

系统安装

- 安装系统时请将配置设为CPU:2核 内存≥2G以上, 否则可能导致系统安装不成功
- 系统盘40G
- 全部分配给/; 不需要/boot/swap分区
- 修改时区tzselect
- root密码: 123456

创建系统磁盘40G

```
qemu-img create -f qcow2 Debian_10.2.0_64.qcow2 40G
```

```
[root@localhost Debian_10.2.0_64]# qemu-img create -f qcow2 Debian_10.2.0_64.qcow2 40G
Formatting 'Debian_10.2.0_64.qcow2', fmt=qcow2 size=42949672960 encryption=off cluster_size=65536 lazy_refcounts=off
[root@localhost Debian_10.2.0_64]#
```

生成xml模板文件

```
<domain type = 'kvm'>
<name>Debian_10.2.0_64</name> #虚拟机名称
<memory unit='MiB'>4096</memory> #内存
<currentMemory unit='MiB'>4096</currentMemory>
<vcpu current='4'>64</vcpu> #cpu
<os> #x86_64位操作系
  <type arch = 'x86_64' machine = 'pc'>hvm</type>
统
<boot dev = 'cdrom' /> #第一引导CDROM
<boot dev = 'hd' /> #第二引导磁盘
  </os>
<features>
  <acpi/>
  <apic/>
  <paef/>
</features>
<cpu mode='host-passthrough' check='none' />
<clock offset = 'localtime' />
<on_poweroff>destroy</on_poweroff>
<on_reboot>restart</on_reboot>
<on_crash>destroy</on_crash>
<devices>
  <emulator>/usr/libexec/qemu-kvm</emulator>
  <disk type = 'file' device = 'disk'>
  <driver name = 'qemu' type = 'qcow2' />
  <source file =
'/home/kvm/template/Debian_10.2.0_64/Debian_10.2.0_64.qcow2' />#系统磁盘路径
  <target dev = 'vda' bus = 'virtio' /> #虚拟机磁
  盘vda总线类型virtio
  </disk>

  <disk type = 'file' device = 'cdrom'>
  <driver name = 'qemu' type = 'raw' />
<source file = '/home/kvm/iso/debian-10.2.0-amd64-DVD-3.iso' /> #系统镜像
  <target dev = 'vdb' bus = 'ide' />
```

```

<readonly/>
</disk>

<interface type = 'bridge'>
<source bridge = 'br0'/>
<model type='virtio'/>
<filterref filter='template_firewall_out'>                                #网络过滤器
</filterref>
</interface>

<interface type = 'bridge'>
<source bridge = 'br1'/>
<model type='virtio'/>
<filterref filter='template_firewall_in'>                                #网络过滤器
</filterref>
</interface>
<channel type='unix'>
    <target type='virtio' name='org.qemu.guest_agent.0'/>
</channel>
<input type = 'tablet' bus='usb'/>
<input type = 'mouse' bus = 'ps2'/>
<graphics type = 'vnc' port = '-1' autoport='yes' listen='0.0.0.0'
passwd='123456' keymap='en-us'/>
</devices>
</domain>

```

根据实际情况修改以上配置后定义虚拟机,即可进入开始安装界面,系统安装完成后关机,将cdrom boot 引导关闭,否则会又进入系统安装。

```

[root@localhost Debian_10.2.0_64]# virsh define sys.xml
Domain Debian_10.2.0_64 defined from sys.xml

[root@localhost Debian_10.2.0_64]# virsh start Debian_10.2.0_64
Domain Debian_10.2.0_64 started

```

系统配置

更换apt软件源

系统升级[]apt-get update;apt-get upgrade

安装软件

```

# apt-get install sysstat vim gcc wget iftop nload curl lrzsz dmidcode
screen ntp ntpdate parted lsb-core libcurses-perl libcurses-ui-perl libterm-
readkey-perl sysv-rc-conf eject

```

配置ssh[]添加两行参数

```

# vim /etc/ssh/sshd_config
UseDNS no
AddressFamily inet

```

添加内核优化参数

```
# vim /etc/sysctl.conf
vm.swappiness = 0
net.ipv4.neigh.default.gc_stale_time=120
net.ipv4.conf.all.rp_filter=0
net.ipv4.conf.default.rp_filter=0
net.ipv4.conf.default.arp_announce = 2
net.ipv4.conf.lo.arp_announce=2
net.ipv4.conf.all.arp_announce=2
net.ipv4.tcp_max_tw_buckets = 5000
net.ipv4.tcp_syncookies = 1
net.ipv4.tcp_max_syn_backlog = 1024
net.ipv4.tcp_synack_retries = 2
net.ipv6.conf.all.disable_ipv6 = 1
net.ipv6.conf.default.disable_ipv6 = 1
net.ipv6.conf.lo.disable_ipv6 = 1
```

服务优化

关闭开机自启[ufw]lvm2

添加开机自启[ntp

编辑/etc/fstab[]修改/目录挂载点为/dev/vda1

```
# vim /etc/fstab
/dev/vda1 / ext4 defaults 1 1
```

安装qemu-guest-agent

Ubuntu/Debian: apt-get install qemu-guest-agent

```
[root@localhost ~]# virsh qemu-agent-command Debian 7.5.0_64 '{"execute": "guest-info"}'
[return:{"version":"2.2"},"supported_commands":{"enabled":true,"name":"guest-sync","success_response":true},"enabled":true,"name":"guest-suspend-disk","success_response":false},"enabled":true,"name":"guest-suspend-ram","success_response":false},"enabled":true,"name":"guest-suspend-hybrid","success_response":false},"enabled":true,"name":"guest-suspend-disk","success_response":false},"enabled":true,"name":"guest-set-vcpus","success_response":true},"enabled":true,"name":"guest-set-user-password","success_response":true},"enabled":true,"name":"guest-set-time","success_response":true},"enabled":true,"name":"guest-set-memory-blocks","success_response":true},"enabled":true,"name":"guest-ping","success_response":true},"enabled":true,"name":"guest-network-get-interfaces","success_response":true},"enabled":true,"name":"guest-info","success_response":true},"enabled":true,"name":"guest-get-vcpus","success_response":true},"enabled":true,"name":"guest-get-time","success_response":true},"enabled":true,"name":"guest-get-memory-blocks","success_response":true},"enabled":true,"name":"guest-get-memory-block-info","success_response":true},"enabled":true,"name":"guest-get-fsinfo","success_response":true},"enabled":true,"name":"guest-fstrim","success_response":true},"enabled":true,"name":"guest-fsfreeze-thaw","success_response":true},"enabled":true,"name":"guest-fsfreeze-status","success_response":true},"enabled":true,"name":"guest-fsfreeze-freeze-list","success_response":true},"enabled":true,"name":"guest-fsfreeze-freeze","success_response":true},"enabled":true,"name":"guest-file-write","success_response":true},"enabled":true,"name":"guest-file-peek","success_response":true},"enabled":true,"name":"guest-file-read","success_response":true},"enabled":true,"name":"guest-file-open","success_response":true},"enabled":true,"name":"guest-file-flush","success_response":true},"enabled":true,"name":"guest-file-close","success_response":true},"enabled":true,"name":"guest-axe-status","success_response":true},"enabled":true,"name":"guest-axe","success_response":true}}]
```

安装自动化脚本

脚本下载地址: https://download.apayun.com/zkeys/server/linux_auto.zip

将脚本解压,例如压缩包存放位置为root目录下,解压到root目录

```
unzip /root/linux_auto.zip -d /root/
```

添加执行权限

```
chmod +x /root/*.sh
```

执行脚本

```
sh /root/install.sh
```

删除文件

```
rm -rf /root/vminit.sh
```

请确保/etc/rc.local文件有执行权限, 没有需要加上

系统网卡配置

系统网卡配置文件请删除UUID和HWADDR参数

Ubuntu:

```
root@ubuntu:~# ifconfig -a
ens3      Link encap:Ethernet  HWaddr 52:54:00:d4:ef:32
          BROADCAST MULTICAST  MTU:1500  Metric:1
          RX packets:0 errors:0 dropped:0 overruns:0 frame:0
          TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:0 (0.0 B)  TX bytes:0 (0.0 B)

ens4      Link encap:Ethernet  HWaddr 52:54:00:3c:1e:97
          BROADCAST MULTICAST  MTU:1500  Metric:1
          RX packets:0 errors:0 dropped:0 overruns:0 frame:0
          TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:0 (0.0 B)  TX bytes:0 (0.0 B)

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          UP LOOPBACK RUNNING  MTU:65536  Metric:1
          RX packets:88 errors:0 dropped:0 overruns:0 frame:0
          TX packets:88 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1
          RX bytes:6976 (6.9 KB)  TX bytes:6976 (6.9 KB)

root@ubuntu:~# cat /etc/network/interfaces
# This file describes the network interfaces available on your system
# and how to activate them. For more information, see interfaces(5).

source /etc/network/interfaces.d/*

# The loopback network interface
auto lo
iface lo inet loopback

# The primary network interface
auto ens3
iface ens3 inet static

auto ens4
iface ens4 inet static
root@ubuntu:~# _
```

Debian:

```
# 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
auto eth0
allow-hotplug eth0
iface eth0 inet static

auto eth1
allow-hotplug eth1
iface eth1 inet static
~
~
~
~
~
~
~
~
~
~
"/etc/network/interfaces" 15L, 342C                               13,9                               All
```

清除日志

```
# cd /var/log
# >btmptmp ;>dmesg;>messages ;>wtmptmp
# history -c && history -w && poweroff
```

磁盘文件压缩

```
qemu-img convert -c -O qcow2 /dev/shm/src.qcow2 /home/soft/kvm/dst.qcow2
```