

# FDE: CREATE AND MOUNT A LUKS PARTITION

```
aciadmin@acialma:~$ sudo cfdisk
[sudo] password for aciadmin:

Disk: /dev/sda
Size: 20 GiB, 21474836480 bytes, 41943040 sectors
Label: gpt, identifier: 71E66FC0-085B-4286-A9EF-927D632D730D

Device      Start      End      Sectors  Size Type
/dev/sda1    2048      1230847  1228800   600M EFI System
/dev/sda2    1230848   3327999  2097152   1G Linux filesystem
/dev/sda3    3328000   41940991 38612992  18.4G Linux LVM

Partition UUID: D9B76957-CF45-4045-954C-0C4917E8DAE7
Partition type: Linux LVM (E6D60379-F507-44C2-A23C-238F2A3DF928)
Filesystem UUID: mItqVX-yvMT-9ueY-ZN1Y-Zx00-s5Ze-rmQ5d3
Filesystem: LVM2_member

New size: 18.4G
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Partition size: 1.9G

May be followed by M for MiB, G for GiB, T for TiB, or S for sectors.
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/dev/sda4    37931008   41943006  4011999    1.9G Linux filesystem

Partition UUID: A6229FE3-E5D5-6D4A-BA83-184967FDF16D
Partition type: Linux filesystem (0FC63DAF-8483-4772-8E79-3D69D8477DE4)

Are you sure you want to write the partition table to disk? yes

Type "yes" or "no", or press ESC to leave this dialog.
```

```
aciadmin@acialma:~$ sudo cryptsetup luksFormat /dev/sda4
WARNING!
This will overwrite data on /dev/sda4 irrevocably.
Are you sure? (Type 'yes' in capital letters): YES
Enter passphrase for /dev/sda4:
Verify passphrase:
[aciadmin@acialma ~]$ sudo cryptsetup luksOpen /dev/sda4 my_luks_partition
Enter passphrase for /dev/sda4:
[aciadmin@acialma ~]$ sudo mkfs.ext4 /dev/mapper/my_luks_partition
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[aciadmin@acialma ~]$ sudo mkfs.ext4 /dev/mapper/my_luks_partition
mke2fs 1.46.5 (30-Dec-2021)
Creating filesystem with 497403 4k blocks and 124416 inodes
Filesystem UUID: 35e037e6-b3b2-4121-be72-a0833c33a620
Superblock backups stored on blocks:
32768, 98304, 163840, 229376, 294912

Allocating group tables: done
Writing inode tables: done
Creating journal (8192 blocks): done
Writing superblocks and filesystem accounting information: done

[aciadmin@acialma ~]$ sudo mkdir /mnt/my_encrypted_partition
[aciadmin@acialma ~]$ sudo mount /dev/mapper/my_luks_partition /mnt/my_encrypted_partition
[aciadmin@acialma ~]$ sudo blkid
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```

NAME	FSTYPE	FSVER	LABEL	UUID	FSAVAIL	FSUSE%	MOUNTPOINTS
sda							
sda1	vfat	FAT32		EBFD-9527	581.8M	3%	/boot/efi
sda2	xfs			e09bfcdd-ef13-41b6-801a-fef6a36a079d	235.4M	75%	/boot
sda3	LVM2_member	LVM2 001		mItqVX-yvMT-9ueY-ZN1Y-Zx00-s5Ze-rmQ5d3			
alinux-root	xfs			32f2ab5b-577f-4fb8-ad88-0fec324ee27a	11.9G	27%	/
alinux-swap	swap	1		7f1259ae-c227-43ac-bf51-9fea9f747dad			[SWAP]
sda4	crypto_LUKS	2		2e90d81b-694a-4685-a540-190eaa751b10			
my_luks_partition	ext4	1.0		35e037e6-b3b2-4121-be72-a0833c33a620	1.7G	0%	/mnt/my_encrypted_partition
sro							

[aciadmin@acialma ~]\$