



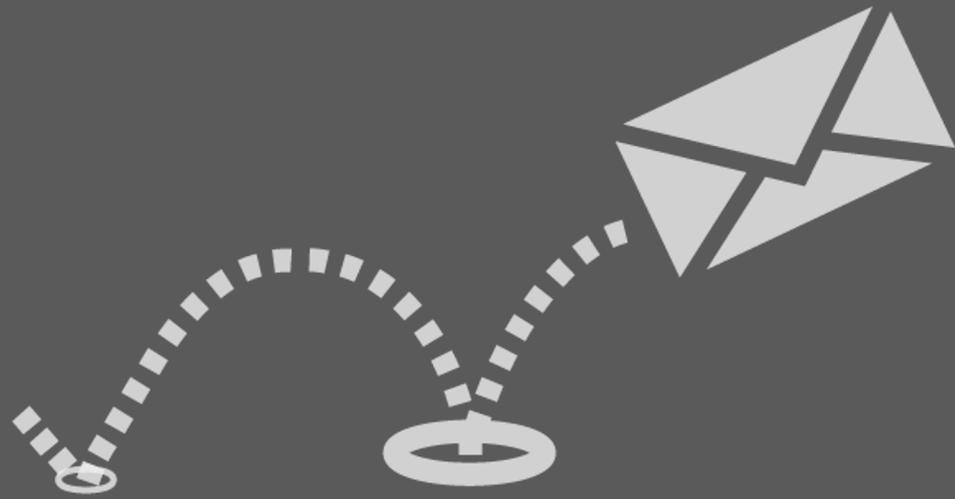
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MailerQ

# Email Fundamentals: Bounces

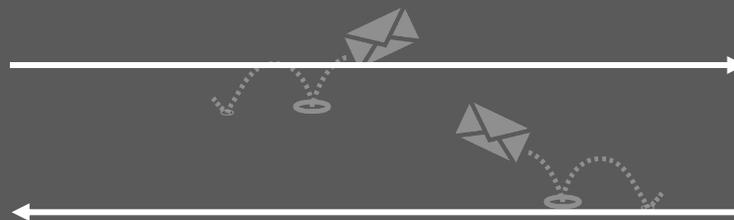
Date: December 1, 2020

# Introduction to Email Bounces



## What is a bounce?

**Outgoing  
SMTP Server**

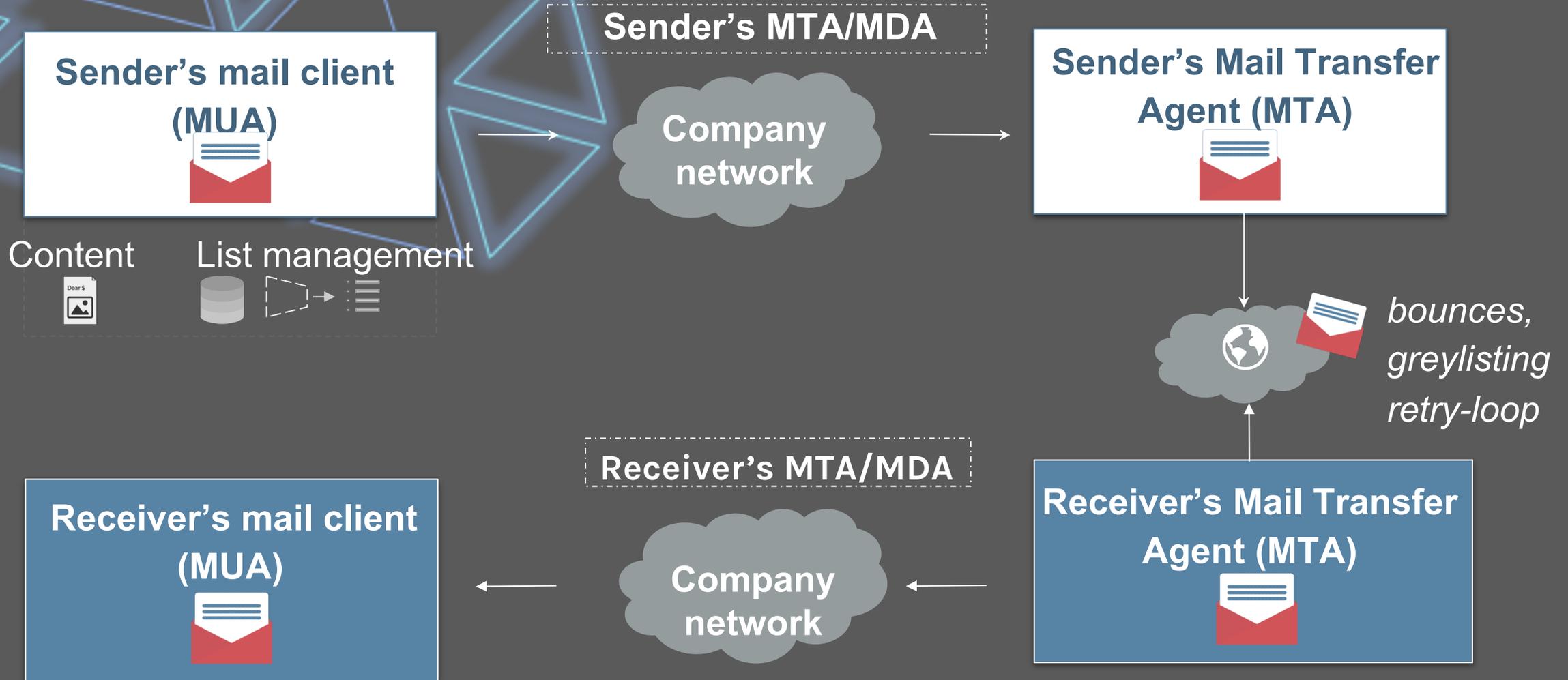


**Receiving  
SMTP Server**



421 Your message was temporarily deferred by the recipient server.

# Email Transfer Process



# Reasons your emails bounce



**1.** Non-existing email address



**4.** Auto reply



**2.** Undeliverable email



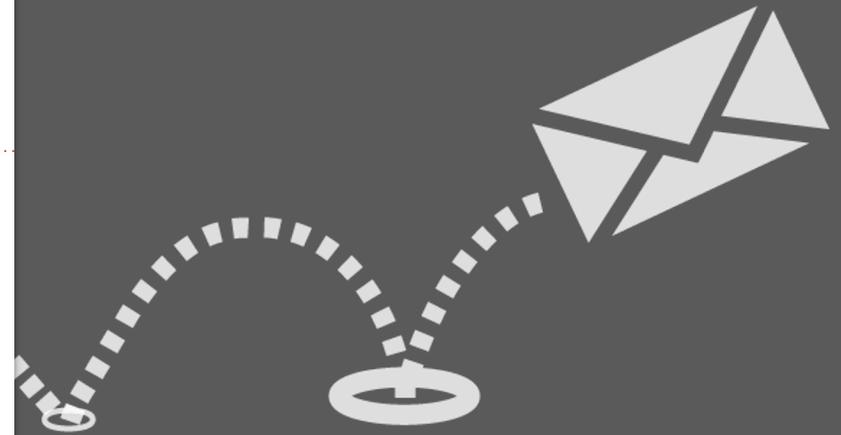
**5.** Blocked email



**3.** Mailbox full



**6.** Other



## Response codes

**2xy** - message accepted

**4xy** - temporary rejection

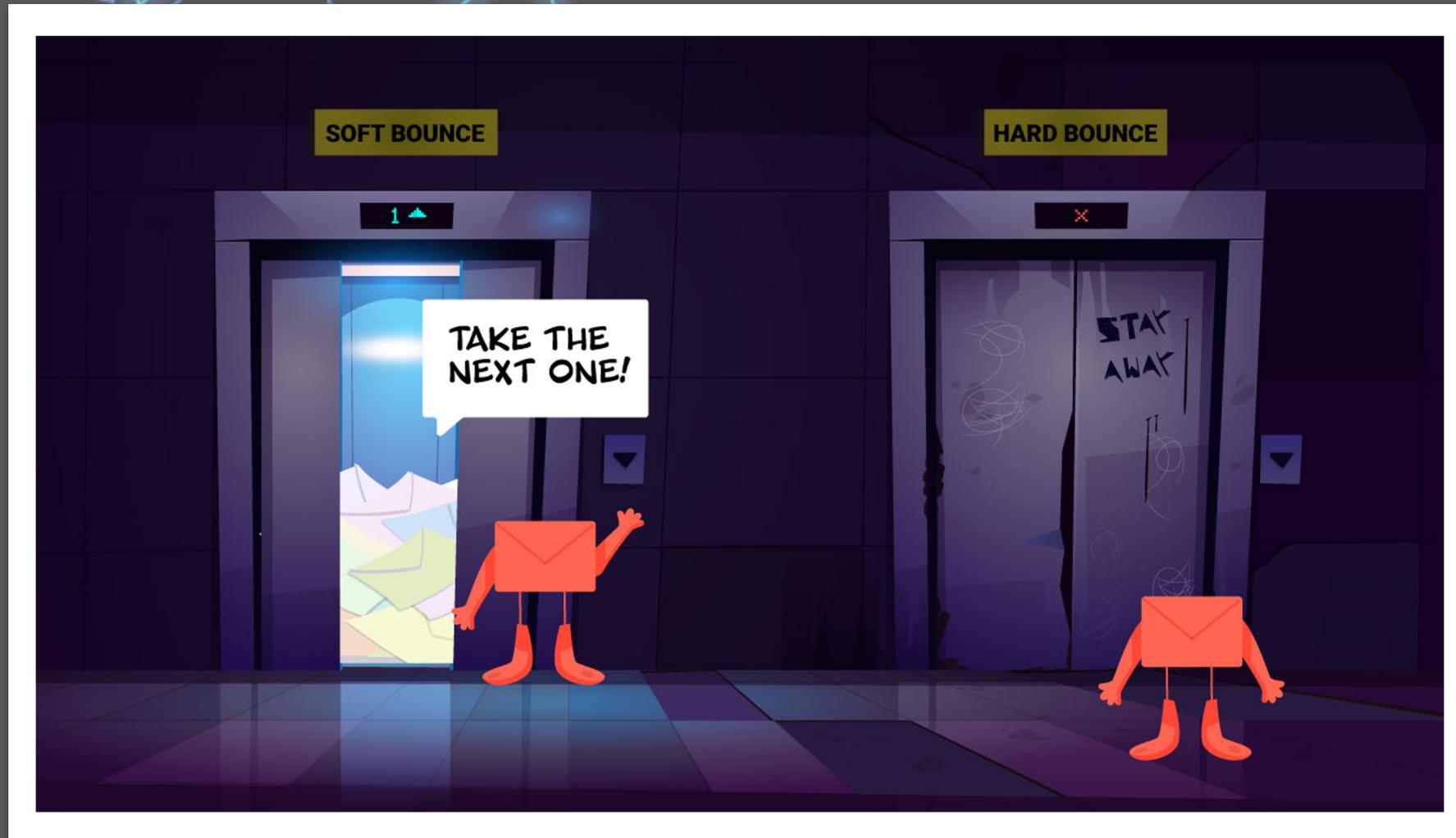
**5xy** - permanent rejection

## Response codes and patterns

4xy	
420	“Timeout connection problem” Issues during the message transfer.
421	Your message was temporarily deferred by the recipient server.
450	<b>Mailbox Unavailable</b>
452	Requested action not taken. insufficient system storage.

5xy	
500	Syntax error: the server couldn't recognize the command.
<b>523</b>	<b>Total size of your mailing exceeds the recipient server's limits.</b>
550	Defines a non-existent email address on the remote side.
512	DNS error: the host server for the recipient's domain name cannot be found.

# Bounce classification



## Bounce classification

### Soft Bounces

- Virus/Spam
- Message limit exceeded
- SPF/DKIM/DMARC failure
- Public Blacklist
- Network/DNS issues
- Policy restrictions

### Hard Bounces

- No Such User
- NO MX server
- Expired messages



# Expired messages



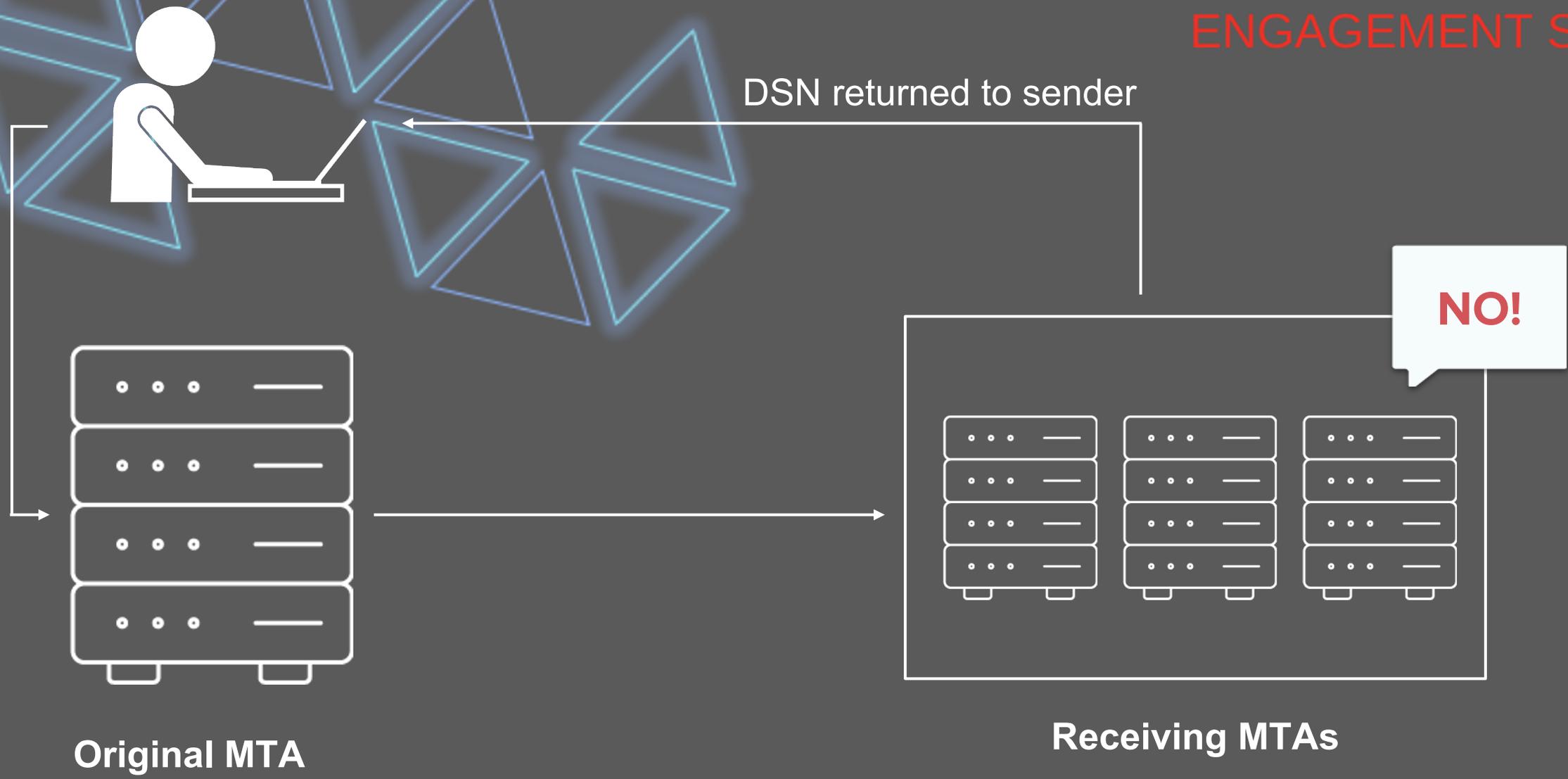
Outgoing SMTP Server

Receiving SMTP Server

Hard bounced after some attempts

## Reporting

- DSN - Delivery Status Notification
- Empty Return-Path: <>
- Coming From "MAILER-DAEMON" or a "Mail Delivery Subsystem"
- Contains the address of each recipient as originally specified
- Contains the most accurate explanation for the delivery failure that is available.



FROM: mailer-daemon@testmail.com  
subject: Undelivered Mail Returned to Sender

---

550 5.1.1 The email account that you tried to reach does not exist.  
Please try double-checking the recipient's email address for typos or unnecessary spaces.

Reporting-MTA: dns; testmail.com

Arrival-Date: Day, 00 Month 2020 00:00:00 -0000 (ODT)

X-Original-Message-ID:

<CACpw7euf0BwOhQsvPp8XLktb+rPsMe9C36Xnm8pk8LjreS\_iQ@mail.testmail.com.com>

Final-Recipient: rfc822; ndrfailurenosuchemail@testmail.com

Action: failed

Status: 5.1.1

Diagnostic-Code: smtp; 550-5.1.1 The email account that you tried to reach does not exist. Please try  
550-5.1.1 double-checking the recipient's email address for typos or  
550-5.1.1 unnecessary spaces. Learn more at

550 5.1.1 [https://testmail.com/mail/?p=NoSuchUser\\_a24sor1206288wmb.7](https://testmail.com/mail/?p=NoSuchUser_a24sor1206288wmb.7) - gsmtmp

Last-Attempt-Date: Day, 00 Month 2020 00:00:00 -0000 (ODT)

**From:** Test Mail <test@mail.net>

**Subject:** ndr test

**Date:** 00 Month 2020, 00:00:00 OST

**To:** ndrfailurenosuchemail@testmail.com

your content could be here



## Honor your relationships by listening

- Analyze the bounce backs

High hard bounces rates

*Indicates issues with a list*

*e.g. HB > 5%*

High soft bounces rates

*Indicates health of a sender*

*e.g. SB > 2%*



- Proper list maintenance

*Active subscribers will help you prove the importance of your emails to the Mailbox Providers.*

- Proper content

*Concentrate on what you're sending and to whom.*

**THANK YOU!**

**For additional questions, please email:**  
[training\\_committee-chair@mailman.m3aawg.org](mailto:training_committee-chair@mailman.m3aawg.org)