



Knowledge Base Management

Info: Ethernet Port list used by PES

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Ethernet Port list used by PES

Process Expert System (PES) is our offer in the field of hybrid process automation system that brings together the best from the PLC/SCADA and DCS worlds. It is an integrated system for engineering, operation and maintenance. PES software calls different software components and services to work collaboratively. Meantime communication and data exchange will happen between License Manager and Floating License Manager, between PES Server and PES Engineering Client, between PES Cache database and PES embedded VM, etc.

In this article we introduce the different Ethernet ports used by PES. In the project site we need to open and allow the access of these listed ports by tuning the settings in switches and firewalls. Besides, we also need to prevent these ports to conflict with other software.

1) Ports for Server Licensing

Port	Protocol	Usage / Description
8090	TCP	Web portal of the FLEXnet License Administrator
27000	TCP	Communication port from License Manager to Floating License Server in PES V4.2 and earlier version
27010	TCP	Communication port from License Manager to Floating License Server in PES V4.2 SP1 and above

PES use Floating License Manager and License Manager to manage the license.

The Schneider Electric Floating License Manager is installed on the Enterprise License Server in order to manage (activate, update, return, repair) the floating licenses of your Schneider Electric software products. These floating licenses are made available to local PCs connected to the same local network as the Enterprise License Server. By activating a license for a Schneider Electric software product, the license declares that the software product will be used within the boundaries described in the license agreement. PES Server is using Floating License Manager to manage its floating licenses. A floating license is activated to an Enterprise License Server and can be used from different local PCs connected to the same local network as the Enterprise License Server. License Manager is the tool to be used to acquire the floating license.

In PES projects, the licensing mechanism involves using two software applications:

Floating License Manager (FLM): Allows user to activate licenses on a PC.

License Manager (LM): Allows a Process Expert component to locate the PC that holds licenses that are activated with the Floating License Manager.

The Floating License Manager needs to be installed on the PC on which we want to activate the PES licenses. This PC is referred to as the Enterprise license server. License Manager is installed on the PC which the Process Expert system server is installed. After both software installed, we need to configure these two software to make them talk with each other properly. In the pane of Floating License Manager, we click "Open FLEXnet License Administrator" to open the web browser.

Flexera Software™

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User Name: admin

?

Help

X

Sign Out

Dashboard

Administration

Alerts

4

3

4 Critical

Vendor daemon down: schneide
Thu Mar 30 10:18:50 2017

Out of licenses for EUS_BAS_Server 4.2
Thu Mar 30 12:58:50 2017

Out of licenses for
EUS_CLT_EngineeringClient 4.2
Thu Mar 30 12:58:50 2017

Out of licenses for EUS_APP_Size 4.2
Thu Mar 30 12:58:50 2017

Licenses

Vendor Daemon: schneide

Activatable

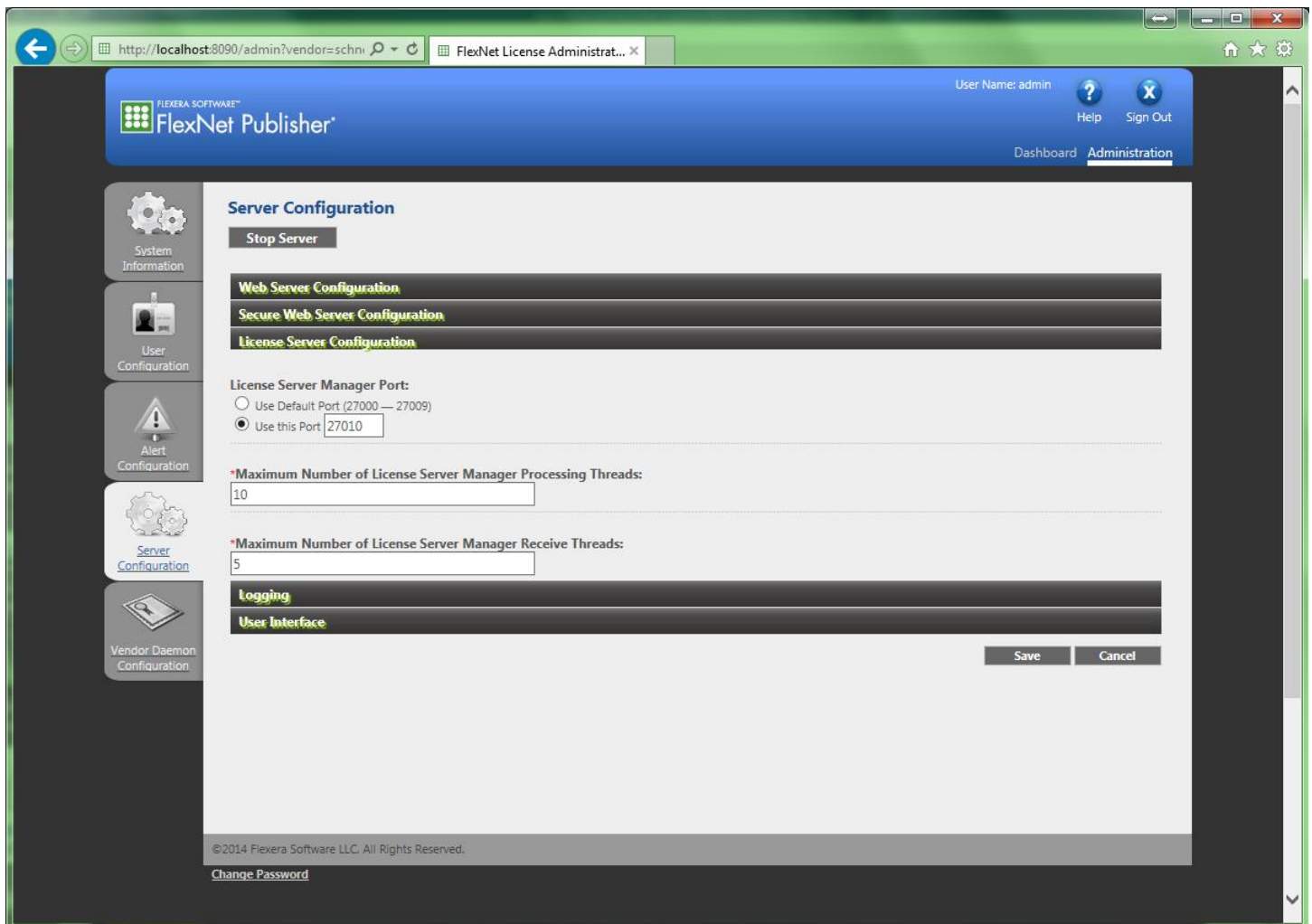
Concurrent

Product	Version	Detached (Total)	Overdraft	Expiration
NAME=SWPE_ENG_ASC,VERSION=4.2				
NAME=SWPE_ENG_ASC,VERSION=4.2		0 (0)	0 (0)	22-JUL-2017

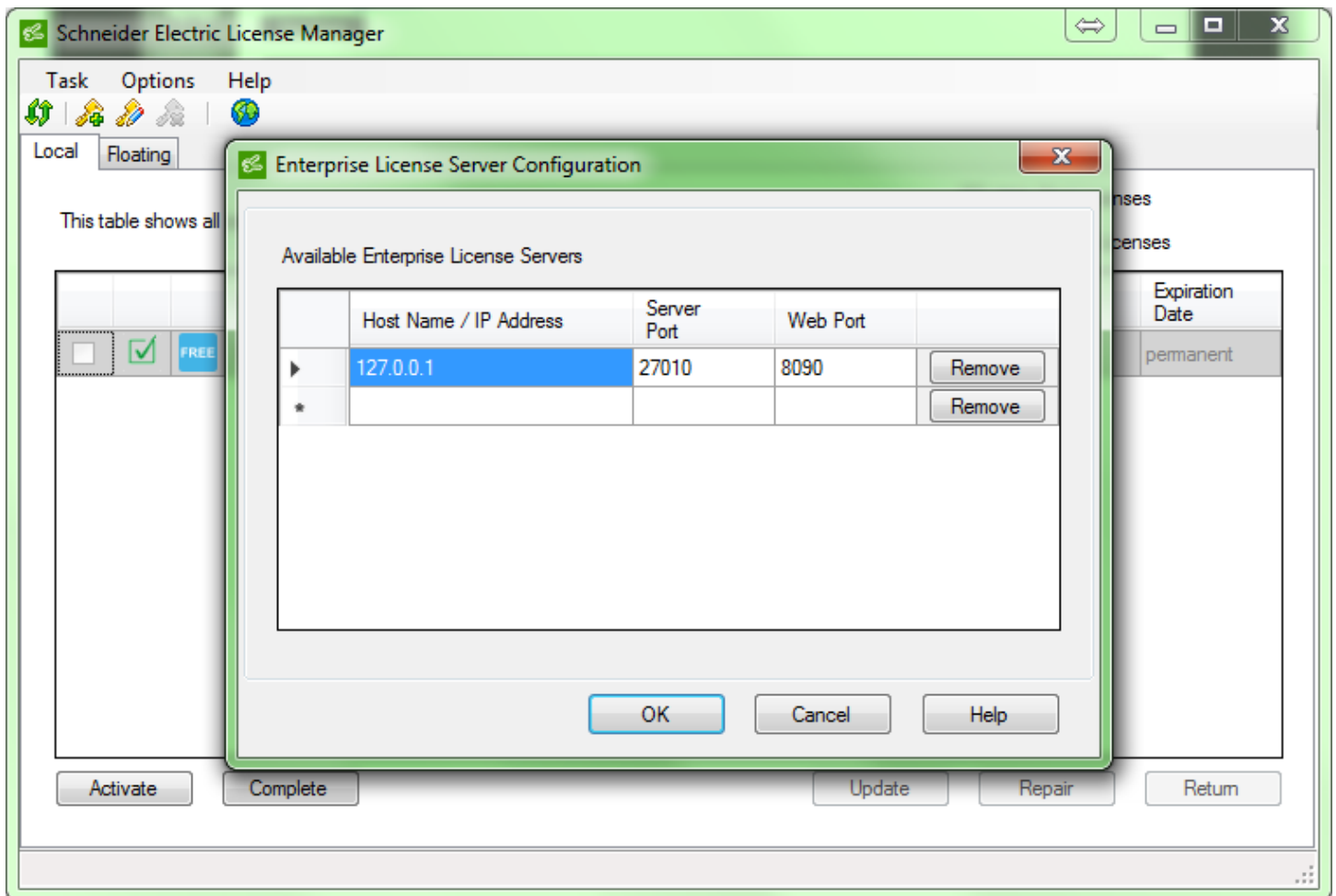
Change Password

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After opening the Administration portal, we can change port of the web server portal and license server portal.



Then in the License Manager, we need to configure the same settings.



2) Ports for Server communication

Port	Protocol	Usage / Description
9949	TCP	Critical messaging port
9950	TCP	Client / server connection
9951	TCP	File transfer port between Process Expert components

If the default server communication port conflicts other software, we are able to change the port number. These ports are editable through Server Configuration Wizard. Once you change the communication port, you need to open the Engineering Client Configuration Wizard to change the setting accordingly.

Server Configuration Wizard

Engineering Client Configuration Wizard

Port	Protocol	Usage / Description
39081	TCP	Virtual Machine Communication Ports, will also use 39082 and next for next vm instances
39181	TCP	Virtual Machine Communication Ports, will also use 39182 and next for next vm instances

Port	Protocol	Usage / Description
18080	UDP	Logging / display
18081	UDP	Logging

Right now we finish the introduction for Ethernet port list used by PES. Please see the summary form as below:

Port	Protocol	Usage / Description
8090	TCP	Web portal of the FLEXnet License Administrator
9949	TCP	Critical messaging port
9950	TCP	Client / server connection
9951	TCP	File transfer port between Process Expert compents
18080	UDP	Logging / display
18081	UDP	Logging
27010	TCP	Communication port from License Manager to Floating License Server
39081	TCP	Virtual Machine Communication Ports, will also use 39082 and next for next vm instances
39181	TCP	Virtual Machine Communication Ports, will also use 39182 and next for next vm instances

For more information about the function of different ports, please refer to the Process Expert Installation Guide or related documents.

Should you have any questions or comments, please feel free to leave messages here or send email to Chao.Chen@schneider-electric.com.