

# pNFS Access Permissions Check

draft-ietf-nfsv4-pnfs-access-permissions-check-00.txt

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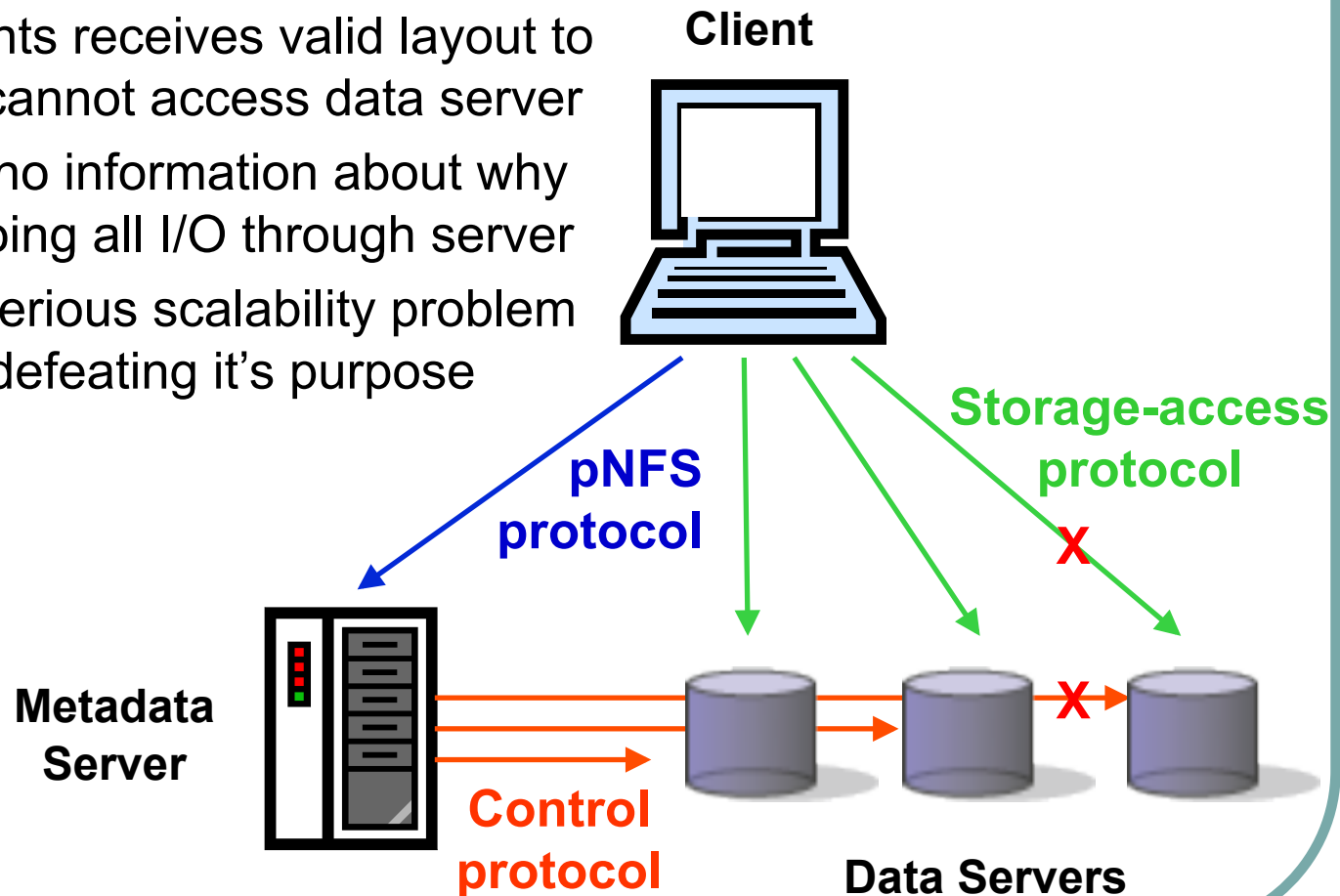
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**Mike Eisler - NetApp**

**Jason Glasgow - Google**

# Problem Statement

- pNFS clients receives valid layout to a DS but cannot access data server
- MDS has no information about why client is doing all I/O through server
- This is a serious scalability problem for pNFS defeating it's purpose



# Changes in nfsv4 WG draft

- The ADs accepted the draft as an nfsv4 WG draft
  - Will be included in the 4.2
- The I-D includes all the comments from the nfsv4 list
- First nfsv4 WG draft version:  
draft-ietf-nfsv4-pnfs-access-permissions-check-00.txt
- Add client guidance on riding through transient errors:
  - Client unable to access the storage device, NFS4ERR\_NXIO SHOULD be used.
  - Client is able to access the storage device, but permission is denied, NFS4ERR\_ACCESS SHOULD be used.

## Changes in nfsv4 WG draft (cont.)

- Add ALL NO\_ACCESS return type (NO\_ACCESS for every return type)
- Use NFS4ERR\_ACCESS instead of NFS4ERR\_PERM
- Allow use of NFS4ERR\_NXIO for unreachable DS
- Simplify access checks to only discuss GETDEVICELIST
- Server does not need to indefinitely retain device inaccessibility information

## Changes in nfsv4 WG draft (cont.)

- Remove "MUST" requirement for layout return
- Add warning that if the layout isn't returned
- Allow errors via reference to errors allowed for READ and WRITE
- Allow NFS4ERR\_NXIO
- Provide information about how to map device errors

# Acknowledgements

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# Q&A