

Archlinux installieren (EFISTUB, Luks, Gnome, Hibernate)

Zielsystem

Dieser Guide ist gedacht für reine Intel ThinkPads mit EFI Boot und wurde getestet auf einem ThinkPad X270 und ThinkPad L380. Für andere Geräte sind ggf. kleine Änderungen notwendig. So konnte zB schon erfolgreich ein ThinkPad X230 installiert werden.

Partitionieren

- 512MB EF00 efi
- 100%FREE - crypt
 - pv
 - vg main
 - lv 50GB root
 - lv RAM+2GB swap
 - lv 100%FREE home

```
mkfs.fat -F 32 -n EFI /dev/nvme0n1p1
```

```
cryptsetup luksFormat -c aes-xts-plain64 -hash sha256 -s 256 /dev/nvme0n1p2
```

```
cryptsetup luksOpen /dev/nvme0n1p2 lvm
```

```
pvcreate /dev/mapper/lvm
```

```
vgcreate main /dev/mapper/lvm
```

```
lvcreate -L 50GB -n root main
```

```
lvcreate -L 34GB -n swap main
```

```
lvcreate -l 100%FREE -n home main
```

```
mkfs.ext4 -L root /dev/mapper/main-root
```

```
mkswap -L swap /dev/mapper/main-swap
```

```
swapon -L swap
```

```
mkfs.ext4 -L home /dev/mapper/main-home
```

Partitionen mounten

```
mount /dev/mapper/main-root /mnt
```

```
mkdir /mnt/boot
```

```
mount /dev/nvme0n1p1 /mnt/boot
```

```
mkdir /mnt/home
```

```
mount /dev/mapper/main-home /mnt/home
```

Grundinstallation

Pacman konfigurieren

Spiegelserver auswählen

```
reflector -c Germany > /etc/pacman.d/mirrorlist
```

Bootstrapping

```
pacstrap /mnt base base-devel dosfstools gptfdisk lvm2 linux linux-firmware nano
```

```
pacman -root /mnt -S dhcpcd bash-completion intel-ucode wpa_supplicant efibootmgr sudo openssh  
tmux
```

fstab bauen

```
genfstab -Up /mnt > /mnt/etc/fstab
```

chrooten

```
arch-chroot /mnt
```

Hostname

```
echo krypton > /etc/hostname
```

Locale

```
nano /etc/locale.gen
```

```
echo LANG=en_GB.UTF-8 > /etc/locale.conf
```

locale-gen

```
echo KEYMAP=de-latin1 > /etc/vconsole.conf
```

```
In -sf /usr/share/zoneinfo/Europe/Berlin /etc/localtime
```

Network

[/etc/hosts](#)

```
127.0.0.1 localhost.net.clerie.de localhost
::1 localhost.net.clerie.de localhost
```

Kernel konfigurieren

Initramfs

[/etc/mkinitcpio.conf](#)

```
...
MODULES=(ext4 i915)
...
HOOKS=(base udev autodetect modconf block keyboard keymap encrypt lvm2
resume filesystems fsck shutdown)
...
```

```
mkinitcpio -p linux
```

EFI Boot

```
efibootmgr -c -d /dev/nvme0n1 -p 1 -l \vmlinuz-linux -L „Arch Linux efistub“ -u „initrd=\initramfs-
linux.img quiet cryptdevice=/dev/nvme0n1p2:main root=/dev/mapper/main-root rw
resume=/dev/mapper/main-swap“
```

```
efibootmgr -c -d /dev/nvme0n1 -p 1 -l \vmlinuz-linux -L „Arch Linux efistub Fallback“ -u
„initrd=\initramfs-linux-fallback.img cryptdevice=/dev/nvme0n1p2:main root=/dev/mapper/main-root
rw“
```

Psst! Kleines Skript

[install-efistub.sh](#)

```
#!/bin/bash

drive="/dev/nvme0n1"
part="1"
p_cryptdevice="/dev/nvme0n1p2:main"
p_root="/dev/mapper/main-root"
p_swap="/dev/mapper/main-swap"

crypt="cryptdevice=${p_cryptdevice} root=${p_root} rw"
resume="resume=${p_swap}"
silent="quiet"

efibootmgr -c -d ${drive} -p ${part} -l \vmlinuz-linux -L "Arch Linux
efistub Fallback" -u "initrd=\initramfs-linux-fallback.img ${crypt}"
efibootmgr -c -d ${drive} -p ${part} -l \vmlinuz-linux -L "Arch Linux
efistub" -u "initrd=\initramfs-linux.img ${silent} ${crypt} ${resume}"
```

(optional) Grub

pacman -S grub

grub-install --target=x86_64-efi --efi-directory=/boot --bootloader-id="Arch Linux GRUB"

[/etc/default/grub](#)

```
...
GRUB_CMDLINE_LINUX_DEFAULT="quiet cryptdevice=/dev/nvme0n1p2
resume=/dev/mapper/main-swap"
....
```

grub-mkconfig -o /boot/grub/grub.cfg

Abschließen

passwd

exit

umount -R /mnt

reboot

Einrichten

Temporärer Netzwerk

```
dhcpcd enp0s31f6
```

Benutzer

```
useradd -m -s /bin/bash clerie
```

```
passwd clerie
```

```
EDITOR=nano visudo
```

[visudo](#)

```
...  
%wheel ALL=(ALL) ALL  
...
```

```
usermod -a -G wheel clerie
```

SSD Trim

```
systemctl enable --now fstrim.timer
```

Gnome installieren

```
pacman -S gnome
```

oder

```
pacman -S cheese eog evince file-roller gdm gedit gnome-backgrounds gnome-calculator gnome-characters gnome-color-manager gnome-control-center gnome-disk-utility gnome-font-viewer gnome-keyring gnome-menus gnome-screenshot gnome-session gnome-settings-daemon gnome-shell gnome-shell-extension gnome-system-monitor gnome-terminal gnome-themes-extra gnome-user-share gnome-video-effects nautilus networkmanager sushi totem gnome-tweaks
```

```
systemctl enable gdm
```

```
systemctl enable NetworkManager.service
```

Bluetooth

```
pacman -S bluez bluez-utils
```

```
systemctl enable bluetooth.service
```

Rebooten

```
reboot
```

Siehe auch

- https://wiki.archlinux.de/title/Anleitung_für_Einsteiger
- https://wiki.archlinux.de/title/Moderne_Installation_mit_UEFI_und_Verschl%C3%BCsselung

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