How do you create a communication of VNC with an Industrial Thin Client SIMATIC ITC?

Thin Client

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Question

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Answer

The instructions and notes listed in this document provide a detailed answer to this question.
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1 Industrial Thin Client SIMATIC ITC – Getting Started

1.1 Introduction

With the new Industrial Thin Client SIMATIC you have a powerful Thin Client solution in your hands. This device offers a wide range of connection protocols which are rounded up with other useful features.

These features are:

- Media Mapping
- PDF Reader
- Web Browser

This document helps you do the first steps with the device in order to establish a first connection to a remote computer.

1.2 Setup Assistant

To set up a first connection only a few steps are necessary. Right after the first power up or after a factory reset the setup assistant appears. The assistant helps you do the initial settings. The Setup Assistant is identical for the most part for all available connection types. These connection types are:

- RDP (Remote Desktop Protocol)
- VNC (Virtual Network Computing)
- Sm@rtServer
- Web (HTTP)

Before you can use any of these connections some prerequisites are necessary.
1.3 Virtual Network Computing (VNC)

1.3.1 Preparations on the target computer (server computer)

With VNC a connection will be established to a remote computer using the virtual Network Computing Protocol (VNC). The VNC computing is typically not installed on a Windows system and has to be provided by an external tool. In the most UNIX/ LINUX distributions it is already part of the system. Therefore VNC is suitably usable in heterogeneous computer environments.

Setting up RealVNC Servers on a Windows XP

You can see in the following steps a configuration of a Real VNC server under Windows XP. To use the VNC protocol with Windows XP use the following steps.

- Click on the „Start“-Button of Windows.
- Navigate to the entry “programs” and follow the submenus to the entry “VNC Server 4 (Service Mode)”
- Select the entry “Configure VNC Server”
- The Properties dialog will open with different tabs.
- Click onto the „Authentication“ tab
- Choose an acceptable option between the offered ones.
- Configure a password, if desired.
• Click on the „Connections“ tab
• Allow incoming connections on the default ports
  Confirm your selection with „OK“
Click again onto the Windows „Start“ button to start the VNC server.

Follow the submenus to the entry „Start VNC Service“ There will be a message box, telling about the status of the operation

Note the server computer is now ready to accept VNC connections from the Industrial Thin Client SIMATIC ITC

Take a note of the server computers IP address. For this enter the command „ipconfig“ at a command prompt. 
e.g.: 172.16.12.51/ 16
Setting up a VNC Server in Ubuntu 12.04 LTS

To use the VNC protocol with Ubuntu 12.04, follow the given instructions. In other distributions the following description may differ.

- Click onto the Ubuntu Dash.
- Select the entry „Desktop Sharing“ or enter „Desktop Sharing“ into the „search…“ box.

- A setup dialog opens for „Desktop Sharing“
- Allow users to view your desktop.
- Setup further permissions and, if desired, configure a password.
- Close the dialog

Note
The server computer is now ready to accept VNC connections from the Industrial Thin Client SIMATIC ITC.
1.3.2 Setting for the Industrial Thin Client SIMATIC ITC

- Select the desired User Interface language in the upper right corner.
- Assign the device name.

To assign the device name, hit the box below the label „Device name“. An onscreen keyboard can be used to enter the device name.

Note
As an alternative method you may also connect a USB keyboard to the device.

- The next step is to change the standard password from „admin“ into something else. Hit the Button „Change administrator password“.
- Enter at first the current password (default is „admin“) and assign a new password.
- Repeat the new password by retyping it.
- Activate the new password with a click on the „OK“ Button.
Assign an IP address on the next page. In order to do that hit the „Next“ Button at the upper right corner.

- Select „Dynamic“, if you have an active DHCP server in the network. If so, select the method the device should use to authenticate itself to the DHCP server. Possible options are:
  - using the MAC address
  - using the Device name

- With „Static“ you manually enter the IP parameter.

- Assign an IP address from within the same subnet as the target computer is in to the Industrial Thin Client SIMATIC ITC. Here e.g.
  IP : 172.16.100.240
  Subnet mask: 255.255.0.0

- Go to the next page by hitting the „Next“ button.

- Select „VNC“ for the connection type.
- Name the connection for easier
• Type the previously noted IP address of your target computer into the „Server“ field e.g.: 172.16.12.51
• In case necessary, enter logon credentials into the fields „User“ and „Password“

This finalizes the initial settings for the Industrial Thin Client SIMATIC ITC. This enables the device to establish your first connection to the target computer.
1.3.3 Additional setting for a VNC connection

There are some more settings you can apply to a connection. They may be useful depending on the situation the Industrial Thin Client SIMATIC ITC is being used.

<table>
<thead>
<tr>
<th>Enabling the checkbox</th>
<th><img src="image" alt="Autostart connection" /></th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Autostart connection&quot; initiates an automatic connection establishment on startup of the device.</td>
<td></td>
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</tbody>
</table>

| If you enable the "Show connection (Favorites)" this connection will be listed in your favorites list. This allows for a quick connection change. |
| ![Show connection (Favorites)](image) |

| In case the Industrial Thin Client SIMATIC ITC loses the connectivity the checkbox "Reconnect automatically" tries to reestablish the connection automatically without asking the user. |
| ![Reconnect automatically](image) |

| The connected USB media can be used with the MediaExplorer. (USB Sticks or USB hard drives) |
| ![MediaExplorer](image) |

- Click onto the menu and select the entry "USB devices".
- The MediaExplorer will open

| The MedienExplorer allows access to files and documents on the USB media. Hit the folder on the left side tree view to see the content of that folder. |
| ![MediaExplorer](image) |
You may even read PDF files, since there is a PDF reader integrated into the Industrial Thin Client SIMATIC. This allows you to read Manuals such as this Getting Started. Double click onto the PDF file.
1.3.4 Create a new VNC connection

With the Industrial Thin Client SIMATIC ITC it is possible to keep more than one connection operating. For this to work you need to create a new connection. Proceed as described to create a new connection.

- Click in the Industrial Thin Client SIMATIC ITC Menu onto the settings symbol. A menu will open up
- Click on the entry „Configuration”

In the Overview screen choose the left Symbol to allow changes.

Type in the Administrator password for the Industrial Thin Client SIMATIC ITC and hit „Logon”
Select in the left list the entry „Connections“.

Click on „New“ to create a new connection. There will be a new dialog allowing for the same settings to be made as the Setup Assistant did.
Click on "Edit" to adjust connection settings for an existing connection. A dialog will open up to allow all relevant changes to be made for the selected connection.