Forefuture - Intelligence Based Attack Simulations

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Partners

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Swedavia Airports

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Idea

Cyber security requires both an understanding of the current global threat picture and insight into how these threats can affect the actual systems of a company or organization.

Recorded Future performs global collection and analysis of threat, actor and vulnerability data. KTH tailors threat modeling and attack simulations of organizations' actual systems according to the current threat picture. By combining these capabilities, in a completely unique way, the relevant threat picture can be assessed in real time and measures taken to reduce the real risk from cyber attacks. Results will be validated together with Swedavia.

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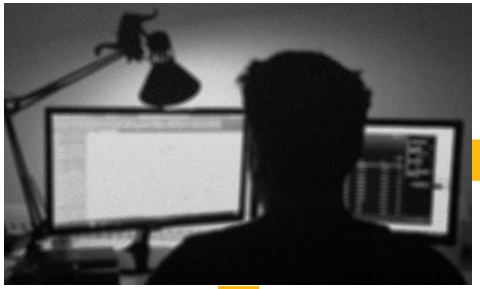
Is someone asking for the keys?
Is someone selling my property?
Who has the keys?
Are the blueprints out there?
Is someone talking about attacking places like this?
What places like this one have been attacked recently?

Internet→Intelligence



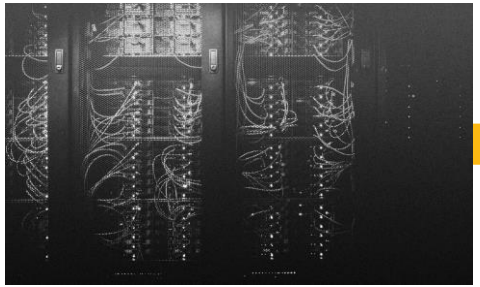
Unstructured/content sources

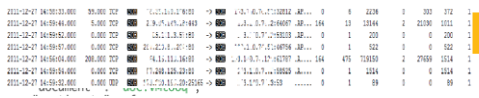
устранило две **0-day**
уязвимости
В минувшие выходные разработчики **Mozilla** выпустили экстренное обновление безопасности для **Firefox**.
Срочные патчи устранили в браузере две уязвимости нулевого дня, которые уже использовались хакерами в атаках.
Две исправленные уязвимости получили идентификаторы **CVE-2022-26485(https://www.mozilla.org/en-US/security/advisories/mfsa2022-09/) CVE-2022-26485** и обе оцениваются как критические.
Проблемы относятся к типу **use-after-free** (программа пытается использовать ранее очищенную память) и обе были обнаружены и исследователями из компании **Qihoo** 360.
Сообщает, что первая из уязвимостей связана удалением параметра
Extensible Stylesheet Language Transformations (XSLT)
во время обработки, а вторая ошибка может быть вызвана неожиданным сообщением во фреймворке **WebGPU** (IPC).
Хотя разработчики не сообщают каких-либо деталей о наблюдаемых попытках эксплуатации этих уязвимостей, баги такого типа обычно позволяют злоумышленникам выполнять произвольный код на целевых системах.
Обе проблемы были решены в релизе Firefox 97.0.2, **Firefox ESR** 91.6.1, Firefox для **Android** 97.3.0
и Focus 97.3.0,
сообщает **Mozilla**.
Технические подробности об уязвимости пока тоже не разглашаются.
Скорее всего, дополнительная информация будет опубликована после того, как большая часть пользователей установит исправления.

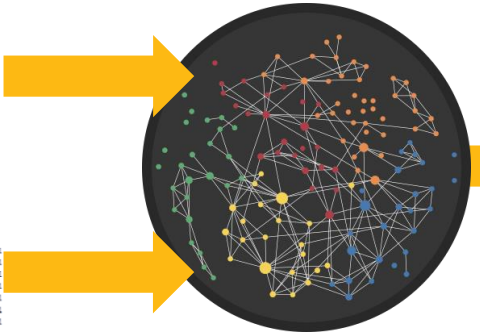
28 FBI, DHS, HHS Warn of Imminent, Credible Ransomware Threat Against U.S. Hospitals

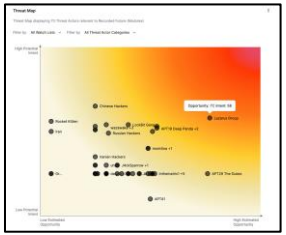
OCT 20

On Monday, Oct. 26, KrebsOnSecurity began following up on a tip from a reliable source that an aggressive Russian cybercriminal gang known for deploying ransomware was preparing to disrupt information technology systems at hundreds of hospitals, clinics and medical care facilities across the United States. Today, officials from the **FBI** and the **U.S. Department of Homeland Security** hastily assembled a conference call with healthcare industry executives warning about an "imminent cybercrime threat to U.S. hospitals and healthcare providers."









Structured data from technical/code sources

Adversaries And Intent

Nation-State &
Criminal Groups
Hacktivists

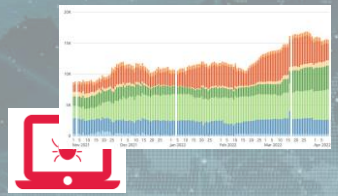
Intent, TTPs,
Vulns

Infrastructure They Build

DNS
Certificates
Network Traffic
Malware Detonations
IP/Domain Infrastructure
C2

Organizations They Target

Corporate Networks
Endpoints
Intellectual Property
Identities
Physical world



Threat Modelling and Attack Simulations

- Attack simulations can evaluate the risks affecting your system
  - Manual system specification
  - AWS or Azure environment
    - Scans your environment and builds a digital copy
    - As granular as you allow it to be
- Probabilistic simulation

KTH VETENSKAP OCH KONST

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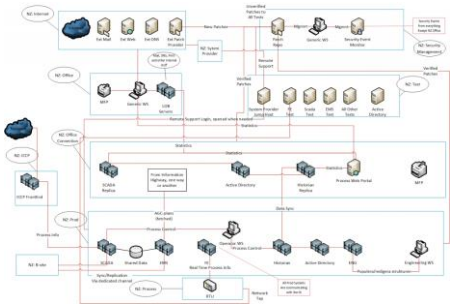
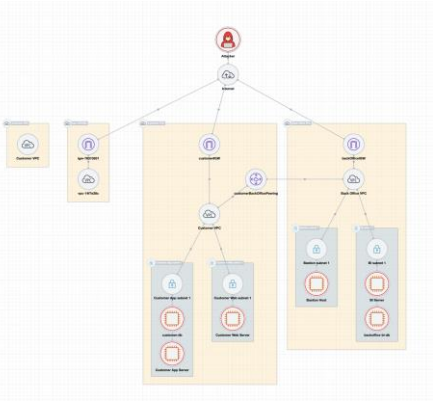
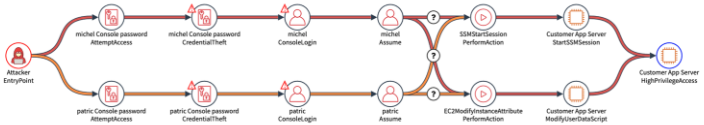
SecuriCAD, how it looks/ works



Environment



SecuriCAD

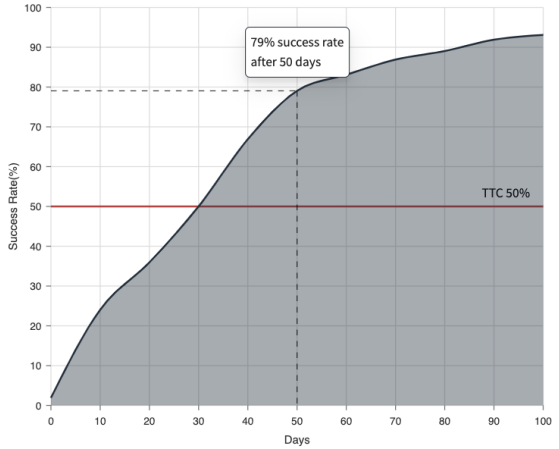


Simulation

Areas of improvement

- Lacks access to current real world data
  - Assumptions based of research
  - Pulls data from “static” lists
  - Slow to react to changes in threat levels

- Manual setting alterations needed to update
  - Reacts to alterations from inside, not outside



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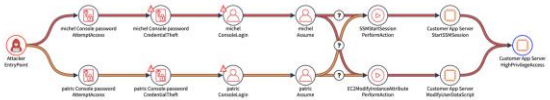
API

E-mails
AWS keys
CVE
Trends
C2

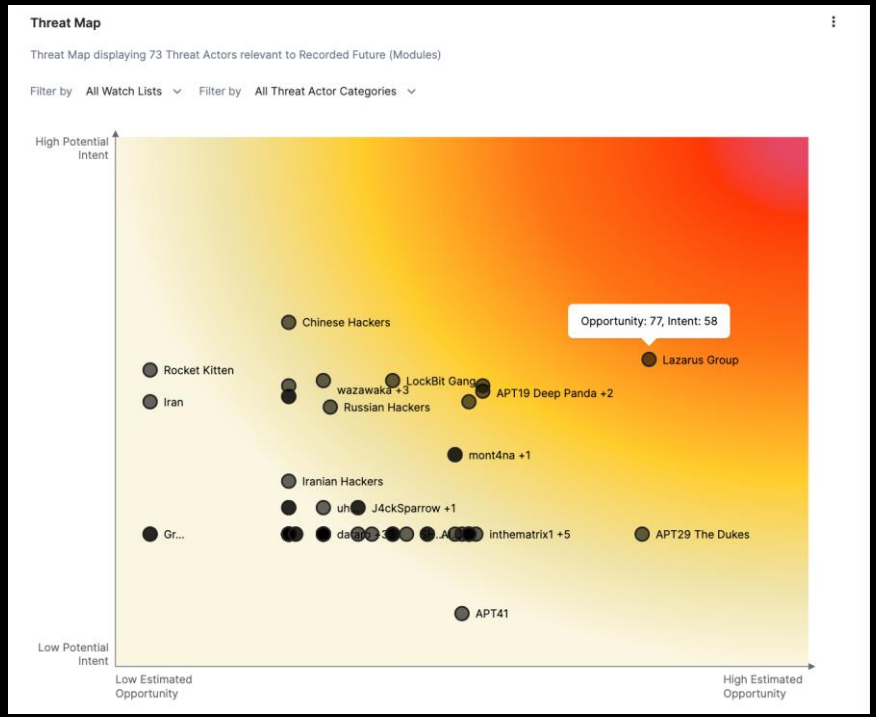
Ingestion
Simulation enrichment



The data

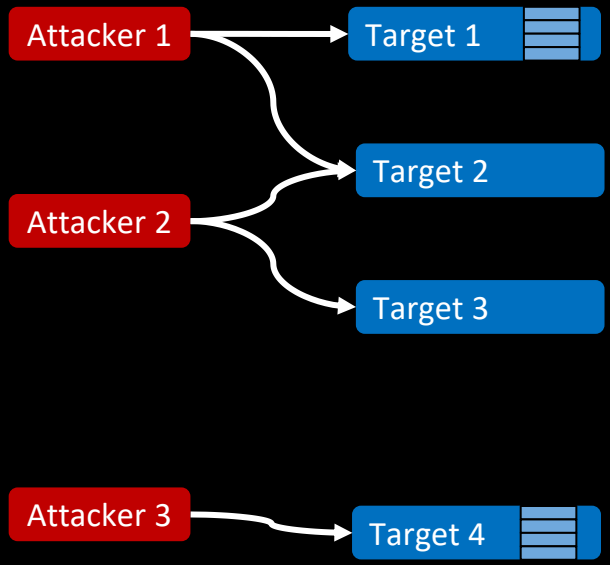
- Credential leaks + AWS keys
  - Parameters that have a powerful impact on simulations.
  - Natural connection between our systems
- CVEs + C2s
- Trends
  - Industry , Geo, Threat Actors, Attack Vectors

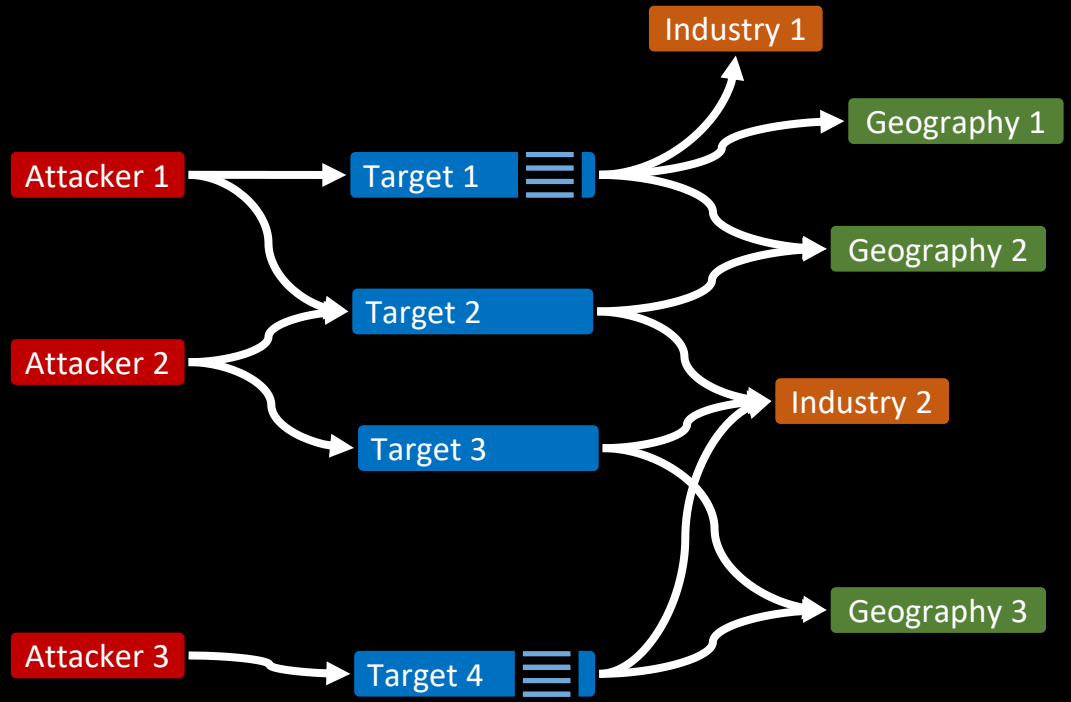
Putting the Intelligence Graph to work: Threat Map

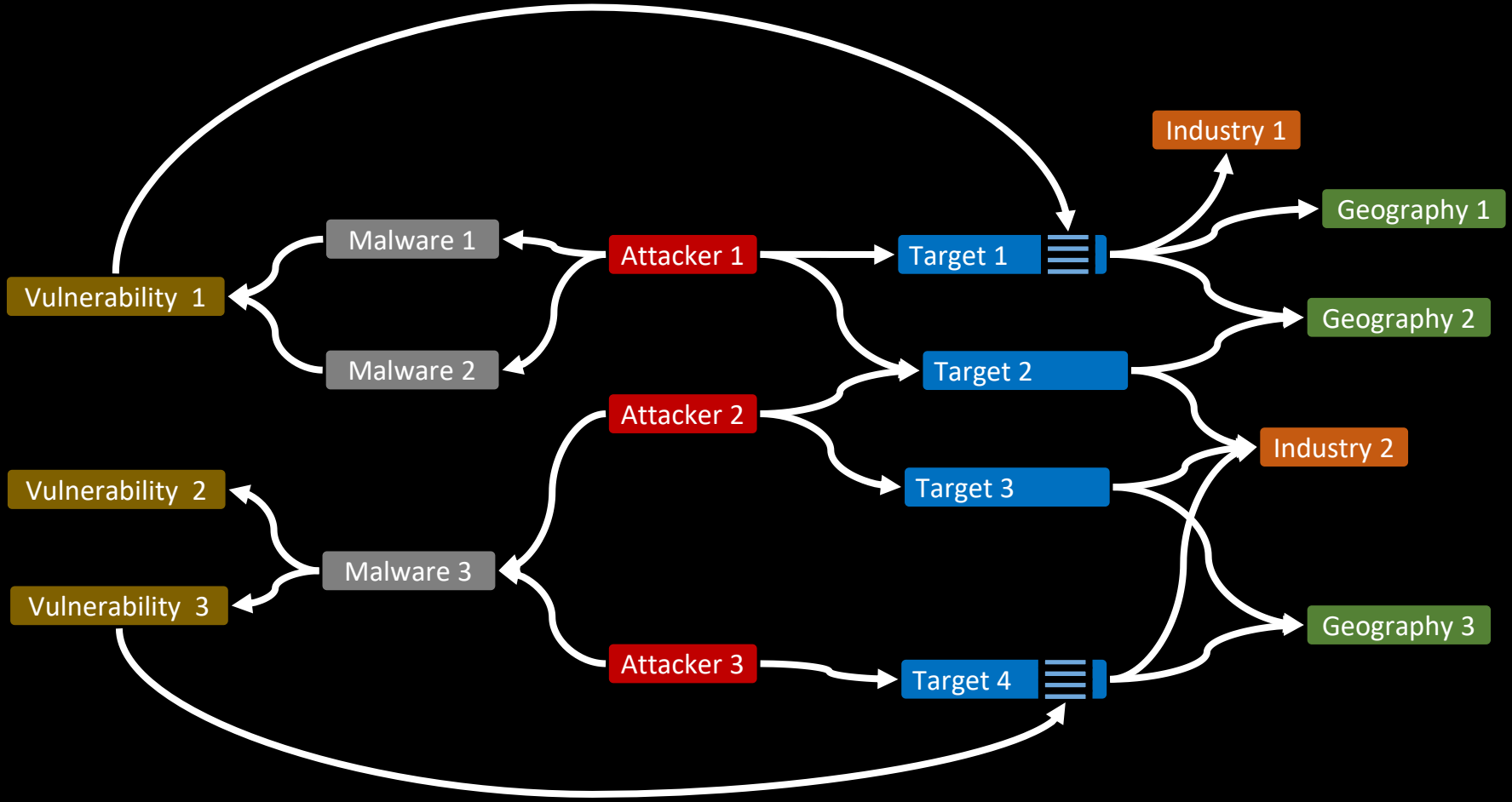


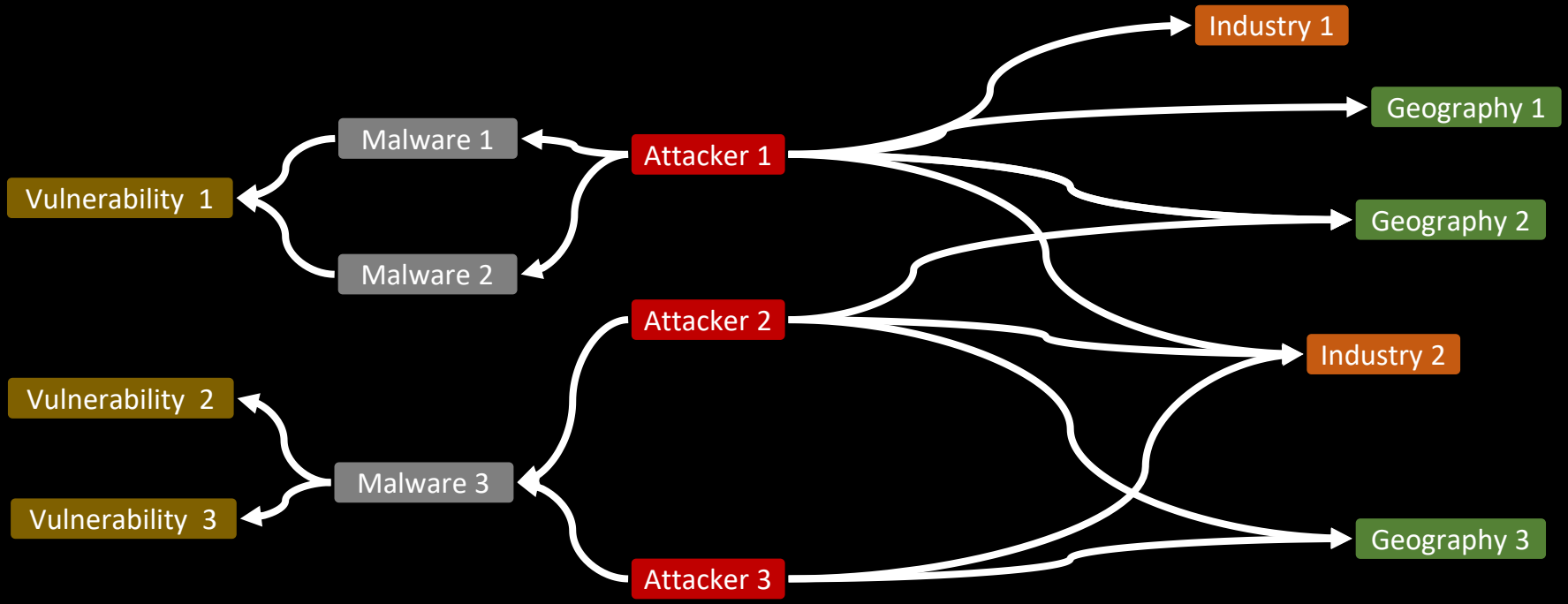
Intent

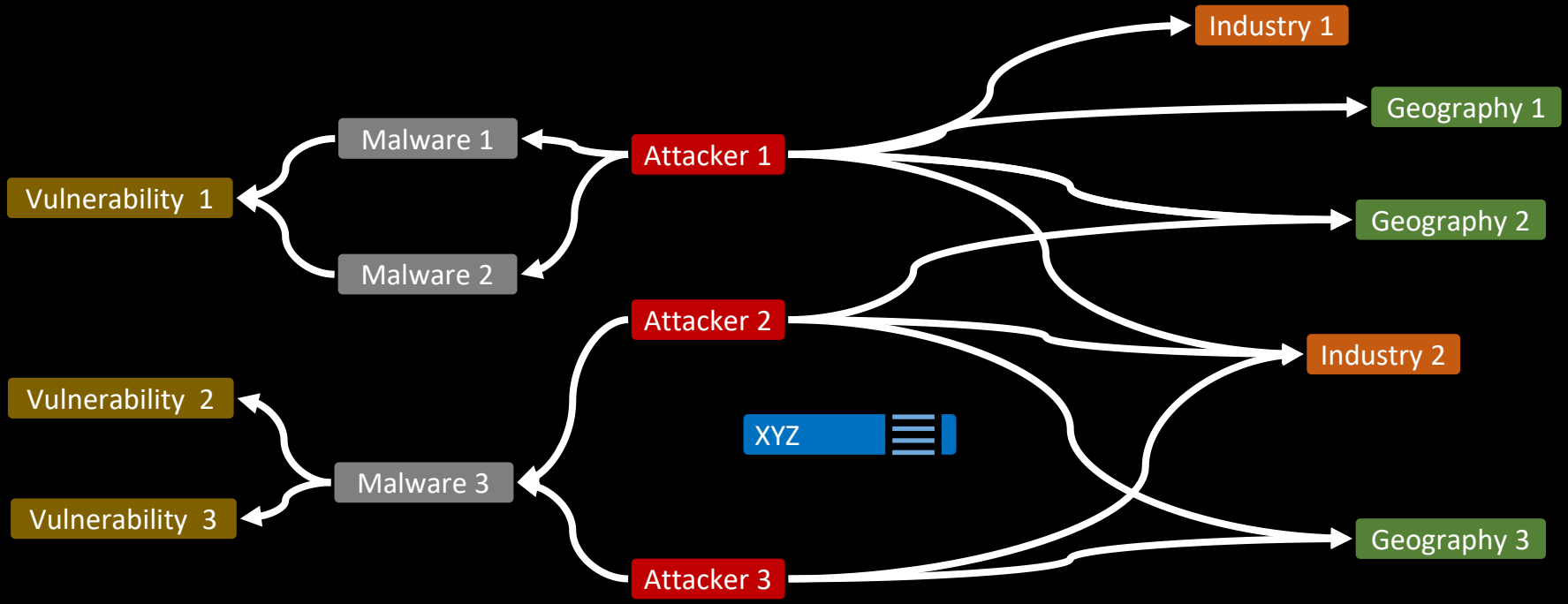
Opportuity

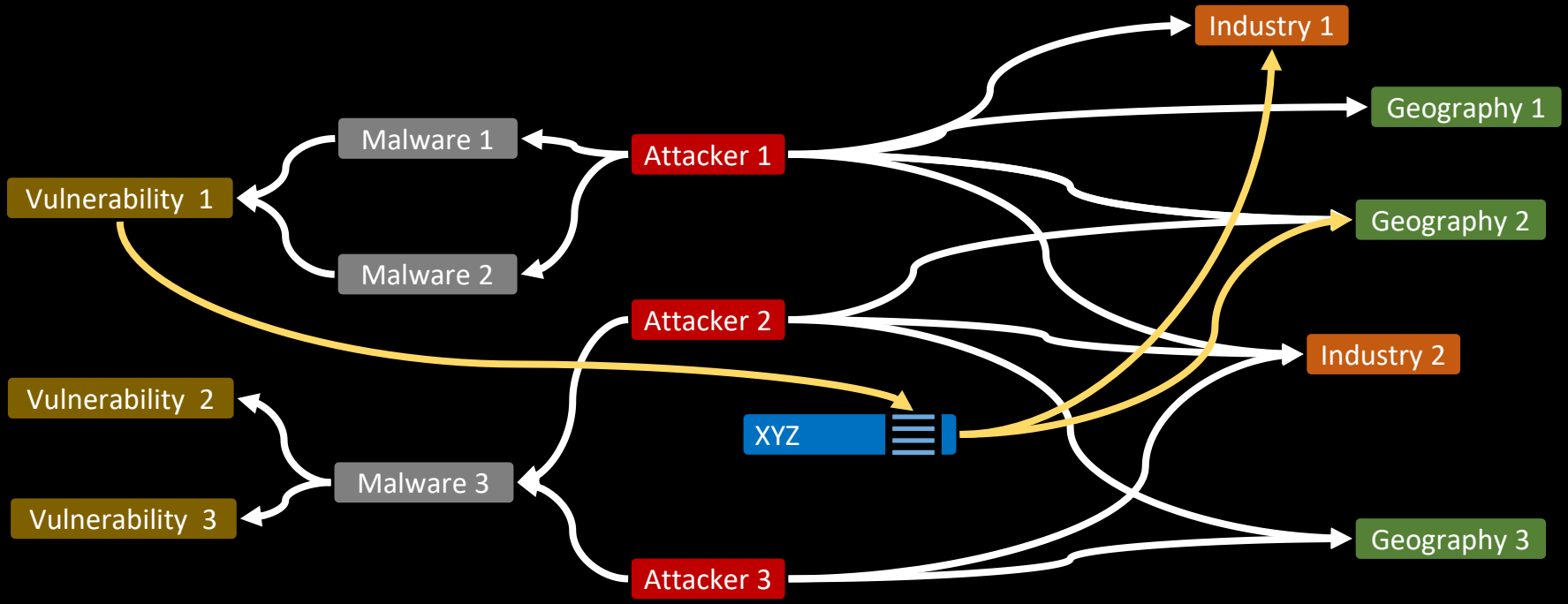


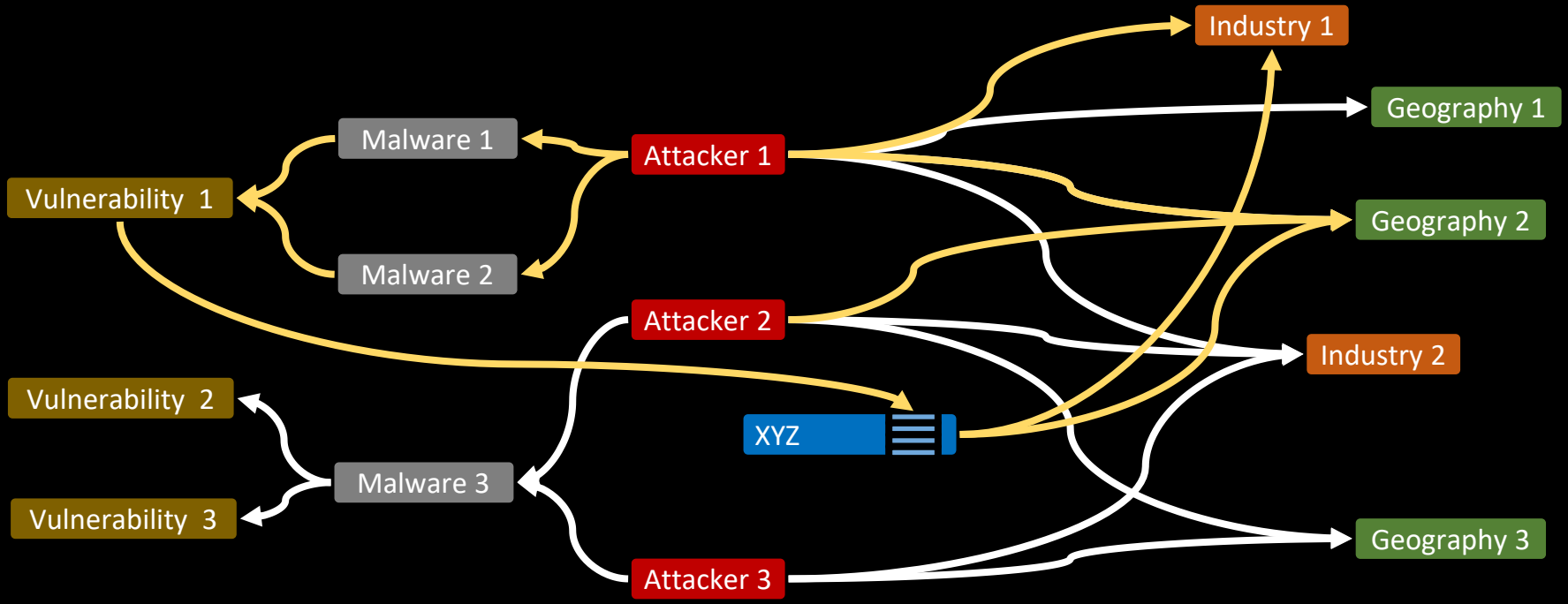


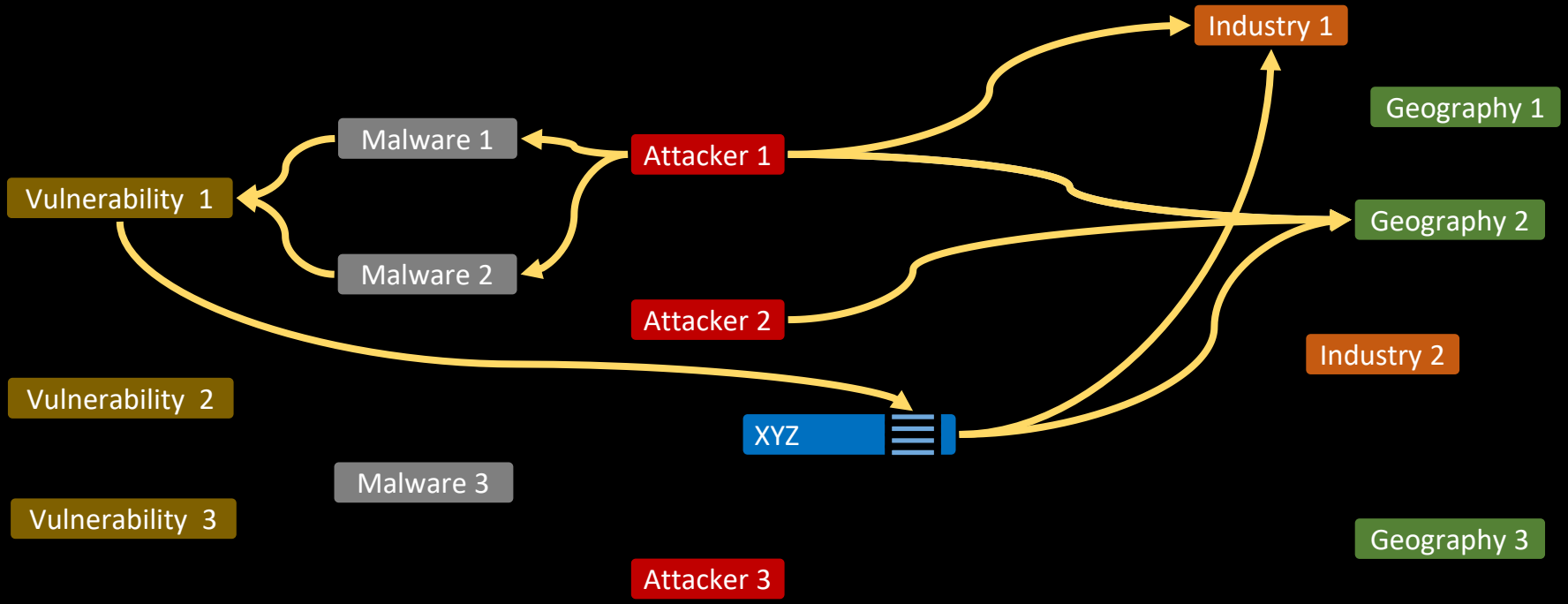




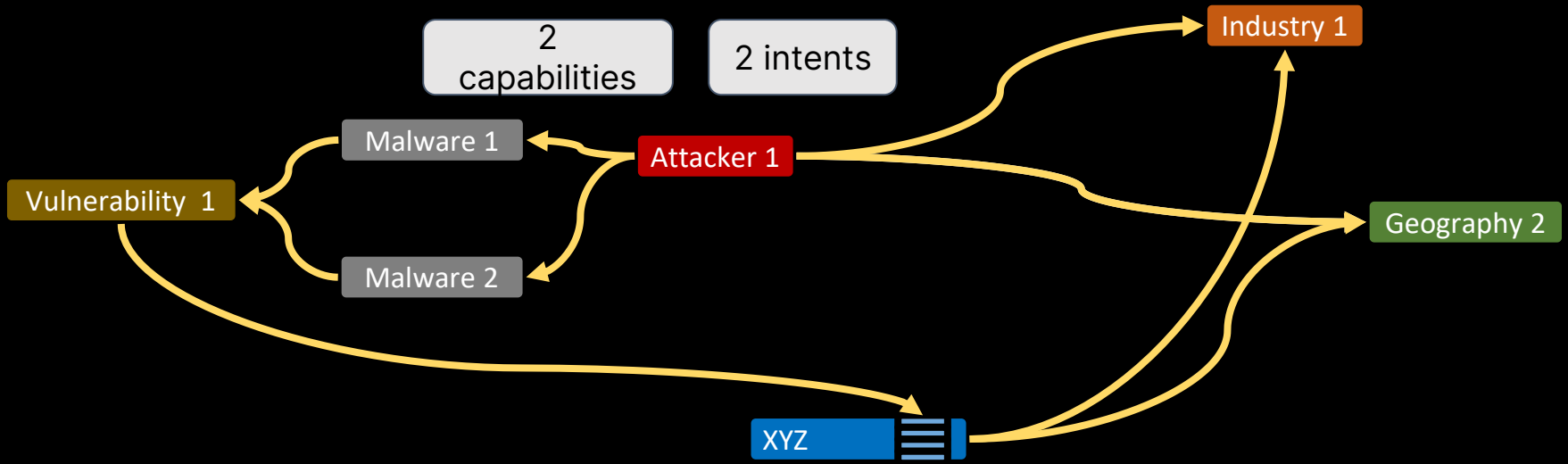




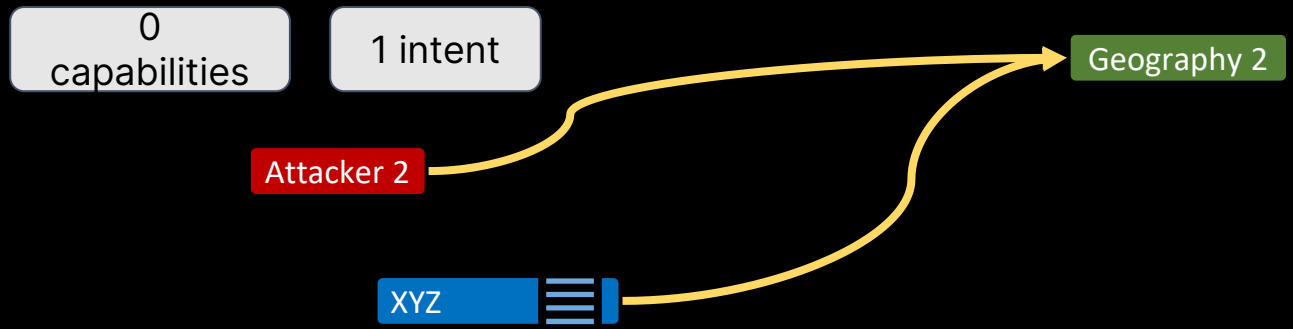




Two Matching Intents, Two Matching Capabilities



One Matching Intent, Zero Matching Capabilities

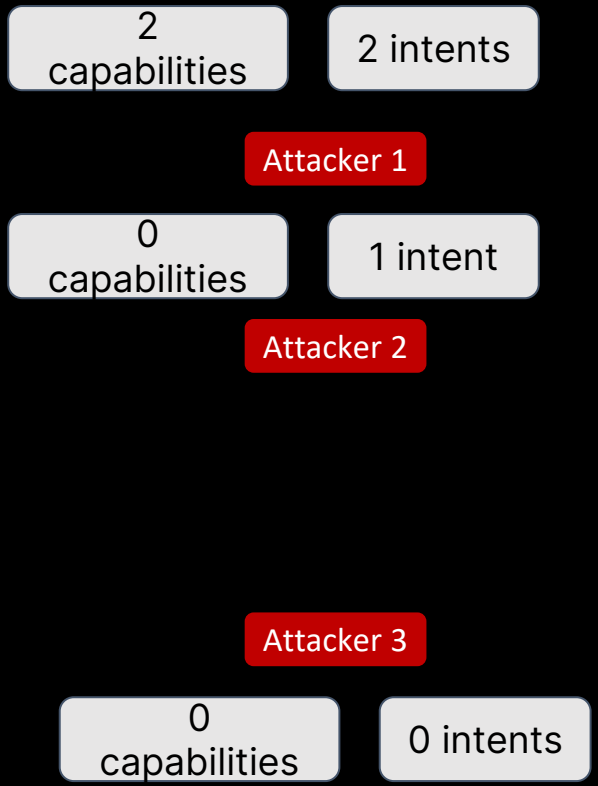


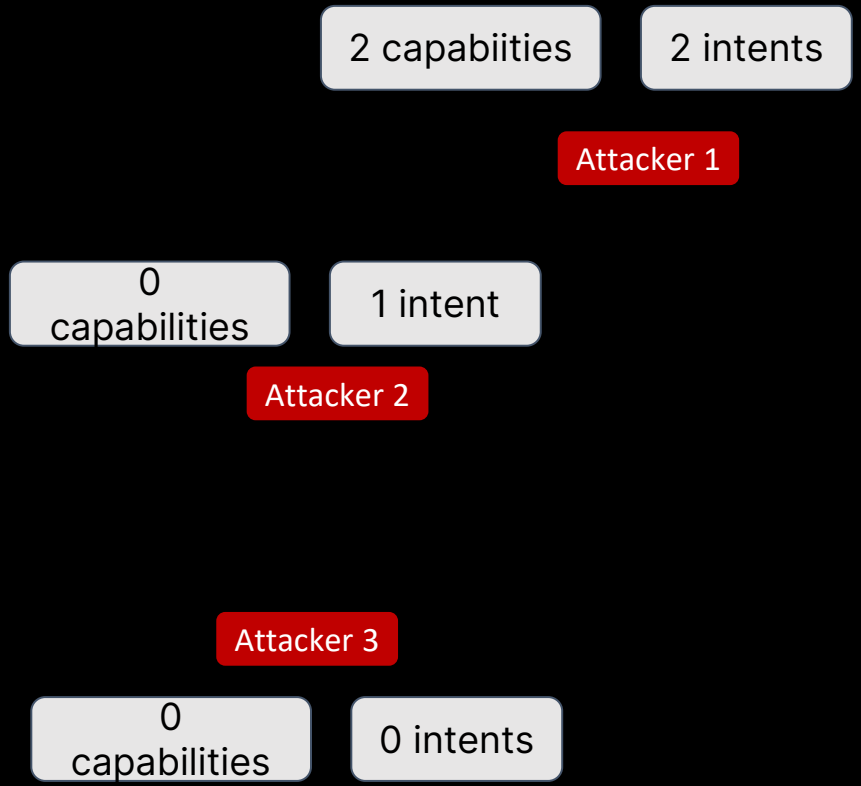
No Connection!

Attacker 3

0 capabilities

0 intents





2 capabilities

2 intents

Attacker 1

0 capabilities

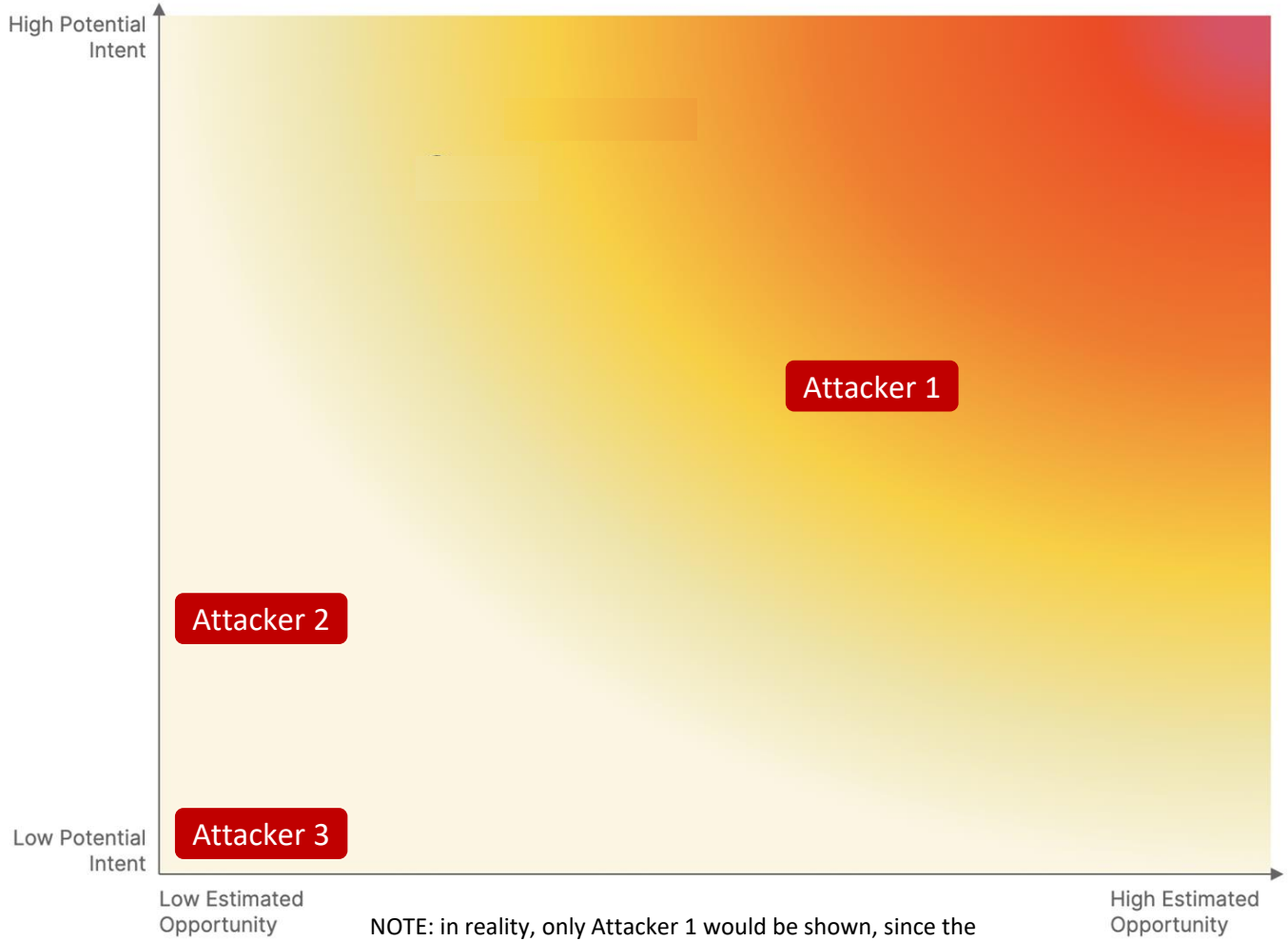
1 intent

Attacker 2

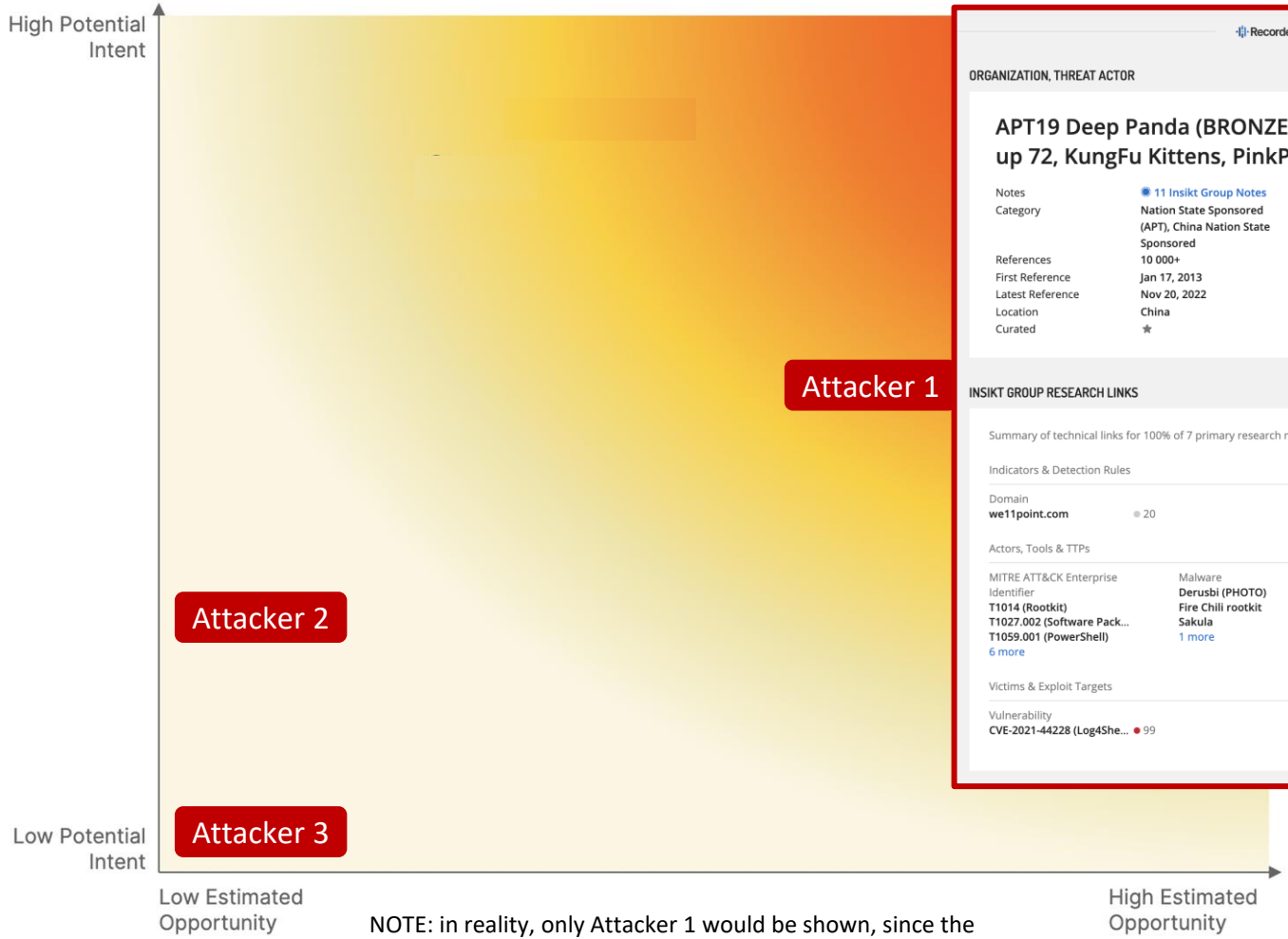
Attacker 3

0 capabilities

0 intents



NOTE: in reality, only Attacker 1 would be shown, since the map requires some intent AND capability



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ORGANIZATION, THREAT ACTOR

APT19 Deep Panda (BRONZE FIRESTONE, Black Vine, Group 72, KungFu Kittens, PinkPanther, Shell Crew)

Notes	11 Insikt Group Notes
Category	Nation State Sponsored (APT), China Nation State Sponsored
References	10 000+
First Reference	Jan 17, 2013
Latest Reference	Nov 20, 2022
Location	China
Curated	★

Show recent events or cyber events

INSIKT GROUP RESEARCH LINKS — Learn More

Summary of technical links for 100% of 7 primary research notes between Nov 1, 2014 – Apr 5, 2022 — Show in Table

Indicators & Detection Rules

Domain
we11point.com 20

Actors, Tools & TTPs

MITRE ATT&CK Enterprise Identifier
T1014 (Rootkit)
T1027.002 (Software Pack...
T1059.001 (PowerShell)
6 more

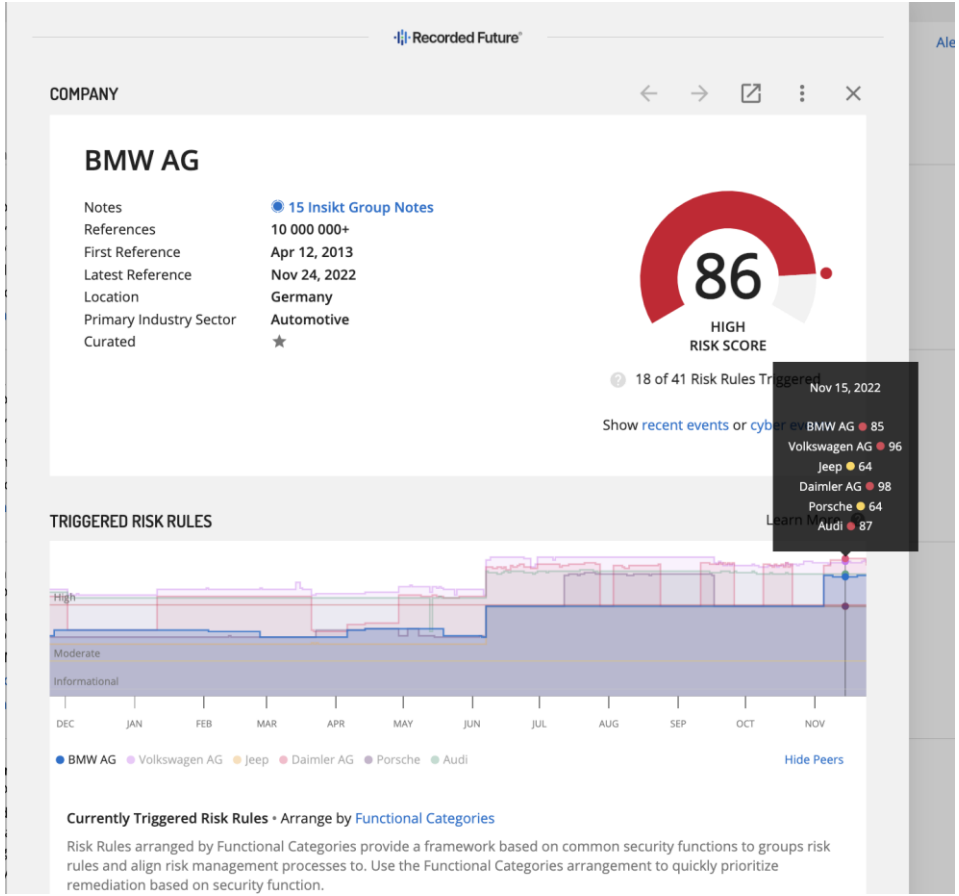
Malware
Derusbi (PHOTO)
Fire Chili rootkit
Sakula
1 more

Victims & Exploit Targets

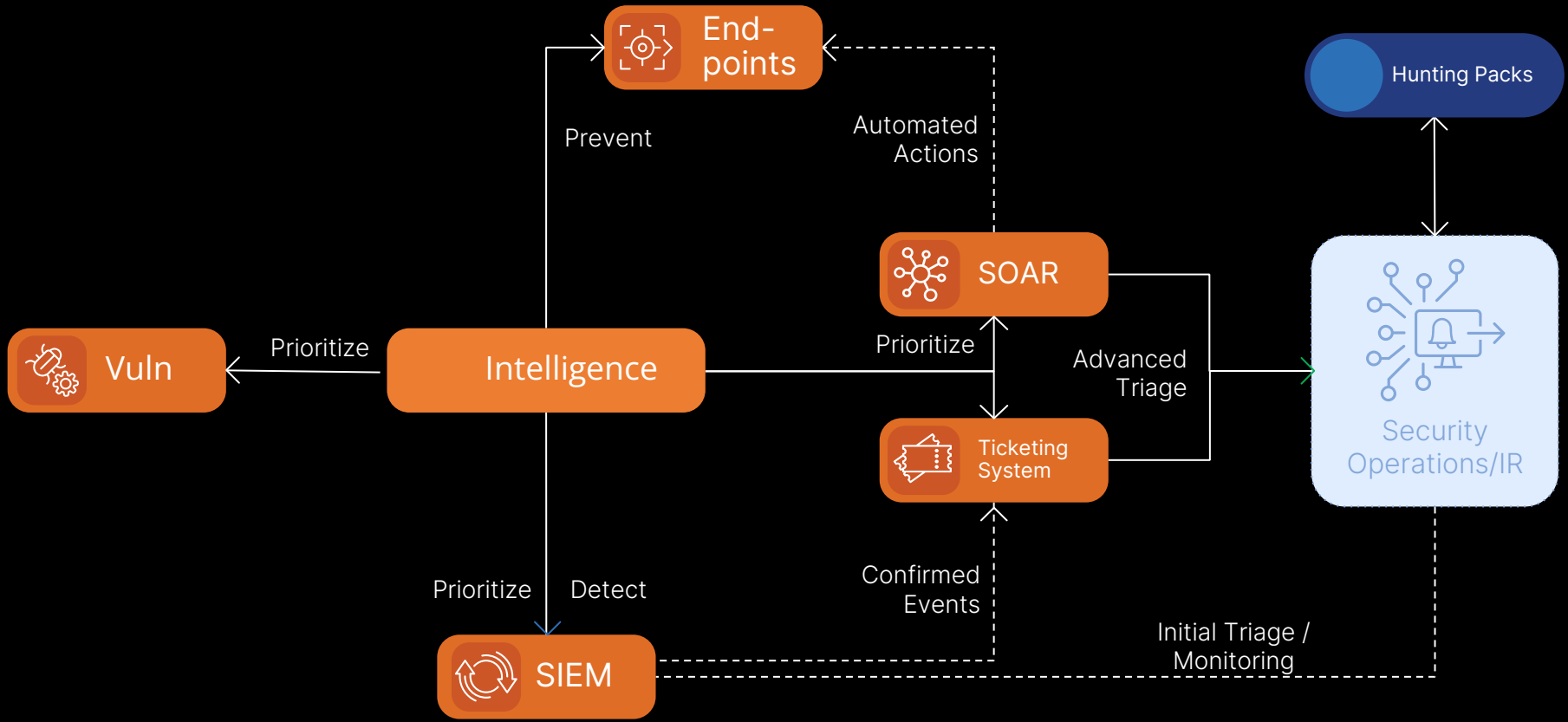
Vulnerability
CVE-2021-44228 (Log4She... 99

NOTE: in reality, only Attacker 1 would be shown, since the map requires some intent AND capability

Automated Risk Scoring - A Measure of Resilience!



The Modern Security Stack is Automated



Thank you!

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