

Pioneering Al-Driven OSINT



#### What is OSINT?

Open-Source Intelligence (OSINT) refers to the collection and analysis of publicly available information for intelligence purposes.

- → Derived from publicly accessible sources (news, social media, forums)
- → Common in cybersecurity, journalism, and threat intelligence
- → Challenges: data volume, signal-to-noise ratio, source validation

# The Analyst Bottleneck

Thousands of alerts.

Duplicate news articles.

One human analyst.

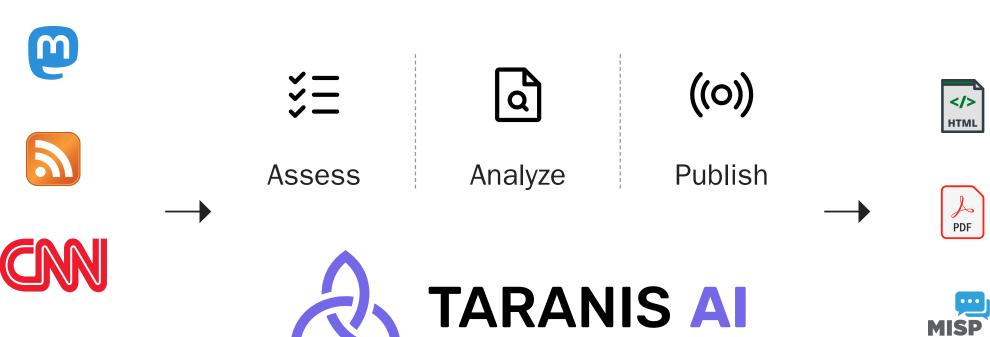
"Do we care about this threat?"

"Have we seen this before?"

"Where did this story originate from?"

## Taranis Workflow

Inspired by Taranis3 & Taranis-NG







### **Features**



#### Named Entity Recognition

Extracts information about people, organizations, locations, etc. from free-form text.



#### **Topic Clustering**

Uses topic modelling to find related news items.



#### Collaboration

Integrates with MISP to streamline threat intelligence collaboration.



#### **Contextual Enrichment**

Leverages NLP for automatic creation of summaries and sentiment analysis or Threat Classification

# Named Entity Recognition

Lists and Regex - CVEs, APT Groups, Hashes

NER - Person, Location, Organziation, Product, Event

Context and source-specific models (IT security or general news)

Published: 2024-10-25 22:22 Angreifer nutzten gefälschte AWS-Domains in Phishingkampagne (2) (7) 2024-10-29 14:24 A Angreifer nutzten gefälschte AWS-Domains in Phishingkampagne Sussia-linked Android Ukraine's MeduzaStealer SuperStealer, AWS hat offenbar zahlreiche gefälschte AWS-Domains vom Netz genommen, die ukrainische Opfer auf Malware-Downloadseiten locken sollten. ○ UNC5812's ○ Russia's □ Telegram ○ Russian-linked ◎ Russia. ○ Sunspinner, Sicherheitsforscher des AWS Security Team haben eine Phishing-Kampagne gestoppt, bei der tausende gefälschte AWS-Domains genutzt wurden. Amazon hat seit der Entdeckung der Kampagne massenweise Domains abgeschaltet. Die AWS-Sicherheitsforscher und das Computer Emergency Response Team der Uk ♦ CraxsRAT ♦ pro-Russian 🔄 UNC5812 ♦ Ukrainian ♦ Visual Basic Script-based ukrainischsprachigen Zielen zu erbeuten. NOMESTEEL ChickFix-style PowerShell Windows, CERT-UA Ukrainische Ziele im Visier Vote: Die gefälschten AWS-URLs dienten offenbar als Köder. Nachdern die Opfer auf den Link einer solchen URL geklickt hatten, landeten sie auf einer Malware-Downloadseite, die einen sogenannten RDP-Trojaner installiert, der Anmeldedaten von Windows-Systemen stiehlt. 0 1 0 1 Amazons Chief Information Security Officer CJ Moses schrieb in einem Posting auf LinkedIn, dass Amazon selbst nicht im Visier der Angreifer war. Auch zielten die Angriffe nicht auf Anmeldedaten von AWS-Kunden ab. Stattdessen hatten die Angreifer Ziele mit Verbindungen zu Regierungsbehörden, Unternehmen und enger gefassten Ansatz - dieses Mal seien die Phishingmails an viele Ziele verschickt worden Article: darkreading.com [2] Das ukrainische CERT hat ein Advisory mit weiteren Details zu dem Fall veröffentlicht. Cybercrime spielt im Krieg Russlands gegen die Ukraine auf beiden Seiten eine Rolle. Im Juni etwa machten die ukrainischen Behörden Personen dingfest, die sie der Cyberkriminalität verdächtigten, die mutmaßlich im Dienst russisc Oct 28, 2024, 21:22:45 Published Russia Kneecaps Ukraine Army Recruitment With Spoofed 'Civil Defense' App Article: Russia Kneecaps Ukraine Army Recruitment With Spoofed 'Civil Defense' App darkreading.com [2] Posing as an application used to locate Ukrainian military recruiters, a Kremlin-backed hacking initiative delivers malware, along with disinformation designed to undermine sign-ups for soldiers in the war against Russia. Authora Becky Bracken, Senior Editor, Dark Reading Ukrainian efforts to recruit new soldiers to serve in its military in the country's war against Russia is under a two-pronged cyberattack by Kremlin-backed threat actors. Researchers at Google's Threat Intelligence Group (TAG) and Mandiant have tracked down an active campaign that uses a spoofed version of the legitimate Ukrainian-language tool "Civil Defense," a crowdsourced mapping tool used to locate military recruiters. Attackers are using the fake version to perform dual malicia The hybrid op, which researchers named UNC5812, uses a Telegram channel to lure perspective recruits to a download the mailcious version of "Civil Defense" from a spoofed site, outside of the confines of Google Play. Once downloaded, the application drops Windows and Android malware. Russian Opp Uses Malware With a Side of Social Engineering Windows users who make their way to the fake "Civil Defense" site to download the tool will be delivered the Pronsis Loader, which then starts a chain to deliver a malicious mapping application called Sunspinner, as well as an infostealer called Purestealer. Android users, on the other hand, get a common user backdoor called Craxsrat, in addition to Sunspinner. "Notably, the Civil Defense website also contains an unconventional form of social engineering designed to preempt user suspicions about APK delivery outside of the App Store and justify the extensive permissions required for the Craxsrat installation," the report noted. "The website's FAQ contains a strained justification accompanying video instructions. The video also provides instructions on how to disable Google Play Protect "While the Civil Defense website also advertises support for macOS and iPhones, only Windows and Android payloads were available at the time of analysis," the report said. Sunspinner, a decoy graphical user interface (GUI) application written using the Flutter framework, offers functionality aimed to convince victims that the application is legitimate. "Consistent with the functionality advertised on the [legitimate] Civil Defense website, Sunspinner is capable of displaying crowdsourced markers with the locations of the Ukrainian military recruiters, with an option for users to add their own markers," according to the Google TAG analysis. But the fake map offers only fak inputs. All markers present [were pulled from the attacker's C2 and] were added on the same day by the same user." Parallel Anti-Mobilization Effort Against Ukrainian Military In tandem with the espionage effort, the other goal of the Russian fake Civil Defense campaign is to deliver disinformation aimed at suppressing Ukraine's military mobilization effort for the war. The malicious versions of Civil Defense's site and Telegram have pushed out videos with incendiary, anti-Ukrainian-military titles Users who click on the button provided by the Russian hacker-operated site to "Send Material," ostensibly to discredit recruitment efforts, are automatically fed an attacker-controlled chat thread," the report said. "Anti-mobilization content cross-posted to the group's website and Telegram channel appears to be sourced fr Russia has consistently used cyberattacks as part of its war strategy against Ukraine, as well as against other governments, including a recent distributed denial-of-service (DDoS) cyberattack campaign against shipping ports in Japan. Russian hackers have also been working feverishly to distribute disinformation ahead uncovered "Civilian Defense" campaign highlights, that's just one of many hacker groups doing the Kremlin's dirty work in cyberspace. About the Author You May Also Like Published Oct 25, 2024, 22:22:37 Russia's APT29 Mimics AWS Domains to Steal Windows Credentials Article: darkreading.com [7] Russia's APT29 Mirnics AWS Domains to Steal Windows Credentials Nate Nelson, Contributing Writer Kremlin intelligence carried out a wide-scale phishing campaign in contrast to its usual, more targeted operations Author: October 25, 2024 Russia's premiere advanced persistent threat group has been phishing thousands of targets in militaries, public authorities, and enterprises. APT29 (aka Midnight Blizzard, Nobelium, Cozy Bear) is arguably the world's most notorious threat actor. An arm of the Russian Federation's Foreign Intelligence Service (SVR), it's best known for the historic breaches of SolarWinds and the Democratic National Committee (DNC). Lately, it has breached Microsoft's codel "APT29 embodies the 'persistent' part of 'advanced persistent threat," says Satnam Narang, senior staff research engineer at Tenable. "It has persistently targeted organizations in the United States and Europe for years, utilizing various techniques, including spear-phishing and exploitation of vulnerabilities to gain initial." future operations." Along these same lines, the Computer Emergency Response Team of Ukraine (CERT-UA) recently discovered APT29 phishing Windows credentials from government, military, and private sector targets in Ukraine. And after comparing notes with authorities in other countries, CERT-UA found that the campaign was actual That APT29 would go after sensitive credentials from geopolitically prominent and diverse organizations is no surprise, Narang notes, though he adds that "the one thing that does kind of stray from the path would be its broad targeting, versus (its typical more) narrowly focused attacks." The campaign, which dates back to August, was carried out using malicious domain names designed to seem like they were associated with Amazon Web Services (AWS). The emails sent from these domains pretended to advise recipients on how to integrate AWS with Microsoft services, and how to implement zero tru Despite the masquerade, AWS itself reported that the attackers weren't after Amazon, or its customers' AWS credentials. What APT29 really wanted was revealed in the attachments to those emails: configuration files for Remote Desktop, Microsoft's application for implementing the Remote Desktop Protocol (RDP). RDP is a popular tool that legitimate users and hackers alike use to operate computers remotely. "Normally, attackers will try to brute force their way into your system or exploit vulnerabilities, then have RDP configured. In this case, they're basically saying: We want to establish that connection [upfront]," Narang says. Launching one of these malicious attachments would have immediately triggered an outgoing RDP connection to an APT29 server. But that wasn't all: The files also contained a number of other malicious parameters, such that when a connection was made, the attacker was given access to the target computer's storage, Block RDP APT29 may not have used any legitimate AWS domains, but Amazon still managed to interrupt the campaign by seizing the group's malicious copycats. For potential victims, CERT-UA recommends strict precautions: not just monitoring network logs for connections to IP addresses tied to APT29 but also analyzing all outgoing connections to all IP addresses on the wider Web through the end of the month. And for organizations at risk in the future. Narang offers simpler advice, "First and foremost, don't allow RDP files to be received. You can block them at your email gateway. That's going to kneecap this whole thing," he says, AWS declined to provide further comment for this story. Dark Reading has also reached out to Microsoft for its perspective. About the Author You May Also Like Published: Oct 26, 2024, 11:36:00 CERT-UA Identifies Malicious RDP Files in Latest Attack on Ukrainian Entities Article: thehackernews.com [2] The Computer Emergency Response Team of Ukraine (CERT-UA) has detailed a new malicious email campaign targeting government agencies, enterprises, and military entities. "The messages exploit the appeal of integrating popular services like Amazon or Microsoft and implementing a zero-trust architecture," CERT-UA said. "These emails contain attachments in the form of Remote Desktop Protocol ('.rdp') configuration files." Author info@thehackernews.com (The Hacker News) Once executed, the RDP files establish a connection with a remote server, enabling the threat actors to gain remote access to the compromised hosts, steal data, and plant additional malware for follow-on attacks, Infrastructure preparation for the activity is believed to have been underway since at least August 2024, with the agency stating that it's likely to spill out of Ukraine to target other countries. CERT-UA has attributed the campaign to a threat actor it tracks as UAC-0215. Amazon Web Service (AWS), in an advisory of its own, linked it to the Russian nation-state hacking group known as APT29.

The tech giant said it also seized the domains the adversary was using to impersonate AWS in order to neutralize the operation. Some of the domains used by APT29 are listed below -

ca-west-1.mfa-gov[.]cloud central-2-aws.ua-aws[.]army us-east-2-aws.ua-gov[.]cloud

"Some of the domain names they used tried to trick the targets into believing the domains were AWS domains (they were not), but Amazon wasn't the target, nor was the group after AWS customer credentials," CJ Moses, Amazon's chief information security officer, said. "Rather, APT29 sought its targets' Windows creder

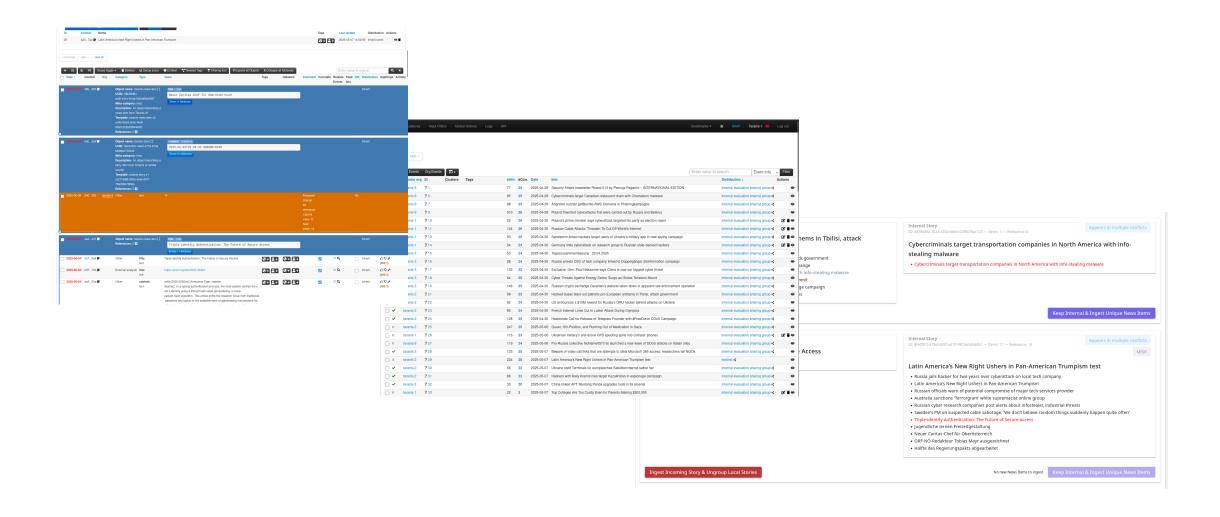
#### TOPIC AND STORY CLUSTERING

- → Reduces redundancy from multiple sources
- → Identifies stories on the same topic with varied titles and styles
- → Visualizes topic trends over time

## Collaboration

Integrates with MISP to streamline threat intelligence collaboration.

Taranis  $\rightarrow$  MISP  $\rightarrow$  Taranis



## **Contextual Enrichment**

→ Summarization



→ Sentiment Analysis



→ Threat Classification



# OPEN Source Intelligence

## Challenges of AI in OSINT

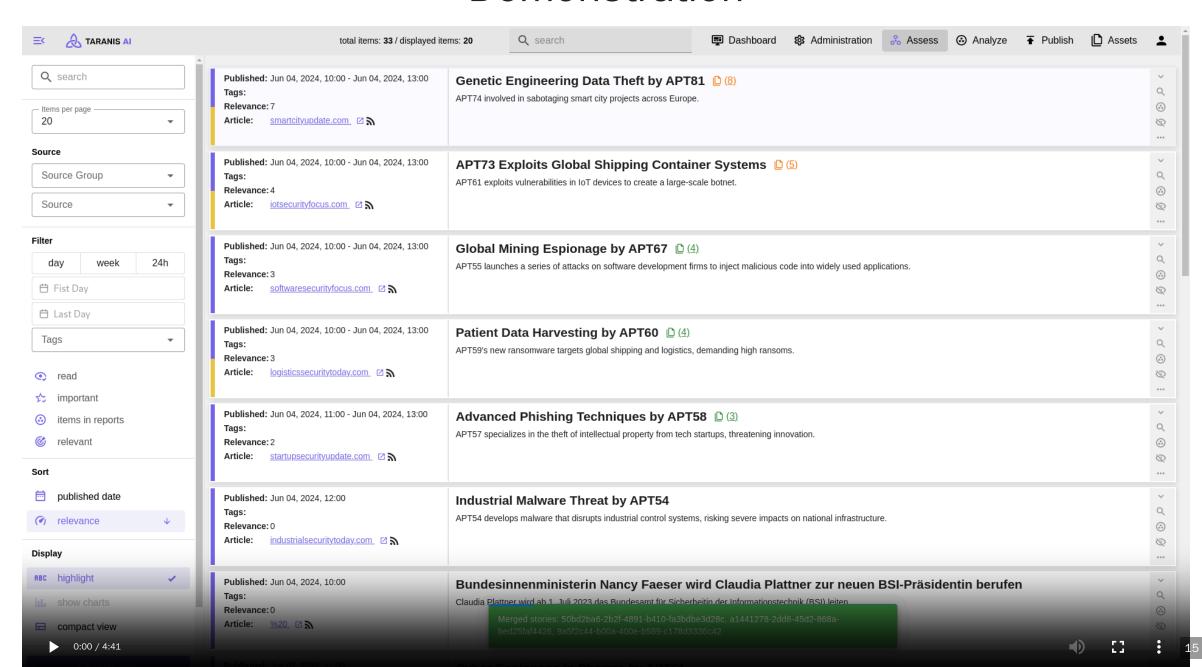
- → Training data scarcity for security-specific tasks
- → Domain-specific language in cybersecurity reports
- → Resource limits in open-source environments

Balanced research / with practical deployment.

# Taranis on OpenShift

- Containerized microservices (Flask, Celery, PostgreSQL)
- GitOps-ready deployment
- Optional GPU support for model inference
- Representation of the service of the
- H Stateless by design

#### **Demonstration**



# Try yourself

```
curl -sL $(curl -s https://api.github.com/repos/taranis-ai/taranis-ai/releases/latest |
   jq -r '.assets[] | select(.name=="compose.yml") | .browser_download_url')\
   -o compose.yml

curl -sL $(curl -s https://api.github.com/repos/taranis-ai/taranis-ai/releases/latest |
   jq -r '.assets[] | select(.name=="env.sample") | .browser_download_url')\
   -o .env

podman-compose up -d
```

# Taranis on OpenShift

- Containerized microservices (Flask, Celery, PostgreSQL)
- GitOps-ready deployment
- Optional GPU support for model inference
- All containers run as non-root, user-only permissions
- H Stateless by design

#### Get Involved!

▲Taranis AI is open-source and looking for contributors!

- → NLP, machine learning, clustering
- → New collector integrations
- → Real-world feedback and use cases

# github.com/taranis-ai/taranis-ai



# Survey

Help us in only 10 minutes



https://survey.taranis.ai/