

# 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 --type luks2 --cipher aes-xts-plain64 --hash sha512 --
key-size 512 --pbkdf argon2id --iter-time 3000 /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

ln -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:main
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-extensions  
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/Anleitung_für_Einsteiger)
- [https://wiki.archlinux.de/title/Moderne\\_Installation\\_mit\\_UEFI\\_und\\_Verschl%C3%BCsselung](https://wiki.archlinux.de/title/Moderne_Installation_mit_UEFI_und_Verschl%C3%BCsselung)

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