

## Foreman - Feature #36834

### New PXE loader "Grub2 UEFI SecureBoot (target OS)"

10/16/2023 07:04 AM - Markus Reisner

<b>Status:</b> Ready For Testing	
<b>Priority:</b> Normal	
<b>Assignee:</b>	
<b>Category:</b>	
<b>Target version:</b>	
<b>Difficulty:</b>	<b>Fixed in Releases:</b>
<b>Triaged:</b> No	<b>Found in Releases:</b>
<b>Bugzilla link:</b>	<b>Red Hat JIRA:</b>
<b>Pull request:</b> <a href="https://github.com/foreman/foreman/pull/9864">https://github.com/foreman/foreman/pull/9864</a>	
<b>Description</b>	
<p>This feature consists of two patches, one for foreman and one for smart-proxy.</p> <p>This patch introduces a new loader of kind `:PXEGrub2TargetOS` which allows to provide host-specific Network Bootstrap Programs (NPB) in order to enable network based installations for SecureBoot-enabled hosts.</p> <p>SecureBoot expects to follow a chain of trust from the start of the host to the loading of Linux kernel modules. The very first shim that is loaded basically determines which distribution is allowed to be booted or kexec'ed until next reboot.</p> <p>The existing "Grub2 UEFI SecureBoot" is not sufficient as it limits the possible installations to the vendor of the Foreman (Smart Proxy) host system.</p> <p>Providing shim and GRUB2 by the vendor of the to-be-installed operating system allows Foreman to install any operating system on SecureBoot-enabled hosts over network.</p> <p>To achieve this, the host's DHCP filename option is set to a shim path in a directory that is host-specific (contains MAC address). Corresponding shim and GRUB2 binaries are copied into that directory along with the generated GRUB2 configuration files as we know from "Grub2 UEFI".</p> <p>The required binaries must be provided once in the so called "bootloader universe". This directory can be configured via the settings file <code>/etc/foreman-proxy/settings.d/tftp.yml</code> and defaults to <code>/usr/local/share/bootloader-universe/&lt;os&gt;/</code>. These binaries can be manually retrieved from the installation media and is not part of this patch set.</p>	
<b>Related issues:</b>	
Related to Smart Proxy - Feature #36833: New PXE loader "Grub2 UEFI SecureBoo...	<b>Ready For Testing</b>
Related to Installer - Feature #36940: New PXE loader "Grub2 UEFI SecureBoot ...	<b>Ready For Testing</b>

### History

#1 - 10/16/2023 07:11 AM - Markus Reisner

- Description updated

#2 - 10/16/2023 07:21 AM - The Foreman Bot

- Status changed from New to Ready For Testing

- Pull request <https://github.com/foreman/foreman/pull/9864> added

#3 - 11/23/2023 09:55 AM - Markus Reisner

- Related to Feature #36833: New PXE loader "Grub2 UEFI SecureBoot (target OS)" added

#4 - 11/23/2023 10:01 AM - Markus Reisner

- Related to Feature #36940: New PXE loader "Grub2 UEFI SecureBoot (target OS)" added