

**123 Manual, LP-1521 Broadband AP Router.
VPN Configuration between two LP-1521s**

LP1521_M123_ENK01W

**123 Manual, LP-1521
Broadband AP Router.
VPN Configuration between
two LP-1521s.
(Only for WISP mode
configurations with fixed IP)**

Considerations for the VPN configuration in the LP-1521, WISP mode:

A. For the communication you must configure:

1. The equipment must be in WISP mode; this means the antenna will simulate the WAN port. Consider that the WAN port will be as a LAN port.
2. One of the LP-1521 must be configured as Client and the other one as AP (See AP Mode 123 Manual and Client Mode 123 Manual).
3. You cannot use DHCP, nor connect as wireless client, because you are turning the wireless points into WAN connection.

To configure the VPNs you have to follow first the 123 Manual about Installation in WISP Mode for each LP-1521. Remember that one LP-1521 must be AP and the other one Client.

Before configuring the VPNs, you must set the connection and the security between the wireless equipment. Afterwards, prepare a connection diagram in order to find corresponding scenario. The following is a general diagram for this 123, where the two IPs from the ends are fixed:

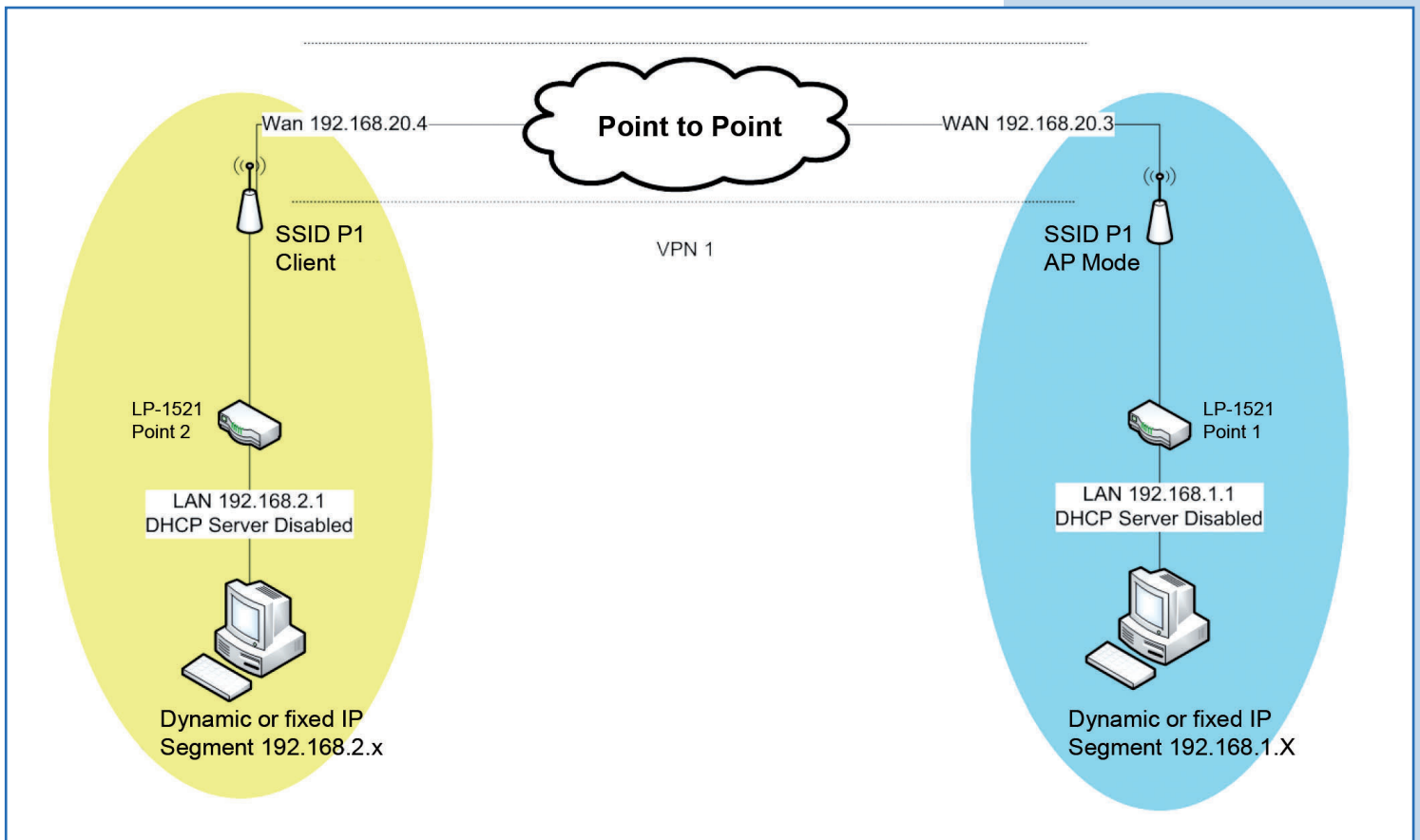


Figure 1

B. Now we are going to configure the LP-1521 of the SSID 1 **(BLUE ONE)**. See **Figure 1**.

It is important to consider that the LP-1521 IP must be 192.168.1.1, which must be configured in the options TCP IP Settings/LAN. Make this change when you configure the 123 in AP mode.

1

In the equipment connected in the **BLUE** network open the web browser and type the IP address **http://192.168.1.1**, as shown in **Figure 2**.

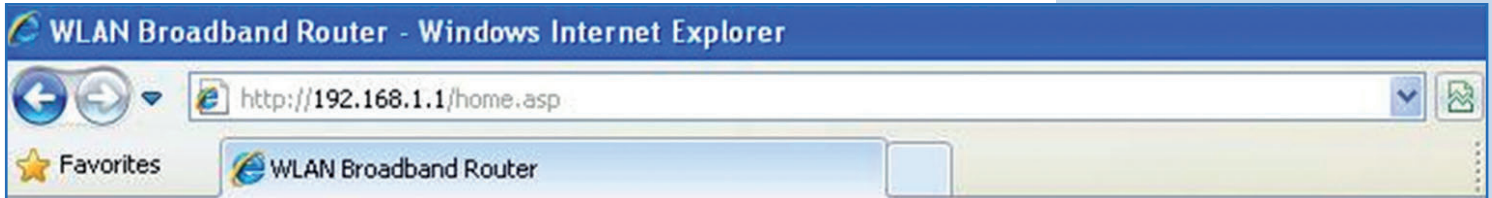


Figure 2

2

Enter your user and password, (which are **admin** and **password** by default) just in case the equipment requests it.

3

Select the option **TCP IP Settings/WAN, Static IP**, and type the IP address of the WAN port, **192.168.20.3** according to the diagram of **Figure 1**. Enter the subnet mask and its gateway which must be the destination router IP, **192.168.20.4** in this case, as shown in **Figure 3**. In dedicated links this information will be provided by the ISP of each end.

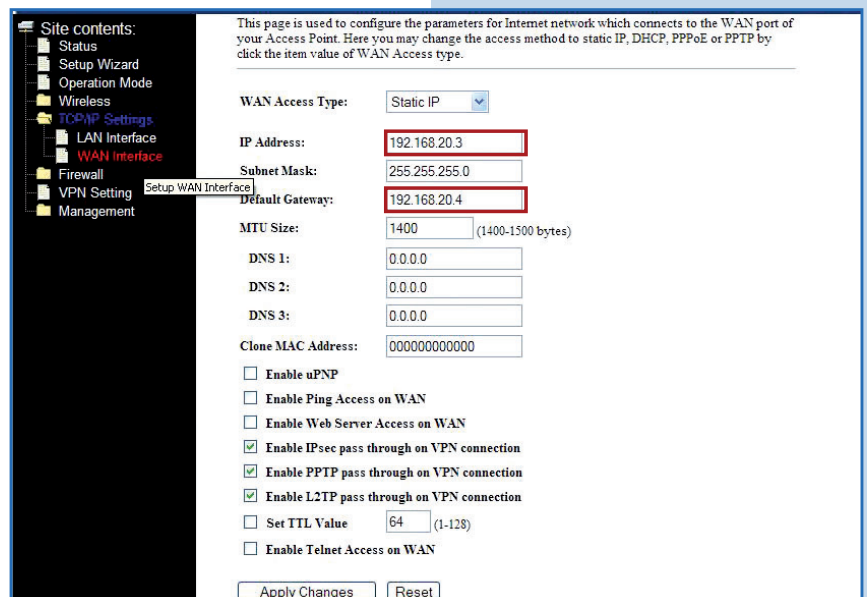


Figure 3

4

Check the option **Enable Ping Access on WAN** so the VPN can be set up. Select **Apply Changes**, as shown in **Figure 4**.

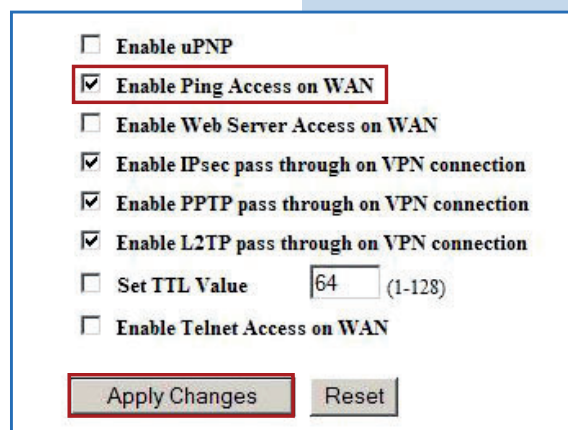
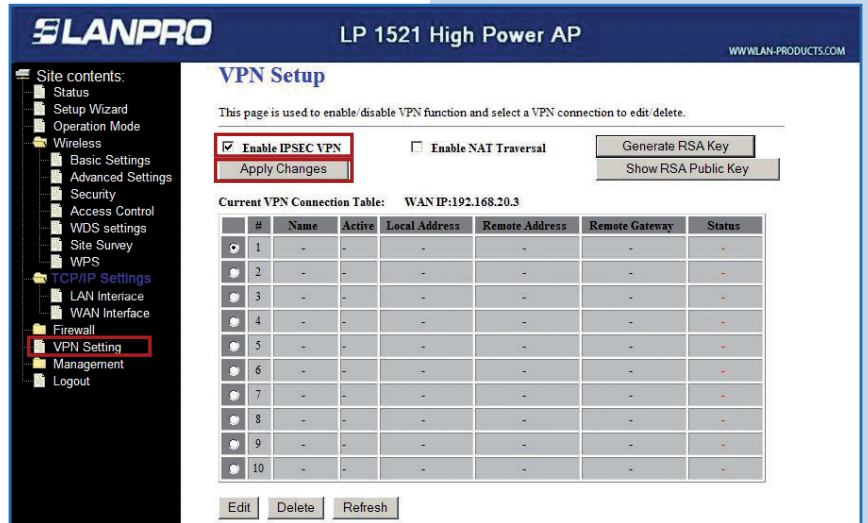


Figure 4

5

In case you want to make Nat Transversal select the option **VPN Settings/Enable IPSEC VPN**. Then click on **Apply Changes**, as shown in **Figure 5**.

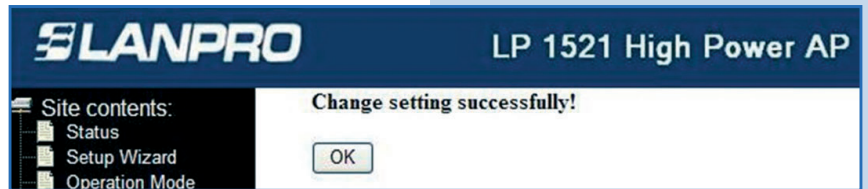
Figure 5



6

Once the change is made select OK, as shown in **Figure 6**.

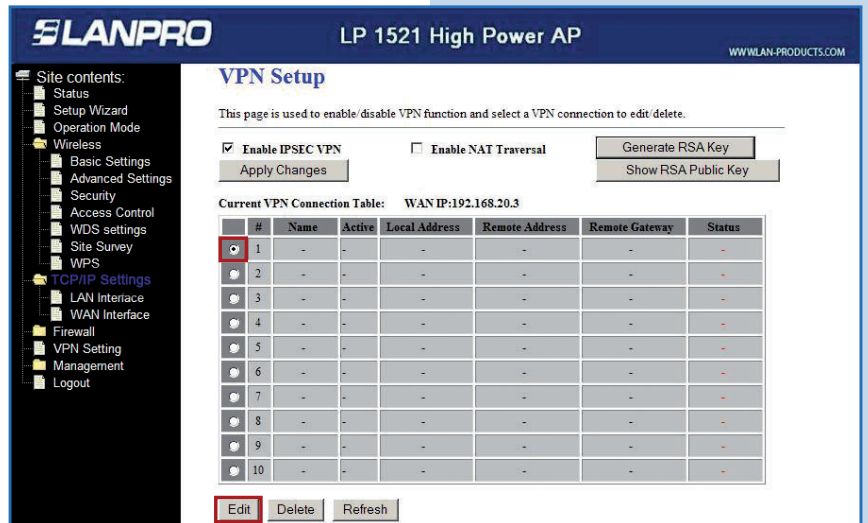
Figure 6



7

Select the VPN to be modified and then the option **Edit**, as shown in **Figure 7**.

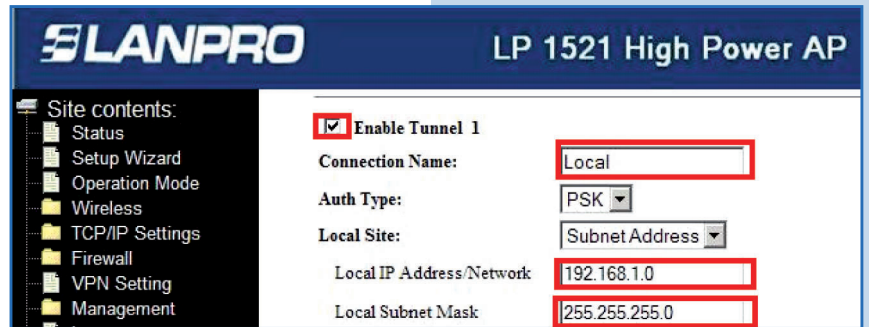
Figure 7



8

Enable the box **Enable Tunnel 1**. In **Connection Name** type **Local** (in this case), in **Local IP Address Network** type **192.168.1.0** and **255.255.255.0** in the subnet mask of such network, as shown in **Figure 8**.

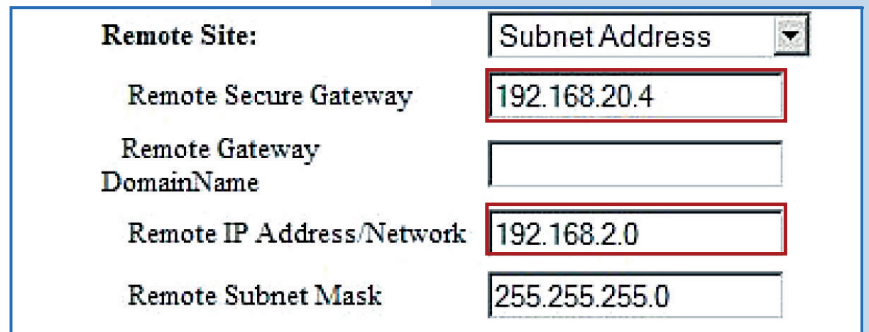
Figure 8



9

In the section **Remote Site** you shall type the network data of the other end. **Remote Secure Gateway** is the WAN port IP of the destination network; it means, the IP of the other LP-1521 equipment (in this case **192.168.20.4**). This is the WAN port address of the network in yellow. In **Remote IP Address/Network** enter the segment of the destination network, **192.168.2.0** for this example, LAN segment of the network in yellow and type the mask **255.255.255.0** of such network, as shown in **Figure 9**.

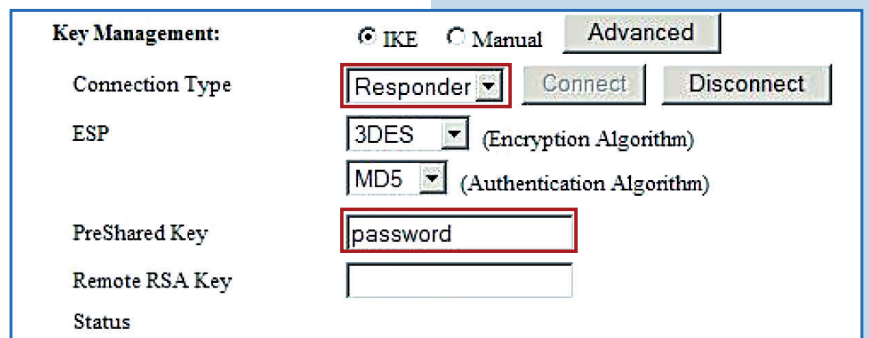
Figure 9



10

In **Connection Type** you shall enter one end as initiator and the other as responder. For this case: **Responder**. Proceed to type the password to be used for the VPN encryption in **PreShared Key**, as shown in **Figure 10**.

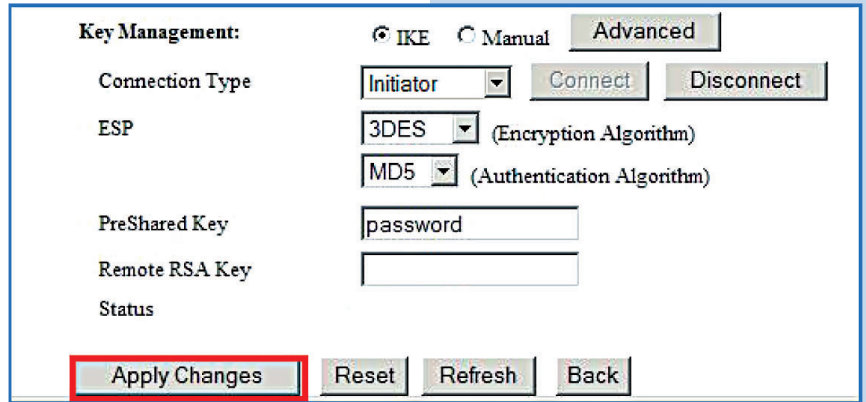
Figure 10



11

Finally, select Apply Changes, as shown in Figure 11.

Figure 11



NOW WE ARE GOING TO CONFIGURE THE LP-1521 OF THE SSID 1 (YELLOW ONE). SEE FIGURE 1.

It is important to consider that the LP-1521 IP must be 192.168.2.1, which must be configured in the options TCP/IP Settings/LAN. Make this change when you configure the 123 in Client mode.

12

In the equipment connected in the YELLOW network open the web browser and type the IP address http://192.168.2.1, as shown in Figure 12.

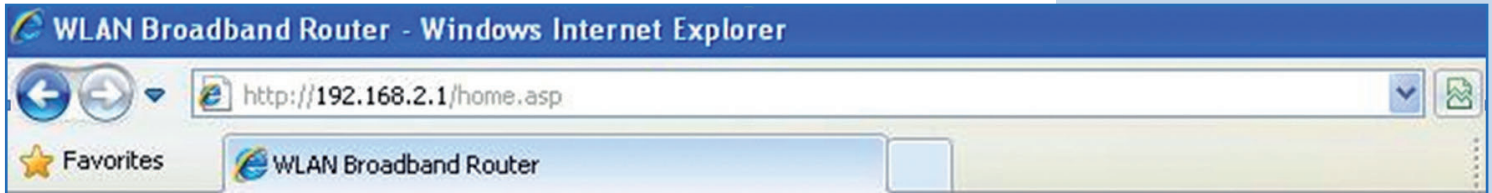
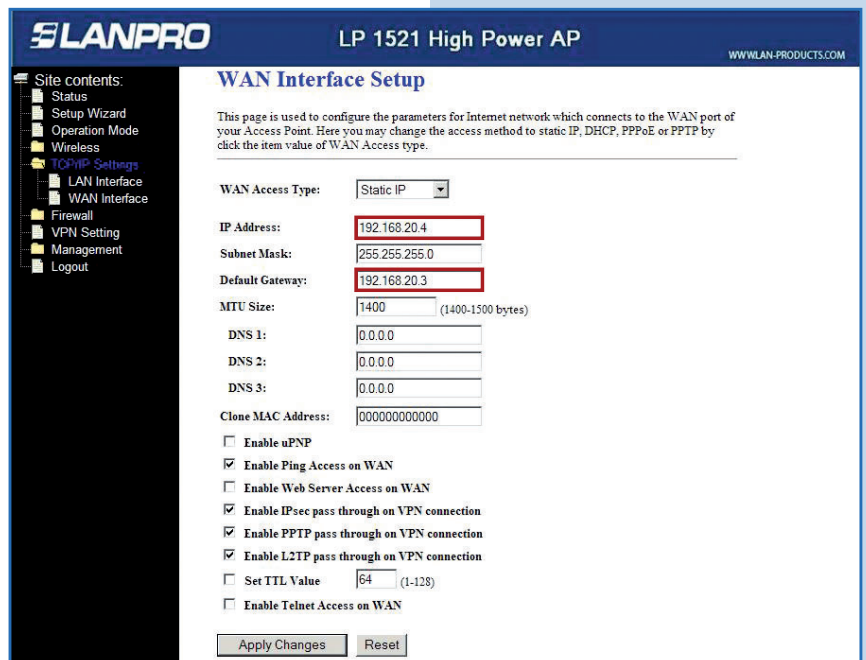


Figure 12

13

Select the option WAN, Static IP, and type the IP address of the WAN port, 192.168.20.4 according to the diagram of Figure 1. Enter the subnet mask 255.255.255.0 and its gateway which must be the destination router IP, 192.168.20.3 in this case, as shown in Figure 13. In dedicated links this information will be provided by the ISP of each end.

Figure 13



14

Check the option **Enable Ping Access on WAN** so the VPN can be set up. Select **Apply Changes**, as shown in **Figure 14**.

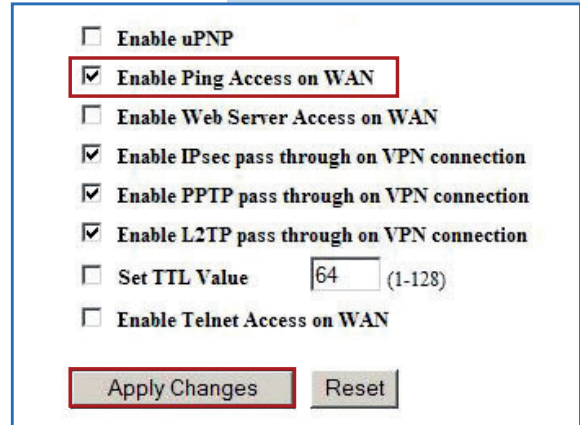


Figure 14

15

In case you want to make Nat Transversal select the option **VPN Settings/Enable IPSEC VPN**. Then click on **Apply Changes**, as shown in **Figure 15**.

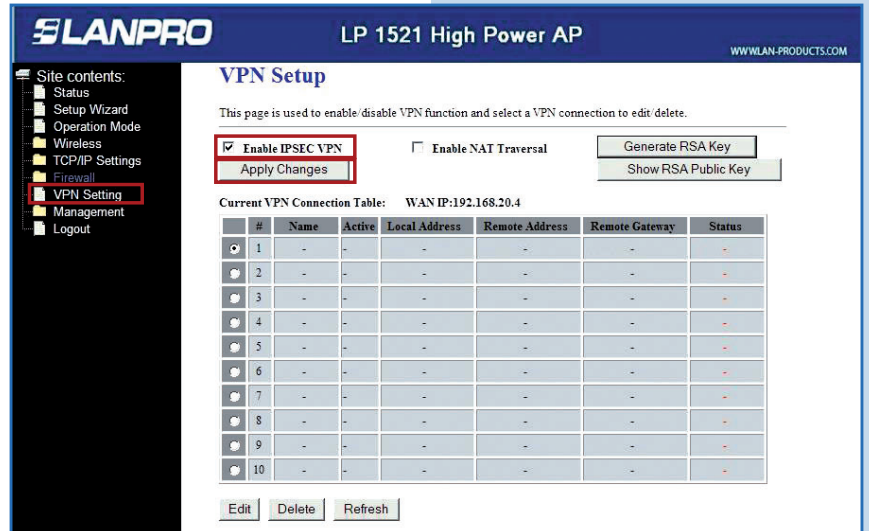


Figure 15

16

Once the change is made select **OK**, as shown in **Figure 16**.

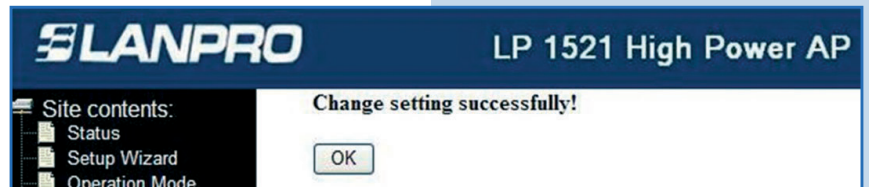


Figure 16

17

Select the VPN to be modified and then the option **Edit**, as shown in **Figure 17**.

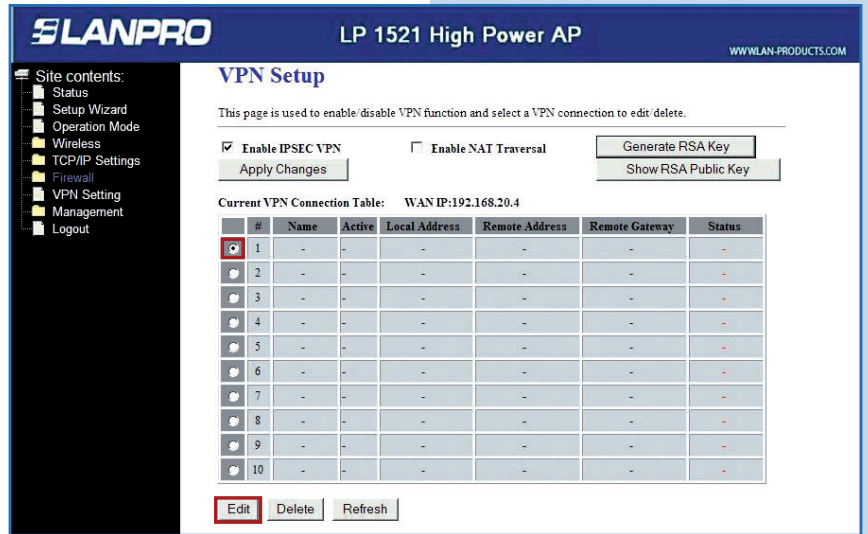


Figure 17

18

Enable the box **Enable Tunnel 1**. In **Connection Name** type **Local** (in this case), in **Local IP Address Network** type **192.168.2.0** and **255.255.255.0** in the subnet mask of such network, as shown in **Figure 18**.

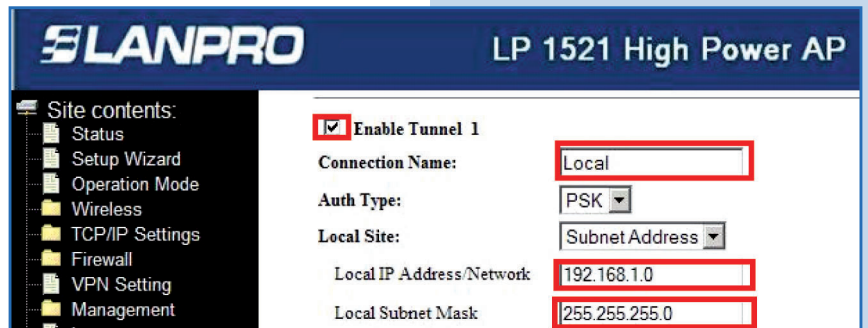


Figure 18

19

In the section **Remote Site** you shall type the network data of the other end. **Remote Secure Gateway** is the WAN port IP of the destination network; it means, the IP of the other LP-1521 equipment (in this case **192.168.20.4**). This is the WAN port address of the network in yellow. In **Remote IP Address/Network** enter the segment of the destination network, **192.168.2.0** for this example, LAN segment of the network in yellow and type the mask **255.255.255.0** of such network, as shown in **Figure 19**.

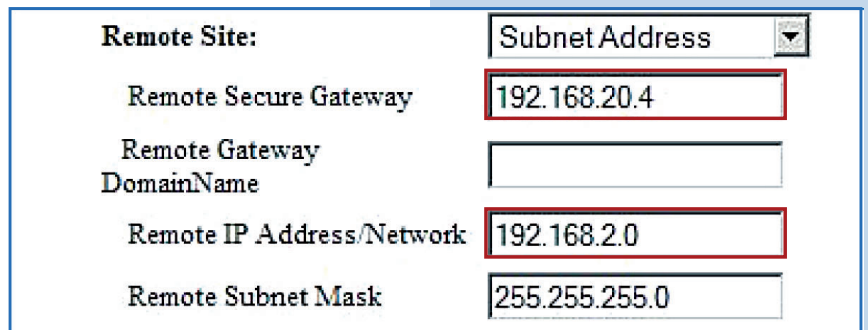


Figure 19

20

In **Connection Type** you shall enter one end as initiator and the other as responder. For this case: **Initiator**. Proceed to type the password to be used for the VPN encryption in **PreShared Key**, as shown in **Figure 20**.

Figure 20

Key Management: IKE Manual **Advanced**

Connection Type: Initiator

ESP: 3DES (Encryption Algorithm)
MD5 (Authentication Algorithm)

PreShared Key: password

Remote RSA Key:

Status:

21

Finally, select **Apply Changes**, as shown in **Figure 21**.

The equipment allows you to manage up to 10 VPN connections.

Figure 21

Key Management: IKE Manual **Advanced**

Connection Type: Initiator

ESP: 3DES (Encryption Algorithm)
MD5 (Authentication Algorithm)

PreShared Key: password

Remote RSA Key:

Status:

22

Verify the connection between both ends and start the connection, which will appear in **Status** as **Connected**, as shown in **Figure 22**.

Figure 22

Key Management: IKE Manual **Advanced**

Connection Type: Initiator

ESP: 3DES (Encryption Algorithm)
MD5 (Authentication Algorithm)

PreShared Key: password

Remote RSA Key:

Status: **Connected**

23

If this does not happen you can force the connection in the responder LP-1521 (IP 192.168.1.1 for this example) by selecting **Connect**, as shown in **Figure 23**.

Figure 23

The screenshot displays the LANPRO web interface for configuring a VPN on an LP 1521 High Power AP. The interface is titled "LANPRO LP 1521 High Power AP" and includes a navigation menu on the left with options like Status, Setup Wizard, Operation Mode, Wireless, TCP/IP Settings, Firewall, VPN Setting, Management, and Logout. The main configuration area is for "Site contents: Enable Tunnel 1".

Key configuration fields include:

- Enable Tunnel 1:** Checked
- Connection Name:** Local
- Auth Type:** PSK
- Local Site:** Subnet Address
- Local IP Address/Network:** 192.168.1.0
- Local Subnet Mask:** 255.255.255.0
- Remote Site:** Subnet Address
- Remote Secure Gateway:** 192.168.20.4
- Remote Gateway Domain Name:** (empty)
- Remote IP Address/Network:** 192.168.2.0
- Remote Subnet Mask:** 255.255.255.0
- Local/Peer ID:** IP
- Local ID:** (empty)
- Remote ID Type:** IP
- Remote ID:** (empty)
- Key Management:** IKE (selected), Manual, Advanced
- Connection Type:** Responder (selected), **Connect** (highlighted), Disconnect
- ESP:** 3DES (Encryption Algorithm)
- Authentication Algorithm:** MD5
- PreShared Key:** password
- Remote RSA Key:** (empty)
- Status:** Disconnected

At the bottom of the configuration area, there are buttons for "Apply Changes", "Reset", "Refresh", and "Back".