



Keeping Your Email Private



Your Presenter

Mark Schulman

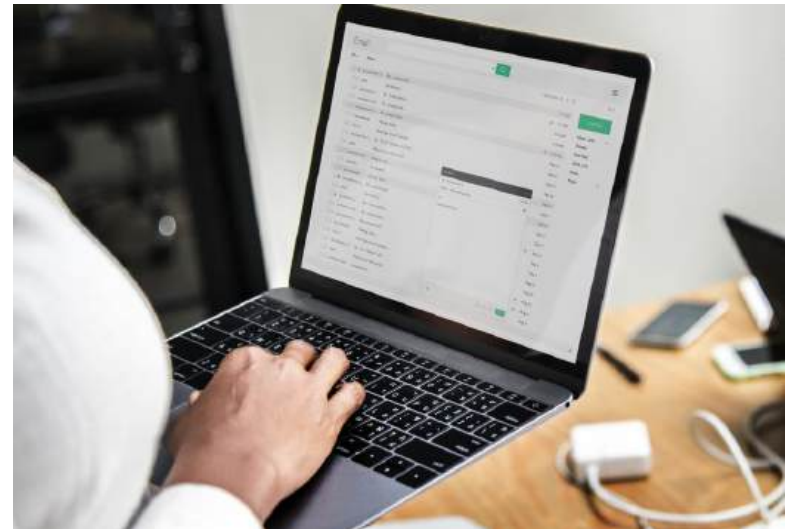
- IT professional for 45 years
- IT manager for a small medical office
- No affiliation with any product



Email Privacy

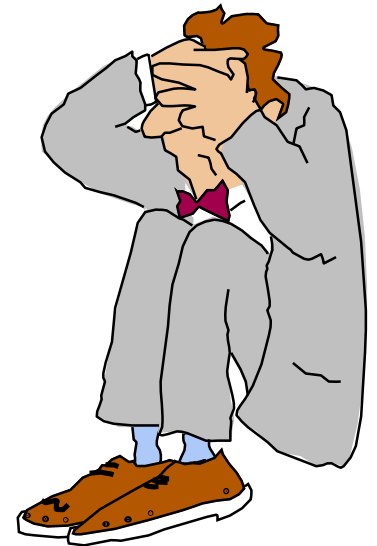
Important techniques to keep your email private and secure

- Understand the realities of email
- Encryption
- Secure email services
- Disposable email addresses



Email Privacy

- There isn't any
- Email transmissions are “in the clear”
- Remember the advice your mother gave you growing up ...

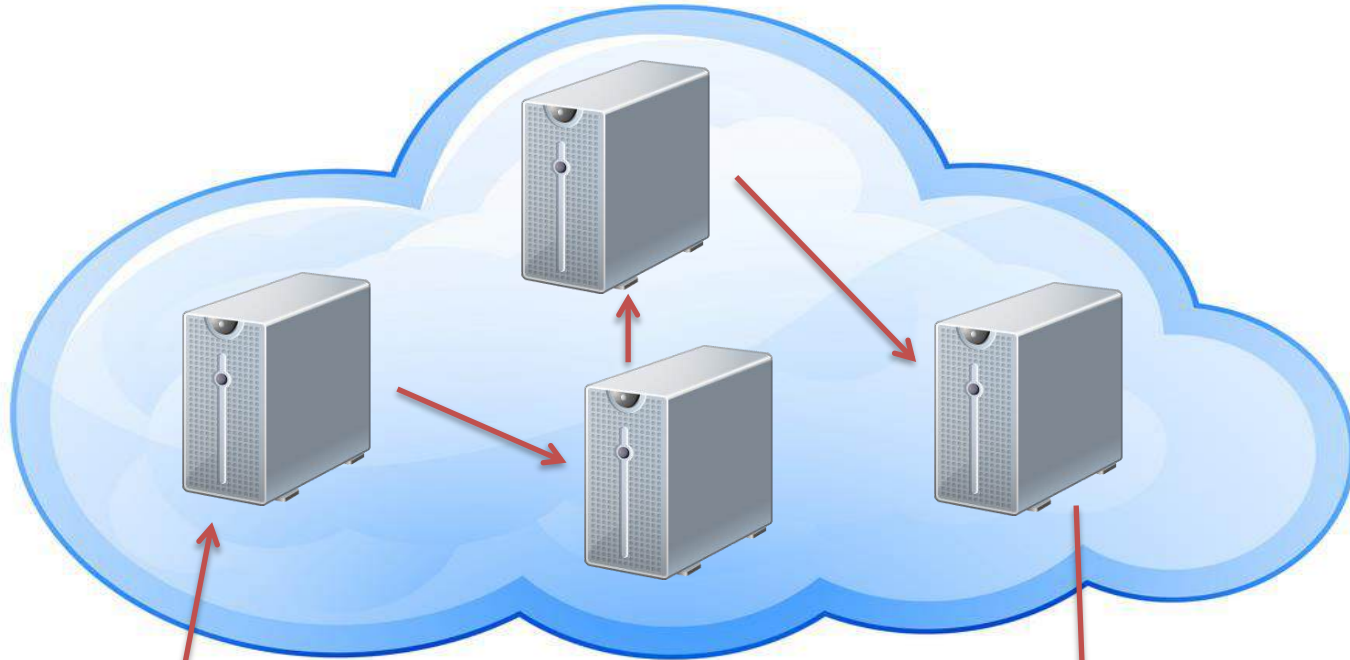


Sage Advice from Mom

“ Be careful with that thing. ”
You don't know where it's
been.

-- Mom

How Your Email Gets There



Email passes through many servers, owned by ???



What Could Go Wrong?

- Spying on your PC
- Interception between PC and server
- Snooping in transit
- Spying on the other end

The Secret

Mark's Secret Technique for Exchanging Email Securely with Everyone

1. Forget it.

Email standards weren't developed with security in mind.



Attacking the Problem

- There are things you can do
- What concerns you?



Freedom fighter

NSA snooping

Hackers / privacy

Nosy kids

Hard



Easy

Some Easy Things You Can Do



Keep the Casual Snoopers Out

Keep the kids or houseguests out of your PC's mailbox.

- Startup password for Outlook



More Determined Snoopers

Keep a more determined snoopers off your PC

- Move Outlook's PST file to a VeraCrypt vault
- Encrypt your entire PC hard drive
- Use web mail (Yahoo, Gmail)



Email and Encryption



Technique 1: SafeMess.com

- Encrypt your message and paste it into your email.
- Lots of websites can do this.
- Quick n' easy if your message is nothing but a bunch of text.



Demo



Another Email Alternative

- For secure communication, use encrypted attachments
- Both people use the same software
- Must exchange passwords ahead of time
- Microsoft Office: built-in
- Other files: AES Crypt



Technique 2: Microsoft Office

- Microsoft Office has built-in encryption
- To encrypt:
 1. File
 2. Info
 3. Protect Document (or spreadsheet)
 4. Encrypt with Password



Demo



Technique 3: Other Types of Files

Lots of free encryption software:



AESCrypt (any type of file)



7-Zip (any type of file)



Notepad++ (text, with SecurePad plugin)

Demo



Caveat: Password Exchange

- Don't send a password with the encrypted file!

○ **Mark Schulman** <marks@qcorp.com>
To Pete <pete@qcorp.com>

[Reply](#) [Reply all](#) [Forward](#) [Delete](#) [Add to Safe Senders](#)

 1 attachment ▶ [View](#) [Download](#)

Dear Pete,

The list of phone numbers is attached.

The file is encrypted. The password is "callmesoon!"

Thanks,

Mark

Another Caveat: What's Not Secret

- Beware of revealing file names
- Sometimes just the existence of an email is bad enough

Centuries-Old Encryption Problem

Key exchange

- Today's fun term:
“out-of-band”
- Best way to send a password:
Phone call
- 2nd-best: Text
- Absolute worst: Email



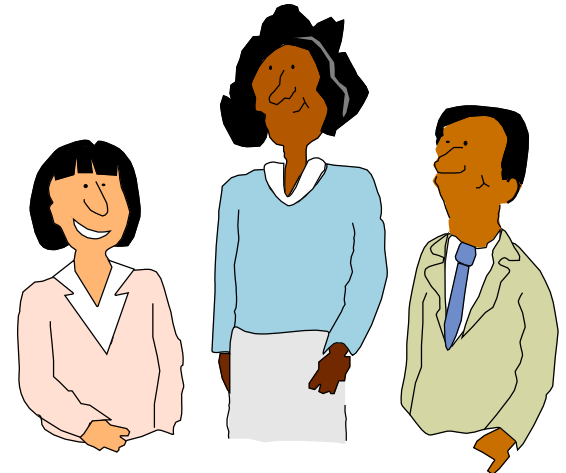
Secure Email Service



Email Solutions

- The free providers don't respect your privacy
- Consider a secure email provider:
 - ProtonMail
 - Startmail
 - Tutanota
 - Zoho Mail

<https://cybernews.com/secure-email-providers/>



Disposable Email



Disposable Email Addresses

- Many free sites provide disposable email addresses
- Provides an inbox that you can use for a short time
- Some services:
 - Email address good for a short time
 - Email addresses good long-term



Some Disposable Email Addresses



guerrillamail.com



10minutemail.com



fakemail.net

Demo



GUERRILLAMAIL.COM™



Disposable Email Addresses

- Don't depend on these services for really sensitive stuff



Related: Email Forwarding Services

- Like disposable email ...
 - Provides you with a new email address
- Unlike disposable email ...
 - Forward incoming emails to your regular inbox
 - You have to provide the service with your real email address
 - Usually not free

Email Forwarding Services



trashmail.com

Final Thoughts



Untrusted Recipient

“ Your email is only as safe as the less-secure of the two of you. ”



Things to Consider

- Is your recipient secure?
- Is your recipient trustworthy?



Where To Get It

Encryption

| | |
|-----------|---|
| SafeMess | https://safemess.com |
| AES Crypt | https://www.aescrypt.com |
| Notepad++ | https://notepad-plus-plus.org |
| 7-Zip | https://www.7-zip.org |

Disposable Email Providers

| | |
|----------------|---|
| GuerrillaMail | https://www.guerrillamail.com/ |
| 10 Minute Mail | https://10minutemail.com |
| FakeMail | https://fakemail.net |

Email Forwarding Services

| | |
|-----------|---|
| TrashMail | https://trashmail.com |
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Where To Get It

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Secure Email Services

| | |
|------------|---|
| ProtonMail | https://proton.me |
| StartMail | https://www.startmail.com |
| Tutanota | https://tutanota.com |
| Zoho Mail | https://www.zoho.com/mail |

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marks @schulmans.com

