How to set up a Tunnel connection

1. **Outline the network**
2. **Create the tunnel server configuration**
3. **Create the tunnel client configuration**
4. **Check connection.**
5. **Advanced Settings**
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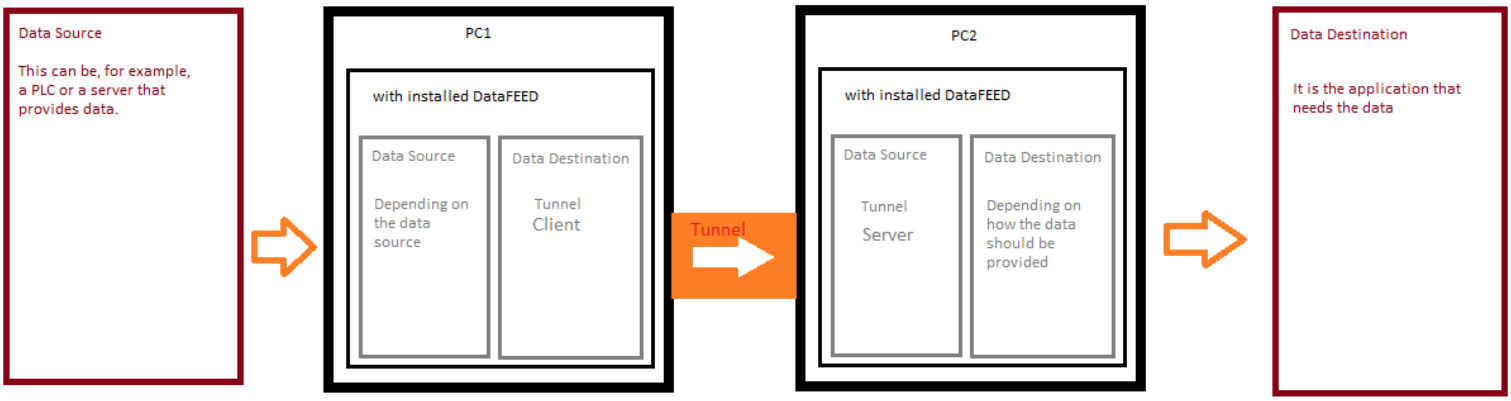
1) Outline the network



Before you start creating configurations it is important to think about the dataflow. Who provides data and who needs this data? Which protocols are used for this connection?

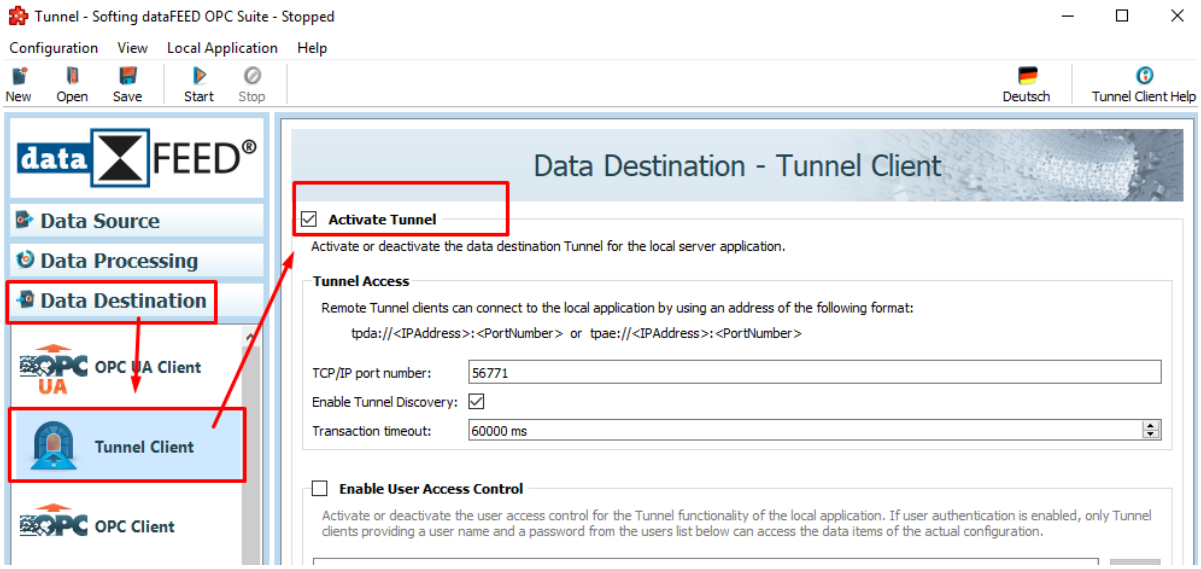
It makes sense to sketch the architecture before you start the actual configuration work. As you can see in the sketch, the DataFEED OPC Suite on PC1 provides the data to the tunnel and is therefore the tunnel Server, however the data destination is the Tunnel client. The DataFEED on the PC2 queries data and represents the Tunnel Client, however the data source (where the data came from) is the Tunnel Server.

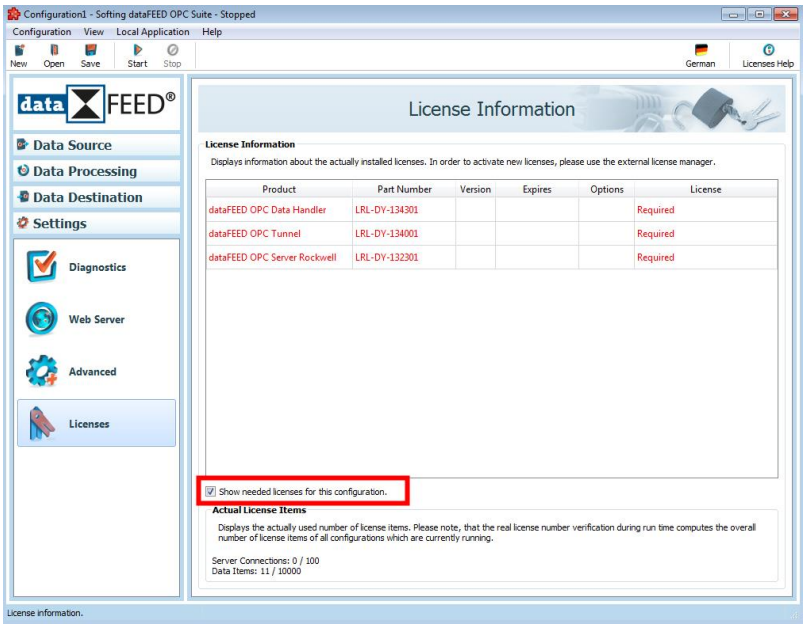
Please note: In order to send data from PC1 to PC2, each (not only one) PC needs a tunnel license.

2) Create the tunnel server configuration (on PC1)

Please establish the needed connection to the data source (PLC or OPC-Servers (where you get your data from)). This step is not explained in this manual.

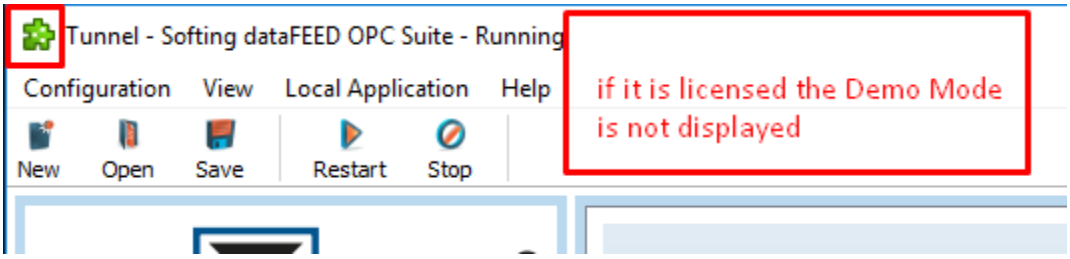
After that, please go to section Data Destination an activate the Tunnel. (The DataFEED OPC Suite running on PC1 represents the Tunnel server, so the Tunnel Client is the Data Destination.





Also check the required licenses for this configuration. License the non-licensed modules. At the end, no license should be displayed in red. Otherwise the tunnel server goes into demo mode and after 72 hours, and the Tunnel server stops.

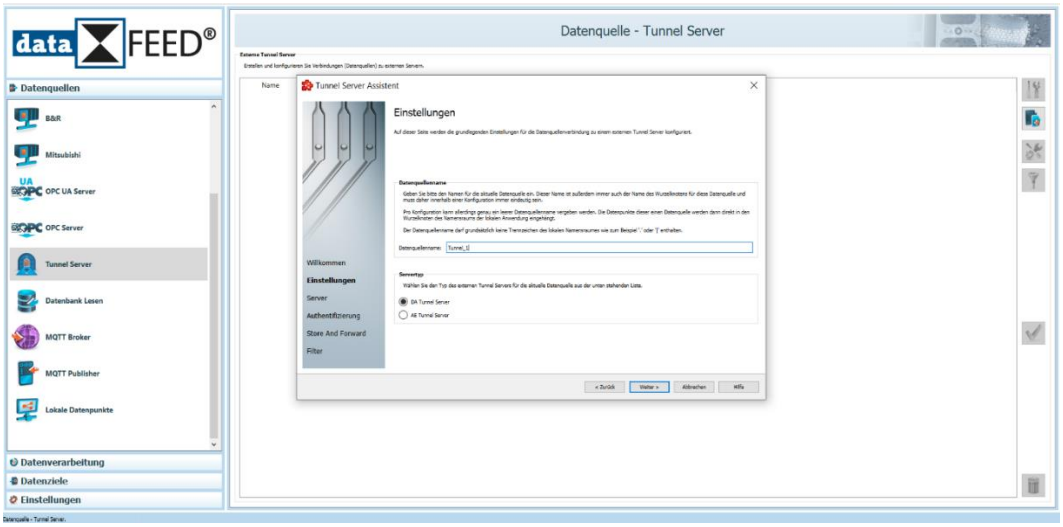
Start the Server and make sure that the icon is green and you **cannot** read demo mode.



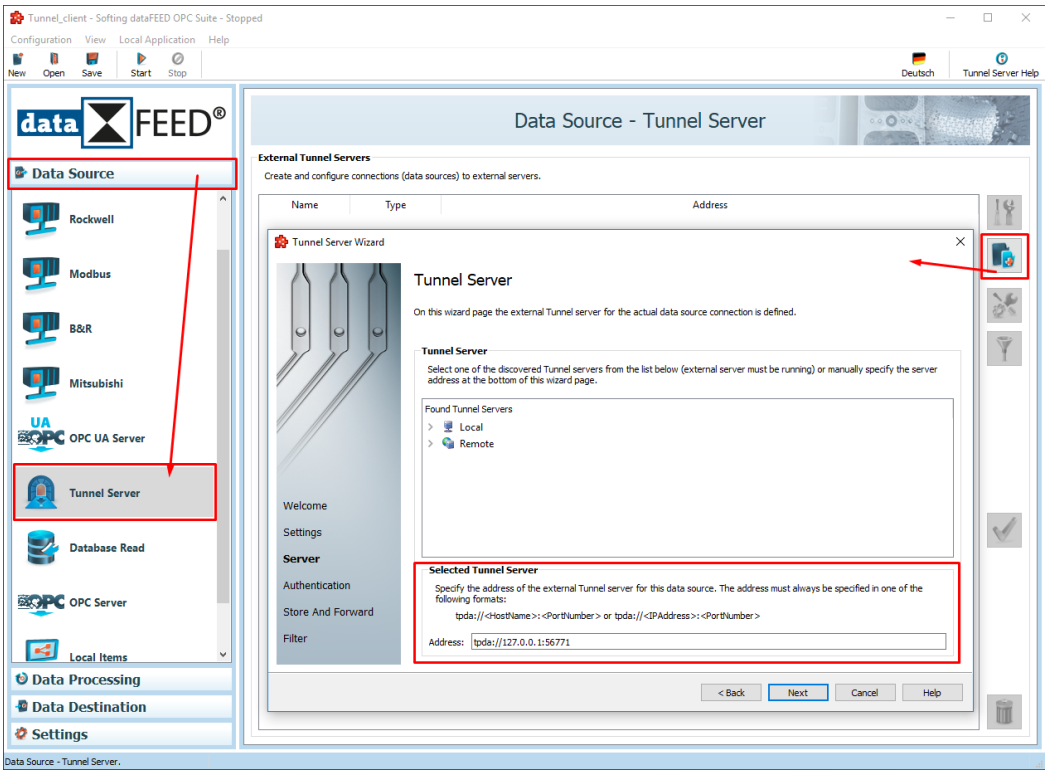
3) Create the tunnel client configuration (on PC2)

PC2 represents the Tunnel Client and get the data from the tunnel Server running on PC1, the Tunnel Server from PC1 must be configured as the Data Source.

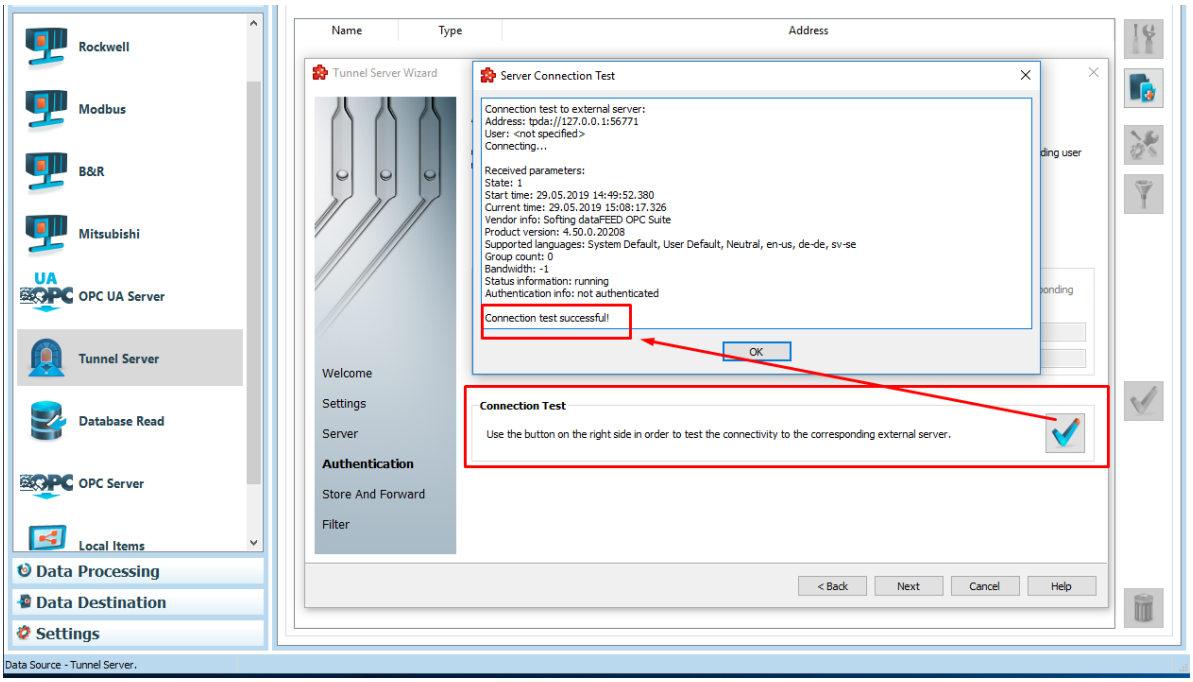
First, the type of tunnel server should be defined, if it is AE tunnel server or DA tunnel server. Then, it is possible to Browse the Tunnel Server, but the better Option is to fill in the IP address and port number, which you can find in the Tunnel Server configuration on PC1 (Data Destination -> Tunnel Client -> Tunnel Access).



The Address looks like this: tpda://<IP address tunnel Server>:<Port address tunnel Server>



Press “Next” to confirm this entry.



Test the tunnel connection if it is successful.

Press “Next” until the configuration is completed and start the dataFEED OPC Suite.

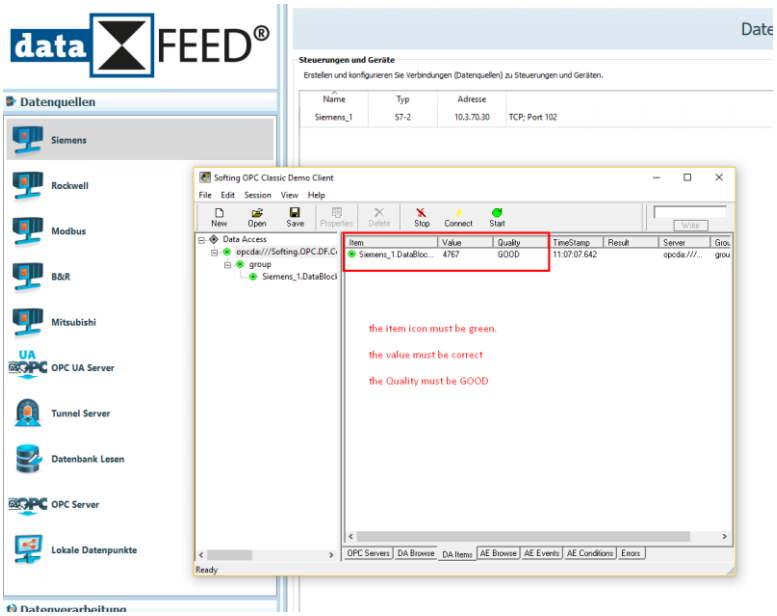
Please check also the license on PC2, as this PC must also be licensed. If you activate the option “Show needed licenses”, they should be no license required.

Data should now be received by PC2 and corresponding Data Destinations can be specified.

4) Troubleshooting

If you have any problems, please follow the following steps.

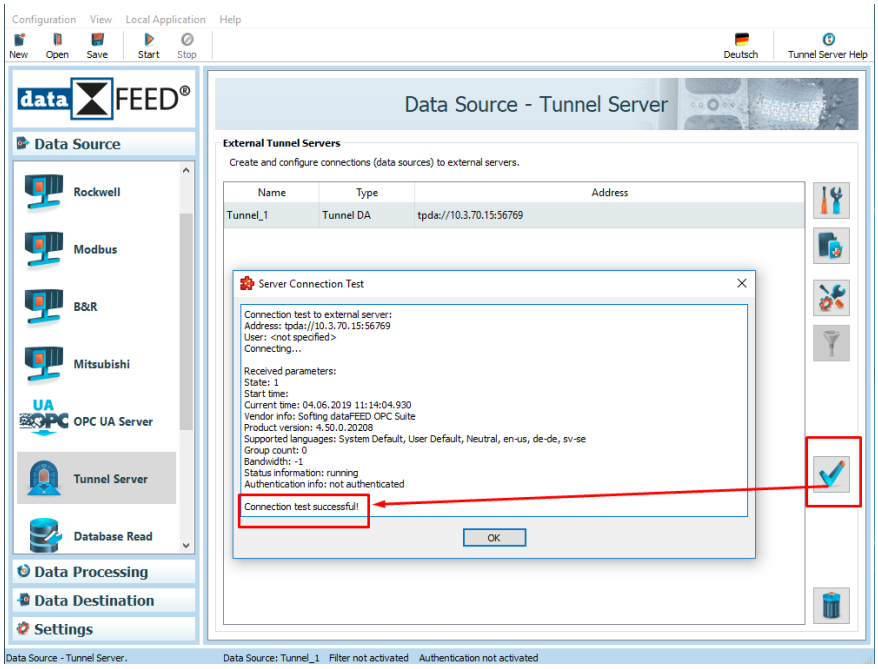
The first step is always to check the tunnel server (in the example it is PC1).
Does the server send the correct data form the Data source?



You can check this with our Demo Client which came with the DataFEED OPC Suite.
You can also check the license, the DataFEED OPC Suite shouldn´t run in Demo Mode.
The Server must be started.

Note: AE alarms are shown under the AE Events tab.

If the First step was successfully you can proceed with the second step. Check the tunnel client side (in the example it is PC2).



Select the tunnel Server connection and perform a connection test. (the connection must be successful)
The Tunnel Server must be running.
If everything was successful than test the provided data with the Softing Demo Client.
This should be the same data as at the tunnel Server.

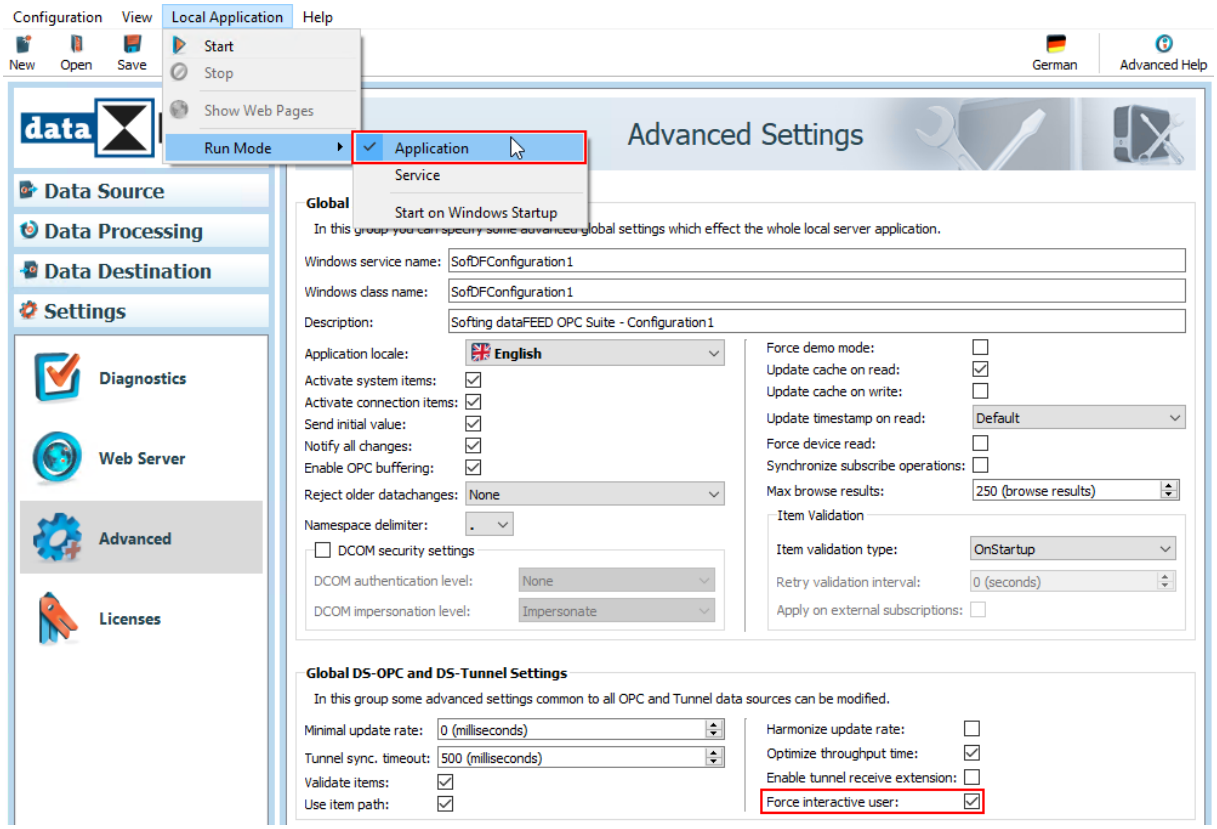
5) Advanced Settings

The dataFEED OPC Suite can operate in different run modes: as a service ("system") or as an application. By default, it runs as a service under the "System" user. However, certain OPC Classic Servers/Clients may require communication using the same username. In such cases, it is essential to ensure that dataFEED OPC Suite is configured to run under the same username as the OPC Classic Server/Client.

To configure dataFEED OPC Suite to run under your Windows username, follow these steps:

1. Select **"Application"** as the **"Run Mode"**.
2. **Enable** the **"Force interactive user"** option.

Note: This configuration is particularly relevant when the OPC Classic Server/Client is running on your local system.



Here is an overview of the different scenarios and the associated usernames:

Scenario	Service Name	Username
Running as a Service	OSF_Service.exe	System
Running as Application **without** enabling ''force interactive user'' option	OSF_Application.exe	SoftingOPCUser
Running as Application **with** enabling ''force interactive user'' option	OSF_Application.exe	Windows Login User

6) Required licenses.

There are different ways you can build your system. The tunnel license is only for one tunnel Endpoint. If you want to connect to more than one tunnel server on a PC than you need an additional extension license.