E-mail and Digital Sovereignty

Why a decades-old standard plays a key role in your digital independence

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SFSCON
Bolzano, 13 November 2026

Who am I?

- Ciao! :) I'm Florian!
- free software enthusiast since 2004
- co-founder of LibreOffice and The Document Foundation
  (which is about digital sovereignty)
- self-hosting e-mail since 1999
  (which also is about digital sovereignty)

E-mail is still very relevant

- approximately **390 billion emails per day** (~45% spam)
  - despite apps and messengers, **e-mail is not deprecated**
  - default **password reset** mechanism
  - **digital archive** in an open format (rather than an app)
- **personal** communication
  maybe declining
- **business** communication
  hotel bookings, train reservations, concert tickets, conference planning, insurance filings, ***electronic invoices****, corporate communication, even fax-to-mail gateways*
- **transactional** e-mails
  availability of bank statements, tenant usage reports, ***default 2nd factor for logins***

E-mail is a cornerstone in everyone's digital lives

E-mail is a cornerstone
in everyone's digital lives
so digital sovereignty is key

E-mail as open standard

- one of the internet's **oldest open standards**
  first e-mail 1971, current protocols approx. 1980's
- one of the world's biggest **federated networks**
  - every mail server can communicate with every other
    (interoperability)
  - just as the postal service ships letters worldwide
    (you don't need to know the recipient's postal service)

Open by design

- IMAP4, POP3 and SMTP are **open protocols**
- lots of servers and clients **to choose from**, on any platform
- some proprietary protocols and extensions do exist
- transmission format **standardized** (SMTP)
  otherwise servers couldn't talk to each other
- standard "file formats" exist, e.g. Maildir
  proprietary servers might implement something different

Market share

- few big providers lead the e-mail hosting market
- self-hosting is declining
- dependence on a single provider, regardless of which one
  - risk of outages and attacks
  - risk of price increases and change of offer
  - risk of specific rules for deliverability
  - risk of having a big part of your digital life in someone's hands
  - risk of some sort of vendor lock-in

Further challenges

- **deliverability** can affect your digital sovereignty
  - important mails get rejected
    tickets not sent, deadlines missed, contacts unreachable
  - **silent discard** to junk folder, or even deletions
    e-mail has been (technically) delivered, but nobody spots it
  - escalation paths sometimes only for paying end-users
    ”I can’t receive” vs. “I can’t send”
    - no feedback on delisting forms, or can take long
    - hard to reach a human being, not even at postmaster@

https://effenberger.org/en/howtos/return-to-sender-1/
https://effenberger.org/en/howtos/return-to-sender-2/

Further challenges

- **freemailer advertisement** based on e-mail context
- non-standardized headers and features
  might get lost when migrating away
- cloud version more frequently updated than on-premises
- curiosities
  - provider's own tickets marked by their spam filter
  - paid-for delisting from blocklists
  - different spam treatment sending vs. receiving

What's the solution?

- self-hosting is tough and not everyone's competence
  mistakes can quickly impact your domain and IP reputation
- **always use your own domain**, otherwise lock-in
- **look for providers which** use FLOSS, work transparently, focus on privacy and safety and **give back to community**
- **separate e-mail** from other services
  otherwise a vendor lock-in might creep in

Howtos for self-hosting

- Christoph Haas's howto
  https://workaround.org
- Thomas Leister's howto
  https://thomas-leister.de/mailserver-debian-trixie/
- Jan Wildeboer's howto
  https://jan.wildeboer.net/2022/08/Email-0-The-Journey-2022/

Thank you very much!
Any questions?

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