

Common Commands

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Server Administration

Smartctl

- check all attributes about a drive

```
sudo smartctl -i /dev/sdX -a
```

- megaraid controllers (LSI something)

```
sudo smartctl -d megaraid,X -i /dev/sda -a
```

The drive polled (`/dev/sda`) doesn't seem to make a difference here

LVM - Add new disk and extend FS

Rescan for newly added disks without rebooting:

The command will iterate over all found host adapters and trigger a rescan.

```
>> for host in /sys/class/scsi_host/*; do echo "- - -" | sudo tee $host/scan; ls /dev/sd* ;
done
- - -
/dev/sda /dev/sda1 /dev/sda2 /dev/sdb /dev/sdb1 /dev/sdb2 /dev/sdc /dev/sdc1
- - -
/dev/sda /dev/sda1 /dev/sda2 /dev/sdb /dev/sdb1 /dev/sdb2 /dev/sdc /dev/sdc1
- - -
/dev/sda /dev/sda1 /dev/sda2 /dev/sdb /dev/sdb1 /dev/sdb2 /dev/sdc /dev/sdc1 /dev/sdd
- - -
/dev/sda /dev/sda1 /dev/sda2 /dev/sdb /dev/sdb1 /dev/sdb2 /dev/sdc /dev/sdc1
/dev/sdd /dev/sdd1
```

The output shows when a new drive has been discovered.

LVM add "physical" disk and extend FS

- Make sure there is a Partition Table and a Partition for LVM

```
fdisk /dev/<disk>
>> create new gpt table: g
>> create new partition: n
>> set type of partition to lvm: t
>> show partition codes: L
>> insert type: <type from L (Linux LVM)>
>> write changes: w
```

- Expand existing LVM VG

```
pvcreate /dev/<disk-partition>
vgextend <existing-vg> /dev/<disk-partition>
```

- Expand existing LVM LV

```
# find the correct logical volume
lvdisplay | grep Path

# expand found lv
lvresize -l +100%free <lv path>
```

- Expand the ext4 filesystem on it

```
resize2fs <lv path>
```

Sources:

- Add disk: <https://tylersguides.com/guides/how-to-add-a-disk-to-lvm/>
- Extend FS: <https://www.systutorials.com/extending-a-mounted-ext4-file-system-on-lvm-in-linux/>

SSD Secure Erase

Secure erase commands:

Check current status of the disk:

```
>> sudo hdparm -I /dev/sdX

-----
Security:
  [ ] Master password revision code = 65534
  [ ] supported
  [not ] enabled   [ ]
  [not ] locked
  [not ] frozen
  [not ] expired: security count
  [ ] supported: enhanced erase
```

The disk needs to be not locked, not frozen but enabled. To enable secure erase set a password for the master user on the disk.

```
>> sudo hdparm --user-master u --security-set-pass password /dev/sdX

-----
security_password: "password"

/dev/sdd:
  Issuing SECURITY_SET_PASS command, password="password", user=user, mode=high
```

If something else appears, like I/O errors or so, check if you are connected to a motherboard port that supports these ATA commands. e.g. my USB Sata adapter did not, thus the commands could not be sent to the drive.

Afterwards we can erase the drive

```
sudo hdparm --user-master u --security-erase password /dev/sdX

-----
security_password: "password"
```

```
/dev/sdd:
```

```
Issuing SECURITY_ERASE command, password="password", user=user
```

After this, the drive should appear unformatted and without a partition table.

User Management

SSH2 Public Key to OpenSSL format for SSH Server

To convert a given Public Key to a useful format for SSH servers use the following command. It will print out the expected format to use.

```
ssh-keygen -i -f /path/to/file
```