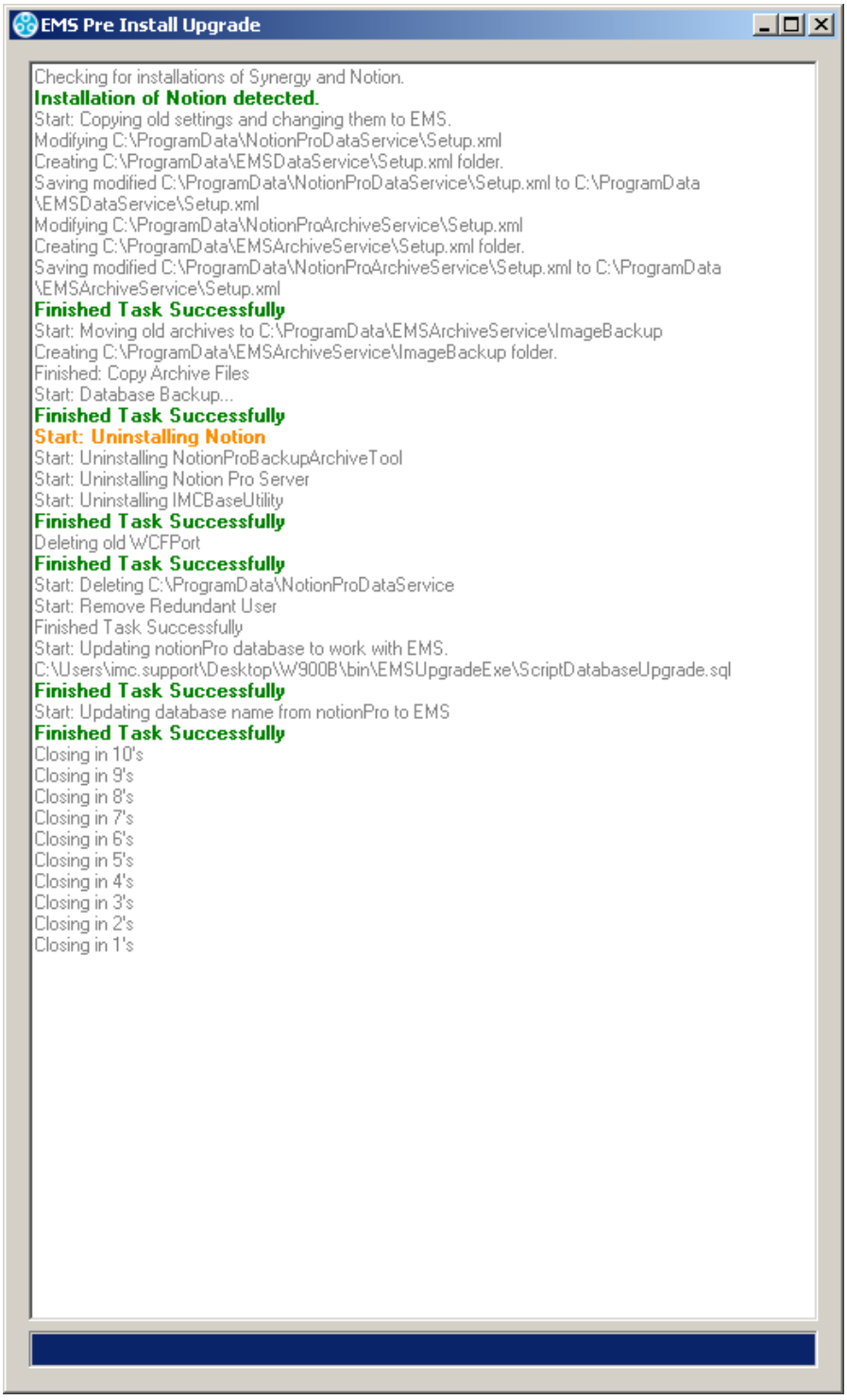


Figure 18

- Once the **.exe** has closed, the EMS installation will continue as normal. See Section 6.4 below.
- The Log File for the **Upgrade Tool** can be found at: **C\Program Data\EmsLog\log.txt**

Note 1: Figures 12, 13 and 14 are shown as examples only. The appearance of the Windows for your version of Windows Server may be slightly different.

Note 2: If the Upgrade process fails at any point, the following message window will be displayed. See Figure 19 below:

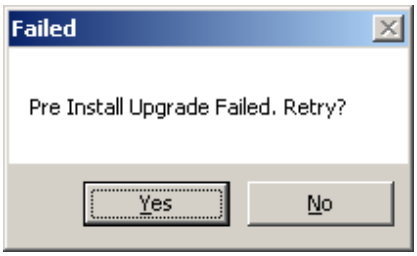


Figure 19

Note: Refer to **Section 9.6 Create .CFG File** for action to be taken when such an upgrade installation has completed.

6.4 EMS Installation Setup

6.4.1 EMS Installation Setup for an EMS W900A installation

- For details on EMS Installation Setup for an **EMS W900B** Installation, refer to **Section 6.4.2 EMS Installation Setup for an EMS W900B installation** on page 34.

The **Microsoft ODBC Driver 11 for SQL Server Licence** window is displayed. See Figure 20 below:

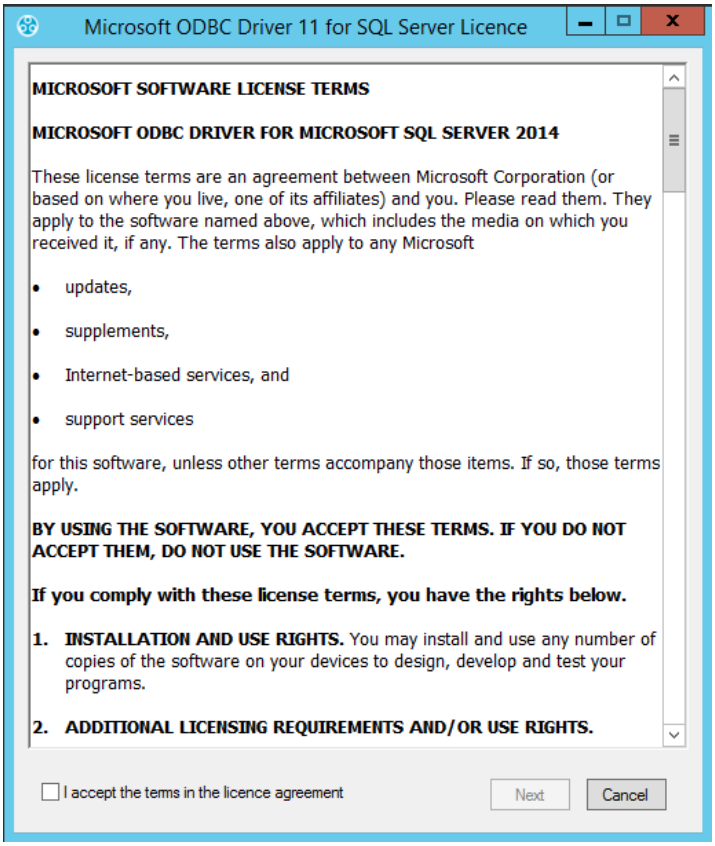


Figure 20

1. Read the Licence Agreement and tick the '**I accept the terms in the licence agreement**' box.
2. Click **Next**.

   ➢ The **SQL Server 2014 Express** licence agreement window is displayed. See Figure 21 below.

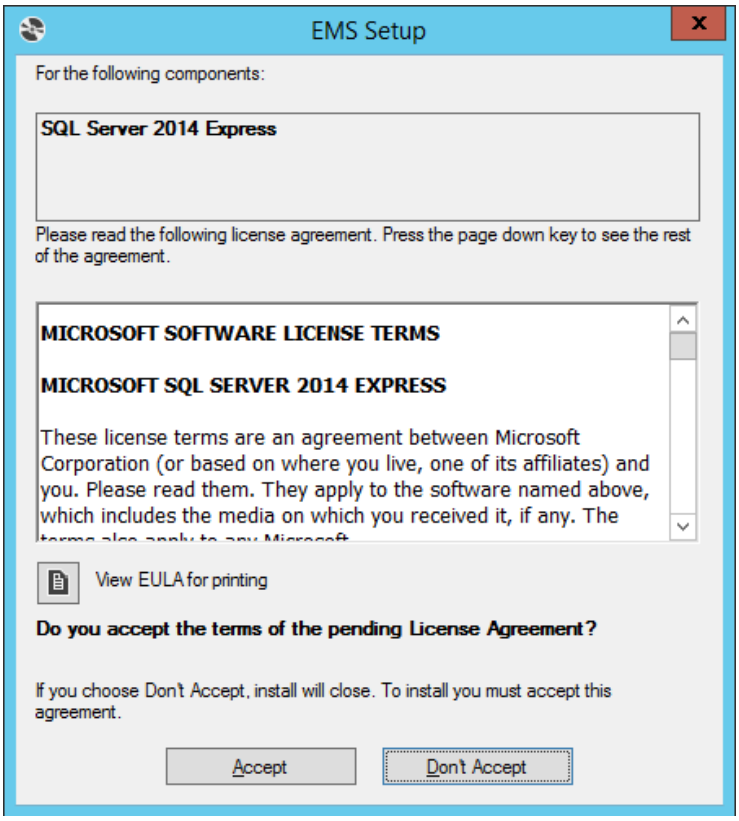


Figure 21

3. Read the Licence Agreement and click **Accept**. See Figure 21 above.

   ➢ The **EMS Setup** window is displayed. See Figure 22 below:

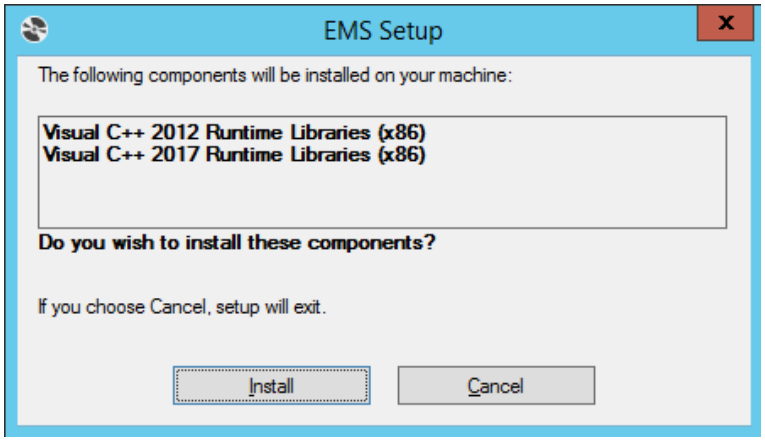


Figure 22

4. Click on **Install** to continue.

   ➢ The following windows are displayed. See Figure 23 and Figure 24 below:

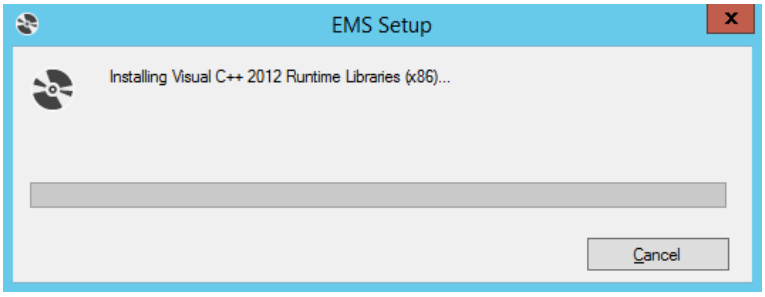


Figure 23

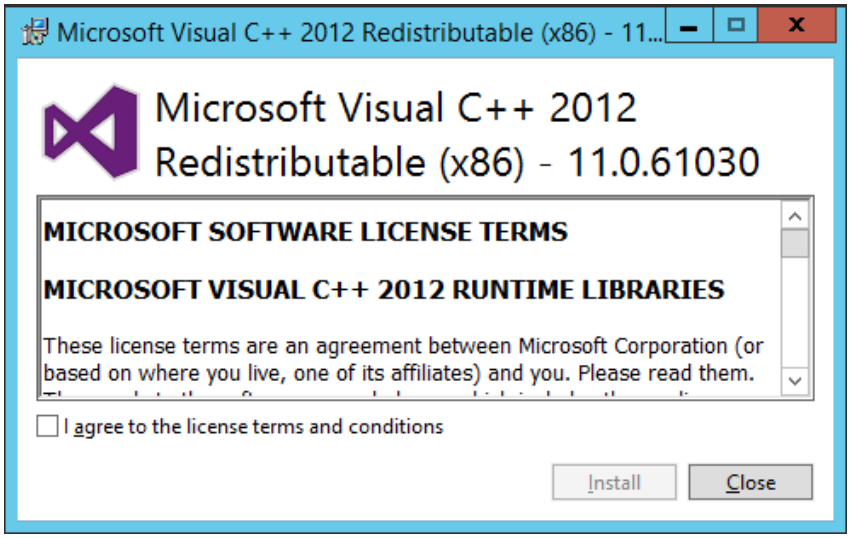


Figure 24

5. Check the '**I agree to the license terms and conditions**' box and then click on **Install**.

   ➢ The following window is displayed as the Setup progresses. See Figure 25 below:

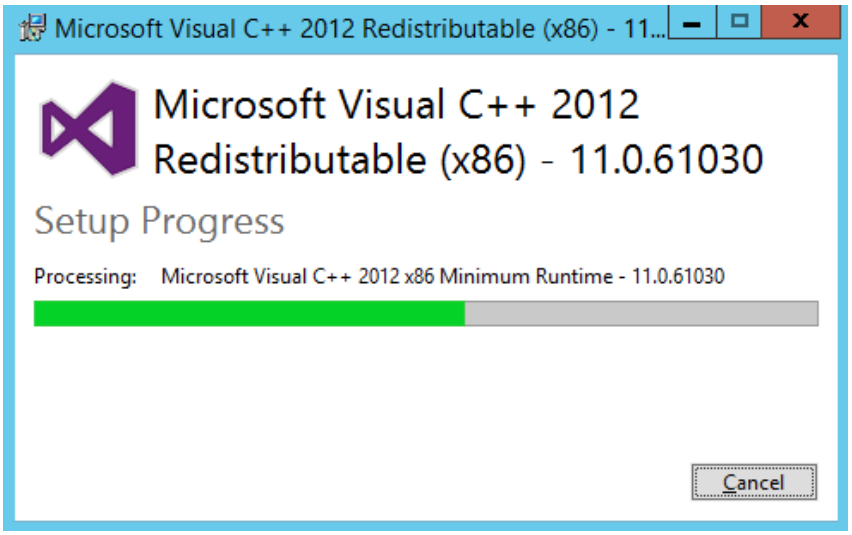


Figure 25

➢ When the Setup has completed, the following window is displayed. See Figure 26 below:

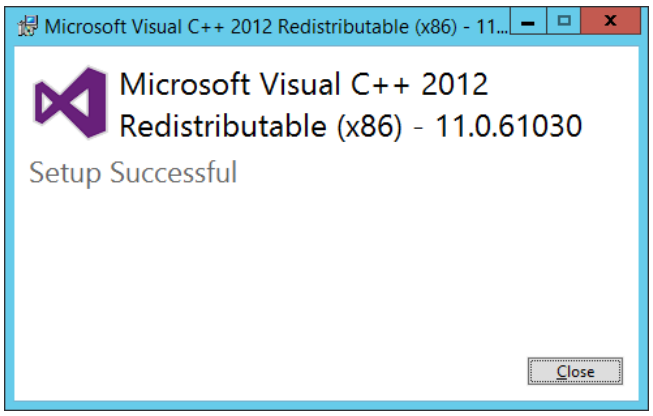


Figure 26

6. Click on **Close**.

➢ The following window is displayed. See Figure 27 below:

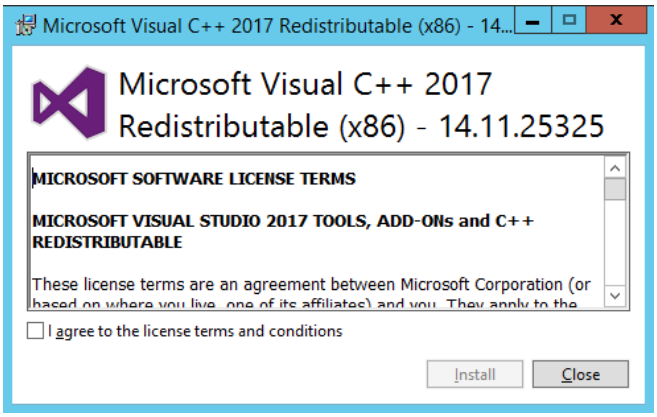


Figure 27

7. Check the '**I agree to the license terms and conditions**' box and then click on **Install**.

➢ The following window is displayed as the Setup progresses. See Figure 28 below:

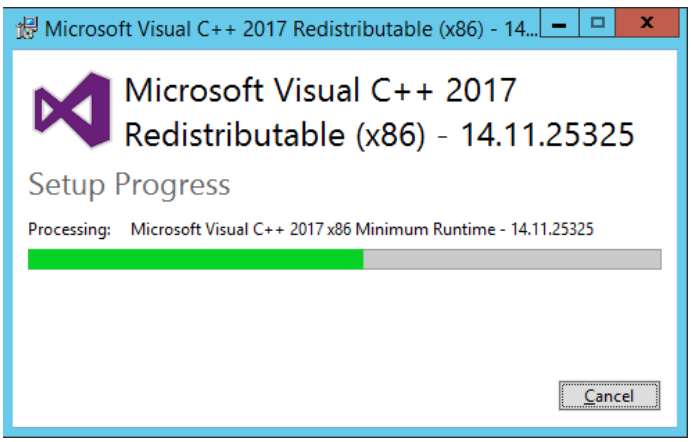


Figure 28

- When the Setup has completed, the following window is displayed. See Figure 29Figure 26 below:

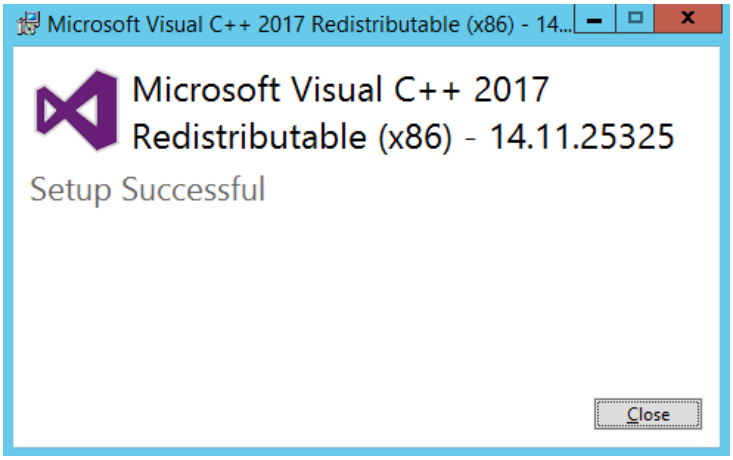


Figure 29

8. Click on **Close**.

- If SQL Express is to be installed, the **EMS Server Setup** window will be displayed with a Progress Bar showing the progress of the SQL Server 2014 installation. See Figure 30 below:

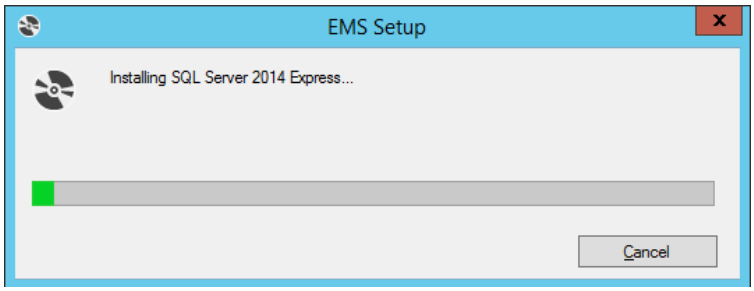


Figure 30

Note: SQL installation will take several minutes.

6.4.1.1 EMS W900A Installation on a Windows 10 or Later System

At this point, during the **Microsoft SQL Express 2014** install, if installing EMS on a Windows 10 System or later, the **Windows Features** window may be displayed. See Figure 31 below:

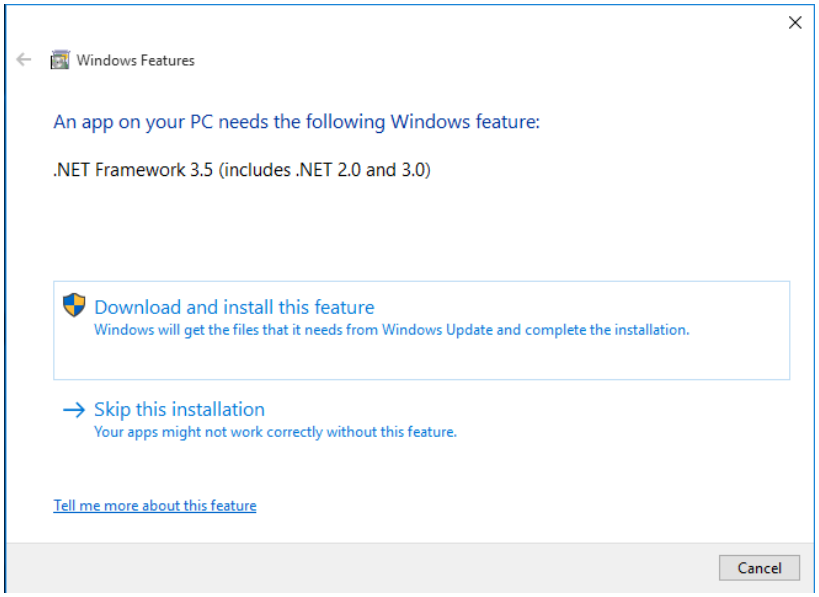


Figure 31

If the **Windows Features** window is displayed:

1. Select **Download and install this feature**.

   Note: Downloading .NET Framework 3.5 is internet access speed dependant and can take several minutes.

   ➢ Once **.NET Framework 3.5** installation has completed, the **Windows Features** window will display as shown in Figure 32 below:

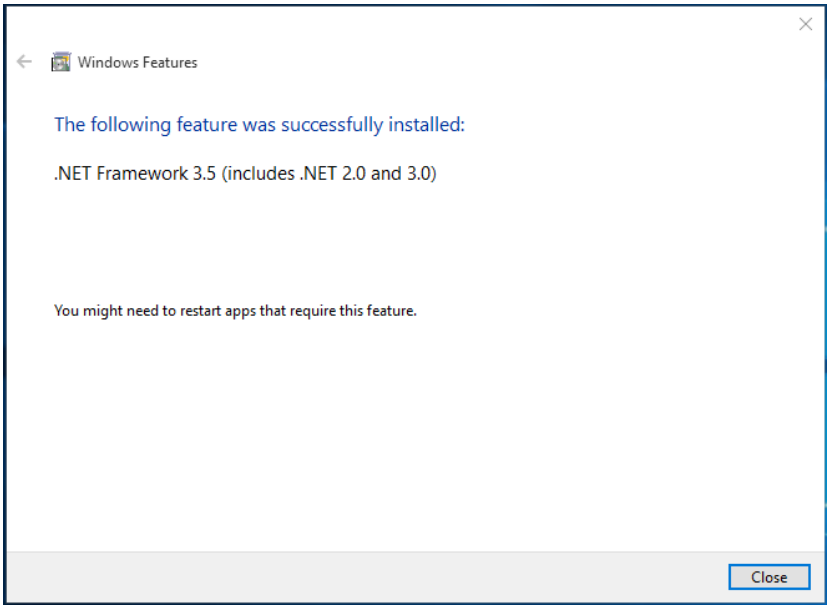


Figure 32

2. Click **Close**.

   ➢ The SQL Server 2014 Express installation continues and the following windows are displayed. See Figure 33 and Figure 34 below:

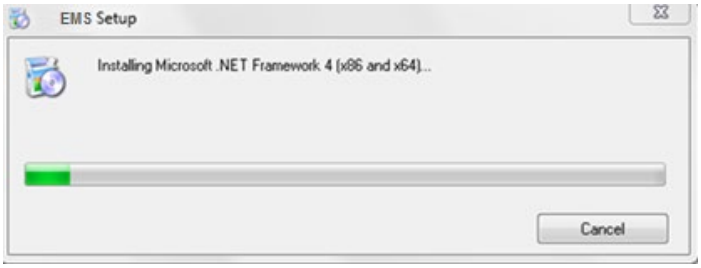


Figure 33

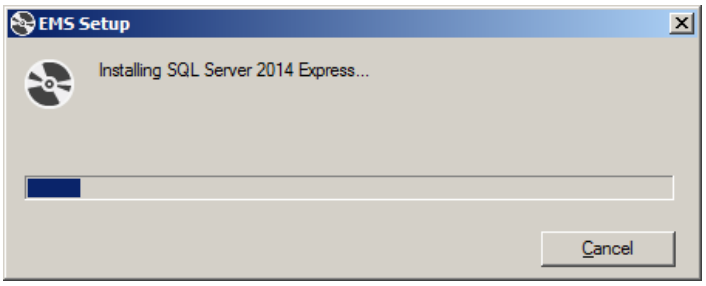


Figure 34

Note: The installation of Microsoft .NET and SQL components could take up to 20 minutes to install, please be patient.

➢ The **EMS W900A Setup - Welcome to the EMS W900A Setup Wizard** window is displayed. See Figure 35 below:

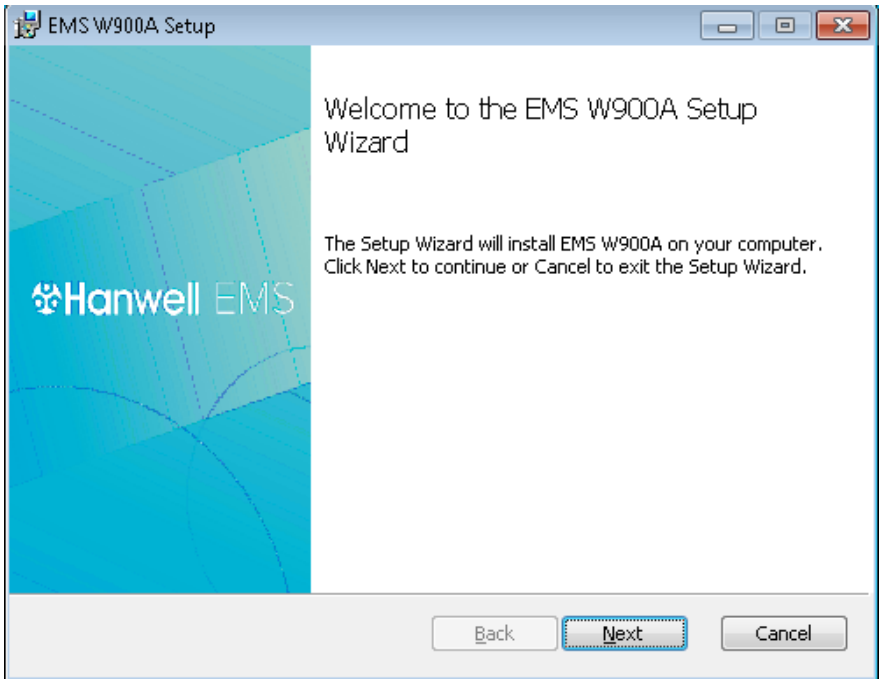


Figure 35

3. Proceed to **Section 6.5.1 Installing the EMS Server for an EMS W900A Installation** on page 39.

6.4.2 EMS Installation Setup for an EMS W900B installation

The **Microsoft ODBC Driver 11 for SQL Server Licence** window is displayed. See Figure 36 below:

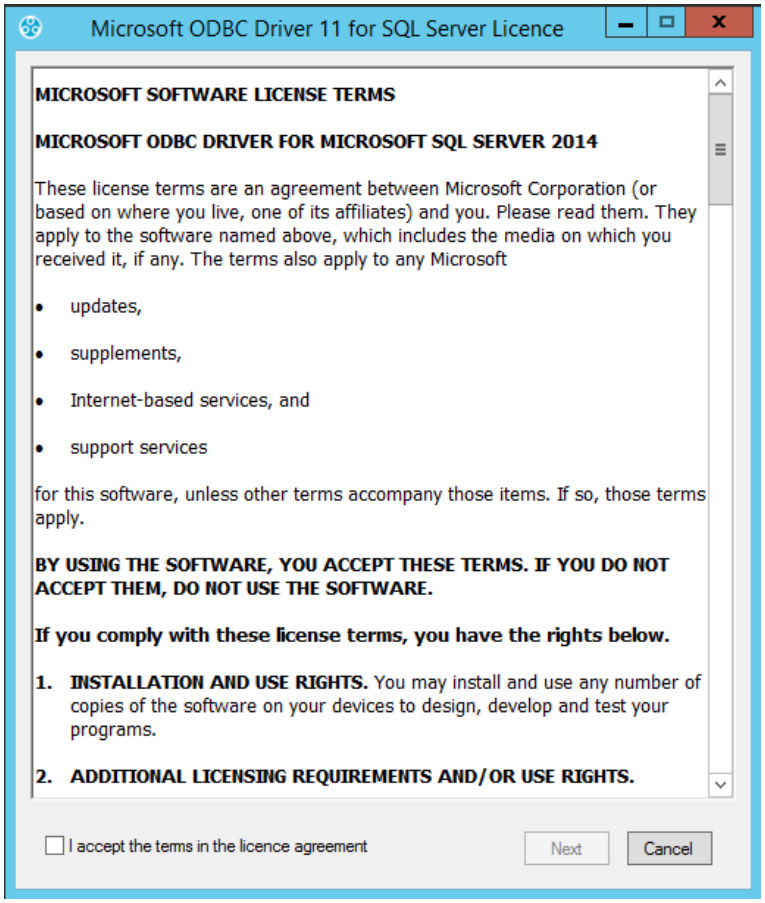


Figure 36

1. Read the Licence Agreement and tick the '**I accept the terms in the licence agreement**' box.
2. Click on **Next.**
   - ➢ After a short delay, the **EMS Setup** window may be displayed. See Figure 37 below:

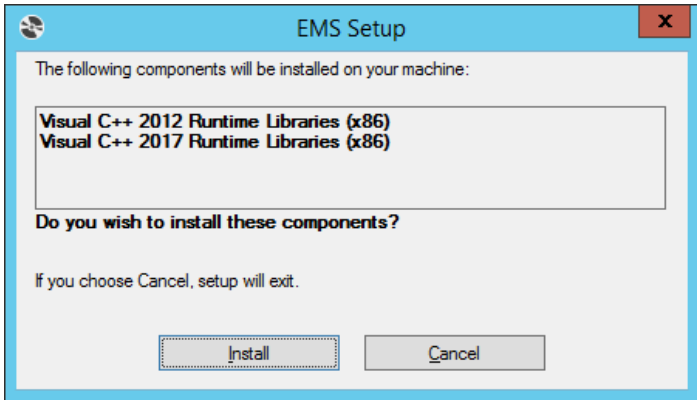


Figure 37

3. Click **Install**.

   ➢ After a short delay, the **Microsoft Visual C++ 2017 Redistributable (x86)** window may appear, see Figure 38 below:

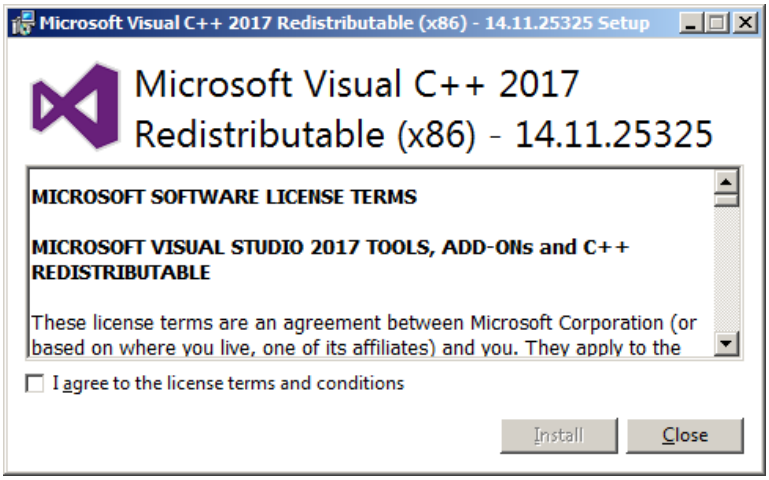


Figure 38

4. Read the Licence Agreement and tick the '**I agree to the licence terms and conditions**' box.

5. Click on **Install** to continue.

   ➢ The following windows are displayed. See Figure 39 and Figure 40 below:

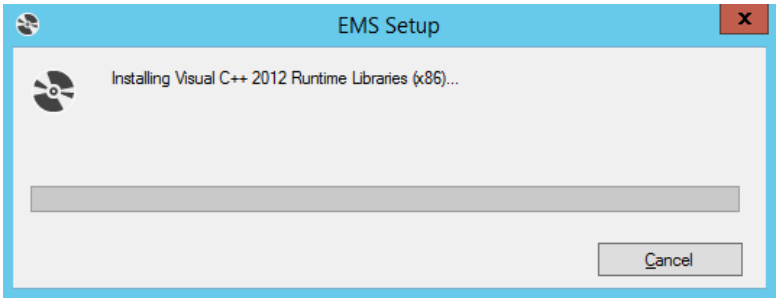


Figure 39

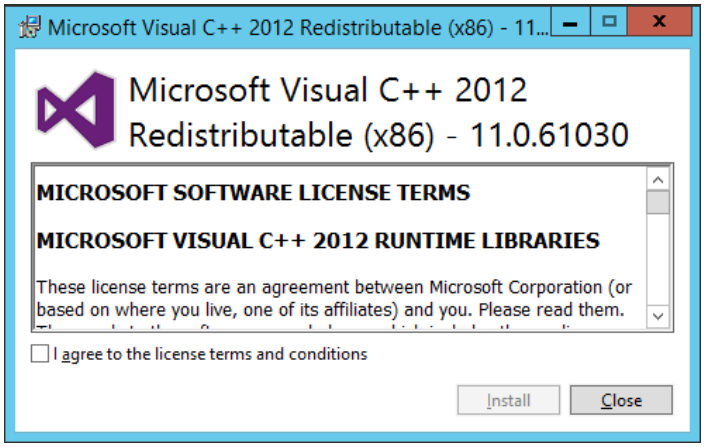


Figure 40

6. Check the 'I agree to the license terms and conditions' box and then click on Install.

   ➢ The following window is displayed as the Setup progresses. See Figure 41 below:

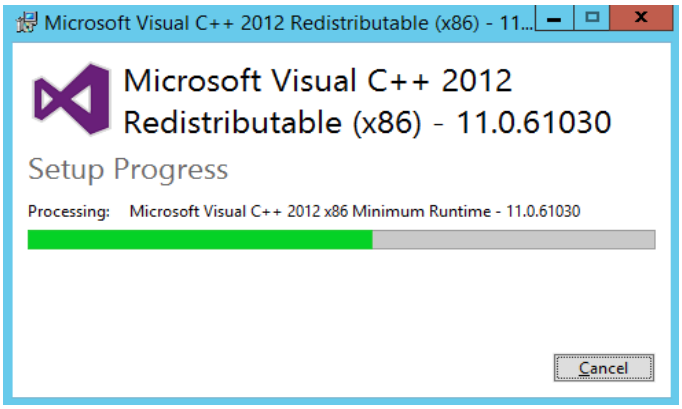


Figure 41

   ➢ When the Setup has completed, the following window is displayed. See Figure 42 below:

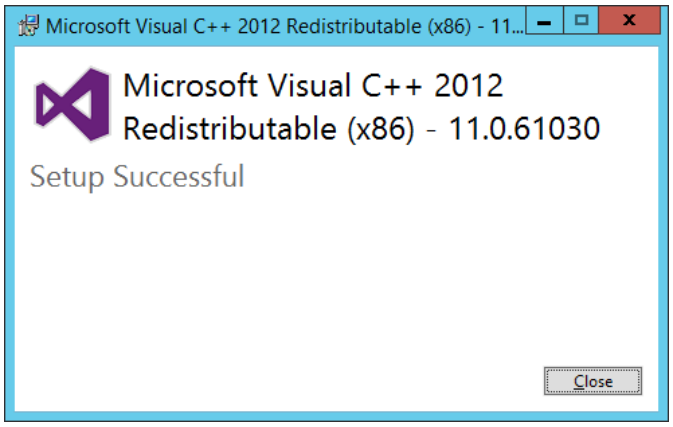


Figure 42

7. Click on **Close**.

   ➢ The following window is displayed. See Figure 43 below:

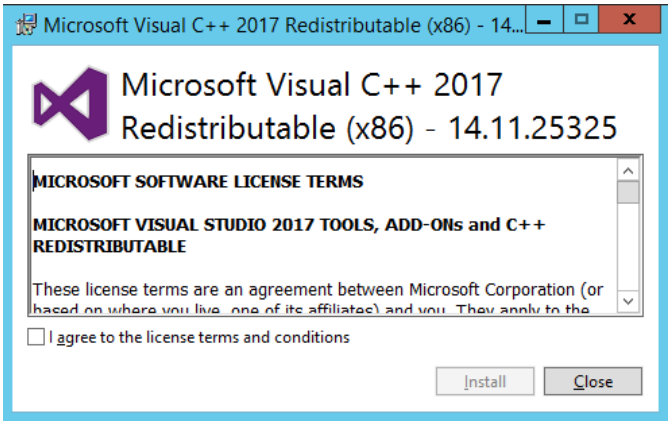


Figure 43

8. Check the '**I agree to the license terms and conditions**' box and then click on **Install**.

   ➢ The following window is displayed as the Setup progresses. See Figure 44 below:

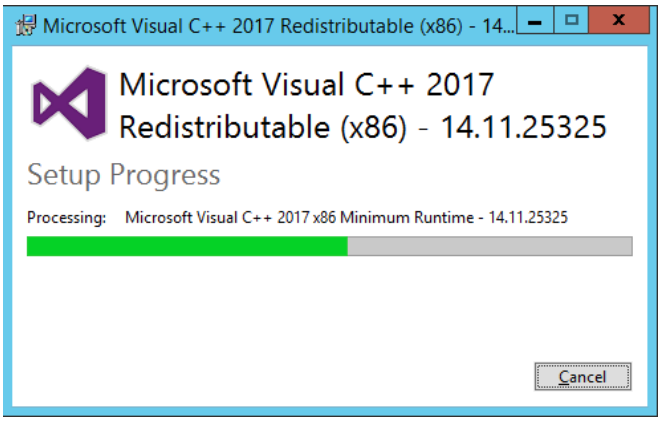


Figure 44

   ➢ When the Setup has completed, the following window is displayed. See Figure 45Figure 26 below:

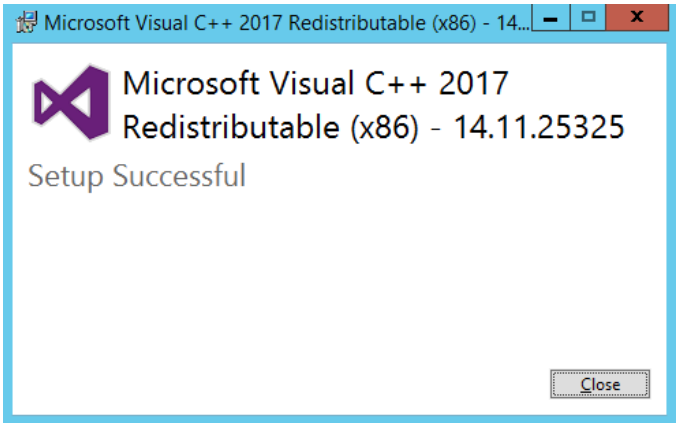


Figure 45

9. Click on **Close**.

- If SQL Express is to be installed, the **EMS Server Setup** window will be displayed with a Progress Bar showing the progress of the SQL Server 2014 installation. See Figure 46 below:

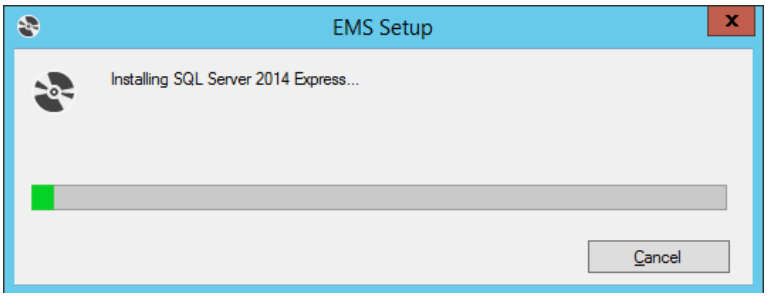


Figure 46

Note: SQL installation will take several minutes.

- The **EMS Server B Setup - Welcome to the EMS Server Setup Wizard** window will be displayed. See Figure 47 below:

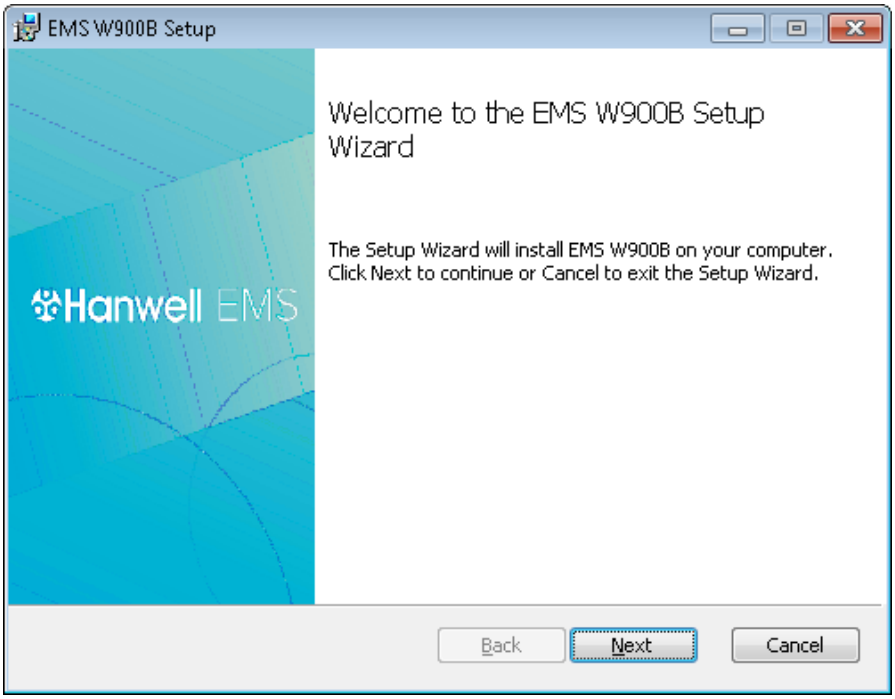


Figure 47

10. Proceed to **Section 6.5.2 Installing the EMS Server for an EMS W900B Installation** on page 41.

6.5 EMS Installation Procedure - Installing the EMS Server

6.5.1 Installing the EMS Server for an EMS W900A Installation

1. In the displayed **EMS W900A Setup - Welcome to the EMS W900A Setup Wizard** window, click on **Next**. See Figure 48 below:

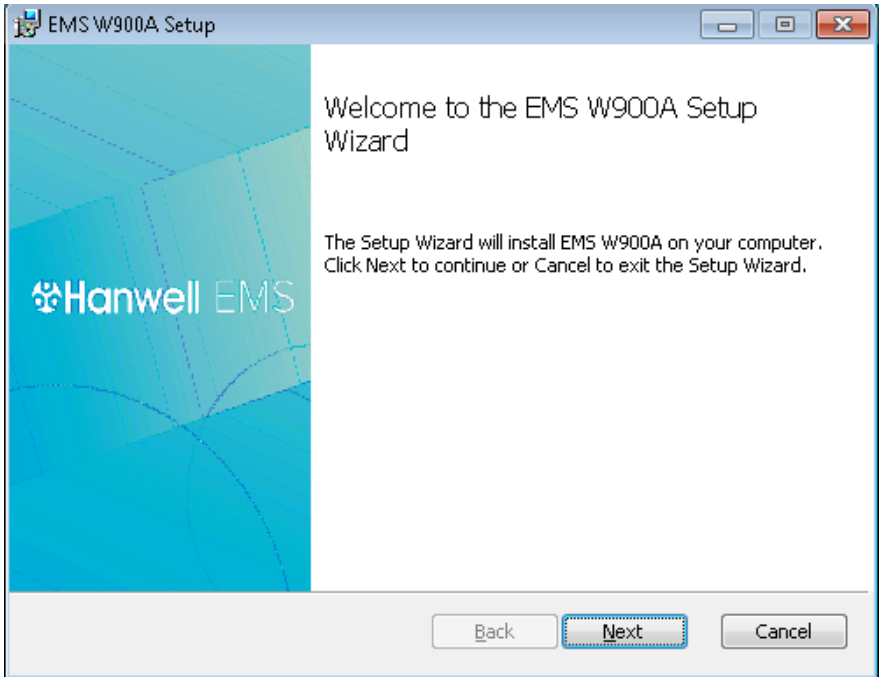


Figure 48

➢ The **EMS W900A Setup – End User License Agreement** window is displayed. See Figure 49 below:

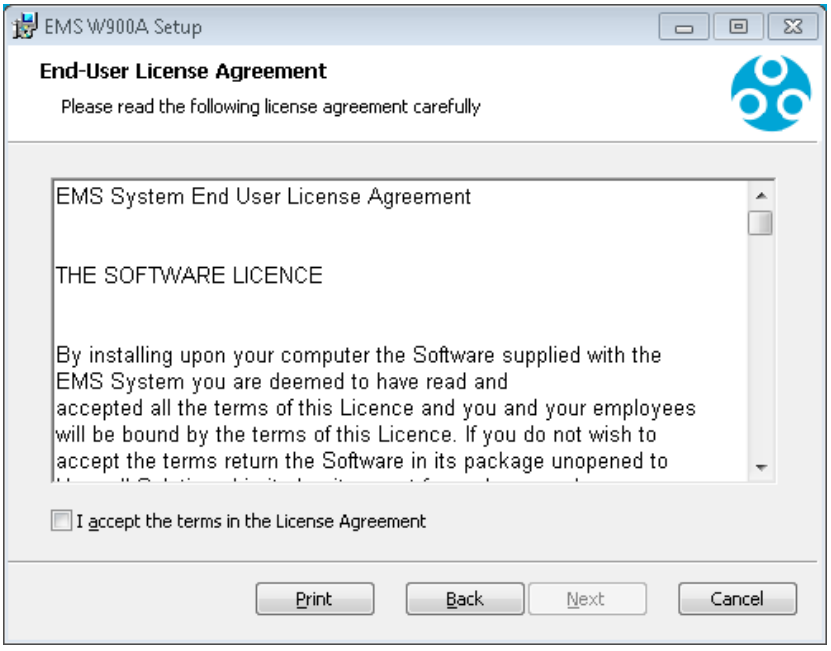


Figure 49

2. In the displayed window:

   i. Tick the **I accept the terms in the License Agreeme**nt box.

      * The **Next** button becomes active.

   ii. Click on **Next**.

- The **EMS W900A Setup – Ready to Install EMS W900A** window is displayed. See Figure 50 below:

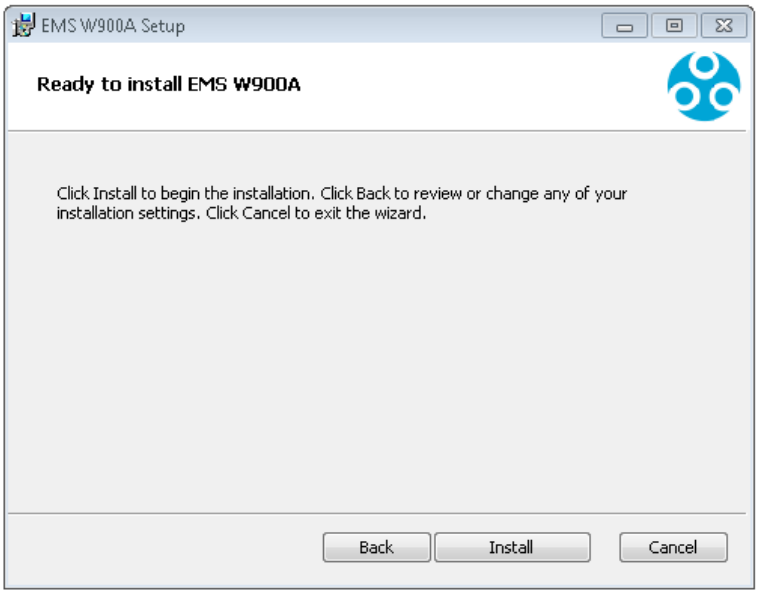


Figure 50

3. In the displayed window, click on **Install**.

4. The **EMS W900A Setup – Installing EMS W900A** window is displayed. See Figure 51 below:

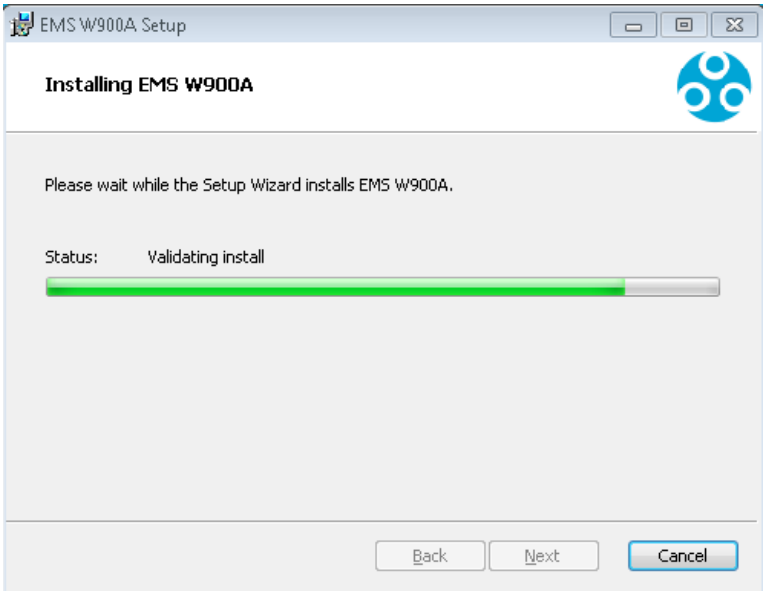


Figure 51

- When the EMS Server Installation is complete, the **EMS Setup - EMS Database Information** window is displayed, populated with a series of default settings as part of the **EMS W900A Server Instance Installation**. See Figure 52 below.

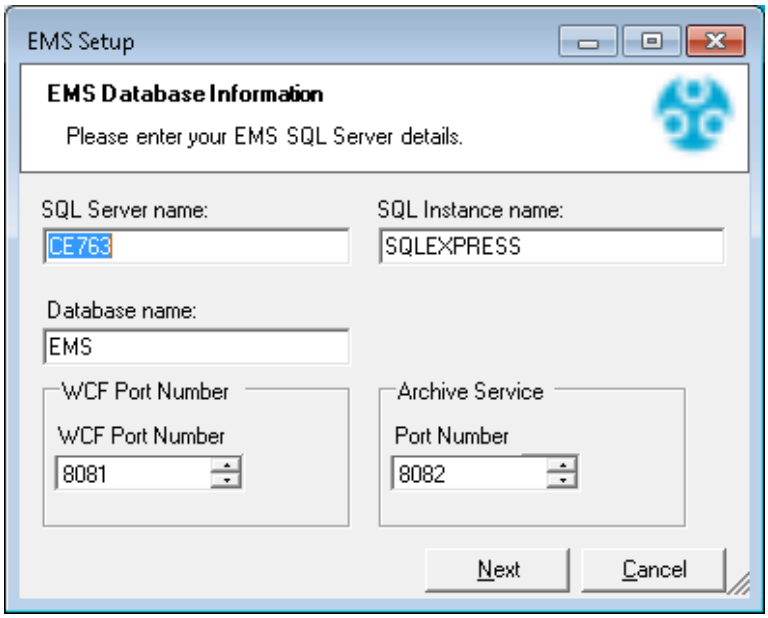


Figure 52

6.5.2 Installing the EMS Server for an EMS W900B Installation

1. From the displayed **EMS Server Setup – Welcome to the EMS Server B Setup Wizard** window, click on **Next**. See Figure 53 below:

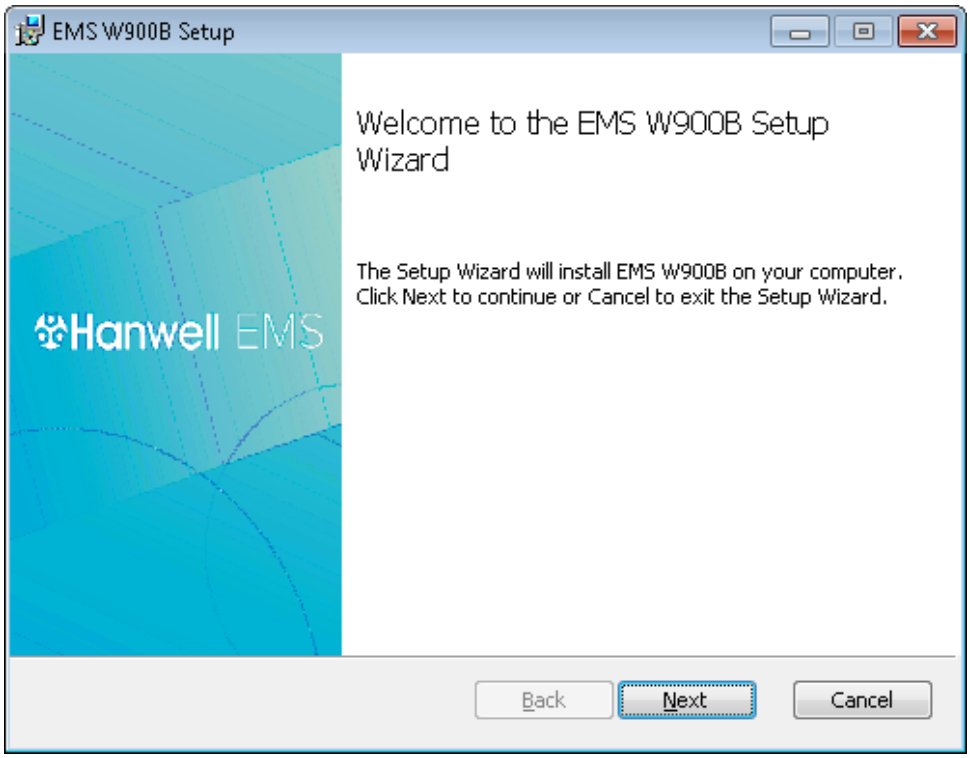


Figure 53

2. In the displayed **EMS Server B Setup – End-User Licence Agreement** window, read the Licence terms and check the **I accept the terms in the Licence Agreement** box. See Figure 54 below:

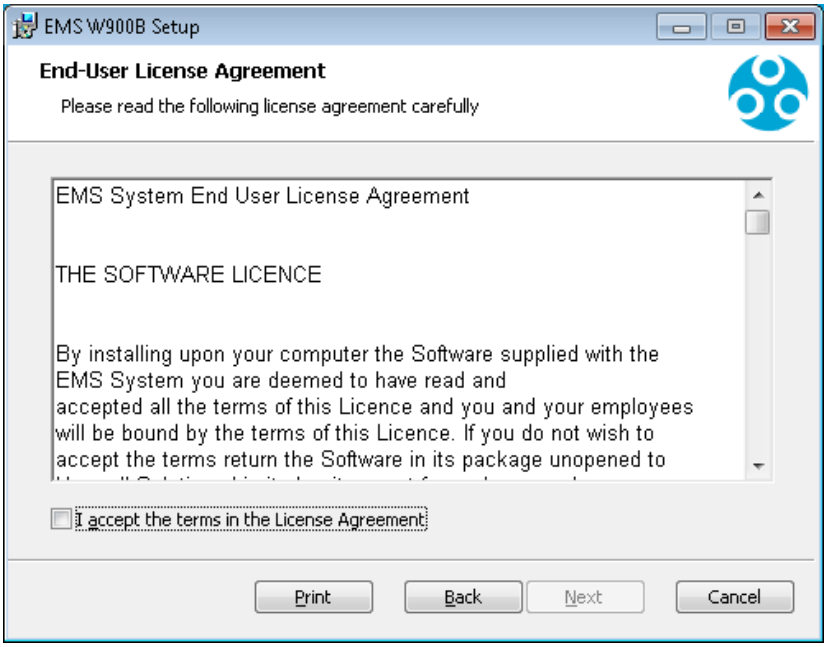


Figure 54

3. Click on **Next**.

4. In the displayed **EMS Server B Setup – Service Account** window, enter the **User Name** and **Password** you have previously set up for the EMS System to use. See Figure 55 below:

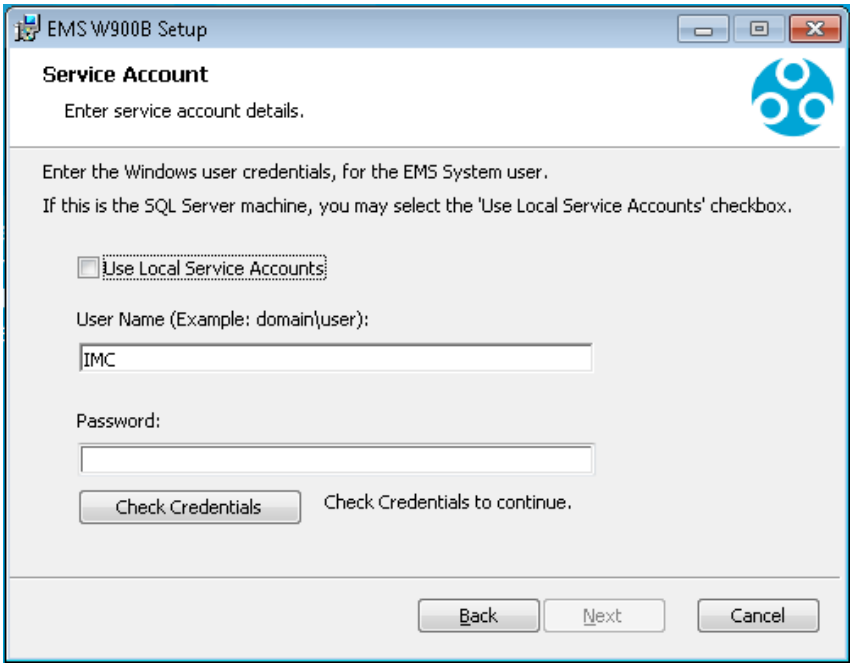


Figure 55

- If EMS is being installed on the SQL Server machine, you may select **Use Local Service Accounts** by checking the box and going to directly to Step 6 below, missing out Step 5.

5. Click **Check Credentials**.
6. Click **Next**.

- The **EMS Server B Setup – Destination Folder** window is displayed. See Figure 56 below:

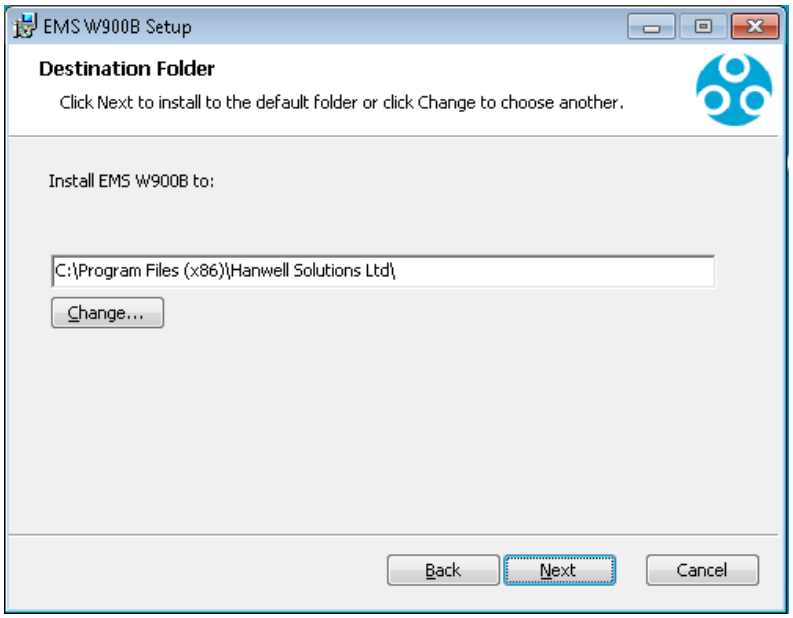


Figure 56

- If required, the installation folder can now be changed as follows:

a) Click on **Change...** in the **EMS Server B Setup – Destination Folder** window. See Figure 56 above.

* A folder browser dialog is displayed, allowing the Destination Folder's address to be changed or a new folder selected by clicking on the **Browse** button.

b) Enter the new Destination Folder's address.

7. Click **Next**.

- The following window will be displayed. See Figure 57 below:

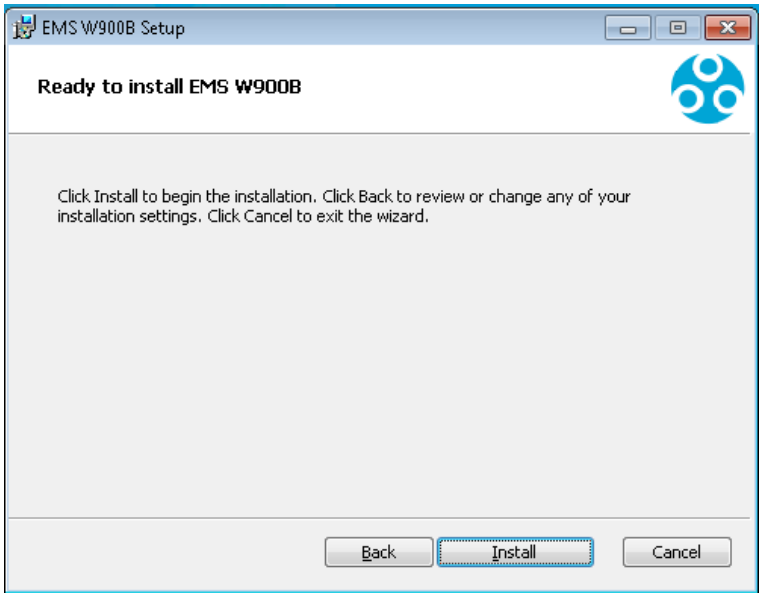


Figure 57

8. Click on **Install**.

   ➢ The **EMS Server B Setup - Installing EMS Server B** window will be displayed as the EMS Server is installed. See Figure 58 below:

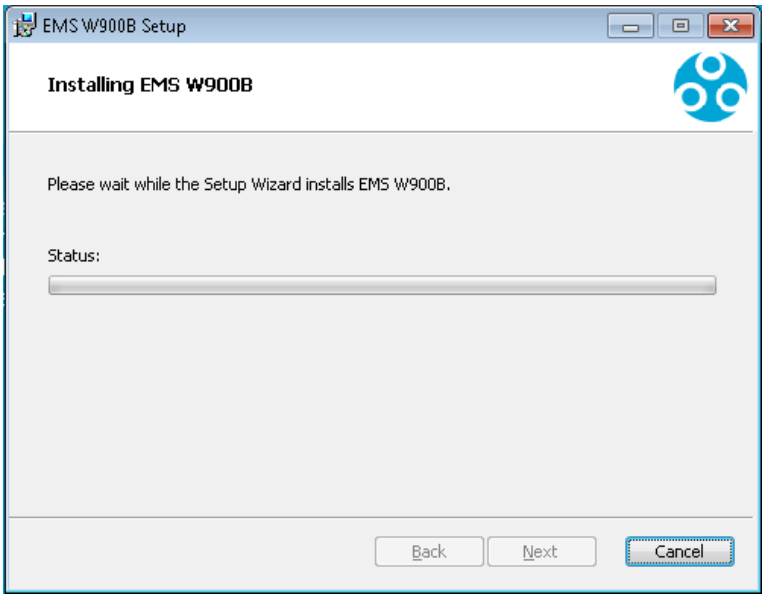


Figure 58

Once the installation is complete, the **EMS Setup – EMS Database Information** window be displayed, populated with a series of default settings as part of the **EMS W900B Server Instance Installation**. See Figure 59 below:

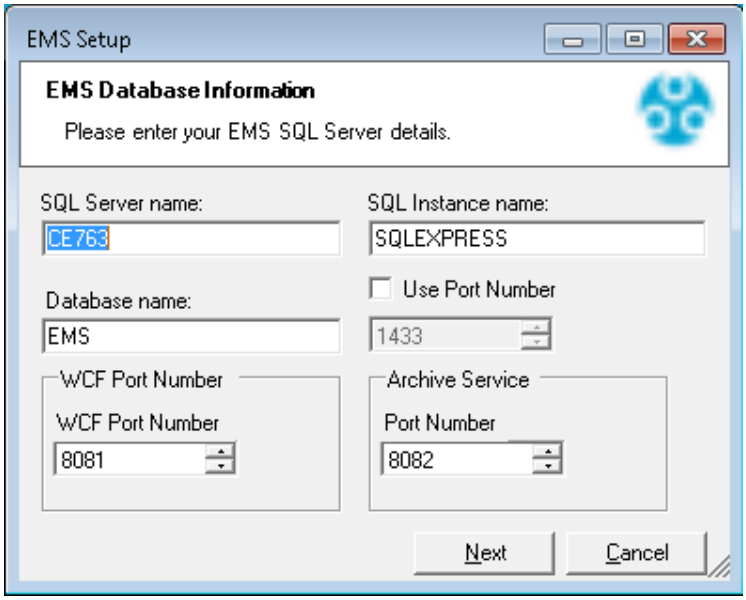


Figure 59

The next stage (outlined in **Section 6.6 EMS Installation Procedure - Installing the EMS Server Instance** on page 45) will proceed with installing the **EMS Server Instance**.

6.6 EMS Installation Procedure - Installing the EMS Server Instance

6.6.1 Installing the EMS Server Instance - EMS W900A Installation

- For details on Installing the EMS Server Instance for an **EMS W900B** Installation, refer to **Section 6.6.2 Installing the EMS Server Instance - EMS W900B Installation** on page 49.

For an **EMS W900A** installation, the **EMS Setup – EMS Database Information** window is displayed, populated with a series of default settings. See Figure 60 below:

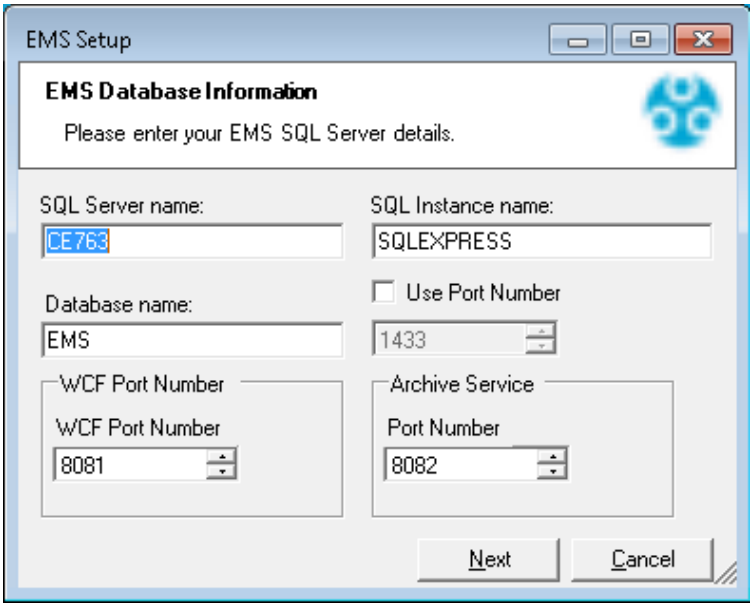


Figure 60

- When installing to a machine with **NO EXISTING** Microsoft SQL Express installation, leave the settings, shown in Figure 60 above, at their default values.
- When installing on a machine with **AN EXISTING** Microsoft SQL Express installation, the **SQL Server name:** and **SQL Instance name:** fields, shown in Figure 60 above, must be set to the existing **Microsoft SQL Express Server Name** and **Instance Name**.
  - ➢ These Names can be obtained from your System Administrator or from the connection information shown in **Microsoft SQL Server Management Studio** (SSMS).
  - ➢ The connection information is displayed in the format [*Server name*]\[*Instance name*].
  - ➢ For help with using SSMS, please use the Help and tutorial provided with SSMS.
- If Port **8081** is unavailable for the WCF service, enter the Port Number required for this installation into the **WCF Port Number** field.

1. Once completed click **Next.** See Figure 60 above.
   - ➢ The **EMS Setup – EMS Location Information** window is displayed. See Figure 61 below:

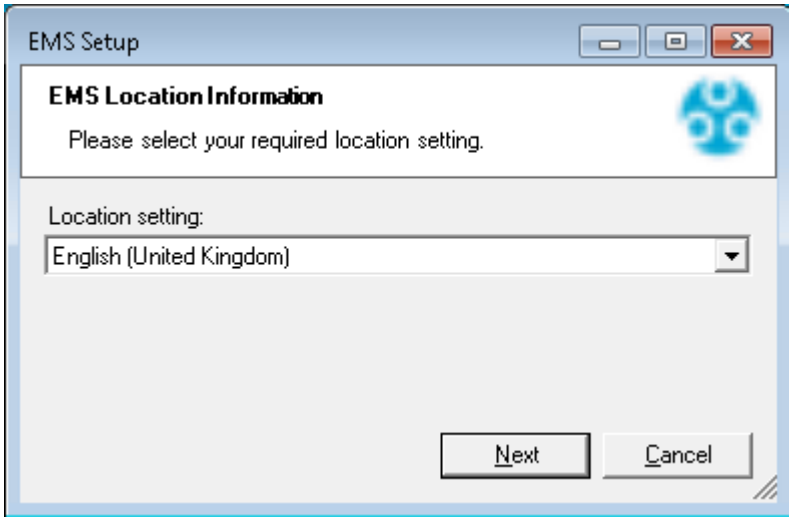


Figure 61

2. Select your location from within the **Location setting:** drop-down list.

   Caution: Ensure that your Location is set correctly, otherwise date and times sent in SMS and Email messages may be incorrectly formatted.

3. Click **Next**.

   ➢ The **EMS Server A Setup - Installing EMS W900A** window is displayed showing a status bar illustrating the progress of the Setup. See Figure 62 below:

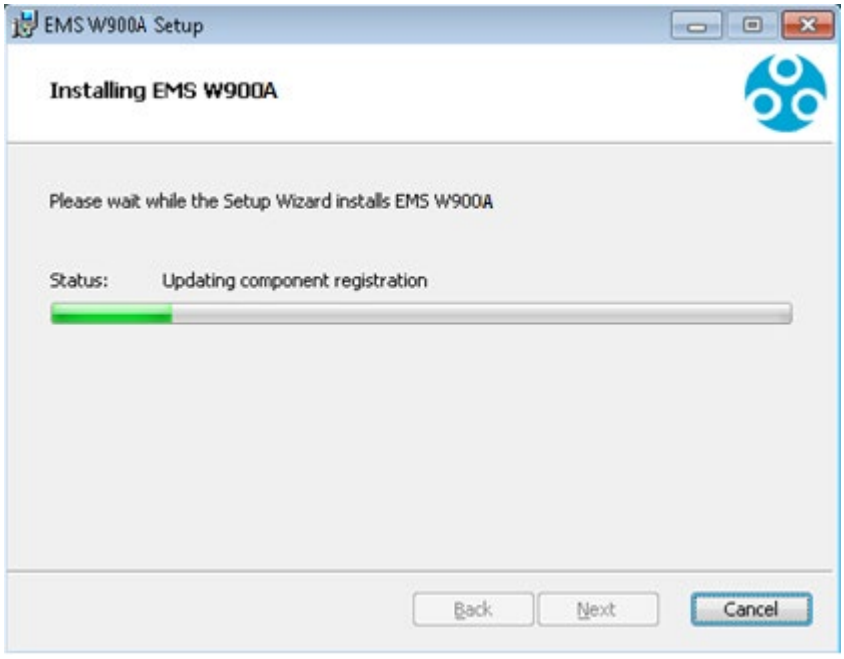


Figure 62

   ➢ When the Setup has completed, the **EMS Server A Setup - Completed the EMS Server A Setup Wizard** window is displayed. See Figure 63 below:

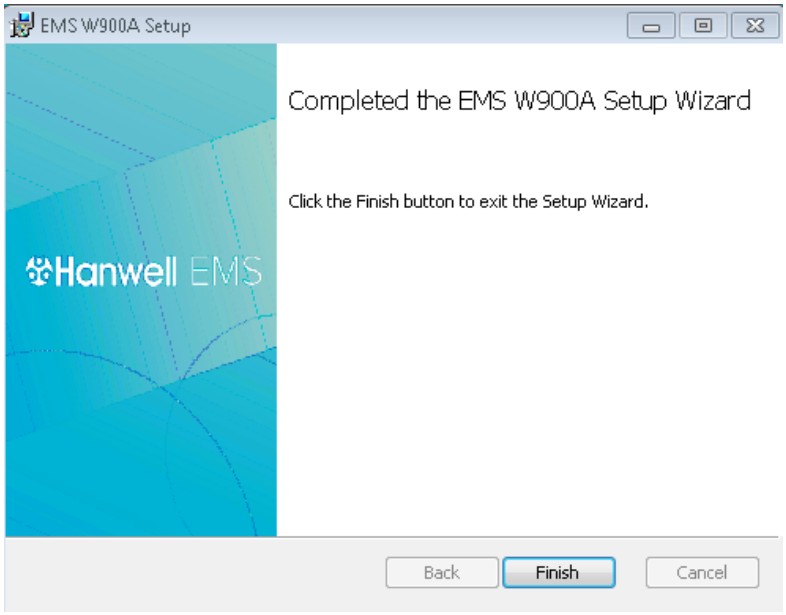


Figure 63

4. Click **Finish**.

Either:

➢ The following window is displayed. See Figure 69:

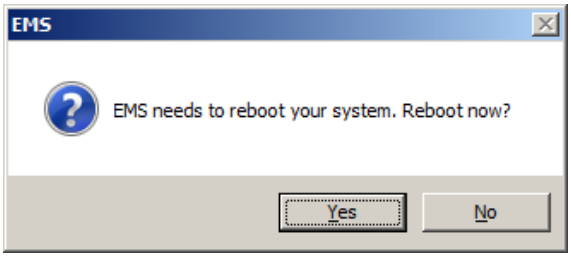


Figure 64

Click on **Yes** to reboot your System and complete the installation of the EMS Server Instance for W900A.

Or:

➢ If you ticked the boxes for any of the following Services/Tools in the **EMS Installer** window (see Figure 13):

* **Install SR2 Service**
* **Install EMS Mobile Application Service**
* **Install IceSpy Base Utility**
* **Install EMS Remote Management Tools**
* **Install EMS Backup/ Archive Tool**

They will now be installed as outlined in **Section 6.7 EMS Installation Procedure – Continued**.

6.6.2 Installing the EMS Server Instance - EMS W900B Installation

For an EMS W900B installation, the **EMS Setup – EMS Database Information** window will now be displayed. See Figure 65 below:

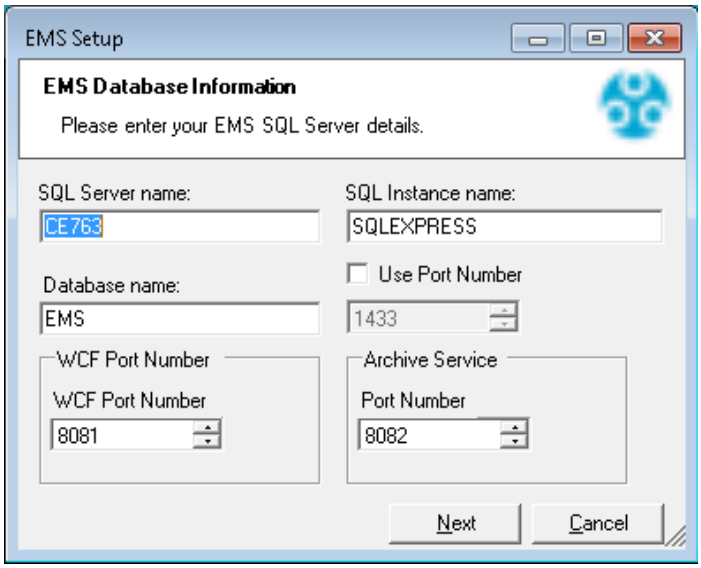


Figure 65

1. Enter the required **SQL Server name** and, if necessary to identify a particular SQL Server Instance:

   Either:

   Enter the required **SQL Instance Name**.

   Or:

   Tick the Use **Port Number** box and set the required **Port Number**, for the Microsoft SQL Server Instance that EMS will be using, in the numeric control box by using the up and down arrows. See Figure 65 above.

   Note: EMS **ONLY** supports versions of Microsoft SQL from 2012 onwards.

2. If **Port 8081** is unavailable for the WCF Service, either enter the Port Number required for this installation into the **WCF Port Number** field or select the required number by clicking on the field's up and down arrows.

   Note: If you do not know these SQL Server details, ask your System Administrator or IT Support Provider.

3. Click **Next**.

   ➢ The **EMS Setup – EMS Location Information** window is displayed. See Figure 66 below:

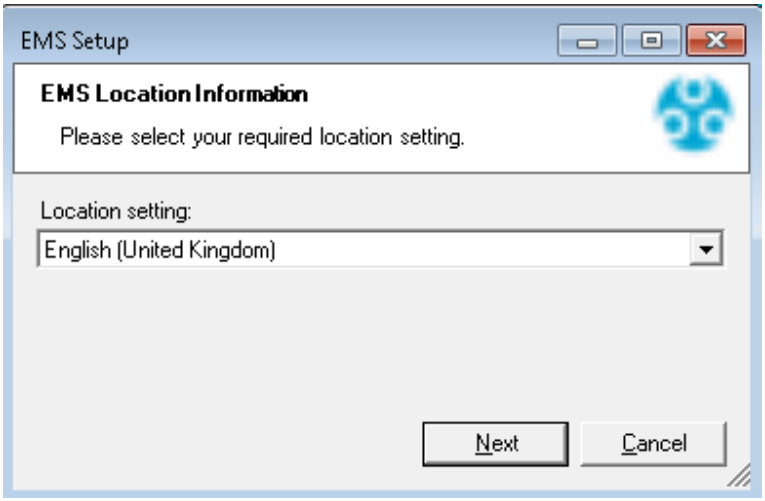


Figure 66

4. Select your location from within the **Location setting:** drop-down list

   Note: Ensure that your Location is set correctly, otherwise date and times sent in SMS and Email messages may be incorrectly formatted.

5. Click **Next**.

   ➢ The **EMS Server B Setup - Installing EMS W900B** window is displayed. See Figure 67:

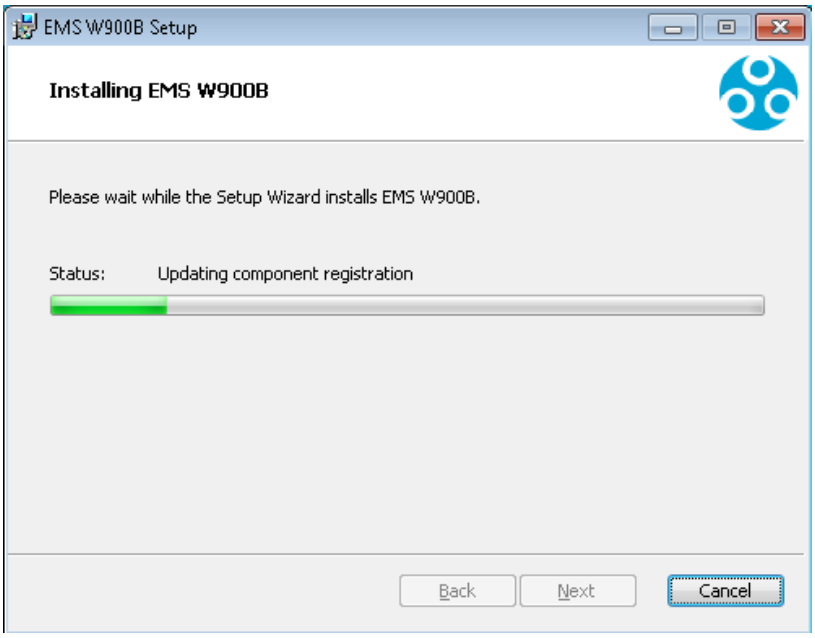


Figure 67

6. Click on **Next**.

   ➢ The **EMS Server Setup – Completed the EMS Server B Setup Wizard** window is displayed, signifying that the EMS Server's installation is now complete. See Figure 68 below:

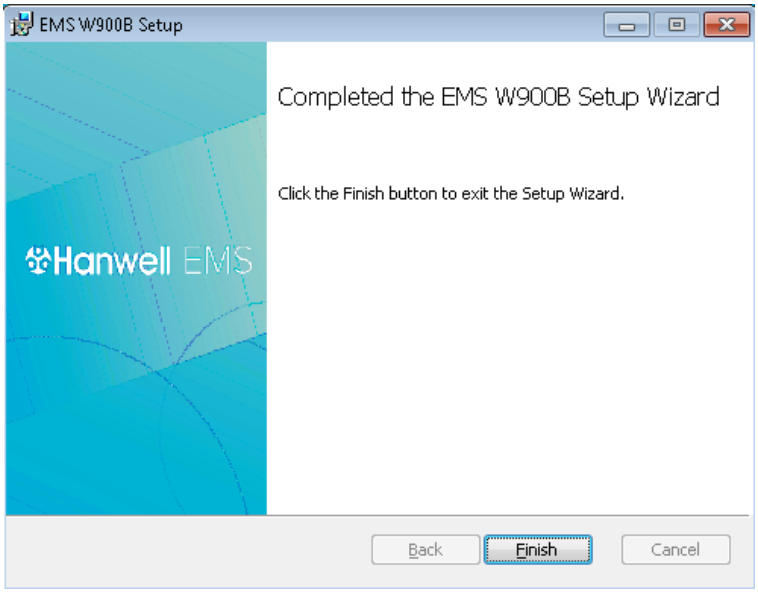


Figure 68

7. Click **Finish**.

Either:

➢ The following window is displayed. See Figure 69 below:

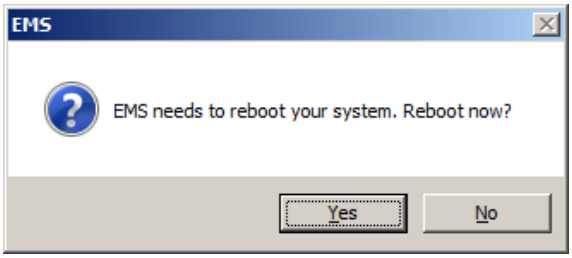


Figure 69

Click on **Yes** to reboot your System and complete the installation of the EMS Server Instance for W900B.

Or:

➢ If you ticked the boxes for any of the following Services/Tools in the **EMS Installer** window (see Figure 13):

* **Install SR2 Service**
* **Install EMS Mobile Application Service**
* **Install IceSpy Base Utility**
* **Install EMS Remote Management Tools**
* **Install EMS Backup/ Archive Tool**

They will now be installed as outlined in **Section 6.7 EMS Installation Procedure – Continued**.

6.7 EMS Installation Procedure – Continued

6.7.1 Installing EMS SR2 Service

If **Install SR2 Service** has been selected on the **EMS Installer** dialog box (see Figure 13), the next stage will begin the installation of the **EMS SR2 Server**.

- This is necessary to allow Smart Receiver (SR) devices to communicate with the EMS Server locally or remotely.

1. Click **Next** in the displayed window.

   ➢ This will install the **EMS SR2 Service**. See Figure 70:

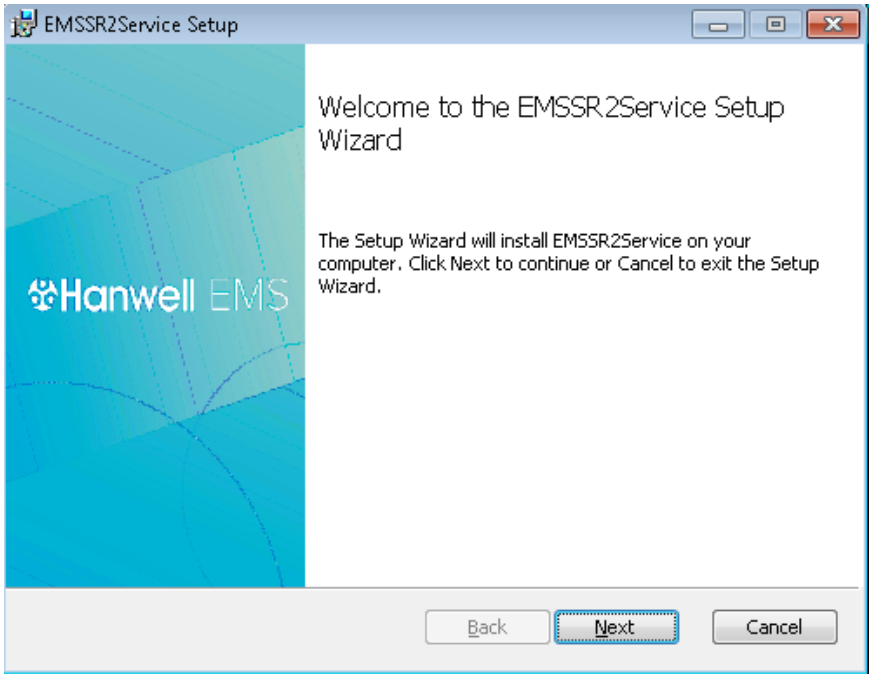


Figure 70

2. Read the **End User Licence Agreement**. See Figure 71 below:

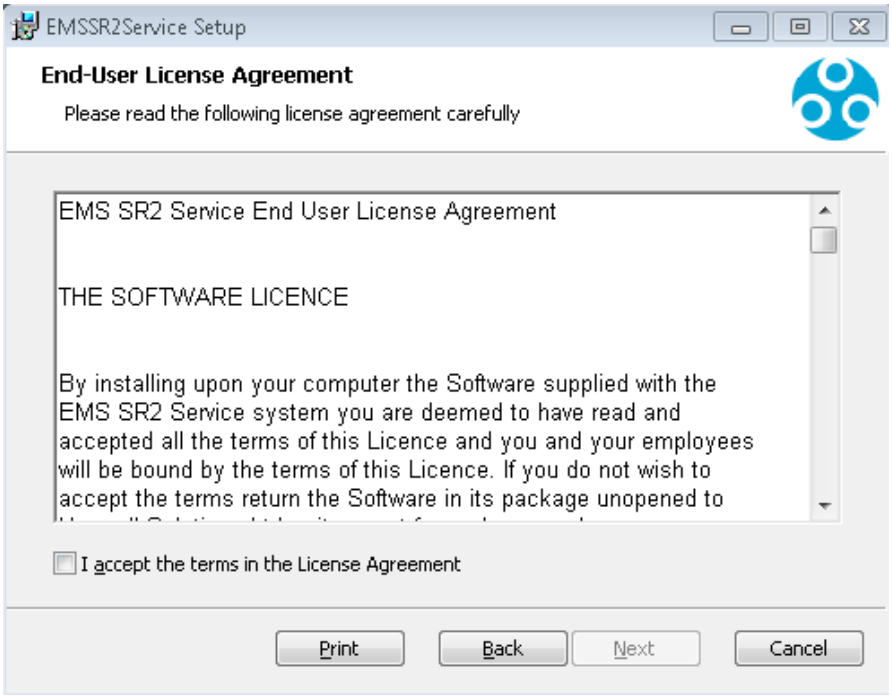


Figure 71

3. Tick the **I accept the terms in the Licence Agreement** box.
4. Click **Next**.

   ➢ The **EMSSR2Service Setup – Destination Folder** window is displayed. See Figure 72 below:

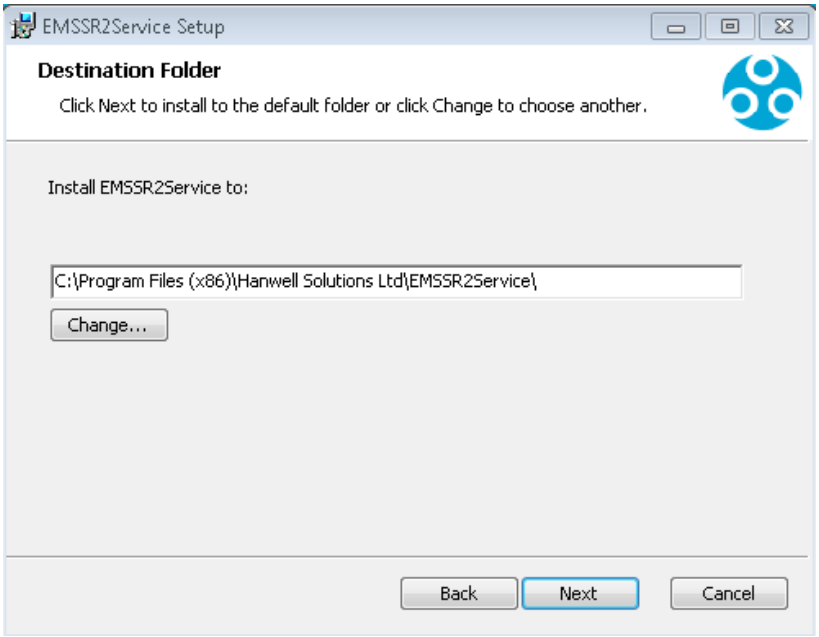


Figure 72

5. Click **Change...** to navigate to a Destination folder for the **EMSSR2 Service** or simply click **Next** to save to the Default Location (recommended).

Note: Unless absolutely necessary, it is recommended leaving the pre-set default location for the installation of the **EMS SR2 Service**. See Figure 72 above.

6. Click **Next**.

➢ The **EMSSR2Service – Ready to install EMSSR2Service** window is displayed. See Figure 73 below:

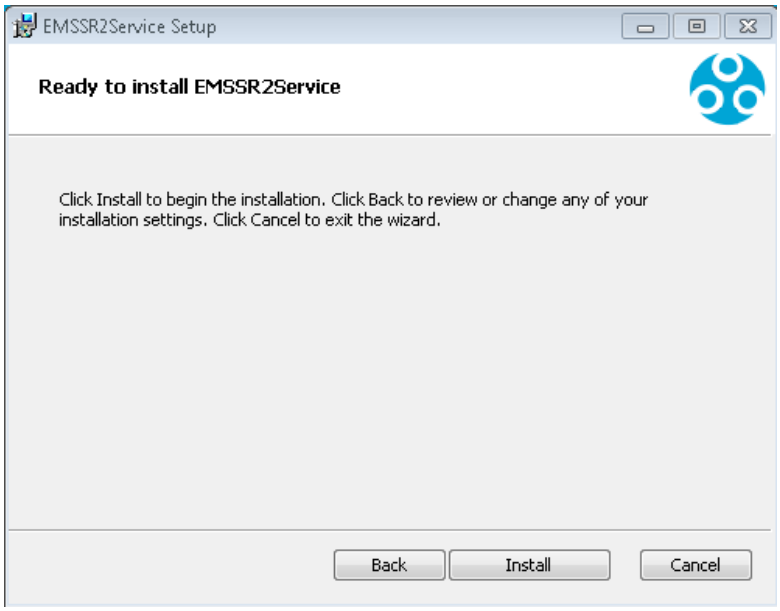


Figure 73

7. Click **Install** to begin the installation of the **EMS SR2 Service**.

➢ The **EMSSR2Service Setup – Installing EMSSR2Service** window is displayed followed by the **EMS Setup – Address and Port Information** window. See Figure 74 and Figure 75 below:

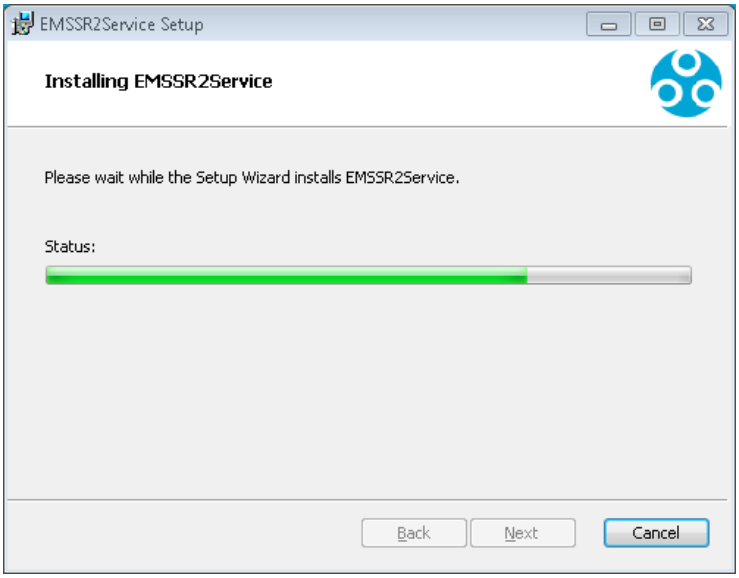


Figure 74

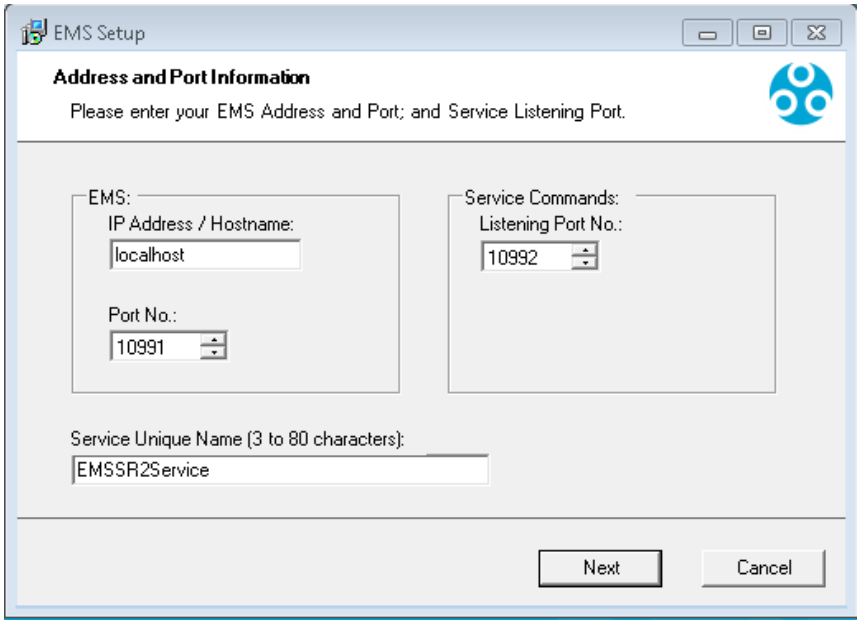


Figure 75

8. Fill out the window's fields paying particular attention to the following:

EMS: IP Address/Hostname

- When installing Distributed Hardware Services, the EMS IP Address / Hostname must be set during installation of the Hardware Service. This must match the address of the EMS Server where the Data Service is installed.
- For this system, at least one SR2 Service will need to have non-default Service names set during installation; the non-default Service name would then need to be added to the **Hardware Service Details** window, when creating the new system from the **EMSConfig** Utility.

EMS: Port Number:
Service Commands: Listening Port No:

- Unless absolutely necessary, it is recommended leaving the pre-set allocated Listening Port Number and Port Number at their default settings, as shown in Figure 75 above.
- However, if the customer already has a different program using the same Port Numbers, then these can be changed at this stage to your IT Department's specification.
    - Refer to the **Allocated Ports** table (See Table 1 on page 9) and ensure that no other Ports are currently in use by another program on the host machine.

Service Unique Name (3 to 80 characters)

If installing the SR2 Service on multiple machines, ensure that each service has a different Service Name entered in the **Service Unique Name (3 to 80 characters):** text field.

- Keep a list of the Service Names used, as each unique Service Name needs to be added to the list of Hardware Service names in the **Config Utility**.
- For single SR2 Service installations, the default **Service Unique Name** is recommended. See 45 above.

9. Once the fields have been filled in with either default names, addresses and numbers or User Defined values, click **Next**.

- The **EMSSR2Service Setup – Completed the EMSSR2Service Setup Wizard** window is displayed. See Figure 76:

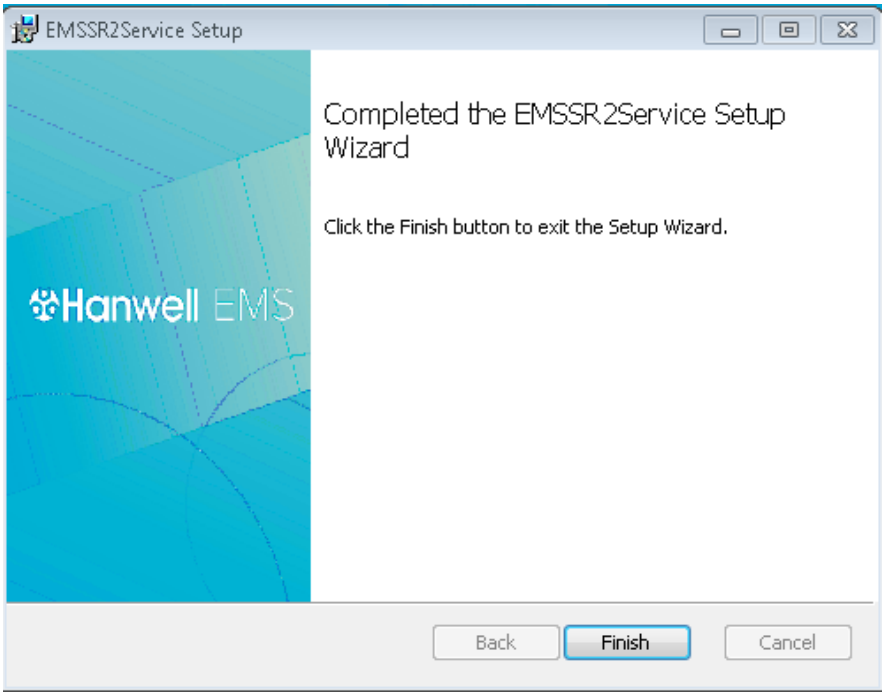


Figure 76

10. Click **Finish** to complete the installation of the **EMS SR2 Service**.

- If you didn't tick any additional boxes in the **EMS Installer** window (see Figure 13), namely:
  - **Install EMS Mobile Application Service**
  - **Install IceSpy Base Utility**
  - **Install EMS Remote Management Tools**
  - **Install EMS Backup/ Archive Tool**

  The following window is displayed. See Figure 77 below:

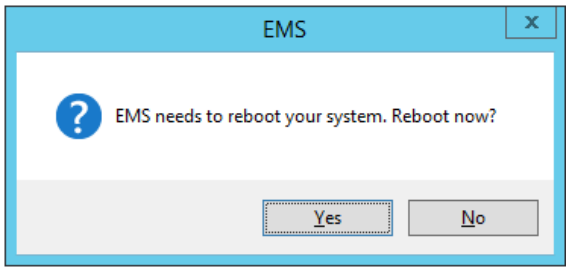


Figure 77

➢ Click on **Yes** to reboot your System and complete the installation of the EMS Server Instance for W900A.

- If you ticked **Install EMS Mobile Application Service** in the **EMS Installer** window (see Figure 13), the **EMS.Mobile.App.DataService Setup – Welcome to the EMS.Mobile.App.DataService Setup Wizard** window is displayed. See Figure 78:

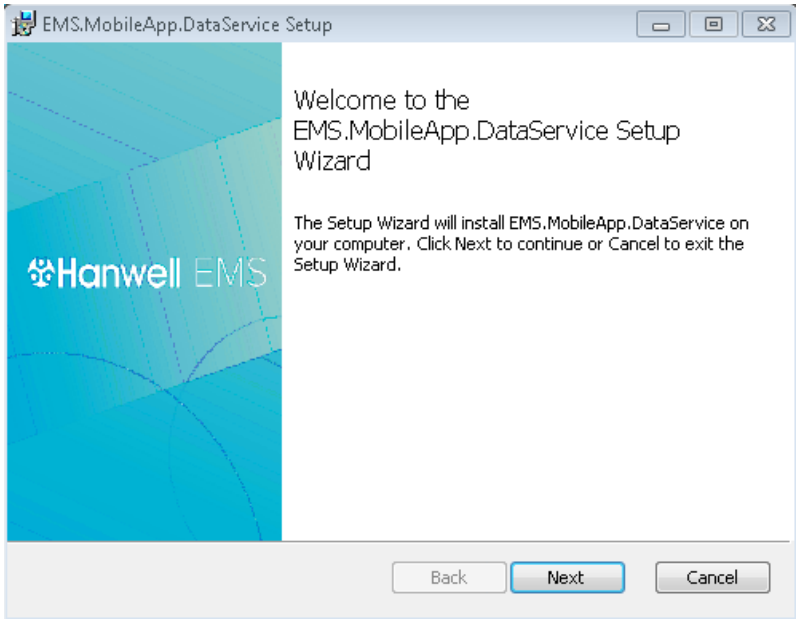


Figure 78

6.7.2 Installing the EMS Mobile Application Service

1. Click on **Next** in the displayed **EMS.Mobile.App.DataService Setup – Welcome to the EMS.Mobile.App.DataService Setup Wizard** window. See Figure 78 above.
2. The **EMS.Mobile.App.DataService Setup – End-User Licence Agreement** window is displayed. See Figure 79:

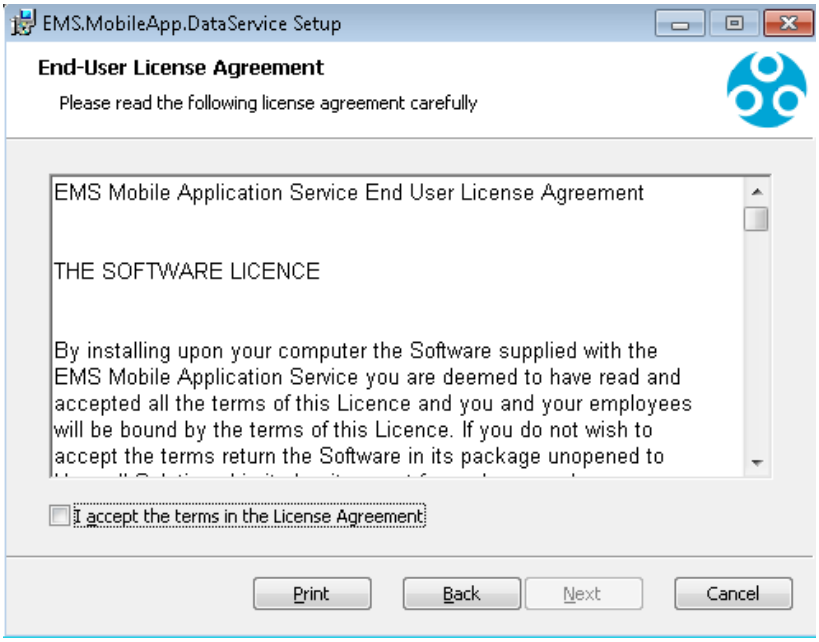


Figure 79

3. Tick the **I accept the terms in the Licence Agreement** box.

   ➢ The **Next** button is activated.

4. Click **Next**.

   ➢ The **EMS.Mobile.App.DataService Setup – Service Account** window is displayed. See Figure 80 below:

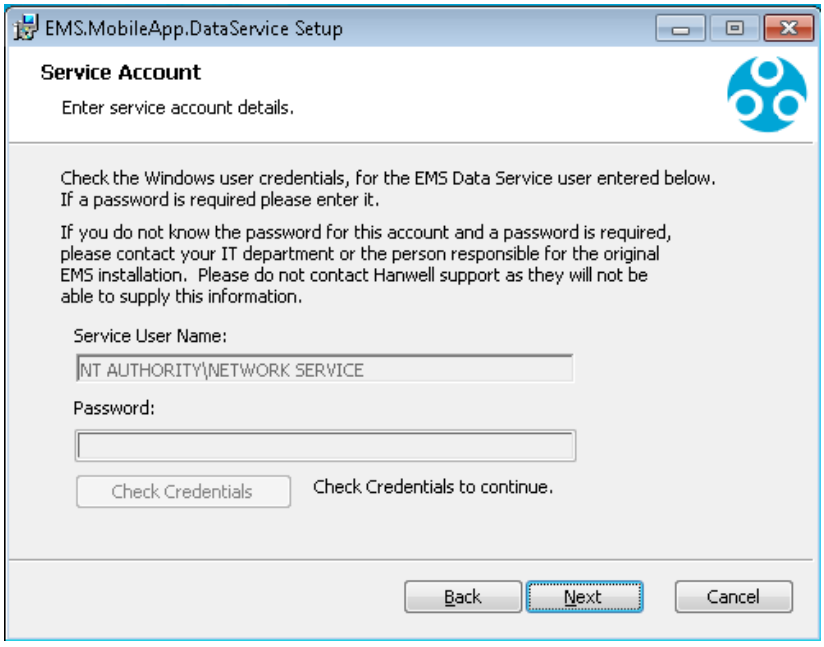


Figure 80

5. Enter the required Service Account details for the EMS Data Service User, including a password if necessary.

6. Click on **Next**.

   ➢ The **EMS.Mobile.App.DataService Setup – Destination Folder** window is displayed. See Figure 81 below:

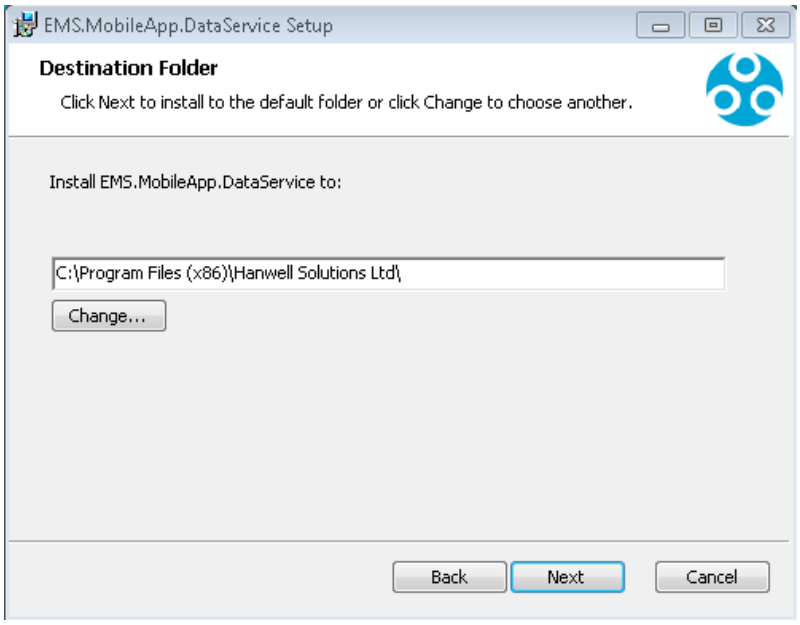


Figure 81

7. Click **Change...** to navigate to a Destination folder for the **EMS Mobile App Data Service** or simply click **Next** to save to the Default Location (recommended).

   Note: Unless absolutely necessary, it is recommended leaving the pre-set default location for the installation of the **EMS Mobile App Data Service**. See Figure 81 above.

8. Click **Next**.

   ➢ The **EMS.Mobile.App.DataService Setup – Ready to install EMS.MobileApp.DataService** window is displayed. See Figure 82 below:

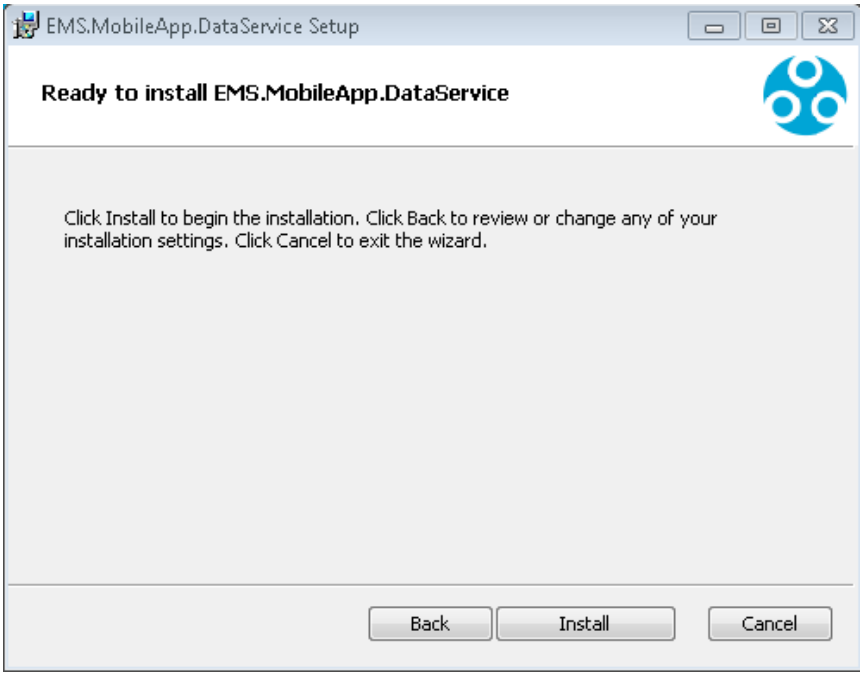


Figure 82

9. Click **Install** to begin the installation of the **EMS Mobile App Data Service**.

   ➢ The **EMS.Mobile.App.DataService Setup – Installing EMS.Mobile.App.DataService** window is displayed followed by the **EMS Setup – Address and Port Information** window. See Figure 83 and Figure 84:

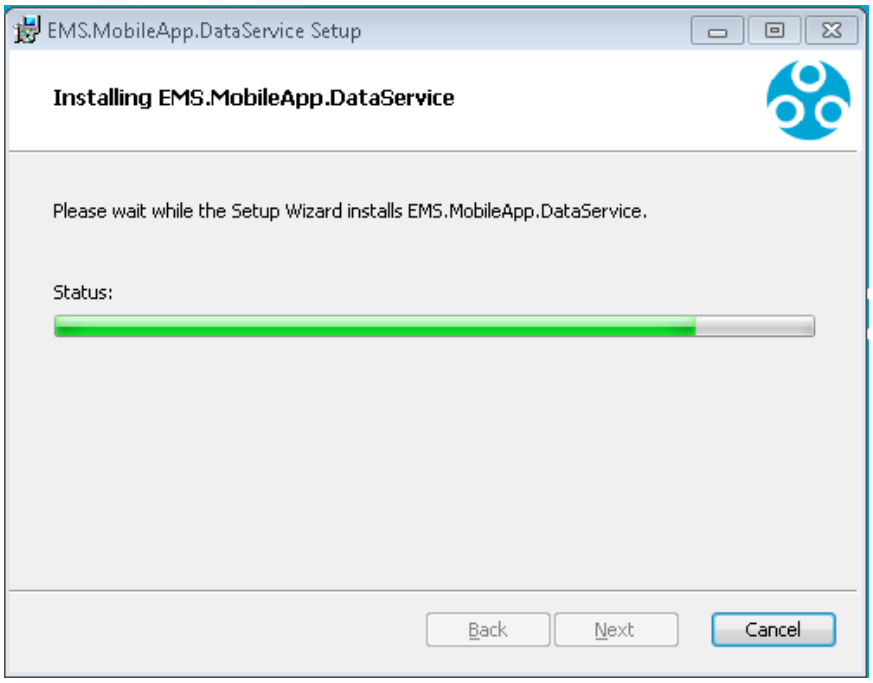


Figure 83

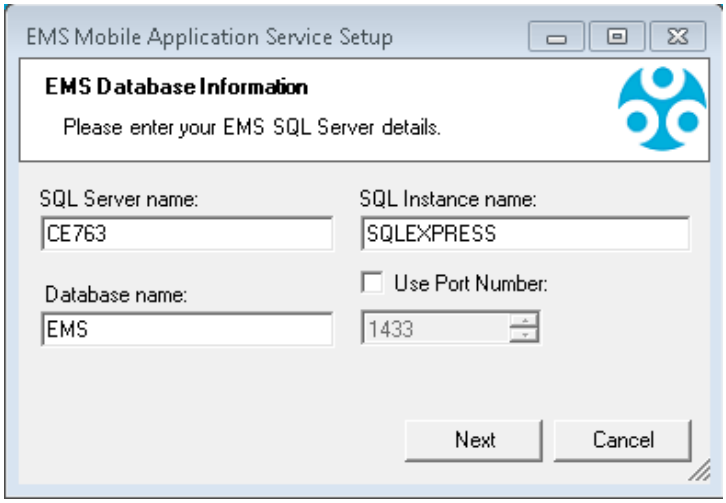


Figure 84

- When installing to a machine with **NO EXISTING** Microsoft SQL Express installation, leave the settings, shown in Figure 84 above, at their default values.
- When installing on a machine with **AN EXISTING** Microsoft SQL Express installation, the **SQL Server name:** and **SQL Instance name:** fields, shown in Figure 84 above, must be set to the existing **Microsoft SQL Express Server Name** and **Instance Name**.

  Note: EMS **ONLY** supports versions of Microsoft SQL from 2012 onwards

10. Click on **Next**.

    - The **EMS.Mobile.App.DataService Setup – Completed the EMS.MobileApp.DataService.Setup Wizard** window is displayed. See Figure 85 below:

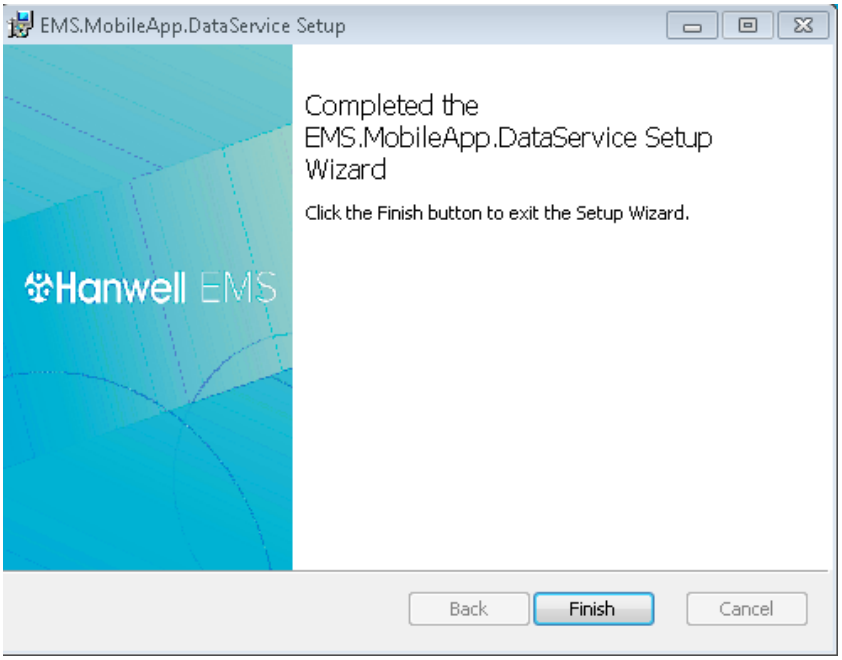


Figure 85

11. Click **Finish** to complete the installation of the **EMS Mobile App Data Service**.

- If you didn't tick any additional boxes in the **EMS Installer** window (see Figure 13), namely:

  - **Install IceSpy Base Utility**
  - **Install EMS Remote Management Tools**
  - **Install EMS Backup/ Archive Tool**

  The following window is displayed. See Figure 77 below:

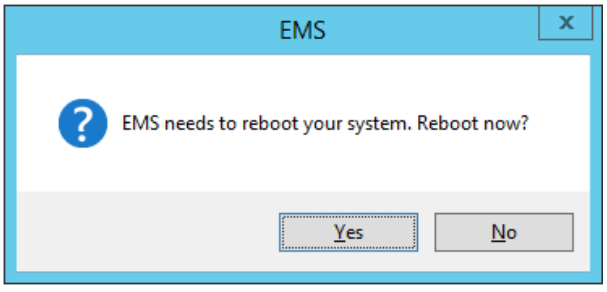


Figure 86

Click on **Yes** to reboot your System and complete the installation of the EMS Server Instance for W900A.

- If you ticked **Install EMS Remote Management Tools** in the **EMS Installer** window (see Figure 13), the **EmsRemoteManagementTools Setup** window is displayed. See Figure 87:

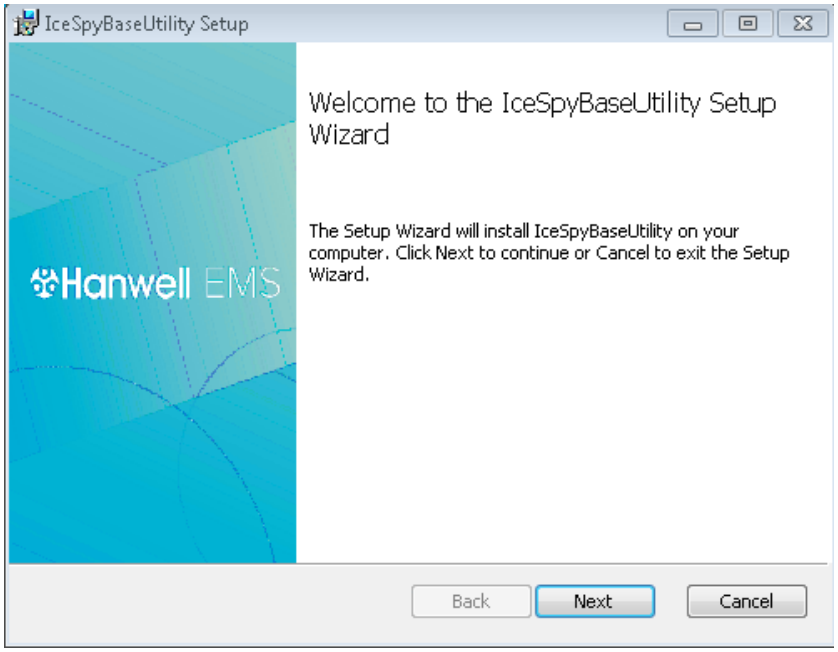


Figure 87

6.7.3 Installing the IceSpy Base Utility

1. Click **Next** in the displayed **IceSpyBaseUtility Setup – Welcome to the IceSpyBaseUtility Setup Wizard** window. See **Error! Reference source not found.** above.

   ➢ The **IceSpyBaseUtility Setup – End-User Licence Agreement** window is displayed. See Figure 88 below:

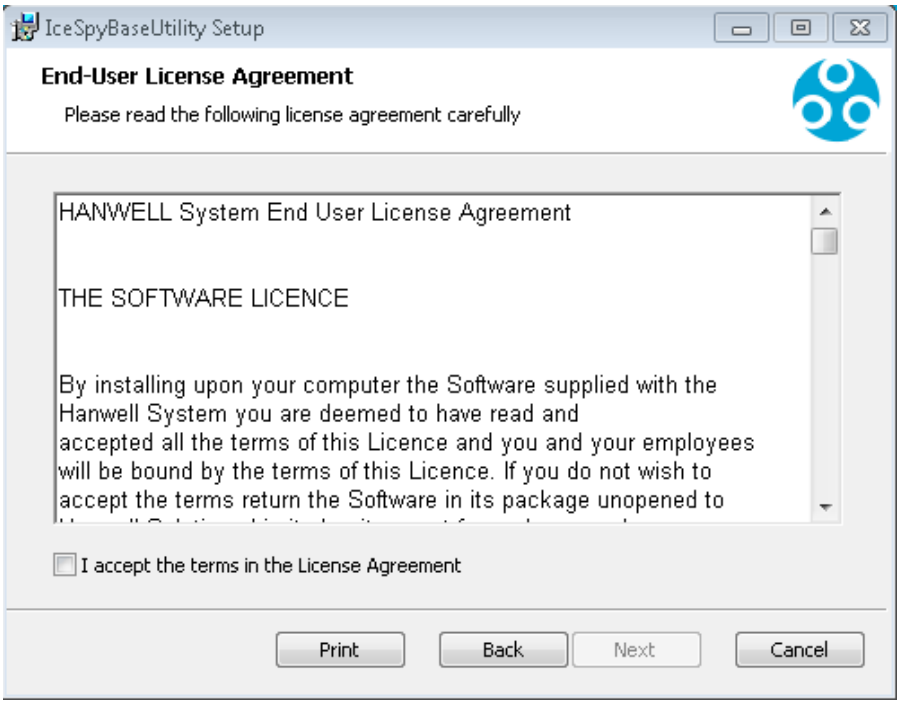


Figure 88

2. Read the Hanwell EULA and check the **I accept the terms in the Licence Agreement** box.

   ➢ The **IceSpyBaseUtility Setup – Destination Folder** window is displayed. See Figure 89 below:

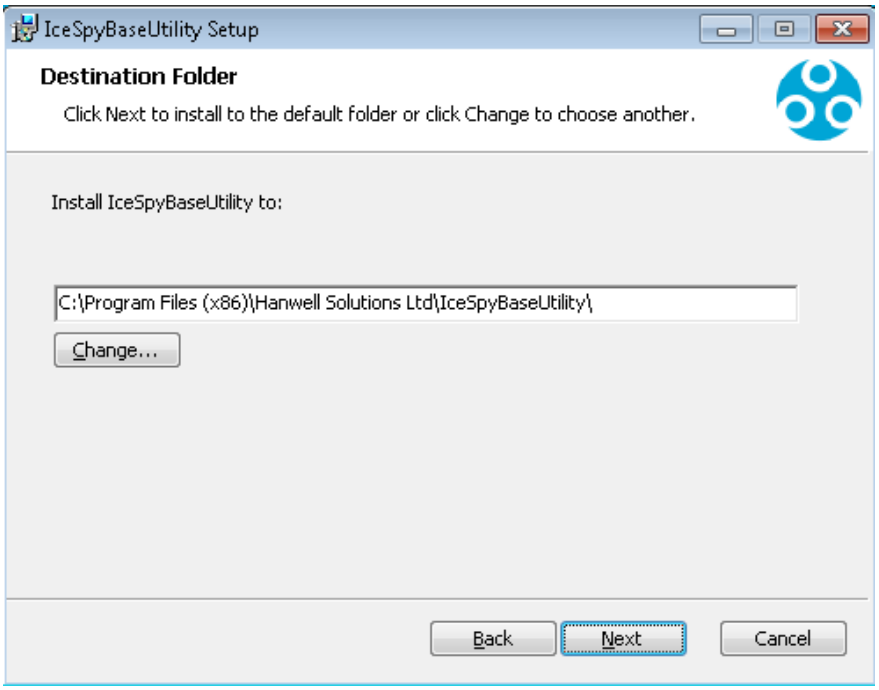


Figure 89

3. Click **Change...** to navigate to a Destination folder for the **IceSpy Base Utility** or simply click **Next** to save to the Default Location (recommended).

   Note: Unless necessary, it is recommended leaving the pre-set default location for the installation of the **IceSpy Base Utility**.

4. Once the location of the **IceSpy Base Utility** has been entered or the default location selected, click **Next**.

   ➢ The **IceSpyBaseUtility Setup – Ready to install IceSpyBaseUtility** window is displayed. See Figure 90:

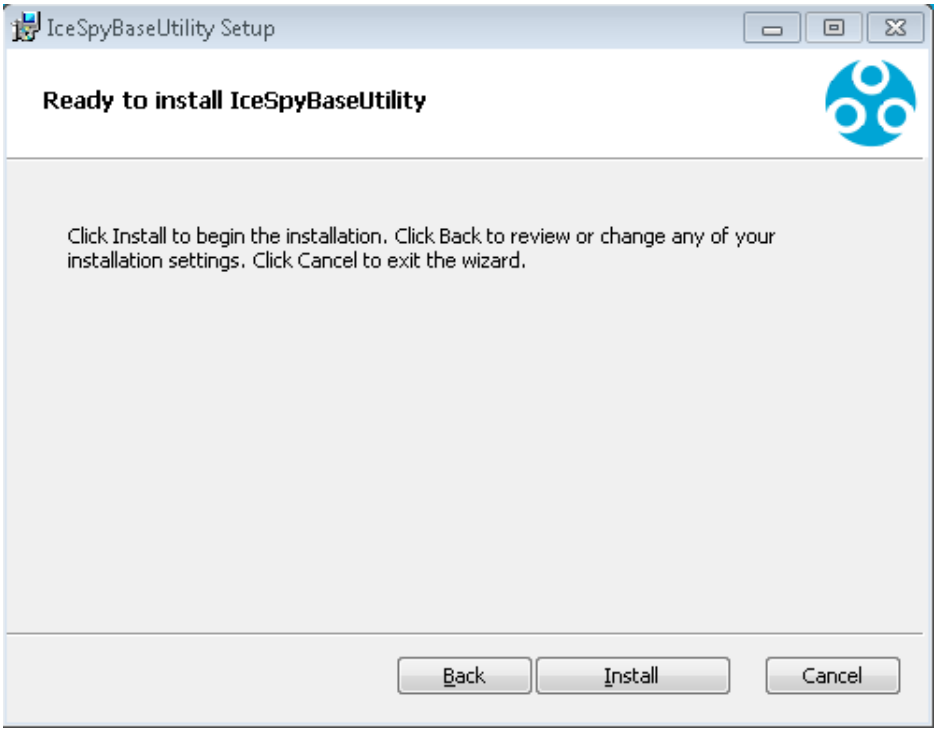


Figure 90

5. Click on **Install**.

   ➢ The **IceSpyBaseUtility Setup – Completed the IceSpyBaseUtility Setup Wizard** window is displayed. See Figure 91 below:

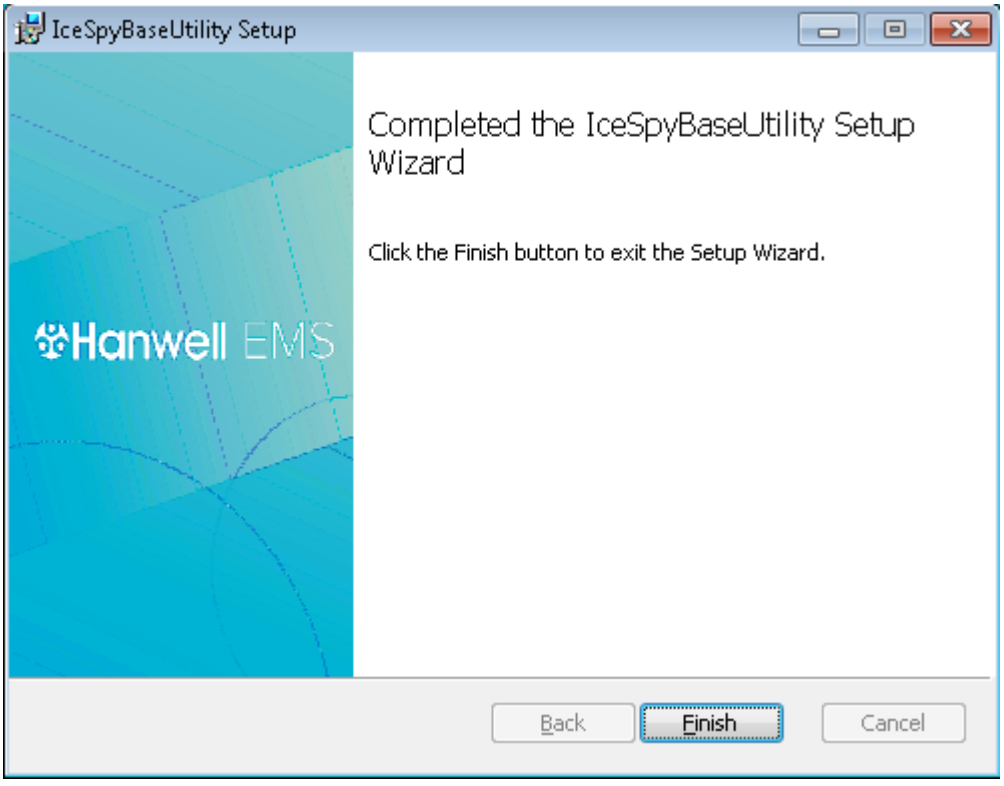


Figure 91

6. Click on **Finish**.

➢ If you didn't tick any additional boxes in the **EMS Installer** window (see Figure 13) namely:

* **Install EMS Remote Management Tools**
* **Install EMS Backup/ Archive Tool**

The following window is displayed. See Figure 92 below:

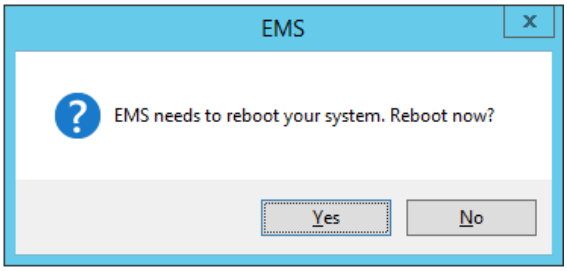


Figure 92

Click on **Yes** to reboot your System and complete the installation of the EMS Server Instance for W900A.

➢ If you ticked **Install EMS Remote Management Tools** in the **EMS Installer** window (see Figure 13), the **EmsRemoteManagementTools Setup – Welcome to the EMSRemoteManagementTools Setup Wizard** window is displayed. See Figure 93 below:

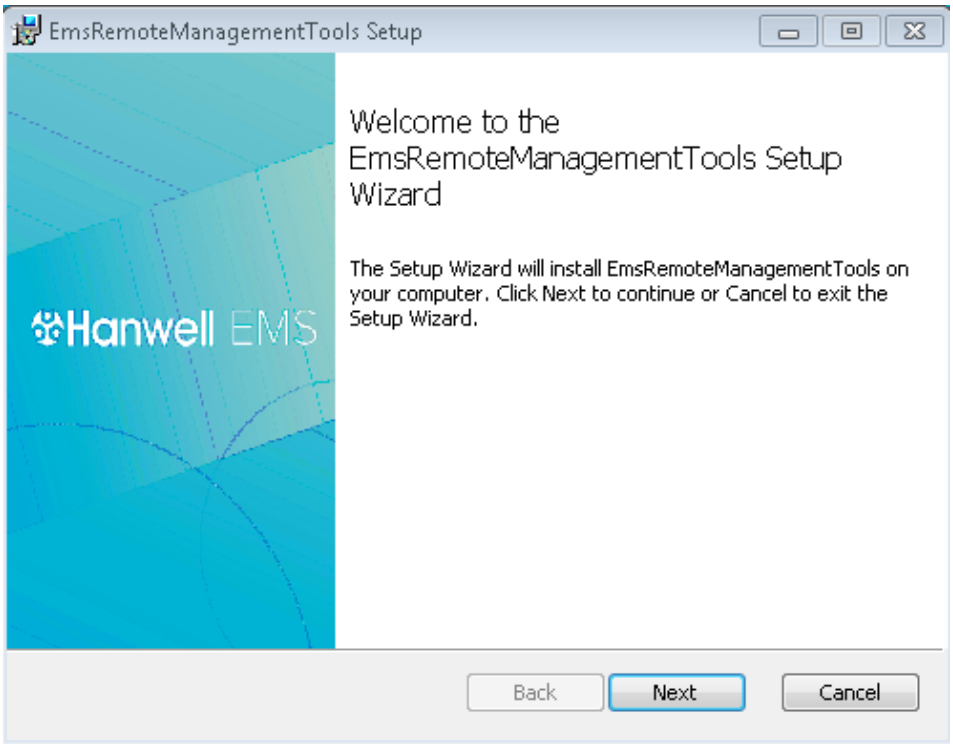


Figure 93

6.7.4 Installing EMS Remote Management Tools

The **Remote Management Tools** provide connectivity tools to Synchronise, Calibrate and Merge sensors and setup SR2s on a network remote from the EMS Sensor.

- The **Remote Management Tools** require HTTP: **Port 80** access to the EMS Server.
- If the Customer wishes to use the **Remote Management Tools**, the Customer must ensure that Firewalls are configured to allow HTTP: **Port 80** access from the Remote Network to the EMS Server.

1. In the **EmsRemoteManagementTools Setup** window, click **Next**.

   ➢ The **EMSRemoteManagementTools Setup – End-User Licence Agreement** window is displayed and the process of installing the EMS **Remote Management Tools** commences. See Figure 94 below:

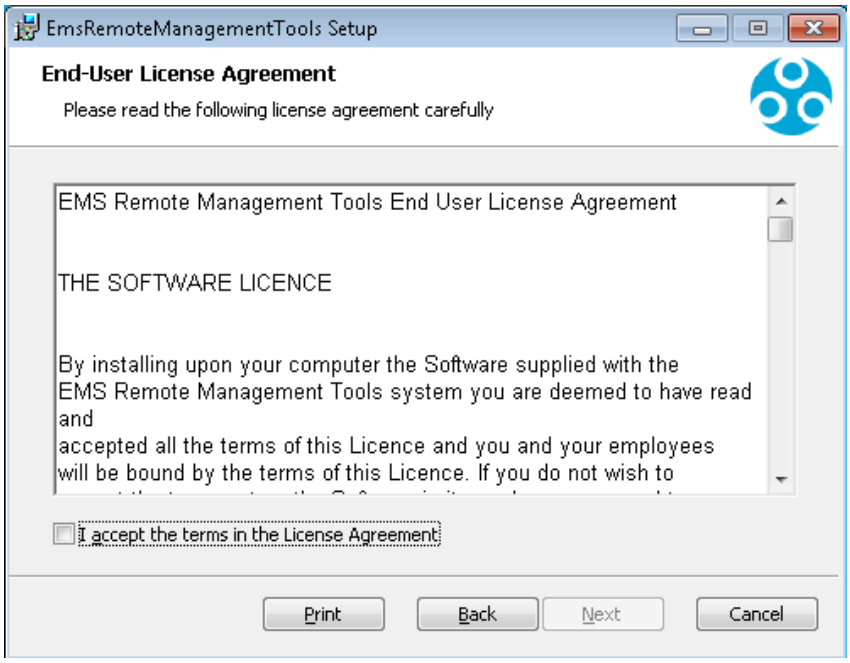


Figure 94

2. Read the Licence Agreement, then tick the **I accept the terms in the Licence Agreement** box.
3. Click **Next**.

   ➢ The **EMSRemoteManagementTools Setup – Destination Folder** window is displayed. See Figure 95:

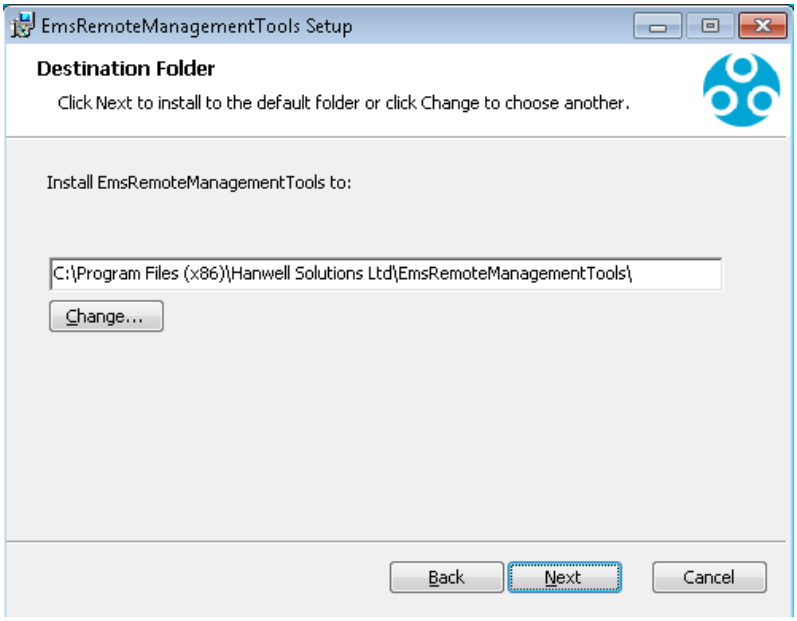


Figure 95

- Click **Change...** to navigate to a Destination folder for the **Remote Management Tools** Service or simply click **Next** to save to the Default Location (recommended).

  Note: Unless necessary, it is recommended leaving the pre-set default location for the installation of the **EMS Remote Management Tools** Service.

4. Once the location of the **EMS Remote Management Tools** has been entered or the default location selected, click **Next**.

   - The **EMSRemoteManagementTools Setup – Ready to install EMSRemoteManagementTools** window is displayed. See Figure 96 below:

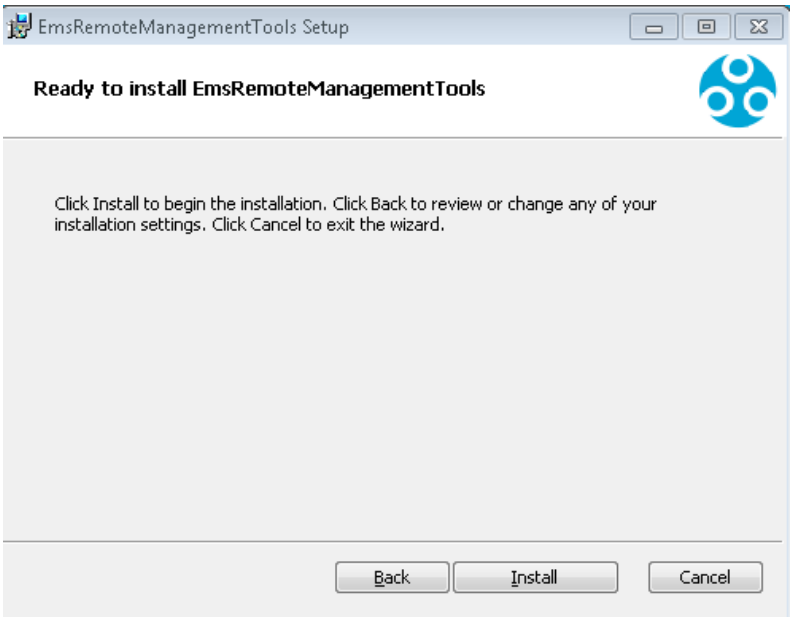


Figure 96

5. Click **Install**.

➢ The Windows Security window is displayed. See Figure 97 below:

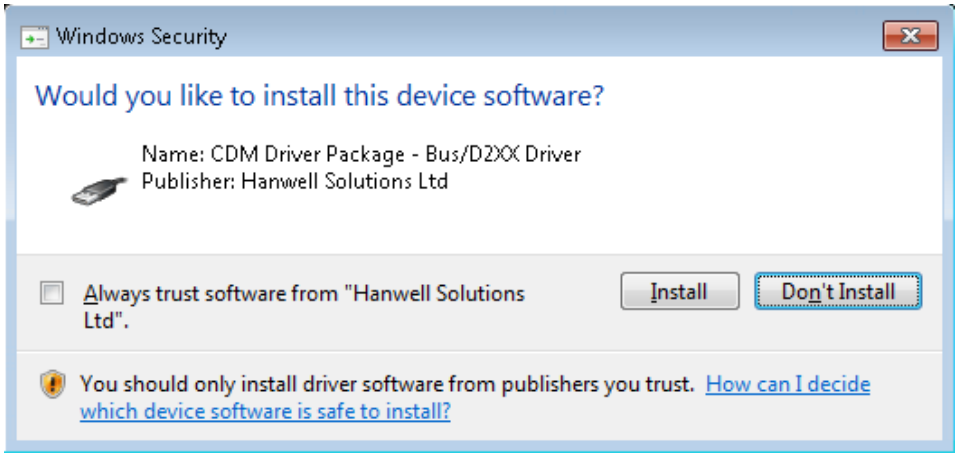


Figure 97

Note: An **EMS RemoteManagementTools Setup** window may appear as this window is displayed.

6. Click on **Install**.

➢ The **EMS Remote Management Tools** installation will now run to completion, displaying the **EMSRemoteManagementTools Setup – Completed the EMSRemoteManagementTools Setup Wizard** window when the installation of the **EMS Remote Management Tools** is complete. See Figure 98 below:

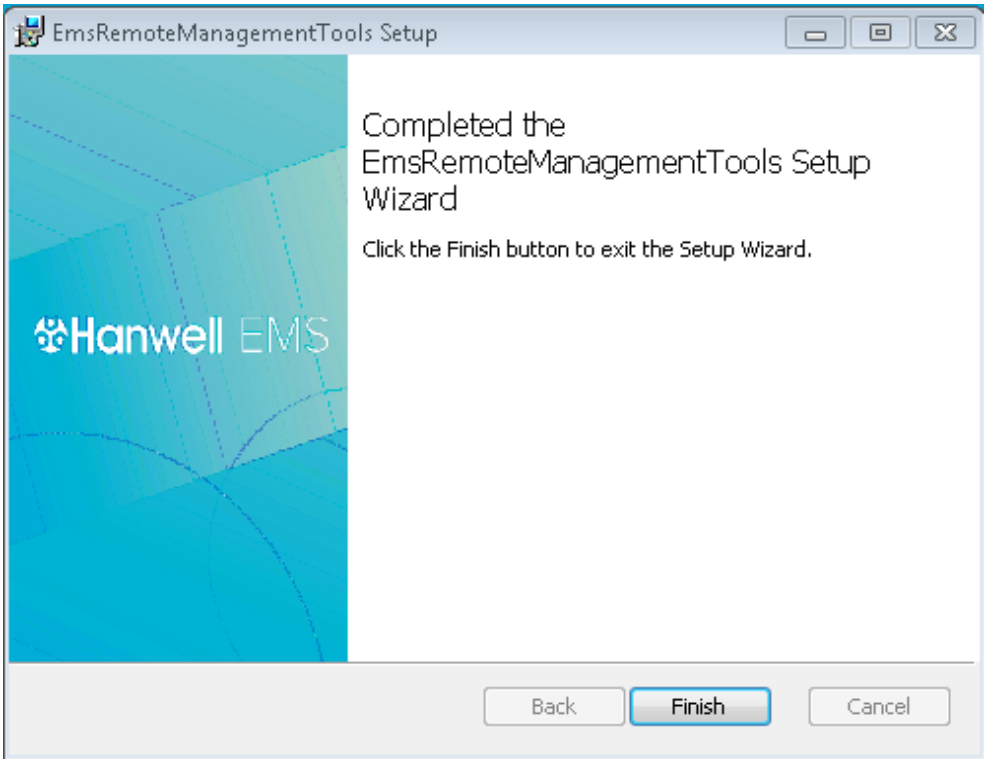


Figure 98

7. Click on **Finish**.

➢ If you didn't tick any additional boxes in the **EMS Installer** window (see Figure 13) namely:

* **Install EMS Backup/ Archive Tool**

The following window is displayed. See Figure 99 below:

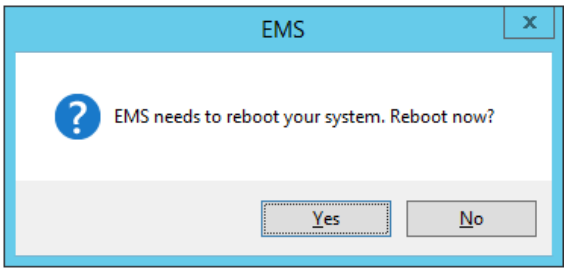


Figure 99

Click on **Yes** to reboot your System and complete the installation of the EMS Server Instance for W900A.

* If you ticked **Install EMS Backup Archive Tool** in the **EMS Installer** window (see Figure 13), the **EMSBackupArchive Tool Setup** window is displayed. See Figure 100 below:

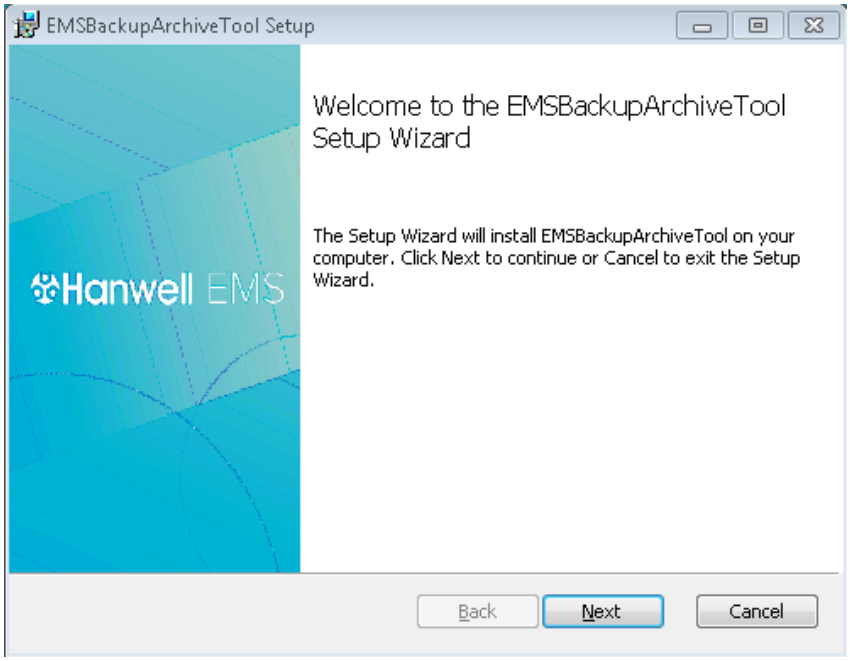


Figure 100

6.7.5 Installing the EMS Backup Archive Tool

1. In the displayed **EMSBackupArchive Tool Setup** window, click on **Next**.

➢ The **EMSBackupArchiveTool Setup – End-User Licence Agreement** window is displayed. See Figure 101 below:

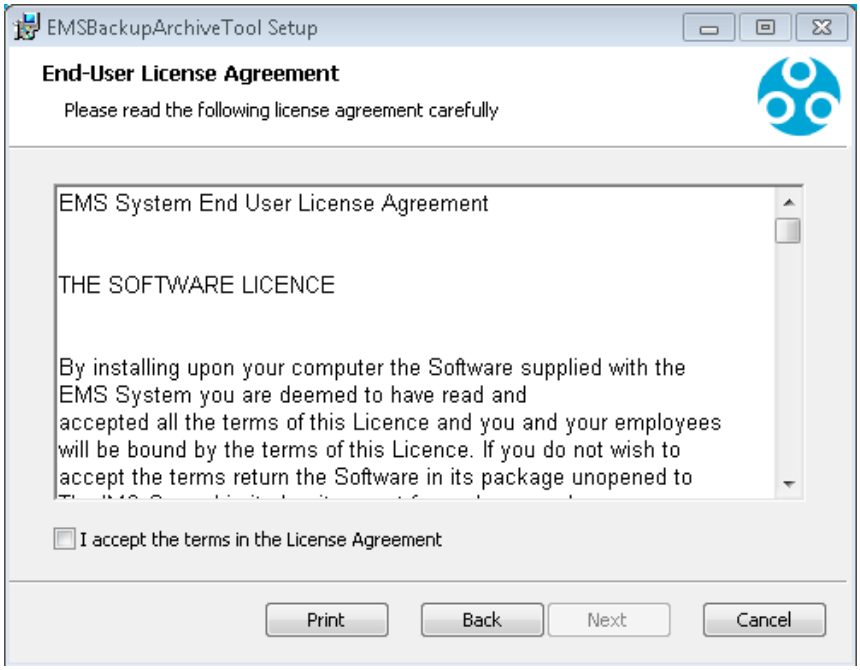


Figure 101

2. Read the Licence Agreement, then tick the **I accept the terms in the Licence Agreement** box.
3. Click **Next**.

➢ The **EMSBackupArchiveTool Setup – Destination Folder** window is displayed. See Figure 102 below:

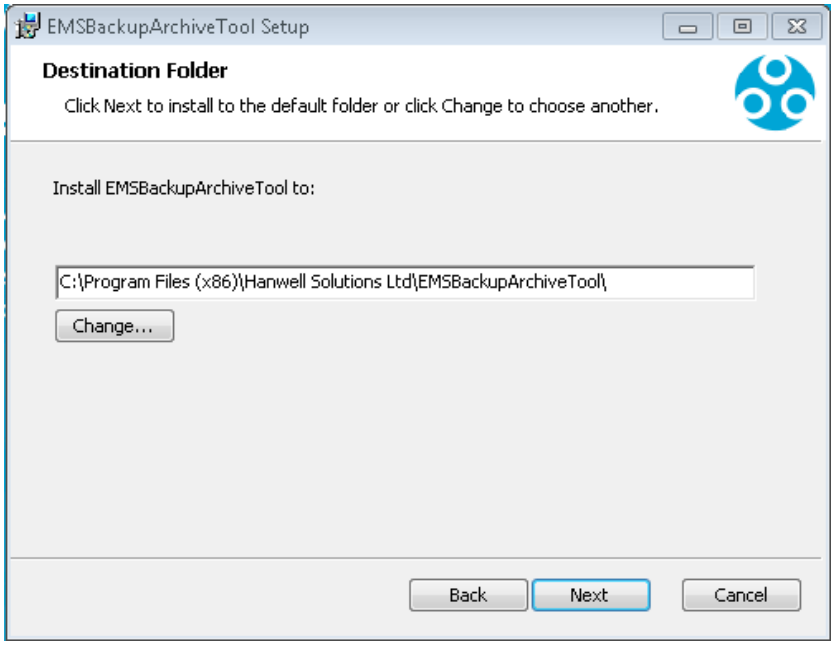


Figure 102

- Click **Change…** to navigate to a Destination folder for the **EMS Backup Archive Tool** or simply click **Next** to save to the Default Location (recommended).

  Note: Unless necessary, it is recommended leaving the pre-set default location for the installation of the **EMS Backup Archive Tool**.

4. Once the location of the **EMS Backup Archive Tool** has been entered or the default location selected, click **Next**.

   - The **EMSBackupArchiveTool Setup – Ready to install EMSBackupArchiveTool** window is displayed. See Figure 103 below:

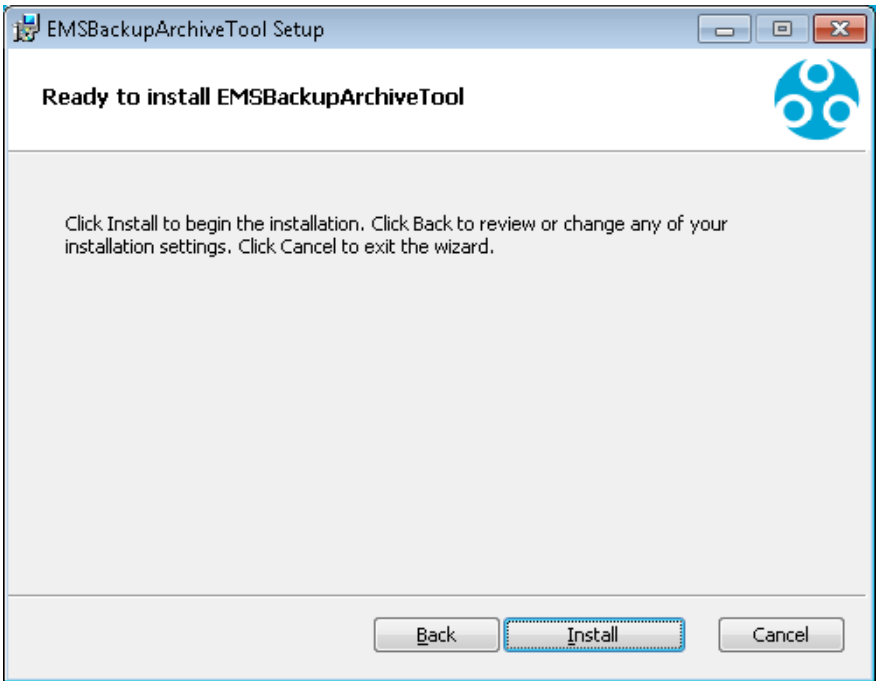


Figure 103

5. Click on **Install**.

   - The **EMSBackupArchiveTool Setup – Completed the EMSBackupArchiveTool Setup Wizard** window is displayed. when the installation of the **EMS Backup Archive Tool** is complete. See Figure 104:

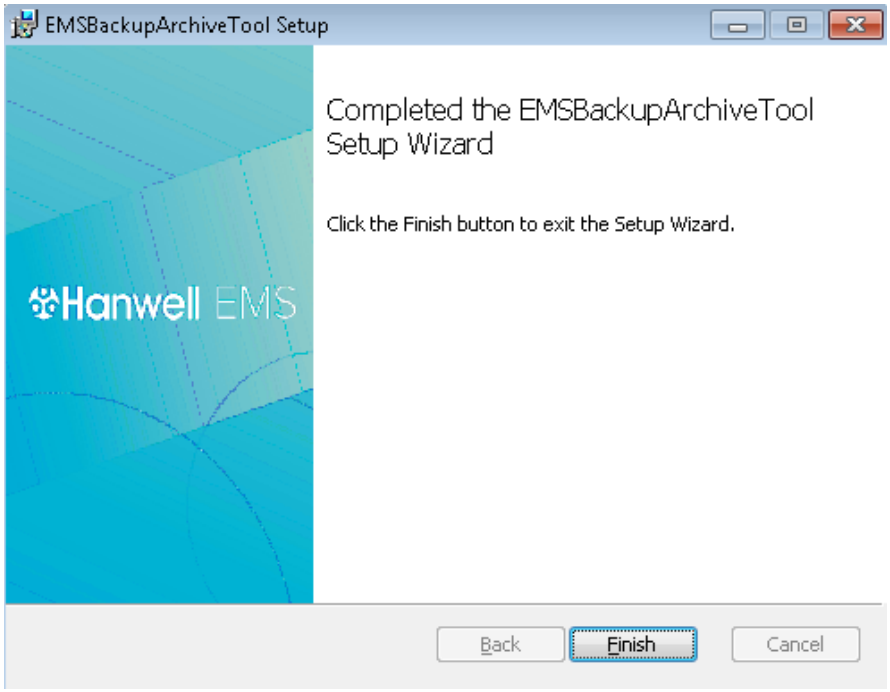


Figure 104

6. Click on **Finish**.

   ➢ The following window is displayed. See Figure 105 below:

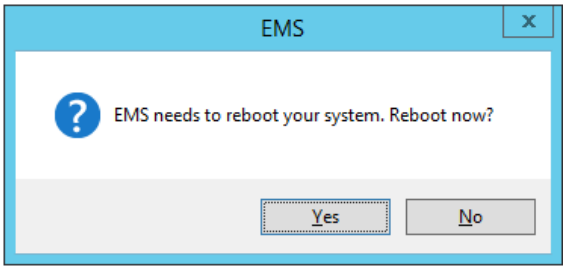


Figure 105

7. Select **Yes** to the reboot request.

   ➢ Your System is rebooted and the EMS installation completes.

7 Additional System Configuration

7.1.1 Server 2008, 2008R2, 2012R2 and 2016 - Disabling Internet Explorer Enhanced Security Configuration

Some features of EMS will not work correctly if Internet Explorer Enhanced Security Configuration is left **ON**. It is therefore advisable to turn this **OFF** prior to using EMS as follows:

1. Start **Server Manager** from within Windows Server 2008, 2012 or 2016.

   Server Manager can be launched from either:

   - The Command Line (2008/2012).
   - The Taskbar (2008/2012).
   - The **Start** Screen (2008/2012).
   - By using PowerShell (In Windows Server 2012).

2. From the displayed **Server Manager Dashboard** - See Figure 106 below (Windows Server 2012):

   i. Select **Local Server**

   ii. Click on **Configure this local server**

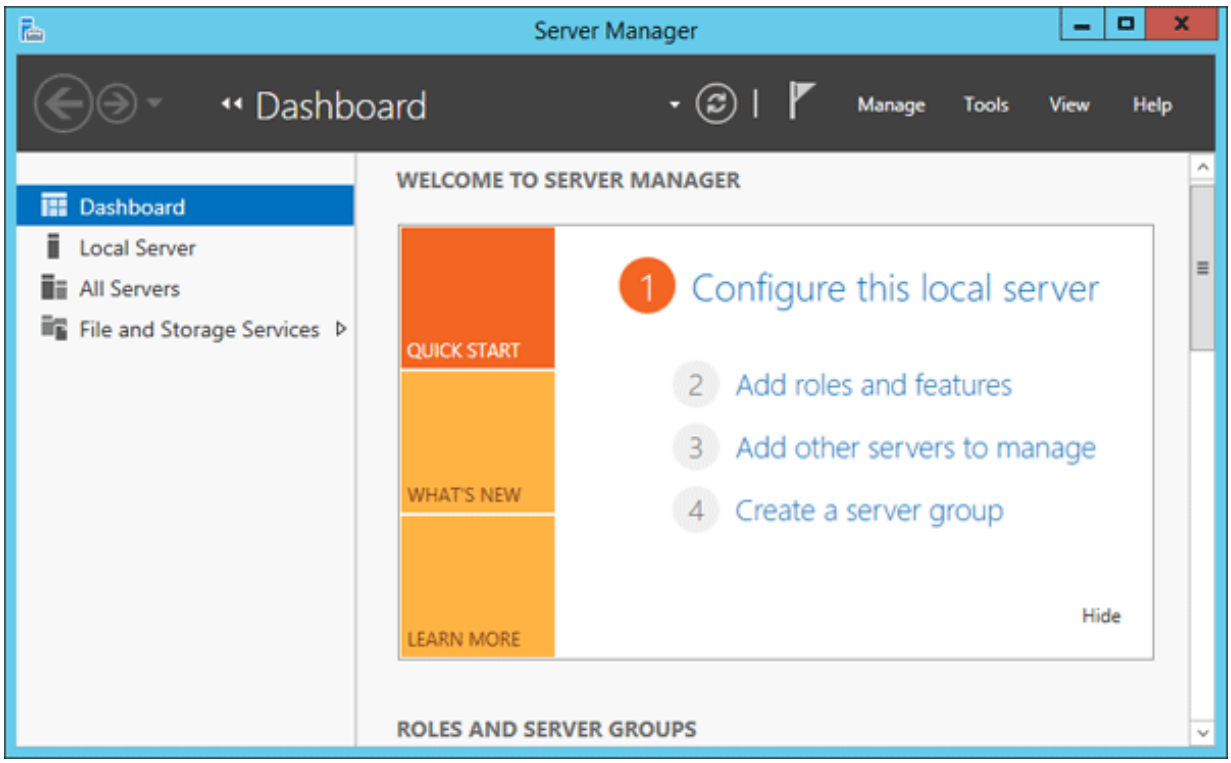


Figure 106

- A window similar to that shown in Figure 107 below is displayed (Windows 2008 shown):

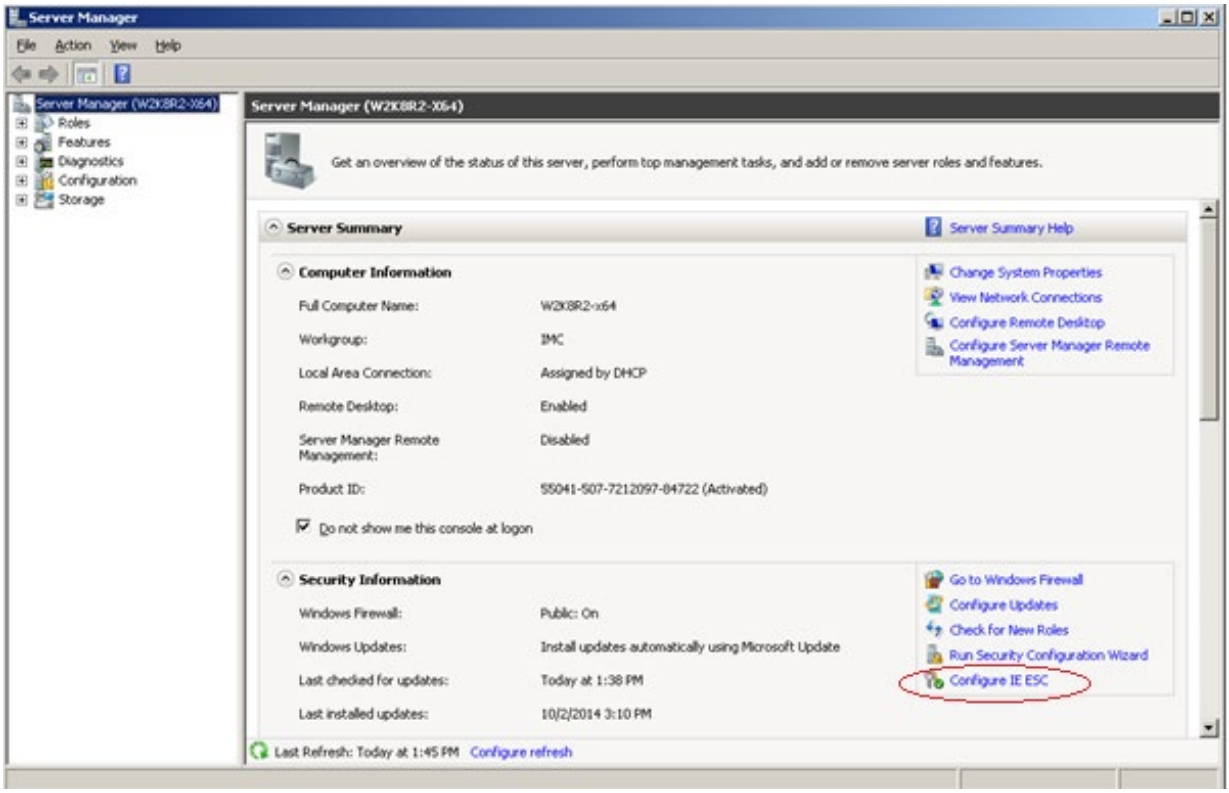


Figure 107

3. In the displayed Server Manager window, select **Configure IE ESC**. See Figure 107 above.

   ➢ The **Internet Explorer Enhanced Security Configuration** dialog box is displayed. See Figure 108 below.

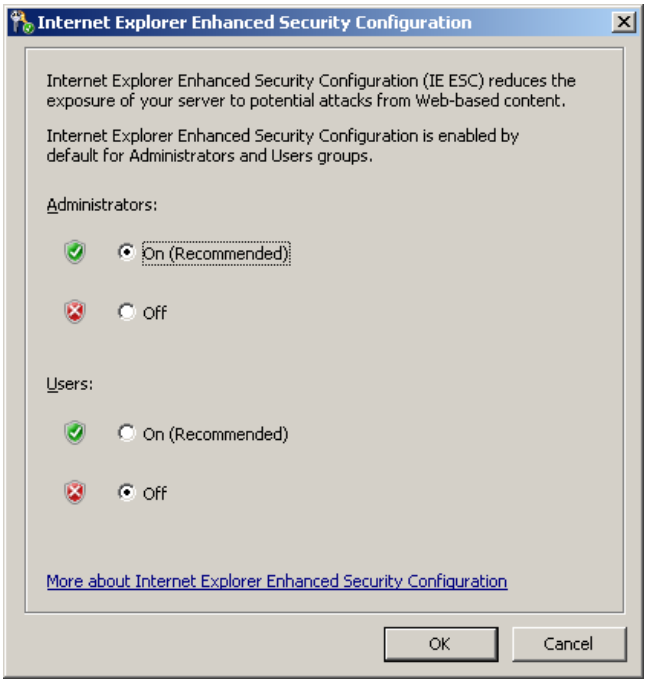


Figure 108

4. Select the **Off** option buttons under both **Administrators:** and **Users:**
5. Click **OK**.

7.2 Service Reinstall

If a Service has to be re-installed:

1. Uninstall the Service using **Windows Control Panel** > **Uninstall Programs**.
2. Run **Install.exe** from the DVD.
3. Follow your Operating System's Installation Instructions from **Section 6**, page 19 onwards.

8 Firewall Configuration

After installing the EMS Server Components, any installed software Firewall needs to be configured to allow connection to the Apache Server.

The Customer must add a rule to allow incoming HTTP connections on Port 80. Rule needs to apply to all networks that the Customer intends to allow browser access from.

If the EMS Server has a local Firewall, then this may need configuring to allow internal connections for the WCF Service, on either the default Port – 8081 or the Port Number selected by the Customer for WCF Service use on install.

In addition, the Firewall may need to be configured to allow MS SQL connections, the default connections are **TCP Port 1433**, and **UDP Port 1434**.

If using **EMS W900B** to connect to an SQL Server on a separate machine on the LAN; then any Firewall on the SQL Server machine will also need to be configured to allow the incoming SQL connections.

If the Customer wishes to connect to remote SR2 or CR2 USB units where no intranet is in place, then the Customer must ensure that all Firewalls are configured to allow connections between the remote networks over the requisite TCP/IP ports.

Customers can use the information in Table 1 on page 9 to assist with this process.

Use of CR3GPRS and/or iSense sensors requires an outgoing connection from the EMS Server on **Port 8081 TCP**.

9 New Database Configuration

Follow this Section if this is a new installation of EMS and you **are not** Importing RadioLog data into the EMS database.

- If you wish to import RadioLog data, see **Section 10.1 RadioLog Data Import** on page 94.

After the EMS installation is completed and the Server has been rebooted, use the **EMS Configuration Utility (EMSConfig)** to create and initialise the EMS Database.

Note: To run **EMSConfig**, the User must be an **Administrator** on the Local machine.

Also, if configuring an EMS **W900B** install; either the User's Windows login must map to a **sys admin** role on the SQL Server or the User must able to login to an SQL account with the **sys admin** role on the target SQL Server.

9.1 Pre-Configuration Operations

1. To access the **EMSConfiguration Utility**, navigate to:

   Windows Start menu > All Programs > Hanwell Instruments Ltd > EMSConfig

   ➢ If the host machine has **User Account Control** enabled, the **User Account Control** window will be displayed. See Figure 109 below:

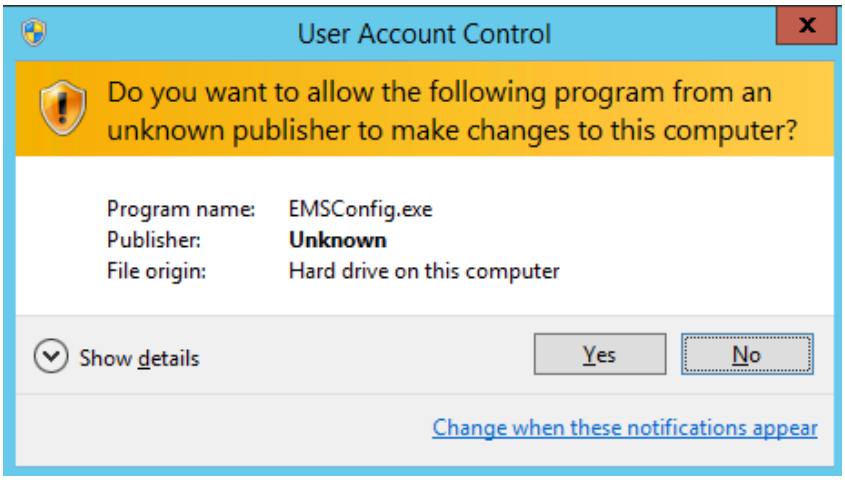


Figure 109

2. Click on **Yes**.

   ➢ The **EMS Services** window is displayed, stating that services will be stopped while **EMSConfig** is running. See Figure 110:

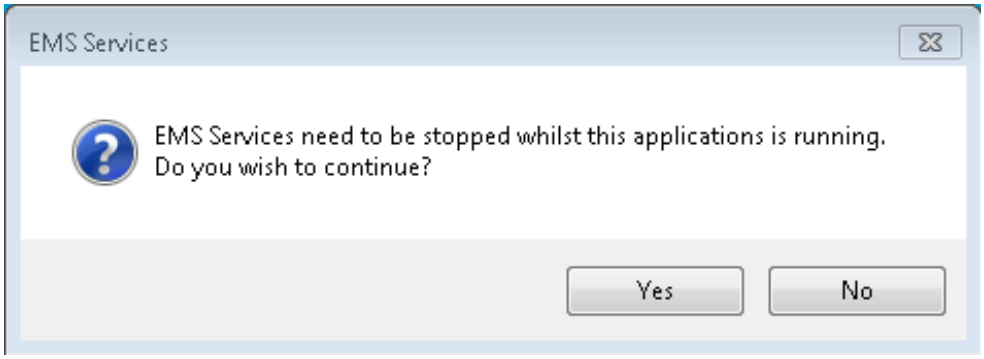


Figure 110

- If the host machine does not have **User Account Control** enabled, the **User Account Control** window will not be displayed and the procedure will go straight to the **EMS Services** window which states that EMS Services will be stopped whilst **EMSConfig** is running. See Figure 110 above.

3. Click **Yes**.

   - Another message will be shown stating that it can take up to a minute for the active services to be stopped.

4. Click **OK**.

   - The **EMSConfiguration Ver: x.x.x.x** window is displayed. See Figure 111 below:

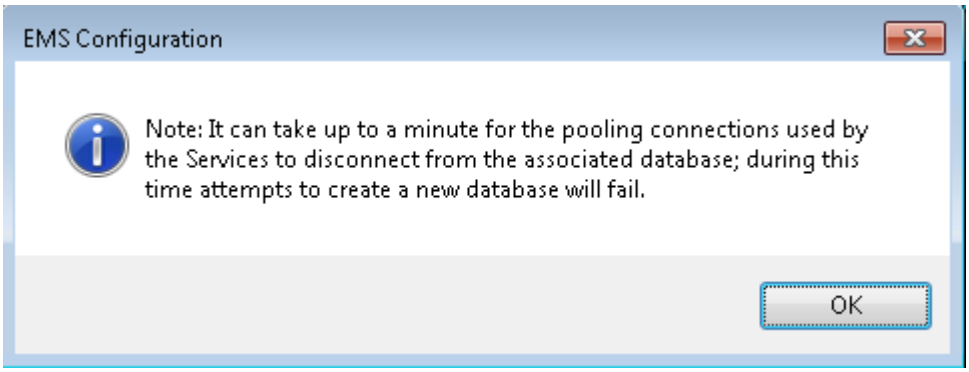


Figure 111

5. Click **OK**.

   - The **EMS Data Service** window is displayed telling you NOT to attempt to start any of the EMS services whilst **EMSConfig** is running. See Figure 112 below:

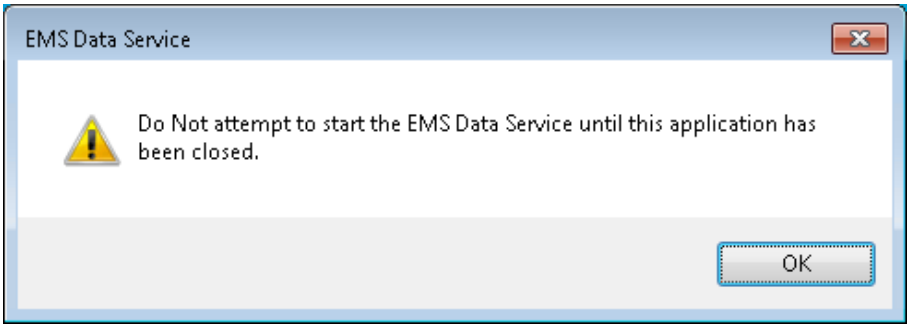


Figure 112

6. Click **OK**.

➢ A series of windows will be displayed as the **EMSConfiguration Utility** searches for SQL Servers; this may take some time. An example is shown in Figure 113 below:

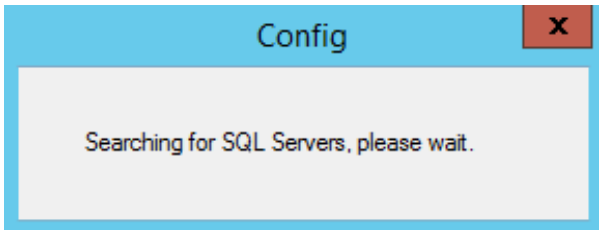


Figure 113

Note: You may find that EMS services will be stopped during the period that the **EMSConfiguration Utility** is open.
Do not try to restart any services during this period; all services will restart themselves once the **EMSConfiguration Utility** is closed.

WARNING
DATABASE COLLATION

EMS Database Collation is set to **Latin1_General_CI_AS**

DO NOT change this setting.

Database Collation provides sort, case, and accent rules for text operations on database tables.

Database Collation **DOES NOT** affect the ability of Users to enter local text characters in text fields. Users can use characters from their own local language with **Latin1_General_CI_AS** Collation set since they do not have direct access to SQL table columns and, therefore, Database Collation does not affect their ability to use EMS with local character sets.

However, Database Collation **DOES** affect the results of queries run on the Database by the EMS software and changing the Database Collation **WILL** prevent correct operation of the EMS system.

9.2 New Database Configuration - EMS W900A

EMS W900A must use an SQL Server on the Local machine which should appear at the top of the **SQL Server:** drop-down list. See Figure 114 below:

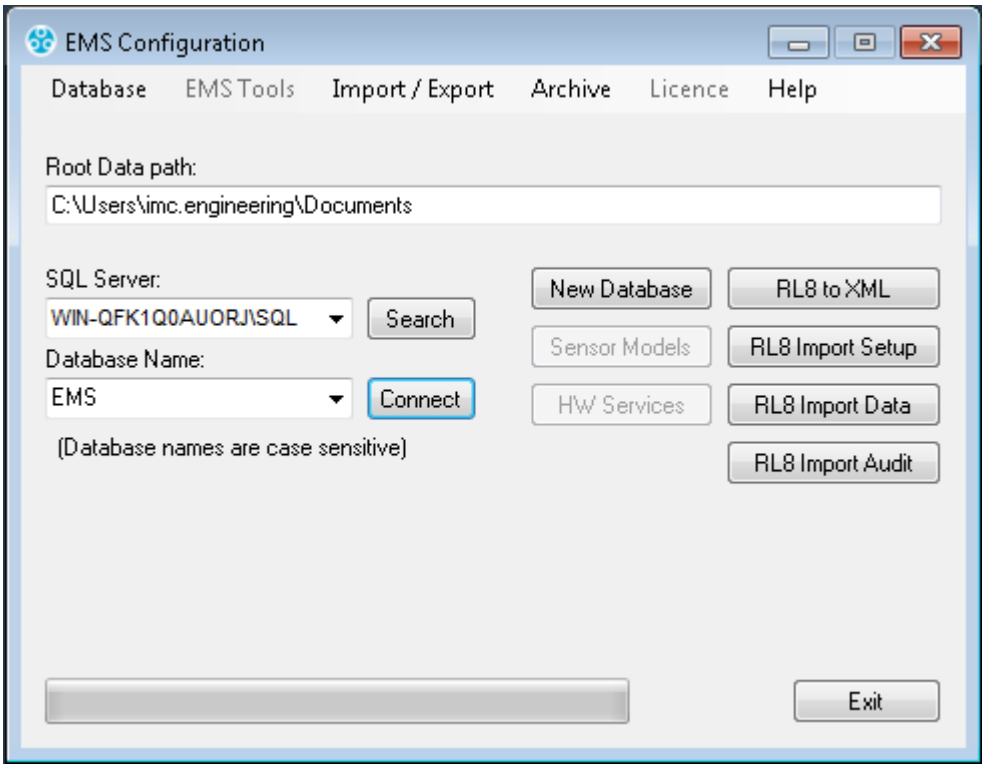


Figure 114

Note: The **Search** button adjacent to the **SQL Server:** drop down list can be used to search for SQL instances on the network, with a suitable database then being selected from the **Database Name:** drop-down list.

However, the default selections displayed in the **SQL Server:** and **Database Name:** drop-down lists should be correct for such an install and the Customer should only have to click on **Connect**.

9.3 New Database Configuration - EMS W900B

EMS W900B can use an SQL Server on either the Local machine or another machine on the LAN.

Note: EMS **ONLY** supports versions of Microsoft SQL from 2012 onwards

The SQL Search function will only work if SMO components have been installed as part of an SQL Server or **SQL Server Manager Studio** installation on the Local machine.

If SQL Servers are shown in the **SQL Server:** drop-down list, continue at **Section 9.3.2EMS W900B** - SQL Servers Shown, on page 85.

- A typical SQL Server is shown in Figure 114 above.

9.3.1 EMS W900B - No SQL Servers Shown

If no Servers are shown in the SQL Server: drop-down list. See Figure 114 above.

1. Select the **Manual Connection** menu item from the **Database** menu. See Figure 115 below:

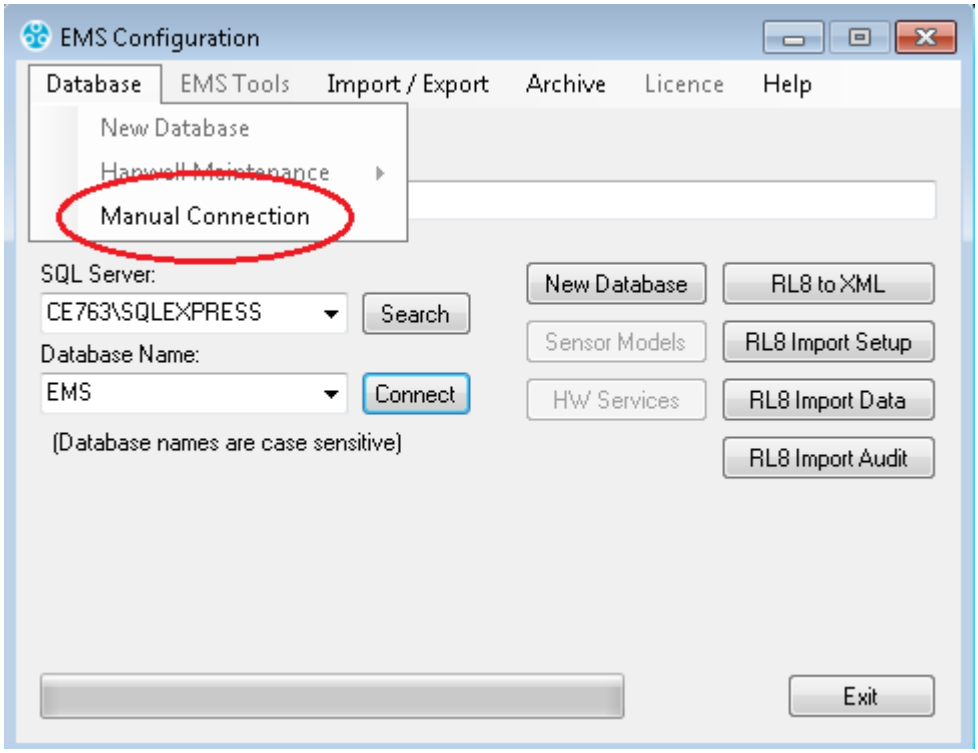


Figure 115

➢ This will display the **Manual Connection** and **SQL Administrator Account** dialog boxes. See Figure 116 and Figure 117 below:

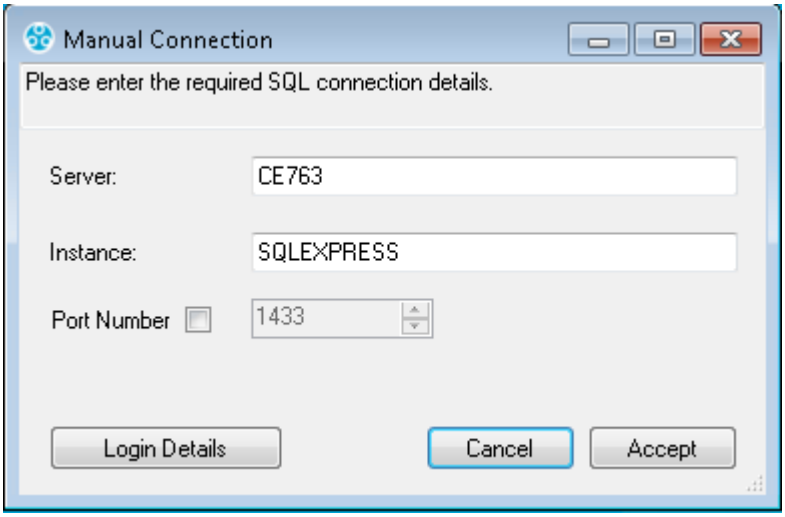


Figure 116

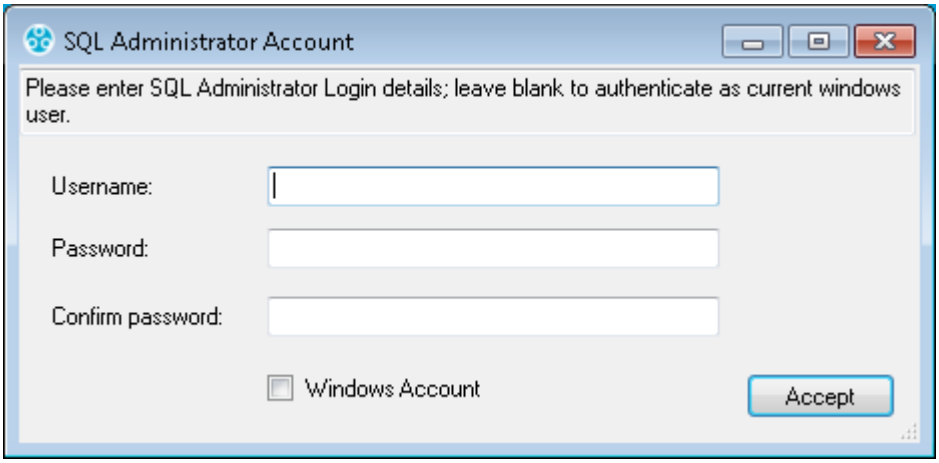


Figure 117

2. In the **Manual Connection** dialog, enter the required SQL Server machine name and, if required:

   Either:

   Enter an SQL Server Instance name into the **Instance:** field.

   Or:

   Tick the **Port Number** box and enter a Port Number, either directly or by advancing the displayed number up or down using the box's arrows.

3. In the **SQL Administrator Account** dialog box, tick the **Windows Account** box to use a Windows Integrated Login.

   - Generally, this is all that is required however, if necessary, an SQL **Username** and **Password** can be entered into the appropriate text fields.

4. Click **Accept** in the **SQL Administrator Account** dialog box to return to the **Manual Connection** dialog box.

5. Click **Accept** on the **Manual Connection** dialog box to continue.

   - The **Config Utility** application will now test the SQL connection details.
   - If the test is successful, Figure 118 below will be displayed:

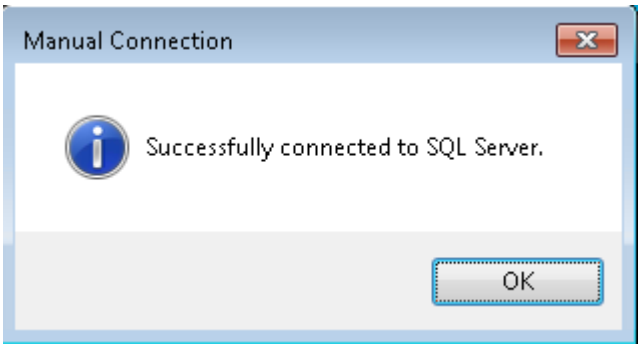


Figure 118

6. Click **OK**.

➢ If the test is successful, continue at **Section 9.4 Creating a New Database** on page 87.

➢ If the test is unsuccessful, Figure 119 below will be displayed:

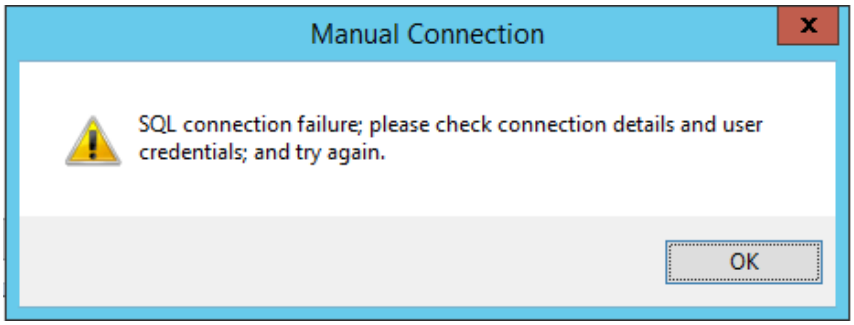


Figure 119

In this instance:

* Check your connection and login details and retry.

If you are sure that your connection and login details are correct, but the process still fails:

* Check all associated Firewall settings.
* Check that the SQL Server is configured to accept remote connections.
* Check that a connection can be routed from the EMS Server to the SQL Server.

If you are unsure how to do this, ask your System Administrator or IT support provider for assistance. Please do **NOT** ask **Hanwell** for assistance until you have established that an SQL connection can be made from the EMS Server to the SQL Server.

9.3.2 EMS W900B - SQL Servers Shown

If the required SQL Servers are shown, select the required SQL Server instance from the drop-down list.

Note: EMS **ONLY** supports versions of Microsoft SQL from 2012 onwards

See Figure 120:

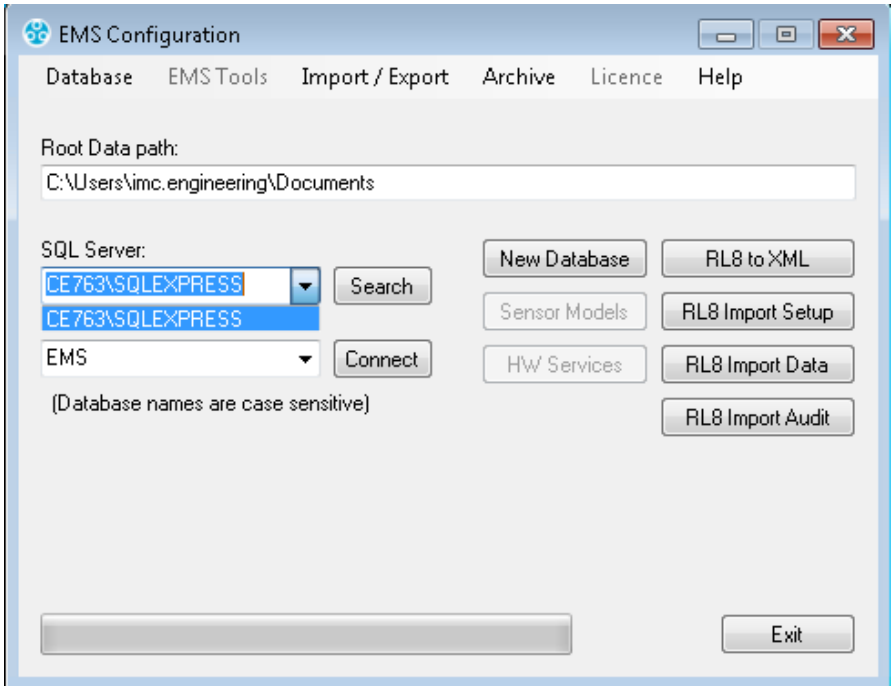


Figure 120

- If the required SQL Server is not shown:
  - The **Search** button adjacent to the **SQL Server:** drop down list can be used to search for SQL instances on the network, with a suitable database then being selected from the **Database Name:** drop-down list.
  - Check Firewall settings on the local and SQL Server machines and make sure that the **SQL Server Browser** service is running on the SQL Server.

9.3.3 W900B Remote SQL Server

If connecting to an SQL Server on another machine on the LAN, the **SQL Administrator Account** login dialog box may appear. See Figure 121 below:

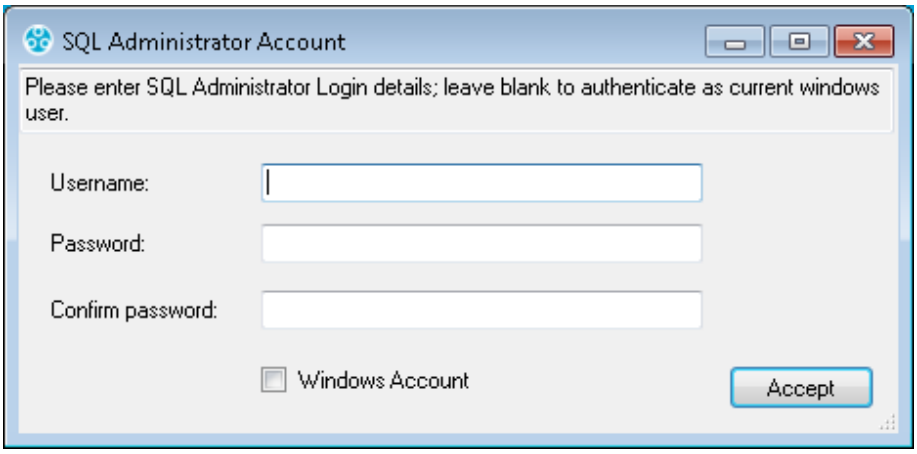


Figure 121

- If the Users Windows login maps to a Sys Admin role on the SQL Server:
  i. Leave the **Username:** and **Password:** boxes blank.
  ii. Select the **Windows Login** checkbox.
  iii. Click **Accept** to continue.
- If the Users Windows login **DOES NOT** map to a Sys Admin role on the SQL Server:
  i. Enter the **Username** and **Password** for the required SQL Sys Admin account.
  ii. Make sure the **Windows Login** checkbox is de-selected.
  iii. Click **Accept** to continue.

9.4 Creating a New Database

1. Click **New Database** on the main dialog box. Figure 120 above.
   ➢ The **Company Details** window is displayed. See Figure 122 below:

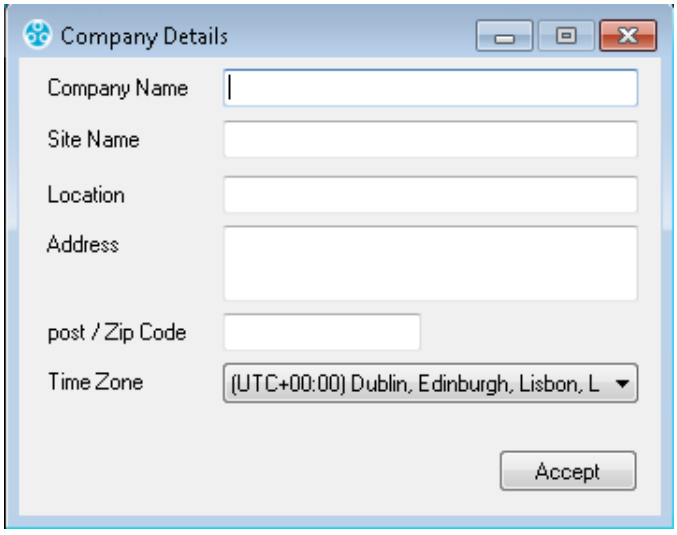


Figure 122

2. Complete the **Company Details** form.
   ➢ Set the Time Zone to the time zone of the Site.
   ➢ The default value displayed will be the time zone used by the host PC.
   ➢ It is important that this is set correctly, as dates in the database are stored using GMT.

   Note: Users entering address data should adhere to local Data Protection requirements and regulations.

3. Click **Accept**.
   ➢ The **Hanwell Listen Port** window is displayed. See Figure 123:

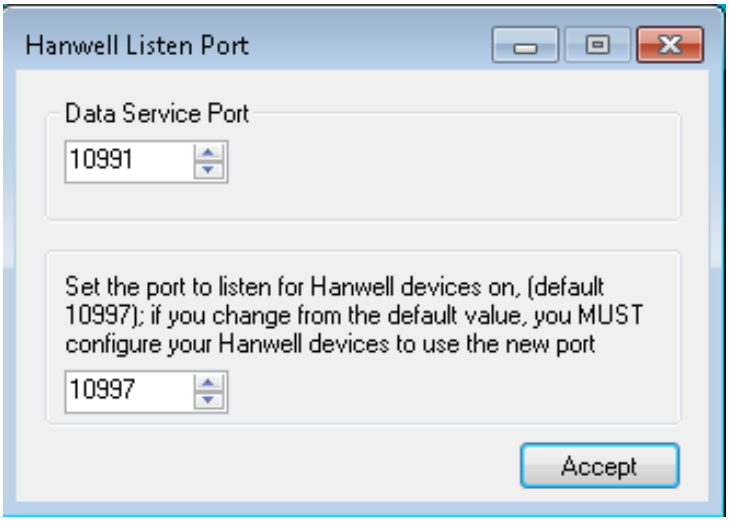


Figure 123

4. The **Port Number** of the port used to listen for **Hanwell** devices - Selsium Receivers, **Hanwell** ARB Modules and **Hanwell** SMS Modules needs to be entered; the Default Port Number is **10997**.

   If the default Port Number is unavailable, enter the required Port Number, remembering that you **must** configure all **Hanwell** base type devices to use the Port Number set here.

5. Click **Accept**.

   If the EMS database has been created successfully, the **New Database** window will be displayed. See Figure 124 below:

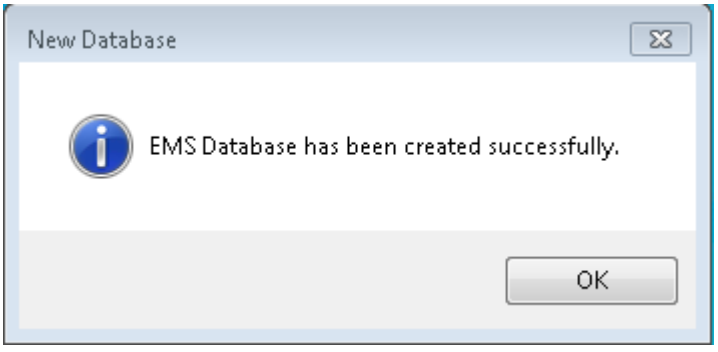


Figure 124

6. Click **OK**.

7. In the **EMS Configuration Ver x.x.x.x** window (see Figure 120 above), click on the **Sensor Models** button.

   ➢ This will import the entire range of **Hanwell** sensor types into the database.

   Once this process is complete, the message shown below in Figure 125 will be displayed stating that the **Sensor Model** tables have been created successfully.

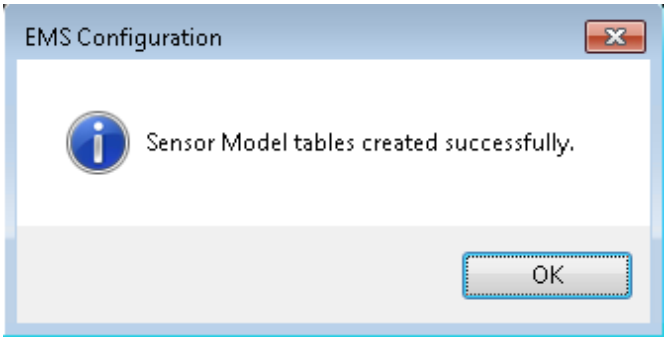


Figure 125

8. Click **OK**.

9. In the **EMS Configuration Ver x.x.x.x** window (see Figure 120 above), click on the **HW Services button**.

   ➢ The **Hardware Service** window is displayed showing default Hardware Services. See Figure 126 below:

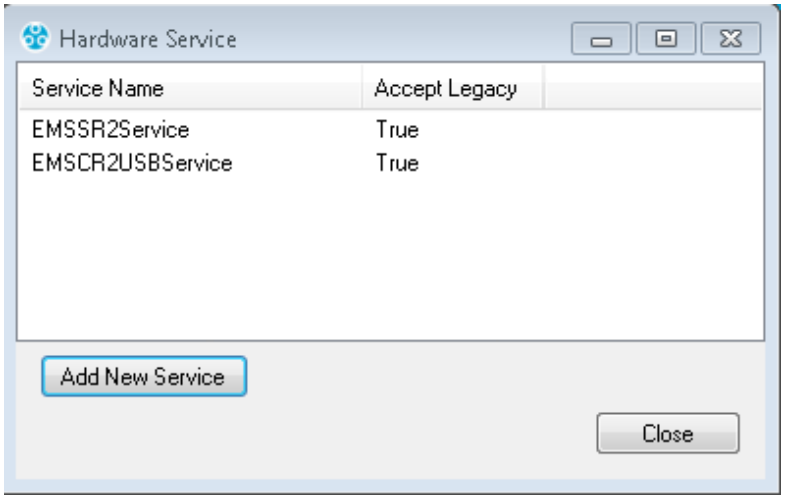


Figure 126

   ➢ To add further Hardware Services:

      a) Click on the **Add New Service** button.

         * The **Add Hardware Service** window is displayed. See Figure 127 below:

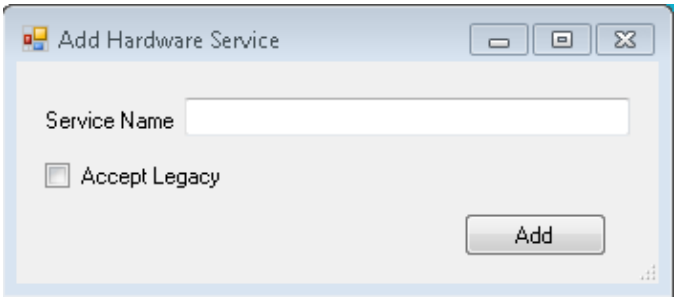


Figure 127

b) Enter the name of the required Hardware Service into the **Service Name** field.

* Tick the **Accept Legacy** box if you are adding a Legacy Hardware Service.

c) Click on the **Add** button.

* The following window is displayed if the new Hardware Service was added successfully. See Figure 128:

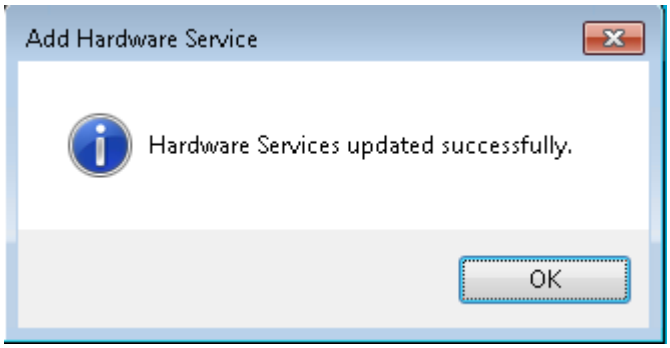


Figure 128

d) Click on **OK**.

* The new Hardware Service is displayed in the **Hardware Services** window (see Figure 126 above).

10. If/when all required Hardware Services are shown in the **Hardware Services** window (see Figure 126 above), click on **Close**.

➢ This will import the Hardware Services to the database, allowing for certain types of hardware to be functional within EMS.

11. Select **Reports Folder** from the **EMS Tools** menu entry in the **EMS Configuration Ver x.x.x.x** window. See Figure 129:

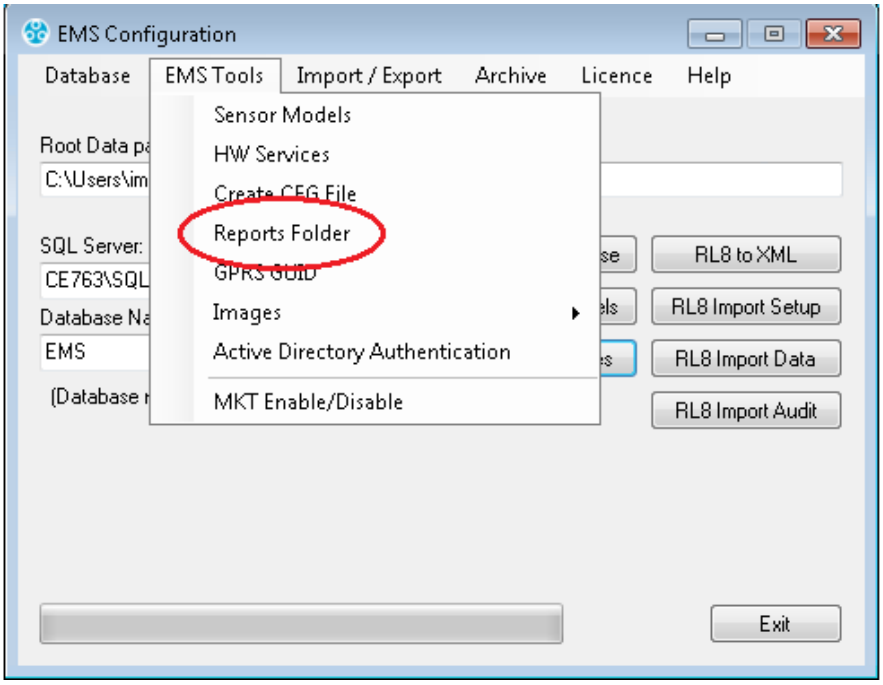


Figure 129

- The **Reports Folder** window is displayed stating that the permissions will need to be changed (automatically) to enable the services to write to this location. See Figure 130 below.
  - The **Reports Folder** is where EMS stores copies of the Scheduled Reports which EMS Users can set up and run.

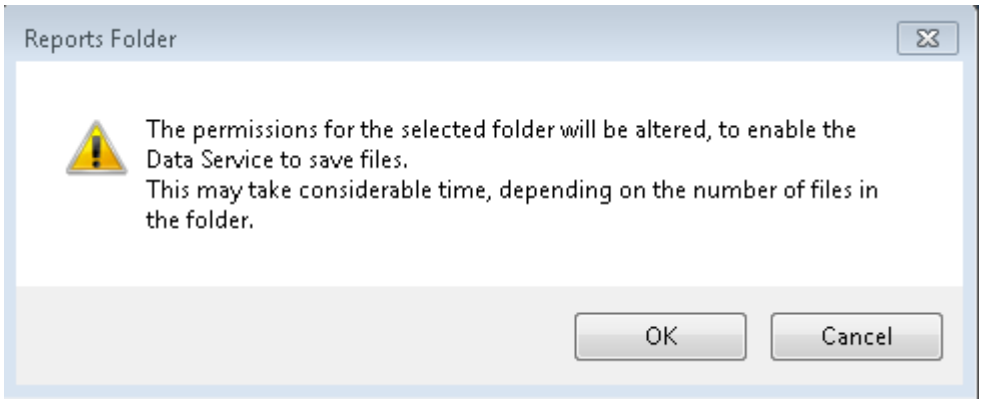


Figure 130

12. Click **OK**.
13. The next step in the procedure is to decide on a location that generated reports will be saved on the host network.

    Either:

    Select an existing location from the list displayed in the displayed **Browse For Folder** window. See Figure 131:

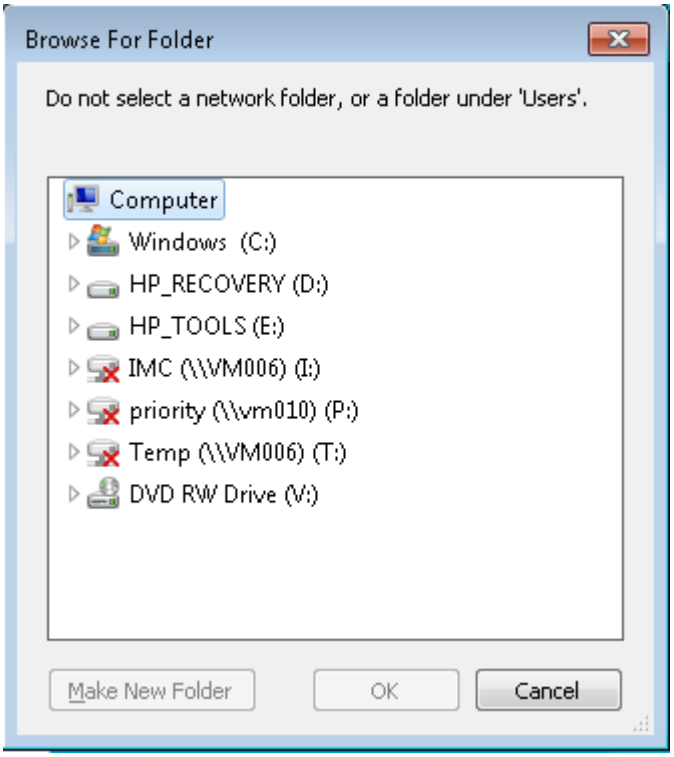


Figure 131

Or:

i. Select a location from the list displayed in the **Browse For Folder** window.

ii. Click on the **Make New Folder** button to create a new folder.

iii. Enter a name for the new folder in the highlighted box.

14. Once the location has been decided and selected, click **OK**.

9.5 Counter Signatures (W901 Only)

With **W906 Validated EMS** installed, and a **W901** Licence applied to it, you will have **Counter Signatures** applied to your system.

You have the ability to turn **ON** or **OFF** the **Counter Signatures** using the **EMSConfig** utility.

By default, the **Counter Signatures** are turned **OFF**, but if you would like to turn them **ON**, follow the instructions below:

- While in **EMSConfig**, select **W901 Counter Signatures** from the **EMS Tools** menu.
- Once selected, you will be asked to confirm that you would like to turn them **ON**.
- To turn **Counter Signatures** back **OFF**, you can follow the same steps.

9.6 Create .CFG File

Once an upgrade installation from Synergy or NotionPro has completed, a CFG file **MUST** be created as follows:

1. Navigate to: Windows Start menu > All Programs > Hanwell Instruments Ltd > EMSConfig to access the EMSConfiguration Utility (EMSConfig).

   ➢ See **Section 9.1 Pre-Configuration Operations** for full details on accessing **EMSConfig**.

2. From the displayed **EMS Configuration Ver. X.x.x.x** window, select **EMS Tools** from the main menu entry.

3. Select **Create CFG File** from the displayed drop-down list. See Figure 132 below:

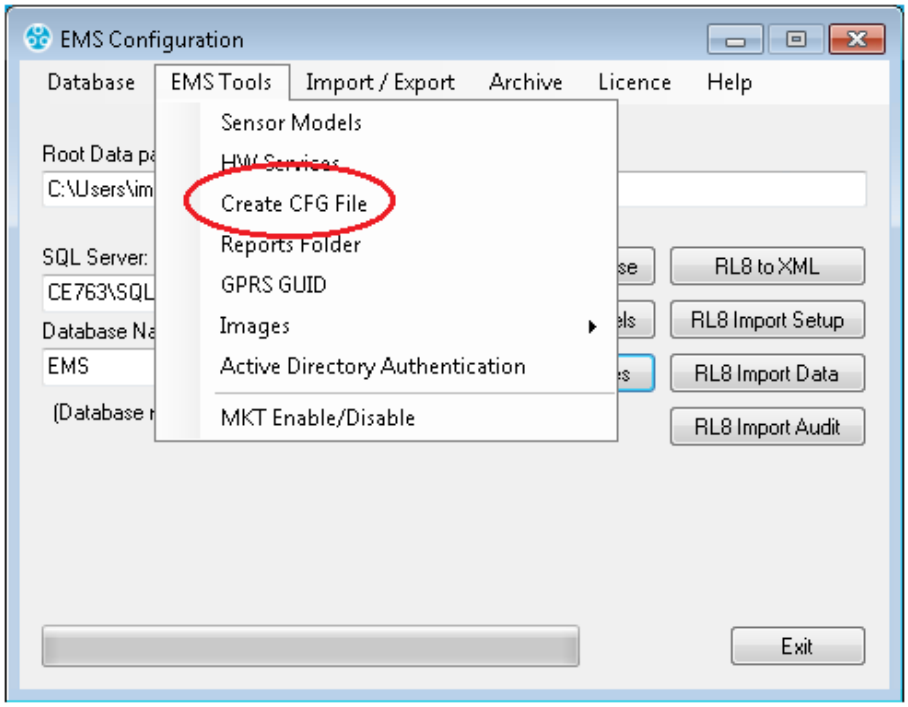


Figure 132

10 RadioLog

10.1 RadioLog Data Import

10.1.1 Pre-Conversion and Import

This section describes a step by step guide for customers currently running **RadioLog** and who wish to Import the data in to the **EMS** database.

10.1.1.2 Initial Information

- When importing **RadioLog** data to an existing **EMS** installation or importing two or more **RadioLog** Systems to a single **EMS** System, back up the **EMS** database prior to each import.
- Import each **RadioLog** System to its own Site or Sub-Site.
- Use the same Site for every Control Device associated with each RadioLog import.
- Imported RadioLog **Grids** become **Zones** in EMS.

There are 5 stages to importing RadioLog data, which must be completed in order:

- **Obtaining the required set of RadioLog data files**
- **Data Conversion**
- **Setup Import**
- **Data Import**
- **Audit Import**

Where Data Import is not required, Setup can be imported and used as the Base Starting Point for an EMS System.

It is possible to import the RadioLog setup, check the System is up and running and then go back and import the RadioLog data at a later date.

Note: Importing a large RadioLog installation with a lot of data takes considerable time; be prepared for the import to run for several hours.

At the start of the Data Import, if the System has sensor names containing invalid file name characters, you will be asked to confirm import file names.

During RadioLog import, only the Admin User will be given access to the imported Data and Setup.

10.1.1.3 Log File Warnings

Importing an established RadioLog installation will produce Log File warnings. This is due to various RadioLog settings and data files becoming 'orphaned' as changes are made and Sensors changed over the life of the RadioLog System.

Note: The Log file should be checked after an Import to make sure that all warnings can be referenced to deviations from the current state of the imported System.

10.1.1.4 SMS Group Import

Because SMS Active Days and Times are set for each SMS Alert Group in EMS, imported RadioLog SMS Groups will have SMS Active Days and Times set to match one of the Group's recipient configurations from the RadioLog Address Book.

The Customer will need to check and reconfigure SMS Alert Active Days and Times to your specific requirements, post import.

10.1.1.5 Preparing RadioLog Data

When importing data from an existing RadioLog System you **MUST** ensure that each Net ID has at least one active SR2 Device set in RadioLog, see Figure 133 overleaf.

The **Active** checkbox as indicated in red will need to be checked as active in RadioLog, as per the statement above, before importing the RadioLog data to the EMS database.

If there are no SR2 devices active in RadioLog then, when importing to EMS, the **net.def** file will not match the Sensor IDs and hence no Zones or Sensors will be seen when logging in to EMS.

Note: RadioLog does not differentiate between **Hanwell Radio** type sensors and **iSense** sensors and, as a result, **iSense sensors cannot be imported from RadioLog to EMS**.

You MUST remove any iSense sensors from RadioLog prior to the import process.

In most cases, any existing iSense sensors used with RadioLog will need new SIM cards supplied by **Hanwell** and need to be reconfigured by **Hanwell** prior to use with EMS.

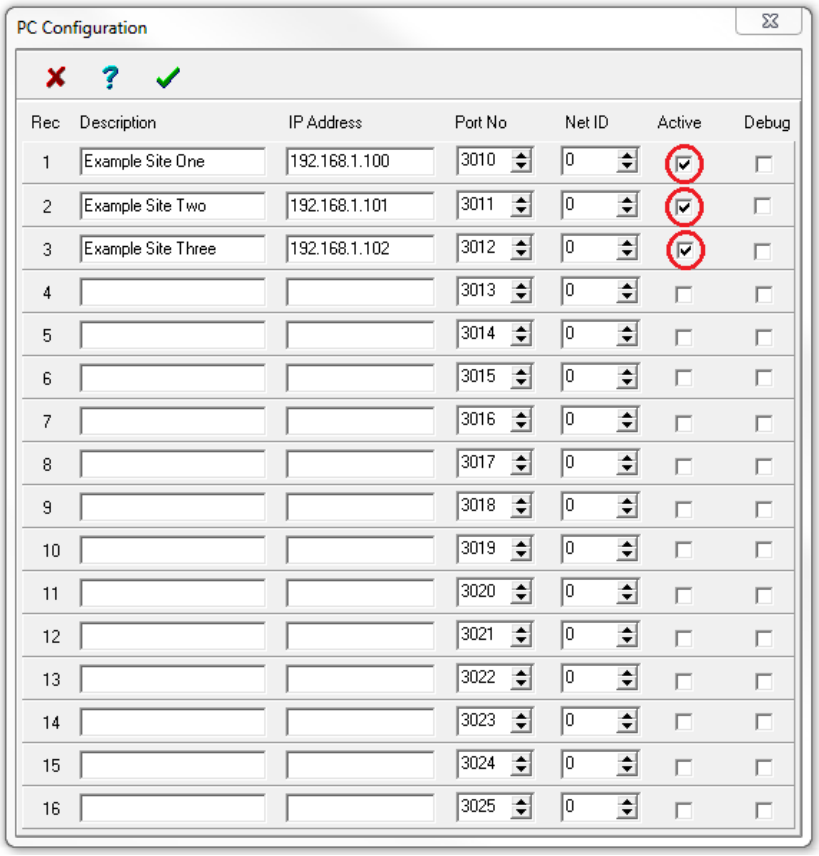


Figure 133

10.1.2 Obtaining the RadioLog Data File Set

RadioLog data must be converted to XML with the ***RL8 to XML*** utility before it can be imported to EMS. To do this, follow the instructions below:

- All files described below are found in the RadioLog Local folder located at: **C:\RadioLog8\Local**

1. Create a folder on the host machine and name this **Data conversion**. To avoid confusion later in the process, this folder can be created on the desktop.
2. Navigate to the RadioLog directory: **C:\RadioLog8** and copy the following files:
   - **Hanind.ini** file within the RadioLog directory
   - **net.def** file within the RadioLog directory
   - **All the data files ending with (*.rl8**) within the RadioLog directory
   - **All the text (*.txt)** files within the RadioLog directory.
   - The most recent **layout (*.ly8)** file from the RadioLog local folder to the Root Data path. Do not copy any other files from this location.
3. Then copy all the **log files (*.log)** from the **Audit** folder (**C:\RadioLog8\local\Audit**) to the **Data Conversion** folder.

Note: No other files except for those mentioned above should be in the **Data Conversion** folder.

10.1.3 RadioLog Data Conversion Instructions

10.1.3.6 EMS Config

To run **EMS Config**, open the **EMS Configuration** tools.

Notes: The User must be an **Administrator** on the Local machine.

Also, if configuring an **EMS W900B** install:

Either:

The User's Windows login must map to a **Sys Admin** role on the SQL Server.

Or:

The user must able to login to an **SQL account** with the **Sys Admin** role on the target SQL Server.

10.1.3.7 EMS W900A

An **EMS W900A** installation must use an SQL Server on the Local machine and this should appear at the top of the list. See Figure 134 below:

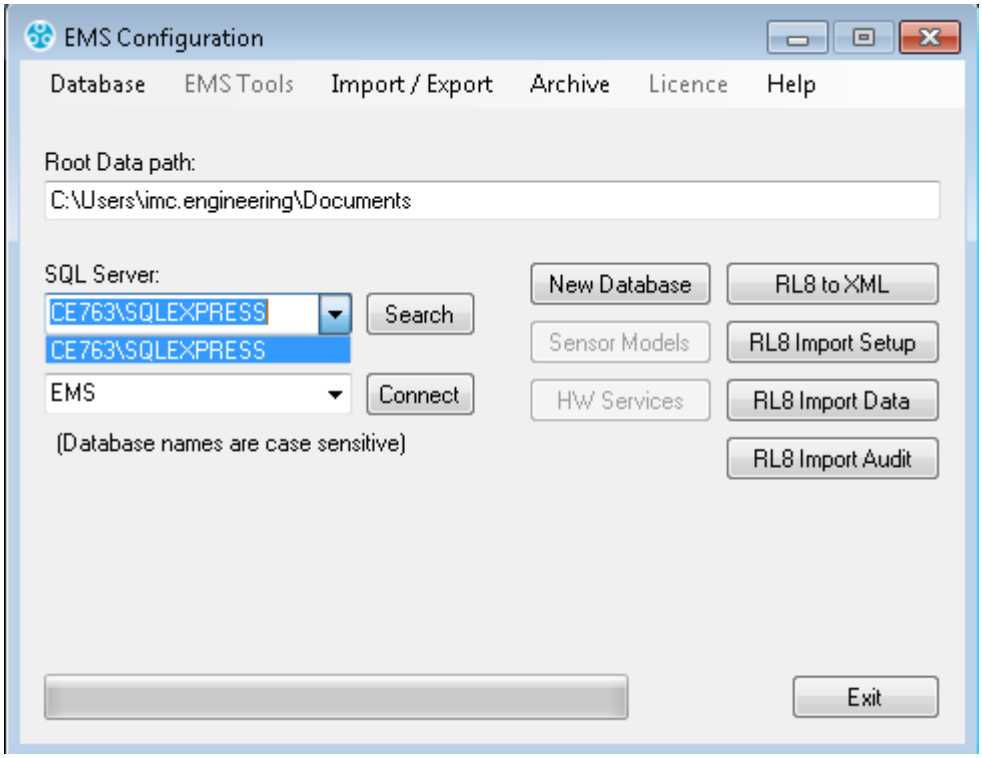


Figure 134

10.1.3.8 EMS W900B

An **EMS W900B** installation can use an SQL Server on either the Local machine or another machine on the LAN.

Note: EMS **ONLY** supports versions of Microsoft SQL from 2012 onwards.

- The **SQL Search** function will only work if **SMO Components** have been installed as part of an **SQL Server** or **SQL Server Manager Studio** installation on the Local machine.

If SQL Servers are shown, continue at **Section 10.1.3.10 SQL Servers Shown**, on page 100 below.

10.1.3.9 EMS W900B No SQL Servers Shown

If no SQL Servers are shown in the **SQL Server:** drop down list:

1. Select **Manual Connection** from the Database menu. See Figure 135 below:

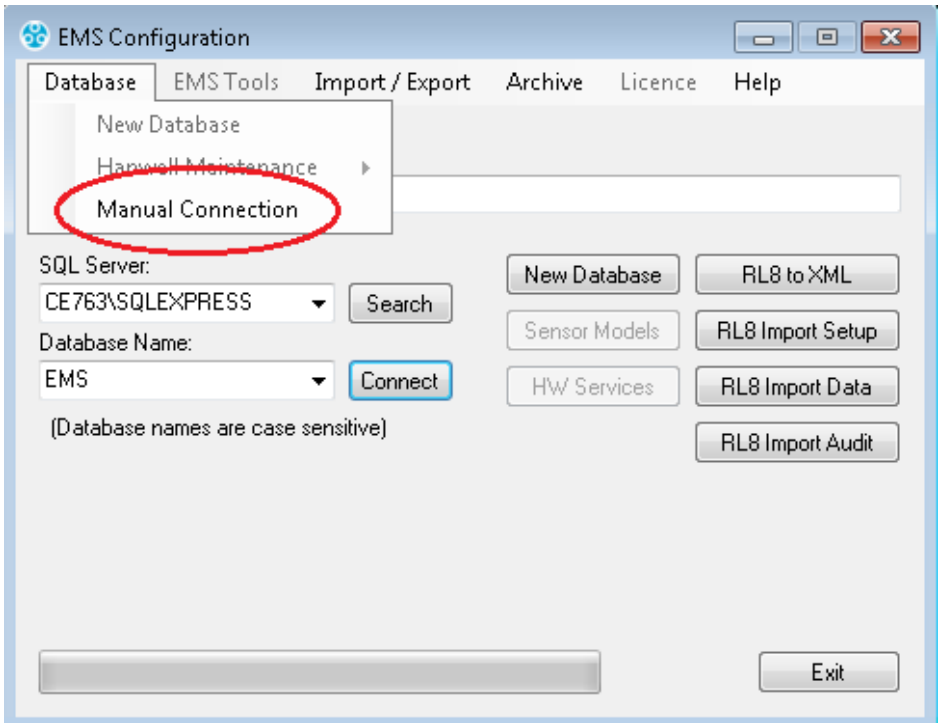


Figure 135

➢ This will display the **Manual Connection** dialog box. See Figure 136:

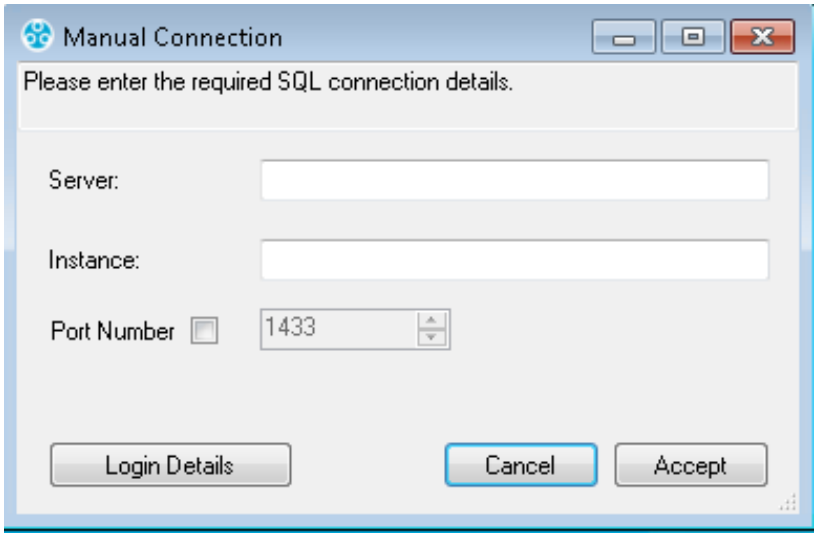


Figure 136

2. In the **Manual Connection** dialog box, see Figure 136 above, enter the required SQL **Server** machine name and SQL Server **Instance** name into the appropriate text fields.

   Note: EMS **ONLY** supports versions of Microsoft SQL from 2012 onwards.

3. Click the **Login Details** button to display the **SQL Administrator Account** dialog box. See Figure 137 below:

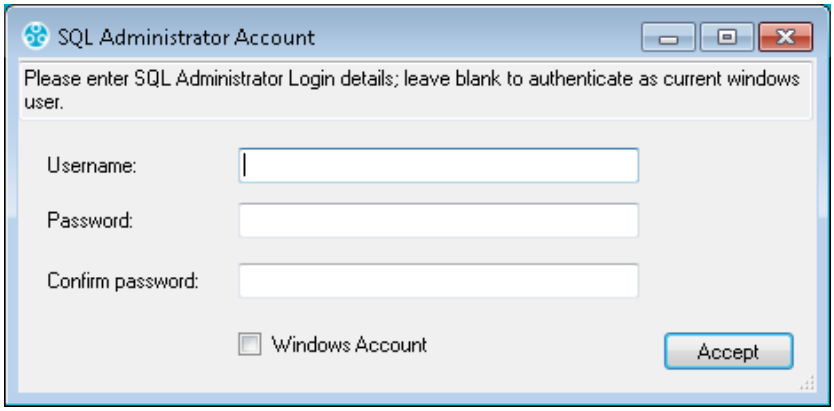


Figure 137

   - Generally, the **Windows Account** box should be ticked to use a Windows Integrated Login. However, if necessary, an SQL **Username** and **Password** can be entered in the appropriate text fields.

4. Click **Accept** to return to the **Manual Connection** dialog box.

5. Click **Accept** on the **Manual Connection** dialog box to continue.

   - The **Config Utility** application will now test the SQL connection details.

If the test is successful, the **Manual Connection** window shown in Figure 138 below will be shown and you should continue at **Section 10.1.3.12 Convert RadioLog Data**, on page 102.

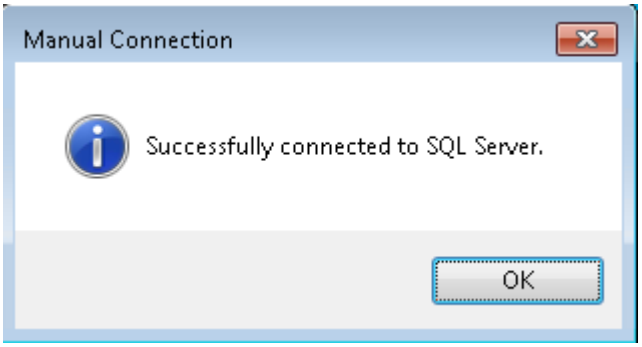


Figure 138

If the test is unsuccessful, the **Manual Connection** window shown in Figure 139 below will be displayed and you should check your connection and login details and retry.

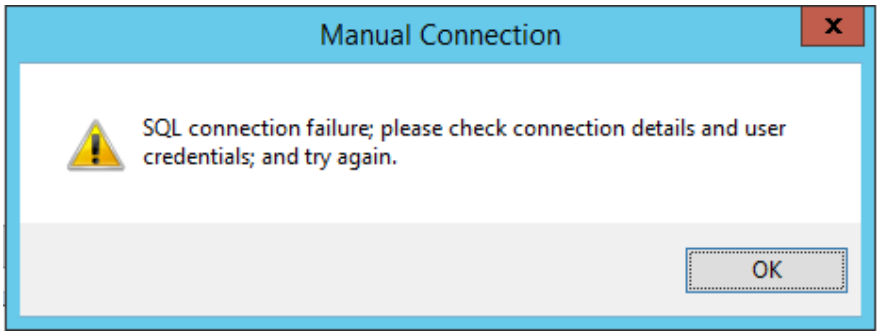


Figure 139

- If you are sure that your connection and login details are correct and yet, the process still fails:
  - Check all associated Firewall settings.
  - Check that the SQL Server is configured to accept remote connections.
  - Check that a connection can be routed from the EMS Server to the SQL Server.

If you are unsure how to do this, ask your System Administrator or IT support provider for assistance. Please do **NOT** ask **Hanwell** for assistance until you have established that an SQL connection can be made from the EMS Server to the SQL Server.

10.1.3.10 SQL Servers Shown

If SQL Servers are shown in the **SQL Server:** drop down list:

- Select the required SQL Server instance from the drop-down list. See Figure 140 below.

  Note: EMS **ONLY** supports versions of Microsoft SQL from 2012 onwards.

  If the required SQL Server is not shown:

  - The **Search** button adjacent to the **SQL Server:** drop down list can be used to search for SQL instances on the network, with a suitable database then being selected from the **Database Name:** drop-down list.

➢ Check Firewall settings on the local and SQL Server machines and make sure that the **SQL Server Browser** service is running on the SQL Server.

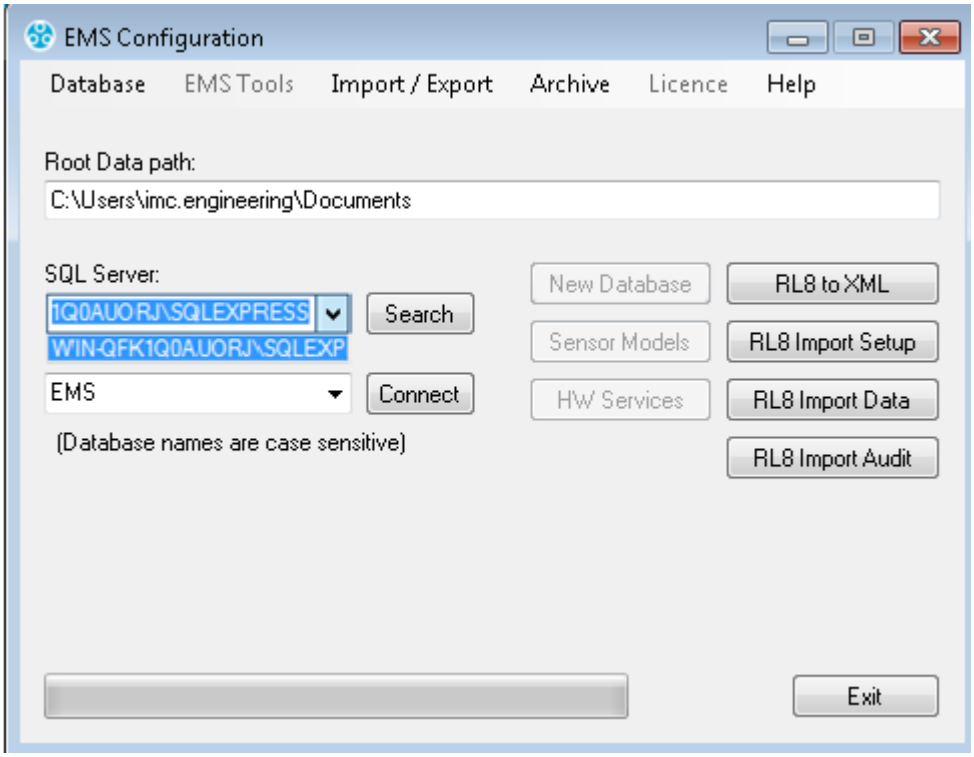


Figure 140

10.1.3.11 W900B Remote SQL Server

If connecting to an SQL Server on another machine on the LAN, the **SQL Administrator** login dialog box may be shown. See Figure 141 below:

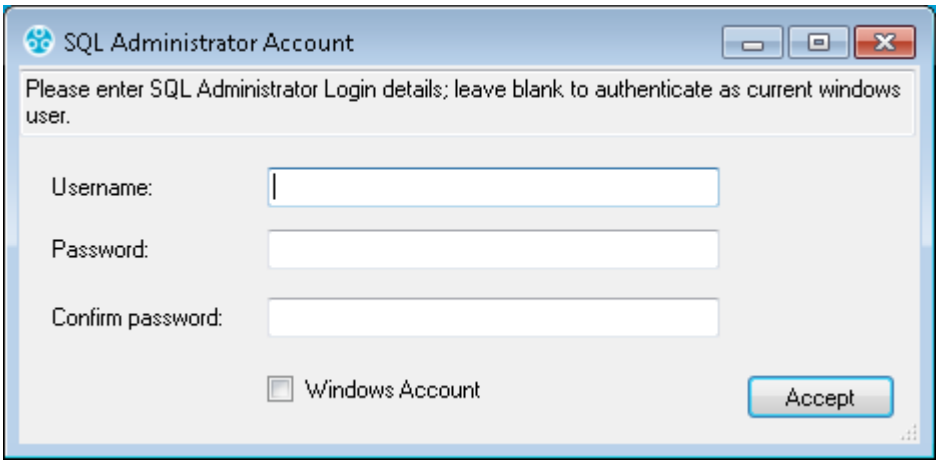


Figure 141

- If the User's Windows login maps to a **Sys Admin** role on the SQL Server, leave the text boxes blank, select the **Windows Login** checkbox and click **Accept** to continue.

- If the User's Windows login **does NOT** map to a **Sys Admin** role on the SQL Server, enter the **Username** and **Password** for the required SQL Sys Admin account, make sure the **Windows Login** checkbox is deselected and click **Accept** to continue.

10.1.3.12 Convert RadioLog Data

1. Edit the **Root Data path:** field and point this to the newly created folder **Data Conversion** see Figure 142 below.

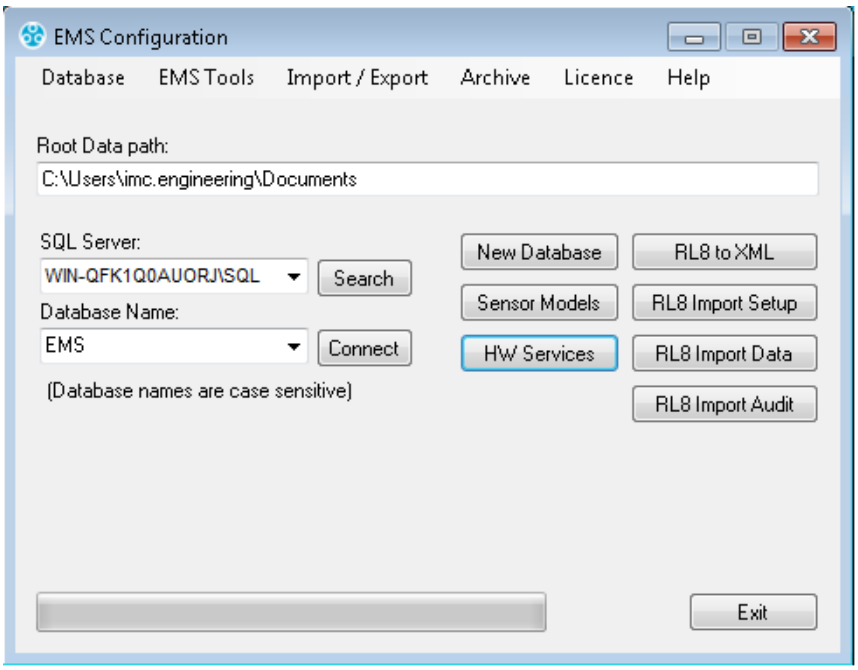


Figure 142

2. Click the **RL8 to XML** button. The RadioLog8 to EMS Vx.xx window is displayed. See Figure 143 below:

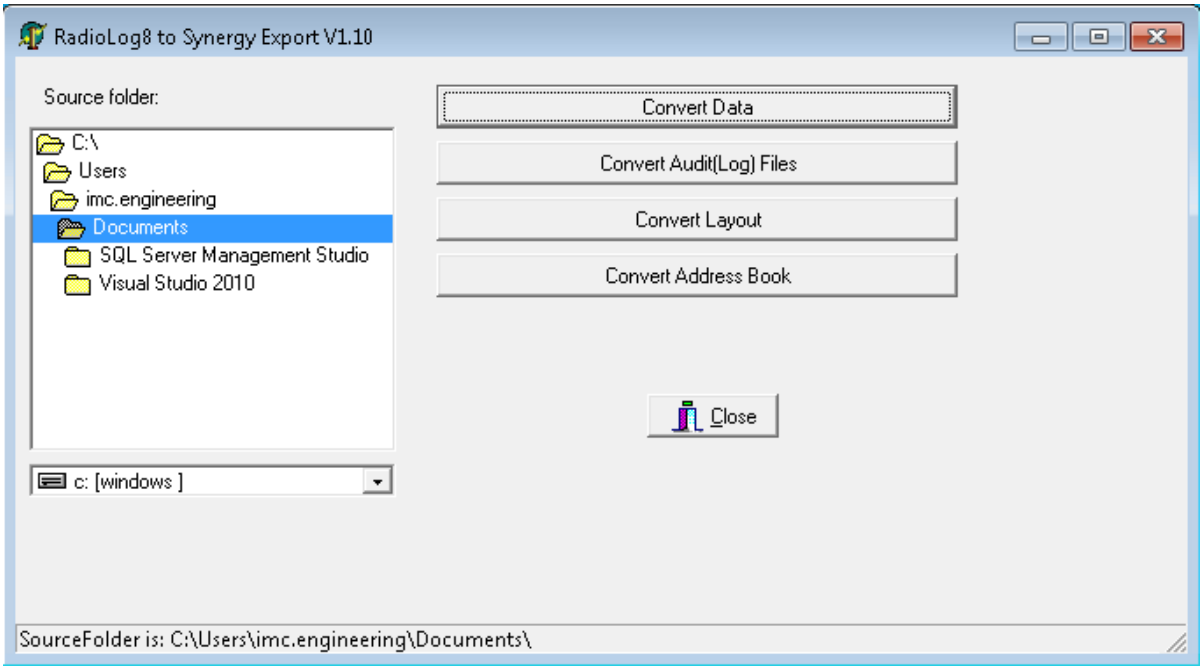


Figure 143

3. Select **Convert Data**, the tool will now begin to convert the files from RadioLog to EMS format.
4. Once data conversion is complete select **Convert Audit (Log) Files**.
5. Once Audit log file conversion is complete, select **Convert Layout**.
6. Once Layout conversion is complete, if importing Email and SMS data select **Convert Address Book**.

   Note: If a Plan View was used in RadioLog to give a graphical view of displayed data, you will need to edit Line 13 in the ***Layout.xml*** file to remove any characters between the <Bitmap> and </Bitmap> tags. See example in Figure 144 below:

```
12  <Columns>6</Columns>
13  <Bitmap>xD2SOHXNxD2SOH NULNULNULUSNULNULNUL(gANULNULNULNUL</Bitmap>
14  <MSAlarmChannel>0</MSAlarmChannel>
```

Figure 144

10.1.4 Importing Converted RadioLog Setup and Data

There are three steps to fully importing converted RadioLog data into EMS:

- Setup Import
- Data Import
- Audit Import

The Setup must be imported before Data import and the Data must be imported before Audit data import.

As each step completes you can choose to continue to the next step; you can stop and come back to the import later or you can choose not to complete the following steps and leave the System in its current state. However; each preceding step **MUST** have been completed before moving on to the next.

Thus, if **RadioLog Setup Import** has been completed, you may click the **RL8 Import Data** button and proceed to the **RadioLog Data Import** step and, if **RadioLog Data Import** has been completed, you may click **RL8 Audit Import** and proceed to the **RadioLog Audit Import** step.

10.1.4.13 RadioLog Setup Import

If you are importing RadioLog data as part of an EMS installation, start at **Create a New Database** below, otherwise proceed to **RadioLog Import Process** below.

Create a New Database

1. Click **New Database** in the displayed window. See Figure 142 above.
   - ➢ This creates a new EMS database on the SQL Server.
   - ➢ The **Company Details** window is displayed. See Figure 145 below:

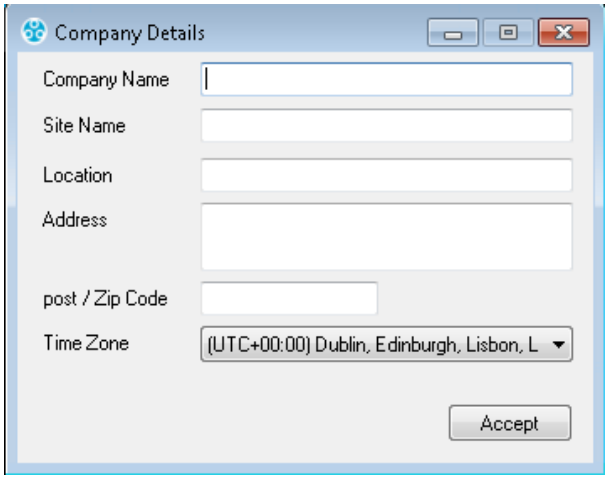


Figure 145

7. Enter the details into the relevant fields in the window. See Figure 145 above.
   - ➢ **Company Name** and **Site Name** are required entries.
   - ➢ **Time Zone** - Select the Site's Time Zone.
     The value displayed by default will be the Time Zone used by the host PC. It is important that this is set correctly, as dates in the Database are stored using GMT.
8. Click **Accept** to accept your entries.
   - ➢ The **Hanwell Listen Port** window is displayed. See Figure 146 below:

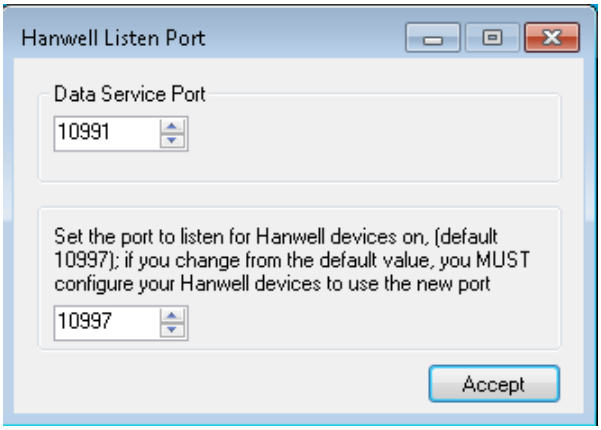


Figure 146

9. Click **Accept** to either accept the default Port Number or enter another.

RadioLog Import Process

1. Click the **RL8 Import Setup** button on the **EMS Configuration Ver: x.x.x.x** window to start the RadioLog Import process. See Figure 147 below:

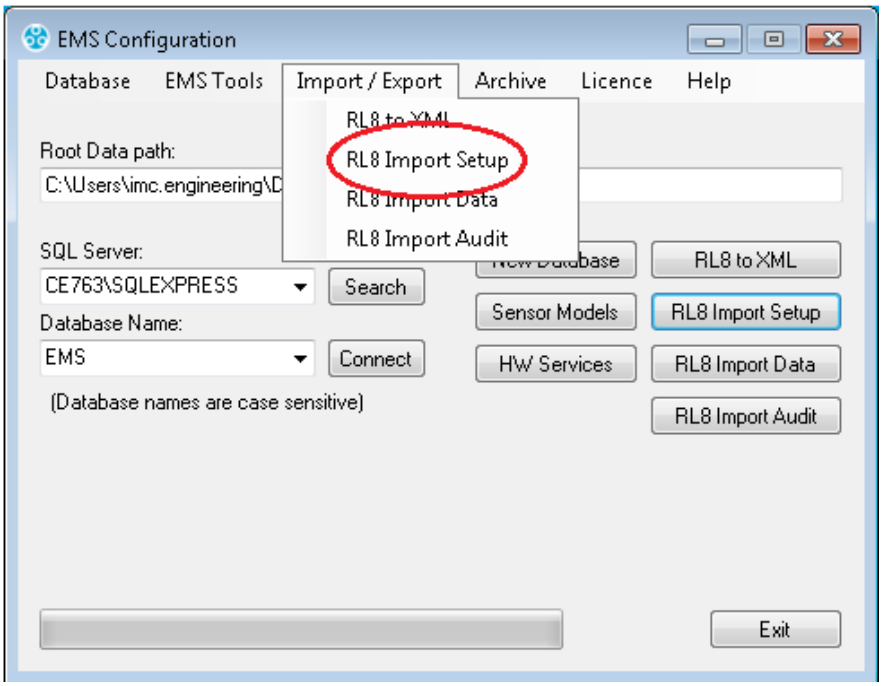


Figure 147

➢ The **Select Control Device** dialog box is displayed. See Figure 148 below:

Figure 148

2. Select the Control Device type used by the original RadioLog installation.
   - If the RadioLog data only has iSense sensors, select **Unknown**.
   - If the previous RadioLog System used an SR2 for collecting data, select **SR2**.
   - If the System used a variant of the CR2 then select the appropriate **CR2** variant.
3. Click **Accept** see Figure 148 above.
   - A message will appear to confirm that the Sensor Model table has been created successfully in the database. See Figure 149 below.

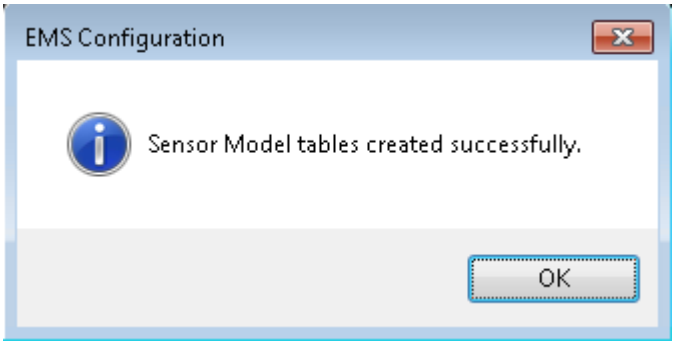


Figure 149

4. Click **OK**
   - The **Hardware Service** window is displayed showing default Hardware Services. See Figure 126 below:

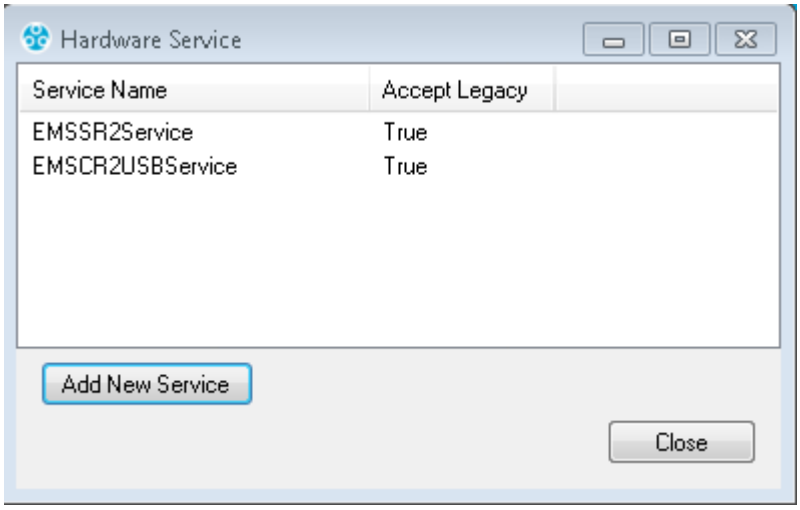


Figure 150

- The **Hardware Service**, installed on this or another PC, manages data collection for the **SR Group**. The software will take a guess at the **Hardware Service**, based on the previously selected Control Device type.
  However, it is the responsibility of the operator to ensure that the selected service is of the correct Control Device type and is the Hardware Service installed on the required target PC.
  - For most reasonably simple installations, the displayed default Hardware Services will suffice. For complex Systems, consult the EMS documentation for more information.

To add further Hardware Services:

i. Click on the **Add New Service** button.
   - The **Add Hardware Service** window is displayed. See Figure 127 below:

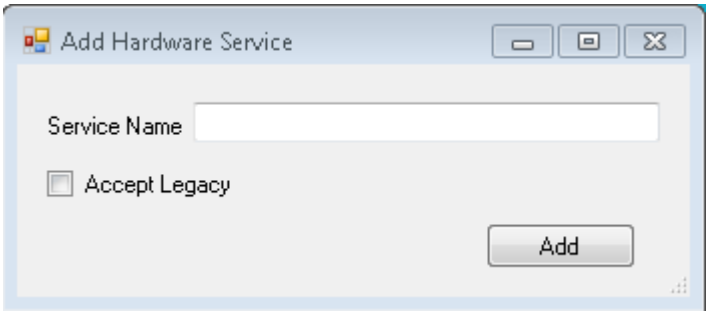


Figure 151

ii. Enter the name of the required Hardware Service into the **Service Name** field.
   - Tick the **Accept Legacy** box if you are adding a Legacy Hardware Service.

iii. Click on the **Add** button.

* The following window is displayed if the new Hardware Service was added successfully. See Figure 128:

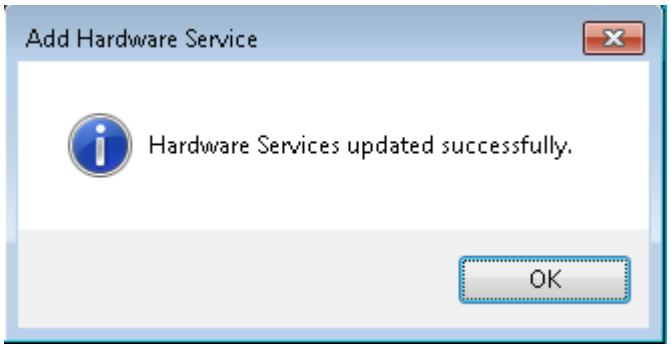


Figure 152

iv. Click on **OK**.

* The new Hardware Service is displayed in the **Hardware Services** window (see Figure 126 above).

5. Click on **Close** in the **Hardware Services** window.

➢ The **New SR Group** dialog box will be displayed for each RadioLog Net ID, see Figure 153:

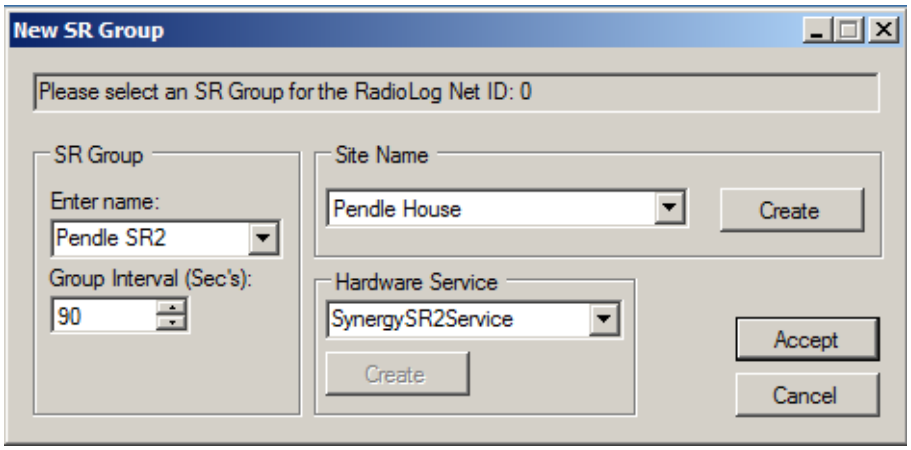


Figure 153

You will now need to create an **SR Group** for the first RadioLog Net ID in the import data and create or assign an **SR Group** to each subsequent RadioLog Net ID encountered during the import.

Note: Import each RadioLog System to its own Site, use the same Site for every Control Device associated with each RadioLog import.
In EMS, there is no difference between a Site and a sub-Site, so you can use a sub-Site for your RadioLog import, if you so wish.

To assign the Net ID to a new SR Group:

1. In the **New SR Group** window (see Figure 153 above), enter a unique name into the **Enter name:** field.
2. Set the **Group Interval** in the **Group Interval (Sec's)** field.
   - ➢ This is the time in seconds that the Hardware Service will leave between polling Control devices - e.g. SR2, CR2 - for sensor data updates.
     As a guide we would recommend this to be **90** Seconds.
3. Select the required Site name from the **Site Name** drop down list.
4. Select the required Hardware Service from the **Hardware Service** drop down list.
5. Click **Accept**.

To assign the Net ID to an existing SR Group:

1. In the New SR Group window (see Figure 153 above), select the required Group from the **Enter name:** drop down list.
2. Select the required Site name from the **Site Name** drop down list.
3. Select the required Hardware Service from the **Hardware Service** drop down list.
4. Click **Accept**.
5. The **RL8 Import** window will be displayed. See Figure 154:

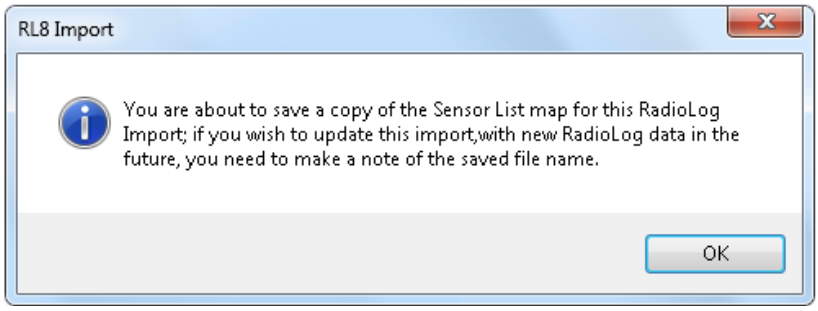


Figure 154

6. Click on **OK**.
   - ➢ Once the service has been accepted, a message will be displayed advising that a copy of the **Sensor List** map has been saved.
7. Make a note of the file name for future use reference and click **OK**.
   - ➢ The **Import Site** dialog box will be displayed. See Figure 155 below:

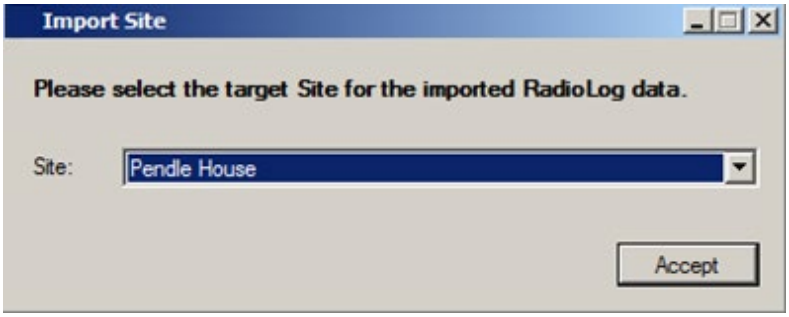


Figure 155

8. From the **Site:** drop down list, select the Site to import the RadioLog data to.

   ➢ Choose the Site you selected in the **New SR Group** dialog box (see Figure 153 above).

A default Zone, **Zone1**, is added when the EMS database is created. If no sensors have been added to the Zone, it can safely be deleted during the RadioLog import.

- This is a clean-up task and it has no impact on the System operation. See Figure 156 below.

9. Click **Yes** to delete the default Zone 1 or **No** to keep the default Zone 1.

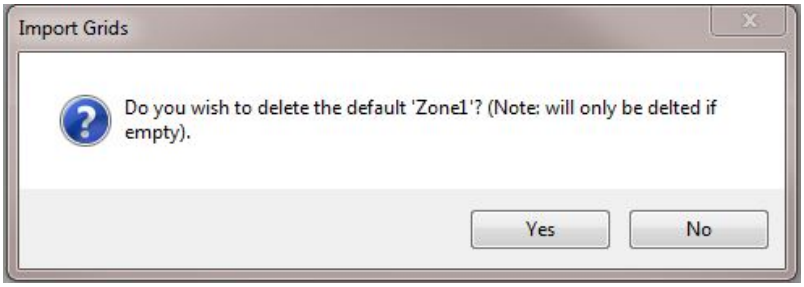


Figure 156

   ➢ The **Import SMS** window is displayed. See Figure 157 below:

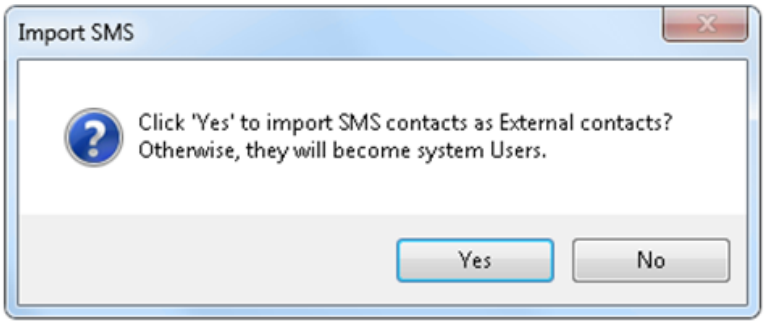


Figure 157

10. If importing contacts, select **Yes** to import the Email Contacts as External Contacts. Otherwise, select **No** to create EMS Users with logins from the imported Email Contacts.

    ➢ A similar message will be displayed later for any SMS contacts.

If importing Email contacts, the **SMTP Account** window will be displayed, see Figure 158 below:

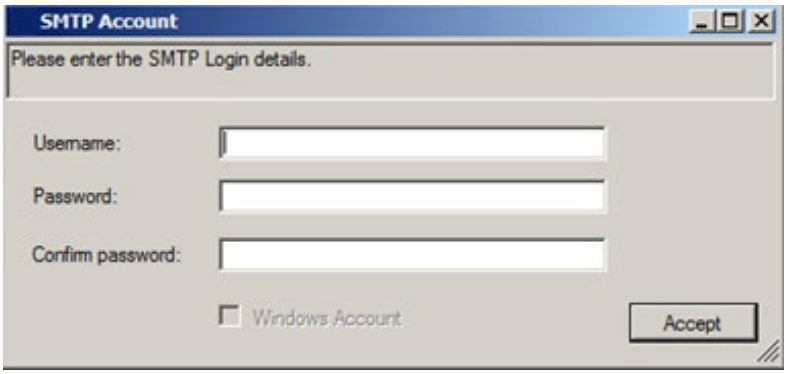


Figure 158

11. Enter the SMTP account details to use with the imported SMTP Server connection in their respective fields in the **SMTP Account** window.

    - A window will be displayed showing the result of the **Setup Import**; the result can be:
        - Successful with no warnings.
        - Successful with warnings.
        - Failed with errors.

      It is normal for a **RadioLog Setup Import** to produce warnings, these usually relate to previously deleted RadioLog files and missing RadioLog contact information. See Figure 159:

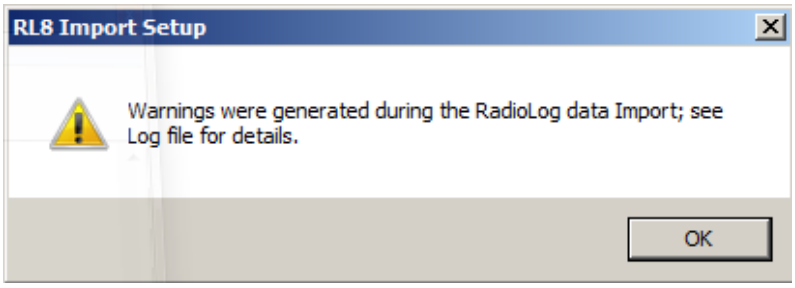


Figure 159

If the **RadioLog Setup** import is successful, a window will be displayed asking if wish to import the RadioLog data; at this point, you may:

- Import the Data now.
- Wait and import the Data later
- Not import the existing RadioLog data at all.

12. To continue importing the Data click **Yes** and go to **Section 10.1.4.14 RadioLog Data Import** below, otherwise click **No**.

10.1.4.14 RadioLog Data Import

1. Click on **RL8 Import Data** button on the **EMS Configuration Ver: x.x.x.x** window. See Figure 160 below:

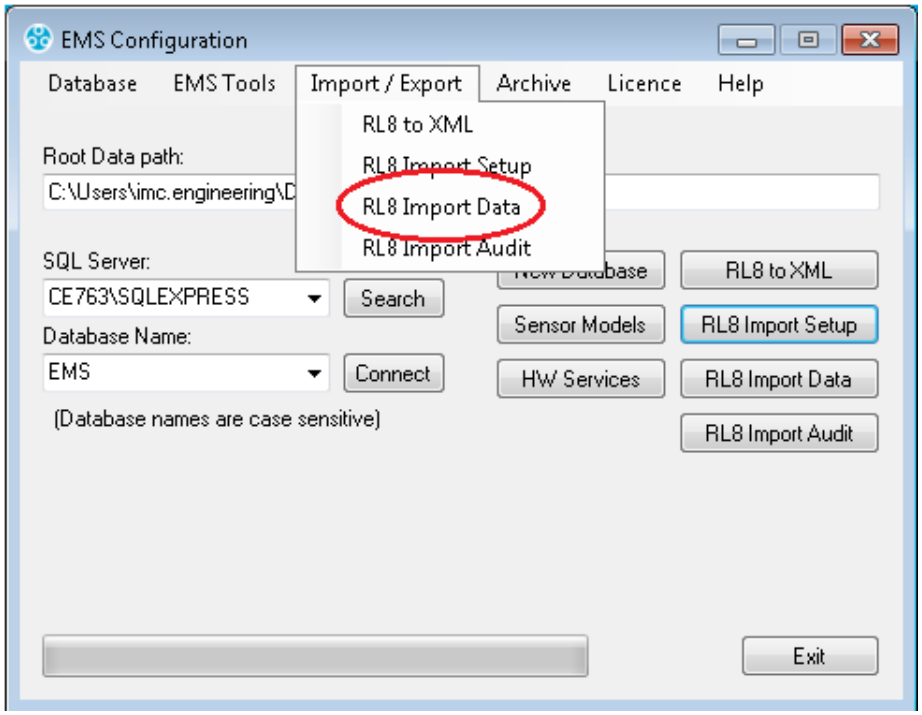


Figure 160

➢ The **Open Sensor List** window is displayed. See Figure 161:

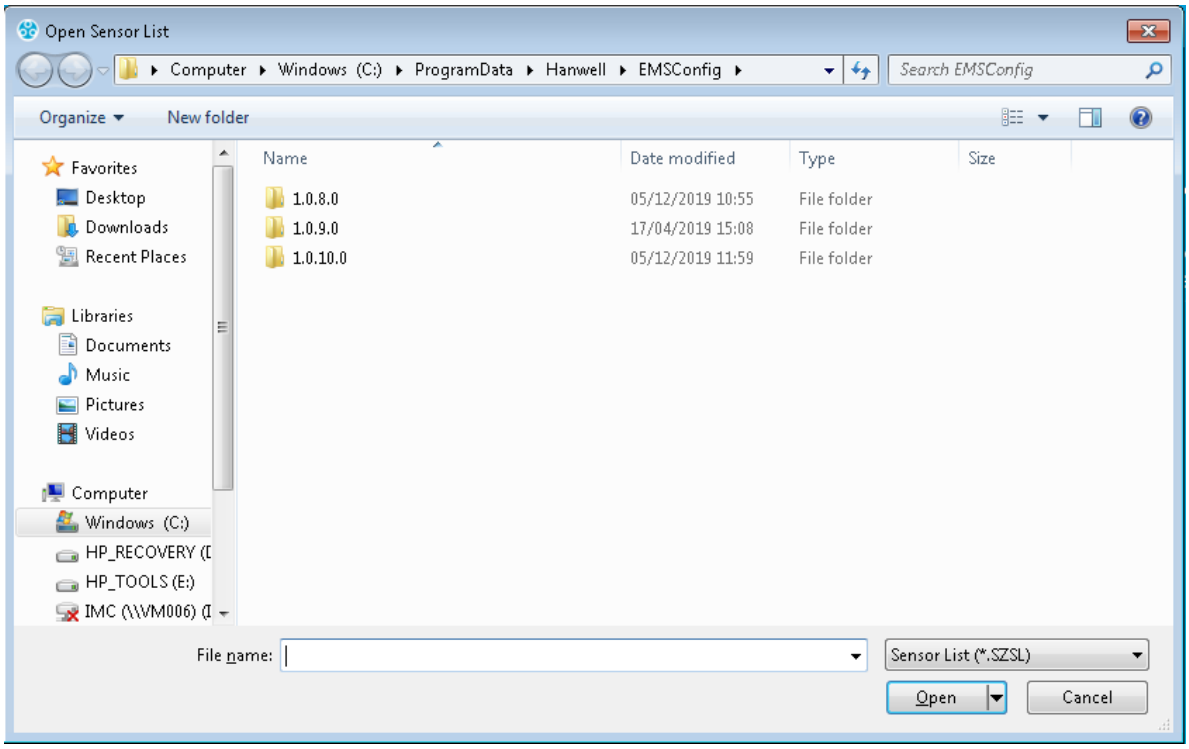


Figure 161

2. Select the **Sensor List** file you saved when importing the RadioLog Setup.
3. Click **Open** to continue.

The Data Import Process

- The **Select RL8 Import Date Range** window will be displayed. See Figure 162 below:

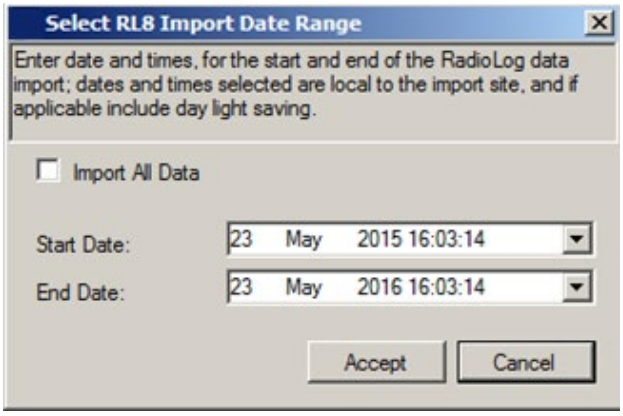


Figure 162

1. **Either**:

   Import all RadioLog data by checking the **Import All Data** checkbox.

   Or:

   Set a **Start** and **End** date for the data import by selecting dates from the **Start Date:** and **End Date:** drop down lists.

2. Click **Accept** to continue.

   ➢ The RadioLog Sensor Data will now be imported; progress being indicated on the **EMS Configuration** window's **Progress** bar. See Figure 163 below:

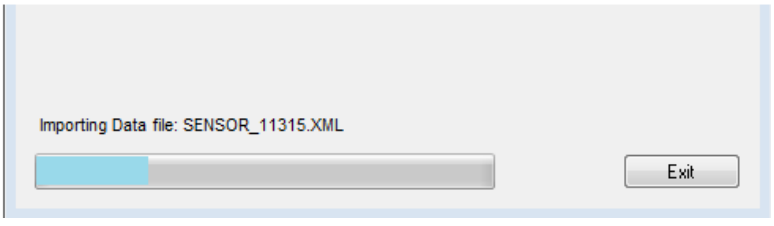


Figure 163

Note: RadioLog data import uses considerable System resources and the Server may become slow and unresponsive during import, this is normal; **Hanwell** strongly recommends that Users **DO NOT** attempt to use machines carrying out a RadioLog data import for any other purpose during the Import.

Once the Data Import has completed, a window will be displayed showing the result of the Data Import.

The result can be:

- Successful with no warnings.
- Successful with warnings
- Failed with errors.

It is normal for a **RadioLog Data Import** to produce warnings, these usually relate to previously deleted RadioLog data files, and indeterminable RadioLog time stamps due to daylight saving. See Figure 164 below:

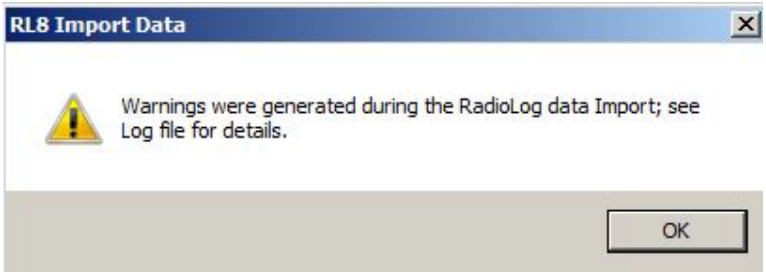


Figure 164

If the Data Import was successful, a window will be displayed asking if wish to import the RadioLog Audit data.

At this point, you may:

- Import the Audit now.
- Wait and import the Audit later.
- Not import the existing RadioLog Audit at all.

To continue importing the Audit click **Yes** otherwise click **No**.

10.1.4.15 RadioLog Audit Import

1. Click on **RL8 Import Audit** on the main dialog.
   - ➢ The **Open Sensor List** window is displayed. See Figure 165 below:

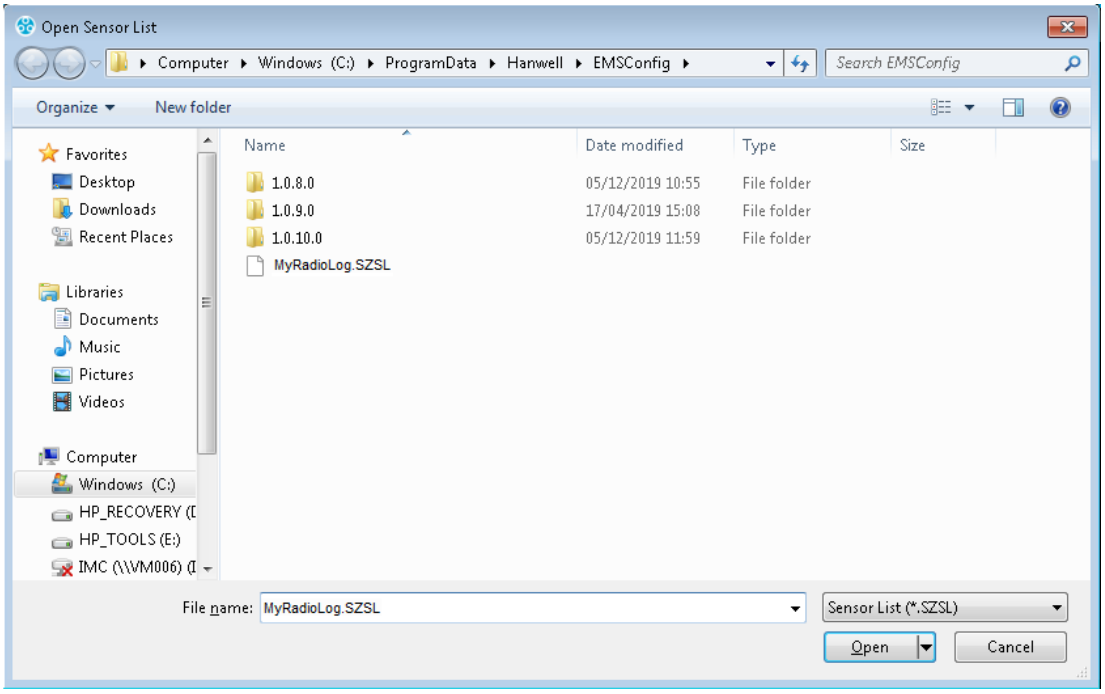


Figure 165

2. Select the sensor list file you saved when importing the RadioLog Setup.

3. Click **Open** to continue.

The Audit Import Process

The **Import Audit Data** window may be displayed showing that there are Audit entries outside of the valid data range; this is normal where only a partial set of data has been imported or RadioLog data has previously been archived. See Figure 166 below:

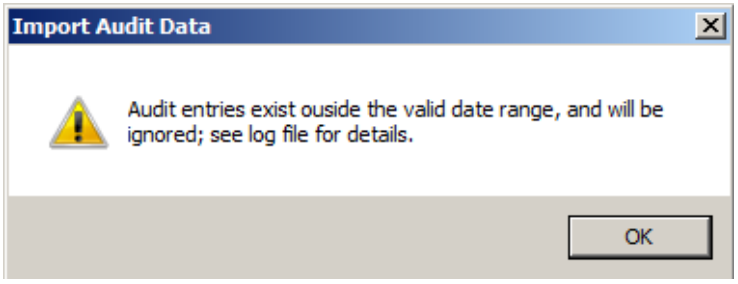


Figure 166

10.1.5 iSense Sensors

If the Import includes a Control Device and iSense sensors, the iSense sensors will need to have their ID Numbers set to zero using a browser. This will need to be done once logged in to the EMS interface.

Refer to the EMS Online Manual for details on editing sensors:

http://www.help.emsprocloud.com/index.html?edit-sensors.html

11 Reports Folder

The **Reports Folder** is where EMS will store copies of the Scheduled Reports, set-up and run by your users.

To set up a Reports Folder:

1. Within the **EMS Configuration Tool**, select **EMS Tools** from the main menu entry and then select **Reports Folder** from the displayed drop-down list. See Figure 167 below:

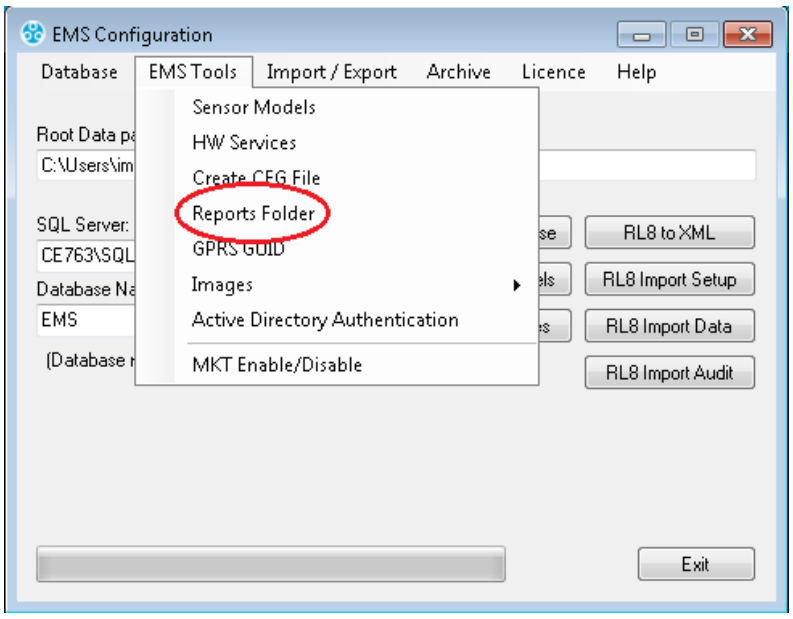


Figure 167

➢ The **Reports Folder** information window is displayed. See Figure 168 below.

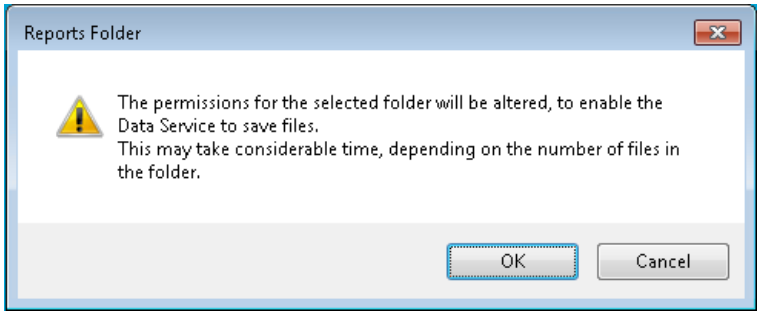


Figure 168

2. Click **OK** to continue.
3. **Either**:

   Select the required folder from the displayed folder browser dialog box.

   Or:

   Select **Make New Folder** and name this as required.
4. Click **OK** to accept.

12 Licensing

EMS Feature and User Licences are activated using the EMS Config Utility's **Licence Menu Options**. Customers are strongly advised to keep copies of all Licence IDs and associated Passwords, purchased for their EMS System.

Note: Activating the licence for the Validated variant of EMS will require a different procedure to be followed. See **Section** Error! Reference source not found. Error! Reference source not found. for details of this procedure.

12.1 Online Activation (Basic Procedure)

The easiest and safest way to activate licences is online. **Hanwell** recommends this method if possible.

Note: To activate a Licence online, the EMS Server needs access to the internet.

Activating a Licence:

1. Open the **EMS Configuration** tool.
2. Select **Licence** from the main menu and then select **Activate Online** from the displayed drop-down list. See Figure 169.

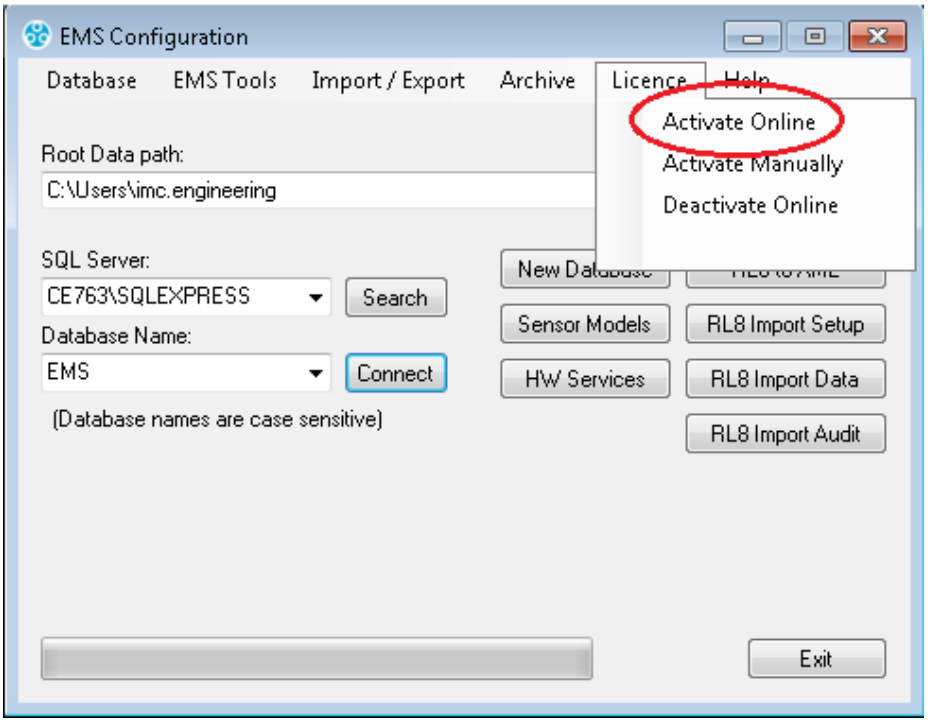


Figure 169

➢ After a few seconds, the **Activate Online** dialog box will be shown. See Figure 170:

Figure 170

3. Enter the required Licence ID and Password
4. Click **Activate**.
   - ➢ After a few seconds you will see a message stating that the Licence has been activated.

12.2 Manual Activation

Where necessary, **Manual Licence Activation** is possible.

1. Open the **EMSConfiguration** tool.
2. Select **Licence** from the main menu and then select **Activate Manually** from displayed drop down list. See Figure 171:

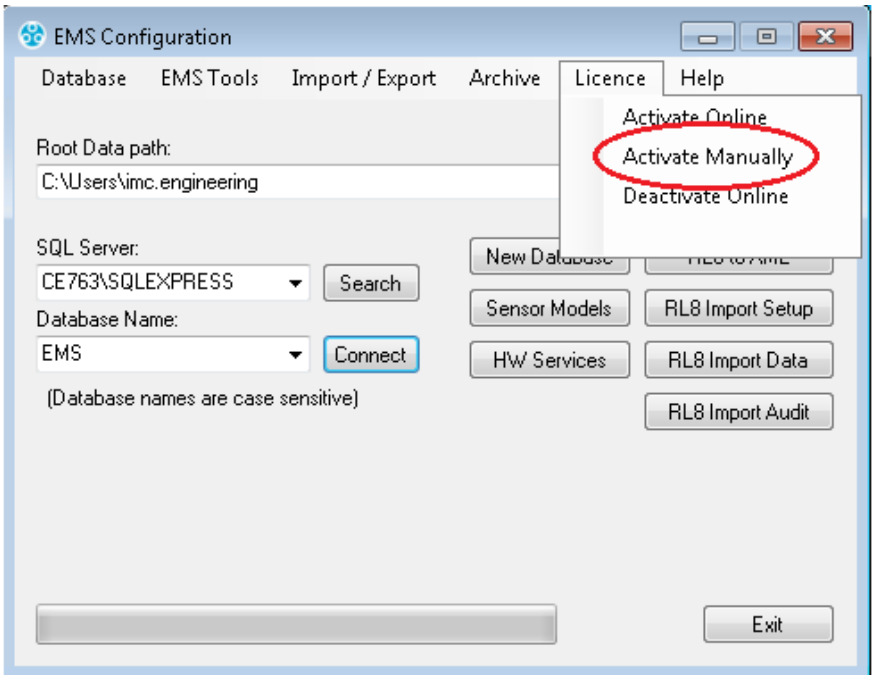


Figure 171

➢ After a few seconds, the **Activate Manually** window will be displayed. See Figure 172:

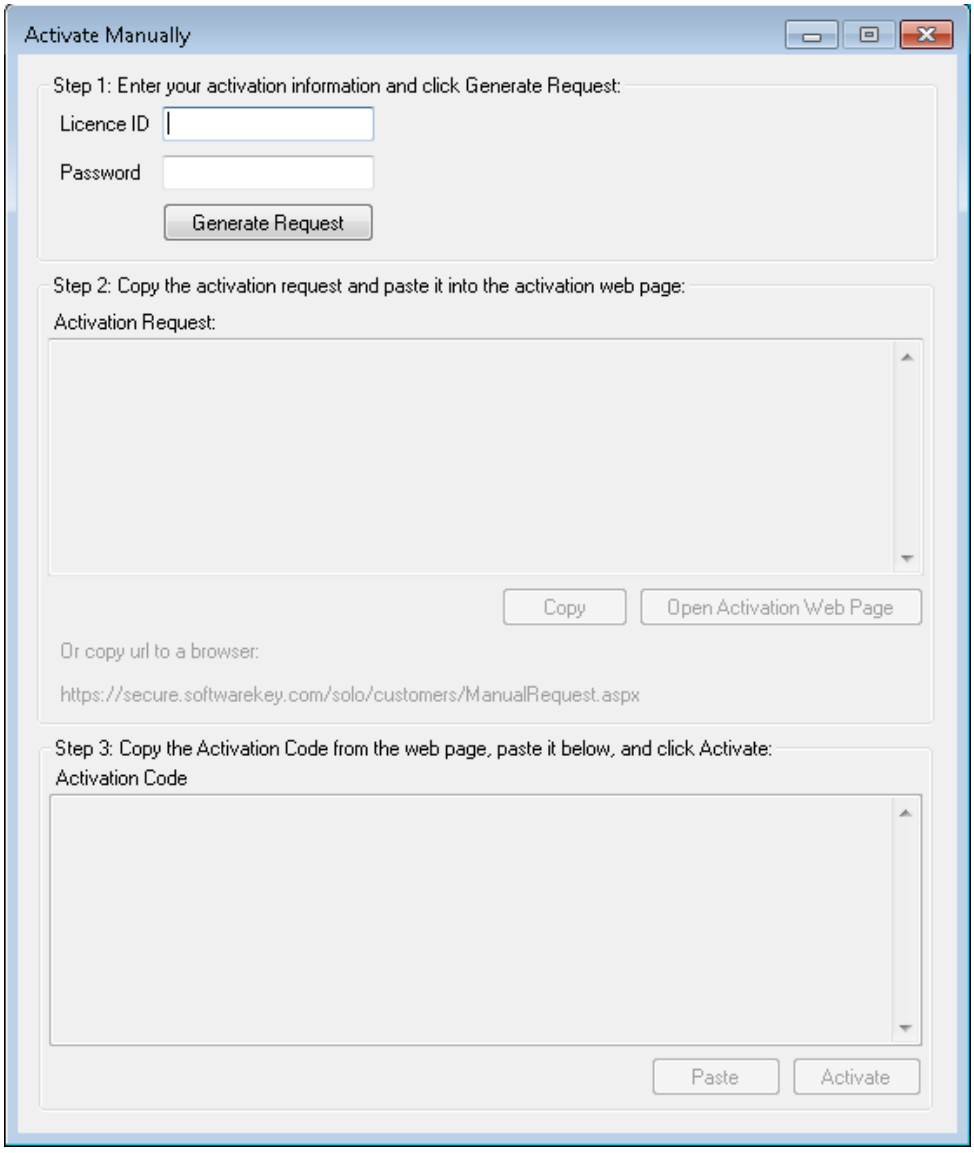


Figure 172

3. Enter the required **License ID** and **Password**.
4. Click **Generate Request**.

➢ The **Activation Request** text will be displayed. See Figure 173:

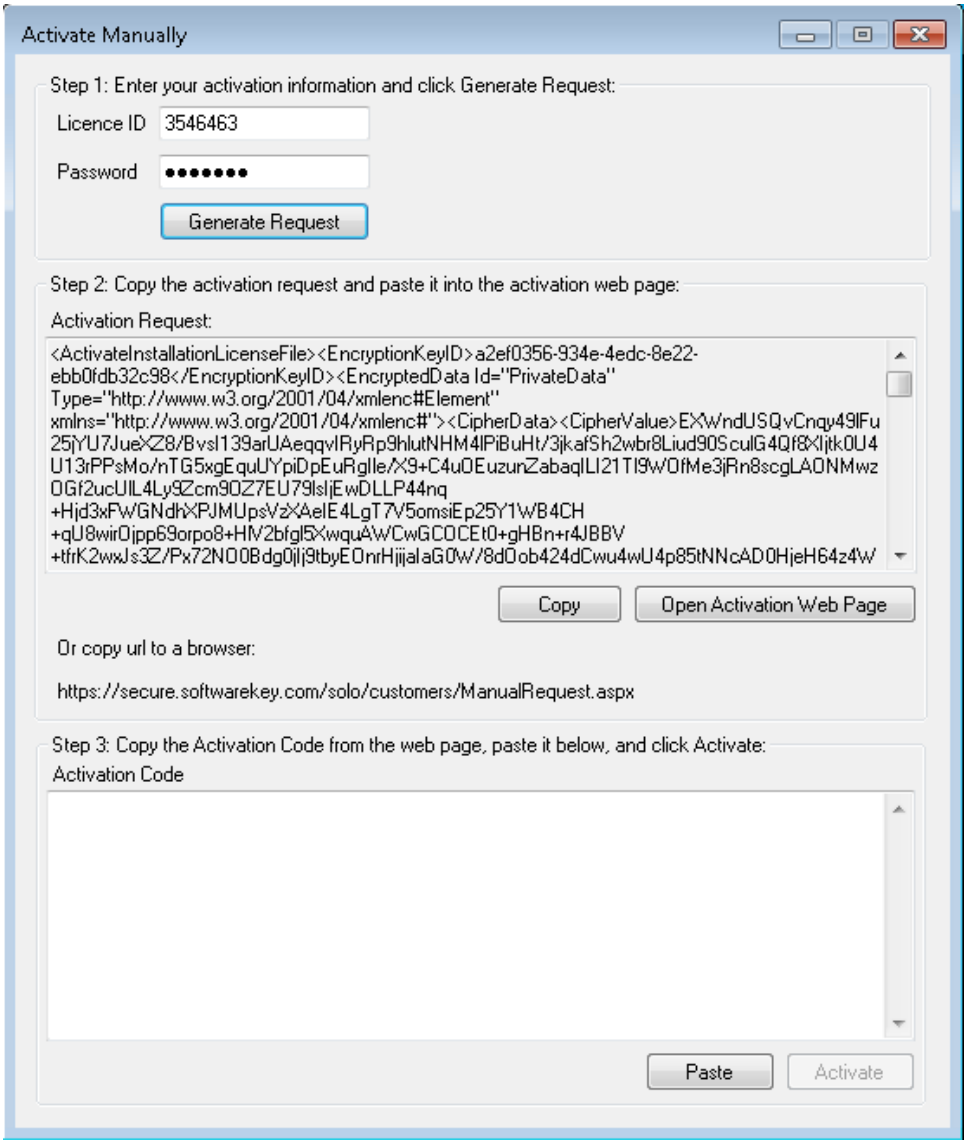


Figure 173

5. Copy this text to a text file and transfer it to a machine with internet access.
6. Open a browser and navigate to:

   https://secure.softwarekey.com/solo/customers/Manualrequest.aspx

   and

   Either:

   Copy the request text into the textbox.

   Or:

   Upload it to the Server.
7. Click **Submit**.

   ➢ The Server will generate and present an XML licence text; copy this licence to a text file.

8. Return to the EMS Server and paste the licence text into the textbox, provided at the bottom of the **Activate Manually** dialog box.
9. Click on the **Activate** button.
10. If the licence is activated successfully, an **Activation Successful** window will be displayed. See Figure 174 below:

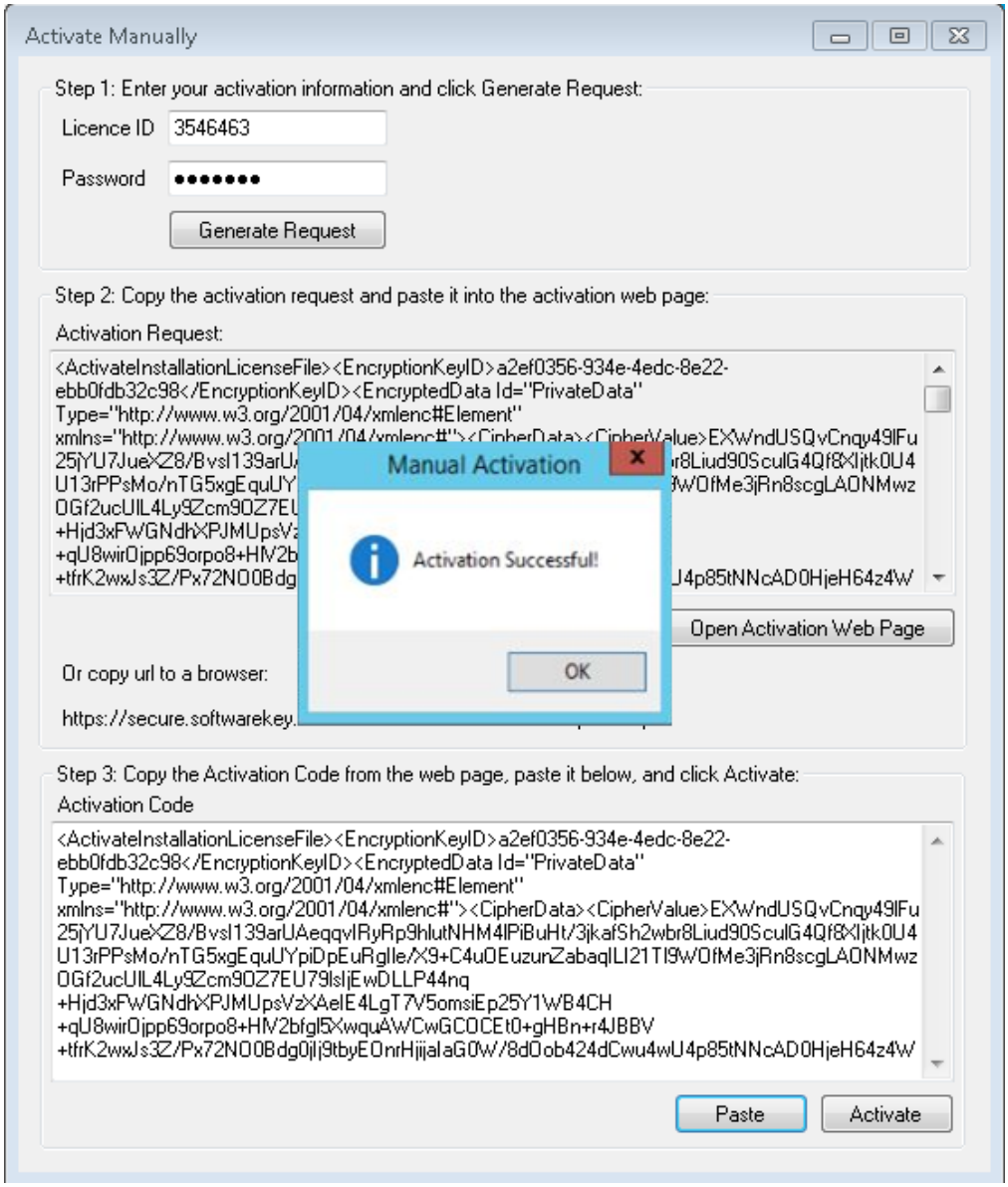


Figure 174

12.3 Online Licence Deactivation

EMS licences can be deactivated to assist in migrating EMS to a new Server.

Note: Most EMS licence types are limited to **five** deactivations; some licence types cannot be deactivated.

To Deactivate an EMS Licence

1. Open the **EMSConfiguration** tool.
2. Select **Licence** from the main menu and then select **Deactivate Online** from displayed drop down list.

   ➢ The **Deactivate Licence** window is displayed. See Figure 175 below:

Figure 175

   ➢ **<u>If you wish to deactivate an EMS Variant licence – e.g. W704</u>**:

      a) Click on the lower radio button.

      b) Click **Accept**.

   ➢ **<u>If you wish to deactivate an Additional Users or OEM licence e.g. W702 or W715</u>**:

      a) Click on the **Additional Users/OEM Licence** radio button. See Figure 176 below:

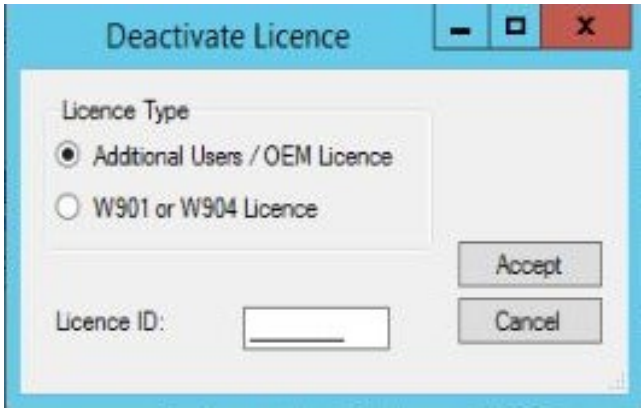


Figure 176

b) Enter the **Licence ID** in the text box.

c) Click **Accept**.

* A warning dialog will be displayed:
  - Click **Yes** to deactivate the EMS Variant Licence.
  - Click **No** to cancel the operation.

- Deactivation may take a few seconds; when complete, a Deactivate Licence message will be displayed. See Figure 177 below:

Figure 177

12.4 Counter Signatures (W901 Only)

With **W906 Validated EMS** installed, and a **W901** Licence applied to it, you will have **Counter Signatures** applied to your System.

- You have the ability to turn **ON** or **OFF** the **Counter Signatures** using the **EMSConfig** utility.
- By default, the **Counter Signatures** are turned **OFF**, but if you would like to turn them **ON**, follow the instructions below:

To turn Counter Signatures **ON**, use the **EMSConfig** Utility:

1. Open the **EMSConfiguration Tool**.

- The **EMSConfiguration Ver: X.X.X.X** window is displayed.

2. From the **EMS Tools** drop-down menu, select **Counter Signature Enable/Disable**. See Figure 178:

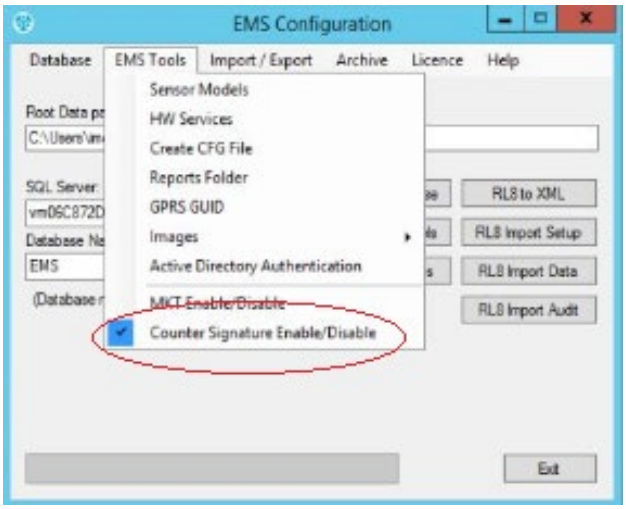


Figure 178

- Once selected, you will be asked to confirm that you would like to turn Counter Signatures **ON**.
- To turn the Counter Signatures back **OFF**, you can follow the same steps.

13 Adding Company Details

You can add your Company Logo and/or Company Name to:

Either

The EMS website header via the EMS web interface.

- The Company Logo will appear next to the EMS logo in the website's header.

Or

Any generated Reports via the **EMS Config Utility**.

13.1 Adding Company Details to the EMS Website

1. Select **Sites** from the **SYSTEM ADMIN** list in the **System** drop down menu. See Figure 179 below:

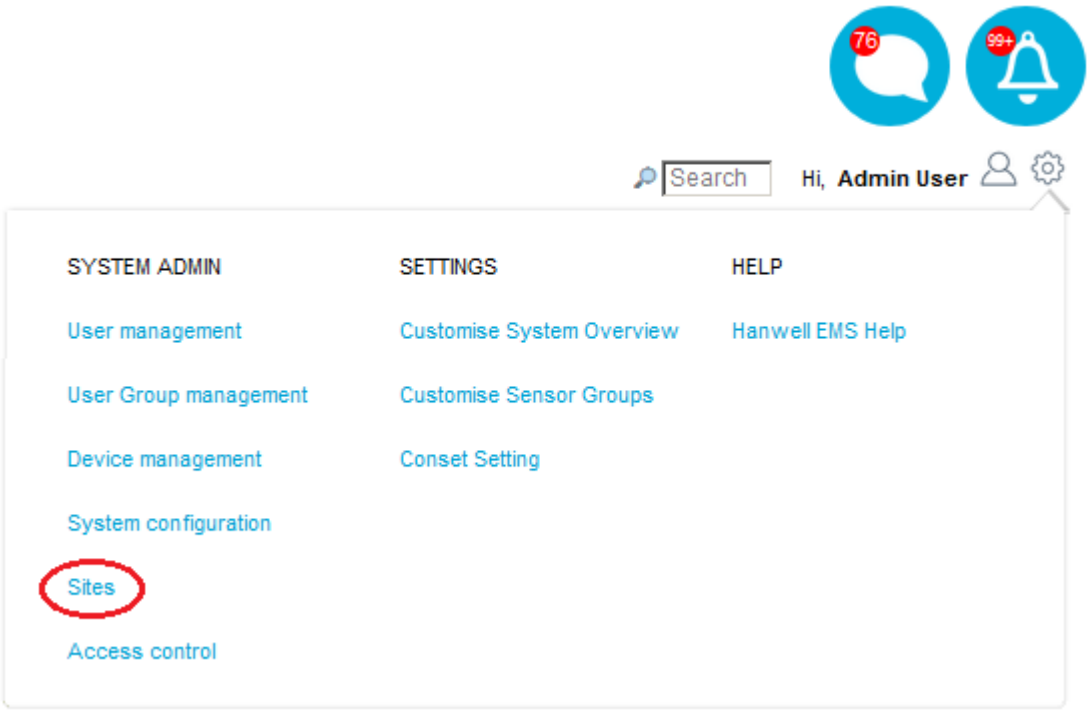


Figure 179

➢ The **View Sites** window is displayed. See Figure 180 below:

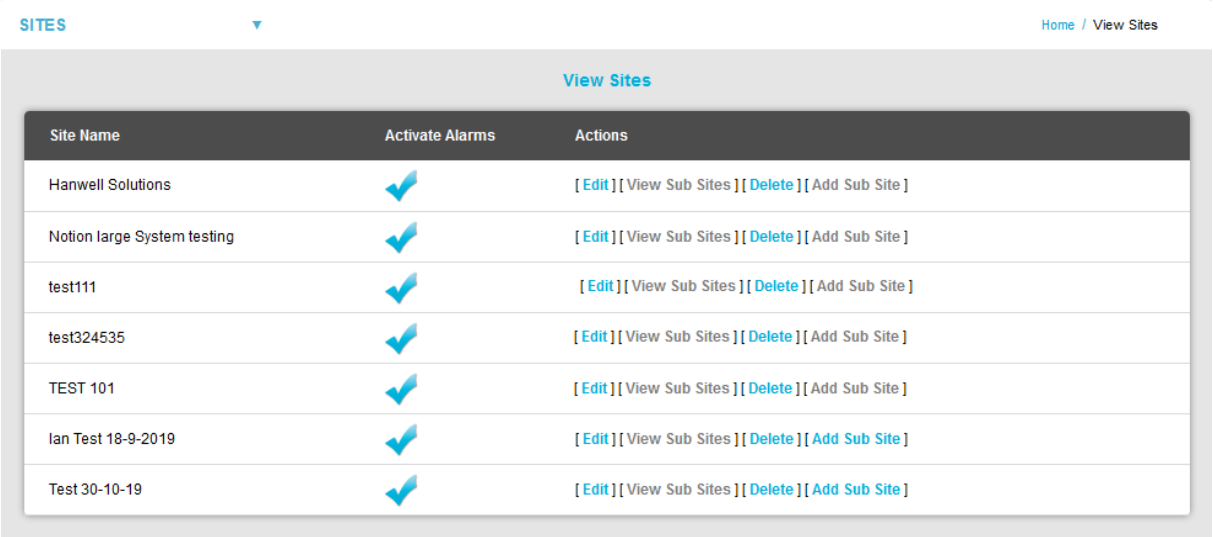


Figure 180

2. Select **Company Details** from **SITES** drop down menu. See Figure 181 below:

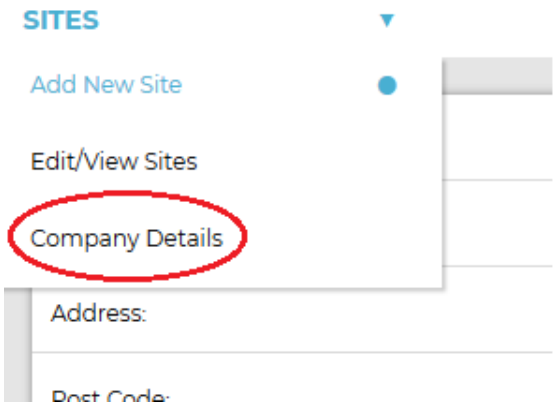


Figure 181

3. The **Company Details** window is displayed from where you can enter the required Company Name and/or Company Logo. See Figure 182 below:

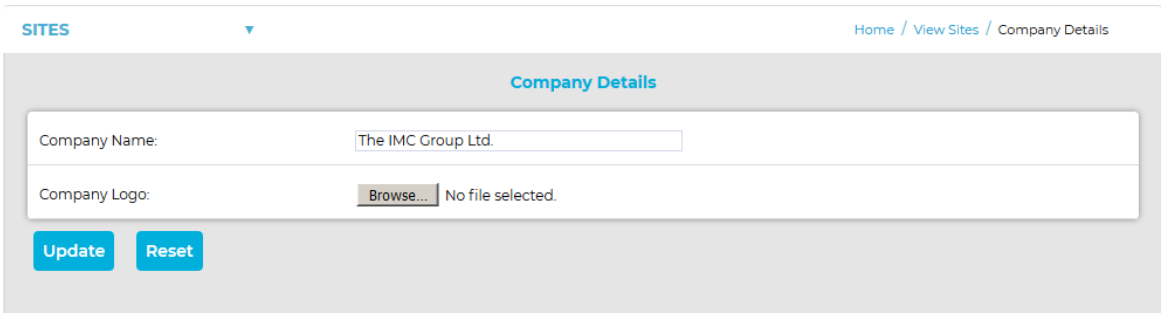


Figure 182

➢ **To Add a Company Logo to the EMS website:**

Click **Browse...** adjacent to the **Company Logo:** entry to navigate to the required logo image and click **Open**.

Notes: The **Browse...** button varies from browser to browser; in some browsers it might say **Choose File**.

For best results, use an image that scales well to 46mm wide by 12mm high.

Company Reports Logos will only appear on Scheduled PDF Reports; Company Reports Logos will not appear in CSV Reports or Browser Reports.

➢ **To Add a Company Name to the EMS website:**

Enter the required name into the **Company Name:** field.

4. Click on the **Update** button to add the Company Logo and Company Name to the EMS website.

➢ If the **Company Details** have been successfully added, the following window will be displayed:

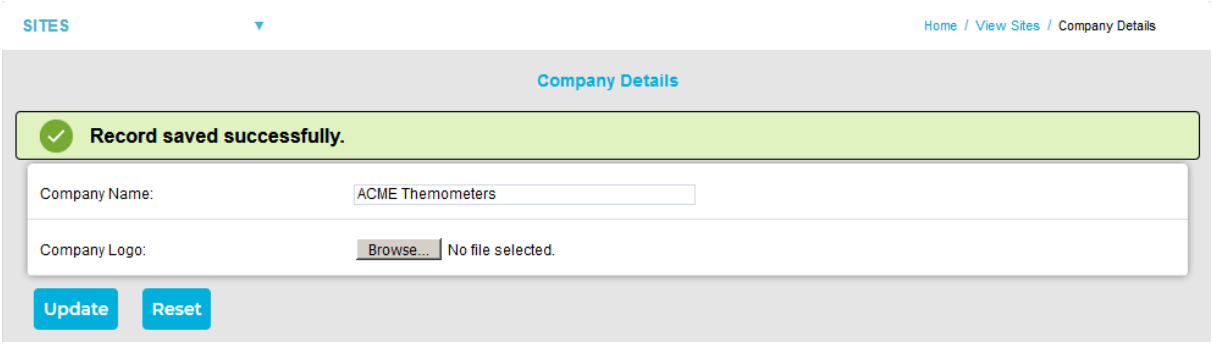
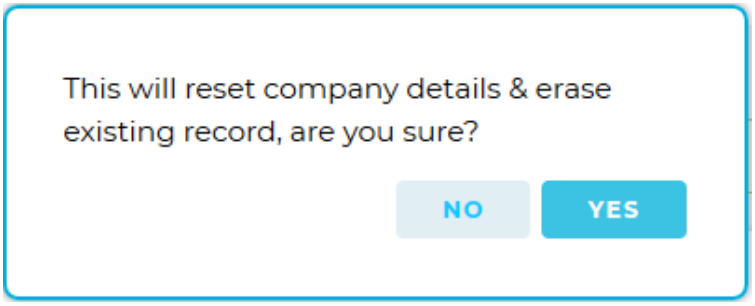


Figure 183

➢ Clicking on the **Reset** button will display the following message window:



➢ Click on **Yes** to delete any added **Company Details**.

➢ Click on **No** to cancel the **Reset**.

13.2 Adding Company Logo to Generated Reports

To add your Company's logo to generated reports:

1. Open the EMSConfig Utility.

   ➢ The **EMS Configuration Ver: x.x.x.x** window: is displayed. See Figure 184 below:

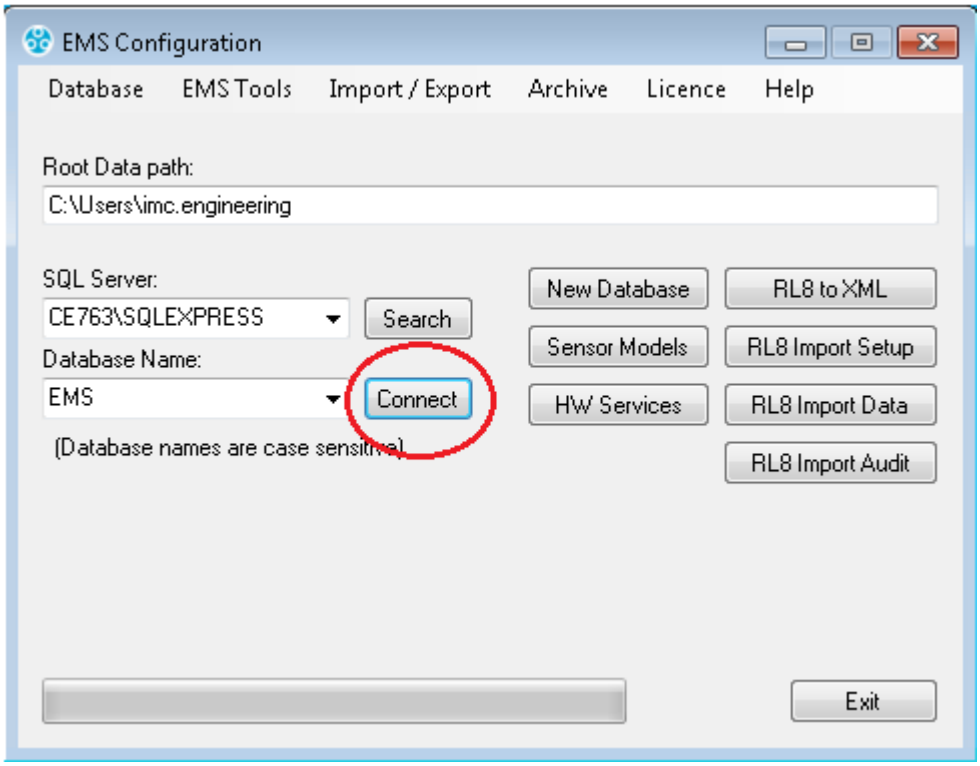


Figure 184

2. Click on **Connect** to connect to the required database.
3. Select **EMS Tools** in the main **EMSConfig** Utility menu bar.
4. Select **Images** in the drop-menu.
5. Select **Load Reports** from the displayed menu. See Figure 185:

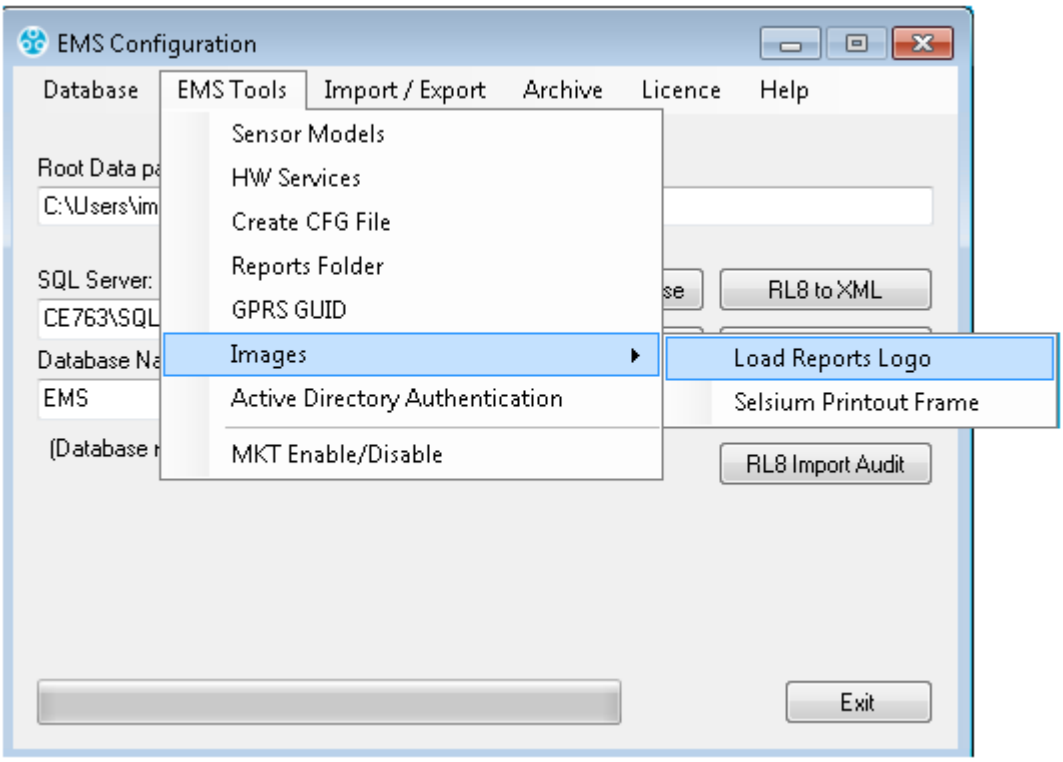


Figure 185

➢ The **Open** window is displayed. See Figure 186 below:

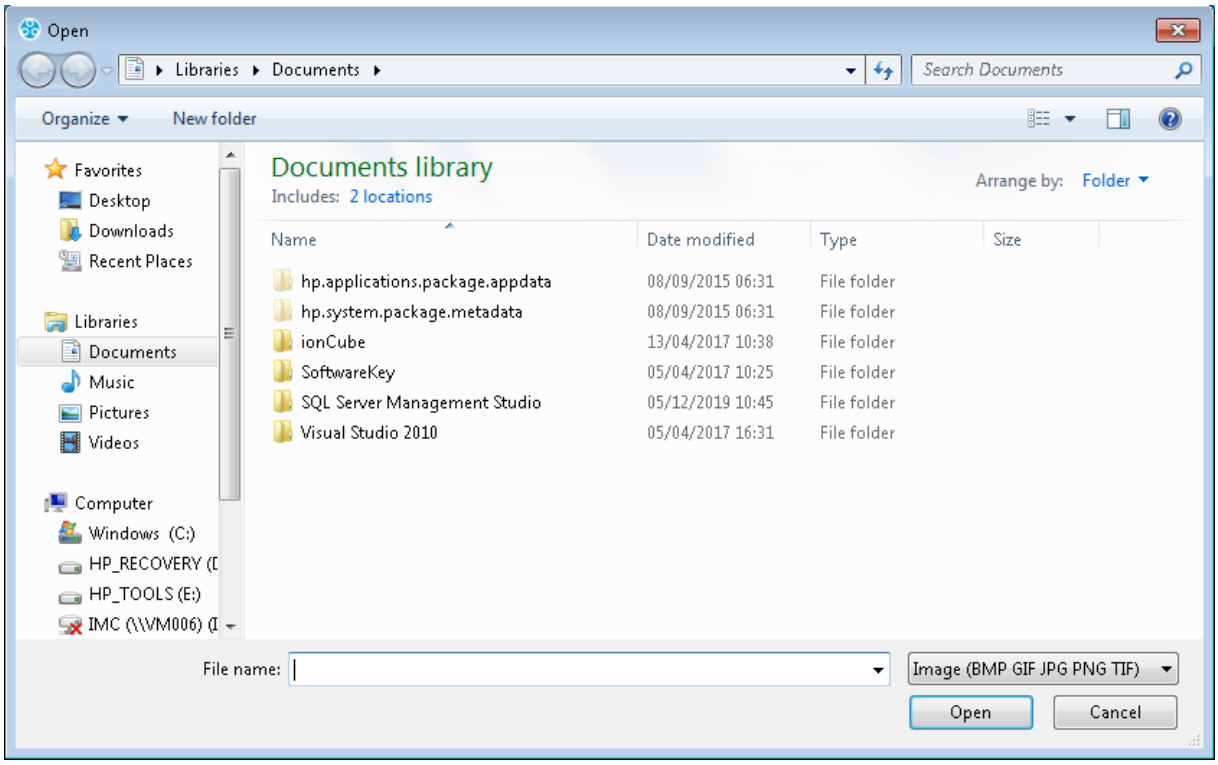


Figure 186

6. Navigate to the required logo/graphic file and

Either:

i. Click on its icon to highlight it.

ii. Click on **Open**.

Or:

Double click on the logo/graphics file's icon.

➢ The **Reports Logo** window is displayed showing a representation of how the logo will be displayed on any generated reports. See Figure 187 below:

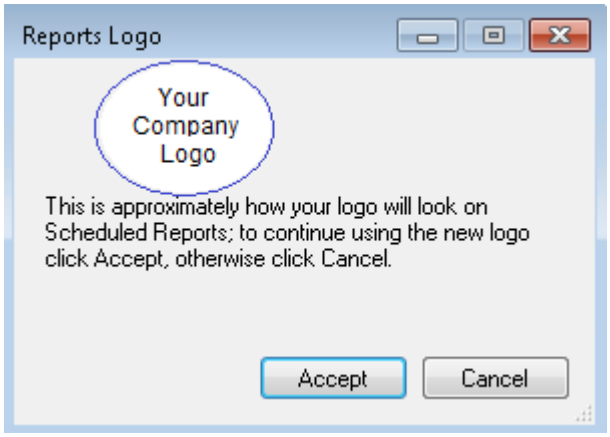


Figure 187

7. If the displayed logo is acceptable, click on **Accept**.

➢ Click on **Cancel** to return to the **Open** window and select another logo/graphic file.

14 Log Files

14.1 Viewing Log Files

To view log files of activity generated during installation of EMS and any associated data import:

1. Open the **EMSConfiguration Tool**.

   ➢ The **EMSConfiguration Ver: X.X.X.X** window is displayed.

8. From the **Help** drop-down menu, select **View Log File**. See Figure 188 below:

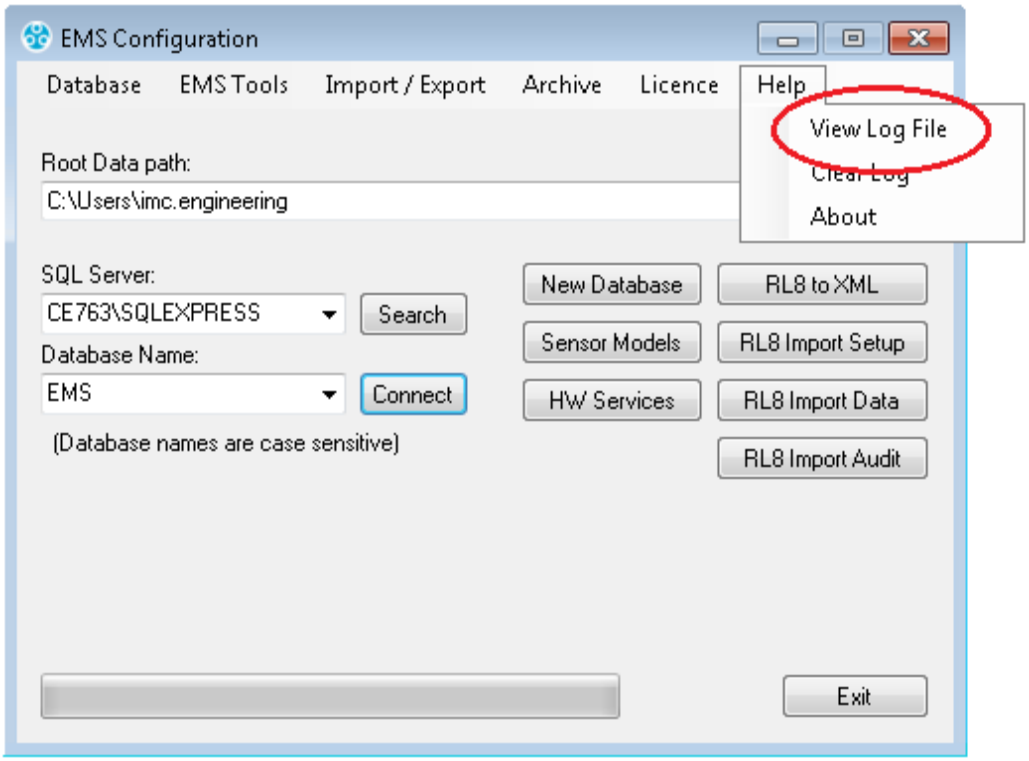


Figure 188

➢ The **View Log file** window is displayed showing a full list of log entries. See Figure 189:

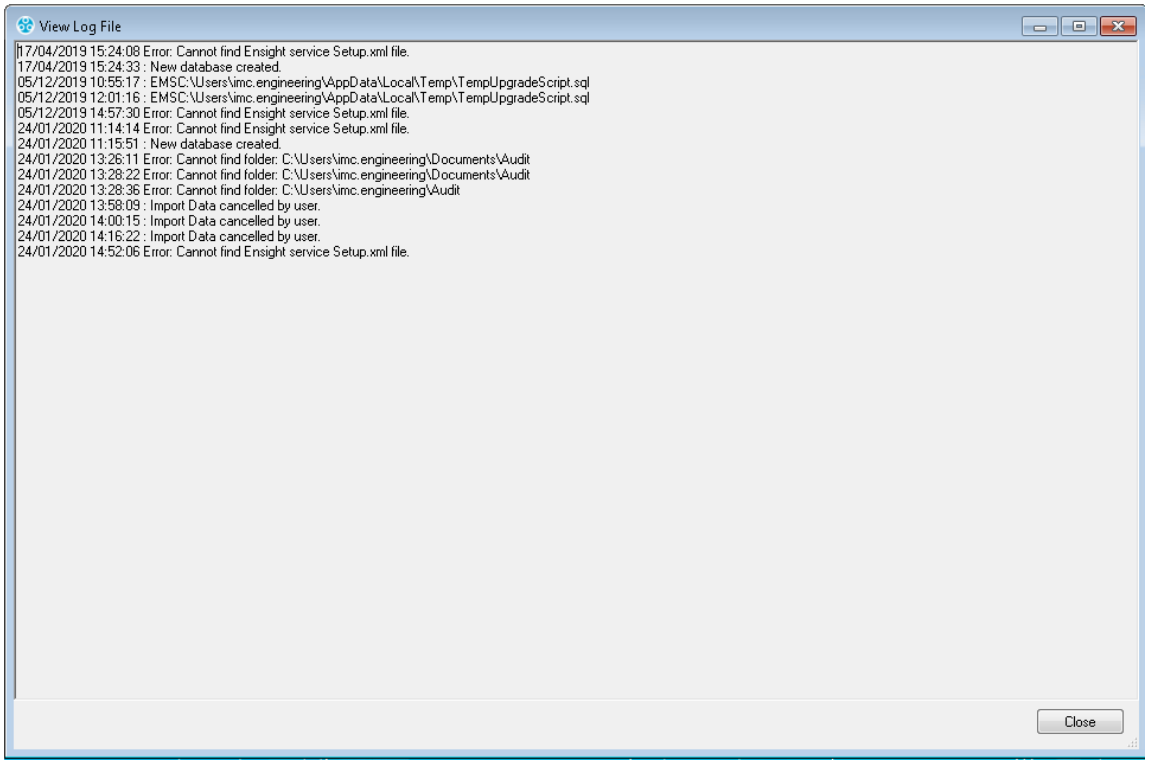


Figure 189

➢ To close the **View Log file** window, click on **Close**.

Note: It may be necessary to expand the **View Log file** window horizontally to display the **Close** button

14.2 Clearing Log Files

To clear log files of activity generated during installation of EMS and any associated data import:

1. Open the **EMSConfiguration Tool**.

   ➢ The **EMSConfiguration Ver: X.X.X.X** window is displayed.

2. From the **Help** drop-down menu, select **Clear Log**. See Figure 190 below:

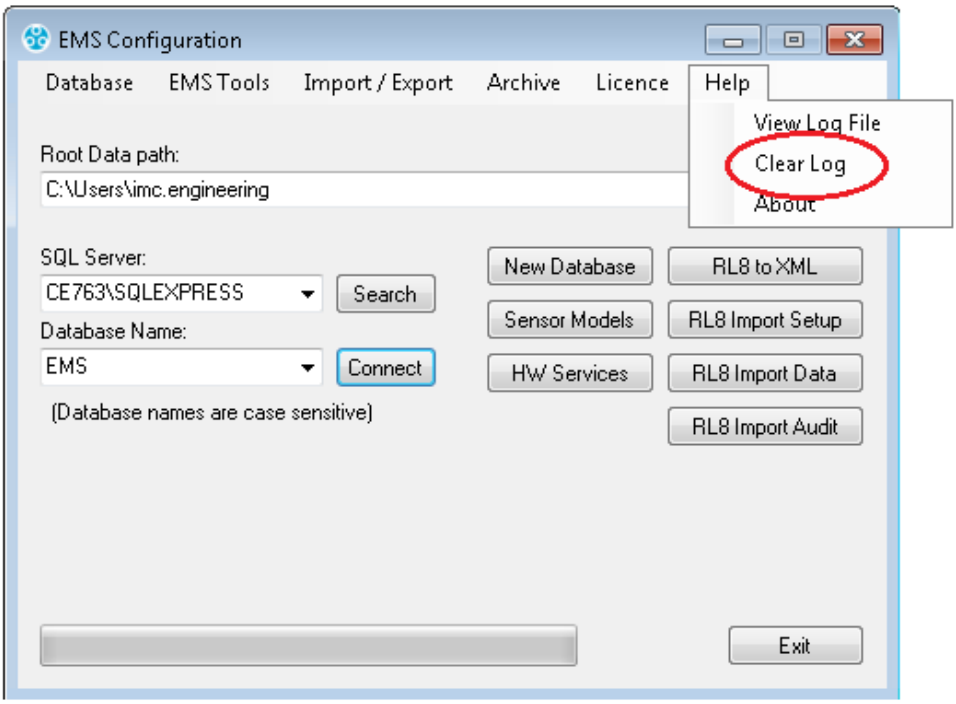


Figure 190

➢ The **Clear Log** warning window is displayed. See Figure 191 below:

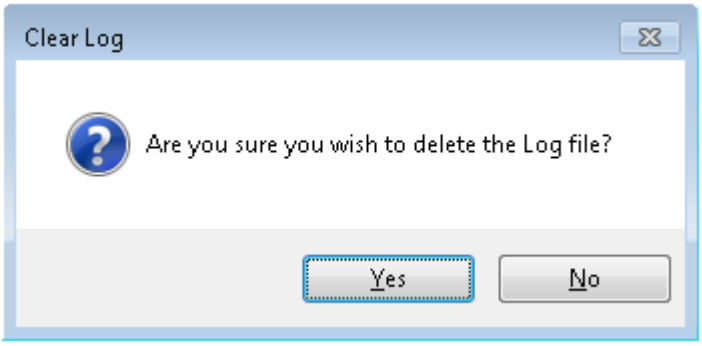


Figure 191

3. Click on **Yes** to clear the Log file or **No** to cancel clearing the Log file.

15 Database – Hanwell Maintenance

The menu items shown in this sub menu provide functions and tools for database maintenance operations. These functions should only be used by, or on instruction from, **Hanwell** Support personnel.

15.1 Upgrade

This function will upgrade the database to the latest version provided by the Database Upgrade script. It is provided for emergency recovery purposes only and should, generally, not be required.

16 Connection Test

After Installation and Configuration, test the connection to EMS with a web browser:

Open a browser window and enter the name or IP address of the machine followed by **/EMS** into the address bar.

For example:

- If this was installed on a Server and you were also working from the Server, the address you will need to place in the web browser would be:

  http://Localhost/EMS

- If you were performing this from a Client, the address would be:

  http://<hostname>/EMS

If this does not work on a remote machine, try on the EMS host machine to test if a Firewall is blocking access.

16.1 Default Administrator User

User Name: *Admin User*

Password: *Admin*

You are now ready to configure EMS for daily use, see the EMS Online User Guide for further instructions:

http://www.help.emsprocloud.com

17 Upgrading an Installed EMS System

17.1 Preparation

Hanwell recommends that customers back up all their data, prior to any major maintenance task, such as a System Upgrade.

- If new columns and/or tables need to be added to the database, then the Install will detect that the System is being upgraded and add the required objects.

Caution: Unless specifically instructed to do so by Hanwell, DO NOT uninstall EMS components prior to an upgrade. Doing so may result in incorrect operation after the System has been upgraded.

17.2 Upgrading

To upgrade an EMS Server installation, run the latest version of the EMS Installer on the existing Host machine.

- Do **NOT** attempt to upgrade an **EMS W900A** System with **EMS W900B**, or vice versa.
- Do **NOT** attempt to upgrade an **EMS W900** System with **EMS W906**, or vice versa.

The upgrade process is largely the same as the primary System installation, except for as follows:

17.2.1 SQL Express/.Net Framework

Where these are already installed, the Install will detect this and quietly move on to the next installation step.

17.2.2 Same Version Components

Where a component with the same version is already installed, the Install will detect this and either give the User the option to keep or repair the current installation or show an error that the component cannot be installed; this is normal and should be ignored.

Unless you believe the current version of a component to be damaged, it is recommended that you keep the current version.

17.2.3 Service Shutdown

During Upgrade, the Installer will need to stop EMS Services that are running, in order to upgrade the executable code. In these cases, you will be presented with dialog boxes similar to the ones shown in Figure 192 and Figure 193 below:

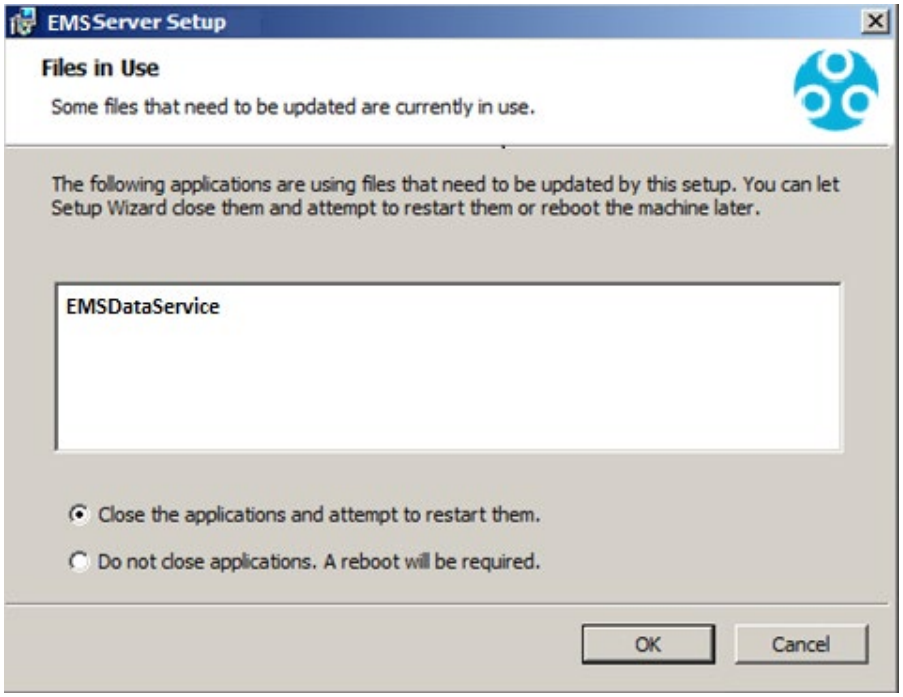


Figure 192

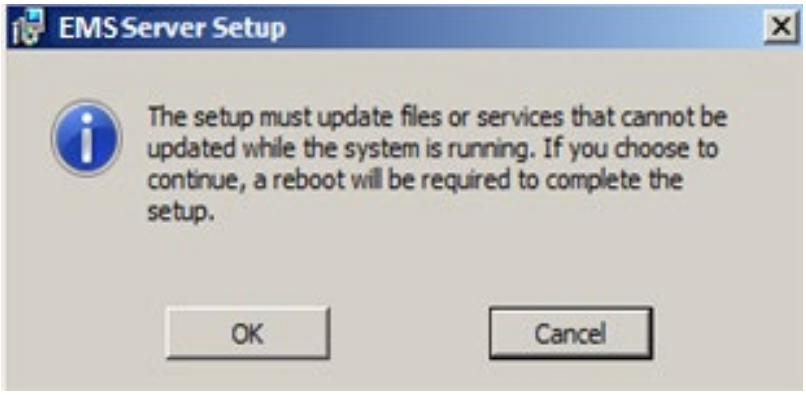


Figure 193

- Keep the default selections and click **OK** to continue.

17.2.4 Settings

The Install will read your current settings and use these values to populate the initial values of the User entry fields.

18 EMS Server Removal

It may, on occasion (such as when moving from one variant of EMS to another) be necessary to do a complete removal of the EMS Server components.

Note: You must be logged in as an **Administrator** on the Local System to carry out this process.

18.1 Uninstall EMS all Operating Systems

To Uninstall EMS on any Operating System:

1. Open the **Control Panel**
2. Click on

   Either:

   Programs and Features

   Or:

   Uninstall a program

   ➢ The option displayed will depend on your computer setup.

   The **Uninstall or change a program** window will be displayed.
3. Select **EMSServer**
4. Click **Uninstall**.

   ➢ If the **Programs and Features** window is displayed, see Figure 194 below, click **Yes** to continue.

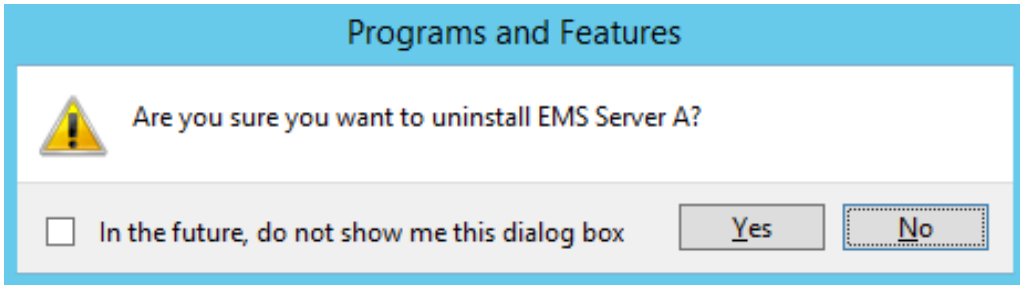


Figure 194

   ➢ If the **User Account Control** window is displayed, see Figure 195 below, click **Yes**.

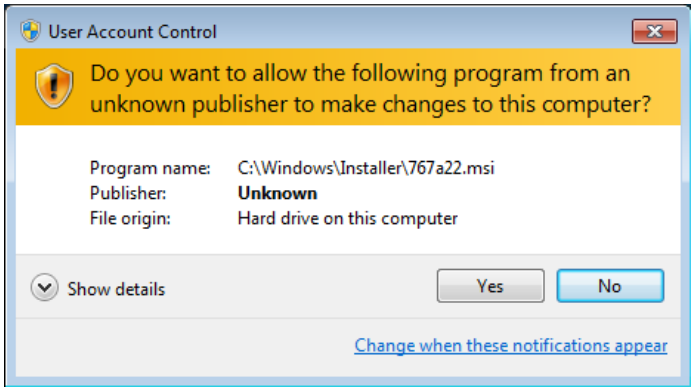


Figure 195

➢ If the **EMSServer** information dialog box is displayed, see Figure 196 below:

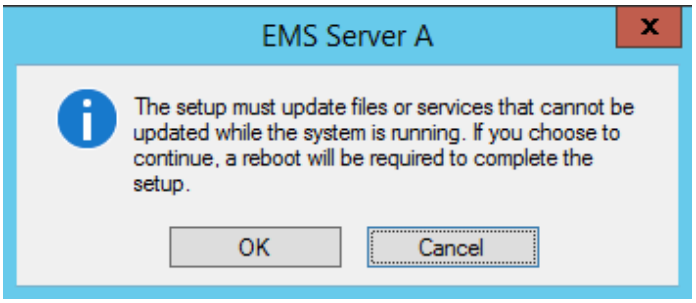


Figure 196

5. Click **OK**.

➢ If a **Command Prompt** is displayed with a fatal error message, see Figure 197 below, click in the Command Prompt (C:/) and press **Enter**.
This may happen more than once.

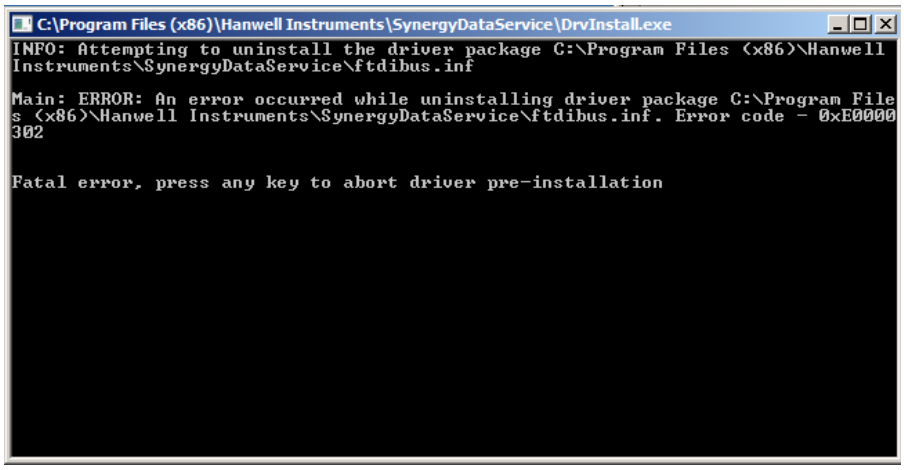


Figure 197

- A series of **EMSServer** dialog boxes will be displayed; until the uninstall operation has completed when the **Programs and Features** window will be displayed.

Note: The operation to remove the **EMSServer** program can take several minutes.

19 Contact Hanwell Solutions

UK Customers:

Hanwell Solutions Limited

Pendle House

Jubilee Road

Letchworth

Hertfordshire

SG6 1SP

Tel: 01462 688070

Email: sales@hanwell.com

Web: www.hanwell.com

For Technical Support:

Tel: 01462 688 078

Email: support@hanwell.com

EU & Overseas Customers:

Please contact your local Hanwell Distributor.

A list of distributors is available at: www.hanwell.com/global-distributors

Intentionally Blank

Hanwell
Ultimate peace of mind
Ellab
Part of the
Ellab Group