Linux KVM Administration

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Agenda

- Introduction to Linux QEMU-KVM
- Launching a VM

Introduction to Linux QEMU-KVM

QEMU-KVM Architecture

- Kernel Virtual Machine (KVM) is an OS level virtualization.

- Linux Kernel runs the hypervisor as kernel modules (kvm.ko, kvm-intel.ko, kvm-amd.ko)

- Userspace VM emulation is done by QEMU (qemu-system-ARCH)
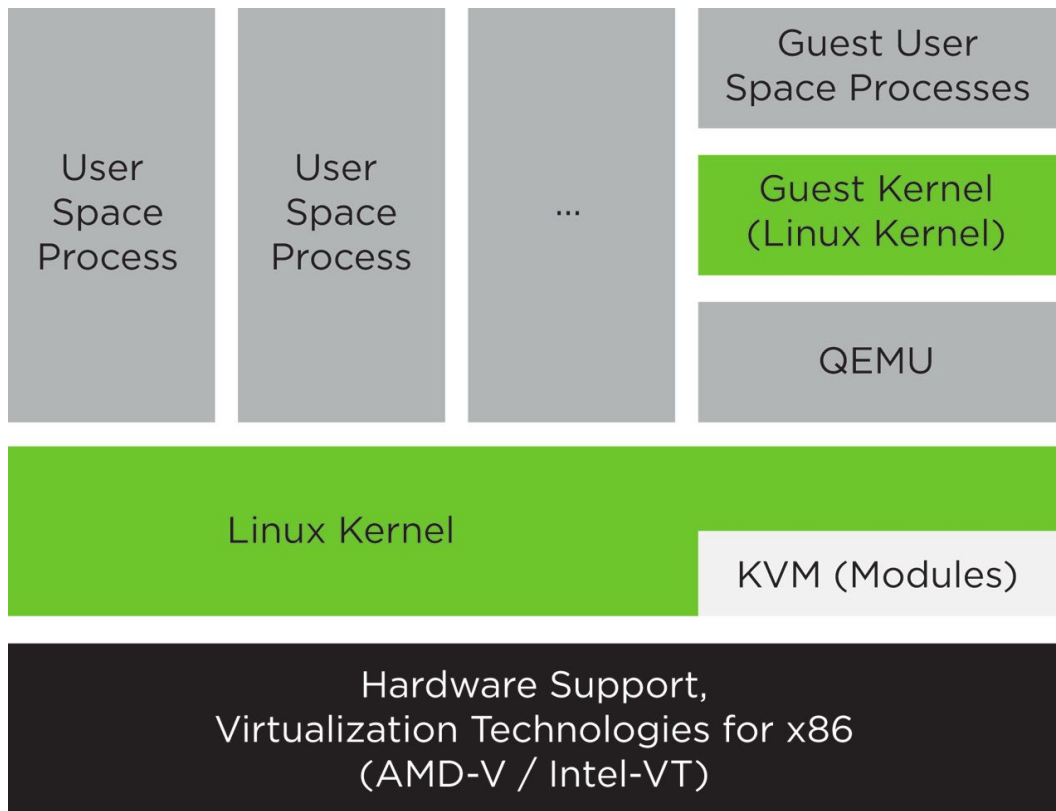
- Management is done by VMM (virt-manager)

Image Courtesy: doc.opensuse.org

Launch a VM

Launching a VM from pre-installed OS image

- Download a pre-installed OS image.
  ```
  wget --no-check-certificate
  https://download.cirros-cloud.net/0.4.0/cirros-0.4.0-x86_64-disk.
  img
  ```
- Launch OS from a pre-installed image (.img)
- Start the VM.

Launching OS from pre-installed Image

- To launch OS from pre-installed image, use `virt-install --import --disk path=<pathtoimg>`

```
$ virt-install --connect=qemu:///system --name=cirros1 --ram=512 --vcpus=1
--disk path=~/Qemu-KVM\ VMs/cirros-0.4.0-x86_64-disk.img,format=qcow2 --import
--network network:default
```

Download cirros image from https://download.cirros-cloud.net/

Listing and Starting a VM

- To list all VMs, use `virsh list --all`
- To start a VM, use `virsh start`

```
$ virsh --connect qemu:///system start cirros1
```

Download cirros image from https://download.cirros-cloud.net/

References

References

- Linux manual pages
- https://www.linux-kvm.org
- Courtesy Google images

Q & A