

## How to configure a VPN tunnel that routes all traffic to the Remote Gateway

This shows how to set up a VPN tunnel between an RV042 (branch site) and RV082 (central site) and make sure all the traffic originating from branch site would be directed over the IPsec tunnel to the central site.

RV042 with WAN1 = 50.50.50.2

RV082 with WAN1 = 10.10.10.2

### RV042 Configuration

The RV042 is connected to the network.

The screenshot displays the web management interface for a Trend Micro RV042 VPN Router. The interface is divided into several sections:

- System Information:** Shows serial number (DHY005A02640), firmware version (1.3.10.1RC10-tm), CPU (Intel IXP425-266), DRAM (32M), and Flash (8M). It also indicates the system has been up for 1 day, 17 hours, 56 minutes, and 42 seconds.
- Configuration:** Features a "ProtectLink Gateway" status box with "Service is activated" and a "Setup Wizard" button.
- Port Statistics:** Includes a diagram of the router's ports: LAN (ports 1-4), WAN1, WAN2, Internet, and DMZ.
- Network Setting Status:** Lists LAN IP (192.168.5.1), WAN1 IP (50.50.50.2), WAN2 IP (0.0.0.0), Mode (Gateway), DNS (WAN1: 0.0.0.0, WAN2: 64.102.6.247), DDNS (Off), and DMZ Host (Disabled).
- Firewall Setting Status:** Shows SPI (On), DoS (On), and Block WAN Request (Off).
- VPN Setting Status:** Shows 3 VPN tunnels used and 47 tunnels available.

A "SITEMAP" sidebar on the right provides navigation links and detailed descriptions for each section of the interface.

The VPN tunnel Configuration from this branch office to the Central Office.

The Remote Group Setup can be set to all zero's to specify ALL traffic to route over the tunnel to that other Router, which in my case is an RV082 with WAN IP 10.10.10.2.

**Edit the Tunnel**

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**Local Group Setup**

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**Remote Group Setup**

---

**IPSec Setup**

Tunnel No.

Tunnel Name

Interface

Enable

---

Local Security Gateway Type

IP address  .  .  .

Local Security Group Type

IP address  .  .  .

Subnet Mask  .  .  .

---

Remote Security Gateway Type

IP address  .  .  .

Remote Security Group Type

IP address  .  .  .

Subnet Mask  .  .  .

---

Keying Mode

Phase1 DH Group

Phase1 Encryption

Phase1 Authentication

Phase1 SA Life Time  seconds

Perfect Forward Secrecy

Phase2 DH Group

Phase2 Encryption

Phase2 Authentication

Phase2 SA Life Time  seconds

Preshared Key

**SITEMAP**

By setting this page, users can add the new tunnel between two VPN devices.

Tunnel No.: The tunnel number will be generated automatically from 1-50.

Tunnel Name: Enter the Tunnel Name, such as LA Office, Branch Site, Corporate Site, etc.

[More...](#)

## RV082 Configuration

This router has dual WAN, but the tunnel is over WAN1 so ignore the WAN2 for this example. WAN1 = 10.10.10.2

System Summary		10/100 8-port VPN Router										RV082															
		System Summary	Setup	DHCP	System Management	Port Management	Firewall	VPN	Log	Wizard	Support	Logout															
<b>System Information</b>	Serial Number : DEZ006B01167      Firmware version : 1.3.9.3 (Apr 25 2008 01:52:34) CPU : Intel IXP425-533      DRAM : 32M      Flash : 16M System up time : 26 Days 1 Hours 19 Minutes 31 Seconds (Now: Fri May 1 2009 05:07:46 )											<b>SITEMAP</b> The System Summary screen displays the router's current status and settings. This information is read only. If you click the button with underline, it will hyperlink to related setup pages. On the right side of the screen and all other screens in the Utility will be a link to the Site Map, which has links to all of the Utility's tabs.  Serial Number: The serial number of the RV082 unit.  System up time: The length of time in Days, Hours, and Minutes that the RV082 is active.  Firmware version: The current version number of the firmware installed on this unit.  CPU: The type of the RV082 processor. It is Intel IXP425.  DRAM: The size of DRAM on the board. It is 32MB.  Flash: The size of Flash on the board. It is 16MB.  Configuration: If you need guideline to re-configure the router, you may launch Wizard.  Port Statistics: Users can click the port number from port diagram to see the status of the selected port.  <a href="#">More...</a>															
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System Summary

10/100 8-port VPN Router

RV082

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System Summary

Setup

DHCP

System Management

Port Management

Firewall

VPN

Log

Wizard

Support

Logout

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System Information

Serial Number : DEZ006B01167      Firmware version : 1.3.9.3 (Apr 25 2008 01:52:34)

CPU : Intel IXP425-533      DRAM : 32M      Flash : 16M

System up time : 26 Days 1 Hours 19 Minutes 31 Seconds (Now: Fri May 1 2009 05:07:46)

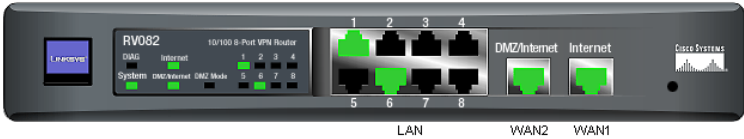
---

Configuration

If you need guideline to re-configure the router, you may launch wizard. [Setup Wizard](#)

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Port Statistics



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Network Setting Status

LAN IP : 192.168.1.1

WAN1 IP : 10.10.10.2

WAN2 IP : 172.18.218.225

Mode : Gateway

DNS (WAN1) : 64.102.6.247 171.70.168.183

(WAN2) : 64.102.6.247 171.70.168.183

DDNS (WAN1 | WAN2) : Off | Off

DMZ Host : Disabled

---

Firewall Setting Status

SPI (Stateful Packet Inspection) : On

DoS (Denial of Service) : On

Block WAN Request : Off

---

VPN Setting Status

VPN Summary :

Tunnel(s) Used : 3

Tunnel(s) Available : 97

No Group VPN was defined.

SITEMAP

The System Summary screen displays the router's current status and settings. This information is read only. If you click the button with underline, it will hyperlink to related setup pages. On the right side of the screen and all other screens in the Utility will be a link to the Site Map, which has links to all of the Utility's tabs.

Serial Number: The serial number of the RV082 unit.

System up time: The length of time in Days, Hours, and Minutes that the RV082 is active.

Firmware version: The current version number of the firmware installed on this unit.

CPU: The type of the RV082 processor. It is Intel IXP425.

DRAM: The size of DRAM on the board. It is 32MB.

Flash: The size of Flash on the board. It is 16MB.

Configuration: If you need guideline to re-configure the router, you may launch Wizard.

Port Statistics: Users can click the port number from port diagram to see the status of the selected port.

[More...](#)

Set the Local Group to all Zero's on the tunnel to the RV042

VPN 10/100 8-port VPN Router RV082

System Summary Setup DHCP System Management Port Management Firewall VPN Log Wizard Support Logout

Summary Gateway to Gateway Client to Gateway VPN Client Access VPN Pass Through PPTP Server

**Edit the Tunnel**

Tunnel No. 5  
Tunnel Name rv082Torv042  
Interface WAN1  
Enable

---

**Local Group Setup**

Local Security Gateway Type IP Only  
IP address 10 . 10 . 10 . 2  
Local Security Group Type Subnet  
IP address 0 . 0 . 0 . 0  
Subnet Mask 0 . 0 . 0 . 0

---

**Remote Group Setup**

Remote Security Gateway Type IP Only  
IP address 50 . 50 . 50 . 2  
Remote Security Group Type Subnet  
IP address 192 . 168 . 5 . 0  
Subnet Mask 255 . 255 . 255 . 0

---

**IPSec Setup**

Keying Mode IKE with Preshared key  
Phase1 DH Group Group1  
Phase1 Encryption DES  
Phase1 Authentication MD5  
Phase1 SA Life Time 28800 seconds  
Perfect Forward Secrecy   
Phase2 DH Group Group1  
Phase2 Encryption DES  
Phase2 Authentication MD5  
Phase2 SA Life Time 3600 seconds  
Preshared Key cisco123

**SITEMAP**

By setting this page, users can add the new tunnel between two VPN devices.

Tunnel No.: The tunnel number will be generated automatically from 1~100.

Tunnel Name: Enter the Tunnel Name, such as LA Office, Branch Site, Corporate Site, etc.

[More...](#)

Then add the subnet of the RV042 to the RV082 (Multiple Subnet):

10/100 8-port VPN Router RV082

**Setup**

System Summary | **Setup** | DHCP | System Management | Port Management | Firewall | VPN | Log | Wizard | Support | Logout

Network | Password | Time | DMZ Host | Forwarding | UPnP | One-to-One NAT | More... >>

---

**Network**

Host Name:  (Required by some ISPs)

Domain Name:  (Required by some ISPs)

---

**LAN Setting**

(MAC Address: 00-16-b6-84-13-74 )

Device IP Address:  .  .  .  Subnet Mask:

Multiple Subnet Setting

Multiple Subnet

Subnet 1:

---

**Dual-WAN / DMZ Setting**

Dual WAN  DMZ

---

**WAN Connection Type**

WAN1

Static IP

Specify WAN IP Address:  .  .  .

Subnet Mask:  .  .  .

Default Gateway Address:  .  .  .

DNS Server (Required) 1:  .  .  .

2:  .  .  .

MTU:  Auto  Manual  bytes

WAN2

**SITEMAP**

The Setup screen contains all of the router's basic setup functions. The device can be used in most network settings without changing any of the default values. Some users may need to enter additional information in order to connect to the Internet through an ISP (Internet Service Provider) or broadband (DSL, cable modem) carrier.

Host Name & Domain Name: Enter a host and domain name for the Router. Some ISPs (Internet Service Providers) may require these names as identification, and these settings can be obtained from your ISP. In most cases, leaving these fields blank will work.

LAN Setting: This is the Router's LAN IP Address and Subnet Mask. The default value is 192.168.1.1 for IP address and 255.255.255.0 for the Subnet Mask.

[More...](#)

Verify Tunnel is up:  
RV082 side:

10/100 8-port VPN Router

VPN

System Summary Setup DHCP System Management Port Management Firewall VPN Log Wizard

Summary | Gateway to Gateway | Client to Gateway | VPN Client Access | VPN Pass Through | PPTP

Summary

4 Tunnel(s) Used 96 Tunnel(s) Available [Detail](#)

Tunnel Status

[Add New Tunnel](#)

Jump to 1 / 1 page All entries per page

No.	Name	Status	Phase2 Enc/Auth/Grp	Local Group	Remote Group	Remote Gateway	Tunnel Test	Config.
1	Test	Disabled	DES/MD5/1	192.168.150.0 255.255.255.0	N/A	10.10.10.10	N/A	<a href="#">Edit</a>
2	n082tor v016	Connected	DES/MD5/1	192.168.1.0 255.255.255.0	192.168.2.0 255.255.255.0	20.20.20.2	<a href="#">Disconnect</a>	<a href="#">Edit</a>
3	n082TDwns	Connected	3DES/SHA1/1	192.168.1.0 255.255.255.0	192.168.3.0 255.255.255.0	30.30.30.2	<a href="#">Disconnect</a>	<a href="#">Edit</a>
4	n082TDorvs	Connected	3DES/SHA1/1	192.168.1.0 255.255.255.0	192.168.4.0 255.255.255.0	40.40.40.2	<a href="#">Disconnect</a>	<a href="#">Edit</a>
5	n082TDorv042	Connected	DES/MD5/1	0.0.0.0 0.0.0.0	192.168.5.0 255.255.255.0	50.50.50.2	<a href="#">Disconnect</a>	<a href="#">Edit</a>

4 Tunnel(s) Enabled 5 Tunnel(s) Defined

GroupVPN Status

Group Name	Connected Tunnels	Phase2 Enc/Auth/Grp	Local Group	Remote Client	Remote Client Status	Tunnel Test	Config.

RV042 side

(This router was previously used in a full mesh network, but I disabled those tunnels to avoid routing ambiguity)

10/100 4-port VPN Router

VPN

System Summary Setup DHCP System Management Port Management Firewall ProtectLink VPN Log Wizard

Summary | Gateway to Gateway | Client to Gateway | VPN Client Access | VPN Pass Through | PPTP

Summary

1 Tunnel(s) Used 49 Tunnel(s) Available [Detail](#)

Tunnel Status

[Add New Tunnel](#)

Jump to 1 / 1 page All entries per page

No.	Name	Status	Phase2 Enc/Auth/Grp	Local Group	Remote Group	Remote Gateway	Tunnel Test	Config.
1	n042TDorv082	Connected	DES/MD5/1	192.168.5.0 255.255.255.0	0.0.0.0 0.0.0.0	10.10.10.2	<a href="#">Disconnect</a>	<a href="#">Edit</a>
2	n042TDorv016	Disabled	DES/MD5/1	192.168.5.0 255.255.255.0	192.168.2.0 255.255.255.0	20.20.20.2	N/A	<a href="#">Edit</a>
3	n042TDwns	Disabled	3DES/SHA1/1	192.168.5.0 255.255.255.0	192.168.3.0 255.255.255.0	30.30.30.2	N/A	<a href="#">Edit</a>
4	n042TDorvs	Disabled	3DES/SHA1/1	192.168.5.0 255.255.255.0	192.168.4.0 255.255.255.0	40.40.40.2	N/A	<a href="#">Edit</a>

1 Tunnel(s) Enabled 4 Tunnel(s) Defined

With the PC Client plugged into RV082, ping the DGW of the interface of WAN2 on the RV082 all traffic should not travel over the tunnel to RV082 and use its WAN interface.