Configuration examples for the D-Link NetDefend Firewall series

Scenario: How to configure L2TP and PPTP Servers for remote users when firewall is using PPPoE

Platform Compatibility: All NetDefend Firewall Series

Last update: 2008-03-07

Overview

In this document, the notation *Objects->Address book* means that in the tree on the left side of the screen **Objects** first should be clicked (expanded) and then **Address Book**.

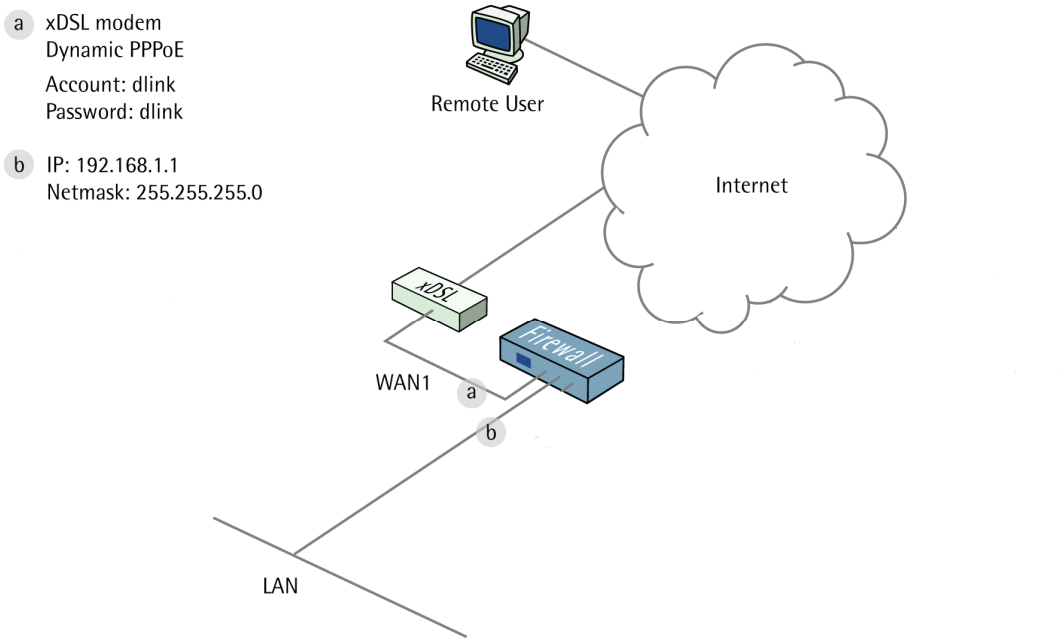
Most of the examples in this document are adapted for the DFL-800. The same settings can easily be used for all other models in the series. The only difference is the names of the interfaces. Since the DFL-1600 and DFL-2500 has more than one lan interface, the lan interfaces are named lan1, lan2 and lan3 not just lan.

The screenshots in this document is from firmware version 2.11.02. If you are using an earlier version of the firmware, the screenshots may not be identical to what you see on your browser.

To prevent existing settings to interfere with the settings in these guides, reset the firewall to factory defaults before starting.

How to configure L2TP and PPTP servers for remote users when firewall is using PPPOE

In this scenario the firewall is connected to ISP. The connection to the first ISP is using a **PPPoE client** on the WAN1 interface provides a **PPTP server** for remote user on the WAN1 interface. The PPTP server uses MPPE encryption.



1. Addresses

Go to *Objects -> Address book -> InterfaceAddresses*.
Edit the following items:
Change **lan_ip** to **192.168.1.1**
Change **lannet** to **192.168.1.0/24**

Go to *Objects -> Address book*.

Add a new Address Folder called **IPPools**.

In the new folder, add a new IP4 Host/Network:
Name: **pptp-ippool**
IP Address: **192.168.1.10-192.168.1.19**

Click Ok

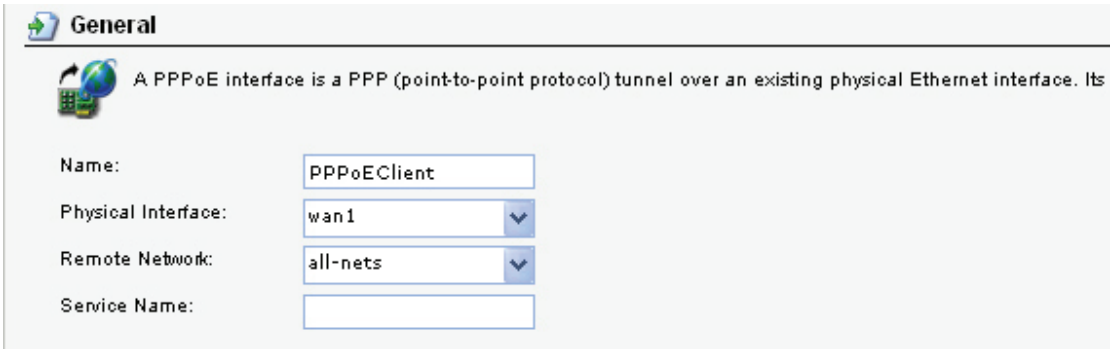
2. PPPoE client

Go to *Interfaces -> PPPoE Tunnels*.

Add a new PPPoE Tunnel.

In the General tab:

General:



Name: **PPPoEClient**
Physical Interface: **wan1**
Remote Network: **all-nets**

Authentication:

Username: **dlink (For Example)**
Password: **dlink**
Confirm Password: **dlink**

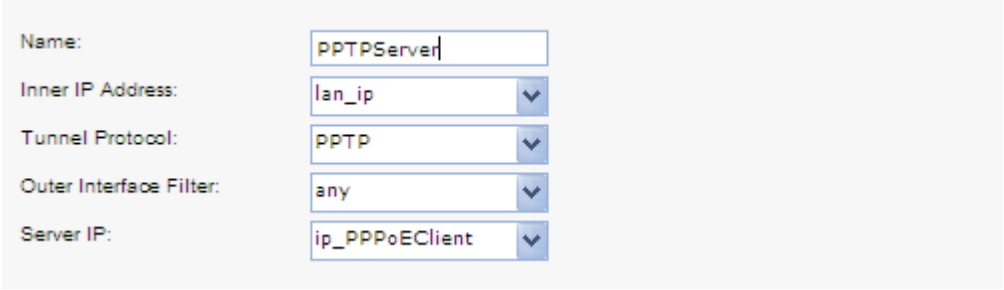
Click Ok.

3. PPTP Server

Go to *Interfaces -> L2TP/PPTP Servers*.

Add a new L2TP/PPTP Server:

In the General tab:



General:

Name: **PPTPServer**
Inner IP Address: **lan_ip**
Tunnel Protocol: **PPTP**
Outer Interface Filter: any
Server IP: **ip_PPPoEClient**（This is the IP that remote users will connect to, in this case the IP the firewall is assigned to by the PPPoE service）

In the PPP Parameters tab:

IP Pool:
IP Pool: **pptp_ippool**

In the Add Route tab:
Allowed Networks: **all-nets**

Click Ok.

Microsoft Point-to-Point Encryption (MPPE):
In this example we will use the default settings. If higher security is wanted, disable all MPPE options except RC4 128 bit (which gives best security).

4. User database

Go to *User Authentication -> Local User Databases*.

Add a new Local Userdatabase called RemoteUsers.

In the new database, add a new User:

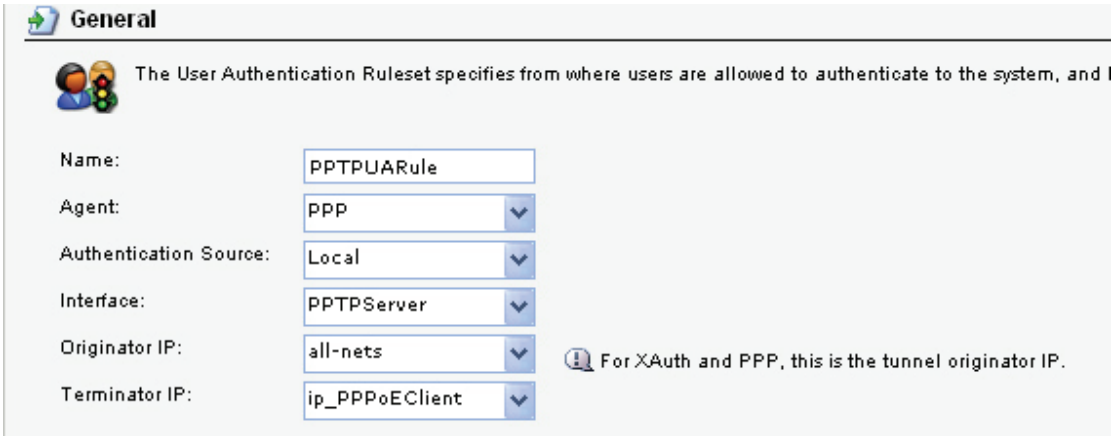
General:
Name: **User**
Password: **User**
Confirm Password: **User**
*Note: Passwords should be chosen wisely so that they cannot be guessed or easily hacked.

5. User Authentication Rules

Go to *User Authentication -> User Authentication Rules*.

Add a new User Authentication Rule:

In the General tab:



General:

Name: **`PPTPUARule`**
Agent: **`PPP`**
Authentication Source: **`Local`**
Interface: **`PPTPServer`**
Originator IP: **`all-nets`**
Terminator IP: **`ip_PPPoEClient`**

In the Authentication Options tab.

General:
Local User DB: **`RemoteUsers`**

Click Ok.

Per-user PPTP/L2TP IP Configuration:
Static Client IP Address could be used to give the remote user an own IP. In this example we will use an IP pool to assign IP addresses to the users.

Click Ok.

6. Dynamic DNS

Go to System -> *Misc. Clients.*

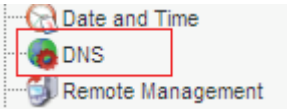
Add a new DynDNSClientDynDNS.Org:

In the General tab:

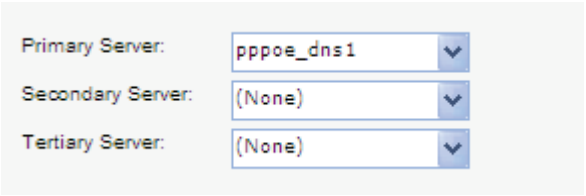
DNSName: dlinktest.dyndns.org
Username: dlink
Password: dlink
Confirm Password: dlink

Click Ok.

Go to System ->*DNS*



Primary Server: pppoe_dns1



Click Ok.

7. Rules

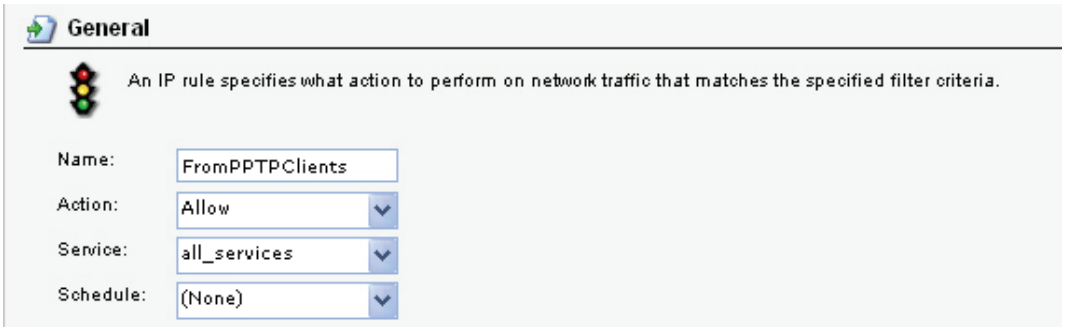
Go to *Rules -> IP Rules*:

Add a new IP Rule Folder called **`RemoteSites`**.

In the new folder, add a new IP Rule:

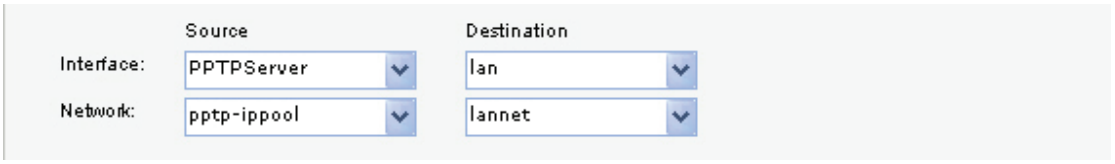
In the General Tab:

General:



Name: **`FromPPTPClients`**
Action: **`Allow`**
Service: **`all_services`**

Address Filter:



Source interface: **`PPTPServer`**
Source network: **`pptp-ippool`**
Destination interface: **`lan`**
Destination network: **`lannet`**

Click Ok.

Save and activate the configuration.