



SEVIO

Secure Local Access



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More information about Sevio can be found at the following Internet address: <https://sevio.it/>.

Version History

Revision	Date	Description
17_06	01/06/2017	Emission
18_04	01/04/2018	First revision
21_12	01/12/2021	Second revision
22_12	01/12/2022	Third revision



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Firewall and Secure Local Access

The internal firewall, who grant the network isolation, is a fundamental feature on which Sevio Router is based on.

The internal Firewall of Sevio Router provides many advantages:

- no IP address conflicts, no need to change the existing automation network configuration;
- more protection from local attacks;
- ensure privacy and security protection: through an exclusive and protected access from authenticated Workstations.

Secure Local Access is one of the Sevio solutions who permits a local communication between automation devices and data processing/IT systems according to the Industry 4.0 model.

Using this guide it is possible to configure one or more exclusive and protected accesses, from WAN network to the automation devices, preserving the Firewall isolation.

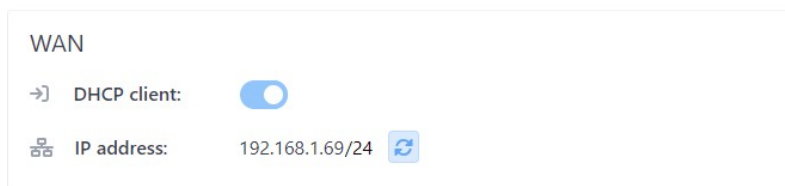
Before you begin:

- The workstation is in the same network as the Sevio Router;
- The operator has the Secure Local Access credential;
- If the procedure is supported by the OEM or the System Integrator, make sure the access to Sevio Portal as Admin.

Sevio Portal


Sevio Portal, the web application for the Sevio system, can be used to configure and view the status of the devices that are part of the Realm, for more detailed information please refer to the [User Guide](#).

To enable Secure Local Access feature:

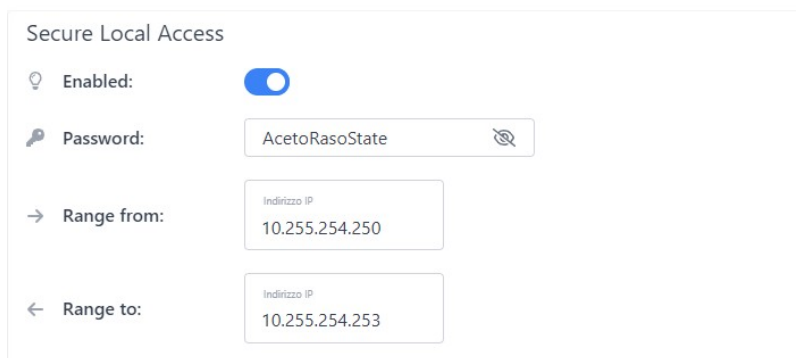


WAN

→] DHCP client:


🔑 IP address: 192.168.1.69/24 

Through Sevio Portal log into Devices section and select the Sevio router, in WAN section identify the reserved or static IP, 192.168.1.69 in the example.



Secure Local Access

🔑 Enabled:

🔑 Password: AcetoRasoState 

→ Range from:

← Range to:

Press Modify and select Secure Local Access enabled.

Personalize the Password to set up on Local Workstation.

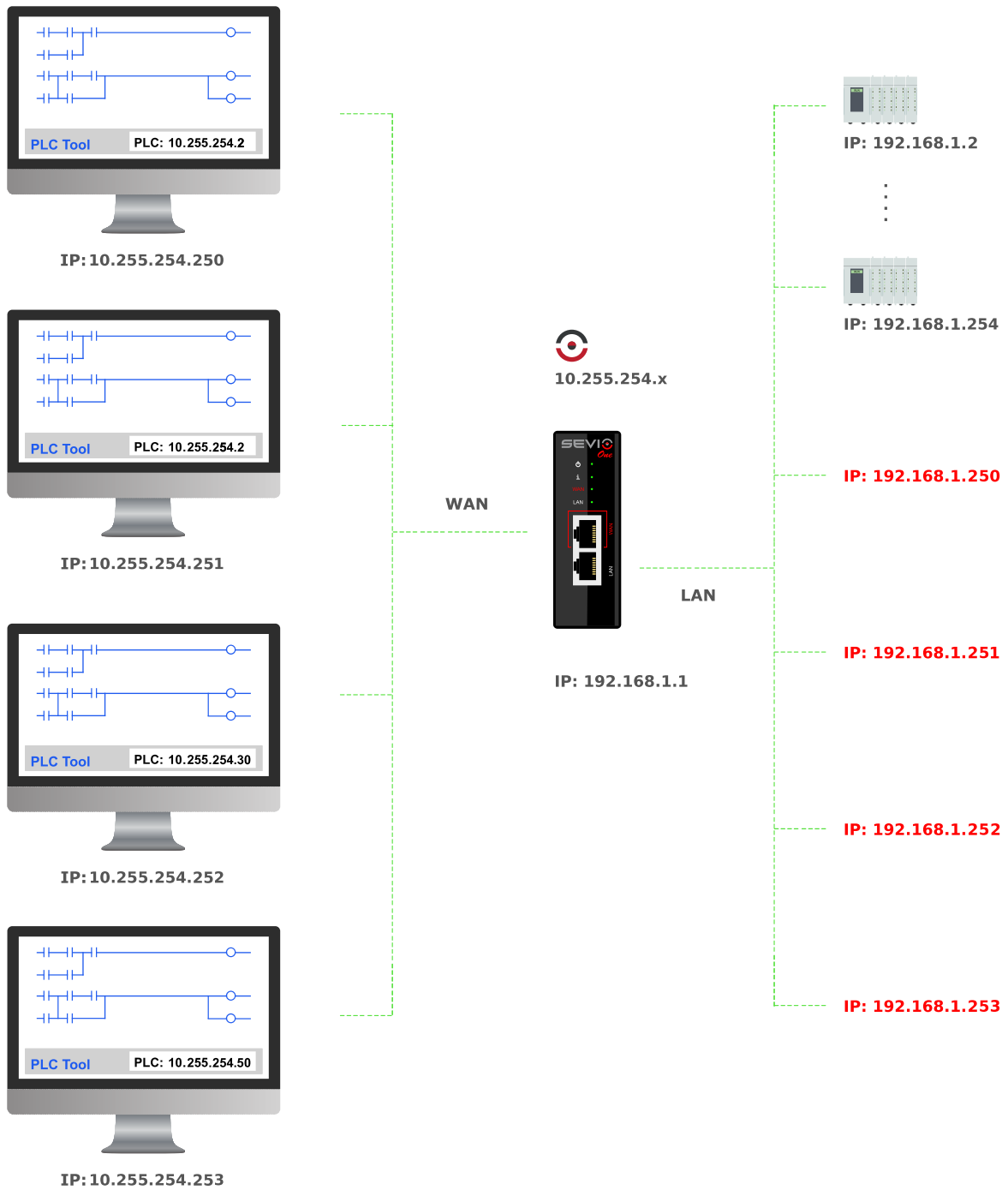
Set up the IP address range dedicate to Local Workstations.

Note: Each Local Workstation using a specific IP address on Sevio Network, then follow as indicated below:

1. The IP address range indicates the amount of Local Workstations allowed to connect simultaneously to automation devices. The range can change from 1 Local Workstation (E.g. from x.x.x.**250** to x.x.x.**250**) to a maximum of 4 Local Workstation (E.g. from x.x.x.**250** to x.x.x.**253**).
2. The first three octets in range fields must coincide with the Sevio network, 10.255.254.x in the example
3. The IP address range configured in the interface must be different and not overlapping with any IP address used for remote devices (E.g. if the remote IP address is 10.255.254.**250**, must set up the range from 10.255.254.**251** to 10.255.254.**254**).

Scenario

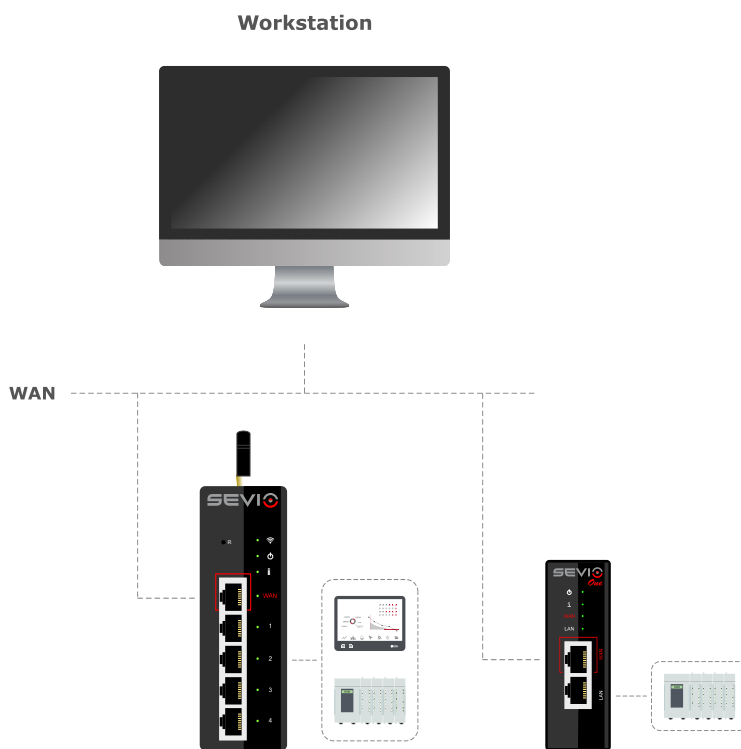
In the example below, 4 workstations simultaneously connected:



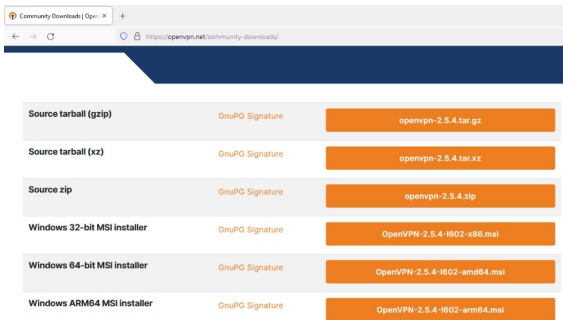
Local Workstation configuration

Using the procedure described below, it is possible to enable the Local Workstations to access on LAN (automation network). It will only be configured one time for each Local Workstation.

Before starting to configure, verify that the Local Workstations and Sevio Router are connect to the same WAN, without interposed hub or router.



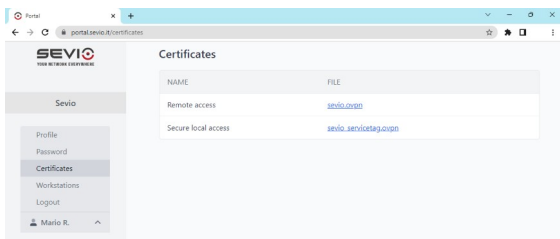
Windows 11® - OpenVPN



Visit the page:

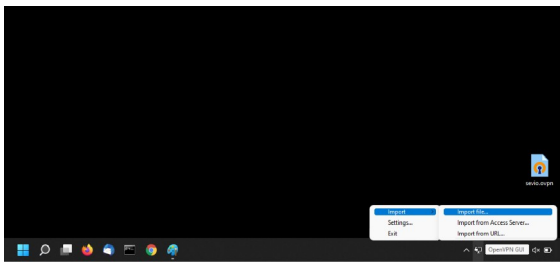
<https://openvpn.net/community-downloads/>

Choose System type PC version, then install OpenVPN.

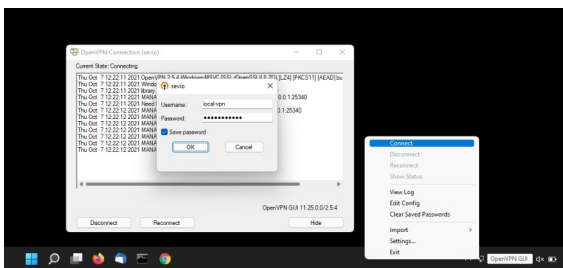


Download the `sevio.ovpn` certificate dedicated to **Secure Local Access** from Sevio Portal.

Open the file and set the WAN IP address of the Sevio Router. Save with an identifying name.



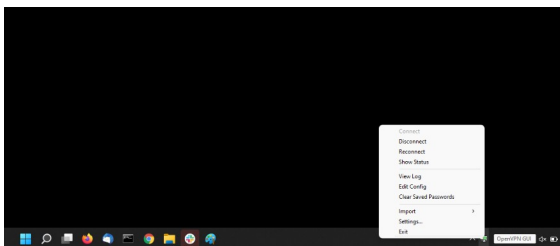
Select the **OpenVPN GUI** icon in the toolbar, right click and import the certificate via **Import file**.



To connect the VPN, right-click on the **OpenVPN GUI** icon and select **Connect**, or in the case of multiple configured services, choose the name of the VPN (in the example `sevio`).

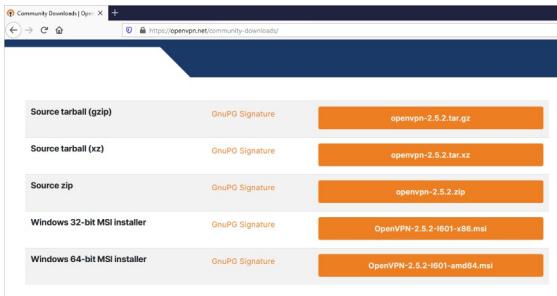
Set the Username: **local-vpn** and the Password configured on Sevio Portal.

Select **Save password** to use the automatic reconnection function.



To disconnect the VPN click on the **OpenVPN GUI** and press **Disconnect**.

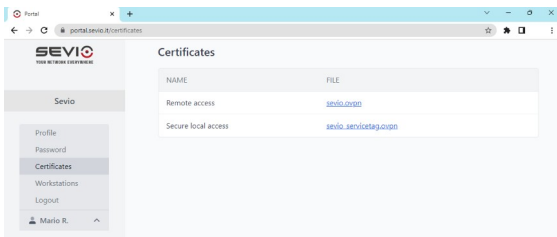
Windows 10® - OpenVPN



Visit the page:

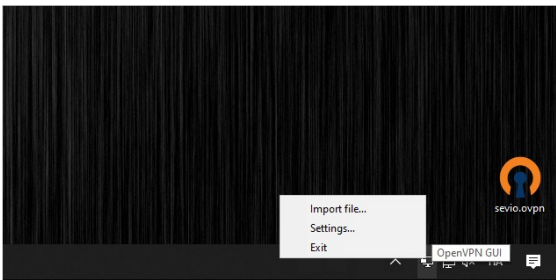
<https://openvpn.net/community-downloads/>

Choose System type PC version, then install OpenVPN.

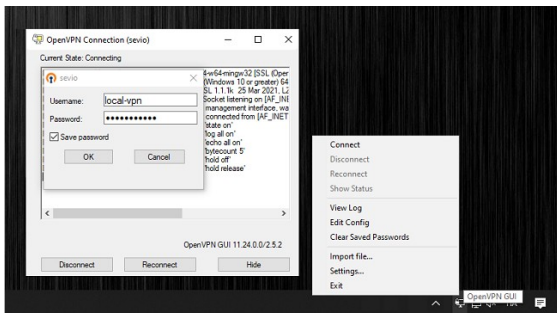


Download the **sevio.opvpn** certificate dedicated to **Secure Local Access** from Sevio Portal.

Open the file and set the WAN IP address of the Sevio Router. Save with an identifying name.



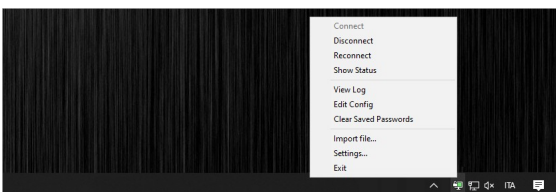
Select the **OpenVPN GUI** icon in the toolbar, right click and import the certificate via **Import file**.



To connect the VPN, right-click on the **OpenVPN GUI** icon and select **Connect**, or in the case of multiple configured services, choose the name of the VPN (in the example **sevio**).

Set the Username: **local-vpn** and the Password configured on Sevio Portal.

Select **Save password** to use the automatic reconnection function.



To disconnect the VPN right click on the **OpenVPN GUI** and press **Disconnect**.



Contemporary local connections

In case of more Sevio Routers on the WAN network, it is possible to repeat the procedure for each connection.

Before connecting the new Secure Local Access, add a new TAP.

To create a new TAP:

Start/Add

Right click on *Add a New Tap Virtual Ethernet Adapter*→*Run as Administrator*

To delete a TAP:

Start/Device Manager

Select *Network adapter*

Right click on the TAP to delete

Select *Uninstall device*

Auto-connect

With the procedure below it is possible to connect automatically the Secure Local Access on the workstation.

Start/Task Scheduler

Create Basic Task: set a Name → Next

When the computer starts → Next

Start a program

Program/script (Browse...) C:\Program Files\OpenVPN\bin → Openvpn-gui (default downloaded location)

Add arguments (optional): --connect "identifying name.ovpn"

In *Task Scheduler Library*, double click on the name of the Scheduler

select your Security optional

Run with highest privileges

Configure for: select your O.S.

To test the correct configuration, select *Run* in the *Actions*.



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