



Network Controller Normalization Guide

Viasat Community Internet
Revision 1.0 – 2020.12.02

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 that prevented successful 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 procedure, the NC will also need to be factory reset before normalization.

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

Connection to Viasat satellite network 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.

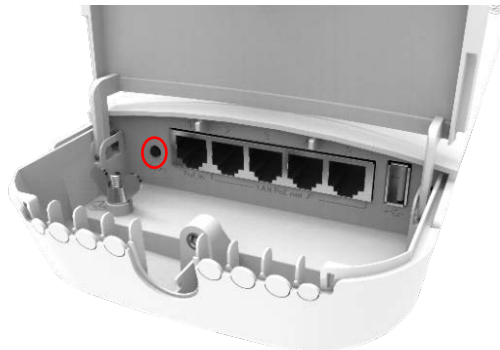
NC Factory Resetting Instructions:

NOTE: If errors were encountered in the middle of staging that prevented the NC from being staged successfully, follow the following steps to factory reset before normalizing. If there was no SSID visible on the staging app to begin with then 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.



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5. 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).



6. As soon as the power light flashes, release the reset button.

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

NC Normalization Instructions:

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

- 1) 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.

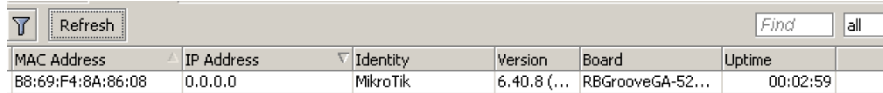


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- 2) Open Winbox and inspect the “Neighbors” tab.

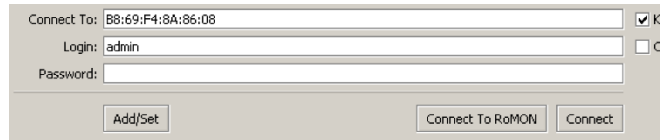


NOTE: If the MAC address does not appear in the list, try to select “refresh” a couple of times – waiting at least 5 seconds between refreshing. Repeat refresh no more than three times. If the MAC address does not appear, then manually enter the device’s MAC address in the “Connect To” field.

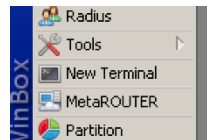


MAC Address	IP Address	Identity	Version	Board	Uptime
B8:69:F4:8A:86:08	0.0.0.0	MikroTik	6.40.8 (...)	RBGrooveGA-52...	00:02:59

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



- 4) On the left pane, select “New Terminal”.



- 5) Copy and paste the following command into the command prompt and press the “Enter” key:

```
/system reset-configuration no-defaults=yes caps-mode=no
```

- 6) 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]:
```

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



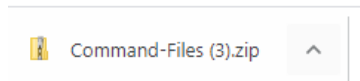
MAC Address	IP Address	Identity	Version	Board	Uptime
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- 8) Download the zip file (“Command File”) underneath the webpage title on the guide or at [this link](#).



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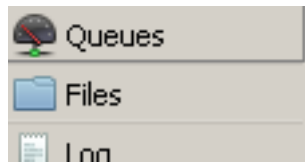
- 9) Open the downloaded zip and save the file locally (for instance on your desktop) on the computer being used to interface with routerOS.



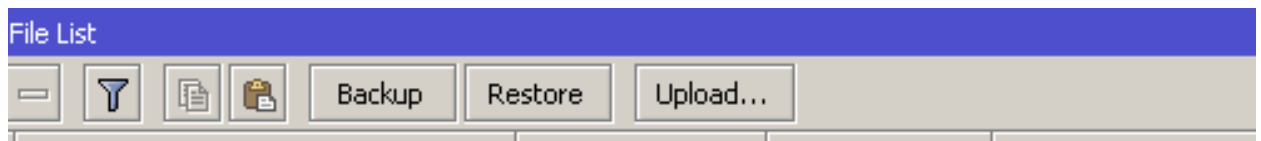
NOTE: there can be no changes to the name of this file otherwise the normalization process will fail. Verify that the files were saved to your computer with the exact filename “InstallDefaultsOmnitik.rsc”.

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

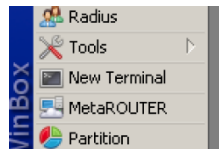
- 10) Once the files are saved, return to the Winbox application and select “Files” on the left-hand pane:



- 11) Select “Upload” then find and click on the saved file on your computer titled, “InstallDefaultsOmnitik.rsc”.



- 12) Click on “New Terminal”.



- 13) Copy and paste the command shown below into the terminal and press “Enter”.

```
/import InstallDefaultsOmnitik.rsc
```

Winbox will return a successful output, similar to the following:

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

The Normalization process is now complete.

NOTE: Now that normalization is complete, these devices SHOULD NOT be factory reset again. If the device is subject to a factory reset, it must be normalized once more.

NOTE: These devices still need to be staged before use in an install.