

NR500 Series Industrial Cellular VPN Router

Application Note 068

GPS

Version: V1.0.0
Date: May 2023
Status: Confidential



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1. Introduction

1.1 Overview

This document contains information regarding the configuration and use of GPS on NR500 Series.

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: 1.1.7(3b5122d) or newer

Other Compatible Models: None

1.3 Version

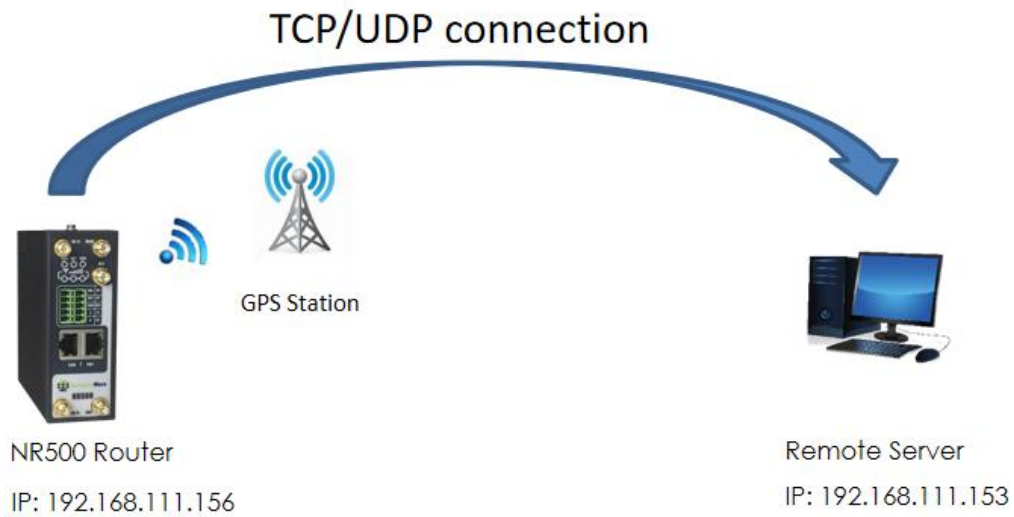
Updates between document versions are cumulative. Therefore, the latest document will include all the content of previous versions.

Release Date	Doc. Version	Firmware Version	Change Description
2023/05/12	V1.0.0	V1.1.7(3b5122d)	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

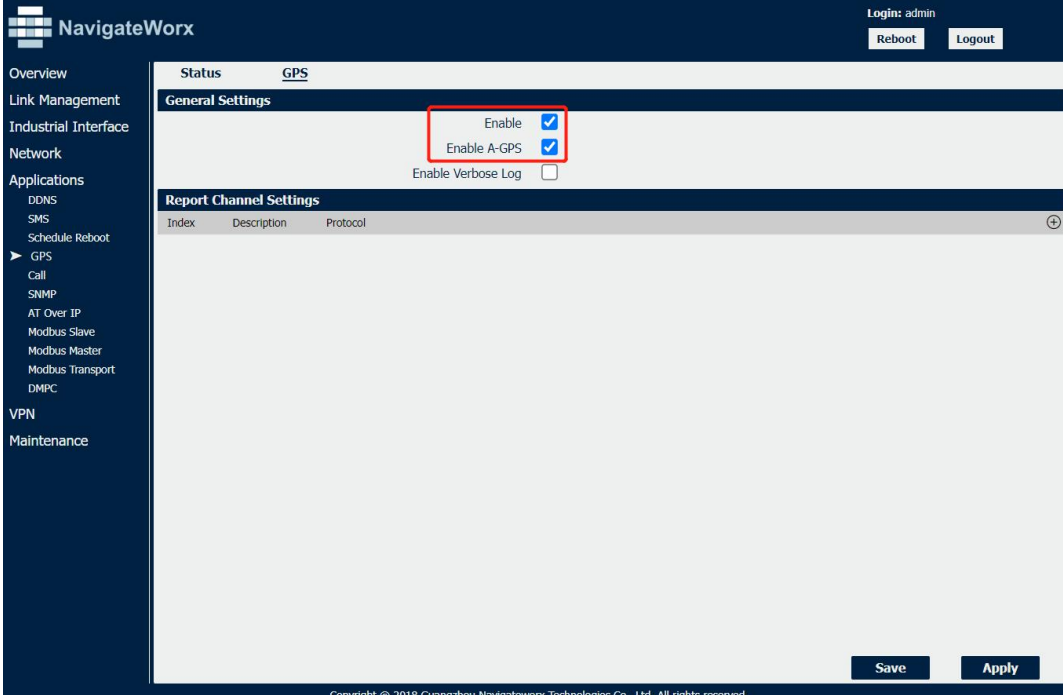


1. NR500 router obtain GPS position successfully.
2. NR500 router run as TCP client/UDP and send the GPS position data to remote server.

3. Configuration

3.1 GPS Configuration

1. Go to **Application>GPS>GPS**, click “Enable” and “Enable A-GPS”, like below:



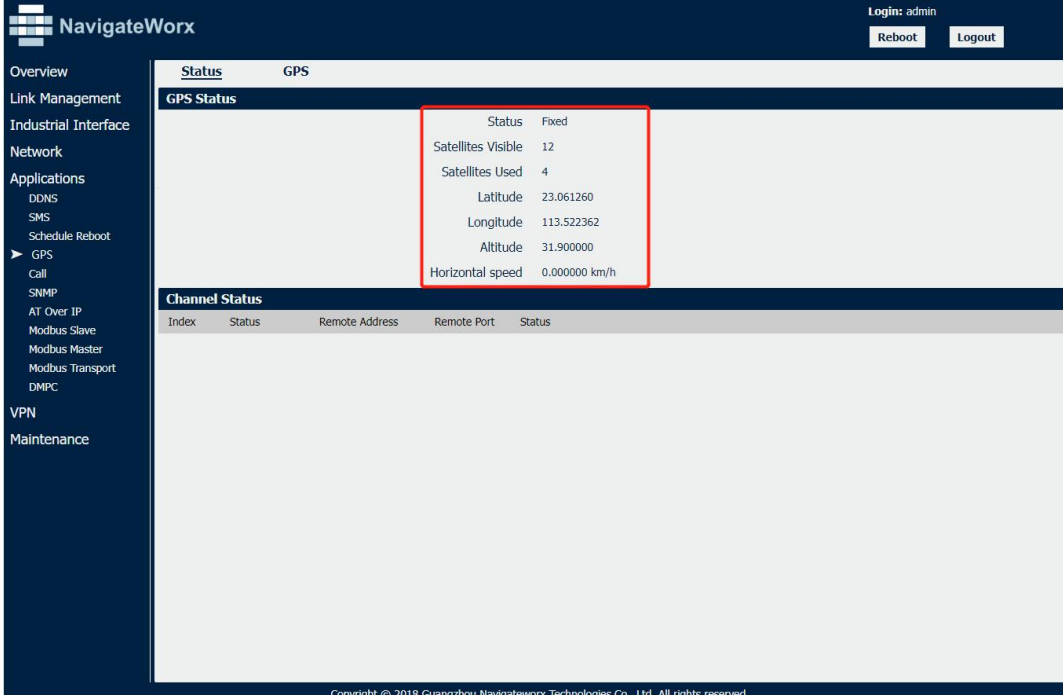
The screenshot shows the 'GPS' configuration page in the 'Applications' section. The 'General Settings' section has the following options:

- Enable
- Enable A-GPS
- Enable Verbose Log

At the bottom of the page, there are 'Save' and 'Apply' buttons.

2. Click **Save>Apply**.

3. Go to **Application>GPS>Status**, NR500 router received the GPS data successfully.

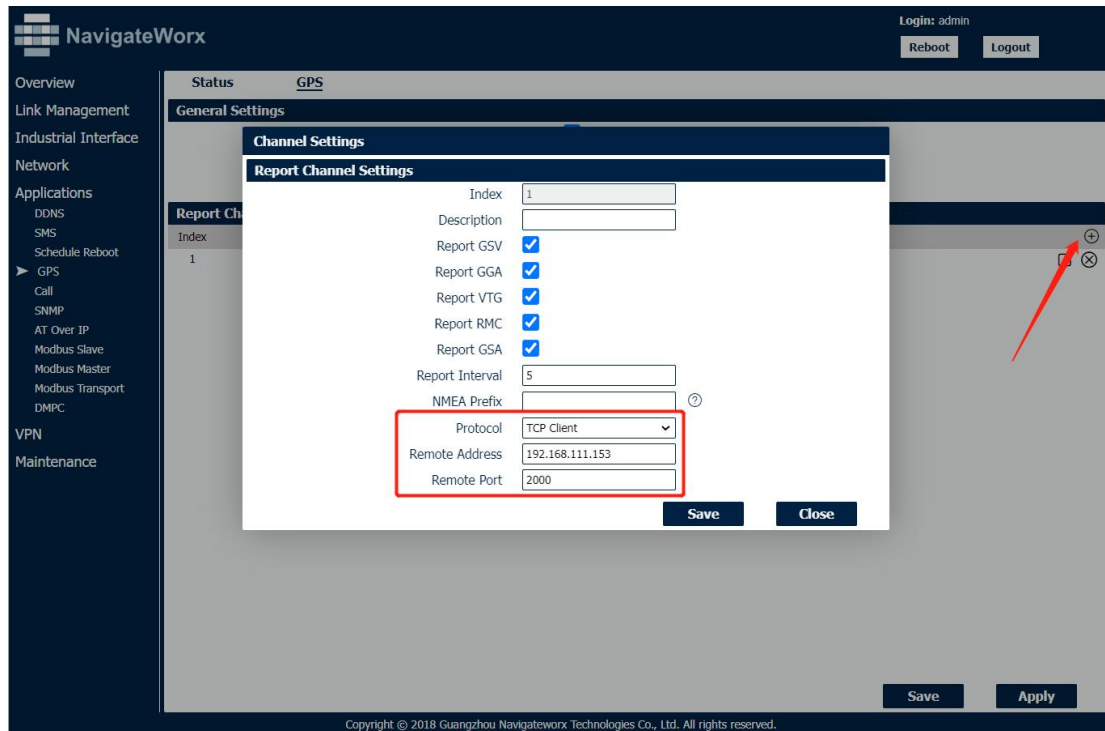


The screenshot shows the 'GPS Status' page. The 'GPS Status' section displays the following information:

Status	Fixed
Satellites Visible	12
Satellites Used	4
Latitude	23.061260
Longitude	113.522362
Altitude	31.900000
Horizontal speed	0.000000 km/h

Below this is the 'Channel Status' section, which is currently empty.

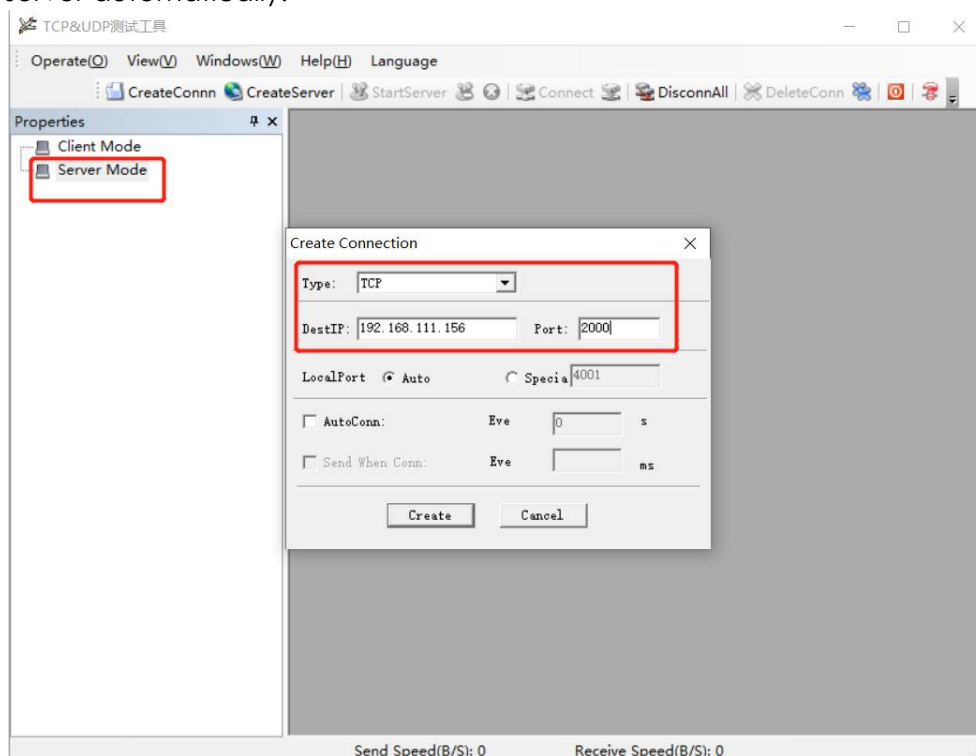
4. Go to **Application>GPS>GPS**, then config channel settings to send the GPS position data to remote server(192.168.111.153), like below.



5. Click Save>Save>Apply. (Note: This is a secondary list, it needs to double click save)

3.2 TCP Server Configuration

1. Here we run TCP Software “TCPUDPDbg” to act as TCP server, NR500 router run as TCP client and will connect to the TCP Server and send the GPS position data to TCP server automatically.



2. Test successfully.

