How to Install VPN on Windows Server 2012 R2

Posted in <u>Cloud</u>, <u>DirectAccess</u>, <u>IT</u>, <u>Microsoft</u>, <u>Web</u>, <u>Windows</u>, <u>Windows</u> <u>Server</u>, <u>Windows</u> <u>Server 2012 R2</u>, <u>Work</u> inShare1

This post shows you how you can install a VPN Server on Windows Server 2012 R2 Step-by-Step. It shows you how you can easily setup a VPN server fro a small environment or for a hosted server scenario.

This is definitely not a guide for an enterprise deployment, if you are thinking about a enterprise deployment you should definitely have a look at Direct Access.

B	Add Roles and Features Wizard	_ _ X	
E Select server roles Before You Begin Installation Type Server Selection Server Roles Features Remote Access Role Services Confirmation Results	Add Roles and Features Wizard Select one or more roles to install on the selected server. Roles Application Server DHCP Server DNS Server Fax Server File and Storage Services (1 of 12 installed) Hyper-V Network Policy and Access Services Print and Document Services	DESTINATION SERVER WIN-QGR5D2K94P2 Description Remote Access provides seamless connectivity through DirectAccess, VPN, and Web Application Proxy. DirectAccess provides an Always On and Always Managed experience. RAS provides traditional VPN services, including site-to-site (branch-office or cloud-based) connectivity. Web Application Proxy enables the publishing of selected HTTP- and HTTPS-based applications from your corporate	
	Remote Access Remote Desktop Services Volume Activation Services Web Server (IIS) Windows Deployment Services Windows Server Essentials Experience Windows Server Update Services	applications from your corporate network to client devices outside of the corporate network. Routing provides traditional routing capabilities, including NAT and other connectivity options. RAS and Routing can be deployed in single- tenant or multi-tenant mode.	
< <u>P</u> revious <u>N</u> ext > <u>I</u> nstall Cancel			

First install the "Remote Access" via Server Manager or Windows PowerShell.

Select the "DirectAccess and VPN (RAS)" role services.

2	Add Roles and Features Wizard	_ _ ×
Before You Begin Installation Type Server Selection Server Roles Features Remote Access Neb Server Role (IIS) Role Services Confirmation Results	Add Roles and Features Wizard Select the role services to install for Remote Access Role services DirectAccess and VPN (RAS) Routing Web Application Proxy	DESTINATION SERVER WIN-QGRSD2K94P2 Description DirectAccess gives users the experience of being seamlessly connected to their corporate network any time they have Internet access. With DirectAccess, mobile computers can be managed any time the computer has Internet connectivity, ensuring mobile users stay up-to-date with security and system health policies. VPN uses the connectivity of the Internet plus a combination of tunnelling and data encryption technologies to connect
	< Previous Ne	xt > Install Cancel

On the next steps just use the default settings. After that you can have a look at the Overview screen and install the role.

h	Add Roles and Features Wizard	_ 🗆 X
Confirm installation Before You Begin Installation Type Server Selection Server Roles Features Remote Access Role Services Web Server Role (IIS) Role Services Confirmation	Add Roles and Features Wizard On selections To install the following roles, role services, or features on selected server, click Instal ✓ Restart the destination server automatically if required Optional features (such as administration tools) might be displayed on this page been selected automatically. If you do not want to install these optional features, clie their check boxes. Group Policy Management RAS Connection Manager Administration Kit (CMAK) Remote Access DirectAccess and VPN (RAS) Remote Server Administration Tools Role Administration Tools	DESTINATION SERVER WIN-QGR5D2K94P2
Results	Remote Access Management Tools Remote Access GUI and Command-Line Tools Remote Access module for Windows PowerShell Web Server (IIS) Export configuration settings Specify an alternate source path	v
	< <u>P</u> revious <u>N</u> ext > <u>I</u> nstal	I Cancel

After the features are installed, which can take a while to finish you see the link for the Getting Started Wizard. Click on "**Open the Getting Started Wizard**".



This opens a new wizard which will help you to configure the server. On the first screen select "**Deploy VPN only**".

騊	Configure Remote Access	x
Ĵ	Configure Remote Access Getting Started Wizard	
V	/elcome to Remote Access Ise the options on this page to configure DirectAccess and VPN.	
	Deploy both DirectAccess and VPN (recommended) Configure DirectAccess and VPN on the server, and enable DirectAccess client computers. Allow remote client computers not supported for DirectAccess to connect over VPN.	
	 Deploy <u>DirectAccess only</u> Configure DirectAccess on the server, and enable DirectAccess client computers. 	
	→ Deploy <u>VPN</u> only Configure VPN using the Routing and Remote Access console. Remote client computers can connect over VPN, and multiple sites can be connected using VPN site-to-site connections. VPN can be used by clients not supported for DirectAccess.	

This opens the Routing and Remote Access MMC



Right click on the Server name and click on "**Configure and Enable Routing and Remote Access**".

Ĩ	E Routing and Remote Access					
<u>File</u> <u>A</u> ction	<u>File Action View Help</u>					
(-	? 🖬					
Routing and	Remote Access	Routing and Remote Access				
Server Sta	itus		3			
	Configure and En	able Routing and Remote Access	temote access			
	Disable Routing a	nd Remote Access	onfigure the following:			
	All Tasks	•	private networks.			
	Delete		steway.			
	Refresh					
	Properties		ı.			
	Help					
		To add a Rouding and Remote Acce	ss server, on the Aculon menu, click Add Server.	~		
Stops Routing an	d Remote Access ar	nd removes the previous configuration				

On the new wizard select "Custom configuration".

Routing and Remote Access Server Setup Wizard			
Configuration You can enable any of the following combinations of services, or you can customize this server.			
 <u>Remote access (dial-up or VPN)</u> Allow remote clients to connect to this server through either a dial-up connection or a secure virtual private network (VPN) Internet connection. <u>Network address translation (NAT)</u> Allow internal clients to connect to the Internet using one public IP address. <u>Virtual private network (VPN) access and NAT</u> Allow remote clients to connect to this server through the Internet and local clients to connect to the server through the Internet and local clients to connect to the Internet using a single public IP address. 			
Connect this network to a remote network, such as a branch office.			

Select "VPN Access".

Routing and Remote Access Server Setup Wizard		
Custom Configuration When this wizard closes, you can configure the selected services in the Routing and Remote Access console.		
Select the services that you want to enable on this server. VPN access Dial-up access Degmand-dial connections (used for branch office routing) NAT LAN routing		
< <u>B</u> ack <u>N</u> ext > Cancel		

After you have click finish you can now start the Routing and Remote Access service.

Routing and Remote Access Server Setup Wizard		
Completing the Routing and Remote Access Server Setup Wizard You have successfully completed the Routing and Remote Access Server Setup wizard.		
	Routing and Remote Access	
	Start the service Image: Start service is ready to use. Start service Cancel	
In the Routing and Remote Access console.		
To close this wizard, click Finish.		
	< <u>B</u> ack Finish Cancel	

If you have an other firewall between the internet and your Windows Server you have to open the following Firewall port sand forward them to your Windows Server:

For PPTP: 1723 TCP and Protocol 47 GRE (also known as PPTP Pass-through) For L2TP over IPSEC: 1701 TCP and 500 UDP For SSTP: 443 TCP

After the installation Users have to be enabled for Remote Access to connect to your VPN Server. On a standalone server this can be done in the Computer Management MMC, in a domain environment this can be done in the user properties of an Active Directory user.

	Admi	nistrator Pr	roperties	? X
General	Member Of	Profile	Environment	Sessions
Remote co	ontrol Re	mote Desktop	Services Profile	Dial-in
-Network Ad	ccess Permission			
 Allow ad 	cess			
C Derry av				
© Deny ac	JUESS			
O Control	access through N	IPS Network P	olicy	
Verify C	aller-ID:	[
Callback O	otions]		
G No Coll	ha ala			
	Dack Calles (Dentioned		(
O Set by	Caller (Routing an	id Remote Acc	ess Service only)	
O Alwa <u>y</u> s	Callback to:			
Assign Static IP Addresses Define IP addresses to enable for this Dial-in connection. Static IP Addresses				
Apply S	tatic <u>R</u> outes			
Define rou connection	tes to enable for t n.	this Dial-in	Static Ro	utes

If you don't have a DHCP Server in your environment you have to add a static IP address pool. This is often needed if you have a single server hosted at a service provider. In the properties of your VPN server you can click on the IPv4 tab and enable and configure the "Static address pool".

WI	N-QGR5D2K94P2 (local) Proper	rties ? X			
General Security IPv4 IPv6 IKEv2 PPP Logging					
🔽 Enal	Enable IPv4 Forwarding				
IPv4 address assignment /izar This server can assign IPv4 addresses by using: O Dynamic Host Configuration Protocol (DHCP) Static address pool					
-	From To Number IP A	Addre Mask remot			
	New IPv4 Add	ress Range 🛛 ? 🗙			
	Type a starting IP address and either an ending IP address or the number of addresses in the range.				
🗹 En	Start IP address: 192 . 16	8. 1.100			
	End IP address: 192.16	8. 1.200			
	Number of addresses:	101			
	OK Cancel				
OK Cancel Apply					