

JMAP @ IETF 98

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Chairs:

Bron Gondwana – brong@fastmail.com

Barry Leiba – barryleiba@computer.org

Initial drafts author:

Neil Jenkins – neilj@fastmail.com

Hello and Welcome

- Introductions
- Blue sheets
- Note Well
- Scribe and Jabber

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Agenda for today

- How the working group will run (15 min)
- Goals for JMAP (20 min)
- Specific issues (60 min)
- Other issues (10 min)
- AOB (10 min)

Working process

- Spec documents will be edited on Github
<https://github.com/jmapio/jmap>
- Changes will be managed through Github issues
- Discussion will happen on mailing list
- Substantial comments from issues will be copied to mailing list, and summary of list discussion transcribed into issue history

Editors and edits to specs

- Current editor and initial drafts – Neil Jenkins
- Additional editors? Separate editors for different documents? Call for volunteers.
- Current drafts are based on experience and existing working code.
- Because something is in the initial document set does not imply that there is consensus around the feature or around how it is specified. However gratuitous changes to proposed design should be avoided.

Why JMAP?

- IMAP is not well suited to constrained network environments and mobile.
- It's too hard to write an MUA with current standards, which has led to a stagnation in good email clients.
- Many proprietary JSON over HTTP protocols for email have been appearing.

Charter and Scope

- Specify a single, efficient protocol for email clients to communicate with one server endpoint.
- Address mobile / poorly connected / constrained environment considerations.
- Maintain compatibility with IMAP data models to allow a server to support both protocols.
- Out of scope: server to server communication or new end-to-end encryption.

Goals for JMAP

- Efficient use of network
 - Minimise round trips
 - Minimise bandwidth usage
 - Control over batch sizes
 - Out of band push to avoid polling or long-running connections
- Ease of implementation
 - Developer friendliness (existing platform support)
 - Extensible data model to support additional datatypes (e.g. calendars and contacts)
- Data model compatibility with IMAP
 - Can implement both in one server and provide simultaneous access via both protocols

Discussion of specific issues

- Versioning and extensions
- The "push" mechanism(s)
- Security considerations
- Interaction with existing relevant standards
- IMAP Keywords (IANA Registry)

Versioning and extensions

- Support for vendor-specific extras
- Upgrading to new versions of JMAP
- New features (e.g. Calendar/Contacts)
- “IMAP == imap4rev1”, but that’s a pretty bogus IMAP server by modern standards. Maybe JMAP2017, JMAP2020 etc, so users can compare server vendor feature levels easily.

The “push” mechanism(s)

- RFC8030
- Phone vendor channels, APNs, GCM/FCM, SNS, etc
- EventSource / long running TCP listener
- WebHooks

Security considerations

- Authentication mechanisms
- Minimum TLS levels
- HSTS
- ACLs
- Abuse controls / rate limits

Interaction with existing standards

- Standardising IMAP access to underlying data (msgid, thrid, mailboxid, outbox)
- Mapping from RFC5322 to jmap-mail object model

IMAP Keywords (IANA Registry)

- Add support for keywords
 - System flags \Seen etc specialcase
- Annotations (per message) and metadata (per mailbox / server) – do we want to support them via JMAP?

Other issues and business

Useful links

- <https://github.com/jmapio/jmap> (spec & issues)
- <http://jmap.io/> (background & implementation)
- <https://proxy.jmap.io/> (proxy to IMAP/*DAV)
- <https://datatracker.ietf.org/wg/jmap/documents/>