IMAP4 revision 2

draft-ietf-extra-imap4rev2-17.txt
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Goals - general

- Make life easier for client developers who would be able to only implement IMAP4rev2 in the future
  - But try not to boil the ocean in the process
- Easy to implement for IMAP4rev1 server implementors, as they do most of the new things included in IMAP4rev2 already
- IMAP4rev2 can co-exist with IMAP4rev1 on the same port
Changes done in WG -17 since -15

- Clarified text on UIDVALIDITY and that UIDs don't get reused on EXPUNGE

- Unsolicited LIST responses used on CREATE/RENAME/SELECT/EXAMINE to announce canonical mailbox name. Added OLDNAME extended data item.

- Allow unsolicited LIST responses in other IMAP sessions announcing mailbox creation/deletion/rename

- Added missing IANA considerations for LIST Selection Options, LIST Return Options, LIST extended data items
Changes done in WG -17 since -15 (continued)

- Minor ABNF fixes: some non terminals missing, like "tag-string" and "vendor-token"
- Clarified that BODY and TEXT search keys don't have to use substring search
- Updated "text" non terminal ABNF to allow for UTF-8
Open Issues

• Should we guarantee that no further system flags will be defined in the future?

• Can multiple response data for a single SEARCH command be returned in separate ESEARCH responses?

• Old text in SELECT command description about UIDNEXT or UIDVALIDITY not being present

• Always require untagged LIST on SELECT/EXAMINE (whether or not the server normalized the mailbox name)?

• 64 bit message/body part sizes allowed?
Backward compatibility with IMAP2bis: should we allow for UIDNEXT or UIDVALIDITY be omitted?

• Section 6.3.2 current says:

  • Note that earlier versions of this protocol only required the FLAGS and EXISTS untagged data; consequently, client implementations SHOULD implement default behavior for missing data as discussed with the individual item.

  • and

  • OK [UIDNEXT <n>] The next unique identifier value. Refer to Section 2.3.1.1 for more information. If this is missing, the client can not make any assumptions about the next unique identifier value.

• Section 6.3.2 current says:

  • OK [UIDVALIDITY <n>] The unique identifier validity value. Refer to Section 2.3.1.1 for more information. If this is missing, the server does not support unique identifiers.
Multiple ESEARCH responses for a single SEARCH command and the same correlator?

• Currently:
  
  • C: A283 SEARCH RETURN () FLAGGED SINCE 1-Feb-1994 NOT FROM "Smith"
  
  • S: * ESEARCH (TAG "A283") ALL 2,10:11

  • instead of (for example)
  
  • S: * ESEARCH (TAG "A283") ALL 2
  
  • S: * ESEARCH (TAG "A283") ALL 10:11

• Recommendation
  
  • Disallow the latter option - easier to process on clients.

• Note, that extensions are different, e.g. multimailbox search (RFC 7377) already uses separate ESEARCH response for each mailbox
  
  • Each has different MAILBOX correlator
  
  • C: tag1 ESEARCH IN (mailboxes "folder1" subtree "folder2") unseen
  
  • S: * ESEARCH (TAG "tag1" MAILBOX "folder1" UIDVALIDITY 1) UID ALL 4001,4003,4005,4007,4009
  
  • S: * ESEARCH (TAG "tag1" MAILBOX "folder2/banana" UIDVALIDITY 503) UID ALL 3002,4004
No new IMAP system flags?

• Probably not the most important thing in the Universe, but ...

• should the document just say that no further \texttt{systemflags} will be defined in future revisions \texttt{IMAP4revX}, we will only use $\texttt{keywords}$
Always require untagged LIST on SELECT/EXAMINE?

• I.e. whether or not the server normalized or aliased the mailbox name?

• Only after ENABLE IMAP4rev2.
Allow 64 bit message/body part in FETCH?

- Server implementations don't have to allow values over 4Gb, but they can.

- Clients will need to accept that.

- Only after ENABLE IMAP4rev2.
A few remaining things

• Add a new section on other “recommended” IMAP extensions?

• Clarify the most problematic areas, such as
  • BODYSTRUCTURE (parsed MIME structure) is still quite buggy in some implementations
  • Send me your examples, or we might skip doing this this time
Recommended extensions

- CONDSTORE/QRESYNC?
- OBJECTID?
- ACL?
- NOTIFY?
- MULTISEARCH??
- Any other from https://www.iana.org/assignments/imap-capabilities/imap-capabilities.xhtml?
Next steps

- WGLC is done, but a few comments from Stephan still need to be addressed

- AD review from Murray Kucherawy