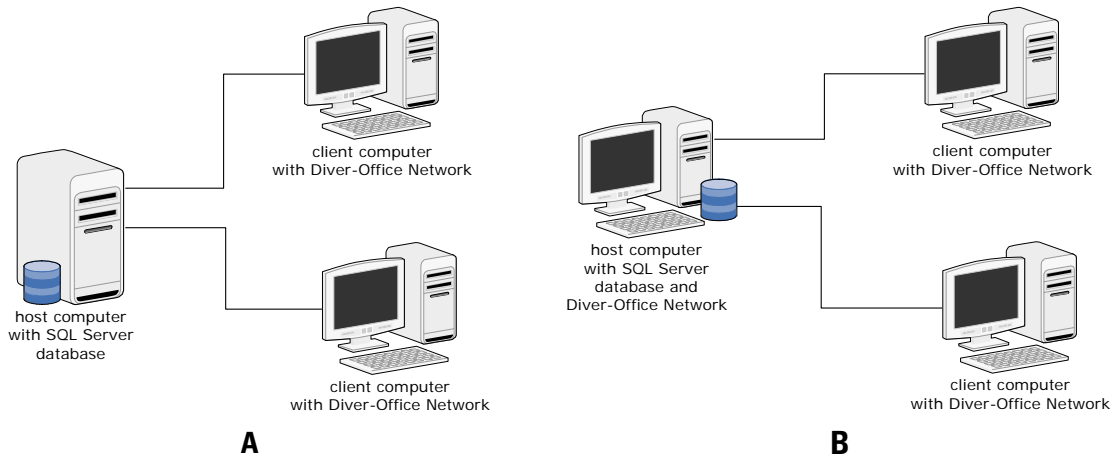


### Introduction

Diver-Office Network is capable of connecting to a SQL Server database located on a different computer or server in a Windows networking environment. The database can be located on a central server and then accessed remotely from client computers using Diver-Office Network (Diagram A). Alternatively, the database may exist locally on a computer with Diver-Office Network, and then also accessed remotely from client computers using Diver-Office Network (Diagram B).



Before attempting to configure Diver-Office Network, please consider the following:

- Diver-Office Network operates using a fixed data structure and therefore can only connect to Diver-Office databases.
- Diver-Office Network must be installed on the host machine/server, along with SQL Server Express 2005, in order to create the database. The host database cannot be created remotely from a client computer.
- **Before a client computer can connect to a remote database, the host computer must be manually configured for remote database access.**

This document describes the steps for configuring the various SQL server and security options necessary for remote database access (item three in the list above). These steps must be performed on the host machine, *i.e.*, the computer on which the database is to be stored, *after* Diver-Office and SQL Server Express 2005 have been successfully installed. This guide assumes that your Windows network has already been established. It is recommended that you start with the first section of this guide and then proceed sequentially through each topic.

### Topics

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## Installing SQL Server Management Studio Express

SQL Server Management Studio Express (SSMSE) must be installed on the host computer in order to configure the necessary SQL Server settings for allowing remote database connections. This software is available on the Diver-Office Network installation CD, or can be downloaded free-of-charge from Microsoft's website. To install SSMSE from the installation CD, follow the steps below:

1. On the host computer, insert the Diver-Office Network installation CD into your CD-ROM drive.
2. Right-click on the **Start** button in your task bar, and select **Explore** from the pop-up menu.
3. In **Windows Explorer**, select the CD-ROM drive, and then navigate to the following folder:

**E:\Prerequisites\Microsoft SQL Server 2005 Management Studio Express (x32)**

4. Double click the **SQLServer2005\_SSMSEE.msi** file to launch the installation.
5. Follow the onscreen instructions to install the software. Once installed, you may proceed to the next section in this guide.

## Configuring the DIVEROFFICE Instance for Remote Database Access

To configure the Diver-Office instance, follow the steps below.

1. On the host computer, **run** SQL Server Management Studio Express by clicking **Start > Programs > Microsoft SQL 2005 > SQL Server Management Studio Express**.
2. The **Connect to Server** dialog box will appear on your screen:



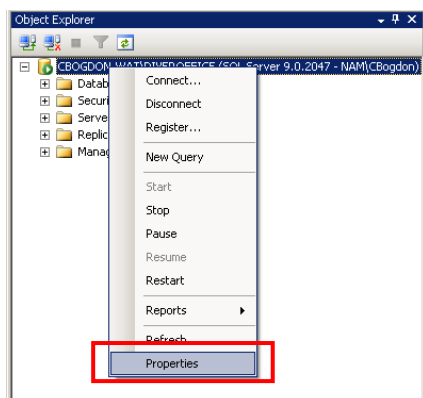
3. Ensure the following information is specified for each field, and then click the **[Connect]** button.

**Server type:** Database Engine

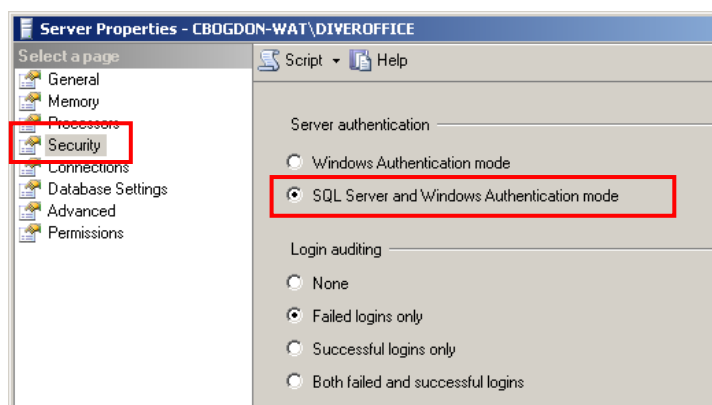
**Server name:** [The Host Computer Name]DIVEROFFICE

**Authentication:** Windows Authentication

- The main **SQL Server Management Studio Express** window will appear on your screen. In the **Object Explorer** pane, right-click on the root of the tree view, and select **Properties** from the pop-up menu.

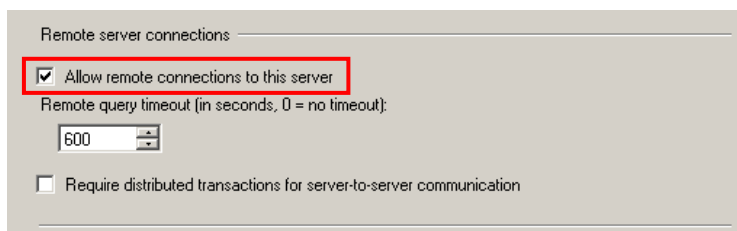


- The **Server Properties** window will appear on your screen. Under the **Select a Page** pane, select **Security**.



To the right, under **Server authentication**, select the **SQL Server and Windows Authentication mode** option.

- Under the **Select a page** pane, select **Connections**. To the right, under **Remote server connections** ensure that the **Allow remote connections to this server** option is **checked**.

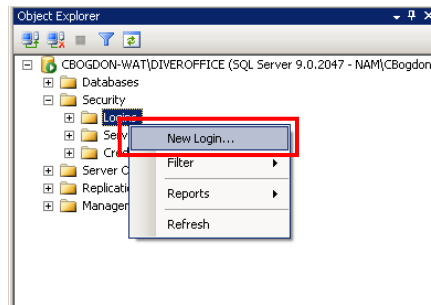


- Click the **[Ok]** button to close the **Server Properties** window. An information message may appear on your screen indicating that the changes will only take effect once the SQL Server is restarted. Click the **[Ok]** button. We will restart the SQL Server later.

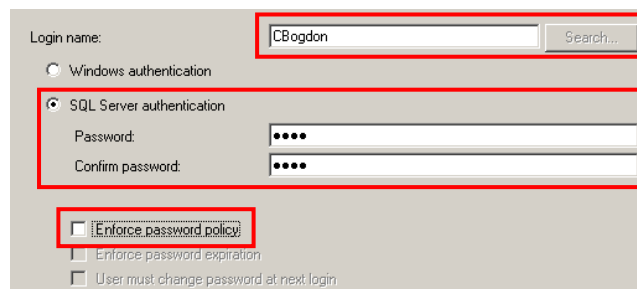
### Creating a SQL Server Login

Because Microsoft SQL Express only allows remote database access using SQL Server Authentication, you must create at least **one** SQL Server login account which will be used by the client computer to login into the remote Diver-Office database. If you wish to have multiple users connect to the database concurrently, you must create a login account for each remote user. To create a SQL Server login account, follow the steps below:

1. SQL Server Management Studio Express should still be opened from the previous step in this guide. In the **Object Explorer** pane, expand the **Security** folder, right-click on the **Logins** folder, and select **New Login...** from the pop-up menu.



2. The **Login – New** window will appear on your screen. In the right side of the window, specify the settings listed below:



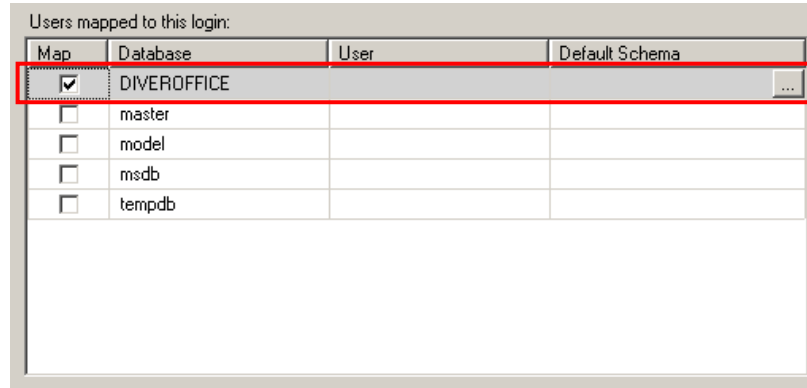
**Login Name:** Specify a name for the SQL Login account.

**SQL Server Authentication:** Select this option and then specify a password for the account.

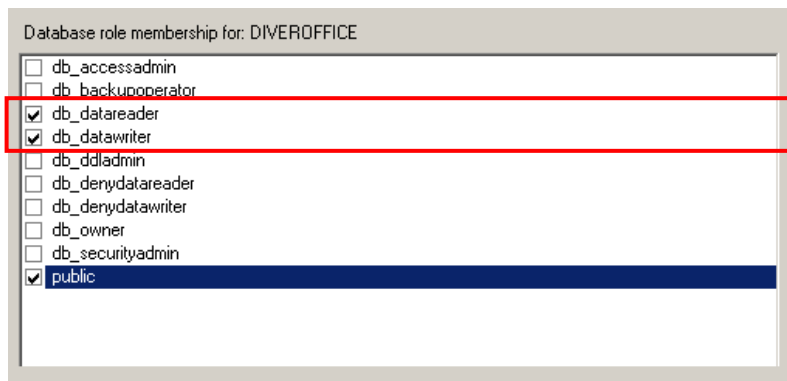
**Enforce Password Policy:** This setting is optional. However, if left selected, the assigned password may expire at a certain point, and the user may be prompted to change the account password on occasion. Use at your own discretion.

- With the **Login – New** window still open, select **User Mapping** from the **Select a Page** pane.

In the right side of the window, select the check box beside “**DIVEROFFICE**” under the **Map** column.



The next step involves assigning the SQL Login account role memberships for the Diver-Office database. In the area below, select the appropriate role memberships. Remote access to a Diver-Office database requires *at least* **db\_datareader** and **db\_datawriter**.

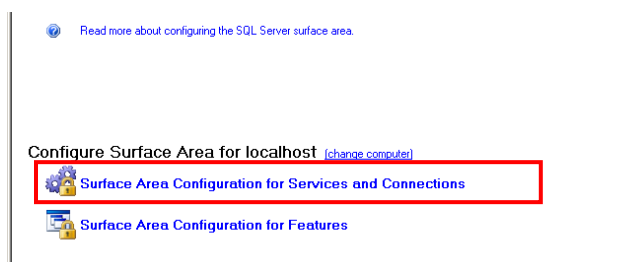


- Click the **[Ok]** button to close the **Login – New** window. Repeat the steps described in this section to add additional SQL Login accounts.

### Configuring the SQL Server Surface Area

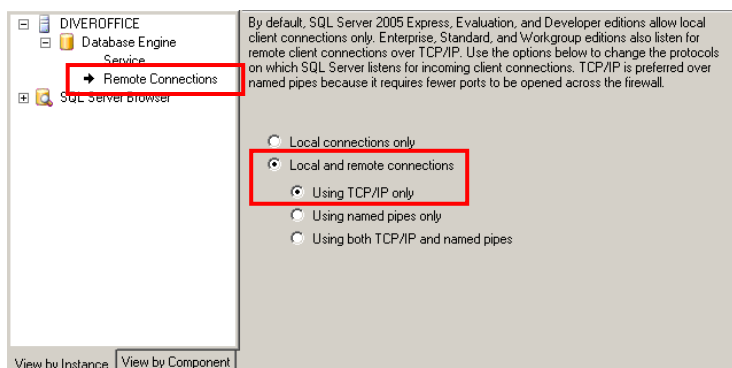
This step involves configuring the SQL Server surface area settings to allow for remote connections using TCP/IP. By default, the surface area settings are configured for local connections only.

1. Run the SQL Surface Area Configuration tool by selecting **Start > Programs > Microsoft SQL Server 2005 > Configuration Tools > SQL Server Surface Area Configuration**.
2. The **SQL Server Surface Area Configuration** window will appear on your screen. At the bottom of the window, select the **Surface Area Configuration for Services and Connections** option.



3. The **Surface Area Configuration for Services and Connections** window will appear on your screen. Under the **DIVEROFFICE** instance, and under the **Database Engine** node, select **Remote Connections**.

To the right, select the **Local and remote connections** option, and ensure that **Using TCP/IP only** is selected.

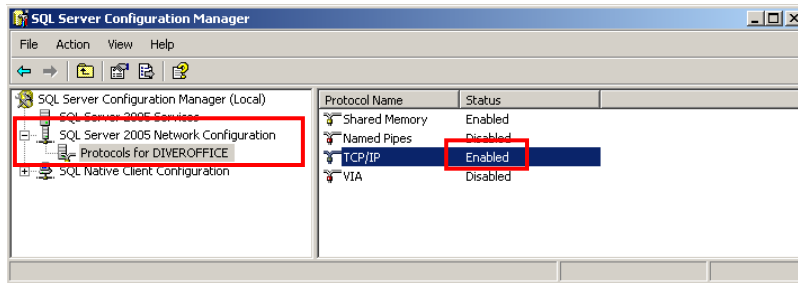


4. Click the **[Ok]** button to save the options, and close the surface area configuration window. An information message may appear on your screen indicating that the changes will not take effect until the Database Engine service is restarted. Click the **[Ok]** button.

### SQL Server Services and Network Configuration

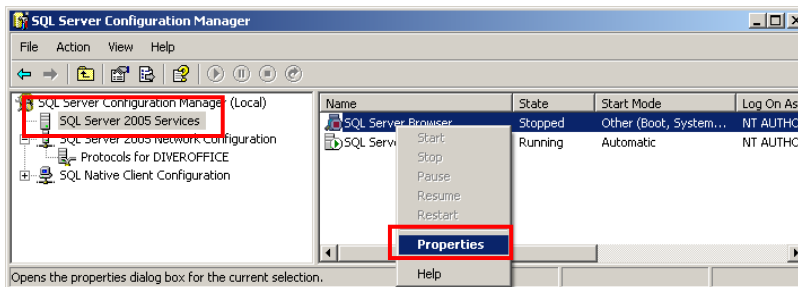
The next step involves configuring various settings that control the SQL Server services and the network protocols for the DIVEROFFICE instance. Follow the steps below.

1. Run the **SQL Server Configuration Manager** tool by selecting **Start > Programs > Microsoft SQL Server 2005 > Configuration Tools > SQL Server Configuration Manager**
2. The SQL Server Configuration Manager window will appear on your screen. Expand the **SQL Server 2005 Network Configuration** node, and select **Protocols for DIVEROFFICE**.

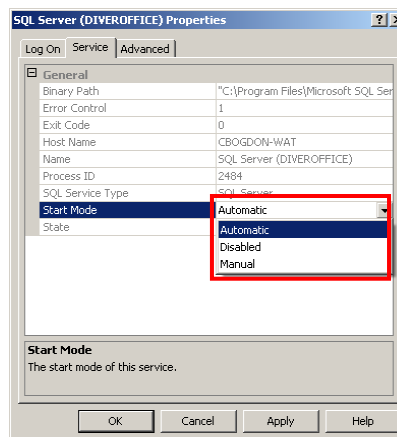


Make sure that for **TCP/IP** the status is set to **Enabled**. If not, right-click on Disabled, and select Enable from the pop-up menu.

3. In the left pane, select the **SQL Server 2005 Services** node. On the right side, right-click on **SQL Server Browser**, and select **Properties**.



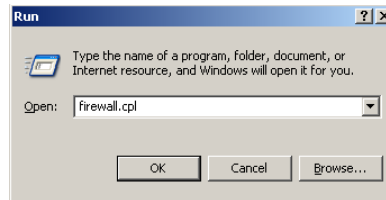
4. The **SQL Server (DIVEROFFICE) Properties** dialog will appear on your screen. Click the **Service** tab, and then set the start mode to **Automatic**. This will ensure that the service is started every time your computer is booted.



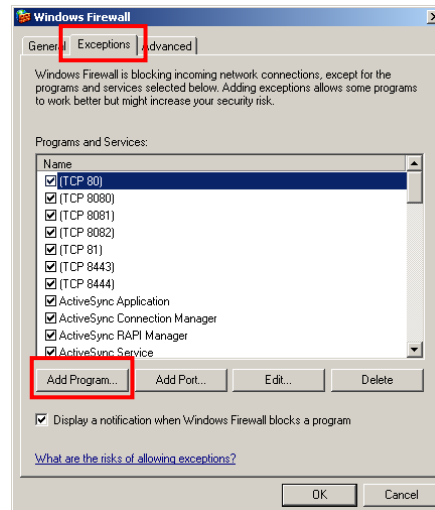
### Configuring Windows Firewall

To configure Windows Firewall for remote SQL Server access, follow the steps below. Please note, this step is not necessary if you have Windows Firewall completely disabled.

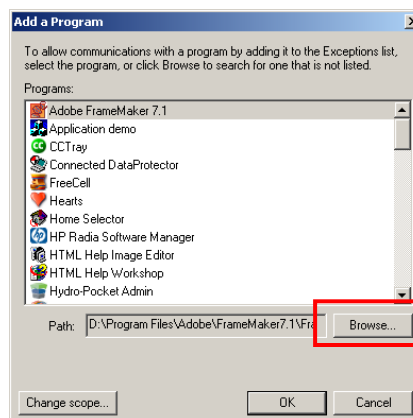
1. From your Window's task bar, select **Start > Run**. In the **Run** dialog, type **firewall.cpl**, and then click the **[Ok]** button.



2. The **Windows Firewall** dialog box will appear on your screen. Click the **Exceptions** tab, and then click the **[Add Program...]** button.



3. The **Add a Program** dialog box will appear on your screen. Click the **[Browse]** button.

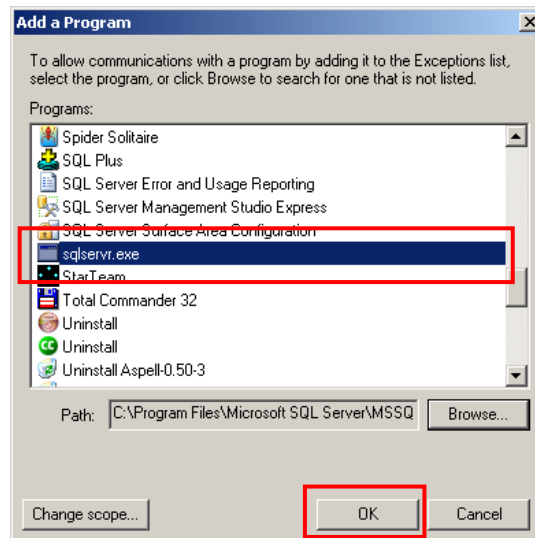


- In the **Browse** dialog that opens, locate the following file: **SQLServr.exe**. This file is typically located in the following directory:

**C:\Program Files\Microsoft SQL Server\MSSQL.1\MSSQL\Binn**

If the file cannot be found in this directory, use Windows search to determine the location of the file. Once the file is found, select it, and then click the **[Open]** button.

The file should now be listed in **Programs** list in the **Add a Program** dialog.



- Ensure the program is selected in the list, and then click the **[Ok]** button. The program will then be added to the list of firewall exceptions.
- Repeat the previous steps, however this time add the following file: **SQLBrowser.exe**. This file is typically located in the following directory:

**C:\Program Files\Microsoft SQL Server\90\Shared**

- Click the **[OK]** button to close the **Add a Program** dialog box, and then click the **[OK]** button to close the **Windows Firewall** window.
- Finally, **reboot** the host computer to complete the configuration process.

### Contacting Schlumberger Water Services

If you would like to contact us with comments or suggestions, you can reach us at:

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