SPP
G7 Post Production
Release Notes

Legal and notice information

Document History:

Released	Description
September 2017	Initial Version
January 2018	Revised Known Issues

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Overview

In order to reduce the frequency at which servers need to be updated, HPE is changing the packaging and delivery of the SPP.

Going forward, two types of SPPs will be released:
- A single **"Production SPP"** that contains the firmware and drivers for the all of the production server generations

- Multiple server generation specific **"Post-Production SPPs"** that contain the firmware and drivers for a specific post-production server generation (e.g. Gen8 only Post-Production SPP that contains the firmware and drivers for all of Gen8 server models).

When a server generation transitions to "Post-Production," the firmware and drivers for that server generation are frozen, packaged together on a "Post-Production SPP," and released. The "Post-Production SPP" is supported through the EOS (end of support) for that server generation and all future firmware and driver updates are released as Hot Fixes. This eliminates the need for yearly updates. Simply monitor the Hot Fixes and update only when needed. Driver and firmware components that require updates for new minor OS versions are also released as Hot Fixes.

Note: Production SPPs will continue to be released 2-4 times per year.

All of the G7 servers have transitioned to post-production and this document contains the release notes for the G7 Post-Production SPP.

Download
SPP Custom Download Web Service (www.hpe.com/servers/spp/custom)

HPE's recommended method for downloading a post-production or production SPP is through the SPP Custom Download web service.

In addition to providing an easy interface to reduce the size of the SPP by including only the server models and OS/hypervisor versions needed and merging hot fixes.

HPE publishes one or two HPE created SPP ISOs for download.
- Base SPP ISO – always published and contains the drivers and firmware the day the SPP was released.
- Full SPP ISO – only published when one or more hot fixes exist and contains the drivers and firmware plus updates. (Full=Base + Hot Fix)

SPP Download Page (www.hpe.com/servers/spp/download)
An alternative method for downloading the SPP (Base SPP ISO) is through the SPP Download page.

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- The "Hot Fixes and Advisory" section of the SPP Download page provides a list of all the hot fixes and advisories for the selected SPP.
- The "Documentation" section of the SPP Download page contains the SPP documentation.

Summary of Changes

Important Notes

In order to reduce the frequency at which servers need to be updated, HPE has changed the packaging and delivery of the SPP. There are now two types of SPPs:

- A single **"Production SPP"** that contains the firmware and drivers for the all of the production server generations, and
- Multiple server generation specific **"Post-Production SPPs"** that contain the firmware and drivers for a specific post-production server generation (e.g. Gen8 only Post-Production SPP that contains the firmware and drivers for all of Gen8 server models).

The 2017.07.1 SPP is a production SPP and contains components for the Gen9 and Gen10 server platforms. Components for the G7 and Gen8 server platforms are available in the Post-Production SPPs. For additional information, please refer to Reducing Server Updates. Post-Production SPPs can be downloaded from www.hpe.com/servers/SPP/download.

Release Summary
This SPP, version G7.1, is based on SPP version 2017.04.0.

Reverted Virtual Connect Version 4.61 to Version 4.50. See the following customer advisory for additional information (link here).

Driver Update Disks (DUD) for Linux
DUDs for the following controllers for all Red Hat and SUSE supported operating systems can be found in the 'DUD' directory at the root of the ISO.

- HP Smart Array B110i SATA RAID Controller
- HPE ProLiant Smart Array Controller
- HP H2xx SAS/SATA Host Bus Adapter

Known Limitations

The following is a select list of known issues and limitations relating to the smart components and HP SUM version delivered with this SPP. For a full list, please visit the SPP Download page, select the "Hot Fixes & Advisories" tab, and the "Known Limitations" heading. This procedure can be followed for any currently listed SPP by selecting the preferred SPP version listed next to 'Currently Supported Versions' to open its version specific page.

Rewrite of FCoE/FC Driver Kit for HPE QLogic CNAs fails with "update returned an error" due to product name change.
Initial install will work successfully.

Offline update of HPE B140i in legacy BIOS mode is not supported. Configure
the Boot Mode to UEFI Mode if using HPE SW RAID**.**

**HP H2xx SAS/SATA Host Bus Adapter Driver for SUSE LINUX Enterprise Server 12 SP2 is not
included in this SPP.**

Due to a conflict with an in-distro driver and Smart Update Manager, the HP H2xx SAS/SATA Host
Bus Adapter Driver for SUSE LINUX Enterprise Server 12 SP2 is not included in this SPP. It is
available on HPE Support Center at
https://www.hpe.com/global/swpublishing/MTXc502d2922c2c47f584880ba61e. When using SUSE
LINUX Enterprise Server 12 SP2, firmware must be flashed in offline mode.

**When verbose logging is enabled, HP SUM fails to deploy several components and will
display the error message Return code – 1073741819**

HP SUM fails to deploy several components and will display the error message Return code –
1073741819. This is caused when verbose logging is enabled and these components do not
support verbose logging. Verbose logging is not enabled by default.   Affected components
include but are not limited to:

- Online ROM Flash Component for Windows - HP Host Bus Adapters H220, H221, H222,
  H210i and H220i
- Online ROM Flash Component for Windows - HPE Smart Array B320i RAID controller
- Online ROM Flash Component for Windows (x64) - HP Gen8 Server Backplane Expander
  Firmware for HP Smart Array Controllers and HP HBA Controllers
- Online HP 6Gb SAS BL Switch Firmware Smart Component for Windows (x86/x64)
- Online HP 3Gb SAS BL Switch Firmware Smart Component for Windows
- Online ROM Flash Component for Windows - Smart Array P700m

**Drivers and/or enablement kits must be installed prior to detecting and updating some
hardware and firmware - HP SUM may need to be run twice for all firmware components to be
presented for installation**

Drivers and/or enablement kits must be installed prior to detecting and updating some hardware and
firmware. There are several scenarios when HP SUM may need to be run twice for all firmware
components to be presented for installation. This is due to a requirement that drivers are needed in
order for HP SUM to discover some hardware and thus the needed firmware. After the drivers are
installed for the first time and the system rebooted, HP SUM needs to be run again for all of the
firmware components to be presented for installation. The scenarios are:

- Network Adapters (NIC's), Host Bus Adapters (HBA's), and iLO require a driver or
  enablement kit to be installed in order to be recognized by HP SUM.
- When running HP SUM on Windows, if the iLO Channel Interface Driver is not installed, the
  iLO firmware will show a version of 'None' as the installed version and 'Ready for Installation'
  as the status on the Select Bundle or Select Component page. This applies to firmware for
  iLO 2, 3, and 4. When attempting to update the firmware, it may fail to update if it is already
  up to date.
- When using HP SUM on Linux, the ILO Channel Interface Driver needs to be loaded from
  the operating system for the iLO firmware to display for installation.
- The Power Management Controller, the Advanced Power Capping Microcontroller Firmware
  for HP ProLiant BL/DL/MLGen9 Servers, and the Smart Array H240ar, H240, H241, H244br,
  P244br, P246br, P440ar, P440, P441, P741m, P840, and P841 firmware also require the iLO
  Channel Interface Driver for firmware installation.

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- Broadcom NICs are not discovered by HP SUM unless the appropriate driver is installed and all Ethernet ports are up. The Ethernet port can be brought up by using the following command:

> # ifup ethx
>
> or
>
> # ifconfig ethx up

To update the firmware for Broadcom NIC, use the following steps:

- Install the appropriate Windows or Linux driver found in the SPP. If updating a Linux server, the driver can also be retrieved from the SDR or the Linux distro.
- Enable all the Ethernet ports
- Run the Broadcom FW upgrade component

Emulex, QLogic, and Qlogic BR-Series (Brocade) HBA Firmware is flashed in online mode Service Pack for using ProLiant using the following steps. This section includes optional installation of the Smart SAN Enablement Kit.

1) Prep the operating system:

- If flashing Emulex CNAs or Fibre Channel HBAs on Linux, install the following RPMs from the operating system installation media, if not present on the system:
  - o libsysfs or sysfsutils (depending on Linux OS) if Emulex CNAs are flashed, see CA c04366000 for additional information
  - o libhbaapi or libhbaapi2 (depending on Linux OS, required for the Emulex Enablement Kit)
- For VMware use the HP Custom Image released at or shortly after the release of the SPP. To obtain the VMware Custom Image from HPE, visit the HPE web site to download drivers and other software to enable features such as SPP discovery and HBA firmware flashing. **Custom HPE ESXi images**.

2) Use the SPP to install necessary drivers for the HBAs, including any NIC drivers where applicable. At this time do not install the Enablement Kit or flash the HBA firmware, even if the selections are enabled by default in the SPP; deselect them. Until the system is rebooted with the drivers you have installed, do not attempt to enable Smart SAN, do not install the Fibre Channel Enablement Kit, and do not flash the HBA firmware.   If on-site processes do not permit the installation of out of box drivers, review HPE SPOCK for inbox driver support information for the configuration.

3) If the drivers were updated, reboot the target system.

4) Use SPP to install the Fibre Channel Enablement Kits on Linux targets if using Fiber Channel (FC) cards (also recommended if using CNA cards in FCoE mode). No reboot is required after installing the Fibre Channel Enablement Kits.
   ⚠ Important! Do not install the QLogic BR-series (Brocade) Enablement Kit on the same system with another vendor's Enablement Kit. QLogic BR-series FC HBAs are not supported with other vendor HBAs unless the other vendor HBAs are used only as NICs.

5) If you have installed a Smart SAN enabled driver and wish to enable the Smart SAN feature, configure the Smart SAN Enablement Kit component in HP SPP. See the SPP documentation regarding configurable components. In the configuration of the component choose to enable Smart SAN. For Linux systems also elect to rebuild the ramdisk (initrd).

- **Note**: HPE recommends that you back up your Linux system's ramdisk before rebuilding it for any purpose (driver installation, Smart SAN Enablement, and so forth). The QLogic Smart SAN Enablement Kit does not create a copy of the ramdisk for you, so HPE recommends making a backup copy manually. The Emulex Smart SAN Enablement Kit creates a copy, the name of which can be seen if you click "View Log" in the SPP after deployment. 6) Perform an SPP inventory of the target system and optionally deploy the configured Smart SAN Enablement Kit and the firmware flash components.
- Note: For legacy QLogic 8Gbps FC HBAs, see the release note "Legacy QLogic 8Gb Fibre Channel Adapters show an Active/Available Multi-boot Version of '00.00.00'".

7) After the flash operation and the optional Smart SAN update complete, click "View Log" in the SPP to review the results of the operations and check for errors. Reboot the target system to enable the new HBA Firmware and Smart SAN.

Required libraries for Linux Virtual Connect firmware:
The following libraries are required for HPE BladeSystem c-Class Virtual Connect Firmware, Ethernet plus FC Edition Component to install on Linux 64-bit systems:

/lib/tls/libpthread.so.0
/lib/libdl.so.2
/usr/lib/libstdc++.so.6
/lib/tls/libm.so.6
/lib/libgcc_s.so.1
/lib/tls/libc.so.6
/lib/ld-linux.so.2

Updated Firmware, Drivers, and Enablement Kits for QLogic BR-series (Brocade) adapters are not available on certain OS's
Updated firmware, drivers, and Enablement Kits for QLogic BR-series (Brocade) adapters are not available for Windows 2008 32-bit, Windows 2008 64-bit, and 32-bit Linux systems. Components for BR-series adapters are available on the SPP for Windows 2008 R2 (and later) and 64-bit Linux systems. The BR-series Fibre Channel HBA Enablement Kit is not available for RHEL6.8. If you need to use the firmware flash component to flash your Brocade Fibre Channel HBAs on RHEL6.8, use Service Pack for ProLiant in offline mode.

RHEL 7 user has to wait 5-7 minutes to view the system management details due to the required init services not being in a running state
Root Cause: In RHEL7 boot process, only the OS required init services are started before the user login screen/console is displayed. Then the remaining init services will be started. User will wait 5-7 minutes to view the system management details if logged into the system immediately before the init services are up and in a running state. With older RHEL (RHEL5, 6) boot processes, all the init services are started first before the login screen/console is displayed, so user would not face this issue.

While performing online interactive installation of SPP G7 b13 on dl580 G7 with 375i card on sles12 sp3 O, it is observed that 375i interfaces/ports become disabled/inactive. The same remain active before installing the build.
.[Ref: beforeinstalling.png, afterinstalling.png]

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The issue is seen all across Linux OSs.

Component details:
1. hp-nx_nic-docs-1.0.0-4.noarch.rpm
2. hp-nx_nic-tools-4.0.596.1-4.noarch.rpm

Steps:
1. Install sles 12 sp3 os on dl580g7 and check the ports of the card 375i as they are active
2.mount/copy postprod g7.1 b13 and launch hpsum
3.select interactive mode of flashing and let inventory happen
4. once it is done, click next and install all the listed components along with the "hp-nx_nic-docs-1.0.0-4.noarch.rpm" and "hp-nx_nic-tools-4.0.596.1-4.noarch.rpm" components.
5. Once deployment is done, check the 375 ports and notice that it becomes inactive.

System management homepage (SMH) fails to list on SUM review page.

While performing online interactive installation of SPP on DL385 G7 server with Windows 2008 x86 OS installed using SPP Post Prod G7 build 6, it is observed that SMH fails to list on review page.[Ref: SMH.JPG] cp031475.exe: HPE System Management Homepage for Windows x86 Version: 7.6.0

Supported Operating Systems

The following operating systems are supported for system software and firmware support:

- Microsoft Windows Server 2012 R2 - All Editions
- Microsoft Windows Server 2012 - All Editions
- Microsoft Windows Server 2012 Essentials
- Microsoft Windows Server 2008 R2
- Microsoft Windows Server 2008 R2 Foundation Edition
- Microsoft Windows HPC Server 2008 R2
- Microsoft Windows Server 2008 x64 - All Editions
- Microsoft Windows Server 2008 x64 - Server Edition
- Microsoft Windows Server 2008 x64 - Server Core Edition
- Microsoft Windows Server 2008 W32 - All Editions
- Microsoft Windows Server 2008 W32 - Server Edition
- Microsoft Windows Server 2008 W32 - Server Core Edition
- Microsoft Windows Server 2008 Foundation Edition
- VMware vSphere 6.0 Update 2, 6.0 Update 1, and 6.0
- VMware vSphere 5.5 Update 3, 5.5 Update 2, and 5.5 Update 1
- VMware vSphere 5.1 Update 3, 5.1 Update 2, and 5.1 Update 1
- Red Hat Enterprise Linux 7.3, 7.2, and 7.1
- Red Hat Enterprise Linux 6.9, 6.8, and 6.7 (x86-64)
- Red Hat Enterprise Linux 6.9, 6.8, and 6.7 (x86)
- SUSE Linux Enterprise Server 12 SP2, 12 SP1, and 12
- SUSE Linux Enterprise Server 11 SP4 and SP3 (AMD64/EM64T)
- SUSE Linux Enterprise Server 11 SP4 and SP3 (x86)

For more information on HPE Operating Systems and Virtualization Software Support for ProLiant Servers, please visit our OS Support Site at: **https://www.hpe.com/info/ossupport**

Prerequisites

Component Prerequisites
Some components have prerequisites. Check the individual components for their prerequisites.

SUM Prerequisites
The most current prerequisites for HP SUM can be found at the HP SUM documentation page
https://www.hpe.com/servers/hpsum/documentation.

Deployment Instructions

Installation
There are two methods for using the Service Pack for ProLiant to update your ProLiant servers:

- Online mode - Runs on a Windows or Linux hosted operating system
- Offline mode - Server is booted to the ISO

    - Automatic mode - Firmware components will be updated without interaction
    - Interactive mode - Follow the onscreen steps to update firmware components

To initiate deployment in Interactive mode:

Run the launch_hpsum.bat (windows) or launch_hpsum.sh (linux) script which is found in the root of the ISO

Automatic mode will by default run firmware update without any user interaction after sitting 30 seconds at the menu screen when an SPP ISO image is used to boot the server.

Booting the SPP from iLO virtual media is only supported in Automatic Firmware Update mode. Users attempting this in any other mode may experience hangs from connection timeouts, difficulties updating iLO firmware, and mouse syncing issues.

Note: If you install a software from the SPP and then install a Microsoft Windows operating system Service Pack or other operating system updates, HPE recommends reinstalling the software from the SPP.

Installation Instructions
Follow these steps to install the components found on this SPP:

1. Download the SPP ISO file from the SPP download page
   https://www.hpe.com/servers/spp/download
2. Determine how to access the data on the ISO – bootable USB key, mounted ISO, etc. Use the appropriate tool to obtain the ISO in the desired format.
3. Determine how to initiate deployment to the targets using the SPP – Offline mode or Online mode:
   a Online mode - Runs on a Windows® or Linux hosted operating system

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- b Offline mode - Server boots to the SPP ISO (Bootable ISO only)
  - i   Automatic mode - Firmware components update without interaction
  - ii Interactive mode - Onscreen instructions guide the user to update firmware components
4. Initiate deployment.

To initiate deployment in **online mode**:
- From the SPP folder:
  - o Windows: launch_hpsum.bat
  - o Linux: ./launch_hpsum
- For VMware hosts, select the host to update as a remote target. Online firmware update on a VMware host requires the HP Insight Management WBEM providers to be installed on the VMware host.
- To review the EULA, locate README.html which is found in the root of the ISO.

For more information, see the HP SUM User Guide and HP ProLiant Best Practices Implementation Guide. **https://www.hpe.com/servers/spp/documentation**

To initiate deployment in **Offline mode**:

- Boot the server to the SPP using one of the supported methods including mounting the ISO or DVD or using a bootable USB key.
- Select either Automatic mode or Interactive mode.
  - ▪ If Automatic mode is selected, the firmware will be automatically updated on the server without any further interaction.
  - ▪ If Interactive mode is selected, follow the instructions on the screen.
    - ❑ Select the Firmware Update option on the screen to start SUM

Additional Information for using the SPP on Linux Operating Systems
Please refer to the following links for Technical Exception matrices for minimum OS support:
- Red Hat Enterprise Linux - Red Hat Enterprise Linux
- SUSE Linux Enterprise Server - SUSE Linux Enterprise Server

The SPP contains Linux drivers, agent software and firmware in a single ISO image. Alternatively, downloads.linux.hpe.com contains software repositories that may be used with software configuration managers (Yum, Zypper or Apt).

For drivers and agent software, subscribe your system to the "spp" repository:
http://downloads.linux.hpe.com/SDR/project/spp-g7

For firmware, subscribe your system to the "fwpp" repository:
http://downloads.linux.hpe.com/SDR/project/fwpp/

IMPORTANT NOTE: As of July, 2017, HPE will end driver development for post-production systems (ie. G7, Gen8). If you installed an HPE-compiled driver on these systems, please remove it after upgrading to a newer in-distro kernel errata. The newer, HPE-certified driver will provide the most compatibility and reliability for your HPE ProLiant Server.

Additional Information for using the SPP on VMware Operating Systems

The SPP can deploy drivers and firmware to a system running a supported VMware operating system in an online mode. Drivers are also available at Software Delivery Repository - vibsdepot. For a consolidated recipe of firmware and driver support.

To determine support for these operating systems, see the HPE ProLiant Server VMware Support Matrix at: HPE Servers Support and Certification Matrices

Additional Resources

Hot Fixes

The Hot Fixes and the Customer Advisories for this SPP can be found by selecting the "Hot Fixes & Advisories" tab on the SPP Download page, https://www.hpe.com/servers/spp/download. The Customer Advisory can be reviewed to determine if the Hot Fix applies and determine which component(s) need to be downloaded. Individual Hot Fixes can be downloaded by selecting:

1. The grey + expander to the left of the Hot Fix Advisory to expand the list of associated downloadable component(s).
2. The title of the desired component to reveal its detail and download page.

All applicable Hot Fixes for this SPP are available for download on the SPP Custom Download page through the "Full SPP" tile. Either all Hot Fixes or a customized subset thereof can be downloaded by:
1. Hovering over the "Full SPP" tile and selecting "View Details":
2. For the "Full SPP", which consists of the Base SPP and all Hot Fixes, select "Download"
3. For a customized download, select "clone" to create the desired download
    a. In "Step 1", ensure only the Hot Fix Supplement Bundle is selected
    b. Fill in the requested information and select "Next: Select Filters"
    c. Further customize by selecting filters and/or select "Build"
    d. Follow the remaining prompts to create and download a customized set of Hot Fixes

Using a PXE Server to Deploy Components from the full SPP ISO over a network

Follow these steps to use a PXE server to deploy components from the full SPP ISO over a network.

⚠️ The files needed to configure the menu system for use with a PXE server can be found in the PXE directory on the full SPP ISO.

Prerequisites

The following is required before proceeding with the configuration:
- The user must have a good working knowledge of PXE and TFTP.
- A network with a DHCP server on it.
- A TFTP server configured on the same network as the DHCP server.
- A network file server hosting the ISO images and can be accessed by a PXE booted system.
- Either PXELINUX (http://syslinux.zytor.com/wiki/index.php/PXELINUX) [For legacy boot mode] or GRUB2 (https://www.gnu.org/software/grub/) [For UEFI and legacy boot mode]

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The use of a Linux TFTP server and the TFTP package
https://www.kernel.org/pub/software/network/tftp/ is assumed. Other TFTP servers should work
similarly.

Setup

Before proceeding with the configuration, ensure that the TFTP server as well as the PXELINUX or
GRUB2 configuration are setup and configured properly. ELILO
(https://sourceforge.net/projects/elilo/files/) may be used also. GRUB2 is recommended for UEFI
boot mode, legacy boot mode, or mixed environments where both legacy and UEFI boot mode
support are required.

To set up PXE boot for the SPP:

1. Copy the SPP ISO image to the network file system, and note its location. NFS and Windows®
   file shares as well as HTTP connections are supported.
2. For this example, the NFS and path to the ISO image used is
   192.168.0.99/path/to/spp/image/(SPPfilename).iso. Test the network file system to ensure that it
   is accessible before proceeding.
3. The /pxe directory of the ISO image will need to be accessed, either by burning the ISO image,
   mounting the ISO image, or extracting it using a third-party tool.
4. Copy all the files from the /pxe directory of the ISO image to the TFTP server so that they are
   accessible by the TFTP software. See important instructions and information in the
   /pxe/README.txt file (for legacy boot mode PXELINUX configuration).

Configuring GRUB2

Follow these steps to configure GRUB2:

1. Run the command grub2-mknetdir --net-directory=DIR where DIR is the root of the TFTP server.
2. Configure DHCP using the helpful output of the grub2-mknetdir command above (arch = 00:07
   for UEFI boot mode and arch = 00:00 for legacy boot mode).
5. Edit the grub.cfg files on the TFTP server to set the appropriate paths to the kernel vmlinuz image
   file and the initial ramdisk initrd.img image file which were copied to the TFTP server from the
   SPP ISO /pxe directory.

Configuring ELILO

Follow these steps to configure ELILO:

1. Add an EFI folder on the TFTP server which contains bootx64.efi, elilomenu.msg, and elilo.conf.
2. Add details in elilo.conf as it is given for configuring pxelinux.cfg (see below).
3. Change the DHCP configuration as given below:

if option arch = 00:07 {

filename "pxelinux/bootx64.efi";

    } else {   filename

"pxelinux.0";

    }

Configuring PXELINUX

Follow these steps to configure PXELINUX:

1. Using the isolinux.cfg file from the /system/ directory of the ISO as a guide, copy the labeled targets to the PXELINUX configuration file. The entire file does not need to be included:

   label sos

   MENU LABEL Automatic Firmware Update Version 2017.04.0 kernel vmlinuz

   append initrd=initrd.img media=cdrom root=/dev/ram0 splash quiet hp_fibre

   cdcache

   showopts TYPE=AUTOMATIC AUTOPOWEROFFONSUCCESS=no
   AUTOREBOOTONSUCCESS=yes

   label vsos

   MENU LABEL Interactive Firmware Update Version 2017.04.0 kernel vmlinuz

   append initrd=initrd.img media=cdrom root=/dev/ram0 splash quiet hp_fibre cdcache

   showopts TYPE=MANUAL AUTOPOWEROFFONSUCCESS=no **label sos_poweroff**

   MENU HIDE Automatic & POWEROFF Firmware Update Version 2017.04.0 kernel

   vmlinuz append initrd=initrd.img media=cdrom root=/dev/ram0 splash quiet hp_fibre

   cdcache showopts TYPE=AUTOMATIC hp_poweroff

   ⚠️ The paths to files on the TFTP server are vmlinuz and initrd.img. They must be modified to include any directories or naming conventions that are on the TFTP server.

2. Replace "media=cdrom" with "media=net" on the append line
3. Specify the ISO image path. For the PXE booted server to find the ISO Image, add the ISO Image path to the append line in the PXELINUX configuration file. Add the following arguments:

   iso1=nfs://192.168.0.99/path/to/spp/image/(SPPfilename).iso

   iso1mnt=/mnt/bootdevice

   The iso1 parameter helps the PXE booted SPP locate the ISO image. The iso1mnt parameter tells the PXE booted SPP where the iso1 image must be mounted.

   The final configuration file must be similar to the following example:

   label sos

   MENU LABEL Automatic Firmware Update Version 2017.04.0 kernel

   vmlinuz

   append initrd=initrd.img media=net root=/dev/ram0 splash quiet hp_fibre showopts
   TYPE=AUTOMATIC AUTOPOWEROFFONSUCCESS=no
   AUTOREBOOTONSUCCESS=yes

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    iso1=nfs://192.168.0.99:/path/to/spp/image/(SPPfilename).iso iso1mnt=/mnt/bootdevice

label vsos

MENU LABEL Interactive Firmware Update Version 2017.04.0 kernel

vmlinuz

append initrd=initrd.img media=net root=/dev/ram0 splash quiet hp_fibre showopts
TYPE=MANUAL AUTOPOWEROFFONSUCCESS=no iso1=nfs://
192.168.0.99:/path/to/spp/image/(SPPfilename).iso iso1mnt=/mnt/bootdevice

label sos_poweroff

MENU HIDE Automatic & POWEROFF Firmware Update Version 2017.04.0 kernel

vmlinuz

append initrd=initrd.img media=net root=/dev/ram0 splash quiet hp_fibre showopts
TYPE=AUTOMATIC hp_poweroff
iso1=nfs://192.168.0.99:/path/to/spp/image/(SPPfilename).iso
iso1mnt=/mnt/bootdevice

Additional ISO images can be added by specifying the additional iso# and iso#mnt arguments,
for example, iso2=/path/to/iso2.iso iso2mnt=/mnt/iso2.

Supported network file system protocols
The following network file system protocols are supported for use with PXE booting:

NFS:

   iso1=nfs://192.168.0.99/path/to/spp/image/(SPPfilename).iso

   iso1mnt=/mnt/bootdevice

NFS volumes are mounted with the following options:

- *-o ro*
- *nolock*

The mount options can be explicitly set with the iso#opts parameter

*iso1opts="rsize=32768,ro,nolock" **Windows® operating systems:***

   iso1=cifs://192.168.0.99/share/path/to/spp/image/ (SPPfilename).iso

   iso1mnt=/mnt/bootdevice

Windows® operating systems with login credentials:

   iso1=cifs://user:password@192.168.0.99/share/path/to/spp/image/(SPPfilename).iso
*iso1mnt=/mnt/bootdevice **HTTP:***

   iso1=http://192.168.0.99/path/to/spp/image/(SPPfilename).iso

   iso1mnt=/mnt/bootdevice

Once these steps have been completed, the SPP components are ready to be deployed using the PXE boot functionality.

Common Abbreviations

Abbreviations	Name
AMS	Agentless Management Service
CNU	Converged Network Utility
HBA	Host Bus Adapter
iLO	Integrated Lights-Out
MSB	Maintenance Supplement Bundle
OA	Onboard Administrator
RHEL	Red Hat Enterprise Linux
SIM	Systems Insight Manager
SLES	SUSE Linux Enterprise Server
SPP	Service Pack for ProLiant
SUM	Smart Update Manager