How do I connect a third party OPC server to Exaquantum?

There are some rules for connecting to a third party OPC server and these are listed here:

First of all, it is required to have certain prog ids available to the Exaquantum server. These are normally stored in registry keys and the best way to ensure that these are present is to install the OPC client on the server. If the OPC client is not available for this OPC server then you will have to export the required registry keys from the OPC server and import these to the Exaquantum server. This can be achieved by using the MakeRegistryFile utility available from https://ymx.yokogawa.com/content/S636751946308384481Approved/Make%20OPC%20Server%20Registry%20File.zip.
The tool is self-explanatory but a video demonstrating its use is provided at https://www.youtube.com/watch?v=LrGZ4MUgXlU. From Exaquantum R3.01 onwards, the registry keys are not required as OPC-Enum is fully utilized.

The next step is to configure the OPC Gateway in Exaquantum. This is done using the OPC Server Type Wizard in the Developer Tools folder of your installation followed by the Exaquantum Administration tools. Different OPC servers support different functions, you should know what your OPC server supports before you start. The main functions are Data Access server, Alarm and Event server and Historical Data Access server. There are also Batch server, Property Access server and OPC equalisation. Generally, Data Access server is the most likely to be supported. Start the OPC Server Type Wizard and choose to create a new type based on the ExaOPC-STN server type. This is not essential but is the easiest method. Give the new type a name that is recognizable. This will appear in Exaquantum.

In the next screen, uncheck all unsupported functions. If in doubt it is better to uncheck all. Uncheck Support for Equalisation unless you are sure it is supported. Enter the Prog IDs required for all applicable connections (DA, A&E and/or HDA) in the corresponding OPC Server ProgID field. The maximum number of groups, etc should be set according to manufacturer's recommendations.

If the OPC Server supports A&E then all the required Event Categories and Attributes will have to be configured. This is done by using the AE Configuration Tool (AEConfig.exe) also located in the Developer Tools folder of your Exaquantum installation directory. For each Category you require to configure you need to specify the Name, OPC ID and Event Type (should be available in the OPC Server's documentation), along with the Storage Name (table in the Exaquantum) you wish the events from this category to be stored. In a similar way the Name, OPC ID and Data Type of each custom attribute will have to be specified (should also be available in the OPC Server's documentation) together with the column name they will be stored in Exaquantum.

From Exaquantum R3.01 onwards the procedure of adding the event categories/attributes of an OPC A&E Server has been vastly simplified.

Please refer to: https://ymx.yokogawa.com/content/S636731376230783851/TN%20GMSCS0123-01E%20Exaquantum%20Auto%20AE%20Configuration%20Tool.pdf
on our support website for more information.

Once the configuration of OPC Server Type and A&E (if required) is completed. Exaquantum can be restarted. Once restarted, navigate to the OPC Gateway Screen and create a new Gateway using the computer name of the third party OPC server and the new Server Type created previously. If A&E has been configured for this server check the "Exaquantum Alarm and Events" checkbox.

The next step is to try and create a tag in the Exaquantum Tag Editor. Ensuring that a suitable tag template exists, create an OPC tag in Tag Editor. The OPC item ID will vary between OPC servers. This knowledge is required to create a tag. It may be possible to achieve this by trying different entries in the field. Ensure the correct OPC gateway is selected from the dropdown. Once the OPC Item ID is entered and the tag added, you should verify that values are seen in the tag editor. If they are not then this is likely to be either because the Tag ID is incorrect or the connection has failed.

If A&E has been configured, the corresponding tables in the QHistorianData database should be checked for entries using the Microsoft SQL Server Management Studio. If none appear it is possible that the OPC Server has is not currently producing any events or there is an issue with the connection and/or configuration.

To check the connection start the QOPCDAView tool (OPC Server Viewer Data Recovery.exe in R2.70 onwards) also located in the Developers Tools folder and press connect. If the new OPC server has a green arrow head, then connection is successful and the tag id is probably incorrect. If the OPC has any red squares or there is no entry then further investigation is required as the connection has failed. This investigation should start with the Application and system event log. Other factors that can sometimes effect connection are specific user accounts required or specific DCOM settings.