



VPN Tracker for Mac OS X



How-to:

Interoperability with

NETGEAR VPN Router Appliances

Rev. 1.4

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1. Introduction

This document describes how VPN Tracker can be used to establish a connection between a Macintosh running Mac OS X and a NETGEAR VPN Firewall. The entire NETGEAR product range should be compatible with VPN Tracker. equinux has tested the NETGEAR model FVL328 and FVS 318.

The NETGEAR VPN Firewall is configured as a router, connecting a company LAN to the Internet.

The example demonstrates a connection scenario, with a dial-in Mac connecting to a NETGEAR VPN Firewall.

This paper is only a supplement to, not a replacement for, the instructions that have been included with your NETGEAR VPN Firewall. Please be sure to read and understand those instructions before beginning.

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2. Prerequisites

Firstly, you should use a recent NETGEAR firmware version. The latest firmware release for your NETGEAR VPN Firewall can be obtained from:

<http://www.netgear.com>

For this document, firmware version 1.4 has been used.

The type of the VPN Tracker license needed (personal or professional edition) depends on the connection scenario you are using:

- If you connect a dial-in Mac without it's own subnet to the NETGEAR VPN Firewall you need a Personal License.
- If you want to establish a LAN-to-LAN connection from your Mac to the NETGEAR VPN Firewall, you need a VPN Tracker Professional License.

VPN Tracker is compatible with Mac OS X 10.2 or higher.

Be sure to use VPN Tracker 2.0.4 or higher.¹ For this document VPN Tracker version 2.0.4 has been used.

¹ All VPN Tracker versions prior to the 2.0.4 did not include a connection type for NETGEAR products.

3. Connecting a VPN Tracker Host to NETGEAR VPN Firewall using PSK

In this example, the Mac running VPN Tracker is directly connected to the internet via a dialup or PPP connection.² The NETGEAR VPN Firewall is configured in NAT mode and has the static WAN IP address 169.1.2.3 and the private LAN IP address 192.168.1.1. The stations in the LAN behind the NETGEAR VPN Firewall use 192.168.1.1 as their default gateway and should have a working Internet connection.

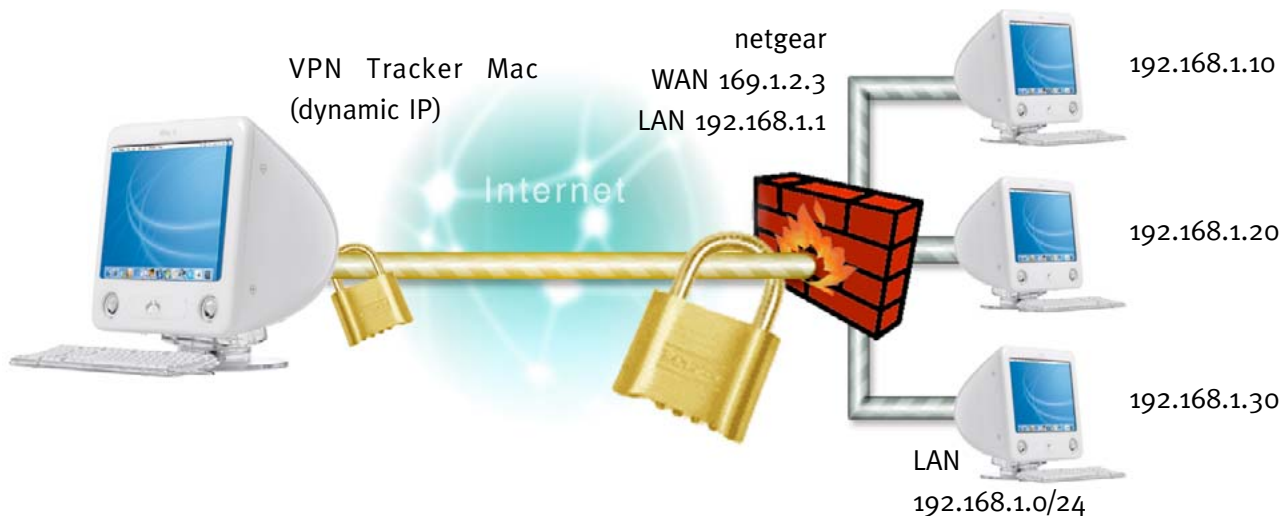


Figure 1: VPN Tracker - NETGEAR VPN Firewall connection diagram (host to network)

² Please note that the connection via a router, which uses Network Address Translation (NAT), only works if the NAT router supports „IPsec passthrough“. Please contact your router’s manufacturer for details.

3. Connecting a VPN Tracker Host to NETGEAR VPN Firewall using PSK

NETGEAR offers 2 different types of VPN gateways, the NETGEAR FVL 328 and the FVS 318. The configuration for the FVS 318 is described in chapter 3.1. Please see chapter 3.2 for the FVL 328 configuration.

3.1 NETGEAR FVS 318 Firewall configuration

The pre-defined VPN Tracker connection type has been created using the default settings on NETGEAR VPN Firewall. If you change any of the settings on the NETGEAR VPN Firewall VPN router, you will subsequently have to adjust the connection type in VPN Tracker.

Step 1

NETGEAR VPN settings:

Please go to Setup -> VPN Settings and enter a "Connection Name" e.g. vpntracker. You have to use identifiers in the passage 'Local' and 'Remote'. These settings refer to the "Local" and "Remote identifier" settings in VPN Tracker. Please type in an arbitrary local and remote identifier (e.g. "netgear" and "vpntracker").

Select "a subnet of local address" where the "Tunnel can be accessed from". Enter in the field "Local LAN start IP Address" the Network IP Address of your local network on the Netgear side. The "Local LAN IP Subnetmask" has to be entered as well.

The tunnel can access "a single remote address". Enter here your "virtual" private IP address e.g. 10.1.2.3. These settings refer to the "local host" setting in VPN Tracker.

You have to use the "Aggressive Mode" and the Perfect Forward Secrecy must be disabled. The pre-defined connection type for NETGEAR uses 3DES and the Diffie-Hellman Group 1.

Finally you have to enter your Pre-shared key.

3. Connecting a VPN Tracker Host to NETGEAR VPN Firewall using PSK

The pre-defined connection type “Netgear” is based on these settings. Please check all fields. The values should be exactly the same as shown on the screenshot below.

The screenshot displays the NETGEAR FVS318 ProSafe VPN Firewall settings page. The left sidebar contains navigation links for Setup Wizard, Setup (Basic Settings, VPN Settings, Security, Maintenance, Advanced), and Logout. The main content area is titled "VPN Settings - Aggressive Mode" and contains the following fields:

- Connection Name: vpntracker
- Local IPSec Identifier: netgear
- Remote IPSec Identifier: vpntracker
- Tunnel can be accessed from: a subnet of local address
- Local LAN start IP Address: 192.168.0.0
- Local LAN finish IP Address: 0.0.0.0
- Local LAN IP Subnetmask: 255.255.255.0
- Tunnel can access: a single remote address
- Remote LAN start IP Address: 10.1.2.3
- Remote LAN finish IP Address: 0.0.0.0
- Remote LAN IP Subnetmask: 0.0.0.0
- Remote WAN IP or FQDN:
- Secure Association: Aggressive Mode
- Perfect Forward Secrecy: ☐ Enabled ☒ Disabled
- Encryption Protocol: 3DES
- Key Group: Diffie-Hellman Group1
- PreShared Key: presharedkey
- Key Life: 3600 Seconds
- IKE Life Time: 28800 Seconds
- ☐ NETBIOS Enable

At the bottom of the form are "Apply" and "Cancel" buttons. On the right side, there is a "VPN Settings Help" section with a description of VPN and a list of steps to set up a VPN Security Association (SA).

VPN Settings Help

A Virtual Private Network (VPN) allows two hosts or networks to connect securely over the public Internet. For each secure connection, you must create and configure a Security Association (SA), which is a set of policies and keys for authentication and encryption between the two sides.

To set up a VPN Security Association (SA):

1. Select the button for the connection you want to configure. For new connections, select an empty row in the table.
2. Click **Edit** to open the editing menu.
3. Type a name for this Security Association in the **Connection Name** box. (Used for identification purposes only.)
4. Enter a **Local IPSec Identifier** name for this router. This name must be entered in the other endpoint as the Remote IPSec Identifier.
5. Enter a **Remote IPSec Identifier** name for the remote router or host. This name must be entered in the other endpoint as the Local IPSec Identifier.
6. Define the local network. Select where the tunnel can be accessed from and enter the IP addresses:
 - o Any local address
 - o A subnet of local addresses
 - o A range of local addresses
 - o A single local address
7. Define the remote network. Select the tunnel access and enter the IP addresses:
 - o A subnet of remote addresses
 - o A range of remote addresses
 - o A single remote address
 - o The remote WAN IP or Fully Qualified Domain Name (FQDN)

Figure 2: NETGEAR FVS 318 - VPN settings

3. Connecting a VPN Tracker Host to NETGEAR VPN Firewall using PSK

3.2 NETGEAR VPN FVL 328 Firewall configuration

Step 1

IKE Policy Configuration:

Go to [VPN -> IKE Policies] and add a new policy. Enter a connection name (e.g. vpn-ike) and use “Remote Access” as Direction Mode. You have to use identifiers in the passage ‘Local’ and ‘Remote’. This settings refers to the “Local-“ and “Remote identifiers” settings in VPN Tracker. Please type in a arbitrary local and remote identifier (e.g. “netgear” and “vpntracker”).

Finally you have to choose “Pre-shared Key” as “Authentication Method” and enter your pre-shared secret in the field below.

The pre-defined connection type “Netgear” is based on default settings. Please check all fields. The values should be exactly the same as shown on the screenshot below.

The screenshot shows the 'settings' page of a NETGEAR FVL328 ProSafe High-Speed VPN Firewall. The left sidebar contains a navigation menu with categories: Setup Wizard, Setup, Basic Settings, Security, Logs, Block Sites, Rules, Services, Schedule, E-mail, VPN, IKE Policies, VPN Policies, CAs, Certificates, CRL, VPN Status, Maintenance, Router Status, Attached Devices, Settings Backup, Set Password, Diagnostics, Router Upgrade, Advanced, Dynamic DNS, and LAN IP Setup. The main content area is titled 'IKE Policy Configuration' and contains the following fields:

- General**
 - Policy Name: vpn-ike
 - Direction/Type: Remote Access
 - Exchange Mode: Aggressive Mode
- Local**
 - Local Identity: ☐ Local IP address, ☒ Name: netgear
- Remote**
 - Remote Identity: ☐ Remote IP address, ☒ Name: vpntracker
- IKE SA Parameters**
 - Encryption Algorithm: 3DES
 - Authentication Algorithm: MD5
 - Authentication Method: ☒ Pre-shared Key, ☐ RSA Signature
 - Diffie-Hellman (DH) Group: Group 1 (768 Bit)
 - SA Life Time: 180 (secs)

At the bottom are 'Back', 'Apply', and 'Cancel' buttons. On the right, there is an 'IKE Policy Configuration Help' sidebar with text explaining the fields and a list of bullet points regarding connection types and modes.

Figure 3: IKE Policy Configuration

3. Connecting a VPN Tracker Host to NETGEAR VPN Firewall using PSK

After this steps the configuration should look like this:

The screenshot shows the NETGEAR FVL328 ProSafe High-Speed VPN Firewall settings page. The left sidebar contains a navigation menu with categories: Setup Wizard, Setup (Basic Settings), Security (Logs, Block Sites, Rules, Services, Schedule, E-mail), VPN (IKE Policies, VPN Policies, CAs, Certificates, CRL, VPN Status), Maintenance (Router Status, Attached Devices, Settings Backup, Set Password, Diagnostics, Router Upgrade), and Advanced (Dynamic DNS, LAN IP Setup). The main content area is titled 'IKE Policies' and features a 'Policy Table' with the following data:

#	Name	Mode	Local ID	Remote ID	Encr	Auth	DH
1	vpn-ike	Aggressive	netgear	vpntracker	3DES	MD5	Group 1 (768 Bit)

Below the table are buttons for 'Add', 'Edit', 'Move', and 'Delete'. On the right, the 'IKE Policies Help' section provides an overview of the IKE protocol and a list of operations:

- IKE Policies Help Overview**
 - The IKE (Internet Key Exchange) protocol performs negotiations between the 2 VPN Gateways, and provides automatic management of the keys used in it's use.
 - "Auto" VPN policies MUST use IKE.
 - "Manual" VPN policies can NOT use IKE.
- IKE Operation**
 - The VPN Policy Selector determines that some traffic matches an existing VPN Policy.
 - If the VPN policy is of type "Auto", then the IKE Policy table is accessed.
 - The first matching IKE Policy is used to start negotiations with the remote VPN Gateway.
 - If negotiations fail, the next matching IKE Policy is used.
 - If none of the matching IKE Policies are acceptable to the remote VPN Gateway, then a VPN tunnel cannot be established.
 - An IKE session is established with the CA.

Figure 4: IKE Policies

3. Connecting a VPN Tracker Host to NETGEAR VPN Firewall using PSK

Step 2

VPN IKE / IPSec Setup:

Go to [VPN -> VPN Policies] and add a new “Auto Policy”. Enter a policy name (e.g. vpn-pol) and choose as “IKE policy” the previously defined policy “vpn-ike”. The “Remote VPN Endpoint” Address is 0.0.0.0.

In the “Traffic Selector” passage choose “Any” as “Local IP” and “Remote IP”.

Enable the “ESP configuration” by checking “Enable Encryption” and “Enable Authentication”. Please change the “Encryption Algorithm” from “DES” to “3DES”.

The screenshot shows the 'VPN - Auto Policy' configuration page in the NETGEAR FVL328 ProSafe High-Speed VPN Firewall settings. The page is divided into three main sections: General, Traffic Selector, and AH/ESP Configuration. The General section includes fields for Policy Name (vpn-pol), IKE policy (vpn-ike), Remote VPN Endpoint (0.0.0.0), SA Life Time (300 seconds), and PFS Key Group (Group 1 (768 bit)). The Traffic Selector section has dropdown menus for Local IP and Remote IP, both set to 'Any', and corresponding IP address and subnet mask fields. The AH Configuration section has checkboxes for 'Enable Authentication' and 'Enable Encryption', with 'Enable Encryption' checked. The ESP Configuration section also has checkboxes for 'Enable Encryption' and 'Enable Authentication', both checked. The Encryption Algorithm is set to '3DES' and the Authentication Algorithm is set to 'MD5'. A sidebar on the left contains navigation links for Setup Wizard, Setup, Basic Settings, Security, Logs, Block Sites, Rules, Services, Schedule, E-mail, VPN, IKE Policies, VPN Policies, CAs, Certificates, CRL, VPN Status, Maintenance, Router Status, Attached Devices, Settings Backup, Set Password, Diagnostics, Router Upgrade, Advanced, Dynamic DNS, and LAN IP Setup. A 'VPN Auto Policy Help' sidebar on the right provides additional information about the policy.

NETGEAR FVL328 ProSafe High-Speed VPN Firewall settings

VPN - Auto Policy

General

Policy Name: vpn-pol

IKE policy: vpn-ike

Remote VPN Endpoint: 0.0.0.0

SA Life Time: 300 (Seconds)

0 (Kbytes)

☐ IPsec PFS

PFS Key Group: Group 1 (768 bit)

Traffic Selector

Local IP: Any

Start IP address: 0.0.0.0

Finish IP address: 0.0.0.0

Subnet Mask: 0.0.0.0

Remote IP: Any

Start IP address: 0.0.0.0

Finish IP address: 0.0.0.0

Subnet Mask: 0.0.0.0

AH Configuration

☐ Enable Authentication

Authentication Algorithm: MD5

ESP Configuration

☒ Enable Encryption

Encryption Algorithm: 3DES

☒ Enable Authentication

Authentication Algorithm: MD5

VPN Auto Policy Help

This screen allows you to define or edit an "Auto" VPN policy.

An "Auto" VPN policy uses the IKE (Internet Key Protocol) to exchange and negotiate parameters for the IPsec SA (Security Association). Because of this negotiation, it is not necessary for all settings on this VPN Gateway to match the settings on the remote VPN endpoint. Where settings must match, this is indicated.

General

These settings identify this policy and determine its major characteristics.

Name

Enter a unique name to identify this policy. This name is not supplied to the remote VPN endpoint. It is used only to help you manage the policies.

IKE policy

The existing IKE policies are presented in a drop-down list. The required IKE policy must be created BEFORE the VPN policy. Select the desired IKE policy.

Remote VPN Endpoint

Figure 5: VPN - Auto Policy

3. Connecting a VPN Tracker Host to NETGEAR VPN Firewall using PSK

After step 2 the configuration should look like this:

The screenshot shows the NETGEAR FVL328 ProSafe High-Speed VPN Firewall settings page. The left sidebar contains a navigation menu with categories: Setup Wizard, Setup, Basic Settings, Security, Logs, Block Sites, Rules, Services, Schedule, E-mail, VPN, IKE Policies, VPN Policies, CAs, Certificates, CRL, VPN Status, Maintenance, Router Status, Attached Devices, Settings Backup, Set Password, Diagnostics, Router Upgrade, Advanced, Dynamic DNS, and LAN IP Setup. The main content area is titled 'VPN Policies' and features a 'Policy Table' with the following data:

	#	Enable	Name	Type	Local	Remote	AH	ESP
	1	<input checked="" type="checkbox"/>	vpn-pol	Auto	Any	Any	Disabled	ESP

Below the table are buttons for 'Edit', 'Move', 'Delete', 'Apply', and 'Cancel'. At the bottom of the main area are buttons for 'Add Auto Policy' and 'Add Manual Policy'. On the right side, there is a 'VPN Policies Help' section with the following text: 'This screen allows you to manage VPN policies.' and a list of bullet points: 'Traffic covered by a policy will automatically be sent via a VPN tunnel.', 'Where traffic is covered by 2 or more policies, the first matching policy will be used (in this situation, the order of the policies is important. However, if you only have 1 policy for each remote VPN Endpoint, then the policy order is not important).', 'The VPN tunnel is created according to the parameters in the SA (Security Association).', and 'The remote VPN Endpoint must have a matching SA, or it will refuse the connection.' Below this, it states 'There are 2 types of VPN Policies:' and lists 'Manual' (All settings including keys are manually input at each end) and 'Auto' (Some parameters are generated automatically using IKE).

Figure 6: VPN Policies

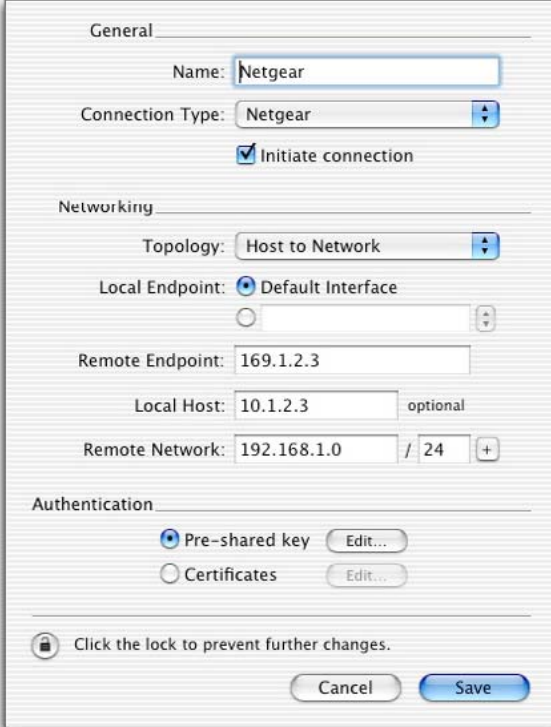
3. Connecting a VPN Tracker Host to NETGEAR VPN Firewall using PSK

3.3 VPN Tracker configuration

Step 1

Add a new connection with the following options: Choose „Netgear“ as the Connection Type, „Host to Network“ as Topology, then type in the remote endpoint (169.1.2.3) and the remote network (192.168.1.0/24).

If you are using the NETGEAR FVS 318 VPN Firewall, you have to enter an IP address in the field “local host”. This address must be the same as that which you entered in chapter 3.1 figure 2 (e.g. 10.1.2.3). If you are using the FVL 328 router, you could leave this field empty.



The screenshot shows the 'VPN Tracker Main Window' configuration dialog. It is divided into three sections: General, Networking, and Authentication. In the General section, the 'Name' field is set to 'Netgear', 'Connection Type' is 'Netgear', and the 'Initiate connection' checkbox is checked. In the Networking section, 'Topology' is 'Host to Network', 'Local Endpoint' is 'Default Interface', 'Remote Endpoint' is '169.1.2.3', 'Local Host' is '10.1.2.3' (marked as optional), and 'Remote Network' is '192.168.1.0 / 24'. In the Authentication section, 'Pre-shared key' is selected. At the bottom, there is a lock icon with the text 'Click the lock to prevent further changes.' and 'Cancel' and 'Save' buttons.

Section	Field/Option	Value
General	Name	Netgear
	Connection Type	Netgear
	Initiate connection	<input checked="" type="checkbox"/>
Networking	Topology	Host to Network
	Local Endpoint	Default Interface
	Remote Endpoint	169.1.2.3
	Local Host	10.1.2.3 (optional)
	Remote Network	192.168.1.0 / 24
Authentication	Pre-shared key	<input checked="" type="radio"/>
	Certificates	<input type="radio"/>

Figure 7: VPN Tracker Main Window

3. Connecting a VPN Tracker Host to NETGEAR VPN Firewall using PSK

Step 2

Select as “Authentication” method „Pre-shared key“ and click “Edit...”. Type in the same shared secret that you typed-in in the NETGEAR router (Figure 2). Type in your local identifiers (e.g. vpntracker) and the remote one (e.g. netgear). The local identifier in VPN tracker is the remote identifier in the NETGEAR configuration and vice versa.



Figure 8: VPN Tracker - Authentication dialog

Step 3

Save the connection and Click „Start IPsec“ in the VPN Tracker main window.

You're done. After 10-20 seconds the red status indicator for the connection should change to green, which means you're securely connected to the NETGEAR VPN Firewall. After IPsec has been started, you may quit VPN Tracker. The IPsec service will keep running.

Simply test your connection by pinging a host in the NETGEAR VPN Firewall network from the dialed-in Mac in the “Terminal” utility:

```
ping 192.168.1.1
```

❖ Debugging

If the status indicator does not change to green please have a look at the log file on both sides. You can define the amount of information available in the log file in the VPN Tracker preferences.

4. Connecting a VPN Tracker Host to a NETGEAR VPN Firewall using Certificates

First, make sure to use VPN Tracker 2.0.5 or higher, because of major updates in Certificate management. You need a CA with private key, so one VPN Tracker Professional Edition is required if you don't actually have a signing CA. Only one VPN Tracker Professional Edition is required, other VPN users can use a Personal Edition. For further information please refer to chapter 3 in the VPN Tracker manual.

4.1 NETGEAR VPN Firewall configuration

Step 1

IKE Policy Configuration:

Go to [VPN -> IKE Policies] and add a new policy. Enter a connection name (e.g. vpn-ike) and use "Remote Access" as Direction Mode (this implicates the "Aggressive Mode"). You have to use identifiers in the passage 'Local' and 'Remote'. This settings refers to the "Local-" and "Remote identifiers" settings in VPN Tracker and the optional domain name field in the certificates. Please type in a arbitrary "Full Qualified Domain name" identifier (e.g. "netgear" and "vpntracker").

Finally you have to choose "RSA Signature" as "Authentication Method".

4. Connecting a VPN Tracker Host to a NETGEAR VPN Firewall using Certificates

The screenshot shows the NETGEAR FVL328 ProSafe High-Speed VPN Firewall settings page. The left sidebar contains a navigation menu with categories: Setup Wizard, Setup (Basic Settings, Security, Logs, Block Sites, Rules, Services, Schedule, E-mail), VPN (IKE Policies, VPN Policies, CAs, Certificates, CRL, VPN Status), Maintenance (Router Status, Attached Devices, Settings Backup, Set Password, Diagnostics, Router Upgrade), and Advanced (WAN Setup, Dynamic DNS). The main content area is titled 'IKE Policy Configuration' and is divided into several sections: General (Policy Name: vpntrike, Direction/Type: Remote Access, Exchange Mode: Aggressive Mode), Local (Local Identity Type: Fully Qualified Domain Name, Local Identity Data: netgear), Remote (Remote Identity Type: Fully Qualified Domain Name, Remote Identity Data: vpntracker), and IKE SA Parameters (Encryption Algorithm: 3DES, Authentication Algorithm: MD5, Authentication Method: RSA Signature (requires Certificate), Diffie-Hellman (DH) Group: Group 1 (768 Bit), SA Life Time: 100 (secs)). At the bottom are 'Back', 'Apply', and 'Cancel' buttons. On the right, there is an 'IKE Policy Configuration Help' sidebar with a 'General' section explaining the purpose of the IKE policy and providing instructions for the 'Policy Name' and 'Direction Type' settings.

Figure 9: IKE Policy Configuration

Step 2

VPN IKE / IPSec Setup:

The setup of adding a Auto VPN Policy works the same way as described in step 2 in section 3.

Step 3

Certificates Setup:

Please go to [VPN -> Certificates] and generate a “Certificate Request”. Enter a name and a subject for the Certificate. Choose a “Signature key length” of “1024” Bit.

You have to use a “Optional” “Domain Name”. This setting refers to the “Local Identifier” in the IKE Policies and the remote identifier in VPN Tracker.

Note: Please make sure, that the time in [Security -> Schedule -> Date/Time] is set to your local time zone, otherwise you can't generate and sign the self certificate, explained in step 4-6.

4. Connecting a VPN Tracker Host to a NETGEAR VPN Firewall using Certificates

The screenshot shows the NETGEAR FVL328 ProSafe High-Speed VPN Firewall settings page. The left sidebar contains a navigation menu with categories: Setup Wizard, Setup, Basic Settings, Security, VPN, Maintenance, and Advanced. The main content area is titled 'Generate Self Certificate Request' and contains two sections: 'Required' and 'Optional'. The 'Required' section has fields for Name (netgear), Subject (netgear), Hash Algorithm (MD5), Signature Algorithm (RSA), and Signature Key Length (1024). The 'Optional' section has fields for IP Address, Domain Name (netgear), and E-mail Address. At the bottom are 'Back', 'Next', and 'Cancel' buttons. On the right, there is a 'Generate Self Certificate Request Help' sidebar with text explaining self-certificates and a list of options for Hash Algorithm (MD5, SHA1) and Signature Algorithm (RSA, SHA1).

Figure 10: Generate Self Certificate Request

Step 4

Save the certificate request in a text file. Import the Request in the “Request” tab in VPN Tracker. Finally “Sign” the request with a CA. The “Alternative Name” field is pre-defined with the value you entered in the certificate signing request. It should be the same as the “Alternate Subject Name”, defined before.

Please note: This feature requires the VPN Tracker Professional Edition.

The screenshot shows the 'Sign Certificate' dialog box. It has two main sections: 'Settings' and 'Extensions'. In the 'Settings' section, there is a 'Signing CA' dropdown menu set to 'equinix Inc. CA' and a 'Validity' field set to '356 days'. In the 'Extensions' section, there is an 'Alternative Name' field set to 'DNS' and 'netgear'. Below this are three radio buttons for 'Certificate Type': 'Client', 'Email', and 'Server'. At the bottom, there is a 'Basic Constraints' section with a 'Critical' checkbox. At the very bottom are 'Cancel', 'Previous', and 'Next' buttons.

Figure 11: VPN Tracker - Sign Certificate

4. Connecting a VPN Tracker Host to a NETGEAR VPN Firewall using Certificates

Step 5

Go to [VPN -> CAs] and import the CA which you used for signing into the NETGEAR router. The CA file must be exported in the PEM- format.

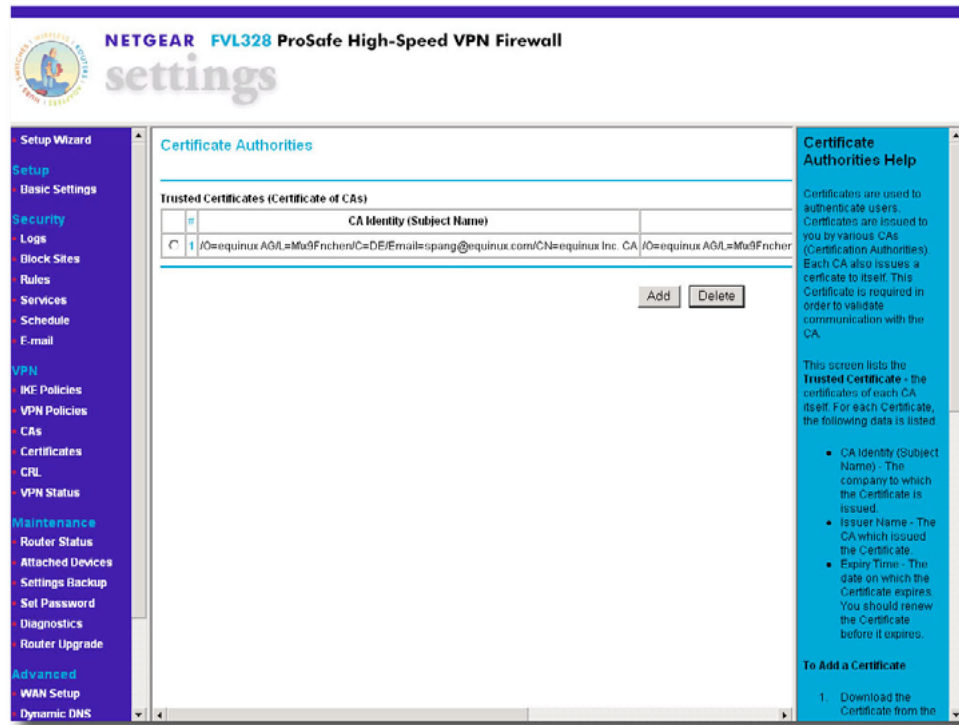


Figure 12: Netgear Certificate Authorities window

Step 6

Export the signed certificate in the PEM- format and “upload the Certificate” in the NETGEAR router.

Please note: The subject name of the certificate must look like this: “FQDN: netgear”

After step 6 the configuration should look like this:

4. Connecting a VPN Tracker Host to a NETGEAR VPN Firewall using Certificates

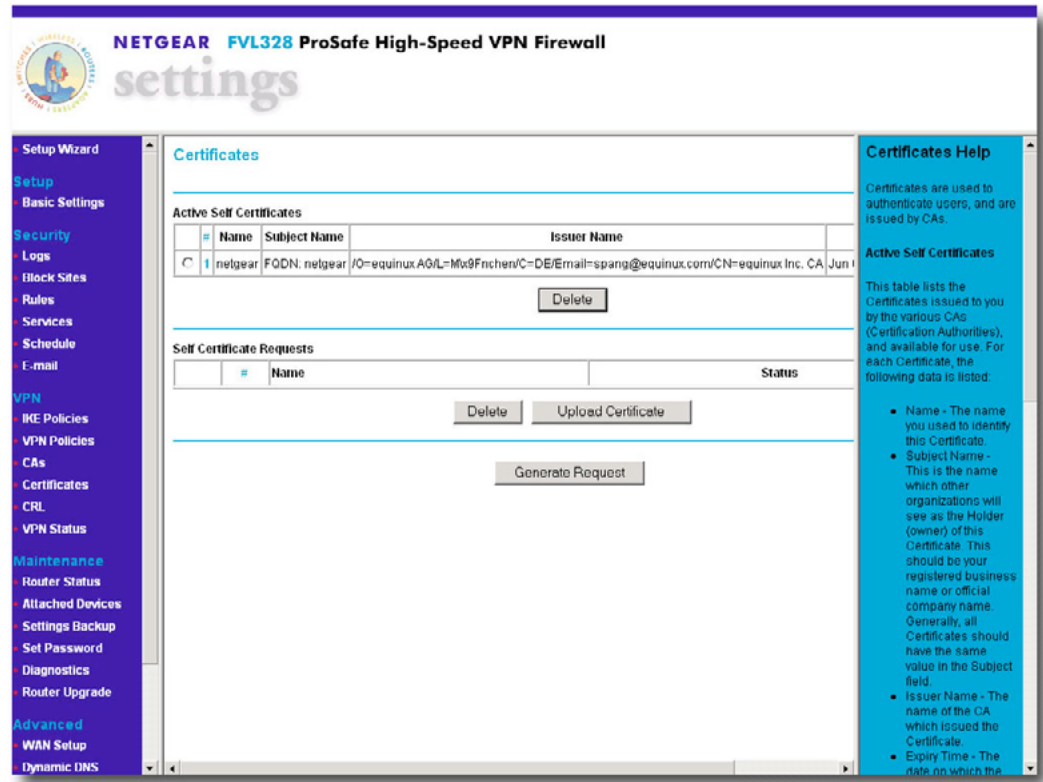


Figure 13: Netgear Certificate window

4.2 VPN Tracker configuration

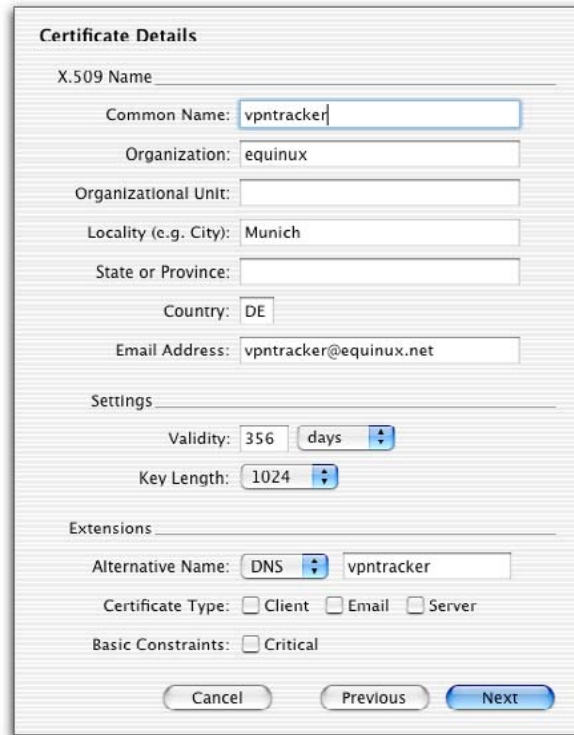
Step 1

Create a new “Own certificate” for VPN Tracker.

Go to the VPN Tracker certificate manager (⌘ + “E”) and create and sign a new certificate. Type in the certificate data.

You have to use an “Alternative Name”. Choose DNS from the drop-down box and enter the alternative name. Please note: This name must be the same as the remote identifier in the NETGEAR IKE settings.

4. Connecting a VPN Tracker Host to a NETGEAR VPN Firewall using Certificates



The image shows a 'Certificate Details' dialog box with the following fields and settings:

- X.509 Name**
 - Common Name: vpntracker
 - Organization: equinux
 - Organizational Unit:
 - Locality (e.g. City): Munich
 - State or Province:
 - Country: DE
 - Email Address: vpntracker@equinux.net
- Settings**
 - Validity: 356 days
 - Key Length: 1024
- Extensions**
 - Alternative Name: DNS vpntracker
 - Certificate Type: ☐ Client ☐ Email ☐ Server
 - Basic Constraints: ☐ Critical

Buttons at the bottom: Cancel, Previous, Next.

Figure 14: Own certificate

Step 2

Add a new connection with the following options: Choose „Netgear “ as Connection Type, „Host to Network“ as Topology, then type in the remote endpoint (169.1.2.3) and the remote network (192.168.1.0/24).

4. Connecting a VPN Tracker Host to a NETGEAR VPN Firewall using Certificates

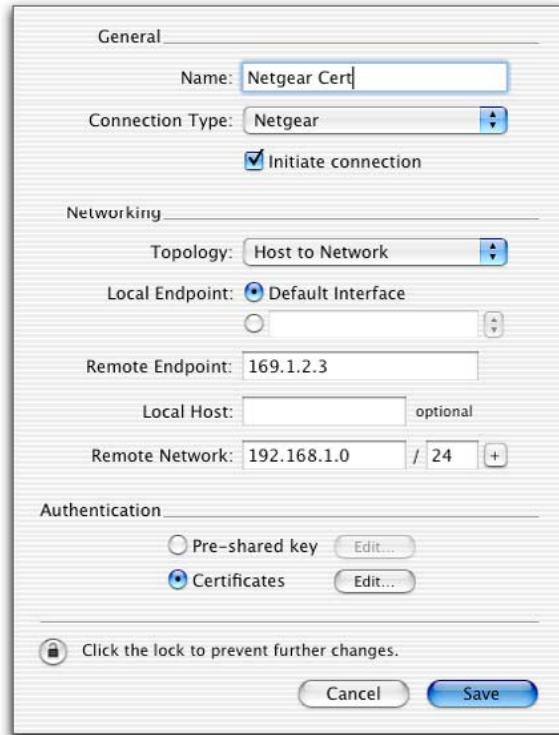


Figure 15: VPN Tracker Main Window

Step 3

Select „Certificates“ as “Authentication” method and click “Edit...”.

Choose as “own certificate” a self-signed certificate, you created with VPN Tracker and verify the remote certificate “with CAs”.

Type in your local identifier (e.g. vpntracker) and the remote one (e.g. netgear). The local identifier in VPN tracker is the remote identifier in the NETGEAR configuration and vice versa.

Do not “Verify the remote certificate”.

4. Connecting a VPN Tracker Host to a NETGEAR VPN Firewall using Certificates



Figure 16: VPN Tracker Authentication dialog

Step 4

Save the connection and Click „Start IPsec“ in the VPN Tracker main window.

You're done. After 10-20 seconds the red status indicator for the connection should change to green, which means you're securely connected to the NETGEAR VPN Firewall. After IPsec has been started, you may quit VPN Tracker. The IPsec service will keep running.

Now to test your connection simply ping a host in the NETGEAR VPN Firewall network from the dialed-in Mac in the "Terminal" utility:

```
ping 192.168.1.1
```

❖ Debugging

If the status indicator does not change to green please have a look at the log file on both sides. You can define the amount of information available in the log file in the VPN Tracker preferences.