



OSINT
SWITZERLAND

Welcome!

Use APIs with OSINT...

18 September 2025
Antonio De la Torre, Elisa Nannini
@ OSINT Switzerland





Elisa Nannini



Antonio De la Torre



OSINT

SWITZERLAND

Our Mission

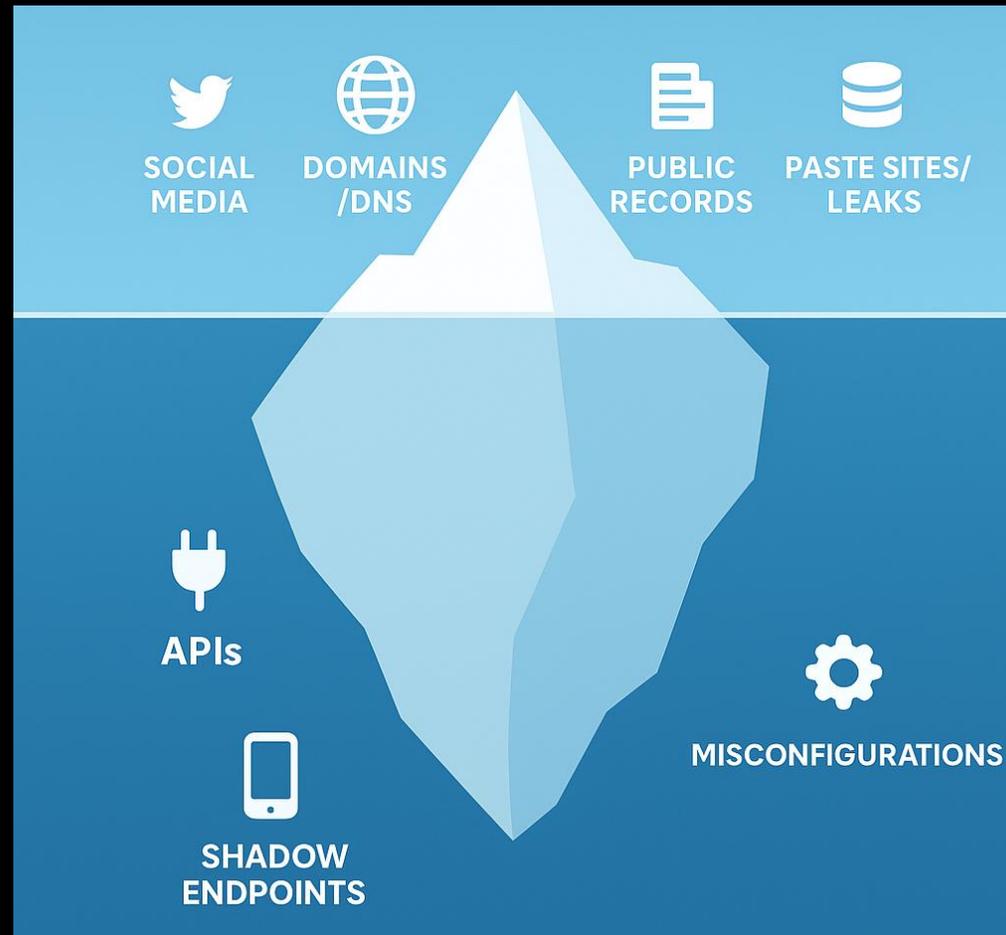
We are a dedicated community for experts, practitioners, and learners passionate about the world of open-source intelligence (OSINT). Our mission is to develop and expand OSINT knowledge, techniques, and best practices in Switzerland.

The OSINT Landscape

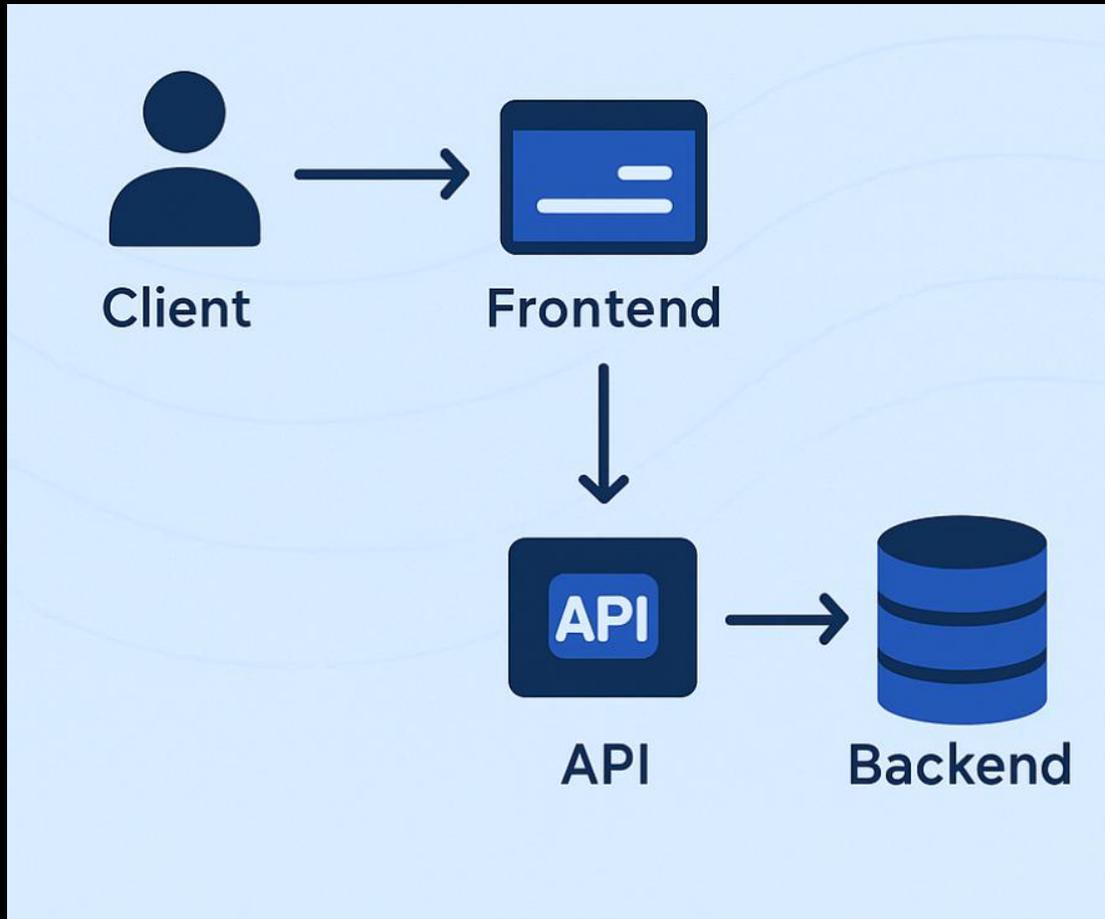
The Changing Face of OSINT

- Explosion of digital footprints everywhere
- Increasing restrictions on “traditional” OSINT sources
- New opportunities in overlooked or hidden data layers
- OSINT is no longer about what data exists, but where and how it leaks

OSINT Beyond the Surface



Under the Surface

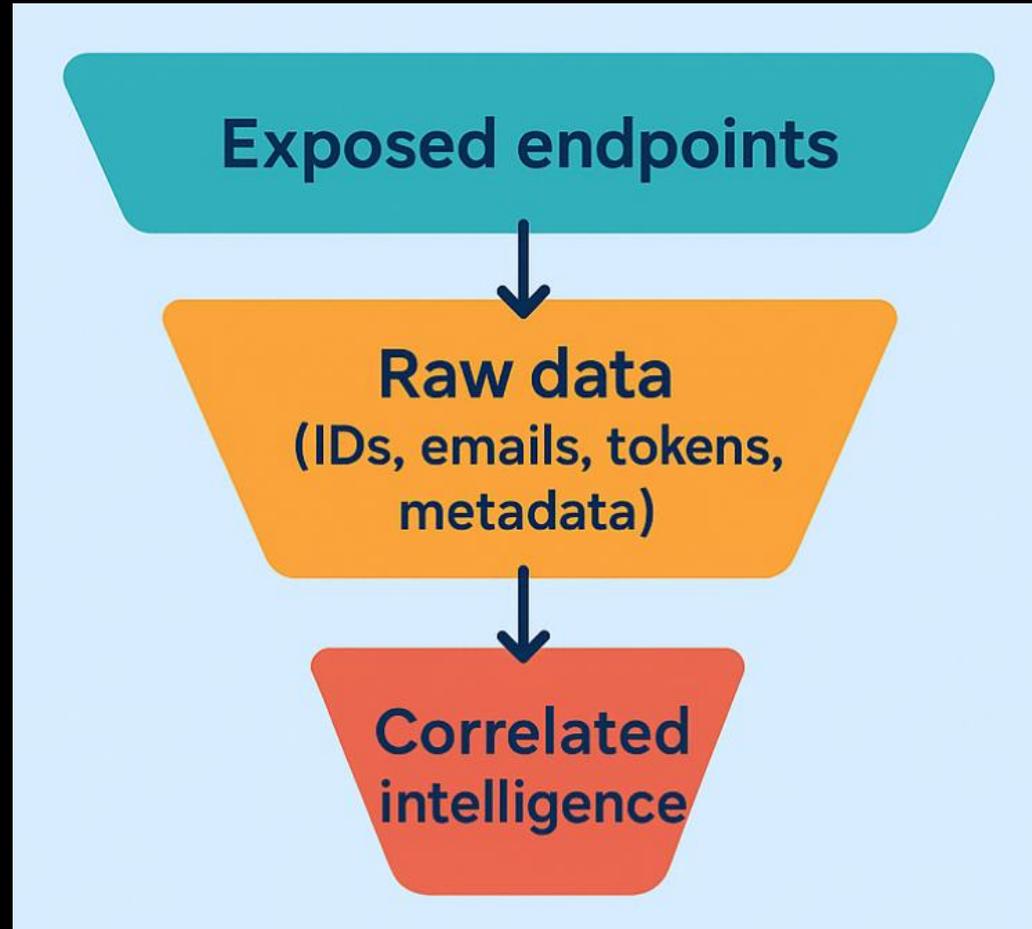


Public APIs – intended access

Shadow APIs – forgotten, undocumented, legacy

Misconfigured APIs – poor auth, excessive exposure

From Endpoints to Intelligence



Let's start with some techniques...

Sign Up

Signup Form

Username

Email

Password

Confirm Password

Signup

Sign Up

Signup Form

Username

Email

Password

Confirm Password

Sign Up

Signup Form

Username

Email

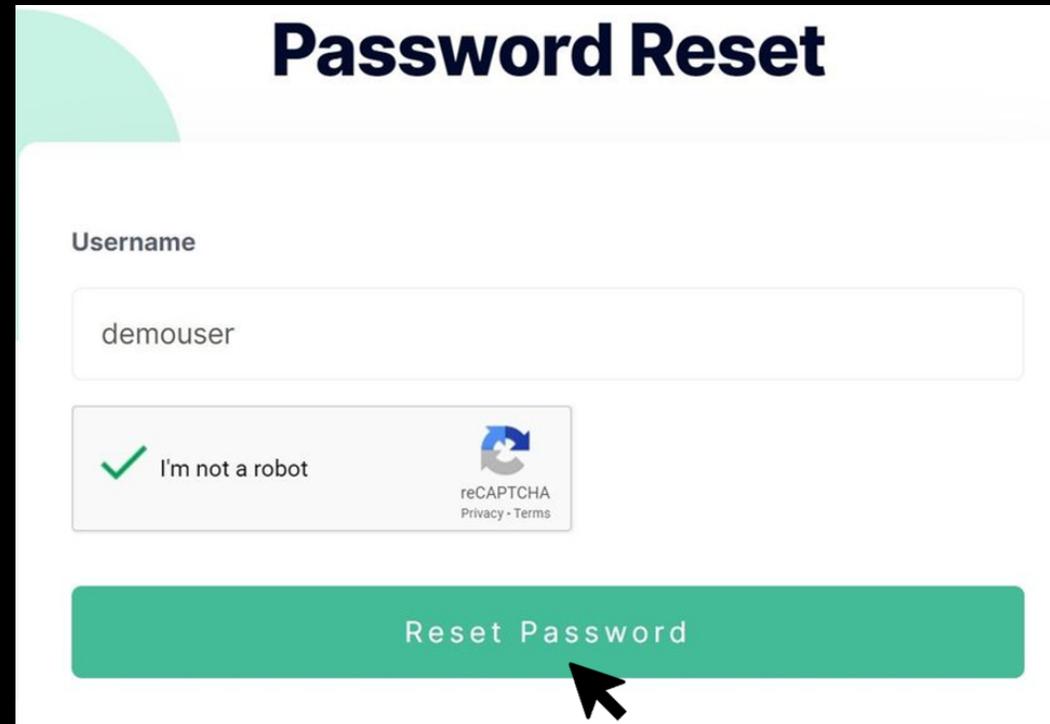
Password

Confirm Password

**Username
already
exists**

**Email
already
registered**

Password Reset



Password Reset

Username

demouser

✓ I'm not a robot

reCAPTCHA
Privacy - Terms

Reset Password

Reset link send to os****ch@os*****.ch

Password Reset - PayPal



Kurze Sicherheitsüberprüfung

So können wir Ihr Konto schützen.

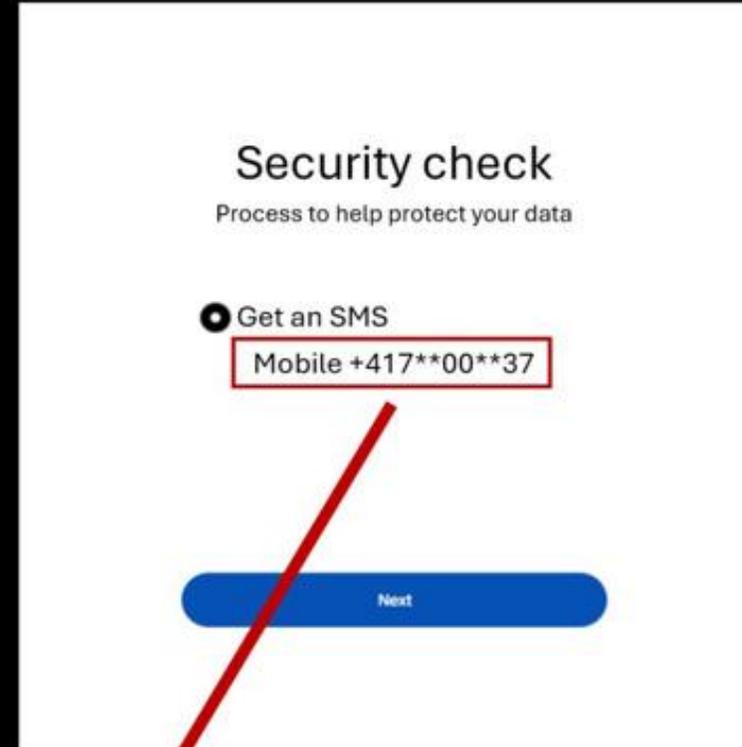
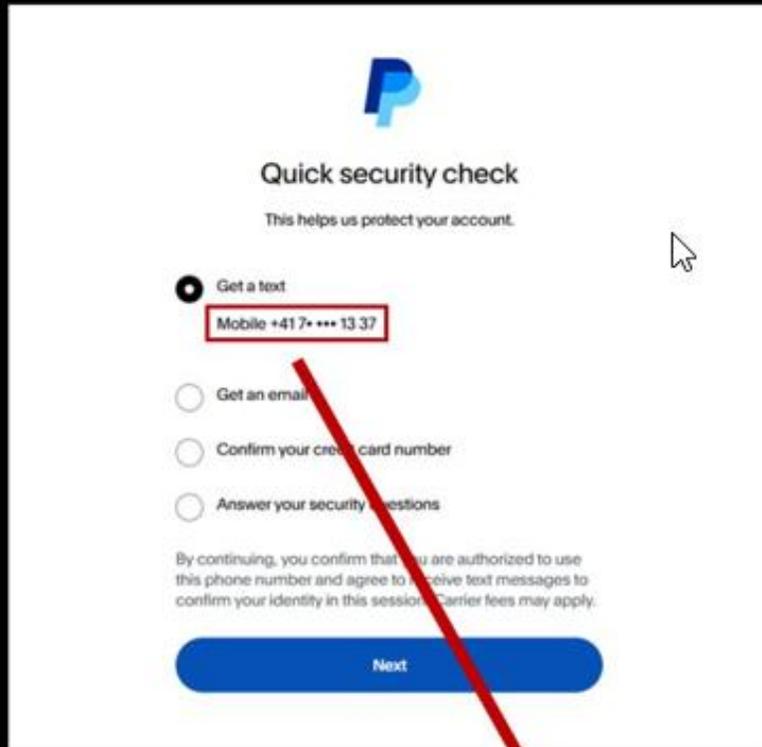
Verwenden Sie die PayPal-App

SMS zusenden

E-Mail zusenden

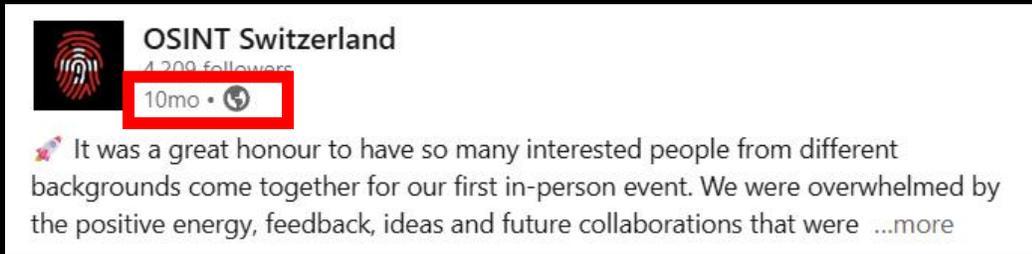
Kreditkartennummer bestätigen

Password Reset – Combining Disclosed Digits



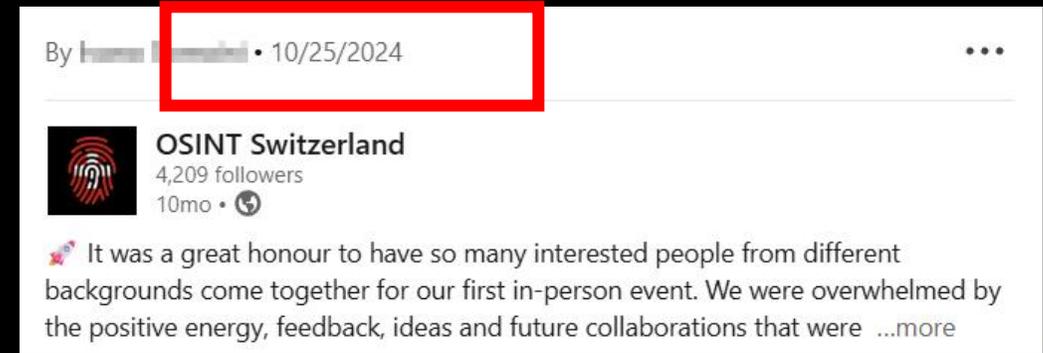
+417 00 13 37**

LinkedIn – Post Date



OSINT Switzerland
4,209 followers
10mo • 🌐

🚀 It was a great honour to have so many interested people from different backgrounds come together for our first in-person event. We were overwhelmed by the positive energy, feedback, ideas and future collaborations that were ...more



By [redacted] • 10/25/2024

OSINT Switzerland
4,209 followers
10mo • 🌐

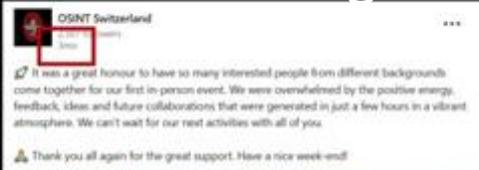
🚀 It was a great honour to have so many interested people from different backgrounds come together for our first in-person event. We were overwhelmed by the positive energy, feedback, ideas and future collaborations that were ...more



https://www.linkedin.com/posts/osint-switzerland_it-was-a-great-honour-to-have-so-many-activity-7255535227148681217-Ugt8/

LinkedIn – Post Date

10 months ago



https://www.linkedin.com/posts/osint-switzerland_it-was-a-great-honour-to-have-so-many-activities-7255535227148681217-Jgt8/

7255535227148681217

To binary

110010010110000110101101101100011111011000011111000000000000001

41 “left-most” bits

To decimal

1729854399478

Parse as Unix Timestamp

10/25/2024 13:06:39 GMT+0200

LinkedIn – Picture Date

The image shows a LinkedIn profile for Elisa Nannini. An 'About this profile' modal is open, displaying the following information:

- About this profile** (with a close button 'X')
- Elisa Nannini**
- Joined**
July 2012
- Contact information**
Updated over 1 year ago
- Profile photo** (highlighted with a red box)
Updated over 1 year ago
- Verifications** (with a shield icon)
- [Learn how members verify information](#)
- Verify for free** (with a 'Verify now' button)
Show authenticity to boost trust.

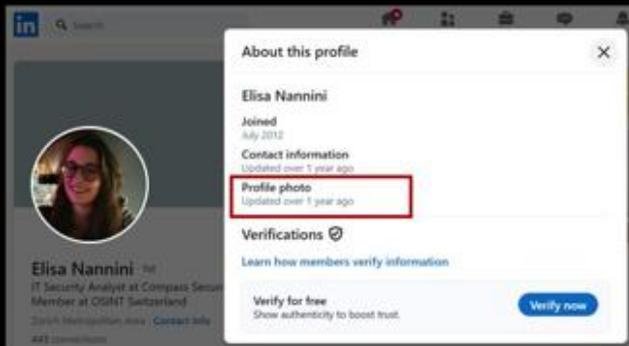
In the background, the profile header shows: Elisa Nannini (with 'Add verification' button), IT Security Analyst at Compass Security, Member at OSINT Switzerland, Zürich Metropolitan Area, 478 connections, and buttons for 'Open to', 'Add profile section', 'Enhance profile', and 'Resources'.

LinkedIn – Picture Date

Right click on picture and Save as ...

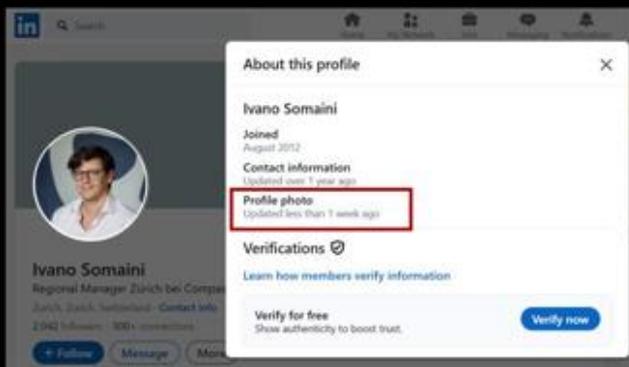
Copy filename...

Parse filename as Unix Timestamp



1581081311426

07. February 2020
13:15:11



1739395523747

12. February 2025
21:25:23

LinkedIn – Identify Date of Scheduled Post

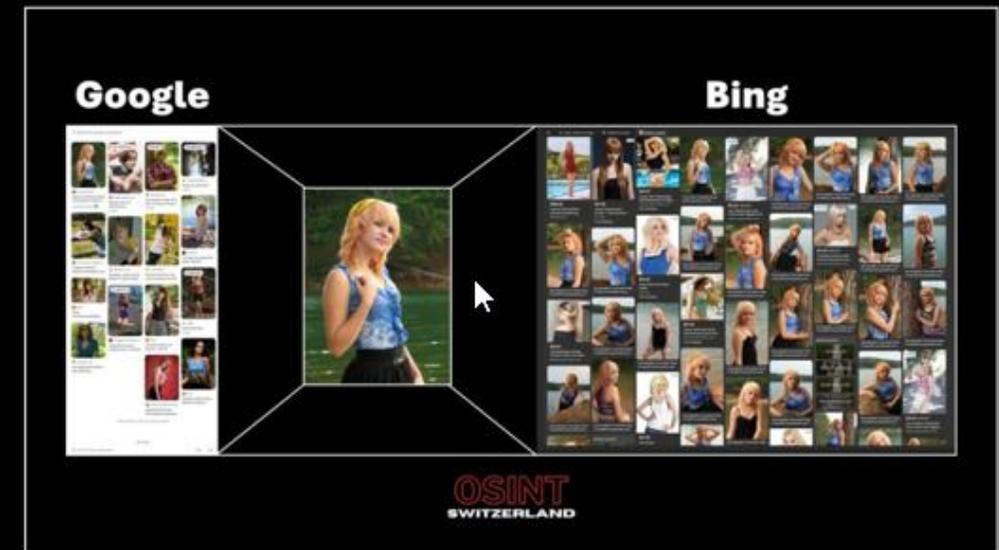
Post published

26. November 2024 06:45:01



Picture uploaded

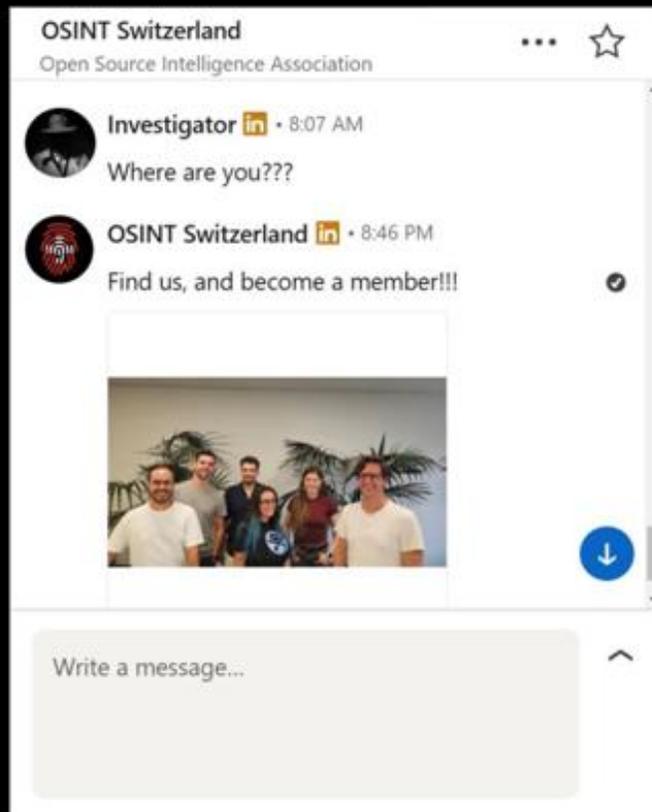
25. November 2024 22:26:53



LinkedIn - Metadata

Images sent in LinkedIn messages...

... contain the original metadata



A screenshot of an image metadata viewer. The top left has a button "UPLOAD ANOTHER IMAGE". The main image shows the same group of people. Below the image is a warning: "Metadata takes 196 Bytes (0.1%) of this image and includes location data. To protect your privacy, download this image without metadata by clicking the button below." Below this is a green button "REMOVE METADATA".

Location

Latitude	37 deg 13' 39.31" N
Longitude	115 deg 50' 18.63" W

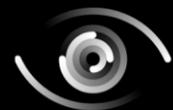
Image metadata

Name	members-1536x865.jpg
File size	169 KB (173208 bytes)
File type	JPEG
MIME type	image/jpeg
Image size	1536 x 865 (1.3 megapixels)

OSINT
INDUSTRIES

 **EPIEOS**

 **MALTEGO**

 **SOCIAL LINKS**

 **SHADOW DRAGON**

OSINT Tools – Reverse Engineering APIs



```
{
  "users": [
    {
      "joinedClassroomIds": [
      ],
      "streak": 1,
      "motivation": "travel",
      "acquisitionSurveyReason": "friendsOrFamily",
      "shouldForceConnectPhoneNumber": false,
      "picture": "simg-ssl.duolingo.com/avatars/1115706817/QWeUjFuHPD",
      "learningLanguage": "fr",
      "hasFacebookId": false,
      "shakeToReportEnabled": null,
      "liveOpsFeatures": [
      ],
      "canUseModerationTools": false,
      "id": "1115706817",
      "betaStatus": "INELIGIBLE",
      "hasGoogleId": false,
      "privacySettings": [
      ],
      "fromLanguage": "en",
      "hasRecentActivity15": true,
      "achievements": [
      ],
      "observedClassroomIds": [
      ],
      "username": "Wally_Where",
      "bio": "",
      "profileCountry": "CH",
      "globalAmbassadorStatus": [
      ],
      "currentCourseId": "DUOLINGO_FR_EN",
      "hasPhoneNumber": false,
      "creationDate": "1677709454",
      "achievements": [
      ],
      "hasPlus": false,
      "name": "Wally",
      "roles": [
      ],
      "users": [
      ],
      "classroomLeaderboardsEnabled": false,
      "emailVerified": false,
      "courses": [
      ],
      {
        "preload": false,
        "placementTestAvailable": false,
        "authorId": "duolingo",
        "title": "French",
        "learningLanguage": "fr",
        "xp": 15,
        "healthEnabled": true,
        "fromLanguage": "en",
        "crowns": 0,
        "id": "DUOLINGO_FR_EN"
      }
    ]
  },
  "totalXp": 15
}
```

Annotations and Diagrams:

- App used and created recently:** Points to the `creationDate` field in the JSON.
- creation date in unix timestamp:** Points to the `creationDate` field in the JSON.
- add "/xlarge" to the picture URL to display the user avatar:** Points to the `picture` field in the JSON.
- Describes if user also have a googleID and/or facebookID:** Points to the `hasGoogleId` and `hasFacebookId` fields in the JSON.
- Connected:** A UI element showing "Facebook" and "Google" with toggle switches.
- Username, bio, country:** Points to the `username`, `bio`, and `profileCountry` fields in the JSON.
- Name:** Points to the `name` field in the JSON.
- Personal information:** A central label pointing to the `username`, `bio`, `profileCountry`, and `name` fields.
- Validity of the data:** Points to the `emailVerified` field in the JSON.

A screenshot of a user avatar from Duolingo, showing a cartoon character with glasses and a red hat, wearing a red and white striped shirt. The URL in the browser address bar is `simg-ssl.duolingo.com/avatars/1115706817/QWeUjFuHPD/xlarge`.



chris_hopkins • Follow

1,337,112 likes
January 12

Comments on this post have been limited.

Trip Confirmation Number: WY311Q

CHRIS HOPKINS

Date of Birth: xx/xx/xxxx

Frontier Miles Number: 27489307182

DARIA MARTINS

Date of Birth: xx/xx/xxxx

Frontier Miles Number: 649123741012

NADIA GRABER

Date of Birth: xx/xx/xxxx

CONTACT

CHRIS HOPKINS

W: 802-126-xxxx

Cxxxxxxxxxxxxxx@xxxxxx.COM

PAYMENTS

Total: \$752.94	American Express XXXXXXXXXXXX2309 Exp. Date: 02/28	Purchase Date: 01/08/25
Total: \$154.00	Visa XXXXXXXXXXXX1124 Exp. Date: 09/28	Purchase Date: 01/11/25
Total: (\$752.94)	American Express XXXXXXXXXXXX2309 Exp. Date: 02/28	Purchase Date: 01/13/25
Total: (\$154.00)	Visa XXXXXXXXXXXX1124 Exp. Date: 09/28	Purchase Date: 01/13/25

Trip Confirmation Number: WY311Q

[Print Confirmation](#)

[Resend Email Itinerary](#)

PASSENGERS

CHRIS HOPKINS

Date of Birth: xx/xx/xxxx

Frontier Miles Number: 27489307182

FLIGHT	SEATS	BAGS

DARIA MARTINS

Date of Birth: xx/xx/xxxx

Frontier Miles Number:649123741012

FLIGHT	SEATS	BAGS

NADIA GRABER

Date of Birth: xx/xx/xxxx

FLIGHT	SEATS	BAGS

Trip Confirmation Number: WY31IQ

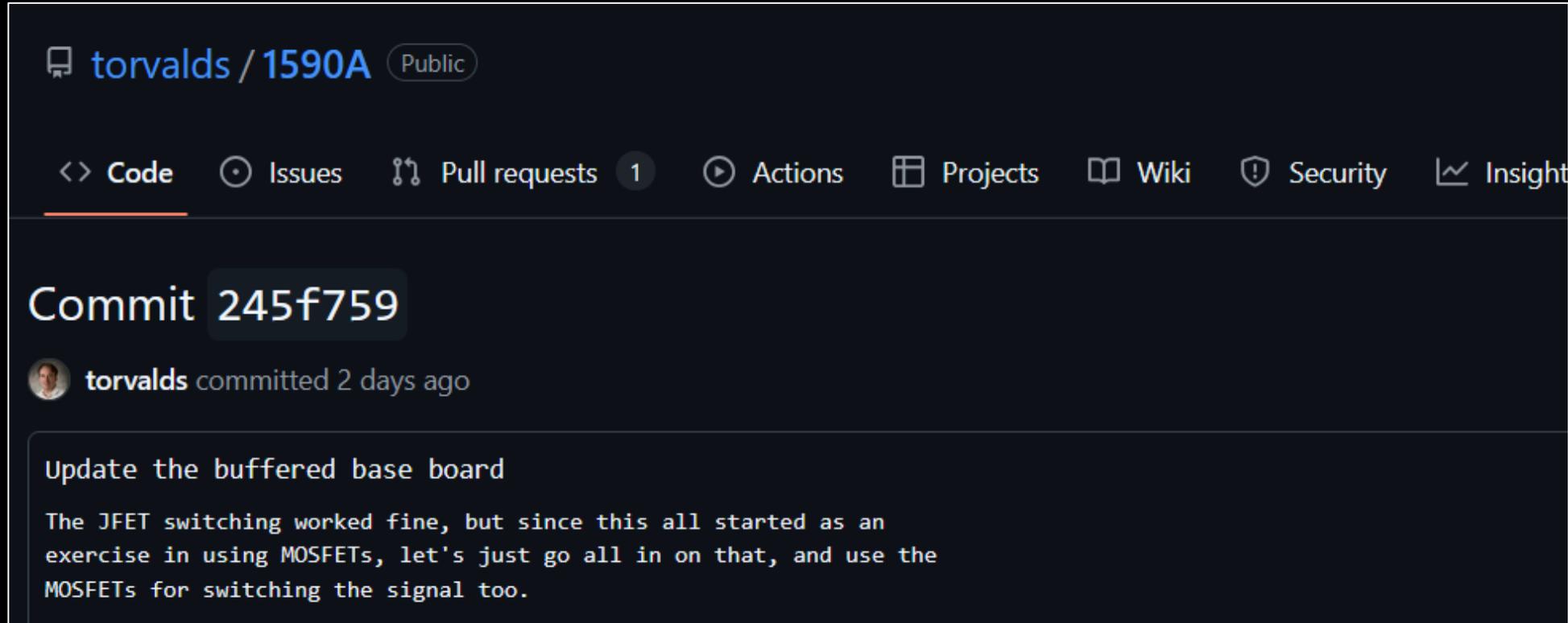
[Print Confirmation](#)

[Resend Email Itinerary](#)

Inspector Console Debugger Network Style Editor Performance Memory Storage

```
Search HTML
<span>
  <i class="nav-list-item-icon email-icon"></i>
  <span>
    <a class="js-email-link cd-btn" href="#0" role="button" data-f9slid...open="ItineraryResendEmailSlider">... </a>
    <span class="js-email" aria-hidden="true" hidden="">CHRIS_ROCKS89@GMAIL.COM</span>
    <span class="js-name" aria-hidden="true" hidden="">HOPKINS</span>
  </span>
```

<https://github.com/torvalds/1590A/commit/245f7595e13c3b63c0932ca9b03752df6ab3114>



The screenshot shows the GitHub interface for a commit in the repository 'torvalds / 1590A'. The repository is marked as 'Public'. The navigation bar includes links for Code, Issues, Pull requests (with a count of 1), Actions, Projects, Wiki, Security, and Insights. The commit title is 'Commit 245f759', and it was made by 'torvalds' 2 days ago. The commit message is 'Update the buffered base board', followed by a detailed description: 'The JFET switching worked fine, but since this all started as an exercise in using MOSFETs, let's just go all in on that, and use the MOSFETs for switching the signal too.'

torvalds / 1590A Public

[Code](#) [Issues](#) [Pull requests](#) 1 [Actions](#) [Projects](#) [Wiki](#) [Security](#) [Insights](#)

Commit 245f759

 **torvalds** committed 2 days ago

Update the buffered base board

The JFET switching worked fine, but since this all started as an exercise in using MOSFETs, let's just go all in on that, and use the MOSFETs for switching the signal too.

<https://github.com/torvalds/1590A/commit/245f7595e13c3b63c0932ca9b03752df6ab3114.patch>

```
From 245f7595e13c3b63c0932ca9b03752df6ab3114d Mon Sep 17 00:00:00 2001
From: Linus Torvalds <torvalds@linux-foundation.org>
Date: Wed, 27 Aug 2025 11:43:17 -0700
Subject: [PATCH] Update the buffered base board
```

```
The JFET switching worked fine, but since this all started as an
exercise in using MOSFETs, let's just go all in on that, and use the
MOSFETs for switching the signal too.
```

A few abuse cases...

DAN SALMON

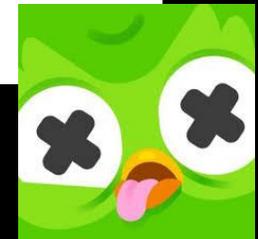
SECURITY 06.26.2019 09:00 AM

I Scraped Millions of Venmo Payments. Your Data Is at Risk

Opinion: Venmo makes sending and receiving money a social affair. But those emoji-laden payment descriptions leave you exposed to cyberattacks.

The data were scraped from public profile information by using an exposed application programming interface (API). On March 2, a researcher called Ivano Somaini [tweeted](#) how one could take advantage of Duolingo's API to check if an email address is associated with a Duolingo account.

The API allows anyone to run a query by submitting a username or an email address to confirm if it is associated with a valid DuoLingo account. [Bleeping Computer](#) has confirmed that this API is still openly available to anyone on the web, even after its abuse was reported to DuoLingo in January.



Home > Application Security



U.S. Postal Service API Flaw Exposes Data of 60 Million Customers

By Kevin Townsend on November 26, 2018

Real-time data on: usps.com/?users=*

{* SECURITY *}

**I found a security hole in Steam that gave me every game's license keys and all I got was this...
oh nice: \$20,000**

Sorry kids, it was patched weeks ago by Valve

Shaun Nichols in San Francisco

Fri 9 Nov 2018 // 22:39 UTC

API: /partnercdkeys/assignkeys/

Remediations

- Privacy-aware when posting and developing
- Stripping metadata out of files uploaded
- Carefully review privacy settings in all apps
- Different usernames
- Aliases for emails

Thank You



www.osintswitzerland.ch



info@osintswitzerland.ch



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[@osintswitzerland.bksy.social](https://www.bksy.social/@osintswitzerland)



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