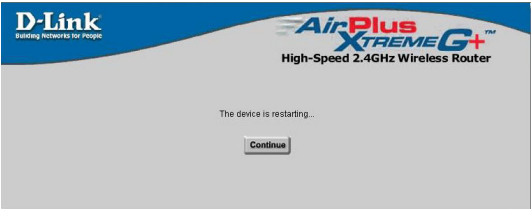


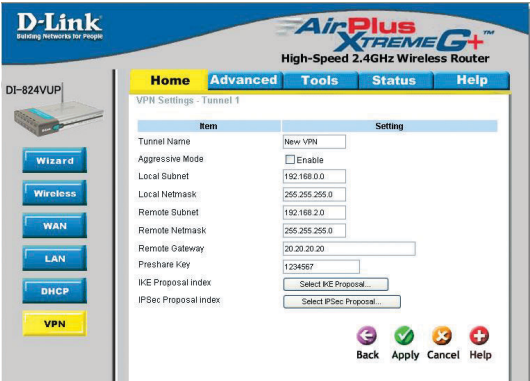
Frequently Asked Questions (continued)

I have two DI-824VUP Routers, how can I set them up to work with each other? (continued)

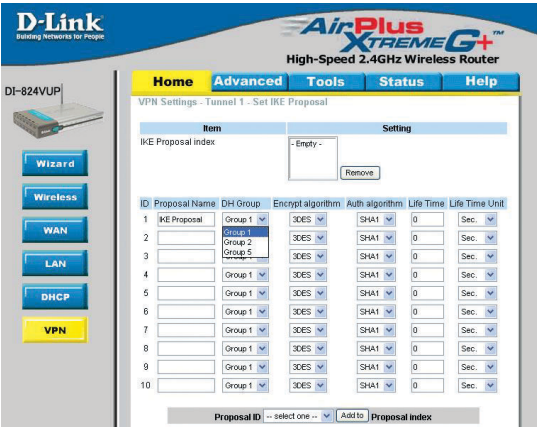
Step 8 The device will restart. Click on the Continue button.



Step 9 Click on Select IKE Proposal.



Step 10 Enter a name for proposal ID number 1 and select Group 1, 2, or 5 from the DH Group dropdown menu.



Frequently Asked Questions (continued)

I have two DI-824VUP Routers, how can I set them up to work with each other? (continued)

Step 11 Select DES or 3DES as the Encryption Algorithm.

D-Link AirPlus Xtreme G+ High-Speed 2.4GHz Wireless Router

Home Advanced Tools Status Help

VPN Settings - Tunnel 1 - Set IKE Proposal

ID	Proposal Name	DH Group	Encrypt algorithm	Auth algorithm	Life Time	Life Time Unit
1	IKE Proposal	Group 1	3DES	SHA1	0	Sec.
2		Group 1	DES	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 -- select one -- Add to Proposal index

Step 12 Select SHA-1 or MD5 as the Authentication Algorithm.

D-Link AirPlus Xtreme G+ High-Speed 2.4GHz Wireless Router

Home Advanced Tools Status Help

VPN Settings - Tunnel 1 - Set IKE Proposal

ID	Proposal Name	DH Group	Encrypt algorithm	Auth algorithm	Life Time	Life Time Unit
1	IKE Proposal	Group 1	3DES	SHA1	0	Sec.
2		Group 1	3DES	MD5	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 -- select one -- Add to Proposal index

Step 13 Enter a Lifetime value of 2800 and then either select Sec. or KByte as the unit for the lifetime value.

D-Link AirPlus Xtreme G+ High-Speed 2.4GHz Wireless Router

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VPN Settings - Tunnel 1 - Set IKE Proposal

ID	Proposal Name	DH Group	Encrypt algorithm	Auth algorithm	Life Time	Life Time Unit
1	IKE Proposal	Group 1	3DES	SHA1	2800	Sec.
2		Group 1	3DES	SHA1	0	KByte
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 -- select one -- Add to Proposal index

Frequently Asked Questions (continued)

I have two DI-808HV Routers, how can I set them up to work with each other? (continued)

Step 14 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.

The screenshot shows the 'VPN Settings - Tunnel 1 - Set IKE Proposal' page. On the left is a sidebar with buttons for Wizard, Wireless, WAN, LAN, DHCP, and VPN (highlighted). The main content area has tabs for Home, Advanced, Tools, Status, and Help. The 'Item' column shows 'IKE Proposal' and the 'Setting' column shows a 'Remove' button. Below is a table with 10 rows for IKE Proposals. Each row has columns for ID, Proposal Name, DH Group, Encrypt algorithm, Auth algorithm, Life Time, and Life Time Unit. The first row is selected. At the bottom, there is an 'Add To' dropdown menu set to 'Proposal Index' and a table of buttons: Back, Apply, Cancel, and Help.

ID	Proposal Name	DH Group	Encrypt algorithm	Auth algorithm	Life Time	Life Time Unit
1	IKE Proposal	Group 1	3DES	SHA1	2000	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.

Step 15 The device will restart. Click on the Continue button. Then click Back.

The screenshot shows the D-Link AirPlus Xtreme G+ High-Speed 2.4GHz Wireless Router interface. The main content area displays the message 'The device is restarting...' with a 'Continue' button below it.

Step 16 Click on Select IPsec Proposal.


The screenshot shows the 'VPN Settings - Tunnel 1 - Set IPsec Proposal' page. On the left is a sidebar with buttons for Wizard, Wireless, WAN, LAN, DHCP, and VPN (highlighted). The main content area has tabs for Home, Advanced, Tools, Status, and Help. The 'Item' column shows 'IPsec Proposal' and the 'Setting' column shows a 'Select IPsec Proposal...' button. Below is a table with 10 rows for IPsec Proposals. Each row has columns for ID, Proposal Name, DH Group, Encrypt algorithm, Auth algorithm, Life Time, and Life Time Unit. The first row is selected. At the bottom, there is an 'Add To' dropdown menu set to 'Proposal Index' and a table of buttons: Back, Apply, Cancel, and Help.

ID	Proposal Name	DH Group	Encrypt algorithm	Auth algorithm	Life Time	Life Time Unit
1	IKE Proposal	Group 1	3DES	SHA1	2000	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.

Frequently Asked Questions (continued)

I have two DI-824VUP Routers, how can I set them up to work with each other?(continued)

Step 17 Enter a name for proposal ID number 1 and select Group 1, 2, 5, or None from the DH Group dropdown menu.



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VPN Settings - Tunnel 1 - Set IPSEC Proposal

Item

Setting


IPSec Proposal Index

Remove

ID	Proposal Name	DH Group	Encap protocol	Encrypt algorithm	Auth algorithm	Life Time	Life Time Unit
1	IPSec Proposal	None	ESP	3DES	None	0	Sec.
2		Group 1	ESP	3DES	None	0	Sec.
3		Group 2	ESP	3DES	None	0	Sec.
4		Group 5	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.

Proposal ID -- select one -- Add to Proposal index

Step 18 Select ESP or AH as the Encapsulation Protocol.



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VPN Settings - Tunnel 1 - Set IPSEC Proposal

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IPSec Proposal Index

Remove

ID	Proposal Name	DH Group	Encap protocol	Encrypt algorithm	Auth algorithm	Life Time	Life Time Unit
1	IPSec Proposal	None	ESP	3DES	None	0	Sec.
2		None	AH	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.

Proposal ID -- select one -- Add to Proposal index

Step 19 Select DES or 3DES as the Encryption Algorithm.



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VPN Settings - Tunnel 1 - Set IPSEC Proposal

Item

Setting

IPSec Proposal Index

Remove

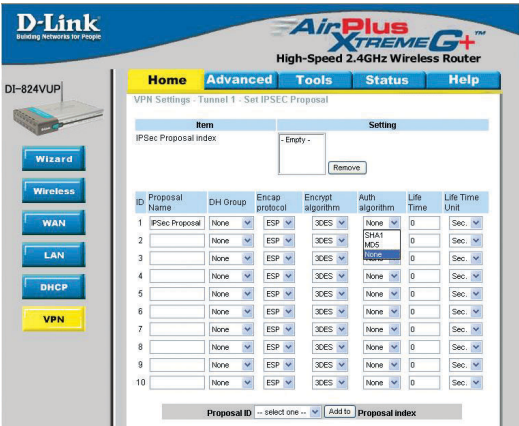
ID	Proposal Name	DH Group	Encap protocol	Encrypt algorithm	Auth algorithm	Life Time	Life Time Unit
1	IPSec Proposal	None	ESP	3DES	None	0	Sec.
2		None	ESP	DES	None	0	Sec.
3		None	ESP	3DES	None	0	Sec.
4		None	ESP	3DES	None	0	Sec.
5		None	ESP	3DES	None	0	Sec.
6		None	ESP	3DES	None	0	Sec.
7		None	ESP	3DES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

Proposal ID -- select one -- Add to Proposal index

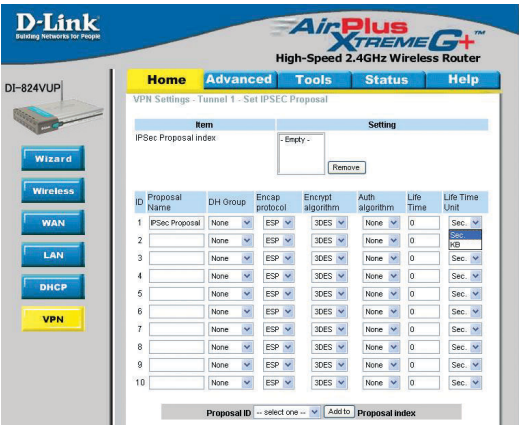
Frequently Asked Questions (continued)

I have two DI-824VUP Routers, how can I set them up to work with each other? (continued)

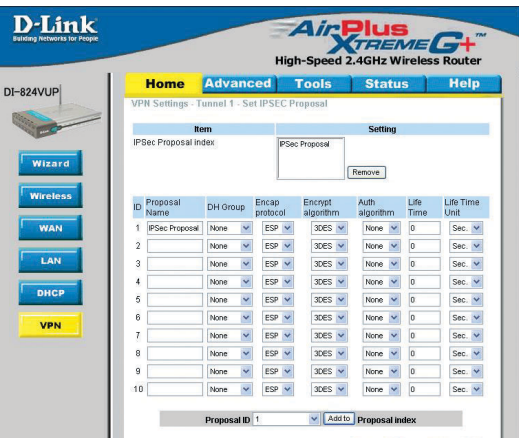
Step 20 Select SHA-1, MD5, or None as the Authentication Algorithm.



Step 21 Enter a Lifetime value and then either select Sec. or KB as the unit for the lifetime value.



Step 22 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 the device will restart.



Frequently Asked Questions (continued)

I have two DI-824VUP Routers, how can I set them up to work with each other? (continued)

Step 23 Follow these instructions to configure your other DI-824VUP 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-824VUP and that Steps 5 & 6 are configured to reflect the Subnet and WAN IP of what is now the remote DI-824VUP.

Step 24 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.

How can I set up my DI-824VUP to work with a DI-804V or DI-804HV Router?

You need to first configure your DI-824VUP router.

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.



Connect to 192.168.0.1

DI-824VUP

User name: admin

Password:

☐ Remember my password

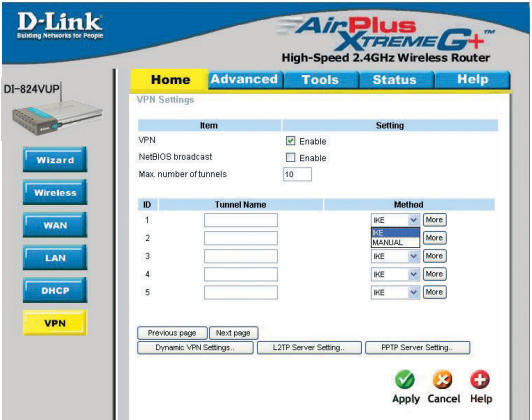
OK Cancel

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.

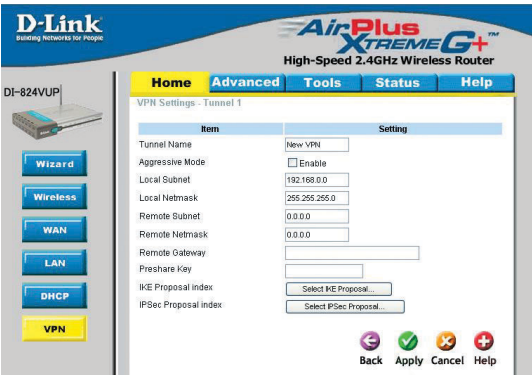
Frequently Asked Questions (continued)

How can I set up my DI-824VUP to work with a DI-804V or DI-804HV Router? (continued)

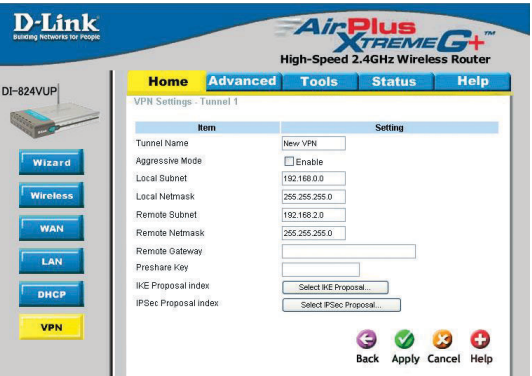
Step 3 In the space provided, enter the Tunnel Name for ID number 1, select IKE, and then click More.



Step 4 In the **Local Subnet** and **Local Netmask** fields enter the network identifier for DI-824VUP’s LAN and the corresponding subnet mask.



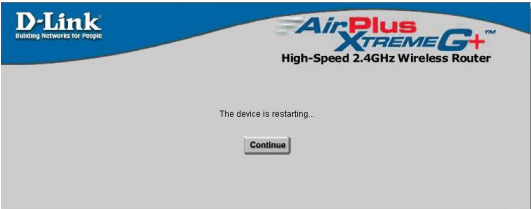
Step 5 In the **Remote Subnet** and **Remote Netmask** fields enter the network identifier for the DI-804V or DI-804HV’s LAN and the corresponding subnet mask. Click Apply.



Frequently Asked Questions (continued)

How can I set up my DI-824VUP to work with a DI-804V or DI-804HV Router? (continued)

Step 6 The device will restart. Click on the Continue button.



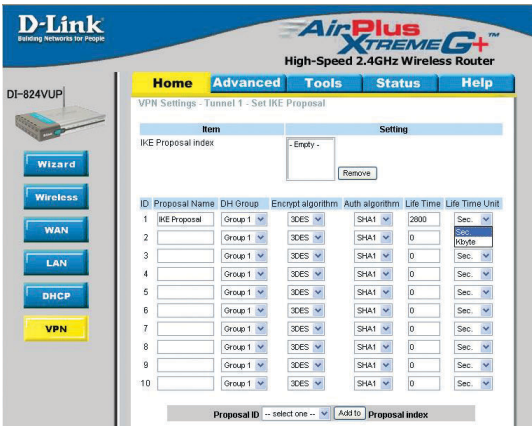
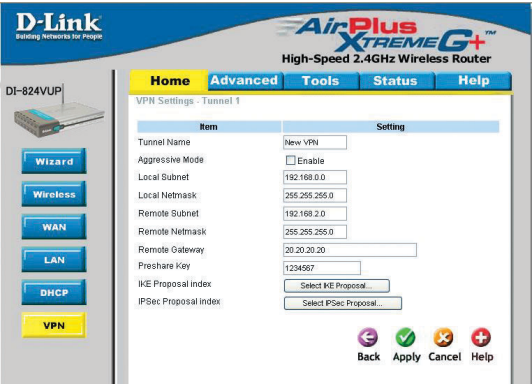
Step 7 In the **Remote Gateway** field enter the WAN IP address of the remote DI-804V or DI-804HV and in the **Preshare Key** field, enter a key which must be exactly the same as the Preshare Key that is configured on the DI-804V or DI-804HV.

Step 8 Click Apply and then click on Select IKE Proposal.

Step 9 Enter a name for proposal ID number 1 and select Group 2 from the DH Group drop down menu.

Step 10 Select 3DES as the Encryption Algorithm and SHA-1 as the Authentication Algorithm.

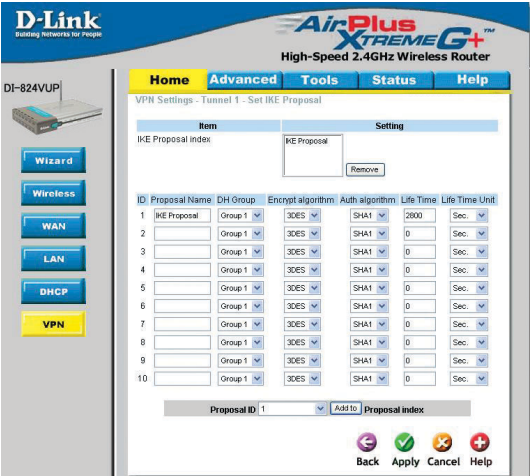
Step 11 Enter a Lifetime value of 28800 and then select Sec. as the unit for the lifetime value.



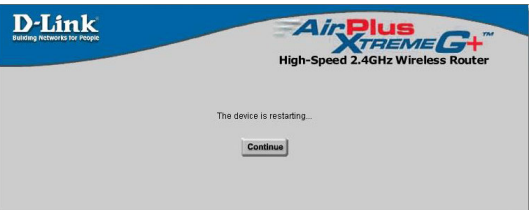
Frequently Asked Questions (continued)

How can I set up my DI-824VUP to work with a DI-804V or DI-804HV Router? (continued)

Step 12 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.



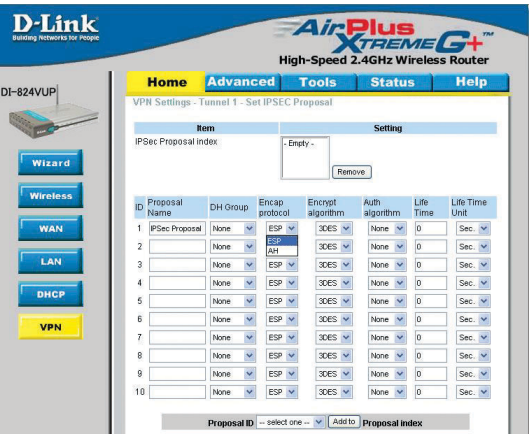
Step 13 The device will restart. Click on the Continue button.



Step 14 Click Back and click on Select IPsec Proposal.

Step 15 Enter a name for proposal ID number 1 and select None from the DH Group drop-down menu.


Step 16 Select ESP as the Encapsulation Protocol.



Frequently Asked Questions (continued)

How can I set up my DI-824VUP to work with a DI-804V or DI-804HV Router? (continued)

Step 17 Select 3DES as the Encryption Algorithm and MD5 as the Authentication Algorithm. Click Apply.



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Building Networks for People

AirPlus Xtreme G+ High-Speed 2.4GHz Wireless Router

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VPN Settings - Tunnel 1 - Set IPSEC Proposal

Item

Setting


IPSec Proposal Index

Empty

Remove

ID	Proposal Name	DH Group	Encap protocol	Encrypt algorithm	Auth algorithm	Life Time	Life Time Unit
1	IPSec Proposal	None	ESP	3DES	MD5	0	Sec.
2		None	ESP	DES	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.

Step 18 Enter a Lifetime value of 3600 and then select Sec. as the unit for the lifetime value.



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VPN Settings - Tunnel 1 - Set IPSEC Proposal

Item

Setting

IPSec Proposal Index


IPSec Proposal

Remove

ID	Proposal Name	DH Group	Encap protocol	Encrypt algorithm	Auth algorithm	Life Time	Life Time Unit
1	IPSec Proposal	None	ESP	3DES	None	3600	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.

Proposal ID 1 Add to Proposal Index

Step 19 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. The device will restart. Click on the Continue button.



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VPN Settings - Tunnel 1 - Set IPSEC Proposal

Item

Setting

IPSec Proposal Index

IPSec Proposal

Remove

ID	Proposal Name	DH Group	Encap protocol	Encrypt algorithm	Auth algorithm	Life Time	Life Time Unit
1	IPSec Proposal	None	ESP	3DES	None	0	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.

Proposal ID 1 Add to Proposal Index

Frequently Asked Questions (continued)

How can I set up my DI-824VUP to work with a DI-804V or DI-804HV Router? (continued)

Next you need to configure the DI-804V or DI-804HV Router.

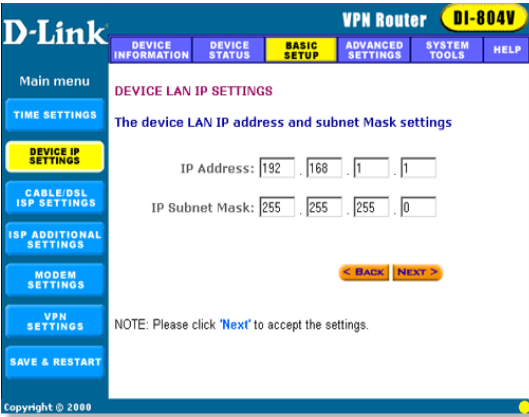
Step 1 Access the router’s web configuration by entering the router’s IP address in your web browser. The default IP address is 192.168.0.1. Login using your password. The default username is “admin” and the password is blank.

Step 2 Click on Basic Setup and then select Device IP Settings on the left.

Step 3 Change the LAN IP address so that it is on a different subnet than the LAN of the DI-824VUP.

Step 4 Click Next until you reach the Save & Restart screen. Click Save & restart and then click Basic Setup once until the unit has rebooted.

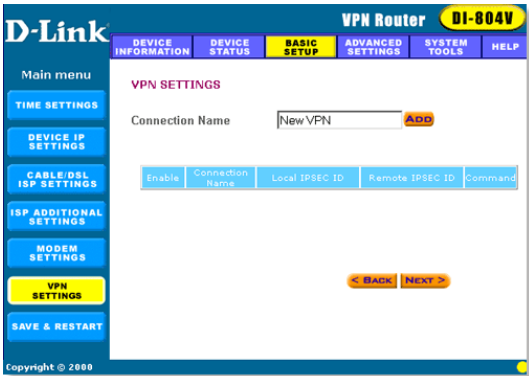
Step 5 Click on VPN Settings.



Step 6 Name your VPN connection and click ADD.

Step 7 In Remote IP Network and Remote IP Netmask fields enter the network identifier and corresponding subnet mask of the DI-824VUP’s LAN.

Step 8 In the Remote Gateway IP field enter the WAN IP address of the DI-824VUP and make sure that the Network Interface is set to WAN Ethernet.



Step 9 Verify that Secure Association is set to IKE and that Perfect Forward Secure is Disabled.

Frequently Asked Questions (continued)

How can I set up my DI-824VUP to work with a DI-804V or DI-804HV Router? (continued)

Step 10 Verify the Encryption Protocol is set to 3DES and enter in your Preshared Key.

Note: The Preshared Key needs to be identical to the one configured on the DI-824VUP.

Step 11 Leave the Key Life and IKE Life Time values at their default levels and click SAVE.

D-Link

VPN Router

DI-804V

DEVICE INFORMATION

DEVICE STATUS

BASIC SETUP

ADVANCED SETTINGS

SYSTEM TOOLS

HELP

Main menu

TIME SETTINGS

DEVICE IP SETTINGS

CABLE/DSL ISP SETTINGS

ISP ADDITIONAL SETTINGS

MODEM SETTINGS

VPN SETTINGS

SAVE & RESTART

VPN SETTINGS

Connection Name

NewVPN

Local IPSEC Identifier

Local

Remote IPSEC Identifier

Remote

Remote IP Network

19216800

Remote IP Netmask

2552552550

Remote Gateway IP

10101010

Network Interface

WAN ETHERNET

Secure Association

☒ IKE

☐ Manual

Perfect Forward Secure

☐ Enabled

☒ Disabled

Encryption Protocol

3DES

PreShared Key

132456

Key Life

3600

Seconds

IKE Life Time

28800

Seconds

SAVE

Step 12 Click Next and then click on Save & Restart.

SAVE & RESTART

After you have configured both routers, you need to establish a connection.

Step 1 Open a command prompt and from a computer on the internal LAN of the DI-824VUP and ping the IP address of a computer that is on the internal LAN of the DI-804V or DI-804HV, or vice versa.

Step 2 Once you begin to receive replies, the VPN connection has been established.

```
D:\>ipconfig
Windows 2000 IP Configuration

Ethernet adapter Local Area Connection 10:

    Connection-specific DNS Suffix  . : 
    IP Address. . . . . : 192.168.1.2
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.1.1

D:\>ping 192.168.0.100

Pinging 192.168.0.100 with 32 bytes of data:

Reply from 192.168.0.100: bytes=32 time=10ms TTL=126
Reply from 192.168.0.100: bytes=32 time<10ms TTL=126
Reply from 192.168.0.100: bytes=32 time<10ms TTL=126
Reply from 192.168.0.100: bytes=32 time<10ms TTL=126

Ping statistics for 192.168.0.100:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 10ms, Average = 2ms
```

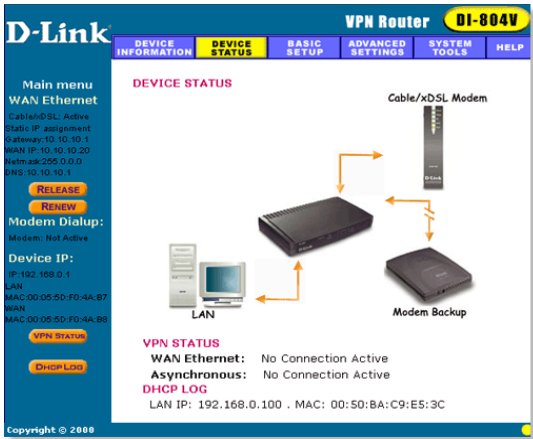
Frequently Asked Questions (continued)

How can I set up my DI-824VUP to work with a DI-804V or DI-804HV router? (continued)

Step 3 To view the Status of the VPN on the DI-804V or DI-804HV, click on Device Status.

Step 4 From the Device Status screen click on VPN Status.

Step 5 When the VPN has been established the Status will be Active.



How can I set up my DI-824VUP to work with a DFL-300 Firewall?

You need to first configure your DI-824VUP router.

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.