LEAFOS

LEAFOS Live Boot Quick Start Guide

Transform Any x86-64 PC and Laptop Into a Secure, Centrally Managed Endpoint

NComputing®

NComputing LEAFOS is a software endpoint solution that transforms any x86-64 PC, laptop or thin client into a secure and centrally managed endpoint.

Created for Microsoft Azure Virtual Desktop (AVD), Microsoft RDS, vSpace Pro and VERDE VDI, LEAFOS can securely access virtual desktops from either system. It can be used as a self-contained operating system when booted from a USB drive. This methodology leaves the user's existing operating system, files, and hard drive untouched while providing an ideal environment for work-from-home use cases. When users finish their work, a simple reboot to their native OS restores their device to personal use.

Alternatively, LEAFOS can be used to repurpose PCs and laptops by converting any x86-64 hardware from a stand-alone computer to a dedicated thin client by installing directly onto an internal hard drive, removing the old system and files. This method extends the usefulness of aging computers using end-of-life operating systems like Windows 7 while giving users powerful up-to-date desktops.

Supported virtual desktop environments:

- Microsoft Azure Virtual Desktop (AVD)
- Microsoft Remote Deskop Services (RDS)
- vSpace Pro Enterprise (version 12.5.x or higher)
- VERDE VDI

Supported local Linux applications:

- Chromium browser
- Microsoft Teams
- Zoom

Supported device management systems:

- PMC Device Management (version 2.6.1 or higher)
- vSpace Console (only available in vSpace Pro Enteprise desktop virtualization)

Minimum PC and laptop hardware requirements for LEAFOS:

- Standard x64-compatible processor, based on either BIOS or UEFI motherboard firmware with USB boot support.
- The system should have at least 2GB RAM and 2GB flash or HDD storage.

Supported LEAFOS operating modes:

- Live boot from LEAFOS USB flash drive for personal devices and BYOD
- Revitalize aging PCs/Laptops by repurposing with LEAFOS

LEAFOS LIVE BOOT FROM USB FLASH DRIVE

Live boot from LEAFOS USB flash drive for personal devices and BYOD:

A bootable USB flash drive can be created containing LEAFOS. Any x86-64 hardware device can boot to LEAFOS and instantly becoming a locked-down NComputing thin client. LEAFOS does not replace the underlying operating system in this case. When users finish their work, simply reboot from the native OS providing an ideal work-from-home environment.

HOW TO BOOT FROM A USB FLASH DRIVE

In order for your computer to boot from a USB flash drive, you need to make sure that:
1. A bootable LEAFOS USB flash drive is created (use at least 2GB or higher capability). Use a flashing application like the Win32 Disk Imager or balenaEcher to write the LEAFOS(x86-64) image into your USB flash drive.
2. Have access to:
    a. Computer **Boot Menu,** or
    b. The **USB flash drive is prioritized in the Boot devices** menu of your BIOS/UEFI panel.

DIRECT ACCESS TO COMPUTER BOOT MENU

Depending on the PC manufacturer, you need to press different keys or combination of keys to access the Boot Menu. From there, choose the connected USB flash drive to boot.

To access the Boot Menu, find your PC manufacturer below to see what combination of keys you need to press when the computer is starting up:

o **Acer:** Esc , F12 or F9 . Most computers models from Acer should work with the F12 key.

o **ASRock:** F11

o **Asus:** F8 or Esc

o **Compaq:** Esc or F9

o **Dell:** F12

o **eMachines:** F12

o **Fujitsu**: F12

o **Gigabyte:** F12

o **HP:** Esc or F9 . If Esc works, you may need to press F9 afterwards: Esc + F9 .

o **Intel**: F10

o **Lenovo:** F12 . On computer models with the Novo button, try pressing the Novo button. Other key combinations: Fn + F11 .

o **MSI:** F11

- Samsung: `Esc` or `F2` or `F12`. Users of ultrabooks from Samsung should disable the fast boot option in BIOS/UEFI before they boot from a USB device.
- Sony VAIO: `F11`. On some Sony VAIO computers models you may need to press the `Assist` button.
- Toshiba: `F12`

ACCESS TO BIOS/UEFI TO CHANGE BOOT SEQUENCE

If the Boot Menu isn't available, you can force your computer to boot from an external and removable media (such as a USB flash drive, CD or DVD) by configuring your BIOS/UEFI settings.

To access the BIOS/UEFI, find your PC manufacturer below to see what combinations of key you need to press when the computer is starting up:

- **Acer:** `Del` or `F2` key. Most models should work with the F2 key.
- **ASRock:** `Del` or `F2` key
- **Asus:** `Delete` or `Del` key
- **Biostar:** `Delete` or `Del` key
- **Chaintech:** `Delete` or `Del` key
- **Compaq:** `F10`
- **Dell:** `F2`
- **eMachines:** `Tab` or `Del`
- **Foxconn:** `Delete` or `Del` key
- **Fujitsu:** `F2`
- **Gigabyte:** `Delete` or `Del` key
- **HP** (Alternative, Tablet PC): `Esc`, `F2`, `F10` or `F12` key
- **HP** (OmniBook, Pavilion, Tablet, TouchSmart, Vectra): `F1`
- **Intel:** `F2`
- **Lenovo:** `F1` or `F2`. If your computer is a laptop from Lenovo, try searching for a small button next to the Power button instead.
- **MSI:** `Delete` or `Del` key
- **Pegatron:** `Del`, `F2`, or `F10` key
- **Samsung:** `F2`. On some ultrabooks models, you may need to press `F10`.
- **Sony VAIO:** `F1`, `F2`, `F3`. On models with the **Assist** button, press `Assist`.
- **Toshiba:** `F1` or `Esc`.

TROUBLESHOOT

HDD is visible, but not USB

If the HDD option is visible at Boot Menu, but not the USB drive, follow these tips and reboot your computer to try again:

- o If your computer has multiple USB ports: plug and unplug the flash drive in different ports for each boot you do
- o If your computer has USB 2.0 and USB 3.0 ports: try to use the flash drive only on the USB 2.0 port

USB not booting

(1) If the USB isn't booting, you need to make sure:
   - o That the USB flash drive is bootable
   - o That you can either select the USB from the Boot Device list or configure BIOS/UEFI to always boot from a USB drive and then from the hard disk
(2) On new computer models with UEFI/EFI:
   - o Secure boot feature must be disabled (not supported by LEAFOS)
(3) On some ultrabooks models with a Fast Boot option:
   - o Disable fast boot
(4) LEAFOS supports UEFI-based devices. However, if you have issues booting, you can normally disable UEFI and enable legacy/BIOS mode.

ADDITIONAL REFERENCES

Hot keys for Boot Menu / BIOS settings:

https://www.disk-image.com/faq-bootmenu.htm

https://www.groovypost.com/howto/bios-uefi-setup-guide-boot-from-cd-dvd-usb-drive-sd-card/

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