

iPXE booting issues: the booting gets stuck or the network is unreachable after booting.

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Problem

PXE booting depends on several parameters, such as the booted machine (BIOS or UEFI), the network interface controller (well supported or not, internal controller or external adapter), the number of network interface controllers on the machine, the PXE options used, etc. The booted BDE version (6.x or 7.x) adds an additional layer of complexity.

Some issues with iPXE booting have been reported, they happen more frequently on UEFI machines (but not exclusively), the symptoms vary:

- The booting may get stuck or caught in a loop with the possible error messages: "ERROR: Failed to configure network", "ERROR: ipconfig returned fail error, parameters: ip=:eth0:dhcp", "SIOCGIFINDEX: No such device".
- The booting succeeds but BDE cannot establish a successful network connection (the network icon is red, the error message displayed can read "DNS not set").

Cause

The PXE boot process results in the network interface not being recognized by the Drive Eraser kernel during the initial booting or the parameters used are not compatible resulting in a failure to configure the interface.

Resolution

The way to resolve this problem consists in using a different set of booting parameters to use consistently the primary interface that the PXE was loaded on:

Windows iPXE server

1. Locate your iPXE menu (e.g. C:\inetpub\wwwroot\ipxe.menu or C:\inetpub\wwwroot\Resources\ipxe.menu.smart, depending on your configuration).
2. Edit the menu (e.g. open the menu using a text editor), locate the string "ip=:eth0:dhcp" (without double-quotes) and replace it with "ip=dhcp BOOTIF=\${netX/mac}" (without double-quotes).
3. Save the changes.
4. PXE boot some problematic machines to verify that the PXE booting problems cannot be reproduced.

Linux iPXE server

1. Locate your iPXE menu (e.g. /var/www/html/ipxe.menu or /var/www/html/Resources/ipxe.menu.smart, depending on your configuration).
2. Edit the menu (e.g. type in a terminal "sudo nano /var/www/html/ipxe.menu"), locate the string "ip=:eth0:dhcp" (without double-quotes) and replace it with "ip=dhcp BOOTIF=\${netX/mac}" (without double-quotes).
3. Save the changes.
4. PXE boot some problematic machines to verify that the PXE booting problems cannot be reproduced.

If you still face PXE booting issues, you can always try to turn on the "BIOS Legacy" mode (instead of "UEFI") or switch to a Grub-based PXE booting (for UEFI machines only), contact Blanco Support for more information.