

NCP VPN Path Finder Technology

In many cases, IPsec and SSL VPN are complementary, because they solve different problems. This complementary approach allows a single device to address all remote-access user requirements.

IPsec is a widely deployed technology that is well-understood by end users and has established IT deployment support processes. Many organizations find that IPsec meets most of the user requirements. However, IPSec ports (UDP 500, UDP 4500 and ESP) could be blocked in some public hotspots or hotel. In that case SSL VPN could help by pass this restriction and allow anywhere access.

The patented VPN Path Finder technology is a new remote access technology, developed by NCP. It removes a major constraint in communication within IPsec VPNs by allowing data connections from unknown networks, whose firewall settings deny IPsec communication and only allow internet access to web browsers.

With the help of NCP's VPN Path Finder Technology, NCP's Secure Client automatically recognizes when the company's VPN gateway is not available via IPsec. When this is the case, the client software automatically switches to a modified mode ("emulates" HTTPS) and sets up an end-to-site tunnel to the company network.

With this technology, highly secure VPN connections based on IPsec are possible even on hotel and public hotspot networks with restricted security access settings or in certain mobile communication networks.

The advantage of this solution is that the administrator maintains the corporate security policy based on IPsec. The user benefits from having a working connection in every environment.

How it works:

The VPN Path Finder technology automatically switches to the alternative connection protocol TCP encapsulation of IPsec with SSL header (via port 443) if the device cannot establish a standard IPsec connection via port 500 or UDP encapsulation. If you set up a connection via port 443 with the VPN Path Finder technology, the graphical interface displays an icon. It also appears in the interface of the Windows logon via the NCP credential provider.

If a proxy server is required, you can configure it by selecting "Proxy for VPN Path Finder".

NCP VPN Path Finder for Juniper SRX Gateways



1. Enable NCP Path Finder Technology (TCP encapsulation)

Configure SRX

set security ike gateway RAVPN_GW tcp-encap-profile NCP set security tcp-encap profile NCP

Step-by-step Procedure

1) Enable TCP encapsulation (NCP Path Finder technology)

set security ike gateway RAVPN_GW tcp-encap-profile NCP set security tcp-encap profile NCP

2) Commit changes commit

NCP VPN Path Finder for Juniper SRX Gateways



2. Configure NCP Secure Remote Access Client

Edit the existing Connection Profile

Windows: Configuration – Profiles

Profiles				—		×
Available Profiles						
Group: Show all profiles				~	<u>G</u> roup	
Profile Name 🔺		Communication	n Medium Defaul	t		
SRX		LAN]		
<u>A</u> dd	<u>E</u> dit	Сору	<u>D</u> elete			
		<u>H</u> el	p <u>O</u> l	(<u>C</u> ance	4

SECURE COMMUNICATIONS

NCP VPN Path Finder for Juniper SRX Gateways

macOS: NCP Exclusive Remote Access Client – Profiles ...

Profile	
Group:	
Show all profiles	Group
Profile Name	
SRX	
+ - Copy Edit	
?	Cancel OK

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Android: Configure – Profiles



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3. Enable "VPN Path Finder"

Windows:

🏧 Profile Settings SRX				_		Х
Standard Configuration IPsec Split Tuppeling	- General	Đ	tended Configuration			
VPN Bypass Connection	Internet	Profile <u>N</u> ame: SRX Default Profile after <u>Sys</u> Connection Communication M <u>e</u> dium:	tem Reboot			
	UPN Cor	nection				~
	1	Tunnel Endpoint:	10.20.44.200			
		Protocol:	IKEv2			~
		User Name:	user2			
		Password:	•••••			
		Ce <u>r</u> tificate configuration:	none		Standar	~ d
	,		Help	<u>о</u> к	<u>C</u> an	cel

NCP VPN Path Finder for Juniper SRX Gateways

SECURE COMMUNICATIONS

macOS:



NCP VPN Path Finder for Juniper SRX Gateways



Android:





4. Establish a VPN connection

The screenshot below shows a VPN connection without VPN Path Finder required.

Windows:



NCP VPN Path Finder for Juniper SRX Gateways



macOS:

RX		<u> </u>	enable
_ <		41.4	
2		-	
Data (Tx) in KByte:	8.424	Time online:	00:00:05
Data (Rx) in Byte:	0	Timeout (sec):	0
Speed (KByte/s):	1.412	Encryption:	AES GCM 256
	AR	8	

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Android:



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Configuration Guide NCP VPN Path Finder for Juniper SRX Gateways



The following screenshots show a VPN Path Finder enabled connection as hinted by the little icon on the right hand side in lower GUI.

Windows:



NCP VPN Path Finder for Juniper SRX Gateways



macOS:

RX			enable
<u> </u>			
-			The second secon
Data (Tx) in KByte:	13.617	Time online:	00:00:12
Data (Rx) in Byte:	128	Timeout (sec):	0
Speed (KByte/s):	0.242	Encryption:	AES GCM 256
	A	9	a

NCP VPN Path Finder for Juniper SRX Gateways



Android:



NCP Path Finder is used