LP-1521 Wideband Router 123 Manual L VPN Configuration between two LP-1521`s with Dynamic IP.

LP1521_M123_ENL02W



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This 123 Manual only applies to configurations in mode: Gateway.

Considerations for the VPN configuration of the LP-1521.

1.1 Please take in mind that the Firewalls between connections must be configured correctly, this means that it must be disabled or the VPN ports must be open accordingly.

1.2 If the communication media is the Internet, there will be three scenarios:

A. Scenario 1: both ends have fixed IP's.

B. Scenario2: one fixed IP and a dynamic one.

C. Scenario3: two dynamic IP's.

In case you have Dynamic IP's, you will previously configure an account with a DDNS service provider, please refer to document: 123 DDNS (Document: LP1521_M123_SPN01w.pdf) create the Aliases of the diagram, E.G: labazul.dyndns.org.

In order to configure the VPN's, please first run the Firmware update 123 manual, (**Document: LP1521_M123_SPM01w. pdf**). Go to version: **1.4.7.cp.TPC.D_eng1** or superior. In order to know the actual versión of your LP-1521, enter in the configuration window of your equipment and select: **Status**, the actual version will appear at its right: **Firmware Versión** (See figure 1).

| SLANPRO | | LP 1521 High Power AP | WWWLAN PRODUCTS.COM |
|---|------------------------|--|---------------------|
| Site contents: Status Setup Wizard Operation Mode Wreless | Broadband F | Router Status rent status and some basic settings of the device. | |
| - CP/IP Settings | System | | |
| - Firewall | Uptime | 0day:0h:35m:9s | |
| VPN Setting | Firmware Version | v1.4.7.cp.TPC.D_eng1 | |
| - Management | Wireless Configuration | | |

Figure 1

If you don't have the indicated version, follow the steps of your 123 firmaware Update manual , document: LP1521_M123_ENM01w.pdf, in order to get option: Remote Gateway Domain Name in the VPN Option.



Later, in the window shown in figure 2, configure the equipment with the 123 manual for Installation in Mode: **Router y AP**, document: **LP1521_M123_SPG01w.pdf**, for each of the LP-1521 (please take in mind the diagram shown in figure 3 as example, input the corresponding IP address to the location in the network). If you don't want to have wireless clients in that location, you can deactivate them by using the equipment as routers only. In order to do this, please select option: **Wireless**, then **Basic Settings**, mark the field named: **Disable Wireless LAN Interface** and select: **Apply Changes**, remember that once this option has been selected, the wireless part will be disabled.

| SLANPRO | | LP 1521 High Power AP | WWW.AN PRODUCTLICK |
|--|---|---|--------------------|
| State contents: Status Setup Wittend Operation Mode | Wireless Ba Thirpage is used to an your Access Point Kee network parameters. | sic Settings nlique the parameters for workers LAN cleans which may connect to a you may change workers encoyption retilings as well as workers | |
| Basic Settings Advanced Settings Becarts | Disabile Wärefers | LAN Interface | |
| Access Control | Band: | I + Generate-Galler | |
| WDS settings | Modet | 10 m | |
| WP5 | Network Type: | VERIFICAN IN | |
| TCP/IP Settings Farmed | 55ED: | [LasPin LP-1127 | |
| VFN Setting | Channel Numbers | 11 | |
| Management | Associated Climitic | filters Artice University | |
| | Enable Mar Close | e (Single Ethernet Client) | |
| | 🗌 Eashie Universid | Repeater Mode (Acting at AP and client simultaneoully) | |
| | SSID of Excended Inter | claie | |
| | Apply Changes | [Faset] | |

Figure 2

Now, prepare a connection diagram so you can look at the corresponding scenario. Please see figure 3 in which a general diagram for this 123 Manual show that the two end points have Dynamic IP's:



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Now, let's configure the LP-1521 with the SSID 1 (Blue color, figure 3).

Important: please take in mind the IP address of the LP-1521 , it is: 192.168.1.1. From the blue colored network equipment open the browser and look for the following address: http://192.168.1.1 as shown in figure 4. Input now your user and password in case you configured it in the AP Router 123 Manual.



In the window of figure 5, select option: **Management**, select then: **DDNS**, also: **Enable DDNS** and fill the following fields: Service Provider, there select: **Dyndns**, in: **domain Name**, input the alias created (in this example: **labazul.dyndns**. org), in: **User Name** input the user name and in: **Password** the password of the DDNS account, "these data were created in the 123 DDNS manual", then select: **Apply Change**.

| Site contents: | Dynamic DNS | Setting | | | |
|--|--|--|--|--|--|
| Status Setup Wizard Operation Mode Wirnless | Dynamic DNS is a service, that (possibly everchangin | that provides you with a valid, unchanging, internet domain name (an URL) to go with ig) IP-address. | | | |
| TCP/IP Settings Firewall VPN Setting | Enable DDNS | | | | |
| Challenting | Service Provider 1 | DynDNS 🐋 | | | |
| Statistics DONS Time Zone Setting Denial-of-Service Log Upgrade Firmware SilverReload Setting Pastword WatchDog QoS | Domain Name : | labazul dyndns org | | | |
| | User Name/Email: | test | | | |
| | Password/Key1 | | | | |
| | Note: For TZO, you can have a 30 daps free trial <u>herr</u> or manage your TZO account in <u>control panel</u> For DynDNS, you can create your DynDNS account <u>here</u> Apply Change Reset | | | | |
| gure 5 | | | | | |



In the window shown in figure 6, select option: **VPN Setting** and enable the field: **Enable IPSEC VPN**, and then select: **Apply Changes**.

| ntents s Wizard tion Mode ess P Settings all Setting | VPN Setup This page is used to enable disable VPN function and select a VPN connection to edit delete. | | | | | | | | | | |
|---|---|------|-----------------------|-------|---------------|-------------------------------------|-----------------|----------------------|--|--|--|
| | | pply | e IPSEC VP Changes | N | U Inable | Enable NAT Traversal WAN IP:0.0.0.0 | | SA Key Public Key | | | |
| 10 | - | | Name | Atthe | Local Address | Remain Address | Remote Gaternay | Status | | | |
| | • | 1 | | - | | | | | | | |
| | 0 | 2 | 12 | - | 1 12 | 2 | | 1 | | | |
| | 0 | 1 | | + | | * | | | | | |
| | 0 | 4 | | | 10 | | ÷. | 1.0 | | | |
| | 0 | 3 | | + | | +1 | + | 1.1 | | | |
| | | 4 | | + | | | | 1 | | | |
| | • | 1 | 1.00 | - | | | | | | | |
| | 0 | 1 | - 22 | - | | | 2 | | | | |
| | 0 | 9 | 14 | - | - Gi | a) | a) | 10 | | | |
| | | 10 | 1.0 | + | | | ÷. | 1 | | | |



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Once the change has been done, select: **OK**, as shown in figure 7.



The first tunnel will be enable by default, as shown in figure 8. Select option: **Edit** if you wish to do editing.

| Site contents: | | VPN Setup | | | | | | | | | | |
|----------------|--|-----------------------------------|----------|-------|---------------|----------------|------------------|--------|--|--|--|--|
| wtup Wizard | This page is used to enable disable VPS function and select a VPS connection to edit delete. | | | | | | | | | | | |
| Veelenn. | | (mail) | IPSEC VP | N | I Enable | NAT Trevenal | Generate RSA Key | | | | | |
| CP/IP Settings | 0 | Apply Changes Show RSA Public Key | | | | | | | | | | |
| PN Setting | Current VPN Connection Table: WAN IP-0.0.0.0 | | | | | | | | | | | |
| Analyse with | - | (H) | Same | Attes | Local Address | Bennie AMerica | Remote Gateway | Beater | | | | |
| | 0 | 1 | - S | | 24 | | | | | | | |
| | | 4 | | | | • • • | | - | | | | |
| | | 3 | 1 | | 14 | | | | | | | |
| | | 4 | 00 | | 1.4 | | | 100 | | | | |
| | | 3 | | - | 14 | 2 | 1 2 3 | - | | | | |
| | | | 12 | - | <u></u> | ES . | | E2 | | | | |
| | | 1 | | | - 14 I | | | | | | | |
| | | 3 | - 26 | 12 | - 1 | • | | - | | | | |
| | | 9 | | - | | | | | | | | |
| | | 10 | 1.4 | F : | | | | | | | | |
| | E.Ed | อา | Delete 1 | Retes | 6.1 | | | | | | | |
| | _ | | | | | | | | | | | |



You can have several values for the VPN, in this example a typical configuration is shown, which you can adjust to your needs. Input the values as shown in figure 9 and then select: **Apply Changes**.

For the blue network segment LP-1521 values, please refer to the table shown in figure 18.

| SLANPRO | LP 1 | 1521 High Po | wer AP | INTERNAL PRODUCTS COM |
|--------------------------|-------------------------------|----------------------|--------|-----------------------|
| Site contents: | VPN Setup | | | |
| - Status Setup Wizard | Inable Tannel 1 | | | |
| Operation Mode | Connection Name: | Tunel1 | 3 | |
| TCP/P Settings | Auth Type: | PSK 🛩 | | |
| - Foreal | Local Site: | Subnet Address 💌 | | |
| The setting | Local IP Address Network | 192 168 1.0 | 1 | |
| | Local Submet Mask | 255 255 255 0 | 1 | |
| - | Remote fite: | Subnet Address | - | |
| | Renets Secure Gateway | | | |
| | Remain Gaterray DemainName | labamanilo dyndra or | 3 | |
| | Renote IP Address Network | 192 165 2 0 | 1 | |
| | Remote Substat Mark | 255 255 295 0 | 1 | |
| | Local Peer ID: | | | |
| | Local ID Type | 8 7 | | |
| | Local ID | |] | |
| | Remote ID Type | PY | | |
| | Remote ID | | 1 | |

| ESP 3DES (Encryption Algorithm) MD5 (Authentication Algorithm) PreShared Key 1234567890 Remote RSA Key | ESP 3DES (Encryption Algorithm) MD5 (Authentication Algorithm) |
|---|---|
| ESP 3DES (Encryption Algorithm) MD5 (Authentication Algorithm) PreShared Key 1234567890 Remote RSA Key | ESP 3DES (Encryption Algorithm) MD5 (Authentication Algorithm) |
| MD5 (Authentication Algorithm) PreShared Key Remote RSA Key | MD5 💉 (Authentication Algorithm) |
| PreShared Key 1234567890 Remote RSA Key | |
| Remote RSA Kev | PreShared Key 1234567890 |
| | Remote RSA Key |
| Status Disconnected | Status Disconnected |
| Apply Changes Reset Refresh Back | Apply Changes Reset Refresh Back |

Once the changes are applied, select: **Ok** as shown in figure 10.



We will now configure the LP-1521 with the SSID 2 (Yellow color in figure 3).

Important, please take in mind that the IP Address of the LP-1521 is: 192.168.2.1. Please open the browser from the equipment that is in the blue colored network with the IP address shown. http://192.168.2.1 as shown in figure 11. Please input the user and password if you configured it with the AP Router 123 Manual.



In the window of figure 12, select the option: **Management**, select also: **DDNS**, then select: **Enable DDNS** and fill-up the fields in: **service provider** select: **Dyndns**, in: **domain Name** input the alias created (In this example: labamarillo. dyndns.org), in: **User Name** input the user and in: **Password**, the password of the DDNS account, "These data were created in the 123 DDNS Manual", then select: **Apply Change**.





In the window of figure 13, select option: **VPN** and enable the field: **Enable IPSEC VPN**, and then select: **Apply Changes**.

| Site contents: Status Setup Wizert | VPN Setup This page is used to enable deable VPN functions and select a VPN connection to edd defen. | | | | | | | | | | | |
|--|---|--------------|---------------------|-----------|----------------|---------------|---|----------|--|--|--|--|
| Mode Bings | | white ply | IPSEC VI Changes | n D | 🗆 Enable | NAT Traversal | Generate RSA Key Show RSA Public Key | | | | | |
| | CHITH | u 12 | N Cannee Name | Non Table | er WAN IP-0.0. | 0.0 | Tenane Garenar | Name III | | | | |
| | 0 | 1 | 4 | | | - | | - | | | | |
| | | 2 | | | .a. 1 | | - 1 | 10 | | | | |
| | | 8 | -+ | | 14 1 | +. | 141 | 1 A. | | | | |
| | | 4 | | | | | 1 | | | | | |
| | | 2 | + | 1 | | | 141 | - | | | | |
| | | 8 | . 4 | | 1 (A 1) | | | - mar 2 | | | | |
| | | 1 | 14 | 1 | - 84 | 10 | + | 1.1 | | | | |
| | | 1 | | • 7 | . e | 100 | | I | | | | |
| | D | ۹. | - 141 | * | . 84 | 1.1 | , 1 1 | - RC - | | | | |
| | | 10 | - | | 1 | | (a) (b) | N7 5 | | | | |



Once changes are done, select: **OK**, as shown in figure 14.

| SLANPRO | LP 1521 High Power AP | WWW.AN/PRODUCTS.COM |
|--|------------------------------|---------------------|
| Site contents. Status Setup Wizard Operation Mode | Change setting successfully! | |
| Figure 14 | | |



As shown in figure 15, the first tunnel is already selected by default. If you wish to edit the values, please select option: **Edit**.

| Site contents: Satus Satus Setup Waard Operation Mode Workess TCP/P Settings Figure 8 VPN Setting Management | VPN Setup | | | | | | | | | | |
|--|--|--------|---------------------|-------|------------------------|-----------------|---|--------|--|--|--|
| | | natile | IPSEC VP Changes | N | 🗇 Eastle NAT Traverial | | Generate RSA Key Show RSA Public Key | | | | |
| | Current VPN Connection Table: WAN IP-9.0.0.0 | | | | | | | | | | |
| | | | Name - | Attic | Land Address | (Remote Address | Remon Canver | Status | | | |
| | | | | | | 1 3 | | | | | |
| | H | - | | | | | | | | | |
| | H | - | | | | | | | | | |
| | H | | | | - 27- | - <u>-</u> | | | | | |
| | H | | | | | | | | | | |
| | Ħ | | 1 | 1 | - <u>2</u>) | | | | | | |
| | n | | | | | | | | | | |
| | FS. | | - | | 1 | 1 | | | | | |
| | 10 | 13 | | | | | | | | | |



Input values as shown in figure 16 and then select: Apply Changes.

For the yellow segment LP-1521, please refer to the table shown in paragraph 18.





Once the changes are applied, select: **OK**, as shown in figure17.



Figure 17

Wait for a minute until the tunnel establishes.

Table with both LP-1521 localed in the blue and yellow segments.

| | Blue | Yellow |
|---------------------------|------------------------|--------------------|
| Enable Tunnel 1 | х | х |
| Connection Name | Tunnel 1 | Tunnel 1 |
| Auth Type | PSK | PSK |
| Local Site | Subnet Address | Subnet Address |
| Local IP Address/Network | 192.168.1.0 | 192.168.2.0 |
| Local Subnet Mask | 255.255.255.0 | 255.255.255.0 |
| Remote Site | Subnet Address | Subnet Address |
| Remote Secure Getway | | |
| Remote Getway Domain Name | labamarillo.dyndns.org | labazul.dyndns.org |
| Remote IP Address/Network | 192.168.2.0 | 192.168.1.0 |
| Remote Subnet Mask | 255.255.255.0 | 255.255.255.0 |
| Local ID Type | IP | IP |
| Local ID | | |
| Remote ID Type | IP | IP |
| Remote ID | | |
| Key Management | IKE | IKE |
| Connection Type | Initiator | Responder |
| ESP | 3DES | 3DES |
| | MD5 | MD5 |
| PreShared Key | 1234567890 | 1234567890 |

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If you wish to force a tunnel connection, in the window shown in figure 19, select: **connect** from any point of the VPN. The tunnel will stay in open state while it is enabled.

| Key Management: | KE O Manual Advanced |
|-----------------|----------------------------------|
| Connection Type | Responder Connect Disconnets |
| ESP | 3DES 🕑 (Encryption Algorithm) |
| | MD5 🔗 (Authentication Algorithm) |
| PreShared Key | 1234567890 |
| Remote RSA Key | |
| Status | Disconnected |
| Apply Changes | Reset Refesh Back |



If you wish to verify your VPN, in figure 20 you can:

- 1. Visualize the connected state in the VPN window any of the LP-1521's.
- 2. Send a PING from one equipment in the Yellow sub network to one in the blue subnetwork or vice-versa.

| e contents: Satus Setup Wizard Operation Mode Winiteos | VPN Setup This page is used to enable disable VPS function and orient a VPS connection to odd delete. | | | | | | | |
|--|--|-----|-----------|-----------|----------------|----------------|---------------|---------------------|
| | | | | | | | | |
| | meal | | ¢p) | Changes | | | | Show RSA Public Key |
| Setting . | Carro | - | PN Canner | tion Tabl | WAN IP:191 | 14.115.226 | | |
| Statistics DONS Time Zone Setting Denial of Service Log Upgrade Firmware Same/Netoxt Setting Plassword Wats/Dog GoS | - | 181 | Name | Antes | Local Address | Remote Address | Roman Garrage | Sures |
| | 0 | 1 | tunell | ¥. | 182.548.2.0/24 | 1411611024 | 1010 | Constant |
| | | 2 | | | - | 1 | + 1 | 10 A. |
| | | 1 | | | 1 4 | 1 | | 1.1.1 |
| | 0 | 4 | | | | | | n - 1 |
| | ñ | 1 | 14 | | | · · · · | 4 | |
| | n | 1 | | | | | | a 2 - 2 |
| | õ | | 141 | | 1.24 | | ÷ | |
| | D | 1 | | | | • 2 | | a 2 1 |
| | 0 | | 2 | | 3 | 23 | | 100 |
| | n | in. | | | | | 1.1 | |

Figure 20