

Navigating the Threat Actor Maze: A Tool for Mapping Names, Families and Insights

Dr Dave Matthews, Gen Digital (Avast/NortonLifelock), Australia



## Whoami @work





> 25 years in Cyber: Engineering, Forensics and IR



System Administrator - Phd in Statistics



Worked – Government, Corporate, Defense, Law Enforcement, then









From Brisbane, Australia



Went to first FIRSTCON in 1999!



Contact details at end of talk

For fun I like to:







TLP:CLEAR











• Welcome To Australia!



## What is my talk about?

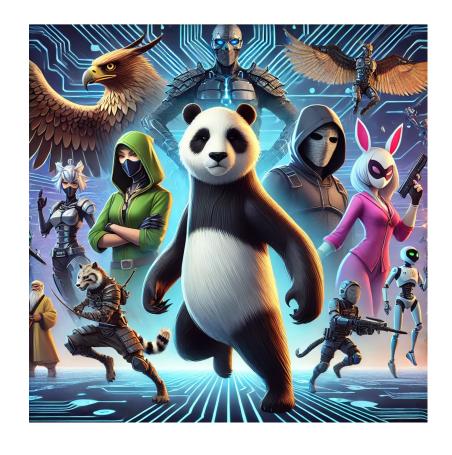
- Based on some tools I wrote in my spare time:
- Threat Actor Naming it is hard to keep track
- How Are Threat Actors named?
- Why should you care?
- Where can you look up details on Threat Actors?
- What does this new tool/service do and why is it useful

## Threat Actor naming

- It's hard to keep track

Threat Actors – they have so many names!

- Who has heard of the threat actor 'Stealth Mango'?
- What about the Threat Actor 'HoneyMyte'
  - Also known as 'Mustang Panda'?
- How about those Microsoft naming conventions?
   Storm-0501?
- And MAGNALLIUM anyone?
  - Also Known As: APT 33
- How many threat actor names/aliases are there?
   Have a Guess win a prize!



## Why should you care?

- Do you ever read a cyber security report/news/blog that references a threat actor
- And wonder who is that?
- Where are they from?
- What are their likely motivations?

## You could just 'search on the web'

- There are multiple places not all data is complete
  - Where to start?
- Takes time

#### How are Threat Actors named?

- It is completely up to vendors and researchers
- Let's talk about the most well known
  - Some have themes:
    - Crowdstrike: Bears, Pandas, Chollimas and Spiders
      - Eg. Fancy Bear/APT28 Russian based
    - **Dragos**: uses minerals, e.g. XENOTIME, ELECTRUM, CHERNOVITE
    - **Proofpoint**: uses numbered TA groups, e.g. TA505, TA542
    - Mandiant: uses numbered APT, FIN and UNC groups, e.g. APT1, FIN7, UNC2452
    - Microsoft: used to use elements, e.g. PHOSPHORUS, NOBELIUM, STRONTIUM
      - But changed to the theme of Weather: eg. Typhoon, Sandstorm, Rain, Storm
    - Secureworks: uses metals like GOLD for eCrime, BRONZE for China
      - Eg. BRONZE ATLAS is APT41 Chinese
- Confused?



#### Some threat actors have MANY aliases:

 North Korea's Lazarus Group: is known by more than 50 different names!

Threat Actor: Lazarus Group Gods Apostles Aliases: Gods Disciples Alluring Pisces Group 77 Andariel Guardians of Peace Appleworm Hastati Group APT 38 HIDDEN COBRA APT-C-26 ITG03 APT38 Jade Sleet **ATK 117** Labyrinth Chollima ATK 3 Lazarus **ATK117** Lazarus Group ATK3 Moonstone Sleet BeagleBoyz NewRomanic Cyber Army Team Black Alicanto NICKEL ACADEMY Black Artemis NICKEL GLADSTONE Bluenoroff Operation AppleJeus Bureau 121 Operation DarkSeoul CageyChameleon Operation GhostSecret Citrine Sleet Operation Troy COPERNICIUM Sapphire Sleet COVELLITE SectorA01 CryptoCore Selective Pisces CryptoMimic Slow Pisces CTG-2460 Stardust Chollima CTG-6459 Storm-0139 Dangerous Password Storm-1222 Dark Seoul T-APT-15 DEV-0139 TA404 DEV-1222 **TA444** Diamond Sleet TAG-71

UNC4034 UNC4736 UNC4899 UNC577 Unit 121 Whois Hacking Tea ZINC

# This was what motivated me to improve things

- I like to save time.
- Don't really like remembering information that is not useful
- I'm looking at CTI all the time wanted a quick way of knowing more about other related research – and threat actor aliases
- Wrote some tools can quickly use to show info about a particular threat actor
- All you need to start with is a web browser

#### Where to look?

- Where are Threat Actor descriptions kept? Lots of places....
- Have initially focused on data from MISP, ETDA, MITRE, Malpedia, Microsoft
- Search data in these repositories
- As well as public sources of information from Cyber Vendors eg. Wiz
- Problem not all are frequently updated and hard to link between them:
  - Some cost \$\$\$

#### What is MISP?



- MISP: "Malware Information Sharing Platform "
  - MISP started out as a platform for technical indicator sharing
  - Very widely used and actively supported
  - Opensource Threat intelligence platform for sharing, storing and correlating IOCs
  - Uses Taxonomies to classify events and data:
    - Taxonomy for many types of data NOT just Cyber Security

#### What is the MISP-Galaxy?

MISP Galaxy: represents Clusters – to describe event/attribute data)

Many Clusters for many https://misp-galaxy.org/threat-actor/

Cluster: A knowledge base that describes type of data

• A Cluster has Key / Value pairs (Elements) that describe the data

Many Clusters defined in the MISP-Galaxy:

• Some examples:

- Software
- Tactics
- Intrusion Set
- Malware
- mitre-tool
- NACE
- NAICS
- NICE Competency areas
- NICE Knowledges
- · OPM codes in cybersecurity
- NICE Skills
- NICE Tasks
- NICE Work Roles
- o365-exchange-techniques
- online-service
- Preventive Measure
- Producer
- Ransomware
- RAT
- Regions UN M49
- rsit
- Sector
- Sigma-Rules
- Dark Patterns

Attack Pattern



## Cluster Examples:

Tools

PNG Dropper

Rotexy

KingMiner

Taurus

Terra Loader

SpicyOmelette

LamePyre

DarthMiner

OSX.BadWord

OSX/Shlayer

Bushaloader

**ANEL** 

BabyShark

StealthWorker

LONEJOGGER

PASSMARK Tinba

PENCILDOWN PlugX

PENDOWN MSUpdater

PUMPKINBAR Lazagne
Poison Ivy

SLIMCURL

SPICYTUNA SPIVY

SWEETDROP Torn RAT
VENOMBITE OzoneRAT

DarkGate ZeGhost

DangerAds Elise Backdoor

AtlasAgent Trojan.Laziok

RDP Wrapper Slempo
TightVNC PWOBot

RevClient Lost Door RAT

Colibri Loader njRAT

BUSHWALK NanoCoreRAT

LIGHTWIRE Sakula
CHAINLINE US 700

FRAMESTING Hi-ZOR

Derusbi

IMPACKET EvilGrab

IODINE Trojan.Naid

ENUM4LINUX Moudoor SPAWNANT

NetTraveler SPAWNMOLE

Winnti SPAWNSLOTH

ROOTROT Mimikatz
TONERJAM WEBC2

GOST



## Cluster Examples:

Sector (or Vertical)

Aerospace

Agriculture

Arts

Bank

Chemical

Citizens

Civil Aviation

Country

NGO Culture

Justice

Maritime

Military

Multi-sector

News - Media

Manufacturing

Oil Data Broker

Payment Defense

Pharmacy Development

Police - Law enforcement Diplomacy

Research - Innovation Education

## Cluster Examples:

#### • Even, Intelligence Agencies

Secret Intelligence Service

Defence Intelligence

Government Communications Headquarters

National Crime Agency

Gangmasters and Labour Abuse Authority

Director of National Intelligence

Central Intelligence Agency

Defense Intelligence Agency

National Security Agency

National Geospatial-Intelligence Agency Intelligence Protection Organization of Islamic Republic of Iran Army

Intelligence Organization of Army of the Guardians of the Islamic Revolution

Intelligence Protection Organization of Army of the Guardians of the Islamic Revolution

Intelligence org of FARAJA

Intelligence org of the Islamic Republic of Iran[12]

General Security Directorate (Iraq)

Iraqi National Intelligence Service

Falcons Intelligence Cell

Kurdistan Region Security Council

Intelligence and Counter-Terrorism Directorate - Ministry of Interior

Directorate of Military Intelligence (Ireland)

CIS Corps (Ireland)

Military Intelligence (Czech Republic)

Danish Security and Intelligence Service

Danish Defence Intelligence Service

Army Intelligence Center

Egyptian General Intelligence Directorate

Military intelligence and reconnaissance (Egypt)

Egyptian Homeland security

National Security Office (Eritrea)

Estonian Internal Security Service

Estonian Foreign Intelligence Service

National Intelligence and Security Service (Ethiopia)

Finnish Defence Intelligence Agency

Intelligence Division (Finland)

#### We use the 'Threat Actor' cluster

ShaggyPanther

Threat Actor
 Fishing Elephant

More than 850 different threat actor RevengeHotels

Each of these often has aliases
 GhostEmperor

links threat actor research
 Operation Triangulation

• Eg. Mustang Panda – also known Operation Ghoul

as:

BASIN, BRONZE PRESIDENT, HoneyMyte, Red Lich, TEMP.HEX CardinalLizard

Ferocious Kitten

Operation Red Signature

Earth Yako

. .

#### Threat Actor Cluster

- Cluster is JSON
  - KEY: 'synonyms'
  - KEY: 'country' w

- Keys of particular
- 'uuid' used to t
- 'synonyms' eg.
- 'refs' list of pub

```
"description": "This threat actor targets nongovernmental organizations using
Mongolian-themed lures for espionage purposes.
These campaigns in volve the use of shared malware like Poison Ivy or PlugX.",
 "country": "CN",
 "refs":
    "https://www.cfr.org/interactive/cyber-operations/mustang-panda",
    "https://www.crowdstrike.com/blog/meet-crowdstrikes-adversary-of-the-month-
  "synonyms":
    "BRONZE PRESIDENT",
   "HoneyMyte",
   "Red Lich",
    "TEMP.HEX",
    "BASIN",
    "Earth Preta"
"uuid": "78bf726c-a9e6-11e8-9e43-77249a2f7339",
"value": "MUSTANG PANDA"
```

#### Data source: ETDA — (THAICERT)

- Thai Electronic Transactions Development Agency (ETDA)
  - Freely Publish their Threat Actor Encyclopedia

https://apt.etda.or.th/



Uses a different uuid for threat actors to MISP but is well structured

Threat Group Cards: A Threat Actor Encyclopedia

- Includes references from their own threat actor research
- Easily downloadable JSON regularly updated

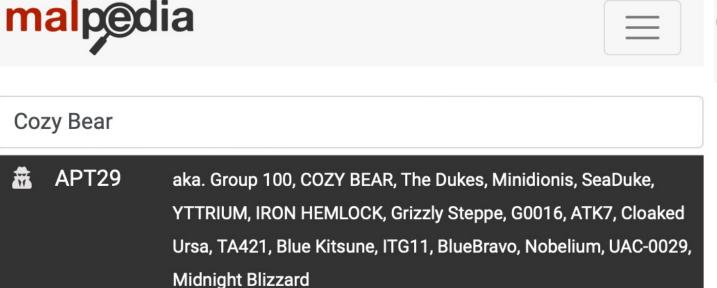
#### Data source: MITRE ATT&CK



- Frameworks that categorize the TTPs used by Threat Actors
- MITRE ATT&CK groups are Threat Actors that have been observed using specific TTPs
- Data for these Threat groups is published freely for
  - Enterprise Matrix
    - Windows/macOS/Linux/Cloud and network environments
  - Mobile Matrix
    - TTPs specific to Android and iOS
  - ICS Matrix
    - Threats targeting operational technology (OT) environnetsj

#### Data source: Malpedia

- Malpedia is hosted by Fr
- It contains malware sam
- Threat Actor data
  - Uses same 'uuid' as MISI
  - Has synonyms, Malware
- Has public website to search manually with some data openly downloadable – like the full Malpedia Bibliography







Inventory Statistics Usage ApiVector Login

Library

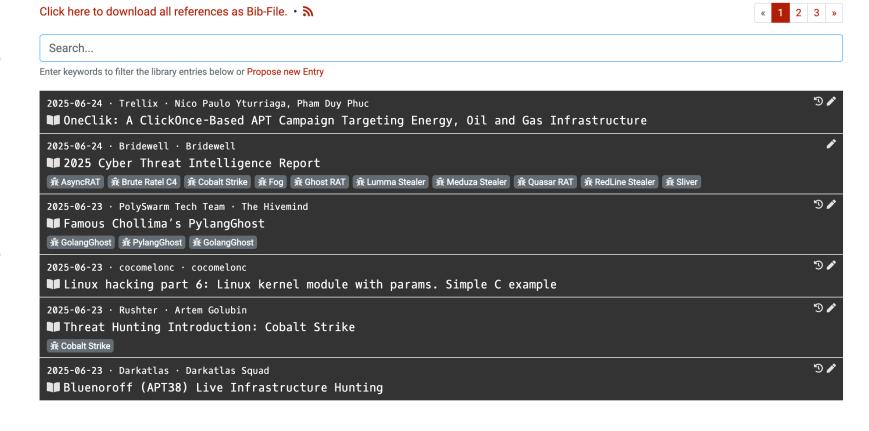
**Families** 

Actors

## Malpedia

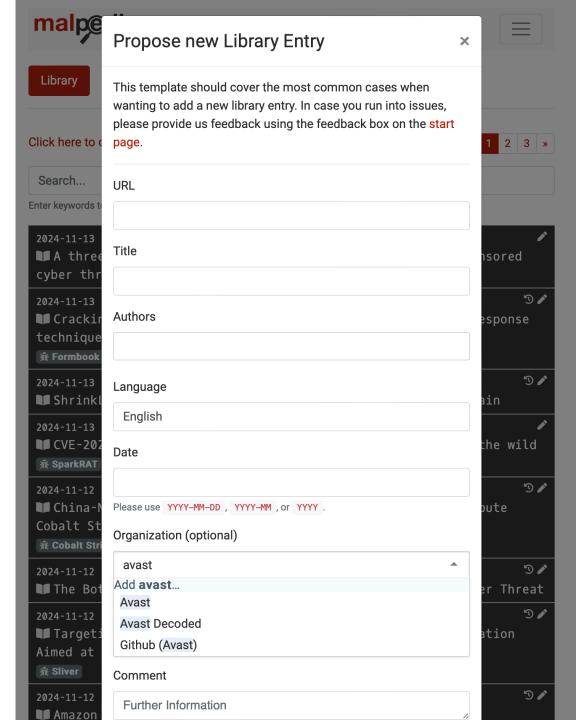
- Once you have an account

   you have access to advanced
   features
  - Malware samples
  - Non-public yara rules
  - API access
  - Ability to suggest additional web references for Threat Actors and Malware families
  - Has good community regular updates



## Malpedia

- Once joined you can also add links to websites/blogs/reports that relate to a specific Threat Actor
  - Additions are vetted and sometimes take a while





```
mstic / PublicFeeds / ThreatActorNaming / MicrosoftMapping.json
                                                            676 lines (676 loc) · 17.9 KB
                                             Code
                                                    Blame
                                              TOO
                                              166

    Microsoft's Threat In

                                                                   "Threat actor name": "Hazel Sandstorm",
                                              168
                                                                   "Origin/Threat": "Iran",
                                                                   "Other names": "EUROPIUM, HELIX KITTEN, COLBALT GYPSY, Crambus, OilRig, APT34"
   groups that they trac
                                              169
                                                            },
                                              171

    Not as detailed as M

                                                                   "Threat actor name": "Heart Typhoon",
                                              172
                                              173
                                                                   "Origin/Threat": "China",
                                              174
                                                                   "Other names": "HELIUM, AURORA PANDA, APT17, Hidden Lynx, ATG3, Red Typhon, KAOS, TG-8153, 5

    A few years ago they

                                              175
                                                            },
                                              176
                                              177
                                                                   "Threat actor name": "Hexagon Typhoon",
      • Eg. Russia is 'Blizzarc
                                                                   "Origin/Threat": "China",
         Private sector offens
                                                                   "Other names": "HYDROGEN, NUMBERED PANDA, Calc Team, Red Anubis, APT12, DNS-Calc, HORDE"
```

 They publish data that aims to map between Microsoft naming and other vendors on github

},

- Lacks uuids, references and the rigor that has been put into say MISP/ETDA.
- But this is on their radar eg. Recent 'partnership' with CrowdStrike



#### Many vendors don't make it easy

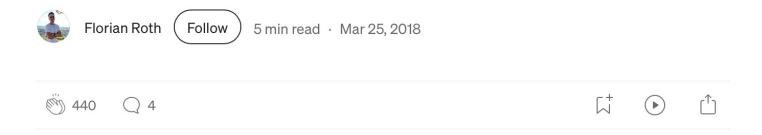
- Not easy to find references for all of the vendor's named threat actors
- Requires trawling their sites.
- Some vendors get updated in MISP/ETDA etc quickly others not..

#### Some Stats

- MISP has about 850 Threat Actor groups,
  - With 1200 Threat Actor Aliases/Synonyms (eg. CozyBear is alias of APT29)
- MITRE has about 180 Threat Actor groups,
  - With 375 Threat Actor Aliases
- ETDA (ThaiCERT) has about 590 Threat Actor groups,
  - With 1190 Threat Actor Aliases
- MICROSOFT has about 135 Threat Actor groups in their github repo

## Vendors agreeing on Naming?

# The Newcomer's Guide to Cyber Threat Actor Naming



I was driven by a deep frustration when I started my public "APT Groups and Operations" spreadsheet in 2015. I couldn't understand why I had to handle so many different names for one and the same threat actor.



#### osoft.com/en-us/security/blog/2025/06/02

## **CrowdStrike and Microsoft Unite to Harmonize Cyber Threat Attribution**

une 02, 2025 | Adam Meyers | Executive Viewpoint • Threat Hunting & Intel



## Introducing a collaborative reference guide to threat actors

Microsoft and CrowdStrike are <u>publishing the first version</u> of our joint threat actor mapping. It includes:

- A list of common actors tracked by Microsoft and CrowdStrike mapped by their respective taxonomies.
- Corresponding aliases from each group's taxonomy.

This reference guide serves as a starting point, a way to translate across naming systems so defenders can work faster and more efficiently, especially in environments where insights from multiple vendors are in play. This reference guide helps to:

## CYBERSCOOP

• Joe Slowik h

"This is movement in a direction toward potential solutions. It is not a solution," Slowik added. "If nothing else, it just highlights more of what the problem actually is, that we have to have these sort of one-off agreements between different companies to say, 'OK, we'll work through our lists and figure out where things are equal to each other."

## CYBERSCOOP

 Joe Slowik "While it would be nice for industry to all come together mutually and agree on a way to do this, I don't think it's ever going to work," Slowik said. "Organizations will continue to maintain their own naming and classification schema for the foreseeable future. I do not see that going away, irrespective of this effort and collaboration."

#### Tool Time!



- Wouldn't it be nice...
  - If there was something that could quickly
    - Lookup synonyms of a given threat actor name
    - Allow for wildcards or regular expressions eg. APT-33 will match APT33
    - All you need is a web browser or Commandline
  - Outputs data that is aggregated from all of these sources

## How does the tool work?

- On the backend python code which Gathers / updates data from:
  - MISP Threat Actor Cluster on GitHub
  - ETDA Threat Actor database
  - MITRE Attack Groups
  - Malpedia
  - Microsoft Threat Actors
  - Published websites
- Has aggregated data for 1160 Threat Actor Groups (with 2269 Actor Aliases)
   3429 in total!
- Enables searching this data for:
  - Threat Actor Names/Aliases
  - Descriptions
  - References



# When might this be useful?

- For example when reading article referencing a threat actor
- Listening to a talk at Cyber Security conference
  - Want to quickly get more background on the Threat Actor
  - Other names/aliases
  - Or references to read
  - Tools / malware families used
- Even researchers searching for a new name for their new threat group!

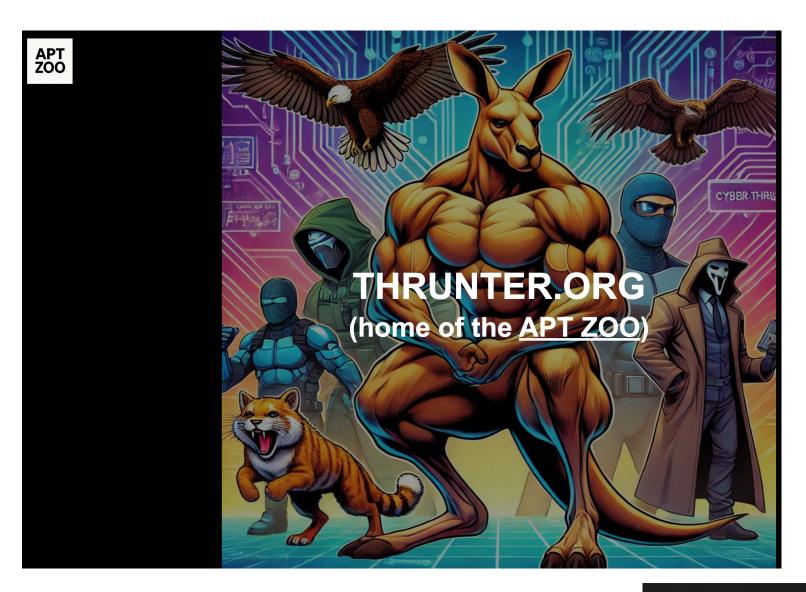
# Reality – not everyone wants to run my code

- Use the web interface: thrunter.org
- Free to use Website:
  - simple to query and search
  - Regularly updated with data

## The "APT ZOO"

https://thrunter.org

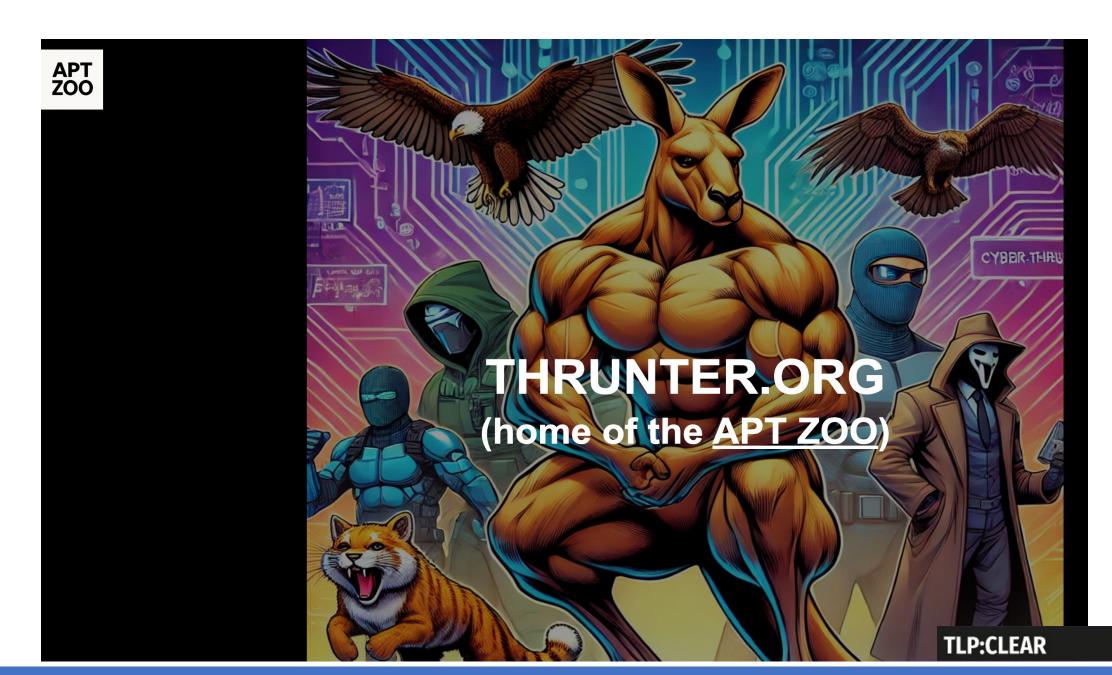
DEMO!



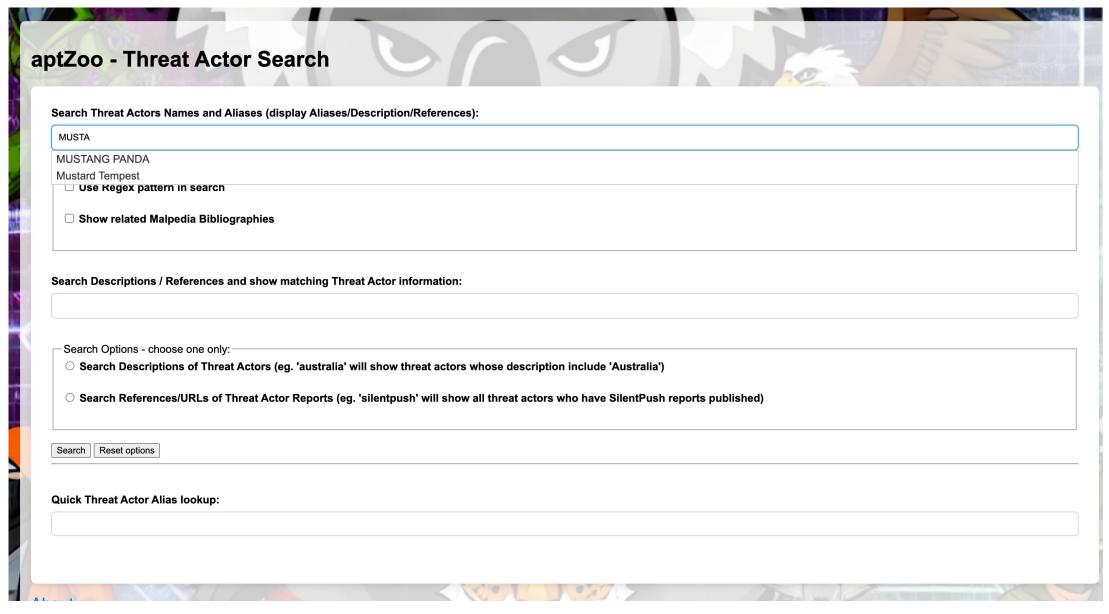
# DEMO



Demo Backup ☺

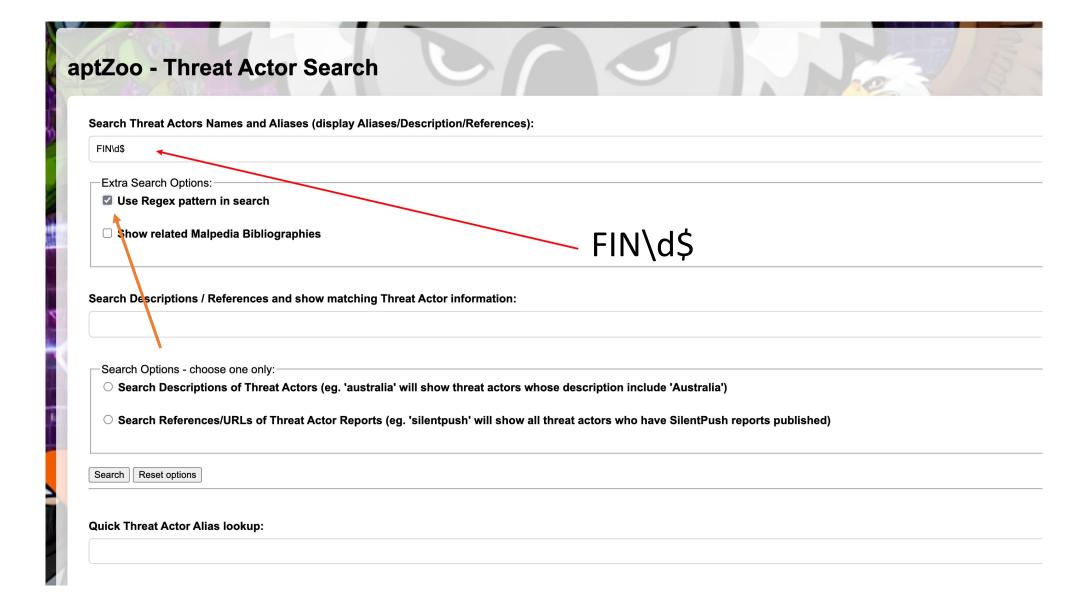


### Demo Backup





### Demo Backup ⊙





### Searching for Threat Actor info on 'FIN\d\$' (using regex):

Searched for "FIN\d\$": 6 Results Found: - FIN7, WOLF SPIDER, FIN6, FIN8, FIN5, FIN1

### Demo Backup

Result 1. Match found for Threat Actor "FIN7"

```
Threat Actor:
 FIN7
Aliases:
  Anunak
  APT-C-11
  ATK 32
  ATK32
  Calcium
  Carbanak
  Carbanak, Anunak
  CARBON SPIDER
  Coreid
  ELBRUS
  FIN7
  G0008
  G0046
 GOLD NIAGARA
  Gold Waterfall
  ITG14
  JokerStash
 Navigator
 Sangria Tempest
 TAG-CR1
```

#### Description(s):

1. [ETDA] Carbanak is a threat group that mainly targets banks. It also refers to malware of the same name (Carbanak). It is sometimes referred to as {{FIN7}}, I Carbanak malware and are therefore tracked separately.

(Kaspersky) From late 2013 onwards, several banks and financial institutions have been attacked by an unknown group of cybercriminals. In all these attacks, a so and the law enforcement agencies (LEAs) involved in the investigation, this could result in cumulative losses of up to 1 billion USD. The attacks are still active attacks. The motivation for the attackers, who are making use of techniques commonly seen in Advanced Persistent Threats (APTs), appears to be financial gain as

### Searching for Threat Actor info on 'FIN\d\$' (using regex):

Searched for "FIN\d\$": 6 Results Found: - FIN7, WOLF SPIDER, FIN6, FIN8, FIN5, FIN1

### Demo Backup

Result 1. Match found for Threat Actor "FIN7"

```
Threat Actor:
 FIN7
Aliases:
  Anunak
  APT-C-11
  ATK 32
  ATK32
  Calcium
  Carbanak
  Carbanak, Anunak
  CARBON SPIDER
  Coreid
  ELBRUS
  FIN7
  G0008
  G0046
 GOLD NIAGARA
  Gold Waterfall
  ITG14
  JokerStash
 Navigator
 Sangria Tempest
 TAG-CR1
```

#### Description(s):

1. [ETDA] Carbanak is a threat group that mainly targets banks. It also refers to malware of the same name (Carbanak). It is sometimes referred to as {{FIN7}}, I Carbanak malware and are therefore tracked separately.

(Kaspersky) From late 2013 onwards, several banks and financial institutions have been attacked by an unknown group of cybercriminals. In all these attacks, a so and the law enforcement agencies (LEAs) involved in the investigation, this could result in cumulative losses of up to 1 billion USD. The attacks are still active attacks. The motivation for the attackers, who are making use of techniques commonly seen in Advanced Persistent Threats (APTs), appears to be financial gain as

#### Searching for Threat Actor info on 'MUSTANG PANDA'; will display any relevant Malpedia links:

### Demo Backup

Searched for "MUSTANG PANDA": 1 Results Found: - MUSTANG PANDA

#### Result 1. Match found for Threat Actor "MUSTANG PANDA"

Threat Actor: MUSTANG PANDA Aliases: BASIN BRONZE PRESIDENT Camaro Dragon Earth Preta HoneyMyte LuminousMoth Mustang Panda **PKPLUG** Polaris Red Lich RedDelta Stately Taurus TA416 TANTALUM TEMP.HEX Twill Typhoon UNC1066 VERTIGO PANDA

#### Description(s):

1. [ETDA] (Kaspersky) APT actors are known for the frequently targeted nature of their attacks. Typically, they will handpick a set of targets that in turn are handled with almost surgic vectors, malicious implants and payloads being tailored to the victims' identities or environment. It's not often we observe a large-scale attack conducted by actors fitting this profile being noisy, and thus putting the underlying operation at risk of being compromised by security products or researchers.

We recently came across unusual APT activity that exhibits the latter trait — it was detected in high volumes, albeit most likely aimed at a few targets of interest. This large—scale and observed in South East Asia and dates back to at least October 2020, with the most recent attacks seen around the time of writing. Most of the early sightings were in Myanmar, but it now much more active in the Philippines, where there are more than 10 times as many known targets.

Further analysis revealed that the underlying actor, which we dubbed LuminousMoth, shows an affinity to the {{Mustang Panda, Bronze President}} (HoneyMyte) group. This is evident in both connections, and the usage of similar TTPs to deploy the Cobalt Strike Beacon as a payload. In fact, our colleagues at ESET and Avast recently assessed that HoneyMyte was active in the satime and common occurrence in Myanmar of both campaigns could suggest that various TTPs of HoneyMyte may have been borrowed for the activity of LuminousMoth.

- 2. [THRUNTER.ORG] This threat actor targets nongovernmental organizations using Mongolian-themed lures for espionage purposes.
- In April 2017, CrowdStrike Falcon Intelligence observed a previously unattributed actor group with a Chinese nexus targeting a U.S.-based think tank. Further analysis revealed a wider cartechniques, and procedures (TTPs). This adversary targets non-governmental organizations (NGOs) in general, but uses Mongolian language decoys and themes, suggesting this actor has a sperintelligence on Mongolia. These campaigns involve the use of shared malware like Poison Ivy or PlugX.
- Recently, Falcon Intelligence observed new activity from MUSTANG PANDA, using a unique infection chain to target likely Mongolia-based victims. This newly observed activity uses a series fileless, malicious implementations of legitimate tools to gain access to the targeted systems. Additionally, MUSTANG PANDA actors reused previously-observed legitimate domains to host fileless, malicious implementations of legitimate tools to gain access to the targeted systems.

[CROWDSTRIKE] VERTIGO PANDA is China-nexus adversary that has likely been active since at least mid-2020 as a discrete operational group separate from-but adjacent to-MUSTANG PANDA. Through Panda has targeted defense and government sector organizations worldwide with an emphasis on Europe, as well as likely targeting religious sector organizations and the Vatican.

3. [MITRE] [Mustang Panda] (<a href="https://attack.mitre.org/groups/60129">https://attack.mitre.org/groups/60129</a>) is a China-based cyber espionage threat actor that was first observed in 2017 but may have been conducting operations sin Pandal (<a href="https://attack.mitre.org/groups/60129">https://attack.mitre.org/groups/60129</a>) has targeted government entities, nonprofits, religious, and other non-governmental organizations in the U.S.. Europe, Mongolia, Myanmar, Pal



### Searching for Threat Actor info on 'MUSTANG PANDA'; will display any relevant Malpedia links :

Searched for "MUSTANG PANDA": 1 Results Found: - MUSTANG PANDA

### Result 1. Match found for Threat Actor "MUSTANG PANDA"

### Demo Backup

Threat Actor:	https://attack.mitre.org/groups/60129 https://attack.mitre.org/groups/61014	
MUSTANG PANDA	https://blog.checkpoint.com/securing-user-and-access/smugx-unveiling-a-chinese-based-apt-operation-targeting-european-governmental-enthies-check-point-research-exposes-a-shifting-trend/	
Aliases:	https://blog.checkpoint.com/security/check-point-research-reveals-a-malicious-firmware-implant-for-tp-link-routers-linked-to-chinese-apt group/	
BASIN	https://blog.google/threat-analysis-group/update-threat-landscape-ukraine/	
BRONZE PRESIDENT	https://blog.talosintelligence.com/2022/05/mustang-panda-targets-europe.html	
Camaro Dragon	https://blog.talosintelligence.com/mustang-panda-targets-europe/ https://blog.vincss.net/2020/03/re012-phan-tich-ma-doc-loi-dung-dich-COVID-19-de-phat-tan-gia-mao-chi-thi-cua-thu-tuong-Nguyen-Xuan-Phuc.htl	
Earth Preta	https://blogs.blackerry.com/en/2022/12/mustang-panda-uses-the-russian-ukrainian-war-to-attack-europe-and-asia-pacific-targets	
HoneyMyte	https://csirt-cti.net/2024/01/23/stately-taurus-targets-myanmar/	
LuminousMoth	https://go.crowdstrike.com/rs/281-080-266/images/Report2020CrowdStrikeGlobalThreatReport.pdf	
Mustang Panda	https://go.recordedfuture.com/hubfs/reports/cta-2020-0728.pdf	
PKPLUG	https://insights.oem.avira.com/new-wave-of-plugx-targets-hong-kong/ https://jsac.jpcert.or.jp/archive/2023/pdf/JSAC2023 2 LT4.pdf	
Polaris	https://jab2.io/blog/new-mustang-pandas-campaing-against-australia/	
Red Lich	https://query.prod.cms.rt.microsoft.com/cms/api/am/binary/RW1aFyW	
	https://research.checkpoint.com/2023/beyond-the-horizon-traveling-the-world-on-camaro-dragons-usb-flash-drives/	
RedDelta	https://research.checkpoint.com/2023/malware-spotlight-camaro-dragons-tinynote-backdoor/	
Stately Taurus	https://securelist.com/apt-luminousmoth/103332/ https://services.qooqle.com/fh/files/blogs/qooqle fog of war research report.pdf	
TA416	https://services.google.com/inprices/boogle.google.com/inprices/boogle.g	
TANTALUM	https://therecord.media/indonesian-intelligence-agency-compromised-in-suspected-chinese-hack/	
TEMP.HEX	https://threats.wiz.io/all-actors/mustang-panda	
Twill Typhoon	https://threats.wiz.io/all-incidents/earth-pretas-campaign-abusing-mavinject-to-bypass-detection	
UNC1066	https://unit42.paloaltonetworks.com/chinese-apts-target-asean-entities/ https://unit42.paloaltonetworks.com/chinese-apts-target-asean-entities/ https://unit42.paloaltonetworks.com/pkplug chinese_cyber espionage group attacking asia/	
VERTIGO PANDA	https://unit42.paloaltonetworks.com/stately-taurus-abuses-vscode-southeast-asian-espionage/	
	https://unit42.paloaltonetworks.com/stately-taurus-attacks-se-asian-government/	
Description(s):	https://unit42.paloaltonetworks.com/stately-taurus-targets-philippines-government-cyberespionage/	
(-).	https://unit42.paloaltonetworks.com/stately-taurus-uses-bookworm-malware/	
1. [ETDA] (Kaspersky	https://unit42.paloaltonetworks.com/thor-plugx-variant/ https://web-assets setstatic.com/uls/en/papers/threat-reports/eset-apt-activity-report-q2-2023-q3-2023.pd	ıi
vectors, malicious i	https://www.anomali.com/blog/china-based-ant-mustang-panda-targets-minority-groups-public-and-private-sprear-defeations	1
	https://www.anomali.com/blog/china-based-apt-mustang-panda-targets-minority-groups-public-and-private rector-organizations#When:17:14:00Z	
being noisy, and thu	https://www.anomali.com/blog/covid-19-themes-are-being-utilized-by-threat-actors-of-varying-sophist ation#When:14:00:00Z	
	https://www.bitdefender.com/blog/labs/luminousmoth-plugx-file-exfiltration-and-persistence-revisived	
We recently came acr	https://www.bsi.bund.de/DE/Themen/Unternehmen-und-Organisationen/Cyber-Sicherheitslage/Analyse -und-Prognosen/Threat-Intelligence/Aktive APT-Gruppen/aktive-apt-gruppen node.html https://www.cfr.org/interactive/cyber-operations/mustang-panda	ın
observed in South Ea	https://www.crowdstrike.com/adversaries/mustanc-panda	10
much more active in	https://www.crowdstrike.com/adversaries/vertigo-panda	
	https://www.crowdstrike.com/blog/meet-crowdstrikes-adversary-of-the-month-for-june-wistang-panda/	
Further analysis rev	https://www.darkreading.com/threat-intelligence/chinese-apt-bronze-president-spy_dmpaign-russian-military	١t
connections, and the	https://www.proofpoint.com/us/blog/threat-insight/good-bad-and-web-bug-ta416-i_reases-operational-tempo-against-european https://www.proofpoint.com/us/blog/threat-insight/ta416-goes-ground-and-rety-is-golang-plugx-malware-loader	1
time and common occu	https://www.pwc.co.uk/cyber-security/assets/cyber-threats-2019-retrospects.ndf	
	https://www.pwc.co.uk/cyber-security/pdf/pwc-cyber-threats-2020-a-year_n-retrospect.pdf	
<ol><li>[THRUNTER.ORG] Th</li></ol>	https://www.secureworks.com/blog/bronze-president-targets-government officials	
In April 2017, Crowd	https://www.secureworks.com/blog/bronze-president-targets-russian_peakers-with-updated-plugx	C
techniques, and proc	https://www.secureworks.com/research/bronze-president-targets-pros https://www.secureworks.com/research/threat-profiles/bronze-resident	in .
intelligence on Mong	https://www.trendmicro.com/en_us/research/22/k/earth-pretz_sear-phishing-governments-worldwide.html	η,
Recently, Falcon Int	https://www.trendmicro.com/en_us/research/23/c/earth-pr_ca-cyberespionage-campaign-hits-over-200.html	0
	https://www.trendmicro.com/en_us/research/23/c/earth_reta-updated-stealthy-strategies.html	.e
fileless, malicious	https://www.trendmicro.com/en_us/research/23/f/beb_d-the-scenes-unveiling-the-hidden-workings-of-earth-preta.html	
[CDOMPCTDIKE] VESTIC	https://www.trendmicro.com/en_us/research/24/b/_rth-preta-campaign-targets-asia-doplugs.html https://www.trendmicro.com/en_us/research/24/earth-preta-new-malware-and-strategies.html	
[CROWDSTRIKE] VERTIG	https://www.trendmicro.com/en_us/research/20/7earth-preta-misses-legitimate-and-malicious-components-to-sidestep-detection.html	ır
PANDA has targeted d	https://www.welivesecurity.com/2022/03/2/mustang-panda-hodur-old-tricks-new-korplug-variant/	
	https://www.welivesecurity.com/2023/0702/mgsttang-mustang-panda-latest-backdoor-treads-new-ground-qt-mgtt/	
<ol><li>[MITRE] [Mustang</li></ol>	https://www.zscaler.com/blogs/security-research/latest-mustang-panda-arsenal-paklog-corklog-and-splatcloak-p2	s
Pandal(https://attac	https://www.zscaler.com/blogs/sa/arity-research/latest-mustang-panda-arsenal-toneshell-and-starproxy-p1	P

Malpedia had 10 unique references related to Threat Actor 'MUSTANG PANDA': (Date / URL

пасреита паи	10 unique references retateu to fineat Actor Mostano Fanda : (Date / OKL)
[2025-03-21]	https://hunt.io/blog/darkpeony-certificate-patterns
[2024-10-25]	https://www.trendmicro.com/en in/research/24/i/earth-preta-new-malware-and-strategies.html
	https://www.welivesecurity.com/en/eset-research/separating-bee-panda-ceranakeeper-making-beeline-thailand/
	https://hitcon.org/2024/CMT/slides/Sailing the Seven SEAs Deep Dive into Polaris Arsenal and Intelligence Insights.pd
[2024-09-11]	https://hunt.io/blog/toneshell-backdoor-used-to-target-attendees-of-the-iiss-defence-summit
[2024-07-17]	https://lab52.io/blog/mustang-pandas-plugx-new-variant-targetting-taiwanese-government-and-diplomats/
[2024-07-17]	https://research.checkpoint.com/2023/chinese-threat-actors-targeting-europe-in-smugx-campaign/
[2024-07-17]	https://go.recordedfuture.com/hubfs/reports/cta-2022-1223.pdf
[2024-07-10]	https://files.speakerdeck.com/presentations/6d01e26c85a444d0a3f888e45629635f/hodur_recon2024.pdf
[2023-09-08]	https://blog.sekoia.io/my-teas-not-cold-an-overview-of-china-cyber-threat/

### Demo Backup

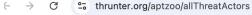
• ⓒ

If you are a vendor

Perhaps check yourNext Threat actor nameIsn't taken!







### aptZoo - List of All 3429 Known Threat Actors and Aliases/Synony

The following list includes all of the 3429 Threat Actor names and their aliases that aptZoo references

It might be useful; perhaps for when you are considering your naming your next tracked threat group.



```
Daggerfly
Stealth Mango and Tangelo
05716nnm
0bulk
Obulk Psyche Evolution R4
Obulk Psych Evolution R4
0ktapus
0mid16B
1.php Group
1937CN
3lv4n
4H Crew
4HC rew
5BIRD
5MRBID
8220 Gang
8220 Mining Group
8BASE
@elvan_tarak
[Vault 7/8]
allchemist
A1Lock
a2019
```

# How does the tool work again?

- On the backend it Gathers data from:
  - MISP Threat Actor Cluster on GitHub
  - ETDA Threat Actor database
  - MITRE Attack Groups
  - Malpedia
  - Microsoft Threat Actors
  - Thrunter.org
  - Published websites
- Enables searching this data for:
  - Threat Actor Names/Aliases
  - Descriptions
  - References

## Additional Features

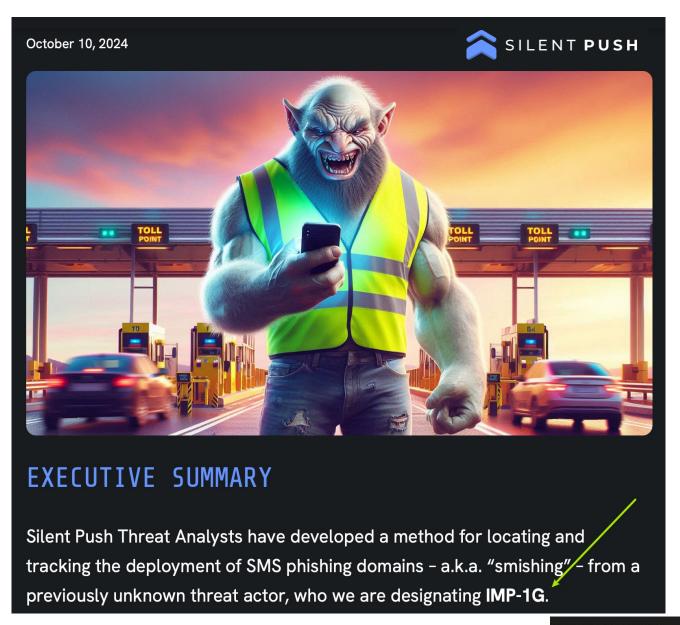
- You can query your own repository!
- You may have good reason to lookup your own Threat Actor repository:
- Perhaps you have internal naming for threat actors you track?
  - Referencing internal / non-published documents?
- Or you can't wait for MISP/MITRE/ETDA/Malpedia etc to update?
- You can add your own repository where you add info of interest
- Tool will examine MISP/MITRE/Malpedia/ETDA data and merge with your own repository

Why you might want your own TA repository:

For example:

Reading an interesting blog:
SilentPush discovered a new threat actor: 'IMP-1G'

This Threat Actor is so new – it's not in MISP/Malpedia – you can add your own definition in your local repo.



Or tracking unpublished threat Actors

- IRON KANGAROO?



Or tracking unpublished threat Actors

- Or KARMA KOALA?



Or for tracking your commercial Cyber Threat Intel

- Keep track of relevant links to reports in their portal

## More features

- Works when you are offline/airgapped network
  - Not everyone is connected to the internet in real time...
  - Don't have to worry about your queries being tracked

# Other Lookup tools

- MISP has some software:
  - https://github.com/MISP/threat-actor-intelligence-server
  - A simple ReST server to lookup threat actors (by name, synonym or UUID) and return the corresponding MISP galaxy information about the known threat actors.
    - Has a number of limitations not simple to install but may be useful for some
- Malpedia has a nice web interface: <a href="https://malpedia.caad.fkie.fraunhofer.de">https://malpedia.caad.fkie.fraunhofer.de</a>
- ORKL.eu is also great

# Important!

- There are multiple names for different threat actors
- Threat actors can evolve and are fluid members can work in different groups
- Attribution is based on different sets of telemetry end up with multiple names for what seems to be the same threat groups.
- Important to remember Threat groups are fluid and they evolve, they are rarely 1:1
- Threat Actor overlaps include malware samples, tools, commands, infrastructure, TTPs.

# Important!

Sean Sullivan from F-Secure once said:

"Threat Actor attribution/research is like a being a palaeontologist who has found some bones of a dinosaur:

Everyone may have a bone, But no one has the full skeleton"

## Future Work cont...

- Malware family / tooling lookup:
  - Eg. IcedID malware typically used by threat actor LUNAR Spider
  - Malware families suffer the same problem as Threat actors
- Add more good data sources
  - Alienvault, Automating Vendor naming scraping
- Improving the data
  - lots of old reports links are now dead
  - Eg. fireeye.com's APT reports

# Challenges

- Keeping this updated
- Automated a lot of it.
   MISP/ETDA/Malpedia/MITRE are more straightforward
- Some other sources are more manual

# Avast (and Gen's) mission



 Two years ago - Avast joined with NortonLifelock to become Gen Digital – the new name Gen

Still honoring the original Avast mission:

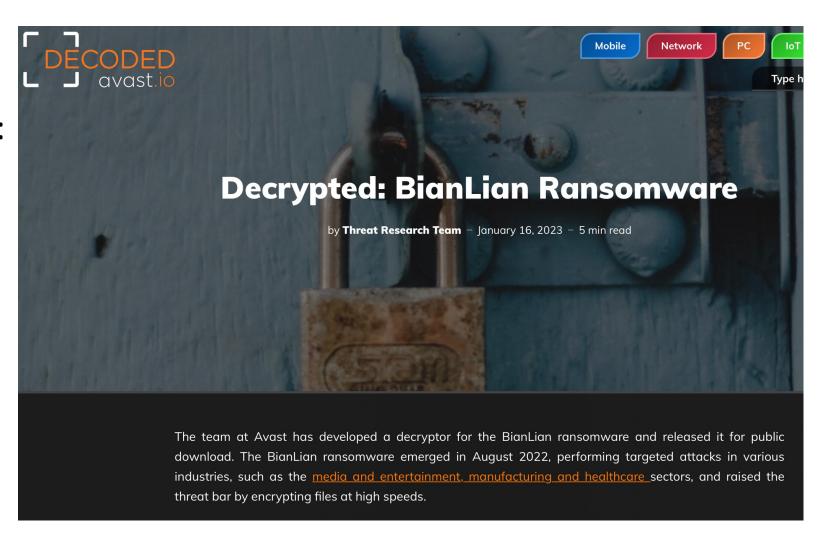
"Everyone has the right to have Free Cyber Security"

- We have a big responsibility over 500 million users
- Keen to help CERTs/LE/partners
- Have helped many people with ransomware infections
- Some of our success stories are public:
- others not....

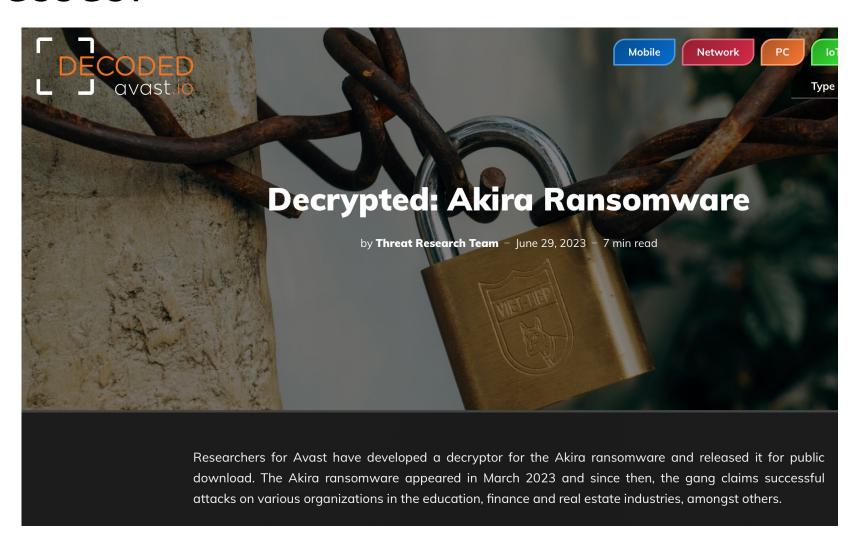


## Some success stories:

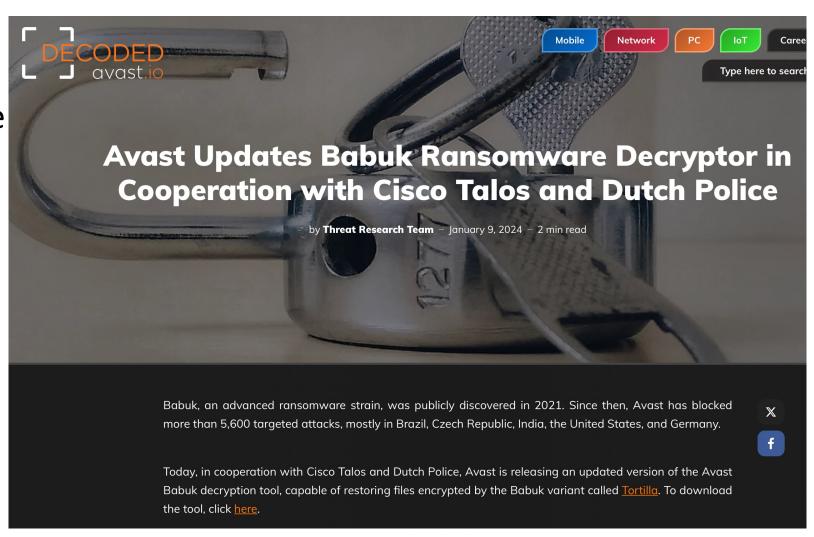
Bian Lian ransomware:



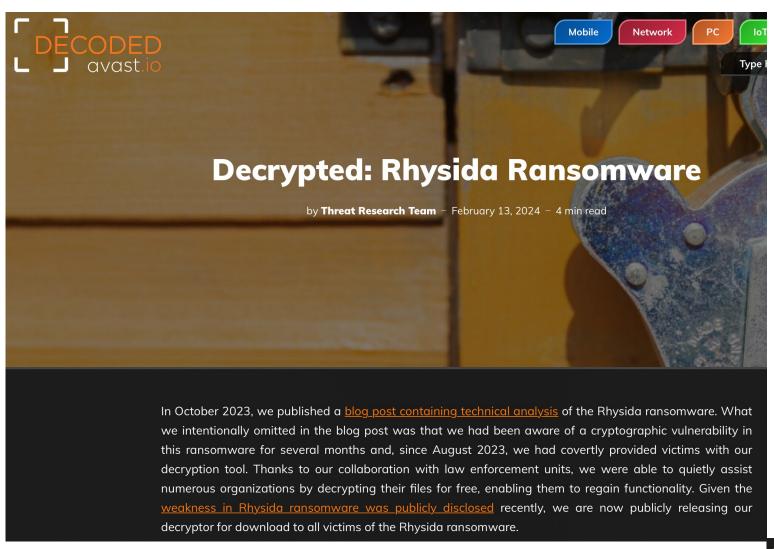
Akira Ransomware:



BabukRansomware



Rhysida Ransomware



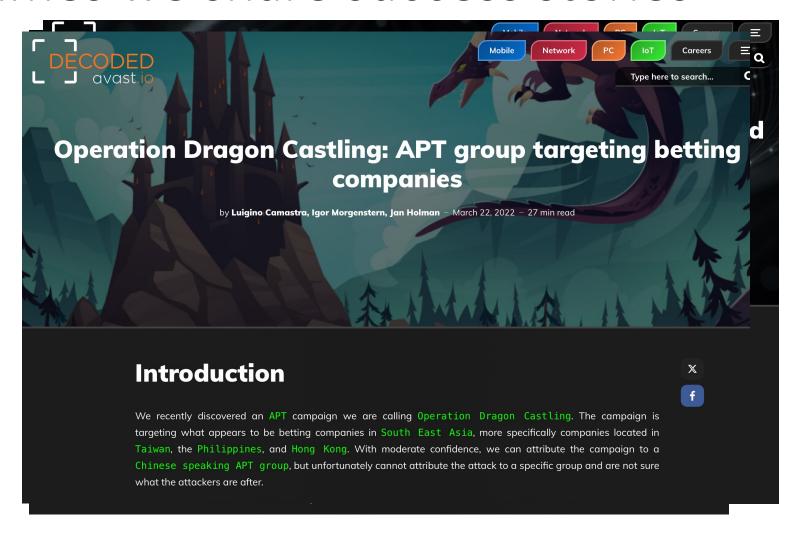
 HomuWitch Ransomware



# Avast (and Gen Digital's) mission

- Other successful tools are not shared openly...
- Why? We don't want to alert the Threat Actors about weaknesses in their Ransomware
- Perhaps we can help....

## Sometimes we share success stories





# But not everything can be shared in this way

- Typically we contact a CERT
- Or use contacts in FIRST or Trusted Introducers





# Always happy to help

- If you have malware you are not sure about
- Or you're unlucky enough to get ransomware/wipers deployed
- Contact me: LinkedIn/Signal/Keybase/PGP/FIRST/Email
- Slides/code: github.com/forensicdave

Check out the APTZOO:

thrunter.org



