

Creating A Backup Of A VM

(This chapter is for server1 only!)

On server1.example.com, I want to create a backup of my VM with the VEID 102. Take a look at

`man vzdump`

to learn how to use vzdump.

To back up all VMs on your server, you'd use something like

```
vzdump --compress --dumpdir /home/backup --stop --all
```

`--compress` means: compress the dump file (results in a .tgz).

`--dumpdir` specifies the directory in which you want to store the dump. If you don't specify a `dumpdir`, it defaults to `/vz/dump` or `/var/lib/vz/dump` (depends on your distribution).

`--stop` stops the VM, creates the backup, and starts it again afterwards. Your VM can be down a few minutes if you use `--stop`. A faster solution would be to use...

`--suspend`: it suspends the VM; the VM is then copied via `rsync` to a temporary directory. The VM gets resumed right afterwards so that it's down only a few seconds, and then the dump is created using the copy in the temporary directory. I recommend to use this one if you can't afford long downtimes.

Clone/Back Up/Restore OpenVZ VMs With vzdump

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You can as well leave out `--stop` and `--suspend` and dump a running VM. In most cases this makes no problem, but it is possible that the dump is inconsistent, so be warned!

`--all` creates a dump of all available VMs. If you want to dump only a specific VM, replace `--all` with the VEID of the VM.

To create a dump of our VM 102 in `/home/backup` and stop the VM during the backup, use

```
vzdump --compress --dumpdir /home/backup --stop 102
```

To create a dump in the default directory (`/vz/dump` or `/var/lib/vz/dump`), use

```
vzdump --compress --stop 102
```

The output could look as follows:

```
server1:/vz/dump# vzdump --compress --stop 102
INFO: starting backup for VPS 102 (/var/lib/vz/private/102)
INFO: starting first sync /var/lib/vz/private/102 to /var/lib/vz/dump/tmp9009
INFO: stopping vps
Stopping container ...
Container was stopped
Container is unmounted
INFO: final sync /var/lib/vz/private/102 to /var/lib/vz/dump/tmp9009
INFO: restarting vps
Starting container ...
Container is mounted
Adding IP address(es): 192.168.0.102
```

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Saturday, 02 February 2013 19:00 -

```
Setting CPU units: 1000
Configure meminfo: 65536
Set hostname: test.example.com
File resolv.conf was modified
Container start in progress...
INFO: vps is online again after 15 seconds
INFO: Creating archive '/var/lib/vz/dump/vzdump-102.tgz' (/var/lib/vz/dump/tmp9009/102)
Total bytes written: 340428800 (325MiB, 11MiB/s)
INFO: backup for VPS 102 finished successful (1.37 minutes)
server1:/vz/dump#
```

To not stop, but suspend the VM, use

```
vzdump --compress --suspend 102
```

This is a sample output:

```
server1:~# vzdump --compress --suspend 102
INFO: starting backup for VPS 102 (/var/lib/vz/private/102)
INFO: starting first sync /var/lib/vz/private/102 to /var/lib/vz/dump/tmp10842
INFO: suspend vps
Setting up checkpoint...
suspend...
get context...
Checkpointing completed successfully
INFO: final sync /var/lib/vz/private/102 to /var/lib/vz/dump/tmp10842
INFO: resume vps
Resuming...
INFO: vps is online again after 4 seconds
INFO: Creating archive '/var/lib/vz/dump/vzdump-102.tgz'
(/var/lib/vz/dump/tmp10842/102)
Total bytes written: 340428800 (325MiB, 24MiB/s)
INFO: backup for VPS 102 finished successful (1.57 minutes)
server1:~#
```

After the backup, take a look at the dump directory...

Clone/Back Up/Restore OpenVZ VMs With vzdump

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Saturday, 02 February 2013 19:00 -

```
ls -l /vz/dump/
```

... and you should see a .tgz file:

```
server1:~# ls -l /vz/dump/
total 147864
-rw-r--r-- 1 root root 1170 2008-11-20 17:40 vzdump-102.log
-rw-r--r-- 1 root root 151249685 2008-11-20 17:40 vzdump-102.tgz
server1:~#
```

You can now copy the dump to the other OpenVZ server, e.g. with scp (this copies /vz/dump/vzdump-102.tgz to the /home directory on server2.example.com):

```
scp /vz/dump/vzdump-102.tgz root@192.168.0.101:/home
```

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Restoring A VM

(This chapter is for server2 only!)

On server2.example.com, you can now restore the VM as follows...

```
vzdump --restore /home/vzdump-102.tgz 250
```

Clone/Back Up/Restore OpenVZ VMs With vzdump

Written by sdx

Saturday, 02 February 2013 19:00 -

... where 250 is the new VEID of the restored VM - you can use any VEID that is unused on server2.example.com

- you could even use

102

again if it is unused on server2.example.com

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If you don't want to modify the settings of the VM (e.g. IP address, hostname), you can start it now, but please make sure that the original VM is stopped on server1.example.com because otherwise the IP addresses conflict:

```
vzctl start 250
```

If you want to run both VMs (the original one and the clone) at the same time, you must change the IP address and hostname of the clone before you start it.

To set a new hostname, run something like this:

```
vzctl set 250 --hostname test2.example.com --save
```

To set a new IP address, we must first delete the original one...

```
vzctl set 250 --ipdel 192.168.0.102 --save
```

... and then set a new one:

Clone/Back Up/Restore OpenVZ VMs With vzdump

Written by sdx

Saturday, 02 February 2013 19:00 -

```
vzctl set 250 --ipadd 192.168.0.250 --save
```

Afterwards we can start the clone:

```
vzctl start 250
```