"We are currently clean on OPSEC": The Signalgate Saga

a presentation by Micah Lee

Chapters

- 1. Signalgate
- 2. Hey Sir
- 3. Mike Waltz is Bored
- 4. TM SGNL
- 5. Hacked in 15-20 Minutes
- 6. End-to-Middle-to-End Encryption
- 7. Drowning in Heap Dumps
- 8. TeleMessage Explorer
- 9. Clean on OPSEC

Mike Walz

The Atlantic

U.S. national-security leaders included me in a group chat about upcoming

military strikes in Yemen. I didn't think it could be real. Then the bombs started

Sign In

Subscribe

https://archive.is/u5txN

National Security Advisor

POLITICS

falling.

By Jeffrey Goldberg

March 24, 2025

The Trump Administration Accidentally

Texted Me Its War Plans

- Mike Walz
 National Security Advisor
- Pete Hegseth
 Secretary of Defense

A

The Atlantic

; Si

Sign In

Subscribe

POLITICS

The Trump Administration Accidentally Texted Me Its War Plans

U.S. national-security leaders included me in a group chat about upcoming

military strikes in Yemen. I didn't think it could be real. Then the bombs started falling.

By Jeffrey Goldberg

March 24, 2025

- Mike Walz National Security Advisor
 - **Pete Hegseth** Secretary of Defense
 - John Radcliffe Director of the CIA

The Atlantic

Sign In Subscribe

POLITICS

Texted Me Its War Plans

The Trump Administration Accidentally U.S. national-security leaders included me in a group chat about upcoming

military strikes in Yemen. I didn't think it could be real. Then the bombs started

falling.

By Jeffrey Goldberg

March 24, 2025

- Mike Walz National Security Advisor
 - **Pete Hegseth** Secretary of Defense
 - John Radcliffe Director of the CIA
- Tulsi Gabbard DNI







The Atlantic

U.S. national-security leaders included me in a group chat about upcoming

military strikes in Yemen. I didn't think it could be real. Then the bombs started

Sign In

Subscribe

POLITICS

The Trump Administration Accidentally Texted Me Its War Plans

By Jeffrey Goldberg

falling.

March 24, 2025

- Mike Walz National Security Advisor
 - **Pete Hegseth** Secretary of Defense
 - John Radcliffe Director of the CIA
- Tulsi Gabbard
 - DNI
- **Stephen Miller** racist vampire







The Atlantic

U.S. national-security leaders included me in a group chat about upcoming

military strikes in Yemen. I didn't think it could be real. Then the bombs started

Sign In

Subscribe

POLITICS

falling.

The Trump Administration Accidentally

Texted Me Its War Plans

By Jeffrey Goldberg

https://archive.is/u5txN

March 24, 2025

- Mike Walz National Security Advisor
 - **Pete Hegseth** Secretary of Defense
 - John Radcliffe Director of the CIA
- Tulsi Gabbard
 - DNI **Stephen Miller**
- racist vampire
- ... and many more

falling.

U.S. national-security leaders included me in a group chat about upcoming

military strikes in Yemen. I didn't think it could be real. Then the bombs started

The Atlantic

Sign In

Subscribe

POLITICS

The Trump Administration Accidentally

Texted Me Its War Plans

By Jeffrey Goldberg

March 24, 2025





SEC HEGSETH ADDRESSES ATLANTIC ARTICLE

FOX NEWS ALERT

NEWS MARCH 25, 2025

American Oversight Sues Trump Administration for Using Signal to Plan Military Operations

The lawsuit targets Hegseth, Gabbard, Ratcliffe, Bessent, Rubio for violating federal records laws by using messaging app Signal for high-level national security deliberations, and seeks to recover unlawfully deleted messages and prevent further destruction.

DOCUMENT PRESERVATION REQUIREMENTS
TRUMP ADMINISTRATION ACCOUNTABILITY

FEDERAL



https://americanoversight.org/american-oversight-sues-trump-administrationfor-using-signal-to-plan-military-operations/



POLITICS

Intelligence leaders: We didn't share classified information in Signal chat group

UPDATED MARCH 25, 2025 · 4:05 PM ET 1

By Rachel Treisman, Greg Myre, Claudia Grisales, Deirdre Walsh



CIA Director John Ratcliffe, Tulsi Gabbard

Andrew Harnik, Kevin Dietsch/Getty Images

 $oldsymbol{\Lambda} \equiv oldsymbol{The Atlantic}$ Sign In Subscribe

POLITICS

Here Are the Attack Plans That Trump's Advisers Shared on Signal

The administration has downplayed the importance of the text messages inadvertently sent to *The Atlantic*'s editor in chief.

By Jeffrey Goldberg and Shane Harris

March 26, 2025

https://archive.is/vnPlk

JD Vance

@Pete Hegseth if you think we should do it let's go.

I just hate bailing Europe out again.

8:45 AM ①

Let's just make sure our messaging is tight here. And if there are things we can do upfront to minimize risk to Saudi oil facilities we should do it.

8:46 AM (1)

Pete Hegseth

VP: I fully share your loathing of European free-loading. It's PATHETIC.

But Mike is correct, we are the only ones on the planet (on our side of the ledger) who can do this. Nobody else even close. Question is timing. I feel like now is as good a time as any, given POTUS directive to reopen shipping lanes. I think we should go; but POTUS still retains 24 hours of decision space.



8:49 AM ①



Pete Hegseth

TEAM UPDATE:

TIME NOW (1144et): Weather is FAVORABLE. Just CONFIRMED w/ CENTCOM we are a GO for mission. launch.

1215et: F-18s LAUNCH (1st strike package)

1345: "Trigger Based" F-18 1st Strike Window Starts (Target Terrorist is @ his Known Location so SHOULD BE ON TIME) — also, Strike Drones Launch (MQ-9s)

1410: More F-18s LAUNCH (2nd strike package)

1415: Strike Drones on Target (THIS IS WHEN THE FIRST BOMBS WILL DEFINITELY DROP, pending earlier "Trigger Based" targets)

1536: F-18 2nd Strike Starts — also, first sea-based Tomahawks launched.

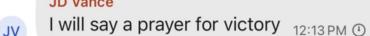
MORE TO FOLLOW (per timeline)

We are currently clean on OPSEC.



Godspeed to our Warriors.

JD Vance







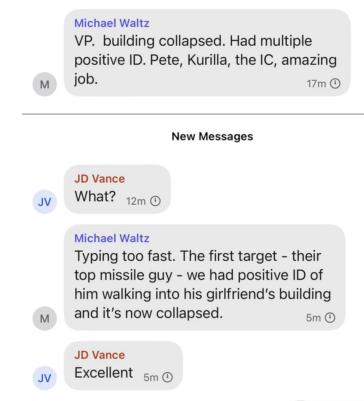
19m (1)

Playing Secretary As war looms, Pete Hegseth's Pentagon is beset by infighting over leaks, drugs, and socks. How long will Trump stand by his man?



"We are currently clean on OPSEC," Hegseth added. ("Why would Pete Hegseth say this into the Signal group?" Micah Lee, an independent security researcher, asks me, sounding genuinely puzzled. "I've put a lot of thought into this, and I think he was just trying to sound cool.")

By Kerry Howley, a features writer for New York Magazine since 2021. \checkmark





Chapter 1: Houthis claim retaliation as US says its strikes to continue in Ya

Yemen's Health Ministry has said.



People gather at the site of a house hit by a United States strike in Saada, Yemen [Naif Rahma/Reuters]

Chapter Signalga



SPORTS

WATCH



EXCLUSIVE

Info Hegseth shared with wife and brother came from top general's secure messages

Hegseth has denied the information he shared was classified, but it was given to him on a system for sensitive and classified information, sources told NBC News.

April 22, 2025, 5:19 AM PDT / Updated April 22, 2025, 8:01 AM PDT

By Courtney Kube and Gordon Lubold

WASHINGTON – Minutes before U.S. fighter jets took off to begin strikes against Iranian-backed Houthi rebels in Yemen last month, Army Gen. Michael Erik Kurilla, who leads U.S. Central Command, used a secure U.S. government system to send detailed information about the operation to Defense Secretary Pete Hegseth.



News

Pete Hegseth: 'There Are No State Secrets In A Healthy Relationship'





wp EXCLUSIVE

Hegseth Signal messages came from email classified 'SECRET,' watchdog told

The revelation contradicts the Trump administration's long-standing claims that no classified information was shared by the defense secretary's account during the "Signalgate" scandal.

July 23, 2025

https://archive.is/aDlyn

October 2024, before Trump was elected...



October 2024, before Trump was elected:

Jeffrey Goldberg
 The Atlantic editor-in-chef



October 2024, before Trump was elected:

- Jeffrey Goldberg
 The Atlantic editor-in-chef
- Brian Hughes
 Trump campaign spokesperson



October 2024, before Trump was elected:

- Jeffrey Goldberg
 The Atlantic editor-in-chef
- Brian Hughes
 Trump campaign spokesperson
- Mike Waltz
 Trump campaign national security surrogate



October 2024, before Trump was elected:

- Jeffrey Goldberg
 The Atlantic editor-in-chef
- Brian Hughes
 Trump campaign
 spokesperson
- Mike Waltz
 Trump campaign national security surrogate

According to the White House, the number was erroneously saved during a "contact suggestion update" by Waltz's iPhone, which one person described as the function where an iPhone algorithm adds a previously unknown number to an existing contact that it detects may be related.

The mistake went unnoticed until last month when Waltz sought to add Hughes to the Signal group chat - but ended up adding Goldberg's number to the 13 March message chain named "Houthi PC small group", where several top US officials discussed plans for strikes against the Houthis.

The Guardian article from April 6, 2025

https://archive.is/CnT25

October 2024, before Trump was elected:

- Jeffrey Goldberg
 - The Atlantic editor-inchef
 - Brian Hughes
 Trump campaign
 spokesperson
- Mike Waltz
 Trump campaign national security

surrogate

After Trump was elected:

- Jeffrey Goldberg
 - The Atlantic editor-in-chef **Brian Hughes**
 - National Security Council

spokesperson

Mike Waltz

National Security Advisor (but still using the same phone)

The Guardian article from April 6, 2025

https://archive.is/CnT25



October 2024, before Trump was elected:

- Jeffrey Goldberg
 - The Atlantic editor-inchef **Brian Hughes**
- Trump campaign spokesperson
- Mike Waltz
 Trump campaign national security surrogate

After Trump was elected:

- Jeffrey Goldberg
 - The Atlantic editor-in-chef **Brian Hughes**
 - National Security Council spokesperson
- Mike Waltz

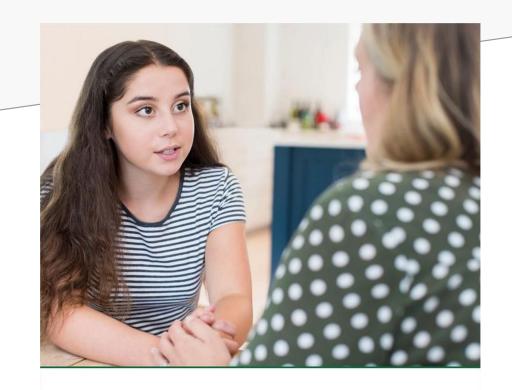
National Security Advisor (but still using the same phone)

Waltz's war crimes Signal group:

- He tried to add
 Brian Hughes
- He actually added Jeffrey Goldberg

The Guardian article from April 6, 2025

https://archive.is/CnT25



Teen Warned Not To Accept Group Chat Invites From National Security Advisors She Doesn't Know



Reuters Connect

U.S. National Security Advisor Mike Waltz attends a cabinet meeting held by President Trump at the White House in Washington

Thursday, 1st May 2025, 18:53 UTC



Reuters Connect

U.S. National Security Advisor Mike Waltz attends a cabinet meeting held by President Trump at the White House in Washington

Thursday, 1st May 2025, 18:53 UTC

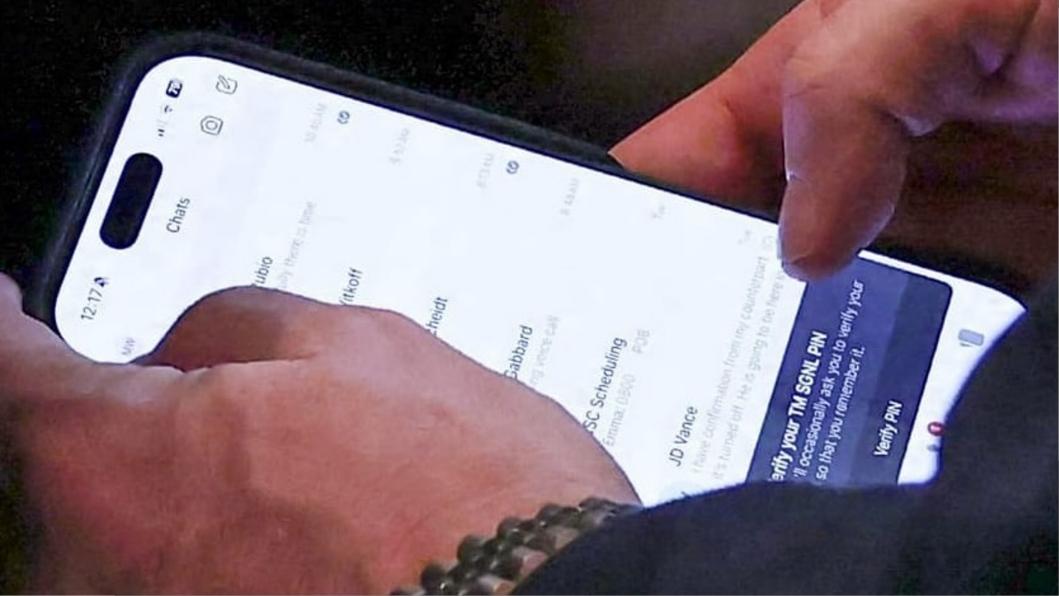


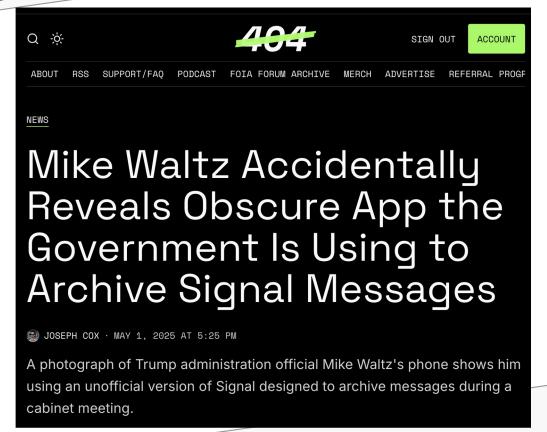
Reuters Connect

U.S. National Security Advisor Mike Waltz attends a cabinet meeting held by President Trump at the White House in Washington

Thursday, 1st May 2025, 18:53 UTC







In a <u>video uploaded to YouTube</u>, TeleMessage says it works on corporateowned devices as well as bring-your-own-device (BYOD) phones. In the demonstration, two phones running the app send messages and attachments back and forth, and participate in a group chat.

The video claims that the app keeps "intact the Signal security and end-to-end encryption when communicating with other Signal users."

"The only difference is the TeleMessage version captures all incoming and outgoing Signal messages for archiving purposes," the video continues.

Chapter 4: TM SGNL

TeleMessage

A Smarsh Company

Guy Levit, CEO

Guy has served as TeleMessage's CEO since July 2002 after cofounding TeleMessage in 1999. Prior to his current position he held various sales, marketing and operational positions within the company. From 1996 until 1999, Guy served as the head of the planning and development of one of the IDF's Intelligence elite technical units. In this role Mr. Levit was in charge of project management, budgets, and the design, development, implementation and maintenance of organizational, managerial and logistical information systems. Mr. Levit holds a B.Sc. in Industrial Engineering from the Technion, Israel's Institute of Technology and an MBA from Tel Aviv University.



from an archive of https://www.telemessage.com/team/

Gil Shapira, Vice President Business Development

Mr. Shapira is one of TeleMessage's co-founders. Between 1999 and 2005, he held various sales, marketing, operational positions in the company, as well as ran the company's European office.

Mr. Shapira served in the Israeli Air Force from 1993 – 1999 as a computer programmer, project manager and team leader of the IAF's special R&D software development unit. Mr. Shapira holds a B.Sc. in Aerospace Engineering from the Technion, Israel's Institute of Technology and a M.Sc. in Industrial Engineering from Tel Aviv University.



MOBILE ARCHIVER

Capture and retain your: mobile text messages, voice calls, and mobile IM chats



Choose any combination of our Mobile Recording products
Capture and Archive: WhatsApp, WeChat, Telegram, Signal, SMS, MMS, Voice calls



WhatsApp Capture

Identical to regular WhatsApp, while capturing all WhatsApp calls, chats, attachments, files and deletions and uploading them to be archived.

Read more



Telegram Capture

Record and capture Telegram calls, texts, multimedia and files on corporate-issued and employee BYOD phones.

Read more



WeChat Capture

Identical to regular WeChat, while capturing all WeChat business chats, messages, multimedia and attachments and uploading them to be archived.

Read more

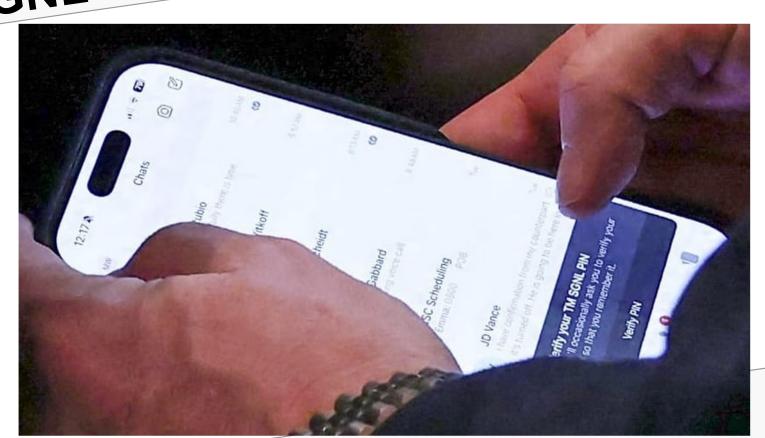


Signal Capture

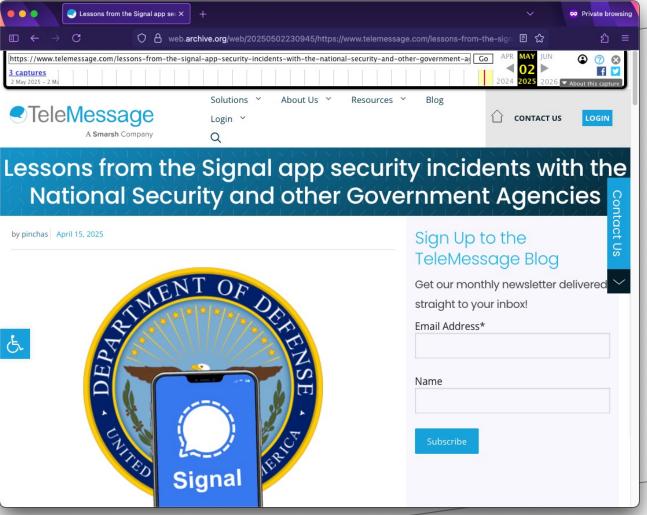
Record and capture Signal communications on corporate-issued and employee BYOD phones.

Read more

from an archive of https://www.telemessage.com/mobile-archiver/



Chapter of TM SGN



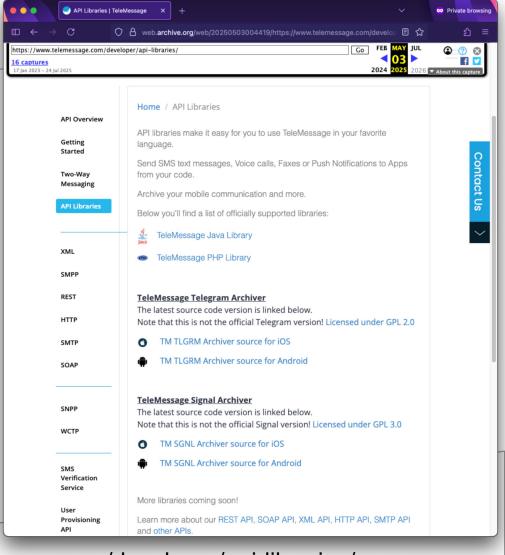
from an archive of https://www.telemessage.com/lessons-from-the-signal-app-security-incidents-with-the-national-security-and-other-government-agencies/

When did the Trump administration start using TeleMessage?

- March 13: Mike Waltz invites journalist to Signal group
- March 15: US bombs Yemen
- March 24: The Atlantic publishes first article
- March 25: Senate hearing, and American Oversight lawsuit
- March 26: House hearing, and the Atlantic publishes second article
- April 15: TeleMessage blogs about Signalgate
- May 1: Mike Waltz is photographed using TM SGNL

iOS source code link: https://telemessage.com/wpcontent/uploads/2024/12/Signal-iOSmain.zip

Android source code link: https://www.telemessage.com/wp-content/uploads/2024/12/Signal.zip



from an archive of https://www.telemessage.com/developer/api-libraries/

Chapter 4: TM SGNL Q Type // to search 11 Pull requests Projects (!) Security <> Code • Issues 2 ✓ Insights Settings TM-SGNL-Android Public ሦ Fork 54 ● Unwatch 8 ☆ Star 173 Sponsor **(2)** រូម libs ▼ ₽ 6 Branches > 124 Tags Q Go to file t <> Code ▼ About Unofficial and insecure Signal app, used 455 Commits micahflee Add decompiled shared libraries bd7ccbb · 3 weeks ago by senior Trump officials like Mike Waltz, downloaded from the official .github ========NEW BASELINE 7.2.4.2====... last year TeleMessage website Add decompiled shared libraries 3 weeks ago app micahflee.com/heres-the-source-cod... benchmark new baseline to master 6.31.2 ☐ Readme 2 years ago AGPL-3.0 license build-logic ====NEW BASELINE 7.2.4.2====... last year

=========NEW BASELINE 7.2.4.2====...

========NEW BASELINE 7.2.4.2====...

contacts

core-ui

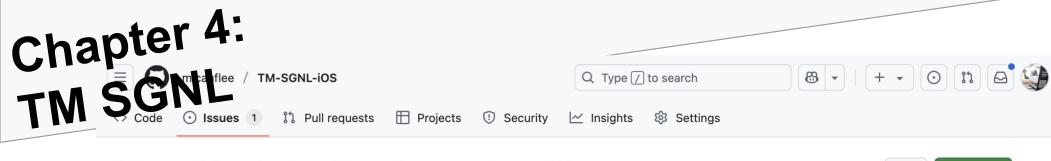
https://github.com/micahflee/TM-SGNL-Android

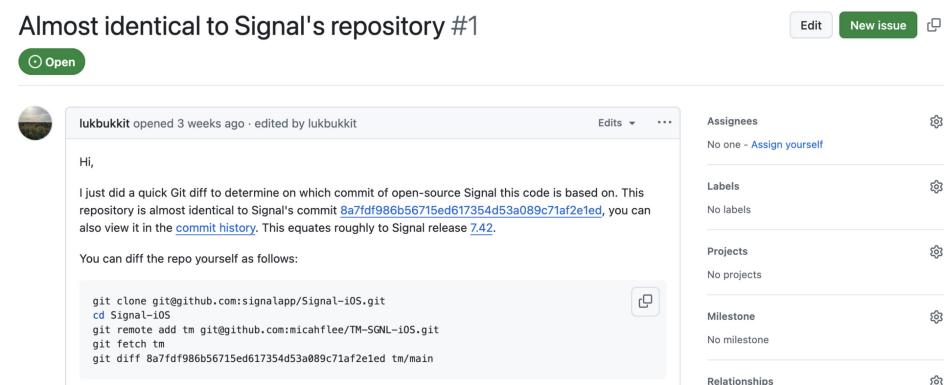
last year

last year

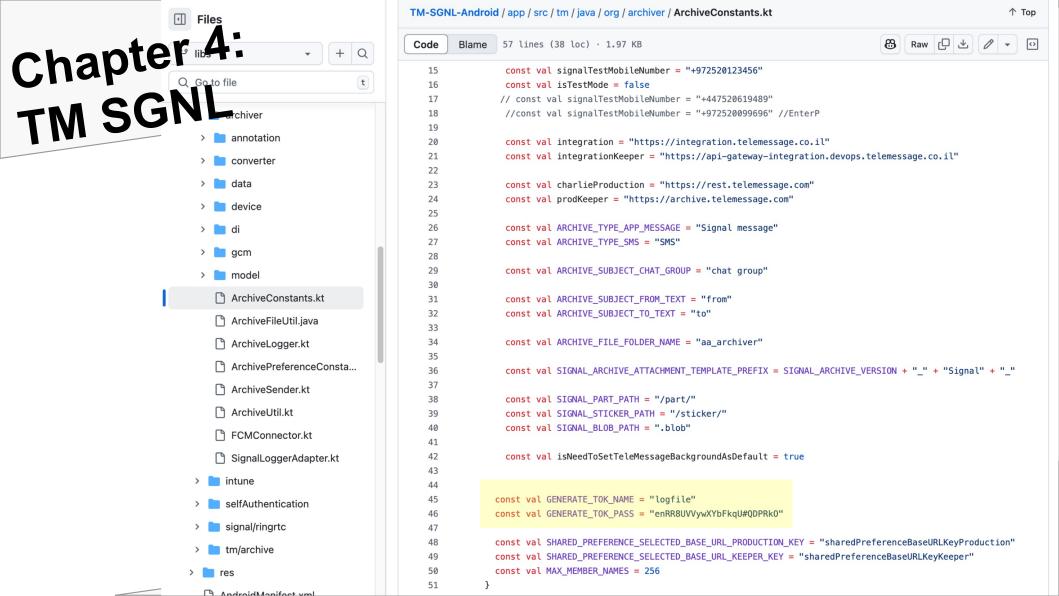
-∿ Activity

☆ 173 stars⊙ 8 watching



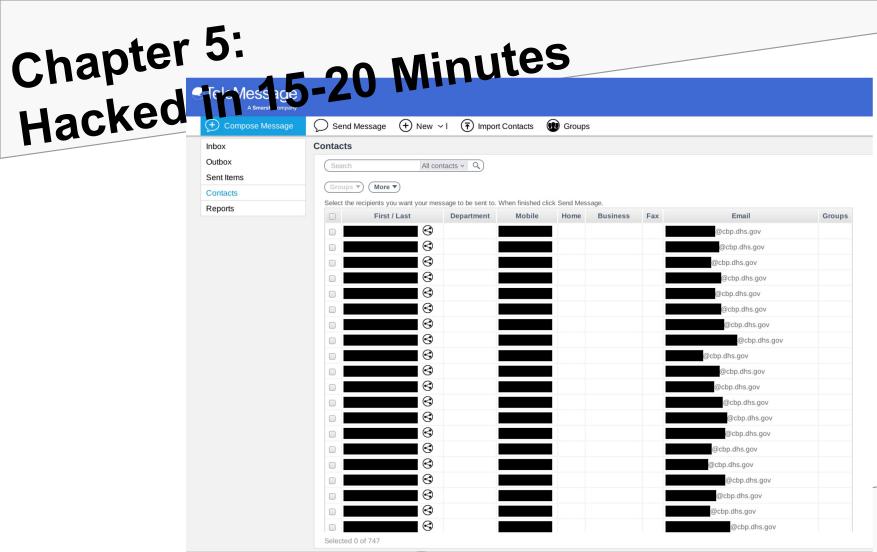


https://github.com/micahflee/TM-SGNL-iOS/issues/1





"I would say the whole process took about 15-20 minutes," the hacker said, describing how they broke into TeleMessage's systems. "It wasn't much effort at all." 404 Media does not know the identity of the hacker, but has verified aspects of the material they have anonymously provided.



```
ype\":\"PHUNE\"}":{"Tirstname":
                   , lastname : " }, {\ value\ :\
                                           \",\"ty
pe\":\"PHONE\"}":{"firstName":"
                   ","lastName":"| Galaxy"},"{\"value\":\"
                                         \",\"
type\":\"PHONE\"}":{"firstName":"
                    \",\"ty
                   \",\
pe\":\"PHONE\"}":{"firstName":"
                    \",\"t
"type\":\"PHONE\"}":{"firstName":"
                                         \",
ype\":\"PHONE\"}":{"firstName":"
                    \"type\":\"PHONE\"}":{"firstName":"
                    \"type\":\"PHONE\"}":{"firstName":"
:\"PHONE\"}":{"firstName":""","lastName":""}},"originalMessageData":null,"ban":null,"acc
eptedPayloadIdentifier":"56fabc6a-93fc-4541-baad-462f729c4625","groupName":"GD Macro","group
Id":"17169071900-1521081435@g.us","groupMessage":true,"text":"Just spoke to a D staffer on t
he senate side - 2 cosponsors (Alsobrooks and gillibrand) did not sign the opposition letter
so they think the bill still has a good chance of passage the senate with 5 more Ds support
ll,"acceptedPayloadIdentifier":"198985e5-a9cc-46a0-96c3-6b61a1cc8fcd","groupName":"Booth Cap
tains","groupId":"120363419064293584@g.us","groupMessage":true,"text":null},"kafkafied":true
:null,"ban":null,"acceptedPayloadIdentifier":"e4eee1bd-4db9-49ad-a679-3f9442e5fd86","groupNa
```

Chapter 5: Chapter 5: Hacked in 15-20 Minutes Hacked in 15-20 Minutes

MICAH LEE

SECURITY MAY 18, 2025 7:00 AM

How the Signal Knockoff App TeleMessage Got Hacked in 20 Minutes

The company behind the Signal clone used by at least one Trump administration official was breached earlier this month. The hacker says they got in thanks to a basic misconfiguration.



"I first looked at the admin panel **secure.telemessage.com** and noticed that they were hashing passwords to MD5 on the client side, something that negates the security benefits of hashing passwords, as the hash effectively becomes the password," the hacker said. (Hashing is a way of cryptographically obfuscating a password stored on a system, and MD5 is an inadequate version of the algorithms used to do so.) Drop Site News has since <u>reported</u> that it appears that this admin panel exposed email addresses, passwords, usernames, and phone numbers to the public.

The weak password hashing, and the fact that the TeleMessage site was programmed with JSP—an early 2000s-era technology for creating web apps in Java—gave the hacker "the impression that their security must be poor." Hoping to find vulnerable JSP files, the hacker then used <u>feroxbuster</u>, a tool that can quickly find publicly available resources on a website, on **secure.telemessage.com**.

The hacker also used feroxbuster on **archive.telemessage.com**, another domain used by TeleMessage, which is where they discovered the vulnerable URL, which ended in /**heapdump**.

When they loaded this URL, the server responded with a Java heap dump, which is a roughly 150-MB file containing a snapshot of the server's memory at the moment the URL was loaded.

May 18, 2025

https://archive.ph/5WcRT

https://archive.telemessage.com/management/heapdump





OVERVIEW LEARN

SUPPORT

SAMPLES

Spring Boot makes it easy to create stand-alone, production-grade Spring based Applications that you can "just run".

We take an opinionated view of the Spring platform and third-party libraries so you can get started with minimum fuss. Most Spring Boot applications need minimal Spring configuration. If your application is a web application (Spring MVC, Spring WebFlux, or Jersey), you can use the following additional endpoints:

ID	Description	
heapdump	Returns an hprof heap dump file. Requires a HotSpot JVM.	
jolokia	Exposes JMX beans over HTTP (when Jolokia is on the classpath, not available for WebFlux). Requires a dependency on jolokia-core.	
logfile	Returns the contents of the logfile (if logging.file.name or logging.file.path properties have been set). Supports the use of the HTTP Range header to retrieve part of the log file's content.	
prometheus	Exposes metrics in a format that can be scraped by a Prometheus server. Requires a dependency on micrometer-registry-prometheus.	

Chapter 5: Hacked in

2.2. Exposing Endpoints

IMY

ID

Since Endpoints may contain sensitive information, careful consideration should be given about when to expose them. The following table shows the default exposure for the built-in endpoints:

Weh

	טו	JIVIX	vveb
	auditevents	Yes	No
	beans	Yes	No
	caches	Yes	No
	conditions	Yes	No
	configprops	Yes	No
	env	Yes	No
	flyway	Yes	No
	health	Yes	Yes
	heapdump	N/A	No

https://docs.spring.io/spring-boot/docs/2.5.6/reference/html/actuator.html

Cha Hac

Common Misconfigurations in Spring Boot Actuator

#1 Exposed HeapDump file

The Spring Boot Actuator heapdump endpoint is designed to capture the current state of the Java heap, making it a valuable tool for diagnosing memory issues. However, if credentials such as passwords, tokens, cloud keys, or other secrets are loaded into the memory of a Java application's JVM during its runtime, these might be included in the heap dump. Therefore, if accidentally configured to be publicly exposed, this endpoint could reveal this sensitive information to unauthorized users.

Up until version 1.5 (released in 2017), the /heapdump endpoint was configured as publicly exposed and accessible without authentication by default. Since then, in later versions Spring Boot Actuator has changed its default configuration to expose only the /health and /info endpoints without authentication (these are less interesting for attackers). Despite this improvement, developers often disable

Table of contents

TL:DR

Introduction

What makes Spring Boot Actuator a treasure trove for attackers?

Common Misconfigurations in Spring Boot Actuator

#1 Exposed HeapDump file

#2 Exposed Actuator Gateway Endpoint leading to Remote Code Executi...

#3 Exposed env endpoint

Potential Impact

Misconfigurations as Potential Blind Spots in Attack Paths

How Can Organizations Defend Themselves?

How Can Wiz Help?



May 5, 2025, 12:00 PM PDT / Updated May 5, 2025, 3:38 PM PDT

By Kevin Collier and Ben Goggin

TeleMessage, the app that President Donald Trump's former national security adviser, Mike Waltz, appeared to use to archive his group chats, has suspended all services after hackers claimed to have stolen files from it.

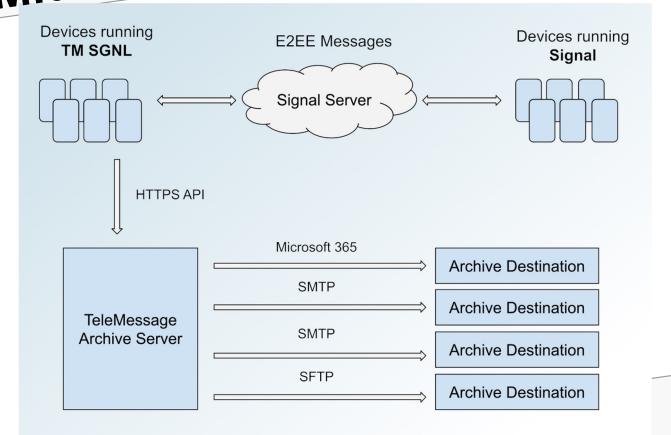
https://archive.ph/OFuGy

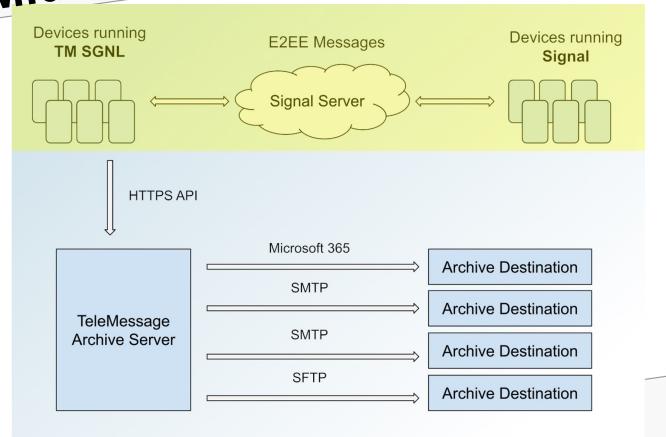
On Sunday evening, a hacker credibly claimed to NBC News to have broken into a centralized TeleMessage server and downloaded a large cache of files. As evidence, the hacker provided a screenshot of TeleMessage's contact list of employees at the cryptocurrency broker Coinbase, which uses TeleMessage.

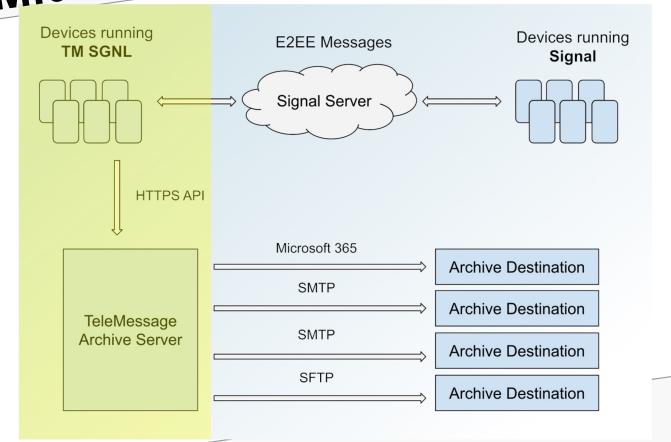
The hacker told NBC News they have not fully sifted through the hacked files yet, and it is unclear if they include sensitive conversations from the U.S. government.

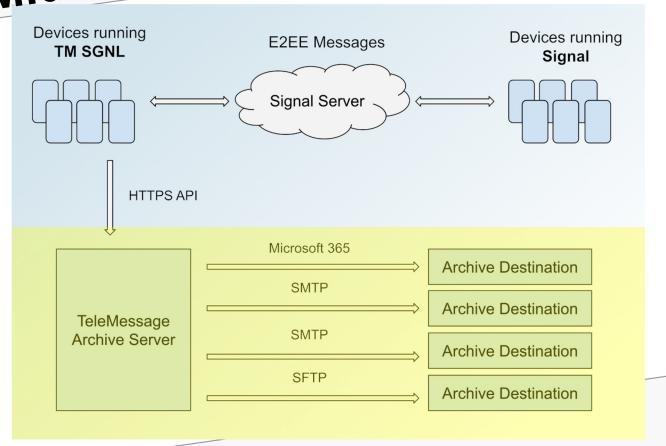
May 5, 2025 https://arc

Despite misleading marketing, Israeli company TeleMessage, used by Trump officials, can access plaintext chat logs













Archive Signal app activity

- Archive Signal communication for iOS and Android devices
- •Uses standard Signal interface and encryption
- •Works from Mobile App, Signal Desktop
- •Use the native Signal interface and encrypted communication with other users
- Ł
- •Captures & records Signal calls, messages, deletions, including text, multimedia, files.
- •Archive Signal message text, multimedia, files, and deleted messages
- •Signal communication is uploaded to the company enterprise archive
- •Store the employee Signal communication with employee email, and other mobile communication
- Search, find & retrieve Signal communication based on sender, mobile, content, or text
- •Complete separation between private and business texts on BYOD devices
- Automatic archiving operates in the background without any user intervention
- •End-to-End encryption from the mobile phone through to the corporate archive
- Maintain all Signal app features and functionality as well as the Signal encryption

from an archive of https://www.telemessage.com/mobile-archiver/signal-archiver/

RON WYDEN OREGON

CHAIRMAN OF COMMITTEE ON FINANCE

221 DIRKSEN SENATE OFFICE BUILDING WASHINGTON, DC 20510 (202) 224–5244



COMMITTEES:

COMMITTEE ON FINANCE
COMMITTEE ON THE BUDGET
COMMITTEE ON ENERGY AND NATURAL RESOURCES
SELECT COMMITTEE ON INTELLIGENCE
JOINT COMMITTEE ON TAXATION

May 6, 2025

The Honorable Pam Bondi Attorney General Department of Justice 950 Pennsylvania Avenue, NW Washington, DC 20530

Dear Attorney General Bondi:

I write to request that the Department of Justice (DOJ) investigate the serious threat to U.S. national security posed by TeleMessage, a federal contractor that sold dangerously insecure communications software to the White House and other federal agencies.

how shoddy its security practices really were and because its claims were false, at least two hackers were able to gain access to communications and other data from federal customers, including employees of CBP. TeleMessage must be held accountable for its apparent false statements to federal agencies and for its apparent violations of the cybersecurity requirements in federal contracts. I urge the DOJ to investigate whether TeleMessage violated the False Claims Act by selling insecure products to the federal government. Second, I urge you to launch an investigation into the counterintelligence threat posed by TeleMessage, to determine the extent to which foreign employees of the company have access to the messages of government users, whether the company has shared U.S. government communications with the Israeli government, and whether the Israeli government played any role in the product's dangerous design.

Thank you for your attention to this important matter. If you have any questions about this request, please contact Chris Soghoian in my office.

Sincerely,

Ron Wyden

United States Senator

Chapter 7: Drowning in Heap Dumps **TeleMessage**

Published on 2025-05-19



Distributed Denial of Secrets

Article Details

Countries: United States, Israel

Type: Corporate, Hack

Download Size: 410.00 GB

Download: Link

Thousands of heap dumps taken May 4, 2025 from TeleMessage, which produces software used to archive encrypted messaging apps such as Signal and WhatsApp. The service came to public notice in 2025 when it was reported that former national security adviser Mike Waltz used TeleMessage while communicating with members of the Trump administration, including Vice President JD Vance and Director of National Intelligence Tulsi Gabbard. TeleMessage has been used by the federal government since at least February 2023.

Chapter 7: Drowning in Heap Dumps Reuters

My News





Exclusive: Hacker who breached communications app used by Trump aide stole data from across US government

By A.J. Vicens and Raphael Satter

May 21, 2025 8:04 AM PDT \cdot Updated 8 days ago

WASHINGTON, May 21 (Reuters) - A hacker who breached the communications service used by former Trump national security adviser Mike Waltz earlier this month intercepted messages from a broader swathe of American officials than has previously been reported, according to a Reuters review, potentially raising the stakes of a breach that has already drawn questions about data security in the Trump administration.

Reuters identified more than 60 unique government users of the messaging platform

TeleMessage in a cache of <u>leaked data</u> provided by Distributed Denial of Secrets, a U.S. nonprofit whose stated mission is to archive hacked and leaked documents in the public

Chapter 7: Drowning in Heap Dumps

What is this data?

- 2,729 Java heap dumps, in HPROF format
- 130 MB to 291 MB each
- · Not a copy of the data stored on the archive server
- Rather, fragments of data that happened to be in memory on Sunday, May 4, 2025

Chapter 7: Drowning in Heap Dumps

```
STRINGS(1)
                             General Commands Manual
                                                                        STRINGS(1)
NAME
       strings - find the printable strings in a object, or other binary, file
SYNOPSIS
       strings [ - ] [ -a ] [ -o ] [ -t <u>format</u> ] [ -<u>number</u> ] [ -n <u>number</u> ]
       [--] [file ...]
DESCRIPTION
       <u>Strings</u> looks for ASCII strings in a binary file or standard input.
       <u>Strings</u> is useful for identifying random object files and many other
       things. A string is any sequence of 4 (the default) or more printing
       characters [ending at, but not including, any other character or EOF].
       Unless the - flag is given, strings looks in all sections of the object
       files except the (__TEXT,__text) section. If no files are specified
       standard input is read.
```

```
},
"body": {
 "acceptedPayloadIdentifier": "99cda457-d3ac-4e0a-b03a-7721f3ef0a93",
                                                                                      "type": "PHONE",
  "attachment": null,
                                                                                      "value": "190
 "ban": null.
  "callInfo": null.
 "direction": "IN",
                                                                                  "sender": {
  "groupData": {
                                                                                    "type": "PHONE",
   "id": "",
                                                                                   "value": "170
   "name": "Upstanding Citizens Brigade",
   "type": "BROADCAST"
                                                                                 "subUserId": 0,
                                                                                 "subject": "Signal message from 170
                                                                                                                             to chat group Upstanding Citizens Brigade",
  "groupId": "",
                                                                                 "text": "You can't just say a thing, not know anything about it and not expect to be challenged",
 "groupMessage": false,
                                                                                  "textField": {
  "groupName": "Upstanding Citizens Brigade",
                                                                                   "extractor": {
  "messageId": '
                                                                                     "data": "You can't just say a thing, not know anything about it and not expect to be challenged",
 "messageStatus": "NA",
                                                                                     "typ": "WrapperExt"
 "messageTime": 1746389219000,
 "messageType": "APP MESSAGE",
                                                                                   "length": 86
 "originalMessageData": null,
  "owner": {
                                                                                  "threadID": "tm-1441784229",
   "type": "PHONE",
                                                                                  "threadName": null
   "value": "1415
                                                                               "gatewayReceivedDate": 1746389219753,
  "participantEnrichments": {},
                                                                               "internalSecurityData": {
 "partner": null,
                                                                                 "internalDecryptionData": {
 "recipients": [
                                                                                   "encryptionType": "DO_NOTHING",
                                                                                   "params": {},
     "type": "PHONE",
                                                                                   "typ": "nothing"
     "value": "170
   },
                                                                                  "version": "0.0.2"
     "type": "PHONE",
                                                                               "kafkafied": true,
     "value": "1415
                                                                               "networkType": "SIGNAL",
   },
                                                                               "ownerExtClassId": null,
                                                                               "partner": "NONE",
     "type": "PHONE",
                                                                               "securityContent": null,
      "value": "1908
                                                                               "sourceService": null.
   },
                                                                               "sourceType": "SIGNAL",
     "type": "PHONE",
                                                                               "typ": "RawMessage"
     "value": "1718
```

Chapter 7: Drowning in Heap Dumps

Grepping for known JSON objects works, but what if I miss stuff?

Solution: Extract every single complete JSON object from every single heap dump.

```
def extract_complete_json_objects(text):
    Extracts complete JSON objects from a string
    111111
    objects = []
    brace level = 0
    start idx = None
    for idx, char in enumerate(text):
        if char == "{":
            if brace_level == 0:
                start idx = idx
            brace level += 1
        elif char == "}":
            brace level -= 1
            if brace_level == 0 and start_idx is not None:
                candidate = text[start_idx : idx + 1]
                trv:
                    obj = json.loads(candidate)
                    objects.append(obj)
                except Exception:
                    pass # Not valid JSON, skip
                start idx = None
    return objects
```

Chapter 7: Chapter 7: Drowning in Heap Dumps Skip

```
xample JSON objects this
{},
    "status": "UP"
    "components": {
        "livenessState": {
            "status": "UP"
    "firstName": "Javier"
    "source": "INT"
    "@timestamp": "2025-05-04 02:24:23,985",
    "@version": "1",
    "message": "User 13105621684 is not validated, reason:
    Authentication_failed",
    "logger_name": "com.telemessage.service.authenticationprovider.
    TelemessageAuthenticationProvider",
    "thread name": "http-nio-9818-exec-4",
    "level": "ERROR".
    "level_value": 40000,
    "HOSTNAME": "api-gateway-service-74f697d897-6sg5z",
    "traceId": "db4e4d7b3ce4176a6750b190313bd557",
    "spanId": "715c64660c1576a7",
    "source": "EXT"
```

```
def skip_object(self, obj):
   Skip objects that are not relevant.
   self.skipped count += 1
   if (
       # Skip empty objects
       len(obi) == 0
       # Skip fullName objects
       or ("fullName" in obj and "value" in obj and len(obj) == 2)
       # Skip name objects
       or ("firstName" in obj and "lastName" in obj and len(obj) == 2)
       # Skip first name objects
       or ("firstName" in obj and len(obj) == 1)
       # Skip last name objects
       or ("lastName" in obj and len(obj) == 1)
       # Skip fullName/firstName objects
       or ("fullName" in obj and "firstName" in obj and len(obj) == 2)
       # Skip {{headerName}} objects
       or ("{{headerName}}" in obj and len(obj) == 1)
       # Skip log messages
        or (
```

"@timestamp" in obj

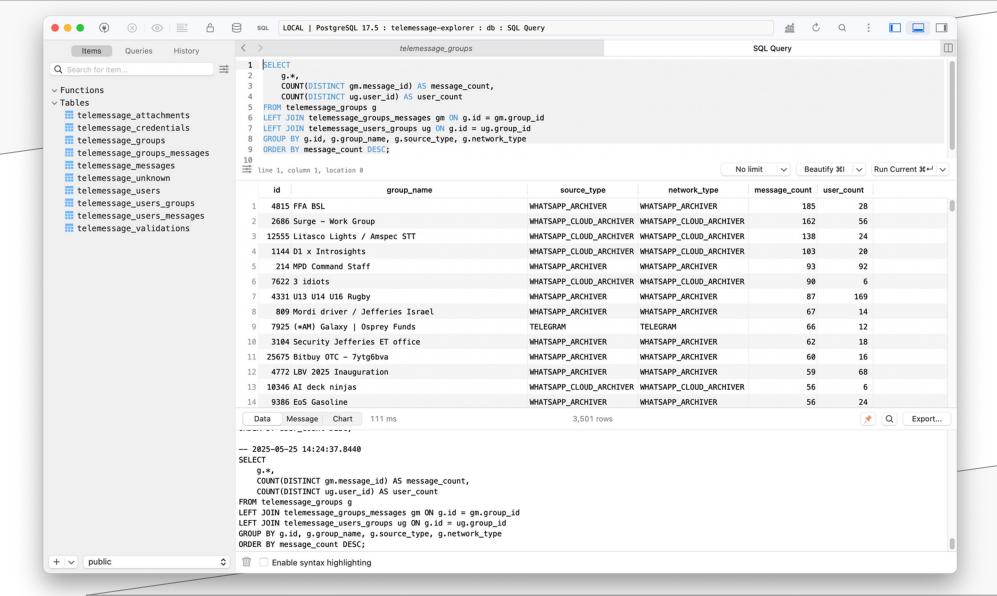
and "message" in obj

and "level" in obi

and "logger_name" in obj

Chapter 7: Drowning in Heap Dumps

```
"validationData": {
   "reason": "OK",
   "validated": true
"enhancementData": {
    "data": [
                          email address
        "1315
    "email": "
                                @cbp.dhs.gov",
   "userName": "1315
                                phone number
   "shortCodes": [],
   "subUserIds": [],
    "activeIdentityProviderWithParams": {
        "activeIdentityProvider": "NONE",
        "identityProviderParams": {}
```



Chapter 8: TeleMessage Explorer

TeleMessage Explorer: a new open source research tool



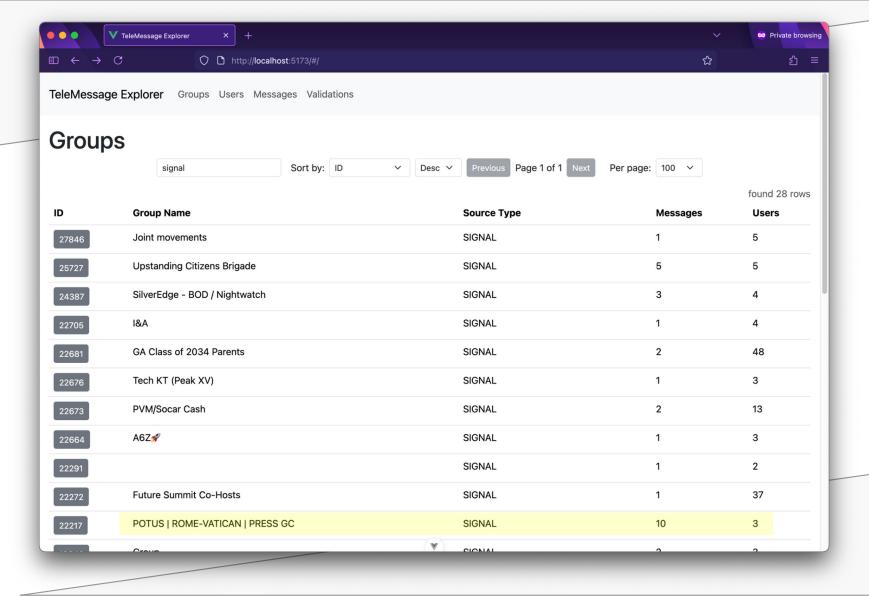


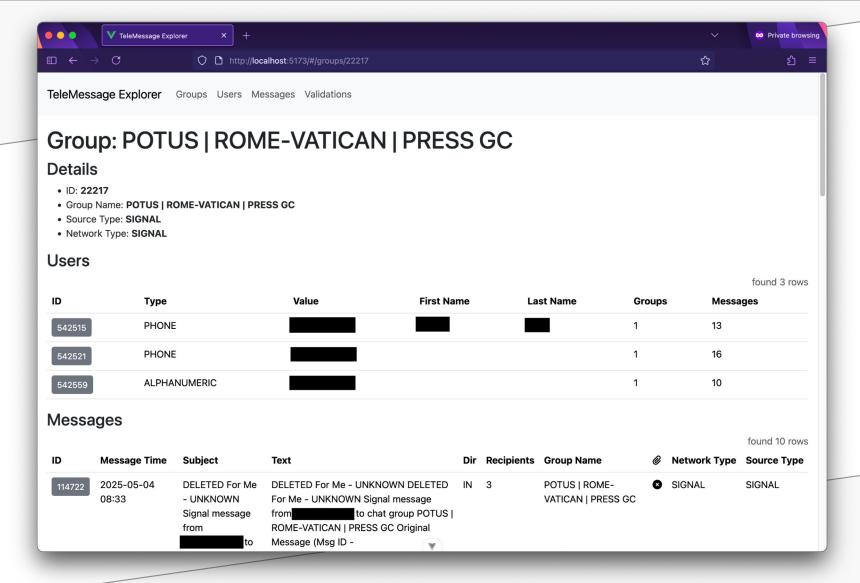
Micah Lee

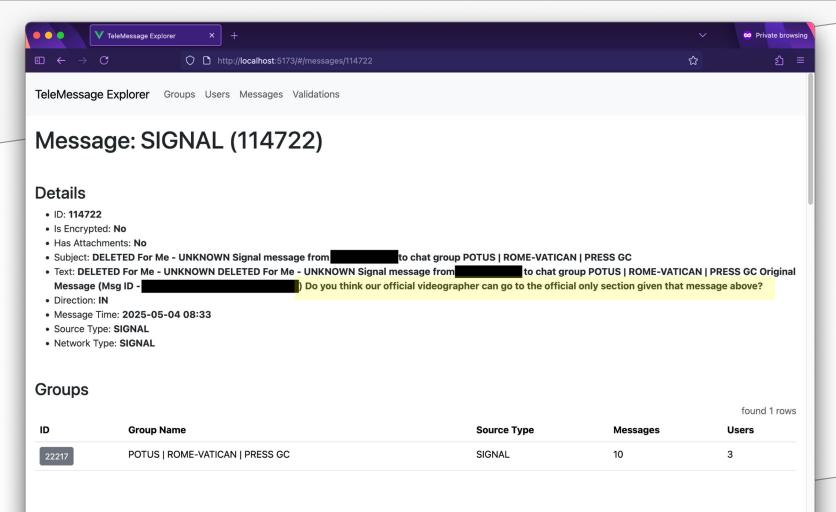
26 May 2025

I've spent the last week or two writing code to make sense of the massive hack of data from TeleMessage, the comically insecure company that makes a modified Signal app that Trump's former national security advisor Mike Waltz was caught using. I've decided to publish my code as open source in the hopes that other journalists will use it to find revelations in this dataset.

https://micahflee.com/telemessage-explorer/



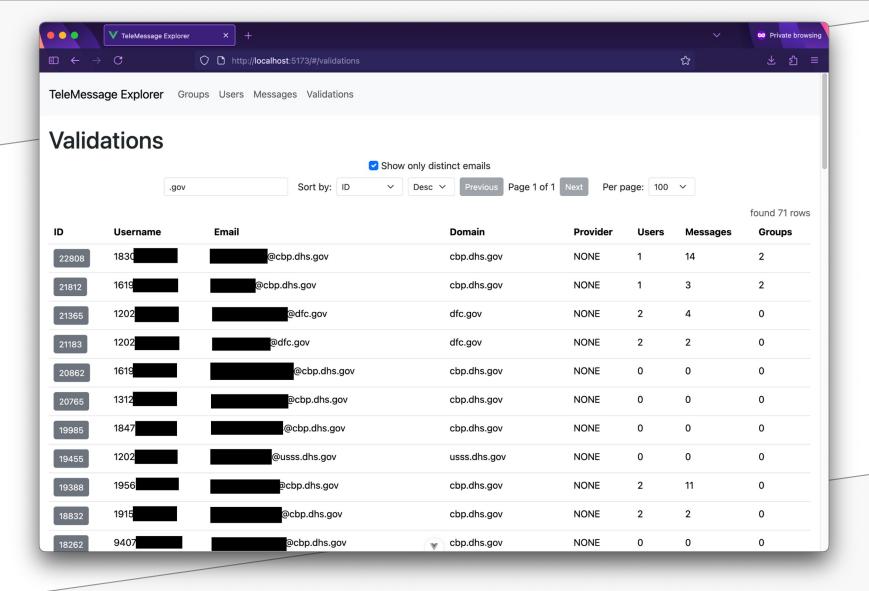




V

Users

found 3 rows



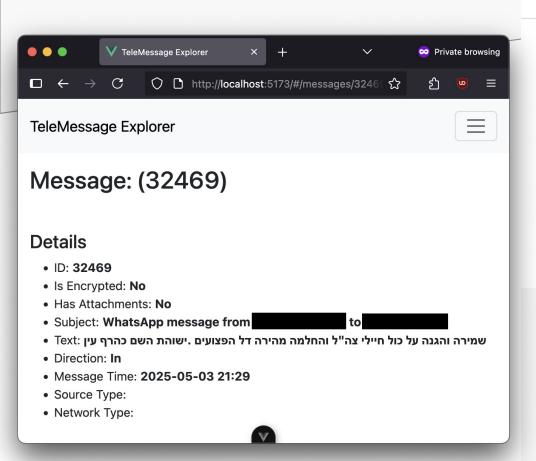
Handle messages and groups with non-ASCII characters #2





```
hunterdomson opened 19 hours ago · edited by hunterdomson
                                                                                                                Edits -
While digging through the dataset, our team (Reporters United) found that there are lots of messages and groups that are
ignored because they contain non-ASCII characters. Such characters can be emojis or non-latin characters. The underlying
issue is that strings filters these messages out:
  $ echo τεστ | strings
  $ echo τεστ | strings -e s
  $ echo τεστ | strings -e S
  τεστ
Using strings -e S to capture Unicode characters is a double-edged sword, because it interprets some garbage characters
before the start of JSON strings as valid Unicode characters, and thus we can no longer load a line with json.loads().
Our team solved this issue by building a special-purpose carver that filters byte streams for RFC-8259 compliant JSON
strings: https://github.com/reportersunited/json-carver. It's orders of magnitude faster than strings and always produces
structurally valid JSON strings. If I recall correctly, we get about x3 messages and groups than with the strings approach
(edit: turns out its less than that).
Since this is a limitation that users from non-English speaking countries may not realize, would you mind if I added a warning
before the string invocation?
```

(and thanks again Micah for this awesome tool)





שמירה והגוה על כול חיילי צה"ל והחלמה imesמהירה דל הפצועים .ישוהת השם כהרף עין

shmira vehagna al kol hayli tza"le vehachalma mehira dal haftzu'im .yeshohat hashem keharef in

שמירה והגנה על *כל* חיילי צה"ל והחלמה :Did you mean מהירה דל הפצועים .ישוהת השם כהרף עין





73 / 5,000

Protection and protection of all IDF soldiers and a speedy recovery for the few wounded. May God's presence be in the blink of an eye.









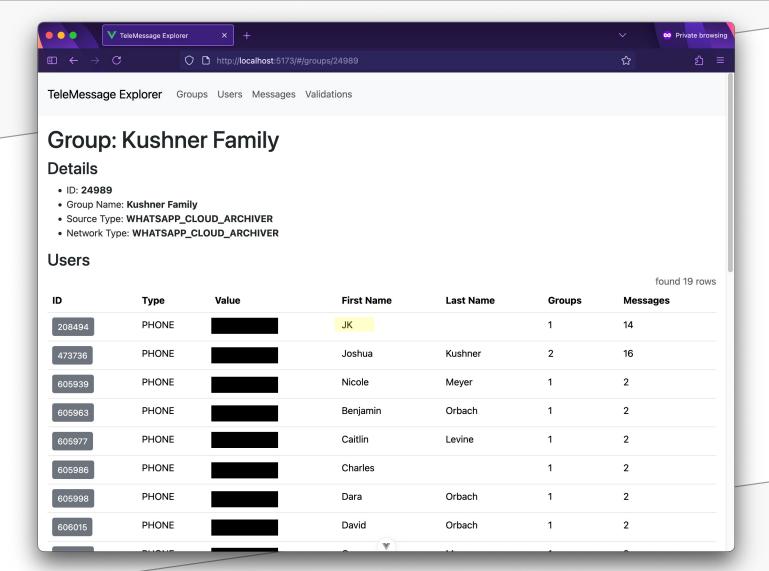


Chapter 8: TeleMessage Explorer

WhatsApp message on May 4, 2025 great! what are you hearing specifically in DC about it? "

Chapter 8: TeleMessage Explorer

from **Sriram Krishnan**, Trump's Senior White House Policy Advisor on Al WhatsApp message on May 4, 2025 to Jared Kushner, husband of Donald Trump's daughter Ivanka would love to catch up on all things UAE. working " with David a lot on what we are doing with UAE



Chapter 9: Clean OPSEC



I'm Micah Lee.



https://micahflee.com



micah@micahflee.com



micah.01



@micahflee.com



@micahflee@infosec.exchange





Hacks, Leaks, and Revelations: The Art of Analyzing Hacked and Leaked Data I'm doing a book signing with No Starch Press on Sunday in the vendor area!