pNFS Open Issue

IETF 66 Montreal
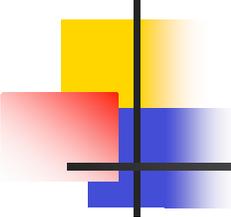
Summary of open issue

- Issue 21: CB_SIZECHANGED (EOF callback)
- Issue 40: DS and MDS w/different security
- Issue 55: Attrs for writing through MDS
- Issue 57: Private layout range
- Issue 58: Layout return/recall flags
- Issue 61: Lingering writes during layout return
- Issue 69: File-layout striping
- Issue 70: Editing of pNFS chapters
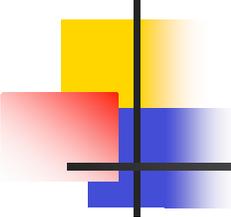
Issue 21: CB_SIZECHANGED

- Much discussion on WG.
- Proposal put forward by Steve Fridella
  - Mostly addresses block-layout concerns
- Some followup from David Black and others

- Expect updated proposal from Steve
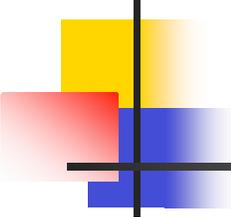
Issue 40: DS and MDS security

- For file-layouts: DS and MDS w/differing security types – require some clarification text
- Write-up by Eisler – not much discussion
- Comment in last WG call's agenda
  - Needs more discussion
  - Will SECINFO changes in V4.1 allow us to do this?

- What needs to be done to close this issue?
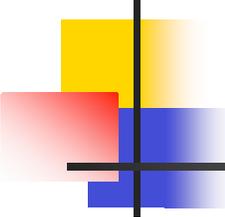
Issue 55: Attr for writing thru MDS

- Attr hints for MDS to tell client when writes should go through MDS
    - Based on: size of writes; offset in file
- I posted a proposal with 2 ways of doing this
- Only heard back from Mark Eshel

- Would like more feedback…
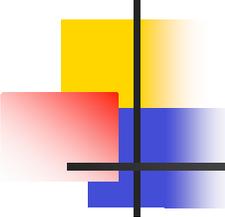
Issue 57: Private layout range

- We need to define:
  - How to add new layout types (IANA or not)
  - Experimental layout range (reserved for internal use)
- I posted a proposal
  - It was questioned whether we need IANA – do we?
  - It was pointed out that we can't have WG review, but instead can require: a specification, expert review

- What are the feelings on IANA?
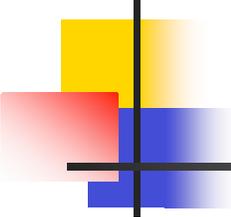
Issue 58: return/recall flags

- Benny Halevy proposed adding new flags for:
  - FSID returns – we currently have FSID recalls
  - RETURN_ALL – for a client shutting down
  - RECALL_ALL – e.g., quiescing clients for snapshots

- Current proposal exists, but is to be modified
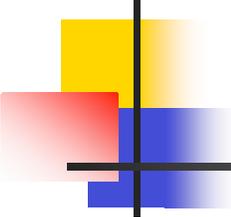
Issue 61: Lingering writes

- Para. on outstanding writes at time of return
- After much discussion, I submitted a paragraph

- Not much further discussion – will move to editing soon
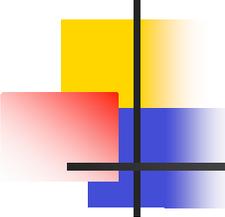
Issue 69: file-layout striping

- Largish change to file-layout striping
- Has potential for large client-side space savings
  - Introduces COMPLEX device made up of multiple simple ones (IP address & port)
  - COMPLEX devices are identified by device ID
  - Device IDs embedded in layouts – allows for greater sharing

- Marc Eshel would like to revisit client-side device flushing op.
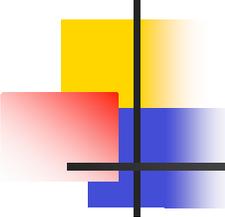
Summary

- 7 open design issues
- A few still require some discussion
- Most are close to *editing* state