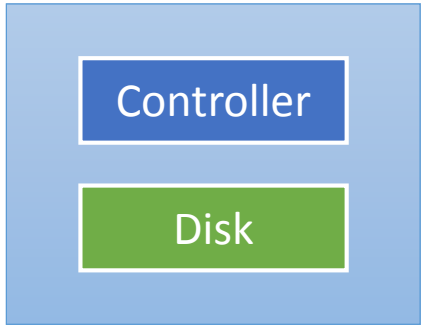
NAS and iSCSI

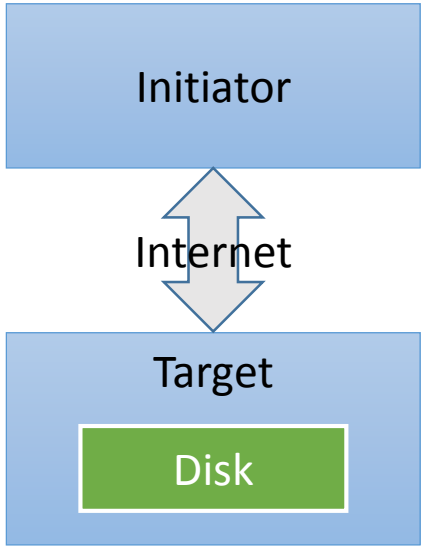
SCSI - short for Small Computer System Interface

- provides access to the local disks
- is used in enterprises



iSCSI - short for Internet Small Computer System Interface

- extends SCSI to work over network
- client is called *initiator*
- server is called *target*
- is used in NASes



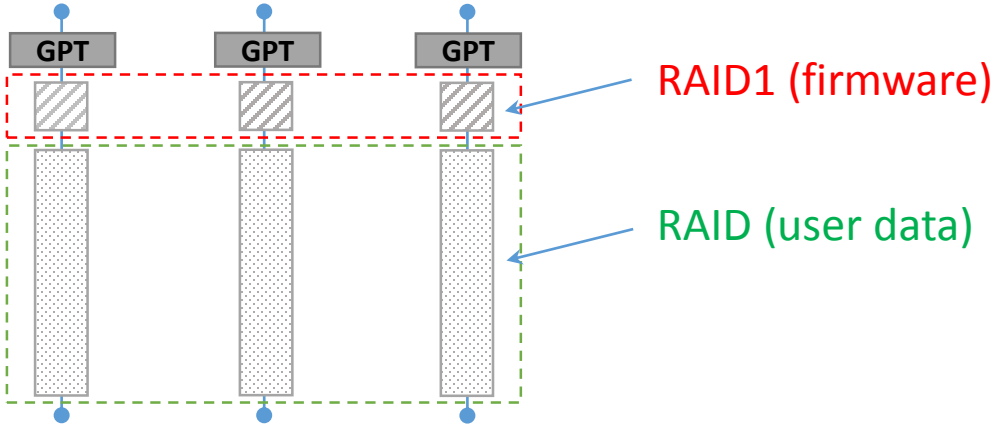
iSCSI NAS layout

1. Disks are partitioned with MBR or GPT

2. Partitions are combined into RAIDs with md

   - first small partition(s) combined into RAID1
     - store NAS firmware
     - not needed in data recovery

   - large partitions combined into a RAID
     - level depends on a particular NAS
     - store very large disk image files (< 10 files)



iSCSI NAS recovery

1. Recover NAS filesystem (ext or XFS)
2. Copy disk image files
3. Recover data

Disk image files can be from

- Windows system image backup (VHD or VHDX) → mount and read immediately

- iSCSI LUN (raw disk image)
  - open as disk image and recover data
  - copy to a physical disk with dd