

Curiosity killed the cat

System administration, virtualization, and technology

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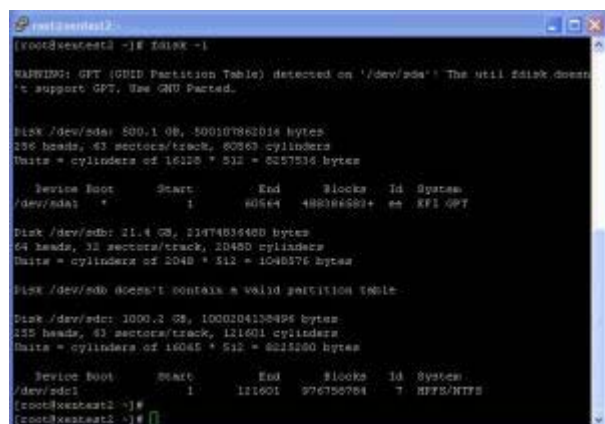
October 23, 2013

Reading and Writing on a NTFS USB Drive attached on a Citrix Xenserver 6.2

2 Comments

~~Sometimes you don't want to backup your VMs (about USB drives) easily carry them away or because there is not enough space on your NFS/CIFS storage. So the question is, how to mount an external NTFS (<http://en.wikipedia.org/wiki/NTFS>) USB drive on Xenserver with read/write permissions.~~

First of all ssh to your xenserver and type in the `fdisk -l` command.



```

root@xenast1:~# fdisk -l
WARNING: GPT (GUID Partition Table) detected on '/dev/sda': The util fdisk doesn't support GPT. Use GNU Parted.

Disk /dev/sda: 500.1 GB, 500107862016 bytes
256 heads, 63 sectors/track, 60869 cylinders
Units = cylinders of 16128 * 512 = 8257536 bytes

   Device Boot      Start         End      Blocks   Id  System
/dev/sda1   *           1       60869     48838656+   ee   EFI GPT

Disk /dev/sdb: 31.4 GB, 31474816480 bytes
64 heads, 32 sectors/track, 20480 cylinders
Units = cylinders of 2048 * 512 = 1048576 bytes

Disk /dev/sdb doesn't contain a valid partition table.

Disk /dev/sdc: 1000.2 GB, 1000204138496 bytes
256 heads, 63 sectors/track, 121601 cylinders
Units = cylinders of 16065 * 512 = 8212100 bytes

   Device Boot      Start         End      Blocks   Id  System
/dev/sdc1           1      121601     976756704   7  NTFS/NTFS
root@xenast1:~#

```

(<http://nchrissos.files.wordpress.com/2013/10/fdisk.jpg>)

Fdisk command output

`fdisk` shows the disks that xenserver knows about. Notice that the device name of the usb drive is `/dev/sdc` and its first partition is `/dev/sdc1`. If you try to mount the device, for example let's create a usb directory and mount the drive on it:

```
mkdir /mnt/usb
```

```
mount -t ntfs /dev/sdc1 /mnt/usb
```

The problem is that xenserver supports only read access on NTFS formatted drives. So you may read anything or restore VMs under the `/mnt/usb` directory, but you cannot write any file including your backups. Let's try to import a backup file.

```
xe vm-import filename='/mnt/usb/myBackupFile.xva'
```

If your drive is ext3 formatted, you will be able to mount it in read/write mode, but it will be difficult to mount it on a windows machine. We need to install to xenserver the appropriate [NTFS-3G](http://en.wikipedia.org/wiki/NTFS-3G) (<http://en.wikipedia.org/wiki/NTFS-3G>) driver to be able to have write permission as well. Ok, let's first unmount (http://en.wikipedia.org/wiki/Mount_%28computing%29) to USB drive.

```
umount /mnt/usb
```

The following is a summary of information from various pages regarding the installation of NTFS-3G drivers on xenserver and I successfully installed it on a xenserver 6.2.

First we need to download rpmforge (<http://en.wikipedia.org/wiki/RPMforge>) package for CentOS (<http://en.wikipedia.org/wiki/CentOS>) 5. More info at [this page](http://wiki.centos.org/AdditionalResources/Repositories/RPMForge) (<http://wiki.centos.org/AdditionalResources/Repositories/RPMForge>).

```
wget http://packages.sw.be/rpmforge-release/rpmforge-release-0.5.2-2.el5.rf.i386.rpm
(http://packages.sw.be/rpmforge-release/rpmforge-release-0.5.2-2.el5.rf.i386.rpm)
```

Install DAG's [GPG](http://en.wikipedia.org/wiki/GNU_Privacy_Guard) (http://en.wikipedia.org/wiki/GNU_Privacy_Guard) key

```
rpm --import http://apt.sw.be/RPM-GPG-KEY.dag.txt (http://apt.sw.be/RPM-GPG-KEY.dag.txt)
```

Verify the package

```
rpm -K rpmforge-release-0.5.2-2.el5.rf.i386.rpm
```

Install it

```
rpm -i rpmforge-release-0.5.2-2.el5.rf.i386.rpm
```

Disable it by changing the following flag: enabled = 1 to enabled = 0 in the following file

```
vi /etc/yum.repos.d/rpmforge.repo
```

Install the library/driver

```
yum --enablerepo=rpmforge --enablerepo=base install fuse-sshfs
```

```
yum --enablerepo=rpmforge install ntfs-3g
```

Finally mount the USB drive

```
mount -t ntfs-3g /dev/sdc1 /mnt/usb
```

Now the usb drive is NTFS writeable. Don't forget to unmount the drive by issuing the umount command

```
umount /mnt/usb
```

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Posted by [Nikos Chrissostomidis](#) in [Configuration](#)
Tagged: [CentOS](#), [NTFS](#), [NTFS-3G](#), [USB](#), [Xenserver](#)

2 thoughts on “Reading and Writing on a NTFS USB Drive attached on a Citrix Xenserver 6.2”

1. **xian** *says:*

April 11, 2014 at 1:41 am

Nice Post, is it possible to attach this usb (NTFS) to a VM running on XenServer without losing everything on the usb disk

Reply

- **Nikos Chrissostomidis** *says:*

April 17, 2014 at 1:03 pm

Hi there, you can attach a ntfs USB drive on a vm without losing data. You need to add the attached drive on the vm via xenCenter.

Reply

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