Bootable USB Flash Drive (Creating "Master Boot Record") For USB Drive

Note: If you have never used this "Flash Drive" before to boot a Neoware Thin Client you must do this document before the "Thin Client" will boot off the Flash Drive properly. If you have used this one before and are just trying to make it bootable again then you can go to the following link http://www.themooressite.com/tech/Thin%20Clients/neoware.html *and click on the document called "Bootable USB Flash Drive For Reimaging Neoware Thin Clients"*

Note: To do this you will need a USB Thumb Drive of at least 256MB in size, and it will need to be compatible with this operation. Also Note: Unfortunately there is no real way of telling which ones are compatible with this operation by looking at them or buy using one specific model. It is more or less a hit or miss (Either it will work when you do the steps below or it won't).You will just have to try a device until you find one that is compatible. I can tell you that I used a "Cruzer Micro 2.0GB" Thumb Drive for this test and it worked great.

Last Note: Make sure there is __NO INFORMATION__ on the "Flash Drive" that you selected as you will be wiping it out in the steps below.

1) Once you have a thumb drive that you want to use, you will need to download the "USB" zip file from my website which you can find at the following link http://www.themooressite.com/tech/Thin%20Clients/neoware.html Look under the Software Section.

2) You will then need to Unzip the files to the root of your C: drive.
3) Now you will need to follow the steps below. *Note: These steps can also be found in the "USB Image Update and Retrieval Tool.doc" that is located in the "USB" folder that you downloaded.*

4) **Variable Determination -- Note: Variables subject to change during the procedure. Please refer back to this section for re-determination when needed.**

    a. Open a Windows Explorer window and note the drive letter that the USB key is mapped to. Write it down here for reference
        i. USB Key Drive Mapping:_____
    b. From a command prompt:
        i. Change Directory to c:\USB
            1. Type '*cd C:\USB\dd_win32*'
        ii. Type '*dd --list*' and hit '*Enter*'

1. The output returned will resemble 'Mounted on \\.\d:' where 'd:' is the drive letter of the storage device.
2. Search for the USB Key Drive Mapping (noted above.)
   a. In my case, I am looking for the line 'Mounted on d:\'
3. Once found, please take note of the Harddisk# variable referenced with the Drive Letter.
   a. In my case I have determined the variable to be 'Harddisk1'
   b. Write the variable down here for reference_____

5) **Creation**

   a. **Continuing to work in the previously opened command prompt:**
      i. Change Directory to c:\USB\dd_win32
         1. Type 'cd C:\USB\dd_win32'

Warning – The next step will overwrite the MBR of the device. Any and all data will be lost. Make sure you have the correct Harddisk# from step 8 or you risk destroying the data of another hard drive!!! That would be bad.

      ii. Type 'dd.exe if=/dev/zero of=\\?\Device\$the_Harddisk_number_you_noted_from_step_8\Partition0 bs=1M --progress' and hit 'Enter'
         1. Taking the variable into consideration, in my case the exact command will be 'dd.exe if=/dev/zero of=\\?\Device\Harddisk1\Partition0 bs=1M --progress'

         2. When the command completes:
            a. You should get $some_number+0 records in; $some_number+0 records out.
            b. It will probable give you some sort of exit error.
            c. Ignore the error; the .dd has just encountered the end of the device.
      iii. Physically unplug the USB storage device... wait a few seconds... and then re-insert it. *(Yes this is necessary.)*
         1. Verify that your variables noted above have not changed.
      iv. Type 'dd.exe if=empty_dos_table.mbr of=\\?\Device\$the_Harddisk_number_you_noted_from_step_8\Partition0' and hit 'Enter'
         1. Taking the variable into consideration, in my case the exact command will be 'dd.exe if=empty_dos_table.mbr of=\\?\Device\Harddisk1\Partition0'
         2. You should get 1+0 records in; 1+0 records out.
      v. Physically unplug the USB storage device... wait a few seconds... and then re-insert it. *(Yes this is necessary.)*
         1. Verify that your variables noted above have not changed.
      vi. Minimize the command prompt. We will need it again later.

   b. **Open a Windows Explorer window.**

     i. Double Click on the device and you should receive a message saying 'Please insert a disk into drive _____ '

     ii. Minimize the Windows Explorer Window. We will need it again later.

c. Open up the Disk Management Console so that we can partition the device
     i. Go to Start → Run
     ii. Type 'diskmgmt.msc' and click 'OK'
     iii. You should see your removable device in the lower list with the entire device's disk space as "Unallocated".
     iv. Right-Click the non-partitioned space and select 'New Partition'
     v. Follow the Wizard
          1. Click 'Next'
          2. Click 'Next'
          3. Click 'Next'
          4. Click' Next'
          5. Set the file system to 'FAT32'
          6. Set a 'volume label' (if desired.)
          7. Click 'Next'
          8. Click 'Finish'
     vi. The device should now be formatted to FAT32 and accessible through Windows Explorer
     vii. Close the Disk Management Console.
          1. Go to File → Exit

d. Maximize the command prompt that was minimized in step 3-a-vi
     i. Change Directory to c:\USB\syslinux-3.11
          1. Type 'cd C:\USB\syslinux-3.11' and hit' Enter'
     ii. Type 'syslinux.exe –ma $drive_letter_of_the_usb_storage_device' and hit 'Enter'
          1. Taking the variable into consideration, in my case the exact command will be 'syslinux.exe –ma d:'
               a. You should now have 1 file on the device called 'ldlinux.sys.'
               b. Verify this by typing 'dir/a' from the command line.
     iii. Close the command prompt. We are finished with it.

e. Maximize the Windows Explorer window that was minimized in step 3-b-ii
     i. Copy all files from 'C:\USB\disk_files' to the newly created USB device

6) You should now have a Thumb Drive that is bootable for Re-Imaging, Copying Images, and Formatting Thin Clients. For instructions on how to use this Thumb Drive in conjunction with the above task please also download and see the following articles.

How To Copy Image To A Bootable Thumb Drive

How To Pull Image From Neoware Thin Clients Using A Thumb Drive

How To Re-Image Neoware Thin Clients Using A Thumb Drive

How To Troubleshoot Neoware Thin Client Issues

Bootable USB Flash Drive For Reimaging Neoware Thin Clients

To do this you will need a USB Thumb Drive of at least 256MB in size, and it will need to be compatible with this operation. *Note:* **Unfortunately there is no real way of telling which ones are compatible with this operation by looking at them or buy using one specific model. It is more or less a hit or miss (Either it will work when you do the steps below or it won't). You will just have to try a device until you find one that is compatible. I can tell you that I used a "Cruzer Micro 2.0GB" Thumb Drive for this test and it worked great.**

1) Once you have a thumb drive that you want to use, you will need to download the "Bootable_USBv2.2.2" zip file from my website which you can find at the following link http://www.themooressite.com/tech/Thin%20Clients/neoware.html Look under the Software Section.

2) You will then need to Unzip the files to the root of your C: drive.

3) Now go to start/run and type cmd and hit enter. At the command prompt type cd_\ (Where _ is one space). and hit enter.

4) You want to change into the Syslinux-3.11 directory. To do this type the following command. cd C:\Bootable_USBv2.2.2\syslinux-3.11 and hit enter.

5) Plug in your thumb drive that you want to use and open up My Computer to see what drive letter was assigned to it and make a note of it. Close My Computer.

6) Now go back to the command prompt (Should still be open) and type the following command. syslinux.exe –ma "drive_letter_of_the_usb_storage_device and hit enter. In other words my storage device name is M: so the command would look like the following. syslinux.exe –ma m: and hit enter. Now exit the command prompt. **Note: The file that is placed on the Thumb Drive as a result of running this command is a protected OS file. So if you go to your Thumb Drive and see nothing it is because this file is hidden by default, and you will have to change the Folder Options in order to view this file.**

7) You will now need to go to the location where you unzipped the files earlier (In my case it is the root of C:) and find the folder called "disk_files", "docs", and "syslinux-3.11, and copy them to the root of the thumb drive.

8) Now you will need to go into the "Disk_Files" Folder and copy all of those files (From inside this folder) to the Root of the Thumb Drive. **Note: If you do not do this it definitely will not work because it can't find the Linux Kernel.**

9) You should now have a Thumb Drive that is bootable for Re-Imaging, Copying Images, and Formatting Thin Clients. For instructions on how to use this Thumb drive in conjunction with the above task please also download and see the following articles

How To Copy Image To A Bootable Thumb Drive

How To Pull Image From Neoware Thin Clients Using A Thumb Drive

How To Re-Image Neoware Thin Clients Using A Thumb Drive

How To Troubleshoot Neoware Thin Client Issues

How To Copy Image To A Bootable Thumb Drive

Note: This document assumes that you have read and done the following write up "Bootable USB Thumb Drive For Reimaging Neoware Thin Clients".

1) The first thing you need to do is plug the Thumb Drive into the computer that has the images stored on it. **Note: These have to be images the you have pulled from another Thin Client previously as I explained in the How To Pull Image From Neoware Thin Clients Using A Thumb Drive document. These cannot be images that were downloaded or extracted from the .exe file.**

2) You will need to go to the location where you have these images stored (For Ex. mine are at the root of C), and right click on the image file and go to Copy.

3) Now go to the root of the Thumb Drive and find the folder called Images, and double-click on that folder.

4) Once inside the Images Folder right-click and go to Paste.

5) Now close out of all Windows and disconnect the Thumb Drive from that computer.

6) You will now need to read the document (How To Re-Image Neoware Thin Clients Using A Thumb Drive).

How To Install Plug-Ins On Neoware Thin Clients

Things You Will Need To Get Started

--Windows NT or Windows 2000 Server

--Cross Over Cable

--WinRaR (See Link) http://www.win-rar.com/index.php?id=160&dl=wrar371.exe

--Thin Client To Have Plug-In Installed On

--Copy Of EzRemote Manager Enterprise Edition Software (See Link Below)
http://h20000.www2.hp.com/bizsupport/TechSupport/SoftwareDescription.jsp?lang=en&cc=us&prodTypeId=12454&prodSeriesId=3638802&swItem=vc-60565-1&prodNameId=3638803&swEnvOID=1058&swLang=13&taskId=135&mode=3

--The Plug-In That You Are Wanting To Install.

To Make This Work

1) The first thing you will need to do is turn on both the Thin Client and the Windows NT/Windows 2000 Server (Which ever ver. you are using. **Note: For this document I am using Windows 2000 Server).**

2) Now hook up the Cross Over Cable to both the Server and the Thin Client and make sure both the Server and Thin Client are logged on as an Administrator.

3) Go to the Server box and go to Start/Settings/Control Panel/Network and Dial-Up Connections and right-click on Local Area Connection and go to properties. Find Internet Protocol TCP/IP and click on it one time and then click on properties. Click on the radio button beside Use the Following IP Address and enter the following information. IP = 10.1.1.12 Subnet Mask = 255.255.255.0, and Default Gateway = 10.1.1.12. Leave DNS Blank. Click on Ok, and Ok again.

4) You will now need to go to the Thin Client and do the following. Go to Start/Control Panel/Network Connections and right-click on Local Area Connection and go to properties. Find Internet Protocol TCP/IP and click on it one time and then click on properties. Click on the radio button beside Use the Following IP Address and enter the following information. IP = 10.1.1.15 Subnet Mask = 255.255.255.0, and Default Gateway = 10.1.1.12. Leave DNS Blank. Click on Ok, and Ok again.

5) You will now need to find the WinRaR .exe file that you downloaded earlier and install it on the Windows Server 2000 Box. Just follow the prompts it is a pretty straight forward installation.

6) Now still on the Server 2000 box you will need to locate the EzRemote Manager Enterprise Edition executable that you download. Right-click on the .exe file and choose Extract To Here. You should now have three files (The original .exe file, the License Text File, and the Extracted .exe file).

7) Double-click on the .exe file that was Extracted (Not the one you downloaded), and follow the prompts to install it to the Server. Make sure you leave all the defaults. When the installation finishes if asked make sure you restart the Server.

8) Now still on the Server 2000 box you will need to locate the Plug-In executable that you downloaded to be installed on this particular Thin Client. **Note: I am using and Neoware Citrix Presentation Server Client Plug-In (Since HP Bought out Neoware) for this example, so the following next couple of lines could vary slightly depending on how you downloaded or got your particular Plug-in. Note: Make sure you do not try to install the Plug-In directly on the Thin Client. While it will take you through the set-up just like it installed IT WILL NOT WORK PROPERLY.** Right-click on the .exe file and choose Extract To Here. You should now have three files (The original .exe file, the Release Notes…, and the Extracted .exe file).

9) Double-click on the .exe file that was Extracted (Not the one you downloaded), and follow the prompts to install it to the Server. Make sure you leave all the defaults. When the installation finished Uncheck the box beside View Readme Now and then click Finish. You should now be back at your desktop.

10) Now still on the Server box you will need to go to Start/Programs/Neoware/EzRemote Manager, and double-click

11) Once that opens go to the top where the menus are and go to Edit/Add/Station.

12) The Add Station window will appear. In the Start box type the ip address of the Thin Client (In this particular case it is 10.1.1.15 as listed in the steps above). Now click on the Add button and then click on Ok.

13) It will search for that station and then add it in the Right Hand pane of the manager. **Note: If the Thin Clients name appears under Station Name then you are good to continue. If it says protected you will need to do the following. Go to the menus at the top and find Settings/Security. The Appliance Access Security window will open and you will need to type in the password for the Thin Client in the box provided (Make sure this is the password of the Administrator Account in which you are currently logged in under on the Thin Client) and then hit Ok. If the Thin Client still shows as Protected you will need to go back to the menus at the top and go to Actions/Assets. The Select Broadcast Addresses window will appear. Go to the bottom of the window in about the middle and there is a button that says Password click on it. Enter the password for the Thin Client in the box provided Once again (Make sure this is the password of the Administrator Account in which you are currently logged in under on the Thin Client) and then hit Ok. It will again try to locate the Thin Client and once it is finished you should now see the name of the Thin Client listed under Station Name and it should not say protected anymore.**

14) Now look right under the Menus and there will be several icons listed there. Find the one that has a image of a Thin Client and a Red Plus Sign beside it (Should be the 5th one from the left) it is called the Snap-In Manager. Click on it.

15) In the middle window it will show the Snap-In Manager. You will need to click on the Browse button beside the box that says Snap-In.

16) Another window will open wanting you to select the Snap-In. It should already be in the correct directory of the Snap-In you just installed, so just pick the Install.2do File and then click on Open.

17) Now click on Ok

18) A pop up will appear and you will need to click on Ok. It will then take you to another screen where it will show you the progress of the Thin Client as it is installing the Plug-In.

19) After about 2 minutes it will say Completed under Status. Also, note that the Thin Client will not reboot.

20) Make sure that if you are about to put the Thin Client on a Network with a DHCP server that you change the IP configuration back to obtain automatically.

21) Now you can unhook the Cross-over Cable from both the Thin Client and Server. Also, on the server you can click on the Close button, and then click on the Red X in the top right hand corner of the Remote Manager. You will then notice that a Database Access Control window pops up. Just click on Ok.

22) Now a Save As window will pop up. Just click on Cancel and the Remote Manger will close.

23) That is all there is to it.

How To Pull Image From Neoware Thin Clients Using A Thumb Drive

Note: This document assumes that you have read and done the following write up "Bootable USB Thumb Drive For Reimaging Neoware Thin Clients".

1) The first thing you need to do is make sure the Thin Client is off and the USB Thumb Drive is not in the Thin Client.

2) Now hold down the Del Key and press the Power Button while Continuing to hold down the Del Key. Hold this key down until you are in the Bios and then Release It. **Note: Due to different models and Bios ver. you may either have to hold the F1, F2, or Del key.**

3) You will now need to find the Boot Order and make sure that the first boot device is the USB-HDD. **Note: Depending on the ver. of your Bios it may be called something else such as USB, Other, USB-HDD, etc....**

4) Now save changes and exit.

5) The Thin Client will now restart automatically, and you will need to Log Into Windows as the Administrator or an account with Administrator Privileges.

6) Once the Thin Client has booted into Windows insert the Bootable USB Thumb Drive that you made earlier.

7) Open up the Thumb Drive and find the Disk_Files folder. Double-click on it and then find the Preprocess_XPe Folder and Double-Click on it.

8) Now you will need to look for the _Run_From_XPe.cmd file and Double-Click on it.

9) You will notice that a command prompt window will appear asking you to Press Any Key To Continue. Hit Enter.

10) It will run through a quick routine and then ask you to Press Any Key to continue again. Hit Enter. **Note: Make sure you DO NOT remove the Thumb Drive from the Thin Client.**

11) The Thin Client will automatically reboot and start loading the Linux Kernel. **Note: If it says cannot find the Linux Kernel you did not copy the files out of the Disk_Files folder to the root of the USB Drive when you made it bootable in the previous document. You will need to do this and then it will work.**

12) Once it finishes loading the Linux Kernel you will be presented a screen with 6 options and a message that says Select An Image Operation. You will need to hit the number 3 key (Image Record Mode (XPe)) and hit Enter. **Note: If you get the following message Error XPe Image Has Not Been Pre-Processed…….Image Record Operation Aborted. You will need to Remove the Thumb Drive and hit Enter (The Thin Client will reboot automatically), and refer to steps 1-10.**

13) You will now be presented with the following text Please Enter A Name For The Image That Will Be Pulled….and you will see the cursor flashing beside the word FileName. Just type the Name you want the Image to be saved as. For ex. neoware.workgroup.orginalfactory

14) Hit Enter

15) Now you will be asked if you want Gzip Compress Image (Yes/No). You will need to hit Y for Yes and N for No. **Note: I always hit No here because anytime you compress an image or anything for that matter you always stand the risk for corruption.** So, in my case I hit N and then Enter.

16) It will now start Recording the image and you will see little Dots move across your screen to show the progress of the Recording.

17) When the Image has been recorded it will say Image Operation Complete. Remove the Thumb Drive and Hit Enter.

18) The Thin Client will Automatically Reboot, but the imaging process is not quite finished.

19) When the Thin Client comes back up it (Before going completely into Windows) a command prompt will appear and run through the rest of the routines to finish the Recording of the Image Process, and then the Thin Client will Shut Down Automatically when finished.

20) Once the Thin Client turns off completely you will need to do the following steps.

21) Now hold down the Del Key and press the Power Button while Continuing to hold down the Del Key. Hold this key down until you are in the Bios and then Release It. **Note: Due to different models and Bios ver. you may either have to hold the F1, F2, or Del key.**

22) You will now need to find the Boot Order and make sure that the first boot device is the HDD-0. **Note: Depending on the ver. of your Bios it may be called something else such as HDD, HDD0, etc….**

23) Now save changes and exit.

24) The Thin Client will restart and should now boot into Windows. **Note: That since it runs New Sid at the end of the Record Process you may have to rename your Thin Client again back to its original name.**

25) Other than that the Record Process is now complete.

How To Re-Image Neoware Thin Clients Using EzRemote Manager Enterprise Edition Software

Things You Will Need To Get Started

--Windows NT or Windows 2000 Server

--Cross Over Cable

--WinRaR (See Link) http://www.win-rar.com/index.php?id=160&dl=wrar371.exe

--Thin Client To Be Imaged

--Copy Of EzRemote Manager Enterprise Edition Software (See Link Below)
http://h20000.www2.hp.com/bizsupport/TechSupport/SoftwareDescription.jsp?lang=en&cc=us&prodTypeId=12454&prodSeriesId=3638802&swItem=vc-60565-1&prodNameId=3638803&swEnvOID=1058&swLang=13&taskId=135&mode=3

--The Latest Image For The Thin Client You Are Wanting To Use.

To Make This Work

1) The first thing you will need to do is turn on both the Thin Client and the Windows NT/Windows 2000 Server (Which ever ver. you are using. **Note: For this document I am using Windows 2000 Server).**

2) Now hook up the Cross Over Cable to both the Server and the Thin Client and make sure both the Server and Thin Client are logged on as an Administrator.

3) Go to the Server box and go to Start/Settings/Control Panel/Network and Dial-Up Connections and right-click on Local Area Connection and go to properties. Find Internet Protocol TCP/IP and click on it one time and then click on properties. Click on the radio button beside Use the Following IP Address and enter the following information. IP = 10.1.1.12 Subnet Mask = 255.255.255.0, and Default Gateway = 10.1.1.12. Leave DNS Blank. Click on Ok, and Ok again.

4) You will now need to go to the Thin Client and do the following. Go to Start/Control Panel/Network Connections and right-click on Local Area Connection and go to properties. Find Internet Protocol TCP/IP and click on it one time and then click on properties. Click on the radio button beside Use the Following IP Address and enter

the following information. IP = 10.1.1.15 Subnet Mask = 255.255.255.0, and Default Gateway = 10.1.1.12. Leave DNS Blank. Click on Ok, and Ok again.

5) You will now need to find the WinRaR .exe file that you downloaded earlier and install it on the Windows Server 2000 Box. Just follow the prompts it is a pretty straight forward installation.

6) Now still on the Server 2000 box you will need to locate the EzRemote Manager Enterprise Edition executable that you download. Right-click on the .exe file and choose Extract To Here. You should now have three files (The original .exe file, the License Text File, and the Extracted .exe file).

7) Double-click on the .exe file that was Extracted (Not the one you downloaded), and follow the prompts to install it to the Server. Make sure you leave all the defaults. When the installation finishes if asked make sure you restart the Server.

8) Now still on the Server 2000 box you will need to locate the Image executable that you download to be installed on this particular Thin Client. **Note: I am using an HP Image (Since HP Bought out Neoware) for this example, so the following next couple of lines could vary slightly depending on how you download or got your particular image.** Right-click on the .exe file and choose Extract To Here. You should now have six files (The original .exe file, the License Text File, the Extracted .exe file, Release Notes…, Neoware Firewall…, and XPe Thin Client Manual…).

9) Open the License.txt file and hit Ctrl + A and then Ctrl + C to copy the License to the clipboard. Now close the License.txt file.

10) Double-click on the .exe file that was Extracted (Not the one you downloaded), and follow the prompts to install it to the Server. Make sure you leave all the defaults. When the installation finished Uncheck the box beside View Readme Now and then click Finish. You should now be back at your desktop.

11) Now still on the Server box you will need to go to Start/Programs/Neoware/EzRemote Manager, and double-click.

12) Once that opens go to the top where the menus are and go to Edit/Add/Station.

13) The Add Station window will appear. In the Start box type the ip address of the Thin Client (In this particular case it is 10.1.1.15 as listed in the steps above). Now click on the Add button and then click on Ok.

14) It will search for that station and then add it in the Right Hand pane of the manager. **Note: If the Thin Clients name appears under Station Name then you are good to continue. If it says protected you will need to do the following. Go to the menus at the top and find Settings/Security. The Appliance Access Security window will open and you will need to type in the password for the Thin Client in the box provided (Make sure this is the password of the Administrator Account in which you are currently logged in under on the Thin Client) and then hit Ok. If the Thin Client still shows as Protected you will need to go back to the menus at the top and go to Actions/Assets. The Select Broadcast Addresses window will appear. Go to the bottom of the window in about the middle and there is a button that says Password click on it. Enter the password for the Thin Client in the box provided Once again (Make sure this is the password of the Administrator Account in which you are currently logged in under on the Thin Client) and then hit Ok. It will again try to locate the Thin Client and once it is finished you should now see the name of the Thin Client listed under Station Name and it should not say protected anymore.**

15) Now look right under the Menus and there will be several icons listed there. Find the one that has an image of a Thin Client and a Floppy disk beside it (Should be the 2nd one from the left) it is called the Software Update Manager. Click on it.

16) In the middle window it will automatically pull the image that you installed earlier to the Server and will show it in this box. All you need to do is click on the button that says Update All.

17) A pop up will appear and you will need to click on Ok. It will then take you to another screen where it will show you the progress of the Thin Client as it is being Imaged.

18) After about 9 minutes it will say Completed under Status; however it is not really done at this time. You will notice that about this same time the Thin Client will Automatically reboot (if it hasn't yet it will Automatically you don't have to do anything). After about 5 more minutes it will finish up the process and you will be presented with the Logon Prompt to log into Windows on the Thin Client.

19) You will see that administrator is already filled out in the username. You will need to type Administrator (Yes that is a capital A) for the password and click on ok. Once the Thin Client Logs into Windows this time the Imaging Process is completed.

20) Make sure that if you are about to put the Thin Client on a Network with a DHCP server that you change the IP configuration back to obtain automatically (Even though it has been reimaged it still retained the 10.1.1.15 address).

21) Now you can unhook the Cross-over Cable from both the Thin Client and Server. Also, on the server you can click on the Close button, and then click on the Red X in the top right hand corner of the Remote Manager. You will then notice that a Database Access Control window pops up. Just click on Ok.

22) Now a Save As window will pop up. Just click on Cancel and the Remote Manger will close.

23) That is all there is to it. You can now start configuring your freshly imaged Thin Client.

How To Re-Image Neoware Thin Clients Using A Thumb Drive

Note: This document assumes that you have read and done the following writes ups "Bootable USB Thumb Drive For Reimaging Neoware Thin Clients", "How To Copy Image To A Bootable Thumb Drive", or "How To Pull Image From Neoware Thin Clients Using A Thumb Drive"

1) The first thing that you need to do is plug the "Bootable Thumb Drive" that you created previously into the Thin Client to be imaged.

2) Now hold down the Del Key and press the Power Button while Continuing to hold down the Del Key. Hold this key down until you are in the Bios and then Release It. **Note: Due to different models and Bios ver. you may either have to hold the F1, F2, or Del key.**

3) You will now need to find the Boot Order and make sure that the first boot device is the USB-HDD. **Note: Depending on the ver. of your Bios it may be called something else such as USB, Other, USB-HDD, etc….**

4) Now save changes and exit.

5) The Thin Client will automatically reboot and start loading the Linux Kernel. **Note: If it says cannot find the Linux Kernel you did not copy the files out of the Disk_Files folder to the root of the USB Drive when you made it bootable in the previous document. You will need to do this and then it will work.**

6) Once it finishes loading the Linux Kernel you will be presented a screen with 6 options and a message that says Select An Image Operation. You will need to hit the number 1 key (Image Write Mode) and hit Enter.

7) You will now be present with the following text Enter The Desired Image Number And Press Enter To Program. You will also see all of your Images listed above with numbers beside It/Them depending on if you have more than one.

8) Press the number key that corresponds to the image you are wanting to load and press Enter. (For ex. the image that I am wanting to load corresponds with the number one, so I will press 1 and then Hit Enter).

9) Now you will see a Warning message telling you the following The Image on /dev/hda Is About To Be Overwritten…..If you are sure you want to Overwrite your Thin Client hit Y for Yes and then press Enter. If you do not want to Overwrite your Thin Client (In other words you ended up at this screen by mistake) hit N for no and it will exit.

10) It will now say Writing Image……with Dots moving across the bottom of the screen to show the progress.

11) Once the imaging process is complete you will be presented the following text Image Operation Is Complete….You will now need to remove the Thumb Drive and hit Enter, and the Thin Client will automatically reboot, but the imaging process is not quite finished.

12) When the Thin Client comes back up (Before going completely into Windows) a command prompt will appear and run through the rest of the routines to finish the Recording of the Image Process, and then the Thin Client will Shut Down Automatically when finished.

13) Once the Thin Client turns off completely you will need to do the following steps.

14) Now hold down the Del Key and press the Power Button while Continuing to hold down the Del Key. Hold this key down until you are in the Bios and then Release It. **Note: Due to different models and Bios ver. you may either have to hold the F1, F2, or Del key.**

15) You will now need to find the Boot Order and make sure that the first boot device is the HDD-0. **Note: Depending on the ver. of your Bios it may be called something else such as HDD, HDD0, etc….**

16) Now save changes and exit.

17) The Thin Client will restart and should now boot into Windows. **Note: That since it runs New Sid at the end of the Imaging Process you may have to rename your Thin Client again back to its original name.**

18) Other than that the Image Process is now complete.

How To Troubleshoot Neoware Thin Client Issues

Q) After the Thin Client is done being imaged when it restarts it hangs at Verifying DMI Pool Data.

A) You need to make sure that you are using an image file with a .dd extension and that you are using an Image file that was pulled from another Thin Client. In other words it cannot be the .dd file that you may have download from the vendor's website or that was extracted from the .exe file. It must be pulled from a Thin Client. Pull an image from another Thin Client and re-image and the issue should go away.

Q) When trying to boot off the Bootable USB Thumb Drive I get an error that says cannot find the Linux Kernel.

A) You did not copy the files out of the Disk_Files folder to the root of the USB Drive when you made it bootable in the previous document. You will need to do this and then it will work.

Q) When trying to boot off the Bootable USB Thumb Drive it boots straight into Windows **(Part 1)**.

A) The Flash Drive that you are using does not have the correct MBR (Master Boot Record) on it. To fix this issue go to the following link http://www.themooressite.com/tech/Thin%20Clients/neoware.html and download the article called "Bootable USB Flash Drive (Creating "Master Boot Record") For USB Drive".

Q) When trying to boot off the Bootable USB Thumb Drive it boots straight into Windows **(Part 2)**.

A) The Thin Client either is not compatible with USB Boot devices or you do not have it set to boot off of USB devices. To do this make sure the Thin Client is turned off and hold down the Del Key and press the Power Button while Continuing to hold down the Del Key. Hold this key down until you are in the Bios and then Release It. **Note: Due to different models and Bios ver. you may either have to hold the F1, F2, or Del key.** You will now need to find the Boot Order and make sure that the first boot device is the USB-HDD. **Note: Depending on the ver. of your Bios it may be called something else such as USB, Other, USB-HDD, etc….** Now make sure the

USB Thumb Drive is inserted into the Thin Client and Save Changes and Exit the bios. The Thin Client will automatically reboot and should now boot off the Thumb Drive.