

VPN with INSYS Connectivity Service

OpenVPN Connection to
INSYS Connectivity Service
under Windows

Introduction

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1 Introduction

General

The present publication refers to a combination of selected hardware and software components of INSYS icom GmbH as well as other manufacturers. All components have been combined with the target to realize certain results and effects for certain applications in the field of professional data transfer.

All components have been prepared, configured and used as described in this publication. Thus, the desired results and effects have been achieved.

The exact descriptions of all used components, to which this publication refers, are described in the tables *Hardware*, *Accessories* and *Software* at the end of this publication.

The symbols and formatings used in this publication are explained in the correspondent section at the end of this publication.

Some configurations or preparations, which are precondition in this publication, are described in other publications. Therefore, always refer to the related device manuals. INSYS devices with web interface provide you with helpful information about the configuration possibilities, if you click on "display help text" in the header.

Target of this Publication

A Windows PC can also participate in the INSYS Connectivity Service via an OpenVPN connection.

Refer to <http://www.openvpn.net> for further information about OpenVPN.

Use this publication to find out how to include a Windows PC into the INSYS Connectivity Service via an OpenVPN connection.

The present publication describes the proceeding under Windows 7. Proceed accordingly for an installation under other Windows versions.

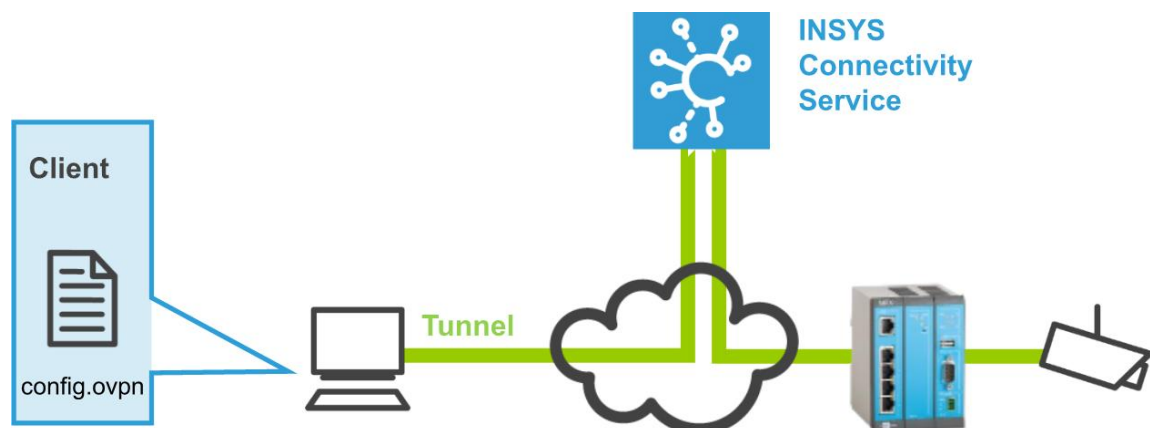


Figure 1: Windows PC with INSYS Connectivity Service via OpenVPN

2 Configuration

Provisions

It is recommended to commission the router as suggested in the Quick Installation Guide. Please prepare the following items before starting the configuration of the application:

- Downloading the OpenVPN package
- Installing OpenVPN package on a Windows PC
- Downloading the configuration file in INSYS Connectivity Service

■ Downloading the OpenVPN Package

How to download the OpenVPN package from our website.

- PC with approx. 1.5 MB free disk space
- Web browser
- Internet connection

1. Open <https://www.insys-icom.com/en/support/technical-support/> to download the drivers.
2. Click on the link in the "OpenVPN" section:
3. Save the file on your PC.
 - ✓ You have downloaded the OpenVPN package software with this.

■ **Installing OpenVPN package on Windows PC**

How to install the OpenVPN GUI and the programs for creating the certificates and keys on your PC successfully.

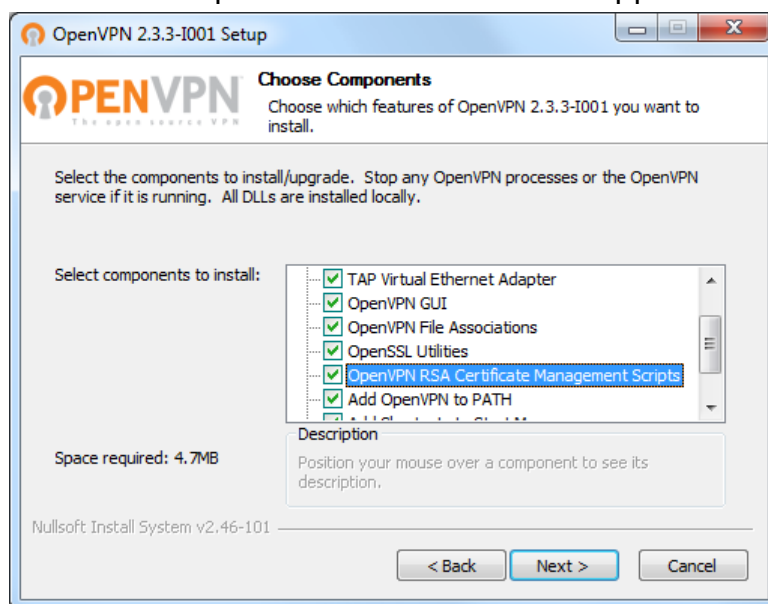
→ You have downloaded the OpenVPN packet (version 2.3.3 or higher) from the INSYS website.

1. Execute the previously downloaded installation file

▶ *If Windows displays a security request, confirm it. If a warning is displayed, don't be concerned and continue the installation.*

2. Start the setup wizard and accept the license agreement.

✓ The component selection window appears.

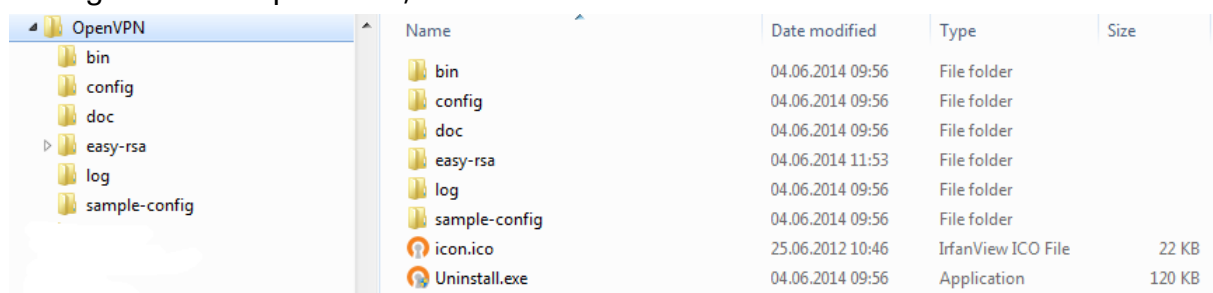


3. Check the "OpenVPN RSA Certificate Management Scripts", select **Next >** and continue the setup wizard.

▶ *If a Windows log test warning is displayed, confirm it.*

4. Click on **Finish** upon completion of the installation.

✓ The OpenVPN GUI, the SSL software and the programs for creating the certificates and keys are now in the specified directories (default: C:\Program Files\OpenVPN\).



✓ You have successfully installed the OpenVPN package on your PC with this.

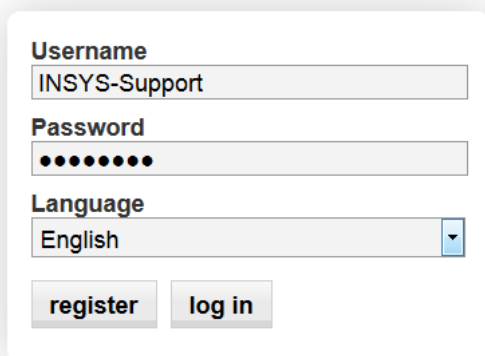
Configuration

■ Downloading the configuration file from INSYS Connectivity Service

How to download the OpenVPN configuration file for your PC from the INSYS Connectivity Service.

- Your PC is connected to the Internet.
- The PC is completely configured in the INSYS Connectivity Service as device.

1. Open the browser and log in to your account in the INSYS Connectivity.



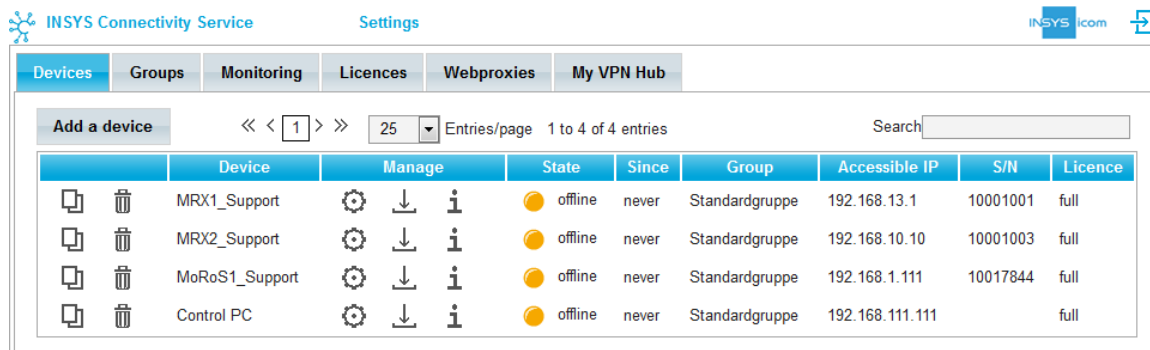
The login form contains the following fields and buttons:

- Username:** Text input field containing "INSYS-Support".
- Password:** Password input field with 10 dots.
- Language:** Dropdown menu with "English" selected.
- Buttons:** "register" and "log in" buttons.























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2. Select the "Devices" tab.



The screenshot shows the "Devices" tab selected in the INSYS Connectivity Service web interface. The interface includes a navigation bar with tabs for "Devices", "Groups", "Monitoring", "Licences", "Webproxies", and "My VPN Hub". Below the navigation bar, there is a table listing devices with columns for "Device", "Manage", "State", "Since", "Group", "Accessible IP", "S/N", and "Licence".

| | Device | Manage | State | Since | Group | Accessible IP | S/N | Licence |
|---|----------------|---|---|-------|----------------|-----------------|----------|---------|
|  | MRX1_Support |    |  offline | never | Standardgruppe | 192.168.13.1 | 10001001 | full |
|  | MRX2_Support |    |  offline | never | Standardgruppe | 192.168.10.10 | 10001003 | full |
|  | MoRoS1_Support |    |  offline | never | Standardgruppe | 192.168.1.111 | 10017844 | full |
|  | Control PC |    |  offline | never | Standardgruppe | 192.168.111.111 | | full |

3. Select the "Download" button in the row of the respective device (here "Control PC").

The screenshot shows the 'INSYS Connectivity Service' interface with the 'Settings' tab selected. The 'Devices' sub-tab is active, displaying a table of devices. The 'Control PC' device is selected, and a 'Download' button is highlighted. A dropdown menu is open, showing 'OpenVPN Config file' and 'Certificates' options.

| Device | Manage | State | Since | Group | Accessible IP | S/N | Licence |
|----------------|--------|---------|-------|----------------|---------------|----------|---------|
| MRX1_Support | | offline | never | Standardgruppe | 192.168.13.1 | 10001001 | full |
| MRX2_Support | | offline | never | Standardgruppe | 192.168.10.10 | 10001003 | full |
| MoRoS1_Support | | offline | never | Standardgruppe | 192.168.1.111 | 10017844 | full |
| Control PC | | offline | never | Standardgruppe | 2.168.111.111 | | full |

4. Select the "OpenVPN Config File" and save the file to your computer.
5. Log off from the INSYS Connectivity Service and close the browser.
 - ✓ You have downloaded the configuration file from the INSYS Connectivity Service to your computer with this.

Configuration

The OpenVPN configuration file contains the complete configuration. Adjustments are not necessary. It is only necessary to save the file in the configuration directory of OpenVPN. The following steps are necessary for this:

■ **Storing the configuration file in the configuration directory**

How to store the OpenVPN configuration file in the configuration directory.

- The OpenVPN package is installed on the PC, which shall act as client.
- You have downloaded the OpenVPN configuration file to your PC.

1. Copy the file to the configuration directory of the OpenVPN package (default: C:\Program Files\OpenVPN\config).

ⓘ *The directory may also be C:\Program Files (x86)\OpenVPN\config under Windows 7.*

ⓘ *It is also possible that several configuration files are present in the configuration directory.*

- ✓ You can now start the OpenVPN GUI (under Windows 7 / Vista as administrator) and connect to the VPN.

Commissioning

Start the OpenVPN client now to connect to the INSYS Connectivity Service. The following steps are necessary for this:

■ Starting OpenVPN client

How to start the OpenVPN client with the computer already in operation. This option via the GUI is suitable for testing the connection.

The option to start the OpenVPN client automatically with the start of the computer is described below.


- The OpenVPN package is installed on the computer, which shall act as client.
- You have stored the OpenVPN configuration file to the OpenVPN configuration directory.

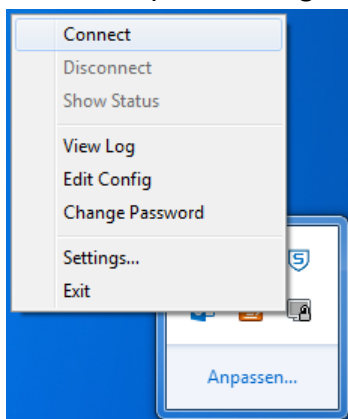
1. Start the OpenVPN GUI via Start → Program Files → OpenVPN → OpenVPN GUI or the desktop icon.

i *The OpenVPN GUI must be „run as administrator“ (via the context menu) explicitly under Windows 10, Windows 7 and Windows Vista. It is not sufficient to be registered as administrator when the OpenVPN GUI is started.*

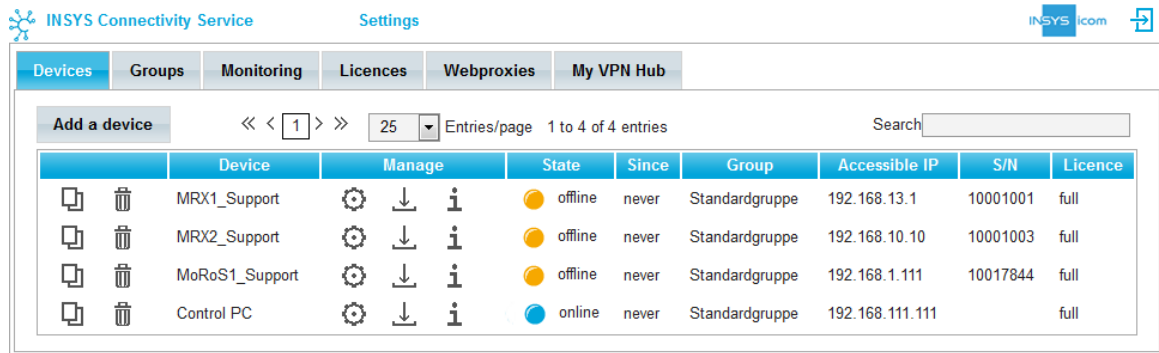
2. If necessary, click on the symbol for showing the hidden icons in the task bar















3. Right-click onto the symbol of the OpenVPN GUI in the task bar  and select Connect (or client → Connect if several configuration files are present (client indicates your configuration file here)).



- ✓ You have started the OpenVPN client with this. The symbol of the OpenVPN GUI is displayed green as soon as the connection to the OpenVPN server has been established successfully. If the symbol remains yellow, the OpenVPN client tries to reach the server, but the connection cannot be established. A connection log can be displayed using the menu item "View Log".
- ✓ The PC will be displayed as "online" in the INSYS Connectivity Service after some time.



The screenshot shows the 'Settings' page for 'INSYS Connectivity Service'. The 'Devices' tab is active, displaying a table of four devices. The table has columns for Device, Manage, State, Since, Group, Accessible IP, S/N, and Licence. The devices listed are MRX1_Support, MRX2_Support, MoRoS1_Support, and Control PC. The Control PC device is the only one shown as 'online'.

| Device | Manage | State | Since | Group | Accessible IP | S/N | Licence |
|----------------|---|-----------|-------|----------------|-----------------|----------|---------|
| MRX1_Support |    | ● offline | never | Standardgruppe | 192.168.13.1 | 10001001 | full |
| MRX2_Support |    | ● offline | never | Standardgruppe | 192.168.10.10 | 10001003 | full |
| MoRoS1_Support |    | ● offline | never | Standardgruppe | 192.168.1.111 | 10017844 | full |
| Control PC |    | ● online | never | Standardgruppe | 192.168.111.111 | | full |

► *The respective service can also be enabled for an automatic start of the OpenVPN client with the start of the computer.*

ⓘ *In this case, instances for all configuration files, which are present in the working directory of the OpenVPN package, will be started. Therefore, delete all configuration files, which are not required, from the directory.*

1. Open the Control Center via Start → Settings → Control Center.
2. Double-click in the section "Control Center" the entry "Management".
3. Double-click in the section "Management" the entry "Services".
4. Double-click in the section "Services" the entry "OpenVPNService".
5. Change the "Start type" to "Automatic" and click on "OK".
 - ✓ You have configured the OpenVPN client for an automatic start when starting up the computer.

3 Used Components

Software

| Designation | Manufacturer | Type | Version |
|------------------|--------------|------------------|---------|
| OpenVPN packet | Open Source | OpenVPN with GUI | 2.3.3 |
| Operating system | Microsoft | Windows | 7 |

Table 1: Used software

4 Further Information

4.1 Literature

OpenVPN

Das Praxisbuch

ISBN: 978-3-8362-1197-0

Publisher: Galileo Computing

OpenVPN

Grundlagen, Konfiguration, Praxis

ISBN: 978-3-89864-396-2

Publisher: dpunkt.verlag

4.2 Web Links

OpenVPN Technologies, Inc.:

<http://www.openvpn.net>

OpenVPN e.V.:

<http://www.openvpn.eu>

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