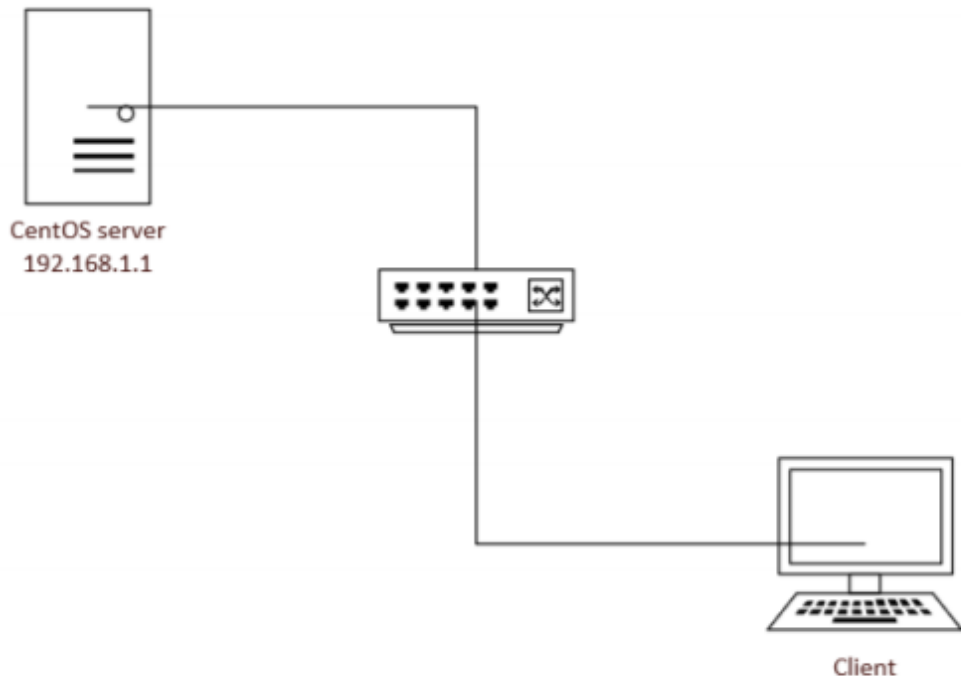


Quản trị mạng: Bài tập Thực hành Tuần 8

Phan Đồng Thiên Long- DCT1185



Trên CentOS server hãy cấu hình: Cấp

DHCP cho các máy client dãy địa chỉ 192.168.1.0/24

Hãy gắn thêm 3 ổ đĩa, mỗi ổ đĩa 20GB.













Chọn 1 ổ đĩa vật lý, hãy cấu hình 1 ổ đĩa primary partition với dung lượng 10GB. Hãy format với cấu hình ext3.

Các phần còn lại cấu hình extend partition. Sau đó hãy cấu hình thành các logic drive. Từ logic drive, hãy cấu hình logical volume. Với dung lượng là tất cả ổ đĩa còn lại hiện có.

Hãy thực hiện chia sẻ ổ đĩa vừa tạo cho client.

Trên client, hãy kiểm tra lại việc chia sẻ ổ đĩa vừa tạo trên CentOS

- Tạo 3 ổ đĩa mới trong cài đặt của máy ảo, mỗi ổ đĩa 20GB

Device	Summary
 Memory	1 GB
 Processors	1
 Hard Disk (SCSI)	20 GB
 New Hard Disk (SCSI)	20 GB
 New Hard Disk (SCSI)	20 GB
 New Hard Disk (SCSI)	20 GB
 CD/DVD (IDE)	Using file D:\HDH\CentOS-7-...
 Network Adapter	Custom (VMnet2)
 USB Controller	Present
 Sound Card	Auto detect
 Serial Port	Using named pipe \\.\pipe\g...
 Display	Auto detect

- Kiểm tra các ổ đĩa đã thêm trong CentOS

```
long@dns:/home/long
File Edit View Search Terminal Help

Disk /dev/sda: 21.5 GB, 21474836480 bytes, 41943040 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk label type: dos
Disk identifier: 0x000c9ff7

   Device Boot      Start         End      Blocks   Id  System
/dev/sda1  *        2048     2099199     1048576    83   Linux
/dev/sda2                2099200     41943039     19921920    8e   Linux LVM

Disk /dev/sdb: 21.5 GB, 21474836480 bytes, 41943040 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk /dev/sdc: 21.5 GB, 21474836480 bytes, 41943040 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes

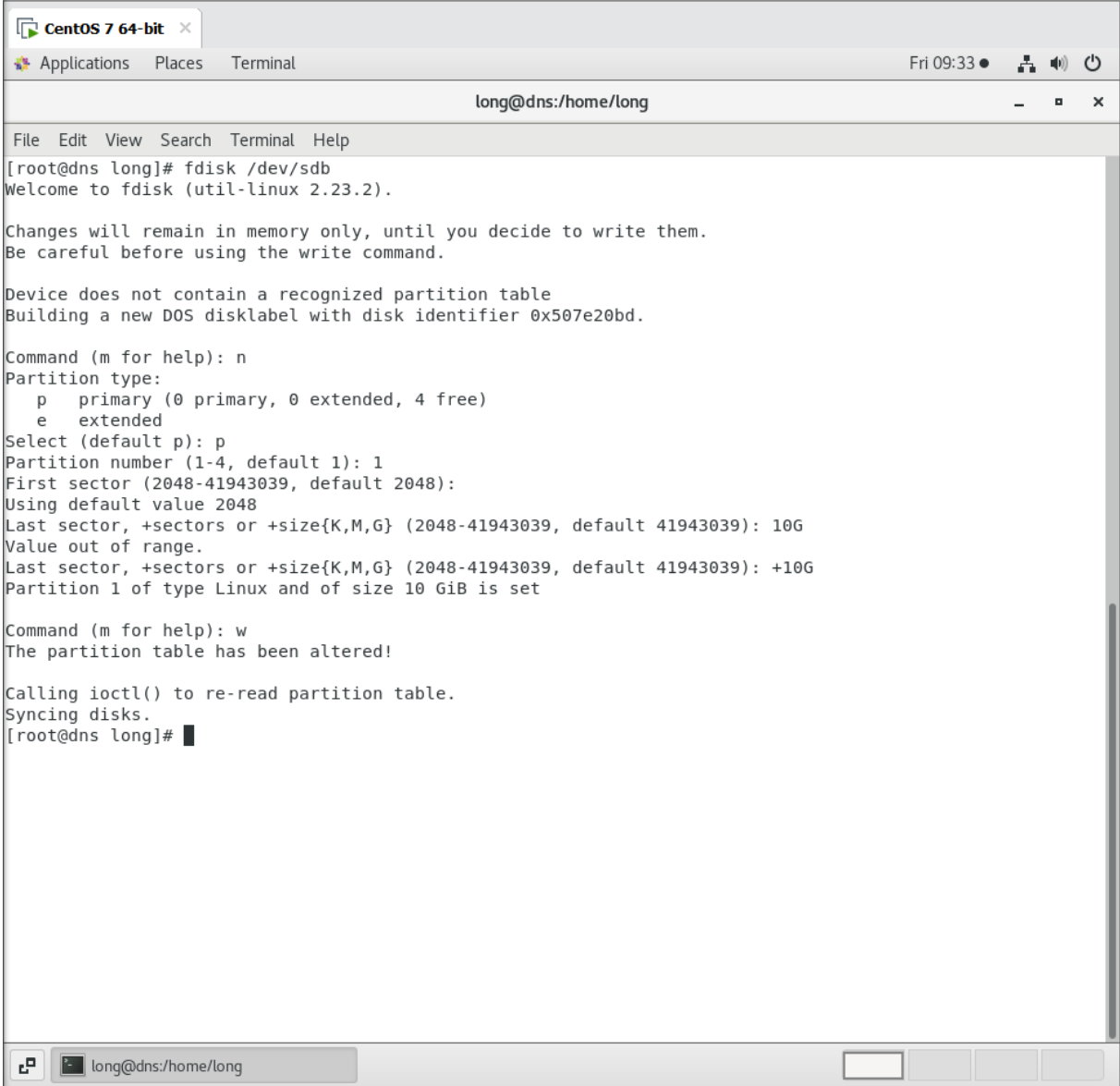
Disk /dev/sdd: 21.5 GB, 21474836480 bytes, 41943040 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk /dev/mapper/centos-root: 18.2 GB, 18249416704 bytes, 35643392 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk /dev/mapper/centos-swap: 2147 MB, 2147483648 bytes, 4194304 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes

[root@dns long]#
```

- Chọn ổ đĩa sdb, cấu hình primary partition với dung lượng 10GB và lưu lại



```
CentOS 7 64-bit x
Applications Places Terminal
Fri 09:33
long@dns:/home/long

File Edit View Search Terminal Help
[root@dns long]# fdisk /dev/sdb
Welcome to fdisk (util-linux 2.23.2).

Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.

Device does not contain a recognized partition table
Building a new DOS disklabel with disk identifier 0x507e20bd.

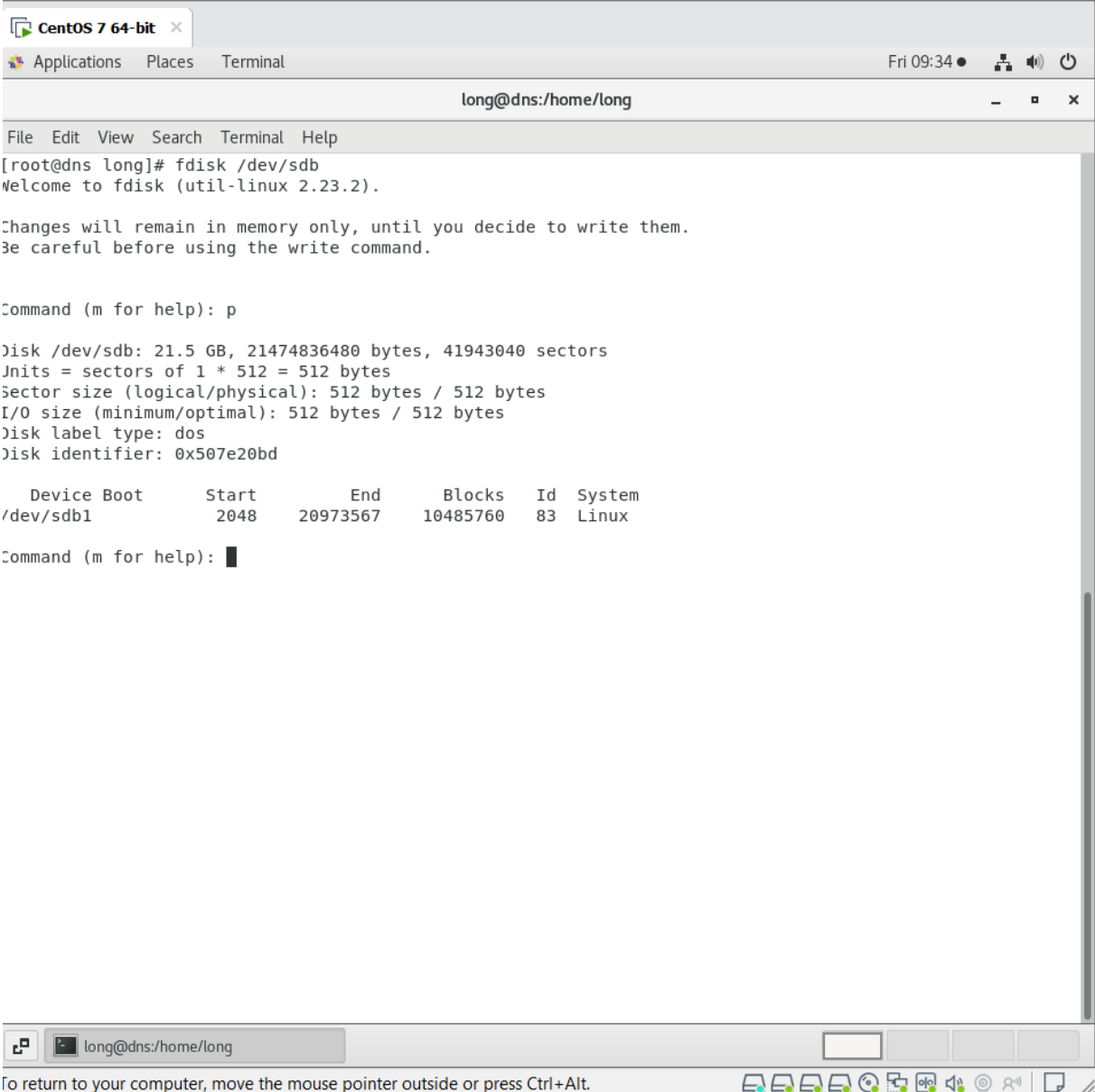
Command (m for help): n
Partition type:
   p   primary (0 primary, 0 extended, 4 free)
   e   extended
Select (default p): p
Partition number (1-4, default 1): 1
First sector (2048-41943039, default 2048):
Using default value 2048
Last sector, +sectors or +size{K,M,G} (2048-41943039, default 41943039): 10G
Value out of range.
Last sector, +sectors or +size{K,M,G} (2048-41943039, default 41943039): +10G
Partition 1 of type Linux and of size 10 GiB is set

Command (m for help): w
The partition table has been altered!

Calling ioctl() to re-read partition table.
Syncing disks.
[root@dns long]#
```

To direct input to this VM, move the mouse pointer inside or press Ctrl+G.

- Kiểm tra thông tin mới của ổ đĩa sdb



```
CentOS 7 64-bit x
Applications Places Terminal Fri 09:34
long@dns:/home/long
File Edit View Search Terminal Help
[root@dns long]# fdisk /dev/sdb
Welcome to fdisk (util-linux 2.23.2).

Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.

Command (m for help): p

Disk /dev/sdb: 21.5 GB, 21474836480 bytes, 41943040 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk label type: dos
Disk identifier: 0x507e20bd

   Device Boot      Start         End      Blocks    Id  System
/dev/sdb1             2048       20973567       10485760    83   Linux

Command (m for help): █
```

To return to your computer, move the mouse pointer outside or press Ctrl+Alt.

- Cấu hình extend partition cho ổ sdc

```
long@dns:/home/long
File Edit View Search Terminal Help

Device does not contain a recognized partition table
Building a new DOS disklabel with disk identifier 0x67aad279.

Command (m for help): n
Partition type:
   p   primary (0 primary, 0 extended, 4 free)
   e   extended
Select (default p): e
Partition number (1-4, default 1): 1
First sector (2048-41943039, default 2048):
Using default value 2048
Last sector, +sectors or +size{K,M,G} (2048-41943039, default 41943039):
Using default value 41943039
Partition 1 of type Extended and of size 20 GiB is set

Command (m for help): n
Partition type:
   p   primary (0 primary, 1 extended, 3 free)
   l   logical (numbered from 5)
Select (default p): l
Adding logical partition 5
First sector (4096-41943039, default 4096):
Using default value 4096
Last sector, +sectors or +size{K,M,G} (4096-41943039, default 41943039): +2048M
Partition 5 of type Linux and of size 2 GiB is set

Command (m for help): p

Disk /dev/sdc: 21.5 GB, 21474836480 bytes, 41943040 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk label type: dos
Disk identifier: 0x67aad279

   Device Boot      Start         End      Blocks   Id  System
/dev/sdc1            2048       41943039    20970496    5   Extended
/dev/sdc5            4096       4198399      2097152   83    Linux

Command (m for help): w
The partition table has been altered!
```

long@dns:/home/long

To return to your computer, move the mouse pointer outside or press Ctrl+Alt.

- Cấu hình extend partition cho ổ sdd

```
long@dns:/home/long
File Edit View Search Terminal Help

Device does not contain a recognized partition table
Building a new DOS disklabel with disk identifier 0x24386b4d.

Command (m for help): n
Partition type:
   p   primary (0 primary, 0 extended, 4 free)
   e   extended
Select (default p): e
Partition number (1-4, default 1):
First sector (2048-41943039, default 2048):
Using default value 2048
Last sector, +sectors or +size{K,M,G} (2048-41943039, default 41943039):
Using default value 41943039
Partition 1 of type Extended and of size 20 GiB is set

Command (m for help): n
Partition type:
   p   primary (0 primary, 1 extended, 3 free)
   l   logical (numbered from 5)
Select (default p): l
Adding logical partition 5
First sector (4096-41943039, default 4096):
Using default value 4096
Last sector, +sectors or +size{K,M,G} (4096-41943039, default 41943039): +2048M
Partition 5 of type Linux and of size 2 GiB is set

Command (m for help): p

Disk /dev/sdd: 21.5 GB, 21474836480 bytes, 41943040 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk label type: dos
Disk identifier: 0x24386b4d

   Device Boot      Start         End      Blocks   Id  System
/dev/sdd1            2048       41943039    20970496    5   Extended
/dev/sdd5            4096       4198399      2097152   83    Linux

Command (m for help): w
The partition table has been altered!
```

long@dns:/home/long

To return to your computer, move the mouse pointer outside or press Ctrl+Alt.

- Chuyển đổi logical drive của sdc và sdd thành LVM

Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.

Command (m for help): p

Disk /dev/sdc: 21.5 GB, 21474836480 bytes, 41943040 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk label type: dos
Disk identifier: 0x67aad279

Device	Boot	Start	End	Blocks	Id	System
/dev/sdc1		2048	41943039	20970496	5	Extended
/dev/sdc5		4096	4198399	2097152	83	Linux

Command (m for help): t
Partition number (1,5, default 5):
Hex code (type L to list all codes): 8e
Changed type of partition 'Linux' to 'Linux LVM'

Command (m for help): p

Disk /dev/sdc: 21.5 GB, 21474836480 bytes, 41943040 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk label type: dos
Disk identifier: 0x67aad279

Device	Boot	Start	End	Blocks	Id	System
/dev/sdc1		2048	41943039	20970496	5	Extended
/dev/sdc5		4096	4198399	2097152	8e	Linux LVM

Command (m for help): w
The partition table has been altered!

Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.

Command (m for help): p

Disk /dev/sdd: 21.5 GB, 21474836480 bytes, 41943040 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk label type: dos
Disk identifier: 0x24386b4d

Device	Boot	Start	End	Blocks	Id	System
/dev/sdd1		2048	41943039	20970496	5	Extended
/dev/sdd5		4096	4198399	2097152	83	Linux

Command (m for help): t
Partition number (1,5, default 5):
Hex code (type L to list all codes): 8e
Changed type of partition 'Linux' to 'Linux LVM'

Command (m for help): p

Disk /dev/sdd: 21.5 GB, 21474836480 bytes, 41943040 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk label type: dos
Disk identifier: 0x24386b4d

Device	Boot	Start	End	Blocks	Id	System
/dev/sdd1		2048	41943039	20970496	5	Extended
/dev/sdd5		4096	4198399	2097152	8e	Linux LVM

Command (m for help): w
The partition table has been altered!

- Tạo logical volume:

- Tạo Physical Volume sdc5 và sdd5
- Tạo Volume Group chứa 2 Physical Volume trên
- Tạo 2 Logical Volume cho Volume Group trên

```
long@dns:/home/long
File Edit View Search Terminal Help
[root@dns long]# pvcreate /dev/sdc5
Physical volume "/dev/sdc5" successfully created.
[root@dns long]# pvcreate /dev/sdd5
Physical volume "/dev/sdd5" successfully created.
[root@dns long]# vgcreate VolumeA /dev/sdc5 /dev/sdd5
Volume group "VolumeA" successfully created
[root@dns long]# lvcreate -L 2048M -n LV0 VolumeA
Logical volume "LV0" created.
[root@dns long]# lvcreate -L 1024M -n LV1 VolumeA
Logical volume "LV1" created.
[root@dns long]#
```

- Định dạng Logical Volume là ext3

```
long@dns:/home/long
File Edit View Search Terminal Help
[root@dns long]# mkfs -t ext3 /dev/VolumeA/LV0
mke2fs 1.42.9 (28-Dec-2013)
Filesystem label=
OS type: Linux
Block size=4096 (log=2)
Fragment size=4096 (log=2)
Stride=0 blocks, Stripe width=0 blocks
131072 inodes, 524288 blocks
26214 blocks (5.00%) reserved for the super user
First data block=0
Maximum filesystem blocks=536870912
16 block groups
32768 blocks per group, 32768 fragments per group
8192 inodes per group
Superblock backups stored on blocks:
    32768, 98304, 163840, 229376, 294912

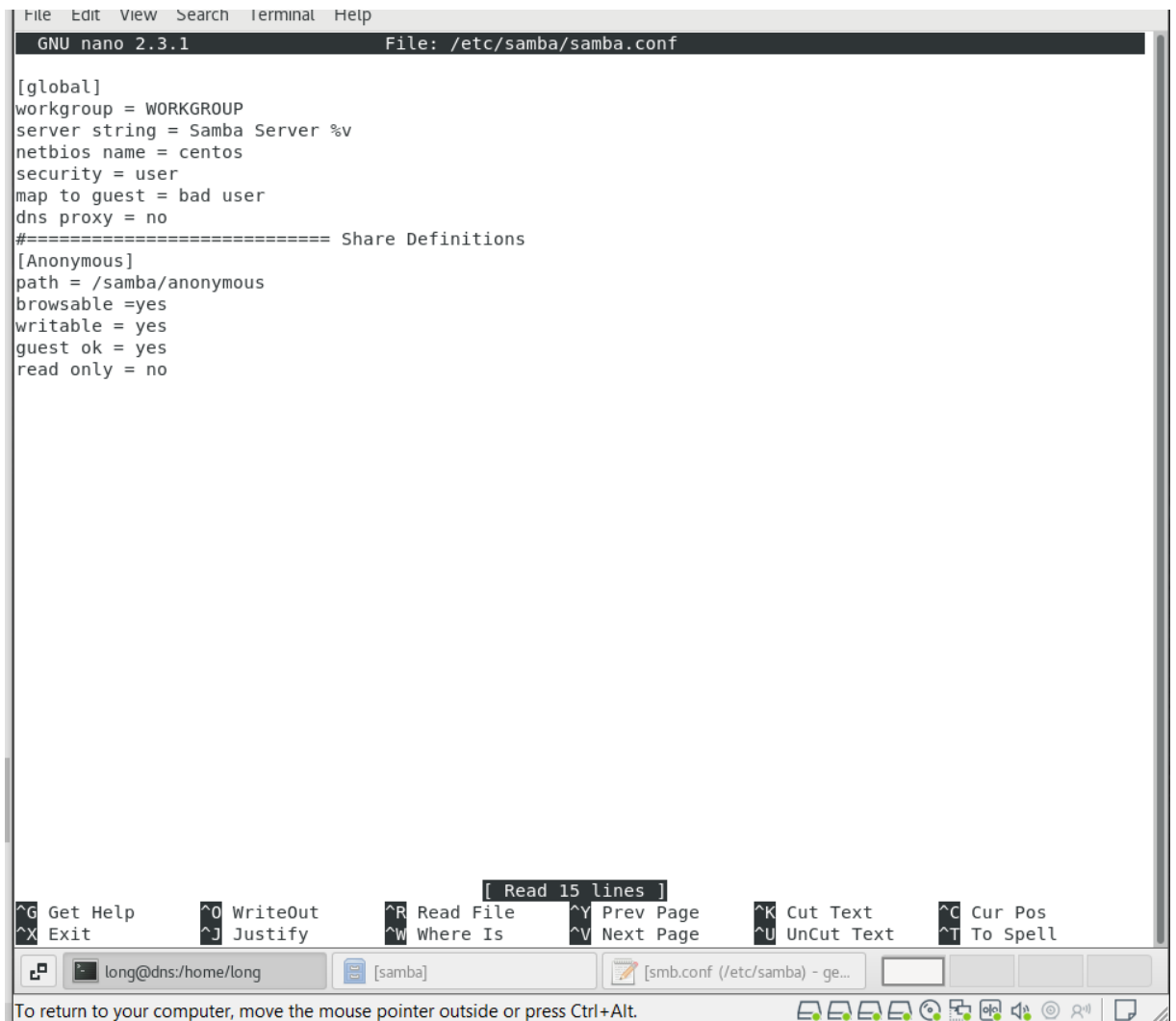
Allocating group tables: done
Writing inode tables: done
Creating journal (16384 blocks): done
Writing superblocks and filesystem accounting information: done

[root@dns long]# mkfs -t ext3 /dev/VolumeA/LV1
mke2fs 1.42.9 (28-Dec-2013)
Filesystem label=
OS type: Linux
Block size=4096 (log=2)
Fragment size=4096 (log=2)
Stride=0 blocks, Stripe width=0 blocks
65536 inodes, 262144 blocks
13107 blocks (5.00%) reserved for the super user
First data block=0
Maximum filesystem blocks=268435456
8 block groups
32768 blocks per group, 32768 fragments per group
8192 inodes per group
Superblock backups stored on blocks:
    32768, 98304, 163840, 229376

Allocating group tables: done
Writing inode tables: done
Creating journal (8192 blocks): done
Writing superblocks and filesystem accounting information: done
```


- Cài đặt chia sẻ

▪ Cấu hình Samba



```
File Edit View Search Terminal Help
GNU nano 2.3.1 File: /etc/samba/samba.conf

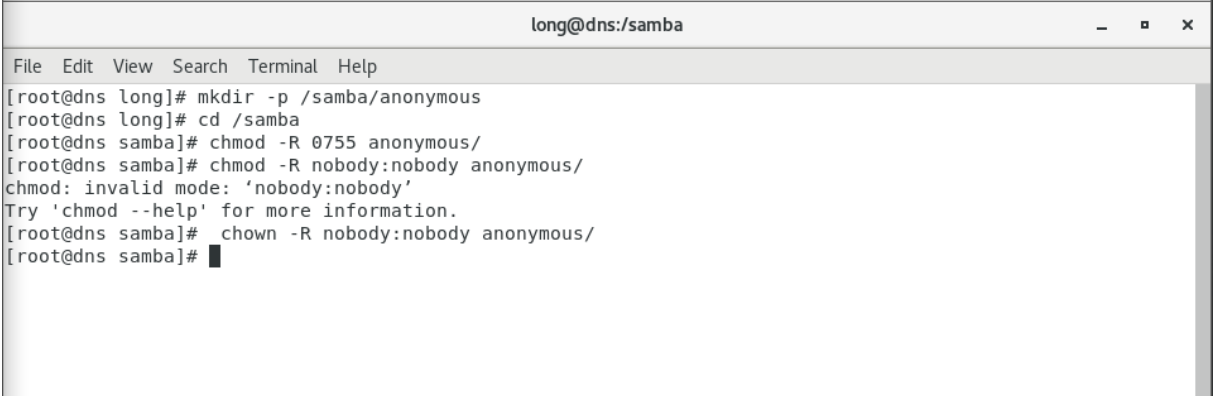
[global]
workgroup = WORKGROUP
server string = Samba Server %v
netbios name = centos
security = user
map to guest = bad user
dns proxy = no
#===== Share Definitions
[Anonymous]
path = /samba/anonymous
browsable = yes
writable = yes
guest ok = yes
read only = no

[ Read 15 lines ]
^G Get Help      ^O WriteOut      ^R Read File     ^Y Prev Page     ^K Cut Text      ^C Cur Pos
^X Exit          ^J Justify       ^W Where Is     ^V Next Page     ^U UnCut Text    ^T To Spell

long@dns:/home/long [samba] [smb.conf (/etc/samba) - ge...]
```

To return to your computer, move the mouse pointer outside or press Ctrl+Alt.

- Tạo folder /samba/anonymous dùng để chia sẻ, gán quyền sở hữu cho “nobody”



```
long@dns:/samba
File Edit View Search Terminal Help
[root@dns long]# mkdir -p /samba/anonymous
[root@dns long]# cd /samba
[root@dns samba]# chmod -R 0755 anonymous/
[root@dns samba]# chmod -R nobody:nobody anonymous/
chmod: invalid mode: 'nobody:nobody'
Try 'chmod --help' for more information.
[root@dns samba]# chown -R nobody:nobody anonymous/
[root@dns samba]#
```

- Mount VolumeA (logical volume vừa tạo) vào folder đã chia sẻ



```
[root@dns samba]# mount /dev/VolumeA/LV0 /samba/anonymous/
[root@dns samba]#
```

- Kiểm tra việc chia sẻ ổ đĩa, với client Windows 7

