# How to install the Taiko Audio Extreme Network Card - MacOS

## You can use Windows or MacOS and there are separate guides describing each procedure. This guide details the steps for MacOS.

### Extreme Switch and Extreme Network Card work only with 1Gb connections

Please note that SFP modules and -ports are designed for a single. The SFP modules and ports that we use in our Taiko Audio products are specified to work only at 1Gb. For this reason, the Extreme Switch and Extreme Network Card work only with 1Gb connections. They are incompatible with 100mb connections.

Please scroll down to the bottom of this document for instructions on how to determine your network connection speed.

## *The basic steps*

### 1. Install the Taiko Audio Extreme Network Card in the Extreme

The physical installation works just as with any other PCI-card. Just make sure to power off the Extreme first via the Front panel button, and then via the rear panel rocker switch. Leave the power cable connected and ground yourself by touching an outside copper part the Extreme's chassis. Try not to walk around too much while handling PCI cards. The Extreme Network Card is preferably installed in Slot 2, in place of the old SFP card. Please note that PCIe cards such as the Extreme Network Card have a very narrow slot connector and as such do not use the PCI slot latching clip, as full-size PCI cards do. Power to the card is provided by a split DC cable that substitutes the single cable that powered the USB cable and will then power both the USB card and network card. After replacing the Extreme's lid, the rear rocker power switch can be set back to the ON position.

### 2. Download the installation script from the Taiko Audio Website

On a Mac that is on the same (WiFi-) Network as the Extreme, go to the Downloads page, and download the installation script (networkcard.zip) to a known location, for instance, the desktop. The card must first be installed, prior to running the script. The script applies settings to improve the sound quality for the network card / switch combination. Functionally, the card will operate without running the script, just not at the maximum attainable SQ. This applies to any and all Extreme installations.

URL: https://taikoaudio.com/taiko-2020/taiko-audio-downloads
Zipped file name: networkcard.zip
Embedded file name: networkcard.ps1
Detailed instructions be found below.

### 3. Unzip the installation script

Double-click the downloaded Zip file to extract the contents. Inside is the networkcard.ps1 installation script file that needs to be copied to the Extreme.

Detailed instructions be found below.

## 4. Copy the networkcard.ps1 file to the Extreme's Music directory

Usually, the Extreme's Music Drive is the D: Drive.
Detailed instructions be found below.

## 5. Connect to the Extreme via VNC

Use VNC on your Mac to connect to the Extreme's desktop.
Detailed instructions be found below.

## 6. Copy the installer file to the Extreme's Desktop

After having connected to the Extreme via VNC, you can simply drag and drop the file from the Music Folder to the Extreme Desktop which will make a copy. When copied, you may delete it from the music folder. Detailed instructions be found below.

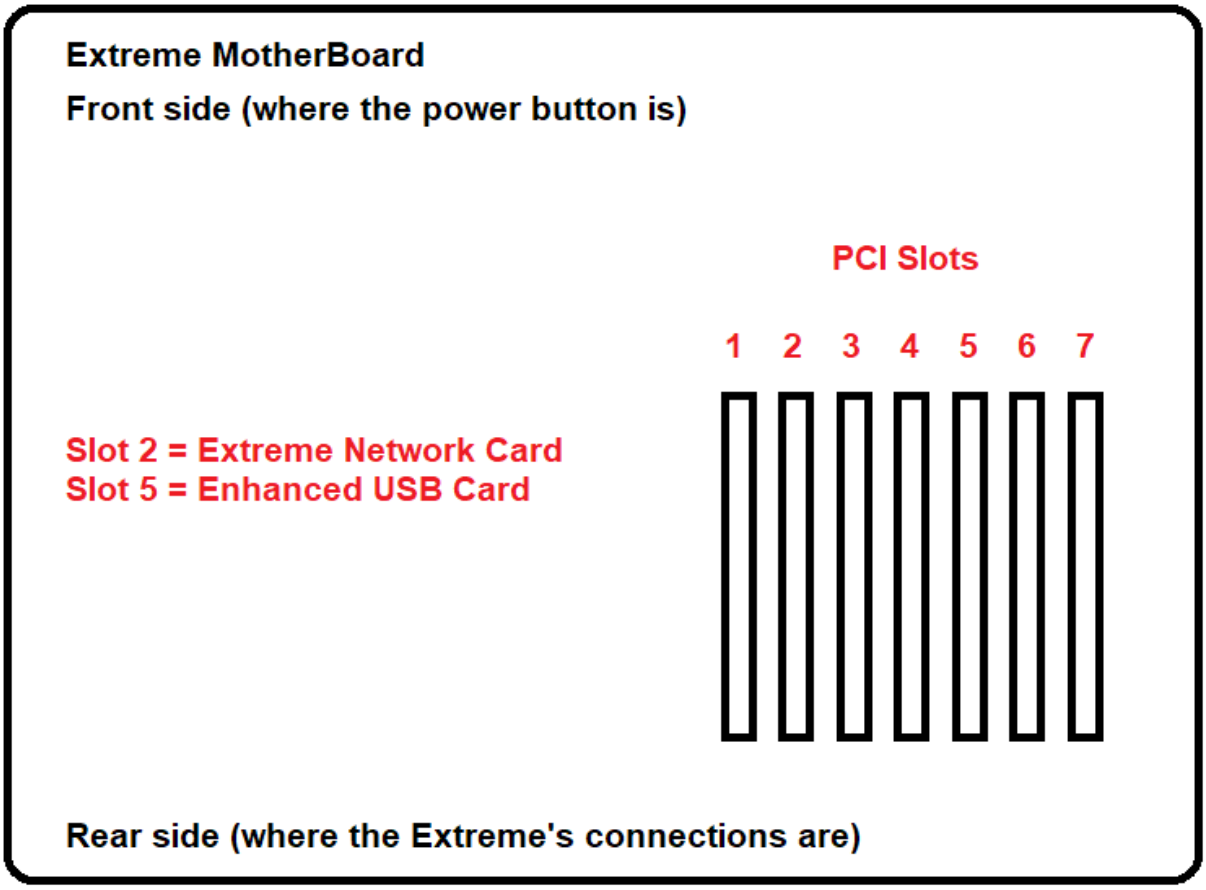
## 7. Run the file

Right-click it and select "Run with PowerShell". The script will run and the Extreme will automatically restart. After this, your new Taiko Audio Extreme Network Card is installed. The file will not affect the old network card. Detailed instructions be found below.

## Installation

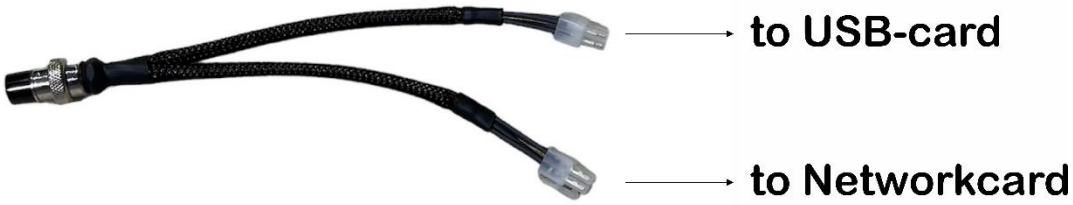
The Extreme Network Card goes into Slot 2.

Please refer to the below diagram of the Extreme's motherboard.

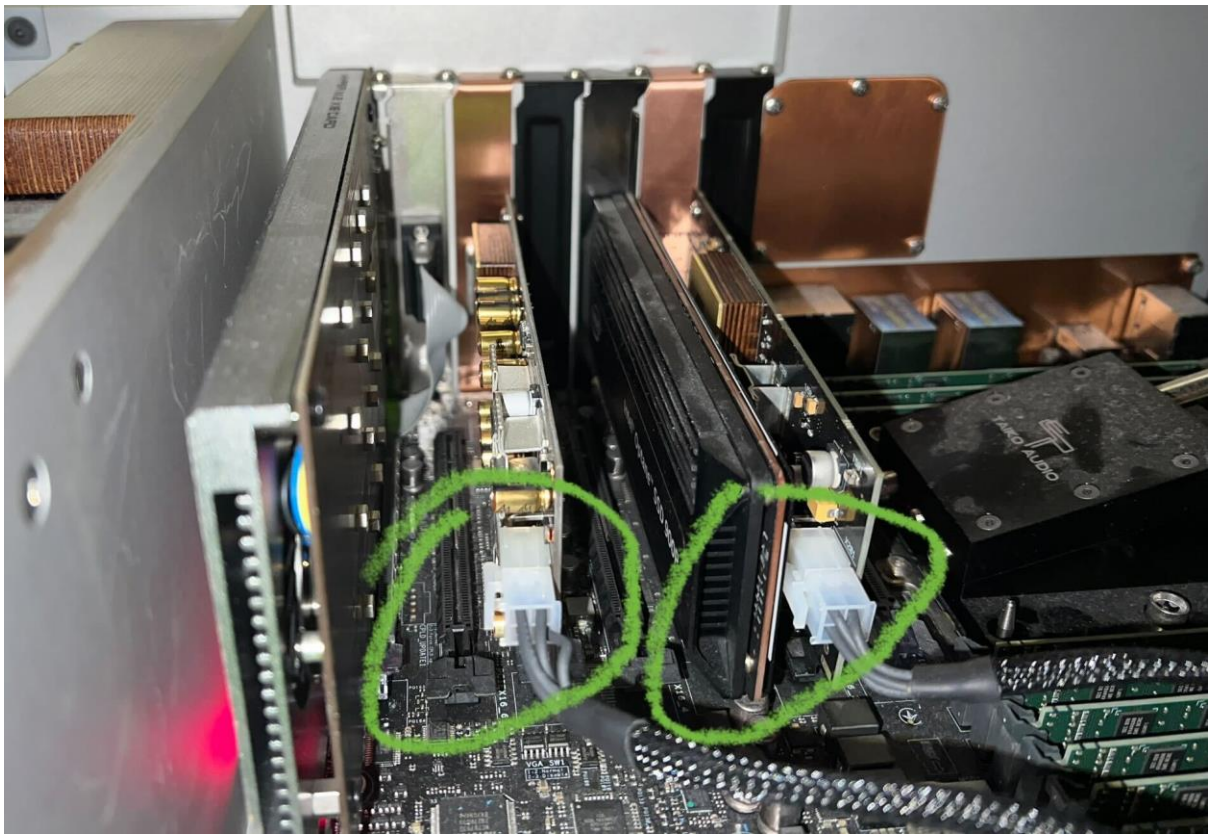



Please note that PCIe cards have a very narrow slot connector and as such do not use the PCI slot latching clip, as full-size PCI cards do.

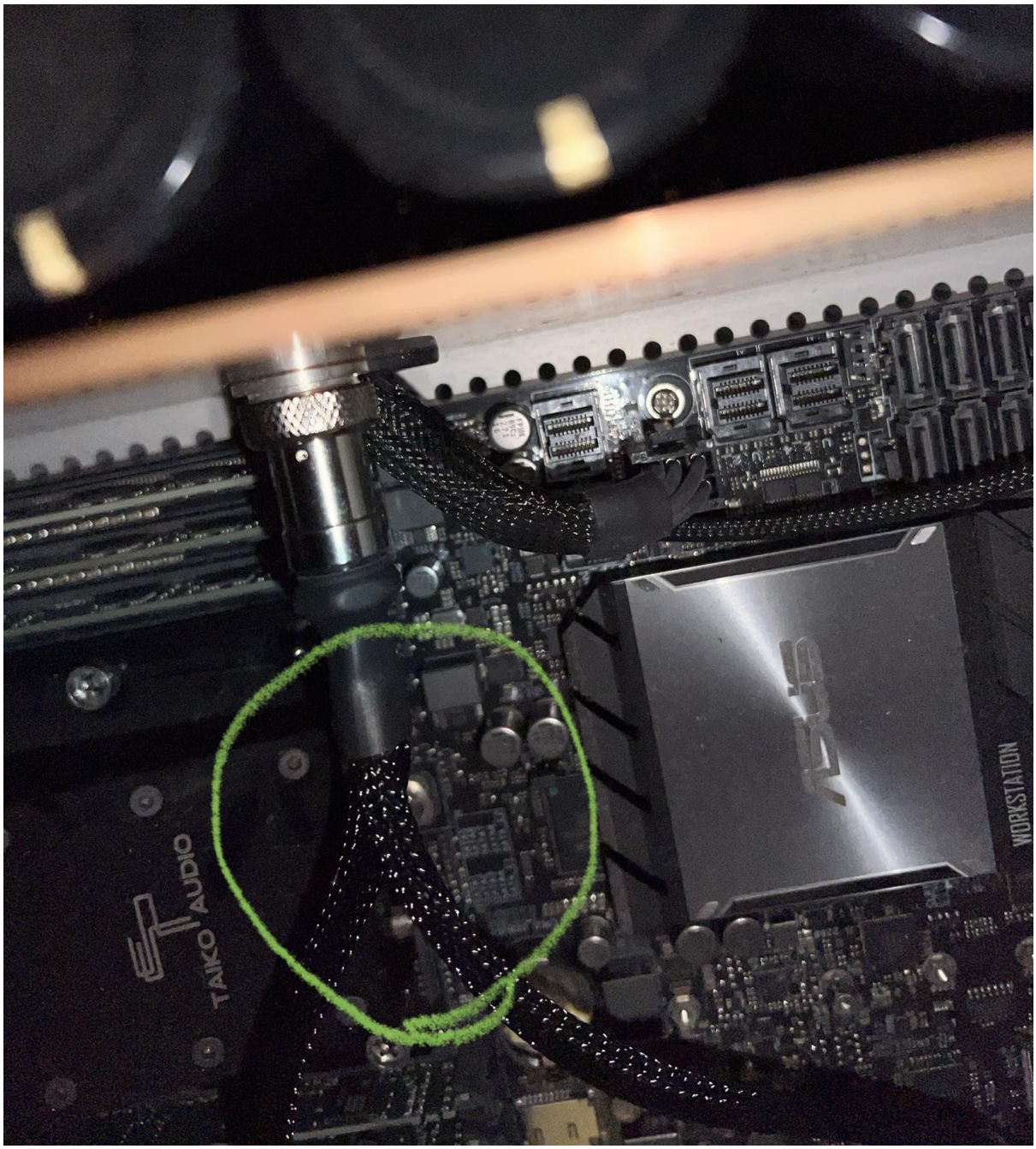
If you have a Taiko Enhanced USB Card installed, remove the power cable. Use the new splitter cable to power both the USB card and the network card (Fig 1.)




On the left is the Enhanced USB Card, on the right is the Extreme Ethernet Card. Circled in green are the DC Power connectors from the splitter cable.

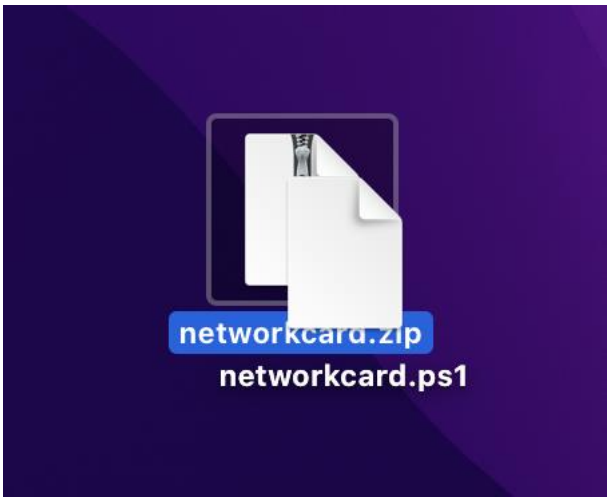


Here you can see the splitter cable connected to the DC output in the copper wall.

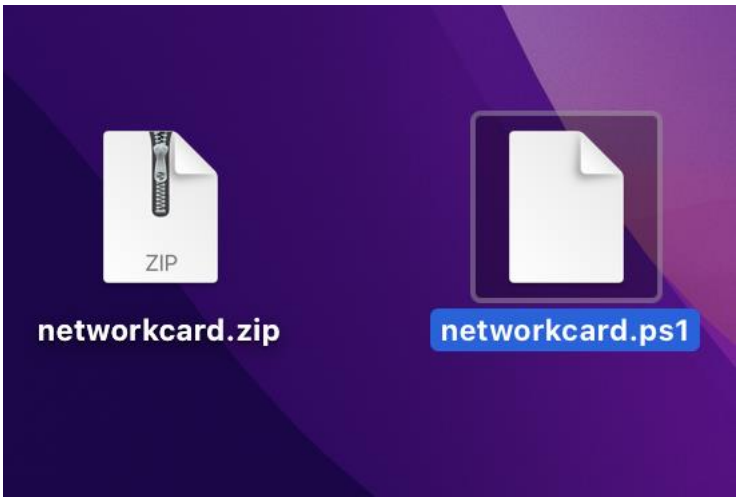


## Unzipping the downloaded file

Double-click the downloaded Zip-file. This will unzip it and place the unpacked file on top.



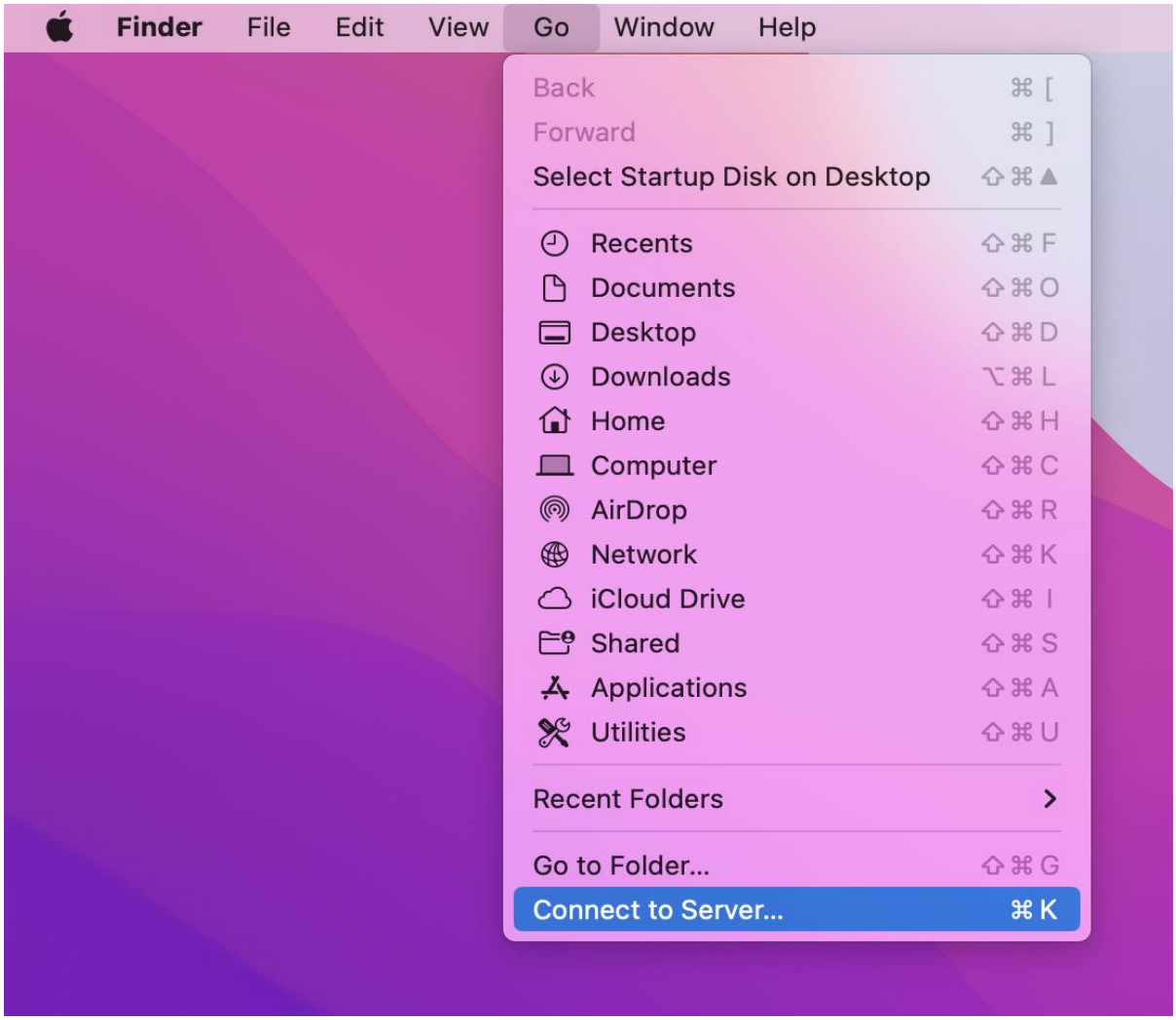

The networkcard.ps1 file (highlighted) will need to be copied to the Extreme.



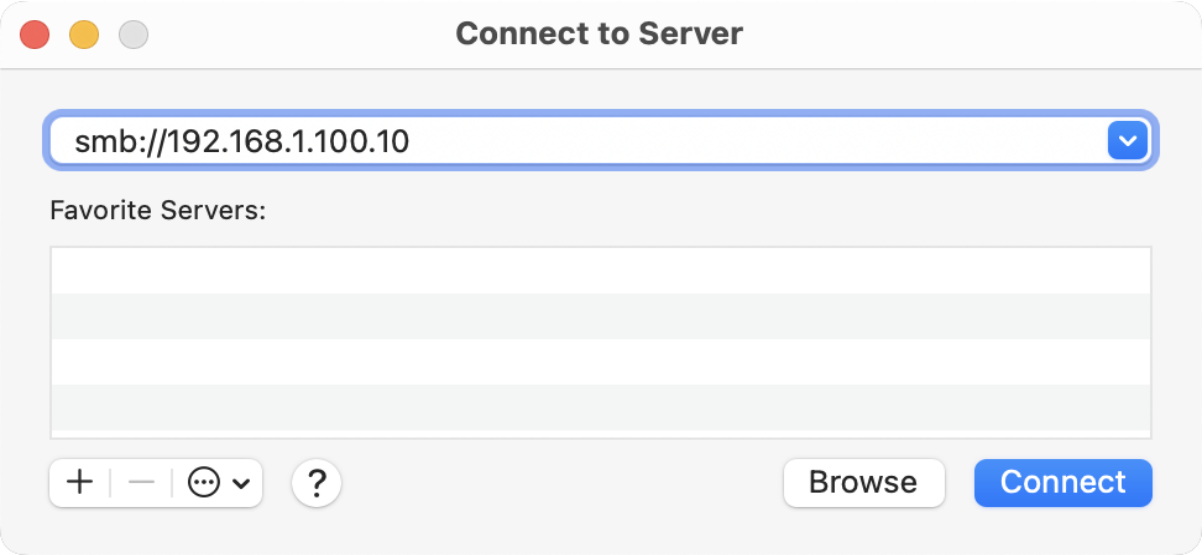
## Access Extreme Music Drive

On a Mac that is connected to the same (WiFi-) Network as the Extreme, you can access the Extreme's Music Drive by clicking "Go" in the Finder menu bar. If the Go item is not visible then you have an app selected. To show the Finder menu bar, click on the desktop (where the wallpaper is visible) to remove the menu focus from any apps.

In the Go menu, select "Connect to Server".



Type in: smb://your Extreme's IP Address, for instance: "smb://192.168.100.10"



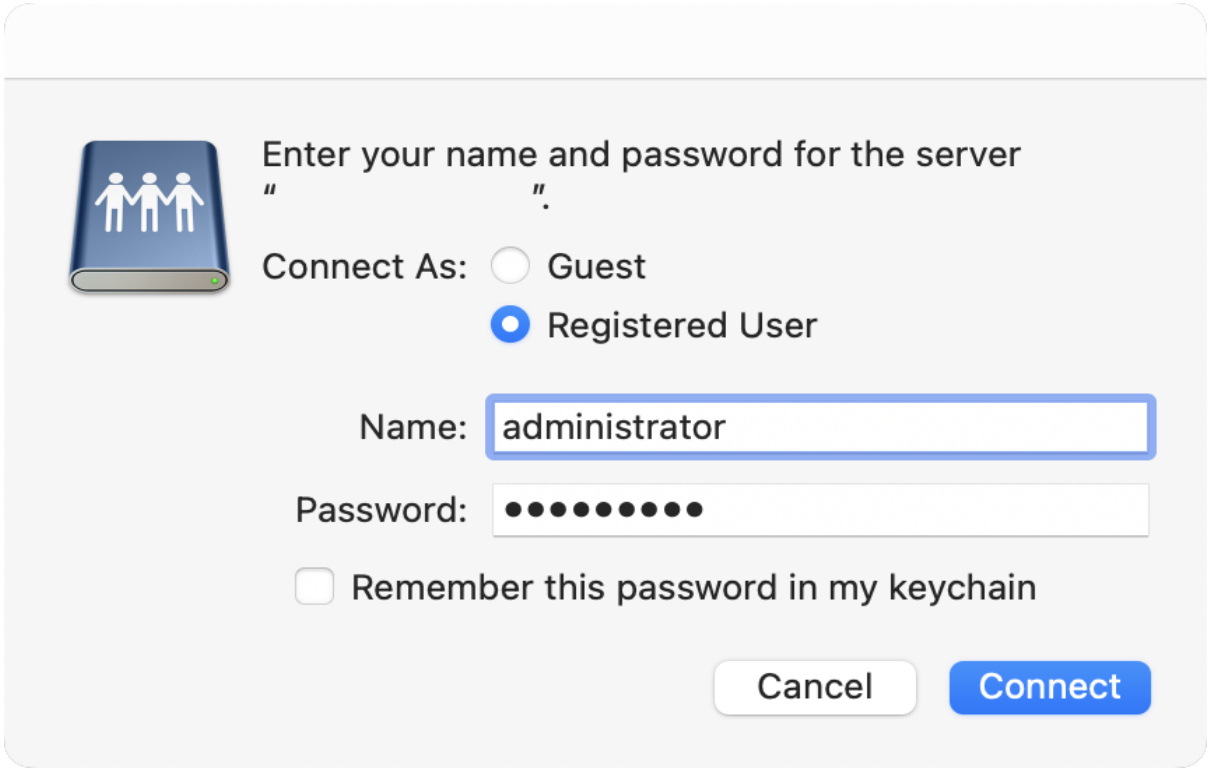

If you don't know the server's IP address, you can find it by looking in the Roon app.

Alternatively, you can obtain the Extreme's IP Address using the "Fing" iPad application.

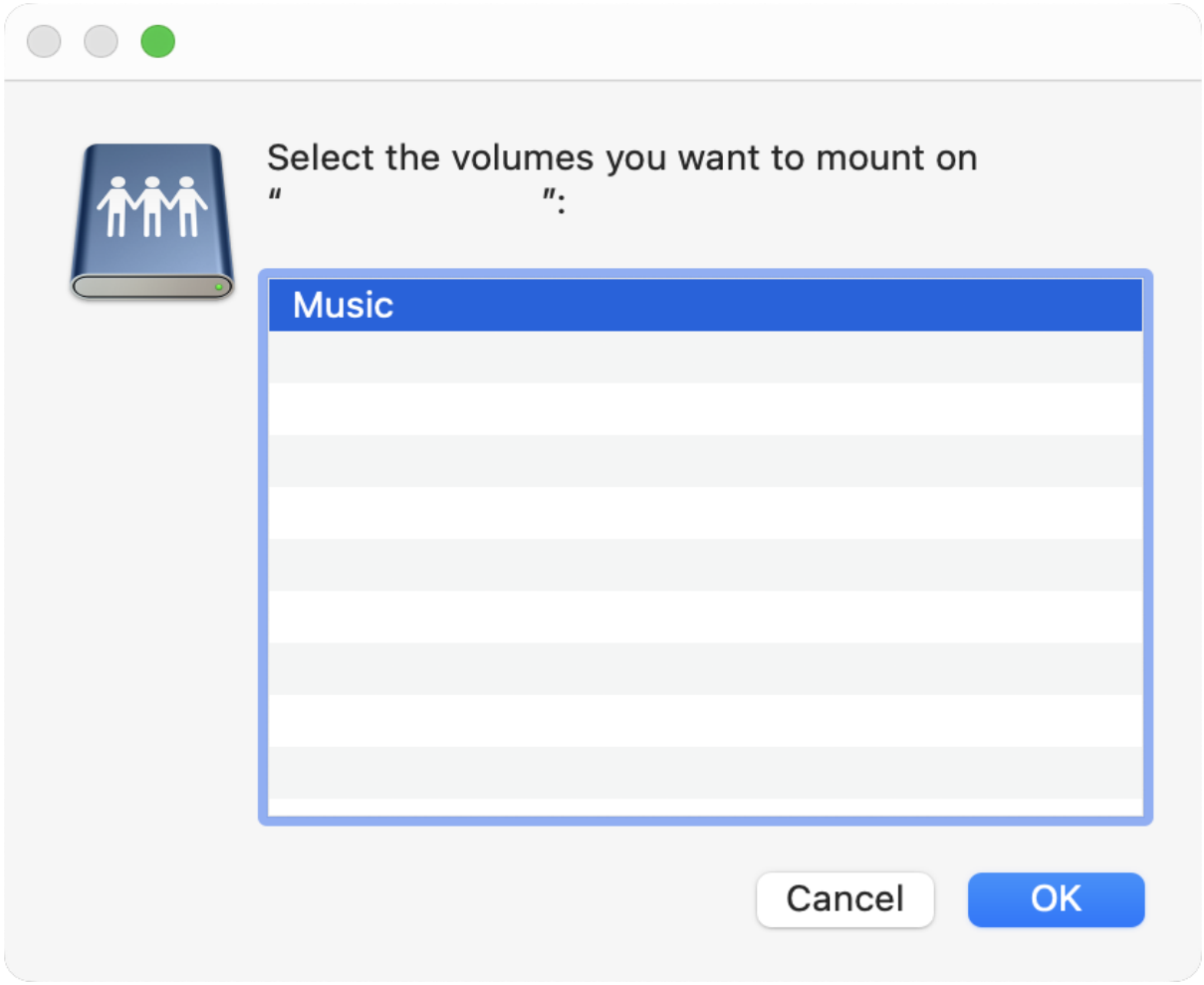
The Mac will ask for login credentials. Enter the following:

- Name: Administrator
- Password: SoundTest

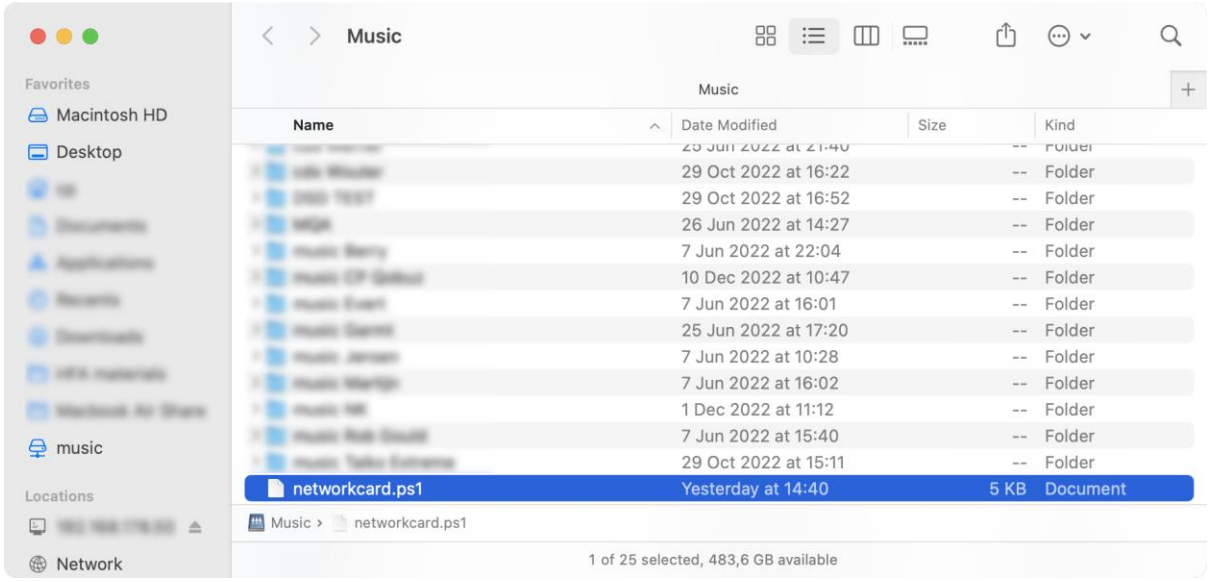
You can tick the box to remember the password for later.



The Mac will prompt the share to connect to. With the Extreme, there will be just one option. Select it and click OK.




Now, the Mac will open a window containing the contents of the Extreme's Music folder.



You can simply drag the Network Card Install script that you downloaded earlier om top of the newly opened Extreme Music folder window. Make sure to drop it in the root, as shown above. You can also use keyboard shortcuts. Select the file and type Cmd-C to copy the file. Then, select the Music window and use Cmd-V to paste it.

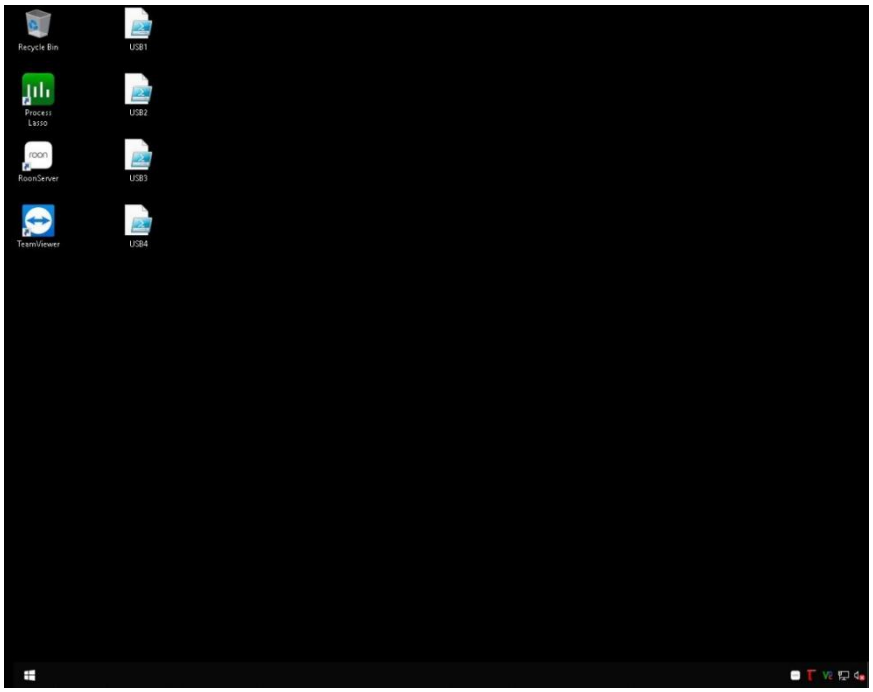
## Access the Extreme desktop via VNC

When using a MacOS device you can access the desktop of the server via your browser. Do the following:

1. Open your browser.
2. Type *vnc://* followed by the IP address of the server in the search bar. For example: *vnc://192.168.1.23*

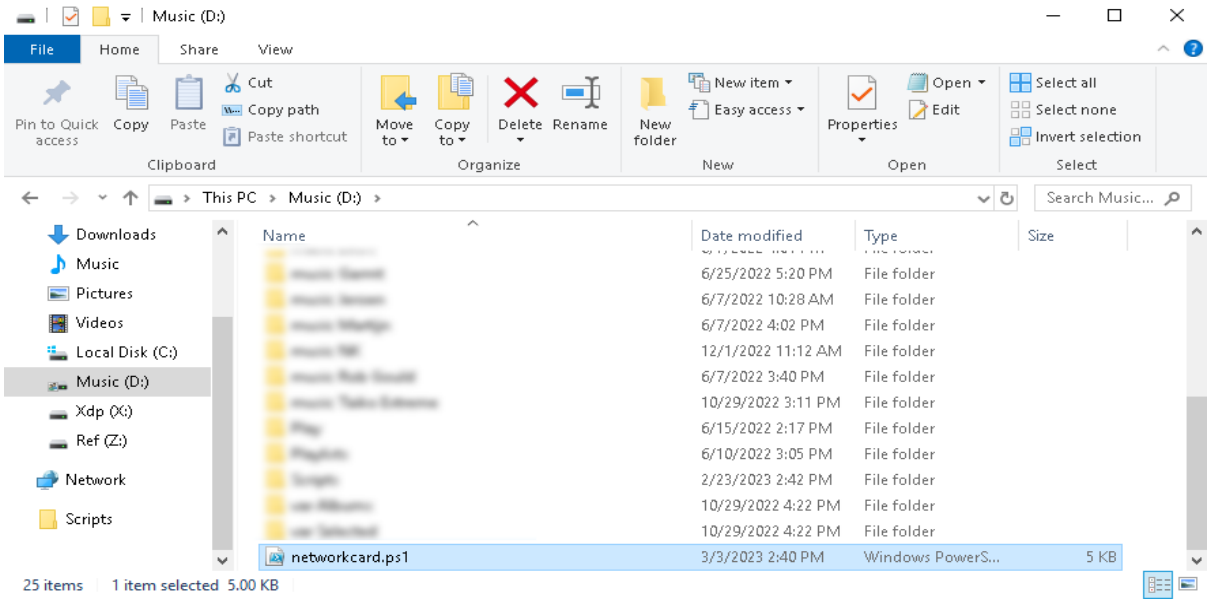
A popup appears, asking you if you want to open the screen sharing application.

3. Click *Yes*.
4. Enter the password of the server (Administrator – SoundTest).
5. Click *Enter*.



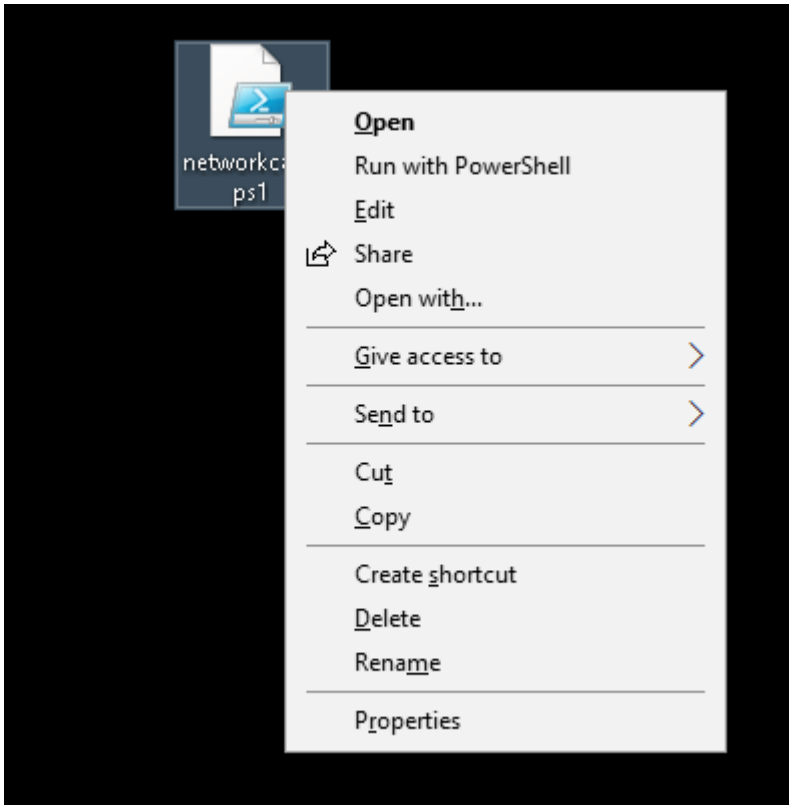

The desktop of the server is shown and can now be controlled.

On the Extreme Desktop, open an Explorer window (the equivalent of a Mac Finder Window, using the Windows-E keys) and navigate to the Music (D): drive. Then, simply drag the installer file (that you downloaded and copied here earlier) from the window onto the Extreme desktop.

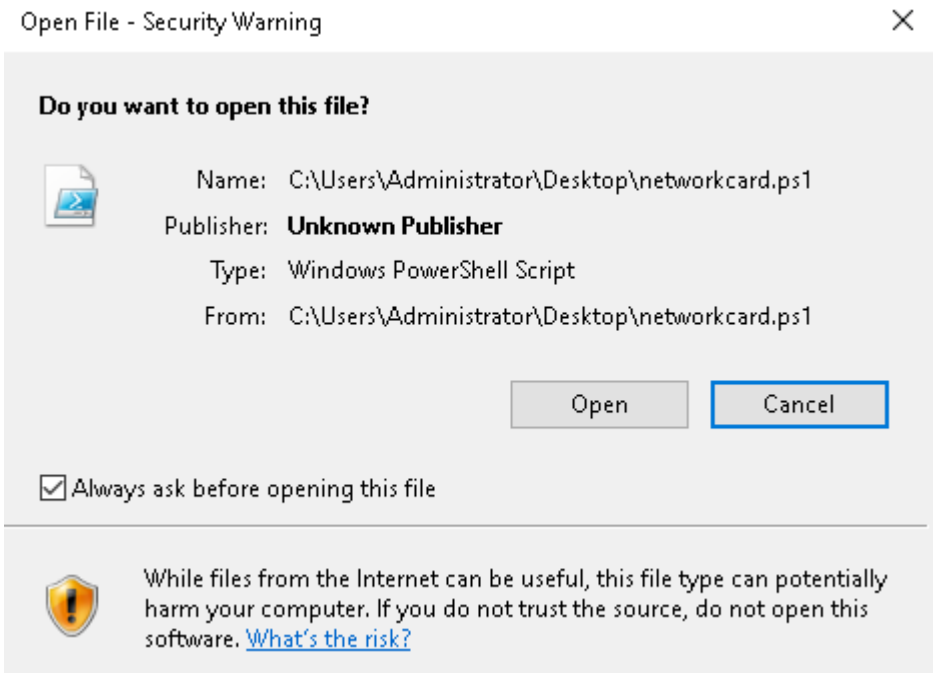



From the Extreme Desktop, right-click the installer file that you just copied to open the context menu and select “Run with PowerShell”.

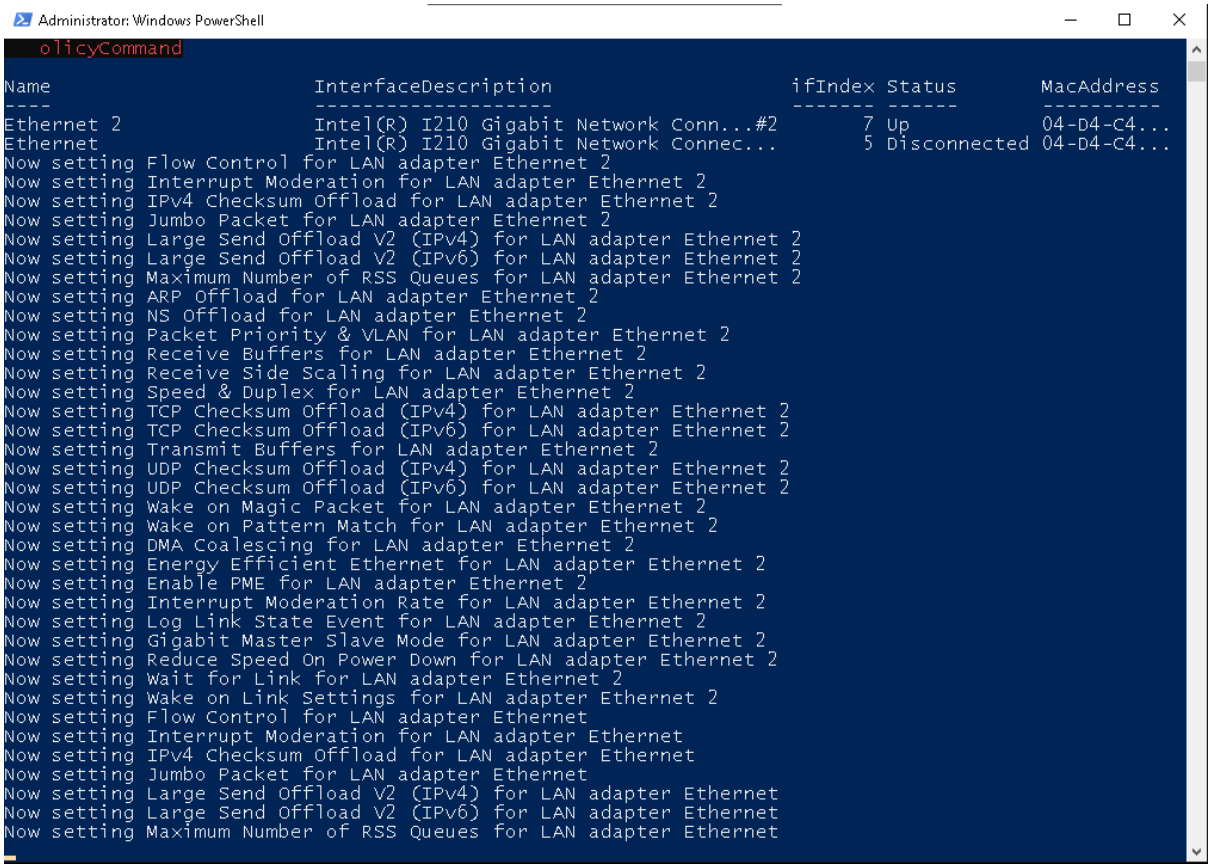
If you only have a trackpad, you can use a double-finger tap to open the context menu. Alternatively, or if you only have a single-button mouse, you can use Control-mouse click to open the context menu.




In the security prompt, click Open.




The PowerShell script will run and soon thereafter, the Extreme will automatically restart.




After this, you're done, and your new Taiko Audio Extreme Network Card is installed. The file only addresses the Extreme Network Card and it will not affect the old network card.

## Switching between the old Network port and the Extreme Network Card

Contrary to any other network cards that may previously have been installed and which should be removed, the Extreme's standard LAN 1 and LAN 2 network ports (which are a native part of the motherboard) remain active and can be used for comparative purposes by swapping the network cable from one to the other. However, as the new network card has a different Mac address associated with its hardware, and thus gets assigned a different IP Address by your router, you will need to restart the Extreme to register the new address.

## Caution - Dynamic versus Static IP Address

The Extreme is normally set to use DHCP and thus be assigned an IP address dynamically by your router, and you would never have to worry about this. After fitting the new Extreme Network Card, installing the script, and having restarted the Extreme (automatically prompted by the script), your router will register the Extreme Ethernet Card and simply issue a new IP address for the new hardware.

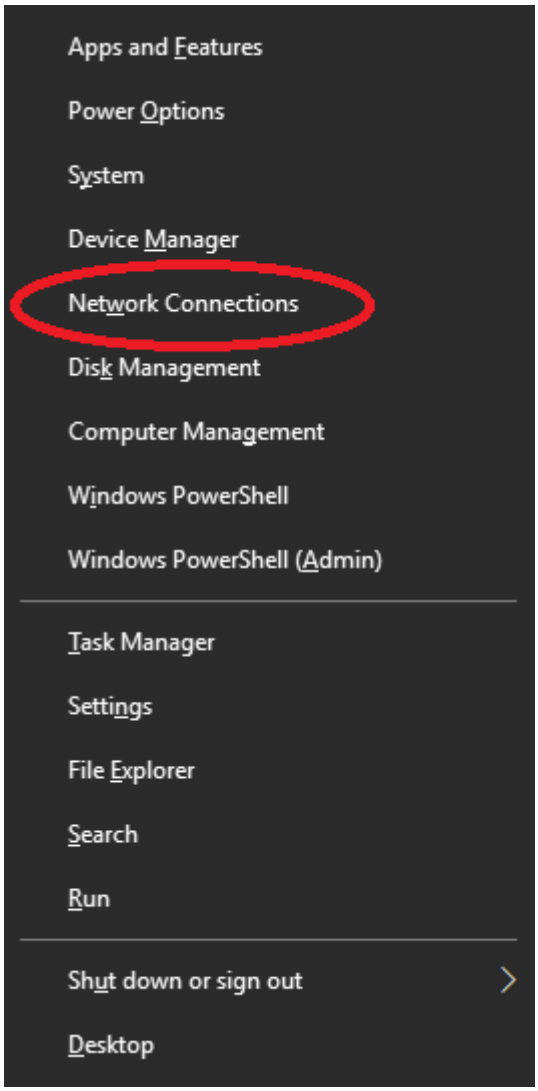
Some users like to use a Static IP Address. Please be mindful that the new network card has a different Mac address associated with its hardware, and thus gets assigned a different IP Address by the router (if set to DHCP) or will need to get assigned a different IP Address manually in the same

place where you set it to fixed prior. This could be in the Router or in the Extreme's Windows settings for the old Network card.

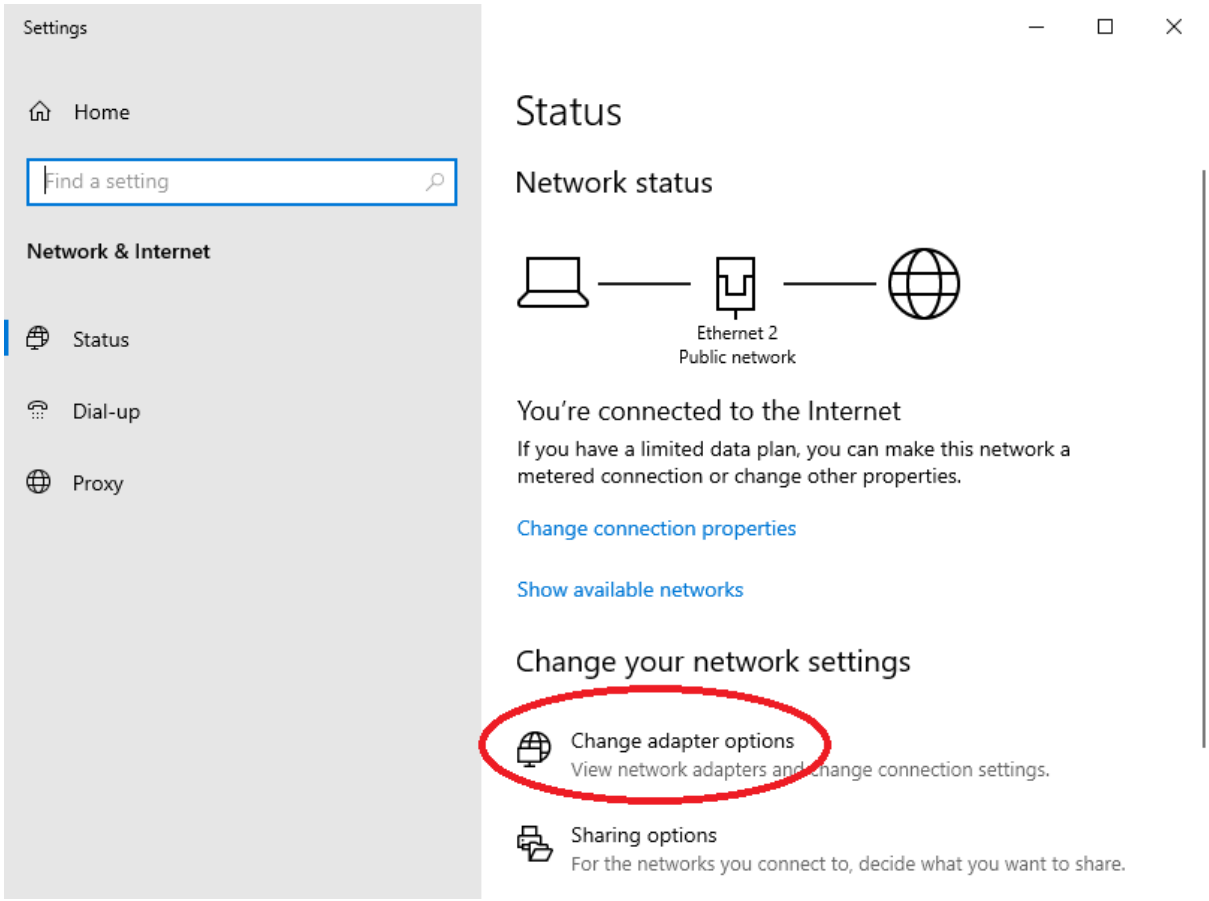
## How to the network connection speed

You can see the uplink speed in the Extreme Music Server's network adapter properties.

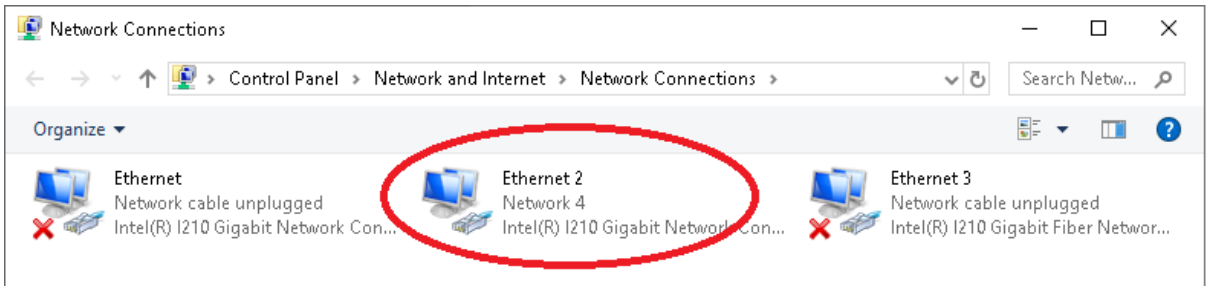
VNC to the Extreme, locate the start menu and right-click the windows icon. Mac users can either double-tap the Trackpad or use Control-Click. In the menu that pops up (which is different from the normal start menu), select Network Connections.



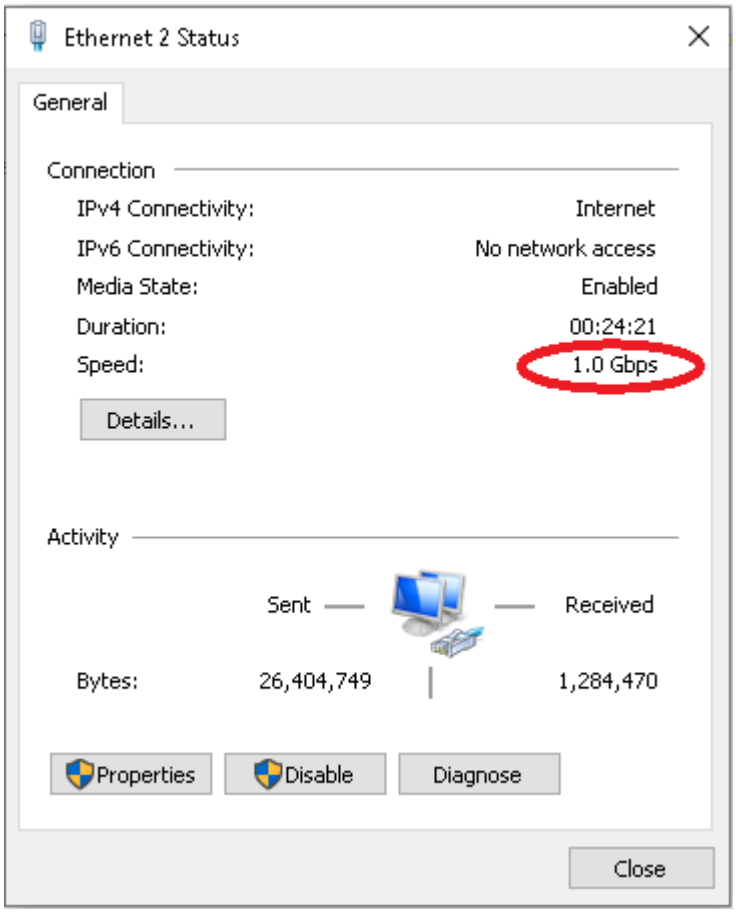

In the Network Connections popup, click "Change Adapter options".




In the next popup, double-click the functioning Ethernet Connection (the one that does not have a cross), in this case Ethernet 2




The next popup shows the speed under the Connection header




When done, simply click away all open windows with the top-right X.