Introducing PSImage

PSImage is an alternative disk imaging solution built on PowerShell scripts intended for environments where it is not feasible to use the IVS, such as;

- When your FileWave server is hosted in the cloud and you need more than 1 IVS or
- You are unable to PXE boot client devices.

It uses off-the-shelf Microsoft components, such as WinPE and DISM from the Windows ADK. It requires you to be comfortable connecting to SMB shares and running commands from PowerShell and CMD sessions.

> ❗ PSImage is not supported by FileWave Support so please do not submit tickets with them about it. The information provided here is for educational purposes only. If you would like to purchase professional services hours for consulting assistance setting up PSImage or customizing it please contact professional.services@filewave.com with your request. If you have existing unused professional services hours you may be able to use them for this purpose. Any feedback on PSImage can also be sent to the same email address. Any work on this would be done on Discord or in working with Professional Services. For the official Windows Imaging solution please see Network Imaging / IVS.

Benefits

PSImage has the following benefits that you may or may not be able to take advantage of, depending on your environment and network configuration.

- Multiple options for imaging, most of which do not require PXE
- Reimage via fileset for existing FileWave client devices and image from network for a zero-touch imaging experience
- Boot from USB thumb stick without PXE and image from network if you can't add IP helpers
- Boot from USB thumb stick and image locally from same thumb stick if you don't have access to an SMB share
- Network boot with PXE server (such as WDS) and image from network
- Can be configured to support pulling disk images from multiple network locations/shares so PCs to be reimaged can pull disk images/drivers from locally hosted SMB share physically closest to them.
- Pre-assign disk images and computer names, as well as set custom fields, based on device serial number rather than ethernet MAC addresses. Doesn't matter if PC has unknown or constantly changing ethernet MAC address.
- Manually specify disk image and computer name if no pre-assigned association is available.
- Does not require a placeholder so no possibility of running out of client licenses. Placeholders use a license.
- Drivers installed automatically based on PC model without user intervention if available.
- Works with any ethernet NIC for which Windows 10 drivers are available, regardless of whether they support PXE or not. Easily update your WinPE boot image to inject drivers for new NICs.
- Single disk image supports both UEFI and BIOS devices. Firmware mode of reference computer doesn't matter. PSImage will configure the hard drive for the same firmware mode as the existing OS.
- Hard disk of the reference system can be larger than target PC being reimaged. PSImage is fine with the reference hard disk being larger than the hard disk of target clients.
- Works with secure boot enabled in the client firmware.

Components

There are 2 components to the disk imaging.

1. An SMB share hosting the scripts, disk images, and driver packs for the disk imaging.
2. A bootable WinPE boot image (boot.wim) that can be deployed on client PCs to be reimaged via

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    - A single partition thumb stick for imaging over the network by pulling resources from the above SMB share
        - A dual partitioned thumb stuck for local imaging. All resources are stored on the 2ndary Imaging volume on the thumb stick.
        - A FileWave fileset for devices with an existing functional FileWave client
        - A PXE server such as WDS for network imaging
        - A bootable ISO image for booting a reference VM. This ISO image can also be burned to optical media for booting legacy devices that have an optical drive.

Since PXE is optional and not required there's no need for network modifications of any kind. As long as the client device is able to boot from a USB thumb stick or has a functional FileWave client installed it can be imaged. For baremetal imaging of PCs with no OS or blank hard drives, use the bootable USB thumb stick, PXE boot, or optical media options. For the non-PXE boot options, any NIC, including those that do not support PXE will work as long as you have Windows 10 drivers for them.