

Network Controller Normalization Guide



Overview

This guide provides instructions on normalizing the MikroTik Network Controller (NC) so that it can be properly staged.

This process only needs to be implemented if there were errors during staging **OR** if the SSID for the NC was not visible on the Staging App to begin with. If there were errors during the staging app, the NC will also need to be factory reset before normalization.

This process can occur **any time** before installation – it does not need to happen immediately before installation.

Connection to Viasat satellite infrastructure is **NOT** required for normalizing or factory resetting these devices. Furthermore, the Network Controller **MUST NOT** be connected to an internet source during normalization.

REQUIRED ITEMS:

- One Mikrotik Network Controller (NC)
- One NC power cord (comes with the device)
- One NC PoE injector (comes with the device)
- A laptop with an ethernet port and Winbox installed
 - Winbox can be downloaded at <https://mikrotik.com/download> (installation type will depend on whether a 32-bit or 64-bit machine is being used)
 - Use [this link](#) if you are unsure whether you have a 32 or 64 bit computer.
- Two pre-tested Ethernet cords
- Working power outlet
- Paperclip or other fine-pointed object



Network Controller (NC)



PoE Injector

NOTE: A different model may be used for the MikroTik items pictured in this guide, but the process is identical.

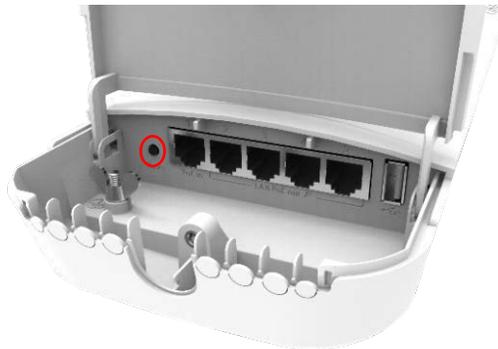
NC Factory Resetting Instructions:

NOTE: If the NC has already been factory reset prior to Normalization, the following steps to factory reset again only need to be followed **if** staging was started and encountered errors. If there was no SSID visible on the staging app to begin with then another factory reset is not required and you can skip to the “NC Normalization Instructions” section of this document.

1. Plug the NC power cord into the PoE injector and connect the power cord to a functioning power outlet.
2. Plug an ethernet cable to the other end of the PoE injector, a light on the injector indicates successful connection to power. **DO NOT CONNECT THE PoE TO A MODEM OR ANY OTHER INTERNET SOURCE.**



3. Perform a Factory Reset on the NC: Hold down the Reset button (circled below) on the NC.



4. **WHILE STILL HOLDING DOWN THE RESET BUTTON,** insert the other end of the ethernet cable connected to the PoE injector into Port 1 of the NC.



- Continue holding down the reset button until the blue power light flashes (this will happen 5 seconds after the ethernet cable is plugged into the NC).



- As soon as the power light flashes, let go of the Reset button.

NOTE: The reset button should never be held down for more than 10 seconds otherwise another factory reset is required. If the LED turns solid while still holding down the reset button then it was held down for too long. If this happens, unplug the ethernet cable and perform another factory reset.

NC Normalization Instructions:

Purpose: To normalize WiFi devices that do not match the factory configuration advertised by MikroTik.

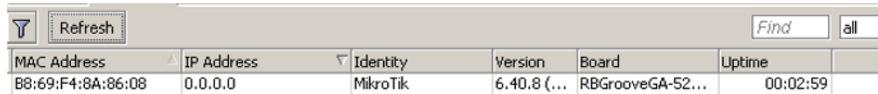
- To normalize the NC (Controller), first power on the controller by plugging an ethernet cable from Port 1 of the controller to the PoE injector. Connect the PoE injector to the NC power cord and a working power outlet. Then connect a **second** ethernet cable directly from your laptop to **Port 2 (ether2)** of the NC.



- 1) Open Winbox and inspect the “Neighbors” tab.



NOTE: If nothing appears in the list, try to press “refresh” a couple of times – space attempts by at least 5 seconds and repeat no more than three times. If that does not work, try manually entering the device’s MAC address in the “Connect To” field.



- 2) Click on the device’s MAC address and press “Connect” to establish a session with the device. Leave the username as “admin” and password blank.



- 3) On the left pane, press “New Terminal”.



- 4) Copy and paste the following command (without quotation marks) into the command prompt and press the “Enter” key:

“/system reset-configuration no-defaults=yes caps-mode=no”

- 5) When prompted with the below warning, type in “y” (without quotation marks) and press the “Enter” key.

```
[admin@MikroTik] /system script> /system reset-configuration no-defaults=yes caps-mode=no
Dangerous! Reset anyway? [Y/N]:
█
```

- 6) Wait for the device to reboot, which can take up to three minutes. Once it reappears on Winbox, click “reconnect”.

- 7) Download the zip file (“Command Files”) underneath the webpage title on the eguide or at [this link](#).



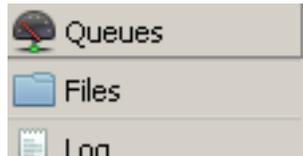
- 8) Open the downloaded zip and save both files locally (for instance on your desktop) on the computer being used to interface with routerOS.



NOTE: there can be no changes to the names of these files otherwise they will not work. Verify that they were saved to your computer with the exact filename "InstallDefaultsOmnitik.rsc".

NOTE: these files must be unzipped before proceeding and saves as the ".rsc" files. If you cannot open the zip, download a program such as [7-Zip](#) to do so.

- 9) Once the files are saved, go back to Winbox and press "Files" on the left-hand pane:



- 10) Press "Upload" and click on the saved file on your computer titled, "InstallDefaultsOmnitik.rsc".



NOTE: only a single file should be transferred at a time depending on the device type being normalized.

- 11) Click on "New Terminal".



- 12) Copy and paste "/import InstallDefaultsOmnitik.rsc" (without quotation marks) into the terminal and press "Enter". It should return a successful output, similar to the following:

```
Script file loaded and executed successfully
```

The Normalization process is now complete, please note that normalization must be done for all NC devices.

NOTE: Now that normalization is complete, these devices SHOULD NOT be factory reset again. If they are, they will need to go through the entire normalization process once more.

NOTE: These devices still need to be staged before use in an install. Staging should occur directly before leaving for an install.