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1. Выполнение настройки доступа к системе хранения данных

1.1. Подключился по ssh

```
ll min/avg/max/mdev = 7.235/9.996/12.658/2.029 ms
gfs@gfs-VirtualBox:/etc/nginx$ ssh timofeev@csc.sibsutis.ru -p 7701
ssh: connect to host csc.sibsutis.ru port 7701: No route to host
gfs@gfs-VirtualBox:/etc/nginx$ ssh timofeev@linux.csc.sibsutis.ru -p 7701
The authenticity of host '[linux.csc.sibsutis.ru]:7701 ([91.196.245.194]:7701)' can't be established.
ECDSA key fingerprint is SHA256:dCdh360xMQ+ca8MULZ5fFjB381CxnNfq9mGX+wL7fzE.
Are you sure you want to continue connecting (yes/no)? y
Please type 'yes' or 'no': yes
Warning: Permanently added '[linux.csc.sibsutis.ru]:7701,[91.196.245.194]:7701' (ECDSA) to the list of known hosts.
timofeev@linux.csc.sibsutis.ru's password:
Connection closed by 91.196.245.194 port 7701
gfs@gfs-VirtualBox:/etc/nginx$ ssh timofeev@linux.csc.sibsutis.ru -p 7701
timofeev@linux.csc.sibsutis.ru's password:
[timofeev@prod-01 ~]$
```

1.2. Сопоставление с картой сети на рисунке 6

```
timofeev
File Edit View Search Terminal Help

TX packets 0 bytes 0 (0.0 B)
TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

[timofeev@prod-01 ~]$ ifconfig
br0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.1.145 netmask 255.255.255.0 broadcast 192.168.1.255
    inet6 fe80::f292:1cff:fe10:c63b prefixlen 64 scopeid 0x20<link>
    ether f0:92:1c:10:c6:3b txqueuelen 1000 (Ethernet)
    RX packets 3434939 bytes 158712936 (151.3 MiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 20 bytes 1592 (1.5 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

eno1: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 10.1.2.18 netmask 255.255.255.0 broadcast 10.1.2.255
    inet6 fe80::f292:1cff:fe10:c638 prefixlen 64 scopeid 0x20<link>
    ether f0:92:1c:10:c6:38 txqueuelen 1000 (Ethernet)
    RX packets 5382648 bytes 3066921599 (2.8 GiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 6584586 bytes 731659196 (697.7 MiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
    device memory 0xf7e00000-f7efffff

eno2: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 10.1.2.19 netmask 255.255.255.0 broadcast 10.1.2.255
    inet6 fe80::f292:1cff:fe10:c639 prefixlen 64 scopeid 0x20<link>
    ether f0:92:1c:10:c6:39 txqueuelen 1000 (Ethernet)
    RX packets 10 bytes 600 (600.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 20 bytes 1592 (1.5 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
    device memory 0xf7c00000-f7cfffff

eno3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.1.45 netmask 255.255.255.0 broadcast 192.168.1.255
    inet6 fe80::f292:1cff:fe10:c63a prefixlen 64 scopeid 0x20<link>
    ether f0:92:1c:10:c6:3a txqueuelen 1000 (Ethernet)
    RX packets 4386215 bytes 1306047437 (1.2 GiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 605391 bytes 72574332 (69.2 MiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
    device memory 0xf7a00000-f7afffff

eno4: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet6 fe80::f292:1cff:fe10:c63b prefixlen 64 scopeid 0x20<link>
    ether f0:92:1c:10:c6:3b txqueuelen 1000 (Ethernet)
    RX packets 3494993 bytes 213690035 (203.7 MiB)
    RX errors 0 dropped 58829 overruns 0 frame 0
    TX packets 37 bytes 3058 (2.9 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
    device memory 0xf7800000-f78fffff

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 24 bytes 1922 (1.8 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 24 bytes 1922 (1.8 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

Menu [Icons] timofeev@prod-01:~
```

1.3. Содержимое папки /etc/sysconfig/network-scripts

```
[timofeev@prod-01 network-scripts]$ cd /etc/sysconfig/network-scripts/
[timofeev@prod-01 network-scripts]$ ls
ifcfg-br0          ifcfg-eno3.bak  ifdown-ippv      ifdown-Team      ifup-ib          ifup-ppp        init.ipv6-global
ifcfg-br0.bak      ifcfg-eno4      ifdown-ipv6      ifdown-TeamPort  ifup-ippv        ifup-routes     network-functions
ifcfg-eno1         ifcfg-lo        ifdown-isdn      ifdown-tunnel    ifup-ipv6        ifup-sit        network-functions-ipv6
ifcfg-eno1.bak     ifdown         ifdown-post      ifup             ifup-isdn        ifup-Team
ifcfg-eno2         ifdown-bnep     ifdown-ppp       ifup-aliases     ifup-plip        ifup-TeamPort
ifcfg-eno2.bak     ifdown-eth      ifdown-routes    ifup-bnep        ifup-plusb       ifup-tunnel
ifcfg-eno3         ifdown-ib       ifdown-sit       ifup-eth         ifup-post        ifup-wireless
[timofeev@prod-01 network-scripts]$
```

1.4. Проверил доступность интерфейсов СХД

```
[timofeev@prod-01 network-scripts]$ ping 10.1.2.11
PING 10.1.2.11 (10.1.2.11) 56(84) bytes of data:
64 bytes from 10.1.2.11: icmp_seq=1 ttl=64 time=0.277 ms
64 bytes from 10.1.2.11: icmp_seq=2 ttl=64 time=0.279 ms
64 bytes from 10.1.2.11: icmp_seq=3 ttl=64 time=0.286 ms
64 bytes from 10.1.2.11: icmp_seq=4 ttl=64 time=0.293 ms
64 bytes from 10.1.2.11: icmp_seq=5 ttl=64 time=0.292 ms
64 bytes from 10.1.2.11: icmp_seq=6 ttl=64 time=0.296 ms
^C
--- 10.1.2.11 ping statistics ---
6 packets transmitted, 6 received, 0% packet loss, time 5000ms
rtt min/avg/max/mdev = 0.277/0.287/0.296/0.012 ms
[timofeev@prod-01 network-scripts]$
```

1.5. Отправили iSCSI Discovery запрос на один из интерфейсов СХД

```
[timofeev@prod-01 network-scripts]$ sudo iscsiadm -m discovery -t st -p 10.1.2.11 -t st
[sudo] password for timofeev:
Sorry, try again.
[sudo] password for timofeev:
iscsiadm: This command will remove the record [iface: default, target: iqn.1986-03.com.hp:storage.p2000g3.13421aff31,
portal: 10.1.2.11,3260], but a session is using it. Logout session then rerun command to remove record.
iscsiadm: This command will remove the record [iface: default, target: iqn.1986-03.com.hp:storage.p2000g3.13421aff31,
portal: 10.1.2.15,3260], but a session is using it. Logout session then rerun command to remove record.
10.1.5.10:3260,1 iqn.1986-03.com.hp:storage.p2000g3.13421aff31
10.1.5.14:3260,2 iqn.1986-03.com.hp:storage.p2000g3.13421aff31
10.1.2.11:3260,3 iqn.1986-03.com.hp:storage.p2000g3.13421aff31
10.1.2.15:3260,4 iqn.1986-03.com.hp:storage.p2000g3.13421aff31
10.1.2.12:3260,5 iqn.1986-03.com.hp:storage.p2000g3.13421aff31
10.1.2.16:3260,6 iqn.1986-03.com.hp:storage.p2000g3.13421aff31
10.1.5.13:3260,7 iqn.1986-03.com.hp:storage.p2000g3.13421aff31
10.1.5.17:3260,8 iqn.1986-03.com.hp:storage.p2000g3.13421aff31
10.1.5.10:3260,1 iqn.1986-03.com.hp:storage.p2000g3.13421aff31
10.1.5.14:3260,2 iqn.1986-03.com.hp:storage.p2000g3.13421aff31
10.1.2.11:3260,3 iqn.1986-03.com.hp:storage.p2000g3.13421aff31
10.1.2.15:3260,4 iqn.1986-03.com.hp:storage.p2000g3.13421aff31
10.1.2.12:3260,5 iqn.1986-03.com.hp:storage.p2000g3.13421aff31
10.1.2.16:3260,6 iqn.1986-03.com.hp:storage.p2000g3.13421aff31
10.1.5.13:3260,7 iqn.1986-03.com.hp:storage.p2000g3.13421aff31
10.1.5.17:3260,8 iqn.1986-03.com.hp:storage.p2000g3.13421aff31
[timofeev@prod-01 network-scripts]$
```


1.6. Посмотрел на каких устройствах я авторизирован

```
[timofeev@prod-01 network-scripts]$ sudo iscsiadm -m session
[sudo] password for timofeev:
tcp: [81] 10.1.2.11:3260,3 iqn.1986-03.com.hp:storage.p2000g3.13421aff31 (non-flash)
tcp: [82] 10.1.2.11:3260,3 iqn.1986-03.com.hp:storage.p2000g3.13421aff31 (non-flash)
tcp: [83] 10.1.2.11:3260,3 iqn.1986-03.com.hp:storage.p2000g3.13421aff31 (non-flash)
tcp: [84] 10.1.2.12:3260,5 iqn.1986-03.com.hp:storage.p2000g3.13421aff31 (non-flash)
tcp: [85] 10.1.2.12:3260,5 iqn.1986-03.com.hp:storage.p2000g3.13421aff31 (non-flash)
tcp: [86] 10.1.2.15:3260,4 iqn.1986-03.com.hp:storage.p2000g3.13421aff31 (non-flash)
tcp: [87] 10.1.2.15:3260,4 iqn.1986-03.com.hp:storage.p2000g3.13421aff31 (non-flash)
tcp: [88] 10.1.2.15:3260,4 iqn.1986-03.com.hp:storage.p2000g3.13421aff31 (non-flash)
[timofeev@prod-01 network-scripts]$
```

1.7. Посмотрел набор устройств

```
timofeev@prod-01:/etc/sysconfig/network-scripts
File Edit View Search Terminal Help
tcp: [85] 10.1.2.12:3260,5 iqn.1986-03.com.hp:storage.p2000g3.13421aff31 (non-flash)
tcp: [86] 10.1.2.15:3260,4 iqn.1986-03.com.hp:storage.p2000g3.13421aff31 (non-flash)
tcp: [87] 10.1.2.15:3260,4 iqn.1986-03.com.hp:storage.p2000g3.13421aff31 (non-flash)
tcp: [88] 10.1.2.15:3260,4 iqn.1986-03.com.hp:storage.p2000g3.13421aff31 (non-flash)
[timofeev@prod-01 network-scripts]$ sudo multipath -ll
mpathe (3600c0ff0001b192760379f5e01000000) dm-6 HP ,P2000 G3 iSCSI
size=954M features='1 queue_if_no_path' hwhandler='0' wp=rw
|-- policy='service-time 0' prio=50 status=active
|  |-- 88:0:0:105 sdn 8:208 active ready running
|  |-- 89:0:0:105 sdp 8:240 active ready running
|  |-- 90:0:0:105 sdo 8:224 active ready running
|  |-- 91:0:0:105 sdat 66:208 active ready running
|  |-- 92:0:0:105 sdau 66:224 active ready running
|-- policy='service-time 0' prio=10 status=enabled
|  |-- 93:0:0:105 sdbv 68:144 active ready running
|  |-- 94:0:0:105 sdbw 68:160 active ready running
|  |-- 95:0:0:105 sdbx 68:176 active ready running
mpathd (3600c0ff0001b192745379f5e01000000) dm-5 HP ,P2000 G3 iSCSI
size=954M features='1 queue_if_no_path' hwhandler='0' wp=rw
|-- policy='service-time 0' prio=50 status=active
|  |-- 90:0:0:104 sdl 8:176 active ready running
|  |-- 88:0:0:104 sdk 8:160 active ready running
|  |-- 89:0:0:104 sdm 8:192 active ready running
|  |-- 91:0:0:104 sdar 66:176 active ready running
|  |-- 92:0:0:104 sdas 66:192 active ready running
|-- policy='service-time 0' prio=10 status=enabled
|  |-- 93:0:0:104 sdbz 68:96 active ready running
|  |-- 94:0:0:104 sdbt 68:112 active ready running
|  |-- 95:0:0:104 sdbu 68:128 active ready running
mpathc (3600c0ff0001b192719379f5e01000000) dm-4 HP ,P2000 G3 iSCSI
size=954M features='1 queue_if_no_path' hwhandler='0' wp=rw
|-- policy='service-time 0' prio=50 status=active
|  |-- 88:0:0:103 sdh 8:112 active ready running
|  |-- 90:0:0:103 sdi 8:128 active ready running
|  |-- 89:0:0:103 sdj 8:144 active ready running
|  |-- 92:0:0:103 sdaq 66:160 active ready running
|  |-- 91:0:0:103 sdap 66:144 active ready running
|-- policy='service-time 0' prio=10 status=enabled
|  |-- 95:0:0:103 sdbq 68:64 active ready running
|  |-- 93:0:0:103 sdbp 68:48 active ready running
|  |-- 94:0:0:103 sdbz 68:80 active ready running
mpathb (3600c0ff0001b19279b369f5e01000000) dm-3 HP ,P2000 G3 iSCSI
size=954M features='1 queue_if_no_path' hwhandler='0' wp=rw
|-- policy='service-time 0' prio=50 status=active
|  |-- 90:0:0:102 sde 8:64 active ready running
|  |-- 89:0:0:102 sdf 8:80 active ready running
|  |-- 88:0:0:102 sdg 8:96 active ready running
|  |-- 91:0:0:102 sdao 66:128 active ready running
|  |-- 92:0:0:102 sdan 66:112 active ready running
|-- policy='service-time 0' prio=10 status=enabled
|  |-- 94:0:0:102 sdbn 68:16 active ready running
|  |-- 93:0:0:102 sdbm 68:0 active ready running
|  |-- 95:0:0:102 sdbo 68:32 active ready running
mpatha (3600c0ff0001b192752369f5e01000000) dm-2 HP ,P2000 G3 iSCSI
size=954M features='1 queue_if_no_path' hwhandler='0' wp=rw
|-- policy='service-time 0' prio=50 status=active
|  |-- 90:0:0:101 sdd 8:48 active ready running
|  |-- 88:0:0:101 sda 8:0 active ready running
|  |-- 89:0:0:101 sde 8:32 active ready running
```

1.8. Добавил multipath

```
timofeev@prod-01:/etc/sysconfig/network-scripts
File Edit View Search Terminal Help
GNU nano 2.3.1 File: /etc/multipath.conf
## not change names on reboot (from /dev/sda to /dev/sdb for example)
## devnode lines are not recommended for blacklisting specific devices.
##
#blacklist {
#    wwid 26353900f02796769
#    devnode "^(ram|raw|loop|fd|md|dm-|sr|scd|st)[0-9]*"
#    devnode "^hd[a-z]"
#}
multipaths {
    multipath {
        wwid                3600c0ff0001b19277e379f5e01000000
        alias               shavrin
        path_grouping_policy multibus
        path_selector        "round-robin 0"
        failback             manual
        rr_weight             priorities
        no_path_retry        5
        rr_min_io            10
    }

    multipath {
        wwid                3600c0ff0001b1927d1379f5e01000000
        alias               petruk
        path_grouping_policy multibus
        path_selector        "round-robin 0"
        failback             manual
        rr_weight             priorities
        no_path_retry        5
        rr_min_io            10
    }

    multipath {
        wwid                3600c0ff0001b192720389f5e01000000
        alias               timofeev
        path_grouping_policy multibus
        path_selector        "round-robin 0"
        failback             manual
        rr_weight             priorities
        no_path_retry        5
        rr_min_io            10
    }

    multipath {
        wwid                1DEC_____321816758474
        alias               red
    }
}

#devices {
#    device {
#        vendor            "COMPAQ "
#        product           "HSV110 (C)COMPAQ"
#        path_grouping_policy multibus
#        path_checker       readsector0
#    }
#}

[ Read 116 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
```

1.9. Restart multipaths

```
[timofeev@prod-01 network-scripts]$ sudo nano /etc/multipath.conf
[timofeev@prod-01 network-scripts]$ sudo systemctl restart multipathd.service
[timofeev@prod-01 network-scripts]$ sudo multipath -ll
mpathe (3600c0ff0001b192760379f5e01000000) dm-6 HP ,P2000 G3 iSCSI
```

1.10. Показания команды multipath -ll - ✓ успешно

```
- 95:0:0:101 sdbl 67:240 active ready running
timofeev (3600c0ff0001b192720389f5e01000000) dm-13 HP ,P2000 G3 iSCSI
size=954M features='1 queue_if_no_path' hwhandler='0' wp=rw
+- policy='round-robin 0' prio=35 status=active
|- 88:0:0:112 sdai 66:32 active ready running
|- 89:0:0:112 sdak 66:64 active ready running
|- 90:0:0:112 sdaj 66:48 active ready running
|- 91:0:0:112 sdbi 67:192 active ready running
|- 92:0:0:112 sdbh 67:176 active ready running
|- 93:0:0:112 sdcr 69:240 active ready running
|- 94:0:0:112 sdcs 70:0 active ready running
|- 95:0:0:112 sdcq 69:224 active ready running
```

1.11. Показаний команды lsblk

```
└─shavrin 253:7 0 953,6M 0 mpath
sdco 69:192 0 953,6M 0 disk
└─mpathk 253:12 0 953,6M 0 mpath
sdbz 68:208 0 953,6M 0 disk
└─shavrin 253:7 0 953,6M 0 mpath
sdcp 69:208 0 953,6M 0 disk
└─mpathk 253:12 0 953,6M 0 mpath
sdcq 69:224 0 953,6M 0 disk
└─timofeev 253:13 0 953,6M 0 mpath
sdcr 69:240 0 953,6M 0 disk
└─timofeev 253:13 0 953,6M 0 mpath
sdcs 70:0 0 953,6M 0 disk
└─timofeev 253:13 0 953,6M 0 mpath
[timofeev@prod-01 network-scripts]$
```


1.12. Монтирую раздел и добавляю файл с текстом

```
└─timofeev      253:13   0 953,6M  0 mpath
[timofeev@prod-01 network-scripts]$ sudo mke2fs -j -v /dev/mapper/timofeev
[sudo] password for timofeev:
mke2fs 1.42.9 (28-Dec-2013)
fs types for mke2fs.conf resolution: 'ext3'
Filesystem label=
OS type: Linux
Block size=4096 (log=2)
Fragment size=4096 (log=2)
Stride=0 blocks, Stripe width=256 blocks
61056 inodes, 244128 blocks
12206 blocks (5.00%) reserved for the super user
First data block=0
Maximum filesystem blocks=251658240
8 block groups
32768 blocks per group, 32768 fragments per group
7632 inodes per group
Superblock backups stored on blocks:
    32768, 98304, 163840, 229376

Allocating group tables: done
Writing inode tables: done
Creating journal (4096 blocks): done
Writing superblocks and filesystem accounting information: done

[timofeev@prod-01 network-scripts]$ ls /mnt/
berezina EG0300FCVBF MM1000FBFVR petruk shavrin
[timofeev@prod-01 network-scripts]$ sudo mkdir /mnt/timofeev
[timofeev@prod-01 network-scripts]$ ls /mnt/
berezina EG0300FCVBF MM1000FBFVR petruk shavrin timofeev
[timofeev@prod-01 network-scripts]$ sudo mount /dev/mapper/timofeev /mnt/timofeev/
[timofeev@prod-01 network-scripts]$ cd /mnt/timofeev/
[timofeev@prod-01 timofeev]$ ls
lost+found
[timofeev@prod-01 timofeev]$ sudo touch MY_LAB4_DONE.txt
[timofeev@prod-01 timofeev]$ sudo nano MY_LAB4_DONE.txt
[timofeev@prod-01 timofeev]$ sudo nano MY_LAB4_DONE.txt
[timofeev@prod-01 timofeev]$
```

1.13. Смотрим как все смонтировалось

```
timofeev@prod-01:/mnt/timofeev
File Edit View Search Terminal Help
└─mpathb 253:3 0 953,6M 0 mpath
sdcd 69:16 0 953,6M 0 disk
└─mpathg 253:8 0 953,6M 0 mpath
sdaz 67:48 0 953,6M 0 disk
└─mpathh 253:9 0 953,6M 0 mpath
sdce 69:32 0 953,6M 0 disk
└─mpathh 253:9 0 953,6M 0 mpath
sdbp 68:48 0 953,6M 0 disk
└─mpathc 253:4 0 953,6M 0 mpath
sdcf 69:48 0 953,6M 0 disk
└─mpathh 253:9 0 953,6M 0 mpath
sdbq 68:64 0 953,6M 0 disk
└─mpathc 253:4 0 953,6M 0 mpath
sdcg 69:64 0 953,6M 0 disk
└─mpathh 253:9 0 953,6M 0 mpath
sdbr 68:80 0 953,6M 0 disk
└─mpathc 253:4 0 953,6M 0 mpath
sdch 69:80 0 953,6M 0 disk
└─petruk 253:10 0 953,6M 0 mpath /mnt/petruk
sdbb 68:96 0 953,6M 0 disk
└─mpathd 253:5 0 953,6M 0 mpath
sdci 69:96 0 953,6M 0 disk
└─petruk 253:10 0 953,6M 0 mpath /mnt/petruk
sdbt 68:112 0 953,6M 0 disk
└─mpathd 253:5 0 953,6M 0 mpath
sdcj 69:112 0 953,6M 0 disk
└─petruk 253:10 0 953,6M 0 mpath /mnt/petruk
sdbu 68:128 0 953,6M 0 disk
└─mpathd 253:5 0 953,6M 0 mpath
sdck 69:128 0 953,6M 0 disk
└─mpathj 253:11 0 953,6M 0 mpath
sdbv 68:144 0 953,6M 0 disk
└─mpathe 253:6 0 953,6M 0 mpath
sdcl 69:144 0 953,6M 0 disk
└─mpathj 253:11 0 953,6M 0 mpath
sdbw 68:160 0 953,6M 0 disk
└─mpathe 253:6 0 953,6M 0 mpath
sdcm 69:160 0 953,6M 0 disk
└─mpathj 253:11 0 953,6M 0 mpath
sdbx 68:176 0 953,6M 0 disk
└─mpathe 253:6 0 953,6M 0 mpath
sdcn 69:176 0 953,6M 0 disk
└─mpathk 253:12 0 953,6M 0 mpath
sdby 68:192 0 953,6M 0 disk
└─shavrin 253:7 0 953,6M 0 mpath
sdco 69:192 0 953,6M 0 disk
└─mpathk 253:12 0 953,6M 0 mpath
sdbz 68:208 0 953,6M 0 disk
└─shavrin 253:7 0 953,6M 0 mpath
sdcp 69:208 0 953,6M 0 disk
└─mpathk 253:12 0 953,6M 0 mpath
sdcq 69:224 0 953,6M 0 disk
└─timofeev 253:13 0 953,6M 0 mpath /mnt/timofeev
sdcr 69:240 0 953,6M 0 disk
└─timofeev 253:13 0 953,6M 0 mpath /mnt/timofeev
sdcs 70:0 0 953,6M 0 disk
└─timofeev 253:13 0 953,6M 0 mpath /mnt/timofeev
[timofeev@prod-01 timofeev]$
```

1.14. Увеличил число маршрутов

```
[timofeev@prod-01 timofeev]$ sudo iscsiadm -m node -T iqn.1986-03.com.hp:storage.p2000g3.13421aff31 -l -p 10.1.2.16:3260
[timofeev@prod-01 timofeev]$ sudo iscsiadm -m session
tcp: [81] 10.1.2.11:3260,3 iqn.1986-03.com.hp:storage.p2000g3.13421aff31 (non-flash)
tcp: [82] 10.1.2.11:3260,3 iqn.1986-03.com.hp:storage.p2000g3.13421aff31 (non-flash)
tcp: [83] 10.1.2.11:3260,3 iqn.1986-03.com.hp:storage.p2000g3.13421aff31 (non-flash)
tcp: [84] 10.1.2.12:3260,5 iqn.1986-03.com.hp:storage.p2000g3.13421aff31 (non-flash)
tcp: [85] 10.1.2.12:3260,5 iqn.1986-03.com.hp:storage.p2000g3.13421aff31 (non-flash)
tcp: [86] 10.1.2.15:3260,4 iqn.1986-03.com.hp:storage.p2000g3.13421aff31 (non-flash)
tcp: [87] 10.1.2.15:3260,4 iqn.1986-03.com.hp:storage.p2000g3.13421aff31 (non-flash)
tcp: [88] 10.1.2.15:3260,4 iqn.1986-03.com.hp:storage.p2000g3.13421aff31 (non-flash)
tcp: [89] 10.1.2.16:3260,6 iqn.1986-03.com.hp:storage.p2000g3.13421aff31 (non-flash)
tcp: [90] 10.1.2.16:3260,6 iqn.1986-03.com.hp:storage.p2000g3.13421aff31 (non-flash)
[timofeev@prod-01 timofeev]$
```