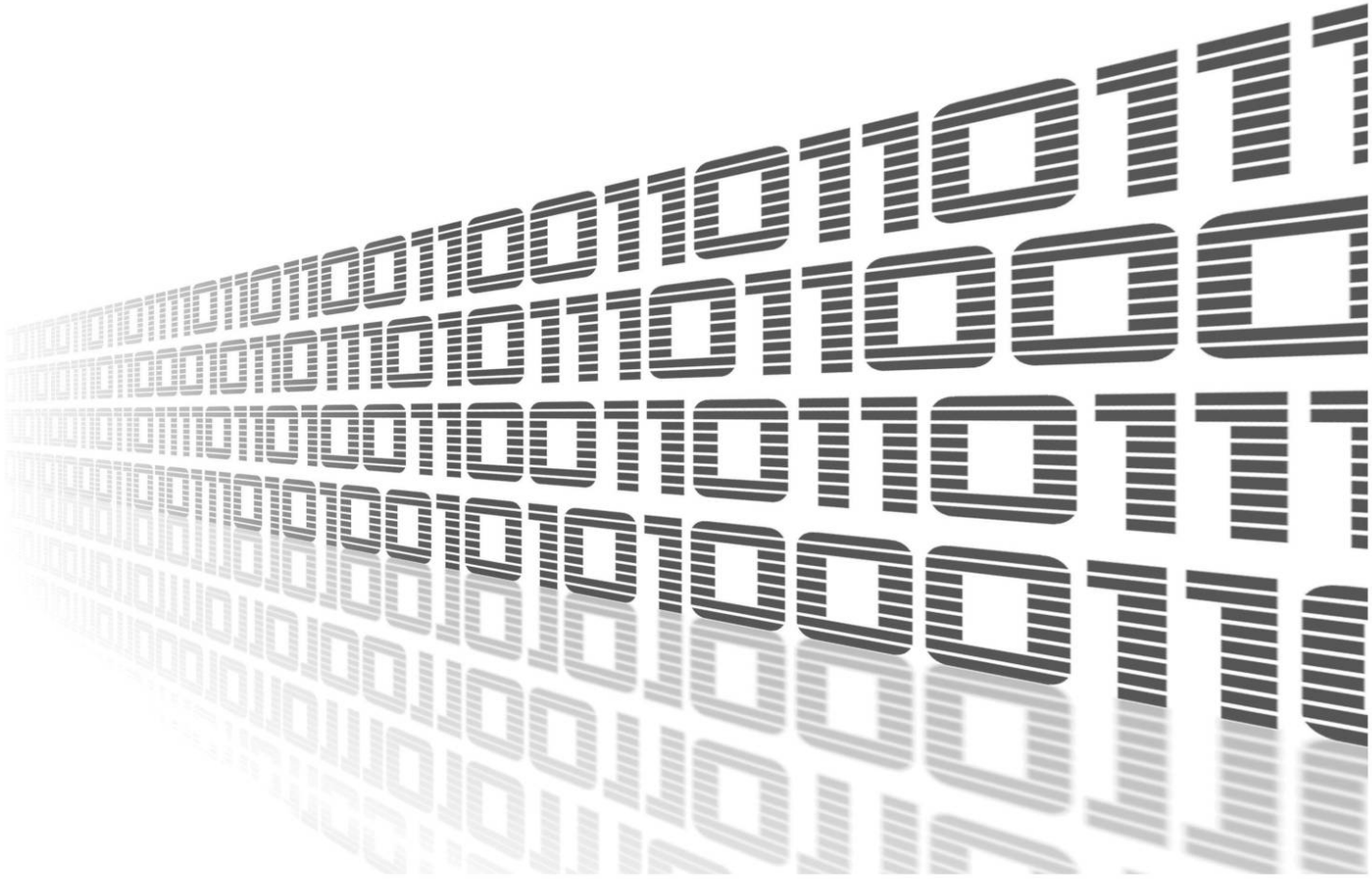
ADVANTECH

RouterApp

Ntrip Client



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Used symbols

Danger – Information regarding user safety or potential damage to the router.

Attention – Problems that can arise in specific situations.

Information – Useful tips or information of special interest.

Example – Example of function, command or script.

Contents

List of Figures

List of Tables

1. Changelog

1.1 Ntrip Client Changelog

v1.0.1 (2013-08-19)

- First release

v1.0.2 (2013-08-28)

- Improved source table
- Added configurable reconnection interval

v1.0.3 (2013-10-03)

- Added sending GGA message to Ntrip Caster

v1.0.4 (2017-03-13)

- Added option manually set latitude, longtitude, height
- Enabled using of internal GPS

2. Description of router app

Router app *Ntrip Client* is not contained in the standard router firmware. Uploading of this router app is described in the Configuration manual (see Chapter Related Documents).

This module is used to gain a more accurate location via Ntrip protocol (it's a general stateless protocol based on the protocol HTTP/1.1.). Each router which has enabled the router app can be considered as Ntrip Client. The task of the Ntrip Client is connecting to the Ntrip Caster (server in terms of client-server architecture) and ask for data from the selected MountPoint. If Ntrip Client (router) does not know any MountPoint to which router can connect may ask Ntrip Caster for a list of active MountPoints. In this list it is possible to find a description of data (corrections) which is able to receive. Then Ntrip Caster starts to forward GNSS corrections. Communication between Ntrip Client and Ntrip Caster is similar to communication between web browser and server (see diagram below).

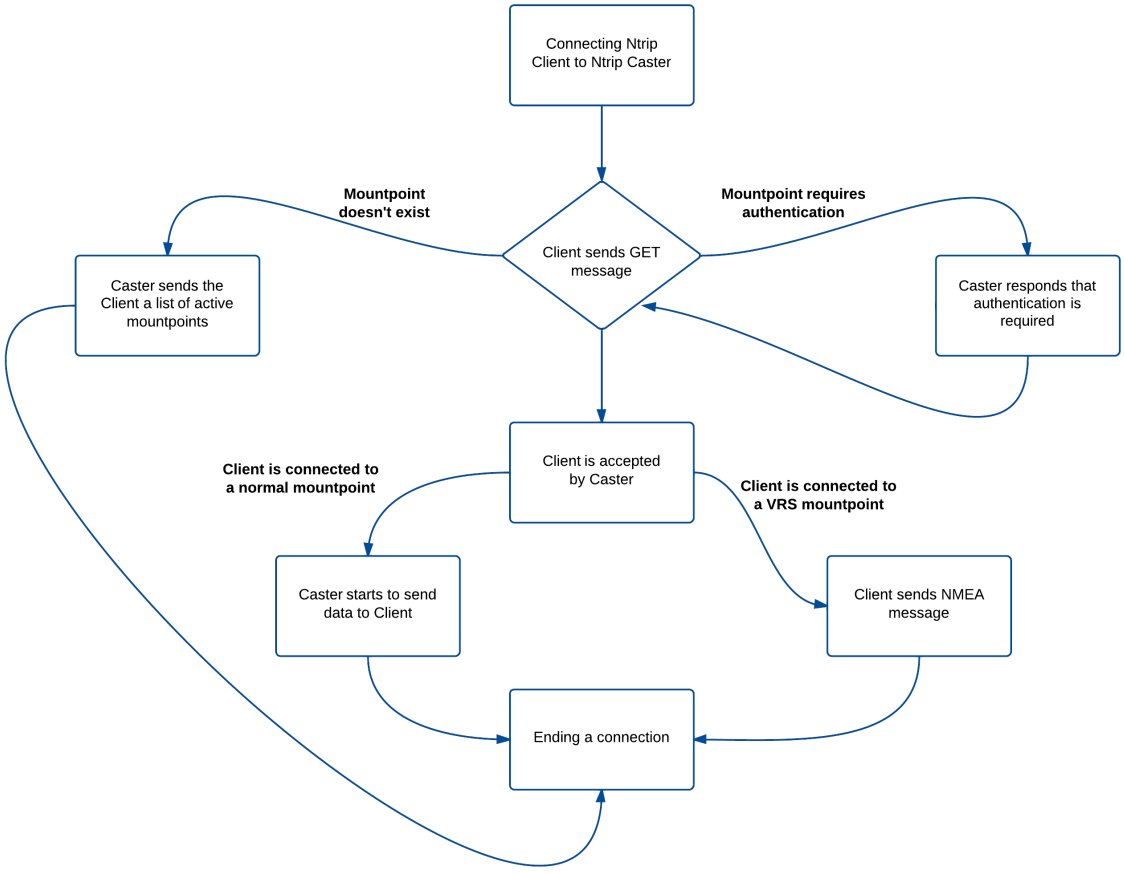

Figure 1: Communication scheme

Note: VRS MountPoint is representing the virtual reference station.

For configuration *Ntrip Client* router app is available web interface, which is invoked by pressing the module name on the *Router apps* page of the router web interface. The left part of the web interface contains the menu with pages for *Configuration*, monitoring (*Status*) and *Customization* of the module. *Customization* block contains only the *Return* item, which switches this web interface to the interface of the router.

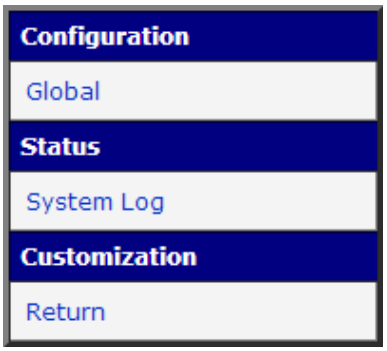

Figure 2: Menu

3. Configuration

Configuration of *Ntrip Client* router app is performed via the form on the *Global* page in the *Configuration* part of the module web interface. The first item in this form – *Enable Ntrip Client* – is used to activate these router app. Meaning of other items is described in the table below.

First, enter the IP address of the Ntrip Caster (*IP Address*) and TCP port number on which it runs (it's 2101 as a standard). Then use the *Browse* button to select the most appropriate MountPoint (the list may be loaded for a few seconds). If you know the accurate name of required MountPoint, you can enter it directly into the *MountPoint* box. If the MountPoint is not publicly accessible, you must enter *Username* and *Password*. Finally, fill in the information about the serial line.

Item	Description
IP Address	IP address of Ntrip Casteru (server to which Ntrip Client connects)
TCP Port	TCP port on which the Ntrip Caster runs (2101 as a standard)
Username	User name for logging on to the selected MountPoint
Password	Password for logging on to the selected MountPoint
MountPoint	Name for the selected MountPoint. Use the *Browse* button to select MountPoint from a list of active MountPoints on the Ntrip Caster.
Reconnection interval	The time interval after which the module tries to connect to the Ntrip Caster if the previous connection failed (in seconds).
Expansion port	Expansion port which is equipped with XC-RS232
Baudrate	Applied communication speed
Data Bits	Number of data bits
Parity	Control parity bit: • *none* – Will be sent no parity • *even* – Will be sent even parity • *odd* – Will be sent odd parity
Stop Bits	Number of stop bits (one or two)

Table 1: Description of items in configuration form

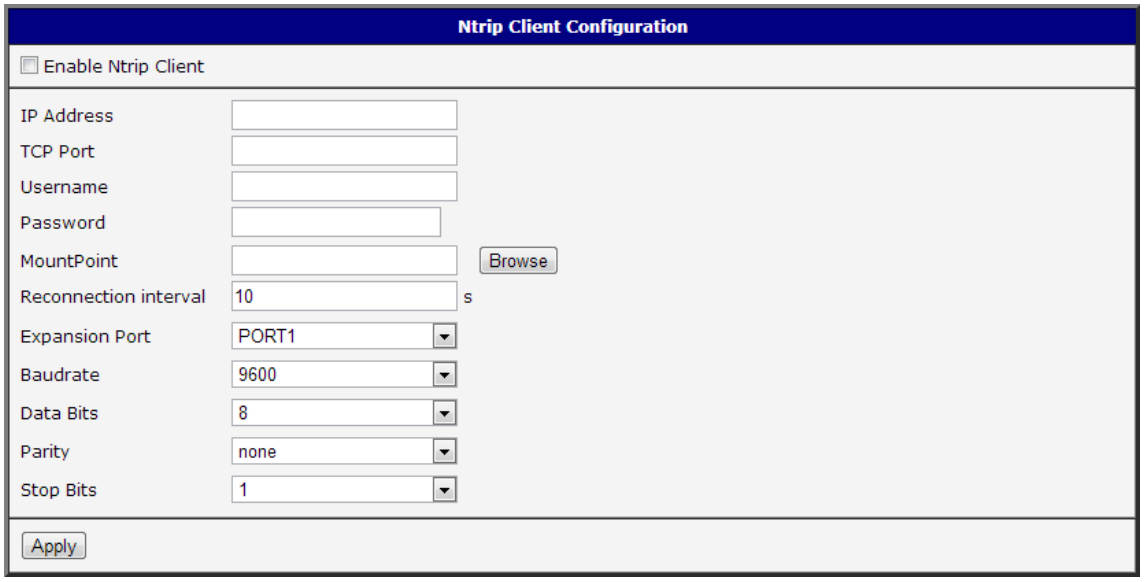

Figure 3: Configuration form

3.1 System log

In case of any problems it is possible to view the system log by pressing the *System Log* menu item. In the window are displayed detailed reports from individual applications running in the router. Reports relating to *Ntrip Client* module are marked with *ntripd*.

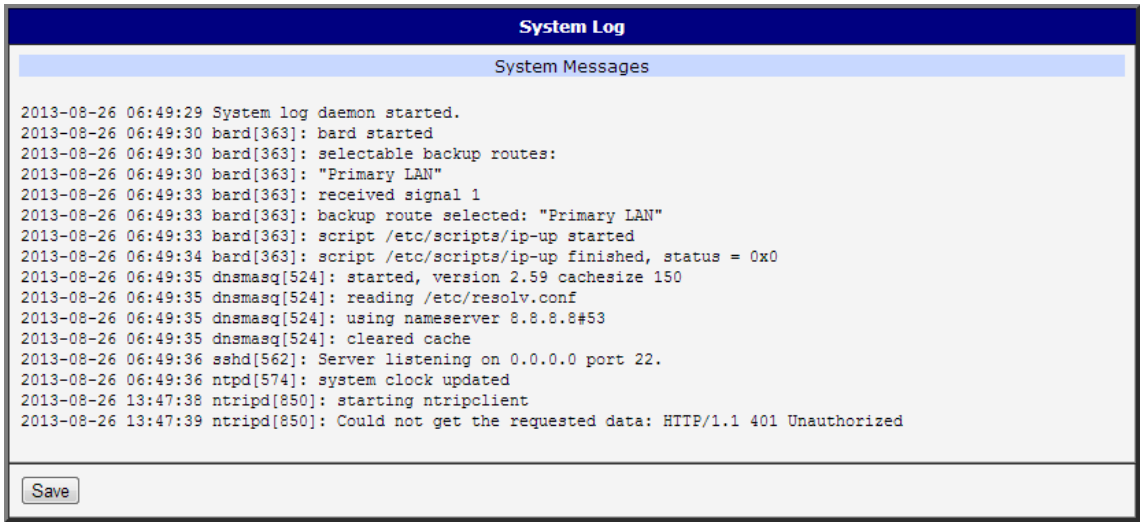

Figure 4: System log

4. Related Documents

You can obtain product-related documents on *Engineering Portal* at *icr.advantech.cz* address.

To get your router's *Quick Start Guide*, *User Manual*, *Configuration Manual*, or *Firmware* go to the *Router Models* page, find the required model, and switch to the *Manuals* or *Firmware* tab, respectively.

The *Router Apps* installation packages and manuals are available on the *Router Apps* page.

For the *Development Documents*, go to the *DevZone* page.