

SecureFirst

VPN: Using IP Helper to obtain DHCP over a Policy-based Site to Site VPNTunnel

KNOWLEDGE DATABASE



VPN: Using IP Helper to obtain DHCP over a Policybased Site to Site VPN Tunnel

This article describes how to use the IP Helper feature to obtain dynamic IP addresses over a site to site VPNtunnel.



Site A SonicWall:

X1 Interface: 192.168.170.51 X0 Subnet: 10.10.10.0/24 X0 Interface IP: 10.10.10.1 DHCP Server: 10.10.10.254

Site B SonicWall:

X1 Interface: 172.27.16.115 X0 Subnet: 192.168.100.0/24 X0 Interface IP: 192.168.100.1

In this scenario, the hosts behind Site B are set to obtain IP addresses dynamically. The goal is to forward the DHCP requests from hosts behind Site B through the tunnel to the DHCP server behind Site A SonicWall. This configuration is different from the <u>DHCP over VPN</u> configuration in that Site A and Site B are to be on different subnets.

Note: The IP addresses used in this article are examples. Change it to the IP addresses used in your network.

Procedure:

Enable VPN

ue Firewall Identifier: 0017C514FF9C

Γ.	*	Name	Gateway		Destinations	Crypto Suite	Enable	Configure
	1	WAN Group//PN				ESP: 3DES/HMAC SHA1 (IKE)		003
п	2	WILAN GroupVPN				ESP: 3DES/HMAC SHA1 (IKE)		003
	3 To Remote Site 172.27.61		172.27.61.115	192.168.100.0 - 192.168.100.255 ESP: 3DE5(HMAC SHA1 (IKE))		ESP: 3DES/HMAC SHA1 (IKE)	되	Øx

Site To Site Policies: 1 Policies Defined, 1 Policies Enabled, 3000 Maximum Policies Allowe StoupVPN Policies: 2 Policies Defined, 0 Policies Enabled, 20 Maximum Policies Allowed

	1	Created 03/29/2012 05:54:57	Name To Remote Site	Local 10.10.10.0 - 10.10.10.255	Remote 192.168.100.0 - 192.168.100.255	Gateway 172.27.61.115	Renegotiate	(a) e
_								
N G	loba	al Settings						
Ene	ble Vi	PN						
ue F	Firewa	al Identifier: 0017C54F04	440	1				
'N P	olici	ies		(ii) 🕑 Refr	esh Interval (secs) 10 Ite	ems per page 50 Items	f to 3 (r	x 3) @
N P	eolici #	Name	Gateway	(ii) 🕟 Refr Destinations	esh Interval (secs) 10 Ite Crypto Sk	ens per page 50 Items uite	f to 3 (r Enable	of 3) (j) Configure
N P	Polici # 1	Name WAN Group/PN	Gataway	(ii) (iv) Refr Destinations	esh Interval (secs) 10 Ito Crypto Sk ESP: 30E	ems per page 60 Items uite S(HMAC SHA1 (IXE)	Enable	of 3) (j) Configure (2) (a) (d)
N P	Polici # 1 2	Name WAN GroupVPN WLAN GroupVPN	Gateway	Destinations	esh Interval (socs) 10 Ito Crypto Sk ESP: 306 ESP: 306	ens per page 60 Items alte S(HMAC SHA1 (D/E) S(HMAC SHA1 (D/E)	Enable	x 3) () Configure (2) () ()
	Polici # 1 2	Name WAN Group/PN WLAN Group/PN To Central Site	Gateway 192.168.170.51	 (i) > Refi Destinations 10.10.10.0 - 10.10 	esh Interval (secs) 10 Itr Crypto 5c ESP: 306 ESP: 306 10.255 ESP: 306	ems per page 60 Items uite S/HMAC SHA1 (DKE) S/HMAC SHA1 (DKE)	Enable	of 3) () Configure P () () P () P ()
	Polici # 1 2 3	Name WAN Group/PN WLAN Group/PN To Central Site	Gateway 192.168.170.51	(i) Perf Destinations 10.10.10.0 - 10.10	esh Interval (secs) 10 It Crypto S. ESP: 306 ESP: 306 10.255 ESP: 306	ens per page 60 Rens uite S/MAC SHA1 (IXE) S/MAC SHA1 (IXE) S/MAC SHA1 (IXE)	Enable	Configure Configure Configure Configure Configure Configure Configure Configure Configure Configure

192.168.100.0 - 192.168.100.255 10.10.10.0 - 10.10.10.255

Create an IP Helper DHCP policy in Site B SonicWall to forward DHCP requests to the server behind Site A SonicWall:

- Login to the Site B SonicWall
- management GUI
- Navigate to the Network > Address Objects page.
- Create the following address object for the DHCPServer
 - Name: DHCPServer
 - Zone Assignment: VPN
 - Type: Host
 - IP Address: 10.10.10.254

SONICWALL Network Security Appliance

Name:	DHCP Server		
Zone Assignment:	VPN	~	
Туре:	Host	~	
IP Address:	10.10.10.254		

Ready

ADD CLOSE

Calle 140 #11-45. Bogotá D.C. Colombia +57 1 3680290 / +57 318 4914652 sales@itclatam.com/tss@itclatam.com REV1.01





- Navigate to the Network > IP Helper page.
- Enable check box IP Helper and click
- on Accept to save the changes.
- Enable check box DHCP under Protocols.
- Click on Add under Policies to create the
- following policy.
 - Protocol : DHCP
 - From ZONE: LAN
 - **To**: Select the address object of

the DHCP server.

• Click on OK to save.

Enable pol	icy	
Protocol:	DHCP	~
From:	Zone LAN	~
To:	DHCP Server	~
Comment		
Ready	ОК	CANCEL

From a host behind the Site B SonicWall do *ipconfig/release* and *ipconfig/renew*. Assuming the VPN tunnel is up, the host will be leased an IP address by the remote DHCP server. The IP Helper page will display the information under **DHCP Relay Leases**:



