

# NR500 Series Industrial Cellular VPN Router

## Application Note 052

### PPTP Server with Window OS

**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 server with Windows OS.

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

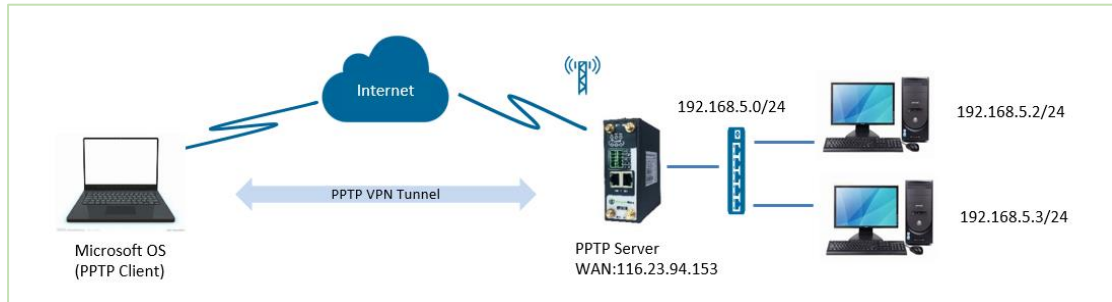
Updates between document versions are cumulative. Therefore, the latest document will include all the content of previous versions.

| 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](mailto:support@navigateworx.com)

## 2. Topology

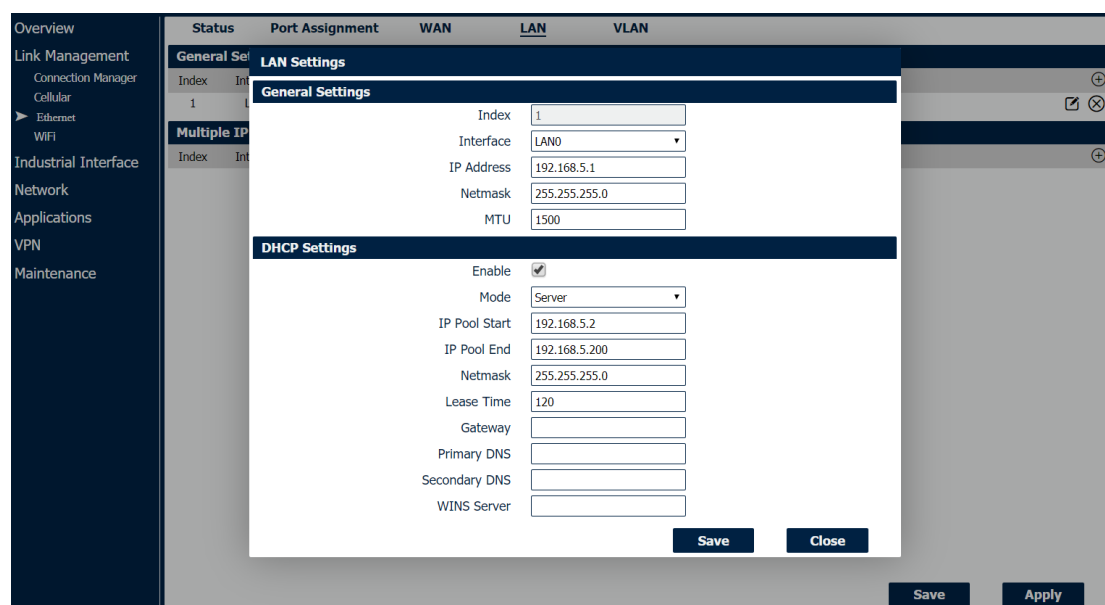


1. NR500 Router run as PPTP server with the static public IP address.
2. A PC run with Microsoft Windows OS works as PPTP client.
3. PPTP VPN tunnel is established between NR500 router and the PC, PC can access to the LAN device behind NR500 Router.

## 3. Configuration

### 3.1 PPTP Server Configuration

1. Go to **Link Management>Ethernet>LAN**, specify the LAN IP address as 192.168.5.0/24, like below:



The screenshot shows the LAN Settings configuration page. The left sidebar contains a navigation menu with categories like Overview, Link Management, Cellular, Ethernet, WiFi, Industrial Interface, Network, Applications, VPN, and Maintenance. The main content area is titled 'LAN Settings' and is divided into 'General Settings' and 'DHCP Settings'.

**General Settings:**

- Index: 1
- Interface: LAN0
- IP Address: 192.168.5.1
- Netmask: 255.255.255.0
- MTU: 1500

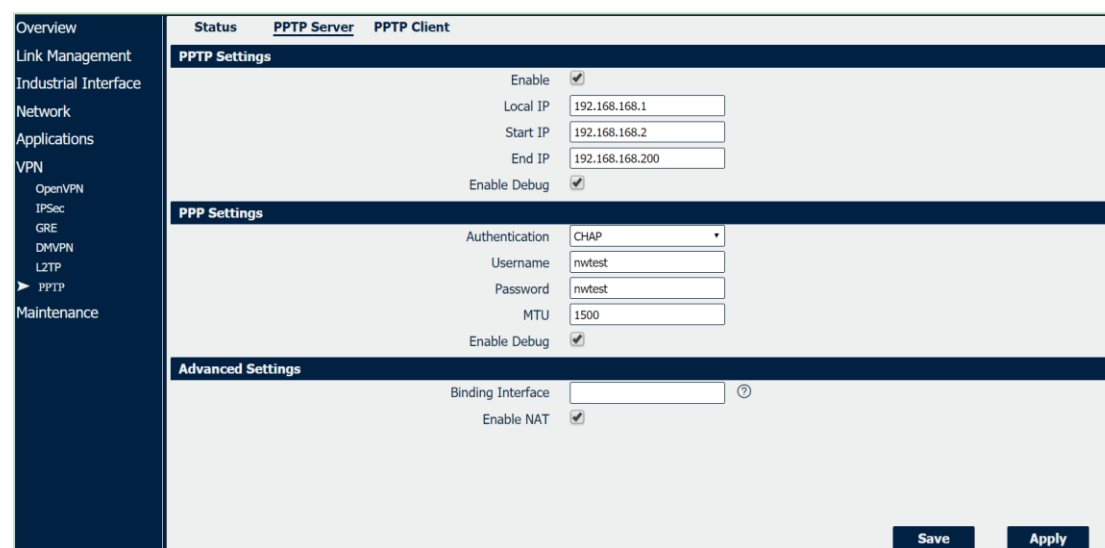
**DHCP Settings:**

- Enable:
- Mode: Server
- IP Pool Start: 192.168.5.2
- IP Pool End: 192.168.5.200
- Netmask: 255.255.255.0
- Lease Time: 120
- Gateway:
- Primary DNS:
- Secondary DNS:
- WINS Server:

Buttons for 'Save' and 'Close' are visible at the bottom of the configuration window.

2. Click Save>Apply.

3. Go to **VPN>PPTP>PPTP Server**, enable PPTP server and configuration like below:



The screenshot shows the PPTP Server configuration page. The left sidebar contains a navigation menu with categories like Overview, Link Management, Industrial Interface, Network, Applications, VPN, and Maintenance. The main content area is titled 'PPTP Server' and is divided into 'PPTP Settings', 'PPP Settings', and 'Advanced Settings'.

**PPTP Settings:**

- Enable:
- Local IP: 192.168.168.1
- Start IP: 192.168.168.2
- End IP: 192.168.168.200
- Enable Debug:

**PPP Settings:**

- Authentication: CHAP
- Username: nwtest
- Password: nwtest
- MTU: 1500
- Enable Debug:

**Advanced Settings:**

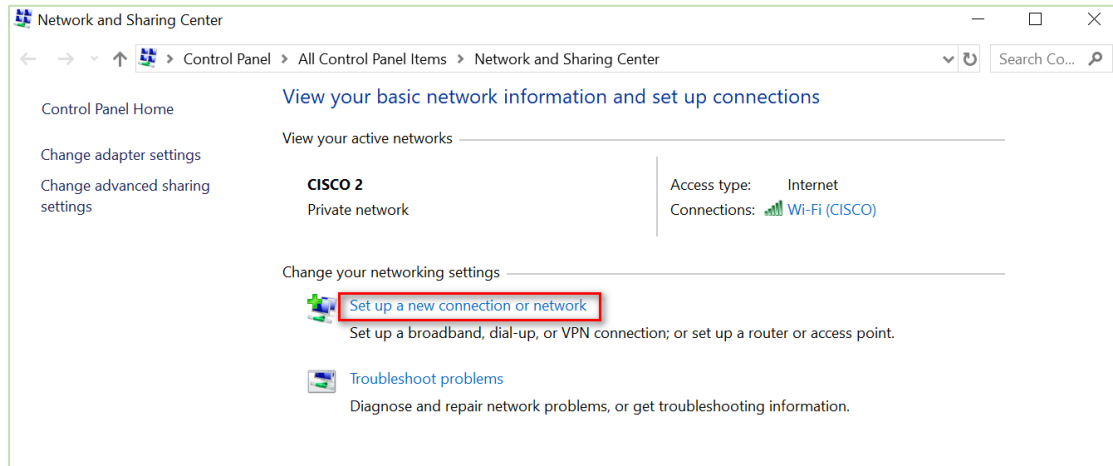
- Binding Interface:
- Enable NAT:

Buttons for 'Save' and 'Apply' are visible at the bottom of the configuration window.

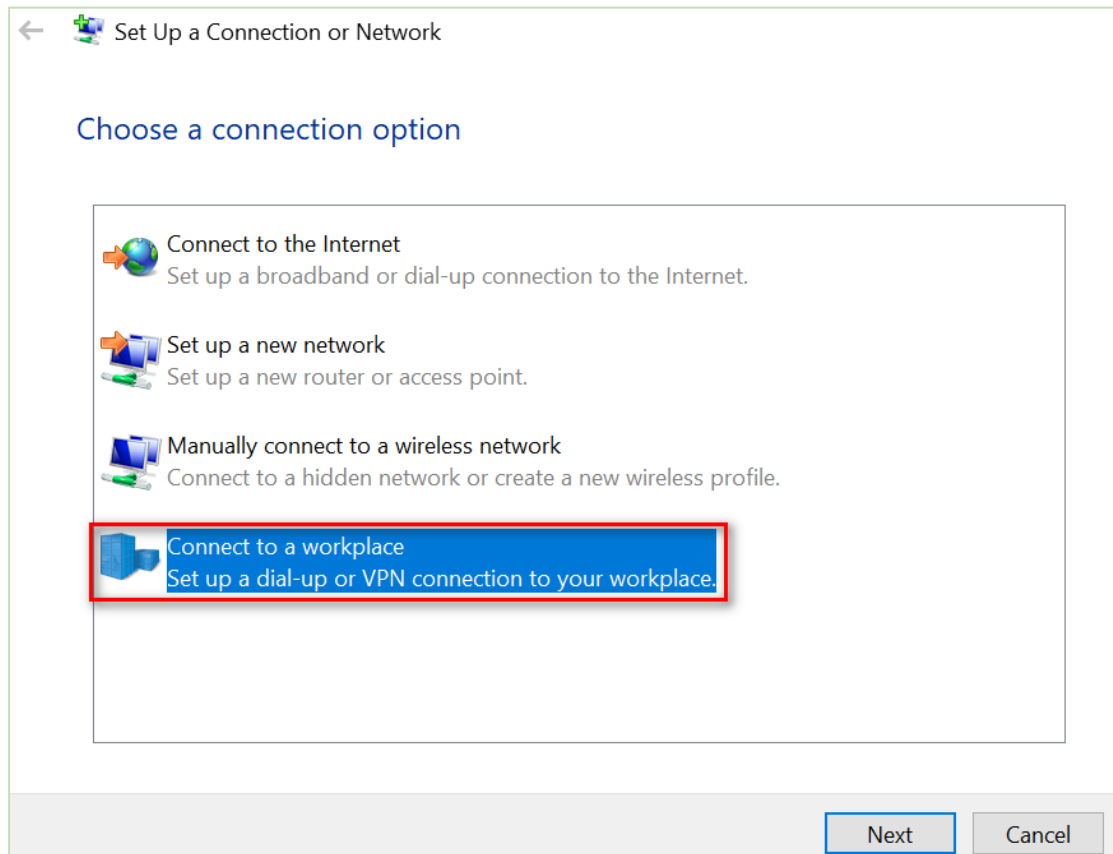
4. Click Save>Apply.

### 3.2 PPTP Client Configuration

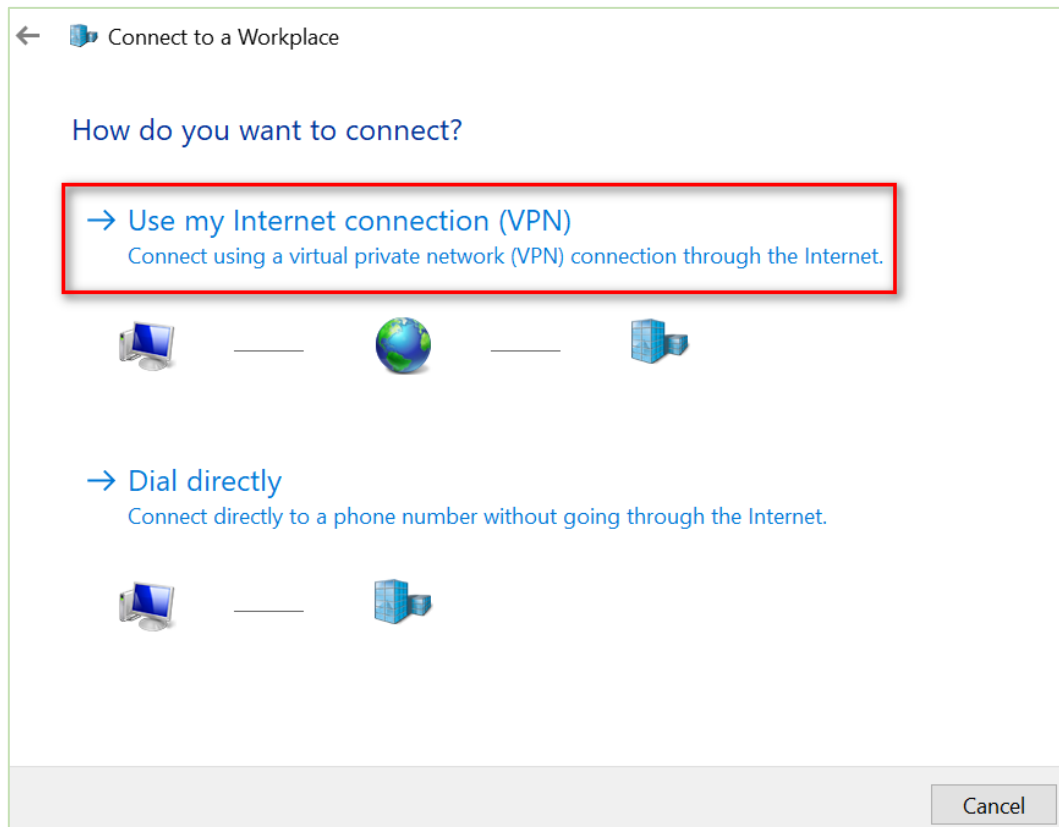
1. Open the PC and go to “Network and Sharing Center”, click “Set up a new connection or network”:



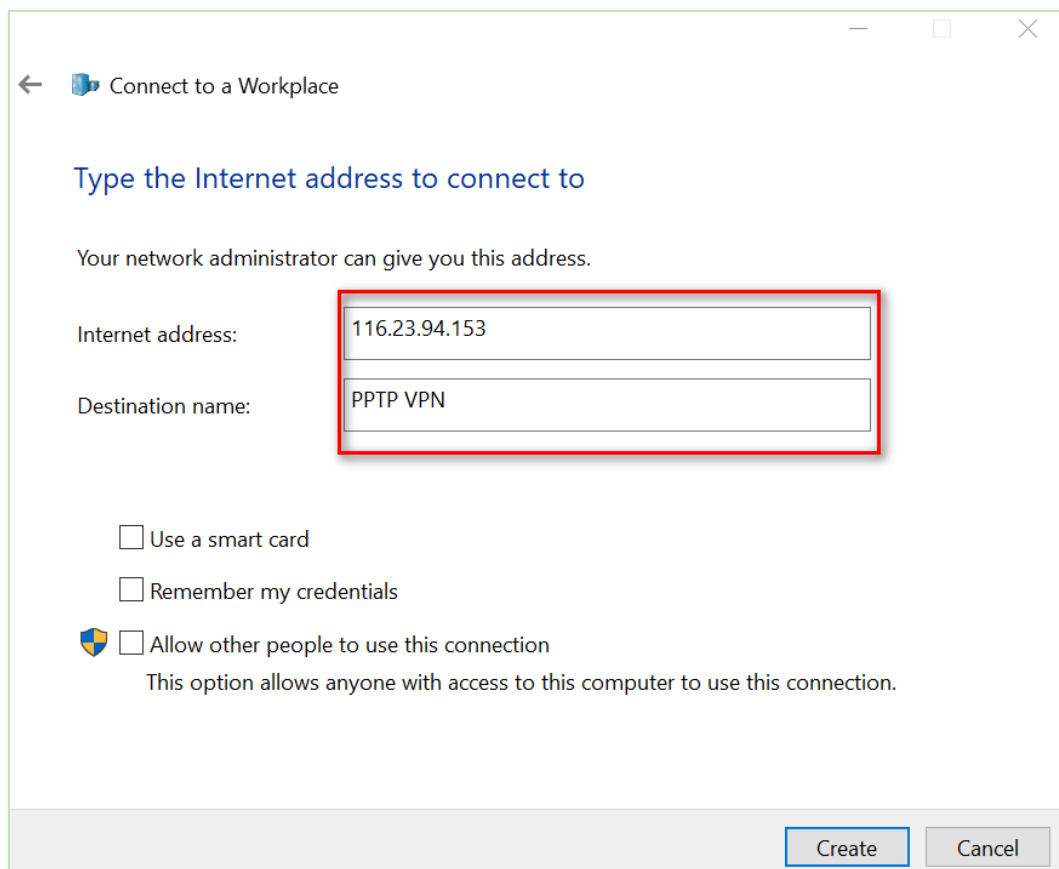
2. Choose “Connect to a workplace” and click “Next”:



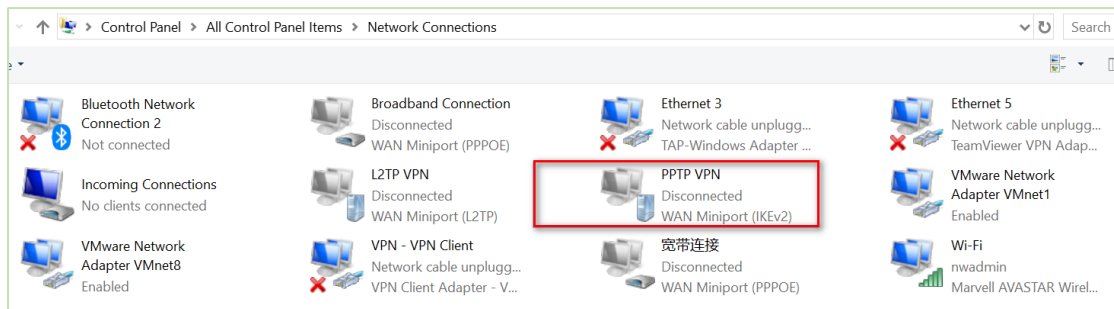
3. Click “Use my Internet connection (VPN).”



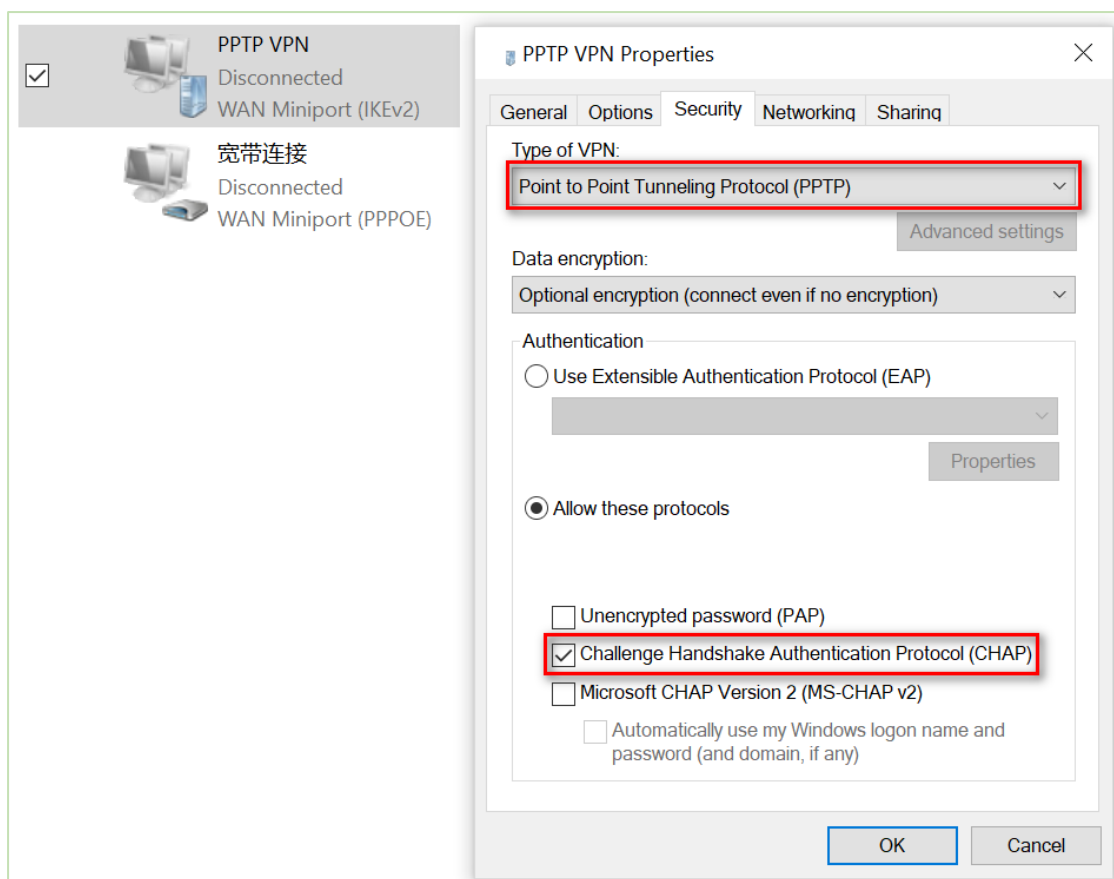
4. Enter the PPTP Server IP address and Destination name, click "Create".



5. After that, we had created PPTP connection, like below:

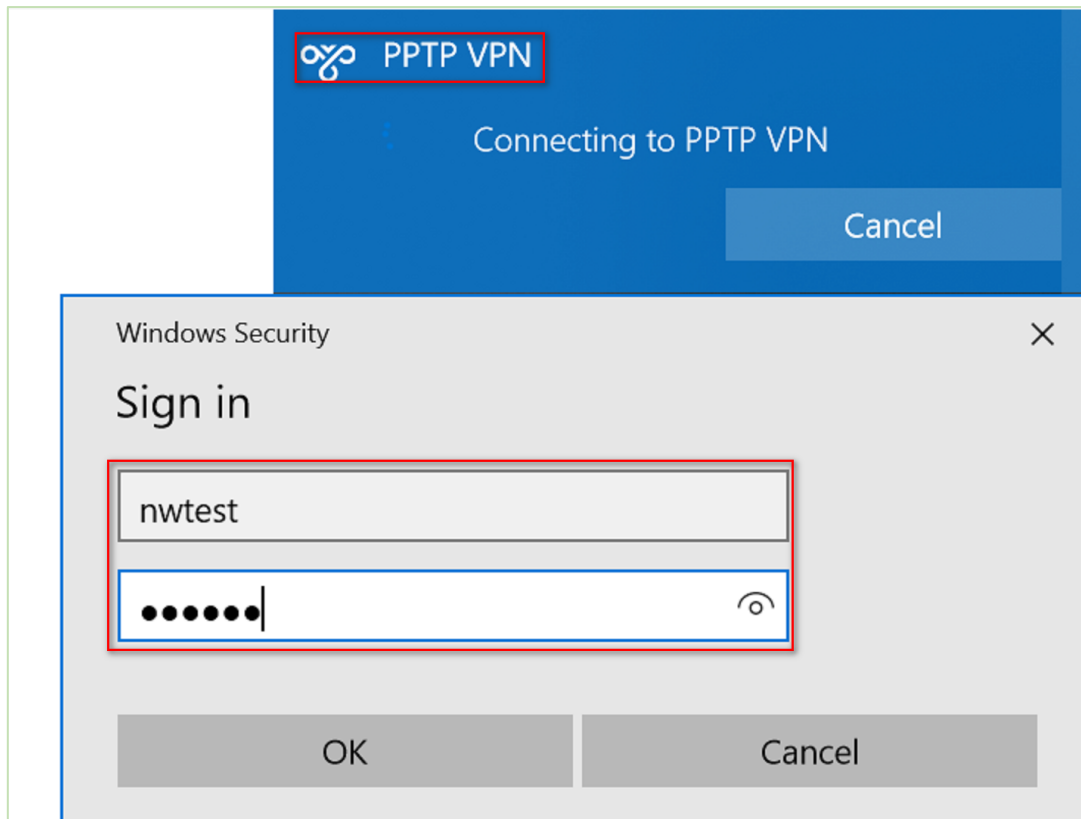


6. Right Click "PPTP VPN", and choose "Properties", go to "Security" and specify the Type of VPN and Authentication, like below:

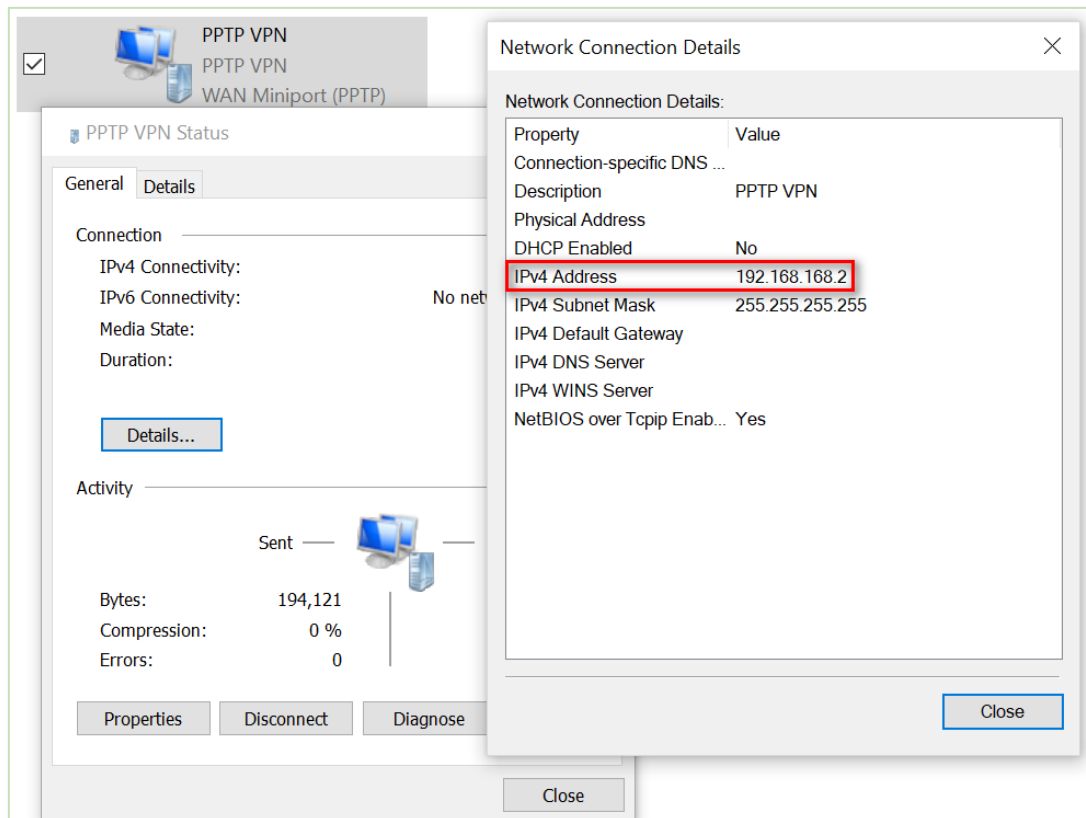


7. After finishing all above settings, click to connect "PPTP VPN", and sign in with the Username and Password, Click "OK", like below:





8. PPTP Client had connected to PPTP Server successfully. Right Click the “PPTP VPN”, choose “Status”, go to “Details”, then we can see that the PPTP Server had assigned the IP address to the PPTP Client.



## 4. Testing

1. Go to **VPN>PPTP>Status**, the PPTP Client had connected to PPTP Server successfully:

| Overview             | Status                    | PPTP Server | PPTP Client   |
|----------------------|---------------------------|-------------|---------------|
| Link Management      | <b>PPTP Server Status</b> |             |               |
| Industrial Interface | Index                     | Status      | Remote IP     |
| Network              | 1                         | Connected   | 192.168.168.3 |
| Applications         |                           |             | Interface     |
| VPN                  |                           |             | ppp1          |
| OpenVPN              |                           |             | Uptime        |
| IPSec                |                           |             | 00:08:49      |
| GRE                  | <b>PPTP Client Status</b> |             |               |
| DMVPN                | Index                     | Description | Status        |
| L2TP                 |                           |             | Local IP      |
| PPTP                 |                           |             | Remote IP     |
|                      |                           |             | Interface     |
|                      |                           |             | Uptime        |

2. Ping from PPTP Client to PPTP Server and successfully.

```

Administrator: Command Prompt
Microsoft Windows [Version 10.0.17134.556]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>ping 192.168.5.1

Pinging 192.168.5.1 with 32 bytes of data:
Reply from 192.168.5.1: bytes=32 time=13ms TTL=64
Reply from 192.168.5.1: bytes=32 time=1ms TTL=64
Reply from 192.168.5.1: bytes=32 time=1ms TTL=64
Reply from 192.168.5.1: bytes=32 time=4ms TTL=64

Ping statistics for 192.168.5.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 13ms, Average = 4ms

C:\Users\Administrator>

```