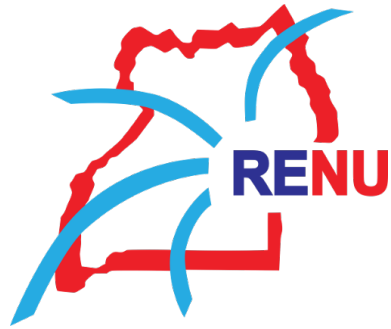




Enhancing Network Hygiene: Network-wide blocking and Whitelisting for Effective Email Spam Filtering

Victor Masozera
vmasozera@renu.ac.ug



Overview

26th October 2023

Outline

- Introduction
- The Problem
- What Has Been Done In RENU
- Spam Score Before Filtering
- Execution Overview
- Spam Score After Filtering
- Effects On Productivity
- Conclusion

Introduction



Introduction - Global Email Spam Propagators

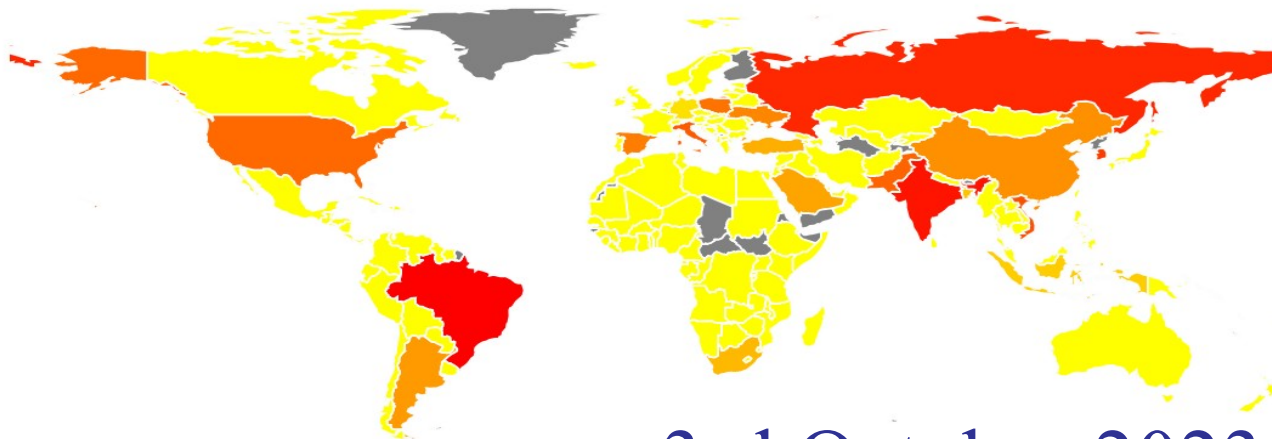


UCEPROTECT-NETWORK

Statscenter

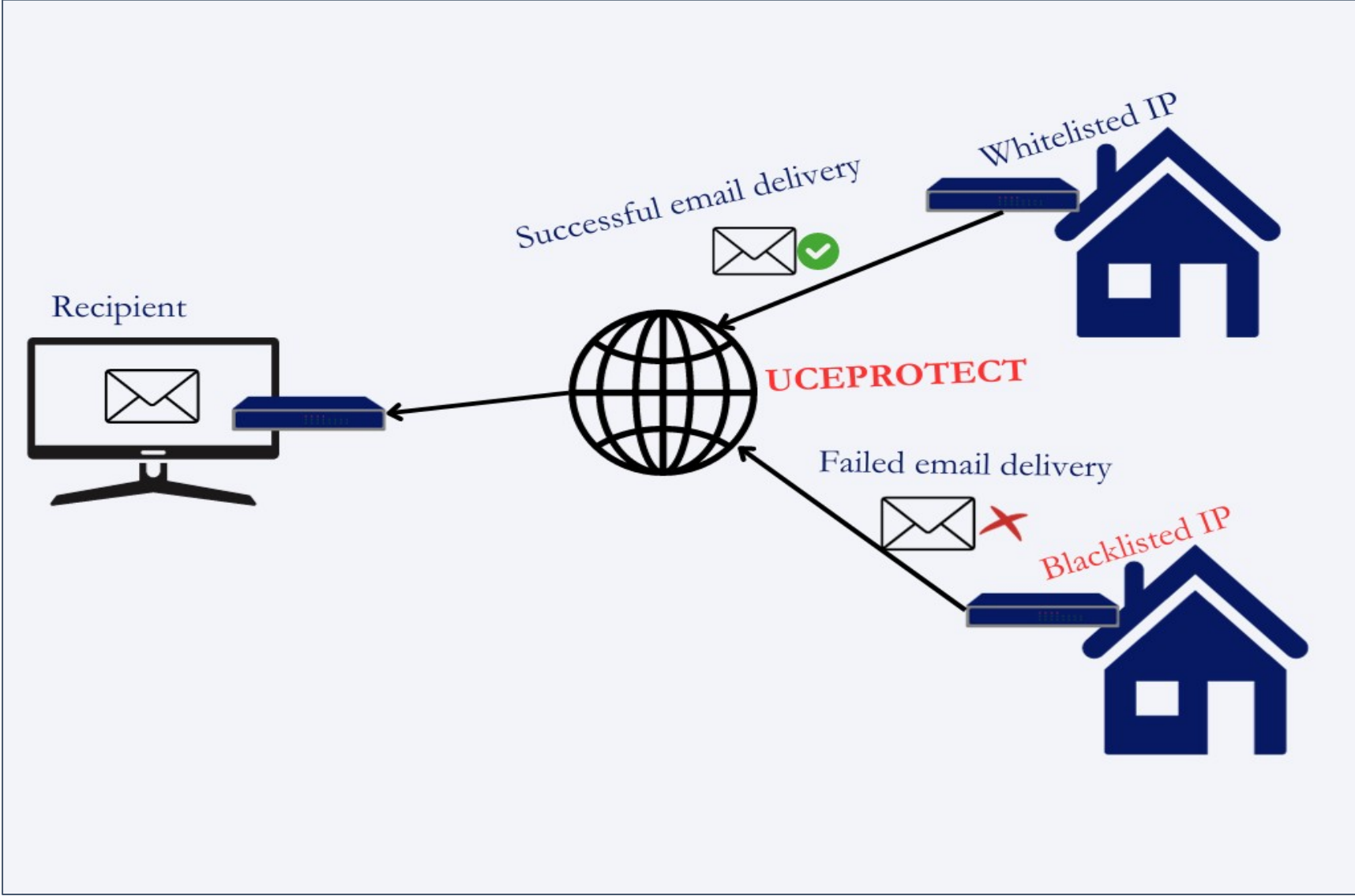
UCEPROTECT Zones: Level 1: 📌 72803 IP's, Level 2: 📌 13886 Allocations, Level 3: 📌 978 ASN's. Last Updated: 03.10.2023 16:15 CEST

- 📌 Global Spam Activity
- 📌 UCEPROTECT Details
- 📌 Backscatterer Details
- 📌 Last Day
- 📌 Last Week
- 📌 Measurement info



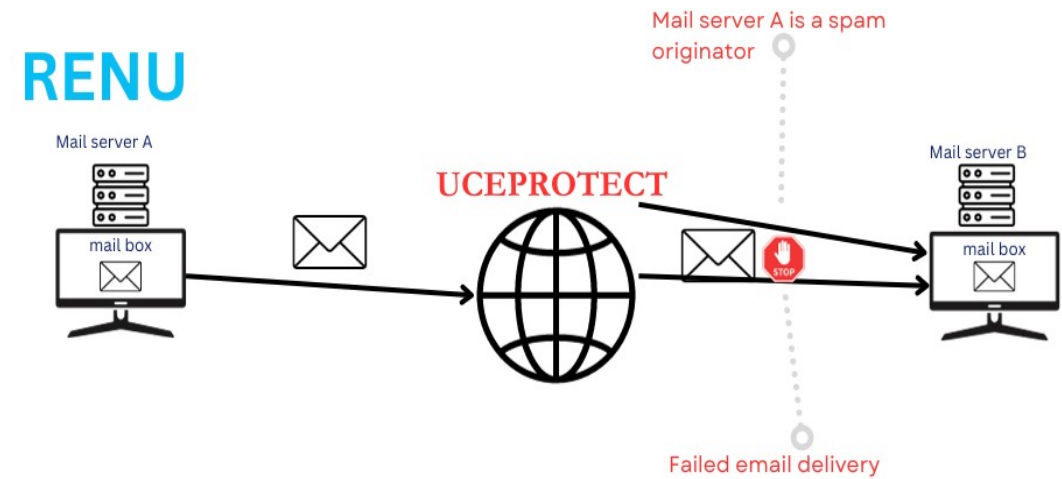
3rd October 2023

Introduction

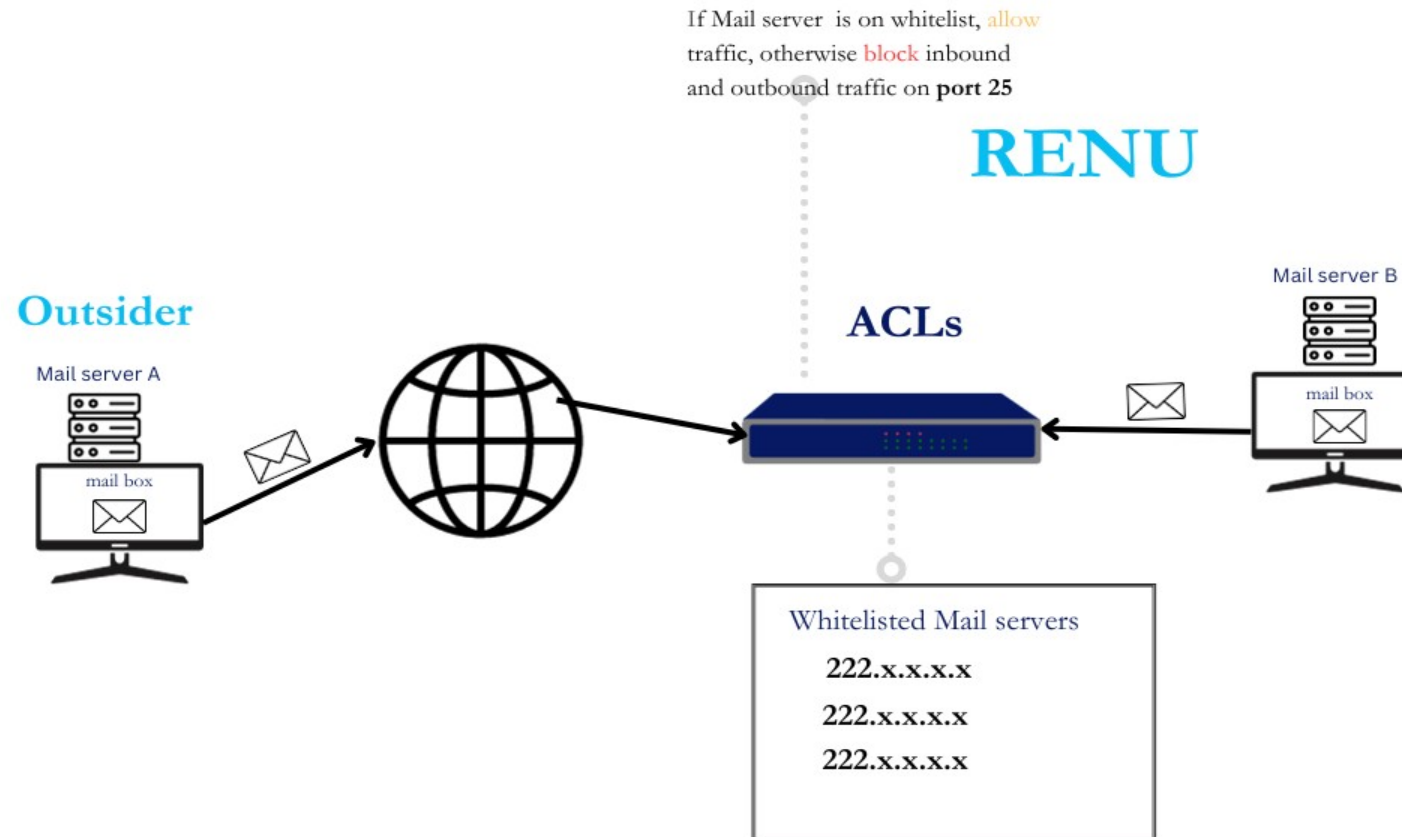


The problem

- High spam scores led to IP and subnet blocking by Internet operators.
- Impact on reputation, productivity and email communication.
- Compromised machines that were used to send out spam.



What Has Been Done In RENU



Email Spam Propagation in RENU (Before)



<u>UCEPROTECT-Level3</u>							
Reputation of ASN 327687 RENU, UG							
AS	Status	Spamscore	Provider has total IP's	Level 1 listed abusers within the last 7 days	Impacts from Level 1	Level 3 Escalation limit by Impacts	Optional express delisting WARNING! PROBLEM MUST BE FIXED FIRST TO PREVENT NEW LISTINGS
327687	LISTED	76.7	114688	3	88 <small>60 Min.</small>	57	Express delisting available

10th May 2023

Execution Overview



Spam Score After Filtering



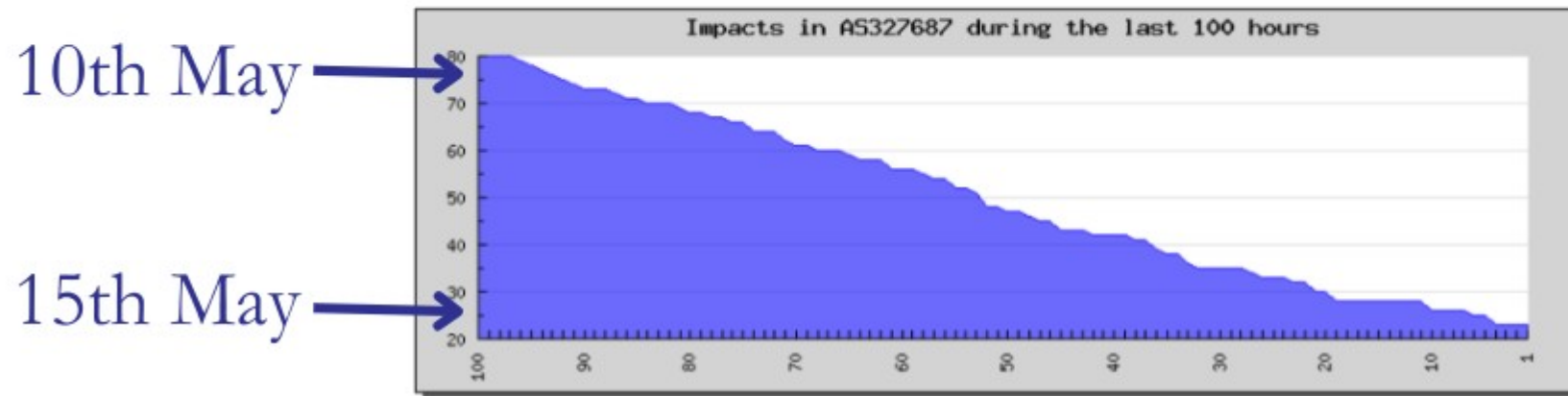
UCEPROTECT-Level3

Reputation of ASN 327687 | RENU, UG

AS	Status	Spamscore	Provider has total IP's	Level 1 listed abusers within the last 7 days	Impacts from Level 1	Level 3 Escalation limit by Impacts	Optional express delisting WARNING! PROBLEM MUST BE FIXED FIRST TO PREVENT NEW LISTINGS
327687	ATTENTION Increased Listingrisk	20.1	114688	1	23	57	Not available

[DETAILS ABOUT ALL ABUSER IP'S LISTED IN LEVEL 1 AND THEIR IMPACTS CAN BE FOUND HERE!](#)

Link of this Query: <http://www.uceprotect.net/en/rblcheck.php?asn=327687>



Spam Score After Filtering



UCEPROTECT-Level1

(Single IP)

IP	Status	Impacts	Listingrisk
[Redacted]	NOT LISTED	0	HIGH DNS Problem

UCEPROTECT-Level2

Networks this IP belongs to

Networks	Status	Level 1 listed abusers within the last 7 days	Impacts in this net within the last 7 days	Level
137.63.128.0/17	NOT LISTED	1	1	
[Redacted]	NOT LISTED	0	0	

17th May 2023

UCEPROTECT-Level3

Reputation of ASN 327687 | RENU, UG

AS	Status	Spamscore	Provider has total IP's	Level 1 listed abusers within the last 7 days	Impacts from Level 1	Level
327687	NOT LISTED	0.9	114688	1	1	

Effects On Productivity



- Uninterrupted Email Communication
- Mitigation of IP Address and Subnet Blocking





Security Is Everyone's Responsibility
Thank You!

~End~