

# 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

```
genfstag -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)  
...  
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/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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Last update: **2020/12/25 12:15**

