



#### Knowledge Base Article: Article 200 – Revision 1 How to connect to a Remote SQL Server Database?

Date: October 8th, 2010

#### **Problem:**

For performances reasons or architecture constraints, it would be necessary to install the NSI server and the database server on 2 different machines.

#### Solution:

Follow the steps below

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# **Architecture**

Net Report uses Windows Authentication to connect to the database. As a consequence you need to provide a Windows User credential that is able to log into your SQL Server Database.







# Section 1: Configure the Remote SQL Server Machine

### A. Create a Custom User

- 1. Connect to the machine where the remote SQL Server is running
- 2. Create a User that will be used by Click & DECiDE NSI to connect to your database.

#### WARNINGS:

- You must choose a password that complies with the password policy of both the remote SQL Server machine and the machine that runs Click & DECiDE NSI.
- If the machine is located in a domain, this user must belong to the domain. In this case, its password must comply with the password policies of the domain.

#### **B.** Run the SQL Server Configuration Tool

1. Connect to the machine where the SQL Server is running

**WARNING**: this operation requires SQL Server Administrator privileges. Be sure to connect as a user that has such privileges.

- 2. Locate the Installation Files of Click & DECiDE NSI.
- 3. Run the SQL Server Configuration Tool from the local disk: SQL Server Configurator\DVSqlServerConfig.exe

**Note:** If you are using NETASQ Event Analyzer 1 .0, please use the following SQL Server Configuration tool instead of the one provided with your installation program: <u>http://www.clickndecide.com/downloads/patches/NEA\_1.0\_Remote\_SQLServer\_Configurator\_Fix.zip</u>

**WARNING**: the SQL Server Configuration Tool has to run from a local disk. Be sure to copy the SQL Server Configurator folder on your local disk before running the program.

- 4. Enter the full name and the password of the user used by Click & DECiDE NSI to connect to the database
- 5. Enter the name of the SQL Server Instance.

**INFORMATION**: the SQL Server instance is the name that appears between brackets after the name of the SQL Server service (Start>Administrative Tools>Services).





🔡 Clio	🔡 Click and DECiDE SqlServer Server Configurator							
	indows User:	RRO-W2008-32\NETREPORT						
	Password:	·····						
	≀∟ Instance:	SQLEXPRESS (See SQL Server Service)						
		<u>Q</u> K <u>C</u> ancel						

6. Click OK.

### C. Test the configuration

- 1. Open a Command Prompt: Start>All Programs>Accessories>Command Prompt.
- 2. Enter the following command:

>runas /user:<domain>\<user> "osql -S .\<instance> -E"

Replace **<domain>** by your domain name, **<user>** by the user name created in chapter A. and **<instance>** by the SQL Server instance.

📾 Administrator: Command Prompt			
C:\Users\Administrator>runas /user:RRO-W2008 -E''_	-32\netreport "	osq1 -\$ .\\$(	
			<b>_</b>

- 3. Type **<ENTER>**.
- 4. Enter the password for the user created in chapter A.
- 5. Type **<ENTER>**.

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6. The following windows should appear:

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7. Then quit to exit from the command prompt.





### **D. Prepare the SQL Server for Remote Connections**

1. Verify that the SQL Server is accepting remote connection.

For SQL Server 2005, start the SQL Server Surface Area Configuration from All Programs / Microsoft SQL Server 2005 / Configuration Tools.

📅 SQL Server 2005 Surface Area Configuration 📃 📃	
Microsoft SQL Server 2005 Help Protect Your SQL Server	tem
<ul> <li>Minimize SQL Server 2005 Surface Area</li> <li>SQL Server 2005 improves manageability and security by giving administrators more control over the surface area of local and remote instances of SQL Server 2005. With the SQL Server 2005 Surface Area Configuration tools, you can easily:</li> <li>Disable unused services and network protocols for remote connections.</li> <li>Disable unused features of SQL Server components.</li> <li>For new installations, use these tools to enable required features, services, and network protocols that are disabled by default. For upgraded instances, use these tools to identify and disable unused features, services, and protocols.</li> <li>Users with administrative privileges on Microsoft Windows Vista and later versions will no longer have administrative privileges on this SQL Server installation by default. To explicitly add yourself as a SQL Server administrator, click on the below link:</li> </ul>	
🕵 🛛 Add New Administrator	
Read more about configuring the SQL Server surface area.	
Configure Surface Area for localhost (change computer)	
Surface Area Configuration for Services and Connections	
Surface Area Configuration for Features	

Then click on Surface Area Configuration for Services and Connections and check that remote connections are allowed as below:



# Click&DECIDE Business Application Intelligence | Promotions

🐗 Surface Area Configuration for Servio	ces and Connections - localhost	×			
SQL Server 2005 Surface Area Configuration Help Protect Your SQL Server					
Enable only the services and connection protect your server by reducing the surfac	types used by your applications. Disabling unused services and connections helps e area. For default settings, see <u>Help</u> .				
Select a component and then configure its services and connections:         □       SQLEXPRESS         □       Database Engine         Service       Service         ▶       Remote Connections         Image: Connections       Service         Image: Connections       Service     <					
	<ul> <li>Local connections only</li> <li>Local and remote connections         <ul> <li>Using ICP/IP only</li> <li>Using named pipes only</li> <li>Using both TCP/IP and named pipes</li> </ul> </li> </ul>				
	OK Cancel <u>A</u> pply <u>H</u> elp				

Then start the SQL Server Configuration Manager from All Programs / Microsoft SQL Server 2005 / Configuration Tools and check protocols are enabled as below:

🛐 SQL Server Configuration Manager			
Eile Action View Help			
SQL Server Configuration Manager (Local)	Protocol Name	Status	
SQL Server 2005 Services	🕉 Shared Memory	Enabled	
SQL Server 2005 Network Configuration	The Named Pipes	Enabled	
	TCP/IP	Enabled	
	a VIA	Disabled	
🛁 🗸 Aliases			
	,		
<u></u>		)	, ,

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Then right click on TCP/IP properties and set a fixed TCP port for IPAII at 1433 as below:

Pro	otocol IP Addresses				
Ξ	IP1				
	Active	Yes			
	Enabled	No			
	IP Address	192.168.0.89			
	TCP Dynamic Ports	0			
	TCP Port				
Ξ	IP2				
	Active	Yes			
	Enabled	No			
	IP Address	127.0.0.1			
	TCP Dynamic Ports	0			
	TCP Port				
Ξ	IPAll				
	TCP Dynamic Ports	1035			
	TCP Port	1433			
TC TC	I <b>P Port</b> IP port				
OK Cancel Apply Help					

🛐 SQL Server Configuration Manager			
Eile Action View Help ← → 1 € 1 😭 🐼 🗟 😫			
<ul> <li>SQL Server Configuration Manager (Local)</li> <li>SQL Server 2005 Services</li> <li>SQL Server 2005 Network Configuration</li> <li>Protocols for SQLEXPRESS</li> <li>SQL Native Client Configuration</li> <li>Client Protocols</li> <li>Aliases</li> </ul>	Name Shared Memory TCP/IP Named Pipes	Order 1 2 3	Enabled Enabled Enabled Enabled Disabled

For SQL Server 2008, start the SQL Server Configuration Manager from All Programs / Microsoft SQL Server 2005 / Configuration Tools and check protocols are enabled as below:



🖀 Sql Server Configuration Manager 📃 🗖 🗙				
Sql Server Configuration Manager         Eile       Action       Yiew       Help         SQL Server Configuration Manager (Local)         SQL Server Services         SQL Server Network Configuration (32bit)         Aliases         SQL Server Network Configuration         Protocols         SQL Server Network Configuration         SQL Server Network Configuration	Protocol Name Shared Memory Named Pipes TCP/IP	Status Enabled Enabled Enabled Disabled		
Aliases				

Then right click on TCP/IP properties and set a fixed TCP port for IPAII at 1433 as below:

TCP/	/IP Properties		? ×
Pro	otocol IP Addresses		
	IP4		
	Active	Yes	
	Enabled	No	
	IP Address	127.0.0.1	
	TCP Dynamic Ports	0	
	TCP Port		
	IP5		
	Active	Yes	
	Enabled	No	
	IP Address	fe80::5efe:192.168.0.106%12	
	TCP Dynamic Ports	0	
	TCP Port		
	IPAII		
	TCP Dynamic Ports	49205	
	TCP Port	1433	
			-
T	CP Port		
TC	IP port		
	ок са	ancel <u>A</u> pply He	elp

The following window will appear only in 64 bits version.





🧱 Sql Server Configuration Manager						
<u>File Action View H</u> elp						
🗢 🔿 🖄 🗐 🖬 🔹						
😵 SQL Server Configuration Manager (Local)	Name	Order	Enabled			
SQL Server Services	🐨 Shared Memory	1	Enabled			
. 🖳 SQL Server Network Configuration (32bit)	🍹 TCP/IP	2	Enabled			
도 .婁. SQL Native Client 10.0 Configuration (32bit)	🐨 Named Pipes	3	Enabled			
Section Protocols	🐨 VIA		Disabled			
🚔 Aliases						
SOL Native Client 10.0 Configuration						
Gient Protocols						
· · · · · · · · · · · · · · · · · · ·						



- 2. Verify that no FIREWALL setting is blocking the communication between the two machines.
  - SQL Server: TCP 1433
  - SQL Browser: UDP 1434

# Section 2: Prepare the Click & DECiDE - NSI Machine

#### A. Create Custom User

- 3. Connect to the machine where Click & DECiDE NSI is installed.
- 4. Create a User that will be used by Click & DECiDE NSI to connect to your database.
  - a. This user must have the same login and password as the one created in section 1.A.
  - b. If the machine is located in a domain, use the user created in section 1.A





5. Grant the log on as a batch job and log on as a service rights to this user.

From Administrative Tools, start the Local Security Policy. Then, in Local Policies / User Rights Assignment, add this user to entries below: - Log on as a batch job - Log on as a service

- 6. Give full access to this user on the following directories used by NSI:
  - a. The installation directory located by default at: C:\Program Files\Click and DECiDE\NSI.
  - b. The Storage directory if you are using the Log Storage options. By default it is located at: C:\NetReportStorage
  - c. The Archive directory if you are using the NSI Log Archive Service. By default it is located at: C:\NetReportArchives
  - d. The Error Queue directory if you have changed its default location.
- 7. Open a Command Prompt.
- 8. Enter the following command:

```
>C:\WINDOWS\Microsoft.NET\Framework\v2.0.50727\aspnet regiis.exe -ga
<domain>\<user>
```

Replace **<domain>** by your domain name, **<user>** by the user name created in step 2.

9. Type <ENTER>

#### B. Test the Database Connection

1. Download and install Microsoft SQL Server Management Studio Express (SSMSE) from Microsoft web site:

SQL Server 2005: http://www.microsoft.com/downloads/details.aspx?FamilyID=5D76230D-580D-4874-8C7D-93491A29DB15&displaylang=en

SQL Server 2008: http://www.microsoft.com/downloads/details.aspx?FamilyID=08e52ac2-1d62-45f6-9a4a-4b76a8564a2b&displaylang=en

- 2. Open a Command Prompt: Start>All Programs>Accessories>Command Prompt.
- 3. Enter the following command:

For SQL Server 2005

> cd "C:\Program Files\Microsoft SQL Server\90\Tools\Binn\VSShell\Common7\IDE"

For SQL Server 2008 32 bits

> cd "C:\Program Files\Microsoft SQL Server\100\Tools\Binn\VSShell\Common7\IDE"

For SQL Server 2008 64 bits

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> cd "C:\Program Files (x86)\Microsoft SQL Server\100\Tools\Binn\VSShell\Common7\IDE"

>runas /user:<domain>\<user> ssmsee.exe

Replace <domain> by your domain name, <user> by the user name created in step 2.

- 4. Type **<ENTER>**.
- 5. Enter the password of the user created in step 2.
- 6. Type <ENTER>.
- 7. Enter the Server Name (<machine>\<instance>) of the SQL Server you want to connect to.

Connect to Server			
Microsoft SQL Server 2005			
Server <u>type</u> :	Database Engine		
Server name:	RRO-W2008-32\SQLEXPRESS		
Authentication:	Windows Authentication		
<u>U</u> ser name:	RRO-W2003-32\NETREPORT		
Password:			
	Remember password		
Conne	ct Cancel Help <u>O</u> ptions >>		

- 8. Click Connect.
- 9. You should be connected to the remote SQL Server.





🝢 Microsoft SQL Server Management Studio Expre	255	
File Edit View Tools Window Community H		
File       Edit       Yew       Loois       Window       Community       H         New Query       Image: Second	ep Summary RRO-W2008-32\SQLEXPRESS RRO-W2008-32\SQLEXPRESS Name Databases Security Server Objects Replication Management	• × ESS (: 5 Item(s)
Ready		<b>)</b>
		///

10. If you got an error when connecting to your database, check all settings and retry.

# Section 3: Configure Click & DECiDE - NSI

- 1. Install Click & DECiDE NSI if not already done.
- 2. In Log Source Configuration, click the Settings... button of the Database section.
  - a. Log source configuration can be started at reboot after a fresh installation or
  - b. Can be started from All Programs / Click & DECiDE / NSI /
- 3. Fill the Server Name.
- 4. Fill the Instance Name.
- 5. Enter the login (<domain>\<user>) and password of the user you created in section 2.A.
- 6. Check the **Update Database** box.





lick and DE	lick and DECiDE - for NSI Enterprise Configurator - Database Settings				
Database Connection Settings					
M.C.	Please use only Case Insensitive settings.				
	Database Server:	Remote SQL Server			
	Server Name:	RR0-W2008-32			
	Server Instance:	SQLEXPRESS			
	– Login –				
	Windows User:	RRO-W2003-32\NETREPORT ?			
	Password:				
	Database Update Settings				
	Configure the update settings for the NSI Database.				
	🔽 Update Database				
	Delete existing data				
	Database Time Zone Settings				
	Use UTC offset (Coordinated Universal Time)				
	Time Zone: (GMT+01:00) Brussels, Copenhagen, Madrid, Paris				
	Adjust for Daylight Saving Time (DST)				
Powered by	Click and DECiDE	OK Cancel <u>H</u> elp			

- 7. Click Test to check the SQL Server connection.
- 8. Click OK.
- 9. Wait for the Log Source Configuration Tool to update the Click & DECiDE NSI configuration.
- 10. Click Close.

