Stage0 Issues (52, 116)

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Issue 52: Is client migration capable?

- For servers that provide multiple network paths to data, there may be a choice between notification of migration event and just “forwarding” requests for processing.
- To allow for this, server needs to know if NFSv4.1 client is capable of migrating to another server or will just return an error to application.
Issue 52: proposal

• Using EXCHANGE_ID, add an ‘eai_flags’ field to indicate referral and migration support
  – EXCHANGE_ID_FLAG_SUPPORTREFER
  – EXCHANGE_ID_FLAG_SUPPORTMIGR

• Reason for both: client may have differing support for migration: one within referral context and one in strict migration context
Issue 116: parallel opens

• For NFSv4.0, granularity of open_owner is in direct proportion of the parallelism of OPEN requests
• OPENs are sequenced with seqid and therefore can limit or block a client’s ability to service an application’s open() requests (e.g. multi-threaded application)
• NFSv4.1’s sessions removes need for seqid use for OPENs. Should be able to provide for higher degree of parallel OPENs for the client.
Issue 116

• Two solutions proposed
  – 1) keep upgrade/downgrade logic in NFSv4.1 and expose the server’s stateid.seqid
  – 2) remove upgrade on OPEN and make explicit the need for the client to manage state
• 2) seems to be the best choice
• Need to clarify if Posix file locking would be broken
• Is there a need for an UNLOCK_ALL(lockowner) as Noveck proposes.