QEMU \ KVM

Проверяем SELinux

```
root@l4zzur-VirtualBox:/home/l4zzur# getenforce
Disabled
```

Устанавливаем пакеты

```
root@l4zzur-VirtualBox:/home/l4zzur# apt install qemu-kvm
Reading package lists... Done
Building dependency tree
Reading state information... Done
```

```
root@l4zzur-VirtualBox:/home/l4zzur# apt-get install virtinst
Reading package lists... Done
Building dependency tree
Reading state information... Done
```

Демон виртуализации работает

```
● libvirtd.service - Virtualization daemon
     Loaded: loaded (/lib/systemd/system/libvirtd.service; enabled; vendor pre>
     Active: active (running) since Wed 2022-03-23 16:21:07 EET; 2min 50s ago
TriggeredBy: ● libvirtd.socket
             ● libvirtd-admin.socket
             ● libvirtd-ro.socket
```

Поддержка виртуализации включена

```
l4zzur@l4zzur-VirtualBox:~$ cat /proc/cpuinfo | egrep "(vmx|svm)"
flags           : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov
pat pse36 clflush mmx fxsr sse sse2 ht syscall nx rdtscp lm constant_tsc rep_goo
d nopl xtopology nonstop_tsc cpuid tsc_known_freq pni pclmulqdq vmx ssse3 cx16 p
cid sse4_1 sse4_2 x2apic movbe popcnt aes xsave avx rdrand hypervisor lahf_lm ab
m invpcid_single pti tpr_shadow vnmi flexpriority vpid fsgsbase avx2 invpcid md_
clear flush_l1d
vmx flags       : vnmi flexpriority tsc_offset vtpr vapic
```

Дописываем параметр и обновляем

```
net.ipv4.ip_forward=1
root@l4zzur-VirtualBox:/home/l4zzur# sysctl -p /etc/sysctl.d/99-sysctl.conf
net.ipv4.ip_forward = 1
root@l4zzur-VirtualBox:/home/l4zzur#
```

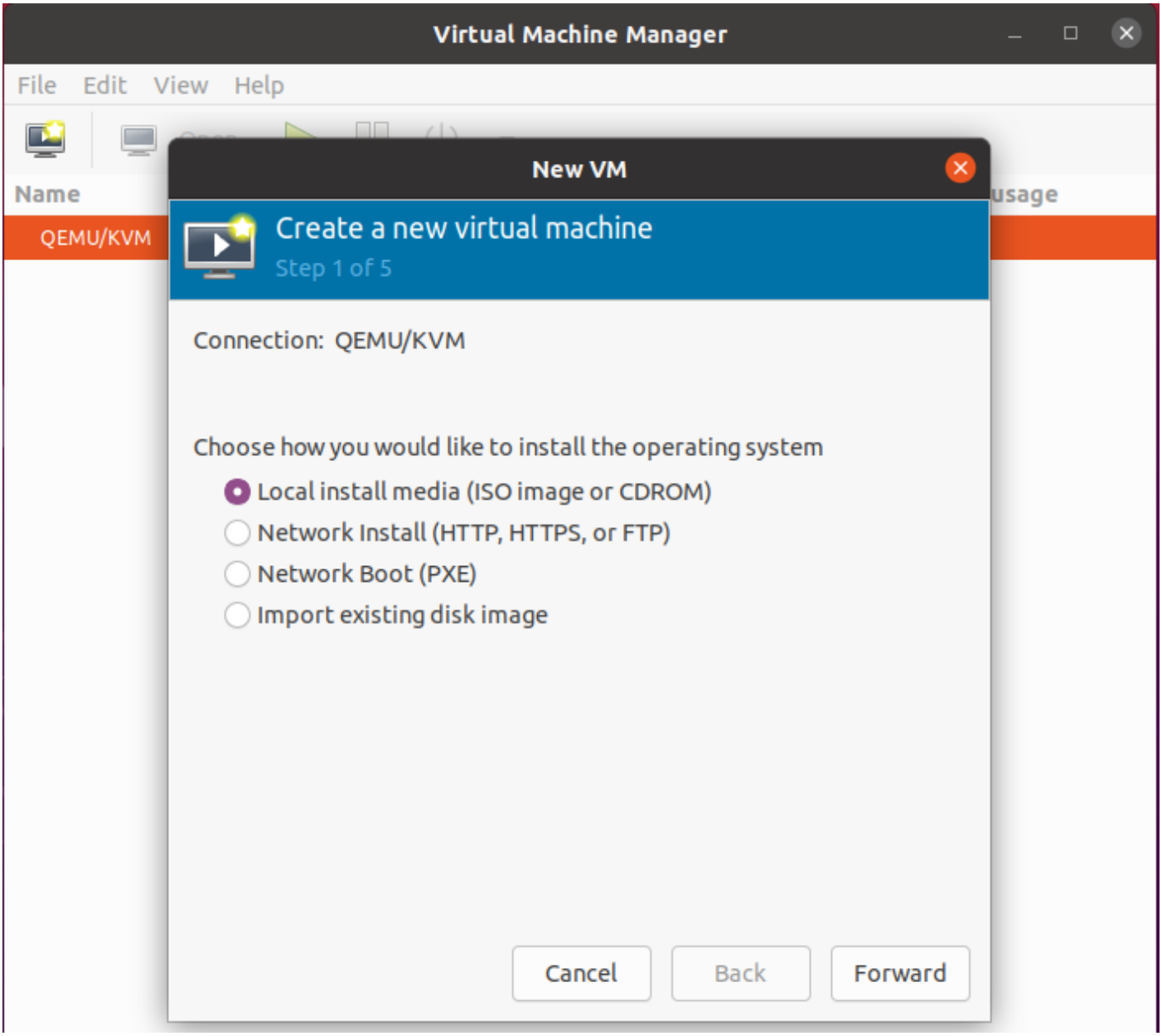
Перезапускаем службу

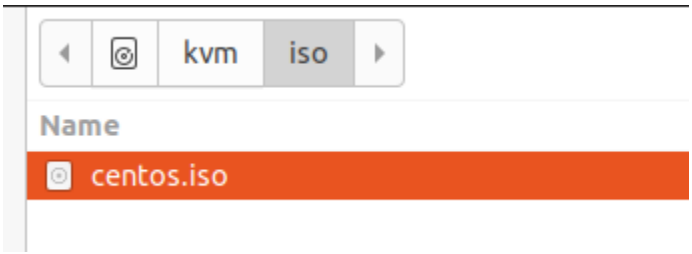
```
root@l4zzur-VirtualBox:/home/l4zzur# systemctl restart libvirtd
root@l4zzur-VirtualBox:/home/l4zzur# systemctl status libvirtd
● libvirtd.service - Virtualization daemon
     Loaded: loaded (/lib/systemd/system/libvirtd.service; enabled; vendor pres>
     Active: active (running) since Wed 2022-03-23 18:31:29 EET; 5s ago
TriggeredBy: ● libvirtd-ro.socket
             ● libvirtd.socket
             ● libvirtd-admin.socket
```

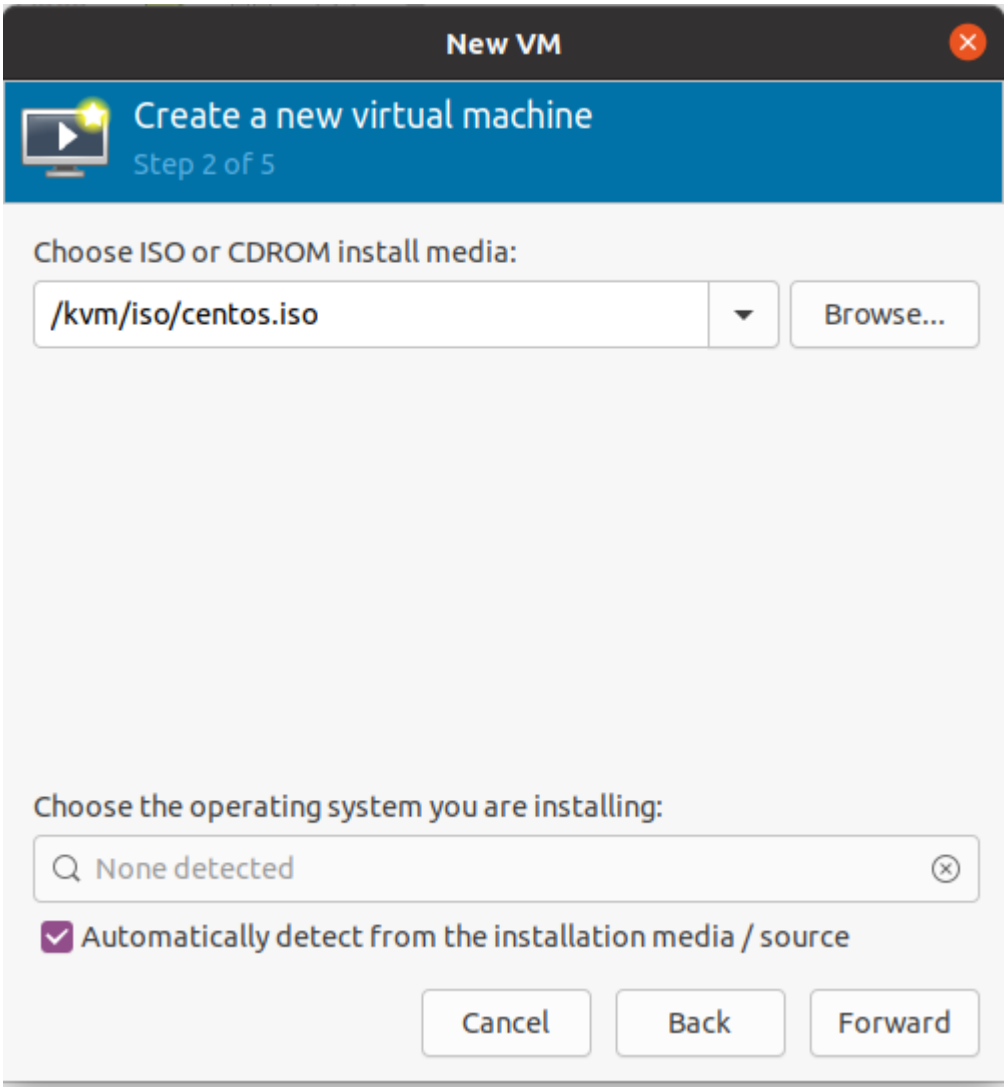
```
root@l4zzur-VirtualBox:~# ls /iso
centos                          VirtualBox-6.1.30-148432-Win.exe
linuxmint-20.2-mate-64bit.iso   Win10_21H2_Russian_x64.iso
ubuntu-20.04.3-desktop-amd64.iso
root@l4zzur-VirtualBox:~# mkdir /kvm
root@l4zzur-VirtualBox:~# cd /kvm
root@l4zzur-VirtualBox:/kvm# mkdir iso
root@l4zzur-VirtualBox:/kvm# mkdir images
root@l4zzur-VirtualBox:/kvm# cd
root@l4zzur-VirtualBox:~# cd /kvm/iso/
root@l4zzur-VirtualBox:/kvm/iso# mv /iso/centos /iso/centos.iso
root@l4zzur-VirtualBox:/kvm/iso# cp /iso/centos.iso .
root@l4zzur-VirtualBox:/kvm/iso#
```

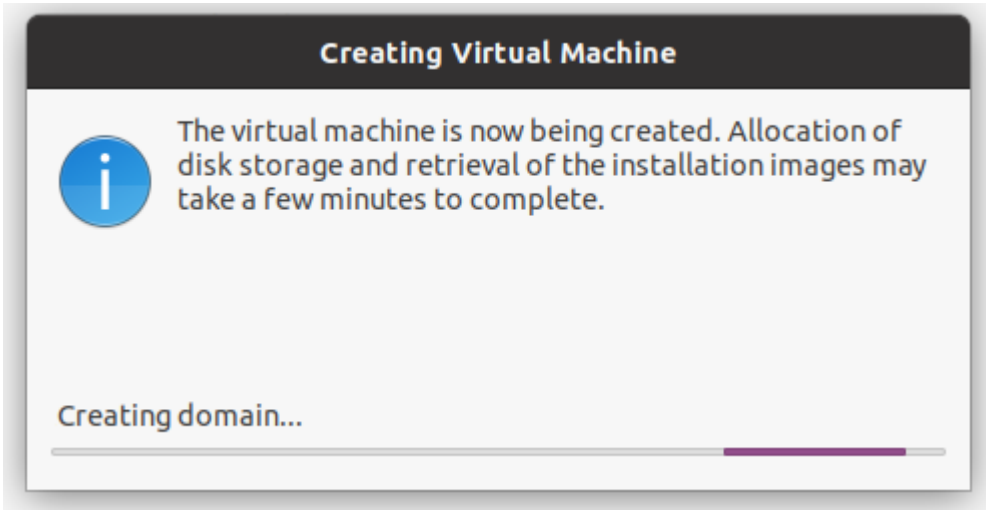
GUI для виртуальных машин

```
root@l4zzur-VirtualBox:/kvm/iso# apt install virt-manager
Reading package lists... Done
Building dependency tree
Reading state information... Done
virt-manager is already the newest version (1:2.2.1-3ubuntu2.1).
0 upgraded, 0 newly installed, 0 to remove and 208 not upgraded.
root@l4zzur-VirtualBox:/kvm/iso#
```


Virtual Machine Manager
File Edit View Help
Name
QEMU/KVM
New VM
Create a new virtual machine
Step 1 of 5
Connection: QEMU/KVM
Choose how you would like to install the operating system
Local install media (ISO image or CDROM)
Network Install (HTTP, HTTPS, or FTP)
Network Boot (PXE)
Import existing disk image
Cancel
Back
Forward


kvm
iso
Name
centos.iso


New VM
Create a new virtual machine
Step 2 of 5
Choose ISO or CDROM install media:
/kvm/iso/centos.iso
Browse...
Choose the operating system you are installing:
None detected
Automatically detect from the installation media / source
Cancel
Back
Forward


Creating Virtual Machine
The virtual machine is now being created. Allocation of disk storage and retrieval of the installation images may take a few minutes to complete.
Creating domain...

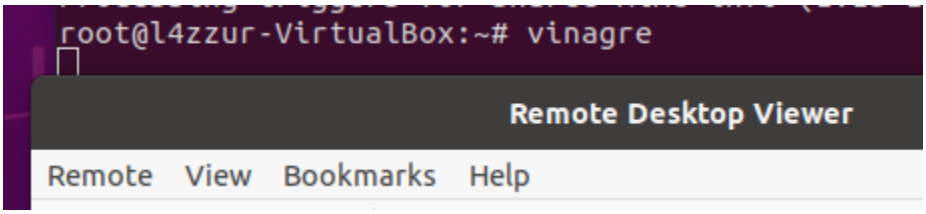
Создаём виртуальную машину через терминал и смотри порт для vnc

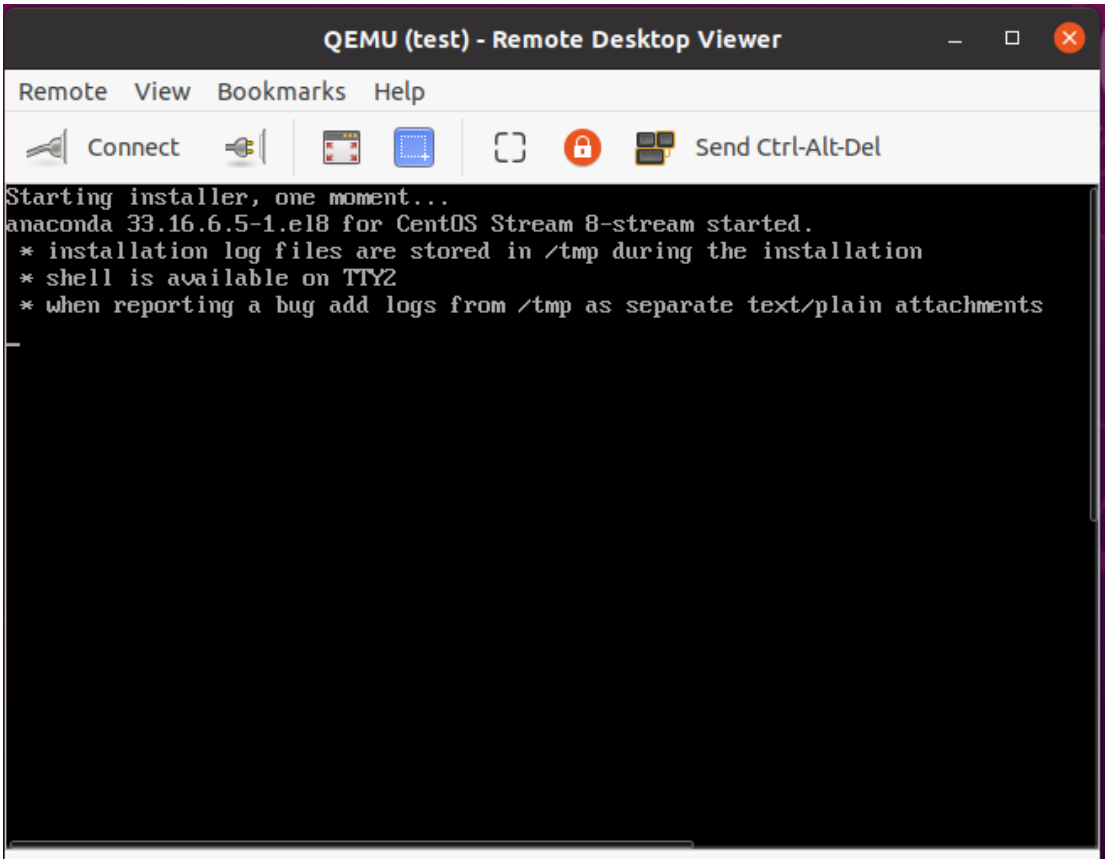
```
root@l4zzur-VirtualBox:/home/l4zzur# virt-install -n test --noautoconsole --net
work=bridge:virbr0 --ram 1024 --arch=x86_64 --vcpus=1 --cpu host --check-cpu --
disk path=/disk2/kvm/images/disk.img,size=5 --cdrom /disk2/kvm/iso/centos.iso -
-graphics vnc,listen=0.0.0.0,password=1234 --os-type linux --os-variant=centos-
stream8 --boot=cdrom,hd,menu=on
WARNING  Requested memory 1024 MiB is less than the recommended 1536 MiB for OS
 centos-stream8

Starting install...
Allocating 'disk.img'

                    | 5.0 GB  00:00:00
Domain installation still in progress. You can reconnect to
the console to complete the installation process.
root@l4zzur-VirtualBox:/home/l4zzur# virsh vncdisplay test
:0
```

Открываем порт 5900

```
root@l4zzur-VirtualBox:~# firewall-cmd --permanent --add-port=5900/tcp
success
```

Используем клиент vinagre





```
Processing triggers for initramfs-tools (0.136ubuntu6.6) ...
update-initramfs: Generating /boot/initrd.img-5.13.0-30-generic
root@l4zzur-VirtualBox:~# firewall-cmd --add-service cockpit
success
root@l4zzur-VirtualBox:~# systemctl enable --now cockpit.socket
```

Cockpit работает