

Migrating Data Within Volume Groups



Andrew Mallett

LINUX AUTHOR AND TRAINER

@theurbanpenguin www.theurbanpenguin.com



Overview



Upgrading physical volumes

Moving data between physical volumes



All About Speed

It is becoming common to replace traditional spinning disks with solid-state drives. If your hardware can be replaced online then your data can be moved online with LVMs



```
$ sudo lvs vg1/lv1 -o +devices
```

Listing Data Location

We can determine where data is stored by including the devices column



```
$ sudo pvmove -n vg1/lv1 /dev/sdb1 /dev/sdb2
```

Moving Data

Data can be moved whilst the filesystem is mounted and data is live. This is transparent to the end user



Demo



Returning the lv1 we will migrate live data



Overview



At some point enterprise storage will be upgraded

Using LVMs as the logical storage we can transparently migrate data

We can view where data is stored using the option `-o +devices`

The command `pvmove` can be used to move the data between physical volumes



```
$ sudo vgreduce vg1 /dev/sdb1
```

Remove Slow PV

Once the data has been migrated we can remove the slower spinning disks from the volume group



Creating RAID, Striped and Cache Volume

