

draft-happel-structured-email-trust-01

IETF 120

# Status

- Scope: Security and trust considerations for processing structured email
  - I.e., mainly addressing any sort of recipient-side MUA!?
- Updates since IETF 119
  - More words, longer sentences
  - Emphasis moved a bit toward describing existing practice, less advice

# Status quo

- How is structured email currently processed?
- Large ISPs (Gmail, Yahoo, 1&1, ...)
  - Manual sender approval / white listing
  - Require DKIM/SPF/...
- Open source tools
  - KMail and Nextcloud: no restrictions
  - Roundcube plugin: reusing “trusted sender” (special address book) feature used for remote images
- M3AAWG BCP forthcoming

# Types of security concerns

- Formal representation of data (beyond human-readable text)
  - Privacy issue: data easier to analyze in storage / transit
  - Probably comparable to structured MIME attachments (flight tickets, barcodes)
- Possible divergence between structured and human-readable data
  - Same issue, e.g., exists already for text/plain / text/html inside multipart/alternative
- Automated processing
  - Structured email may afford MUAs to offer automated actions (similar to Sieve filter rules)
- External references
  - Similar to external images referenced in HTML email
- More types?

# Mechanisms

- Content encryption
  - Full message?
  - Structured data only?
- Trust
  - Trusted senders (e.g., address book)
  - Sender signatures (e.g., PGP, SMIME)
  - Domain signatures (e.g., DKIM)
  - Transaction identifiers

# Differentiate by use cases?

- “Neutral” structured data
  - E.g., shared news article
- Structured data with personal information
  - E.g., flight reservation

# Implementation guidelines

- Processing structured data
  - Only if the sender is trusted
  - Otherwise: fall back to text/html or text/plain
- Embedding data (e.g. images) in the message
  - Avoids privacy issues on receiver side

# Next steps

- Further co-authors?
- Request WG adoption
- Example implementation
  - Plugin for Roundcube Webmail
  - Currently re-using “trusted sender” (in address book) feature for remote images

## My NYT lemony shrimp recipe



From NYT Cooking on 2023-10-24 01:00

 Details  Headers  Plain text



To protect your privacy remote resources have been blocked.

[Allow](#)



This message contains structured email data.

[Allow structured email content and ...](#)

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