

The Threat Actor Profile Guide for CTI Analysts

Curated Intelligence

About

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Foreword:

Threat actor profiles are made for a range of reasons. An example trigger for creating a new profile can include after an incident, e.g., an internal detection or supply chain breach has been observed. Alternatively, CTI research has identified that their organisation(s) or client(s) are likely to be targeted by the threat actor due to a number of factors.

The 'Threat Actor Profile Guide for CTI Analysts' was created after multiple Curated Intelligence members requested advice about the topic and their creation. Individuals in our community expressed difficulty and some shared their experiences around the difficulty of making one for their stakeholders.

This guide offers a templated introduction for CTI analysts getting started with profiling threat actors. Experienced CTI analysts and mature teams will likely have a more refined methodology and even different types of threat actor profiles tailored for a specific stakeholder type.

Executive Summary

Introduction: "As of \$Month 20XX, the Cyber Threat Intelligence team has researched the \$ThreatActor"

- An Executive Summary should ideally be no longer than 10-15 lines (2-3 paragraphs)
- The main three questions to answer are "What?" "So What?" and "What Now?"
- Explain the level of threat to the organisation, which includes the following:
 - Highlight organisation whether the threat actor has targeted your organisation's sector, country, or region as early as you can.
 - Make a short assessment of why your organisation could be targeted (or why they have been targeted) by the \$ThreatActor.
 - Make a short evaluation of the ability of your organisation's defence mechanisms to mitigate the threat.

Executive Summary

Stakeholder	Their Needs
The Executive Leadership Team (ELT)	Talk about the potential losses that could be caused by a successful attack. Think about Intellectual Property Theft, Customer Data Theft, and Financial Theft. Focus on the impact to the organisation's investments.
Operational (SOC, CERT, Security Engineering, Security Awareness, etc.)	Talk about what tactics, techniques, and procedures (TTPs) that \$ThreatActor uses. Highlight significant technical findings, like the fact that it exploits a certain CVE that is highly present in the organisation's or client's environment.

Let's be honest: Time-poor people are not likely to read past the Executive Summary. This makes it the most important part of the report.

Include the most significant findings and assessments upfront.

The Executive Summary should be tailored to the stakeholder who requested the Threat Actor Profile. The first part of the about section is the "What?" part of the Threat Actor Profile.

Researching and listing known aliases of the threat actor is key to highlighting what is being discussed.

Top Tip: It might be easier to complete the next section first on the \$ThreatActor Diamond Model Attributes before writing the introduction.

This can help identify risks in the supply chain and help guide the focus of a threat hunt or risk assessment and demonstrates the value of CTI.

About \$ThreatActor

- Creating a Table of Threat Actor Aliases (sometimes referred to as cryptonyms) helps lay the foundation of the analysis in the profile.
- The Table helps readers quickly understand that multiple organisations are tracking what is essentially the same activity group using their own moniker.
- The analyst can discuss (and potentially use a diagram) if the attribution to a named threat actor the profile is for is not clearly defined elsewhere.
- For more guidance, Curated Intelligence has <u>blogged</u> previously on Threat Actor Naming Schemes.

Threat Actor Aliases (Example)						
CrowdStrike	Mandiant	Microsoft (New)	Microsoft (Old)	Recorded Future		
Cozy Bear	APT29	Midnight Blizzard	NOBELIUM	BlueBravo		

- Once the bit of Threat Actor Alias housekeeping is done, the CTI analyst can begin to introduce the \$ThreatActor.
- The introduction should ultimately answer the following questions:
 - What type of threat actor (group) is it? E.g., Cybercrime, Espionage, Hacktivism, etc.
 - O What areas does \$ThreatActor specialise in?
 - o What type of campaign does \$ThreatActor launch?
 - Make a short assessment of how advanced the \$ThreatActor is based on Reason X, Y, and Z.
 - Discuss notable technical observations, such as software and TTPs.

Targets of \$ThreatActor

- Which sectors/verticals does \$ThreatActor target?
 - Think: Proximity to our sector/region
 - o Think: Recency of when their attacks were
- What does the \$ThreatActor group do once they are inside a victim's environment?
- How long have they been known to persist inside a victim's environment?
- Are the targets of \$ThreatActor related to each other?
 - o Think: Cyber-enablement campaigns

\$ThreatActor Diamond Model Attributes

- The Diamond Model Attributes are the key pieces of information required to rapidly understand the \$ThreatActor.
- After these are filled out by the CTI analyst, they can then be added to a Diamond Model Diagram.
- Once the Diagram is complete, the CTI analyst can introduce the threat actor and hit on the key points from their research and extraction of threat data.

The Diamond
Model consists of
the four key
components of a
threat actor and is
an industry
standard, taught by
SANS FOR578 and
many other
courses.

Adversary	Origin:
	Motivation:
	Activity:
Victim	Targeting:
	Locations:
	Systems:
Capabilities	IN:
	THROUGH:
	OUT:
Infrastructure	Attack Infrastructure:
	Support Infrastructure:

This section of the Threat Actor Profile is for more technical stakeholders who consume operational and tactical intelligence

It is often preferred by stakeholders for CTI analysts to provide operational and tactical intelligence in the form of diagrams and tables for easier consumption.

It is vital to include all citations. These are fundamental for supporting your assessments.

\$ThreatActor Tactics, Techniques, and Procedures (TTPs)

- The first few lines of this section should include a summary of technical details at a high level that can be useful for all stakeholders.
 - This can be done by borrowing the Unified Kill Chain's three stages:
 IN, THROUGH, and OUT
 - https://www.unifiedkillchain.com/assets/The-Unified-Kill-Chain.pdf
- To discuss the \$ThreatActor TTPs in detail, the MITRE ATT&CK framework is recommended.
 - o https://attack.mitre.org
- It is also recommended to create a table for TTPs.

ATT&CK ID	Description	Observable	Source

- The point of this exercise is to demonstrate our technical understanding of the \$ThreatActor.
- The TTPs can also be used for other activities by other stakeholders.
- Security Engineering will find these helpful in implementing detection for the activities.
- Red Teamers may use these for adversary emulation during engagements.
- The SOC will find these helpful for situational awareness and supporting their triaging of events.

References

- Add all external references you intend to cite in your report
- Use in-line citations to show the source of information (in paragraphs)
- Consider highlighting problematic sources and perform source evaluation.
 - This can be a footnote on a page of the threat actor card if there is contention around technical aspects or attribution assessments.
 - Only include if it is important for readers to know about.