

# gPXE Troubleshooting Guide

This article is created to resolve problems encountered during gPXE boot installation/update in Windows Server 2012 Server environment. The instructions for building the Windows Server 2012 based gPXE environment can be found from [this KB article](#).

It is important to be able to pin-point the gPXE process step where an issue occurs. Use the following list of gPXE boot loading steps to locate the exact step:

1. PXE boot agent loads on client side
2. PXE client checks network link
3. PXE client reaches out to DHCP
4. Server DHCP responds | Possible error: PXE-E51
5. DHCP scope option 60 (PXEClient) is loaded | Possible error: PXE-53
6. Client machine gets IP address
7. Client machine reaches out to next-server / TFTP server address
8. TFTP boot program is loaded (wdsnbp.com in WDS)
9. TFTP boot program (wdsnbp.com) responds to client machine
10. TFTP boot program detects client architecture (e.g. x64)
11. TFTP boot program (wdsnbp.com) hands out the gpxelinux.0 boot loader file (or the configured PXE client program in the WDS settings)
12. gpxelinux.0 loads on the client machine
13. gpxelinux.0 / client checks DHCP scope option 66 (Boot server host name / IP) and loads e.g. IP '10.10.1.1'
14. gpxelinux.0 / client checks DHCP scope option 67 (Bootfile name) and loads '\Boot\x86'
15. gpxelinux.0 / client loads the boot menu file called "default" in: '\Boot\x86\pxelinux.cfg\default'
16. Blancco PXE boot menu is displayed on the client screen
17. Boot menu option is selected from the boot menu by the user (or automatically after timeout)
18. Boot menu / Client tries to load the selected ISO image from the HTTP server (IIS) at e.g. 'http://10.10.1.1/Images/Blancco\_5.iso'
19. HTTP server/ IIS recognizes the .iso MIME type and delivers the Image
20. Boot menu / Client tries to load the memdisk.bin file from the \Boot\x86\ -directory
21. HTTP server/IIS delivers the memdisk file and the ISO image downloading starts
22. Blancco.ISO image completes downloading on the client and Blancco Drive Eraser starts booting

When you have a clear vision at which point the error message appears, use the following list of the most common error messages, causes and fixes, to resolve what's the most obvious fix for the problem. You may also contact our Technical Support team regarding the issue by submitting a Support ticket at: <https://support.blancco.com>

Note! Remember to add a screenshot/photo of the error message from the client computer!

## ERROR:

PXE-E51: No DHCP or proxyDHCP offers were received

CAUSE/FIX: Client computer can't find a DHCP server

- a) Check that the network cable is connected and that network connection exists between the client computer and the DHCP server.
- b) Check that the DHCP service is running on the server.
- c) Check that DHCP server is authorized in Active directory (if AD is used).
- d) Check that the DHCP scope is active and running in the same network (same IP range) as the server (check the IP address).
- e) Check that the server network card, that hosts the DHCP service, is active and connected to the client network.
- f) Check that the DHCP scope is configured properly, including the IP range, DNS, Router and boot server host name.
- g) Check that there are no other conflicts or issues between the scope and the server network card.
- h) Check the server/Windows firewall settings and make sure UDP port for TFTP/PXE boot (i.e. ports 67 or 69) is allowed for PXE booting. Try disabling the firewall for troubleshooting purposes.
- i) Check the server network card settings, including IP, subnet mask, gateway and DNS settings.
- j) Reset server network card/IP settings and recreate the DHCP scope if nothing else works.

## ERROR:

PXE-E53: No boot filename received

CAUSE/FIX: Server/scope option 60 (PXEClient) is missing in the DHCP settings or WDS -> DHCP -> "Configure DHCP options to indicate that this is also a PXE server" check box is not checked.

## ERROR:

CLIENT IP: 10.10.1.2 MASK: 255.255.255.0 DHCP IP: 10.10.1.2

TFTP.

PXE-M0F: Exiting Boot Agent.

CAUSE/FIX: The Client/TFTP server can't find the default TFTP boot program (wdsnbp.com in WDS). Check that wdsnbp.com exists in \RemoteInstall\Boot\x86\ folder and that WDS is properly configured.

## ERROR:

Downloaded WDSNBP from 10.10.1.1 WIN-123.test.local

TFTP download failed.

PXE-M0F: Exiting Intel Boot Agent.

CAUSE/FIX: Check the WDS Server -> Boot -> PXE boot policy properties. Make sure "Always continue PXE boot" is selected.

## ERROR:

Loading DHCP.... (can't get IP and nothing happens)

**CAUSE/FIX:**

Network connection down between server and client, no DHCP server, or invalid DHCP scopes. Check IP address, network adapter settings, DHCP settings, check that WDS is installed and reboot

**ERROR:**

Loading TFTP.... (Gets IP, but nothing happens)

CAUSE/FIX: Network connection down between server and client: Check IP address, network adapter settings and reboot

**ERROR:**

GATEWAY IP: 10.10.1.1  
PXE-E32 TFTP open timeout  
TFTP..\_

CAUSE/FIX: Default boot program path is incorrect in WDS and/or server needs a reboot to apply changes. Check/fix the boot program path for WDS (Use CMD in 2008 R2) and reboot the server

**ERROR:**

TFTP.  
PXE-T01: File Not found  
PXE-E3B TFTP Error - File Not found  
PXE-M0F: Exiting Intel PXE ROM  
FATAL: Could not read from the boot medium! System halted.

**CAUSE/FIX:**

Scope 060 PXE Client configured incorrectly. Default boot program path is incorrect in WDS

**ERROR:**

TFTP Prefix: \Boot\x89\ (this tells the path is incorrect)  
Unable to load configuration file

Boot failed: press a key to retry, or wait for reset

**CAUSE/FIX:**

Invalid path in DHCP scope 67. Correct path for scope 67 is \Boot\x86\

**ERROR:**

TFTP Prefix: \Boot\x86\ (correct path)  
Unable to load configuration file

Boot failed: press a key to retry, or wait for reset

CAUSE/FIX: Missing default -file in pxelinux.cfg folder, invalid filename, or invalid contents inside the default file (for example empty file). Check that the default file does not have a file extension (for example .txt).

**ERROR:**

Could not find kernel image: vesamenu.32

CAUSE/FIX: vesamenu.32 file missing in \Boot\x86\ -folder

**ERROR:**

TFTP Download: Boot\x86\gpxelinux.0 (error may repeat)

CAUSE/FIX: gpxelinux.0 missing in Boot\x86\ folder. Check to see if it is present and that WDS is configured to use that directory.

**ERROR:**

TFTP Download: Boot\x86\bootprogram.wrong (this tells the path is incorrect)

**CAUSE/FIX:**

Invalid boot program path in WDS. Check/fix the boot program path for WDS (Use CMD in 2008 R2) and reboot the server if necessary. (Correct boot program path is Boot\x86\gpxelinux.0)

**ERROR:**

Nothing happens when image is selected from the menu

CAUSE/FIX: Memdisk file is missing in Boot\x86\folder

**ERROR:**

Unable to load the ISO image after selecting it from the boot menu

**CAUSE/FIX:**

Missing/invalid web.config, or missing .iso image MIME type in IIS

**ERROR:**

Loading memdisk...

Could not find ramdisk image: http://10.10.1.1/Images/blancco\_image\_filename.iso

boot: \_

**CAUSE/FIX:**

Image path or filename is wrong in /pxelinux.cfg/default file. Check that the server IP address is correct and that the Blancco ISO image filename matches exactly with the ISO file in the \Images\ -folder.

Missing ISO image in /Images/ -folder

HTTP server (IIS) is not running

Images -folder is not added as virtual directory in IIS under the default website

IIS Pass-through authentication missing for the Virtual directory in 2008 Server

IUSR anonymous access or NTFS user rights missing for Images folder in 2003 Server.

**ERROR:**

TFTP Download: Boot\x86\wdsnbp.com

**CAUSE/FIX:** wdsnbp.com is defined as the default boot program, WDS installation is corrupted, bad wdsnbp.com file (32/64 bit?) or bad WDS settings. Check/fix boot program path first. If that doesn't fix the issue, uninstall WDS, backup Blancco images and delete all files in the RemotelyInstall folder. Reinstall WDS and test PXE boot without Blancco. Then change default boot program path and apply the pxe boot files and images.