



External Reports

Instruction Guide

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1.0 Installing External Reports for SIM™

Key reports are accessible from within SIM™ manager via the Reports Tab. Additional reports are available external to the SIM™ system. These reports rely on Microsoft's SQL database and report writer tools.

To access external reports, your IT department may need to make changes to the server on which the SIM™ system operates. Instructions on how to set this up are provided in this manual and may need to be modified depending on your facility's specific IT infrastructure.

The external reports, although useable as they are, are provided as a starting point for your facility to design reports tailored specifically to your needs. The number and variety of external reports will increase over time, please refer to Simavita's training web-site regularly for updates <http://simavita.com/training/>.

2.0 Notes for the Person Installing

The SIM™ system utilises an SQL database to store information. This database is installed on the SIM™ server on which the SIM™ software operates. By default this database is not accessible from client machines. To access external reports (either for editing or running reports) additional system setup steps need to be taken.

This document provides a guide to the steps required to gain remote access to the server's database. These steps are not specific to SIM™ but are related to Microsoft's SQL database infrastructure and Microsoft's SQL report writing tools. Please refer to information provided by Microsoft for additional details.

Following are five main sections:

- 3.0 Information on Server User Permission: This section covers required permissions in the SIM™ server to access external reports from client machines.
- 4.0 Client Computer Access for Reporting (no editing): This section describes the process of configuring the server (running the SIM™ software and SQL database) to allow client computers database access via an SQL web interface. This is useful for accessing reports for reporting purposes only (no editing is possible).
- 5.0 Adding External Reports to the Server: This section covers access to reports on client machines for reporting and editing.
- 6.0 Editing and Reporting from Client Computers: This section is similar to section "4.0 Client Computer Access for Reporting (no editing)" but includes additional instructions to provide editing capability from the client computer.
- 7.0 Using SQL Report Builder: This section provides a brief primer to writing and running SQL reports using SQL Report Builder

Note:

It is expected that the reader has prior knowledge of SQL, configuring an SQL database server and SQL Report Builder before applying any information provided in this document. This document is provided as a setup guide only and setup may differ depending on specific IT infrastructure.

CAUTION

Editing or modifying any information in the SIM™ SQL database may render the SIM™ system inoperable.

CAUTION

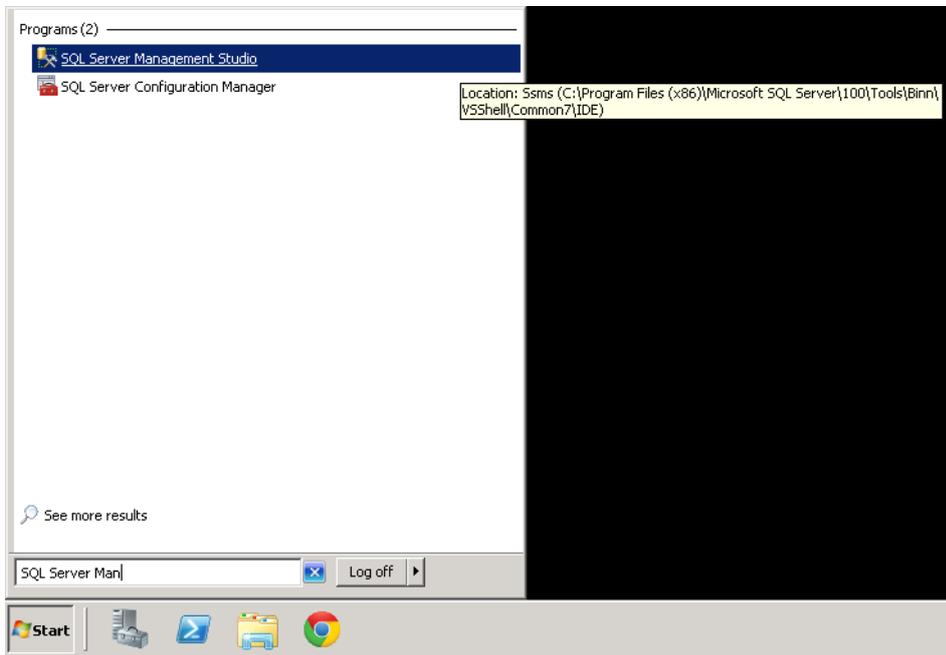
There are important data security implications with providing remote database access. This document does not cover or discuss any these. Please refer to information provided by Microsoft for further details.

Pre-requisites: To view, modify or create the external reports, Report Builder 3.0 (Microsoft SQL Server) or Microsoft SQL Server Reporting Services (SSRS) must installed on the server running the SIM™ system and/or the client machines. The reports will not be accessible or function from remote machines unless step described in this document are performed.

3.0 Information on Server User Permission

To access the SIM™ system database for reporting purposes, the SIM™ system server user (often the Administrator) must have clicked 'Select' and 'Execute' permissions in SQL server for SIMdb30 and SIMdb30Audit databases. To do this, follow these steps:

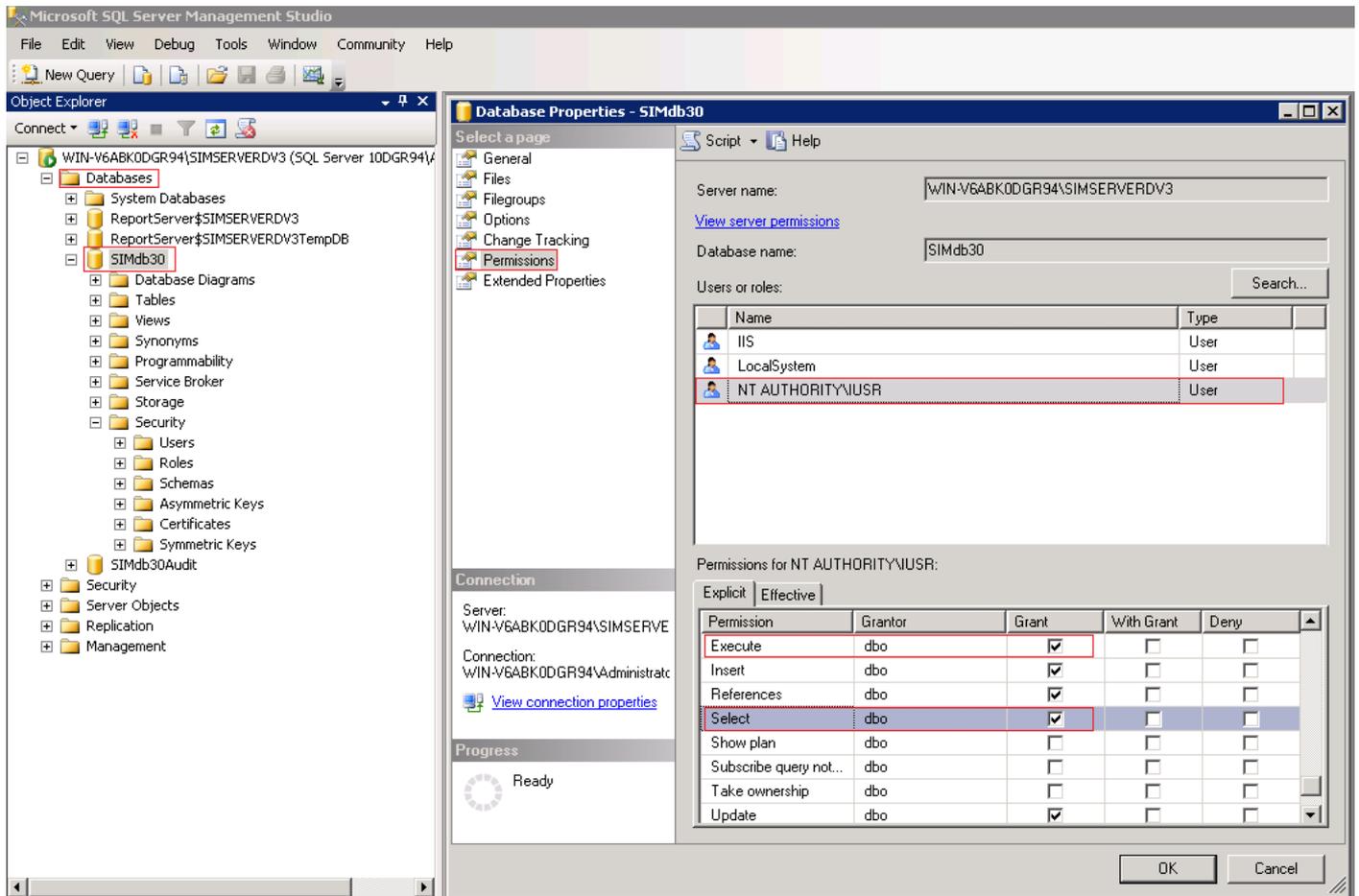
1. On the SIM™ Server, open SQL Server Management Studio:



2. Press connect in the "Connect to Server" window:



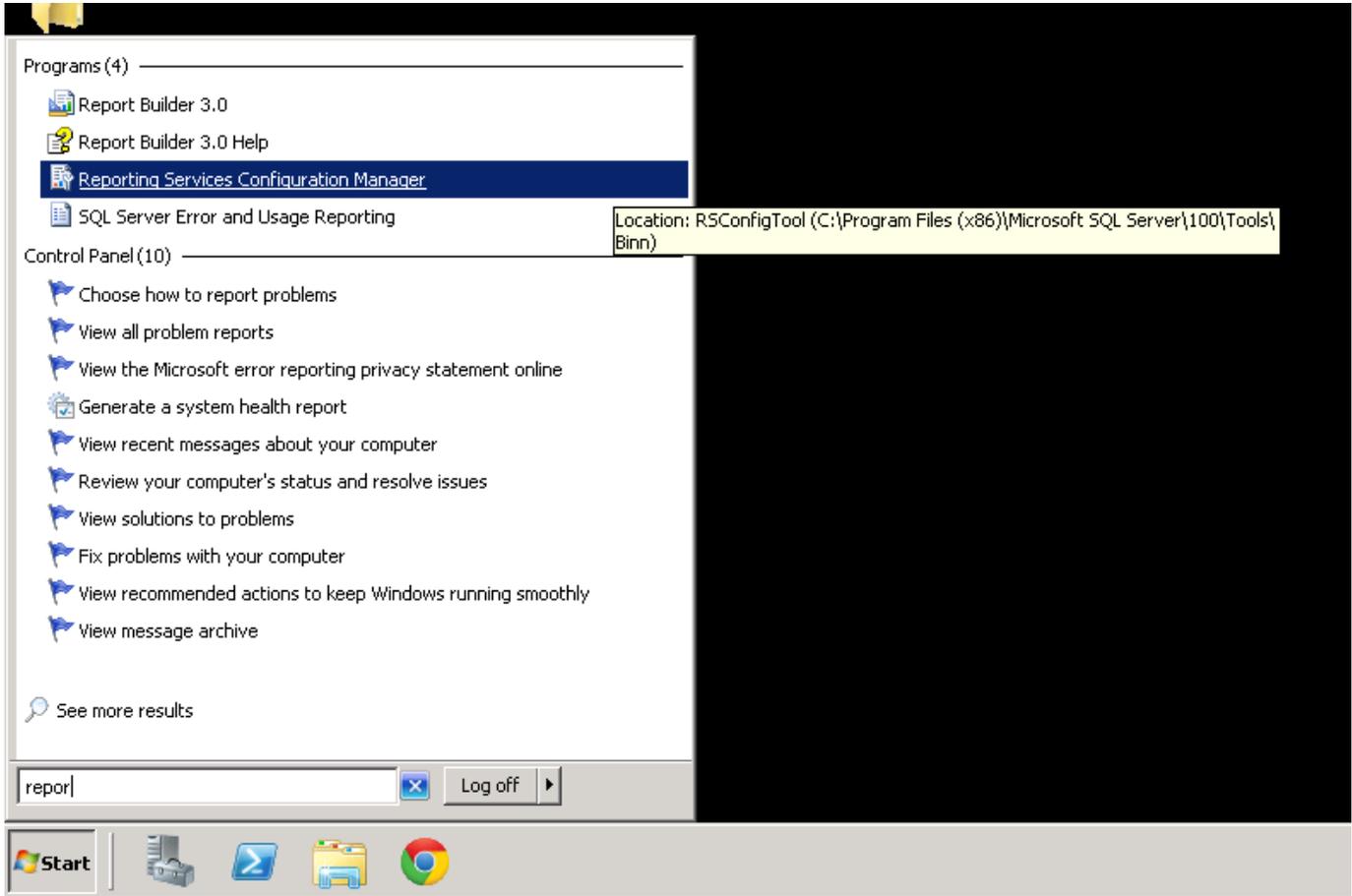
- From the Tree View on the left, Expand Database ->SIMdb30. Right click on SIMdb30 and press Properties. In the pop-up window, click on Permissions from left menu titled "Select a page". Select "NT AUTHORITY\IUSR" user. In the bottom grid, ensure that for Execute and Select row, the checkboxes are checked under the Grant column is checked.



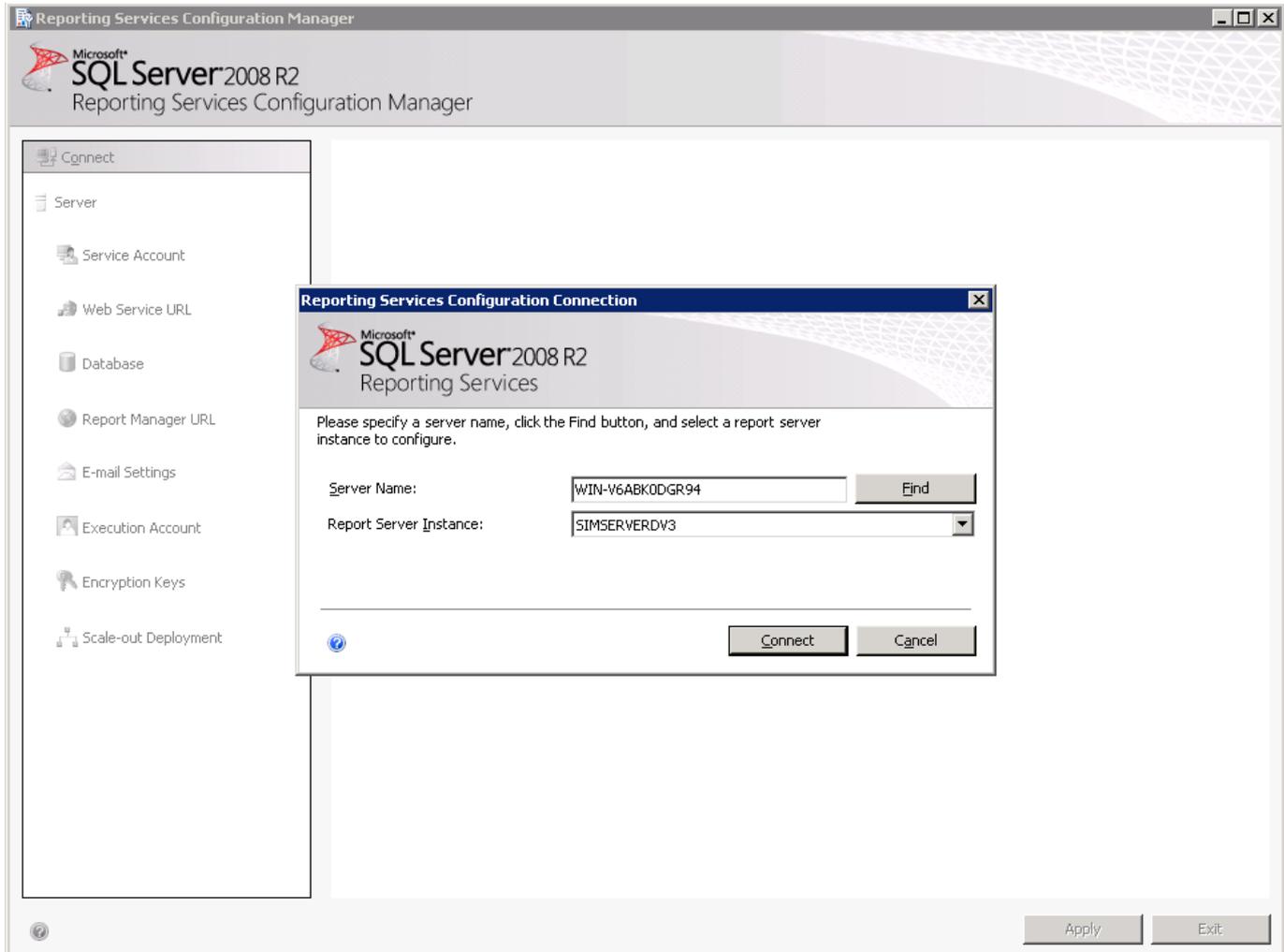
4.0 Client Computer Access for Reporting (no editing)

This section describes the process of configuring the server (running the SIM™ software and SQL database) to allow client computers database access via an SQL web interface. This is useful for accessing reports for reporting purposes only (no editing is possible).

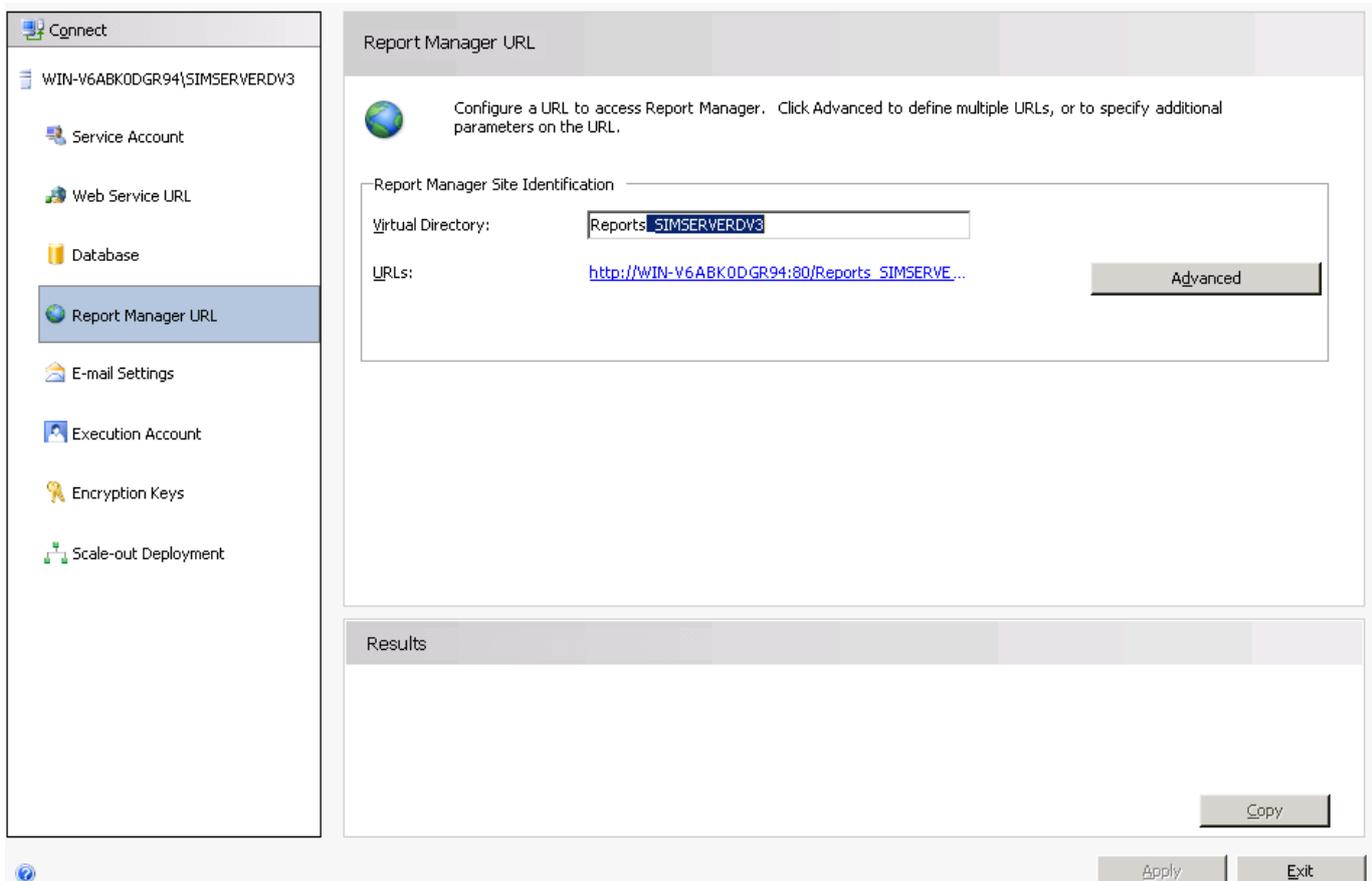
1. On the server running the SIM™ system database, open Reporting Service Configuration Manager.



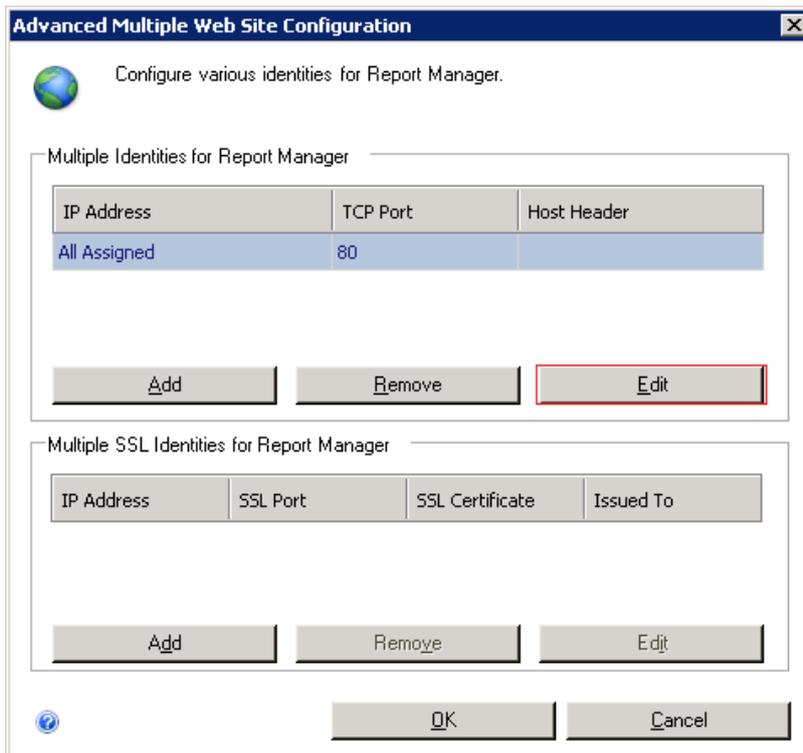
2. Press Connect on the pop up window.



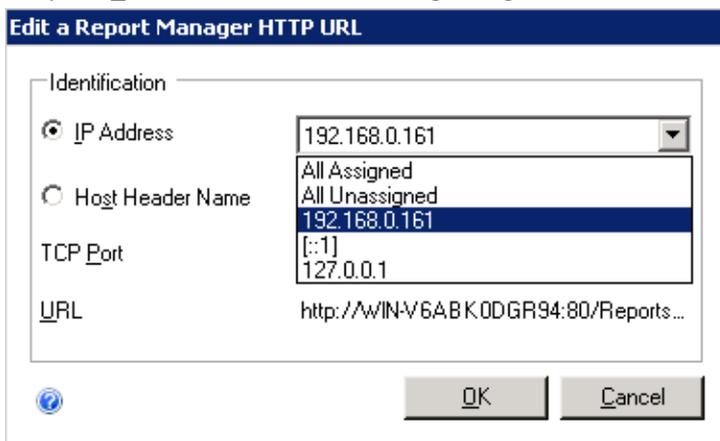
3. Click on "Report Manager URL". Change the Virtual Directory to "Reports" from "Reports_SIMSERVERDV3" and press Advanced button.



- On clicking “Advanced” button (as seen in Step 3), will bring up a pop up window as below. Click on the first Edit button.

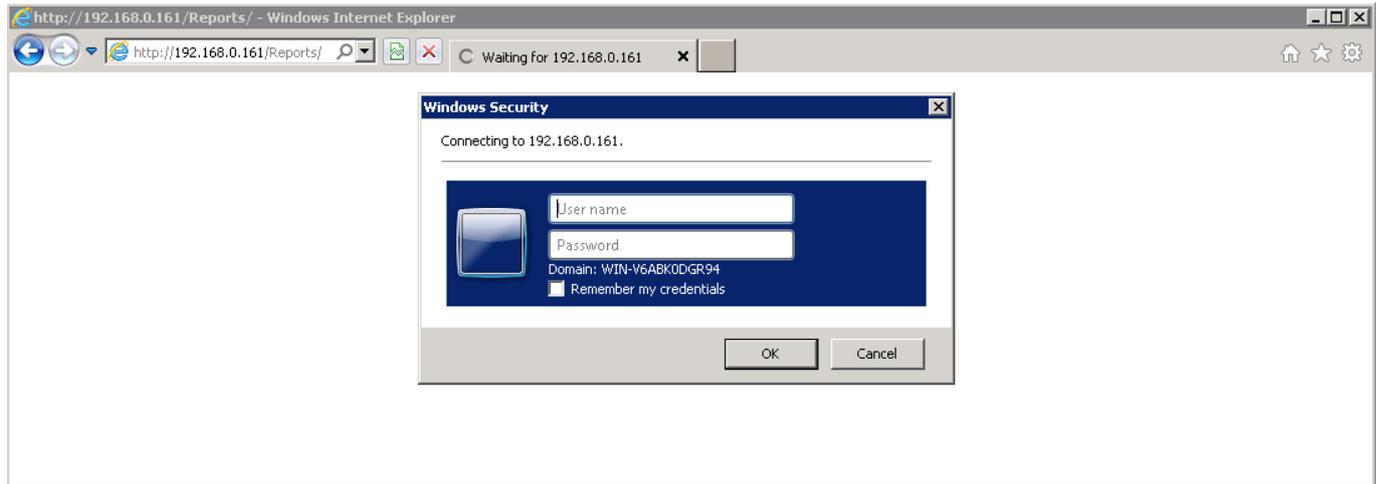


- In the next pop up window, change the IP Address drop down list from “All Assigned” to the specific IP address of the server (in the example below this is 192.168.0.161) and press OK and then click Apply in the main window (please make sure the Virtual Directory has changed to “Reports” from “Reports_SIMSERVERDV3”, or change it again as described in Step 3).

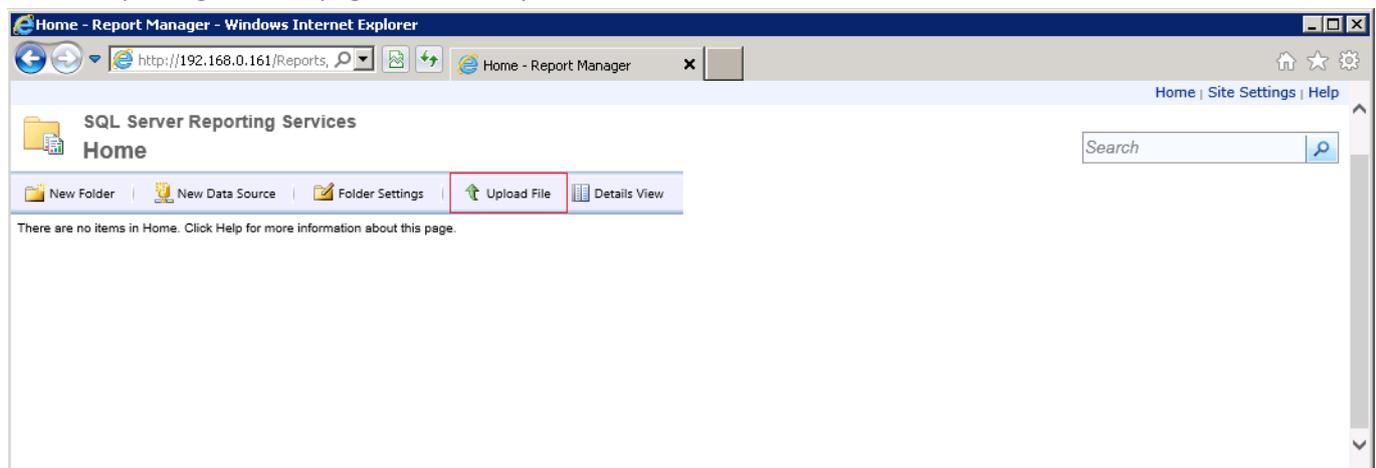


- Now the external reporting system is accessible with entered IP address within the network [http://\[SIM Server IP\]/Reports](http://[SIM Server IP]/Reports) (for example: <http://192.168.0.161/Reports>). Open Internet Explorer (on the server machine) and enter the IP address (as above) into the Address Bar and press Enter. The following pop up

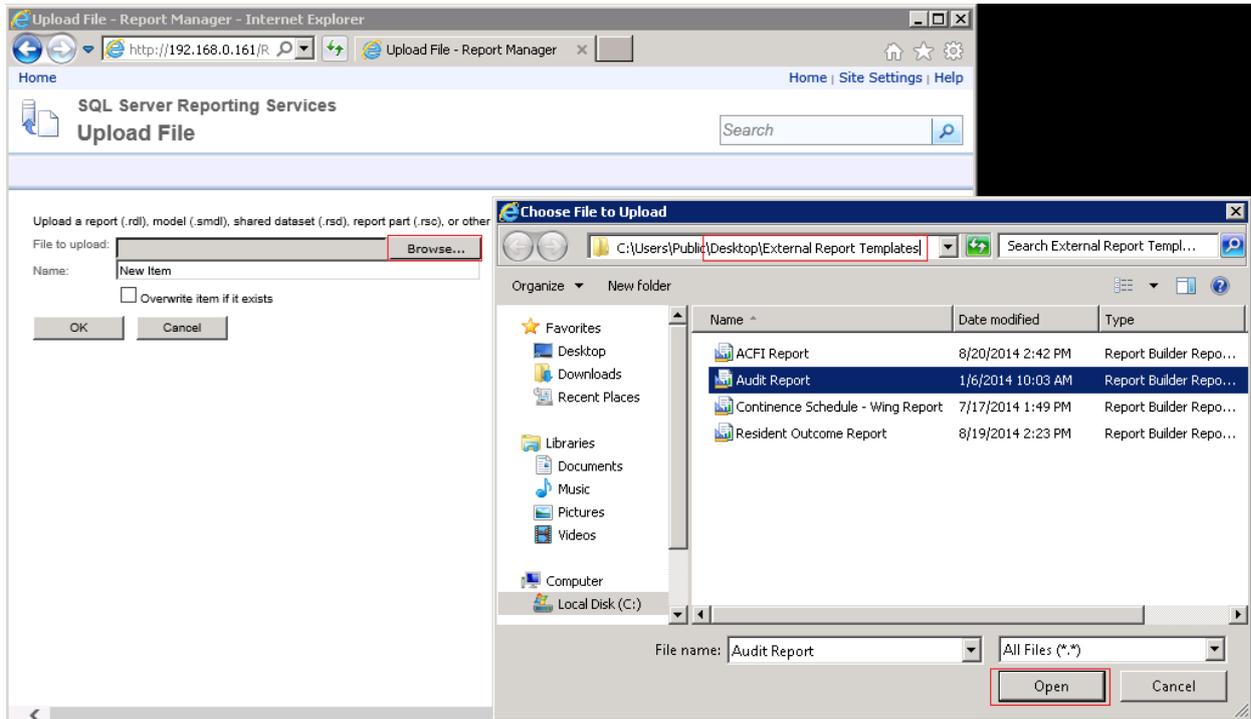
window will appear for login:



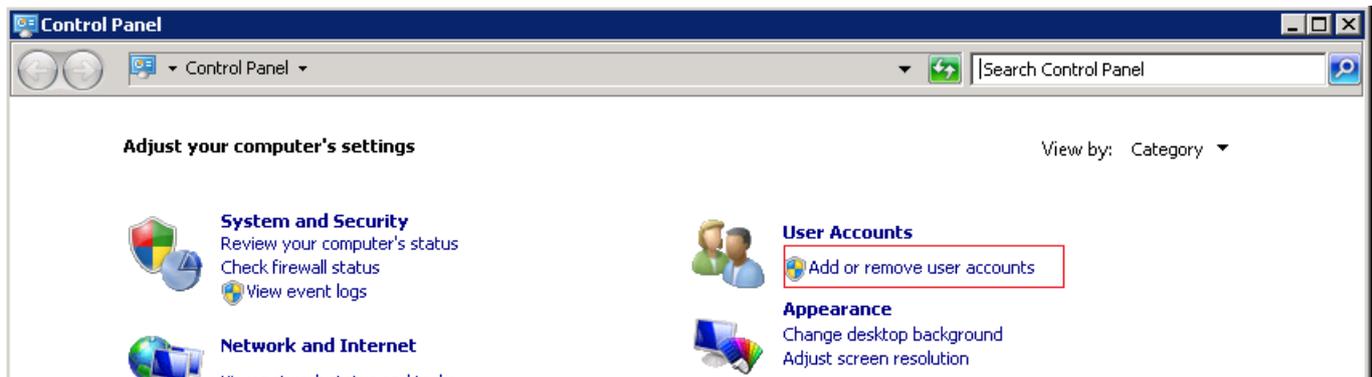
7. Enter the Windows login credentials for the **server** Administrator or the currently logged in server user. SQL Server Reporting Services page will come up



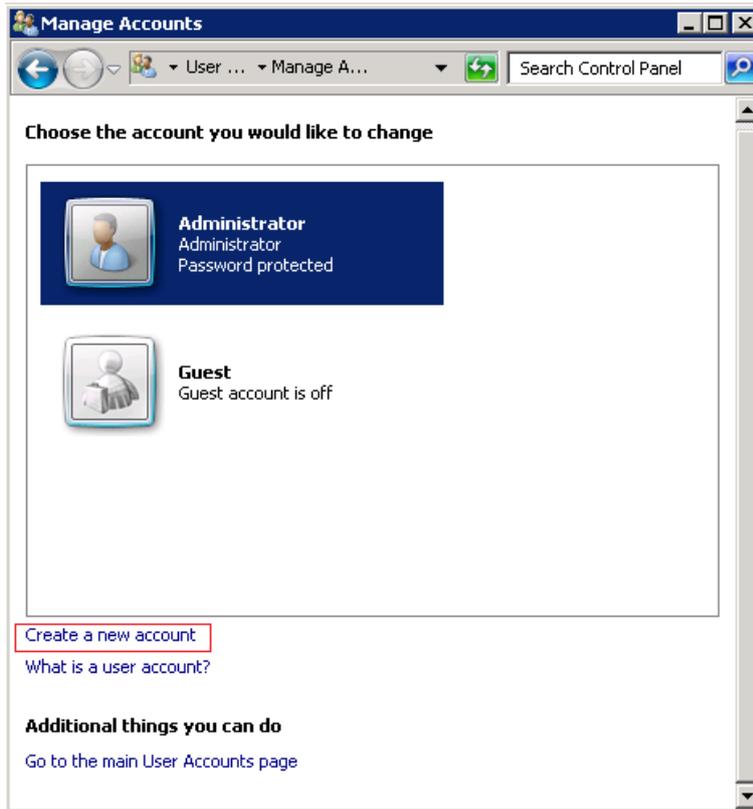
8. If there is a red message saying “This page might not function correctly because either your browser does not support scripts or active scripting is disabled”, then follow the instruction provided on this link [“http://www.mytechmantra.com/LearnSQLServer/Troubleshooting-SQL-Server-Reporting-Service-Error.html”](http://www.mytechmantra.com/LearnSQLServer/Troubleshooting-SQL-Server-Reporting-Service-Error.html) to enable active scripting for the browser.
9. To Add the External Reports to Reporting Services for web access, click on the “Upload File” (red box in Step 7). Note that report templates can be downloaded from Simavita’s training website. In the subsequently displayed screen, click the Browse button which will pop up a File Browser window. Go to “External Report Templates” folder on the server’s desktop. Enter a filename (or select a file to replace) and press Open and then OK in the Upload File page.



10. Now the report will show in the SQL Server Reporting Services Homepage. Follow the step above to add all the reports to the web reporting system.
11. Now any user on client machines can go to address (<http://<IPADDRESS>/Reports>) in Internet Explorer and view the reports with the login credentials of the SIM™ system server Windows login. Note that this is a significant security risk. It is preferable to create one or more normal user accounts (without admin privileges) on the SIM™ system server and give the individual users permissions for viewing the reports. To do this, follow the subsequent steps.
12. To create a user account with standard login privileges, on the server, open Control Panel and click “Add or remove user accounts” under User Accounts.



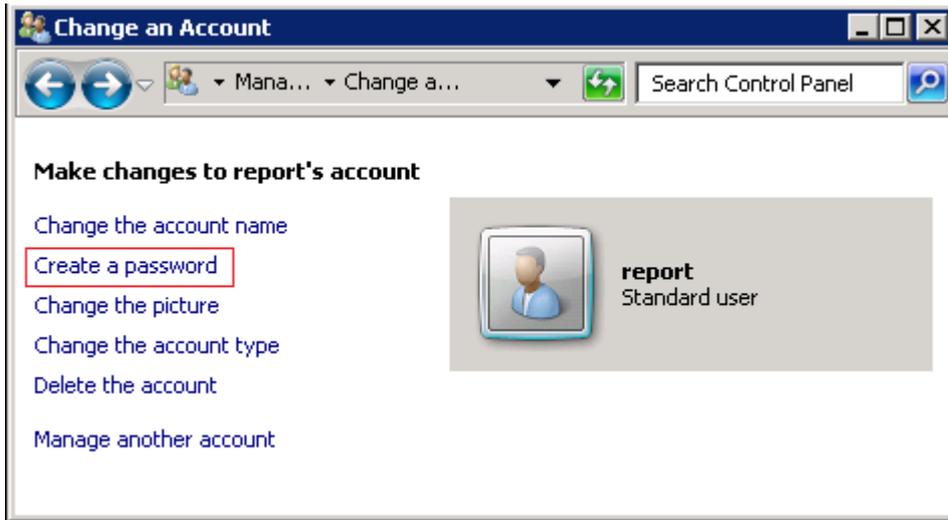
13. Click “Create a new account”.



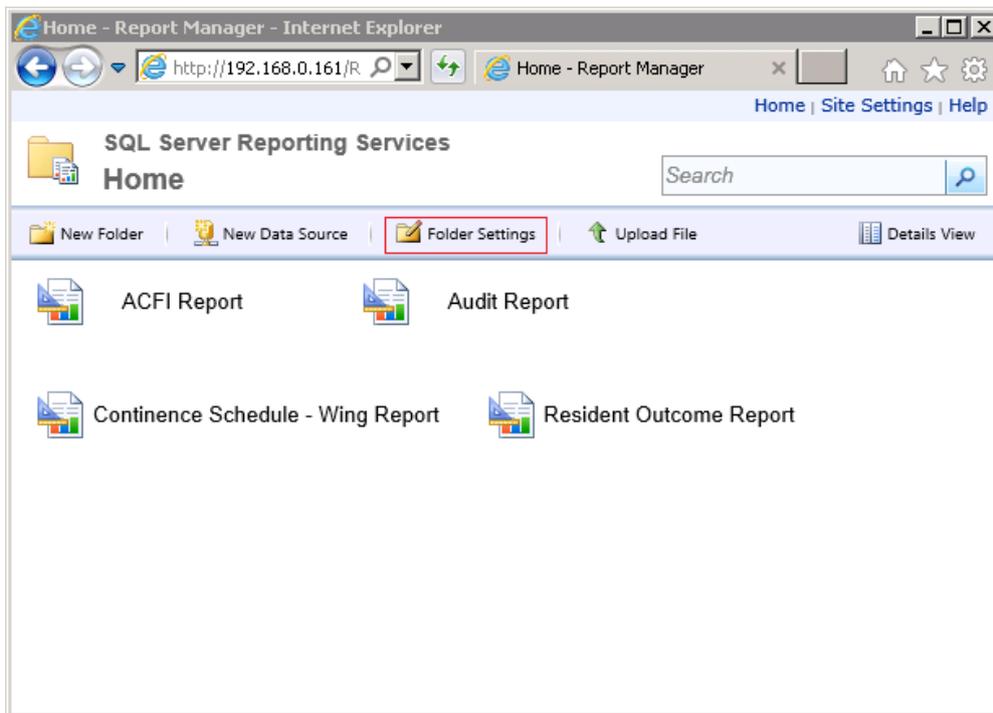
14. In the next page, enter “report” or any other preferred username in the textbox and check the “Standard user” and then click “Create Account”.



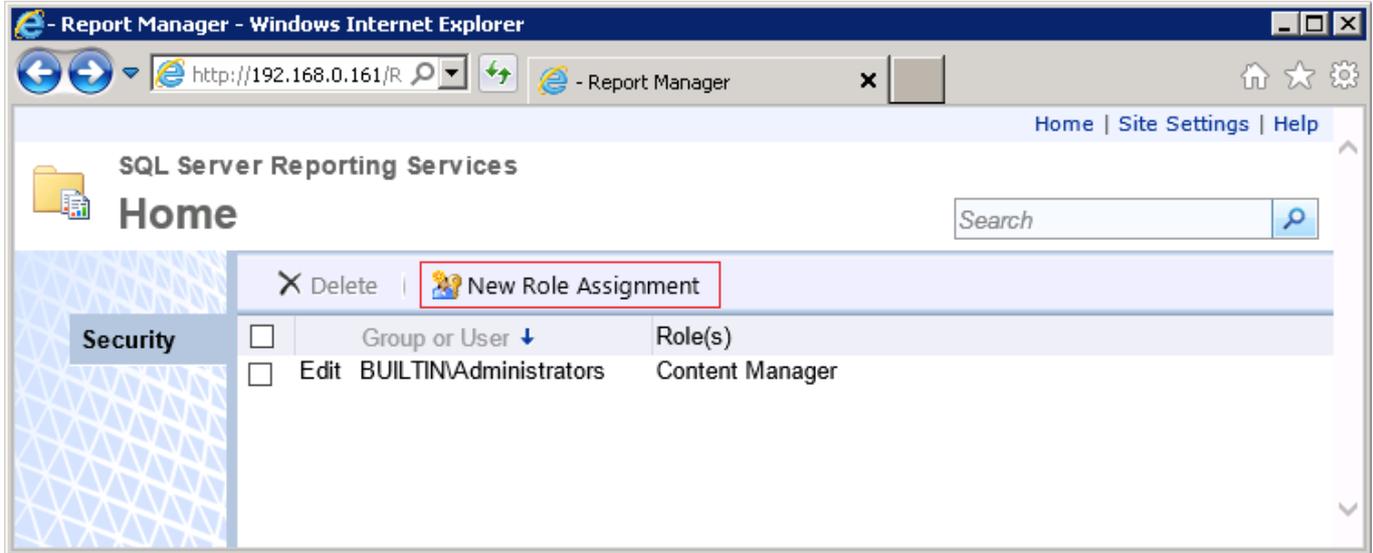
15. You will be brought back to the Manage Account window. Click on the “report” or the newly created user. In the next window, click on “Create a password”.



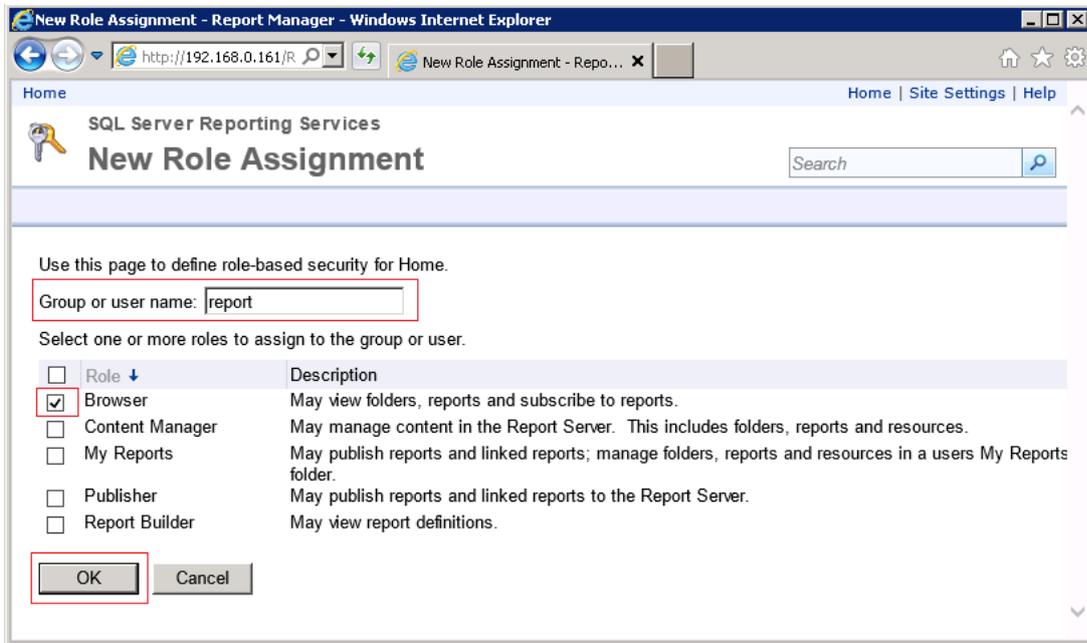
16. Provide a strong password which should be at least 8 characters, containing at least one capital letter, one number and one special character (For example “RepOrt!@#”). Provide a hint for the password and press “Create password”.
17. Go to web report URL (<http://<IPADDRESS>/Reports>) and login with Admin (or logged in user). Click on the “Folder Settings” link.



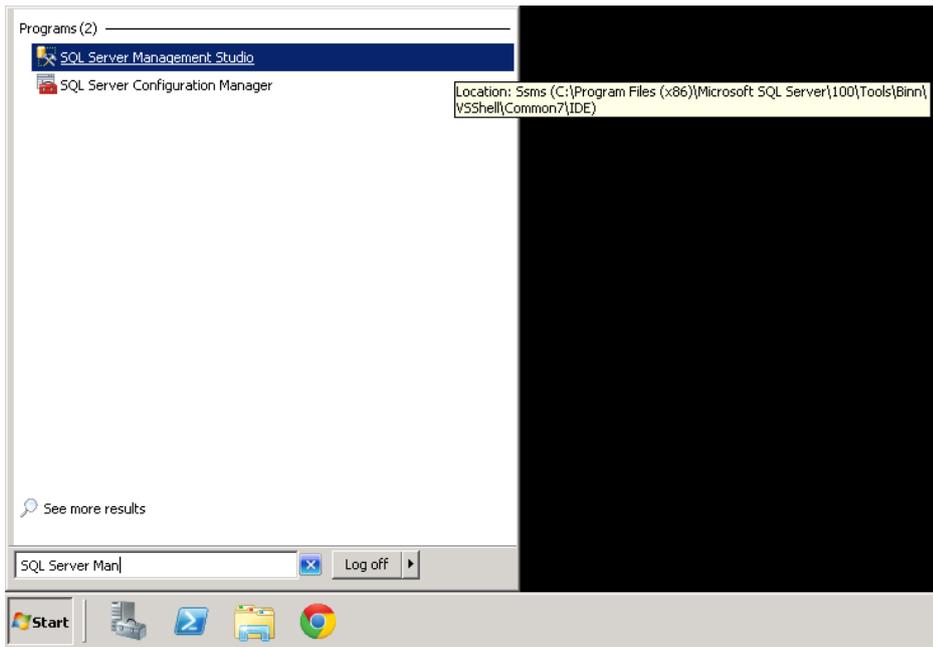
18. In the next page, click “New Role Assignment”



19. In the New Role Assignment page, put the “report” or the newly created username in the “Group or user name” text box. Check the “Browser” checkbox and press OK.



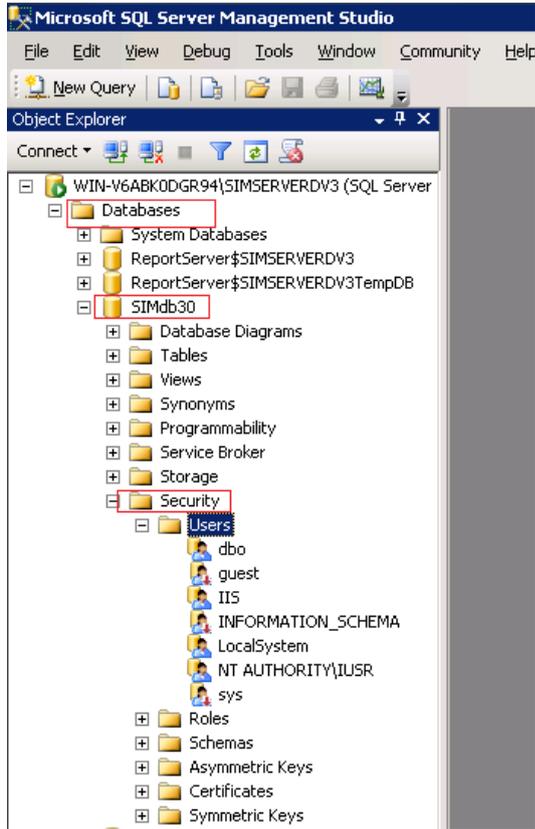
20. Data read permissions also need to be given to the newly created user from the SQL Server. On the server, open SQL Server Management Studio:



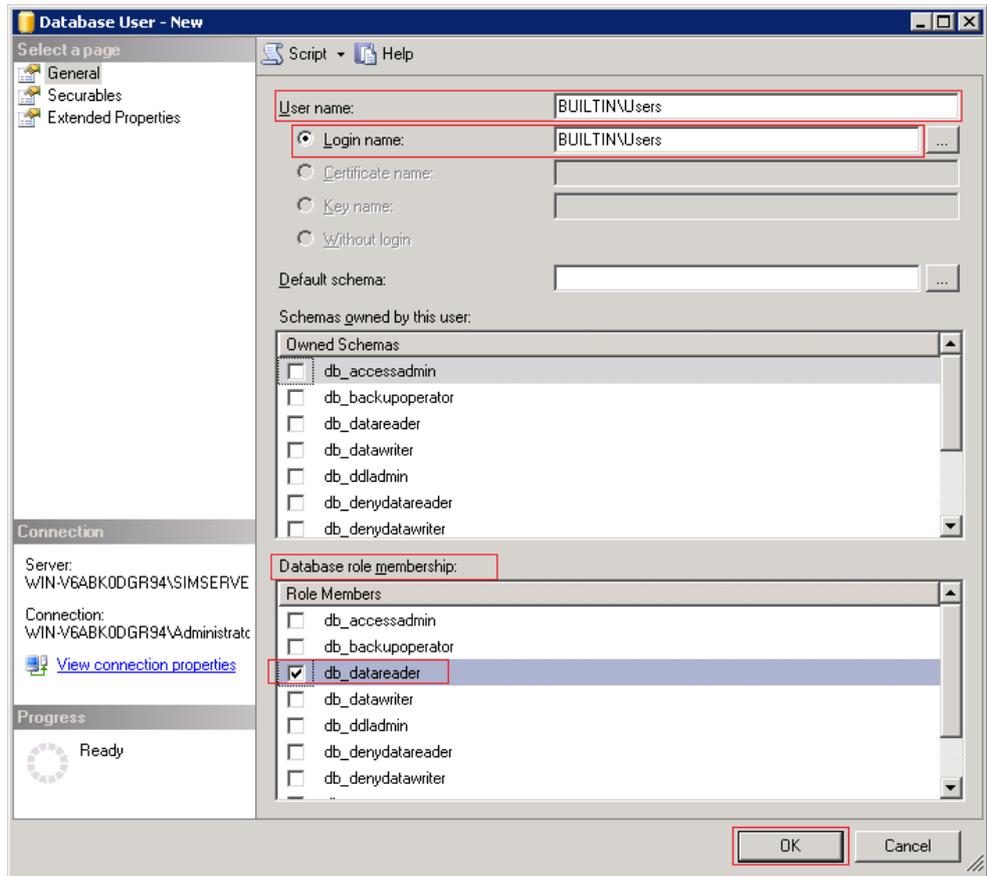
21. Press connect in the “Connect to Server” window:



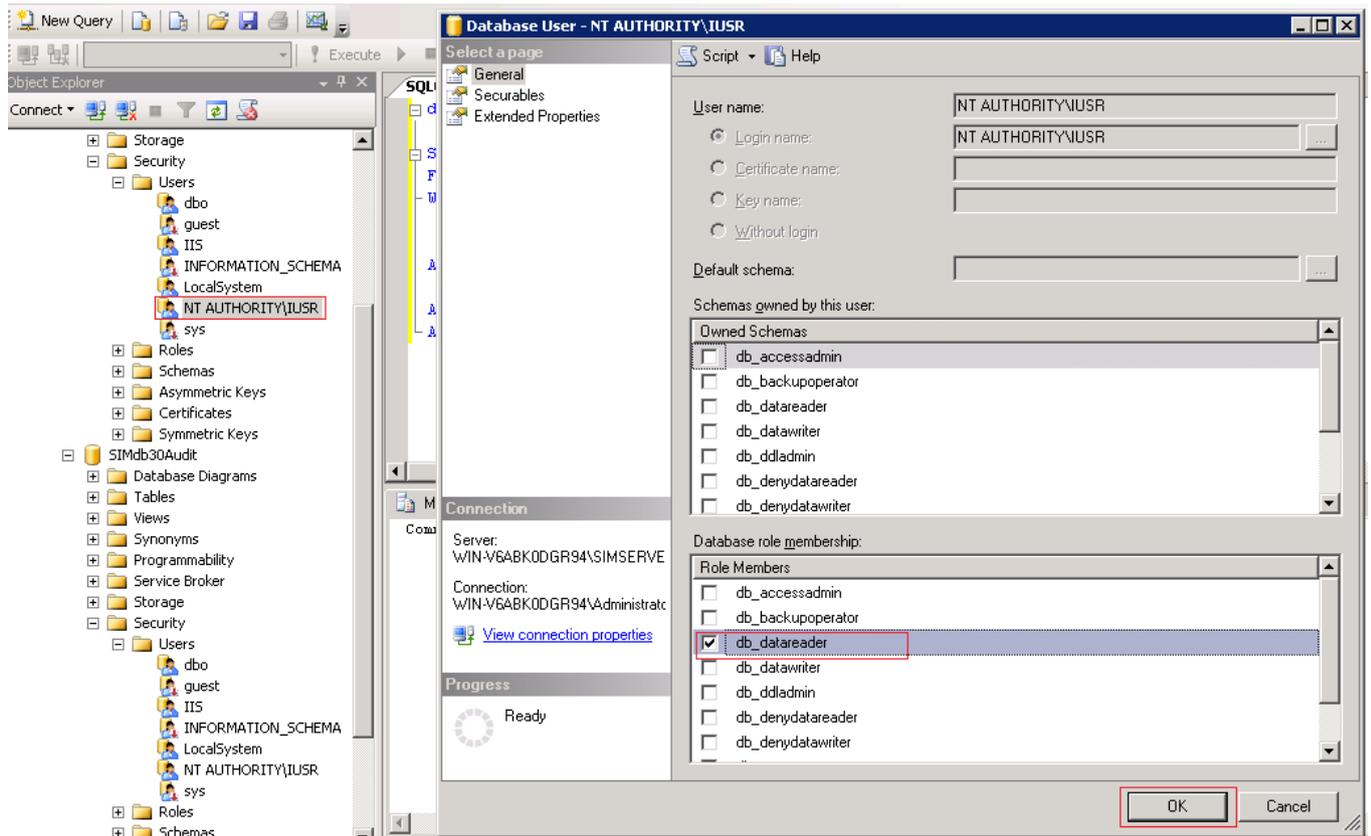
22. From the Tree View on the left, Expand Database -> SIMdb30 -> Security -> Users



23. Right click Users and click on “New User”. In the pop up window, for User name and Login name text boxes enter “BUILTIN\Users”. In the 2nd group of checkboxes (Database role membership), select db_datareader and press OK.

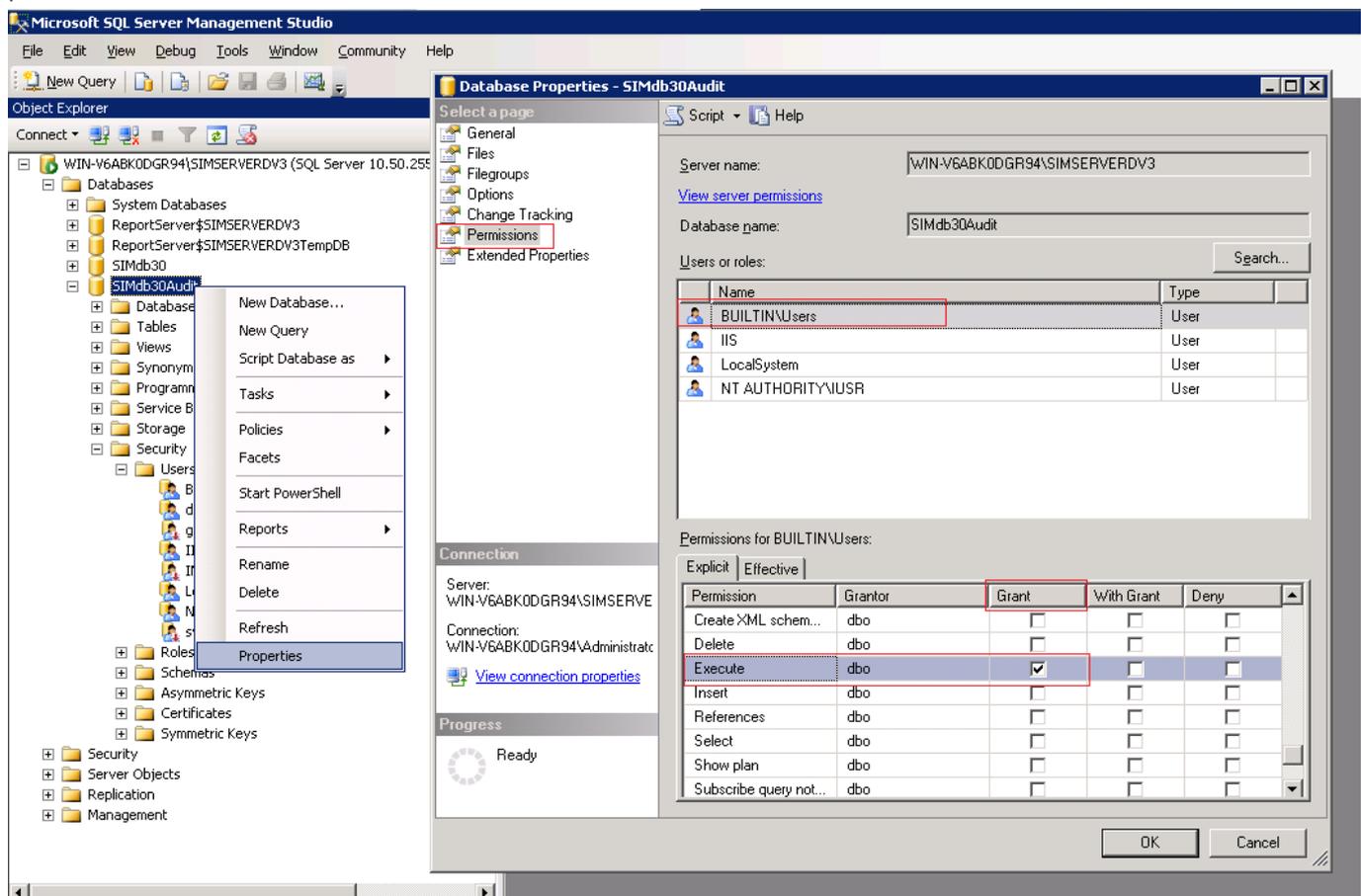


24. Double click on “NT AUTHORITY\IUSR”. From the second checkbox list (Database role membership), select db_datareader and press OK



25. Repeat the previous 2 steps for “SIMdb30Audit” database.

26. Right Click on SIMdb30Audit database and click on Properties. Then click on Permission and then select “BUILTIN\Users”. From the list of checkboxes, scroll down to “Execute” and check the Grant checkbox and press OK.



27. Now, anyone can access the reporting system with the newly created username and password through the <http://<IPADDRESS>/Reports> link.

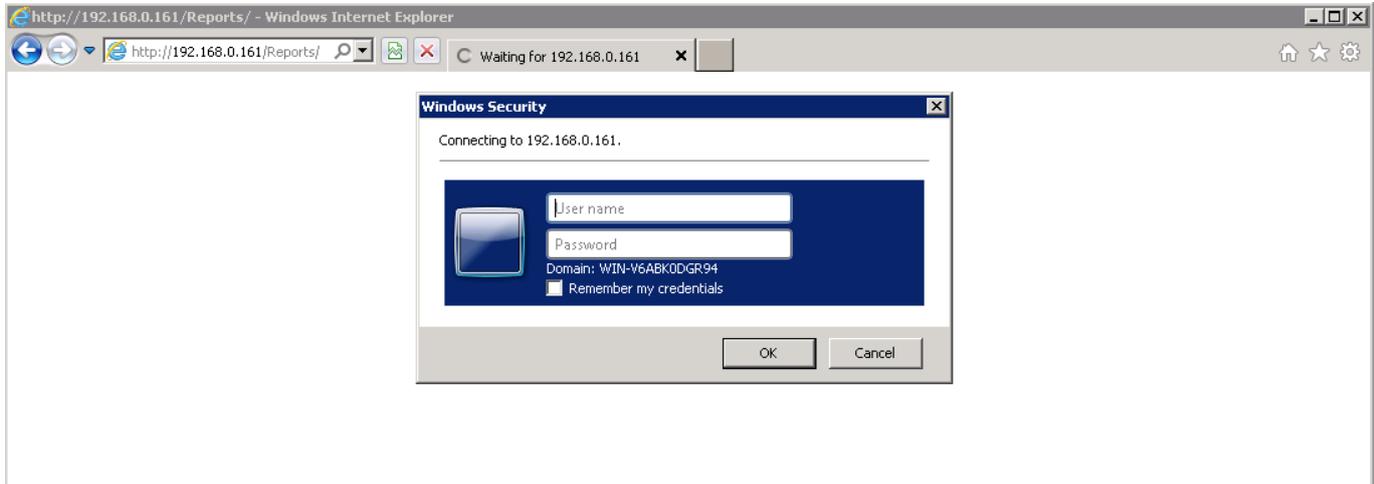
5.0 Adding External Reports to the Server

External reports may be added to regularly to Simavita's training resource website (<http://simavita.com/training/>). Once these external report templates are downloaded, these need to be added to the server so that they become available for all users via a web-based interface. The addition of these reports can be achieved via a client computer through the interface described in preceding sections. Alternatively the files can be added directly to the server.

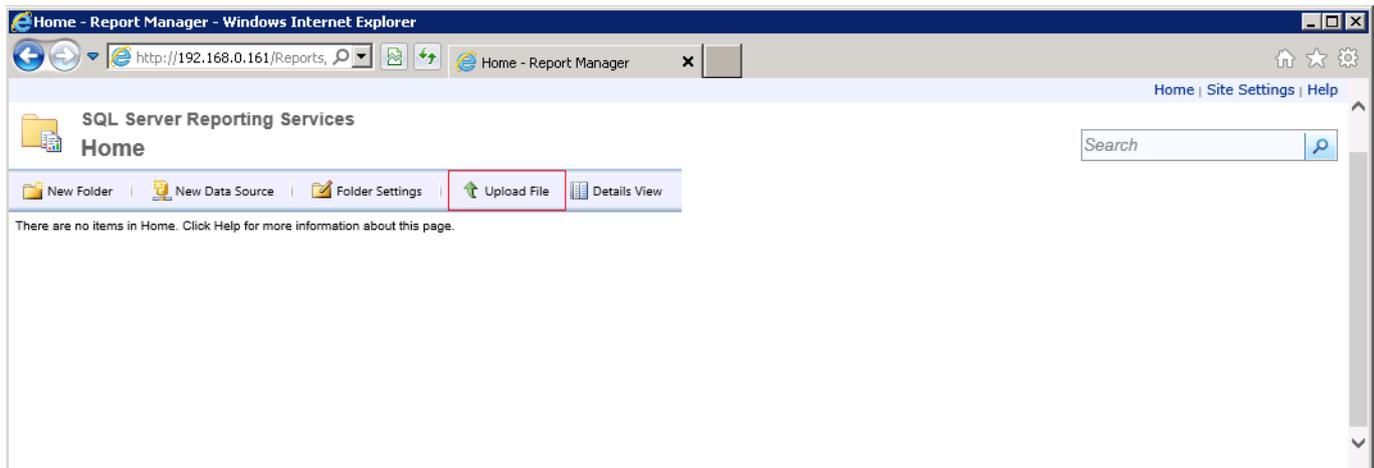
5.1 ADDING REPORTS FROM CLIENT COMPUTERS

The procedure below describes how to add new external reports to the system from a client computer.

1. On a client computer open Internet Explorer and enter the `http://[SIM Server IP]/Reports` (for example: `http://192.168.0.161/Reports`) into the Address Bar and press Enter. The following pop up window will appear for login:



2. Enter the login credentials for an administrator for SIM™ server. SQL Server Reporting Services page will be displayed.



3. If there is a red message saying “This page might not function correctly because either your browser does not support scripts or active scripting is disabled”, then follow the instruction provided on this link [“http://www.mytechmantra.com/LearnSQLServer/Troubleshooting-SQL-Server-Reporting-Service-Error.html”](http://www.mytechmantra.com/LearnSQLServer/Troubleshooting-SQL-Server-Reporting-Service-Error.html) to enable active scripting for the browser.
4. To Add the External Reports to Reporting Services for web access, click on the “Upload File” (highlighted in red in Step 2). In the subsequently displayed screen, click the Browse button which will pop up a File Browser window. Go to the folder where the new report file was downloaded and select the report and press Open and then OK in the Upload File page.
5. Now the report will show in the SQL Server Reporting Services Homepage.
6. Now any user on client machines can go to address (`http://<IPADDRESS>/Reports`) in Internet Explorer and view the reports with the login credentials

5.1 ADDING REPORTS DIRECTLY ON SERVER

External report template files can be added directly to the server by following these steps:

1. Log into the server through the standard Windows login
2. On the SIM™'s Desktop you will see a folder named "External Report Templates". This folder is automatically created during SIM™ installation. If this folder does not exist and SIM™ has been installed, you can create this folder manually.
3. Download template files from Simavita's training website.
4. Copy the downloaded files into "External Report Templates" folder on the desktop.

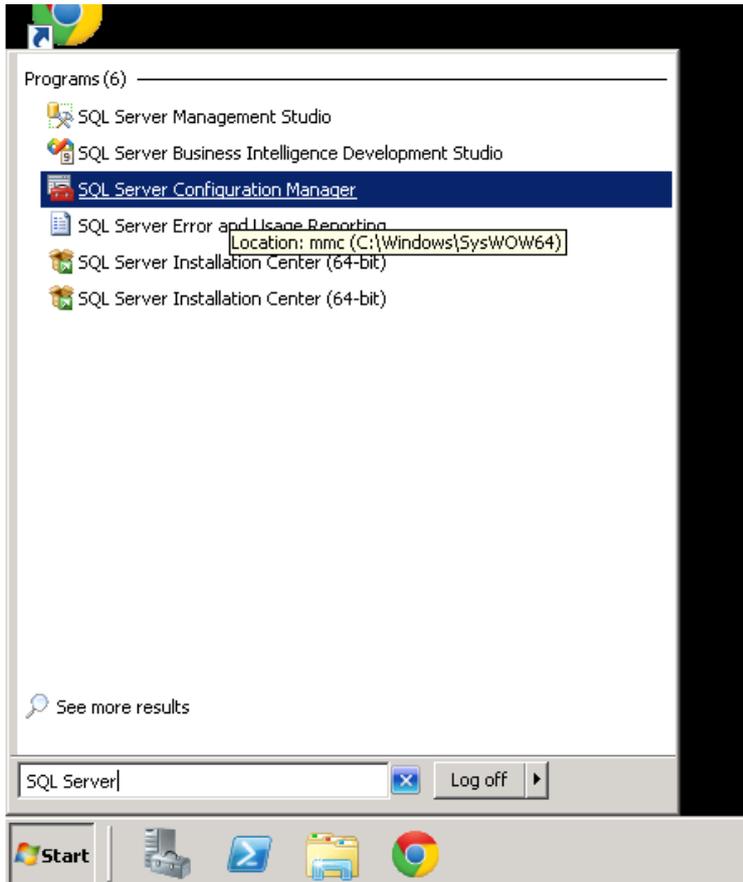
6.0 Editing and Reporting from Client Computers

This section describes the process of configuring the server (running the SIM™ software and SQL database) to allow client computers running SQL Report Builder remote database access. This is useful for accessing full report editing and reporting.

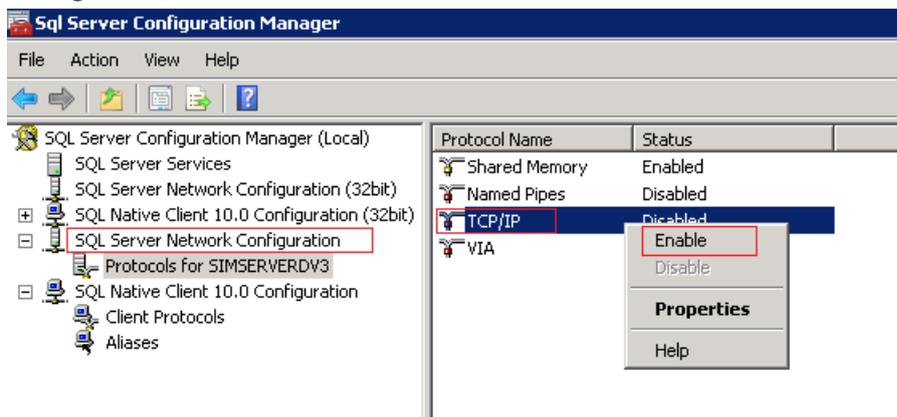
The following sections describe the changes needed on the server. The subsequent section describes how to change the connection strings in the template reports so that these point to the (now) remote SIM™ system server.

6.1 SERVER SETTINGS

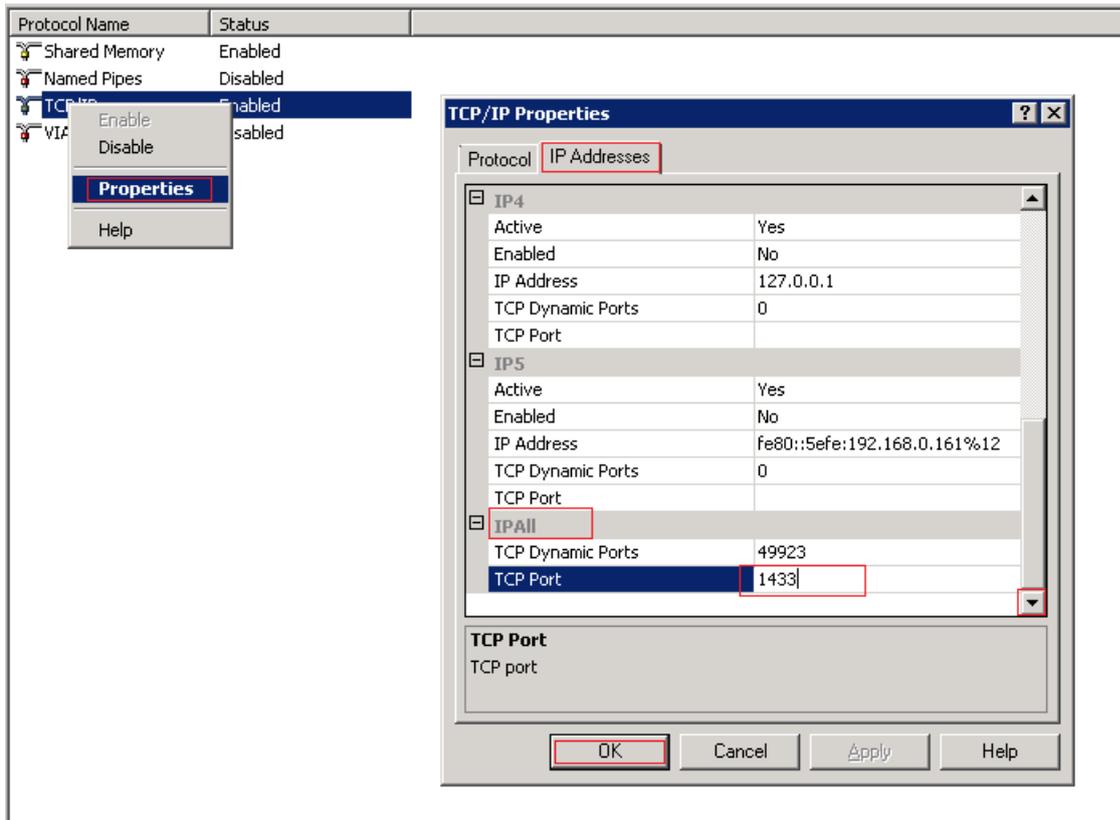
1. By default, SQL Server does not accept remote connections. To enable remote connections, following steps have to be taken on the SIM™ software server.
2. Open SQL Server Configuration Manager.



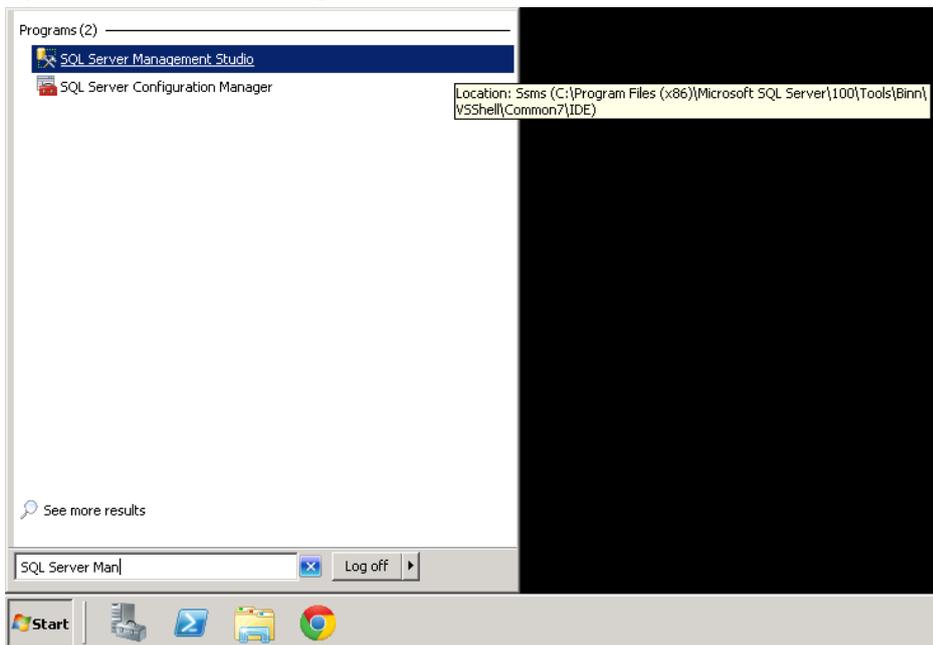
3. Expand SQL Server Network Configuration and click on Protocols for SIMSERVERDV3. Right click on TCP/IP at the right window and Enable.



4. After enabling TCP/IP, right click again and click on Properties. In the Properties window go to second tab "IP Addresses". In the "IP All" section enter the TCP Port as 1433 and press OK.



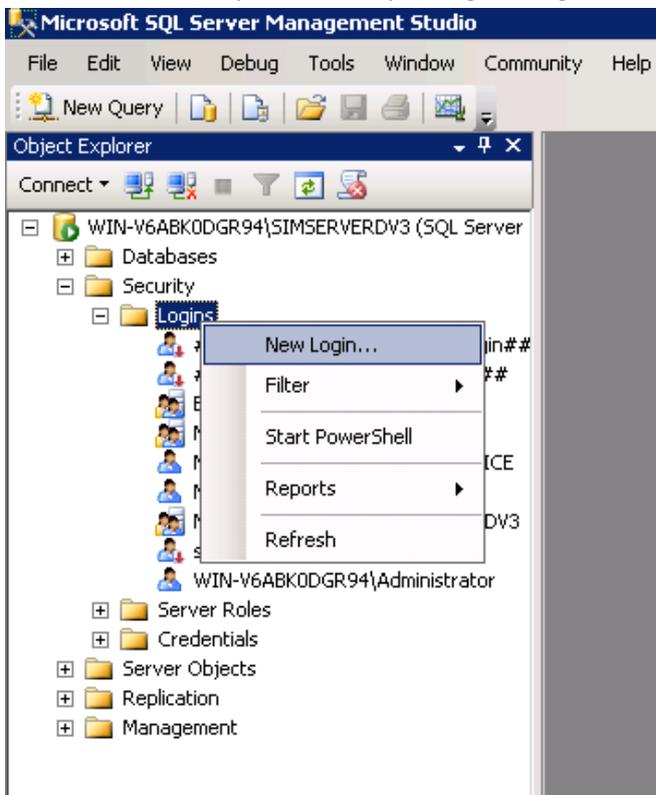
5. Open to SQL Server Management Studio:



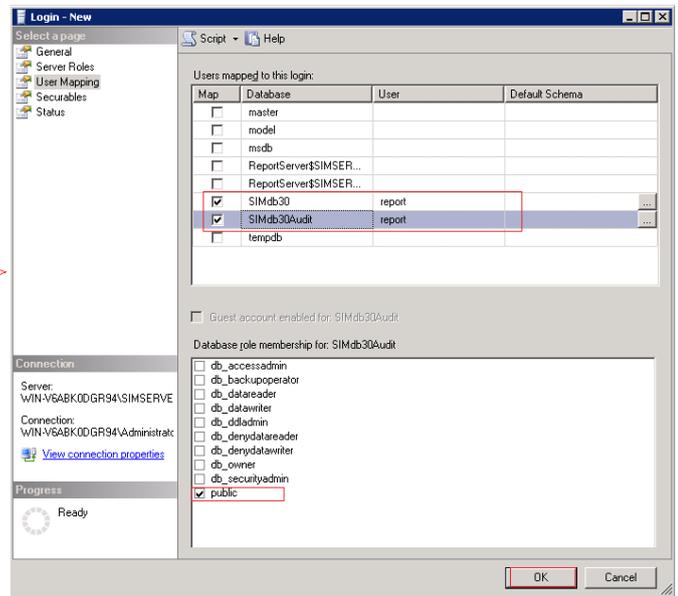
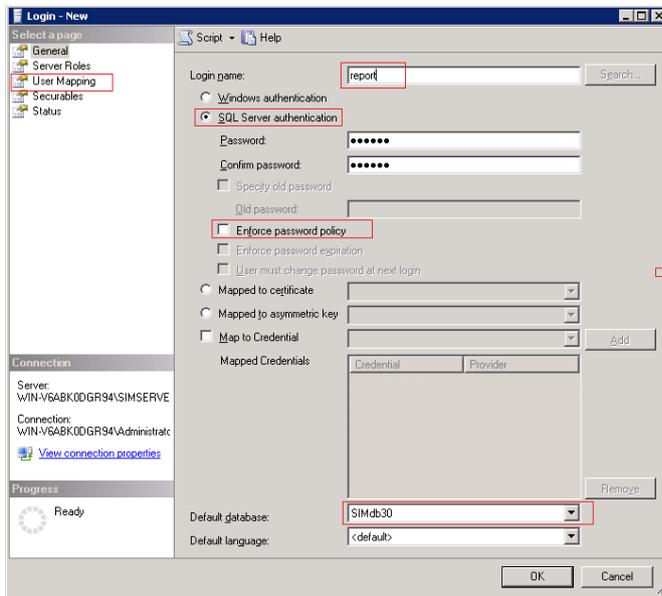
6. Press connect in the “Connect to Server” window:



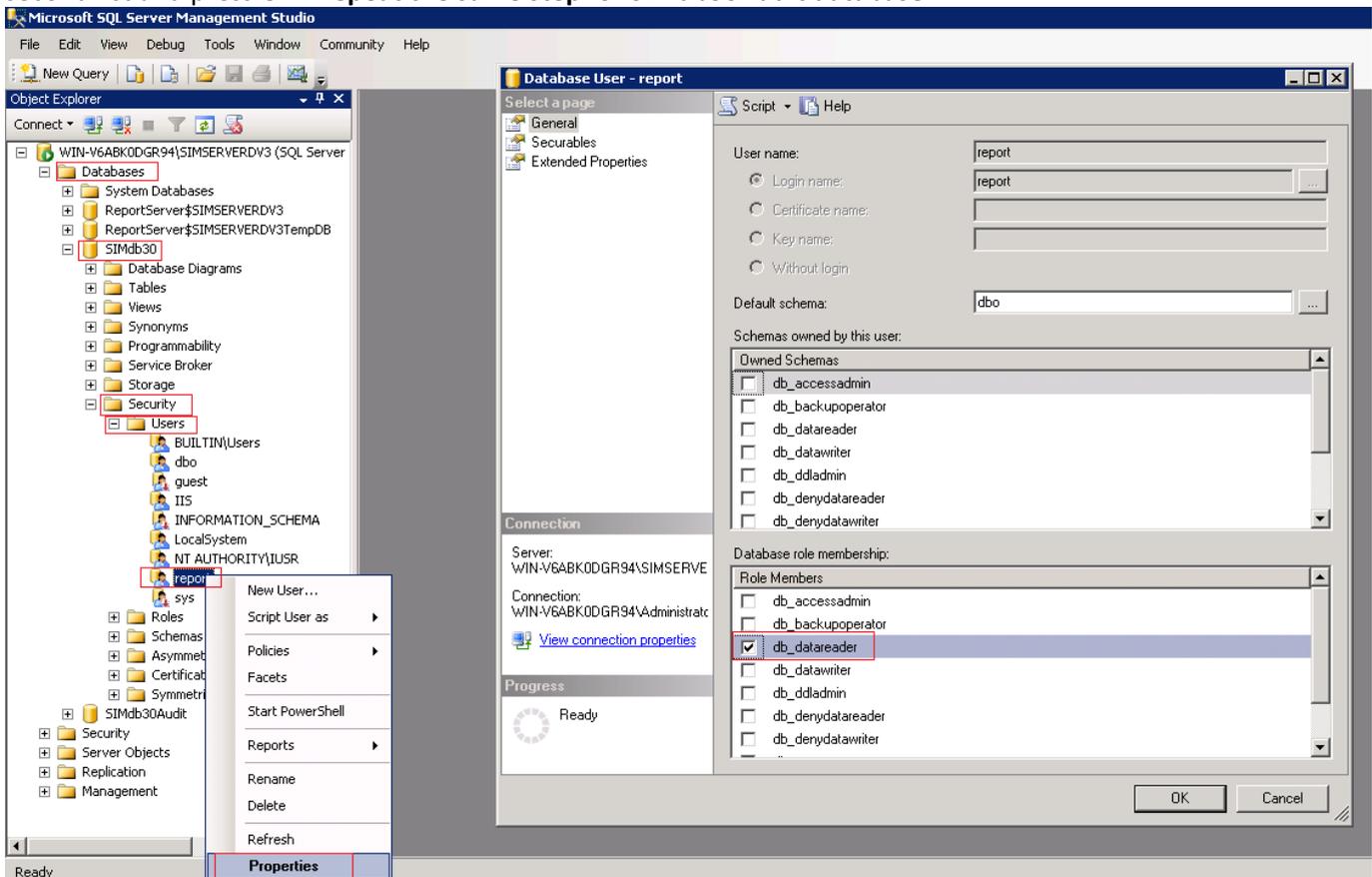
7. In the Tree View expand Security -> Logins. Right Click on Logins and Click “New Login”



8. In the popup window, perform the following actions:
- Enter a login name (for example: “report”)
 - Check SQL Server authentication
 - Enter and confirm the password
 - Uncheck “Enforce password policy” (this depends on your password security preferences, for this example it is disabled)
 - Set the Default database to SIMdb30
 - Then click on User Mapping from left menu titled “Select a page”
 - In the User Mapping window, check SIMdb30 and SIMdb30Audit. Make sure in the bottom list public is selected.
 - Press OK

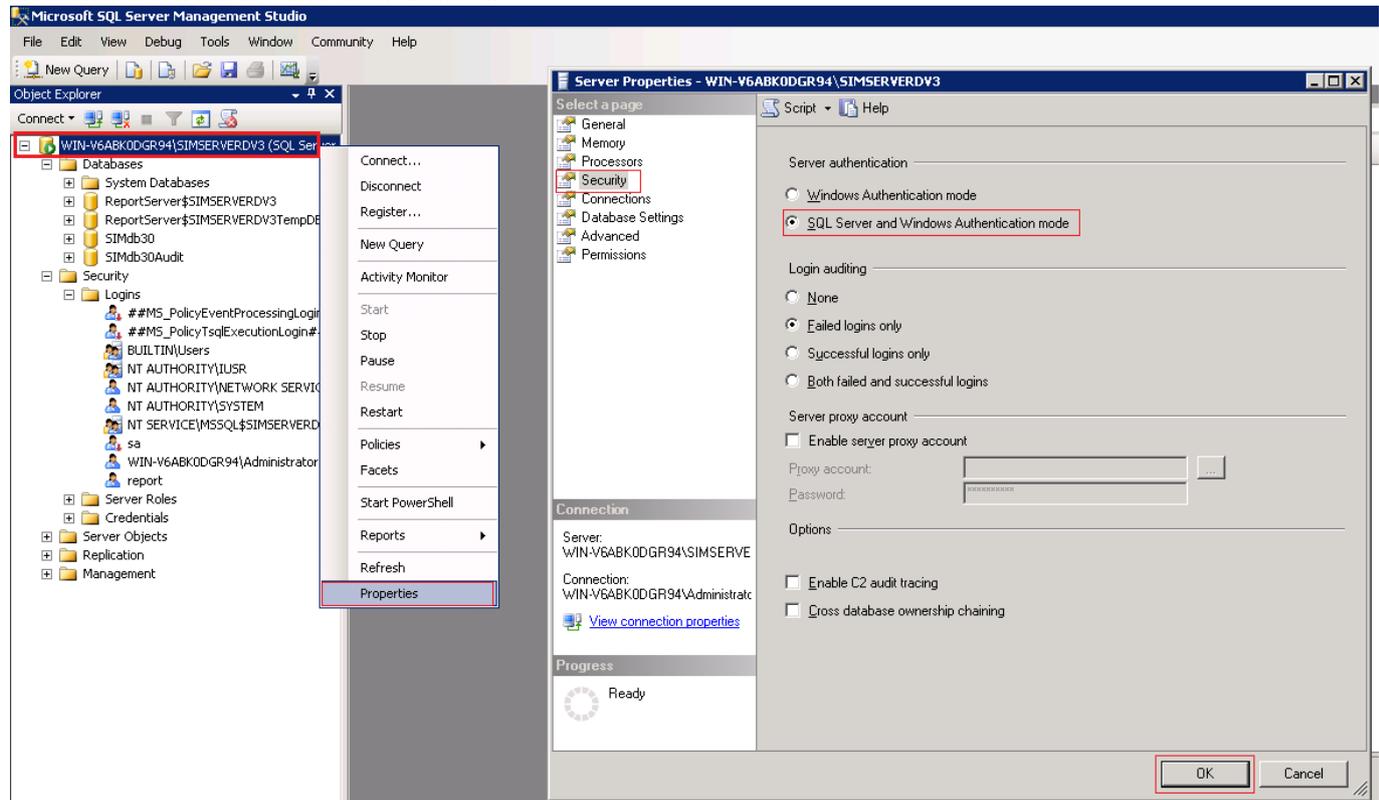


- Expand the Tree View on the left to Databases -> SIMdb30 -> Security -> Users. Right click on the user you created (in this example 'report') and click Properties. In the pop-up window, check db_datareader from the second list and press OK. Repeat the same step for SIMdb30Audit database.

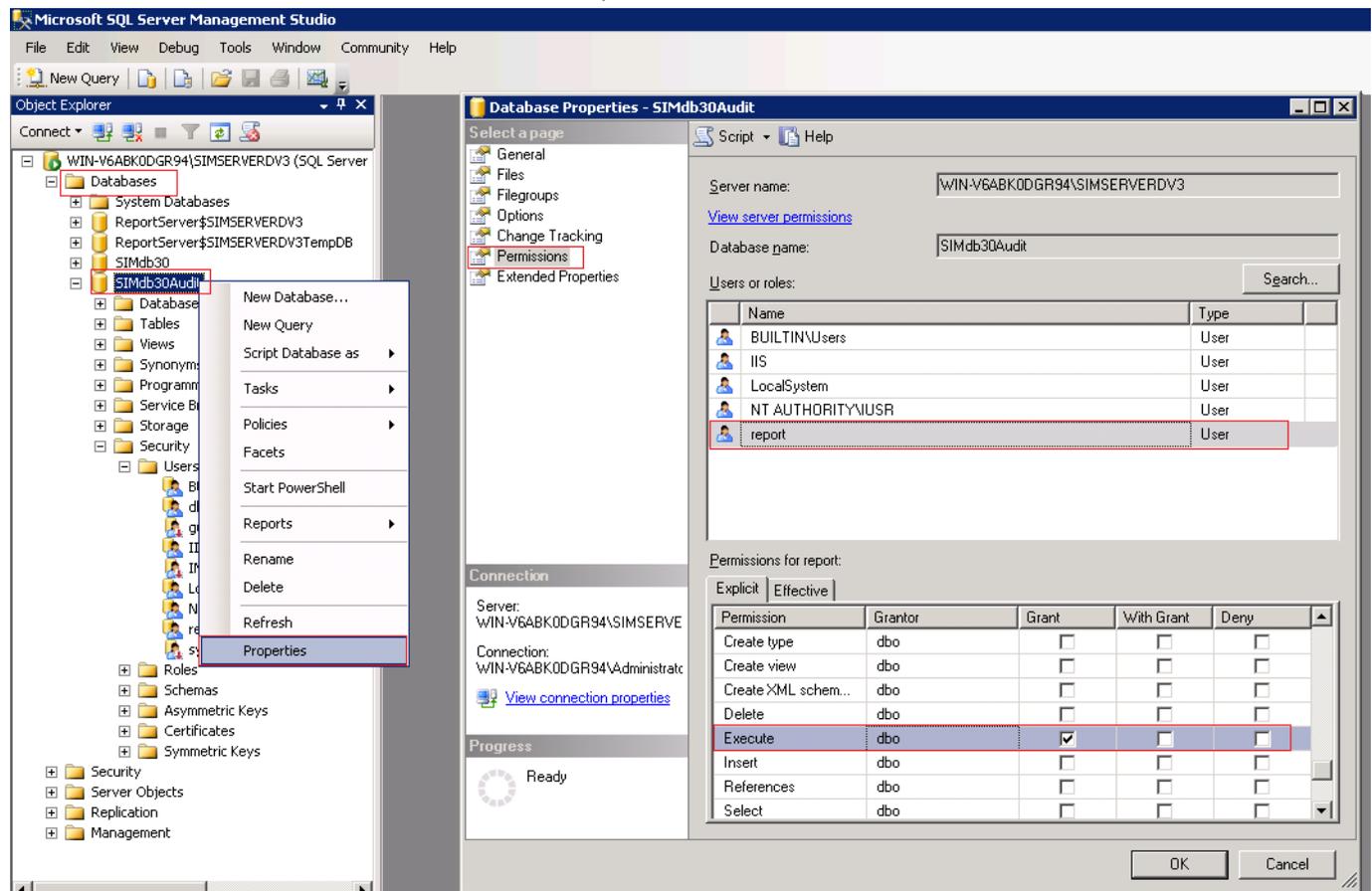


- Right click on the server (start of the Tree View in the left panel) and select Properties. In the pop up window, select Security from the left menu (titled 'Select a page'). Check "SQL Server and Window

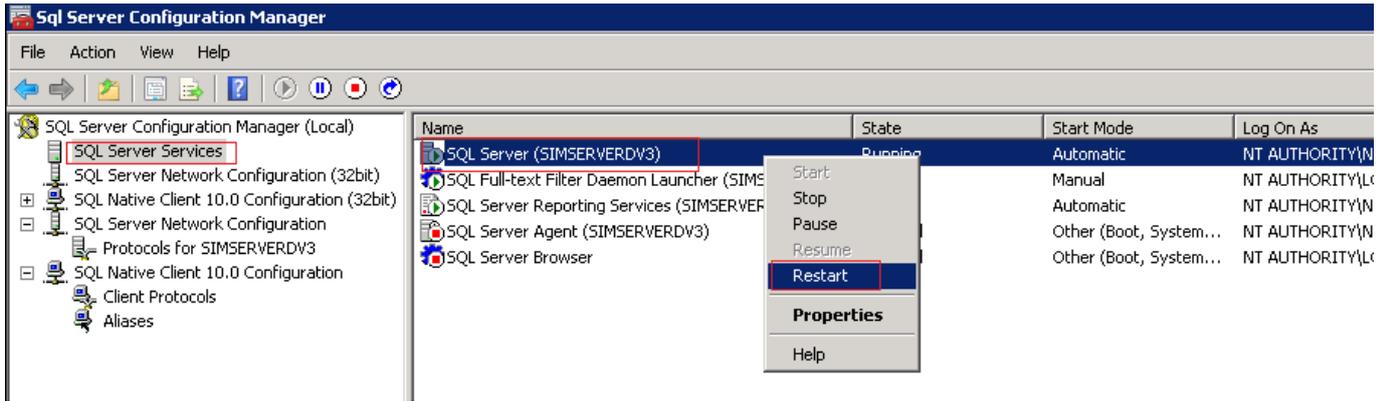
Authentication mode” and then click OK.



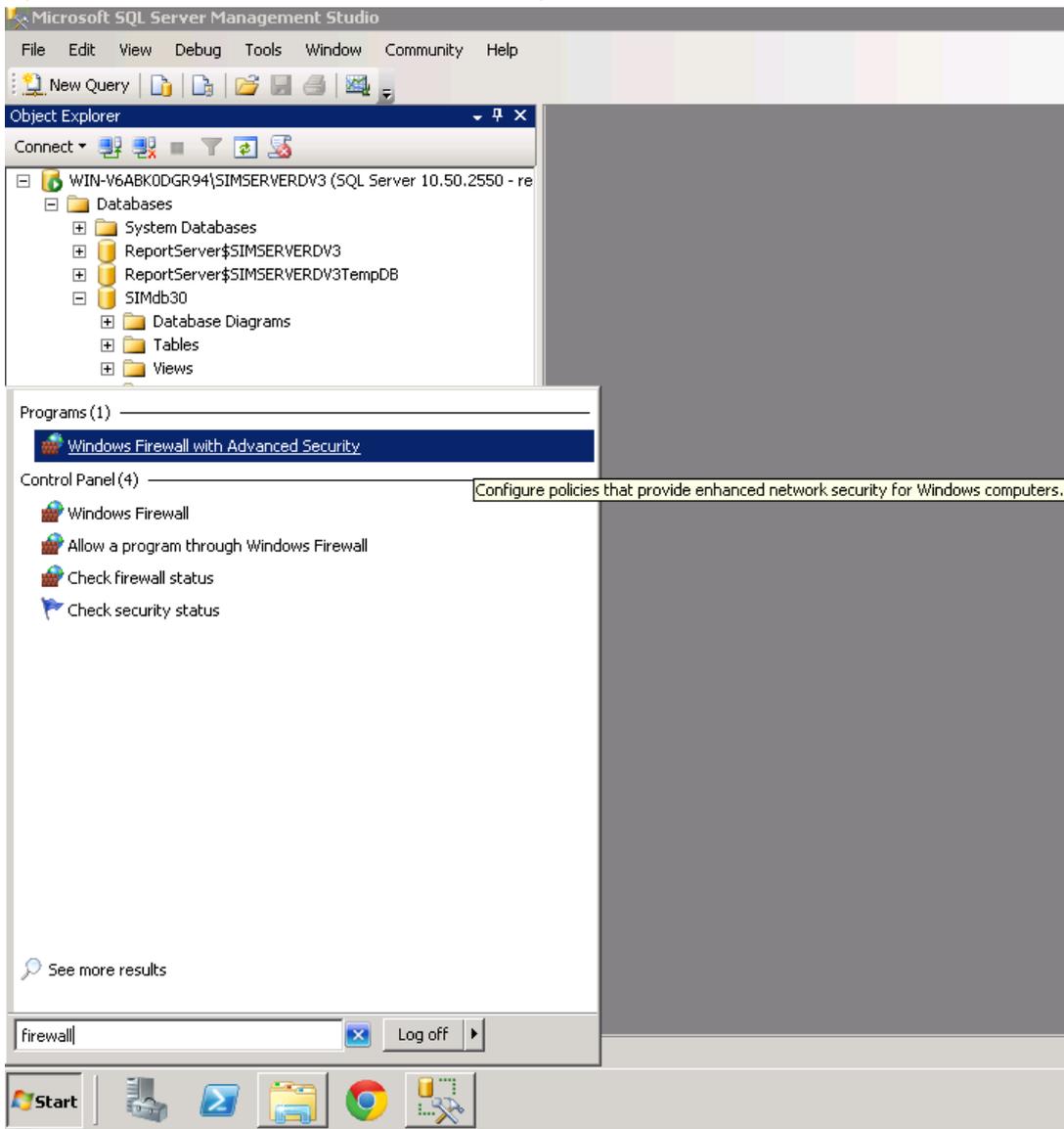
- Right Click on SIMdb30Audit and click on Properties. On the pop-up window, select Permission from the left “Select a page” options. Then select the user you created and in the bottom grid, scroll down to “Execute” and check the checkbox under Grant column and press OK.



- Go back to SQL Server Configuration manager (step 2). Select “SQL Server Services”. In the right panel, select SQL Server (SIMSERVERDV3), right click and press Restart.

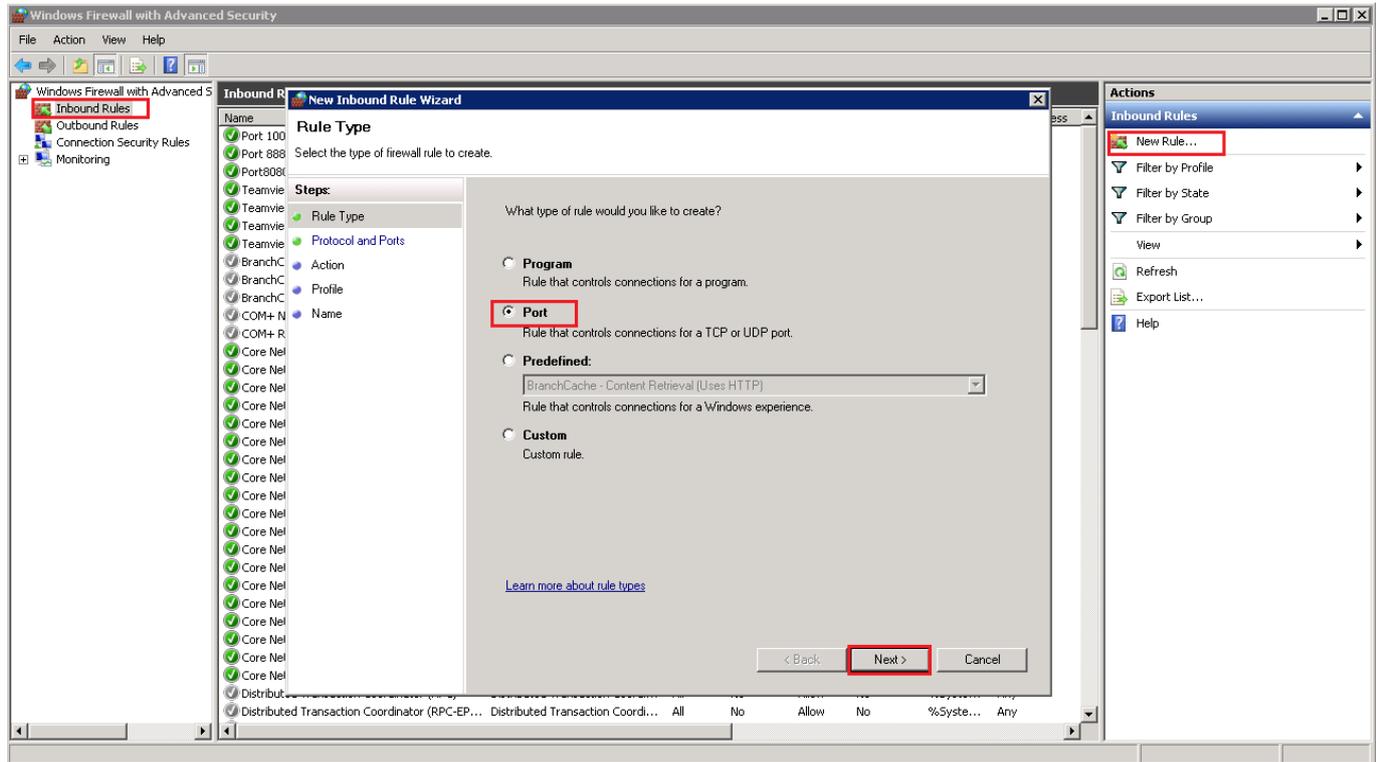


- Open Windows Firewall with Advance Security

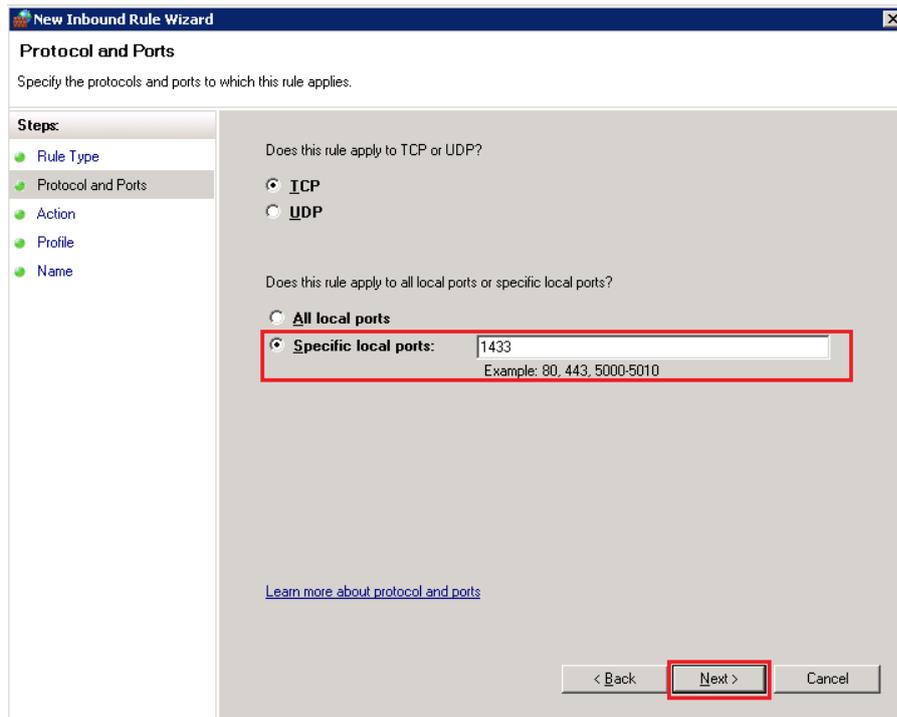


- In the “Windows Firewall with Advance Security” window, first click on “Inbound Rules”, then from the right of the window (Actions) click “New Rule”. In the pop-up window check the “Port” radio button and click the

Next button.



15. In the next page, enter 1433 for “Specific local ports:” and click Next



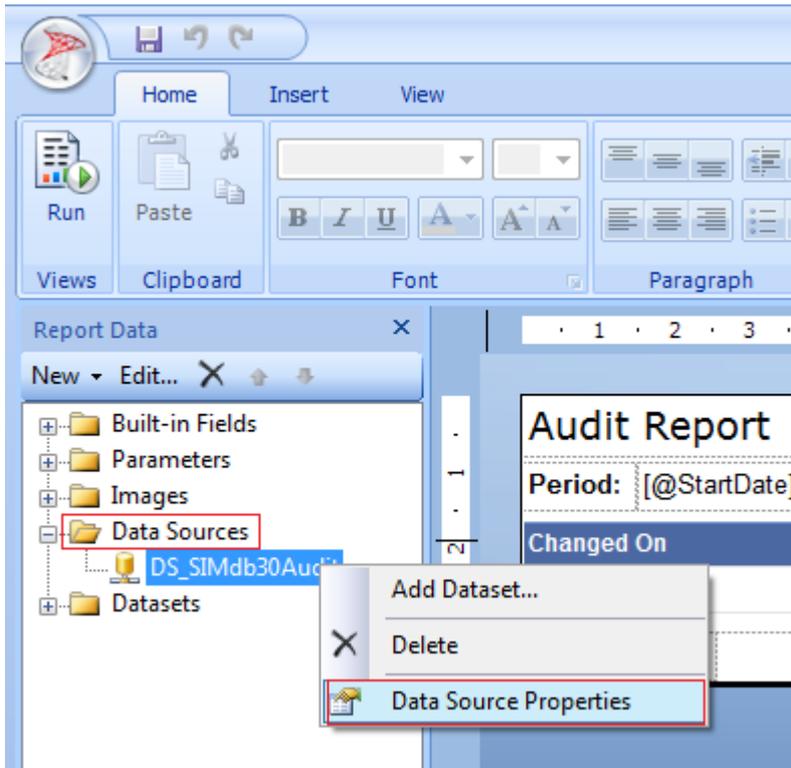
16. In next 2 pages, Press Next button. In the last page, in Name field enter “SQL Server” and click Finish.

17. Restart the SIM™ system server.

6.2 CHANGING CONNECTION STRINGS

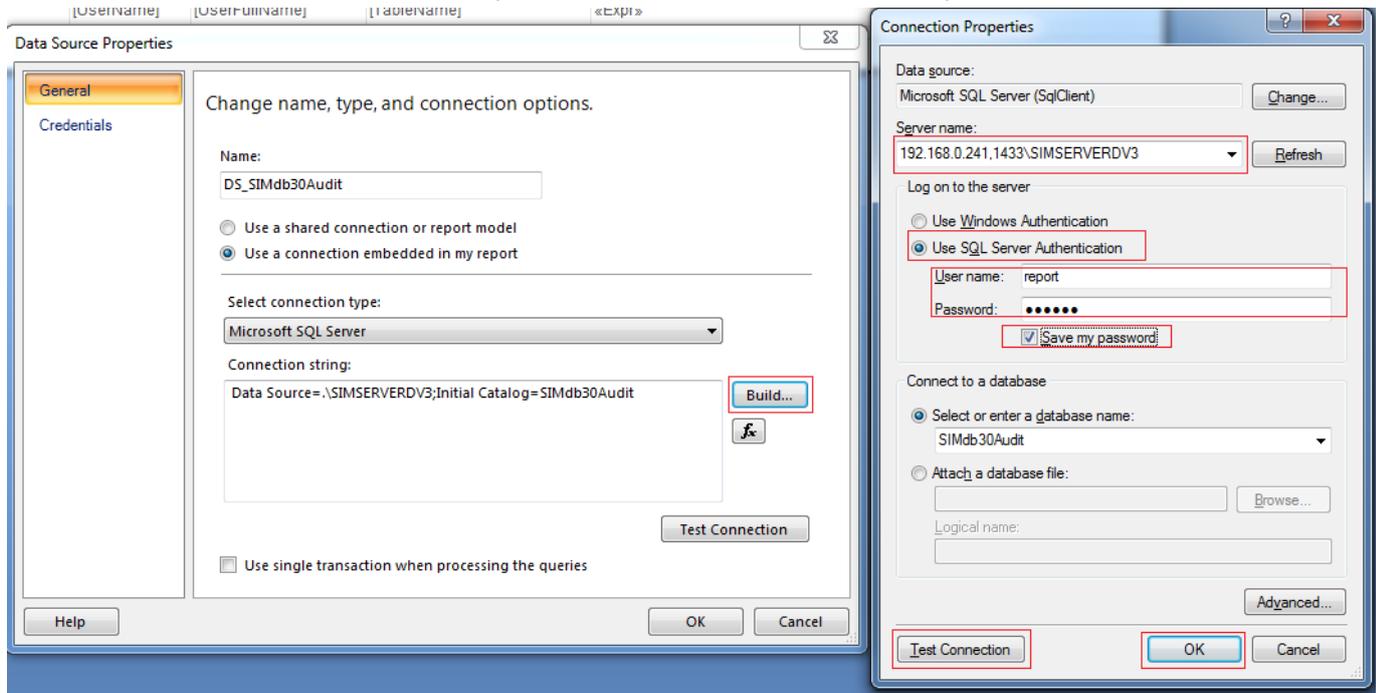
To modify the reports from client computers, the client computers need to have Report Builder 3.0 (Microsoft SQL Server) or Microsoft SQL Server Reporting Services (SSRS) installed.

1. Copy the report templates provided by Simavita (or available on the server) to the client machine. By default, the reports will be on the desktop on SIM™ system server. The folder name is “External Report Templates”.
2. Start the Report Builder 3.0 on the client computer.
3. From file menu, open any of the external reports.
4. By default, the reports will not work as the reports are set up to access the database on same computer. Therefore, the connection string must now be changed in the report so that it connects to the SIM™ system server database remotely (from the client machine).
5. Expand the Data Sources, right click on the data source and press “Data Source Properties”



6. In the first pop-up window, click on the “Build” button.
7. In the next pop-up window, change the server name from “.\SIMSERVERDV3” to “<SIMSERVERIP>,1433\SIMSERVERDV3” (see the screenshot below for an example).
8. Select the “Use SQL Server Authentication” radio button and enter the username and password created for enabling remote access to SIM Server. Check the “Save my password” option.

9. Press “Test Connection” which should say “Test connection succeeded”. Then press OK.



10. Now you can run or modify the report.

7.0 Using SQL Report Builder

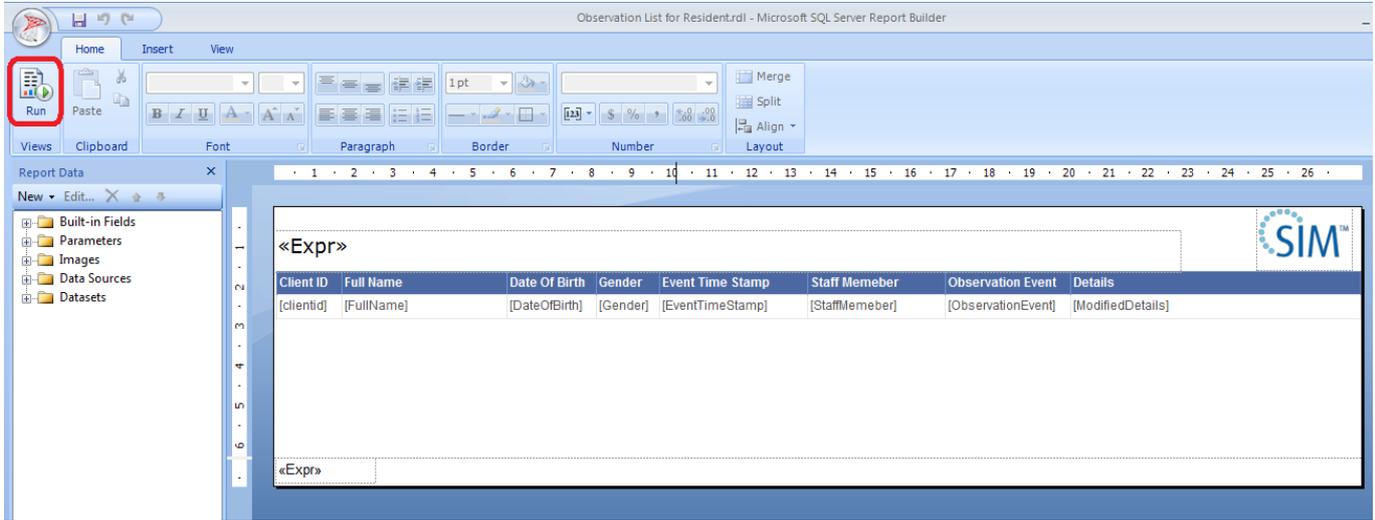
This section provides an example of running an external report template as provided in the SIM™ system software package or creating a new report. The information provided here should be considered a high-level introduction to running or creating reports. It is assumed that the user has significant prior knowledge of how to use SQL databases and develop SQL reports. Please refer to Microsoft's manuals and instructions for further details.

Different report examples and/or templates can be found at <http://simavita.com/training/>.

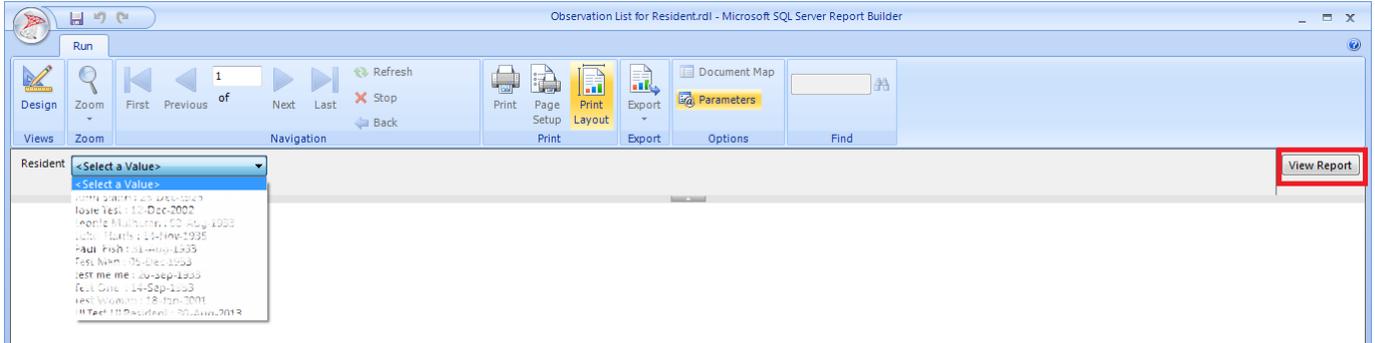
7.1 EXISTING REPORTS

Once downloaded and installed as per the instruction provided in this document, these reports are directly accessible on the server by double clicking on the report files (*.rdl files) and opening these reports via Report Builder. Alternatively the reports may be accessible from client computers depending on the setup. The steps described below assume that a report has been opened directly on the server.

1. Either double click the report template to be opened or open SQL Report Builder and select the file from Open file option from FILE menu. By default the report opens in the design view.
2. To view the report click the “Run” button, as shown below

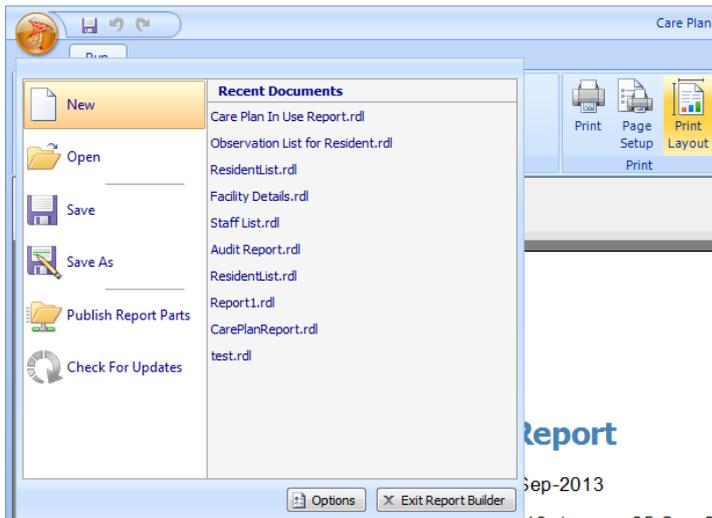


3. Once the “Run” button is clicked, the parameter prompt will be displayed if parameters are needed for the report. Once the parameters are selected, the report can be viewed by clicking on “View Report” button:

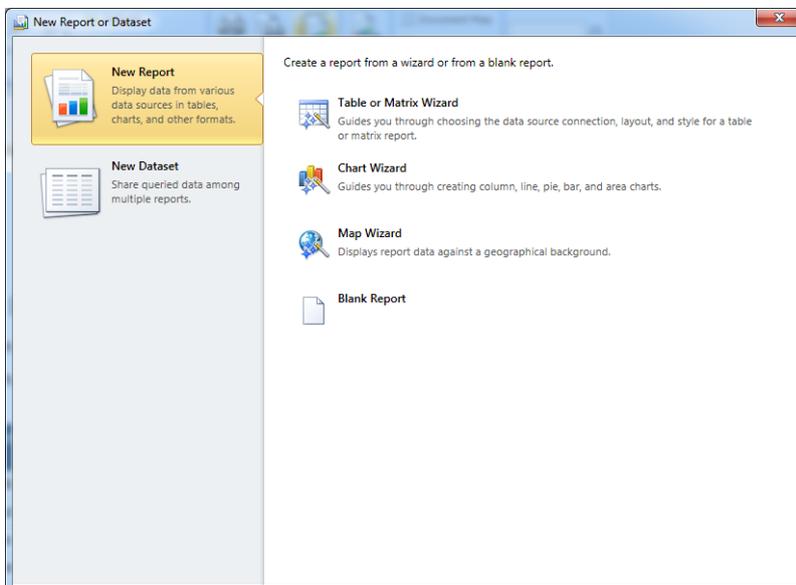


7.2 CREATING A NEW REPORT

1. To create a new report, the user needs to open the SQL Report Builder and click on 'New' from the File Menu

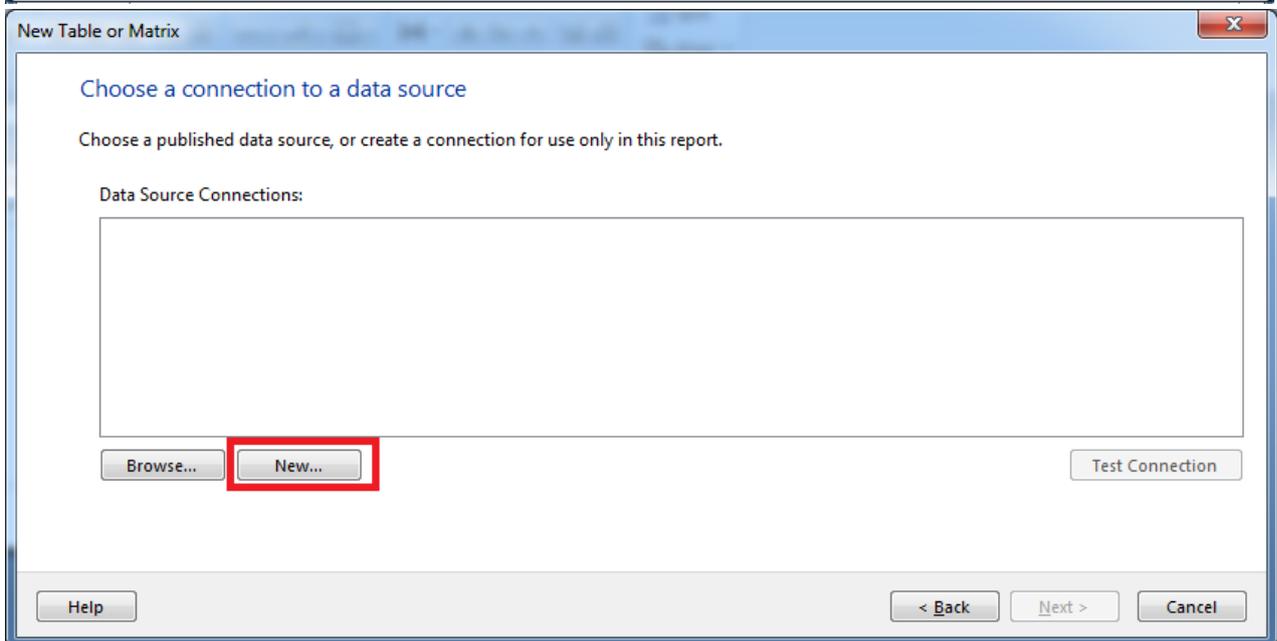
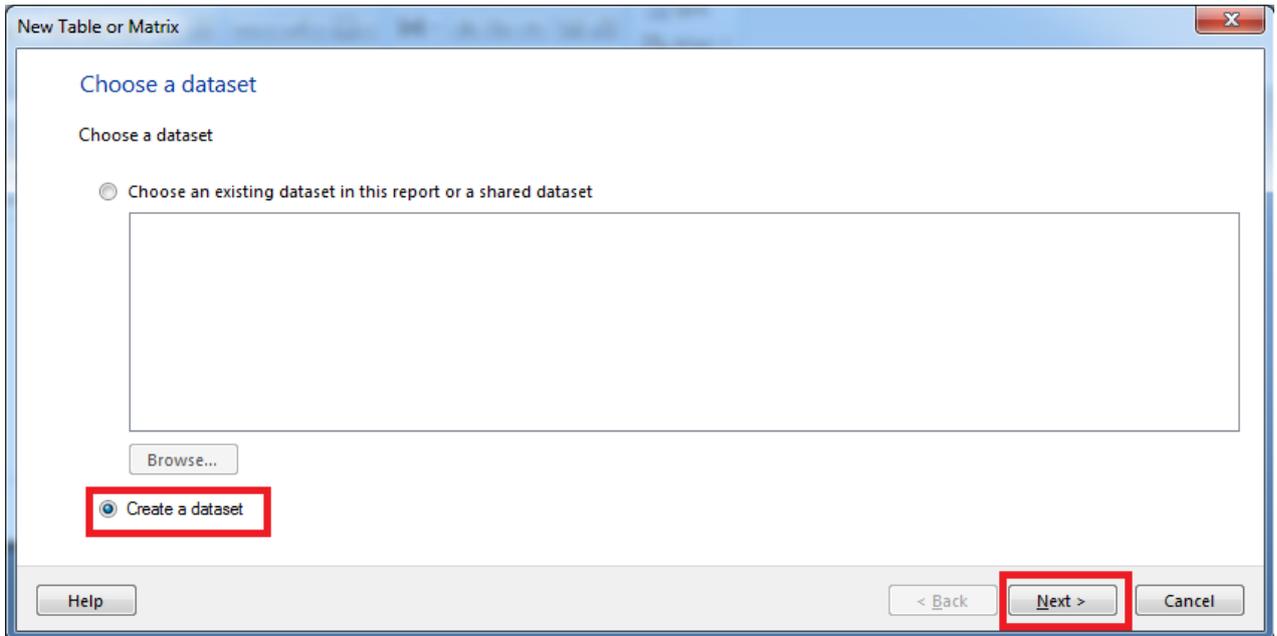


2. The New Report wizard option will be shown as below



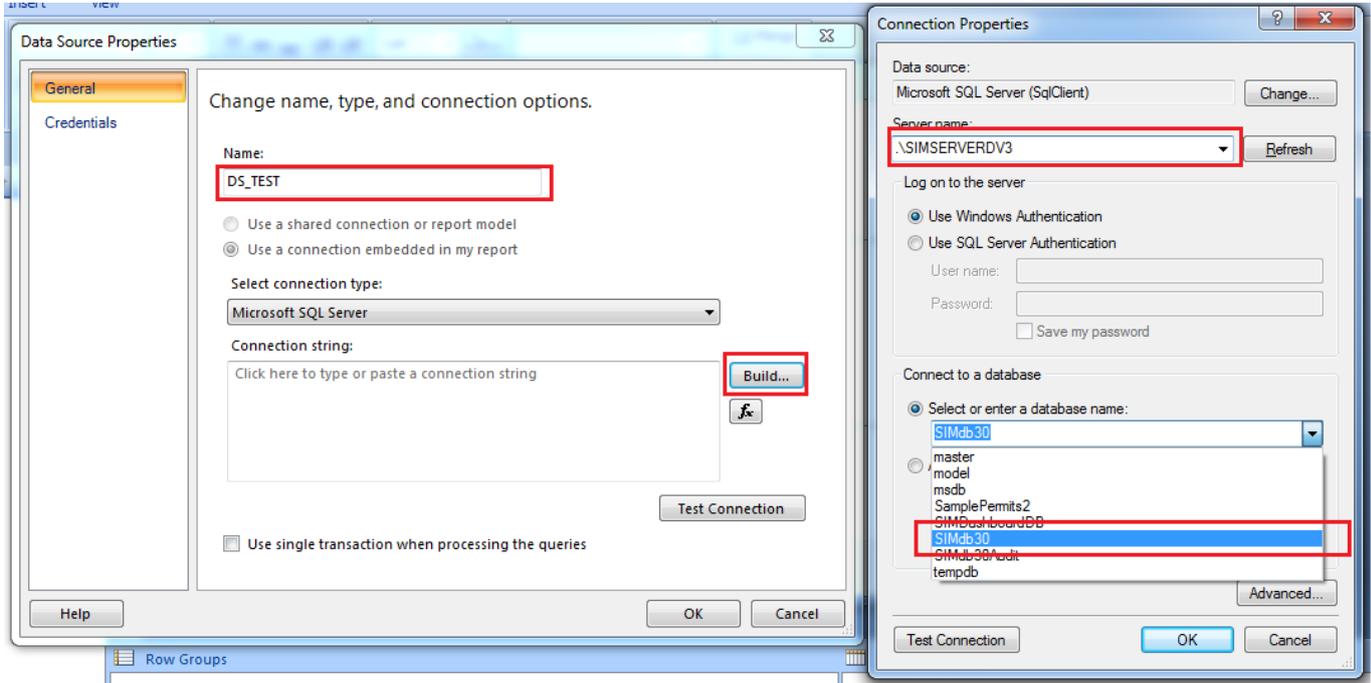
3. Click on Table or Matrix Wizard, if tabular report is needed and Chart Wizard, if report with chart is needed. Once either of these are selected, the user will be prompted to select the dataset. Select "Create a dataset" before selecting "Next >".

- In the next screen, click the “New” button to create a Data Source Connection.

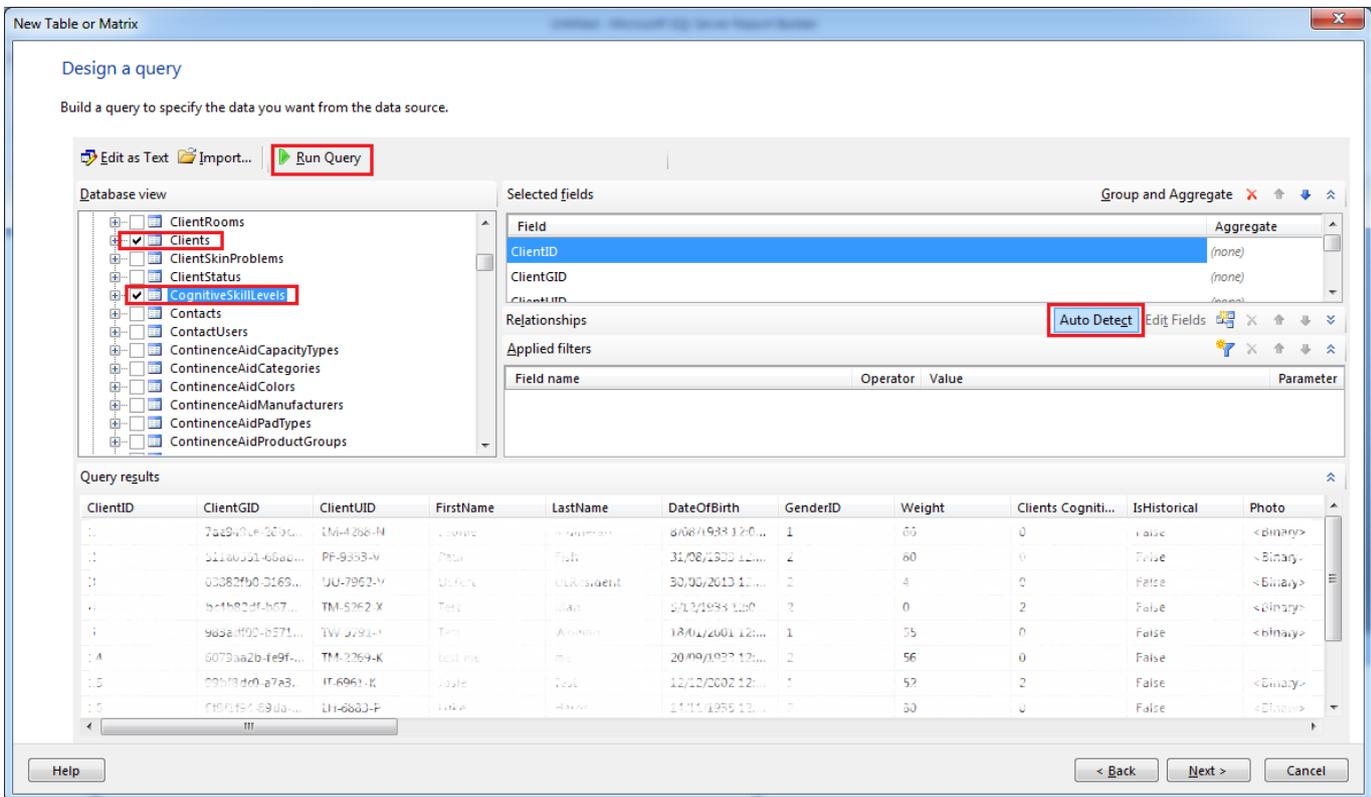


- In the Data Source Properties window, provide a name for the data source.
- Click the “Build” to create the connection.
- A pop up window for Connection Properties will be displayed. Enter “.\SIMSERVERDV3” for the Server name and select “SIMdb30” as the database and click OK (If used from client machine, then connection string has to include IP address of SIM™ Server and 1433 port number as Server name and also username and password needs to be entered. See Section 0 part b for details).

- On Data Source Properties window, the connection can be tested by clicking “Test Connection” button.



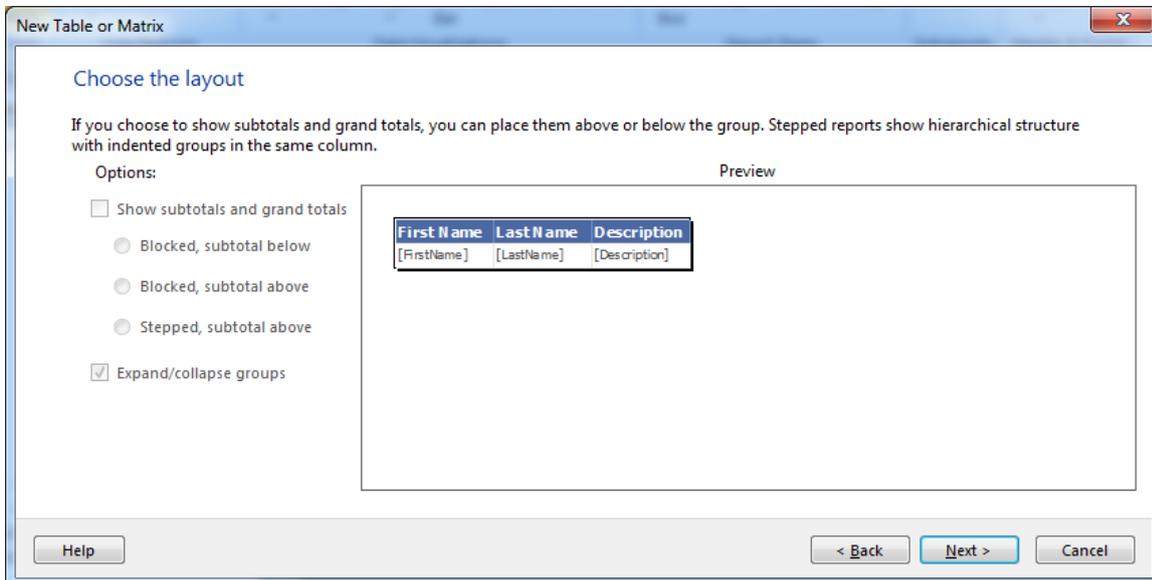
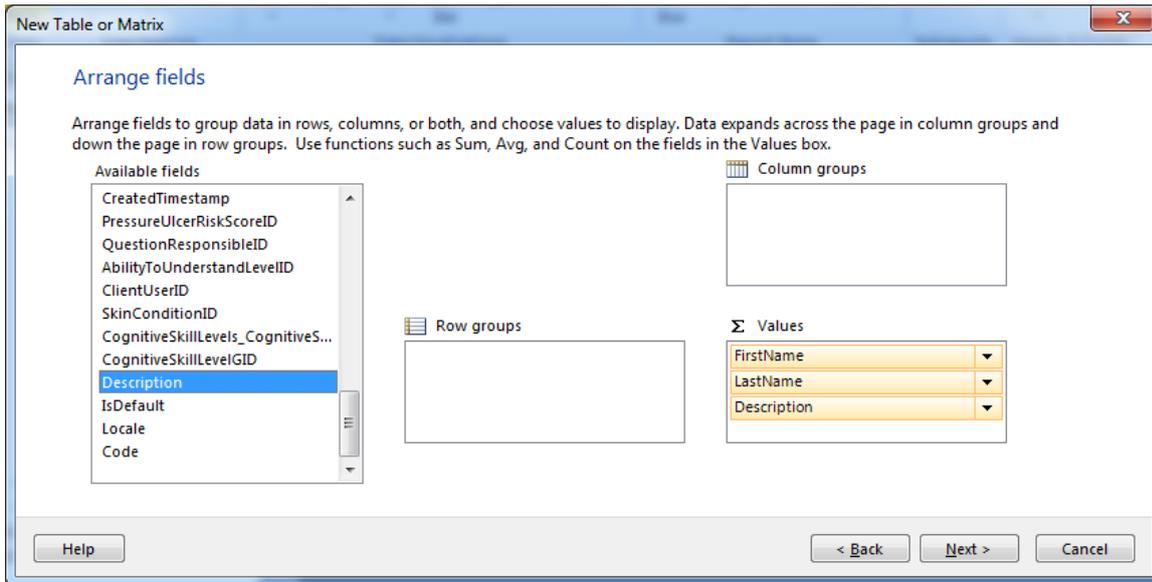
- If the connection test is successful, press the “OK” button to return to “Choose a connection to data source” window. With the new connection selected, press “Next”.
- The “Design a query” window will be displayed. This window lists the Tables, Views, Stored Procedures and table-valued Functions of the selected database (SIMdb30). Pressing the “+” (plus) beside the Table will list all the tables available to select for the report.
- Tables can be chosen for reporting by clicking the checkboxes beside the table names. If there are multiple tables selected the “Auto Detect” button must be clicked to ensure the relationships between the tables are properly selected. “Run Query” can be clicked to see if the data can be properly accessed. Click “Next >” to select the fields for the report.



⚠ WARNING

If the user selects multiple tables without knowledge of the database structure, the system may cease to function correctly and the data in the reports may show incorrect data.

12. The selected fields need to be selected and arranged as required before going to Next layout window where the report layout can be selected.



13. In the “Choose a style” window, different pre-defined styles can be selected. Once the selection is complete, click “Finish>>” to view the report.



MADE IN AUSTRALIA by Simavita (Aust) Pty Ltd, L13 54 Miller Street, North Sydney, NSW 2060, Australia.

See www.simavita.com for more information.