

# Industrial Cellular VPN Router

## Application Note 040

### AT over IP

**Version:** V1.0.0  
**Date:** Jul 2019

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# 1. Introduction

## 1.1 Overview

This document contains information regarding the configuration and use of IP Over IP.

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:** NW10 series.

**Firmware Version:** V1.1.0(ddcaac4) or newer

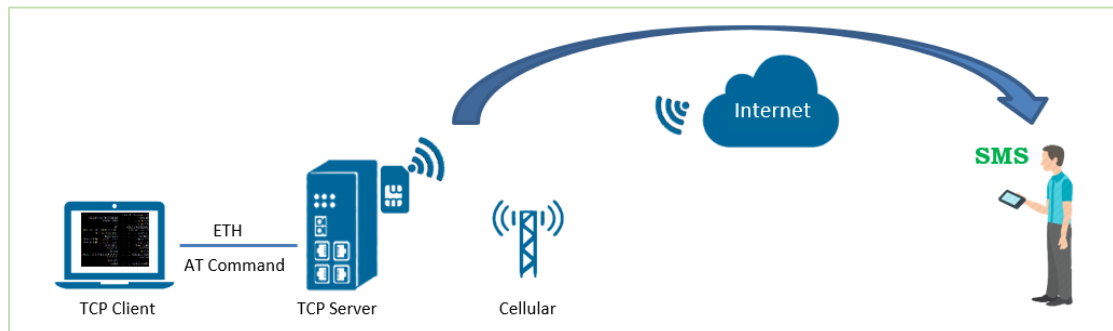
**Other Compatible Models:** None

## 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
2019/07/04	V1.0.0	V1.1.0(ddcaac4)	First released

## 2. Topology



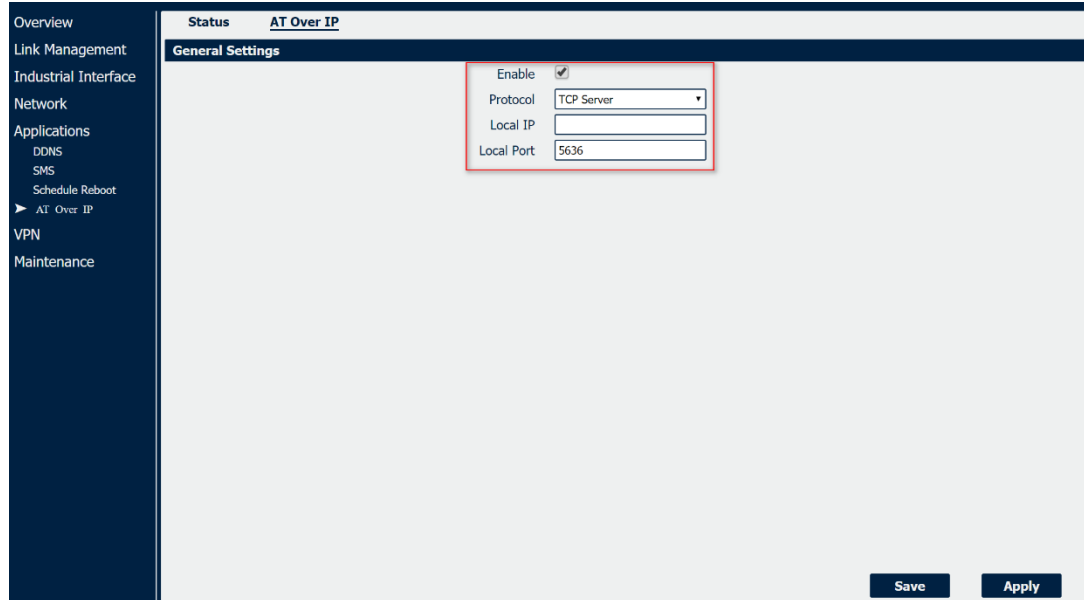
1. NW10 runs as TCP Server and connected to Internet via SIM card.
2. PC as TCP Client and connect to NW10 via ethernet cable.
3. PC send AT Command to control the module of NW10 to do some action.

*Note: This application note will show how to use the AT Command via TCP connection to control module to send PDU mode SMS message.*

### 3. Configuration

#### a) NW10 Configuration

1. Go to **Application>AT Over IP**, enable AT Over IP feature like below:



The screenshot displays the configuration page for 'AT Over IP'. The left sidebar contains a navigation menu with the following items: Overview, Link Management, Industrial Interface, Network, Applications (with sub-items DDNS and SMS), Schedule Reboot, AT Over IP (highlighted with a right-pointing arrow), VPN, and Maintenance. The main content area is titled 'Status AT Over IP' and 'General Settings'. A red box highlights the configuration fields: 'Enable' (checked), 'Protocol' (set to 'TCP Server'), 'Local IP' (empty), and 'Local Port' (set to '5636'). At the bottom right of the main area are 'Save' and 'Apply' buttons.

2. Click Save>Apply.

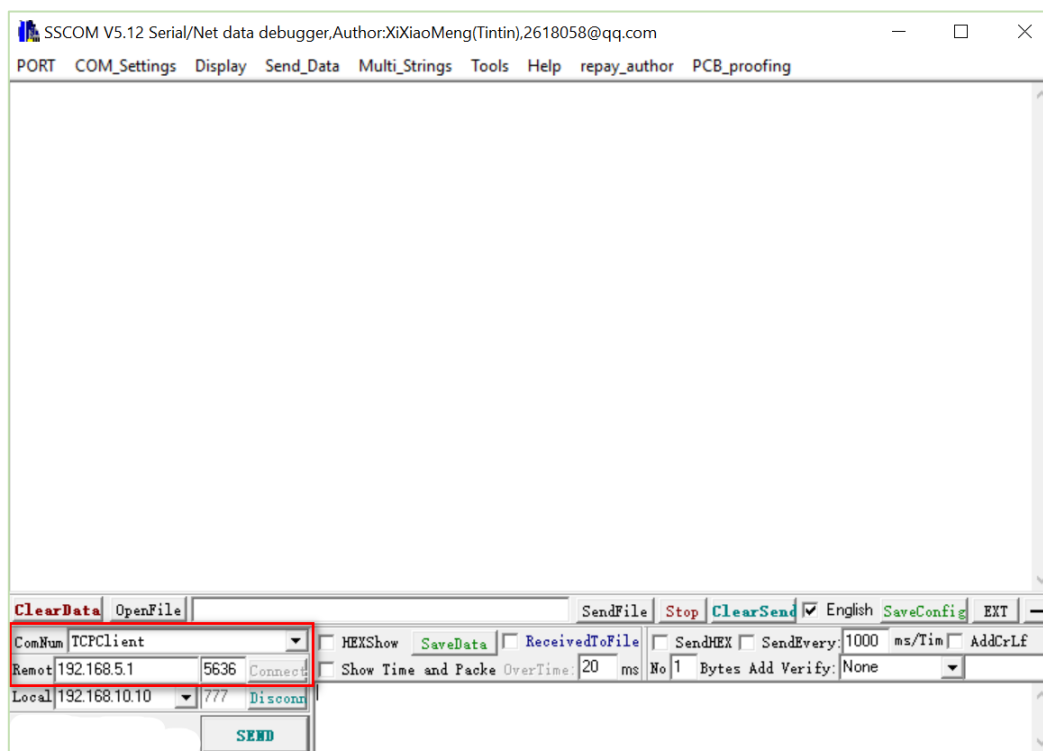
## 4. Testing

Send the content "TEST" to the mobile phone under PDU mode as an example. Below is the AT Command and Content need to be sent one by one to the router.

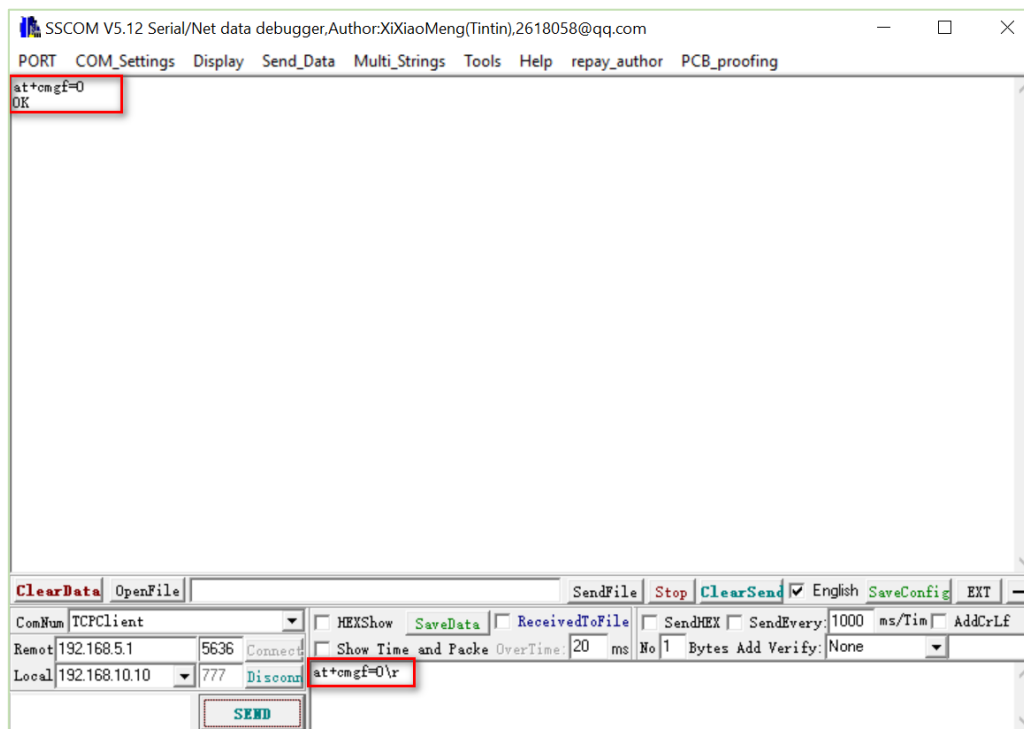
- a. at+cmgf=0\r
- b. at+cmgs=17\r
- c. 0001000BA15119852081F0000004D4E2940A
- d. 1a

*Note: "\r" means the keyboard "Enter"; Option "c" is the content need to be sent under PDU mode; Option "d" is the ending code need to be sent with HEX.*

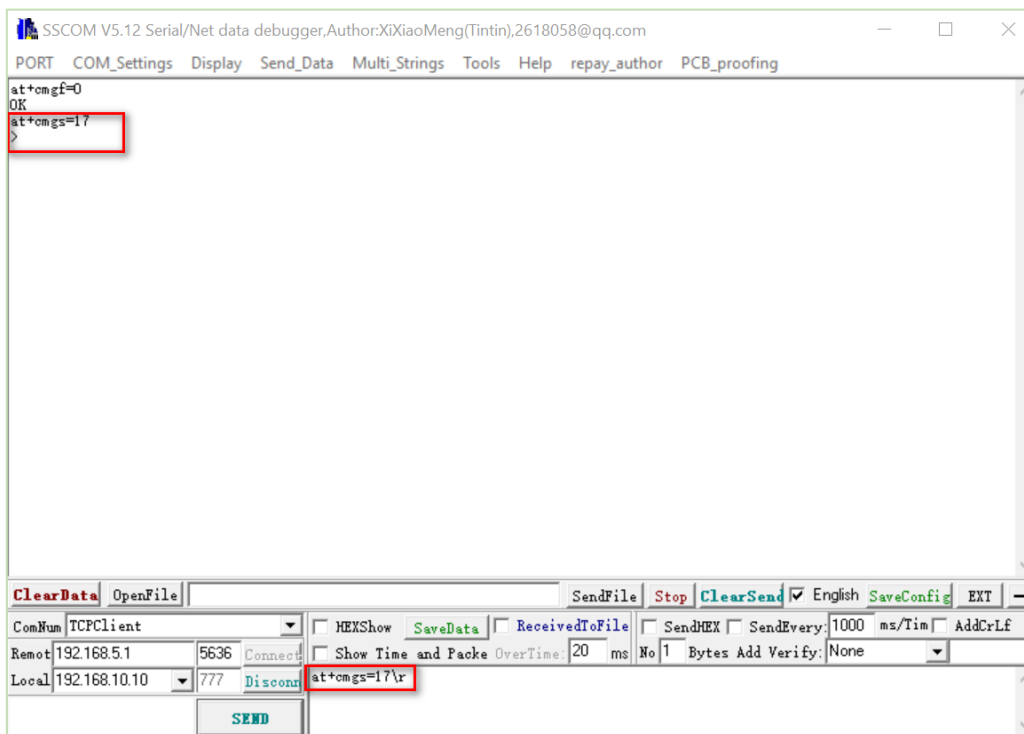
1. Run SSCOM software as TCP client and connect the NW10 router(TCP Server), like below:



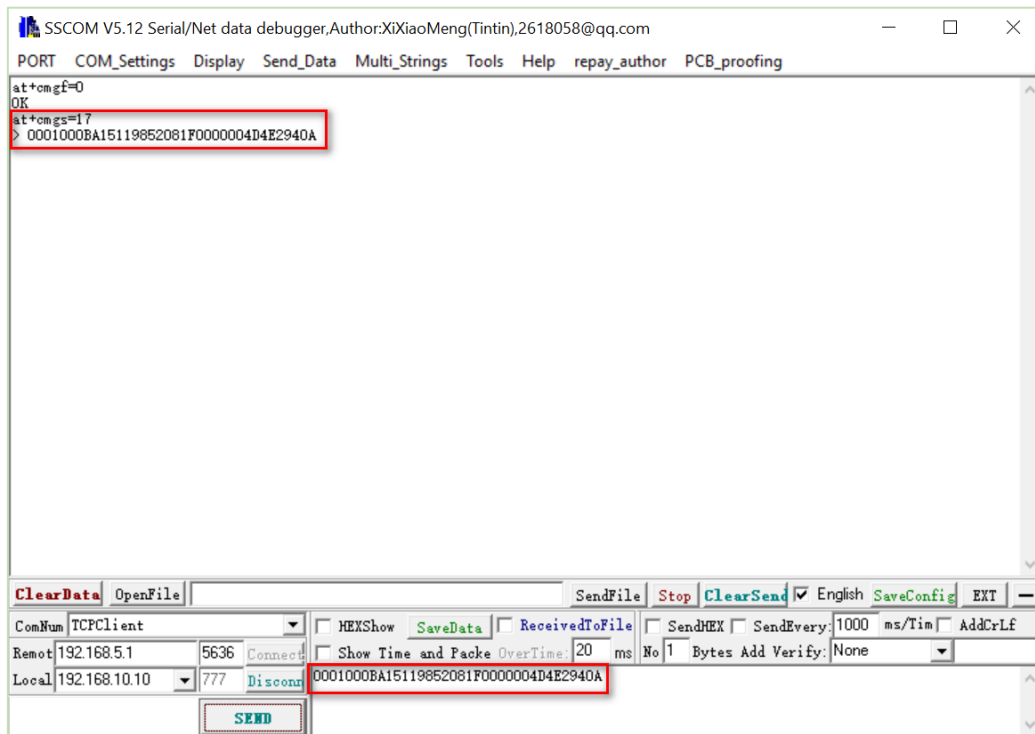
2. Send the AT command "at+cmgf=0\r" to make sure under PDU mode.



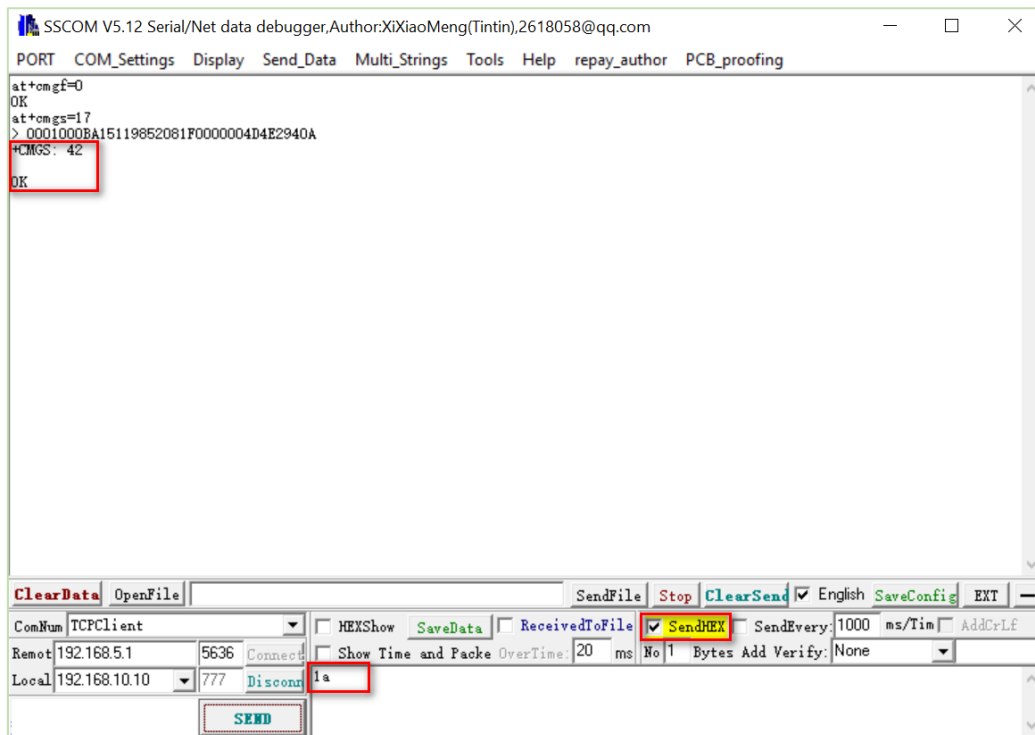
3. Send the AT command "at+cmgs=17\r" to start to send the content.



4. Send to content.



5. Send the ending code "1a" with HEX, reply "OK" means send out the SMS successfully.





6. Test successfully, the mobile phone can receive the SMS message.

