

# JMAP & Ltt.rs

Intro to the JSON Meta Application Protocol, a spiritual successor to IMAP & Submission

Daniel Gultsch

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# Shortcomings of IMAP

- Extensible protocol

```
if server_has_fance_extension
  do_something
else
  do_something_more_complicated
```
- Custom wire format
- Requires persistent TCP connection
- MIME parsing
- Sending over SMTP/Submission

# What is JMAP?

- IMAP with state of the art extensions + Submission
- Stateless (JSON over HTTPS)
- Native push (Websockets or out of band via APNS, FCM, ...)
- Server handles MIME/Header parsing
- Fully compatible
  - Server-to-server communication remains untouched!
  - Mostly compatible to IMAP. Operates on the same data storage (maildir)

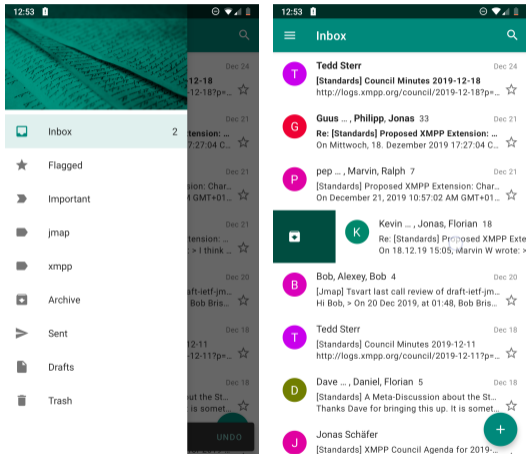
# What is JMAP really?

- Data synchronization protocol
- Replacement for Active Sync
- IETF Standard
- WIP: calander & contact (CardDAV and CalDAV replacements)

# What is it not?

- Getting rid of all email mess
  - Text vs HTML emails still a mess
  - End-to-end encryption still a mess
- Incentive for existing IMAP clients to switch
- Noticable for end users

# Introduction to Ltt.rs for Android



## ■ Tools

- Headless email client (jmap-mua)
- Android Jetpack (Room, Databinding, WorkManager, ...)
- No frills, no settings, easy to write, easy to maintain
- Heavily inspired by Gmail
- Potentially **lttrs-cli** (ncurses) in the future

# Status quo

The image shows two screenshots from an email client. The left screenshot shows an inbox with the following messages:

- [Standards] A Meta-Discussion about the Standards Process** (starred)
- Dave Cridland** Dec 12: Many moons past, we had a clever idea. What we thought was that we should change the XML ...
- Kevin Smith** Dec 12: On 12 Dec 2019, at 09:22, Dave Cridland <dave@criland.net> wrote: >> Many moons pa...
- Daniel Gultsch** Dec 12: Am Do., 12. Dez. 2019 um 09:24 Uhr schrieb Dave Cridland <dave@criland.net>: > 1) The "Florian ...
- Dave Cridland** Dec 13: On Thu, 12 Dec 2019 at 16:41, Daniel Gultsch <daniel@gultsch.de> wrote: > I mean correct me ...
- Florian Schmaus** Dec 18: to standards

Below the inbox, there is a text block:

Thanks Dave for bringing this up. It is something I believe we really could, should and must do better.

There are two aspects to this: The phase (I) before a XEP gets first presented to council, and the phase (II) after it got "accepted" (by council). Both phases can and should be changed to improve the XEP development process and encourage collaboration. But we mostly can discuss and improve them separately.

The right screenshot shows a 'Compose' screen with the following details:

- From:** beta@litt.rs
- To:** Daniel Gultsch, alice@example.com
- Text:** Hello from [Ltt.rs](#)
- Subject:** Compose email

## ■ Ltt.rs

- Reading (Text only, no attachments), Searching
- Processing (mark as read, swipe to archive, delete)
- Writing and *light* responding (no quoting), saving and editing drafts
- Heavily cached + offline capabilities
- Server software: **Cyrus** git only, Dovecot (interested but other priorities right now)
- Mail provider (**fastmail.com** #NotSponsored)

# Thank you

- Android client: [Ltt.rs](https://litt.rs)
- Library: [github.com/inputmice/jmap](https://github.com/inputmice/jmap)
- Daniel Gultsch: [gultsch.de](https://gultsch.de), [@iNPUTmice](https://twitter.com/iNPUTmice)
- Meet me @ 36c3: [XMPP Assembly](#)
- XMPP/email: [daniel@gultsch.de](mailto:daniel@gultsch.de)