

## Troubleshooting communications between OPC UA clients and servers

If the software displays `Unable to connect to OPC UA Server` when you attempt an endpoint connection, check the following to troubleshoot the connection between your client and server.

### DeltaV OPC UA clients

- Make sure the OPC UA client is enabled (**OPC UA Client** properties dialog, **General** tab).
- Make sure you have generated a certificate for the client even if you are not implementing security (**OPC UA Client** properties dialog, **Certificates** tab)
- Make sure the server endpoint URL is correct (physical device properties dialog, **Primary** and **Secondary** tabs).
- Make sure the DeltaV OPC UA Server service is running on the host device.
- Make sure the OPC UA client has been downloaded.
- Use the Test Endpoint Connection command in DeltaV Diagnostics to check OPC UA client-side communications.
- If you are implementing security, verify that the security settings on the client and server match. This includes the security policy (None, Basic256Sha256, and so on) and the security mode (None, sign or sign and encrypt).
- If the client fails to connect to a server because a certificate is not trusted or if a logon attempt fails, the client will not try to reconnect. You must download the client physical device to initiate a reconnect attempt. If anonymous authentication is used, no download is required.

### DeltaV OPC UA servers

- Make sure the OPC UA server is enabled (**OPC UA Server** properties dialog, **General** tab).
- Make sure you have generated a certificate for the server even if you are not implementing security (**OPC UA Server** properties dialog, **Certificates** tab).
- Verify that an OPC UA session (or sessions) has been created under the OPC UA server in DeltaV Diagnostics.
- On the PK controller, check the status of the server and endpoints in DeltaV Diagnostics.
- Make sure the network allows communication between the OPC UA client and the OPC UA server.
- Make sure the OPC UA server has been downloaded.

- Make sure the DeltaV OPC UA Server service is running.
- Check the server log for a workstation server. To find the location of the server log:
  1. Right-click the OPC UA server and click **Properties**.
  2. Click the **Log Settings** tab.
  3. Note the path in the **Location** field.

**Note:** OPC UA server communication with one OPC UA client can adversely impact communication with other OPC UA clients. For example, browsing large configurations in some third-party OPC UA clients can impact communication with other clients.