

How to configure PPTP VPNs roadwarrior to gateway



'How-to' guides for configuring VPNs with GateDefender Integra

Panda Security wants to ensure you get the most out of GateDefender Integra. For this reason, we offer you all the information you need about the characteristics and configuration of the product. Refer to <http://www.pandasecurity.com/> and <http://www.pandasecurity.com/enterprise/support/> for more information.

'How-to' guides for Panda GateDefender Integra

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Symbols and styles used in this documentation

Symbols used in this documentation:



Note. Clarification and additional information.



Important. Highlights the importance of a concept.



Tip. Ideas to help you get the most from your program.



Reference. Other references with more information of interest.

Fonts and styles used in the documentation:

Bold: Names of menus, options, buttons, windows or dialog boxes.

Codes style: Names of files, extensions, folders, command line information or configuration files, for example, scripts.


Italics: Names of options related with the operating system and programs or files with their own name.

1. How to configure PPTP VPNs roadwarrior-to-gateway

The PPTP (Point-to-Point Tunneling Protocol) protocol allows transfers between remote clients and servers in private networks, using both switched telephone lines and the Internet. PPTP is an extension of PPP that supports flow control and multi-protocol tunneling on IP.

Panda GateDefender Integra includes a VPN system so you can create your own virtual private networks, widening the reach of your network and ensuring confidentiality in connections.

The aim of this guide is to describe the steps needed to create a virtual private network (VPN) based on PPTP with Panda GateDefender Integra, using real data.

 **Note:** *This guide assumes that the Panda GateDefender Integra unit has been configured, at least basically, and is up and running. For more information about installing and configuring Panda GateDefender Integra, refer to the Installation Guide.*

 **Important:**

- *GateDefender Integra must be operating in router mode. If not, you will not be able to use the VPN system.*
- *Panda GateDefender Integra only lets you create and modify PPTP VPNs in server mode given the limitations of the implementation of the PPTP protocol. Panda GateDefender Integra only lets you create and modify PPTP VPNs in server mode given the limitations of the implementation of the PPTP protocol.*

1.1 Scenario setup

The illustration below shows a typical roadwarrior-to-gateway PPTP VPN scenario:

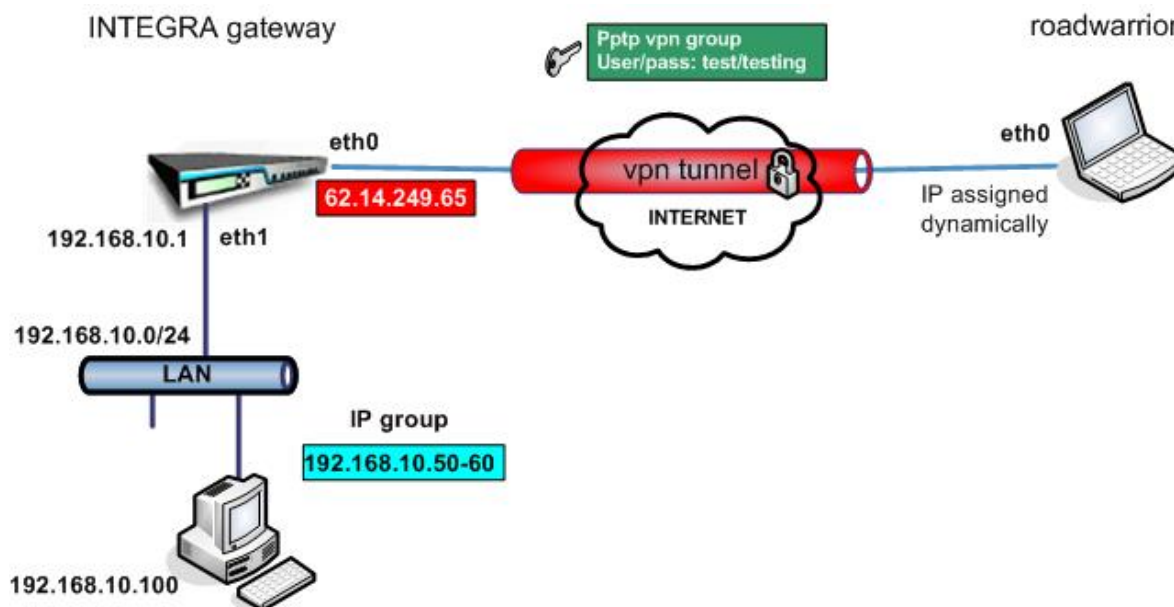


Figure 1.1: PPTP VPN scenario

The roadwarrior has an address dynamically assigned by the ISP and will access Integra's LAN by means of a secure tunnel using the PPTP protocol.

INTEGRA's WAN interface has the IP address **62.14.249.65**.

Clients on Integra's LAN side do not need to have configured Integra's LAN IP address as its default gateway because the roadwarrior will have assigned the first available IP address from the previously defined IP group range (which belongs to the internal network) so it will be visible to all hosts on LAN **192.168.10.0/24**

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1.2 Gateway side configuration (Panda GateDefender Integra)

The first step when configuring a PPTP VPN consists of defining the group of users authorized to establish a VPN connection and defining the IP range that belongs to the LAN which you want your roadwarrior to be able to connect to.

1.2.1 Users and group configuration

1. Access to the **Definitions** section of the main Panda GateDefender Integra console menu.
2. Select **User management**.
3. In the **Users** section, click on **Add**.
4. This will take you to a screen where you should provide data for at least the first three textboxes:
 - Name (**test** be used for this how-to).
 - Password (**testing** will be used for this how-to).
 - Repeat password.

The *Common Name* field is optional; it is used for other protocols.

5. Once you have configured it, click on **Add** to save the changes.

As for the configuration of PPTP VPN, defined groups of vpn users are needed. Now you need to add previously defined users to the group.

In order to do this, follow the steps below:

1. Access the **Definitions** section of the main Panda GateDefender Integra console menu.
2. Select **User management**.
3. In the **User Groups** section, click on **Add**.
4. Define a group name and add users from the box below.

Once this has been done, configuration should be similar to that shown in figure 1.2

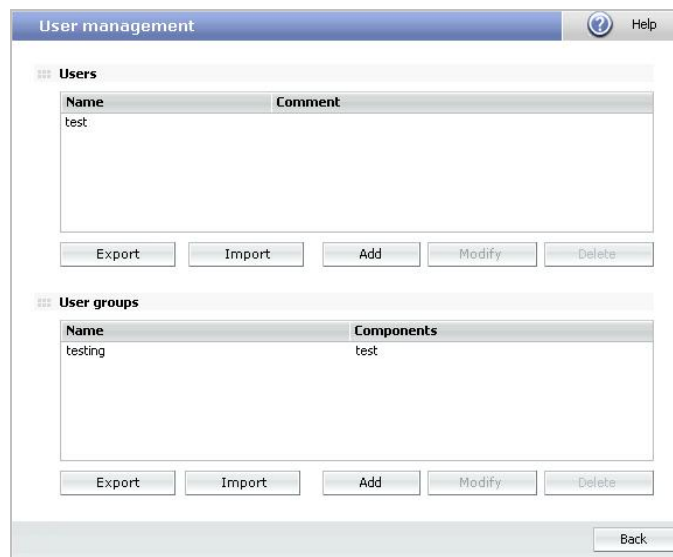


Figure 1.2

1.2.2 IP group configuration

The next stage will describe the steps to configure the IP group definition:

1. Access the **Definitions** section of the main Panda GateDefender Integra console menu.
2. Select **IP addresses**.
3. In the **Groups** section, click on **Add**.

A descriptive name of the group must be provided (*pptp vpn group* will be used for this how-to) in the **Name** field and the IP range *192.168.10.50-60* in the **Use range** radio button section.

4. Click on **Add IP**.
5. Finally, click on **Add** to save the changes.

The settings will be configured as shown in figure 1.3:

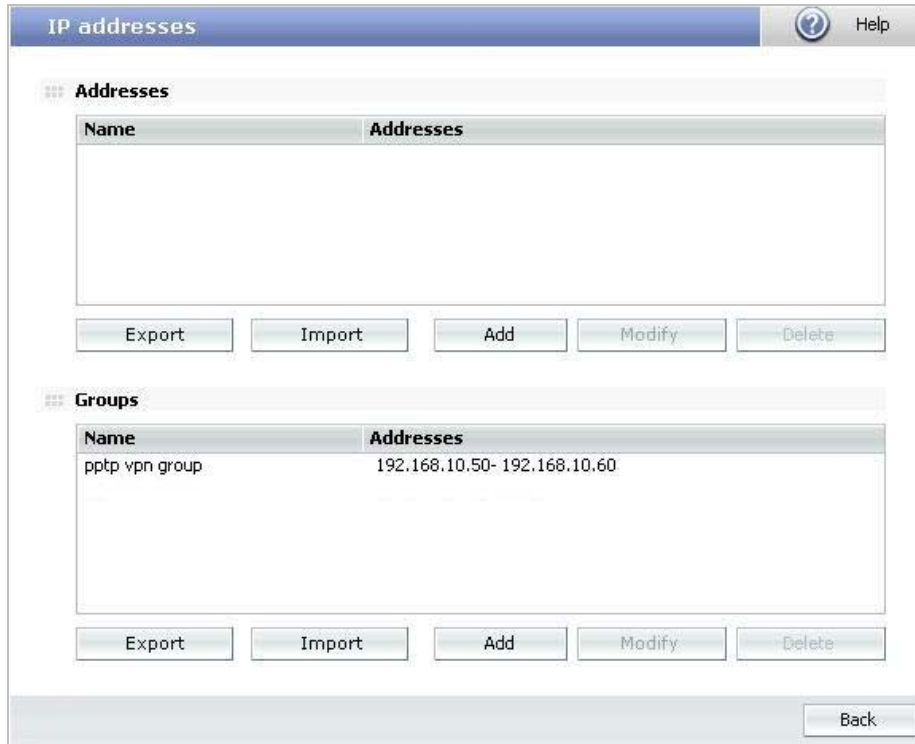


Figure 1.3

1.2.3 PPTP VPN configuration

Finally, the steps below describe how to configure the PPTP VPN using previously defined items.

1. Go to the Panda GateDefender Integra administration console.
2. Click on **VPN** in the panel on the left.
3. Then, select **VPN management**.
4. Click on **PPTP VPN management**.

There you will find the parameters required to configure a VPN in Panda GateDefender Integra using the PPTP protocol (as shown in figure 1.4):

- *Name*: enter a descriptive name for the VPN (**pptp vpn** will be used for this how-to).
- *Active*: select this checkbox in order to enable the VPN.
- *IP group*: select the range of IP addresses (**pptp vpn group** will be used for this how-to) associated to this VPN. If it had not been previously defined, click on the *Address settings* link to access the *IP address settings* screen.
- *Users*: select the authorized user group to access your VPN (**testing** will be used for this how-to). If it had not been previously defined, click on the link *User settings* to access the *User settings* screen.

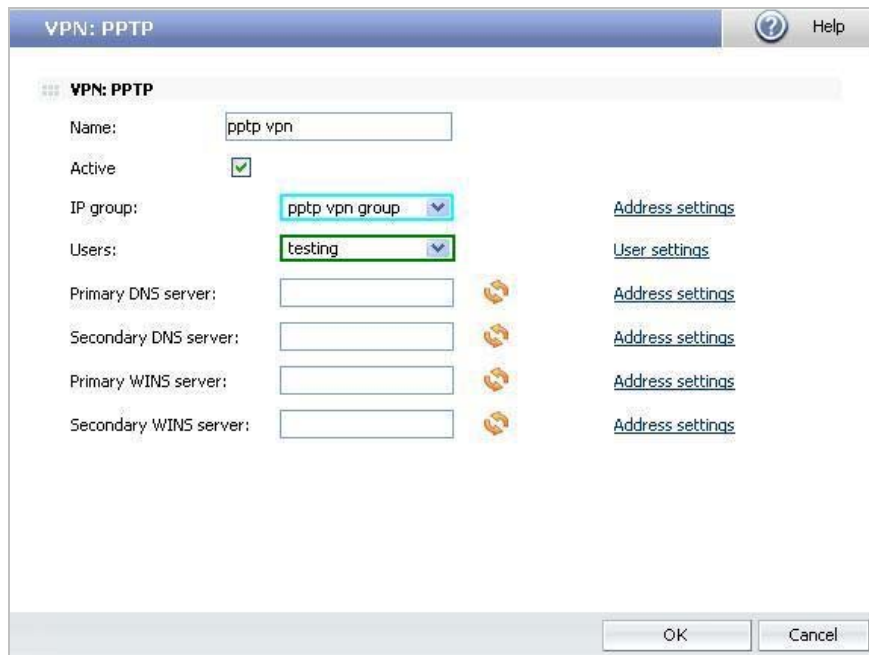


Figure 1.4

You also have the option to include the DNS and WINS servers' IP addresses. By clicking on the icon associated with the DNS and WINS options, you can change the text field for a drop-down menu and choose the value to assign to each option. Click on **OK** to save the changes.

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1.3 Client side configuration (MS Windows 2000/XP)

Once it has been confirmed that the connection to the Internet is correctly configured on the client computers running Microsoft Windows 2000/XP, follow the steps described below:

1. Click on the **Start** button.
2. Select the **Control Panel**.
3. Double-click on **Network Connections**.
4. Click on **Create a new connection**.
5. In the Network Connection Wizard, click on **Next**.
6. Click on **Connect to the network at my workplace**, and then select **Next**.



7. Click on **Virtual Private Network connection**, and then select **Next**.



8. If you use a dial-up Internet connection, click on **Automatically dial this initial connection**, and then, select your dial-up Internet connection from the list.

If you use a full-time connection (such as an ADSL or cable modem), click on **Do not dial the initial connection**.



9. Click on **Next**.
10. Type the name of your company or a descriptive name for the connection (**Pandasoftware** will be used for this how-to), and then click on **Next**.



11. Type in the IP address of VPN server (**62.14.249.65** would be used for this how-to), and then click on **Next**.



12. Enable the **Add a shortcut to this connection to my desktop** checkbox if you want to create a shortcut on the desktop, and then click on **Finish**.

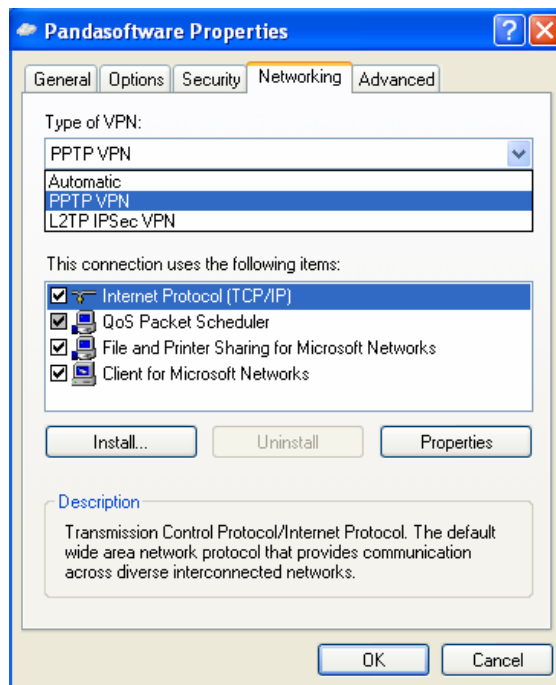


13. If you are prompted to connect, select **No**.
14. In the Network Connections window, right-click on the new connection.

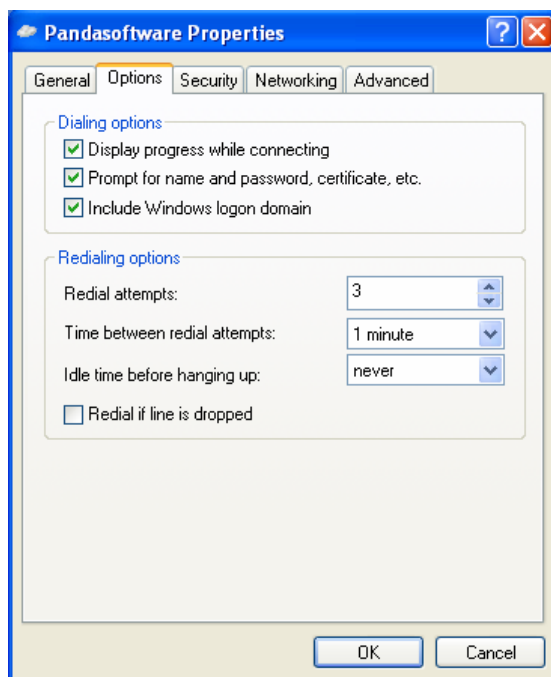
15. Click on **Properties**, and then configure further options for the connection:



16. Select the **Networking** tab and choose **PPTP VPN** from the Type of VPN list.



17. If you are connecting to a domain, select the **Options** tab, and then enable the Include **Windows logon domain** checkbox to specify whether to request Windows 2000/XP logon domain information before attempting to connect.



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1.4 Establishing VPN connection

Use the following procedure to establish previously defined VPN connections:

1. Click on the **Start** button, go to **Settings**→ **Network Connections**.
2. Then select the connection that you have previously configured.
If you have added a connection shortcut to the desktop, double-click on the shortcut on the Desktop.
3. If you are not currently connected to the Internet, Windows will prompt you to connect to the Internet.
4. After your computer connects to the Internet, the Panda GateDefender Integra VPN gateway will request you to enter your user name and password (the user must be previously defined on Integra side).
5. Type your user name and password, and then click on **Connect**. Your network resources should be available to you as when you connect directly to the network.

In order to disconnect from the VPN, right-click on the icon for the connection that appears in the bottom right corner, and then click on **Disconnect**.

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1.5 Further considerations

If Panda GateDefender Integra's firewall function is used, then all the corresponding configuration rules of the firewall will be automatically entered.

But if you use a personal firewall or broadband router with firewall features or if there are routers or firewalls between the VPN client and the Integra VPN gateway server, the following ports and protocols must be enabled for PPTP on all firewalls and routers that are between the VPN client and the Integra VPN gateway server:

Client ports	Server port	Protocol
1024-65535/TCP	1723/TCP	PPTP

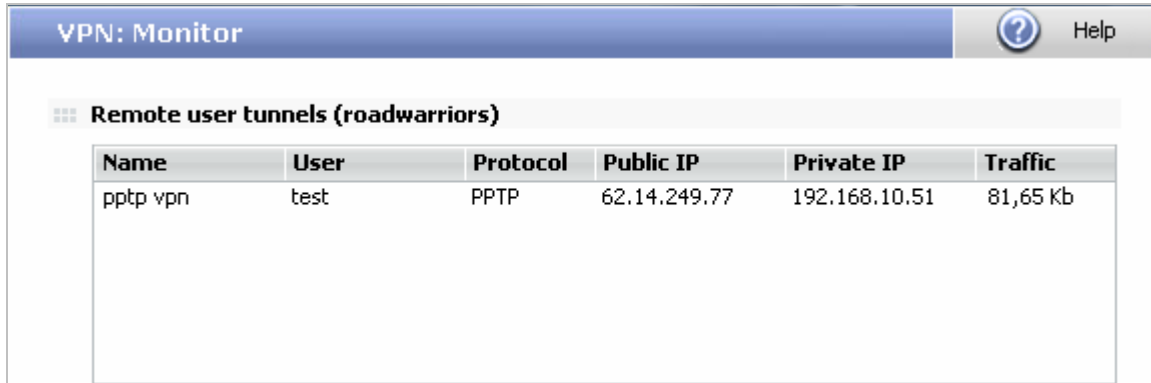
Additionally, **IP PROTOCOL 47** must be enabled (it refers to the protocol number, not to the port number) or somewhere referred as **GRE (Generic Routing Encapsulation)**.

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1.6 Checking configuration

To check your PPTP VPN configuration, please follow the procedure described below:

1. Access the Panda GateDefender Integra administration console.
2. Click on **VPN** in the panel on the left.
3. Then select **VPN Monitor** which will allow you to see the status of all established VPN connections (as shown in figure 1.5).



The screenshot shows the 'VPN: Monitor' window with a 'Help' button. Below the title bar is a section titled 'Remote user tunnels (roadwarriors)'. It contains a table with the following data:

Name	User	Protocol	Public IP	Private IP	Traffic
pptp vpn	test	PPTP	62.14.249.77	192.168.10.51	81,65 Kb

Figure 1.5

Any of the roadwarriors can verify the configuration independently on Windows 2000/XP .

In order to do this, the command prompt should be used:

- The **ipconfig /all** command shows that an additional IP address has been assigned to the WAN (PPP/SLIP) interface (if you are the first roadwarrior connected, the IP address will be 192.168.10.51).
- The **ping -n 10 192.168.10.100** command, **pings** from the roadwarrior to one of the hosts that reside on the internal network behind Integra VPN gateway and should see the response from the remote host.

At the same time, a network traffic monitoring tool such as Ethereal, can be used in order to check if all the traffic between a roadwarrior and the gateway is encrypted.

The encrypted gre packets will only be seen when observing traffic in the external network interface whereas the unencrypted packets (in this case icmp reply and response packets) will be seen in the virtual WAN (PPP/SLIP) interface.

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