1，在根目录下创建images目录，然后依次创建iso和test。其中ISO目录是存放ISO镜像的，test是存放虚拟机的主机名的，然后把Linux安装镜像的iso文件，上传到iso文件夹里

[root@KVM ~]# mkdir -p /images/iso

[root@KVM ~]# mkdir -p /images/test

[root@KVM ~]# ll /data/iso/

total 407556

-rw-r--r-- 1 qemu qemu 417333248 Aug 5 09:11 CentOS-6.5-x86\_64-minimal.iso

2，安装Linux虚拟主机：

a)安装raw磁盘格式的虚拟机：

[root@KVM images]#virt-install --name hadoop2 --ram 1024 --vcpus 1 --disk path=/images/test/hadoop2.img,size=10 --network bridge=br0,model=virtio --noautoconsole --accelerate --vnc --vncport=5912 --vnclisten=0.0.0.0 --cdrom /images/iso/CentOS-6.5-x86\_64-minimal.iso -d

b)安装qcow2格式的磁盘（空间动态增长），首先要先创建qcow2格式的磁盘。

[root@KVM test]# qemu-img create -f qcow2 hadoop3.img 10G

Formatting 'hadoop3.img', fmt=qcow2 size=10737418240 encryption=off cluster\_size=65536

[root@KVM test]# virt-install --name=hadoop3 --ram 512 --vcpus=1 --disk path=/images/test/hadoop3.img,format=qcow2,size=7,bus=virtio --accelerate --cdrom /images/iso/CentOS-6.5-x86\_64-minimal.iso -d --vnc --vncport=5913 --network network:default --noautoconsole

具体的安装信息，如下：

[root@KVM test]# qemu-img create -f qcow2 hadoop3.img 10G

Formatting 'hadoop3.img', fmt=qcow2 size=10737418240 encryption=off cluster\_size=65536

[root@KVM test]# virt-install --name=hadoop3 --ram 512 --vcpus=1 --disk path=/images/test/hadoop3.img,format=qcow2,size=7,bus=virtio --accelerate --cdrom /images/iso/CentOS-6.5-x86\_64-minimal.iso -d --vnc --vncport=5913 --network network:default --noautoconsole

Tue, 02 Feb 2016 14:12:36 DEBUG Launched with command line:

/usr/sbin/virt-install --name=hadoop3 --ram 512 --vcpus=1 --disk path=/images/test/hadoop3.img,format=qcow2,size=7,bus=virtio --accelerate --cdrom /images/iso/CentOS-6.5-x86\_64-minimal.iso -d --vnc --vncport=5913 --network network:default --noautoconsole

Tue, 02 Feb 2016 14:12:36 DEBUG Requesting libvirt URI default

Tue, 02 Feb 2016 14:12:36 DEBUG Received libvirt URI qemu:///system

Tue, 02 Feb 2016 14:12:36 DEBUG Requesting virt method 'default', hv type 'default'.

Tue, 02 Feb 2016 14:12:36 WARNING KVM acceleration not available, using 'qemu'

Tue, 02 Feb 2016 14:12:36 DEBUG Received virt method 'hvm'

Tue, 02 Feb 2016 14:12:36 DEBUG Hypervisor name is 'qemu'

Tue, 02 Feb 2016 14:12:36 DEBUG --graphics compat generated: vnc,port=5913

Tue, 02 Feb 2016 14:12:36 DEBUG DistroInstaller location is a local file/path: /images/iso/CentOS-6.5-x86\_64-minimal.iso

Tue, 02 Feb 2016 14:12:36 DEBUG Guest.has\_install\_phase: True

Starting install...

Tue, 02 Feb 2016 14:12:36 DEBUG Generated install XML:

<domain type='qemu'>

<name>hadoop3</name>

<uuid>ae9def17-b45b-f9ea-4ff9-ece22c95503e</uuid>

<memory>524288</memory>

<currentMemory>524288</currentMemory>

<vcpu>1</vcpu>

<os>

<type arch='x86\_64'>hvm</type>

<boot dev='cdrom'/>

<boot dev='hd'/>

</os>

<features>

<acpi/><apic/><pae/>

</features>

<clock offset="utc"/>

<on\_poweroff>destroy</on\_poweroff>

<on\_reboot>destroy</on\_reboot>

<on\_crash>destroy</on\_crash>

<devices>

<emulator>/usr/libexec/qemu-kvm</emulator>

<disk type='file' device='disk'>

<driver name='qemu' type='qcow2' cache='none'/>

<source file='/images/test/hadoop3.img'/>

<target dev='vda' bus='virtio'/>

</disk>

<disk type='file' device='cdrom'>

<driver name='qemu'/>

<source file='/images/iso/CentOS-6.5-x86\_64-minimal.iso'/>

<target dev='hdc' bus='ide'/>

<readonly/>

</disk>

<controller type='usb' index='0' model='ich9-ehci1'>

</controller>

<controller type='usb' index='0' model='ich9-uhci1'>

<master startport='0'/>

</controller>

<controller type='usb' index='0' model='ich9-uhci2'>

<master startport='2'/>

</controller>

<controller type='usb' index='0' model='ich9-uhci3'>

<master startport='4'/>

</controller>

<interface type='network'>

<source network='default'/>

<mac address='52:54:00:87:5b:c0'/>

</interface>

<input type='mouse' bus='ps2'/>

<graphics type='vnc' port='5913'/>

<console type='pty'/>

<video>

<model type='cirrus'/>

</video>

</devices>

</domain>

Tue, 02 Feb 2016 14:12:36 DEBUG Generated boot XML:

<domain type='qemu'>

<name>hadoop3</name>

<uuid>ae9def17-b45b-f9ea-4ff9-ece22c95503e</uuid>

<memory>524288</memory>

<currentMemory>524288</currentMemory>

<vcpu>1</vcpu>

<os>

<type arch='x86\_64'>hvm</type>

<boot dev='hd'/>

</os>

<features>

<acpi/><apic/><pae/>

</features>

<clock offset="utc"/>

<on\_poweroff>destroy</on\_poweroff>

<on\_reboot>restart</on\_reboot>

<on\_crash>restart</on\_crash>

<devices>

<emulator>/usr/libexec/qemu-kvm</emulator>

<disk type='file' device='disk'>

<driver name='qemu' type='qcow2' cache='none'/>

<source file='/images/test/hadoop3.img'/>

<target dev='vda' bus='virtio'/>

</disk>

<disk type='block' device='cdrom'>

<target dev='hdc' bus='ide'/>

<readonly/>

</disk>

<controller type='usb' index='0' model='ich9-ehci1'>

</controller>

<controller type='usb' index='0' model='ich9-uhci1'>

<master startport='0'/>

</controller>

<controller type='usb' index='0' model='ich9-uhci2'>

<master startport='2'/>

</controller>

<controller type='usb' index='0' model='ich9-uhci3'>

<master startport='4'/>

</controller>

<interface type='network'>

<source network='default'/>

<mac address='52:54:00:87:5b:c0'/>

</interface>

<input type='mouse' bus='ps2'/>

<graphics type='vnc' port='5913'/>

<console type='pty'/>

<video>

<model type='cirrus'/>

</video>

</devices>

</domain>

Creating domain... | 0 B 00:00

Tue, 02 Feb 2016 14:12:36 DEBUG Started guest, connecting to console if requested

Tue, 02 Feb 2016 14:12:36 DEBUG XML fetched from libvirt object:

<domain type='qemu' id='15'>

<name>hadoop3</name>

<uuid>ae9def17-b45b-f9ea-4ff9-ece22c95503e</uuid>

<memory unit='KiB'>524288</memory>

<currentMemory unit='KiB'>524288</currentMemory>

<vcpu placement='static'>1</vcpu>

<os>

<type arch='x86\_64' machine='rhel6.6.0'>hvm</type>

<boot dev='cdrom'/>

<boot dev='hd'/>

</os>

<features>

<acpi/>

<apic/>

<pae/>

</features>

<clock offset='utc'/>

<on\_poweroff>destroy</on\_poweroff>

<on\_reboot>destroy</on\_reboot>

<on\_crash>destroy</on\_crash>

<devices>

<emulator>/usr/libexec/qemu-kvm</emulator>

<disk type='file' device='disk'>

<driver name='qemu' type='qcow2' cache='none'/>

<source file='/images/test/hadoop3.img'/>

<target dev='vda' bus='virtio'/>

<alias name='virtio-disk0'/>

<address type='pci' domain='0x0000' bus='0x00' slot='0x05' function='0x0'/>

</disk>

<disk type='file' device='cdrom'>

<driver name='qemu' type='raw'/>

<source file='/images/iso/CentOS-6.5-x86\_64-minimal.iso'/>

<target dev='hdc' bus='ide'/>

<readonly/>

<alias name='ide0-1-0'/>

<address type='drive' controller='0' bus='1' target='0' unit='0'/>

</disk>

<controller type='usb' index='0' model='ich9-ehci1'>

<alias name='usb0'/>

<address type='pci' domain='0x0000' bus='0x00' slot='0x04' function='0x7'/>

</controller>

<controller type='usb' index='0' model='ich9-uhci1'>

<alias name='usb0'/>

<master startport='0'/>

<address type='pci' domain='0x0000' bus='0x00' slot='0x04' function='0x0' multifunction='on'/>

</controller>

<controller type='usb' index='0' model='ich9-uhci2'>

<alias name='usb0'/>

<master startport='2'/>

<address type='pci' domain='0x0000' bus='0x00' slot='0x04' function='0x1'/>

</controller>

<controller type='usb' index='0' model='ich9-uhci3'>

<alias name='usb0'/>

<master startport='4'/>

<address type='pci' domain='0x0000' bus='0x00' slot='0x04' function='0x2'/>

</controller>

<controller type='ide' index='0'>

<alias name='ide0'/>

<address type='pci' domain='0x0000' bus='0x00' slot='0x01' function='0x1'/>

</controller>

<interface type='network'>

<mac address='52:54:00:87:5b:c0'/>

<source network='default'/>

<target dev='vnet3'/>

<alias name='net0'/>

<address type='pci' domain='0x0000' bus='0x00' slot='0x03' function='0x0'/>

</interface>

<serial type='pty'>

<source path='/dev/pts/8'/>

<target port='0'/>

<alias name='serial0'/>

</serial>

<console type='pty' tty='/dev/pts/8'>

<source path='/dev/pts/8'/>

<target type='serial' port='0'/>

<alias name='serial0'/>

</console>

<input type='mouse' bus='ps2'/>

<graphics type='vnc' port='5913' autoport='no' listen='127.0.0.1'>

<listen type='address' address='127.0.0.1'/>

</graphics>

<video>

<model type='cirrus' vram='9216' heads='1'/>

<alias name='video0'/>

<address type='pci' domain='0x0000' bus='0x00' slot='0x02' function='0x0'/>

</video>

<memballoon model='virtio'>

<alias name='balloon0'/>

<address type='pci' domain='0x0000' bus='0x00' slot='0x06' function='0x0'/>

</memballoon>

</devices>

</domain>

然后按照提示安装步骤一步步来安装，操作系统的安装省略。

也可以通过VNC使用virt-manager远程进行安装管理

[参数说明]

--name 虚拟机名称

--hvm 使用全虚拟化（与para-irtualization向对），不支持xen hypervisor

--ram 虚拟机内存大小

--vcpus 虚拟机虚拟CPU个数

--disk 虚拟机使用的磁盘（文件）的路径，本例中文件放置在/images/test目录下

--network 网络设置，使用默认设置即可

--vnc 设置连接桌面环境的vnc端口，本例是5911

--cdrom 设置光驱获取虚拟光驱文件的路径 -d 指示从光驱启动（ -c 指示从硬盘启动）我们这里是/images/iso

安装时建议一个来安装，否则会出现报错信息