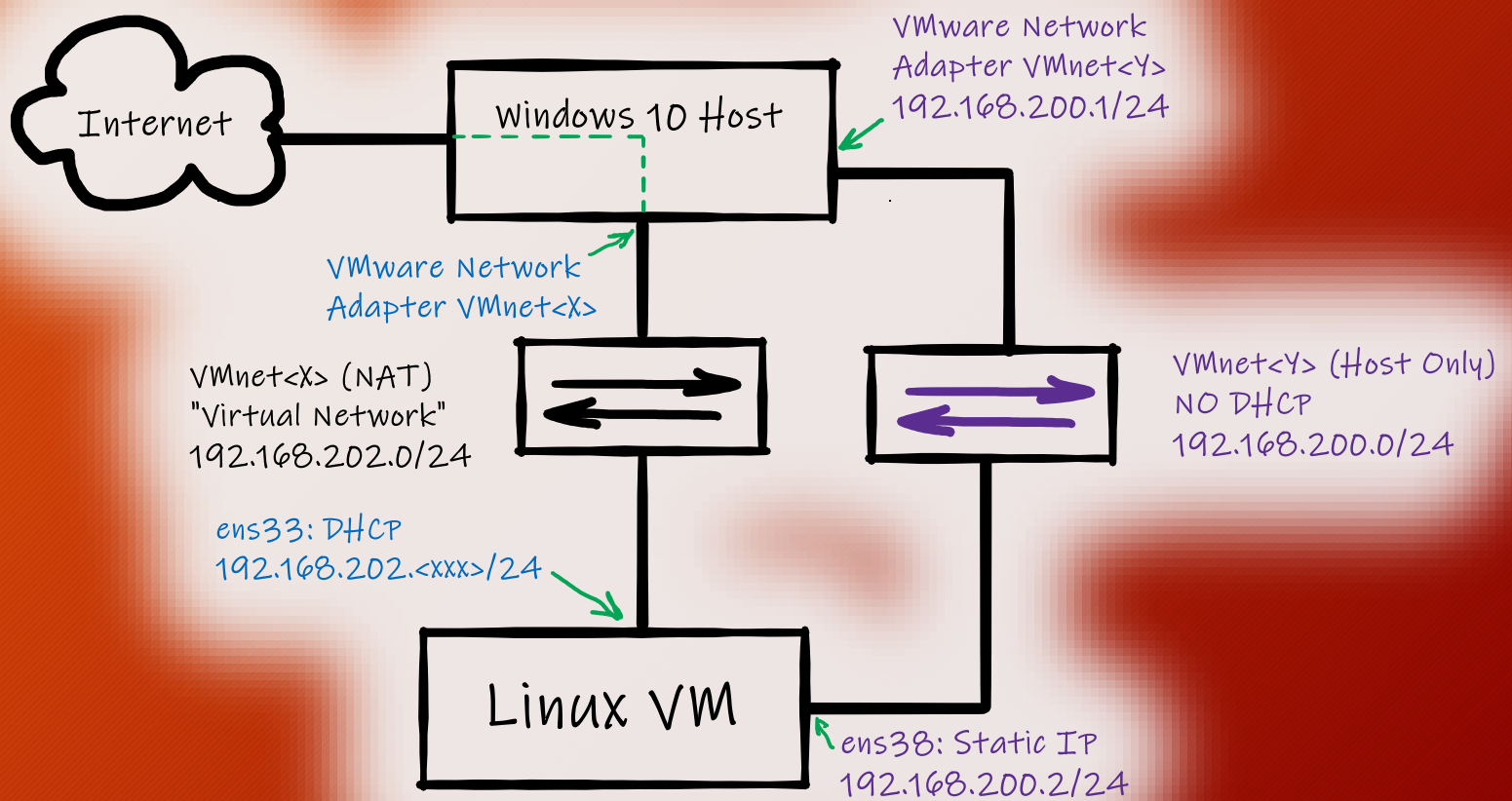
# Adding a second network interface

NIC with static IP for reliable SSH connection

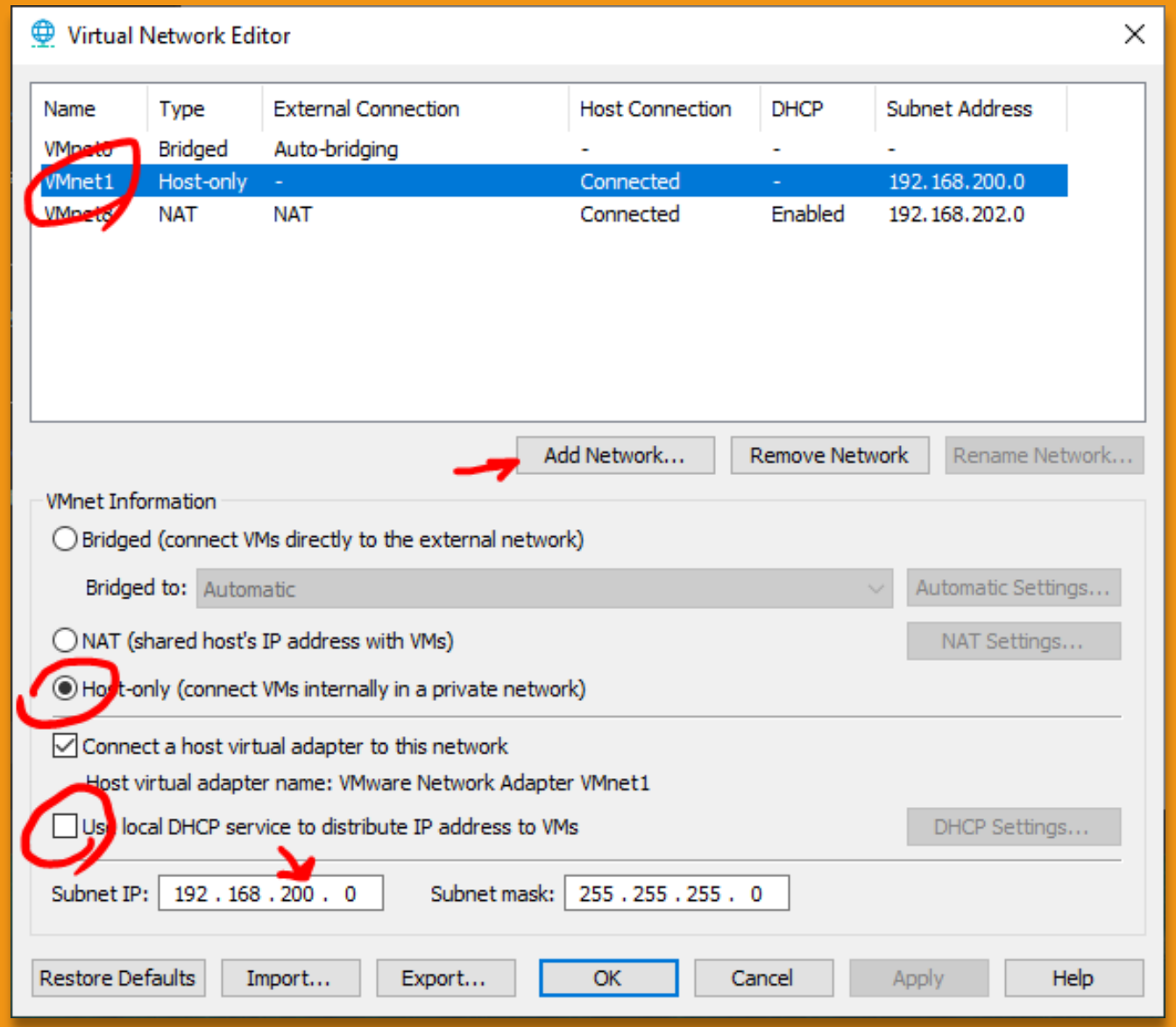
# Objective

- Since our current NIC is set to DHCP, its IP address may change
  - This breaks your SSH profile since the server is at a different IP address
- Solution: We will keep the NAT for connecting to Internet, will add another network for our SSH and other services



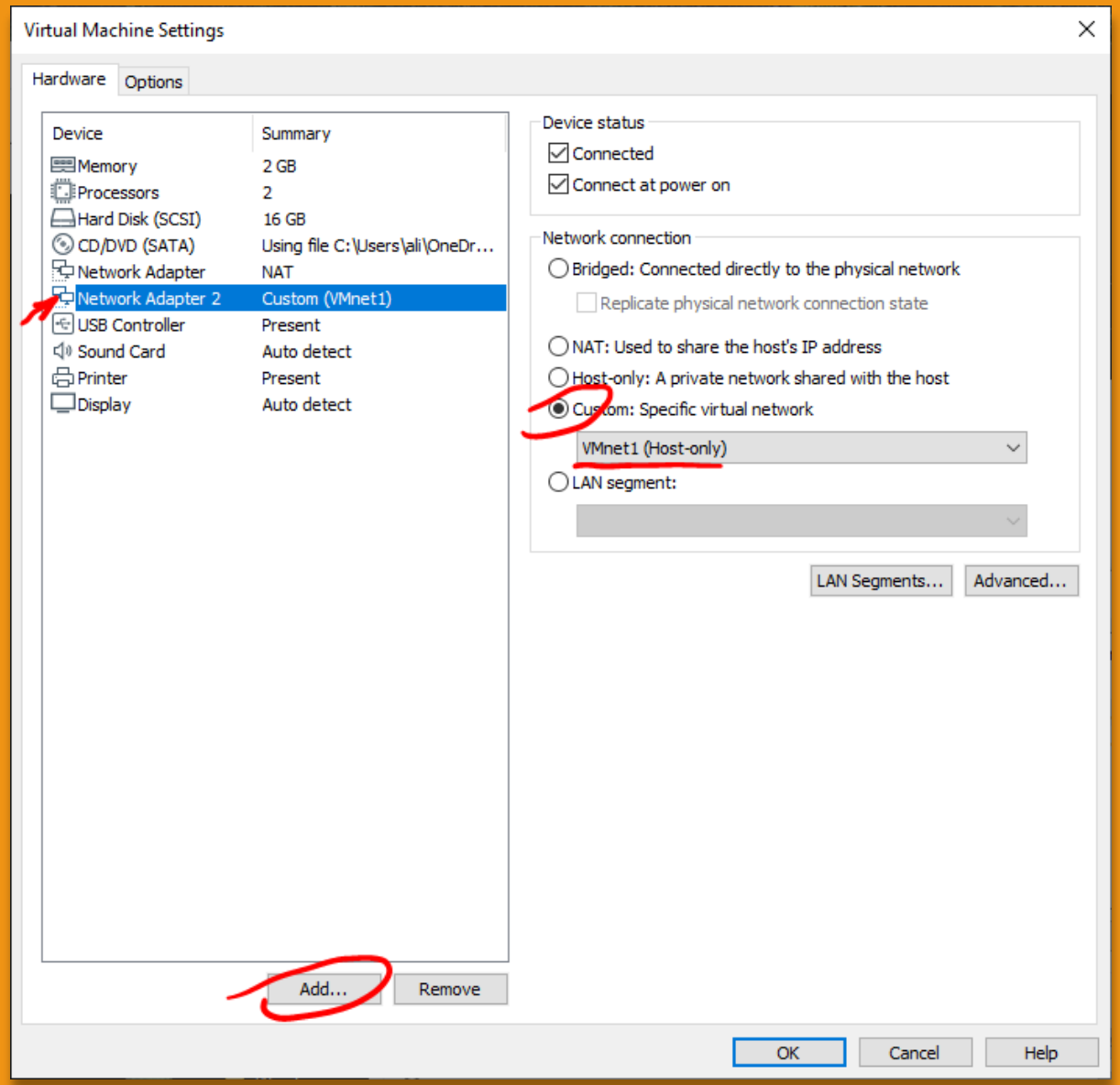
# Step 1: Create a New Virtual Network

- In VMware Workstation go to “Edit” -> “Virtual Network Editor”
- Click on the “Change Settings” button
- Click on “Add Network”
- Set the settings similar to screenshot
  - Exact IP address and network name is probably going to be different
  - Select “Host Only” radio button
  - Uncheck “Use local DHCP service …”
  - Set IP address of the network to what you like (or keep the same)
  - Remember the name of this Virtual Network (“VMnet1” here)
- Hit “Apply” and “OK”



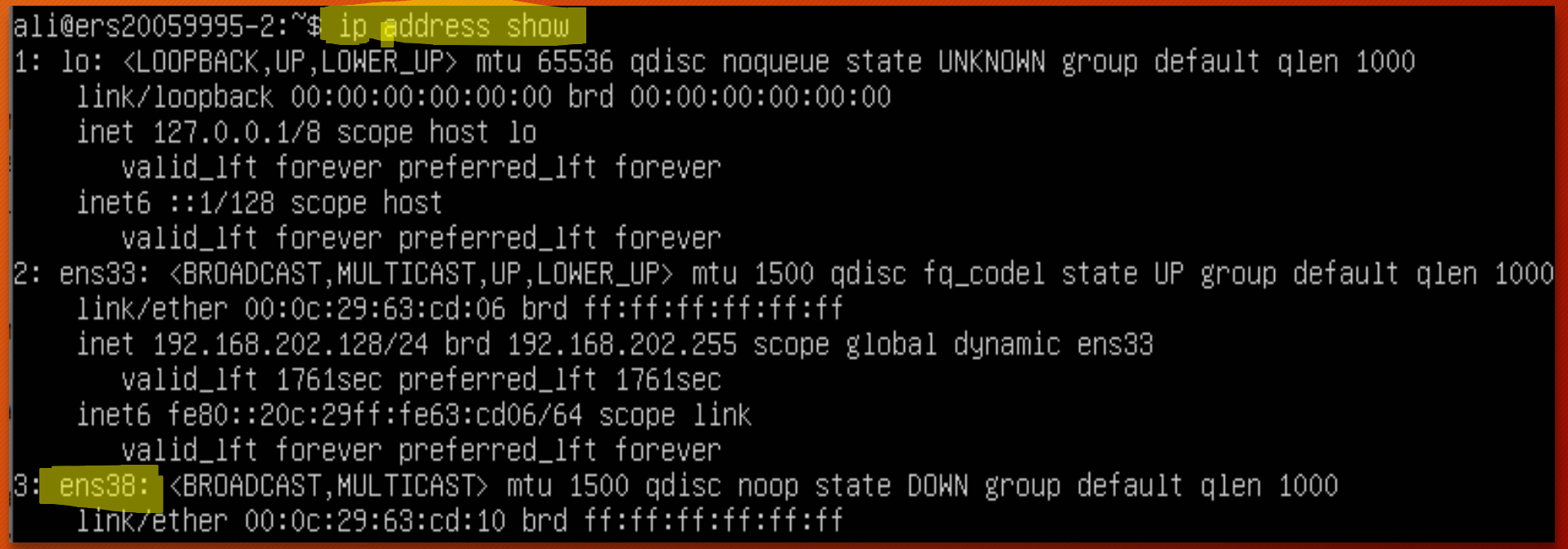
# Step 2: Add NIC to your VM

- Open your Linux VM Settings (“VM” -> “Settings…” or Ctrl+D)
- Click on Add… button
- Select “Network Adapter” and hit “Finished”
- Click on the newly added Network Adapter
- Select “Custom” radio button
- Select the VMnet that you configured in the last step



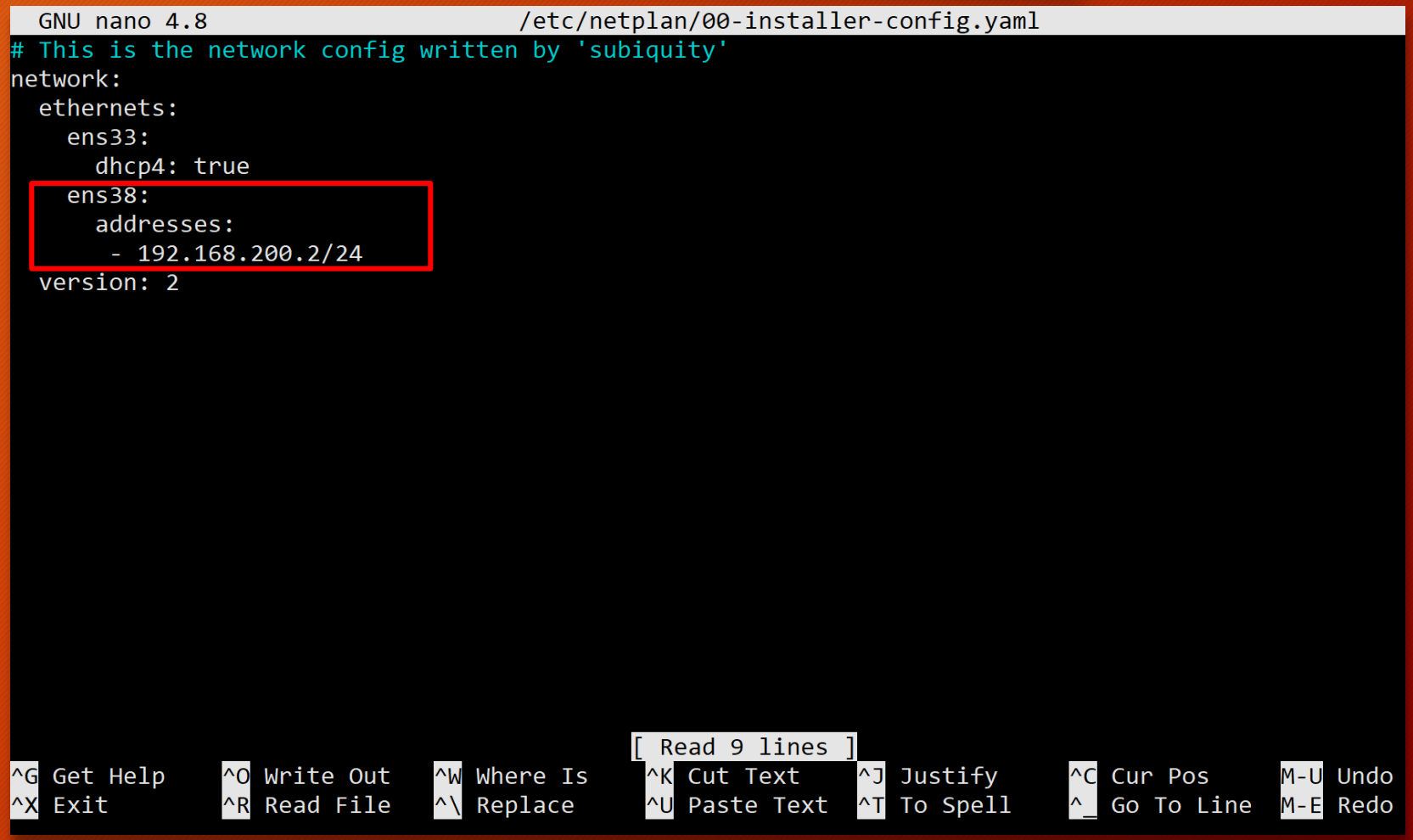
# Step 3: Check out your new NIC in Linux

- Find the name of the new NIC in Linux:
  - Log into your Linux OS
  - Run: ip address show
  - Make note of the name of the new NIC (in my case “ens38”)



# Step 4: Configure your new NIC (netplan)

- `ls /etc/netplan` to see what configuration files exists
- Then you may edit the configuration file: `sudo nano /etc/netplan/<config_file_.yaml>`
  - NOTE: the file names vary system to system
- Add configuration for your new NIC
  - NOTE: the IP address ending with .1 is reserved for your host, so start from .2. In this example: 192.168.200.2/24



# Step 5: Test Settings and Apply!

- To test if you configurations are correct: `sudo netplan try`
  - If there are no errors, netplan applies the settings and starts counting down, so you can try your SSH client to see if it works
  - If you lose SSH connection and new settings are broken, then the timeout will have the changes reversed back to the old settings
- To apply changes: `sudo netplan apply`
- DONE!
  - You should now be able to connect to static IP, so you are not affected by DHCP IP lease renewal!