



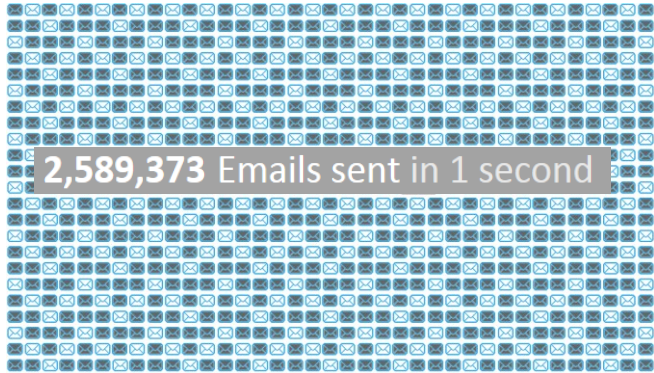
Five Years of DANE

Modern, Secure and Stress-free SMTP

One Conference 2018

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Twitter: @internet_nl

Mail is popular, old & vulnerable



RFC 821

August 1982

Simple Mail Transfer Protocol

TABLE OF CONTENTS

1. INTRODUCTION	1
2. THE SMTP MODEL	2
3. THE SMTP PROCEDURE	4
3.1. Mail	4
3.2. Forwarding	7
3.3. Verifying and Expanding	8
3.4. Sending and Mailing	11
3.5. Opening and Closing	13
3.6. Relaying	14
3.7. Domains	17
3.8. Changing Roles	18
4. THE SMTP SPECIFICATIONS	19

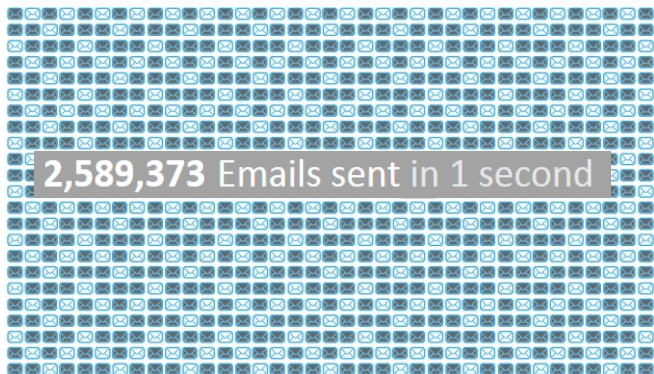
Snooping (MiTM)



Spoofing



Mail is popular, old & fixable



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~~Looping (MIM)~~

STARTTLS + DANE

DMARC + DKIM + SPF

Who does DANE? *Companies...*

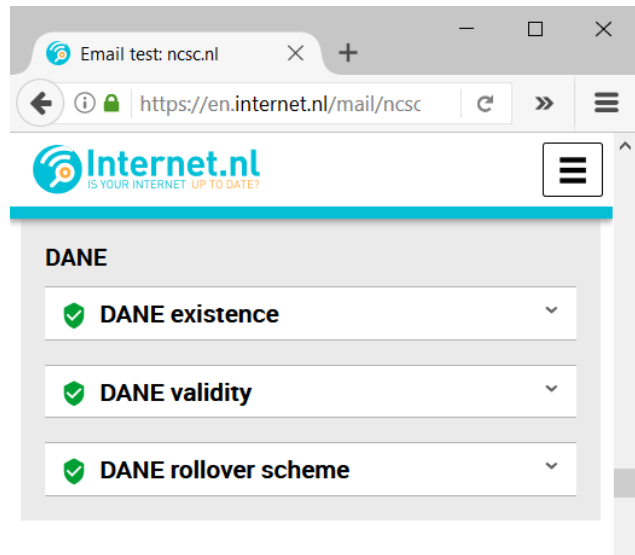
- **Mail providers/hosters:** Comcast, GMX, Mail.com, Mail.de, Mailbox.org, Posteo, SURFnet, Transip, Tutanota, Unitymedia.de, XS4ALL a.o.
- **Mail server software:** Postfix, Exim, Halon, Cloudmark, Port25 PowerMTA, OpenSSL, Cisco ESA (beta)

Who does **DANE**? *Governments...*

- **Mandates and recommendations:**
 - European Union: [Decision of EC on "identification of ICT Technical Specifications for referencing in public procurement"](#)
 - Germany: ["BSI TR-03108-1: Secure E-Mail Transport, Requirements for E-Mail Service Providers \(EMSP\) regarding a secure Transport of E-Mails"](#)
 - Norway: [Recent consultation](#)
 - The Netherlands: [Comply-or-explain](#) and [agreement on implementation date before end of 2019](#)
 - USA: [Publication on "Trustworthy Email" by NIST](#)
- **Example gov domains:** czech.cz, bund.de, insee.fr, politie.nl, overheid.nl, polisen.se
- **Recent survey 563 NL gov domains:** DNSSEC (90%), DNSSEC-MX (69%), DANE (22%)

Do you DANE? Test...

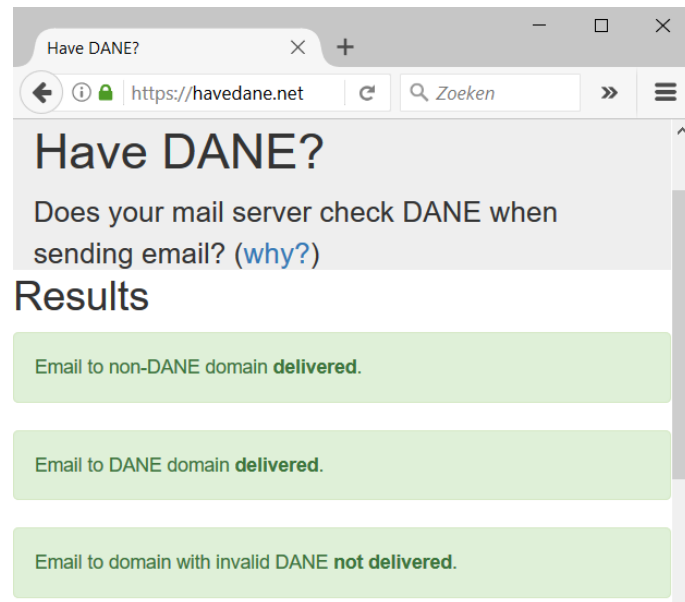
publication on Internet.nl



Alternative tests:

- DANE SMTP Validator: <https://dane.sys4.de/>
- EU MECSA: <https://mecsajrc.ec.europa.eu/>

verification on Havedane.net



How do you DANE? *Learn from...*

Experts:

- Patrick Koetter (sys4)
- Jan-Pieter Cornet (XS4ALL)