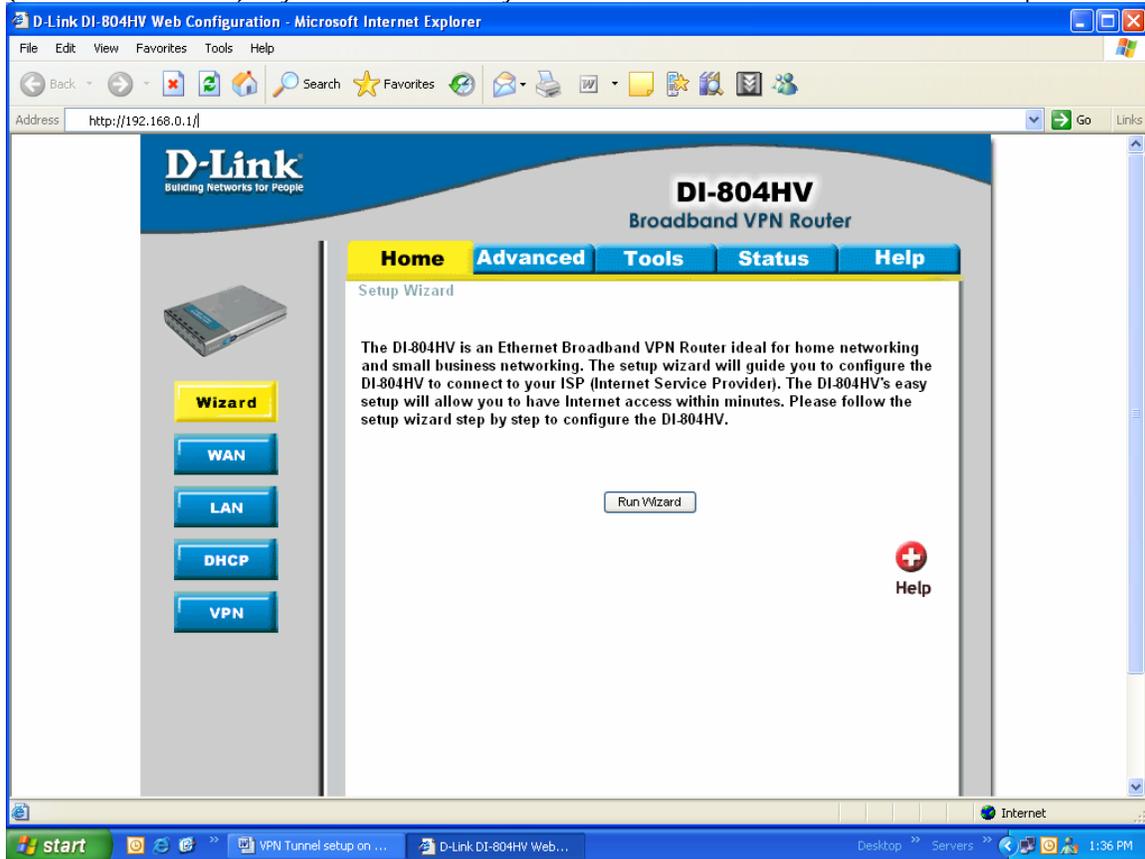


## D-Link Africa Setup Guide Document.

### How do I configure VPN Tunnel between two DI-804HV?

**Step 1** Log into the web based configuration of the router by typing in the IP address of the router (default: 192.168.0.1) in your web browser. By default the username is admin and there is no password.



**Step 2** Click the VPN button on the left column, select the checkbox to Enable the VPN, and then in the box next to Max. number of tunnels, enter the maximum numbers of VPN tunnels that you would like to have connected.

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**Step 3** In the space provided, enter the Tunnel Name for ID number 1, select IKE, and then click More.



The screenshot shows the configuration interface for a D-Link DI-804HV Broadband VPN Router. The page is titled "DI-804HV Broadband VPN Router" and has a navigation menu with "Home", "Advanced", "Tools", "Status", and "Help". The "Advanced" tab is selected, and the "VPN Settings" section is active. On the left side, there are buttons for "Wizard", "WAN", "LAN", "DHCP", and "VPN". The "VPN Settings" section includes a table for general settings and a table for tunnel configurations.

Item	Setting
VPN	<input checked="" type="checkbox"/> Enable
NetBIOS broadcast	<input checked="" type="checkbox"/> Enable
Max. number of tunnels	<input type="text" value="1"/>

ID	Tunnel Name	Method
1	<input type="text" value="Tunnel"/>	IKE <input type="button" value="More"/>
2	<input type="text"/>	IKE <input type="button" value="More"/>
3	<input type="text"/>	IKE <input type="button" value="More"/>
4	<input type="text"/>	IKE <input type="button" value="More"/>
5	<input type="text"/>	IKE <input type="button" value="More"/>

Navigation buttons: Previous page, Next page, Dynamic VPN Settings..., L2TP Server Setting..., PPTP Server Setting..., View VPN Status...  
Action buttons: Apply, Cancel, Help

**Step 4** In the Local Subnet and Local Netmask fields enter the network identifier for the local DI-804HV's LAN and the corresponding subnet mask.

**Step 5** In the Remote Subnet and Remote Netmask fields enter the network identifier for the remote DI-804HV's LAN and the corresponding subnet mask.

**Step 6** In the Remote Gateway field enter the WAN IP address of the remote DI-804HV and in the Preshared Key field, enter a key which must be exactly the same as the Preshared Key that is configured on the remote DI-804HV.

Also enable **Auto-Reconnect**.

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The screenshot shows the configuration interface for a D-Link DI-804HV Broadband VPN Router. The page has a blue header with the D-Link logo and the product name. Below the header are navigation tabs: Home, Advanced, Tools, Status, and Help. The 'Advanced' tab is selected, and the page title is 'VPN Settings - Tunnel 1'. On the left side, there is a sidebar with buttons for Wizard, WAN, LAN, DHCP, and VPN (which is highlighted in yellow). The main content area is a table with two columns: 'Item' and 'Setting'. The table contains the following rows:

Item	Setting
Tunnel Name	<input type="text" value="Tunnel"/>
Aggressive Mode	<input type="checkbox"/> Enable
Local Subnet	<input type="text" value="192.168.0.0"/>
Local Netmask	<input type="text" value="255.255.255.0"/>
Remote Subnet	<input type="text" value="192.168.1.0"/>
Remote Netmask	<input type="text" value="255.255.255.0"/>
Remote Gateway	<input type="text" value="165.165.146.12"/>
IKE Keep Alive (Ping IP Address)	<input type="text"/>
Preshare Key	<input type="password" value="....."/>
Extended Authentication (AUTH)	<input type="checkbox"/> Enable <input type="checkbox"/> Server mode <input type="button" value="Set Local user..."/> <input type="checkbox"/> Client mode
	User Name <input type="text"/>
	Password <input type="password"/>
IPSec NAT Traversal	<input type="checkbox"/> Enable
Auto-reconnect	<input checked="" type="checkbox"/> Enable
Remote ID	Type <input type="text" value="IP Address"/> Value <input type="text"/>
Local ID	Type <input type="text" value="IP Address"/> Value <input type="text"/>
IKE Proposal Index	<input type="button" value="Select IKE Proposal..."/>
IPSec Proposal Index	<input type="button" value="Select IPSec Proposal..."/>

**Step 7** Click Apply and then click on Select IKE Proposal...

**Step 8** Enter a name for proposal ID number 1 and select Group 1, 2, or 5 from the DH Group dropdown menu.

**Step 9** Select DES or 3DES as the Encryption Algorithm and either SHA-1 or MD5 as the Authentication Algorithm.

**Step 10** Enter a Lifetime value and then either select Sec. or KByte as the unit for the lifetime value.

**Step 11** Select 1 out of the Proposal ID dropdown menu and click Add To, which will add the proposal that was just configured to the IKE Proposal Index. Click Apply and then click Back.

# D-Link Africa Setup Guide Document.

**Broadband VPN Router**

Home Advanced Tools Status Help

VPN Settings - Tunnel - Set IKE Proposal

Item Setting

IKE Proposal index - Empty - Remove

ID	Proposal Name	DH Group	Encrypt algorithm	Auth algorithm	Life Time	Life Time Unit
1	IKE01	Group 1	3DES	SHA1	3000	Sec.
2		Group 1	3DES	SHA1	0	Sec.
3		Group 1	3DES	SHA1	0	Sec.
4		Group 1	3DES	SHA1	0	Sec.
5		Group 1	3DES	SHA1	0	Sec.
6		Group 1	3DES	SHA1	0	Sec.
7		Group 1	3DES	SHA1	0	Sec.
8		Group 1	3DES	SHA1	0	Sec.
9		Group 1	3DES	SHA1	0	Sec.
10		Group 1	3DES	SHA1	0	Sec.

Proposal ID: [ ] Add to Proposal index

Navigation icons: Back, Forward, Home, Refresh, Stop, Search, Print, Help, Logout

Windows taskbar: start, VPN Tunnel setup on..., D-Link DI-804HV Web..., Desktop, Servers, 1:41 PM

## D-Link Africa Setup Guide Document.

D-Link DI-804HV Web Configuration - Microsoft Internet Explorer

Address: http://192.168.0.1/

Broadband VPN Router

Home Advanced Tools Status Help

VPN Settings - Tunnel - Set IKE Proposal

Item Setting

IKE Proposal index IKE01 Remove

ID	Proposal Name	DH Group	Encrypt algorithm	Auth algorithm	Life Time	Life Time Unit
1	IKE01	Group 1	3DES	SHA1	3000	Sec.
2		Group 1	3DES	SHA1	0	Sec.
3		Group 1	3DES	SHA1	0	Sec.
4		Group 1	3DES	SHA1	0	Sec.
5		Group 1	3DES	SHA1	0	Sec.
6		Group 1	3DES	SHA1	0	Sec.
7		Group 1	3DES	SHA1	0	Sec.
8		Group 1	3DES	SHA1	0	Sec.
9		Group 1	3DES	SHA1	0	Sec.
10		Group 1	3DES	SHA1	0	Sec.

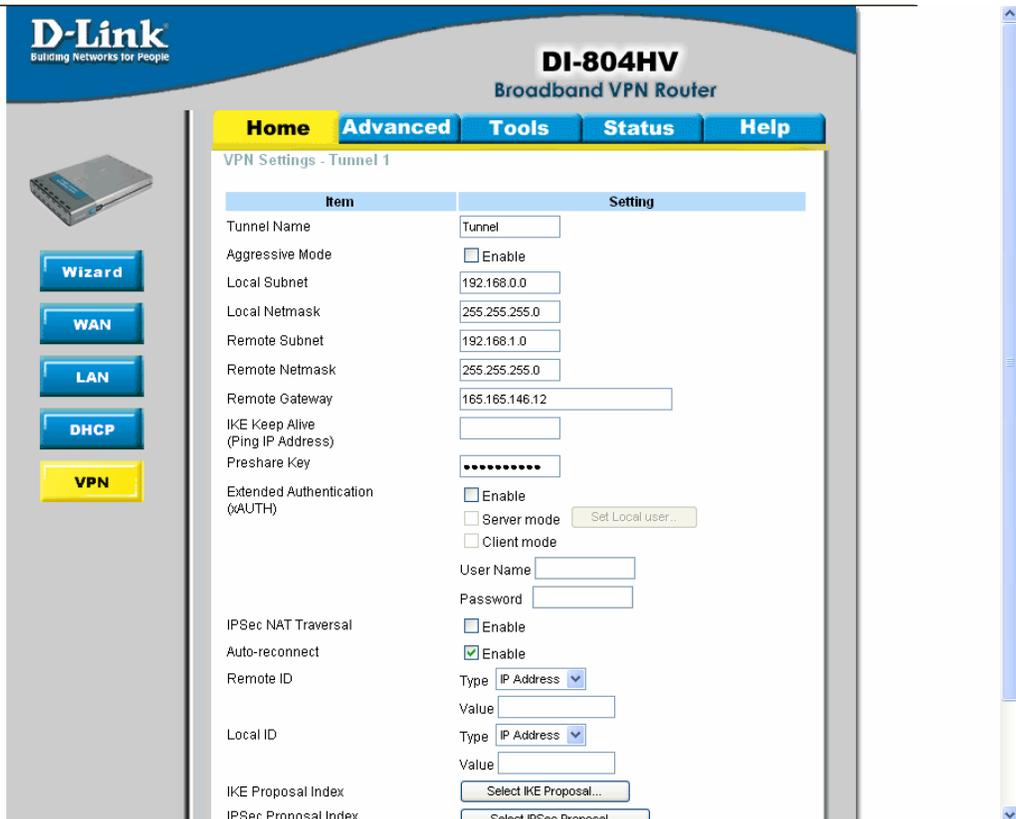
Proposal ID 1 Add to Proposal index

Internet

start VPN Tunnel setup on ... D-Link DI-804HV Web... Desktop Servers 1:41 PM

Step 12 Click on Select IPsec Proposal...

## D-Link Africa Setup Guide Document.



The screenshot shows the configuration page for the D-Link DI-804HV Broadband VPN Router. The page is titled "VPN Settings - Tunnel 1" and features a navigation menu with tabs for Home, Advanced, Tools, Status, and Help. On the left side, there are buttons for Wizard, WAN, LAN, DHCP, and VPN. The main content area is a table with two columns: Item and Setting.

Item	Setting
Tunnel Name	<input type="text" value="Tunnel"/>
Aggressive Mode	<input type="checkbox"/> Enable
Local Subnet	<input type="text" value="192.168.0.0"/>
Local Netmask	<input type="text" value="255.255.255.0"/>
Remote Subnet	<input type="text" value="192.168.1.0"/>
Remote Netmask	<input type="text" value="255.255.255.0"/>
Remote Gateway	<input type="text" value="165.165.146.12"/>
IKE Keep Alive (Ping IP Address)	<input type="text"/>
Preshare Key	<input type="password" value="....."/>
Extended Authentication (AUTH)	<input type="checkbox"/> Enable <input type="checkbox"/> Server mode <input type="button" value="Set Local user..."/> <input type="checkbox"/> Client mode
User Name	<input type="text"/>
Password	<input type="password"/>
IPSec NAT Traversal	<input type="checkbox"/> Enable
Auto-reconnect	<input checked="" type="checkbox"/> Enable
Remote ID	Type: <input type="text" value="IP Address"/> Value: <input type="text"/>
Local ID	Type: <input type="text" value="IP Address"/> Value: <input type="text"/>
IKE Proposal Index	<input type="button" value="Select IKE Proposal..."/>
IPSec Proposal Index	<input type="button" value="Select IPSec Proposal..."/>

**Step 13** Enter a name for proposal ID number 1 and select Group 1, 2, 5, or None from the DH Group dropdown menu.

**Step 14** Select ESP or AH as the Encapsulation Protocol.

**Step 15** Select DES or 3DES as the Encryption Algorithm and either SHA-1, MD5, or None as the Authentication Algorithm.

**Step 16** Enter a Lifetime value and then either select Sec. or KB as the unit for the lifetime value.

**Step 17** Select 1 out of the Proposal ID dropdown menu and click Add To, which will add the proposal that was just configured to the IPSec Proposal Index. Click Apply and then click Restart.

## D-Link Africa Setup Guide Document.

VPN Settings - Tunnel - Set IPSEC Proposal

ID	Proposal Name	DH Group	Encap protocol	Encrypt algorithm	Auth algorithm	Life Time	Life Time Unit
1	IPSEC01	Group 1	ESP	3DES	SHA1	3000	Sec.
2		None	ESP	3DES	None	0	Sec.
3		None	ESP	3DES	None	0	Sec.
4		None	ESP	3DES	None	0	Sec.
5		None	ESP	3DES	None	0	Sec.
6		None	ESP	3DES	None	0	Sec.
7		None	ESP	3DES	None	0	Sec.
8		None	ESP	3DES	None	0	Sec.
9		None	ESP	3DES	None	0	Sec.
10		None	ESP	3DES	None	0	Sec.

Propose ID 1 Add to Proposal index

Back Apply Cancel Help

**Step 18** Follow these instructions to configure your Other DI-804HV using the exact same settings for the IKE Proposal and the IPsec Proposal. Also make sure that Step 4 is configured to reflect the LAN settings for what is now the Local DI-804HV and that Steps 5 & 6 are configured to reflect the Subnet and WAN IP of what is now the Remote DI-804HV

**Step 19** To establish the connection, open a command prompt and ping an IP address of a computer on the remote LAN. Once you receive replies the tunnel has been established.