

1. Turn on VFIO or IOMMU support in Bios
2. Patch kernel with ACS patch or download and already patched [one](#). (unless server grade board).
3. Run IOMMU.sh to list all groups
 - a. Identify pass-thru devices and list them eg (1022:149c for a USB controller)
4. Edit /etc/default/grub:

```
GRUB_CMDLINE_LINUX_DEFAULT="quiet splash modprobe.blacklist=amdgpu  
amd_iommu=on iommu=pt vfio-pci.ids=1002:67df,1002:aaf0  
pcie_acs_override=downstream,multifunction"
```

Blocks driver

Turns on IOMMU functionality

Lists VFIO pci.ids to be pass-through

Activates ACS patch