GPU

- code 43 solved
  - extract ROM

Prereq

Two graphic cards: A as best card and B card. * To extract ROM from best card mount B card in first slot (16x BOOT card) and A card in second slot * boot and

```
cat /proc/driver/nvidia/gpus/0000\:06\:00.0/information
Model:          GeForce GTX 750 Ti
IRQ:            38
GPU UUID:       GPU-1a843395-eac3-0f8f-11f4-7edbb2a0e088
Video BIOS:         82.07.55.00.1b
Bus Type:       PCIe
DMA Size:       40 bits
DMA Mask:       0xffffffffff
Bus Location:       0000:06:00.0
Device Minor:       0
```

```
echo "0000:06:00.0" > /sys/bus/pci/drivers/vfio-pci/unbind
cd /sys/bus/pci/devices/0000\:06\:00.0
echo 1 > rom
cat rom > /opt/vbios.dump
echo 0 > rom
```

</code>

- Install ovfm
- https://scottlinux.com/2016/03/21/enable-hyper-v-enlightenments-in-kvm-for-better-windows-vm-performance/

/etc/modules

```
vfio
vfio_iommu_type1
vfio_pci
vfio_virqfd
```

```
update-initramfs -u
```

Create VM and customize configuration before start:

- In the "Overview" section, set your firmware to "UEFI" and Q35 BIOS
- In the "Processor" section write CPU model to "host-passthrough"

```
<domain type='kvm' xmlns:qemu='http://libvirt.org/schemas/domain/qemu/1.0'>
...


<features>
    <hyperv>
        <vendor_id state='on' value='123456789ab'/>
    </hyperv>
    <kvm>
    <hidden state='on'/>
    </kvm>
</features>

    <hostdev mode='subsystem' type='pci' managed='yes'>
      <source>
        <address domain='0x0000' bus='0x01' slot='0x00' function='0x0'/>
      </source>
      <rom file='/opt/Palit.GTX750Ti.2048.140702.rom'/>
      <address type='pci' domain='0x0000' bus='0x00' slot='0x09'
function='0x0'/>
    </hostdev>
    <hostdev mode='subsystem' type='pci' managed='yes'>
      <source>
        <address domain='0x0000' bus='0x01' slot='0x00' function='0x1'/>
      </source>
      <address type='pci' domain='0x0000' bus='0x00' slot='0x0a'
function='0x0'/>
    </hostdev>

...
  <qemu:commandline>
    <qemu:arg value='-set'/>
    <qemu:arg value='device.hostdev0.x-vga=on'/>
  </qemu:commandline>
</domain>
```