

Host USB Passthrough to RHEV Guests 3

RHEV 3.6 3

RHEV 3.2 3

 7

Last
update: 2020/02/20 06:14 host_usb_passthrough_to_rhev_guests https://atl.kr/dokuwiki/doku.php/host_usb_passthrough_to_rhev_guests?rev=1582179261

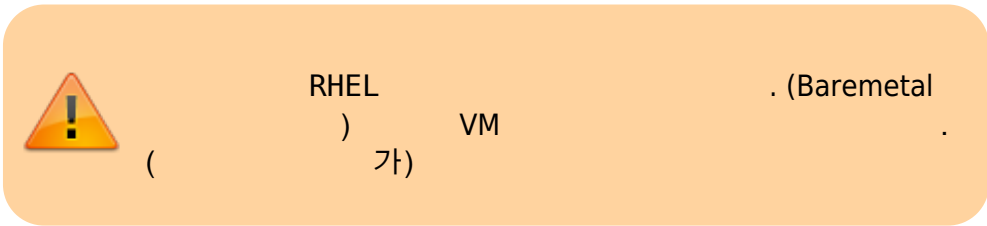
Host USB Passthrough to RHEV Guests

RHEV 3.6

3.6

- https://access.redhat.com/documentation/en-us/red_hat_enterprise_virtualization/3.6/html/virtual_machine_management_guide/sect-host_devices

RHEV 3.2



- RHEL rhev USB

USB RHEL lsusb vendor:product id

```
# lsusb
Bus 002 Device 008: ID 0781:5567 SanDisk Corp. Cruzer Blade
```

hostusb rhel before_vm_start.py 가
/usr/libexec/vdsm/hooks/before_vm_start/ 60_hostusb 755

[before_vm_start.py](#)

```
#!/usr/bin/python

import re
import os
import sys
import grp
import pwd
import traceback

import hooking

...

host usb hook
=====
```

!!! Disclaimer !!!

The host side usb support wasn't thoroughly tests in kvm!

add hosts usb device/s to VM:

```
<hostdev mode='subsystem' type='usb'>
  <source>
    <vendor id='0x1234' />
    <product id='0xbeef' />
  </source>
</hostdev>
```

syntax:

```
hostusb=0x1234:0xbeef&0x2222:0xabaa
i.e.
hostusb=VendorId:ProductId (can add more then one with '&' separator)
```

Note:

The VM must be pinned to host and this hook will fail any migration attempt.

...

```
HOOK_HOSTUSB_PATH = '/var/run/vdsm/hooks/hostusb-permissions'
```

```
def log_dev_owner(devpath, user, group):
    entry = devpath + ":" + str(user) + ":" + str(group)

    if not os.path.isdir(os.path.dirname(HOOK_HOSTUSB_PATH)):
        os.mkdir(os.path.dirname(HOOK_HOSTUSB_PATH))

    if os.path.isfile(HOOK_HOSTUSB_PATH):
        f = file(HOOK_HOSTUSB_PATH, 'r')
        for line in f:
            if entry == line:
                f.close()
                return

    f = file(HOOK_HOSTUSB_PATH, 'a')
    f.writelines(entry)
    f.close()
```

#!TODO:

```
# merge chown with after_vm_destroy.py
# maybe put it in hooks.py?
def chown(vendorid, productid):
```

```
# remove the 0x from the vendor and product id
devid = vendorid[2:] + ':' + productid[2:]
command = ['lsusb', '-d', devid]
retcode, out, err = hooking.execCmd(command, sudo=False, raw=True)
if retcode != 0:
    sys.stderr.write('hostusb: cannot find usb device: %s\n' % devid)
    sys.exit(2)

# find the device path:
# /dev/bus/usb/xxx/xxx
devpath = '/dev/bus/usb/' + out[4:7] + '/' + out[15:18]
stat = os.stat(devpath)

group = grp.getgrnam('qemu')
gid = group.gr_gid
user = pwd.getpwnam('qemu')
uid = user.pw_uid

# we don't use os.chown because we need sudo
owner = str(uid) + ':' + str(gid)
command = ['/bin/chown', owner, devpath]
retcode, out, err = hooking.execCmd(command, sudo=True, raw=True)
if retcode != 0:
    sys.stderr.write('hostusb: error chown %s to %s, err = %s\n' %
(devpath, owner, err))
    sys.exit(2)

log_dev_owner(devpath, stat.st_uid, stat.st_gid)

def create_usb_device(domxml, vendorid, productid):
    hostdev = domxml.createElement('hostdev')
    hostdev.setAttribute('mode', 'subsystem')
    hostdev.setAttribute('type', 'usb')

    source = domxml.createElement('source')
    hostdev.appendChild(source)

    vendor = domxml.createElement('vendor')
    vendor.setAttribute('id', vendorid)
    source.appendChild(vendor)

    product = domxml.createElement('product')
    product.setAttribute('id', productid)
    source.appendChild(product)

    return hostdev

if os.environ.has_key('hostusb'):
    try:
        regex = re.compile('^0x[\\d,A-F,a-f]{4}$')
        domxml = hooking.read_domxml()
```

```
devices = domxml.getElementsByTagName('devices')[0]

for usb in os.environ['hostusb'].split('&'):
    vendorid, productid = usb.split(':')
    if len(regex.findall(vendorid)) != 1 or
len(regex.findall(productid)) != 1:
        sys.stderr.write('hostusb: bad input, expected 0x0000 format
for vendor and product id, input: %s:%s\n' % (vendorid, productid))
        sys.exit(2)

        hostdev = create_usb_device(domxml, vendorid, productid)
        devices.appendChild(hostdev)
        chown(vendorid, productid)

hooking.write_domxml(domxml)
except:
    sys.stderr.write('hostusb: [unexpected error]: %s\n' %
traceback.format_exc())
    sys.exit(2)
```

vdsm

[VDSM_Hooks](#)

- rhev

hostusb

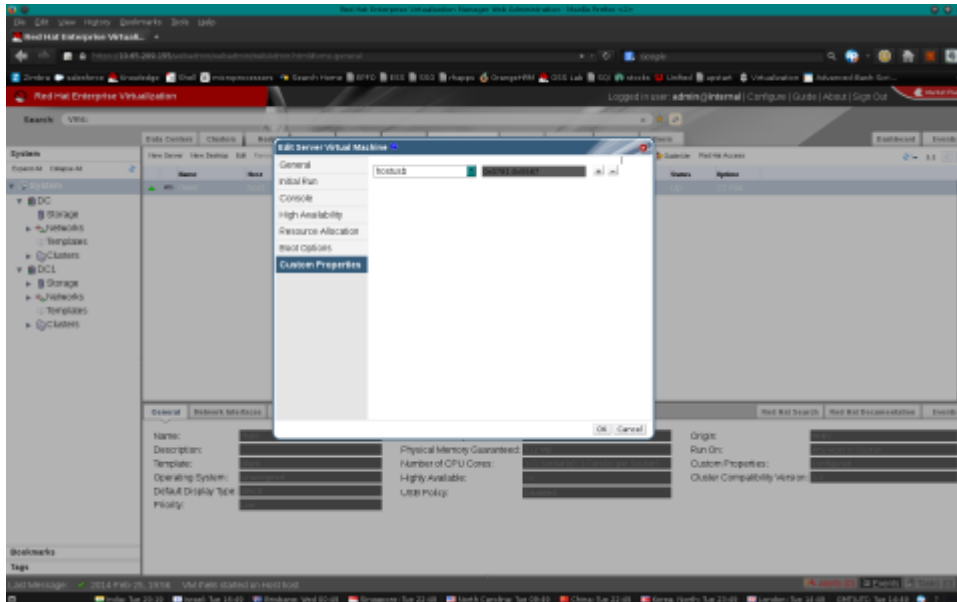
```
# rhvm-config -s UserDefinedVMPProperties='hostusb=[\w:&]+' --cver=3.2
# /etc/init.d/ovirt-engine restart
```

```
# rhvm-config -g UserDefinedVMPProperties
```

rhvm GUI

Custom Properties

1. hostusb
2. 0x0781 : 0x5567



```

:      ID(0781),      ID(5567)  lsusb
VM      USB
:      가      rhvm-config -s      hostusb
      hostusb      가

```

```

# rhvm-config -g UserDefinedVMPProperties
UserDefinedVMPProperties: cypaste=^(yes|no)$ version: 3.2

# rhvm-config -s
UserDefinedVMPProperties='cypaste=^(yes|no)$;hostusb=[\w:&]+' --cver=3.2

# rhvm-config -g UserDefinedVMPProperties
UserDefinedVMPProperties: cypaste=^(yes|no)$;hostusb=[\w:&]+ version: 3.2

```

- <https://access.redhat.com/solutions/146793>
- <https://access.redhat.com/solutions/474373>
- <https://access.redhat.com/solutions/734323>

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