Technical Note

ProSoft ® TECHNOLOGY

Uploading DHP files from AN-X2-AB-DHRIO and transferring files into AN-X4-AB-DHRIO.

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The first part of this technote will go over extracting the files from the AN-X2-AB-DHRIO through the webpage and downloading the configuration file into the AN-X4-AB-DHRIO. There is more than one way to extract the HMI configuration file from the AN-X2-AB-DHRIO. This document will also go over extracting the files from the AN-X2-AB-DHRIO micro-SD (uSD) card and reloading the files onto the AN-X4-AB-DHRIO uSD card.

From the AN-X2-AB-DHRIO webpage

In the web interface for the AN-X2-AB-DHRIO expand the Administration tab and then click on the Archive Configuration.
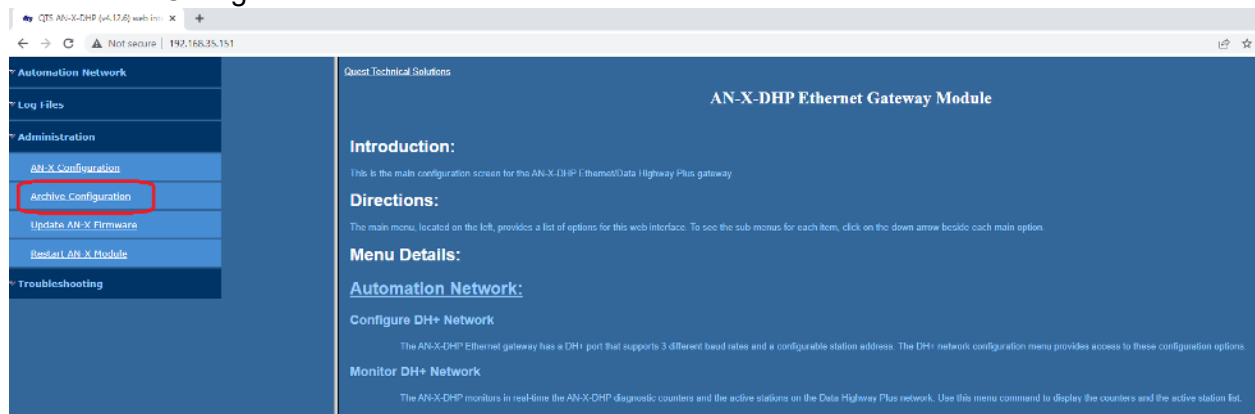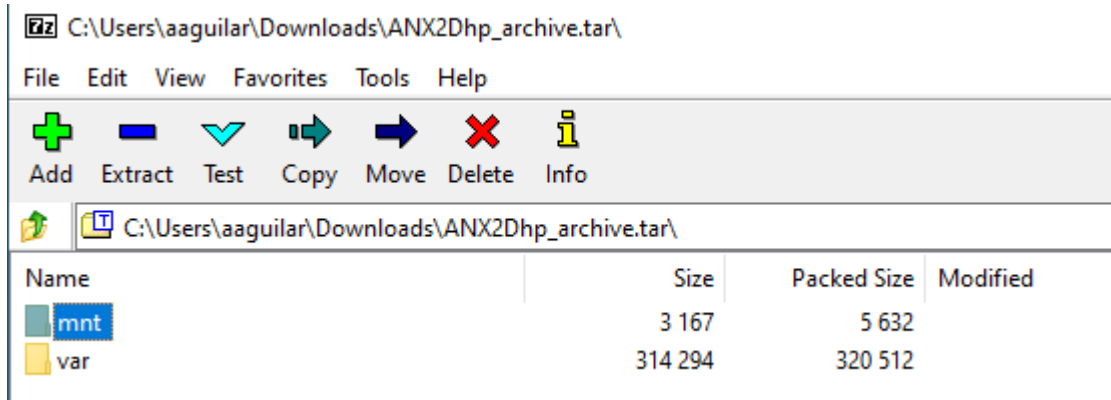

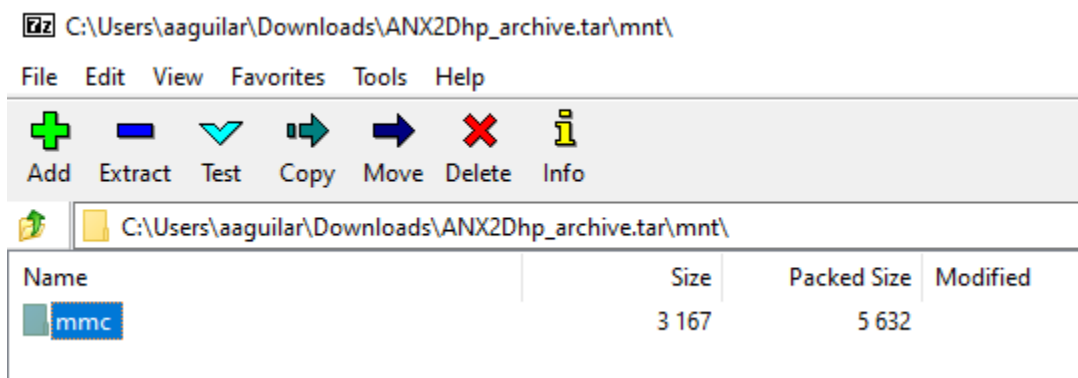Click on the Archive File, shown below circled in red.
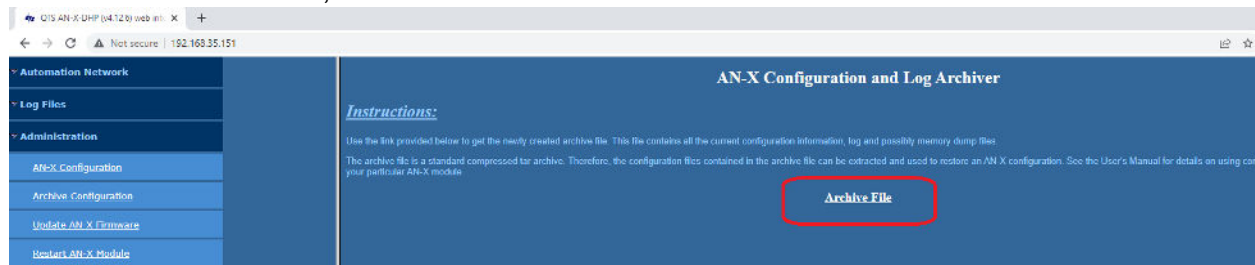
This will download a complete backup of your current AN-X2-AB-DHRIO and save it to your PC in TAR Ball (Unix Archive) format. The name of the archive file is *AN-X host name_archive.tar* as shown below.
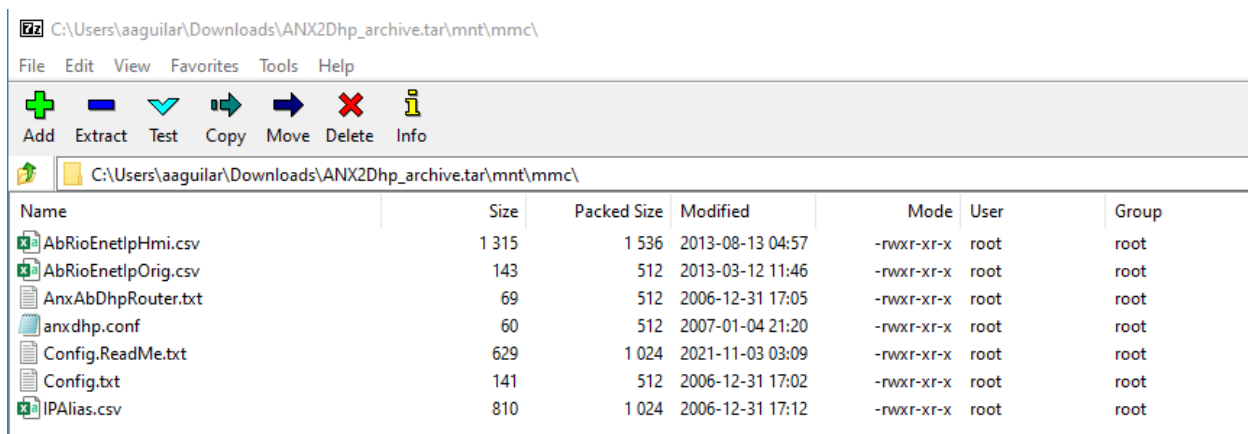

ANX2Dhp_archive.tar
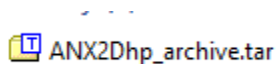
If you cannot open this file, the free Windows based utility 7-Zip (https://www.7-zip.org/) will allow you to open them. When you open this .tar file you will see 2 directories inside of it. The files we need will be in the mnt directory. Double click on the mnt directory.

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Inside mnt you will see the mmc directory.

Double click on mmc to view the configuration files from your AN-X2-AB-DHRIO as seen below.

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The files that you will need to import into the AN-X4-AB-DHRIO using firmware type AN-X4-AB-DHP are the following files:

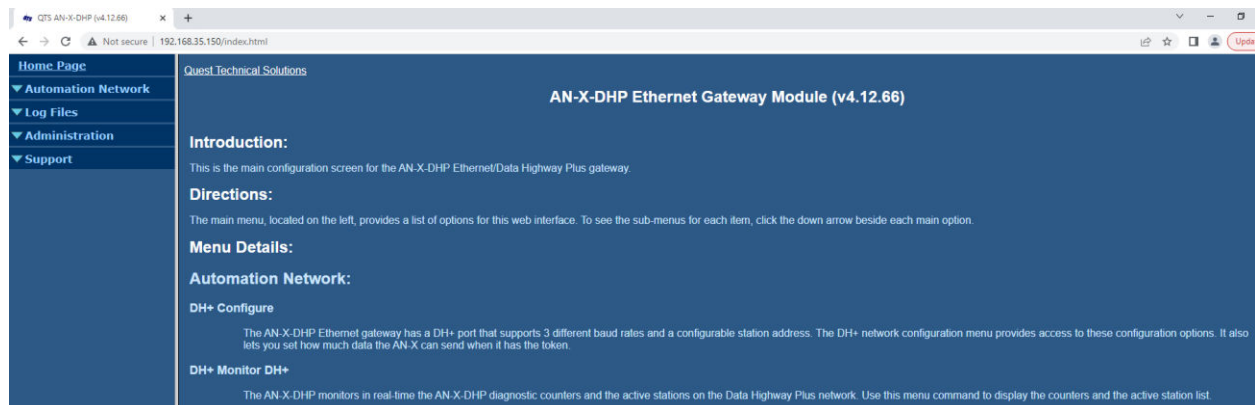❖ anxdhp.conf
❖ IPAlias.csv
❖ Config.txt
❖ AnxAbDHpRouter.txt

Note: AnxAbDHpRouter.txt was introduced in v4.7 of the AN-X2-AB-DHP firmware. Your AN-X may or may not have this file.

Extract these files into a directory on your PC that is easily assessable. You will need them later.

Next, you will need to access the AN-X4-AB-DHRIO. AN-X4 can be configured:

❖ to use a static IP address
❖ to obtain its IP address from a DHCP server
❖ to use the factory default setting, where the AN-X4 waits for 10 seconds for a DHCP server to respond. If it does not obtain an IP address within 10 seconds, it reverts to a static address of 192.168.0.246. All AN-X4 modules are shipped with this as the default configuration. In some certain cases, DHCP is acceptable, however unless you have control of the DHCP server, most applications will require the AN-X4 have a static IP address. DHCP servers may assign different IP addresses each time AN-X4 powers up, or is rebooted, which may make it inaccessible to hardware or software that accesses the AN-X4 module by IP address only.

At this point, it is safe to remove the AN-X2 from the network and even assign the old AN-X2 IP address to your new AN-X4. Once the IP address has been set, go to the web interface of the AN-X4. You will note that the interface, although similar, looks quite different from the old AN-X2 interface.

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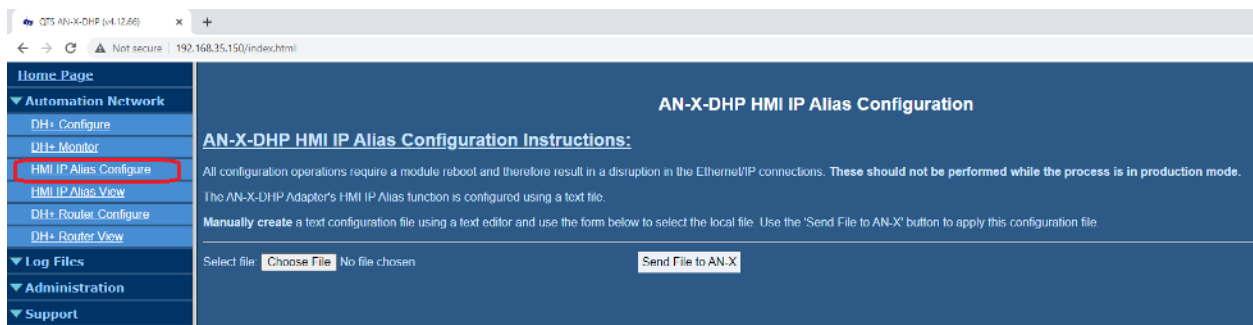
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Configure DH+ Settings

Expand the Automation Network tab and click on the DH+ Configure link. In this section you will be able to set the Baud Rate and Station Number on the AN-X4-AB-DHRIO. You can alternately open the anxdhp.conf file and edit the Baud Rate and set the Station Number for your AN-X4-AB-DHRIO, if you wish.
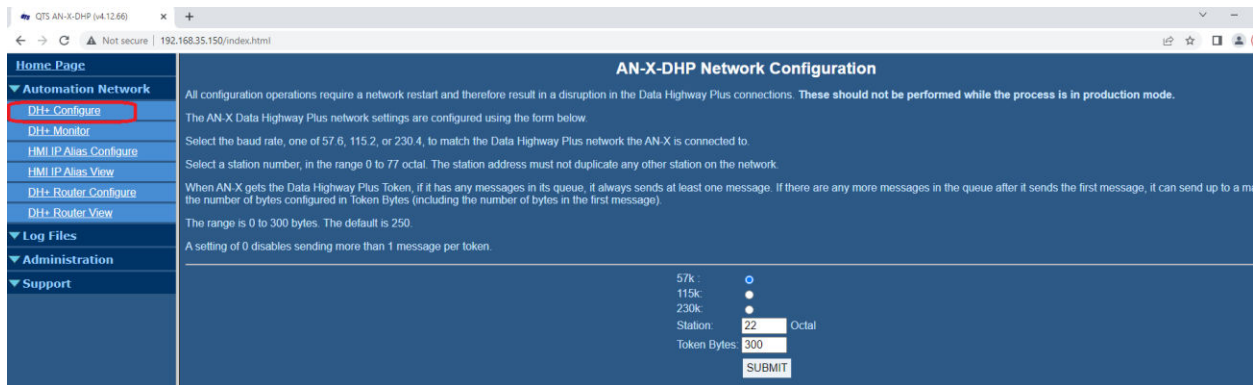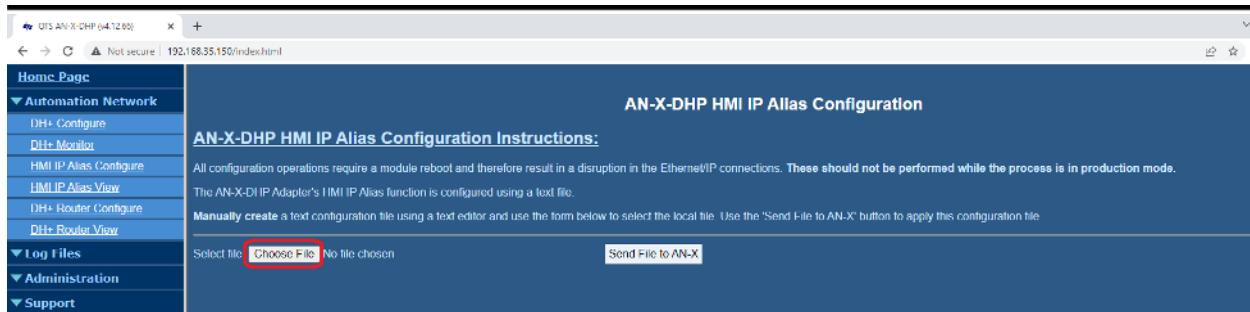

Configure the IP Alias File

Next, send the IPAlias.csv to the AN-X4-AB-DHRIO. Expand the Automation Network Tab and click on the HMI IP Alias Configure link. You will see this page.

Click on the Choose File button.

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Browse and locate your IPAlias.csv file from your AN-X2. Once selected, click on the Send file to AN-X button.
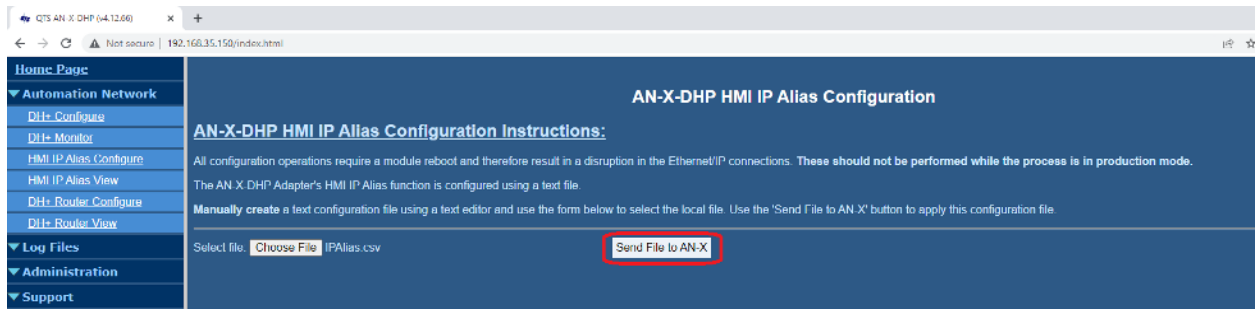
Once the file has been sent to the AN-X4 and parsed successfully, the AN-X4 will display a page like the one shown below. Click on the REBOOT link, circled below in red.

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The AN-X4 has not reboot yet. You will see a screen shown below, you must click on the REBOOT NOW link before the AN-X4 will now reboot.
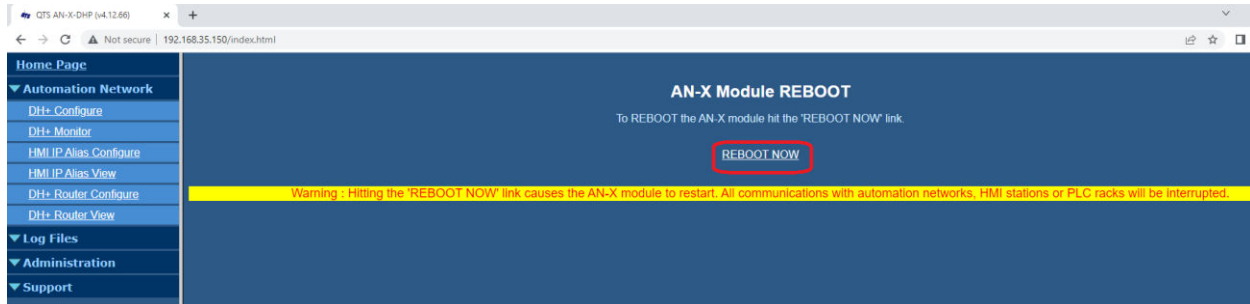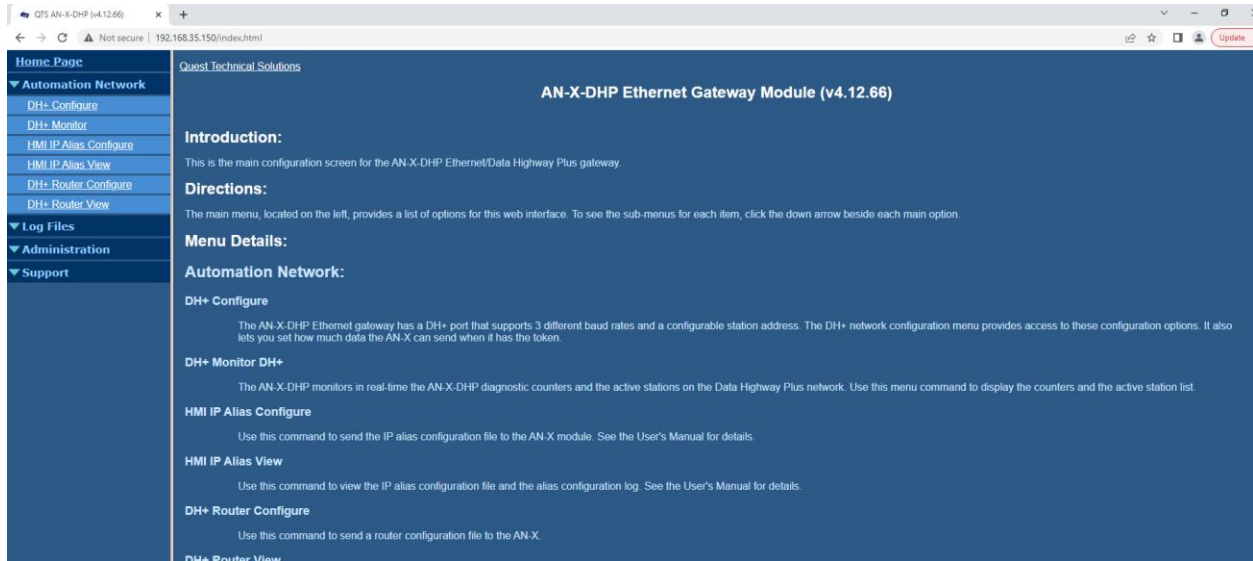

NOTE: If you skip this step the new IPAlias configuration file will not take effect until the AN-X4-AB-DHRIO reboots.

After about 30 seconds, your browser should change, and show that the AN-X4 has now been restarted.
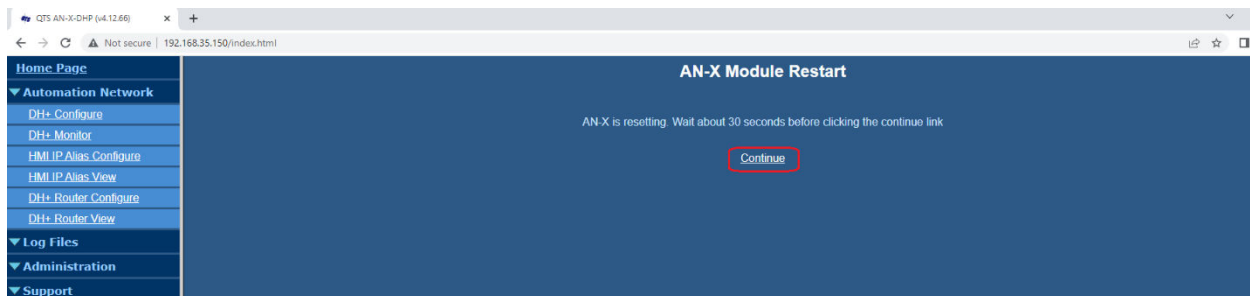
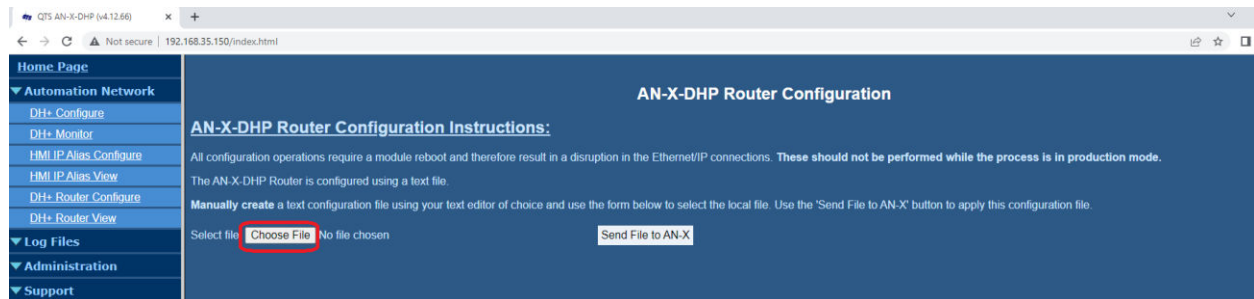Click on the "Continue" link to go back to the main AN-X4 Interface.

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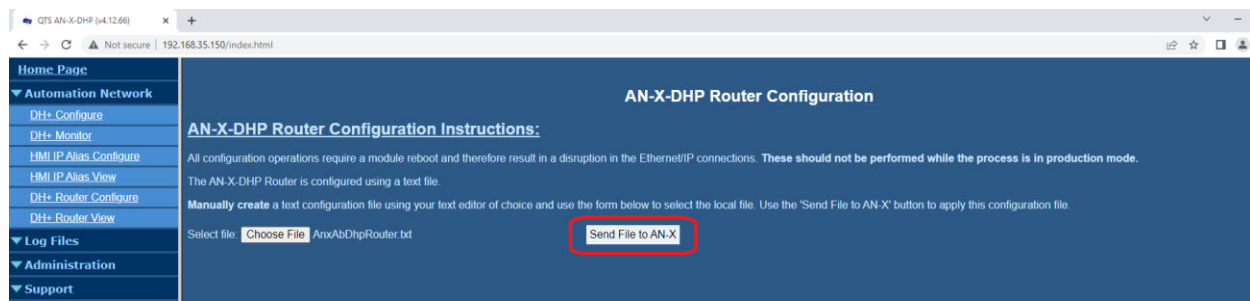## DH+ Router Configuration

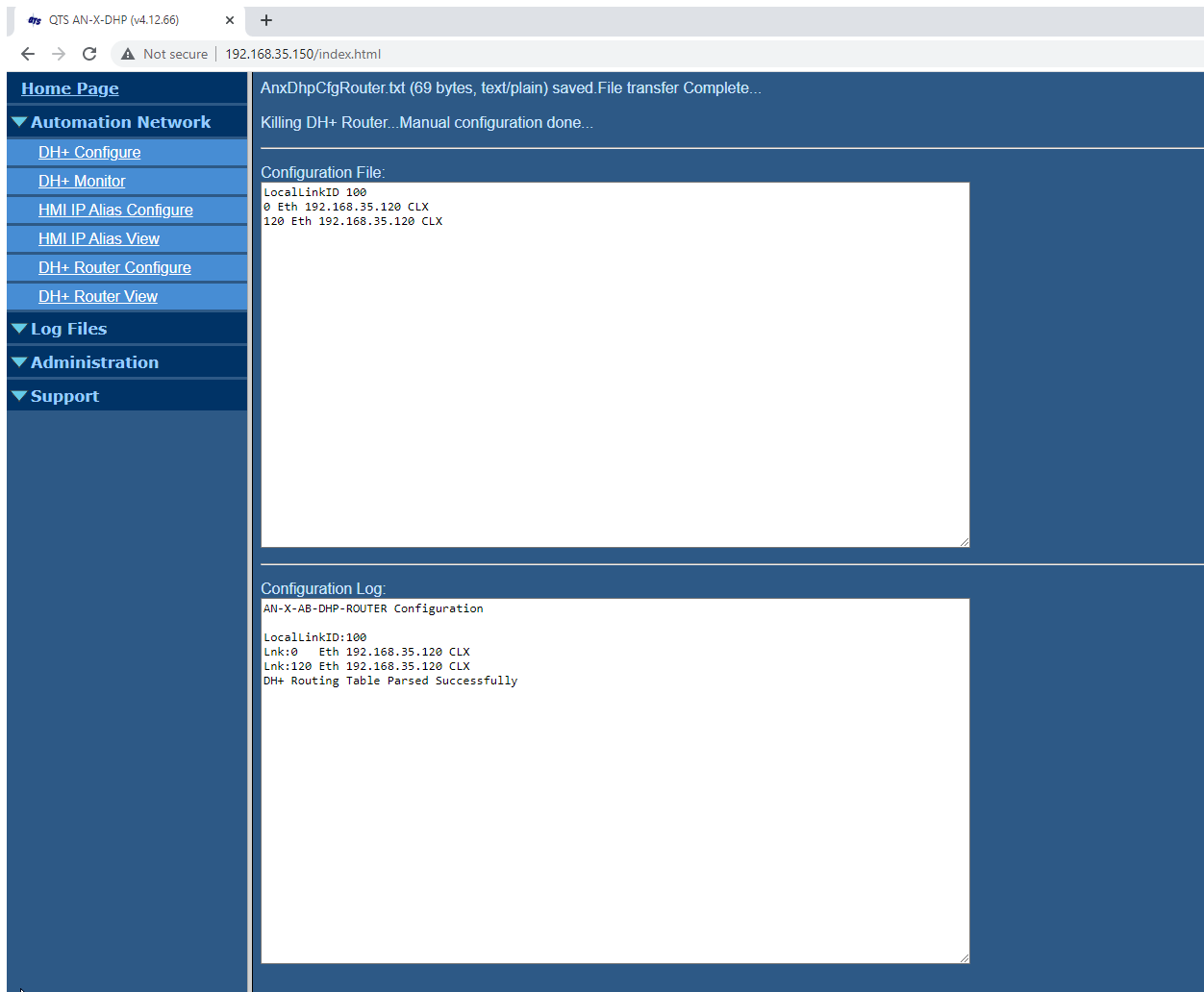Next, click on the DH+ Router Configure link, shown below circled in red.
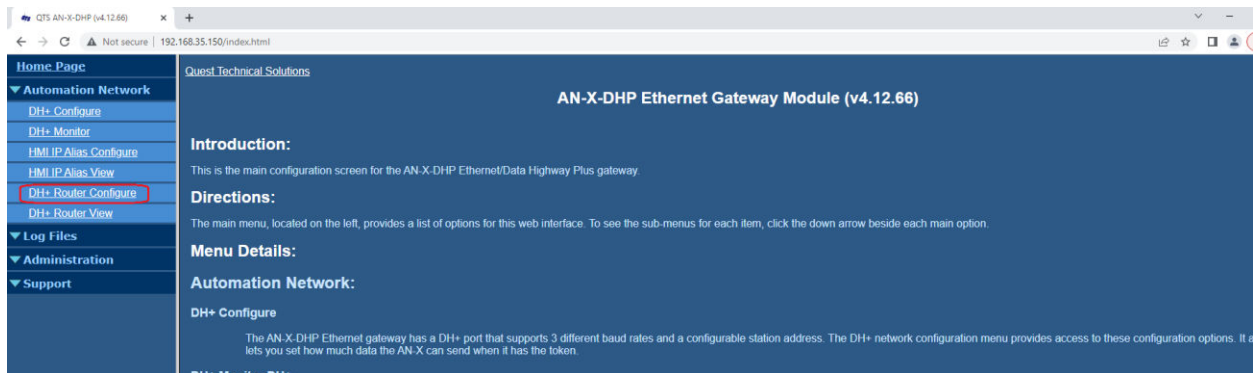
Click on the Choose File (Browse in some browsers) and navigate to your AnxAbDHPRouter.txt file that was saved off your AN-X2, or that was retrieved from your AN-X2 Archive TAR Archive.

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After choosing the file AnxAbDHpRouter.txt, click on the Send File to AN-X button.

After the AN-X4 parses the router config, it will show the configuration like the screen below. There is no need to reboot the AN-X4 at this point.

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Reading Files Directly from the AN-X2-AB-DHRIO uSD Card

This section will go over how to retrieve the files from the AN-X2-AB-DHRIO uSD card and move them over the AN-X4-AB-DHRIO uSD card. First, remove your uSD card from the back of your AN-X2 and install it into a suitable uSD card reader, and bring up the files in Windows Explorer. You should see files like the ones shown below.

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Name	Date modified	Type	Size
DrvTemplates	4/28/2022 7:25 AM	File folder	
RioEipScn	4/28/2022 7:25 AM	File folder	
AbRioEnetIpHmi.csv	8/13/2013 11:57 AM	Microsoft Excel C...	2 KB
AbRioEnetIpOrig.csv	3/12/2013 6:46 PM	Microsoft Excel C...	1 KB
AN-X2-AB-ADPT.v4.2.2.qtf	5/8/2018 12:49 AM	QTF File	2,812 KB
AN-X2-AB-DHP.v4.12.6.qtf	1/1/2007 12:58 AM	QTF File	3,163 KB
AN-X2-AB-DRV-04.v4.8.2.qtf	10/2/2018 8:10 AM	QTF File	3,367 KB
AN-X2-AB-HMI.v4.9.3.qtf	2/19/2019 8:00 PM	QTF File	2,877 KB
AN-X2-AB-RIO-EIPSCN.v4.4.1.qtf	3/14/2018 4:12 PM	QTF File	3,294 KB
AN-X2-AB-SCAN.v4.2.2.qtf	11/18/2019 11:16 AM	QTF File	2,750 KB
AN-X2-Maint.v1.1.14.qtf	6/7/2012 3:46 PM	QTF File	2,735 KB
AnxAbAdptConfig.bin	12/17/2012 9:15 AM	BIN File	29 KB
AnxAbDhpRouter.txt	12/31/2006 11:05 PM	Text Document	1 KB
AnxAbScanConfig.bin	1/15/2007 12:18 AM	BIN File	100 KB
anxdhp.conf	1/5/2007 3:20 AM	CONF File	1 KB
Config.ReadMe.txt	11/3/2021 10:09 AM	Text Document	1 KB
Config.txt	12/31/2006 11:02 PM	Text Document	1 KB
IPAlias.csv	12/31/2006 11:12 PM	Microsoft Excel C...	1 KB

Configuring the IP Address

To configure your AN-X4-AB-DHRIO with the same IP Address as your old AN-X2-AB-DHRIO, you will need the Config.txt file from the AN-X2-AB-DHRIO. Switch to the directory of your AN-X4 uSD image. Notice the difference between the older AN-X2 uSD image (shown above), and the newer AN-X4 uSD image shown below. In your AN-X4 uSD directory, locate and double click on the IPCfg directory.

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Name	Date modified	Type	Size
Dhp	4/7/2023 7:19 AM	File folder	
Firmware	4/7/2023 7:07 AM	File folder	
Init	4/7/2023 7:07 AM	File folder	
IPCfg	4/7/2023 7:07 AM	File folder	
RioDrv	4/7/2023 7:07 AM	File folder	
RioHmi	4/7/2023 7:07 AM	File folder	
ssh	4/7/2023 7:07 AM	File folder	
MLO	10/13/2022 2:10 PM	File	106 KB
qtsnet.dtb	10/13/2022 2:10 PM	DTB File	87 KB
u-boot.img	10/13/2022 2:10 PM	Disc Image File	1,105 KB
uEnv.txt	10/13/2022 2:10 PM	Text Document	1 KB
zImage	1/31/2023 5:26 AM	File	42,634 KB

You will see a file in that directory named IPConfig.txt. Rename that file to IPConfig.old. Copy and paste your old Config.txt file into this directory. Press F2, or right-click and select "Rename" and rename the old Config.txt file to IPConfig.txt.

NOTE: It is very important that you change the file name and extension as show below.

You should have an IPConfig.txt file in your IPCfg directory, shown below. If you chose to save a copy of the original IPConfig.txt, that file will show up.

Name	Date modified	Type	Size
IPConfig.txt	12/31/1999 11:42 PM	Text Document	1 KB

Configuring the DH+ Settings
Click back to the root uSD directory. Locate and double-click on the Dhp directory.

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You will see the 3 main configuration files for the DH+ mode of the AN-X4.

Note: You can save copies of these files by creating a directory inside Dhp. Name it "Original", or "Backup". Click on AnxDhpCfg.txt and hold down SHIFT. Finally, click on AnxDhpCfgRouter.txt. This will select all 3 files. Right-click on the selected files and select Cut from the popup menu. Then, right-click on the new directory you created and choose Paste. This will move all the files to the backup directory. Regardless, you may still need to clean out this directory before you can paste and rename your old files in this directory, if the old files still exist.

Once your Dhp directory is clear, you can copy/paste the original files from your AN-X2 uSD card into this Dhp directory.

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⚠️ NOTE: It is very important that you change the file name and extension as show below.

Create DH+ Config

First, the file anxdhp.conf will need to be renamed to AnxDhpCfg.txt.

📄 anxdhp.conf

📄 AnxDhpCfg.txt

Create IPAlias Config

Next, IPAlias.csv file will need to be renamed to AnxDhpCfgHmiAlias.txt.

📊 IPAlias.csv

📄 AnxDhpCfgHmiAlias.txt

Create DH+ Router Config

Finally, AnxAbDhpRouter.txt will need to be renamed to AnxDhpCfgRouter.txt. Note that this file name is very similar to the old name, so take care when renaming this file.

📄 AnxAbDhpRouter.txt

📄 AnxDhpCfgRouter.txt

Testing your work

After you have renamed/copied all 3 files into the Dhp folder, eject the uSD card from Windows, and reinstall into the AN-X4. Now power up the AN-X4, and your config should be active.

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