iscsi op Linux

context

dit document beschrijft hoe je iscsi targets beheert op Linux ahv **targetcli** (vanop Debian10)

installatie

1. `apt get install targetcli-fb`
2. pas de firewall aan zodat `tcp/3260` wordt doorgelaten.
3. voeg (op Debian10, althans) een basic opstartscript toe:

```
cd /etc/systemd/system
sudo curl
https://raw.githubusercontent.com/open-iscsi/rtslib-fb/master/systemd/t
arget.service -o target.service
sudo systemctl enable target.service
sudo service target start
```

werking

- start `targetcli`
- navigeren doe je ahv standaard linux commando's: `cd, ls`
- directory:
  - **backstores**: disken die je beschikbaar maakt ivv:
    - block: device file (hard disk, logisch volume)
    - fileio: bestand
  - **iscsi**: bovenstaande disk ahv iscsi protocol exporteren
- gebruik TAB-toets om beschikbare commando's te zien
- gebruik çd om grafisch te navigeren

- gebruiker `info` om de eigenschappen te zien van het object

backstore aanmaken

disk

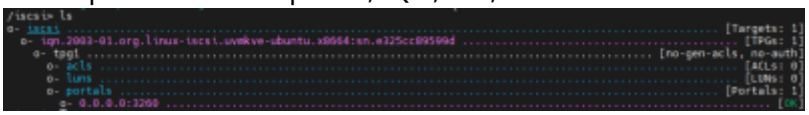
- `cd /backstores/fileio`
- `create file_or_dev=/home/test/bigster name=bigster size=1024m`
  = maakt 1Gb bestand bigster aan in /home/test

block

- `cd /backstores/block`
- `create dev=/dev/vg00/lvvmware name=vmware size=750g`
  = maakt logisch volume vmware beschikbaar als block device.

iSCSI target aanmaken

- `cd iscsi`
- `create`
  maakt default iSCSI componenten aan: portal, IQN, lun, ACL



LUN aanmaken

- `cd iscsi`
- `cd <IQN>`
- `cd <tpg#>`
- `cd lun`
- `create storage_object=<device file>`
  vb: `create storage_object=/backstores/fileio/groot`

ACL aanmaken

- `cd iscsi`
- `cd <IQN>`
- `cd <tpg#>`
- `cd acl`
- * `create wwn=<IQN van iSCSI initiator>`

CHAP authenticatie

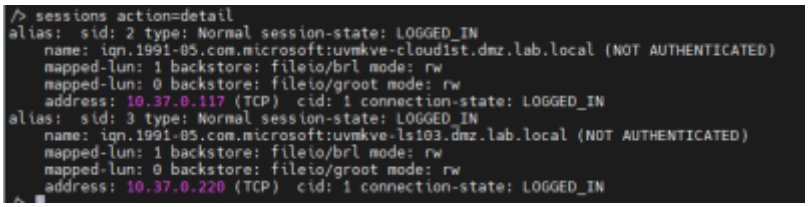
- cd iscsi
- cd <IQN>
- cd <tpg#>
- set attribute authentication=1
- cd acls
- çd <IQN_Initiator>
- set auth userid=<IQN_Initiator>
- set auth password=<ArbitaryPassword0f16characters>

Note: Nu zou de iSCSI target beschikbaar moeten zijn vanuit je client (iSCSI initiator).

beheer

actieve sessies

- cd /
- session action=detail



target uitschakelen

- cd iscsi
- çd <IQN>\tpg<#>
- disable

inschakelen: enable

backup/restore

backup

- cd /
- saveconfig

restore

- cd /
- restoreconfig

Elke backup wordt bewaard onder /etc/rtslib-fb-target/backup Je kan ook vanop de commmandline: targetcli restoreconfig /etc/rtslib-fb-target/backup/backup-x-x.json

problemen, problemen

netwerk monitor ahv tshark

tshark -f “dst port 3260” && “src ip <IPvanInitiator>” (zie: tshark))

```
 1 0.000000000  10.11.12.16 → 10.11.110.10 TCP 74 40399 → 3260 [SYN] Seq=0
Win=65535 Len=0 MSS=1460 WS=512 SACK_PERM=1 TSval=74754 TSecr=0
    2 0.000054598 10.11.110.10 → 10.11.12.16  TCP 74 3260 → 40399 [SYN, ACK]
Seq=0 Ack=1 Win=65160 Len=0 MSS=1460 SACK_PERM=1 TSval=2937156815
TSecr=74754 WS=128
    3 0.000413976  10.11.12.16 → 10.11.110.10 TCP 66 40399 → 3260 [ACK]
Seq=1 Ack=1 Win=263168 Len=0 TSval=74754 TSecr=2937156815
    4 0.252186069  10.11.12.16 → 10.11.110.10 iSCSI 274 Login Command
    5 0.252224095 10.11.110.10 → 10.11.12.16  TCP 66 3260 → 40399 [ACK]
Seq=1 Ack=209 Win=65024 Len=0 TSval=2937157067 TSecr=74779
    6 0.252325001 10.11.110.10 → 10.11.12.16  iSCSI 114 Login Response
(Service unavailable)
    7 0.252370167 10.11.110.10 → 10.11.12.16  TCP 66 3260 → 40399 [FIN, ACK]
Seq=49 Ack=209 Win=65024 Len=0 TSval=2937157068 TSecr=74779
    8 0.252688938  10.11.12.16 → 10.11.110.10 TCP 66 40399 → 3260 [ACK]
Seq=209 Ack=50 Win=263168 Len=0 TSval=74780 TSecr=2937157067
    9 0.503529224  10.11.12.16 → 10.11.110.10 TCP 66 40399 → 3260 [FIN, ACK]
Seq=209 Ack=50 Win=263168 Len=0 TSval=74805 TSecr=2937157067
   10 0.503573310 10.11.110.10 → 10.11.12.16  TCP 66 3260 → 40399 [ACK]
Seq=50 Ack=210 Win=65024 Len=0 TSval=2937157319 TSecr=74805
^C   11 3.021542392  10.11.12.16 → 10.11.110.10 TCP 74 13353 → 3260 [SYN]
Seq=0 Win=65535 Len=0 MSS=1460 WS=512 SACK_PERM=1 TSval=75056 TSecr=0
```

/var/log/syslog

```
Feb  7 13:28:41 UVMkve-ubuntu kernel: [296881.919424] iSCSI Login
negotiation failed.
Feb  7 13:28:46 UVMkve-ubuntu kernel: [296886.935254] Unable to locate
Target IQN: iqn.2003-01.org.linux-iscsi.uvmkve-ubuntu.x8664:sn.50a18bfcc36b
in Storage Node
```

```
Feb  7 14:05:18 UVMkve-ubuntu kernel: [299078.761397] iSCSI Initiator Node:
```

```
iqn.1991-05.com.microsoft:uvmkve-ls103.dmz.lab.local is not authorized to
access iSCSI target portal group: 1.
Feb  7 14:05:18 UVMkve-ubuntu kernel: [299078.761421] iSCSI Login
negotiation failed.
```

meer info

- targetcli MAN page
- iSCSI target mounten vanop Linux client

iscsi, linux, storage