PASTEL EVOLUTION NETWORK CONFIGURATIONS

PHASE 1: MS SQL 2005 Configurations

1. Enabling Network Protocols

The following two network protocols are used for SQL Server 2005:

- TCP/IP
- Named Pipes

These protocols need to be enabled in the MS SQL Server Configuration Manager, on the Evolution server PC.

To enable them do the following on the server PC:

Start | Programs | SQL Server 2005 | Configuration Tools | SQL Server Configuration Manager.

There are 2 separate places on the above screen to configure, namely “SQL Server 2005 Network Configuration” / “Protocols for MSSQLSERVER” and “SQL Native Client Configuration” / “Client Protocols”

In both places mentioned, both protocols mentioned above need to be enabled.

On the right side of the screen, right click on the first protocol, TCP/IP, and select Enable.

Repeat this for the Named Pipes protocol also.

2. Enabling the Mixed Mode Authentication Type Logon Mode
There are two different server Authentication logon modes, also referred to as **Authentication Types**, for SQL Server 2005:

- **Windows Authentication Mode** – Only allows for Windows Logon mode, or
- **Mixed Mode** – Allows for both Windows and SQL logon modes

Note that the relevant Authentication Type can already be selected during the MS SQL server installation process but it can also be changed afterwards.

**Windows Authentication Type** means that the Windows user of the network workstation PC attempting to connect to the SQL Server instance, needs to have the applicable Administrative rights on the server PC. On a normal network this will not always be practical from a security point of view.

For this reason MS SQL is allowing the **Mixed Mode** Authentication Type which is enabling both Windows and SQL logon modes on the SQL server instance.

On a typical Evolution network, an Evolution workstation would therefore specifically use the **SQL Authentication Type** when connecting to the SQL server instance. This is done by using the ‘SA’ (the SQL instances’ System Administrator) logon user name and its password when setting up the connection.

**To enable Mixed Mode authentication:**

1. On the MS SQL server PC, open the SQL Management Studio utility.

   To do this click **Start | Programs | Microsoft SQL Server 2005** and select “SQL Server Management Studio Express” or “SQL Server Management Studio”, depending on your version of SQL Server.

2. On the “Connect to Server” screen that opens, ensure the correct SQL server instance name is displayed on the “Server name” field (there might be cases where multiple SQL instances have been installed on the PC), leave the “Authentication” field value unchanged on “Windows Authentication” and select the “Connect” button at the bottom.

3. Within the main Management Studio screen, right click on the server name and select **Properties**.
5. On the **Server Properties** screen, select the **Security** page link on the top left, and under **Server authentication** on the right, select the “SQL Server and Windows Authentication Mode” option. Click **OK** at the bottom.

6. Confirming SA password and configure its logon security.
By default, when SQL Server 2005 is installed a main SA login, with user name **sa**, gets created for which you specify a password when going through the installation setup wizard.

However, when specifying this password during installation, the length of the password value must be of a certain length and should comply with Microsoft’s strict complex password rules.

This password may fortunately still be changed within Management Studio afterwards.

To change the **sa** password and to configure logon security, do the following within Management Studio:

- double click on the **Security** folder,
- double click on the **Logins** folder
  - double click on the **sa** user

6.1 SA Password confirmation:

On the top left of the Login Properties – **sa** screen, select the **General** page option and confirm the case sensitive password on the right side of the screen.

Note that MS SQL applies very stringent password rules (e.g. requiring at least a capital letter and minimum password length).

To overcome this, enter any password (and retype in the ‘Confirm password’ field) and unselect the **Enforce password policy** option (when the entered password is not meeting MS SQL’s password rules).
6.2 SA Logon security

By still remaining on the Login Properties – sa screen, on the left of the screen, select the Status page option.

On the right of the screen ensure the Grant option is selected under Permissions to connect to database engine.

Also on the right, select the Enabled option under Login.
When done click on **OK** above.

7. Back on the main Management Studio screen, right click on the SQL server instance, and select the **Restart** option.

A confirmation screen will appear. Click **yes**

Wait until done and then Management Studio can be closed.
PHASE 2: Windows Firewall Settings

1. Open the Windows Firewall on the Evolution server and select the **Exceptions** tab.
2. Select the **Add Port** button
   Name: SQL
   **Port Number**: 1433
   **Option below**: TCP

3. Select the **Add Port** button again
   Name: UPD
   **Port Number**: 1434
   **Option below**: UDP
PHASE 3: Client Configuration

1. On the Evolution server, go to Start / Run and type in CLICONFG.

2. Enable TCP/IP and Named Pipes protocols here as well. Ensure that the TCP/IP protocol is listed at the top of the ‘Enabled protocols by order’ section on the right side of the screen. Also ensure that the options (“Force protocol...” and “Enable shared memory..” on the bottom left of the screen are both unselected.

3. When done select Apply and OK above.

PHASE 4: Restart the Evolution server PC

In certain cases a complete server shutdown is required if a simple restart is still leading to connection related errors on the workstation, afterwards.
PHASE 5: Repeat procedure on workstation

Repeat phases 2 and 3 on each Evolution workstation. In certain cases it may be advisable to also restart the workstation afterwards.

PHASE 6: Locating the company on the workstation

1. Open Evolution on the workstation
2. Select the Locate button
3. Enter the correct values for the following:
   - SQL Server Name: the same SQL server name value that appears on the Connect screen when you open Management Studio on the actual server PC.
   - Select the Use SQL Server authentication option.
   - Login Name: sa
   - Password: enter the correct sa password as specified within Management Studio on the server PC (remember that its case sensitive)
   - Select the correct database on the Database Name dropdown
4. Select the **Next** button

Select the option: **Use Common database on the same server** and **Finish** at the bottom.

5. The user should now be able to logon to the located company, as normal.