

This knowledgebase Article explains user on how to configure System Server & Remote Engineering client communication in Ecostruxure Process Expert 2023.

Ecostruxure Process Expert 2023 supports Multi Engineering Client configuration. There are some few additional settings which needs to be done apart from Process Expert settings, when compared to Process Expert 2021.

We shall work on the below shown system architecture where we have one system Server and one Engineering client and will configure Local authentication.

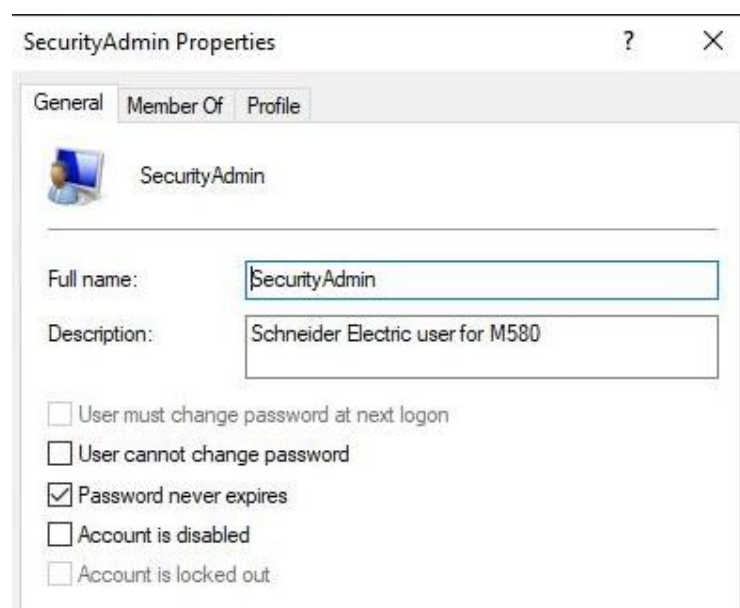


A. System Server Side Configuration:

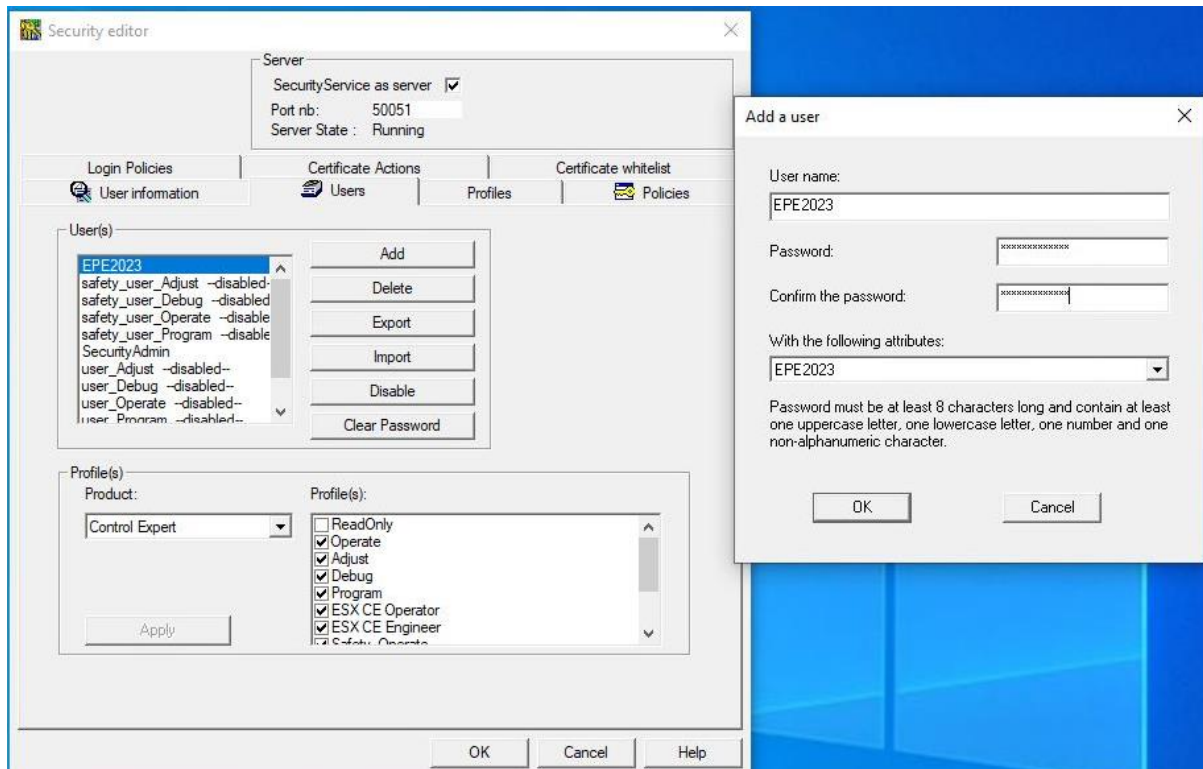
1. Open Security Editor and login with default credentials which are: Username: SecurityAdmin , Password: Azertyuiop12!.

User can change the default password after first login if required.

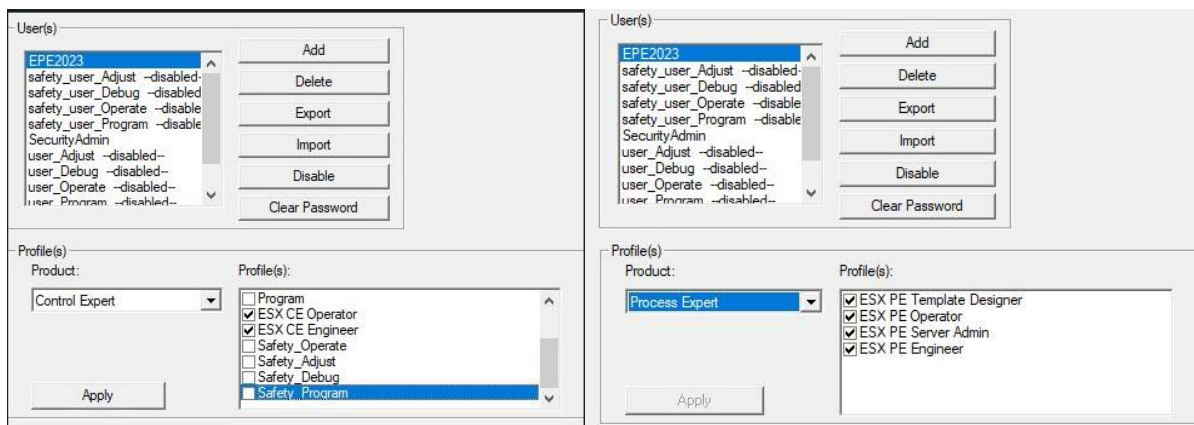
In order to avoid expiry of User, we recommend to select “Password never expires” for SecurityAdmin user which can be found in Local users under Computer management.



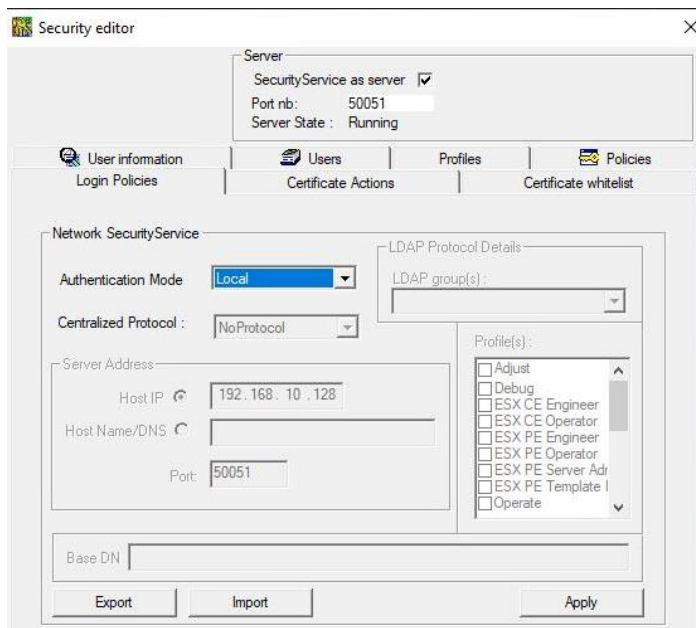
2. Now create a User in Security Editor, which will be used for logging into System server.



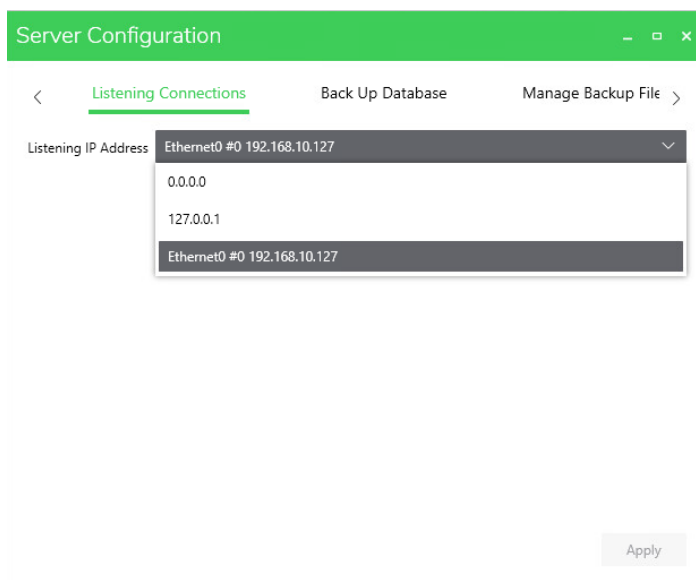
3. Ensure that the required profiles are selected for the created User. In normal scenario, select ESX CE Operator, ESX CE Engineer in Control Expert and also select all Profiles given in Process Expert, as shown below.



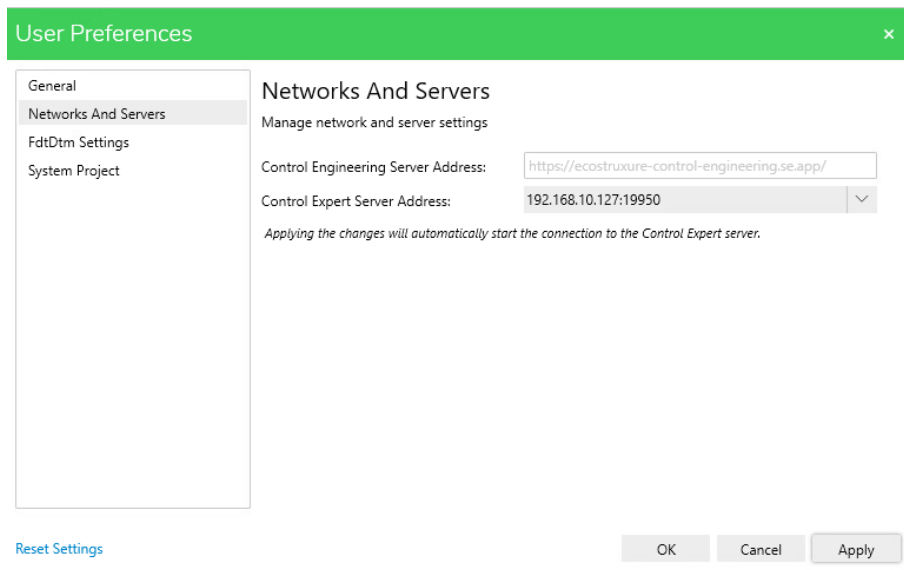
4. Keep authentication mode in Local for Centralized authentication depending on your system configuration. Here we are explaining about local, so Local needs to be selected. Also ensure that Security Service as Server is selected and its state is in running, as shown below.



5. Next Open Server Configuration and select Ethernet Adapter which is used for Server connection, as shown below.

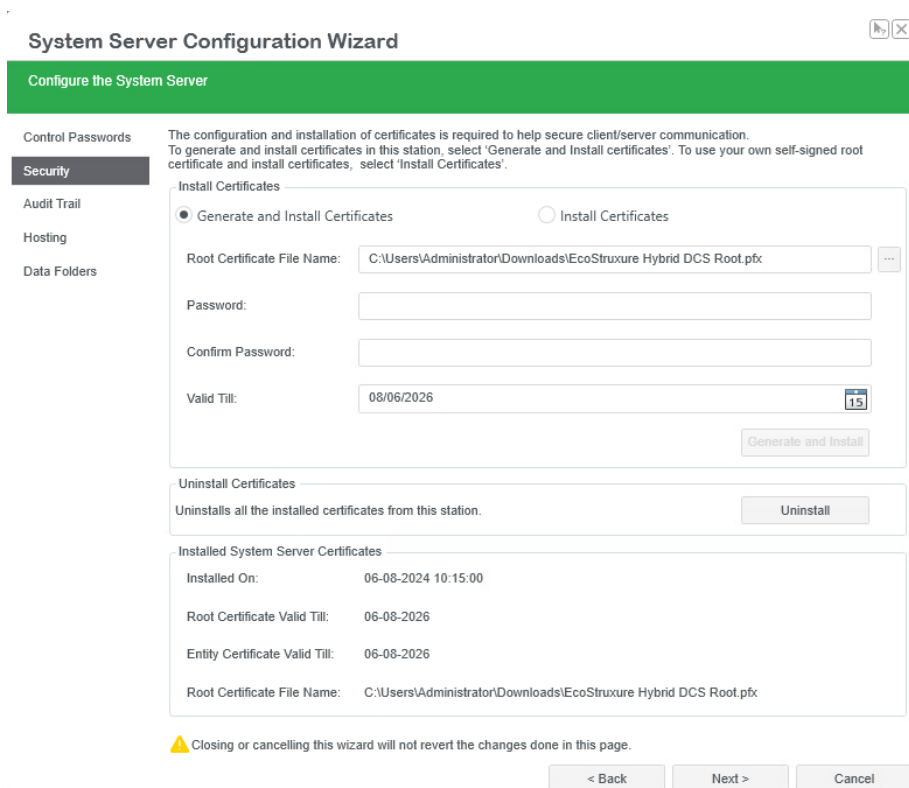


6. Open Control Expert Topology and go to settings, then provide the IP address of Server machine as shown below.



The image shows a 'User Preferences' dialog box with a green title bar. On the left is a sidebar with four tabs: 'General', 'Networks And Servers' (selected), 'FdtDtm Settings', and 'System Project'. The main area is titled 'Networks And Servers' with the subtitle 'Manage network and server settings'. It contains two text input fields: 'Control Engineering Server Address' with the value 'https://ecostruxure-control-engineering.se.app/' and 'Control Expert Server Address' with the value '192.168.10.127:19950'. Below these fields is a note: 'Applying the changes will automatically start the connection to the Control Expert server.' At the bottom left is a 'Reset Settings' link, and at the bottom right are 'OK', 'Cancel', and 'Apply' buttons.

7. These are the additional settings which a User needs to perform in Ecostruxure Process Expert 2023 when compared with Process Expert 2021. The rest Settings are same like in System server, User needs to open basic settings and generate Certificates as shown below.



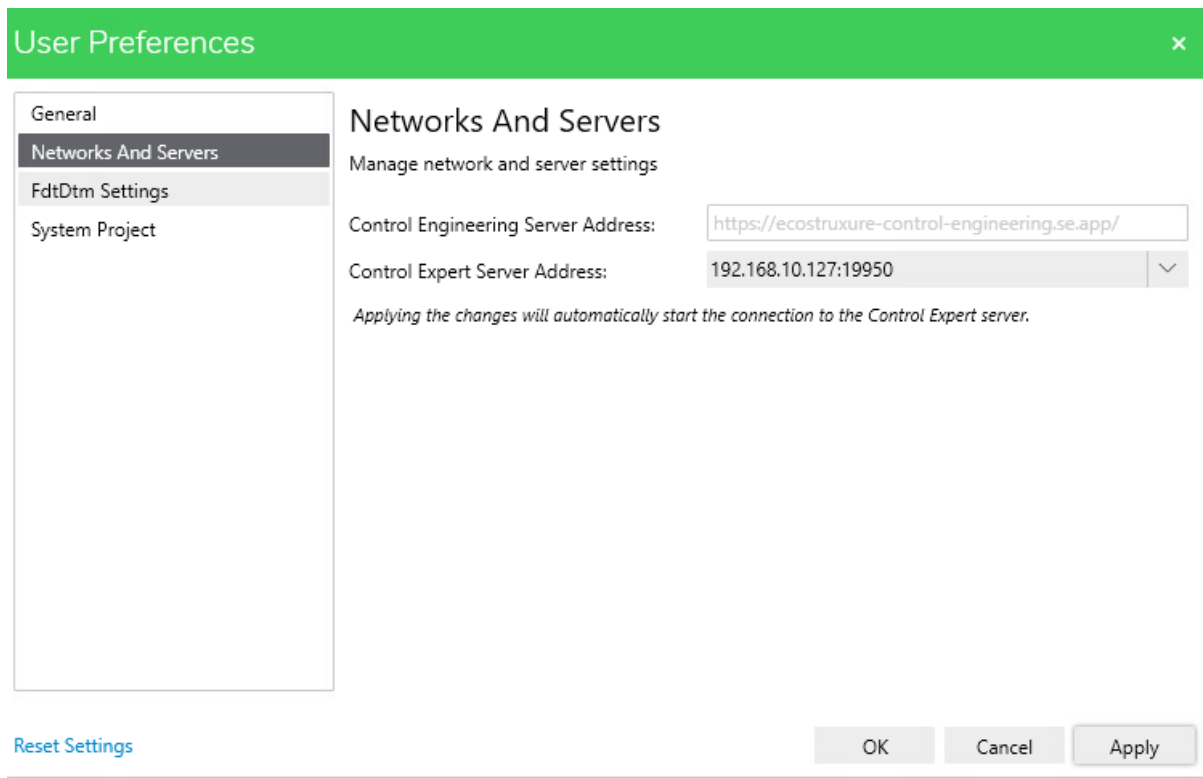
The image shows the 'System Server Configuration Wizard' with a green title bar. The left sidebar has five tabs: 'Control Passwords', 'Security' (selected), 'Audit Trail', 'Hosting', and 'Data Folders'. The main area is titled 'Configure the System Server' and contains a section for 'Install Certificates'. It has two radio buttons: 'Generate and Install Certificates' (selected) and 'Install Certificates'. Below the radio buttons are four text input fields: 'Root Certificate File Name' (with a file path), 'Password', 'Confirm Password', and 'Valid Till' (with a date). A 'Generate and Install' button is at the bottom right of this section. Below this is an 'Uninstall Certificates' section with a description and an 'Uninstall' button. At the bottom is an 'Installed System Server Certificates' section with a table showing installation details. A warning message at the bottom states: 'Closing or cancelling this wizard will not revert the changes done in this page.' Navigation buttons '< Back', 'Next >', and 'Cancel' are at the very bottom.

Installed System Server Certificates	
Installed On:	06-08-2024 10:15:00
Root Certificate Valid Till:	06-08-2026
Entity Certificate Valid Till:	06-08-2026
Root Certificate File Name:	C:\Users\Administrator\Downloads\EcoStruxure Hybrid DCS Root.pfx

8. There is one point to consider. The local Engineering Client cannot be connected with the default settings. The local engineering client also need to be configured same as remote engineering client. The procedure is as follows.

B. Remote Engineering Client Side Configuration:

1. Open Control Expert Topology and provide our Server IP address in the Control Expert Server address in the same format as shown below.



The image shows a 'User Preferences' dialog box with a green header bar. On the left is a sidebar with four tabs: 'General', 'Networks And Servers' (which is selected and highlighted in dark grey), 'FdtDtm Settings', and 'System Project'. The main area is titled 'Networks And Servers' and contains the text 'Manage network and server settings'. There are two input fields: 'Control Engineering Server Address' with the value 'https://ecostruxure-control-engineering.se.app/' and 'Control Expert Server Address' with the value '192.168.10.127:19950'. Below these fields is a note: 'Applying the changes will automatically start the connection to the Control Expert server.' At the bottom left is a 'Reset Settings' link, and at the bottom right are 'OK', 'Cancel', and 'Apply' buttons.

User Preferences

General
Networks And Servers
FdtDtm Settings
System Project

Networks And Servers
Manage network and server settings

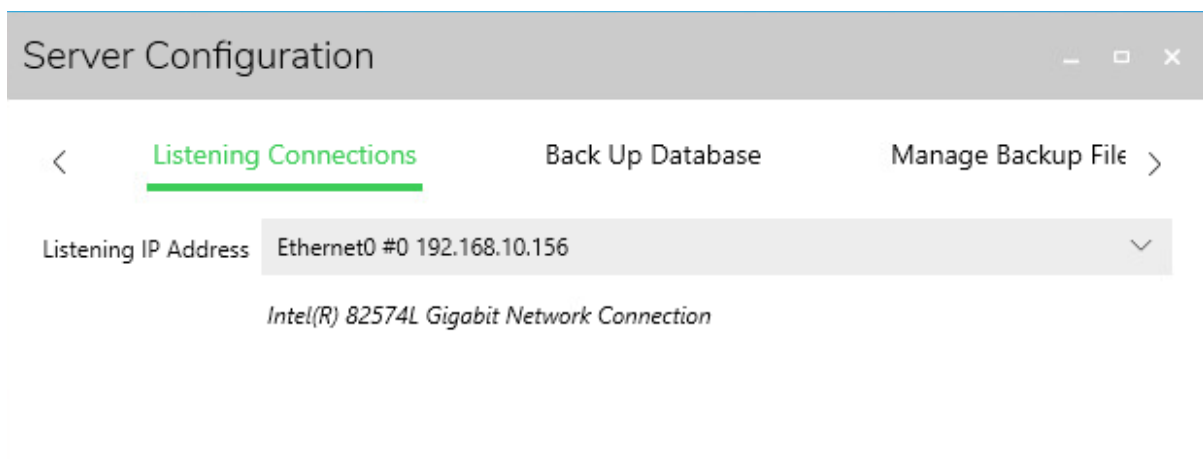
Control Engineering Server Address:

Control Expert Server Address:

Applying the changes will automatically start the connection to the Control Expert server.

[Reset Settings](#) OK Cancel Apply

2. Now Open Server Configuration, ensure that Listening IP address is selected with either 127.0.0.1 or Network Adaptor which will connect to Server. Do not select 0.0.0.0, which may cause some connectivity related issues.



The image shows a 'Server Configuration' dialog box with a grey header bar. Below the header is a navigation bar with three items: '< Listening Connections' (which is selected and underlined in green), 'Back Up Database', and 'Manage Backup File >'. The main area shows 'Listening IP Address' with a dropdown menu displaying 'Ethernet0 #0 192.168.10.156'. Below the dropdown is the text 'Intel(R) 82574L Gigabit Network Connection'.

Server Configuration

< Listening Connections Back Up Database Manage Backup File >

Listening IP Address

Intel(R) 82574L Gigabit Network Connection

3. These are the additional configurations to be done on remote engineering client. Apart from these Process Expert side, User needs to open Engineering Client configuration and provide System server IP address as shown below.

The screenshot shows the 'Engineering Client Configuration Wizard' window. The title bar includes standard window controls. Below the title bar is a green header with the text 'Configure the Engineering Client'. On the left, there are two tabs: 'System Server' (selected) and 'Security'. The 'System Server' tab contains two input fields: 'Host Name / IP Address' with the value '192.168.10.127' and 'Port' with the value '9950'. To the right of these fields is a 'Test Certificates' button.

4. Then copy the System server generated root certificate on the remote client machine and select it from configuration. Provide the same password which was given while generating the root certificates in system server. Click on Install, to generate certificates on Client machine, as shown below. After this user can open engineering client and login on remote machine.

The screenshot shows the 'Engineering Client Configuration Wizard' window with the 'Security' tab selected. The title bar and green header are the same. The 'Security' tab contains a message: 'The configuration and installation of certificates is required to help secure client/server communication. Server and client stations should install certificates using the same Root Certificate in order to establish the communication.' Below this message are three sections: 1. 'Install Certificates' with fields for 'Root Certificate File Name' (C:\Users\Test_EPE2023_W10\Desktop\EcoStruxure Hybrid DCS Root.pfx), 'Password' (masked with dots), and 'Valid Till' (02/06/2025), followed by an 'Install' button. 2. 'Uninstall Certificates' with a description 'Uninstalls all the installed certificates from this station.' and an 'Uninstall' button. 3. 'Installed System Server Certificates' showing a table of installed certificates. At the bottom, there is a warning icon and text: 'Closing or cancelling this wizard will not revert the changes done in this page.' and three buttons: '< Back', 'Save and Close', and 'Cancel'.

Installed System Server Certificates	
Installed On:	06-08-2024 16:31:00
Root Certificate Valid Till:	06-08-2026
Entity Certificate Valid Till:	06-02-2025
Root Certificate File Name:	C:\Users\Test_EPE2023_W10\Desktop\EcoStruxure Hybrid DCS Root.pfx

This completes the process of configuring communication between System Server and Engineering client.