

NR500 Series Industrial Cellular VPN Router

Application Note 019

Cellular Setting

Version: V1.0.0
Date: 2018/09/17
Status: Confidential



Directory

1. Introduction.....	3
1.1 Overview.....	3
1.2 Compatibility.....	3
1.3 Version.....	3
1.4 Corrections.....	3
2. Topology.....	4
3. Configuration.....	5
3.1 Cellular Configuration.....	5
4. Testing.....	7
4.1 Test.....	7

1. Introduction

1.1 Overview

This document contains information regarding the configuration and use of cellular settings.

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: V1.0.0(903.0) or newer

Other Compatible Models: None

1.3 Version

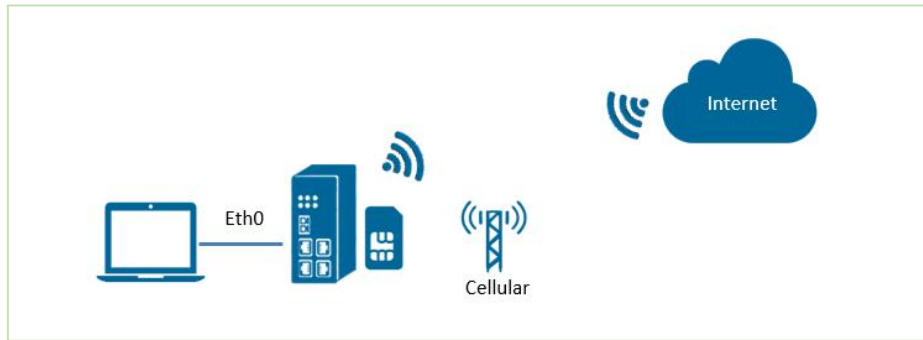
Updates between document versions are cumulative. Therefore, the latest document will include all the content of previous versions.

Release Date	Doc. Version	Firmware Version	Change Description
2018/09/17	V1.0.0	V1.0.0(903.0)	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. Specify WWAN1 as primary link and NR500 pro access cellular network via SIM card(wwan1).
2. ETH0 work as LAN interface and enable DHCP server, allocate IP to the end PC.

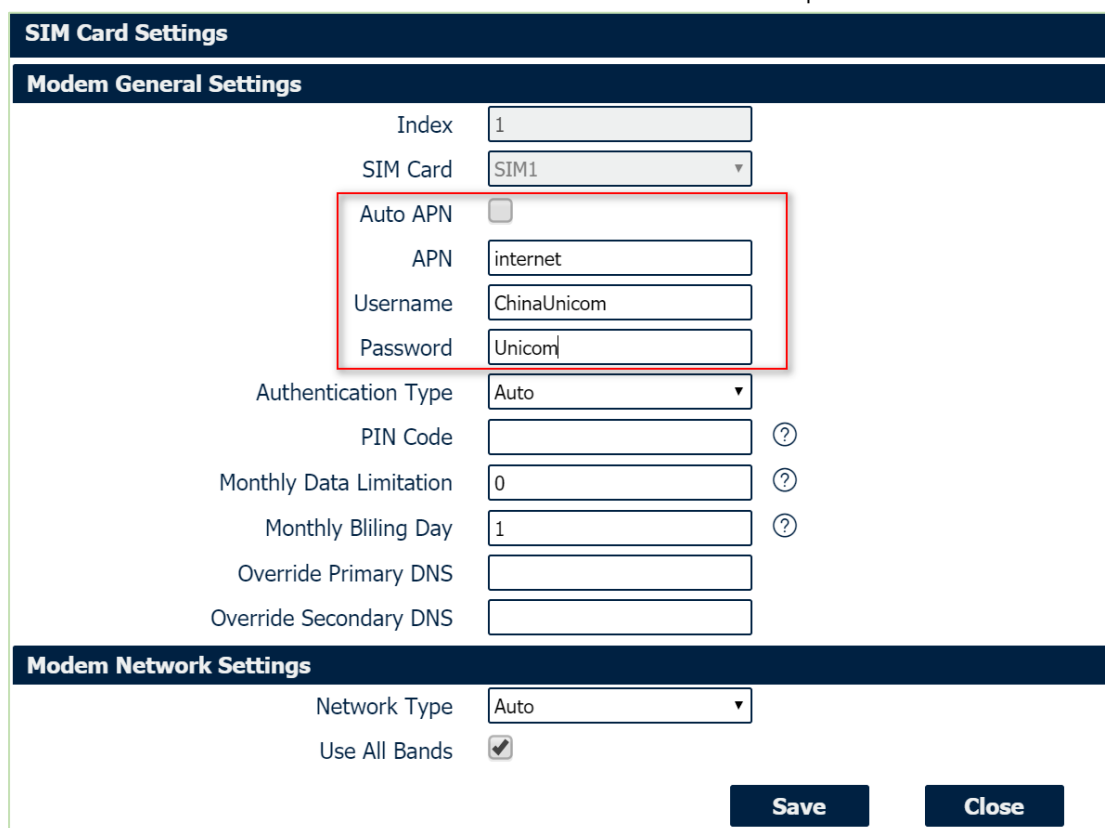
3. Configuration

3.1 Cellular Configuration

1. Go to **Link Management>Cellular>Cellular**, Click the **Edit** button of SIM1.



2. Setup the APN, Username and Password of the SIM card, please also setup the PIN if the SIM work with the PIN code. And left the other parameters as default.



SIM Card Settings

Modem General Settings

Index: 1

SIM Card: SIM1

Auto APN:

APN: internet

Username: ChinaUnicom

Password: Unicom

Authentication Type: Auto

PIN Code: ?

Monthly Data Limitation: 0 ?

Monthly Billing Day: 1 ?

Override Primary DNS:

Override Secondary DNS:

Modem Network Settings

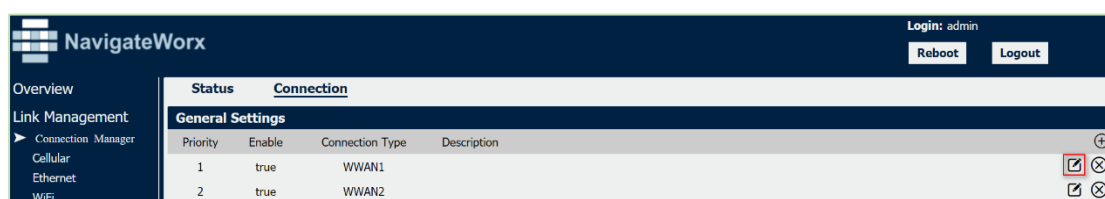
Network Type: Auto

Use All Bands:

Save **Close**

3. Click Save>Apply.

4. Go to Link **Management>Connection Manager>Connection**, Click the **Edit** button of WWAN1.



5. Setup the parameters of WWAN1 as below:

Connection Settings	
Connection Information	
Priority	<input type="text" value="1"/>
Enable	<input checked="" type="checkbox"/>
Connection Type	<input type="text" value="WWAN1"/> ?
Description	<input type="text"/>
ICMP Detection Settings	
Enable	<input checked="" type="checkbox"/>
Primary Server	<input type="text" value="8.8.8.8"/>
Secondary Server	<input type="text" value="114.114.114.114"/>
Interval	<input type="text" value="300"/> ?
Retry Interval	<input type="text" value="5"/> ?
Timeout	<input type="text" value="3"/> ?
Retry Times	<input type="text" value="3"/> ?
<input type="button" value="Save"/> <input type="button" value="Close"/>	

6. Click Save>Apply.

4. Testing

4.1 Test

1. Go to **Overview>Overview>Active Link Information**, the router had been got the IP information for ISP.

Active Link Information	
Link Type	WWAN1
IP Address	10.164.172.139
Netmask	255.255.255.248
Gateway	10.164.172.140
Primary DNS Server	120.80.80.80
Secondary DNS Server	221.5.88.88

2. Go to **Link Management>Cellular>Status**, to check the registration information.



The screenshot shows the NavigateWorx web interface. The top navigation bar includes the logo, 'Login: admin', and buttons for 'Reboot' and 'Logout'. The left sidebar contains a menu with categories: Overview, Link Management (with sub-items: Connection Manager, Cellular, Ethernet, WiFi), Industrial Interface, Network, Applications, VPN, and Maintenance. The main content area is titled 'Status Cellular' and displays 'Cellular Information' in a table format. The table has columns for Index, Modem, Registration, CSQ, Operator, Network Type, IMEI, IMSI, TX Bytes, and RX Bytes. The first row of data is highlighted, and several fields are circled in red: 'Registration' (Registered), 'Operator' (CHN-UNICOM), and 'Modem' (EC25).

Index	Modem	Registration	CSQ	Operator	Network Type	IMEI	IMSI	TX Bytes	RX Bytes
1	EC25	Registered	16 (-81dBm)	CHN-UNICOM	LTE	866758040238947	460014284037995	6270	4742

Additional details shown below the table:

- Index: 1
- Modem: EC25
- Registration: Registered
- CSQ: 16 (-81dBm)
- Operator: CHN-UNICOM
- Network Type: LTE
- IMEI: 866758040238947
- PLMN ID: 46001
- Local Area Code: 2508
- Cell ID: 6016C02
- IMSI: 460014284037995
- TX Bytes: 6270
- RX Bytes: 4742
- Modem Firmware: EC25EFAR06A01M4G