

APPLICATION NOTE

APNUS029 How to Backup & Restore Conf files
June 2023

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1. Introduction

For maintenance purpose, it is important to backup the configuration which could then be restored during product replacement or for rollback to older configuration when it is required.

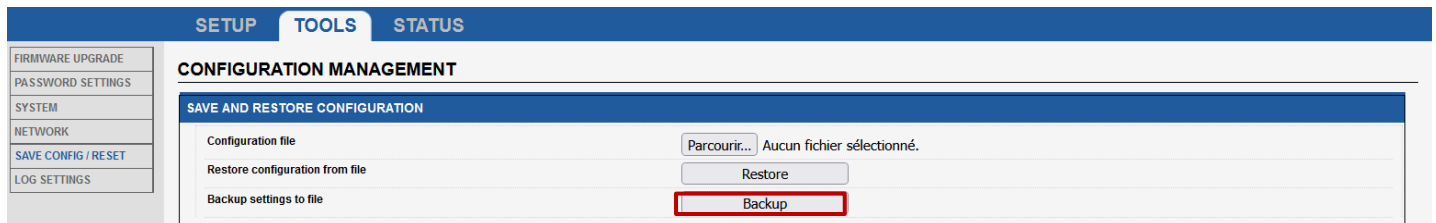
2. Backing Up and Restoring Methods

Acksys provided in WaveOs differents tools to backup and to restore configuration according to the different needs of our customers.

Backing Up via Router GUI

If you have familiarized yourself with the configuration scheme and have all of the device in order, we can start configuring the router using instructions provided in this section: Do this on the router.

- Login to the router's WebUI and go to Tools → Save config /reset → Backup.
- Backup settings to file
- Click save and apply



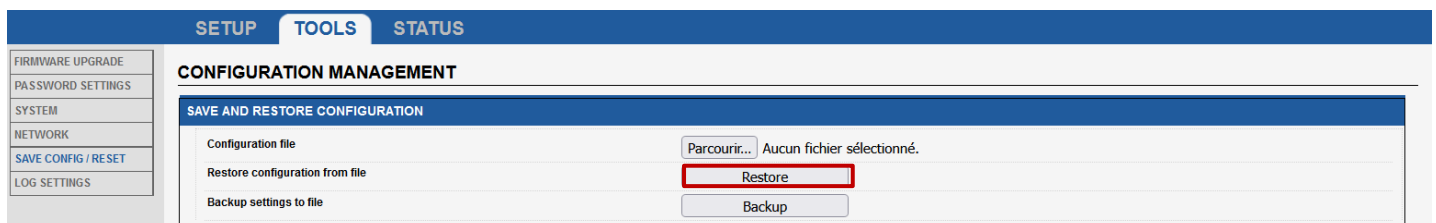
When the configuration is backed up, the configuration files and WaveOs markers are saved in a zip file. The files will be created and copied to a zip file. The format of the file name is BACKUP_[date: year, month, day]_[time in 24-hour format]_[server name], for instance BACKUP-TypeOfRouter-User-definable-yy.bin

NOTE: The best practice is to back up the configuration regularly. The configuration should always be backed up before and after making major configuration changes, and before upgrading the software

Restoring via Router GUI

Login to the router's WebUI and go to Tools → Save config /reset → Restore. Do this on the router:

- Configuration file: Copy where the backup file will be copied to.
- Click on Save and Apply



- Change your IP address in order to be in the same network of your router IP for GUI access.

Backing Up via C-key

RuggedAir serie and Railbox serie embedded C-Key containing the product model identifier, an archive of the appropriate configuration files for the model and a signature for the archive.

Do this on the router to backup on C-Key.

- Login to the router's WebUI and go to Tools → Save config /reset → C-Key management.
- Click on Copy in order to copy the configuration file on the C-Key
- Click save option

Restoring via C-key

The product keeps an internal copy of the configuration files, so that it can work with the C-Key removed. The internal copy also has a signature (the internal signature).

After a reset-to-factory-settings action, the product reboots and copies the C-Key contents, if valid; to its internal configuration, and uses it immediately.

Now let's imagine that the router was damaged and needs replacement. Here is the procedure that will transfer the configuration from the damaged product "DP" to the new one "NP".

1. Requirements: a small screwdriver to unplug and plug back the C-Key.
2. Remove the C-Key on **NP** (if any) and keep it apart; it won't be used.
3. Power off **DP**, disconnect cables and unscrew from its support.
4. Dismount the C-Key from **DP**.
5. Plug the C-Key into **NP** and screw it.
6. Mount **NP** in its location, reconnect the cables. If **NP** has been used previously, and you are unsure whether its configuration disables the C-Key:
7. Power up **NP**, wait for the "Diag" LED to turn green.
8. Push the reset button steadily for at least 3 seconds, until the "Diag" LED turns back red; this resets the product to factory settings. Wait until both "Diag" and "C-Key" LEDs turn green.

NOTE: Airlink, AirWan, AirBox, Serie of RuggedAir and AirXroad Series conf file are compatible between themselves and RailBox Serie between RailBox Series

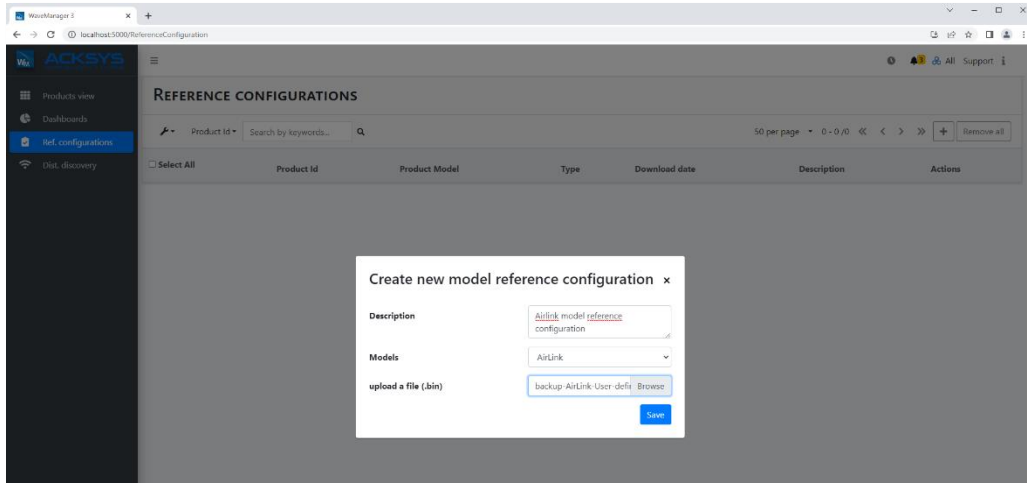
Backup via WaveManager

Your reference configuration file is the binary file of your product configuration. This file can be generated directly from the web interface of the reference product (page TOOLS/Save config), or it can be saved on computer and hard drive.

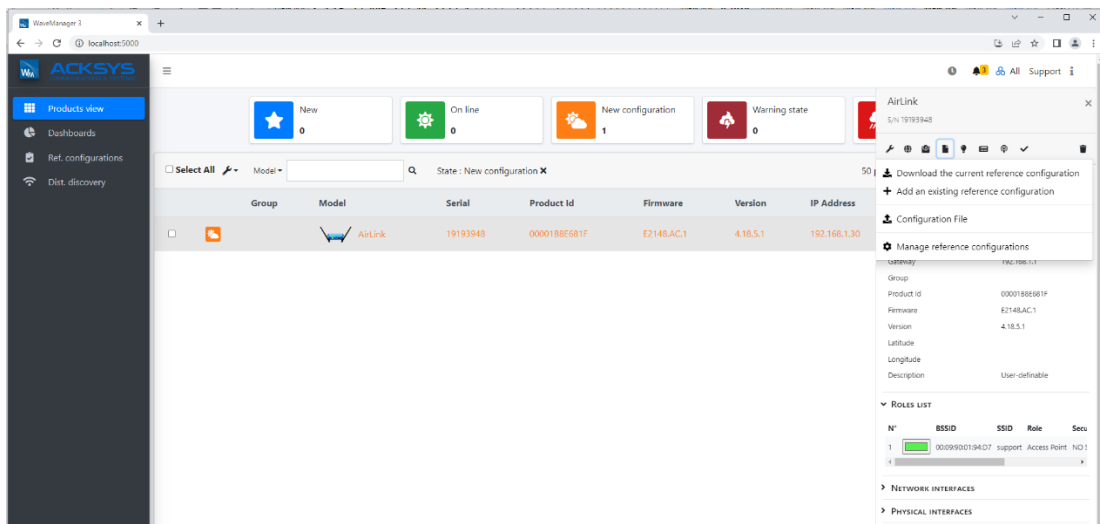
A reference configuration file is a file listing all the parameters of the reference product (of a given model).

The reference configuration can be configured per products or modes and this will allow you to manage the configuration files saved in the database.

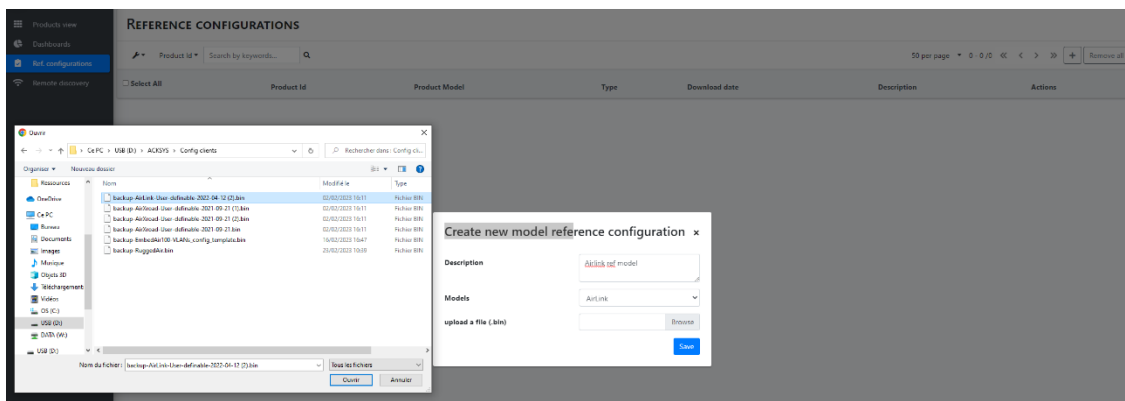
The reference configuration file should configuration as follows, the Models AirBox/10 is selected in this example. You should browse your computer to select the .bin file and go saved.



In Products View, select the product and click Product reference configuration then Download the current reference configuration to have Configuration File then select to load it on your product as below:

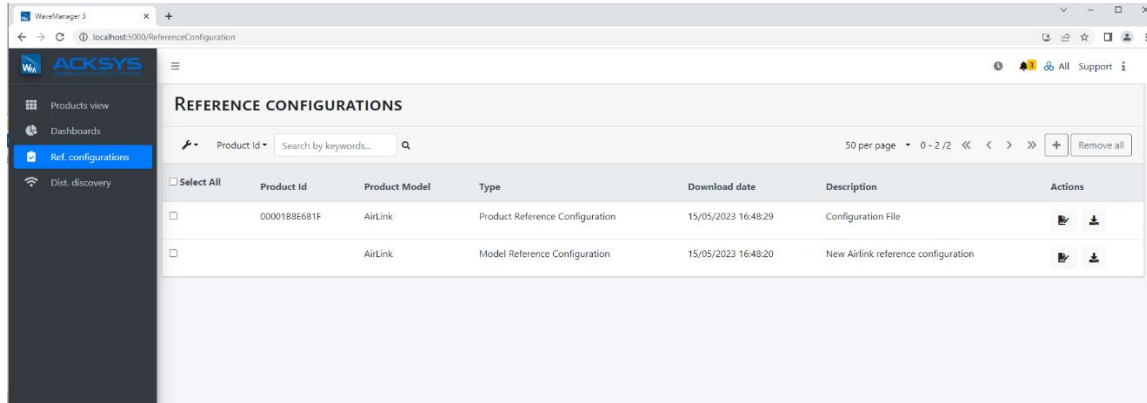


You may also take it upload it from your computer as below:



Select the .bin file and then Save, you will see the reference model for Airlink in the screenshot as reference configuration.

We can see the applied configuration listed in reference configuration:



In the list of configurations per product, you will find:

Product ID	This is the product identification number that you find in the Product view page of WaveManager, or in the Status/Device info page of the product's WEB server
Download date	The date this configuration file was saved in the database
Description	The summary description given at the time of registration in the database

Configurations by product are closely linked to the product from which they come. They can only be uploaded in this very unit, through the Product View window, in the same way as they were saved. If a product is deleted from the database, either by an individual deletion, or following a reset of the database, the record of its configuration also disappears.

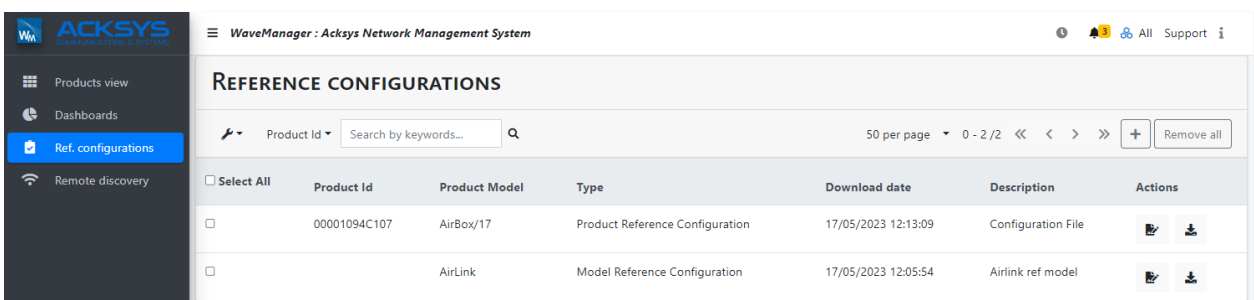
To upload a configuration to one or more products of the same model, it is necessary to create a reference configuration as shown

Restoring via WaveManager

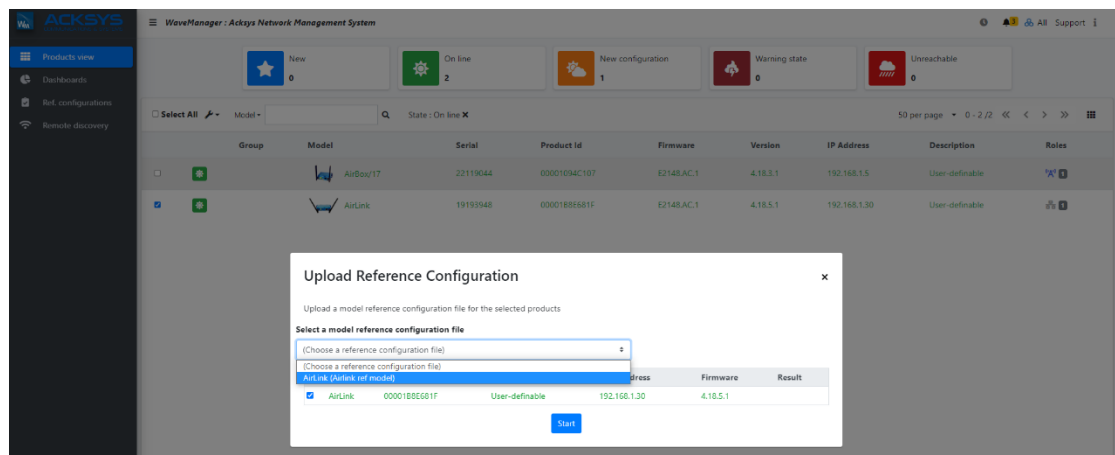
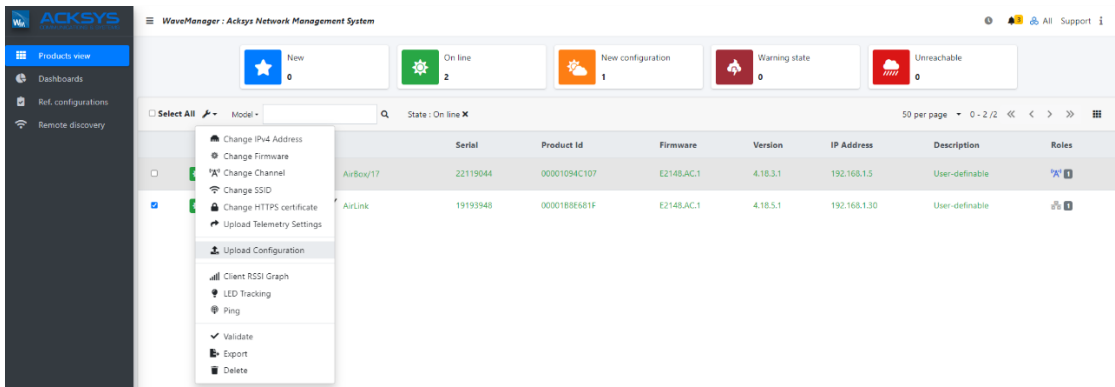
If you have familiarized yourself with WaveManager, we can start using instructions provided in this section.

To upload an existing configuration file located in your computer to your product, you must first of all create a reference model configuration or the reference model can be created from the existing configuration product.

You should have them referenced in the reference configurations as in the below:



You may upload this configuration file to one selected product or on multiple selected products within the same model in Products view by doing as follow:

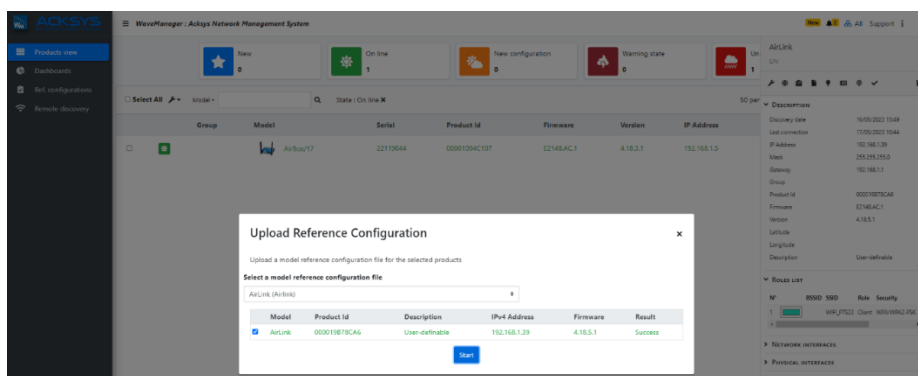


You can click **Start** to upload the configuration on your product. Please note the IP address recorded in the reference configuration file will be applied to all selected products.

As a result of uploading the configuration file, all these products will have an IP conflict: it will then be necessary to assign them a unique IP address manually.

After uploading the configuration file, the message **Success** is displayed in the Result column. If an anomaly has prevented the uploading the configuration file, an explicit message is displayed.

You will be able to restart the programming of the products concerned after correction of the anomalies indicated.



Support : <https://support.acksys.fr>