LP-N24, 123 Manual, PTP and MTP mode Installation.

LP-N24
123 Manual, PTP and MTP
mode Installation.

This document´s intention is to help the user setup the LP-N24 in **Point to Point**, and **Point to Multi-Point** modes. In order to perform these connections, two(2) or more LP-N24´s are needed.

This manual is divided in two parts, the first: I, showing possible scenarios and configurations and the second: II, as the 123 Manual itself.

I Scenarios and Configurations.

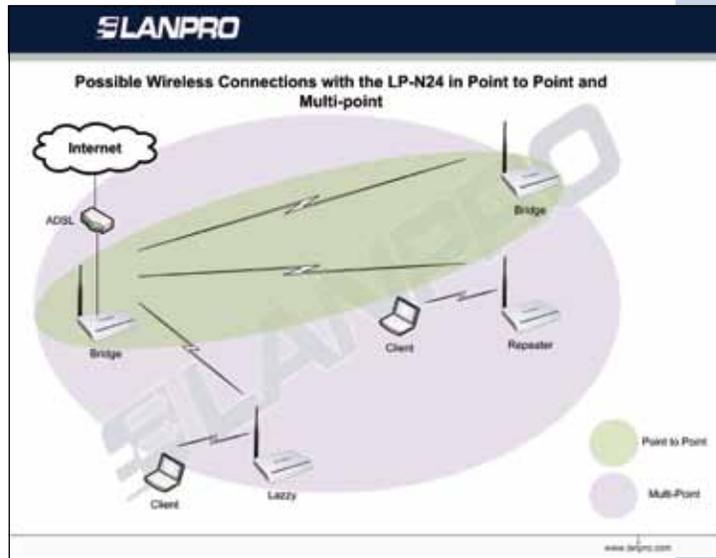● Possible configurations and scenarios are shown in the following diagrams, (See figure 1):

Figure 1

Point to Point, Multi-point Configurations, LP-N24 (WDS)		

Main	Client	Main is AP
LP-N24 Bridge	LP-N24 Lazzy	No
LP-N24 Bridge	LP-N24 Bridge	No
LP-N24 Bridge	LP-N24 Repeater	No
LP-N24 Repeater	LP-N24 Lazzy	Yes
LP-N24 Repeater	LP-N24 Bridge	Yes
LP-N24 Repeater	LP-N24 Repeater	Yes

Mode	Description
Lazzy	The LP-N24 is a client WDS and AP in this mode
Bridge	The LP-N24 is a WDS Server and/or Client, Not an AP in this mode
Repeater	The LP-N24 is a WDS Server and/or Client and AP in this mode

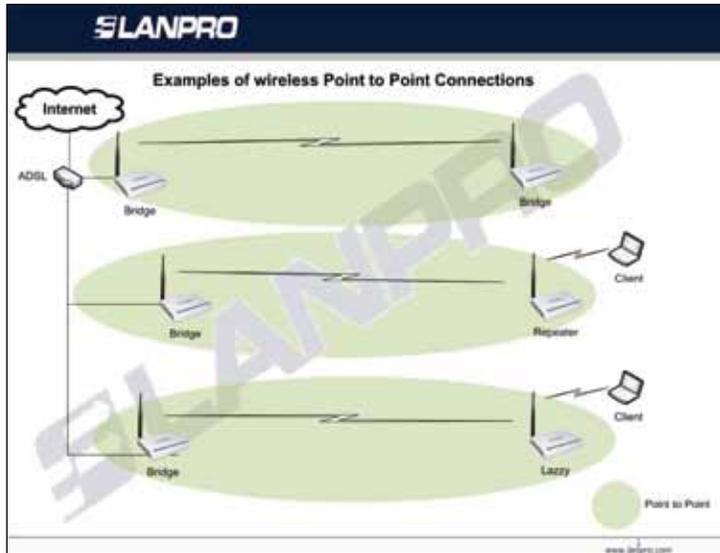● The figures 2 to 5 show examples of PTP and MTP possible connections with the LP-N24.
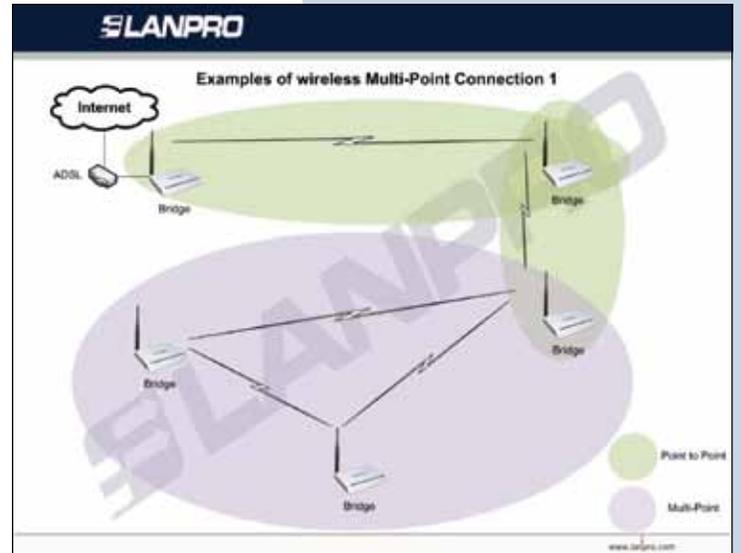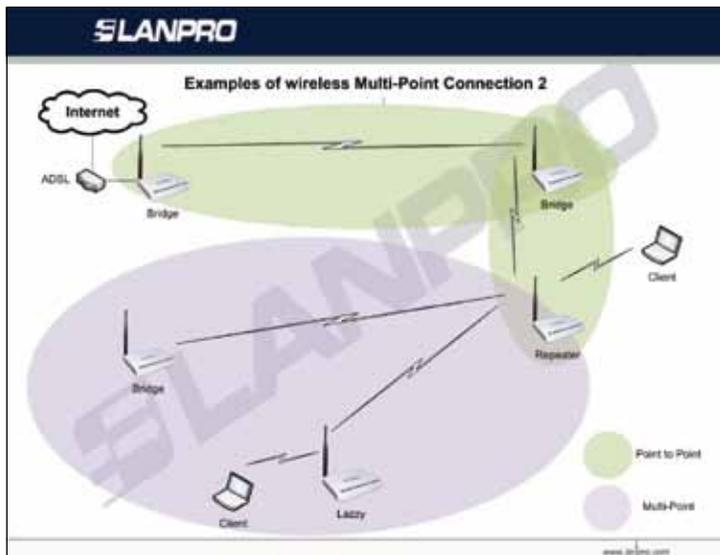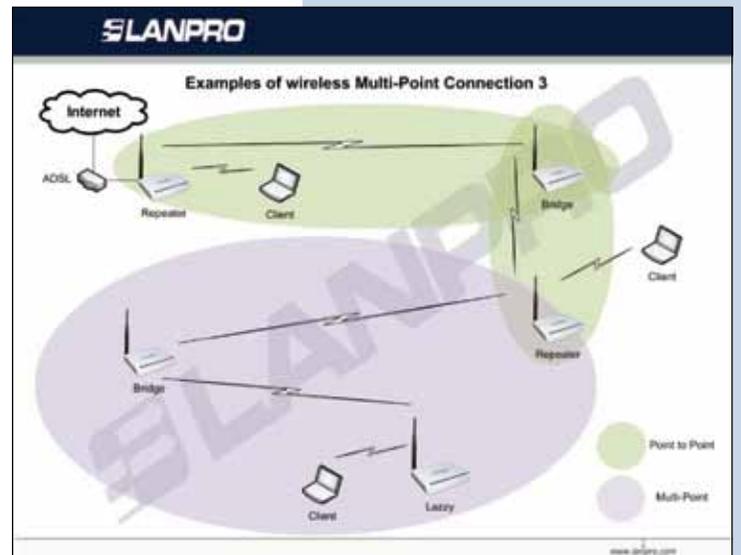

Figure 2

Figure 3

Figure 4

Figure 5

II LP-N24, 123 Manual for Installation in modes PTP and MTP

For the configuration shown in figure 6, we use the bridge and lazzy Modalities. In these modalities, we have two (2) wireless LANS, a connection between them and a connection to Internet, please note that each network has been identified with a letter A and B.
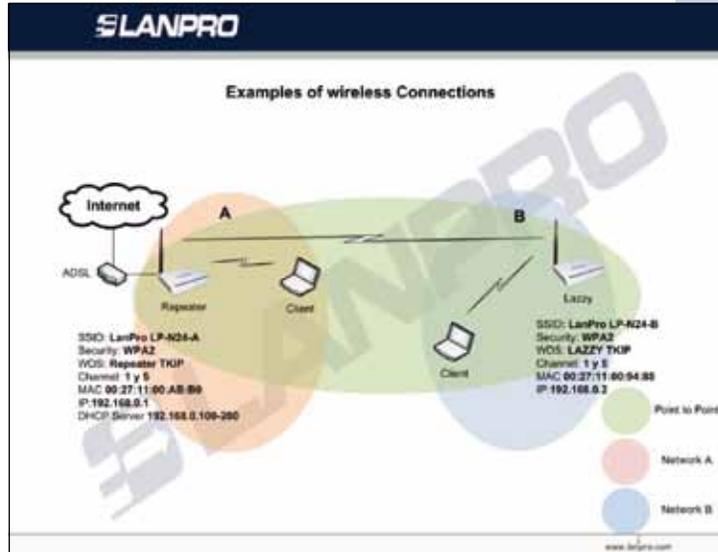

Figure 6

● II.1. Preparation.

● **II.1.1.** Please review package contents (Figure 7).

Figure 7

● **II.1.2.** Please turn the equipment over and take note of the Mac Addresses of both LP-N24´s involved.   In figure 8, you can see where to find them on the printed label.

Figure 8

● II.2. "A" Network LP-N24 configuration.

● **II.2.1.** Connect power as shown in figure 9.

Figure 9

● **II.2.2.** Connect your PC to a LAN port of the LP-N24 as shown in figure 10.

Figure 10

● **II.2.3.** Connect the Internet service to the WAN port as shown in figure 11.

Figure 11

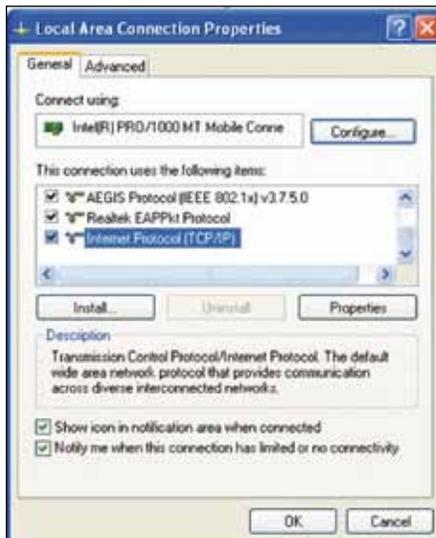● **II.2.4.** Please go to your network card Properties and change the IP address as shown in figures 12 and 13.
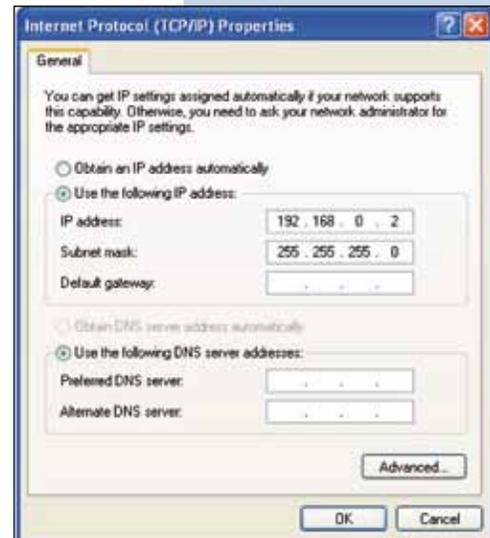

Figure 12

Figure 13

● **II.2.5.** Once finished, select: **Ok** and then again select: **Ok**.

● **II.2.6.** Open your preferred browser and navigate to the default address of the Router: **192.168.0.1** as shown in figure 14.
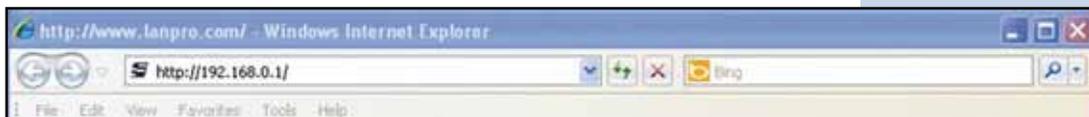

Figure 14

● **II.2.7.** A new window will pop-up asking for the user and the password, please use the defaults for User: **admin** and password: **admin**, select: **OK**, as shown in figure 15.

Figure 15

● **II.2.8.** The configuration window will pop-up, select option: **Next**, as shown in figure 16.

Figure 16

● **II.2.9.** Select option that corresponds to your Internet Service Provider (ISP), (Most of them recommend Dynamic IP), select: **Next** as shown in figure 17.
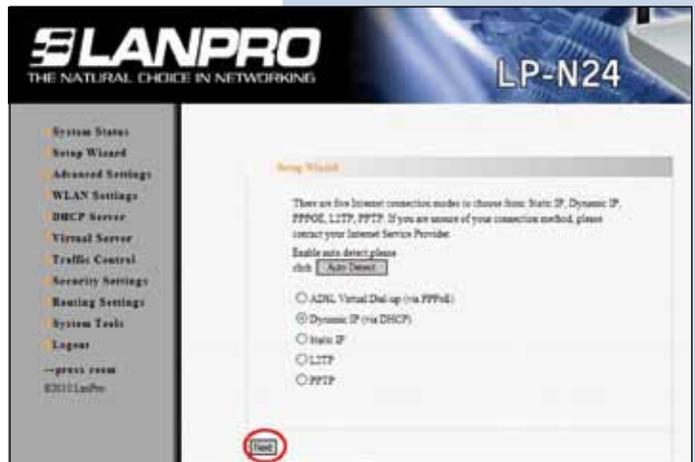

Figure 17

● **II.2.10.** In order to save the changes, select: **Apply**, as shown in figure 18.

Figure 18

● **II.2.11.** A Window named: **Network Status** pops-up showing the WAN connection status, it obtains the IP Address like the one shown in figure 19 **(This address is for reference purposes only)**, if not, please verify the cable connection from the LP-N24´s WAN port to the ADSL modem or Internet service connection; you can also try turning the ADSL Modem off and on again, then wait for 2 minutes and finally select option: **Release** then option: **Renew** in the window shown in figure 19.

Figure 19

● **II.2.11.** In order to give a name to your wireless LAN, please select option: **WLAN Settings, Basic Settings** and in the field: **SSID**, input the name you wish for your wireless LAN. In this example, it will be: **LanPro LP-N24 A**; take note of the channels used, (in this example: **1 and 5**) and proceed to select: **Apply**, as shown in figure 20.

Figure 20

● **II.2.12.** Procceed to select the security mode by selecting option: **WLAN Settings, Security Settings**; in: **Security Mode**, select the desired mode. We recommend you use: **WPA2–Personal** as shown in figure 21.

Figure 21

● **II.2.13.** Proceed to input the wireless LAN client password in the field named: **Pass Phrase** and select: **Apply**, as shown in figure 22.

Figure 22

● **II.2.14.** In this step we will stablish this equipment as a Repeater, to do this, select: **WLAN settings**, **WDS Settings** and in: **WDS Mode**, select: **Repeater Mode**, as shown in figure 23.
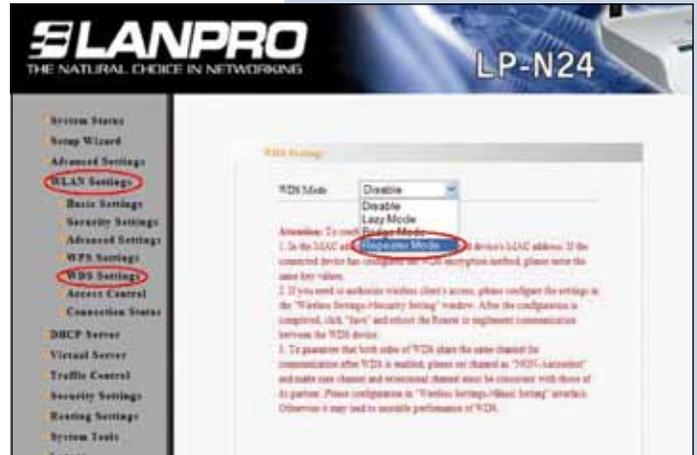
Figure 23

● **II.2.15.** Select the type of encryption for WDS, in this example select: **TKIP**, as shown in figure 24.

Figure 24

● **II.2.16.** Proceed to input the encryption phrase for WDS and the MAC address of the equipment that will be connected to it **(Network B)**, then select: **Apply**, as shown in figure 25.
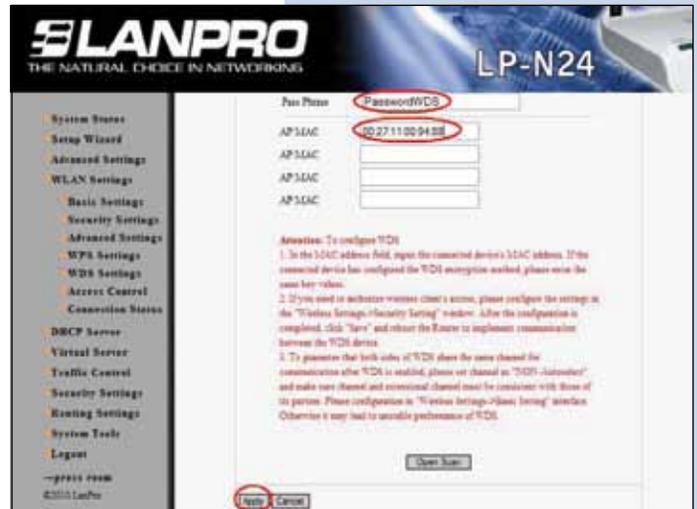

Figure 25

● **II.2.17.** The equipment will reboot, as shown in figure 26.

Figure 26

● **II.2.18.** Once booted, the equipment will ask for the password. If not, open the browser and access the equipment as shown in paragraphs II.2.6. and II.2.7. Proceed to review the DHCP configuration, select: **DHCP Server, DHCP Server** only on this LP-N24 and change the range if you need it, as shown in figure 27 for this example, please remember that this router will deliver IP addresseses to both networks. Then Select: **Apply**.

Figure 27

● **II.2.19.** Now proceed to change the management password by selecting option: **System Tools, Change Password**, input the new password in: **New Password**, then enter it again in: **Re-enter to Confirm** and then select: **Apply**, as shown in figure 28, remember to save it in a secure place because it will be needed again by the equipment for management.

Figure 28

With the steps already followed, you are now through with the first part of the configuration. This equipment must remain turned on for the second part of the configuration to take place which is explained in the following paragraphs.

● II.3. Configuring the "B" Network LP-N24.

● **II.3.1.** Connect power as shown in figure 29.

Figure 29

● **II.3.2.** Connect to your PC to a LAN port of the LP-N24, as shown in figure 30.

Figure 30

● **II.3.3.** Open your preferred browser and input in the search field the default address: **192.168.0.1**, as shown in figure 31.

Figure 31

● **II.3.4.** A window will pop-up asking for the user and password, by default, user is: **admin** and the password is: **admin**; select: **OK**, as shown in figure 32.

Figure 32

● **II.3.5.** Proceed to input the name of your WLAN by selecting option: **WLAN Settings, Basic Settings** and inputting in the field: **SSID**, the name you have selected for your WLAN; in this example: **LanPro LP-N24 B**, take note of the channels, in this example they are 1 and 5 and proceed by selecting: **Apply**, as shown in figure 33.

Figure 33

● **II.3.6.** Proceed to input the security mode for clients, by selecting option: **WLAN Settings, Security Settings**, in: **Security Mode**, select the desired mode. We recommend you use: **WPA2 –Personal** as shown in figure 34.

Figure 34

● **II.3.7.** Proceed to input the WLAN password in the field: **Pass Phrase** and select: **Apply**, as shown in figure 35.

Figure 35

● **II.3.8.** In this step, we will change the IP address of the LP-N24 of the B network. In order to do this, select: **Advanced Settings, LAN Settings**, change the IP address to: **192.168.0.2** (because there should not be duplicate addresses when A and B get connected), select now: **Apply**, as shown in figure 36.

Figure 36

● **II.3.9.** A new window will pop-up warning you to wait for a few minutes before accessing the system with the new IP address. Select: **Ok** as shown in figure 37. Please wait for about 1 minute.
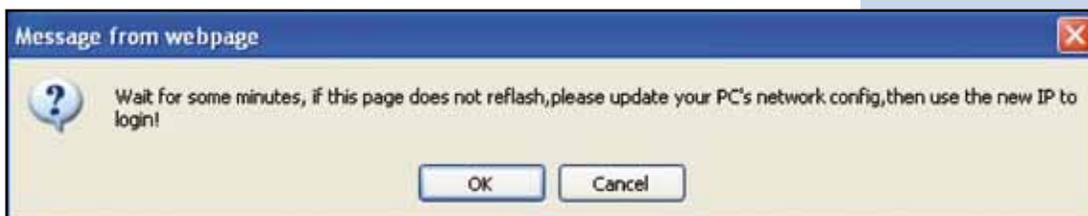
Figure 37

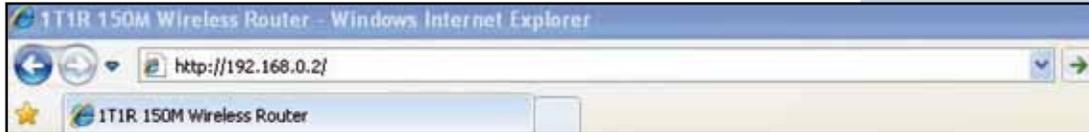- **II.3.10.** Input the new IP address in your browser as shown in figure 38.

Figure 38

- **II.3.11.** Input your User and Password and selct : **OK**, as shown in figure 39.

Figure 39

- **II.3.12.** In this step, we will disable the DHCP Server for this equipment, this is so because the one that will assign the IP addresses in both networks is the LP-N24 in network A. In order to do this, select: **DHCP Server, DHCP Server**; disable option: **Enable** and select: **Apply**, as shown in figure 40.

Figure 40

- **II.3.13.** In this step we will establish the connectionto thel LP-N24 Repeater (conection to Network A), in order to do this, select: **WLAN settings, WDS Settings** and in: **WDS Mode**, select: **Lazzy Mode**, as shown in figure 41.

Figure 41

● **II.3.14.** Select the Type of Encryption for WDS, remember to use the same you configured in paragraph 18, because this is the link between both networks (A and B); in this case use: **TKIP**, as shown in figure 42.
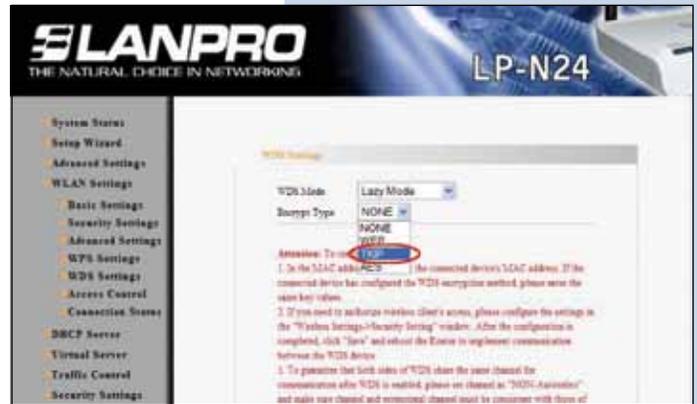

Figure 42

● **II.3.15.** Proceed to input the encription and Pass Phrase for WDS (The same for paragraph B.2.16) and then select: **Apply**, as shown in figure 43.

Figure 43

● **II.3.16.** The equipment will boot as shown in figure 44.

Figure 44

● **II.3.17.** Once booted, the equipment will ask for a password, if not, open the browser and access the equipment as shoen in paragraphs B.3.10 and B.3.11.

● **II.3.18.** Proceed now to change the administration password by selecting option: **System Tools**, **Change Password** , input in the new password in: **New Password** and again in: **Re-enter to Confirm** and select: **Apply**, as shown in figure 45; remember to store your password in a safe place because the equipment will ask for it for administration from now-on .

Figure 45

● **II.3.19.** Once these steps are finished you will have configured a Point to Point network with Access to both LP-N24 for wireless connections. In order to test its operation, open a command window and send a PING to the destination router, in this example we use: 192.168.0.1, as shown in figure 30.
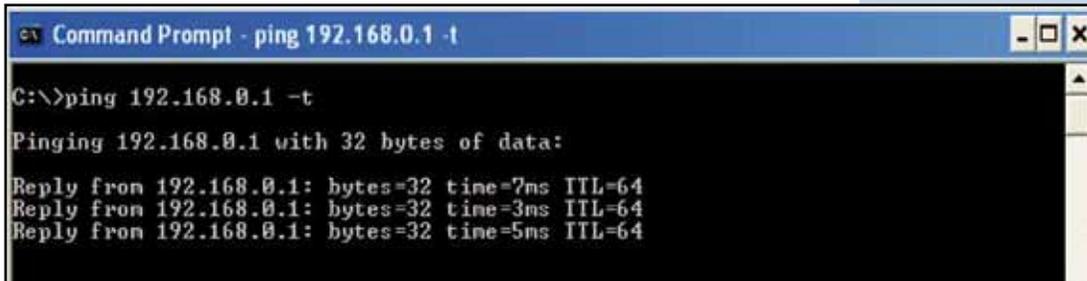
Figure 30

● If there is no answer, we recommend that you review the following points:
1. Review that both routers are in the same RF channel(review paragraphs: II.2.7 y II.3.5).
2. Review that the registered MAC address in the repeater is the one of the Lazzy (review paragraph: II.2.16).
3. Review that the name and passphrase used for ciphering of the WDS are the correct ones (review paragraphs: II.2.14,II.2.15,II.3.14 and II.3.15).
In order to verify connections between both networks, look for them and connect to each of them as shown in figure 31.

Figure 31

If there is no success in anyone of these connections, please review the following points:
• Verify that the password input in paragraphs: II.2.13 y II.3.7 is the correct one.