

1. Сгенерировать ключ-файл с помощью команды dd

```
dd if=/dev/urandom of=/home/vagrant/my.key bs=1 count=1024
```

```
[vagrant@localhost ~]$ dd if=/dev/urandom of=/home/vagrant/my.key bs=1 count=1024
1024+0 records in
1024+0 records out
1024 bytes (1.0 kB) copied, 0.00882224 s, 116 kB/s
```

2. Создать на основе созданного ключа криптоконтейнер

```
sudo cryptsetup -v -s 512 luksFormat /dev/sdb1 /home/vagrant/my.key
```

```
[vagrant@localhost ~]$ sudo cryptsetup -v -s 512 luksFormat /dev/sdb1 /home/vagrant/my.key

WARNING!
=====
This will overwrite data on /dev/sdb1 irrevocably.

Are you sure? (Type uppercase yes): YES
Command successful.
```

3. Открыть контейнер с помощью ключа

```
sudo cryptsetup luksOpen -d /home/vagrant/my.key /dev/sdb1 secrets
```

```
sudo mkfs.xfs /dev/mapper/secrets
```

```
sudo mkdir /secrets
```

```
sudo mount /dev/mapper/secrets /secrets
```

```
[vagrant@localhost ~]$ sudo cryptsetup luksOpen -d /home/vagrant/my.key /dev/sdb1 secrets
[vagrant@localhost ~]$ sudo mkfs.xfs /dev/mapper/secrets
meta-data=/dev/mapper/secrets      isize=512    agcount=4, agsize=655168 blks
        =                       sectsz=512    attr=2, projid32bit=1
        =                       crc=1        finobt=0, sparse=0
data      =                       bsize=4096   blocks=2620672, imaxpct=25
        =                       sunit=0      swidth=0 blks
naming    =version 2              bsize=4096   ascii-ci=0 ftype=1
log       =internal log          bsize=4096   blocks=2560, version=2
        =                       sectsz=512   sunit=0 blks, lazy-count=1
realtime  =none                  extsz=4096   blocks=0, rtextents=0
[vagrant@localhost ~]$ sudo mkdir /secrets
[vagrant@localhost ~]$ mount /dev/mapper/secrets /secrets
mount: only root can do that
[vagrant@localhost ~]$ sudo mount /dev/mapper/secrets /secrets
[vagrant@localhost ~]$
```

4. Заполнить контейнер произвольными данными

```
[vagrant@localhost ~]$ cd /secrets/
[vagrant@localhost secrets]$ sudo touch secret.txt
[vagrant@localhost secrets]$ sudo chown vagrant:vagrant secret.txt
[vagrant@localhost secrets]$ echo "My Secret" > secret.txt
[vagrant@localhost secrets]$ cat secret.txt
My Secret
```

5. Закрыть контейнер

```
sudo umount /secrets
```

```
sudo cryptsetup luksClose secrets
```

```
[vagrant@localhost ~]$ sudo umount /secrets  
[vagrant@localhost ~]$ sudo cryptsetup luksClose secrets  
[vagrant@localhost ~]$ █
```

6. Открыть контейнер (неожиданно :))

```
sudo cryptsetup luksOpen -d /home/vagrant/my.key /dev/sdb1 secrets
```

```
sudo mount /dev/mapper/secrets /secret
```

```
[vagrant@localhost ~]$ sudo cryptsetup luksOpen -d /home/vagrant/my.key /dev/sdb1 secrets  
[vagrant@localhost ~]$ sudo mount /dev/mapper/secrets /secrets  
[vagrant@localhost ~]$ █
```

7. Проверить, что все на месте

```
[vagrant@localhost ~]$ cat /secrets/secret.txt  
My Secret  
[vagrant@localhost ~]$ █
```