

Linux Virtualization with CentOS and KVM : Luis López, CTI-UPRM



Linux Virtualization with CentOS and KVM : Luis López, I-UPRM



Apagar SELINUX

Editar /etc/sysconfig/selinux
SELINUX=disabled

```
ONBOOT=yes  
TYPE=Bridge  
BOOTPROTO=none  
IPADDR=192.168.0.10  
NETMASK=255.255.255.0  
GATEWAY=192.168.0.1  
DNS1=136.145.30.2  
DNS2=8.8.8.8  
DEFROUTE=yes  
IPV4_FAILURE_FATAL=1  
IPV6INIT=no  
NAME="System br0"
```

m bridge-

/etc/

systemctl

Getier CPU support



Cotejar CPU support para virtualización

```
egrep '(vmx/svm)' --color=always /proc/  
cpuinfo
```

KVM Installation

```
yum -y install libvirt qemu-kvm bridge-  
utils python-virtinst
```


Activar KVM

CentOS 6

```
chkconfig libvirtd on;/etc/  
init.d/libvirtd start
```

CentOS 7

```
systemctl enable libvirtd;systemctl  
start libvirtd
```



0b12-1f42-49b0-ad69-731e888276f1"
00:1E:90:F3:F0:02
192.168.0.100
192.168.0.1
8.8
4.4
yes
RE_FATAL=yes
em eth0"

rt
k
ifconfig

Check Installation

virsh -c qemu:///system list

Network configuration

vi /etc/sysconfig/network-scripts/ifcfg-br0

```
DEVICE="br0"  
ONBOOT=yes  
TYPE=Bridge  
BOOTPROTO=none  
IPADDR=192.168.0.100  
NETMASK=255.255.255.0  
GATEWAY=192.168.0.1  
DNS1=136.145.30.2  
DNS2=8.8.8.8  
DEFROUTE=yes  
IPV4_FAILURE_FATAL=yes  
IPV6INIT=no  
NAME="System br0"
```

```
DEVICE="br0"  
ONBOOT=yes  
TYPE=Bridge  
BOOTPROTO=none  
IPADDR=192.168.0.100  
NETMASK=255.255.255.0  
GATEWAY=192.168.0.1  
DNS1=136.145.30.2  
DNS2=8.8.8.8  
DEFROUTE=yes  
IPV4_FAILURE_FATAL=yes  
IPV6INIT=no  
NAME="System br0"
```

...Network Configuration

vi /etc/sysconfig/network-scripts/ifcfg-eth0

```
DEVICE="etho"  
#BOOTPROTO=none  
ONBOOT=yes  
TYPE="Ethernet"  
UUID="73cbob12-1f42-49bo-ad69-731e888276ff"  
HWADDR=00:1E:90:F3:F0:02  
#IPADDR=192.168.0.100  
#GATEWAY=192.168.0.1  
#DNS1=8.8.8.8  
#DNS2=8.8.4.4  
DEFROUTE=yes  
IPV4_FAILURE_FATAL=yes  
IPV6INIT=no  
NAME="System etho"  
BRIDGE=bro
```

CentOS 6 */etc/init.d.network restart*

CentOS 7 *systemctl restart network*

ifconfig




```
DEVICE="etho"  
#BOOTPROTO=none  
ONBOOT=yes  
TYPE="Ethernet"  
UUID="73cbob12-1f42-49bo-ad69-731e888276ff"  
HWADDR=00:1E:90:F3:F0:02  
#IPADDR=192.168.0.100  
#GATEWAY=192.168.0.1  
#DNS1=8.8.8.8  
#DNS2=8.8.4.4  
DEFROUTE=yes  
IPV4_FAILURE_FATAL=yes  
IPV6INIT=no  
NAME="System etho"  
BRIDGE=bro
```

virsh

List vm *virsh list --all*

Start/Stop vm *virsh destroy/start vmname*

Suspend/Resume vm *virsh suspend/resume vmname*

autostart vm *virsh autostart vmname*

edit vm *virsh edit vmname*

new vm **virt-install**

```
virt-install \  
  --name=vm-test \  
  --ram=2048 \  
  --vcpu=2 \  
  --disk path=/var/lib/libvirt/images/vm-test \  
  bus=virtio,cache=none,format=qcow2 \  
  --os-type=linux \  
  --network network=default,model=virtio \  
  --graphics=vnc \  
  --cdrom=/isos/centos71.x86_64 \  
  --autostart
```

List vm *virsh list --all*

Start/Stop vm *virsh destroy/start vmname*

Suspend/Resume vm *virsh suspend/resume vmname*

autostart vm *virsh autostart vmname*

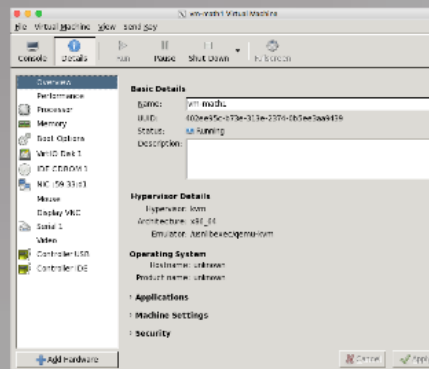
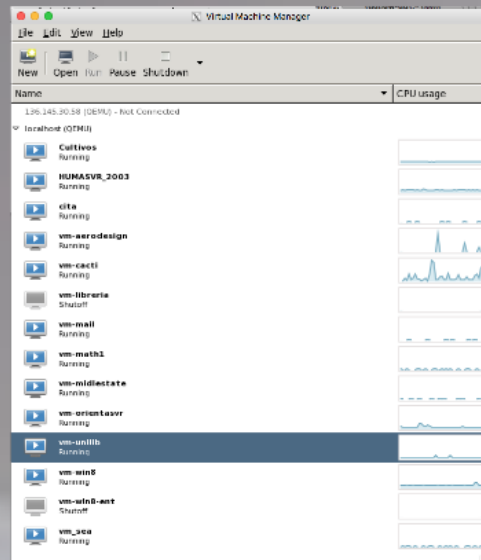
edit vm *virsh edit vmname*

new vm **virt-install**

```
virt-install \  
  --name=vm-test \  
  --ram=2048\  
  --vcpus=2\  
  --disk path=/var/lib/libvirt/images/vm-test  
bus=virtio,cache=none,format=qcow2 \  
  --os-type=linux\  
  --network network=default,model=virtio \  
  --graphics=vnc \  
  --cdrom=/isos/centos71.x86_64 \  
  --autostart
```

```
virt-install \  
  --name=vm-test \  
  --ram=2048\  
  --vcpus=2\  
  --disk path=/var/lib/libvirt/images/vm-test  
bus=virtio,cache=none,format=qcow2 \  
  --os-type=linux\  
  --network network=default,model=virtio \  
  --graphics=vnc \  
  --cdrom=/isos/centos71.x86_64 \  
  --autostart
```

virt-manager



kvm files



Images: `/var/lib/libvirt/images`

vm description: `/etc/libvirt/qemu`

Linux Virtualization with CentOS and KVM : Luis López, I-UPRM

