## Installer - Bug #35101

# Create /EFI/redhat symlinks in TFTP directory

06/23/2022 10:22 AM - Lukas Zapletal

Status:	New	
Priority:	Urgent	
Assignee:		
Category:	Foreman modules	
Target version:		
Difficulty:	easy	Fixed in Releases:
Triaged:	No	Found in Releases:
Bugzilla link:	2101818	Red Hat JIRA:
Pull request:		

#### Description

A change in grub2 build config (package grub2-efi file grubx64.efi) changed the base directory where grub2 tries to find configuration files. It used to be the current directory, now it changed to /EFI/redhat (or /EFI/centos or /EFI/fedora etc). While this works fine for local booting, it breaks our PXE/TFTP provisioning.

We could start building our grub via `grub2-mknetdir` which has options to configure where grub should load configuration files from, but then the bootloader will not be signed and SecureBoot will not be possible.

Therefore I suggest a workaround, let's create a **relative symlinks** in the TFTP directory (/var/lib/tftpboot) as follows:

- /var/lib/tftpboot/EFI/redhat -> ../../grub2
- /var/lib/tftpboot/EFI/centos -> ../../grub2
- /var/lib/tftpboot/EFI/fedora -> ../../grub2

Unfortunately every distribution or RH clone has their own ESP EFI subdirectory (which is needed for multi-boot systems), therefore we need to create symlinks for all linux distributions we support.

This was reported multiple times, for example:

https://community.theforeman.org/t/provisioning-bare-metal-host-over-uefi-client-reguesting-grub-cfg-in-wrong-location/29053

Alternative solution would be start building grub2 via the mknetdir and dropping support for SecureBoot for all network booting completely. This is what we do for Debian anyway because the grub2 there is not signed anyway, so we would start doing the same for Red Hat systems.

Triage: This is high-impact regression, all Red Hat / clones systems are affected.

### **Related issues:**

Related to Installer - Bug #29187: Create /EFI/BOOT -> /grub2 symlink within ...

New

#### History

#### #1 - 06/23/2022 10:22 AM - Lukas Zapletal

- Description updated

#### #2 - 06/28/2022 12:53 PM - Marek Hulán

- Category set to Foreman modules

#### #3 - 06/28/2022 12:54 PM - Marek Hulán

- Bugzilla link set to 2101818

#### #4 - 07/04/2022 12:57 PM - Ewoud Kohl van Wijngaarden

- Related to Bug #29187: Create /EFI/BOOT -> /grub2 symlink within TFTP directory added

#### #5 - 11/29/2022 12:10 AM - Paul Donohue

foreman-proxy strips /EFI/ from the HTTP path when reading files from the filesystem, so creating /var/lib/tftpboot/EFI/... symlinks does not fix this

issue. You need symlinks like /var/lib/tftpboot/redhat -> grub2/