IMAP4 revision 2

draft-melnikov-imap4rev2-02.txt

Short History of IMAP

- RFC 1730 (IMAP4) published in 1994

- RFC 3501 (IMAP4rev1) published in 2003

- Many IMAP extensions added since 1994

  - Some of them are pretty universally deployed, e.g. LITERAL+, UIDPLUS, NAMESPACE

- Mark Crispin passed away a couple of years ago

- More implementation (especially clients) were written recently

  - Many don't show up in IETF

- There is an active community of client and server developers

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 server implementors, as they do most of the new things included in IMAP4rev2

- IMAP4rev2 can co-exist with IMAP4rev1 on the same port

Goals - fixes

- Include errata for RFC 3501

- Update TLS recommendations (as per UTA WG)

- Clarify the most problematic areas, such as

  - BODYSTRUCTURE (parsed MIME structure) is still quite buggy in some implementations

Goals - cleanup

- Get rid of UTF-7 encoded Unicode mailbox names

- Get rid of \Recent flag

  - Multiclient access to the same mailbox made this obsolete

- Get rid of reporting of the first unseen message in a mailbox being opened?

  - Who cares, if you have 60000 messages in your mailbox?

  - Extra work for servers, hardly ever needed by clients

- Replace SEARCH responses with ESEARCH

- **Anything else?**

Goals - improvements

- Merge in "popular" IMAP extensions which

  - Make the protocol more symmetrical (UNSELECT, UIDPLUS)

  - Avoid the need for clients to guess server configuration (NAMESPACE, SPECIAL-USE, bits of LIST-EXTENDED)

  - Make responses more compact/less chatty (ESEARCH)

  - Combine frequently used operations (STATUS + LIST)

Challenges

- What is "popular" IMAP extension?

  - Implemented by multiple servers/needed by multiple clients?

  - The same idea implemented in 3 different ways in widely used servers?

  - Implemented by vendor X (or "X and Y") because they own the market?

- My take: many servers and many clients using a feature, must be documented in some form (ideally in an RFC)

What I've done so far

- Posted IMAP4rev1 with errata fixed

- 2 revisions incorporating some changes according to the "Goals" slides

  - So far most changes are adding, not deleting

  - See Appendix B in the draft

- Most of "easy" work is done

What's next?

- For now this is an individual effort. I don't want to distract from the newly formed IMAPAPND WG work

- Reviews about what should be in and what should be out are very welcome!

- Might speed up this work depending on feedback

Open Issues

- Get rid of LSUB (use extended LIST)?

- Add IDLE?

  - Very common, but requires special mailstore infrastructure to implement. Occasionally broken in servers.

- Add SASL-IR?

- Add BINARY?