

SIEMENS



FAQ • 02/2017

Remote Access to WinCC and PCS 7 Plants with "RealVNC"

SIMATIC PCS 7 and WinCC



<https://support.industry.siemens.com/cs/ww/de/view/55422236>

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Contents

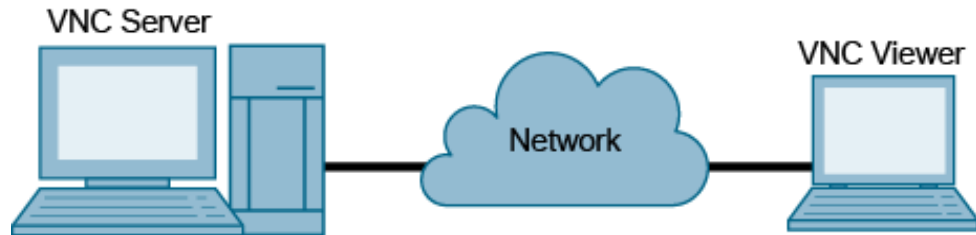
1	Overview	3
1.1	What is "RealVNC"?	3
1.2	System Requirements	3
2	Installation	4
2.1	"RealVNC" Server (Service Mode)	4
2.2	"RealVNC" Server (User Mode)	9
3	Configuration of the "RealVNC" Server	12
4	Establishing a Connection with the "RealVNC" Viewer	15
5	SIMATIC Remote Services	19
5.1	Making Changes on the "RealVNC" Server	19
5.2	Making Changes on the "RealVNC" Viewer	21
6	Literature	22
7	History	23

1 Overview

1.1 What is "RealVNC"?

The basic functions of "RealVNC" permit the transfer of the screen content of a remote PC (server) to a local PC (viewer). Furthermore, it is possible operate the remote PC by transmitting mouse and key commands.

Figure 1-1



Note

Trademarks

RealVNC is a registered trademark of RealVNC Ltd. in the USA and in other countries.

1.2 System Requirements

Current version combinations of PCS 7 and WinCC with "RealVNC" are given in the Compatibility Tool in Entry ID [64847781](#).

ATTENTION Pay attention to the information and notes from the following manual concerning remote access:

SIMATIC Process Control System PCS 7 Support and Remote Dialup
<https://support.industry.siemens.com/cs/ww/en/view/38621092>

2 Installation

The "VNC for Windows" software can be procured and downloaded at this address:
<https://www.realvnc.com/download/>

The version used in this example is the "VNC Enterprise Edition for Windows V5.1.0".

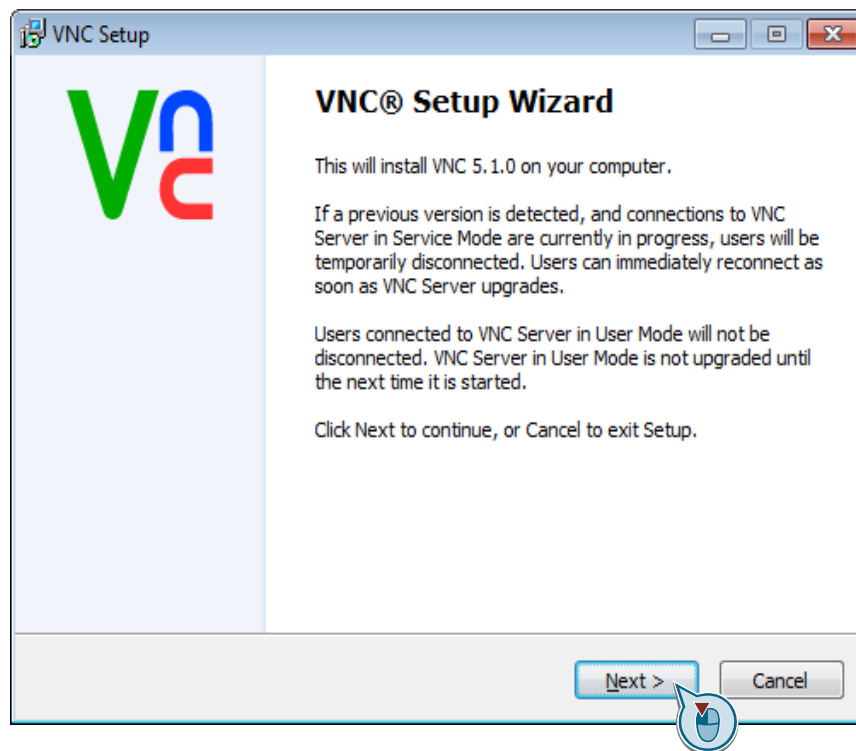
2.1 "RealVNC" Server (Service Mode)

The VNC server is started automatically in service mode as a Windows service. You therefore have the option of connecting up to the system before a user is logged on.

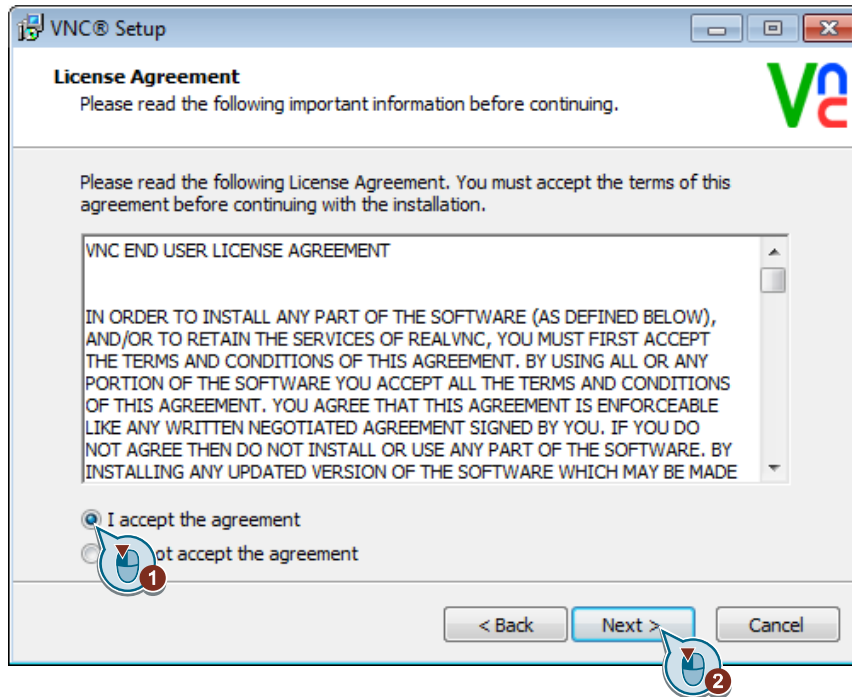
Below are instructions for installing the "RealVNC" server in service mode.

Procedure

1. Start the setup by double-clicking the executable file of "RealVNC". You need administrator rights to do the installation.
2. Start the installation by clicking "Next >".

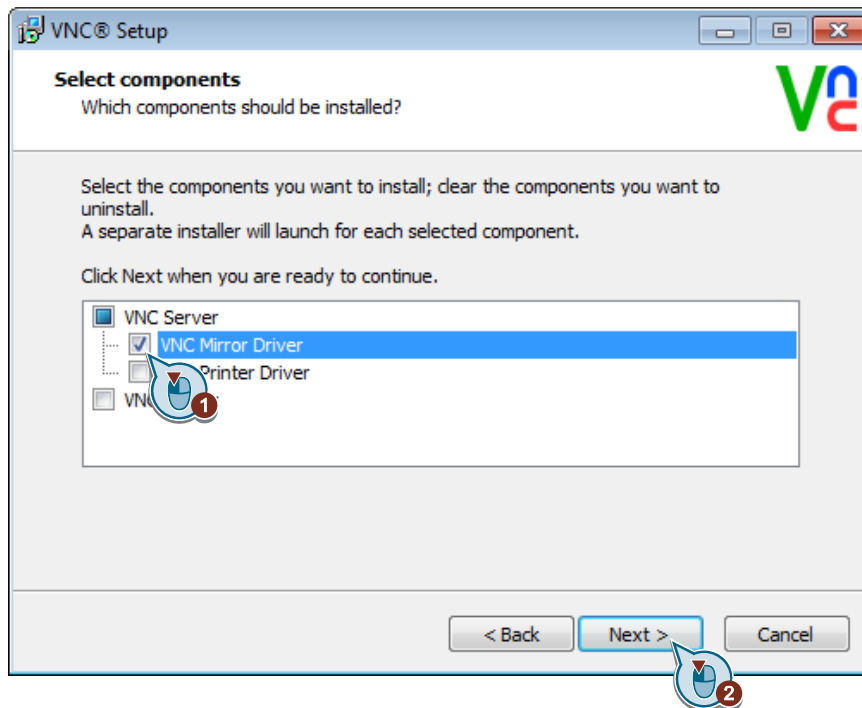


3. Acknowledge the terms of license.

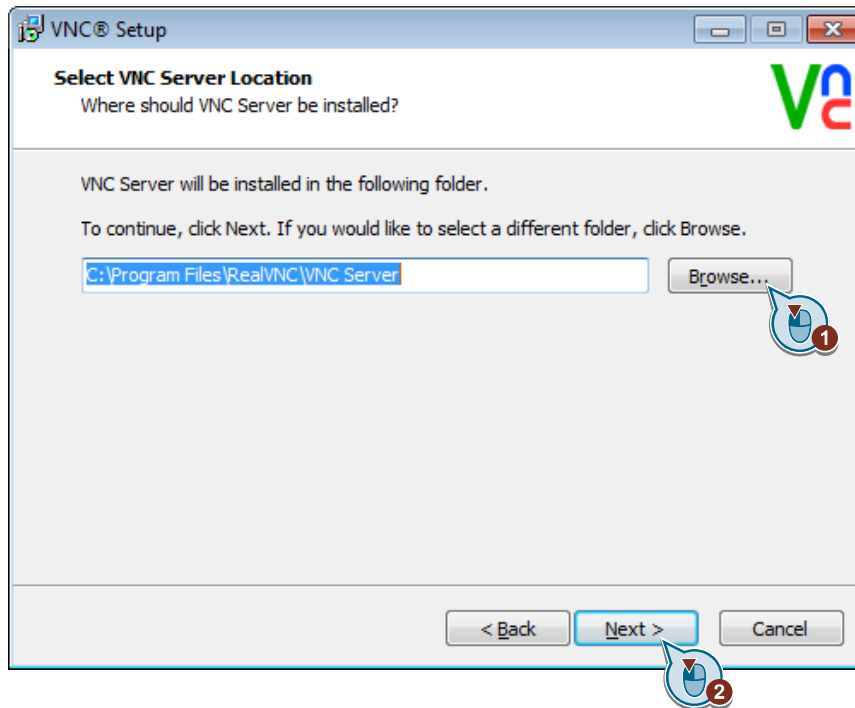


4. Select the components to be installed.

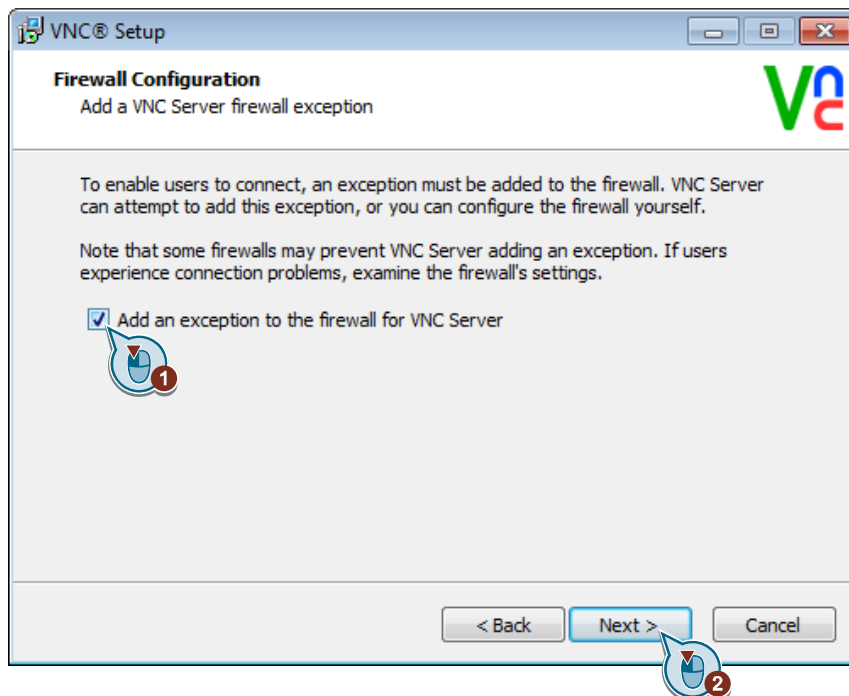
Select the "VNC Server" and "VNC Mirror Driver" components.



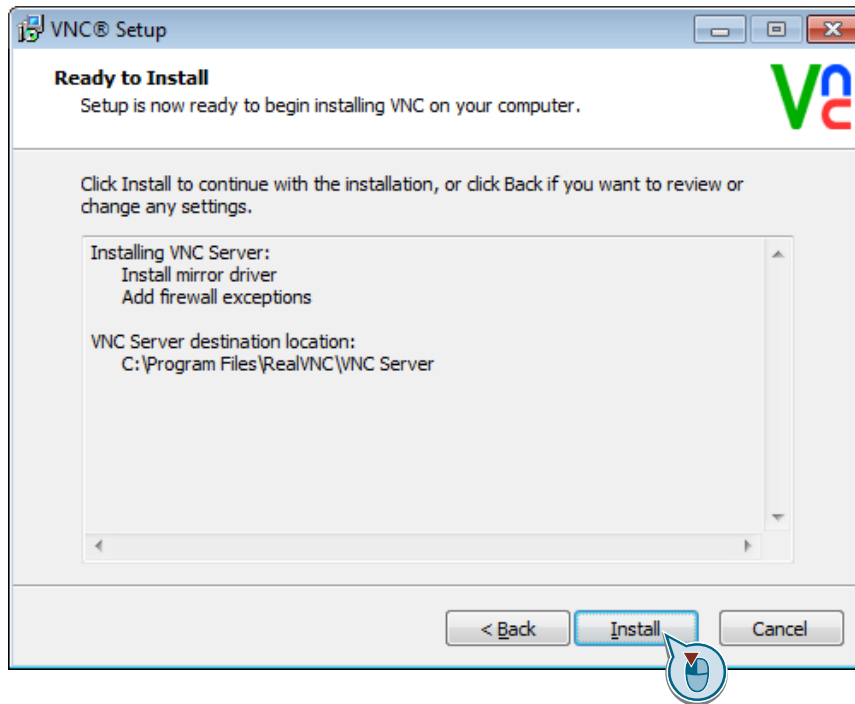
5. Specify the target path of the installation.



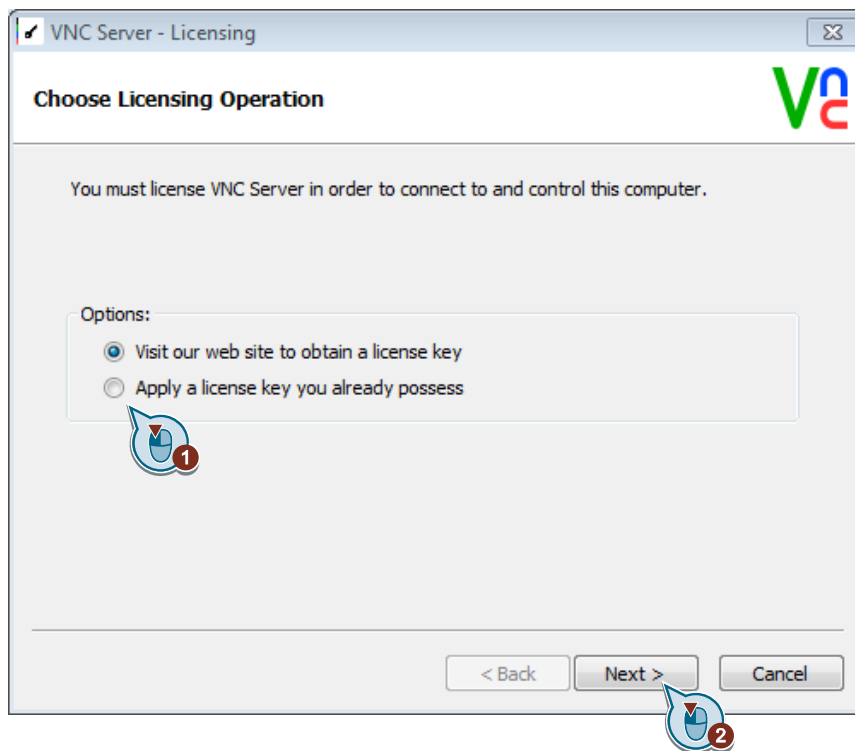
6. Add an exception to the Windows firewall for VNC Server by setting a check mark as shown.



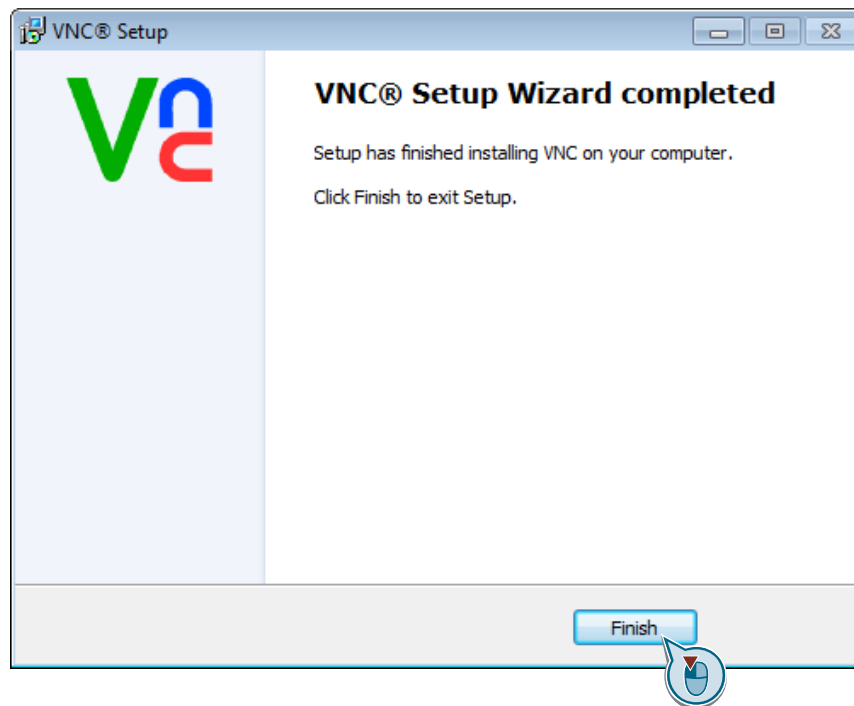
7. Start the installation with the settings explained above.



8. Select an option for licensing the software.



9. You complete the installation by clicking "**Finish**".
The VNC server starts in Service mode.

**Hinweis**

To connect a local computer to the VNC server, the VNC Viewer must be installed and started on the local computer.

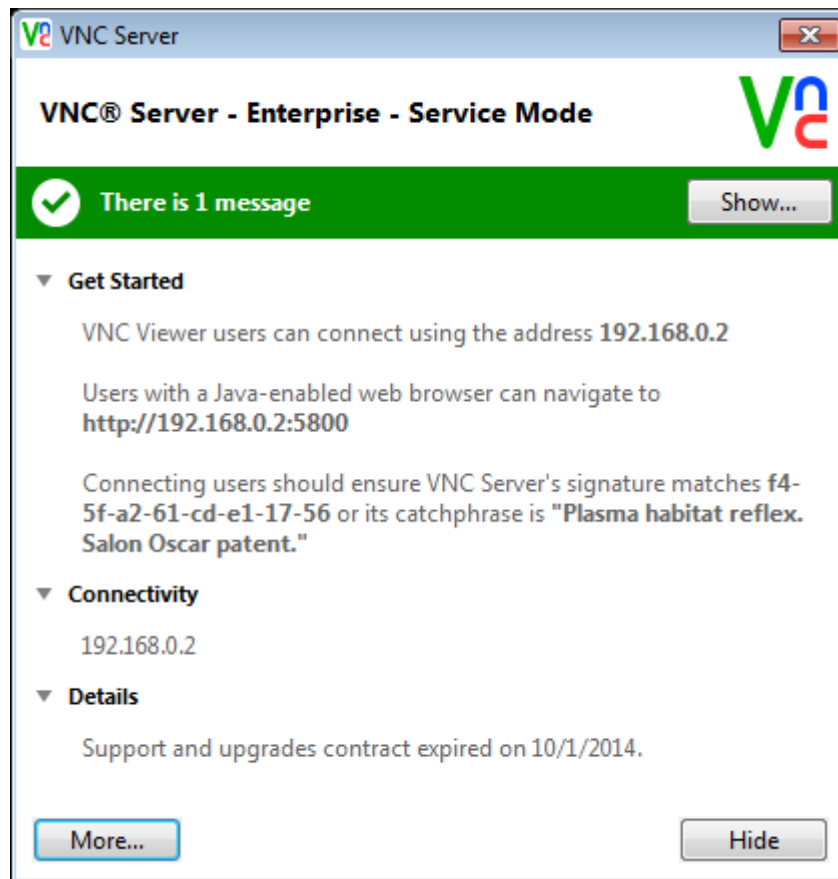
2.2 "RealVNC" Server (User Mode)

The VNC server is not started automatically in user mode. You have to start the VNC server manually.

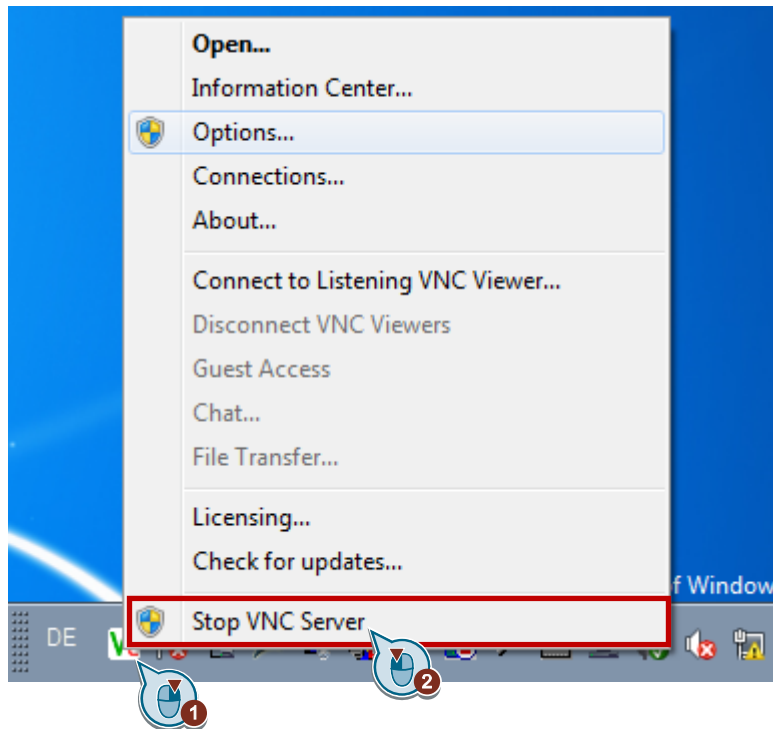
Changing the "RealVNC" to User Mode

Procedure

1. Follow the instructions in section 2.1.
2. After successful installation as in section 2.1 the VNC server runs in Service mode.
3. Right-click the VNC icon to open the pop-up menu and select the menu command "Open..." to open the VNC Server dialog.

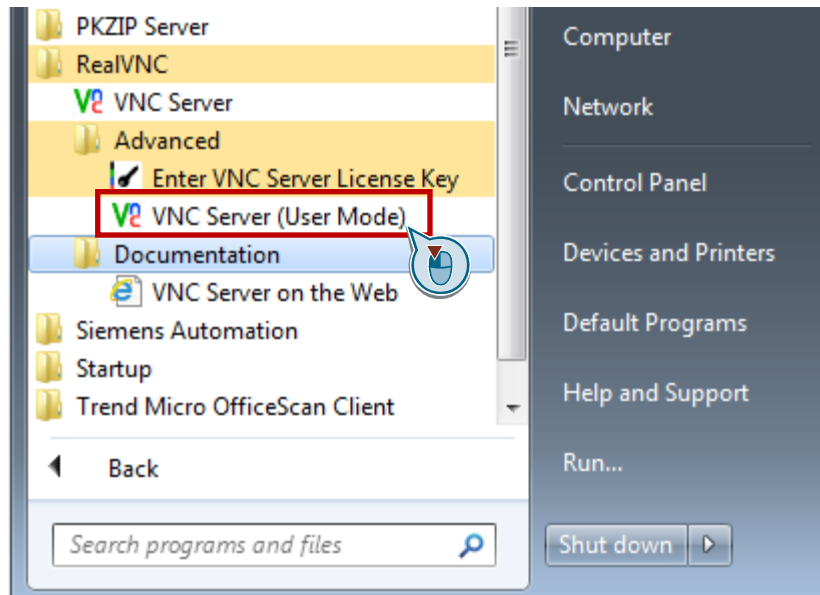


4. Right-click the VNC icon to open the pop-up menu and select the menu command "Stop VNC Server" to close the VNC Server.

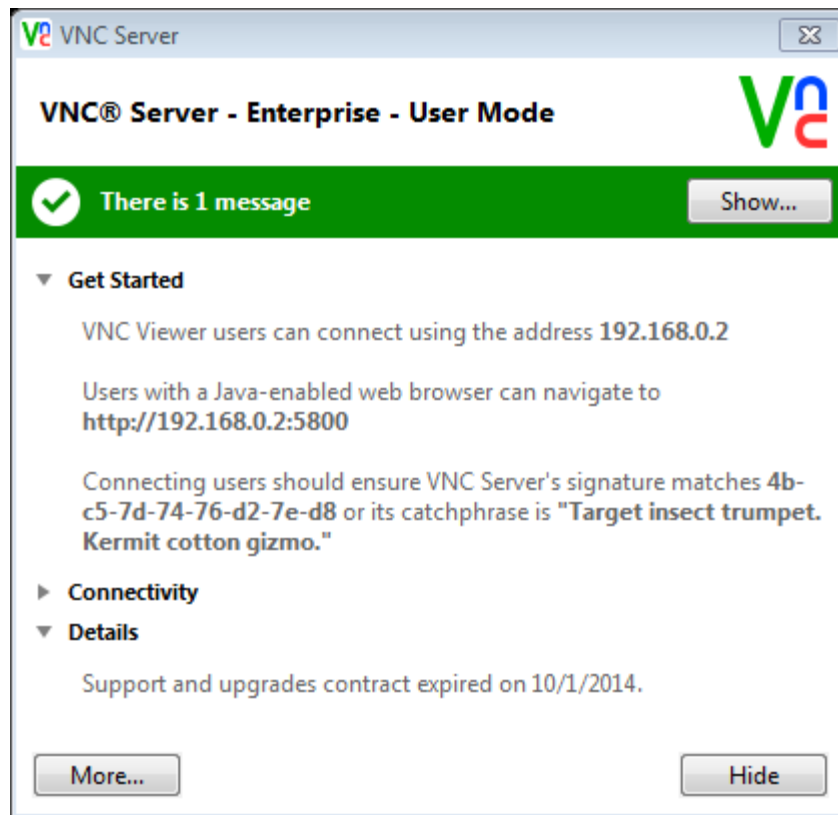


Acknowledge the subsequent dialog box with "Yes".

5. Start the VNC Server (User Mode) via the Windows Start menu.



- The VNC Server is now in User Mode. The VNC Server dialog opens with the corresponding message.



Hinweis

To connect a local computer to the VNC server, the VNC Viewer must be installed and started on the local computer.

3 Configuration of the "RealVNC" Server

The settings below comply with the Industrial Security guidelines for PCS 7 and WinCC plants. The requirement for remote access for service purposes is that a competent person be present to monitor the remote access.

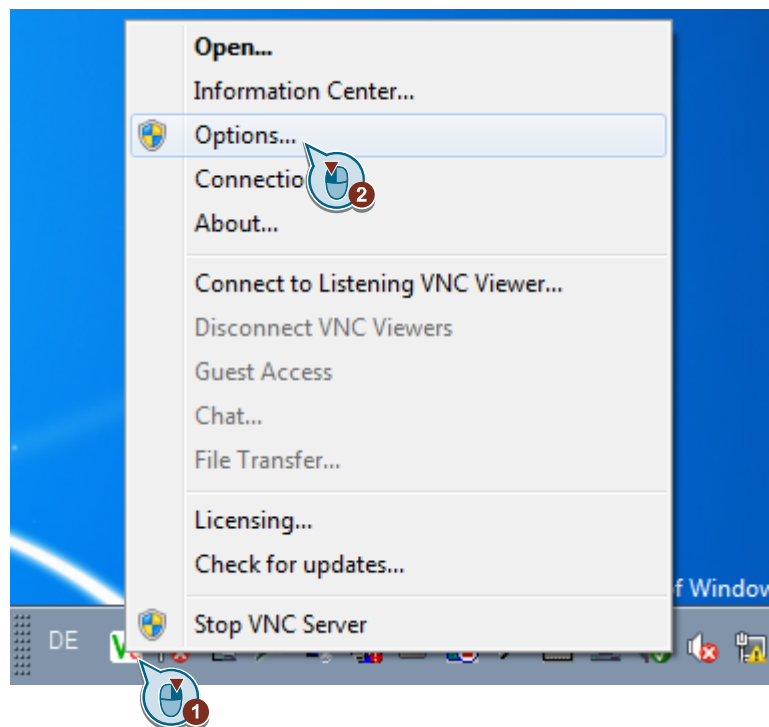
The following safety features are configured:

- Access is permitted only through password identification on the VNC server.
- The remote access must be confirmed by the plant staff.
- The plant staff can stop remote user operation at any time.
- The connection can be disconnected at any time.

The instructions below describe how to configure the VNC Server.

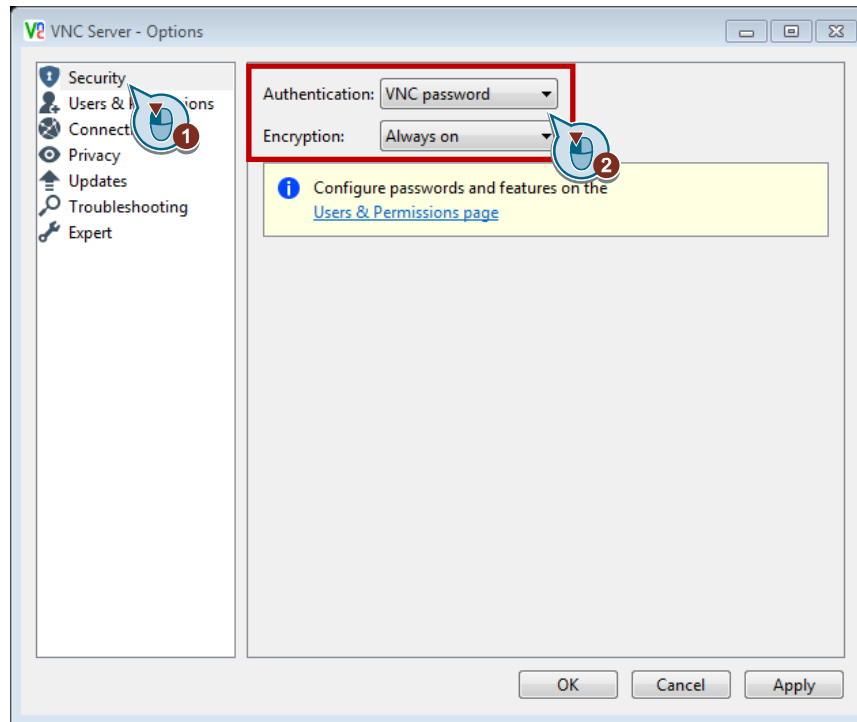
Procedure

1. Right-click the VNC icon to open the pop-up menu and open the status overview with the "Options..." menu command.

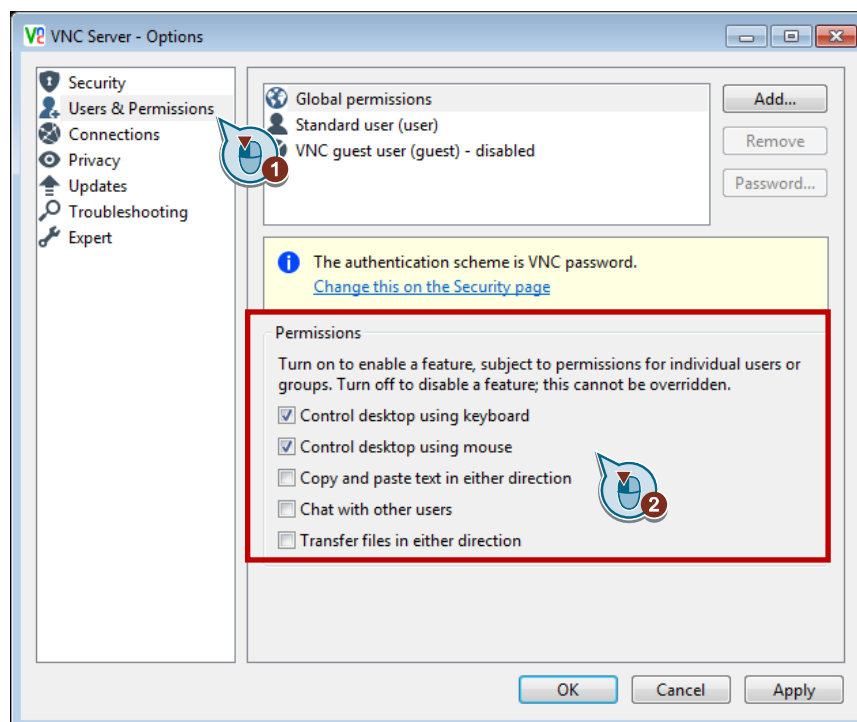


3 Configuration of the "RealVNC" Server

2. Use the following settings for "Security".

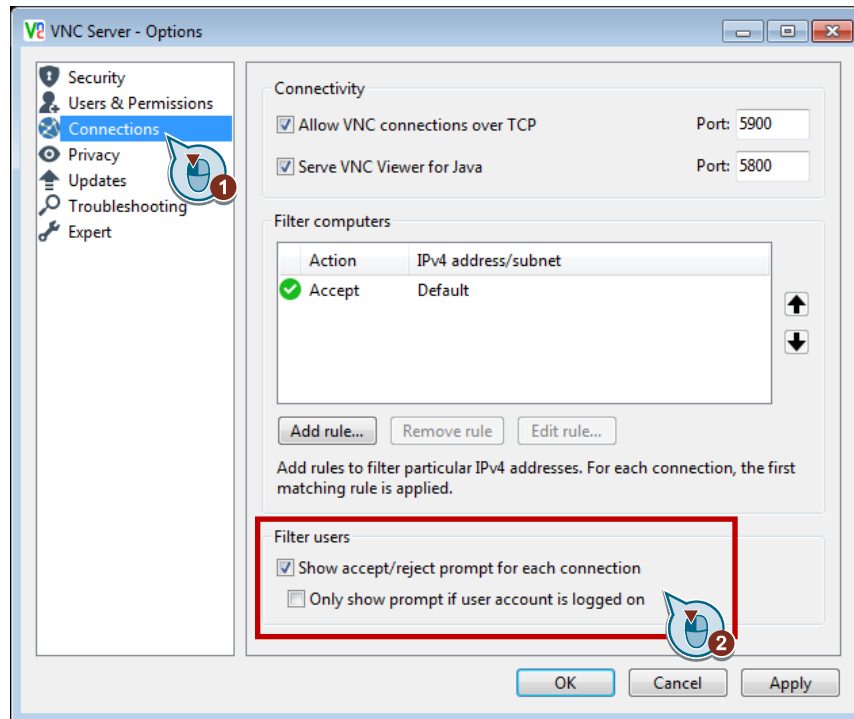


3. Click "OK" and assign a VNC password under "Users & Permissions".



3 Configuration of the "RealVNC" Server

4. Use the settings shown under "Connection".



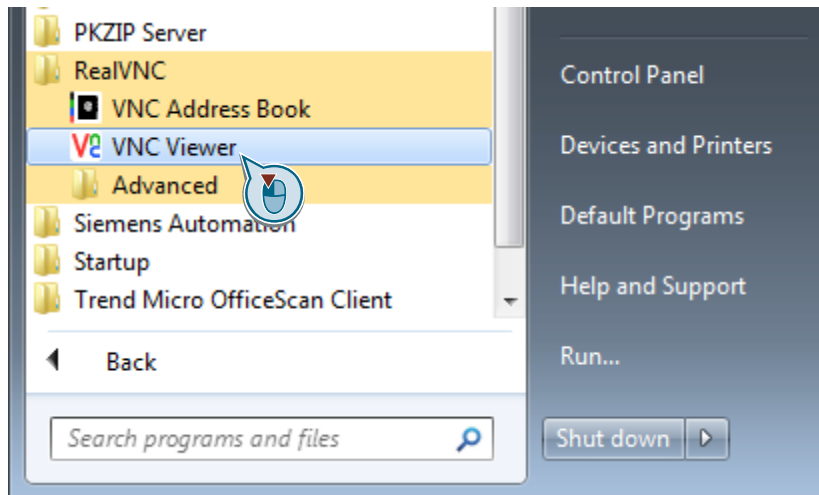
5. Click "OK" to close the "Options" menu.

4 Establishing a Connection with the "RealVNC" Viewer

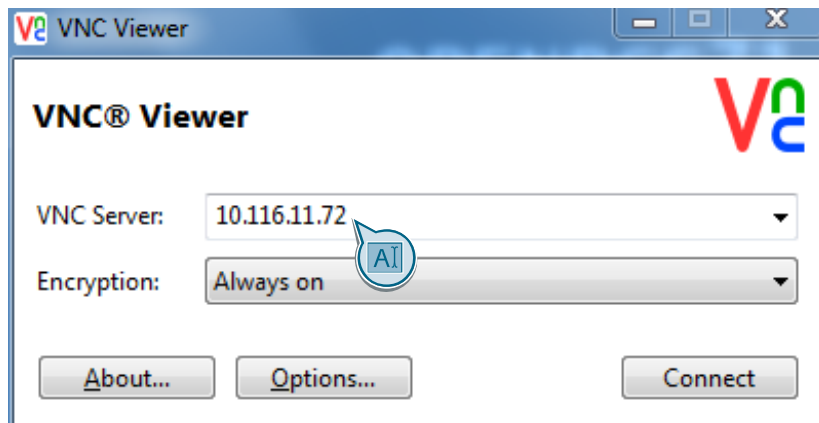
The instructions below describe how to establish a connection to a target system.

Procedure

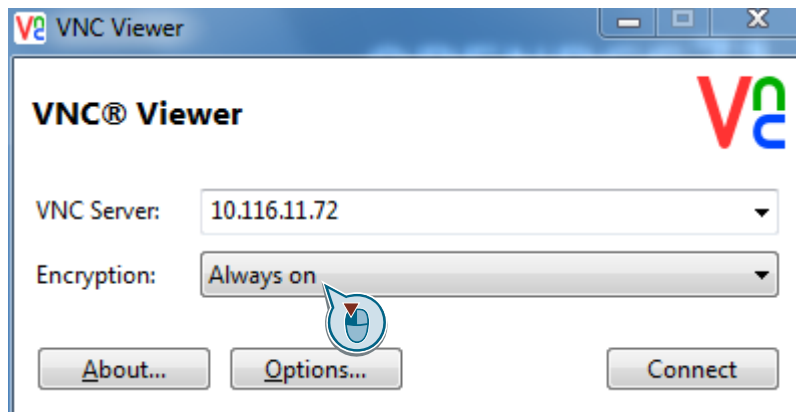
1. Open the VNC Viewer via the Windows Start menu.



2. Enter the IP address of the VNC server.

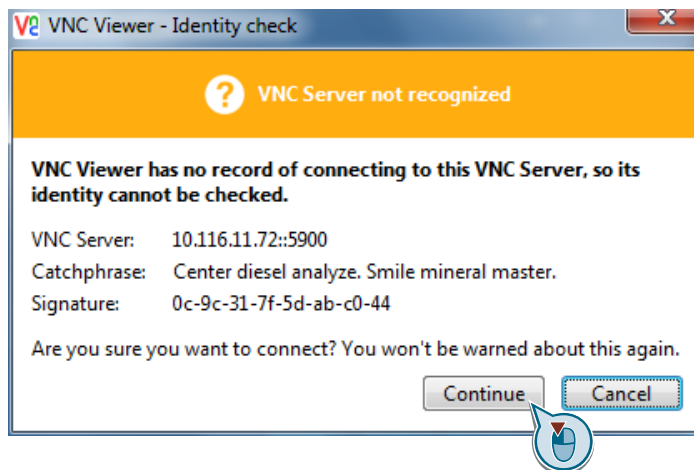


3. For the "Encryption" setting select "Always on".

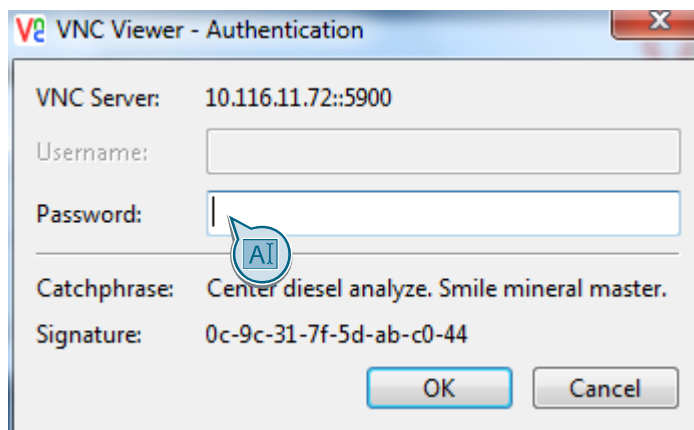


There is no need to make any other settings, because they are preset by the VNC server.

4. If you are setting up a connection to the target system for the first time, confirm the signature of the VNC server with the "Continue" button.

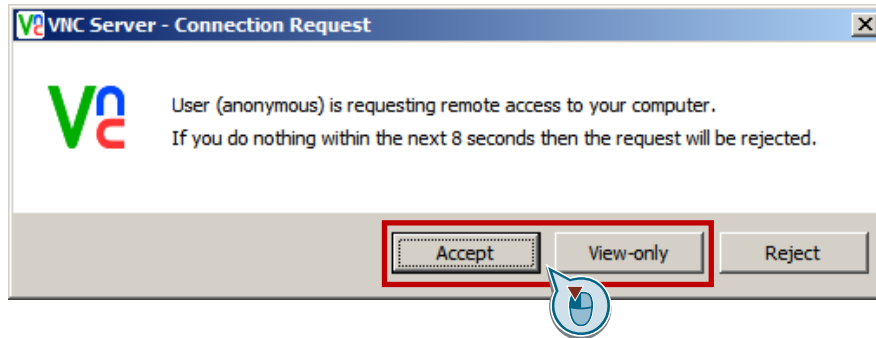


5. Enter the password of the target system.



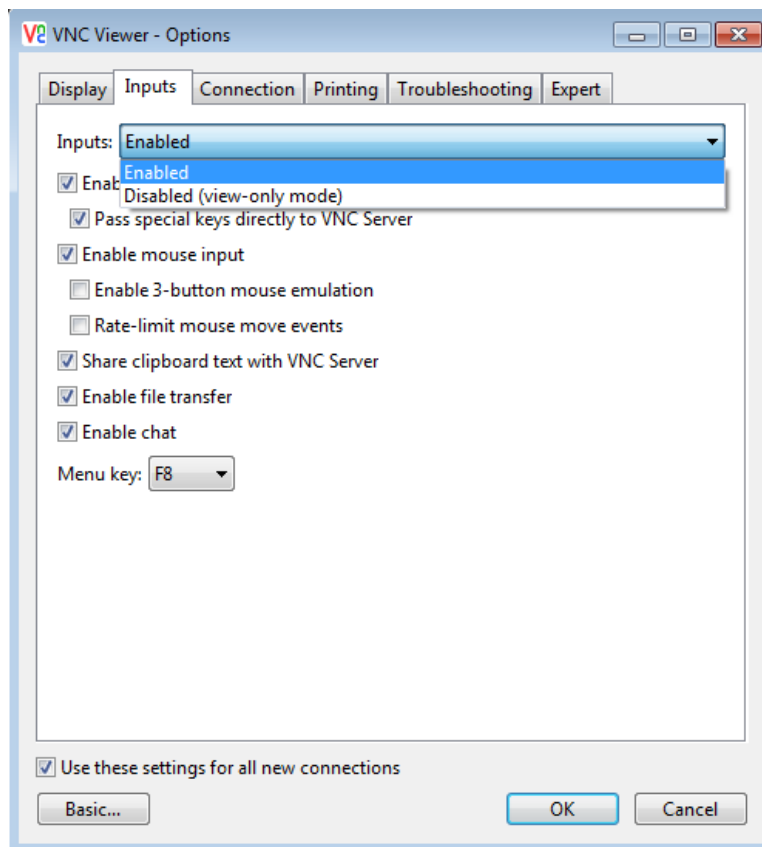
6. The access must be confirmed on the target system.

- "Accept" enables you to operate the target system.
- "View only" transfers the contents of the target system's screen.



The VNC Viewer window opens on the local system with the contents of the target system's screen.

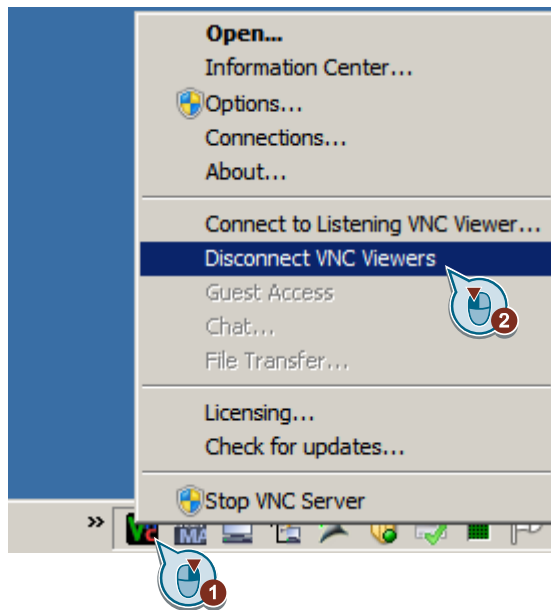
7. You can change the type of access at any time during a session using the options in the "Inputs" tab.



Note

The settings on the VNC Server for blocked functions (for example File Transfer, Chat...) are NOT overwritten from here.

8. On the target system you end the remote access by right-clicking the "RealVNC" icon in the taskbar and selecting "Disconnect VNC Viewers".



5 SIMATIC Remote Services

The Siemens "common Remote Service Platform" (cRSP) is part of the SIMATIC Remote Services offering. Comprehensive information about the services offering is available in this online entry:

<https://support.industry.siemens.com/sc/ww/de/sc/2281>

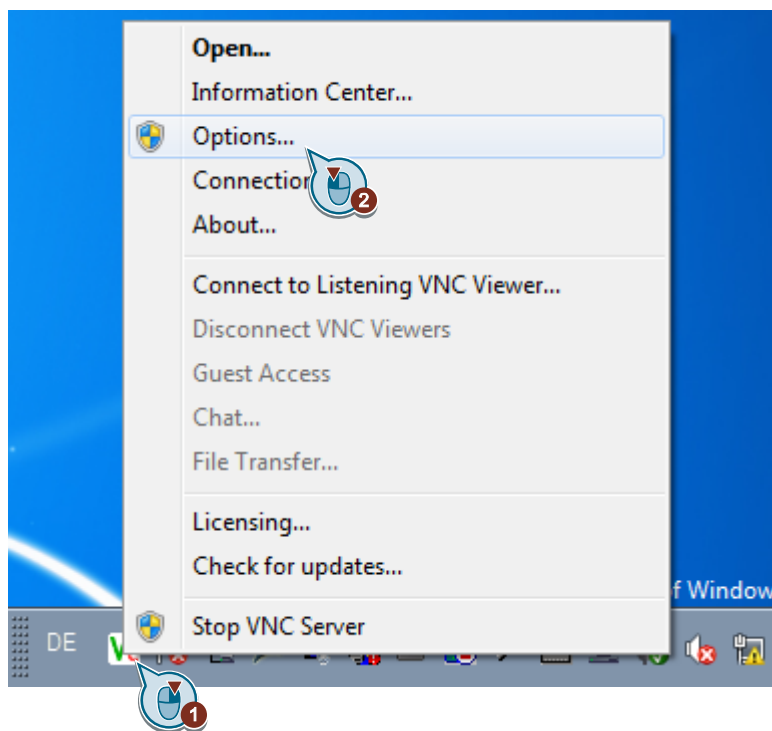
The cRSP supports various versions of VNC. We recommend changing the settings appropriately to ensure optimum operation with RealVNC.

5.1 Making Changes on the "RealVNC" Server

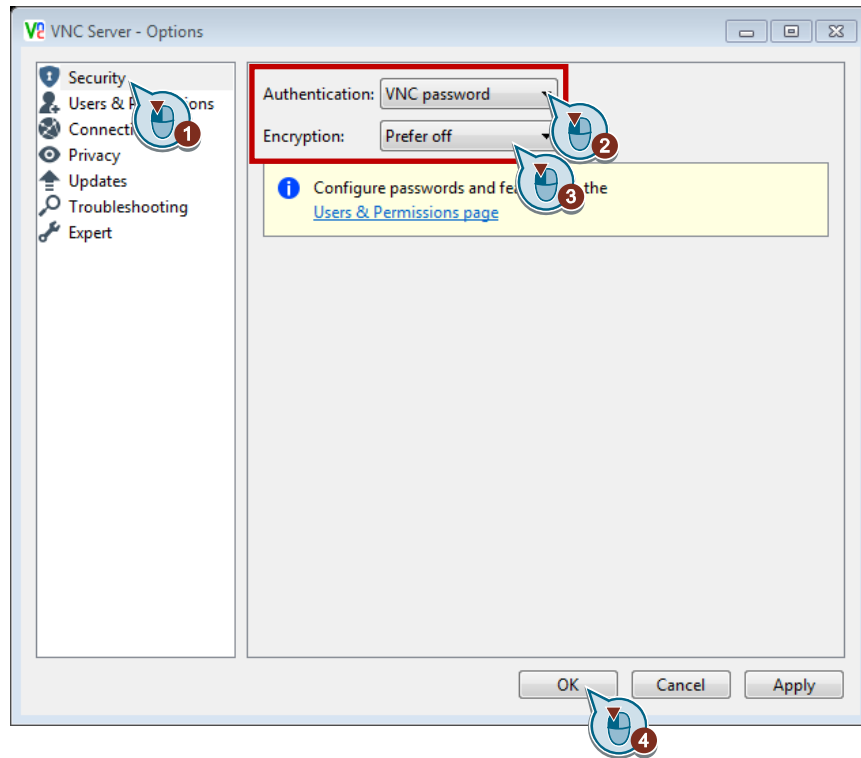
The settings below are required when using the cRSP on the "RealVNC" Server.

Procedure

1. Right-click the VNC icon in the menu bar and open the status overview with the "Options..." menu command.



2. Under "Security" you set the "Authentication" to "VNC password" and the "Encryption" to "Prefer off".



3. Apply the settings with "OK".

Note

It is not necessary to encrypt with "RealVNC" in the Siemens common Remote Service Platform (cRSP) and there is therefore no provision for this. The security guidelines are complied with by the security concept of the cRSP.

5.2 Making Changes on the "RealVNC" Viewer

The settings below are required when using the cRSP on the "RealVNC" Viewer. The table below shows the changes that need to be made. Please note, however, that these settings are usually made by your cRSP Administrator.

For this please get in touch with your [Siemens contact](#).

Procedure

1. Open "WinVnc" as Application Type in the Customer System.
2. We recommend making the settings below using the "Edit" button.

The screenshot shows the Siemens Common Remote Service Administration interface. The top navigation bar includes Home, Connect, Files, Logs, Utilities, Administration, and Manuals / FAQ. The main heading is "Administration - Edit Customer System Application".

The "Application" section contains the following fields:

- Name:** RealVnc (highlighted with a red box)
- Application Type:** WinVnc
- Annotations:** WinVnc Template (with a character count of 113/128)

The "Authentication" section contains:

- User Name:** (empty field)
- Authentication Domain:** (empty field)

The "Change Control" section shows:

- Created by:** allyabu5
- Modified by:** muelmi01

The "Properties" section (4 items) is shown as a table:

Property	Value	Annotations
Display Number		
Command Line Arguments		
Options		
Client	RealVNC (highlighted with a red box)	Only neccess

The name of the application is changed in RealVNC. By entering "RealVNC" as client type the Java applet of the RealVNC Viewer is used.

Note You need administrator rights to make changes in the Siemens Remote Service Platform.

6 Literature

This list is by no means complete and is only a selection of relevant information.

	Subject area	Title
\1\	SIMATIC Remote Services	https://support.industry.siemens.com/sc/ww/de/sc/2281

7 History

Version	Date	Change
V1.0	10.10.2011	First edition
V1.1	18.10.2011	Adapting Siemens Remote Service
V2.0	23.02.2015	Revision for PCS 7 V8.1
V2.1	25.01.2016	Text adjustments
V2.2	04.04.2016	Revision for PCS 7 V8.1 SP1
V2.3	16.04.2016	Notes to manuals added
V2.4	21.02.2017	Notes to manuals added

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