

Building KVM virtual machines quickly with virt-builder and cloud-init

Canton Linux Enthusiasts

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Objectives

Show how to quickly create local kvm guests with pre-built images.

- vagrant
- cloud-init
- virt-builder

- HashCorp tool for spinning up guests.
- Supports a variety of providers
- Linux provider is experimental, but works
- Search for libvirt provider boxes
- Do not install vagrant with apt or yum!
- Ruby based

- Widely used for deploying images on cloud providers
- Many images available online
- Boots quickly
- No root passwords in cloud-init images
- Data is injected on first boot using link-local addresses
- NoCloud option available for regular libvirt/kvm setup

- Download a cloud-init enabled image
- Create a virtual cdrom disk with the cloud-init meta-data
- Create a guest with the disk attached
- cloud-init will use the data from attached disk
- See `kvm-install-vm` shell script

```
$ cat meta-data
instance-id: iid-local01;
local-hostname: cloudimg;
```

```
$ cat user-data
#cloud-config
password: passw0rd
chpasswd: { expire: False }
ssh_pwauth: True
```

```
$ genisoimage -output seed.iso
               -volid cidata
               -joliet
               -rock user-data meta-data
```

- virt-builder - download and customize image
- virt-sysprep - edit images clones
- virt-up - virt-builder/virt-sysprep wrapper

- `kvm-install-vm`
- `virt-up`