NVMe mapping for SCSI Layout

Christoph Hellwig
Using the SCSI layout with NVMe

- RFC 8154 “Parallel NFS (pNFS) Small Computer System Interface (SCSI) Layout” was released in May 2017
  - The functionality is explicitly tied into SCSI
- NVMe has all the required functionality to support the same functionality with the same on the wire protocol
  - The NVM Express – SCSI Translation Reference document translates the required features between NVMe and SCSI
  - But unfortunately this document is not up to IETF normative reference standards
Using the SCSI layout with NVMe status

- “Using the Parallel NFS (pNFS) SCSI Layout with NVMe” (draft-hellwig-nfsv4-scsi-layout-nvme-03)
  - First update after many years
  - Replaces references to the not up to the NVMe STLR document with its own normative language
  - Ready for working group adoption as a standards track document
Open Questions:

- Define new designator types for SCSI?
  - Pro:
    • Reduces device search scope on the client
    • Might reduce administrator confusion
  - Con:
    • Requires a wire protocol addition

- Define a new UUID designator type?
  - Pro:
    • Allows for (SCSI or NVMe) devices from vendors without an IEEE OUI
  - Con:
    • Requires a wire protocol addition
Questions?