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Newsteo GATxx Product Specification

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Revisions

Revision	Issue Date	Author	Comments
0.1	December 8 th , 2016	AC	First specification
0.2	Novembre 3 rd , 2017	AC	Adding of a picture
0.3	January 29 th , 2018	AC	Precisions on the GAT33 power consumption
0.4	July 30 th , 2018	AC	Major modifications

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1 Introduction

Object:

Define the products specifications in term of technical characteristics, physical dimensions, aperture, accessories and casing.

Products:

- PFPN-GAT33-001 : Gateway for trucks, transmission on ISM 868 MHz and 3G (GSM network), display
- PFPN-GAT43-001: Gateway for Indoor use, transmission on ISM 868 MHz and 3G (GSM network), display

2 Summary of the data collection infrastructure

2.1 Measurements collection

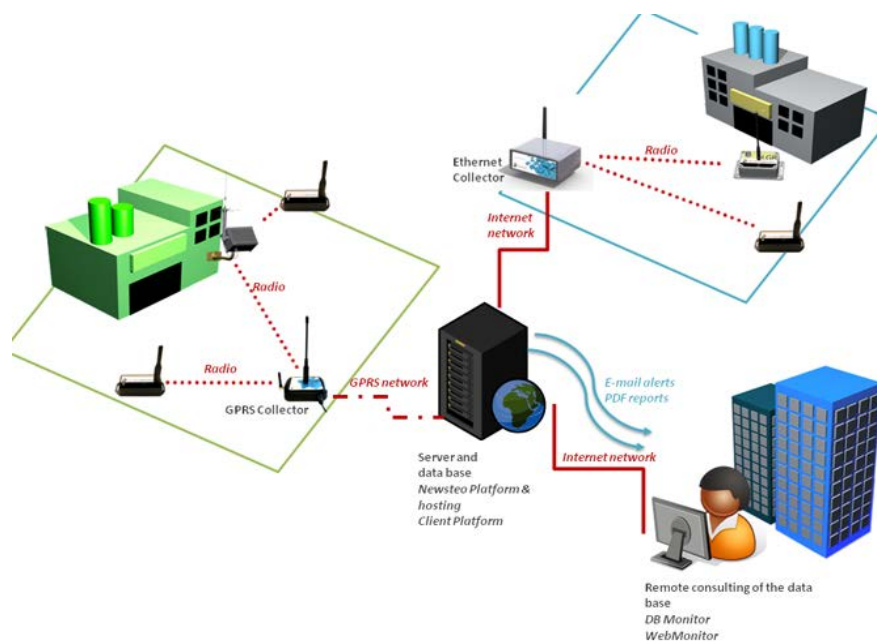


Figure 1: Functioning

- The Data Logger equipped with a sensor takes the measure and transmits it by radio to the Gateway GATxx,
- The gateway transmits the measurements through 3G (cellular) to a central database,
- A real-time alert can be sent anywhere to the supervisor,
- The supervisor can access at any time to the measures, via Internet

The Newsteo GAT allows remote collection of data coming from several Newsteo Data loggers, and storage on a remote secured server.

2.2 Displaying of the measures from the database

Through the web application WebMonitor: Thin Client solution, simply connect to the website www.newsteo-webmonitor.com

2.3 Database hosting

Each GAT is delivered with a pre-set web-hosted database valid during 1 month.
After this trial period, the database can be hosted on a Newsteo' server with a monthly fee.

3 Product characteristics

3.1 General aperture



Figure 2: GAT

3.2 Transmission between Gateway and Server

	PFPN-GAT43-001	PFPN-GAT33-001
Application	Indoor 3G	Truck 3G
Transmission mode	3G (GSM network)	3G (GSM network)
Subscription	GSM subscription + SIM card managed by the customer or supplied by Newsteo	

3.3 Transmission between Gateway and Newsteo Data loggers

	PFPN-GAT43-001	PFPN-GAT33-001
Transmission mode	Radio ISM 868 MHz	
ISM antenna	Full wavelength antenna included The antenna is provided with a magnetizable foot	External ¼ wavelength antenna included
Radio range	Several hundred meters, can pass through several walls	About 50 meters in free land Can operate inside a truck, transmission efficient between the cabin and the trailer

3.4 Other features

	PFPN-GAT43-001 Indoor 3G	PFPN-GAT33-001 Truck 3G
Internal memory	60 000 measurements Can store the measurements in case of loss transmission with the server (ADSL cut, loss of GSM network ...)	
Power supply	5V AC power supplied, micro-USB connector	2 versions: PFPN-GAT33-001: delivered with vehicle power adapter PFPN-GAT33-002 : no power adapter, 2 wires power connection (12V)
Average power consumption		30mA under 12V ¹
IP level	IP30	IP30
Operating temperature	Standard operating temperature : -20°C... +70°C Extended operating temperature : -40°C... + 70°C (the display may not be totally operating at those temperatures)	
Display	OLED display 4 lines, 20 characters on each line Mainly used to display diagnostic messages (signal quality, loss of transmission, battery level...)	
Buzzer	On-board Buzzer	
Connectors	- micro-USB for power supply - SMA for radio antenna	- RJ45 for Power supply - SMA for radio antenna
Cellular antenna	On board cellular antenna	On board cellular antenna
Button	Button available at the rear of the GATxx Acknowledgement + reboot	

3.5 Dimensions & Installation

3.5.1 PFPN-GAT33-001 - Truck 3G

3.5.1.1 Dimensions

Without foot: 80 mm (height) x 125mm (width) x 22mm (depth)
With foot (approximately) : 100 mm (height) x 125mm (width) x 66mm (depth)

3.5.1.2 Installation, fixing

Provided with a rotating foot, to paste the GAT33 to the windshield.

3.5.2 PFPN-GAT43-001 - Indoor 3G

3.5.2.1 Dimensions

Without foot: 80 mm (height) x 125mm (width) x 22mm (depth)

¹ Knowing that an average car battery has a capacity of 70 Ah, 1 day of operation represents 1% of the capacity.

3.5.2.2 Installation, fixing

Provided with an aluminium square to set it on a horizontal surface.

4 Certifications

Products certified for radio use in Europe, on the frequency of 868 MHz (ISM band). For use in another area, check with local authorities.

5 Hosting server functioning

In case of **hosting on Newsteo platform**, on the Internet, there is nothing particular to know, Newsteo supports this part, with its subscription offer.

The Newsteo GAT Gateway communicates with the remote Newsteo Webserver in 'point-to-point' mode, which limits the risk on the network itself. Newsteo has implemented the SSL protocol (port 443) to secure the data between the Gateway and the server.

The Newsteo GAT Gateway product runs on a private operating system and does not use Linux or any other public OS. So, apart from the limited capabilities to communicate with Newsteo remote server, the Gateway does not contain any other generic network functions that would permit to enter Customer's internal network through the Gateway.