Image Flashing Guide

Grab These Images (use the latest version)

NFT Images

Receiver image: O:\PC-Inst\SelfServe\RDTools\Network_Validation_Tools\NFT\seqcheck_v*.img.gz

Transmitter image: O:\PC-Inst\SelfServe\RDTools\Network_Validation_Tools\NFT\mult_send_v*.img.gz

NCA Image

O:\PC-Inst\SelfServe\RDTools\Network_Validation_Tools\NCA\NCA_v*.img.gz

Writing the Image to an SD Card

Insert the micro SD card into the SD card reader and connect it to your computer. Format it by following the instructions for your platform below.

> ⓘ It is really recommended to use Etcher for burning. You can take the zipped file above and just use Etcher and it will be done super easy. Any other method is really hard and confusing.

Etcher

This method uses a software tool called etcher and it is by far the easiest method of doing this. If you prefer to do it by hand, or just don't want to install new software, then there are instructions below to do that. However, this is the recommended method of accomplishing this task.

Download and install (depending on your platform) the software tool "Etcher" found at this link: https://etcher.io/

Run the tool and simply select the image/zip/gz file that you would like to flash onto the sd card. Then choose which sd card that you would like to flash onto. Then hit "Flash". The software tool will take care of the rest.

Windows
Formatting the SD Card

- Open 'Computer'

- Right click on the SD Card, and select 'Format.'

- Select FAT32, then Quick Format, then press Start.

- Once the formatting is complete, close the window.

Writing the Image

- Download the Win32DiskImager utility from the Sourceforge Project page as a zip file; you can run this from a USB drive.

- Extract the executable from the zip file and run the `Win32DiskImager` utility; you may need to run this as administrator. Right-click on the file, and select **Run as administrator**.

- Select the image file you want to use.

- Select the drive letter of the SD card in the device box. Be careful to select the correct drive; if you get the wrong one you can destroy the data on your computer's hard disk! If you are using an SD card slot in your computer and can't see the drive in the Win32DiskImager

window, try using an external SD adapter.

- Click `Write` and wait for the write to complete.

- Exit the imager and eject the SD card. You're done.

Linux

Formatting the SD card

- run sudo fdisk -l to determine which disk is the SD card. If you don't have any other storage devices plugged into your machine, it should be /dev/sdb.

- run sudo fdisk on the SD card designation. For instance: sudo fdisk /dev/sdb

- This will allow you to correctly format the card. Start by listing the contents of the card with "p" and use "d" to remove any and all of the existing partitions/contents of the card. Press "n" followed by return to create a single new partition. You will be prompted several times after pushing return, continue to press return to use the defaults for each prompt until it clears.

- Now use "t" to change the partition type, followed by "b" when prompted to change it to FAT32.

- Finally, press "w" to write all the changes to the card. Your card is now ready for image writing.

After running this series of steps, upon exit, several error messages might come up. Ensure that you reboot the linux terminal that you are using the ensure that the file system was correctly exported to the SD card.

Writing the Image to the SD Card

- In the terminal, write the image to the card with the command below, making sure you replace the input file `if=` argument with the path to your `.img` file, and the `/dev/sdd` in the output file `of=` argument with the right device name. This is very important, as you will lose all data on the hard drive if you provide the wrong device name. Make sure the device name is the name of the whole SD card as described above, not just a partition of it; for example, `sdd`, not `sdds1` or `sddp1`, and `mmcblk0`, not `mmcblk0p1`.

```
sudo dd bs=4M if=<name_of_image>.img of=/dev/<micro_SD_card_reader>
```

- <micro_SD_card_reader> should be the entire disk. When dd finishes, the disk should have two partitions.
- Please note that block size set to `16M` will work most of the time; if not, please try `4M`, although this will take considerably longer.
- The `dd` command does not give any information of its progress and so may appear to have frozen; it could take more than five minutes to finish writing to the card. If your card reader has an LED it may blink during the write process. To see the progress of the copy operation you can run `pkill -USR1 -n -x dd` in another terminal, prefixed with `sudo` if you are not logged in as root. The progress will be displayed in the original window and not the window with the `pkill` command; it may not display immediately, due to buffering.
- Remove the SD card from the card reader.

From here you should be able to plug your SD card into your Pi and power it up.