

JMAP upgrade for IMAP

IETF 115 – London

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The problem: millions of existing IMAP clients

- Mixed mode: new features via JMAP
 - Keep existing mail sync code
 - Add ObjectID support (RFC8474)
 - Make JMAP calls for new features (e.g. Snooze, send rather than Submission)
- Use JMAP Push as an edge trigger
 - Connect JMAP for pushes
 - Use pushes rather than IDLE to trigger changes
- Full upgrade
 - Take existing IMAP connection and change to JMAP connection without requiring re-entry of credentials

Authentication upgrade

- Possibilities for JMAP connection:
 1. Have the IMAP connection return a per-user URI with enough entropy that it's secure
 2. Require OAuth for IMAP and have JMAP URI use the same OAuth token
 3. Have the IMAP connection return a URI and a Token to the client (possibly the same token as in #2, but round tripped)
- Seamless vs consent screen:
 - This may add a new “connected device” in the UI at providers. Do we need to throw up a browser with consent / scope selection?

Example Oauth Upgrade

CAPABILITIES JMAPAUTH

C:

TAG GETOAUTH

TAG NO Oauth not supported with these credentials

TAG GETOAUTH

* OAUTH ([“user@example.com”](#) “v1-1668081739-6e33c6e6-aa47-4cb8-81de-ab3621e487ff”)

TAG OK OAuth token generated

Example JMAPAUTH

CAPABILITIES JMAPAUTH

C:

TAG JMAPAUTH GET

TAG NO JMAPAuth only available with OAuth logins

TAG JMAPAUTH GET

* JMAPAUTH ("<https://jmap.example.com/s/4c343293-3b31-4a19-a516-1dad6d532f57/>")

TAG OK

TAG JMAPAUTH GET

* JMAPAUTH ("<https://jmap.example.com/s/4c343293-3b31-4a19-a516-1dad6d532f57/>" "v1-1668081739-6e33c6e6-aa47-4cb8-81de-ab3621e487ff")

TAG JMAPAUTH GET

* JMAPAUTH ("<https://jmap.example.com/jmap/>")

TAG OK Use same bearer token to access

Next Steps

- Am I on the right track here?
- Suggested pathways:
 - Should we do a separate “get OAuth”
 - In-band in IMAP?
 - Define a different endpoint? If so, how is it discovered? IMAP command to discover endpoint that gets authed separately somehow?
- Call for adoption (probably ask Jiankang since I’m a chair)
- Anybody else want to author/co-author?