

CYBER SECURITY INTERNSHIP

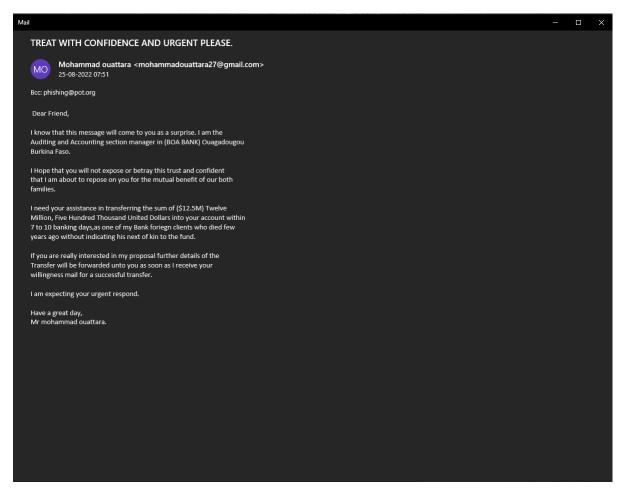


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Task 2: Identify phishing characteristics in a suspicious email sample.

Example of a phishing Mail -



For clarification, the sender of email is impersonating itself as an Auditing and Accounting section manager in (BOA) Bank of Africa Ouagadougou Burkina Faso and asking for a transfer of (\$12.5M) in the bank account.

So, first of all none of the banks sends such an email requesting for money transaction within a time period and no higher Authority would send an email personally to his customers.

No corporate sector sends email to his customers or employees with the heading (Dear Friend); mentioned in the screenshot above.

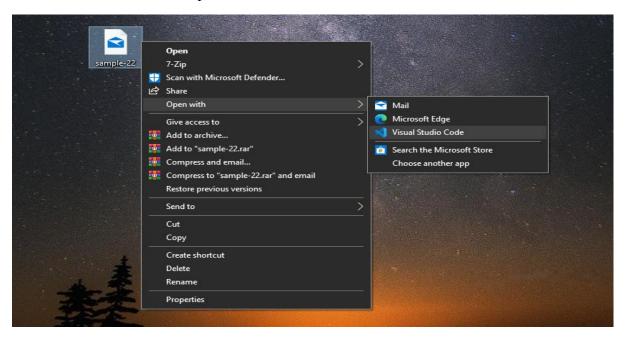
This email contains grammatical mistakes.

This email imposes psychological trait with the customer, which is totally unwanted in its behavior.

The email is proposing an emotional proposal with the victim to lure him/her into the phishing pot.

So, above are some of the characteristics based on the writing structure of the email.

Let's dive in to the technical part of the email –



To check the email header, we will copy the raw source for the email.

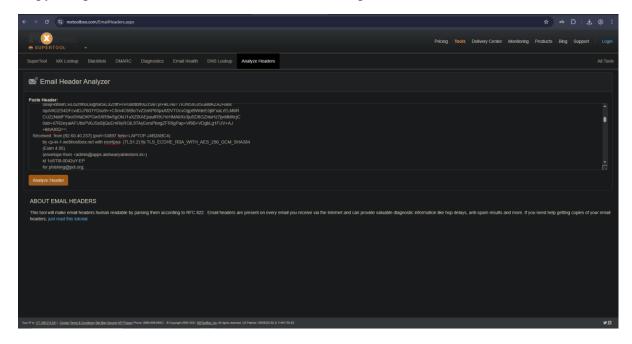
Below is the screenshot of the source-

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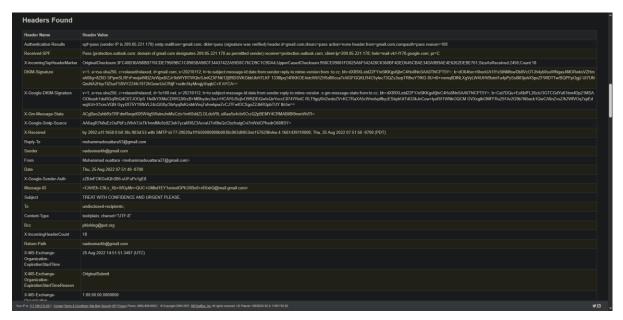
The above screenshot will help us to recognize the email authenticity.

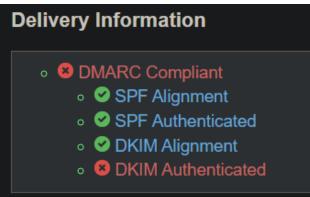
To check the email header for discrepancies I will use the mxtoolbox header checkup tool.

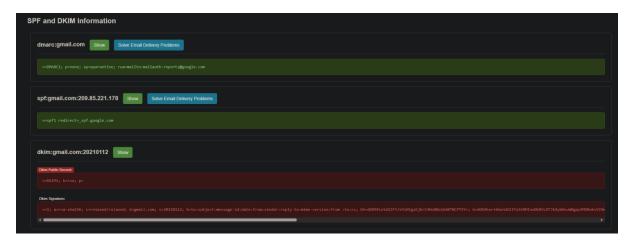
Copy and paste the email header to the tool for lookup:



Below are the results found from the email lookup:

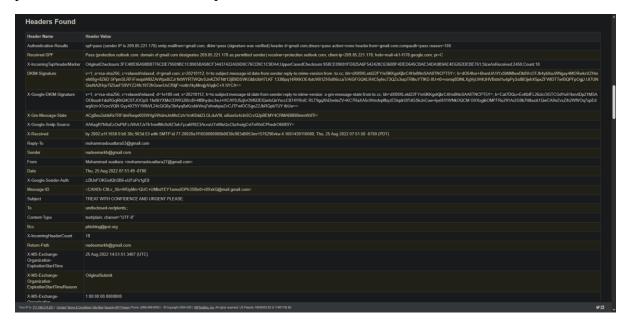






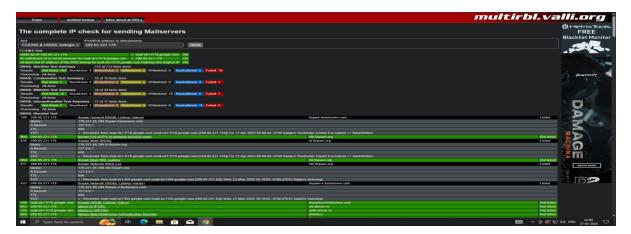
Form the screenshot provided it shows that the DKIM information is not valid or not authenticated.

The DKIM Signature is not verified which declines the authenticity of the email hence proven as an email used for disposable mail attack and not valid.



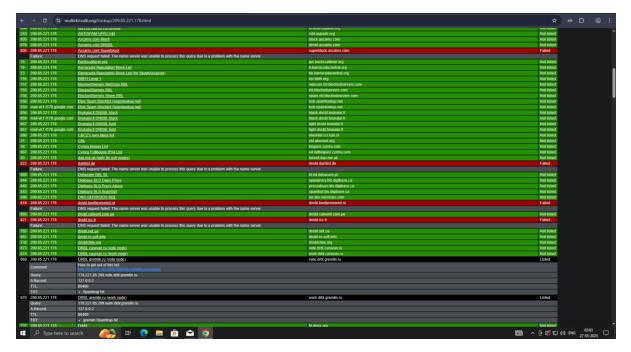
From the above screenshot we can get the sender's IP that is 209.85.221.178

Now we can further do an email IP check for sending mail server:



This tool will check the IP of the sender's mail and see if it is blacklisted on the mailservers.

In the above screenshot I just put the IP into the field input and below is the screenshot provided for the blacklisted results:



So, as we can see the mail IP is blacklisted in the mail server; now it proves that the sender of the email is a scammer and performs malicious activity.