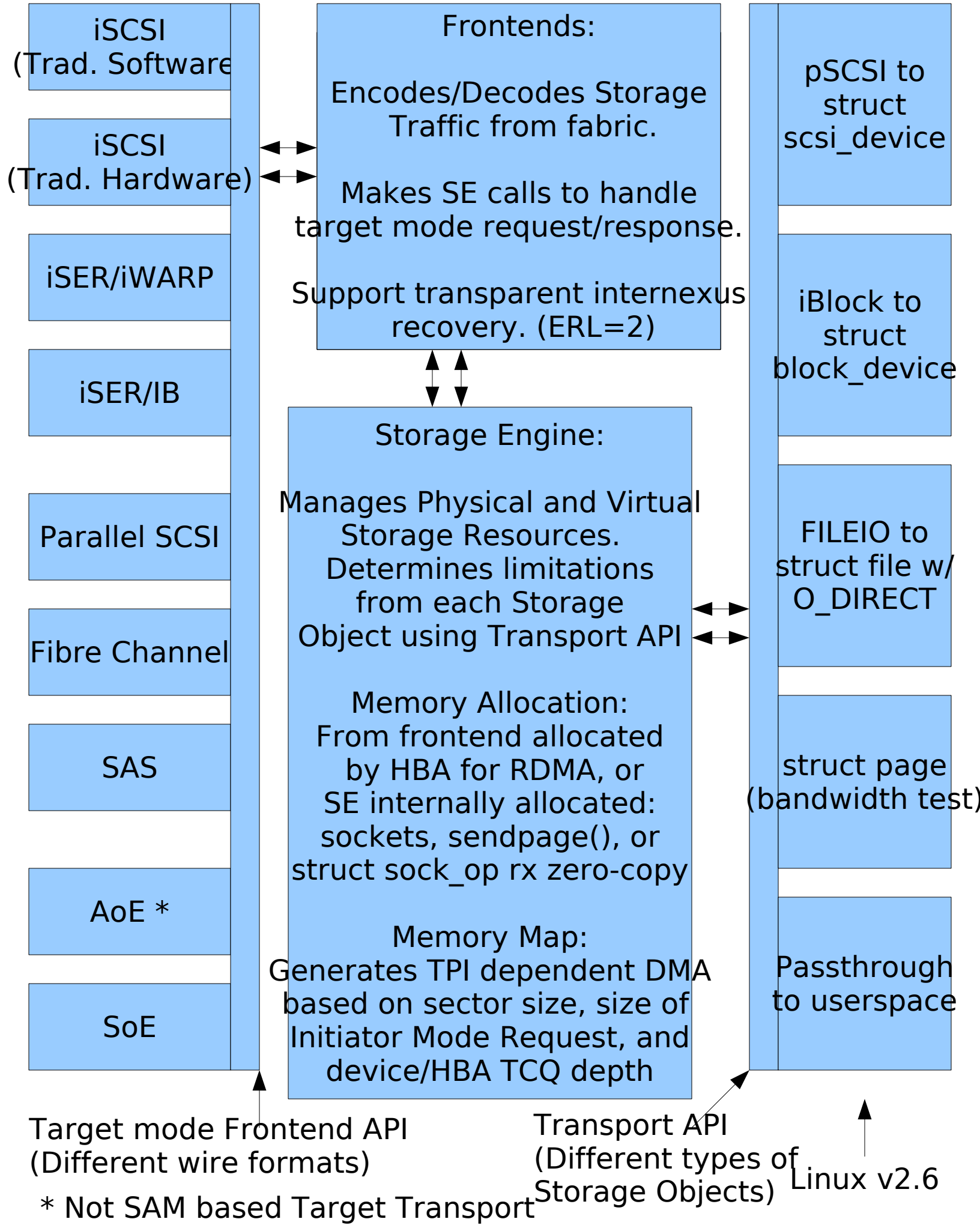
iSCSI
(Trad. Software
iSCSI
(Trad. Hardware)
iSER/iWARP
iSER/IB
Parallel SCSI
Fibre Channel
SAS
AoE *
SoE
Frontends:
Encodes/Decodes Storage Traffic from fabric.
Makes SE calls to handle target mode request/response.
Support transparent internexus recovery. (ERL=2)
Storage Engine:
Manages Physical and Virtual Storage Resources. Determines limitations from each Storage Object using Transport API
Memory Allocation:
From frontend allocated by HBA for RDMA, or SE internally allocated: sockets, sendpage(), or struct sock_op rx zero-copy
Memory Map:
Generates TPI dependent DMA based on sector size, size of Initiator Mode Request, and device/HBA TCQ depth
pSCSI to struct scsi_device
iBlock to struct block_device
FILEIO to struct file w/ O_DIRECT
struct page (bandwidth test)
Passthrough to userspace
Target mode Frontend API
(Different wire formats)
Transport API
(Different types of Storage Objects)
Linux v2.6
* Not SAM based Target Transport