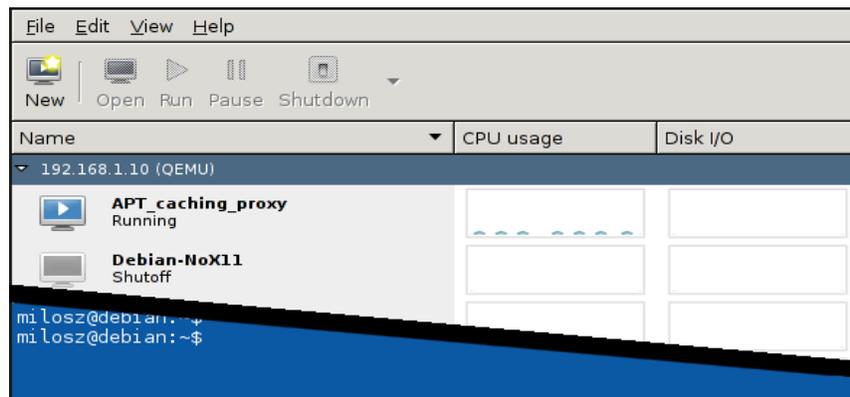


# HOW TO SETUP KVM FULL VIRTUALIZATION SOLUTION

Today I want to install Debian on an older but quite capable Dell machine so I will shortly describe how to setup KVM full virtualization solution.



## Preparations

At first you need to confirm that CPU has the Virtualization Technology capability. You can do this by looking for `vmx` (Intel VT-x) or `svm` (AMD AMD-V) flag in the `/proc/cpuinfo` file.

If you want to investigate this part further then I strongly suggest to look at the CPU Checkersource code.

## Step 1

Perform minimal Debian installation. Create separate partition mounted at the `/var/lib/libvirt/` directory. It will be used to store settings and storage pools so allocate most of the free space to it.

## Step 2

Install `sshd` server.

```
# apt-get install openssh-server
```

Disable `root` login over `ssh` protocol and reload configuration.

```
# sed -i "/PermitRootLogin/ s/yes/no/" /etc/ssh/sshd_config
```

```
# service sshd reload
```

## Step 3

Install `sudo` utility.

```
# apt-get install sudo
```

Add regular user created during installation process to the `sudo` group.

```
# adduser milosz sudo
```

Now you are able to use `sudo` utility to perform administrative tasks instead of `root` account.

## Step 4

Install software essential to the full virtualization.

```
$ sudo apt-get install kvm libvirt-bin virtinst bridge-utils
```

Add regular user to the `libvirt` group.

```
$ sudo adduser milosz libvirt
```

Now you are able to manage virtual machines as regular user.

## Step 5

Edit network configuration file to create initial bridge.

```
$ sudo vi /etc/network/interfaces

# This file describes the network interfaces available on your system
# and how to activate them. For more information, see interfaces(5).

# The loopback network interface
auto lo
iface lo inet loopback

# The primary network interface
iface eth0 inet manual

# Initial bridge
auto br0
iface br0 inet static
    bridge_ports eth0
    address 192.168.1.10
    netmask 255.255.255.0
```

```
gateway 192.168.1.1
```

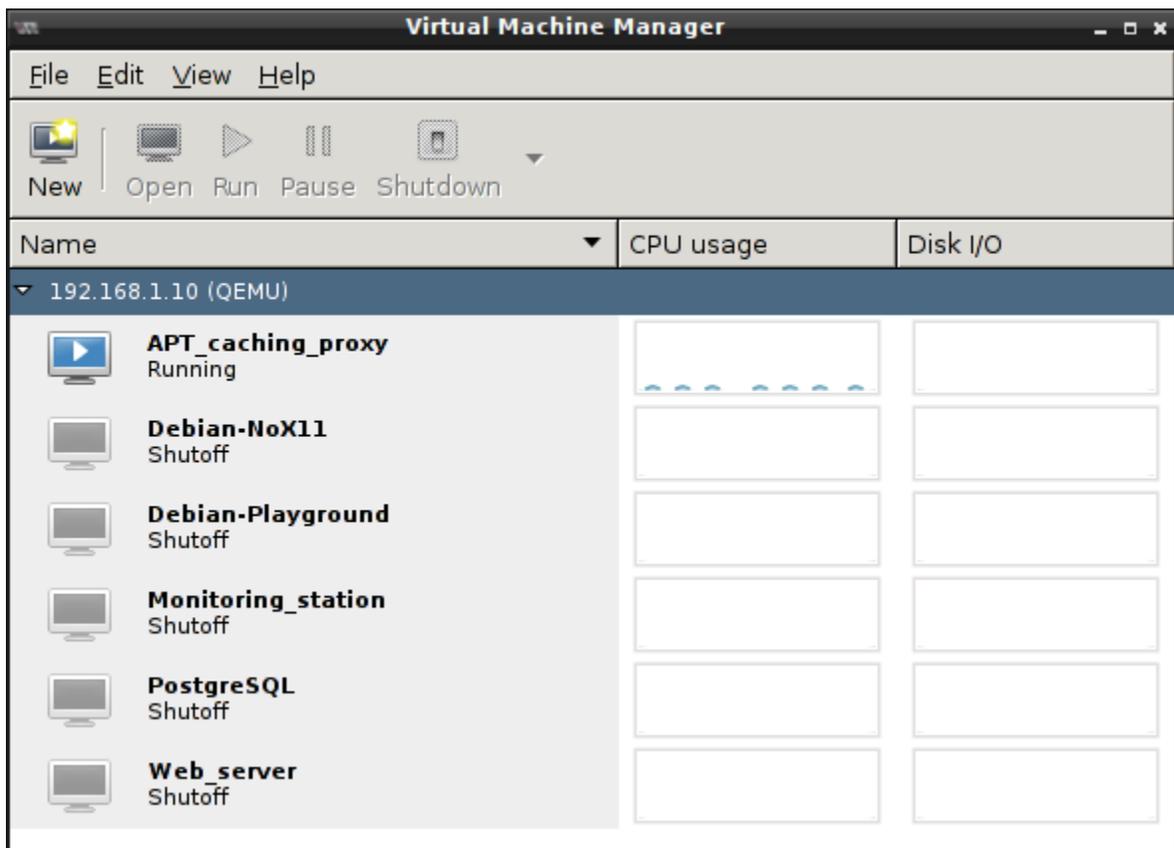
Edit `/etc/resolv.conf` file to apply DNS configuration.

```
$ sudo vi /etc/resolv.conf
```

```
nameserver 192.168.1.1
```

Reboot system, verify network settings and ssh availability.

## Step 6



Install `virt-manager` package on remote system and use it to manage virtual machines.

Source: <https://blog.sleeplessbeastie.eu/2014/03/16/how-to-setup-kvm-full-virtualization-solution/>