How do I change the name of an Exaquantum Server Machine?

There are a number of things, all of which are interconnected and depend on the configuration (local/domain etc.).

This is not a recommended practice and if at all possible should be avoided. This is mainly due to the fact that, if you forget to do anything, you could end up reinstalling anyway. It is much better to install using the correct machine name first time. It is also difficult from a support perspective because after such a change it may be impossible to decide whether any fault is due to failure to change something or a genuine problem.

Changing the machine name is much more of a problem if the Groups and Quantum User are local to the machine. If the machine is on a domain and all the Groups and Users are part of the domain, then the DCOM and user settings within Exaquantum should be OK. This assumes that it was in the same domain both before and after the name changes.

There are basically five steps that are required:

1. Change various Exaquantum registry keys
2. Change various tables in the SQL Database
3. Change the DCOM and SQL Security Configuration
4. Change the Web Server registration in SQL Server Enterprise Manager
5. Change server name in Exaquantum\Web Configuration files if server is also a Web Server

1. Changing the registry to reflect the new name

Use the regedit utility to change the following registry values on the Exaquantum Server.

HKEY_LOCAL_MACHINE\SOFTWARE\Quantum\DB\QConfigServer
HKEY_LOCAL_MACHINE\SOFTWARE\Quantum\Server\Historian\HistorianAdminServer
HKEY_LOCAL_MACHINE\SOFTWARE\Quantum\Server\Historian\HistorianDataServer
HKEY_LOCAL_MACHINE\SOFTWARE\Quantum\Install\DomainMachineName

You should also update the settings using Exaquantum Server Manager application on all the configured clients as they connect to the server using their local registry entries.

2. Changing the database to reflect the new name

It is also in the following tables in the database.

QConfig
QServer table
If RBNS or Multiserver configuration has been done although this is changeable via the Server Screen in the Admin Tools.

QHistorianAdmin
HistoryServer table
Storages - All rows will need to be changed
Archives - All rows will need to be changed - Should be empty if no archiving has been performed.

To change these values for release R2.20 and earlier, use SQL Query Analyser, select QHistorianAdmin database using the drop down list in the centre top of the screen and enter the update commands. The following update commands will change the three tables above:

Update HistoryServer Set Server = 'Newname'
Update Storages Set Server = 'Newname'
Update Archives Set Server = 'Newname'

To change these values for R2.30 onwards, the script is the same but must be run using SQL Server Management Studio since Query Analyser does not exist in SQL 2005.

It is also required to update the SQL server record of the server name. This can be done using the following script:

Use master
Declare @s1 varchar(100)
Declare @s2 varchar(100)
Select @s2=convert(varchar(100),serverproperty('servername'))
Select @s1=convert(varchar(100),@@servername)
Print @s1
Print @s2
Exec sp_dropserver @server=@s1
Exec sp_addserver @server=@s2, @local='local'
Print @s1
Print @s2

(Note: If you receive a syntax error, this may be caused by the single quotes in the script. Please try to remove the single quotes and re-add them.)

The new server name should be printed twice in the results field. This change is required for versions R2.10 and later and can be applied using SQL Query Analyser or SQL Management Studio depending on the version of Exaquantum.

3. Changing the DCOM and SQL Security Settings to reflect the new name

The security of SQL Server and DCOM will need to be changed if in a workgroup or if local groups/users are being used. To do this you will need to do:

1. Remove all mentions of the old names in the default launch and default access using DCOMCnfg.
2. Remove all the old logins in SQL Server both from each of the three databases and from the logins under the security folder of the enterprise manager.

This can be performed using the SQL Query Analyser and doing the following:

1. Select the QConfig database
2. Enter the following SQL statement
   EXEC sp_revokedbaccess 'oldname\QUserGroup'
3. Repeat steps 1 and 2 for the QHistorianAdmin, QHistorianData and all online archives databases
4. Select the master database
5. Enter the following SQL statement
   EXEC sp_revokelogin 'oldname\QUserGroup'
6. Using SQL Enterprise Manager, check to see that the user and database access has been removed. You should check Logins under the Security node and Users under each database.
7. Rerun QDCOMCNFG to put the correct information back.
8. Archives will need to be unrestored and then restored again to pick up the new users correctly.

For R2.30 onwards, use SQL Server Management Studio instead of SQL Query Analyser and SQL Server Enterprise Manager. Users are listed under the Security folder for each database and logins are under the security node as per SQL Server 2000.

The latter need not be done if the machine remains in the same domain as it was prior to the name change. However, it may well be advised to do this in all cases so that you do not forget this step in cases where it is required.

4. Changing the Server Registration in SQL Server

The SQL Server Enterprise Manager can connect to any machine running SQL Server. This is performed using the machine name. If the machine name is changed, SQL Server Enterprise Manager will attempt to make a connection to the now none existent machine. This will of course fail. It is therefore necessary to register the new server and remove the old server registration from the SQL Server Enterprise Manager.

To register the new server name, perform the following in **SQL Server Enterprise Manager:**

1. Right click on the *SQL Server Group* node (this is usually the second one under Console Root).
2. Chose the *New SQL Server Registration* option from the pop-up menu.
3. Click next on the *Welcome screen.*
4. Double click the new server name from the list in the right hand pane of the *Select a SQL Server* screen and then click next.
5. Click next on the *Select an Authentication Mode* screen to select the default Windows Authentication Mode.

6. Click next on the *Select SQL Server Group* screen to accept the default SQL Server Group.
7. Click Finish on the *Completing the SQL Server Register Wizard* screen.
8. Click Close on the *Register SQL Server Message* dialogue. If everything is OK this will display a message saying the new server was registered.

To remove the old server name, perform the following in **SQL Server Enterprise Manager:**

1. Right mouse click on the old server name
2. Select the *Delete SQL Server Registration* option
3. Click yes on the confirmation dialogue.

The procedure for SQL Server Management Studio is similar except that you choose Disconnect rather than Delete SQL Server Registration.

5. Changing the Server Name in the Exaquantum/Web Configuration Files:

If the Exaquantum Server is also a Web Server then there are a number of files that will contain an incorrect server name. This means that when the Exaquantum/Web pages are displayed data cannot be accessed.

The following five files are affected, which can be found in the ...\Yokogawa\Exaquantum PIMS\WebRoot\WebServices folder:

ClientConfigPool.WSDL
QTimeHelper.WSDL
RBNSBrowse.WSDL
security.WSDL
WebDataAccess.WSDL

The simplest way to update these is to open them using Notepad and then use Find and Replace to replace all occurrences of the old server name with the new one.

Note: There will soon be a document issued that covers Upgrading and Server renaming. Contact your local Yokogawa Affiliate who will be able to find out about this document.

(checked 18/07/2007 R2.30 - RLT)