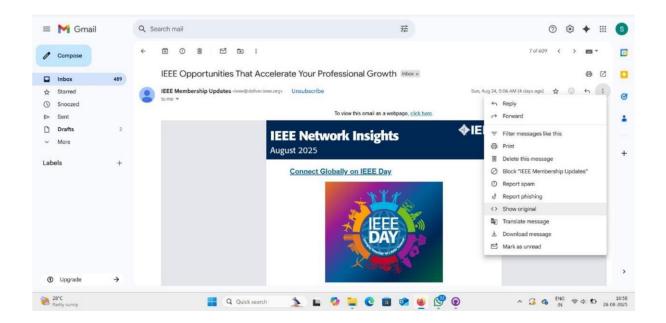
# EXP 4: Analyze email headers and detect email spoofing using MHA

## Aim:

To analyze email headers and detect possible email spoofing using the Mail Header Analyzer (MHA) tool

## **Procedure:**

Open the full email header (from Gmail, Outlook, or Yahoo), copy it, and paste it into the Mail Header Analyzer. Review key fields like Received, Return-Path, Message-ID, SPF, DKIM, and DMARC to trace the sender's route and verify authenticity. Identify mismatched domains, failed authentication results, or suspicious IP addresses indicating possible spoofing.

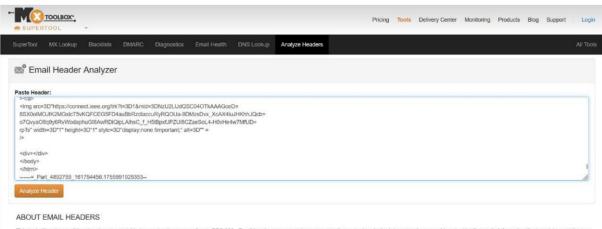


#### Original Message

Message ID	<570594133.4892760.1755991925353@abmktmail-batch1f.marketo.org>
Created at:	Sun, Aug 24, 2025 at 5:02 AM (Delivered after 260 seconds)
From:	IEEE Membership Updates <ieee@deliver.ieee.org></ieee@deliver.ieee.org>
То:	sanakarisiva@gmail.com
Subject:	IEEE Opportunities That Accelerate Your Professional Growth
SPF:	PASS with IP 192.28.153.150 Learn more
DKIM:	'PASS' with domain deliver.ieee.org Learn more
DMARC:	'PASS' Learn more

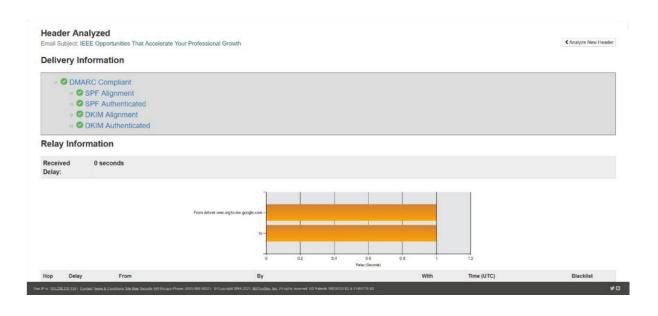
Download Original

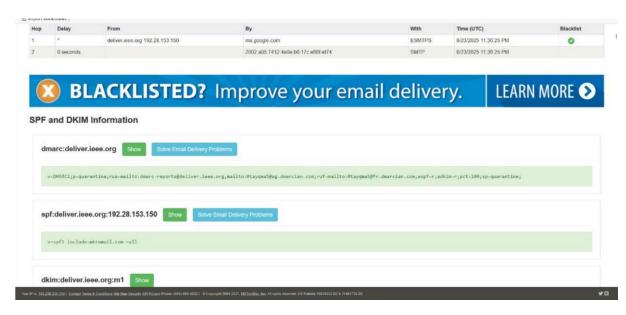




This tool will make email headers human readable by parsing them according to RFC 822. Email headers are present on every email you receive via the Internet and can provide valuable diagnostic information like hop delays, anti-spam results and more. If you need help getting copies of your email headers, just read this tutorial.

# **RESULT:**





.v=1; a=rsa=sha256; q=dns/txt; c=relaxed/relaxed; t=1755991925; s=m1; d=deliver.ieee.org; i=@deliver.ieee.org; h=List=Unsubscribe:List=Unsubscribe=Post:Content=Type:HIME=Version:Subject:To:From:D

dkim:mktdns.com:m1 Show

ikim Public Record:

Dkim Signature

v=1; a=rsa-sha256; q=dns/txt; c=relaxed/relaxed; t=1755991925; s=m1; d=mktdns.com; i=@mktdns.com; h=List=Unsubscribe:List=Unsubscribe=Post:Content=Type:RIME=Version:Subject:To:From:Date; bh=870o

### **Headers Found**

You IP is: 102.238.230.130 | Coolast Terms & Conditions Side Man Security ASS Privacy Phone: (866) 696 6052 | O Croyright 2004-2021, ECCLOSBus, Inc., All rights reversed, US Palents 10039353 82 & 11461735 00

wn

→ Import bookmarks...

### **Headers Found**

Header Name	Header Value
Delivered-To	sanakarisiva@gmail.com
X-Google-Smtp-Source	AGHT+IHql6iww66YGaylkmZQu97x5MBQgs93/CCujKVvwDqkIP9DxbiXLIqqYBuzqY1EBiO/DQaL
X-Received	by 2002:a05:622a:144d:b0.4af:195a:b92e with SMTP id d75a77b69052e-4b2aab49916mr92397751c1.39.1755992185684; Sat, 23 Aug 2025 16:36:25 -0700 (PDT)
ARC-Seal	=1, a=rsa.sha256,  =1755992185, c:=none, d=google.com, s=arc-20240805, b=11XeRC/PCUp6iqr+ANVzb0jgK/ZebdEyiZxeSwZgmXC+L63UZqTq1kcHg7G6WRN4B717eatoXEmN+gLKSG+VPHupVzHT/inOKop8uPDIG6WNL KHCNZQSdmirmbxyScts.spart by ZafeswDF0=053DYE3UsTRinbEVThurVigLed0f6MdeBbd+N6FM2jz2DFHortUUTz LKyft1rGWuLcmfNuopG3q3sYL12T080R1yUv6WY0X507Aky680UFcmKNICFcfiRnPmt kc/dSnZ7C4H 3/QxYSfbgmYktXZkggf+3bz5G54XXf8d4+sk0TXf2ySicf2zdefLyfs1674Ww=
ARC-Message- Signature	i=1, a=rsa-sha256, c=relaxed/relaxed, d=google.com, s=arc-20240005, h=list-unsubscribe-list-unsubscribe-post.mime-version subject message-idi.toreply-to from:date-dkim-signature-dkim-signature, bht=87Uolaud4448kdVCVybbbbp9p6mln2QSTSOHHaaut-jbbbp9p6mln2QSTSOHHaaut-jbbbp9p6mln2QSTSOHHaaut-jbbbp9p6mln2QSTSOHHaaut-jbbbp9p6mln2QSTSOHHaaut-jbbbp9p6mln2QSTSOHHaaut-jbbp9p6
ARC-Authentication- Results	=1, mx google com, dkim=pass header i=@deliver leee org header s=m1 header b=BQZ9VcZ, dkim=pass header i=@mkldns com header b=kqTqVrih; spl=pass (google com. domain of 756-gph-899 0.7940 4.0.0 110893 9.72244592;145@deliver leee org designales 192.28 153.150 as permitted sender) smtp mailfrom=756-GPH-899 0.79404 0.0.110893 9.72244592-145@deliver leee org designales 192.28 153.150 as permitted sender) smtp mailfrom=756-GPH-899 0.79404 0.0.110893 9.72244592-145@deliver leee org dmartc=pass (p=QUARANTINE; sp=QUARANTINE; sp=QUARANTINE; sp=GUARANTINE; sp=GUARAN
Return-Path	<756-GPH-899.0.79404.0.0.110883.9.72244592.145@deliver ieee org>
Received-SPF	pass (google com: domain of 756-gph-899 0 79404.0 0.110893 9.72244592-145@deliver ieee org designates 192 28 153.150 as permitted sender) client-ip=192 28 153.150.
Authentication-Results	mx google com; dkim-pass header i-@deliver ieeu org header s-m1 header b-cBQZ6VeZ; dkim-pass header i-@middns com header s-m1 header b-kqTqVfth, spf-pass (google com: domain of 756-gph-898 0 79404 0 0 110893 9 72244592.145@deliver.ieeu org designates 192 28 153 150 as permitted sender) smip mailtrom-756.GPH-899 0 79404 0 0 110893 9 72244592.145@deliver.ieeu org, dmarc-pass (gr-QUARANTINE: sp-QUARANTINE: sp-Q
X-MSFBL	BwMgdSpiXeYiCvTJLQcZBb0UI9fbWbXeTGwkSRYjwU8=jeyJvljoic2FuYWfbcmi zaXZhQGdfYWlsLmNvbSlslmilOJkdnAfMTkyLT14LTE 1My0xnTAiLCJnijoiYmc (YWJkLTcwnSisInUiGi3NTYfR1BiLTg5OTowOjEyOTcyMjoyOTt2NzA6NjM1NDQ 50jExMDg5MzcoSojc5NDAOOjcyMjQ0NTkyLTE0NSJ9
DKIM-Signature	v=1; a=rsa.sha256; q=dnsubd, c=relaxed/relaxed, t=1755991925; s=m1; d=deliver ieee org, i=@deliver ieee org, h=List Unsubscribe List Unsubscribe Post Content Type MIME. Version Subject To From Dafe, bh=87Uolaud4c48 kdfVcycbbg4p6min251 NODHHeasub_b-c=0229VcZNvu8bHY4Tmin2Zdg25Ujn-XXqsiMiMEd824E9Feqv1EZQYVJfisFW7YC +vZniHY49JNFsx4xRba7FPqcqq1oisRRq2jWLerqw6brd2s9uKv0j4zq3Dx07H-G NgrighVQw/jgVcVolaygf3pxMdxf1qS0micd8bid2=
Date	Sat, 23 Aug 2025 18:32:06 -0500 (CDT)
From	IEEE Membership Updates <ieee@detiver.ieee.org></ieee@detiver.ieee.org>

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Date	Sat, 23 Aug 2025 18:32:05-0500 (CDT)
From	IEEE Membership Updates <ieee@deliver.ieee.org></ieee@deliver.ieee.org>
Reply-To	no-reply@deliver.ieee.org
То	sanakarisiva@gmail.com
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X-MktMailDKIM	frue