iscsi 网络磁盘

环境调整

```
[root@server0 ~]# firewall-cmd --set-default-zone=trusted
success
```

```
[root@desktop0 ~]# firewall-cmd --set-default-zone=trusted
success
```

服务端创建新的分区

```
[root@server0 ~]# lsblk
NAME   MAJ:MIN RM SIZE RO TYPE MOUNTPOINT
vda    253:0    0  10G  0 disk
└─vda1 253:1    0  10G  0 part /
vdb    253:16   0  10G  0 disk
[root@server0 ~]# fdisk /dev/vdb
欢迎使用 fdisk (util-linux 2.23.2)。
```

```
Last 扇区, +扇区 or +size{K,M,G} (2048-20971519, 默认为 20971519) : +3G
分区 1 已设置为 Linux 类型, 大小设为 3 GiB

命令(输入 m 获取帮助) : w
The partition table has been altered!
```

```
[root@server0 ~]# lsblk
NAME   MAJ:MIN RM SIZE RO TYPE MOUNTPOINT
vda    253:0    0  10G  0 disk
└─vda1 253:1    0  10G  0 part /
vdb    253:16   0  10G  0 disk
└─vdb1 253:17   0   3G  0 part
```

搭建 iscsi 网络磁盘（服务端）

安装 targetcli 包，并运行

```
[root@server0 ~]# yum repolist
已加载插件 : langpacks
```

```
[root@server0 ~]# targetcli
Warning: Could not load preferences file /root/.targetcli/prefs.bin.
targetcli shell version 2.1.fb34
Copyright 2011-2013 by Datera, Inc and others.
For help on commands, type 'help'.

/> ls
o- / ......................................................... [...]
  o- backstores ............................................. [...]
  | o- block ................................. [Storage Objects: 0]
  | o- fileio ................................ [Storage Objects: 0]
  | o- pscsi ................................. [Storage Objects: 0]
  | o- ramdisk ............................... [Storage Objects: 0]
  o- iscsi ........................................ [Targets: 0]
  o- loopback ..................................... [Targets: 0]
```

创建后端存储

```
/> backstores/block create nsd /dev/vdb1
Created block storage object nsd using /dev/vdb1.
/> ls
o- / ................................................................ [...]
  o- backstores ................................................... [...]
  | o- block ......................................... [Storage Objects: 1]
  | | o- nsd .............. [/dev/vdb1 (3.0GiB) write-thru deactivated]
  | o- fileio ....................................... [Storage Objects: 0]
  | o- pscsi ........................................ [Storage Objects: 0]
  | o- ramdisk ...................................... [Storage Objects: 0]
  o- iscsi .................................................. [Targets: 0]
  o- loopback .............................................. [Targets: 0]
```

创建磁盘组的名字 iqn

```
/> iscsi/ create iqn.2017-12.com.example:server0      Tab 键!!!
Created target iqn.2017-12.com.example:server0.
Created TPG 1.
/> ls
o- / ................................................................ [...]
  o- backstores ................................................... [...]
  | o- block ......................................... [Storage Objects: 1]
  | | o- nsd .............. [/dev/vdb1 (3.0GiB) write-thru deactivated]
  | o- fileio ....................................... [Storage Objects: 0]
  | o- pscsi ........................................ [Storage Objects: 0]
  | o- ramdisk ...................................... [Storage Objects: 0]
  o- iscsi .................................................. [Targets: 1]
  | o- iqn.2017-12.com.example:server0 ...................... [TPGs: 1]
  |   o- tpg1 ................................. [no-gen-acls, no-auth]
  |     o- acls ......................................... [ACLs: 0]
  |     o- luns ......................................... [LUNs: 0]
  |     o- portals ................................... [Portals: 0]
  o- loopback .............................................. [Targets: 0]
```

关联磁盘组的名字 iqn 与后端存储

```
/> iscsi/iqn.2017-12.com.example:server0/tpg1/luns create /backstores/bl
ock/nsd
Created LUN 0.                                        Tab 键!!!
/> ls
o- / ................................................................ [...]
  o- backstores ................................................... [...]
  | o- block ......................................... [Storage Objects: 1]
  | | o- nsd ................. [/dev/vdb1 (3.0GiB) write-thru activated]
  | o- fileio ....................................... [Storage Objects: 0]
  | o- pscsi ........................................ [Storage Objects: 0]
  | o- ramdisk ...................................... [Storage Objects: 0]
  o- iscsi .................................................. [Targets: 1]
  | o- iqn.2017-12.com.example:server0 ...................... [TPGs: 1]
  |   o- tpg1 ................................. [no-gen-acls, no-auth]
  |     o- acls ......................................... [ACLs: 0]
  |     o- luns ......................................... [LUNs: 1]
  |     | o- lun0 ......................... [block/nsd (/dev/vdb1)]
  |     o- portals ................................... [Portals: 0]
  o- loopback .............................................. [Targets: 0]
```

设置访问控制，客户端声称的名字

```
/> iscsi/iqn.2017-12.com.example:server0/tpg1/acls create iqn.2017-12.co
m.example:desktop0
Created Node ACL for iqn.2017-12.com.example:desktop0        Tab 键!!!
Created mapped LUN 0.
/> ls
o- / ................................................................ [...]
  o- backstores ................................................... [...]
  | o- block .......................................... [Storage Objects: 1]
  | | o- nsd .................. [/dev/vdb1 (3.0GiB) write-thru activated]
  | o- fileio ........................................ [Storage Objects: 0]
  | o- pscsi ......................................... [Storage Objects: 0]
  | o- ramdisk ....................................... [Storage Objects: 0]
  o- iscsi ............................................... [Targets: 1]
  | o- iqn.2017-12.com.example:server0 ..................... [TPGs: 1]
  |   o- tpg1 ............................ [no-gen-acls, no-auth]
  |     o- acls .................................. [ACLs: 1]
  |     | o- iqn.2017-12.com.example:desktop0 ......... [Mapped LUNs: 1]
  |     |   o- mapped_lun0 ..................... [lun0 block/nsd (rw)]
  |     o- luns ................................. [LUNs: 1]
  |     | o- lun0 ...................... [block/nsd (/dev/vdb1)]
  |     o- portals ............................... [Portals: 0]
  o- loopback ........................................... [Targets: 0]
```

启用端口 3260 与 IP 监听

```
/> iscsi/iqn.2017-12.com.example:server0/tpg1/portals create 172.25.0.11
Using default IP port 3260
Created network portal 172.25.0.11:3260.            Tab 键!!!
/> ls
o- / ................................................................ [...]
  o- backstores ................................................... [...]
  | o- block .......................................... [Storage Objects: 1]
  | | o- nsd .................. [/dev/vdb1 (3.0GiB) write-thru activated]
  | o- fileio ........................................ [Storage Objects: 0]
  | o- pscsi ......................................... [Storage Objects: 0]
  | o- ramdisk ....................................... [Storage Objects: 0]
  o- iscsi ............................................... [Targets: 1]
  | o- iqn.2017-12.com.example:server0 ..................... [TPGs: 1]
  |   o- tpg1 ............................ [no-gen-acls, no-auth]
  |     o- acls .................................. [ACLs: 1]
  |     | o- iqn.2017-12.com.example:desktop0 ......... [Mapped LUNs: 1]
  |     |   o- mapped_lun0 ..................... [lun0 block/nsd (rw)]
  |     o- luns ................................. [LUNs: 1]
  |     | o- lun0 ...................... [block/nsd (/dev/vdb1)]
  |     o- portals ............................... [Portals: 1]
  |       o- 172.25.0.11:3260 ............................... [OK]
  o- loopback ........................................... [Targets: 0]
/> exit
Global pref auto_save_on_exit=true
Last 10 configs saved in /etc/target/backup.
Configuration saved to /etc/target/saveconfig.json
```

重启 target 服务

```
[root@server0 ~]# systemctl restart target
[root@server0 ~]# systemctl enable target.service
ln -s '/usr/lib/systemd/system/target.service' '/etc/systemd/system/mult
i-user.target.wants/target.service'
```

客户端

安装客户端程序软件包

```
[root@desktop0 ~]# yum -y install iscsi-initiator-utils.i686
已加载插件 : langpacks
```

修改配置文件，指明客户端声称的名字（服务端运行 targetcli，然后 ls 查看，复制 acls 下的名字）

```
[ root@desktop0 ~]# vim /etc/iscsi/initiatorname.iscsi
InitiatorName=iqn.2017-12.com.example:desktop0
```

```
|       o- acls ............................................... [ACLs: 1]
|       | o- iqn.2017-12.com.example:desktop0 ......... [Mapped LUNs: 1]
```

#vim 命令补充：在命令模式下输入大写的 C，作用是删除该光标后的内容并且进入输入模式

发现服务端共享磁盘（打开一个终端，man iscsiadm，命令模式下大写的 G 进入到最后，从 example 复制第一条命令，修改 ip 地址）

```
[ root@desktop0 ~]# iscsiadm --mode discoverydb --type sendtargets --port
al 172.25.0.11 --discover
172.25.0.11:3260,1 iqn.2017-12.com.example:server0
```

```
EXAMPLES
        Discover targets at a given IP address:

            iscsiadm --mode discoverydb --type sendtargets --portal 192.168.1.10 --discover
```

重启客户端服务

```
[ root@desktop0 ~]# lsblk
NAME    MAJ:MIN RM SIZE RO TYPE MOUNTPOINT
vda     253:0    0  10G  0 disk
└─vda1 253:1    0  10G  0 part /
vdb     253:16   0  10G  0 disk
[ root@desktop0 ~]# systemctl  restart iscsi
Warning: Unit file of iscsi.service changed on disk, 'systemctl daemon-r
eload' recommended.
[ root@desktop0 ~]# systemctl daemon-reload
[ root@desktop0 ~]# systemctl restart iscsi
[ root@desktop0 ~]# lsblk
NAME    MAJ:MIN RM SIZE RO TYPE MOUNTPOINT
sda      8:0     0   3G  0 disk
vda     253:0    0  10G  0 disk
└─vda1 253:1    0  10G  0 part /
vdb     253:16   0  10G  0 disk
```