

Sub task 1:

To locate the images, anz-logo.jpg and bank-card.jpg, that the user accessed, I followed the following steps for each image:

1. I filtered the packet capture to isolate the HTTP traffic and examined the remaining packets to find the specific GET request responsible for downloading the image.
2. Next, I right-clicked on the image and selected the option to view its TCP stream. Within the TCP stream, I observed what appeared to be image data.
3. To analyze the data in hexadecimal format, I changed the view to "raw" and proceeded to search for the file signature of a JPEG image within the hex data.
4. Upon locating the file signature, indicated by "FFD8" at the beginning, and the file footer, indicated by "FFD9" at the end, I selected and copied all the data between these two points.
5. Finally, I pasted the copied data into the hex editor software HxD and saved it as a JPG image.

By following this process, I successfully extracted and saved the anz-logo.jpg and bank-card.jpg images from the packet capture.



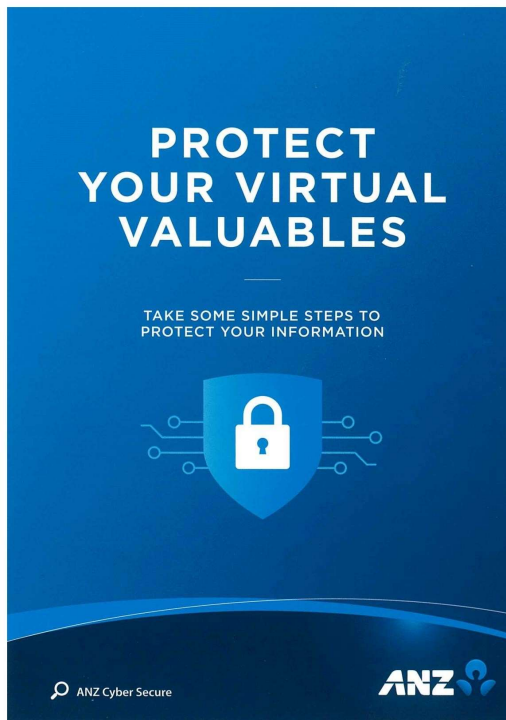
Bank-logo.jpg



Card-logo.jpg

Sub Task 2:

First, I viewed the TCP stream to identify the hexadecimal data corresponding to the images. Then, I copied and saved that data as a JPG file. Same method as in sub - task 1.



During my investigation of the network traffic related to image downloads, I made an interesting discovery. Upon analyzing the data after the end of the image, I found a concealed message embedded within it.

The message contained the following text: "You've found a hidden message in this file! Include it in your write-up."

This hidden message adds an intriguing element to the investigation and should be included in the final report.

MAKE A 'PACT'

TO PROTECT YOUR VIRTUAL VALUABLES



PAUSE before sharing your personal information

Ask yourself, do I really need to give my information to this website or this person? If it doesn't feel right, don't share it.



CALL OUT suspicious messages

Be aware of current scams. If an email, call or SMS seems unusual, check it through official contact points or report it.



ACTIVATE two layers of security with two-factor authentication

Use two-factor authentication for an extra layer of security to keep your personal information safe.



TURN ON automatic software updates

Set your software, operating system and apps to auto update to make sure you get the latest security features.

Report suspicious messages from ANZ:

Email hoax@cybersecurity.anz.com

Report fraudulent or unusual ANZ account activity:

137 028 / +61 3 8693 7153 (Corporate/Business Clients)

133 350 / +61 3 9683 8833 (Personal Banking Customers)

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Within this network traffic, there was also a hidden message that was discovered. The message read, "Congratulations! found the hidden message! Images are sometimes more than they appear."

Sub-task 3:

In order to find the contents of the document, I had to view the TCP stream of the http get request for the file. The documents contents were visible in the ASCII view.

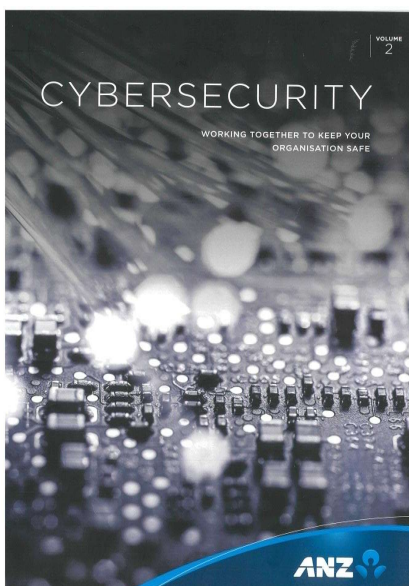
Step 1: Find target

Step 2: Hack them

Sub-task 4:

To access the PDF files, I followed my usual procedure of examining the TCP stream. During this process, I identified the file signature for a PDF, which appeared as the hexadecimal data "25 50 44 46". Upon further observation in the ASCII view, I noticed that the PDF data extended to the end of the TCP stream. To extract the PDF content, I copied all the hexadecimal data from the file signature onwards and used HxD to save it as a PDF file.

These are following extracted images:



Sub-task 5:

I examined the TCP stream of the file and observed that the content was encoded rather than plain text. By viewing it in hexadecimal format, I noticed that it had the same file signature as a JPG image. To investigate further, I used HxD to copy and save the hex data, just as I have done for other images. Surprisingly, the supposed text file turned out to be an image.



Sub-task 6:

During my investigation of this network traffic, I examined the TCP stream and identified two instances of jpeg file signatures. Within the TCP stream, I observed what appeared to be image data. To analyze the data in hexadecimal format, I switched the view to "raw" and searched for the file signature of a jpeg. By locating the file signature "FFD8" at the beginning and the file footer "FFD9" at the end, I selected the data between these two points and saved it as a jpg image using the hex editor HxD.

I attempted to extract both sets of data, resulting in two distinct images. The resulting image is displayed below.



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Sub-task 7:

I first filtered the packet capture to isolate the http traffic. Then, I examined the remaining packets to locate the specific GET request responsible for downloading the image. By right-clicking on the image, I accessed the TCP stream associated with it. Within the TCP stream, I observed what appeared to be image data.

To view the data in hexadecimal format, I changed the view to "raw" and proceeded to search the hex data for the file signature of a JPEG image, which is "89 50 4e 47 0d 0a 1a 0a." Once I identified the file signature, I copied everything after that point until the end of the data.

Next, I used the hex editor software, HxD, to paste the copied data and saved it as a PNG image.

The resulting image is following:





Sub-task 8:

Upon investigating the TCP stream for the file "securepdf.pdf," I made the following discoveries:

1. The data within the file did not match the format of a PDF. Towards the end of the file, there was a hidden message indicating the password as "secure."
2. The file had the file signature of a zip file, suggesting that the user actually downloaded a zip file instead.

To proceed, I copied the hexadecimal data of the zip file into an application called HxD and saved it as a zip file. Upon opening this newly created zip file, I found a PDF file named "rawpdf.pdf." When attempting to open the PDF, it prompted me for a password. Using the password "secure" mentioned in the TCP stream, I successfully accessed the PDF. It turned out to be the first two pages of a guide related to internet banking.