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.UFT-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

Temporärers 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 blutooth.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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