



# Application Note

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WebdynEasy W M-Bus  
Nomad Mode

# INTRODUCTION

This application note describes how to configure the WebdynEasy W M-Bus product to operate in Nomad mode. In this mode of operation, the usual philosophy of the product with listening window and periodic file sending is no longer relevant.

The gateway is powered by the external input, when external power is on (Vext) the gateway must start recording WMBus frames. When the number of recorded frames reaches a certain level, the gateway must then upload a data file containing these frames on the FTP server while continuing to record new frames.

When the external power is off, so the gateway must stop recording radio frames and upload the corresponding data file on the FTP server.

## OPERATING MODE

To use the gateway in “nomad” mode, the value of parameter “config/local/magnet” must be 4. The hardware configuration of the gateway does not allow an automatic wake-up if Vext is applied, to circumvent this problem it wakes up every minute to measure the presence or not of an external power supply; to do this, parameter “config/monitoringPeriod” must be set to 1.

Once the external power supply has been detected, the gateway will first connect to the network then access the FTP server to upload a data file (frames remaining in the memory if they could not be uploaded during the last session). Then it will consult its INBOX directory to process any command or configuration files (as well as the broadcast directory if this feature is activated).

A new radio listening window is open. Once the limit of the number of frames has been reached (parameter “/config/local/nomadMeterLimit”) the listening window is closed the corresponding data file is created and copied in flash memory then a new listening window is opened. In parallel, once the data file is copied in flash, it is uploaded to the FTP server (as well as a supervision file).

If for more than 5 seconds the external power supply is cut, then the current radio listening window is closed, and the data file created and uploaded to the FTP server. Then the gateway returns to low power mode.

## SETTINGS

To activate the Nomad mode, you must modify the « /local/magnet » parameter and set the value to « 4 ». In the PC configuration software this mode is called « nomad ».

| Name + folder tree            | Description                             | Type                   | Value by default |
|-------------------------------|---|------------------------|------------------|
| /config/local/nomadMeterLimit | Maximum number of frames per data file. | Integer<br>• Max: 1999 | 1000             |

- If during the first FTP connection a command file or configuration file is processed, then the gateway will return in low power mode and will wake up in the following minute.
- The network connection is only done explicitly during the first phase. Then it is the modem which manages this connection automatically, so it may be that in the event of a connection problem the modem uses another technology (or another operator) than the one used the first time.
- The initial architecture of the gateway limits the consecutive number of possible listening windows to 12, if during operation this number is exceeded then the gateway will switch to low power mode and wake up in the next minute.