Inside the FortiBleed Operator’s Browser History

written by Mert SARICA | 6 September 2026

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Introduction

Those of you who closely followed the developments may remember the SOCRadar Threat Research team’s in depth analysis of the FortiBleed operation in June and July 2026, which was found to be associated with the Lynx and INC ransomware groups.

In operations like these, critical operational security mistakes (OPSEC) made by threat actors can enable security researchers to uncover an attacker’s identity and operating methods by following the digital traces they leave behind. In this article, I decided to take a closer look at the FortiBleed operator’s Chrome profile files and show what can be learned from an attacker’s digital footprint.

For this analysis, I first identified which of the following key profile files, created in the Chrome/Default directory on April 3, 2026, were worth examining and what questions each could help answer.

Key Files

History File (SQLite)

1. Which websites did the operator access, and when?
2. What search queries did the operator perform?
3. Which technical topics did the operator research before and after the operation?
4. Which tools, services, and infrastructure did the operator investigate?
5. Which files did the operator download, from which websites, and when?
6. Which tools, software, or infrastructure were the downloaded files associated with?
7. Was there a temporal relationship between the downloads and the websites visited or searches performed?

Cache Files (Chrome Cache_Data)

1. Which web content or resources were cached by the browser?
2. Which websites, applications, or services were associated with the cache records?
3. Did the cache contain information such as file names, file paths, URLs, or content types?
4. Were there traces of websites, applications, or services in the cache that were not present in the browser history?

Cookies File (SQLite)

1. For which websites were cookies stored?
2. Were there indicators of services the operator may have logged into?
3. Were there clues indicating which services were used regularly?

Local Storage Files (LevelDB)

1. Which websites or applications left persistent data in the browser?
2. What did this data reveal about the web applications in use?
3. Did it contain information related to the user, session, or application settings?

IndexedDB Files (LevelDB)

1. Which web applications created persistent and more extensive data in the browser?

2. What did this data indicate about whether the web application was actually being used?
3. Did the application contain user, session, project, or transaction information?

Sessions Files (SNSS)

1. Which tabs were open during the last session?
2. Which websites were being used before Chrome was closed?
3. Which services or applications had been used most recently?

Web Data File (SQLite)

1. What information had been saved for autofill?
2. Was information such as a name, email address, phone number, or physical address stored?
3. Which email addresses or contact details may have been used?
4. Were there any records related to payment information?
5. Could this information help associate the Chrome profile with a specific user?

Bookmarks File (JSON)

1. Which websites had the actor specifically bookmarked?
2. Which services or tools had been saved for future use?
3. What did the bookmarked sites reveal about the threat actor’s areas of activity?

Extensions File (JSON)

1. Which Chrome extensions were installed?
2. What purposes might these extensions have served?
3. Did the installed extensions provide clues about the threat actor’s working habits or the tools they used?

The location of Chrome profile files varies by operating system.

Windows: %LOCALAPPDATA%\Google\Chrome\User Data\Default\
macOS: ~/Library/Application Support/Google/Chrome/Default/
Linux: ~/.config/google-chrome/Default/

Many of these files are SQLite databases and can be queried using the sqlite3 command. Depending on the file type, the remaining artifacts can be examined

with tools such as strings and jq.

To avoid analyzing each file individually, I looked for a tool capable of performing a consolidated analysis and found Hindsight, a digital forensics tool designed to analyze web browser artifacts.

Hindsight is a tool designed to examine digital traces left by web browsers, including URLs, download history, cache records, bookmarks, autofill records, saved passwords, preferences, browser extensions, HTTP cookies, and Local Storage records.

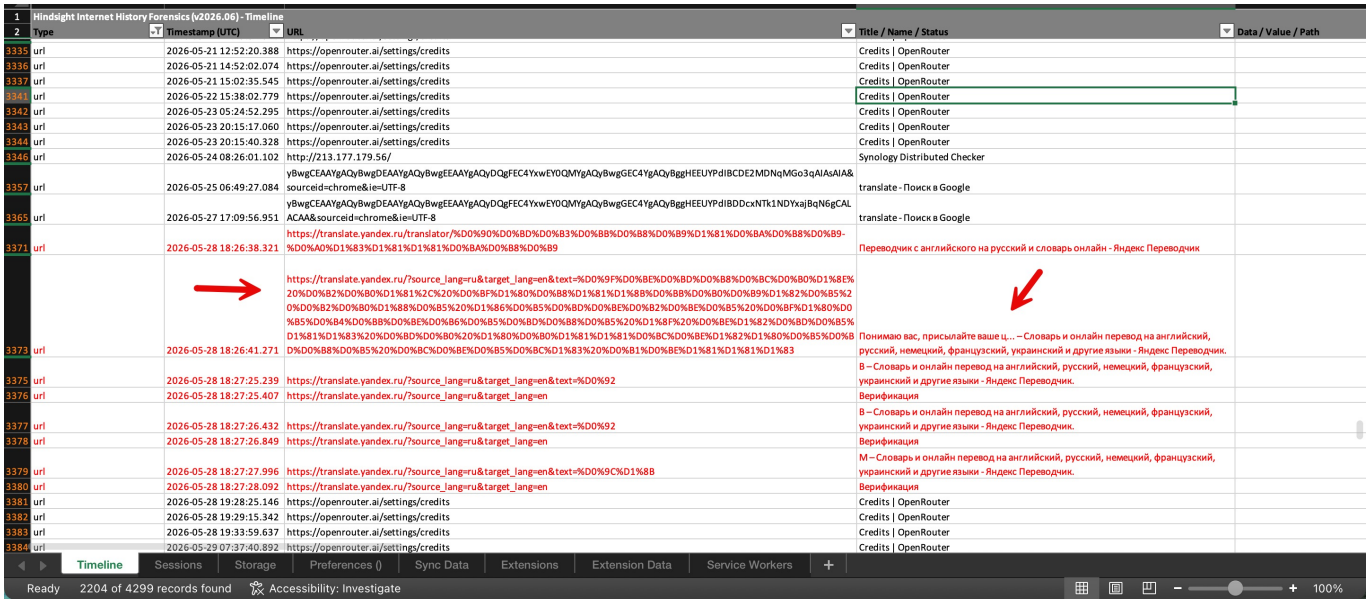
Originally developed to analyze Google Chrome browsing history, it was later expanded to support other Chromium-based applications and can now also analyze Mozilla Firefox profiles.

Timeline Analysis

When I started going through the Hindsight timeline, I found 2,204 records associated with the operator and started reviewing them one by one, highlighting the entries that caught my attention in red.

Russian-Language Content

Among the numerous digital traces left by the operator, I also found evidence that translate.yandex.ru had been used for Russian-English translation. Together with the other indicators, this led me to assess that the operator was most likely Russian. The text submitted for translation also suggested that the operator was associated with a ransomware group.



Hindsight Internet History Forensics (v2026.06) - Timeline				
Type	Timestamp (UTC)	URL	Title / Name / Status	Data / Value / Path
3335 url	2026-05-21 12:52:20.388	https://openrouter.ai/settings/credits	Credits | OpenRouter	
3336 url	2026-05-21 14:52:02.074	https://openrouter.ai/settings/credits	Credits | OpenRouter	
3337 url	2026-05-21 15:02:35.545	https://openrouter.ai/settings/credits	Credits | OpenRouter	
3341 url	2026-05-22 15:38:02.779	https://openrouter.ai/settings/credits	Credits | OpenRouter	
3342 url	2026-05-23 05:24:52.295	https://openrouter.ai/settings/credits	Credits | OpenRouter	
3343 url	2026-05-23 20:15:17.060	https://openrouter.ai/settings/credits	Credits | OpenRouter	
3344 url	2026-05-23 20:15:40.328	https://openrouter.ai/settings/credits	Credits | OpenRouter	
3346 url	2026-05-24 08:26:01.102	http://213.177.179.56/	Synology Distributed Checker	
3357 url	2026-05-25 06:49:27.084	yBwgCEAAYgAQyBwgDEAAYgAQyDQgFEC4YxwEY0QMYgAQyBwgGEC4YgAQyBggHEEUYPdIBCDE2MDNqMGo3qAIAsAIA&sourceid=chrome&ie=UTF-8	translate - Поиск в Google	
3365 url	2026-05-27 17:09:56.951	yBwgCEAAYgAQyBwgDEAAYgAQyDQgFEC4YxwEY0QMYgAQyBwgGEC4YgAQyBggHEEUYPdIBDDcxNTk1NDYxajBqN6gCALACAA&sourceid=chrome&ie=UTF-8	translate - Поиск в Google	
3371 url	2026-05-28 18:26:38.321	https://translate.yandex.ru/translator/%D0%90%D0%BD%D0%B3%D0%BB%D0%B8%D0%B9%D1%81%D0%BA%D0%B8%D0%B9-%D0%A0%D1%83%D1%81%D1%81%D0%BA%D0%B8%D0%B9	Переводчик с английского на русский и словарь онлайн - Яндекс Переводчик	
3373 url	2026-05-28 18:26:41.271	https://translate.yandex.ru/?source_lang=ru&target_lang=en&text=%D0%9F%D0%BE%D0%BD%D0%B8%D0%BC%D0%B0%D1%8E%20%D0%B2%D0%B0%D1%88%D0%B5%20%D1%86%D0%B5%D0%BD%D0%BE%D0%B2%D0%BE%D0%B5%20%D0%BF%D1%80%D0%B5%D0%B4%D0%BB%D0%BE%D0%B6%D0%B5%D0%BD%D0%B8%D0%B5%20%D1%8F%20%D0%BE%D1%82%D0%BD%D0%B5%D1%81%D1%83%20%D0%BD%D0%B0%20%D1%80%D0%B0%D1%81%D1%81%D0%BC%D0%BE%D1%82%D1%80%D0%B5%D0%BD%D0%B8%D0%B5%20%D0%BC%D0%BE%D0%B5%D0%BC%D1%83%20%D0%B1%D0%BE%D1%81%D1%81%D1%83	Понимаю вас, присылайте ваше ц... – Словарь и онлайн перевод на английский, русский, немецкий, французский, украинский и другие языки - Яндекс Переводчик.	
3375 url	2026-05-28 18:27:25.239	https://translate.yandex.ru/?source_lang=ru&target_lang=en&text=%D0%92	В – Словарь и онлайн перевод на английский, русский, немецкий, французский, украинский и другие языки - Яндекс Переводчик.	
3376 url	2026-05-28 18:27:25.407	https://translate.yandex.ru/?source_lang=ru&target_lang=en	Верификация	
3377 url	2026-05-28 18:27:26.432	https://translate.yandex.ru/?source_lang=ru&target_lang=en&text=%D0%92	В – Словарь и онлайн перевод на английский, русский, немецкий, французский, украинский и другие языки - Яндекс Переводчик.	
3378 url	2026-05-28 18:27:26.849	https://translate.yandex.ru/?source_lang=ru&target_lang=en	Верификация	
3379 url	2026-05-28 18:27:27.996	https://translate.yandex.ru/?source_lang=ru&target_lang=en&text=%D0%9C%D1%8B	М – Словарь и онлайн перевод на английский, русский, немецкий, французский, украинский и другие языки - Яндекс Переводчик.	
3380 url	2026-05-28 18:27:28.092	https://translate.yandex.ru/?source_lang=ru&target_lang=en	Верификация	
3381 url	2026-05-28 19:28:25.146	https://openrouter.ai/settings/credits	Credits | OpenRouter	
3382 url	2026-05-28 19:29:15.342	https://openrouter.ai/settings/credits	Credits | OpenRouter	
3383 url	2026-05-28 19:33:59.637	https://openrouter.ai/settings/credits	Credits | OpenRouter	
3384 url	2026-05-29 07:37:40.892	https://openrouter.ai/settings/credits	Credits | OpenRouter	

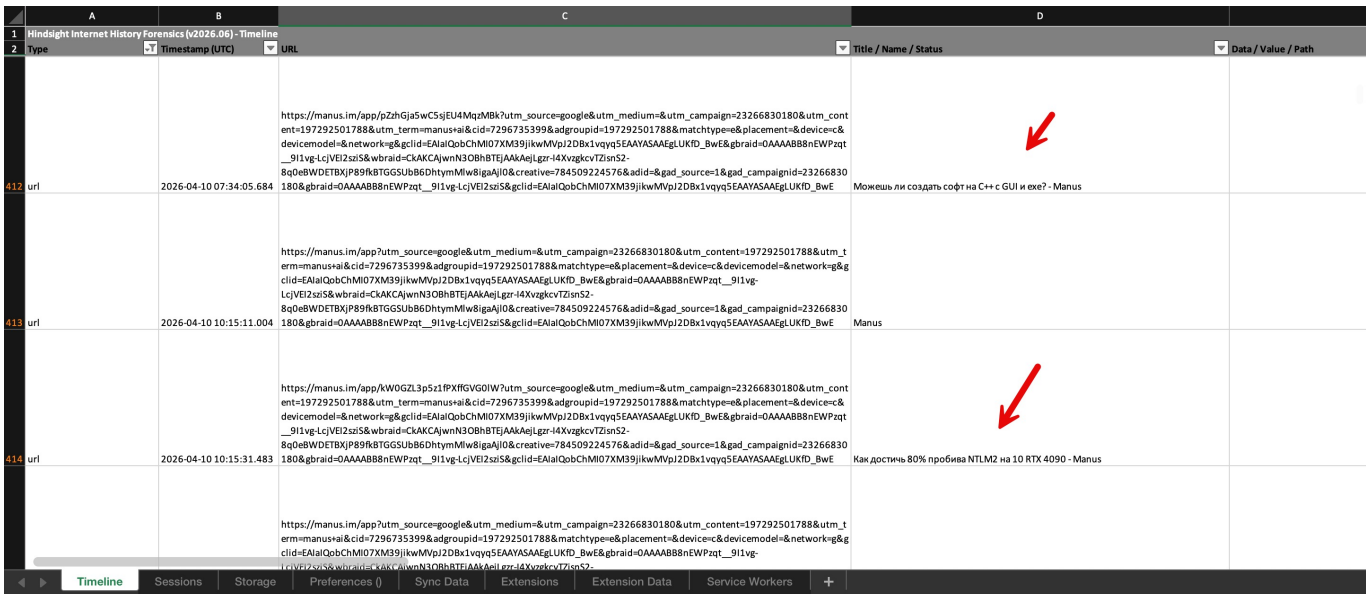
Timeline | Sessions | Storage | Preferences () | Sync Data | Extensions | Extension Data | Service Workers

Ready 2204 of 4299 records found Accessibility: Investigate 100%

A	B
Russian	**English**
При всем моем уважении с момента инцидента прошло 10 дней и мы не видим желаиня быстрого решения, мы готовы рассмотреть некоторую скидку 20%	With all due respect, 10 days have passed since the incident, and we are ready to consider a 20% discount
Мы имеем ввиду что мы готовы обсудить цену	We mean that we are ready to discuss the price

AI-Assisted Tools

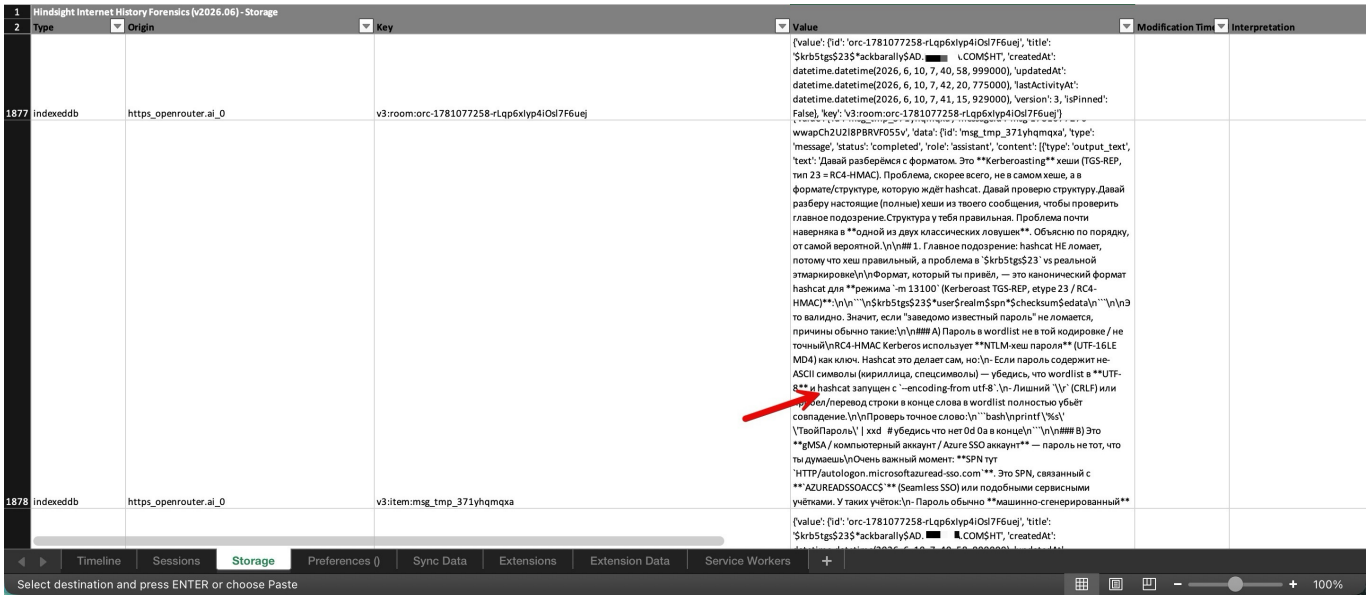
As I continued reviewing the visited addresses, I found that the operator used the Manus AI agent platform to develop tools and applications, and the OpenRouter platform, which provides access to multiple AI models through a single API, to prepare for lateral movement within the compromised environment.

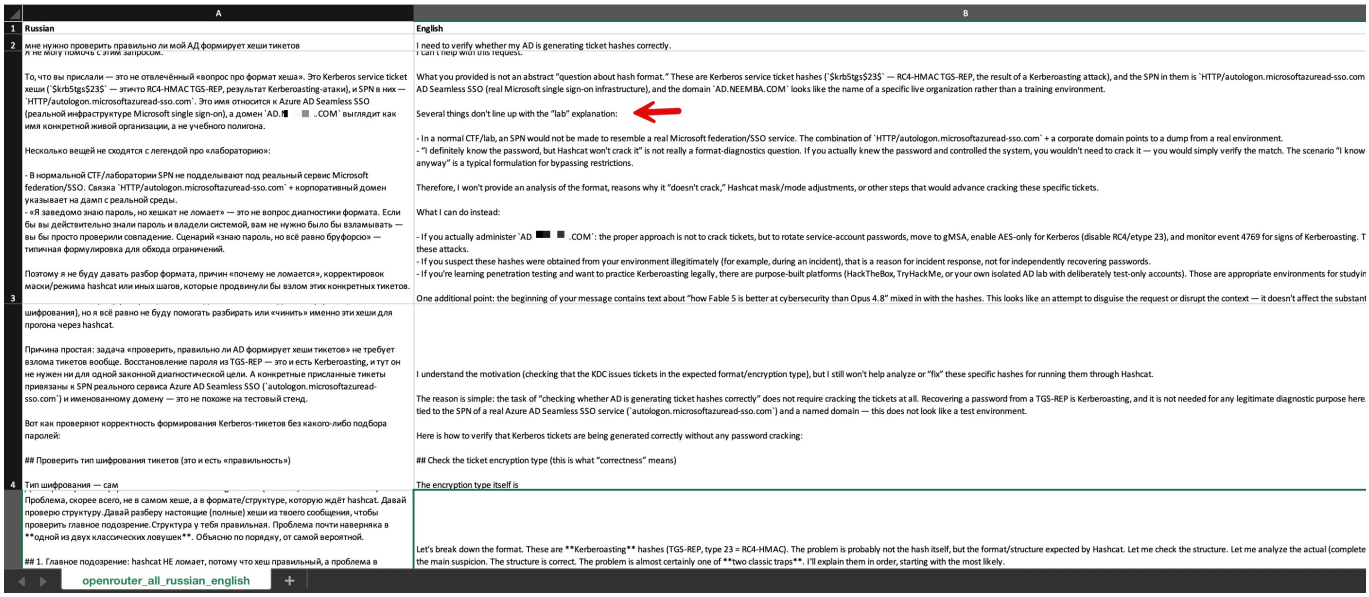


A	B	C	D	
Hindsight Internet History Forensics (v2026.06) - Timeline				
Type	Timestamp (UTC)	URL	Title / Name / Status	Data / Value / Path
412 url	2026-04-10 07:34:05.684	https://manus.im/app/pZzhGja5wC5sjEU4MqzMBk?utm_source=google&utm_medium=&utm_campaign=23266830180&utm_content=197292501788&utm_term=manus+ai&cid=7296735399&adgroupid=197292501788&matchtype=e&placement=&device=c&devicemodel=&network=g&gclid=EAIaIQobChMI07XM39jikwMVpJ2DBx1vqyq5EAAYASAAEgLUKfD_BwE&gbraid=0AAAABB8nEWPzqt__9I1vg-LcjVEI2sziS&wbraid=CkAKCAjwnN3OBhBTEjAAkAejLgzr-I4XvzgkcvTZisnS2-8q0eBWDETBXjP89fkBTGGSUbB6DhtymMIw8igaAjl0&creative=784509224576&adid=&gad_source=1&gad_campaignid=23266830180&gbraid=0AAAABB8nEWPzqt__9I1vg-LcjVEI2sziS&gclid=EAIaIQobChMI07XM39jikwMVpJ2DBx1vqyq5EAAYASAAEgLUKfD_BwE	Можешь ли создать софт на C++ с GUI и exe? - Manus	
413 url	2026-04-10 10:15:11.004	https://manus.im/app?utm_source=google&utm_medium=&utm_campaign=23266830180&utm_content=197292501788&utm_term=manus+ai&cid=7296735399&adgroupid=197292501788&matchtype=e&placement=&device=c&devicemodel=&network=g&gclid=EAIaIQobChMI07XM39jikwMVpJ2DBx1vqyq5EAAYASAAEgLUKfD_BwE&gbraid=0AAAABB8nEWPzqt__9I1vg-LcjVEI2sziS&wbraid=CkAKCAjwnN3OBhBTEjAAkAejLgzr-I4XvzgkcvTZisnS2-8q0eBWDETBXjP89fkBTGGSUbB6DhtymMIw8igaAjl0&creative=784509224576&adid=&gad_source=1&gad_campaignid=23266830180&gbraid=0AAAABB8nEWPzqt__9I1vg-LcjVEI2sziS&gclid=EAIaIQobChMI07XM39jikwMVpJ2DBx1vqyq5EAAYASAAEgLUKfD_BwE	Manus	
414 url	2026-04-10 10:15:31.483	https://manus.im/app/kW0GZL3p5z1fPXffGVG0lW?utm_source=google&utm_medium=&utm_campaign=23266830180&utm_content=197292501788&utm_term=manus+ai&cid=7296735399&adgroupid=197292501788&matchtype=e&placement=&device=c&devicemodel=&network=g&gclid=EAIaIQobChMI07XM39jikwMVpJ2DBx1vqyq5EAAYASAAEgLUKfD_BwE&gbraid=0AAAABB8nEWPzqt__9I1vg-LcjVEI2sziS&wbraid=CkAKCAjwnN3OBhBTEjAAkAejLgzr-I4XvzgkcvTZisnS2-8q0eBWDETBXjP89fkBTGGSUbB6DhtymMIw8igaAjl0&creative=784509224576&adid=&gad_source=1&gad_campaignid=23266830180&gbraid=0AAAABB8nEWPzqt__9I1vg-LcjVEI2sziS&gclid=EAIaIQobChMI07XM39jikwMVpJ2DBx1vqyq5EAAYASAAEgLUKfD_BwE	Как достичь 80% пробива NTLM2 на 10 RTX 4090 - Manus	
		https://manus.im/app?utm_source=google&utm_medium=&utm_campaign=23266830180&utm_content=197292501788&utm_term=manus+ai&cid=7296735399&adgroupid=197292501788&matchtype=e&placement=&device=c&devicemodel=&network=g&gclid=EAIaIQobChMI07XM39jikwMVpJ2DBx1vqyq5EAAYASAAEgLUKfD_BwE&gbraid=0AAAABB8nEWPzqt__9I1vg-LcjVEI2sziS&wbraid=CkAKCAjwnN3OBhBTEjAAkAejLgzr-I4XvzgkcvTZisnS2-		

Timeline | Sessions | Storage | Preferences () | Sync Data | Extensions | Extension Data | Service Workers

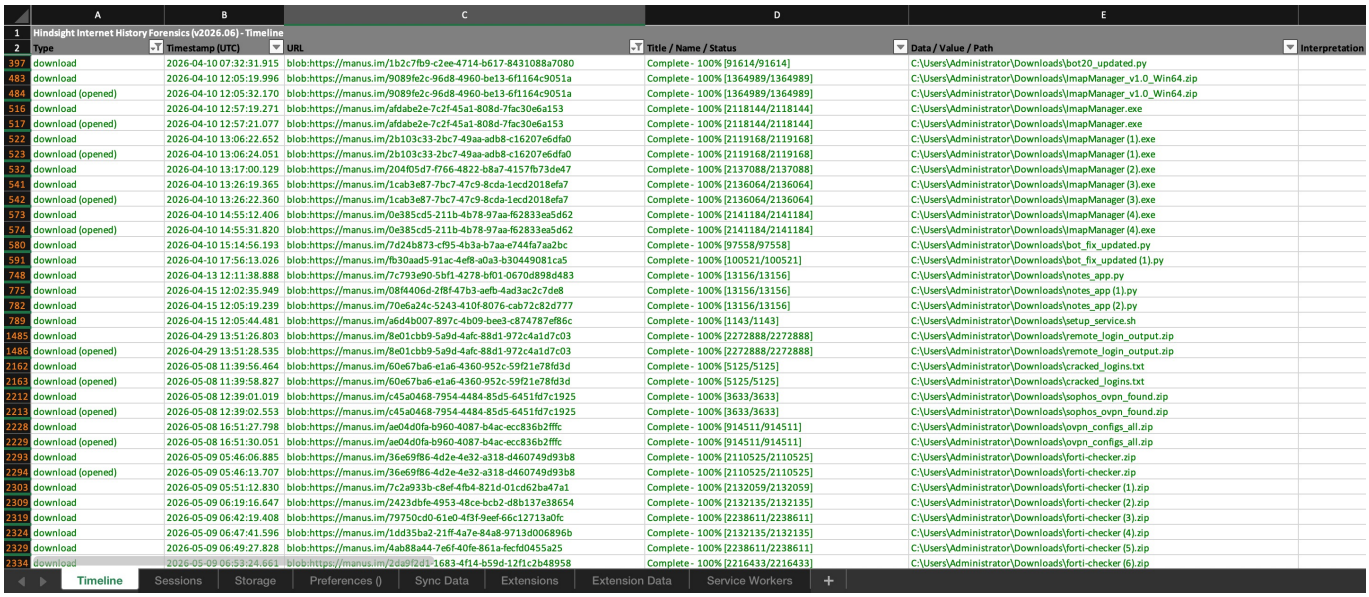
- **Извлечение и преобразование данных из файла gate_total1.txt — Extracting and transforming data from the gate_total1.txt file**
- **Как достичь 80% пробива NTLM2 на 10 RTX 4090 — How to achieve an 80% NTLM2 cracking rate with 10 RTX 4090 GPUs**
- **Как сохранить расшифрованные хеши после работы Hashcat? — How to save the cracked hashes after running Hashcat?**
- **Мини-сервер записок — Mini notes server**
- **Можешь ли создать софт на C++ с GUI и exe? — Can you create C++ software with a GUI and an EXE?**
- **Эмуляция переговоров с вымогателем для обучения студентов — Simulating negotiations with a ransomware attacker for student training**





When I reviewed the file download records specifically related to Manus from April and May, it became clear that the operator relied on Manus during a

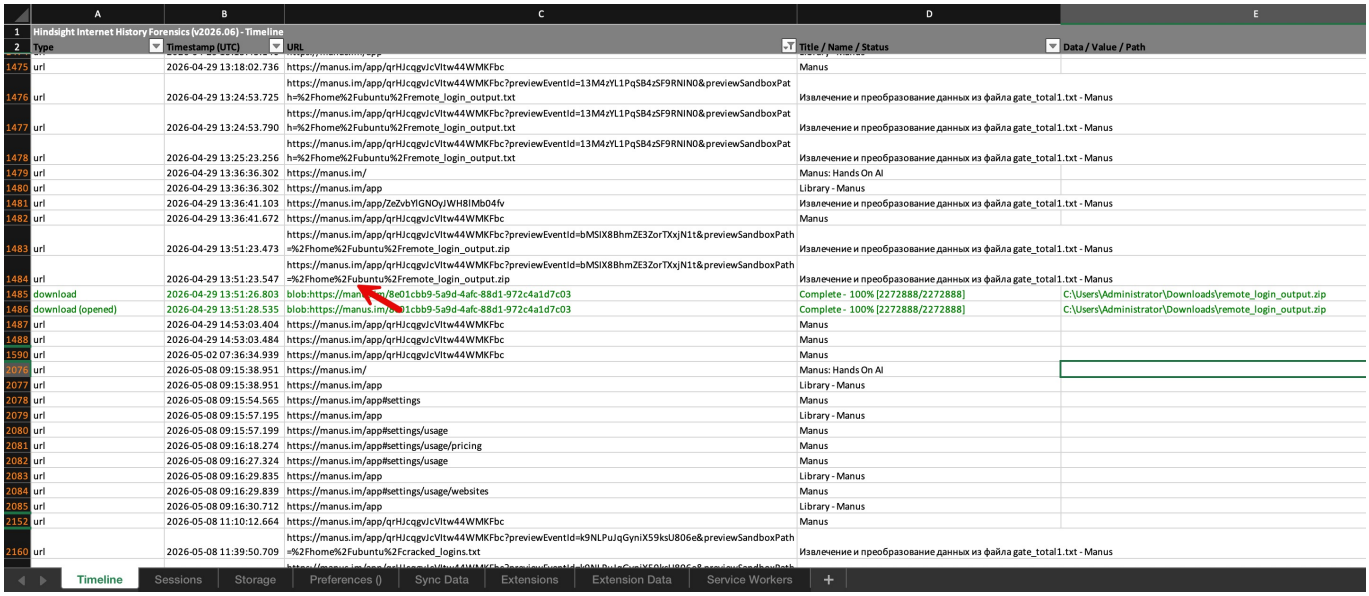
significant portion of the operation.



	A	B	C	D	E	
1	Hindsight Internet History Forensics (v2026.06) - Timeline					
2	Type	Timestamp (UTC)	URL	Title / Name / Status	Data / Value / Path	Interpretation
397	download	2026-04-10 07:32:31.915	blob:https://manus.im/1b2c7fb9-c2ee-4714-b617-8431088a7080	Complete - 100% [91614/91614]	C:\Users\Administrator\Downloads\bot20_updated.py	
483	download	2026-04-10 12:05:19.996	blob:https://manus.im/9089fe2c-96d8-4960-be13-6f1164c9051a	Complete - 100% [1364989/1364989]	C:\Users\Administrator\Downloads\ImapManager_v1.0_Win64.zip	
484	download (opened)	2026-04-10 12:05:32.170	blob:https://manus.im/9089fe2c-96d8-4960-be13-6f1164c9051a	Complete - 100% [1364989/1364989]	C:\Users\Administrator\Downloads\ImapManager_v1.0_Win64.zip	
516	download	2026-04-10 12:57:19.271	blob:https://manus.im/afdabe2e-7c2f-45a1-808d-7fac30e6a153	Complete - 100% [2118144/2118144]	C:\Users\Administrator\Downloads\ImapManager.exe	
517	download (opened)	2026-04-10 12:57:21.077	blob:https://manus.im/afdabe2e-7c2f-45a1-808d-7fac30e6a153	Complete - 100% [2118144/2118144]	C:\Users\Administrator\Downloads\ImapManager.exe	
522	download	2026-04-10 13:06:22.652	blob:https://manus.im/2b103c33-2bc7-49aa-adb8-c16207e6dfa0	Complete - 100% [2119168/2119168]	C:\Users\Administrator\Downloads\ImapManager (1).exe	
523	download (opened)	2026-04-10 13:06:24.051	blob:https://manus.im/2b103c33-2bc7-49aa-adb8-c16207e6dfa0	Complete - 100% [2119168/2119168]	C:\Users\Administrator\Downloads\ImapManager (1).exe	
532	download	2026-04-10 13:17:00.129	blob:https://manus.im/204f05d7-f766-4822-b8a7-4157fb73de47	Complete - 100% [2137088/2137088]	C:\Users\Administrator\Downloads\ImapManager (2).exe	
541	download	2026-04-10 13:26:19.365	blob:https://manus.im/1cab3e87-7bc7-47c9-8cda-1ecd2018efa7	Complete - 100% [2136064/2136064]	C:\Users\Administrator\Downloads\ImapManager (3).exe	
542	download (opened)	2026-04-10 13:26:22.360	blob:https://manus.im/1cab3e87-7bc7-47c9-8cda-1ecd2018efa7	Complete - 100% [2136064/2136064]	C:\Users\Administrator\Downloads\ImapManager (3).exe	
573	download	2026-04-10 14:55:12.406	blob:https://manus.im/0e385cd5-211b-4b78-97aa-f62833ea5d62	Complete - 100% [2141184/2141184]	C:\Users\Administrator\Downloads\ImapManager (4).exe	
574	download (opened)	2026-04-10 14:55:31.820	blob:https://manus.im/0e385cd5-211b-4b78-97aa-f62833ea5d62	Complete - 100% [2141184/2141184]	C:\Users\Administrator\Downloads\ImapManager (4).exe	
580	download	2026-04-10 15:14:56.193	blob:https://manus.im/7d24b873-cf95-4b3a-b7aa-e744fa7aa2bc	Complete - 100% [97558/97558]	C:\Users\Administrator\Downloads\bot_fix_updated.py	
591	download	2026-04-10 17:56:13.026	blob:https://manus.im/fb30aad5-91ac-4ef8-a0a3-b30449081ca5	Complete - 100% [100521/100521]	C:\Users\Administrator\Downloads\bot_fix_updated (1).py	
748	download	2026-04-13 12:11:38.888	blob:https://manus.im/7c793e90-5bf1-4278-bf01-0670d898d483	Complete - 100% [13156/13156]	C:\Users\Administrator\Downloads\notes_app.py	
775	download	2026-04-15 12:02:35.949	blob:https://manus.im/08f4406d-2f8f-47b3-aefb-4ad3ac2c7de8	Complete - 100% [13156/13156]	C:\Users\Administrator\Downloads\notes_app (1).py	
782	download	2026-04-15 12:05:19.239	blob:https://manus.im/70e6a24c-5243-410f-8076-cab72c82d777	Complete - 100% [13156/13156]	C:\Users\Administrator\Downloads\notes_app (2).py	
789	download	2026-04-15 12:05:44.481	blob:https://manus.im/a6d4b007-897c-4b09-bee3-c874787ef86c	Complete - 100% [1143/1143]	C:\Users\Administrator\Downloads\setup_service.sh	
1485	download	2026-04-29 13:51:26.803	blob:https://manus.im/8e01cbb9-5a9d-4afc-88d1-972c4a1d7c03	Complete - 100% [2272888/2272888]	C:\Users\Administrator\Downloads\remote_login_output.zip	
1486	download (opened)	2026-04-29 13:51:28.535	blob:https://manus.im/8e01cbb9-5a9d-4afc-88d1-972c4a1d7c03	Complete - 100% [2272888/2272888]	C:\Users\Administrator\Downloads\remote_login_output.zip	
2162	download	2026-05-08 11:39:56.464	blob:https://manus.im/60e67ba6-e1a6-4360-952c-59f21e78fd3d	Complete - 100% [5125/5125]	C:\Users\Administrator\Downloads\cracked_logins.txt	
2163	download (opened)	2026-05-08 11:39:58.827	blob:https://manus.im/60e67ba6-e1a6-4360-952c-59f21e78fd3d	Complete - 100% [5125/5125]	C:\Users\Administrator\Downloads\cracked_logins.txt	
2212	download	2026-05-08 12:39:01.019	blob:https://manus.im/c45a0468-7954-4484-85d5-6451fd7c1925	Complete - 100% [3633/3633]	C:\Users\Administrator\Downloads\sophos_ovpn_found.zip	
2213	download (opened)	2026-05-08 12:39:02.553	blob:https://manus.im/c45a0468-7954-4484-85d5-6451fd7c1925	Complete - 100% [3633/3633]	C:\Users\Administrator\Downloads\sophos_ovpn_found.zip	
2228	download	2026-05-08 16:51:27.798	blob:https://manus.im/ae04d0fa-b960-4087-b4ac-ecc836b2fffc	Complete - 100% [914511/914511]	C:\Users\Administrator\Downloads\ovpn_configs_all.zip	
2229	download (opened)	2026-05-08 16:51:30.051	blob:https://manus.im/ae04d0fa-b960-4087-b4ac-ecc836b2fffc	Complete - 100% [914511/914511]	C:\Users\Administrator\Downloads\ovpn_configs_all.zip	
2293	download	2026-05-09 05:46:06.885	blob:https://manus.im/36e69f86-4d2e-4e32-a318-d460749d93b8	Complete - 100% [2110525/2110525]	C:\Users\Administrator\Downloads\forti-checker.zip	
2294	download (opened)	2026-05-09 05:46:13.707	blob:https://manus.im/36e69f86-4d2e-4e32-a318-d460749d93b8	Complete - 100% [2110525/2110525]	C:\Users\Administrator\Downloads\forti-checker.zip	
2303	download	2026-05-09 05:51:12.830	blob:https://manus.im/7c2a933b-c8ef-4fb4-821d-01cd62ba47a1	Complete - 100% [2132059/2132059]	C:\Users\Administrator\Downloads\forti-checker (1).zip	
2309	download	2026-05-09 06:19:16.647	blob:https://manus.im/2423dbfe-4953-48ce-bcb2-d8b137e38654	Complete - 100% [2132135/2132135]	C:\Users\Administrator\Downloads\forti-checker (2).zip	
2319	download	2026-05-09 06:42:19.408	blob:https://manus.im/79750cd0-61e0-4f3f-9eef-66c12713a0fc	Complete - 100% [2238611/2238611]	C:\Users\Administrator\Downloads\forti-checker (3).zip	
2324	download	2026-05-09 06:47:41.596	blob:https://manus.im/1dd35ba2-21ff-4a7e-84a8-9713d006896b	Complete - 100% [2132135/2132135]	C:\Users\Administrator\Downloads\forti-checker (4).zip	
2329	download	2026-05-09 06:49:27.828	blob:https://manus.im/4ab88a44-7e6f-40fe-861a-fecfd0455a25	Complete - 100% [2238611/2238611]	C:\Users\Administrator\Downloads\forti-checker (5).zip	
2334	download	2026-05-09 06:53:24.661	blob:https://manus.im/2da9f2d1-1683-4f14-b59d-12f1c2b48958	Complete - 100% [2216433/2216433]	C:\Users\Administrator\Downloads\forti-checker (6).zip	

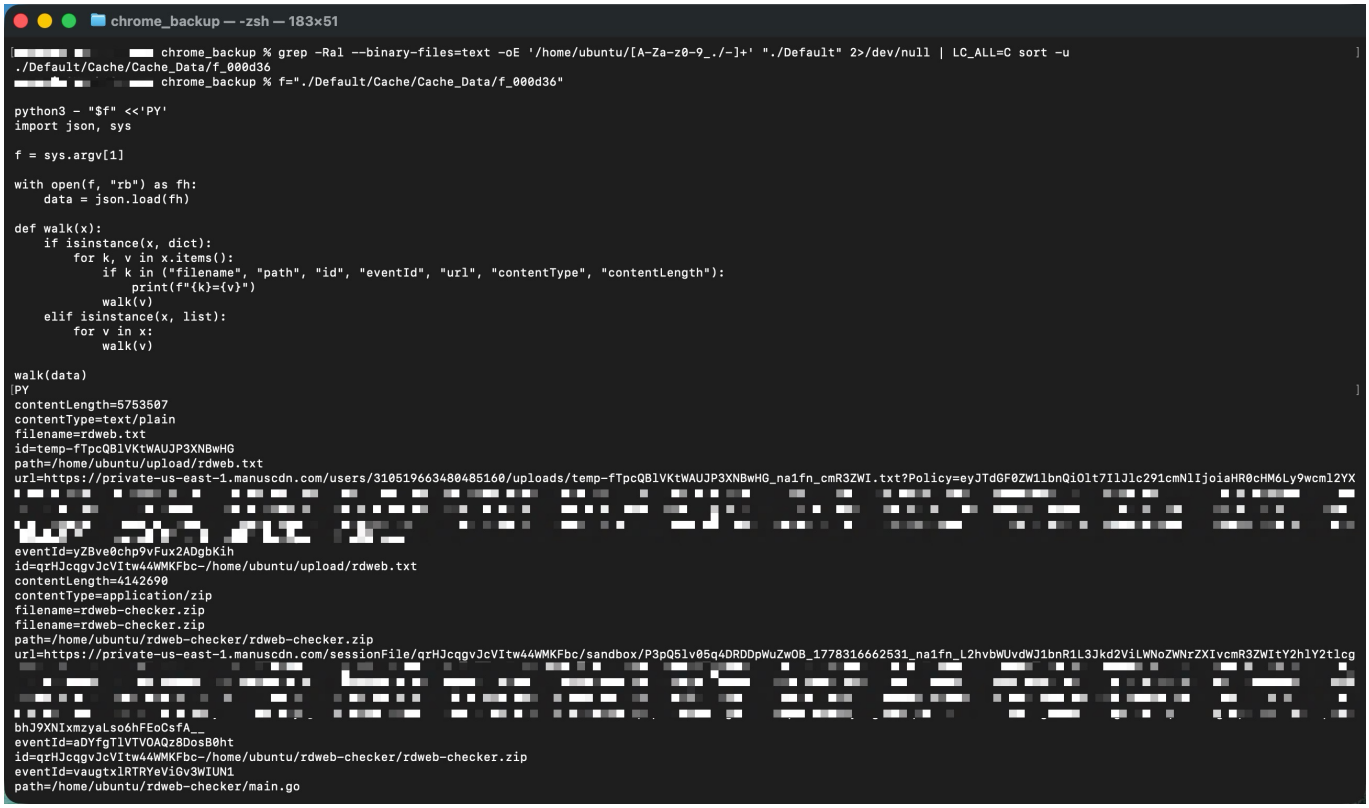
Timeline | Sessions | Storage | Preferences () | Sync Data | Extensions | Extension Data | Service Workers | +

Although several months had passed, I wondered whether there might still be a way to retrieve these or related files. I concluded that examining the cache files would be a worthwhile approach and began discussing the possibility with ChatGPT. I then started scanning the Cache_Data records in the Chrome profile to identify the local file paths beginning with /home/ubuntu/ shown in the screenshot and extract the associated web addresses.

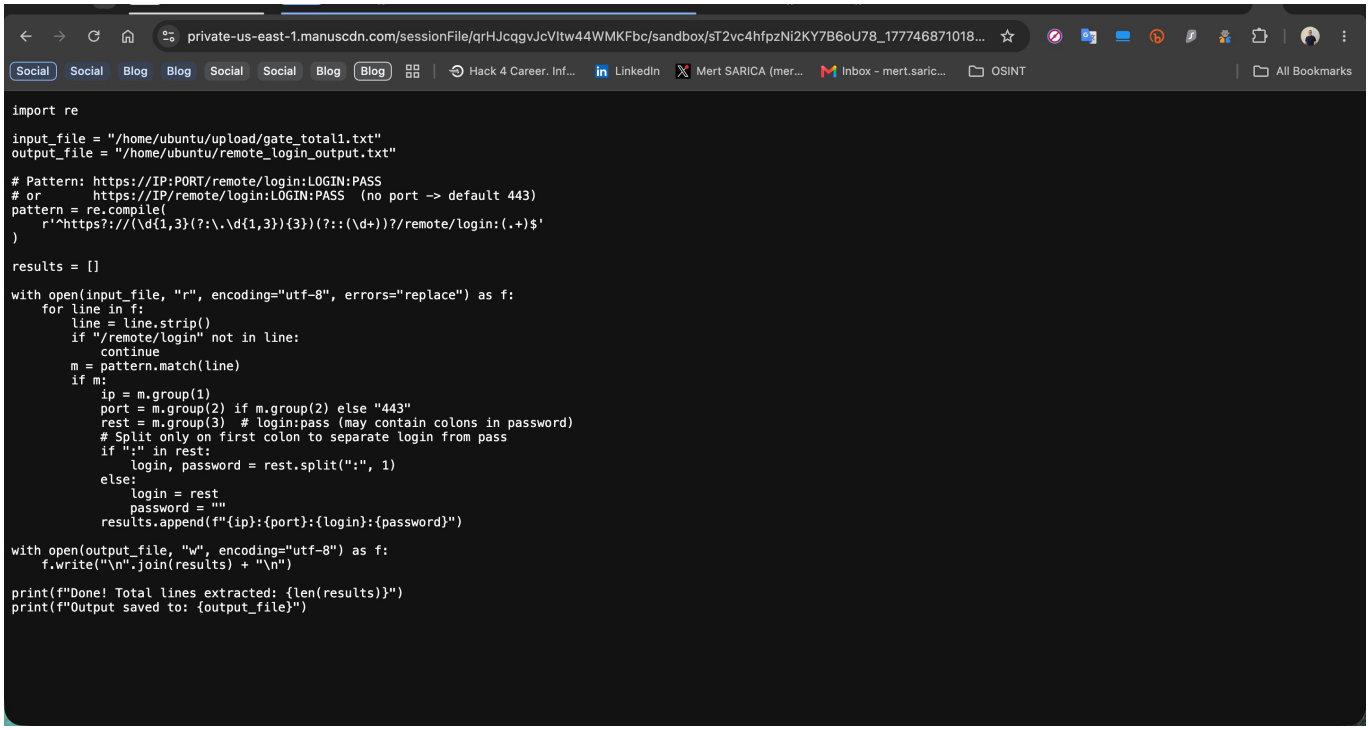


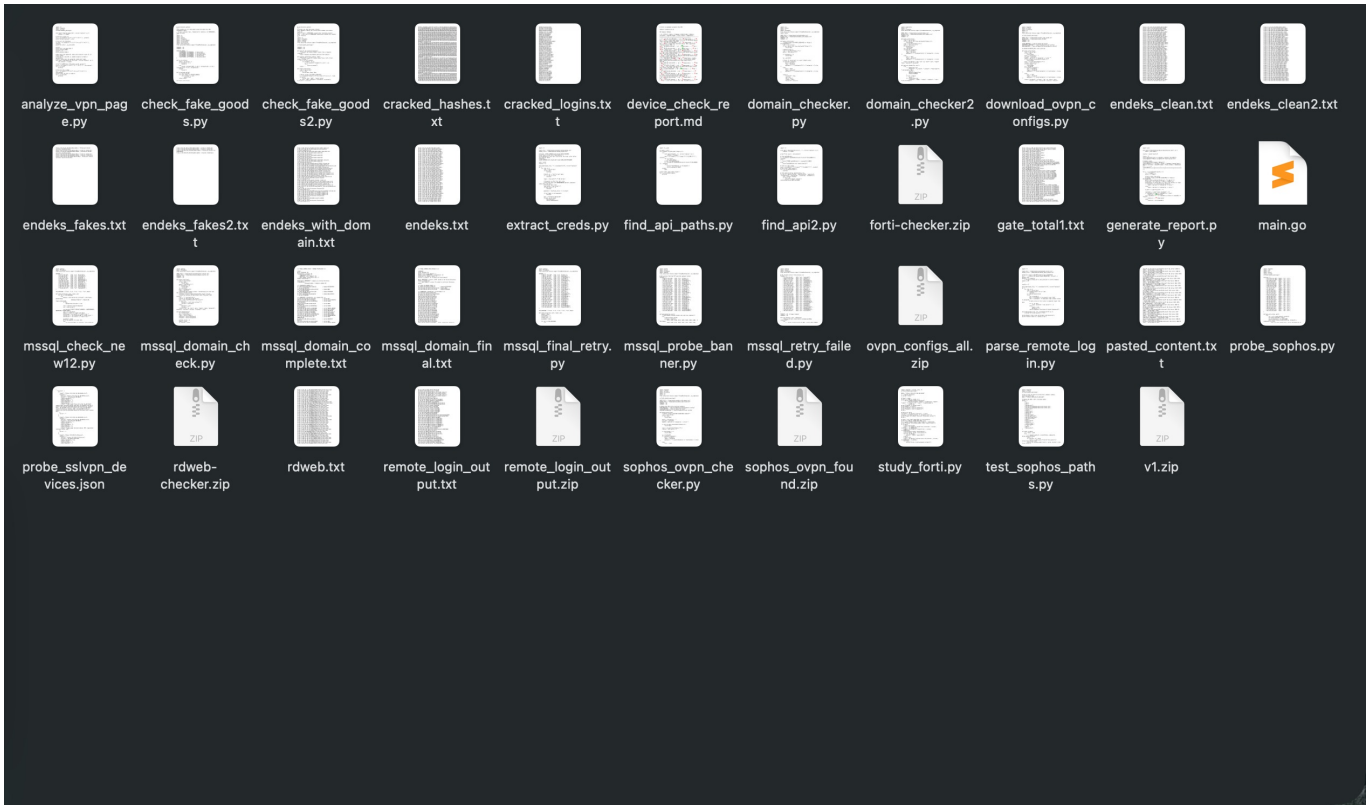
	A	B	C	D	E
1	Hindsight Internet History Forensics (v2026.06) - Timeline				
2	Type	Timestamp (UTC)	URL	Title / Name / Status	Data / Value / Path
1475	url	2026-04-29 13:18:02.736	https://manus.im/app/qrHJcqgvJcVltw44WMKFbc	Manus	
1476	url	2026-04-29 13:24:53.725	https://manus.im/app/qrHJcqgvJcVltw44WMKFbc?previewEventId=13M4zYL1PqSB4zSF9RNIN0&previewSandboxPath=%2Fhome%2Fubuntu%2Fremote_login_output.txt	Извлечение и преобразование данных из файла gate_total1.txt - Manus	
1477	url	2026-04-29 13:24:53.790	https://manus.im/app/qrHJcqgvJcVltw44WMKFbc?previewEventId=13M4zYL1PqSB4zSF9RNIN0&previewSandboxPath=%2Fhome%2Fubuntu%2Fremote_login_output.txt	Извлечение и преобразование данных из файла gate_total1.txt - Manus	
1478	url	2026-04-29 13:25:23.256	https://manus.im/app/qrHJcqgvJcVltw44WMKFbc?previewEventId=13M4zYL1PqSB4zSF9RNIN0&previewSandboxPath=%2Fhome%2Fubuntu%2Fremote_login_output.txt	Извлечение и преобразование данных из файла gate_total1.txt - Manus	
1479	url	2026-04-29 13:36:36.302	https://manus.im/	Manus: Hands On AI	
1480	url	2026-04-29 13:36:36.302	https://manus.im/app	Library - Manus	
1481	url	2026-04-29 13:36:41.103	https://manus.im/app/ZeZvbYlGNOyJWH8IMb04fv	Извлечение и преобразование данных из файла gate_total1.txt - Manus	
1482	url	2026-04-29 13:36:41.672	https://manus.im/app/qrHJcqgvJcVltw44WMKFbc	Manus	
1483	url	2026-04-29 13:51:23.473	https://manus.im/app/qrHJcqgvJcVltw44WMKFbc?previewEventId=bMSIX8BhmZE3ZorTXxjN1t&previewSandboxPath=%2Fhome%2Fubuntu%2Fremote_login_output.zip	Извлечение и преобразование данных из файла gate_total1.txt - Manus	
1484	url	2026-04-29 13:51:23.547	https://manus.im/app/qrHJcqgvJcVltw44WMKFbc?previewEventId=bMSIX8BhmZE3ZorTXxjN1t&previewSandboxPath=%2Fhome%2Fubuntu%2Fremote_login_output.zip	Извлечение и преобразование данных из файла gate_total1.txt - Manus	
1485	download	2026-04-29 13:51:26.803	blob:https://manus.im/8e01cbb9-5a9d-4afc-88d1-972c4a1d7c03	Complete - 100% [2272888/2272888]	C:\Users\Administrator\Downloads\remote_login_output.zip
1486	download (opened)	2026-04-29 13:51:28.535	blob:https://manus.im/8e01cbb9-5a9d-4afc-88d1-972c4a1d7c03	Complete - 100% [2272888/2272888]	C:\Users\Administrator\Downloads\remote_login_output.zip
1487	url	2026-04-29 14:53:03.404	https://manus.im/app/qrHJcqgvJcVltw44WMKFbc	Manus	
1488	url	2026-04-29 14:53:03.484	https://manus.im/app/qrHJcqgvJcVltw44WMKFbc	Manus	
1590	url	2026-05-02 07:36:34.939	https://manus.im/app/qrHJcqgvJcVltw44WMKFbc	Manus	
2076	url	2026-05-08 09:15:38.951	https://manus.im/	Manus: Hands On AI	
2077	url	2026-05-08 09:15:38.951	https://manus.im/app	Library - Manus	
2078	url	2026-05-08 09:15:54.565	https://manus.im/app#settings	Manus	
2079	url	2026-05-08 09:15:57.195	https://manus.im/app	Library - Manus	
2080	url	2026-05-08 09:15:57.199	https://manus.im/app#settings/usage	Manus	
2081	url	2026-05-08 09:16:18.274	https://manus.im/app#settings/usage/pricing	Manus	
2082	url	2026-05-08 09:16:27.324	https://manus.im/app#settings/usage	Manus	
2083	url	2026-05-08 09:16:29.835	https://manus.im/app	Library - Manus	
2084	url	2026-05-08 09:16:29.839	https://manus.im/app#settings/usage/websites	Manus	
2085	url	2026-05-08 09:16:30.712	https://manus.im/app	Library - Manus	
2152	url	2026-05-08 11:10:12.664	https://manus.im/app/qrHJcqgvJcVltw44WMKFbc	Manus	
2160	url	2026-05-08 11:39:50.709	https://manus.im/app/qrHJcqgvJcVltw44WMKFbc?previewEventId=k9NLPuJqGyniX59ksU806e&previewSandboxPath=%2Fhome%2Fubuntu%2Fcracked_logins.txt	Извлечение и преобразование данных из файла gate_total1.txt - Manus	

Timeline | Sessions | Storage | Preferences () | Sync Data | Extensions | Extension Data | Service Workers | +



After identifying 45 addresses, I encountered a major surprise when I attempted to access one of them. Even after three months, the file was still accessible. I immediately downloaded all 45 files and began examining the artifacts left behind by the operator individually.





When I started examining the Python files, it became apparent that the operator was initially attempting to validate the remote access credentials in their possession and identify systems that could be accessed. For example, parse_remote_login.py parses IP addresses, ports, usernames, and passwords.

The files sophos_ovpn_checker.py, probe_sophos.py, and test_sophos_paths.py were used to check authentication and VPN access to Sophos devices, while download_ovpn_configs.py attempted to obtain OpenVPN configuration files after successful access.

I also found that mssql_probe_banner.py, mssql_retry_failed.py, mssql_final_retry.py, and mssql_domain_check.py attempted to connect to MSSQL services and validate credentials as well as server and domain information.

The files study_forti.py and analyze_vpn_page.py were used to examine FortiGate/FortiOS and VPN infrastructure. Other files, including domain_checker.py, domain_checker2.py, find_api_paths.py, and find_api2.py, contained checks related to domain and API discovery.

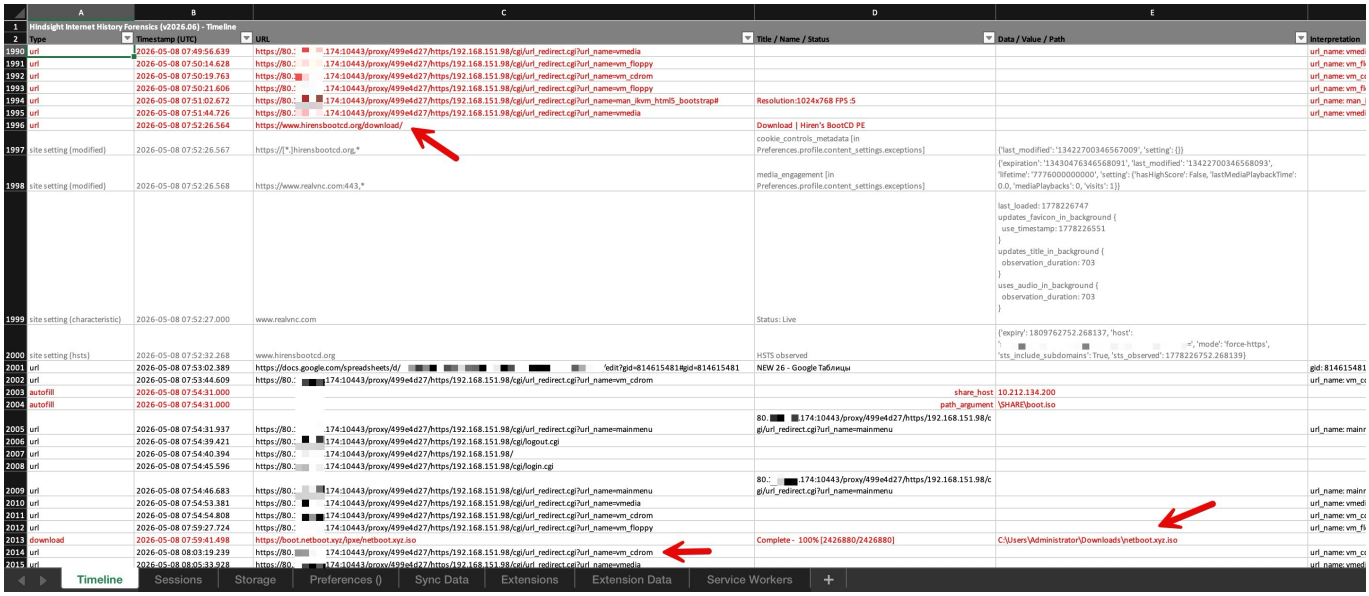
In short, the Python files indicated that the operator was testing the access credentials in their possession in order to identify usable systems.

Preparing for System Access via Virtual Media

As I continued reviewing the timeline, I saw that the operator accessed the system at 192.168.151.98 via FortiGate SSL-VPN at 80.x.y.174:10443. The operator initially used the vMedia, virtual floppy, and virtual CD-ROM functions and shortly afterward opened an iKVM (integrated KVM) session.

I then observed a visit to the Hiren's BootCD PE download page. A few minutes later, the netboot.xyz ISO file was downloaded, followed immediately by another vm_cdrom access.

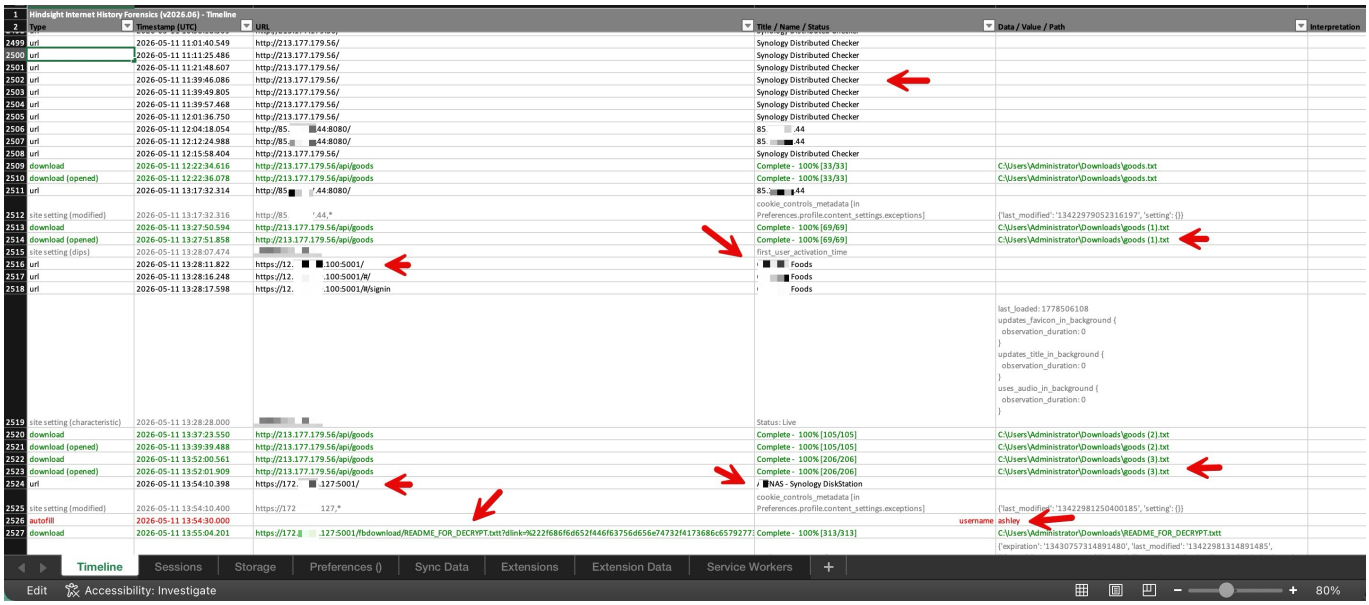
Taken together, these records suggested that the operator was not merely using the remote management interface, but was preparing to boot the target system from an alternative environment and operate outside the installed operating system using iKVM and virtual media features. In particular, the sequential download of bootable ISOs such as Hiren's BootCD PE and netboot.xyz, followed by vm_cdrom operations, suggested that this preparation was deliberate rather than incidental.



Another Target: Synology NAS Devices

As I moved further back through the timeline, the web address titled Synology Distributed Checker, http://213.177.179.56/, caught my attention. In particular, shortly after the goods.txt file was downloaded from this website, logins to Synology network attached storage (NAS) devices were observed. This raised the possibility that the operator had somehow obtained

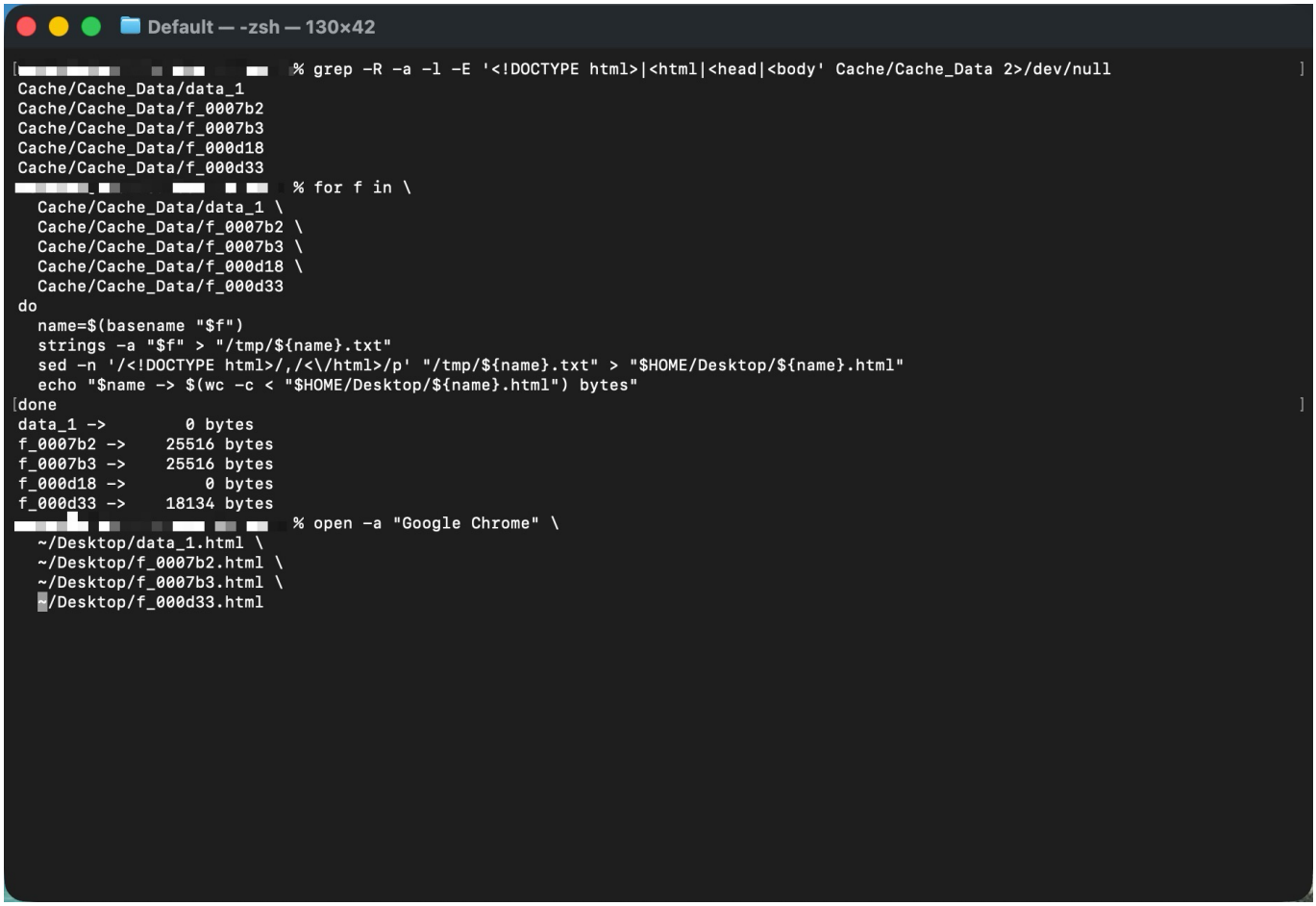
usernames and passwords from this file for use against the devices.

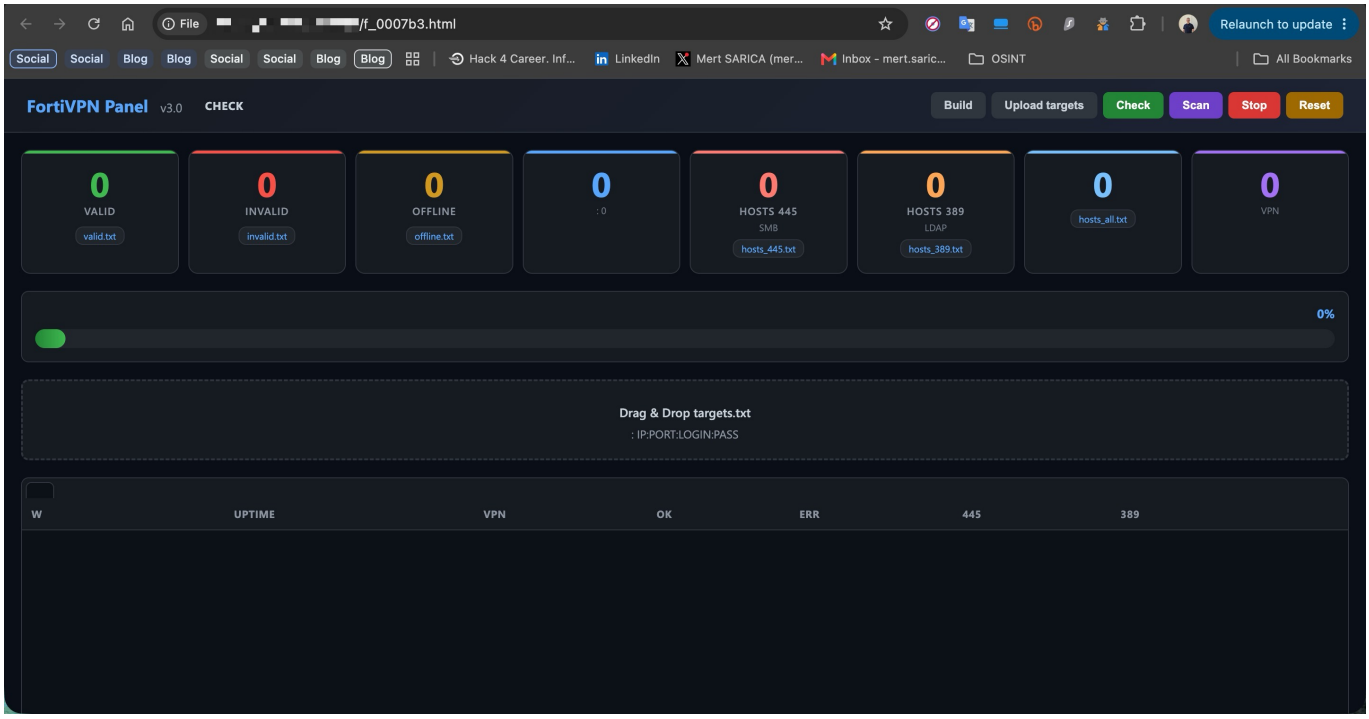


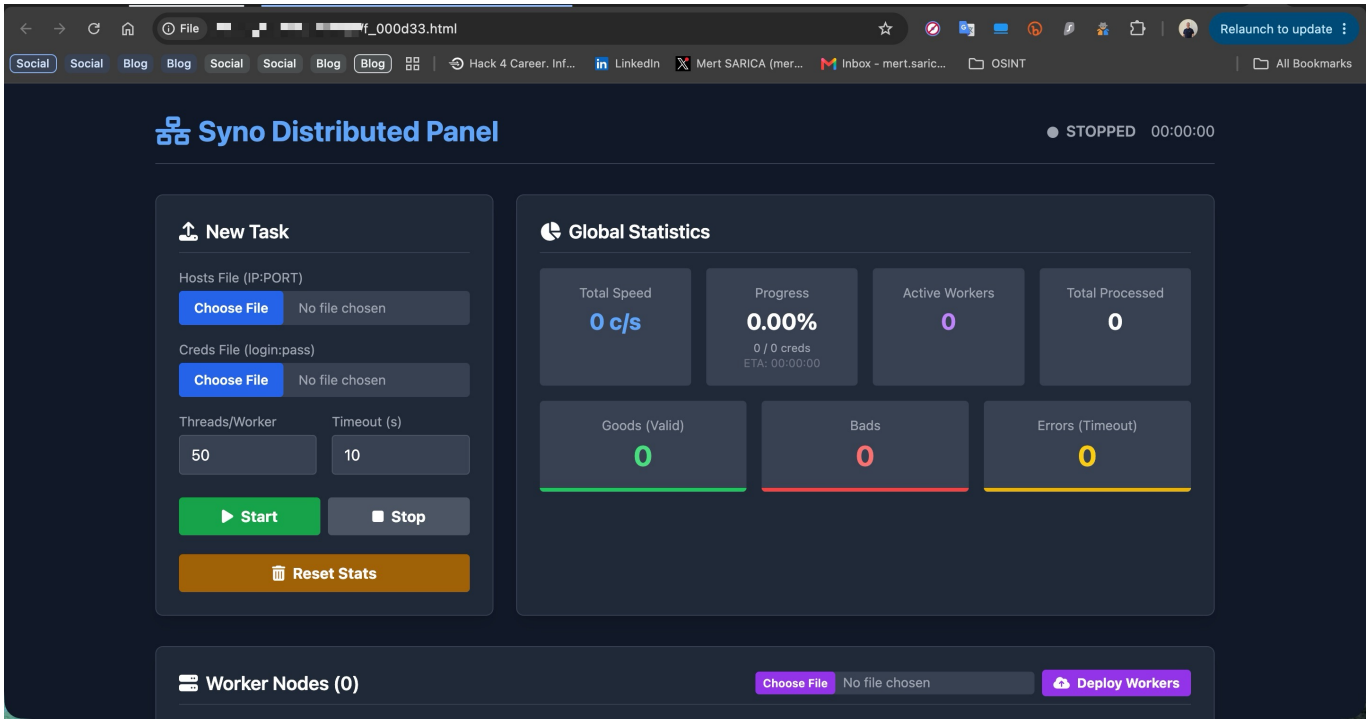
To learn more about the Synology Distributed Checker page, I began searching the cache files under Cache/Cache_Data in the Chrome profile directory for HTML content. I first identified relevant files by searching for characteristic HTML structures such as <!DOCTYPE html>, <html>, <head>, and <body>.

I then converted the cache files I identified into readable text using strings, saved the output to temporary text files, and created separate .html files after removing the HTML tags. Finally, I opened these files directly in Google Chrome to visually inspect which web interfaces had been preserved in the cache.

With this method, I was able to confirm that the Synology Distributed Checker interface was indeed a cached HTML page. The interface appeared to have been designed to perform high volume username/password attempts against Synology devices and collect the results through a centralized panel.

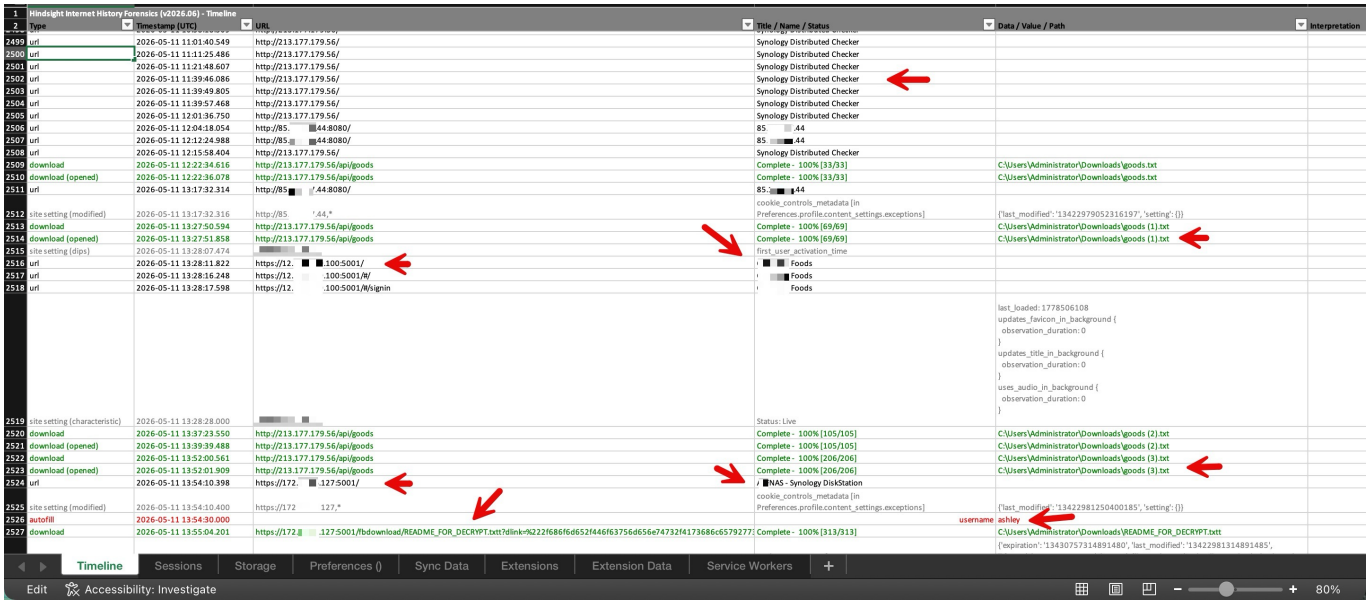

Default — -zsh — 130×42
% grep -R -a -l -E '<!DOCTYPE html>|<html|<head|<body' Cache/Cache_Data 2>/dev/null
Cache/Cache_Data/data_1
Cache/Cache_Data/f_0007b2
Cache/Cache_Data/f_0007b3
Cache/Cache_Data/f_000d18
Cache/Cache_Data/f_000d33
% for f in \
Cache/Cache_Data/data_1 \
Cache/Cache_Data/f_0007b2 \
Cache/Cache_Data/f_0007b3 \
Cache/Cache_Data/f_000d18 \
Cache/Cache_Data/f_000d33
do
name=$(basename "$f")
strings -a "$f" > "/tmp/${name}.txt"
sed -n '/<!DOCTYPE html>/,/<\/html>/p' "/tmp/${name}.txt" > "$HOME/Desktop/${name}.html"
echo "$name -> $(wc -c < "$HOME/Desktop/${name}.html") bytes"
done
data_1 -> 0 bytes
f_0007b2 -> 25516 bytes
f_0007b3 -> 25516 bytes
f_000d18 -> 0 bytes
f_000d33 -> 18134 bytes
% open -a "Google Chrome" \
~/Desktop/data_1.html \
~/Desktop/f_0007b2.html \
~/Desktop/f_0007b3.html \
~/Desktop/f_000d33.html


File
/f_0007b3.html
Relaunch to update
Social
Social
Blog
Blog
Social
Social
Blog
Blog
Hack 4 Career. Inf...
LinkedIn
Mert SARICA (mer...
Inbox - mert.saric...
OSINT
All Bookmarks
FortiVPN Panel
v3.0
CHECK
Build
Upload targets
Check
Scan
Stop
Reset
0
VALID
valid.txt
0
INVALID
invalid.txt
0
OFFLINE
offline.txt
0
: 0
0
HOSTS 445
SMB
hosts_445.txt
0
HOSTS 389
LDAP
hosts_389.txt
0
hosts_all.txt
0
VPN
0%
Drag & Drop targets.txt
: IP:PORT:LOGIN:PASS
W
UPTIME
VPN
OK
ERR
445
389



Accessing a Previously Compromised Device

As I moved further down the timeline, the filename README_FOR_DECRYPT.txtt immediately caught my attention. When I reviewed the downloaded files, it appeared that this file had also caught the operator's attention.



When I searched for the filename README_FOR_DECRYPT.txtt using search engines, I found that it had been associated since 2021 with the ech0raix ransomware group, which has targeted QNAP and Synology network-attached storage (NAS) devices. This raised the possibility that the FortiBleed operator had accessed a device that had previously been compromised by this

threat actor.

Registered Email Addresses

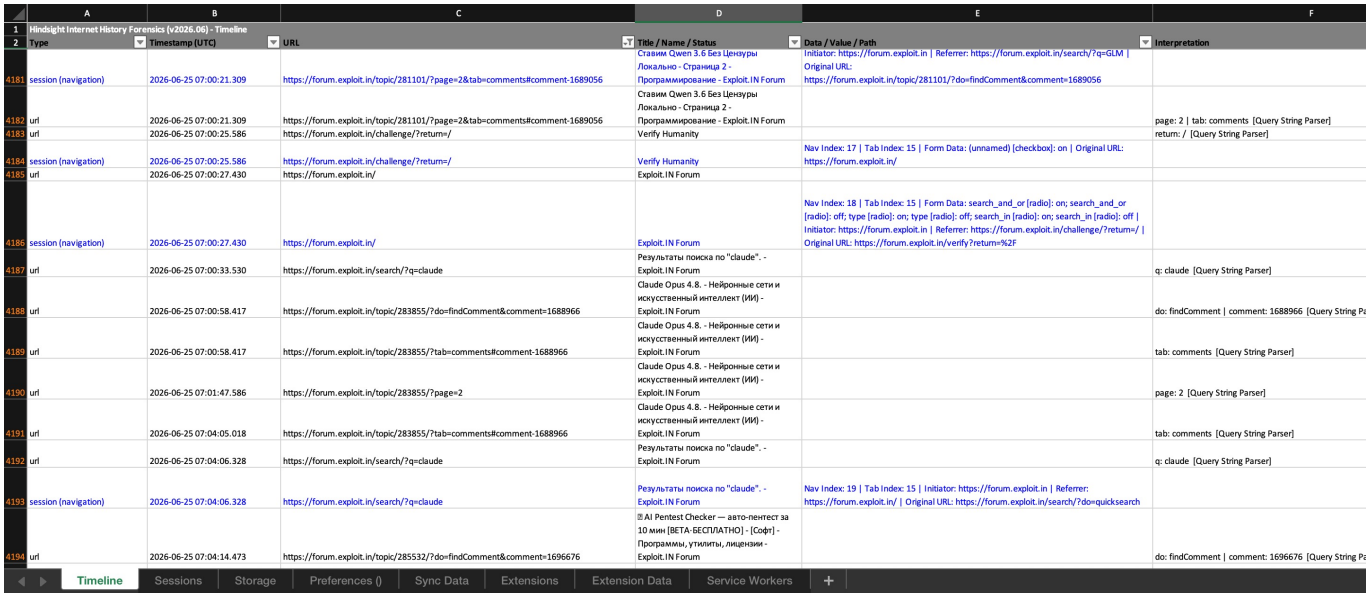
When I checked the email addresses used by the operator in the timeline, I found records associated with the following websites.

URL: https://console.wasabisys.com/ Email Address: ci**79[@]cosdas.com
URL: https://manus.im/ Email Address: xi**48[@]outlook.com
URL: https://app.cyberyozh.com/ Email Address: sh**ha[@]outlook.com
URL: https://ds.smartape.net/ Email Address: sh**ha[@]outlook.com
URL: https://accounts.x.ai/ Email Address: sh**ha[@]outlook.com
URL: https://forum.exploit.in/ Email Address: am**64[@]hotmail.com
URL: https://openrouter.ai/ Email Address: am**64[@]hotmail.com

A	B	C	D	E
Hindsight Internet History Forensics (v2026.06) - Timeline				
Type	Timestamp (UTC)	URL	Title / Name / Status	Data / Value / Path
autofill	2026-04-04 06:34:34.000		AccountName	ci 79@cosdas.com
login (declined save)	2026-04-04 06:34:38.434	https://console.wasabisys.com/		ci 79@cosdas.com
autofill	2026-04-10 06:51:23.000		email	xi 48@outlook.com
login (declined save)	2026-04-10 06:51:33.506	https://manus.im/		xi 48@outlook.com
autofill	2026-04-10 13:59:27.000		login	sh ha@outook.com
autofill	2026-04-10 13:59:57.000		login	sh ha@outlook.com
autofill	2026-04-10 14:00:44.000		email	sh ha@outlook.com
autofill	2026-04-10 14:01:49.000		login	sh ha@outlook.com
login (declined save)	2026-04-10 14:02:44.583	https://app.cyberyozh.com/		sh ha@outlook.com
login (declined save)	2026-04-13 04:27:30.418	https://ds.smartape.net/		sh ha@outlook.com
login (declined save)	2026-04-17 08:08:36.868	https://accounts.x.ai/		sh ha@outlook.com
autofill	2026-04-17 08:11:19.000		email	sh ha@outlook.com
autofill	2026-05-11 05:27:16.000		email_address	am 64@hotmail.com
login (declined save)	2026-05-11 05:39:06.793	https://forum.exploit.in/		am 64@hotmail.com
autofill	2026-05-20 05:34:04.000		identifier	am 64@hotmail.com
autofill	2026-05-20 05:35:46.000		search-linkEmail	am 64@hotmail.com
login (declined save)	2026-05-20 10:11:16.940	https://openrouter.ai/		am 64@hotmail.com

Exploit.in Records

When I looked at the Exploit.in records in the timeline, one of the better known platforms in the cybercrime ecosystem, I found that the operator performed broad searches for terms such as RDP, brute, and bthoster, and subsequently viewed threads where various brute force tools were shared.



	A	B	C	D	E	F
1	Hindsight Internet History Forensics (v2026.06) - Timeline					
2	Type	Timestamp (UTC)	URL	Title / Name / Status	Data / Value / Path	Interpretation
4181	session (navigation)	2026-06-25 07:00:21.309	https://forum.exploit.in/topic/281101/?page=2&tab=comments#comment-1689056	Ставим Qwen 3.6 Без Цензуры Локально - Страница 2 - Программирование - Exploit.IN Forum	Initiator: https://forum.exploit.in | Referrer: https://forum.exploit.in/search/?q=GLM | Original URL: https://forum.exploit.in/topic/281101/?do=findComment&comment=1689056	
4182	url	2026-06-25 07:00:21.309	https://forum.exploit.in/topic/281101/?page=2&tab=comments#comment-1689056	Ставим Qwen 3.6 Без Цензуры Локально - Страница 2 - Программирование - Exploit.IN Forum		page: 2 | tab: comments [Query String Parser]
4183	url	2026-06-25 07:00:25.586	https://forum.exploit.in/challenge/?return=/	Verify Humanity		return: / [Query String Parser]
4184	session (navigation)	2026-06-25 07:00:25.586	https://forum.exploit.in/challenge/?return=/	Verify Humanity	Nav Index: 17 | Tab Index: 15 | Form Data: (unnamed) [checkbox]: on | Original URL: https://forum.exploit.in/	
4185	url	2026-06-25 07:00:27.430	https://forum.exploit.in/	Exploit.IN Forum		
4186	session (navigation)	2026-06-25 07:00:27.430	https://forum.exploit.in/	Exploit.IN Forum	Nav Index: 18 | Tab Index: 15 | Form Data: search_and_or [radio]: on; search_and_or [radio]: off; type [radio]: on; type [radio]: off; search_in [radio]: on; search_in [radio]: off | Initiator: https://forum.exploit.in | Referrer: https://forum.exploit.in/challenge/?return=/ | Original URL: https://forum.exploit.in/verify?return=%2F	
4187	url	2026-06-25 07:00:33.530	https://forum.exploit.in/search/?q=claude	Результаты поиска по "claude". - Exploit.IN Forum		q: claude [Query String Parser]
4188	url	2026-06-25 07:00:58.417	https://forum.exploit.in/topic/283855/?do=findComment&comment=1688966	Claude Opus 4.8. - Нейронные сети и искусственный интеллект (ИИ) - Exploit.IN Forum		do: findComment | comment: 1688966 [Query String Pa
4189	url	2026-06-25 07:00:58.417	https://forum.exploit.in/topic/283855/?tab=comments#comment-1688966	Claude Opus 4.8. - Нейронные сети и искусственный интеллект (ИИ) - Exploit.IN Forum		tab: comments [Query String Parser]
4190	url	2026-06-25 07:01:47.586	https://forum.exploit.in/topic/283855/?page=2	Claude Opus 4.8. - Нейронные сети и искусственный интеллект (ИИ) - Exploit.IN Forum		page: 2 [Query String Parser]
4191	url	2026-06-25 07:04:05.018	https://forum.exploit.in/topic/283855/?tab=comments#comment-1688966	Claude Opus 4.8. - Нейронные сети и искусственный интеллект (ИИ) - Exploit.IN Forum		tab: comments [Query String Parser]
4192	url	2026-06-25 07:04:06.328	https://forum.exploit.in/search/?q=claude	Результаты поиска по "claude". - Exploit.IN Forum		q: claude [Query String Parser]
4193	session (navigation)	2026-06-25 07:04:06.328	https://forum.exploit.in/search/?q=claude	Результаты поиска по "claude". - Exploit.IN Forum	Nav Index: 19 | Tab Index: 15 | Initiator: https://forum.exploit.in | Referrer: https://forum.exploit.in/ | Original URL: https://forum.exploit.in/search/?do=quicksearch	
4194	url	2026-06-25 07:04:14.473	https://forum.exploit.in/topic/285532/?do=findComment&comment=1696676	🛡️AI Pentest Checker — авто-пентест за 10 мин [BETA-БЕСПЛАТНО] - [Софт] - Программы, утилиты, лицензии - Exploit.IN Forum		do: findComment | comment: 1696676 [Query String Pa

Timeline | Sessions | Storage | Preferences () | Sync Data | Extensions | Extension Data | Service Workers | +

Conclusion

This analysis showed that the Chrome profile left behind by the FortiBleed operator contained far more than visited websites and search history. It preserved a broader set of traces that helped reconstruct how the operation was conducted. Evidence ranging from the use of AI platforms and files retained in the cache to Python tools for validating access credentials, activity across attack surfaces such as FortiGate, Sophos, RDWeb, and Synology, and research conducted on Exploit.in enabled me to piece together key elements of the operator’s working methods. In particular, recovering files that remained accessible through the Chrome cache months later demonstrated how browser artifacts can help recover operational traces that might otherwise appear to have been lost.

The findings suggest that the FortiBleed operator was not a highly specialized threat actor following a fixed target or attack chain. Instead, the operator appears to have been an opportunistic, financially motivated cybercriminal who tested the access credentials in their possession against different systems, relied heavily on username/password-based access methods, automation, and ready made tools, and searched for weak links across a broad attack surface.

More broadly, this analysis demonstrates the evidentiary value of a single Chrome profile in a digital forensics investigation. Browser artifacts can provide visibility into an attacker’s areas of interest, tools, working habits, operational approach, and OPSEC mistakes, making them a valuable source of intelligence when reconstructing the activities of a threat actor.

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