

NR500 Series Industrial Cellular VPN Router

Application Note 051

PPTP Client With Cisco

Version: V1.0.0
Date: Mar 2020
Status: Confidential



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1. Introduction

1.1 Overview

This document contains information regarding the configuration and use of PPTP client with cisco.

This guide has been written for use by technically competent personnel with a good understanding of the communications technologies used in the product, and of the requirements for their specific application.

1.2 Compatibility

This application note applies to:

Models Shown: NR500 series.

Firmware Version: V1.1.2(3be6e5a) or newer

Other Compatible Models: None

1.3 Version

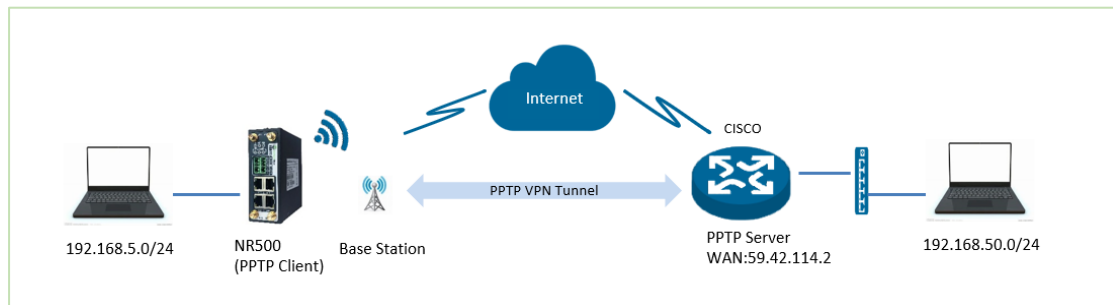
Updates between document versions are cumulative. Therefore, the latest document will include all the content of previous versions.

Release Date	Doc. Version	Firmware Version	Change Description
2020/03/17	V1.0.0	V1.1.2(3be6e5a)	First released

1.4 Corrections

Appreciate for corrections or rectifications to this application note, and if any request for new application notes please email to: support@navigateworx.com

2. Topology



1. NR500 router run as PPTP client and make sure communicate with Internet.
2. CISCO router run as PPTP server with a static public IP address.
3. PPTP VPN tunnel is established between NR500 routers and CISCO router. The subnet PCs are able to communicate with each other.

3. Configuration

3.1 PPTP Server Configuration

1. The configuration of PPTP server on CISCO like below:

```
-----  
cisco2811#show run  
Building configuration...  
Current configuration : 5611 bytes  
!  
version 12.4  
hostname cisco2811  
ip dhcp excluded-address 10.10.10.1  
ip dhcp pool ABC  
    network 10.10.10.0 255.255.255.0  
    default-router 10.10.10.1  
ip name-server 8.8.8.8  
ip name-server 202.96.128.166  
ip address-pool local  
no ipv6 cef  
  
vpdn enable  
!  
vpdn-group 2  
! Default PPTP VPDN group  
accept-dialin  
protocol pptp  
virtual-template 2  
!  
vpdn-group PPPOE  
    request-dialin  
    protocol pppoe  
!  
username pptp password 0 pptp  
archive  
!  
interface Loopback0  
ip address 192.168.50.1 255.255.255.0  
!  
interface FastEthernet0/0  
    bandwidth 640  
    no ip address
```

```
ip nat outside
ip nat enable
ip virtual-reassembly
duplex full
speed auto
pppoe enable group global
pppoe-client dial-pool-number 1
no cdp enable
no mop enabled
!
interface FastEthernet0/1
ip address 10.10.10.1 255.255.255.0
ip nat inside
ip nat enable
ip virtual-reassembly
duplex auto
speed auto
no cdp enable
!
interface Virtual-Template2
ip address 10.6.6.1 255.255.255.0
ip nat inside
ip virtual-reassembly
peer default ip address pool pptp
ppp encrypt mppe auto
ppp authentication ms-chap-v2
!
interface Dialer1
bandwidth 640
ip address negotiated
ip mtu 1492
ip nat outside
ip virtual-reassembly
encapsulation ppp
ip tcp adjust-mss 1452
no ip mroute-cache
dialer pool 1
dialer idle-timeout 0
dialer hold-queue 100
dialer persistent
dialer-group 1
no cdp enable
ppp authentication pap chap callin
ppp pap sent-username 0203XXXXXXXXX@163.gd password 0 FSOXXXXXX
```

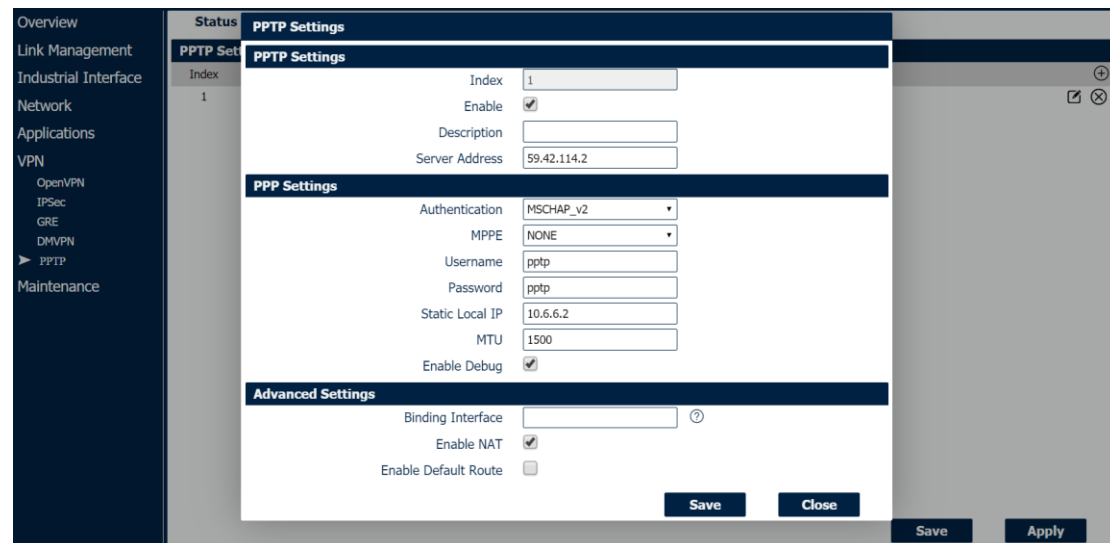
```

crypto map SMAP
!
ip local pool pptp 10.6.6.2 10.6.6.200
ip forward-protocol nd
ip route 0.0.0.0 0.0.0.0 Dialer1
ip route 192.168.5.0 255.255.255.0 10.6.6.2
!
ip nat inside source list 11 interface Dialer1 overload
!
access-list 11 permit 10.6.6.0 0.0.0.255
snmp-server community public RO
!
cisco2811#

```

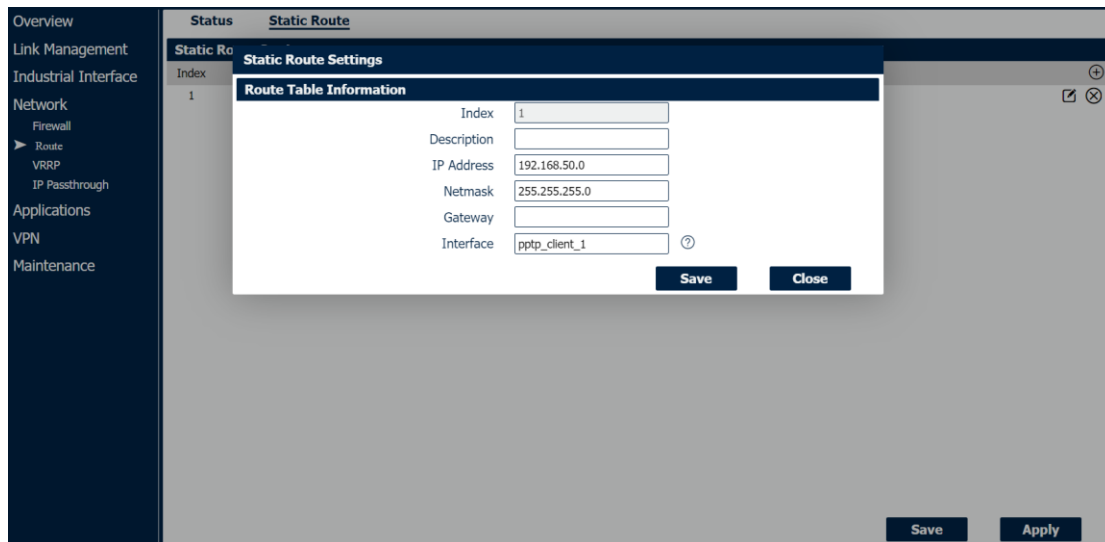
3.2 PPTP Client Configuration

1. Go to **VPN>PPTP>PPTP Client**, enable PPTP client and configuration like below:



PPTP Settings	
Index	1
Enable	<input checked="" type="checkbox"/>
Description	
Server Address	59.42.114.2
PPP Settings	
Authentication	MSCHAP_v2
MPPE	NONE
Username	pptp
Password	pptp
Static Local IP	10.6.6.2
MTU	1500
Enable Debug	<input checked="" type="checkbox"/>
Advanced Settings	
Binding Interface	
Enable NAT	<input checked="" type="checkbox"/>
Enable Default Route	<input type="checkbox"/>

2. Click Save>Apply.
3. Go to **Network>Route>Static Route**, specify the static route, so that the subnet behind PPTP Client can reach the subnet behind PPTP Server.



4. Click Save>Apply.

4. Testing

1. NR500 PPTP Client had connected CISCO PPTP Server successfully. Go to **VPN>PPTP>Status**, to check the connection status.

Status		PPTP Server	PPTP Client			
PPTP Server Status						
Index	Status	Remote IP	Interface	Uptime		
PPTP Client Status						
Index	Description	Status	Local IP	Remote IP	Interface	Uptime
1		Connected	10.6.6.2	10.6.6.1	pptp_client_1	01:21:54

2. Ping from NR500 to CISCO's subnet and successful:

Overview	Ping	Traceroute	AT Debug
Link Management	Ping Settings		
Industrial Interface	Host Address	<input type="text" value="192.168.50.1"/>	
Network	Ping Count	<input type="text" value="5"/>	
Applications	Local IP Address	<input type="text" value="192.168.5.1"/>	
VPN	PING 192.168.50.1 (192.168.50.1) from 192.168.5.1: 56 data bytes 64 bytes from 192.168.50.1: seq=0 ttl=255 time=49.351 ms 64 bytes from 192.168.50.1: seq=1 ttl=255 time=55.116 ms 64 bytes from 192.168.50.1: seq=2 ttl=255 time=53.829 ms 64 bytes from 192.168.50.1: seq=3 ttl=255 time=45.210 ms 64 bytes from 192.168.50.1: seq=4 ttl=255 time=52.693 ms --- 192.168.50.1 ping statistics --- 5 packets transmitted, 5 packets received, 0% packet loss round-trip min/avg/max = 45.210/51.239/55.116 ms		
Maintenance			
Upgrade			
Software			
System			
Configuration			
Debug Tools			

3. Ping from CISCO to NR500's LAN and successful:

```

cisco2811#ping 192.168.5.1 source 192.168.50.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.5.1, timeout is 2 seconds:
Packet sent with a source address of 192.168.50.1
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 32/48/68 ms
cisco2811#
  
```