RHEL: iSCSI target/initiator configuration on RHEL6

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# Tested on RHEL 6


# iSCSI target configuration
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# Required package: scsi-target-utils
# Some documentation: /usr/share/doc/scsi-target-utils-
X.X.XX/README.iscsi

# This recipe is about exporting one storage device (LVM volume, disk
partition,...),
# a target, using the iSCSI protocol in a way that clients can
connect to it remotely

# For this example I'm exporting a LVM logical volume like following
one:

lvcreate -n myscsilv -L 4G myvg


# Target creation (iSCSI Qualified Name - IQN - )

tgtadm --lld iscsi --op new --mode target --tid 1 -T
<iqn.2014-06.com.example.myserver:myiscsi>
```

```
# Let's associate a device (our logical volume) to the target we've
just created

tgtadm --lld iscsi --op new --mode logicalunit --tid <1> --lun <1> -b
</dev/myvg/myscsilv>


# And authorize initiators to connect to our target

tgtadm --lld iscsi --op bind --mode target --tid 1 -I 172.257.1/24
tgtadm --lld iscsi --op bind --mode target --tid 1 -I 172.257.2/24
tgtadm --lld iscsi --op bind --mode target --tid 1 -I 172.257.3/24


# DO NOT FORGET to dump configuration to config. file

cp -p /etc/tgt/targets.conf /etc/tgt/targets.conf.orig

tgt-admin --dump > /etc/tgt/targets.conf

cat targets.conf
   default-driver iscsi

   <target iqn.2014-06.com.example.myserver:myiscsi>
         backing-store /dev/myvg/myscsilv
         initiator-address 172.257.1/24
         initiator-address 172.257.2/24
         initiator-address 172.257.3/24
   </target>

# Finaly, enable and restart tgtd daemon

chkconfig tgtd on
service tgtd restart
```

```
# Some of the properties like vendor, SN or scsi ID may be modified
like this:

vi targets.conf
   default-driver iscsi

   <target iqn.2014-06.com.example.myserver:myiscsi>
         <backing-store /dev/myvg/myscsilv>
             vendor_id MyVendor
             scsi_sn 1234567890
             scsi_id MyDisc-myscsilv
         </backing-store>
         initiator-address 172.257.1/24
         initiator-address 172.257.2/24
         initiator-address 172.257.3/24
   </target>


service tgtd restart


tgt-admin -s
   Target 1: iqn.2014-06.com.example.myserver:myiscsi
       System information:
           Driver: iscsi
           State: ready
       I_T nexus information:
       LUN information:
           LUN: 0
               Type: controller
               SCSI ID: IET     00010000
               SCSI SN: beaf10
               Size: 0 MB, Block size: 1
               Online: Yes
               Removable media: No
               Readonly: No
               Backing store type: null
               Backing store path: None
```

```
                Backing store flags:
            LUN: 1
                Type: disk
    -->         SCSI ID: MyDisc-myscsilv
    -->         SCSI SN: 1234567890
                Size: 4295 MB, Block size: 512
                Online: Yes
                Removable media: No
                Readonly: No
                Backing store type: rdwr
                Backing store path: /dev/myvg/myscsilv
                Backing store flags:
        Account information:
        ACL information:
            172.257.1/24
            172.257.2/24
            172.257.3/24




# iSCSI initiator configuration
# ---------------------------------------------------------------------
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# Required package: iscsi-initiator-utils

# We are connecting to a storage device (LVM volume, disk
partition,...), a target, being
# using exported by a remote server, using the iSCSI protocol

# Ensure that iscsi daemon is started and enabled for changes to
persist across reboots

chkconfig iscsi on
service iscsi restart
```

```
# Discover iSCSI target(s) being shared by remote server

iscsiadm --mode discoverydb --type sendtargets --portal <172.257.7.4>
--discover
   172.257.7.4:3260,1 iqn.2014-06.com.example.myserver:myiscsi

# or # iscsiadm -m discovery -t st -p <172.257.7.4>



# Login to iSCSI target; take we must be authorized to connect on
remote server

iscsiadm -m node -T <iqn.2014-06.com.example.myserver:myiscsi> -p
<172.257.7.4> -l
   Logging in to [iface: default, target:
iqn.2014-06.com.example.myserver:myiscsi, portal: 172.257.7.4,3260]
(multiple)
   Login to [iface: default, target:
iqn.2014-06.com.example.myserver:myiscsi, portal: 172.257.7.4,3260]
successful.

# Note that this attachment is persistent across reboot, even if we
disconnect from iSCSI target

# Check

dmesg
[...]
   sd 2:0:0:1: [sda] 8388608 512-byte logical blocks: (4.29 GB/4.00
GiB)
   sd 2:0:0:1: [sda] Write Protect is off
   sd 2:0:0:1: [sda] Mode Sense: 49 00 00 08
   sd 2:0:0:1: [sda] Write cache: enabled, read cache: enabled,
doesn't support DPO or FUA
    sda: unknown partition table
   sd 2:0:0:1: [sda] Attached SCSI disk
```

```
   scsi 2:0:0:0: Attached scsi generic sg0 type 12
   sd 2:0:0:1: Attached scsi generic sg1 type 0

lvmdiskscan | grep sda
     /dev/sda        [       4.00 GiB]



# Stop using a target

iscsiadm -m node -T <iqn.2014-06.com.example.myserver:myiscsi> -p
<172.257.7.4> -u

# This will not remove the configuration for this target. As long as
"node.startup" is set to
# "automatic" in /etc/iscsi/iscsid.conf file, this target will be
rediscovered next time
# iscsi daemon is restarted. This means too that any modification in
configuration should be
# done before descovering targets. Otherwise, changes will not take
effect on already
# connected targets. For the target to be effectively removed, run
following command:

iscsiadm -m node -T <iqn.2014-06.com.example.myserver:myiscsi> -p
<172.257.7.4> --op delete
```