NAME

virt-clone − clone existing virtual machine images

SYNOPSIS

virt−clone [OPTION]...

DESCRIPTION

virt−clone is a command line tool for cloning existing virtual machine images using the **libvirt** hypervisor management library. It will copy the disk images of any existing virtual machine, and define a new guest with an identical virtual hardware configuration. Elements which require uniqueness will be updated to avoid a clash between old and new guests.

By default, virt−clone will show an error if the necessary information to clone the guest is not provided. The −−auto−clone option will generate all needed input, aside from the source guest to clone.

Please note, virt−clone does not change anything _inside_ the guest OS, it only duplicates disks and does host side changes. So things like changing passwords, changing static IP address, etc are outside the scope of this tool. For these types of changes, please see **virt−sysprep**.

GENERAL OPTIONS

Most options are not required. Minimum requirements are −−original or −−original−xml (to specify the guest to clone), −−name, and appropriate storage options via −file.

−−connect URI

Connect to a non−default hypervisor. See virt−install(1) for details

−o, −−original ORIGINAL_GUEST

Name of the original guest to be cloned. This guest must be shut off.

−−original−xml ORIGINAL_XML

Libvirt guest xml file to use as the original guest. The guest does not need to be defined on the libvirt connection. This takes the place of the **−−original** parameter.

−−auto−clone

Generate a new guest name, and paths for new storage.

An example of possible generated output:

```
Original name        : MyVM
Generated clone name : MyVM−clone

Original disk path   : /home/user/foobar.img
Generated disk path  : /home/user/foobar−clone.img
```

If generated names collide with existing VMs or storage, a number is appended, such as foobar−clone−1.img, or MyVM−clone−3.

−n, −−name NAME

Name of the new guest virtual machine instance. This must be unique amongst all guests known to the hypervisor connection, including those not currently active.

−u, −−uuid UUID

UUID for the guest; if none is given a random UUID will be generated. If you specify UUID, you should use a 32−digit hexadecimal number. UUID are intended to be unique across the entire data center, and indeed world. Bear this in mind if manually specifying a UUID

−f, −−file PATH

Path to the file, disk partition, or logical volume to use as the backing store for the new guest's virtual disk. If the original guest has multiple disks, this parameter must be repeated multiple times, once per disk in the original virtual machine.

−−nvram NVRAMFILE
Optional path to the new nvram VARS file, if no path is specified and the guest has nvram the new nvram path will be auto−generated. If the guest doesn't have nvram this option will be ignored.

−−force−copy TARGET
Force cloning the passed disk target ('hdc', 'sda', etc.). By default, **virt−clone** will skip certain disks, such as those marked 'readonly' or 'shareable'.

−−skip−copy TARGET
Skip cloning the passed disk target ('hdc', 'sda', etc.). By default, **virt−clone** will clone certain disk images, typically read/write devices. Use this to skip copying of a specific device, so the new VM uses the same storage path as the original VM.

−−nonsparse
Fully allocate the new storage if the path being cloned is a sparse file. See virt−install(1) for more details on sparse vs. nonsparse.

−−preserve−data
No storage is cloned: disk images specific by −−file are preserved as is, and referenced in the new clone XML. This is useful if you want to clone a VM XML template, but not the storage contents.

−−reflink
When −−reflink is specified, perform a lightweight copy. This is much faster if source images and destination images are all on the same btrfs filesystem. If COW copy is not possible, then virt−clone fails.

−m, −−mac MAC
Fixed MAC address for the guest; If this parameter is omitted, or the value **RANDOM** is specified a suitable address will be randomly generated. Addresses are applied sequentially to the networks as they are listed in the original guest XML.

−−print−xml
Print the generated clone XML and exit without cloning.

−−replace
Shutdown and remove any existing guest with the passed **−−name** before cloning the original guest.

−h, −−help
Show the help message and exit

−−version
Show program's version number and exit

−−check
Enable or disable some validation checks. See virt−install(1) for more details.

−q, −−quiet
Suppress non−error output.

−d, −−debug
Print debugging information to the terminal when running the install process. The debugging information is also stored in **~/.cache/virt−manager/virt−clone.log** even if this parameter is omitted.

EXAMPLES

Clone the guest called **demo** on the default connection, auto generating a new name and disk clone path.

```
# virt-clone \
     --original demo \
     --auto-clone
```

Clone the guest called **demo** which has a single disk to copy

```
# virt-clone \
     --original demo \
     --name newdemo \
     --file /var/lib/xen/images/newdemo.img
```

Clone a QEMU guest with multiple disks

```
# virt-clone \
     --connect qemu:///system \
     --original demo \
     --name newdemo \
     --file /var/lib/xen/images/newdemo.img \
     --file /var/lib/xen/images/newdata.img
```

Clone a guest to a physical device which is at least as big as the original guests disks. If the destination device is bigger, the new guest can do a filesystem resize when it boots.

```
# virt-clone \
     --connect qemu:///system \
     --original demo \
     --name newdemo \
     --file /dev/HostVG/DemoVM \
     --mac 52:54:00:34:11:54
```

BUGS

Please see *https://virt-manager.org/bugs*

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SEE ALSO

virt-sysprep(1), **virsh(1)**, **virt-install(1)**, **virt-manager(1)**, the project website *https://virt-manager.org*