

Network Administration/System Administration (NTU CSIE, Spring 2024)

Lab 9 - NFS

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1 Server

```
[arch@archlinux ~]$ cat /etc/exports
# /etc/exports - exports(5) - directories exported to NFS clients
#
# Example for NFSv3:
# /srv/home      hostname1(rw,sync) hostname2(ro,sync)
# Example for NFSv4:
# /srv/nfs4      hostname1(rw,sync,fsid=0)
# /srv/nfs4/home  hostname1(rw,sync,nohide)
# Using Kerberos and integrity checking:
# /srv/nfs4      *(rw,sync,sec=krb5i,fsid=0)
# /srv/nfs4/home *(rw,sync,sec=krb5i,nohide)
#
# Use `exportfs -arv` to reload.

/srv/nfs        192.168.15.143(rw,sync,fsid=0)
/srv/nfs/share  192.168.15.143(rw,sync)
[arch@archlinux ~]$ sudo exportfs -v
/srv/nfs        192.168.15.143(sync,wdelay,hide,no_subtree_check,fsid=0,sec=sys,rw,secure,root_squash,no_all_squash)
/srv/nfs/share  192.168.15.143(sync,wdelay,hide,no_subtree_check,sec=sys,rw,secure,root_squash,no_all_squash)
[arch@archlinux ~]$ _
```

2 Client

```
[arch@archlinux ~]$ mount
proc on /proc type proc (rw,nosuid,nodev,noexec,relatime)
sys on /sys type sysfs (rw,nosuid,nodev,noexec,relatime)
dev on /dev type devtmpfs (rw,nosuid,relatime,size=962336k,nr_inodes=240584,mode=755,inode64)
run on /run type tmpfs (rw,nosuid,nodev,relatime,mode=755,inode64)
/dev/sda3 on / type btrfs (rw,relatime,compress-force=zstd:3,space_cache=v2,subvolid=5,subvol=/)
securityfs on /sys/kernel/security type securityfs (rw,nosuid,nodev,noexec,relatime)
tmpfs on /dev/shm type tmpfs (rw,nosuid,nodev,inode64)
devpts on /dev/pts type devpts (rw,nosuid,noexec,relatime,gid=5,mode=620,ptmxmode=000)
cgroup2 on /sys/fs/cgroup type cgroup2 (rw,nosuid,nodev,noexec,relatime,nsdelegate,memory_recursiveprot)
pstore on /sys/fs/pstore type pstore (rw,nosuid,nodev,noexec,relatime)
bpf on /sys/fs/bpf type bpf (rw,nosuid,nodev,noexec,relatime,mode=700)
systemd-1 on /proc/sys/fs/binfmt_misc type autofs (rw,relatime,fd=37,pgrp=1,timeout=0,minproto=5,maxproto=5,direct,pipe_ino=896)
hugetlbfs on /dev/hugepages type hugetlbfs (rw,nosuid,nodev,relatime,pagesize=2M)
debugfs on /sys/kernel/debug type debugfs (rw,nosuid,nodev,noexec,relatime)
mqueue on /dev/mqueue type mqueue (rw,nosuid,nodev,noexec,relatime)
tracefs on /sys/kernel/tracing type tracefs (rw,nosuid,nodev,noexec,relatime)
fusectl on /sys/fs/fuse/connections type fusectl (rw,nosuid,nodev,noexec,relatime)
configfs on /sys/kernel/config type configfs (rw,nosuid,nodev,noexec,relatime)
tmpfs on /tmp type tmpfs (rw,nosuid,nodev,size=990560k,nr_inodes=1048576,inode64)
systemd-1 on /efi type autofs (rw,relatime,fd=51,pgrp=1,timeout=120,minproto=5,maxproto=5,direct,pipe_ino=6500)
tmpfs on /run/user/1000 type tmpfs (rw,nosuid,nodev,relatime,size=198108k,nr_inodes=49527,mode=700,uid=1000,gid=1000,inode64)
192.168.15.142:/srv/nfs/share on /mnt type nfs (rw,relatime,vers=3,rsize=262144,wsize=262144,namlen=255,hard,proto=tcp,timeo=600,retrans=2,sec=sys,mountaddr=192.168.15.142,mountvers=3,mountport=20048,mountproto=udp,local_lock=none,addr=192.168.15.142)
[arch@archlinux ~]$ df -h
Filesystem                Size      Used Avail Use% Mounted on
dev                        940M          0  940M   0% /dev
run                       968M    836K   967M   1% /run
/dev/sda3                 40G    1.1G   39G   3% /
tmpfs                     968M          0   968M   0% /dev/shm
tmpfs                     968M          0   968M   0% /tmp
tmpfs                     194M    4.0K   194M   1% /run/user/1000
192.168.15.142:/srv/nfs/share 40G    1.1G   39G   3% /mnt
[arch@archlinux ~]$
```