



CONFIGURING NTRIP CASTER SERVER (RTK2GO.COM)

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Some cases in the field you must find a way to send corrections to the GNSS. There are some cases when the GNSS doesn't have a radio modem to receive the corrections directly from the base or there is not a NTRIP service available. In this document I describe the steps to configure your own NTRIP server to send the corrections to the rover using an internet connection.

We need some concepts before starting the configuration:

NTRIP Caster Server: This server receives the RTCM or CMR corrections from the base stations and organize and classify the information in something called Mounting Points. The user must select the right mounting point to get the proper corrections.

NTRIP Server: Some base stations include a server that can be used to send corrections to the Caster Server. If your base station doesn't have this feature, you can connect it to a PC, then use a software that can send the corrections to the Caster.

NTRIP Client: This is a feature that is included in some GNSS receivers, normally the ones that can be configured to have an internet connection. There are some others that can't incorporate a NTRIP server, in that scenario you would need a NTRIP client working in Windows or Android.

Rtk2go.com: This is a free service you can use to stream your GNSS corrections, it is free because it's a collaborative network, once you send corrections there, also other users can receive them in their devices.

1. Register as a data provider: In rtk2go you have to create a new Base Station Reservation. This reservation is going to use a Mounting Point name and it will be available for the clients. To register you can use this link: <http://www.rtk2go.com/new-reservation/>
2. Once you are registered, you will receive a mail with some instructions. You have to reply to the email to activate your reservations for your mounting point.

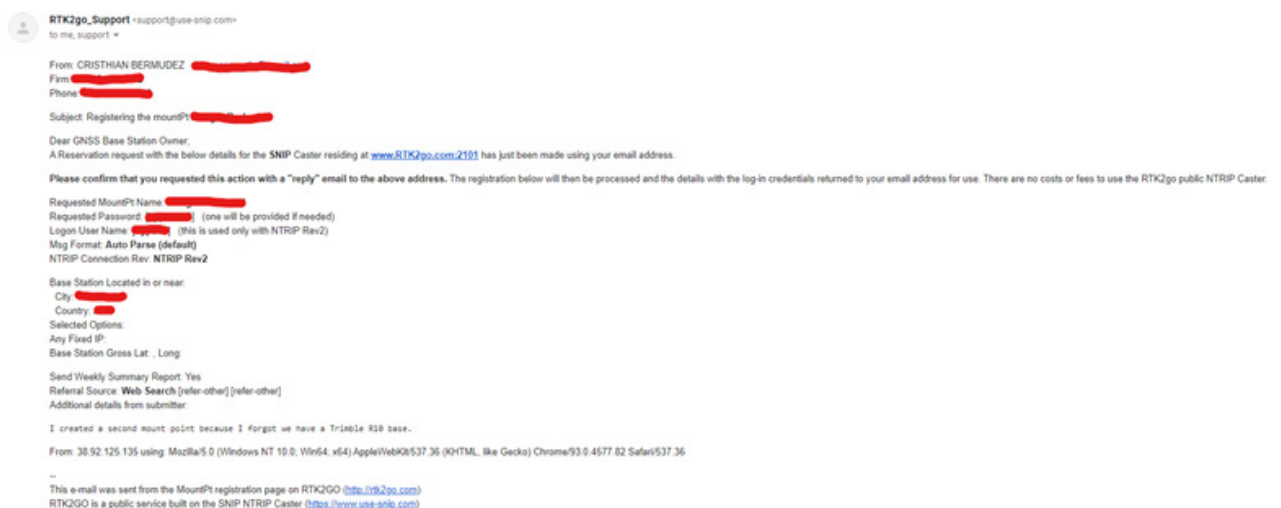


FIGURE 1. Received email after registration

- After replying the first email you received, you will receive another email with a confirmation of the reservation.

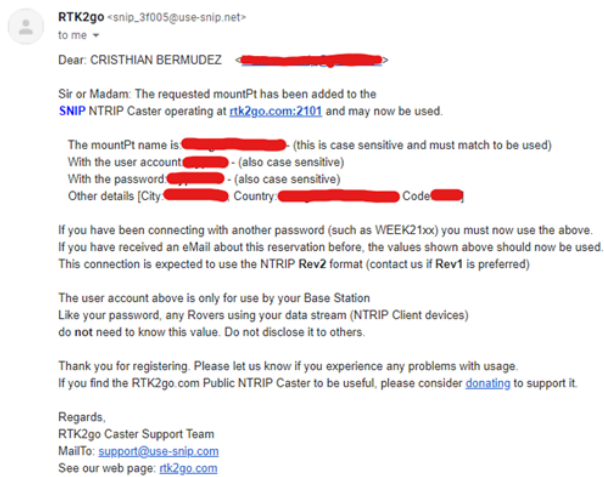


FIGURE 2. Reservation confirmation

- For this example, I used a Trimble R9S RTK base. The RTK base was installed in the office, I configured the IP address, Subnet Mask, Default Gateway and DNS servers, so the RTK base had access to internet. Here it is an explanation of the parameters you have to enter in the base:

NTRIP Version: Select the same version you entered during the registration in rtk2go.com.

NTRIP Caster: rtk2go.com

MountPoint: Enter the Mounting Point name you set during the registration in rtk2go.com

Username: Enter the username you set during the registration in rtk2go.com

Password: Enter the password you set during the registration in rtk2go.com

Tip - Remember you received a confirmation email with all of these parameters.

In the same NTRIP server configuration window you have to enable the type of message you want to send to rtk2go.com. It could be all of the RTCM variants or CMR/CMR+. If you send any of the RTCM variants rtk2go could parse the data and it will show the status of this corrections in its site.

In the following example I used RTCM 3.2.

I/O Configuration

NTRIP Server

NTRIP Server

Status: Init
Enable:

NTRIP Version: NTRIP v2.0

NTRIP Caster http(s):// rtk2go.com

Enable SSL/TLS:

Mount Point: [REDACTED]

User Name: [REDACTED]

Password: [REDACTED]

Verify Password: [REDACTED]

Identifier: 5951R24502 Country: ATG

Network: [REDACTED]

CMR

Disabled Delay: 0 msec

RT17:

Epoch Interval	Options
<input type="checkbox"/> Off	<input checked="" type="checkbox"/> Concise
<input checked="" type="checkbox"/> Measurements	<input type="checkbox"/> Multi-System Support
<input checked="" type="checkbox"/> Positions	<input type="checkbox"/> R-T Flag
	<input type="checkbox"/> Smooth Pseudorange
	<input type="checkbox"/> Send Raw GPS Data
	<input type="checkbox"/> Smooth Phase
	<input type="checkbox"/> Send Raw SBAS Data
	<input type="checkbox"/> Include Doppler

FIGURE 3. RTK Base NTRIP Server configuration (1)

7. 7. The first time you connect to the server you have to download the source table; there you are going to find the Mounting Point of your base station:

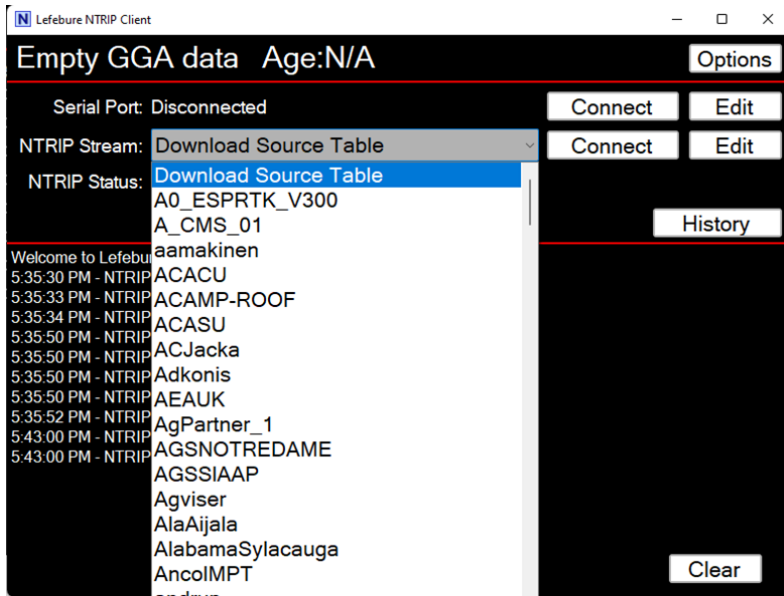


FIGURE 7. Downloading Mounting Point Source Table

Select the right Mounting Point and press Connect.

Beware - If you try to puss in corrections in rtk2go.com without a reservation your IP address can be banned.