“Wrong Recipient” Notifications
For Email Misdelivery

IETF 120, MAILMAINT
John Levine
What to do?

- Actual email received
- (I’m not Jeffrey.)
- Not spam
- Legit sender
- Legit purpose
- Correct ARC, DMARC, SPF, and DKIM
- Can’t unsubscribe
- Can’t reply
What if Email Had a “Wrong Recipient” Notification?

● Would need to be user-initiated via UI - “this wasn’t meant for me”

● Probably should only show this UI if confident it’s not spam.

● Mostly for B2C using noreply@ - if a human writes to you, you can just reply “you sent this to the wrong person”.

● Would benefit:
  ○ **Wrong Recipient**: no longer receive emails for someone else
  ○ **Sender**: minimize liability for transmitting PII to a third party, repair broken comms channel
  ○ **Correct Recipient**: might finally gets the message for them
What Could a Sender Do If Notified of a Wrong Recipient?

- Stop sending emails to the wrong recipient for that account
  - But *don’t* treat as “send no email” to that address; the user might have a valid account!
- Use postal mail, phone call, or text message to collect a better email address
- Try other / prior email addresses for the user account?
- Display in-app / web message for the user that they need to provide a correct email address

Note: can avoid this flow if only sending transactional emails to verified addresses!
How Might We Enable Wrong Recipient Notifications?

- HTTPS URI in “Wrong-Recipient” SMTP header field, works like List-Unsubscribe One-Click (RFC 2369 / RFC 8058)
- Simple POST to sender-provided URI, no cookies included
- POST could be immediate or queued for offline MUAs
- RFC 8058 has seen robust adoption, so we know the design works
Proposal (draft-dweekly-wrong-recipient)

Header Field in Email:

    Wrong-Recipient: https://example.com/wrong-recipient/123hashtoken456

Resulting POST request:

    POST /wrong-recipient/123hashtoken456 HTTP/1.1
    Host: example.com
    Content-Length: 20

    Wrong-Recipient=true
Next steps

- Ask MAILMAINT to adopt it
- Get buy-in from mail systems and senders
  - We have talked to them, seems likely
Thanks!

https://datatracker.ietf.org/doc/draft-dweekly-wrong-recipient/

david@weekly.org
john.levine@standcore.com