

Heartgram Catastrophe : Networking - Caught the Lovebug

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Points: -

Description

This is a challenge in which players have to find a flag in an HTTP GET request. Players will have one pcap file to analyze, heartgrams.pcapng.

Github Path:

[Capture_the_Flame_2026/Reverse_Engineering/Heartgram_Catastrophe](#)

Prompt

Disaster has struck! Someone wrote you a heartgram but they all got mixed up inside this pcap file. Can you find the right heartgram?

Hints

1. Try filtering for HTTP communication
2. Find the packet contents. What's inside the binary?

Solution

DETAILED WRITEUP:

1. The flag is in the packet binary of the responding 200 OK request for the GET /glittery_heartgram (bottom right pane).

The image shows a Wireshark packet capture of a file named heartgrams.pcapng. The top pane displays a list of captured packets. Packet 125 is selected, showing an HTTP 200 OK response from heartgram_box to you for the GET /glittery_heartgram request. The bottom pane shows the details of this packet, including the TCP segment and the raw data. The raw data pane shows the ASCII representation of the response body, which is a flame text message: "flame{You're the client to my server!}".

No.	Time	Source	Destination	Protocol	Length	Info
88	145.712602	heartgram_box	you	HTTP	160	HTTP/1.0 200 OK
98	151.304873	you	heartgram_box	HTTP	171	GET /heartgram_with_scribbles HTTP/1.1
101	151.306807	heartgram_box	you	HTTP	160	HTTP/1.0 200 OK
110	152.305700	you	heartgram_box	HTTP	161	GET /pink_heartgram HTTP/1.1
113	152.307467	heartgram_box	you	HTTP	160	HTTP/1.0 200 OK
122	154.574996	you	heartgram_box	HTTP	165	GET /glittery_heartgram HTTP/1.1
125	154.576582	heartgram_box	you	HTTP	148	HTTP/1.0 200 OK
136	164.299042	you	heartgram_box	HTTP	163	GET /purple_heartgram HTTP/1.1
139	164.301167	heartgram_box	you	HTTP	160	HTTP/1.0 200 OK
147	172.359269	you	heartgram_box	HTTP	172	GET /slightly_folded_heartgram HTTP/1.1
150	172.361333	heartgram_box	you	HTTP	160	HTTP/1.0 200 OK

Source Port: 8080
Destination Port: 56780
[Stream index: 8]
[Stream Packet Number: 7]
[Conversation completeness: Complete, WITH_DATA (31)]
[TCP Segment Len: 82]
Sequence Number: 201 (relative sequence number)
Sequence Number (raw): 1189639143
[Next Sequence Number: 283 (relative sequence number)]
Acknowledgment Number: 100 (relative ack number)
Acknowledgment number (raw): 1972938375
1000 = Header Length: 32 bytes (8)
Flags: 0x018 (PSH, ACK)

Packet (148 bytes) Reassembled TCP (282 bytes)

Source Port (tcp.srcport), 2 bytes

Packets: 175 · Displayed: 22 (12.6%) · Dropped: 0 (0.0%) Profile: Default

Flag

flame{You're the client to my server!}