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Wanesy Wave

Firmware update over Wi-Fi

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1 Introduction

This document describes the update mechanism of the Wanesy Wave firmware over Wi-Fi, since firmware version v1.8.0. Please, read previous firmware documentation if the information is not relevant to your Wanesy Wave behavior.

Both STM32 and ESP32 firmwares can be updated over Wi-Fi.

2 Description of procedure

2.1 [Step 1] Connect to Wi-Fi SSID

The SSID broadcasted by the Wanesy Wave is unique per device. SSID is composed of two parts:

- the static prefix : **Wave_**
- the suffix unique per product, composed of the **6 last hexadecimal digits of the EUI**.

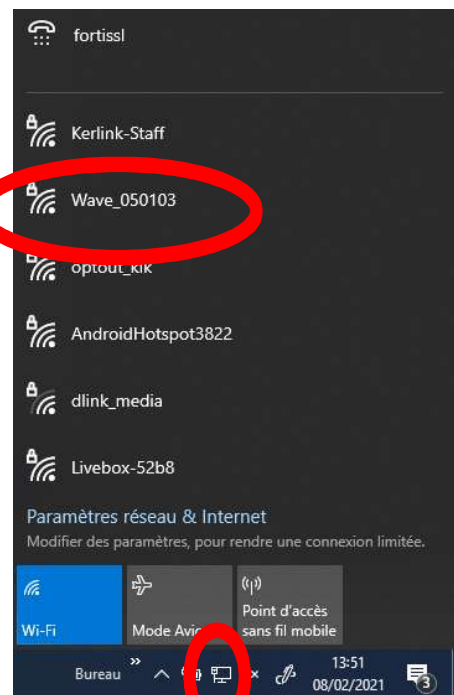
Example:

- EUI is 7076FF00690509D1
- 6 last hexadecimal digits of EUI are 0509D1
- SSID is Wave_0509D1

EUI is written on the Wanesy Wave sticker placed on the back side of the product enclosure.

Connect to the Wanesy Wave Wi-Fi network with the Wi-Fi password.

Please read the FAQ section of the wiki <https://wikikerlink.fr/wanesy-wave> or contact KERLINK to know the Wi-Fi password.



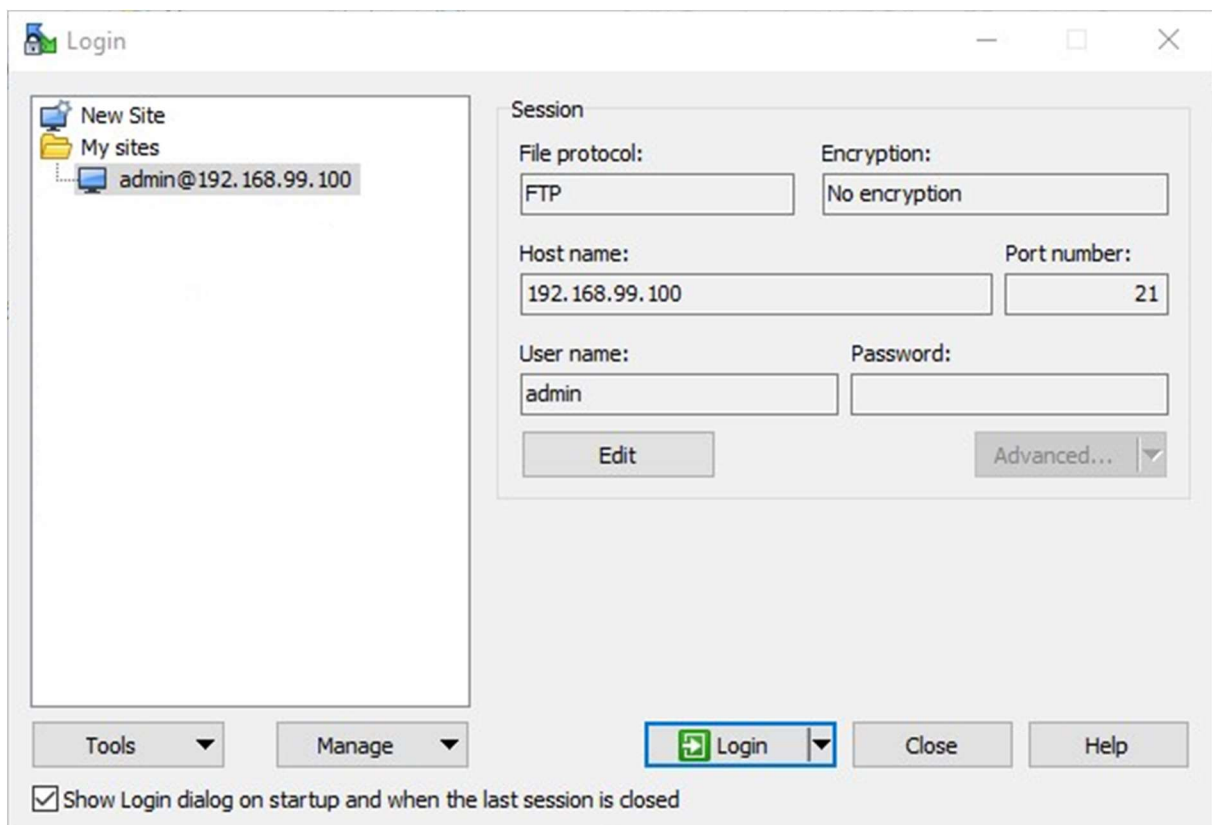
2.2 [Step 2] Configure FTP client

Once connected to the Wi-Fi network, open an FTP client and create a new “site” entry.

Any FTP client can be used (for example FileZilla or WinSCP), the only requirement is to use **PASSIVE MODE** connection.

The Wanesy Wave host IP address is always: **192.168.99.100**

The embedded pseudo FTP server is accessible using the following username: **admin**
Please read the FAQ section of the wiki <https://wikikerlink.fr/wanesy-wave> or contact KERLINK to know the FTP server password.



An informative file **device_info.txt** is available in the root directory of the FTP server, see example below:

```
7076FF0069050103,wanesywave_EU868 (ver. 1.8.0),JOINED
```

This file contains the product EUI, software region, firmware version and the LoRaWAN join status of the Wanesy Wave.

2.3 [Step 3] Update firmwares

2.3.1 ESP32 firmware update

In order to trigger an update of the ESP32 firmware, the firmware binary must be put or dropped (depending of the FTP client you have chosen) into the root directory of the Wanesy Wave FTP server. The root directory is a hot folder that triggers the update mechanism.

The only requirement is that the firmware name starts with “esp” (in lower case) in order to trigger and activate the correct update route in the device.

The Wanesy Wave will start automatically the ESP32 firmware update. The Wanesy Wave Wi-Fi network session will be disconnected during the operation. ESP32 firmware update should take around one minute to be completed.

After 2 minutes have elapsed, you could re-connect to the Wanesy Wave via FTP then check the file **esp32_version.txt** to ensure that the new ESP32 firmware version has been successfully installed. See example below:

```
'Kerlink wanesywave Ver. 1.8.0' running from partition ota_1 starting @ 001E0000
```

OTA banks ota_0 and ota_1 are used alternatively by the update mechanism.

2.3.2 STM32 firmware update

In order to trigger an update of the STM32 firmware, the firmware binary must be put or dropped (depending of the FTP client you have chosen) into the root directory of the Wanesy Wave FTP server. The root directory is a hot folder that triggers the update mechanism.

The only requirement is that this filename starts with “stm” (in lower case) in order to trigger and activate the correct update route in the device.

The Wanesy Wave will start automatically the STM32 firmware update. The Wanesy Wave Wi-Fi network session will be disconnected during the operation. STM32 firmware update should take around three to five minutes to be completed.

After six minutes have elapsed, you can re-connect to the Wanesy Wave via FTP then check the file **device_info.txt** to ensure that the new STM32 firmware version has been successfully installed. See example below:

```
7076FF0069050103,wanesywave_EU868 (ver. 1.8.0), JOINED
```

End of Document