

3.3 Clone

Libvirt library provides useful code included one to clone existing VM. The command line tool clone is included in package virtinst based on libvirt library.

```
# apt-get install virtinst
```

To clone existing VM `tubul1`, first you have to create a virtual disk for VM clone same size as original:

```
# lvdisplay kvm2
...
--- Logical volume ---
LV Name                /dev/kvm2/tubul1
VG Name                kvm2
LV UUID                *****
LV Write Access        read/write
LV Status               available
# open                 0
LV Size                7.81 GiB
Current LE              2000
Segments               1
Allocation              inherit
Read ahead sectors     auto
- currently set to    256
Block device           252:2

# lvcreate -l 2000 -n tubul-clone iscsi2
```

Then you can invoke the command:

```
# virt-clone --original tubul --name tubul-clone --file /dev/mapper/iscsi2-tubul-clone --prompt
```

The new guest `tubul-clone` will be listed in KVM hypervisor and ready to run.

3.4 Backup procedure

If VM virtual disk is KVM based then you can take a live backup using LVM snapshot feature.

The `virt-backup.pl` script from Daniel Berteaud is really a good solution to fully backup a libvirt managed virtual machine.

Download, edit settings for Ubuntu distribution and install required packages:

```
# wget http://repo.firewall-services.com/misc/virt/virt-backup.pl
# chmod +x virt-backup.pl

# nano -w virt-backup.pl

# lvcreate path
- $opts{lvcreate} = '/usr/sbin/lvcreate -c 512';
+ $opts{lvcreate} = '/sbin/lvcreate -c 512';
# lvremove path
- $opts{lvremove} = '/usr/sbin/lvremove';
+ $opts{lvremove} = '/sbin/lvremove';

# apt-get install libxml-simple-perl libsys-virt-perl libfile-which-perl
```

Define a partition for backup:

```
# lvcreate -l 3000 -n backup iscsi2
# mkfs.ext4 /dev/iscsi2/backup
# mount /dev/mapper/iscsi2-backup /var/lib/libvirt/backup
```