

Kaspersky Threat Intelligence

資安情資運用例分享

卡巴斯基 台灣技術總監
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kaspersky

威脅的趨勢及挑戰

供應鏈攻擊趨勢增加

241 npm and PyPI packages caught dropping Linux cryptominers

By Ax Sharma

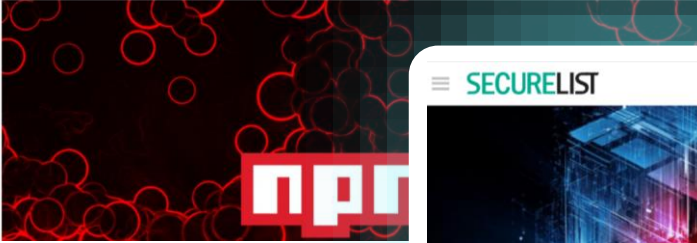
August 19, 2022 04:11 PM 0



NPM supply-chain attack impacts hundreds of websites and apps

By Sergiu Gatian

July 5, 2022 01:55 PM 2



SECURELIST



INCIDENTS

LofyLife: malicious npm packages steal Discord tokens and bank card data

28 JUL 2022 1 minute read

Python library 'ctx' uploads secrets to

Heavily downloaded PyPI package 'ctx' has been compromised. Published versions exfiltrating your environment variable

'ctx' is a minimal Python module that lets developers manage environment variables in a variety of ways. The package, although popular, had not been seen by BleepingComputer. However, newer versions emerged containing malicious code:

ctx 0.2.2

pip install ctx

Released May 15, 2022

Not just an infostealer: Gopuram backdoor deployed through 3CX supply chain attack

APT REPORTS 03 APR 2023 4 minute read



GREAT WEBINARS

13 MAY 2021, 1:00PM

GReAT Ideas. Bala

BORIS LARIN, DENIS LEGEZO

26 FEB 2021, 12:00PM

GReAT Ideas. Gree

JOHN HULTQUIST, BRIAN BARTHC

SUGURU ISHIMARU, VITALY KAML

YUSUKE NIWA, MOTOHIKO SATO

XZ backdoor story – Initial analysis

INCIDENTS 12 APR 2024 12 minute read



// AUTHORS

GOOD

On March 29, 2024, a single message on the Openwall OSS-security mailing list marked an important discovery for the information security, open source and Linux communities: the discovery of a malicious backdoor in XZ. XZ is a compression utility integrated into many popular distributions of Linux.

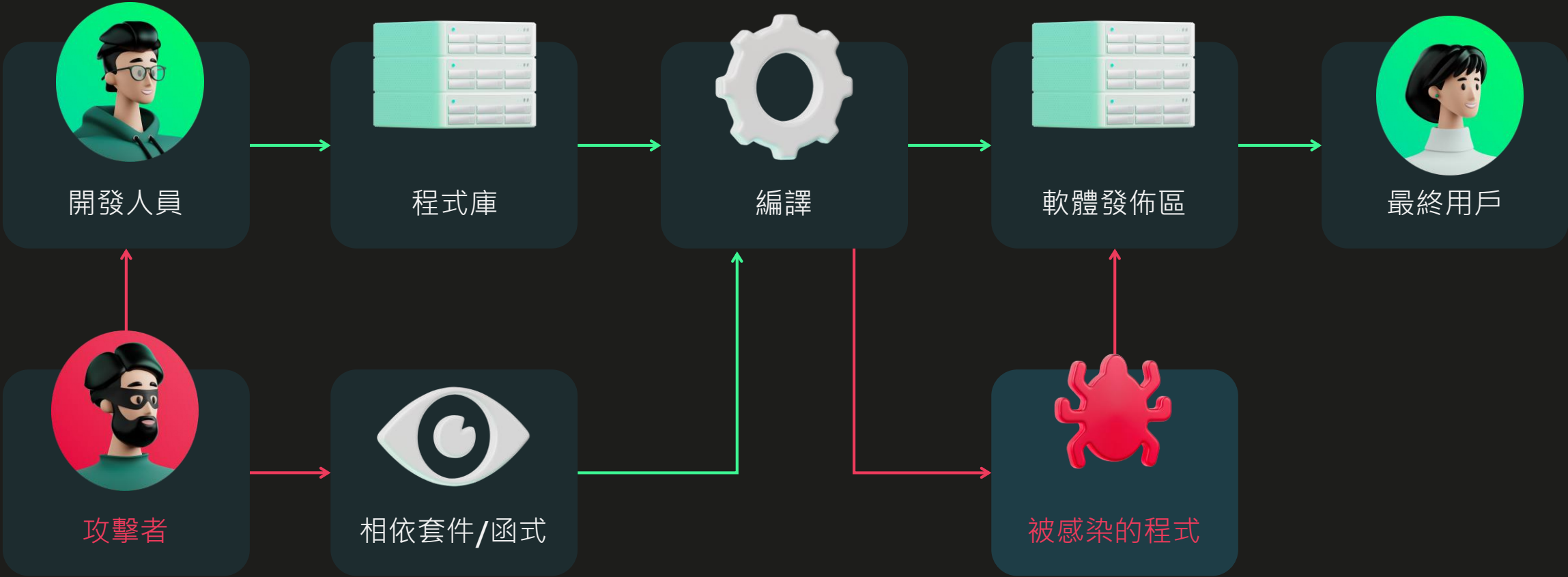
Two more malicious Python packages in the PyPI

INCIDENTS 16 AUG 2022 4 minute read



THREAT

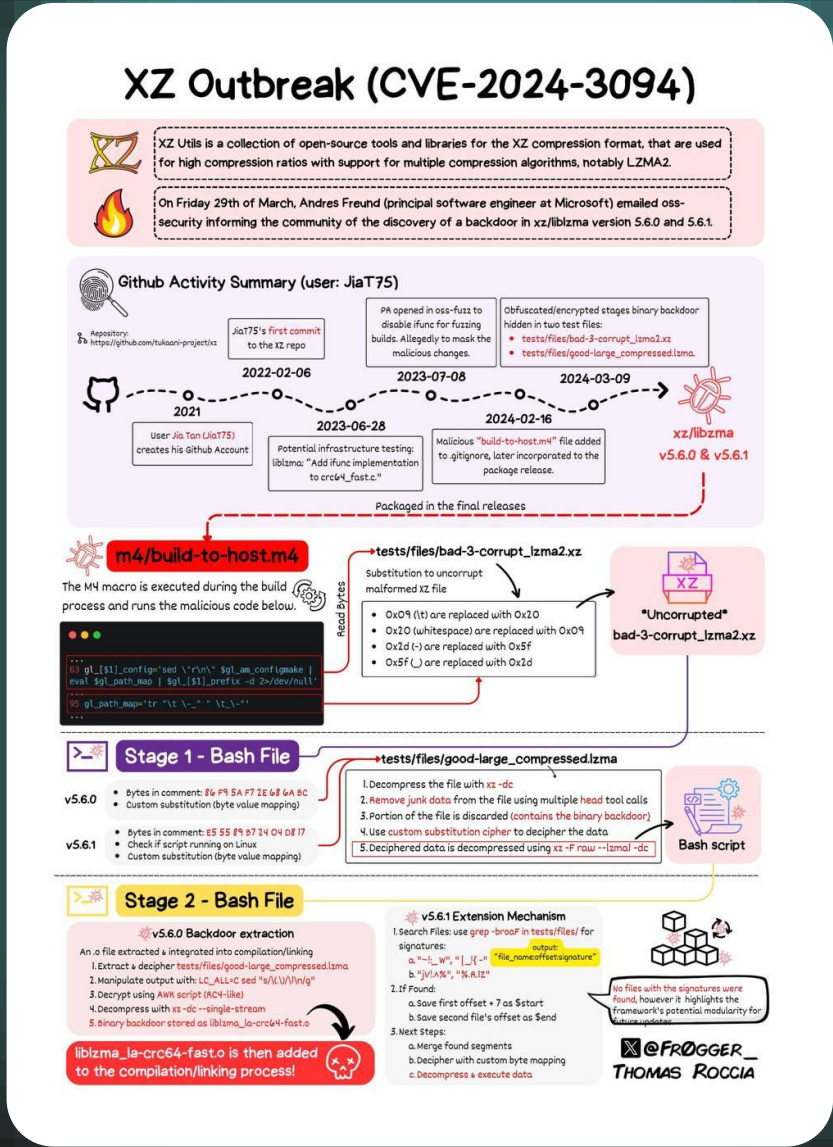
標準軟體供應鏈攻擊流程

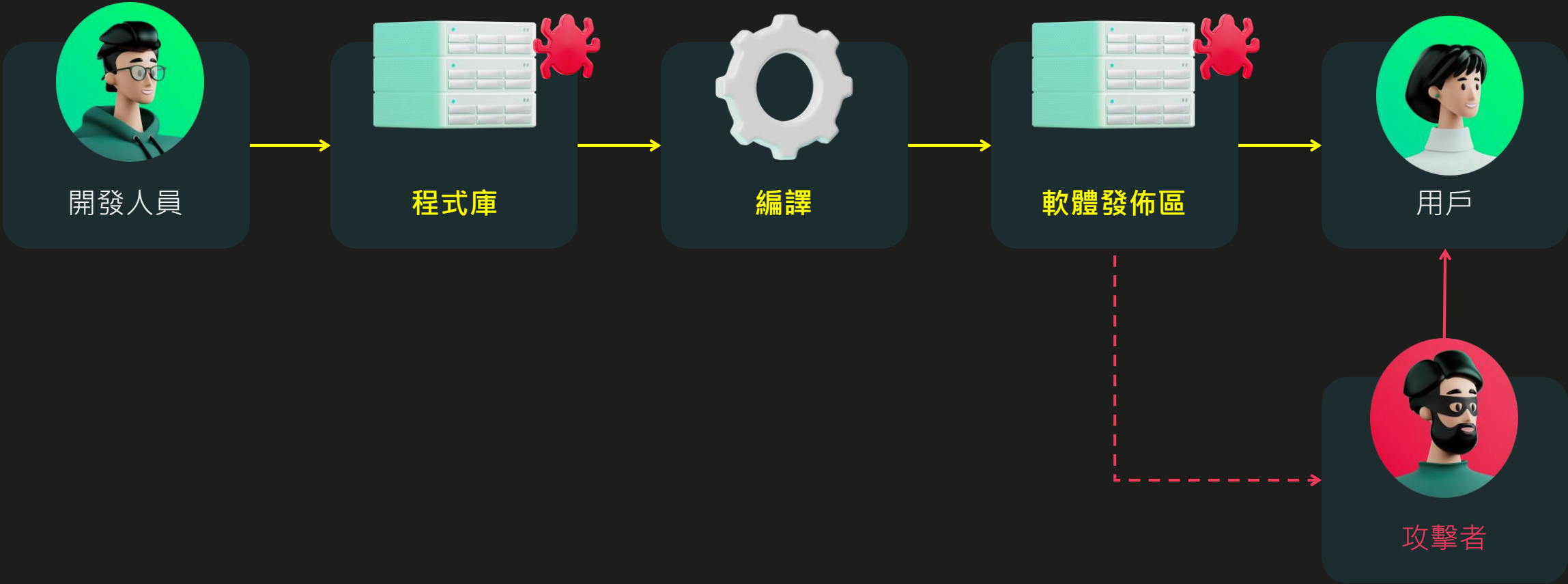


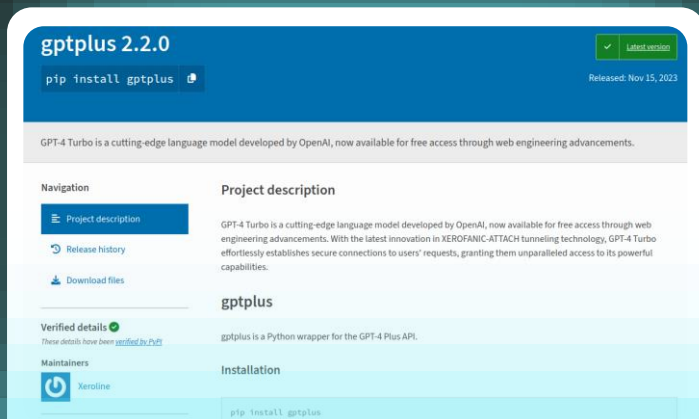
一個常被使用的Linux函式庫發起的
供應鏈攻擊

通過幾年的社交工程...等手段

攻擊者具有非常專業的惡意軟體開發和社交工程技能







Kaspersky uncovers year-long PyPI supply chain attack using AI chatbot tools as lure

November 20, 2024

一年來，JarkaStealer 以 AI 工具的名義在 PyPI 庫上分發

至少 **30** 個國家/地區的用戶下載了超過 **1700** 次的軟體

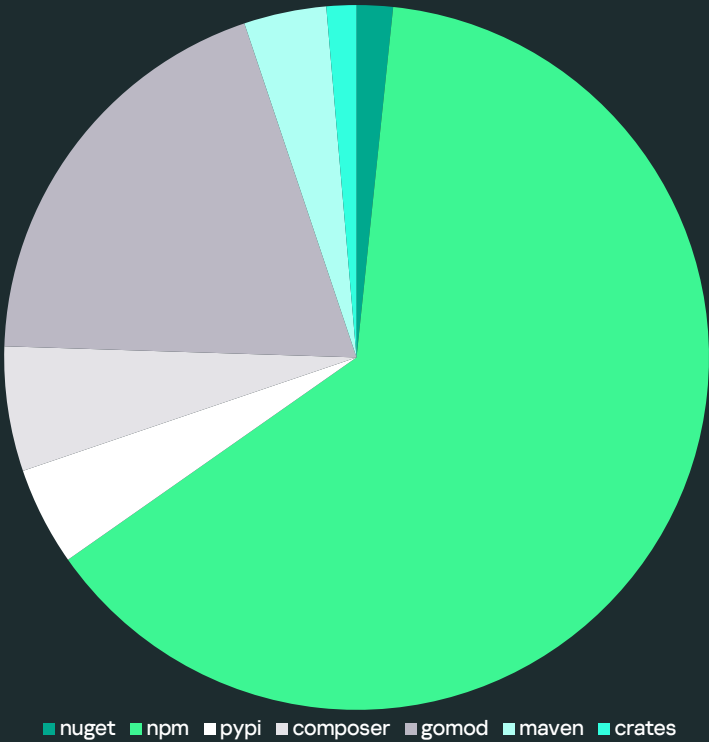
該惡意軟體會竊取瀏覽器記錄、截取屏幕截圖及收集 Telegram 對話記錄

開源軟體威脅資料

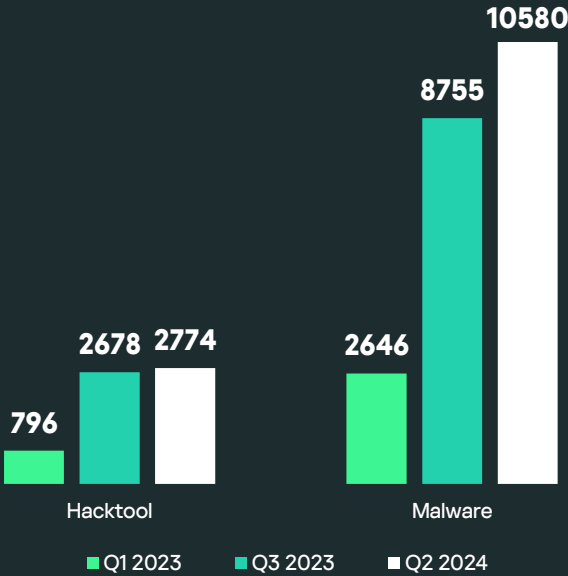
- 漏洞及 CVE 信息
- 被篡改的程式庫
- 含有惡意軟體的程式庫
- 風險軟體及駭客工具



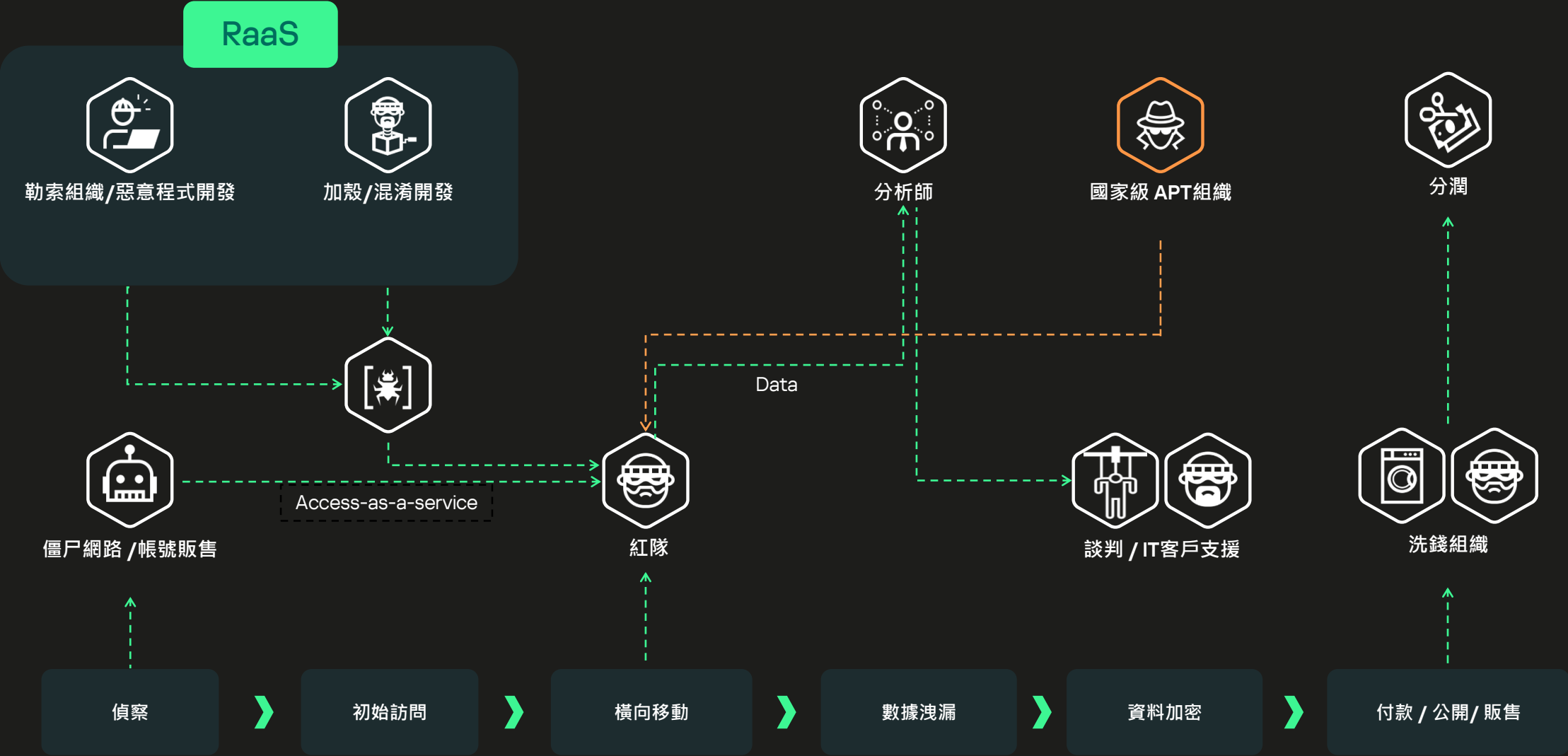
開源程式庫



開源程式威脅趨勢



勒索軟體”生態圈”



適應性

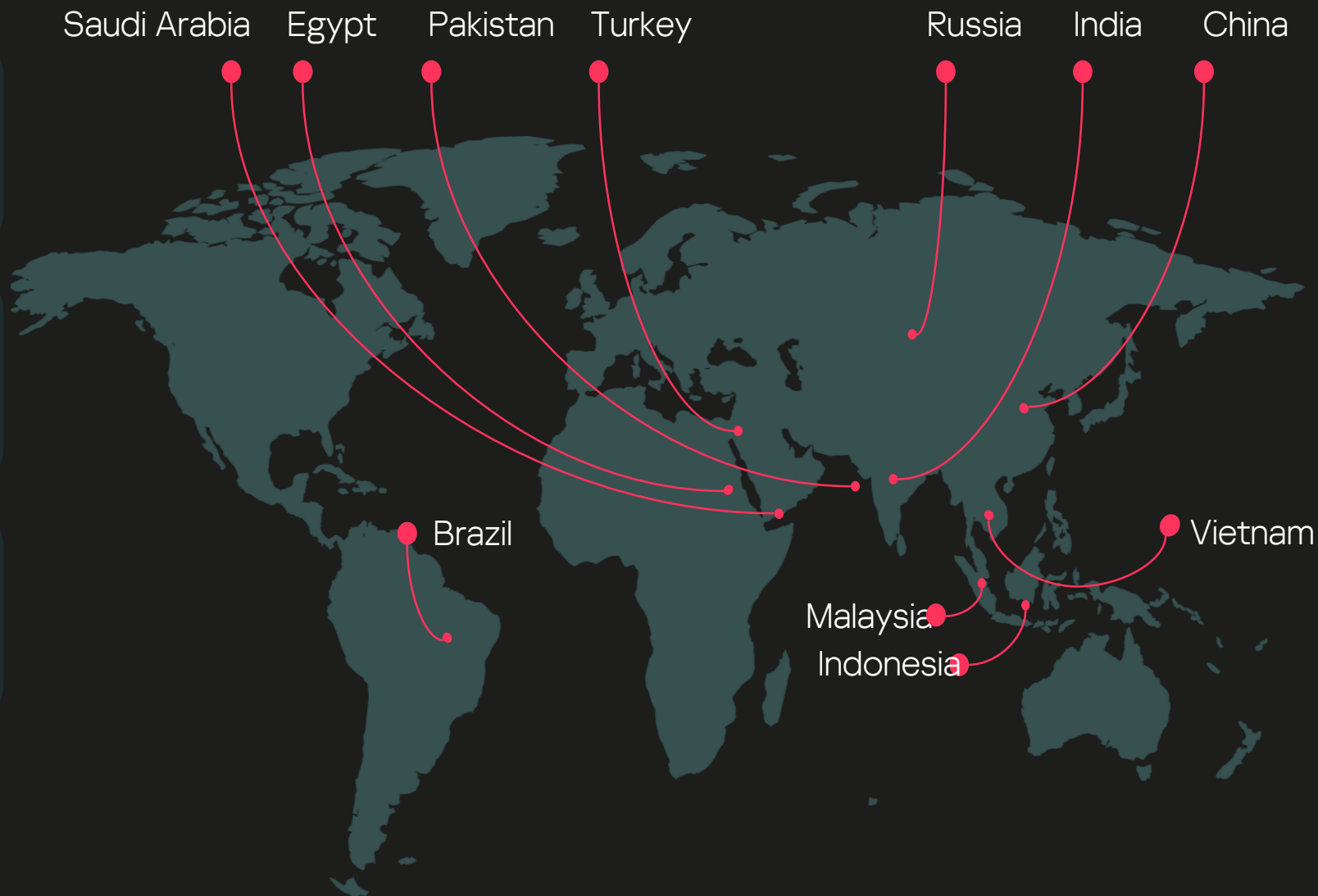
攻擊方繞過防護機制而調整方法和工具的能力

隱匿性

攻擊者設計攻擊手法以儘可能不被受害者發現的能力

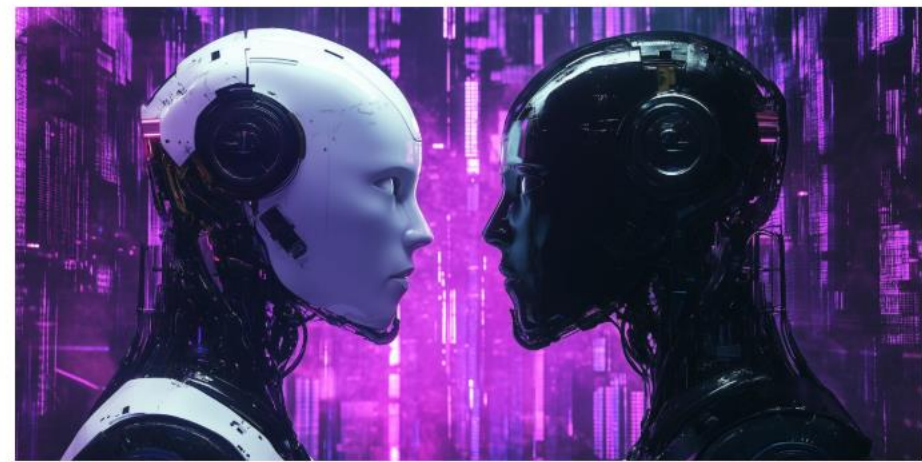
複雜性

攻擊者使用進階技術和工具來規避并進行攻擊



How ToddyCat tried to hide behind AV software

INCIDENTS 07 APR 2025 ⌚ 6 minute read



AUTHORS

Expert ANDREY GUNKIN

To hide their activity in infected systems, APT groups resort to various techniques to bypass defenses. Most of these techniques are well known and detectable by both EPP solutions and EDR threat-monitoring and response tools. For example, to hide their activity in Windows systems, cybercriminals can use kernel-level rootkits, in particular malicious drivers. However, in the latest

Date ▾

Group ▾

Report ID

Report ▾

Tags ▾

> 28 Mar 2025

APT

231cbe27-e370-4...

Organizations in CIS are attacked with ShadowPad

We detected a set of attacks that took place in April 2024 - January 2025, targeting governmental entities and private companies in Russia and Kyrgyzstan. During our investigation, we found a new ShadowPad loader distributed with a set of malicious plugins. It uses DLL sideloading, imitating popular software to deploy a sophisticated RAT with a huge range of capabilities. ShadowPad is a famous RAT software popular among APT threat actors. Having originally emerged in 2017 during Netsarang attack, it has overgrown a lot of modifications and has been widely used by many APTs and crimeware groups such as PryingKomodo, APT41 and others.

Executive summary (En): base. Organizations in CIS are attacked with ShadowPad Report Id: APT-20250309 Version: 1.0 (28.March)

IOC: <description>Organizations in CIS are attacked with ShadowPad</description> <authored_by>APT Reports</authored_by>

YARA Rule: meta: description = "Loader to detect shadowpad modules orchestrator" author = "Kaspersky"

Report (En): meta: description = "Loader to detect shadowpad modules orchestrator" author = "Kaspersky"

Download: [YARA Rule](#) [IOC](#) [Executive summary \(En\)](#) [Report \(En\)](#)

Overview

Hits ≈ 1,000

Format dll x64

MD5 E0D17318B6BEED1DDCEB23DC980EF58B

SHA1 E4082EFB01BD906AB1DC012B15458D33F6C8E22B

SHA256 D807F8E2A885E823A7585E9EFBCFBCBF56FE9222EA1AC025AFF8DF99BDBE3F6

Categories APT

Reports Flash Report - ScatterBrain variant of ShadowPad used in attacks on organizations in APAC and Latin America

Data Feeds APT Hash Data Feed Go to Data Feeds

Industries -

Size 103.50 KB (105984 B)

Packed by -

Signed by -

Signature trust -

First seen Jun 4 2023 05:25

Last seen Apr 15 2025 05:54

Statistics

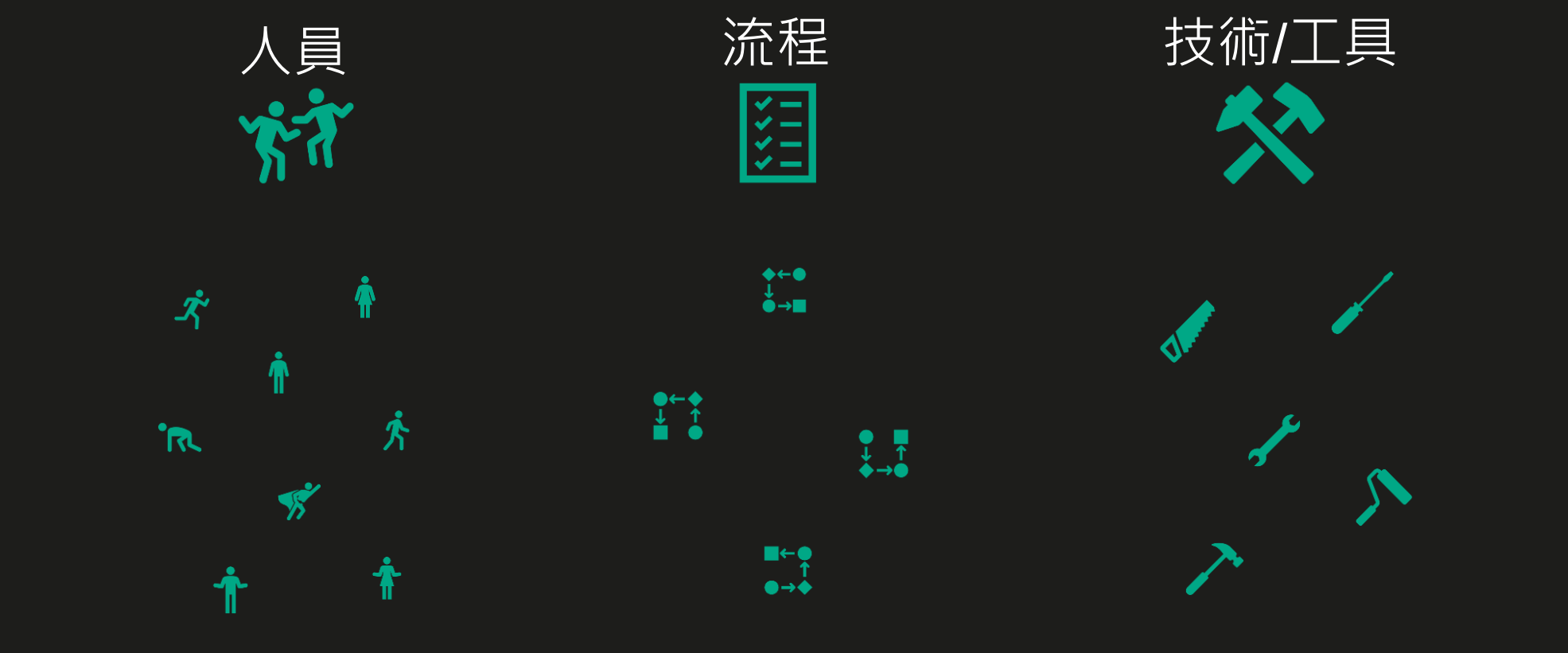
Attack Low High

Detection Statistics

為何需要安全威脅情報

不斷變化的網路安全挑戰







Plan

戰略情報，有助於識別易受攻擊的薄弱環節，並為整體資訊安全策略的制定提供依據

Respond

下架惡意與網路釣魚網域、假冒的社群帳號以及行動應用程式商店中的假應用，有助於降低針對企業及其品牌的威脅。



Detect

機器可讀的威脅情報可透過與現有安全控制系統的整合，加快威脅偵測的速度

Investigate

線上可搜尋的威脅情報、合法物件及其各種關聯性的資料庫，有助於加快事件調查與應對的速度。



Tactical

低層級且時效性高的資訊，用於支援安全營運與事件應變。戰術性情報的例子包括與新發現攻擊行為相關的指標（**IOCs**）

Roles:

SOC Analyst

Systems:

- SIEM
- NGFW
- IPS
- IDS
- SOAR

Processes:

- Threat Hunting
- Monitoring



Operational

這一層級通常包含有關攻擊行動（**campaigns**）及較高層次的戰術、技術與程序（**TTPs**）的資料，也可能包含特定攻擊者的歸屬資訊，以及其能力與意圖

Roles:

- SOC L3 Analyst
- DFIR Analyst
- IR Analyst

Systems:

- SIEM
- NTA
- EDR/XDR
- TIP

Processes:

- Incident Response
- Threat Hunting



Strategic

這一層級的情報用於支援高階主管（**C-level**）和董事會在風險評估、資源分配及組織策略等重大決策上的判斷。此類資訊包含趨勢、攻擊者動機及其分類

Roles:

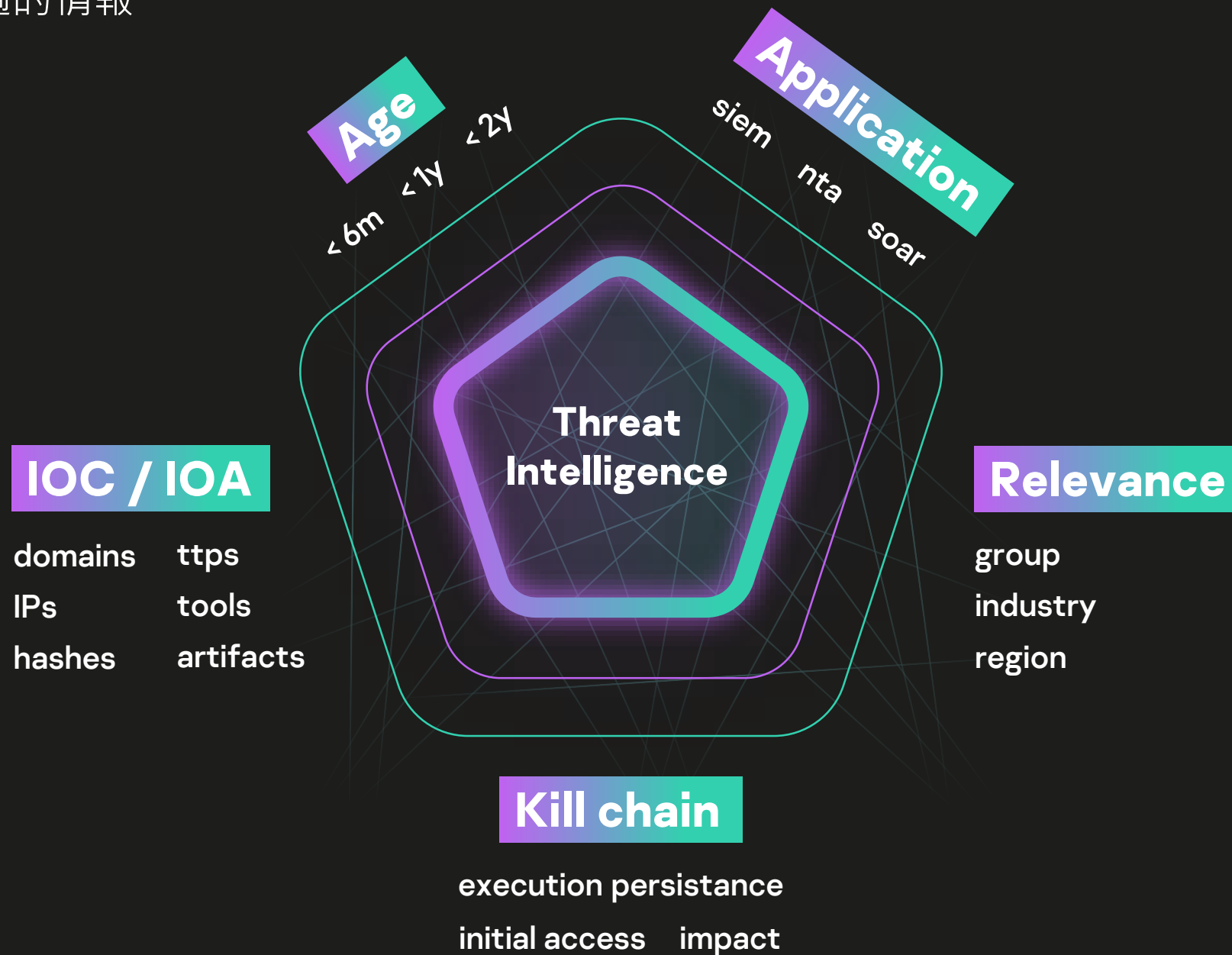
- CISO
- CTO
- CIO
- CEO

Processes:

- Building an IS strategy
- Awareness raising

如何挑選適合的安全情報

如何挑選合適的情報





預防阻擋

- Threat Data Feeds
- Threat Intelligence Reports
- Digital Footprint Intelligence

偵測威脅

- Threat Data Feeds
- CyberTrace
- Threat Lookup
- Threat Intelligence Reports

威脅調查

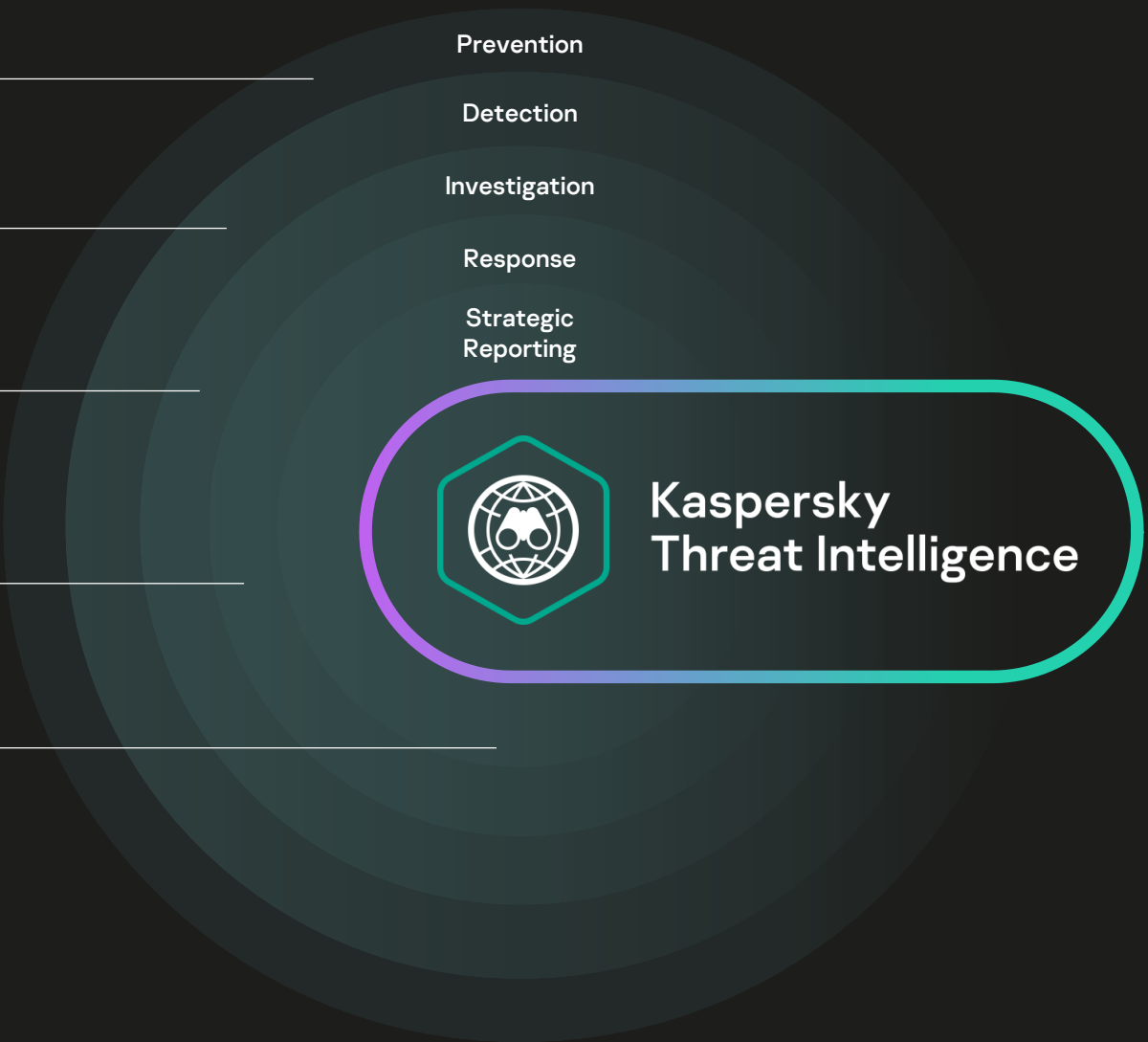
- CyberTrace
- Ask the Analyst
- Threat Lookup
- Threat Analysis
- Digital Footprint Intelligence
- Threat Intelligence Reports

威脅響應

- Ask the Analyst
- Takedown Service
- Digital Footprint Intelligence

戰略情報

- Digital Footprint Intelligence
- Threat Intelligence Reports



與 SOC 成熟度的對應



Emerged IT security capability or SOC

TIER 1 監控 及 分類

- 監控
- 事件辨識
- 基本調查及基本修正

TIER 2 控制 及 修復

- 深入調查
- 完整修正
- 調整相關政策機制

TIER 3 鑑識、獵捕 及 智能情報

- Malware analysis
- Digital forensics
- Threat intelligence
- Threat hunting



Threat Intelligence Services



Threat Data Feeds



CyberTrace



Threat Lookup



Cloud Sandbox



APT Intelligence Reporting –
IOCs and Yara rules



APT Intelligence Reporting – TTPs



Financial TI Reporting –
IOCs and Yara rules



Financial TI Reporting – TTPs



ICS Reporting –
IOCs and Yara rules



ICS Reporting– TTPs



Digital Footprint Intelligence

Kaspersky Threat Intelligence





Kaspersky Threat Intelligence Portal

提供單一存取介面支援存取各種威脅情報及整合豐富相關情報的應用。

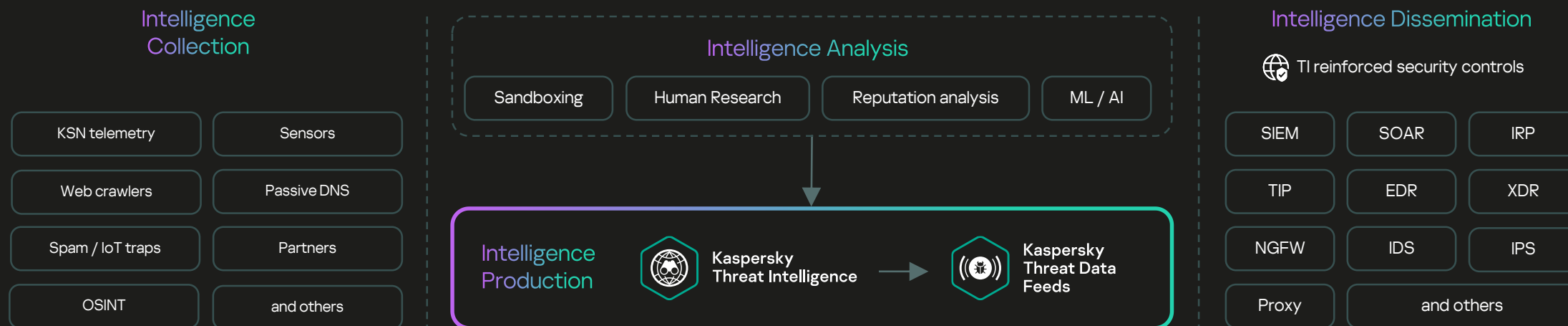
將卡巴斯基所有的安全威脅專業知識與技術整合於一處，該平台能夠利用專有的數據處理與標準化技術，監控與特定組織相關的威脅，並分析惡意軟體樣本及進行後續歸屬判定。

Kaspersky Threat Data Feeds



Kaspersky Threat Data Feeds

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Kaspersky Threat Data Feeds

Malicious URL Data Feed
Ransomware URL Data Feed
Phishing URL Data Feed
Botnet C&C URL Data Feed
Mobile Botnet C&C URL Data Feed
Malicious Hash Data Feed

Mobile Malicious Hash Data Feed
IP Reputation Data Feed
IoT URL Data Feed
Vulnerability Data Feed
ICS Vulnerability Data Feed
ICS Vulnerability Data Feed in OVAL format

ICS Hash Data Feed
pDNS Data Feed
Suricata Rules Data Feed
Cloud Access Security Broker Data Feed
APT Hash Data Feed
APT IP Data Feed

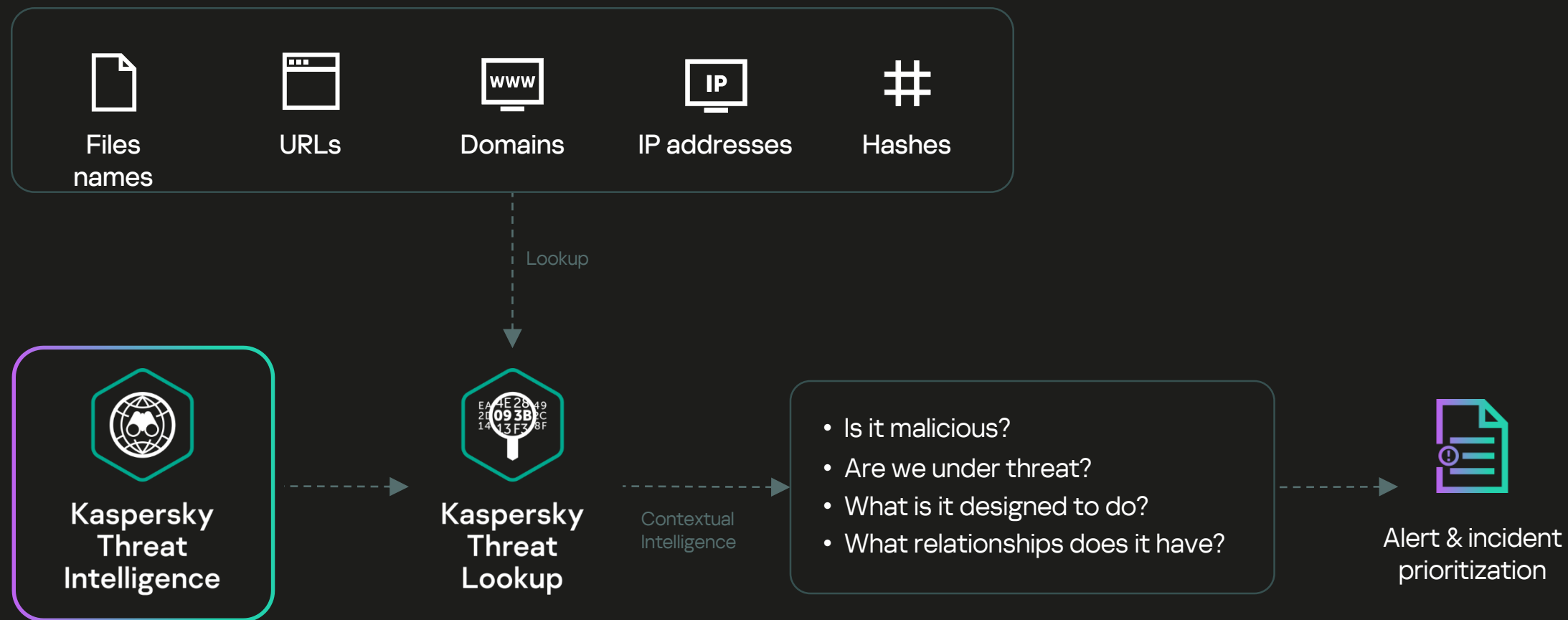
APT URL Data Feed
APT Yara Data Feed
Open Source Software Threats Data Feed
Crimeware Hash Data Feed
Crimeware URL Data Feed
Crimeware Yara Data Feed

The list of data feeds is constantly expanding

Kaspersky Threat Lookup



Objects to analyze



Home

Threat Lookup

Research Graph

Reporting

Threat Analysis

Digital Footprint

WHOIS Tracking

APT C&C Tracking

Data feeds

What's New and Upcoming

News

coinhive.com

Threat Lookup

Lookup 1Dark web 115Surface web 2OSINT IoCs -Reporting 1Actors -Digital Footprint -

Request limit per day for your group: 99997 of 100001 left

Report for domain

coinhive.com

Dangerous

Open in research graph

Copy request

Export results

Overview

IPv4 count373

Files count≈1,000

URLs count≈1,000,000

Hits count≈100,000,000

Created1 Dec 2012

Expires1 Dec 2024

Domaincoinhive.com

Registration organizationREDACTED FOR PRIVACY

Registrar name1API GmbH

Categories

APT RelatedMalware

Reports

Cyberthreats to the ICS engineering and integration sector. 2020

Statistics

Anti-Virus Statistics

@ e_berenshtein

30

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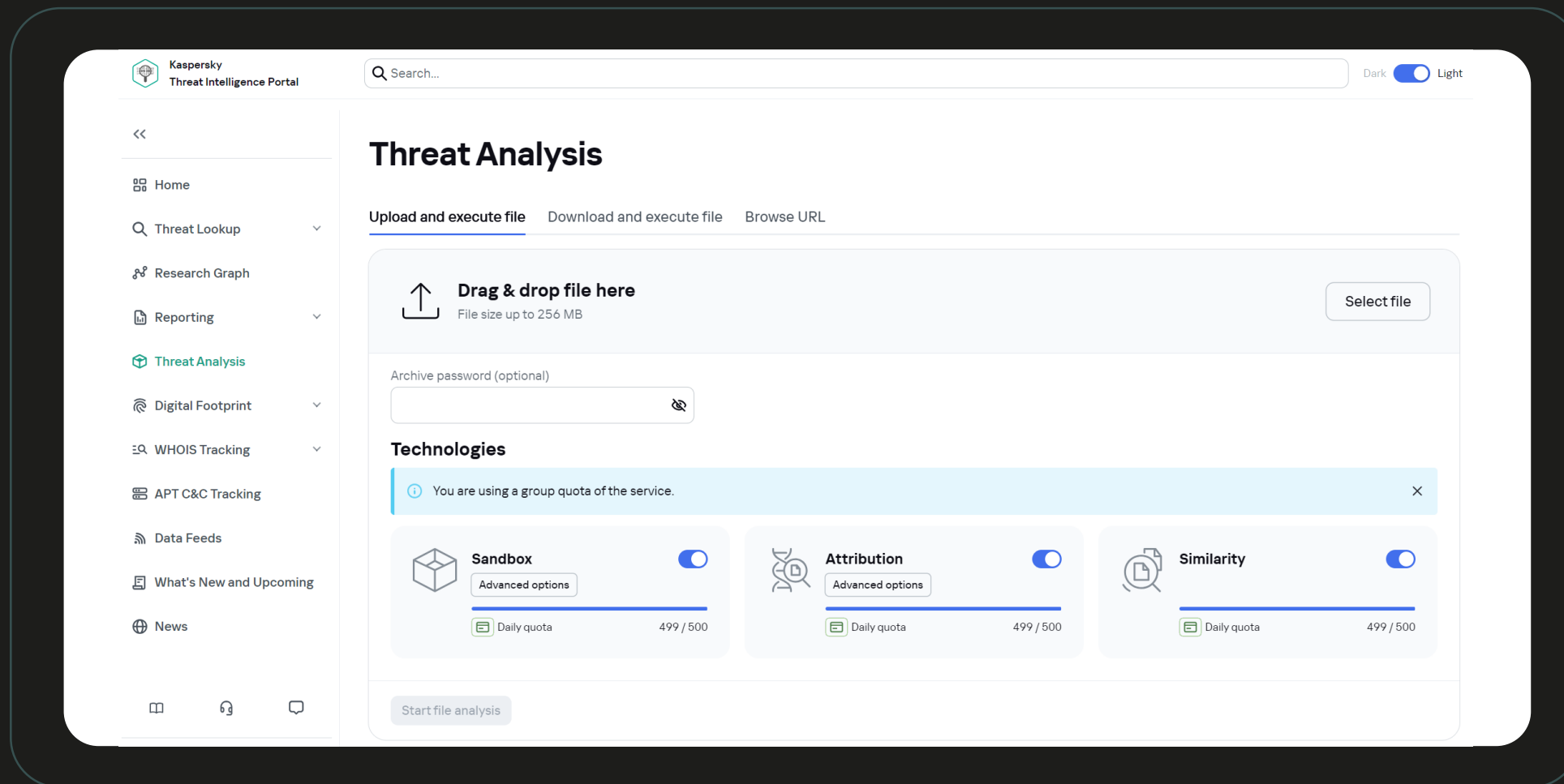
Kaspersky Threat Analysis

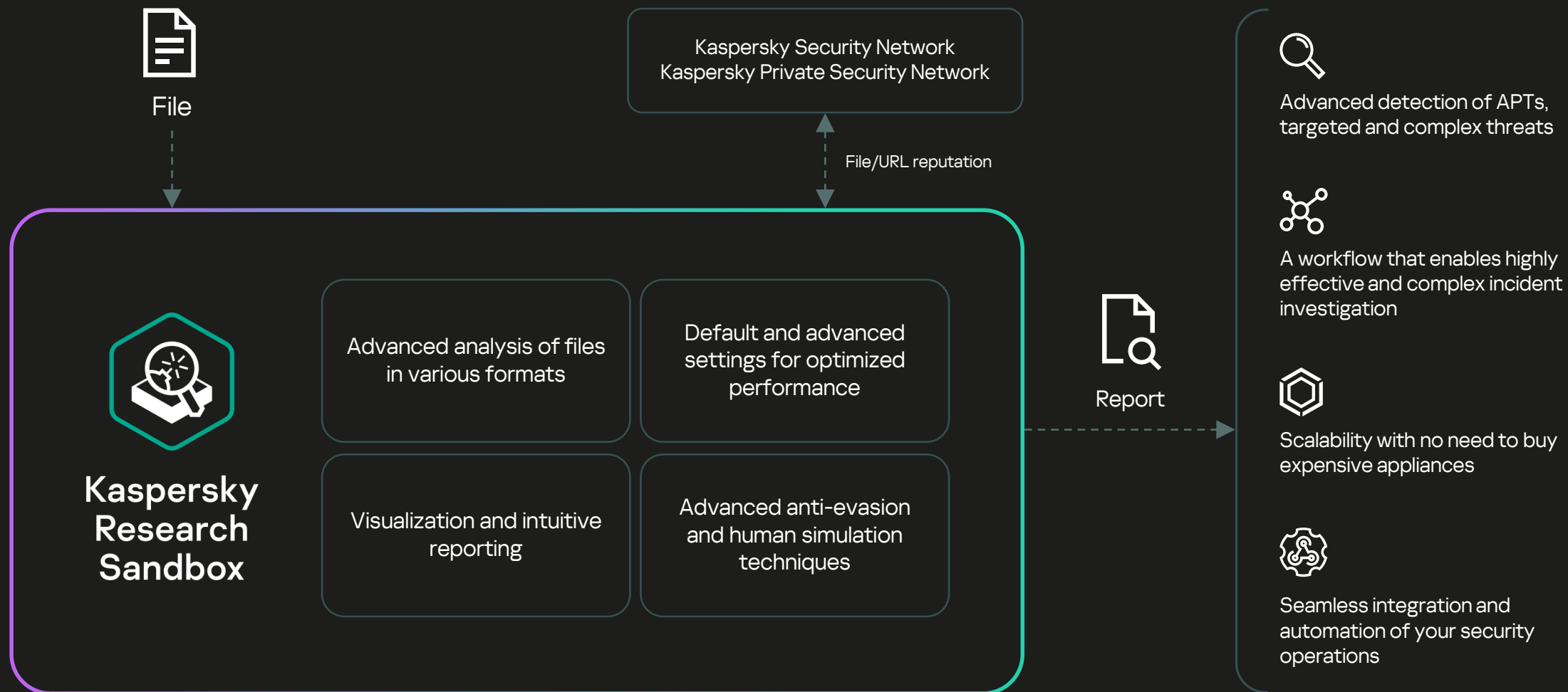




Single interface for complex file analysis

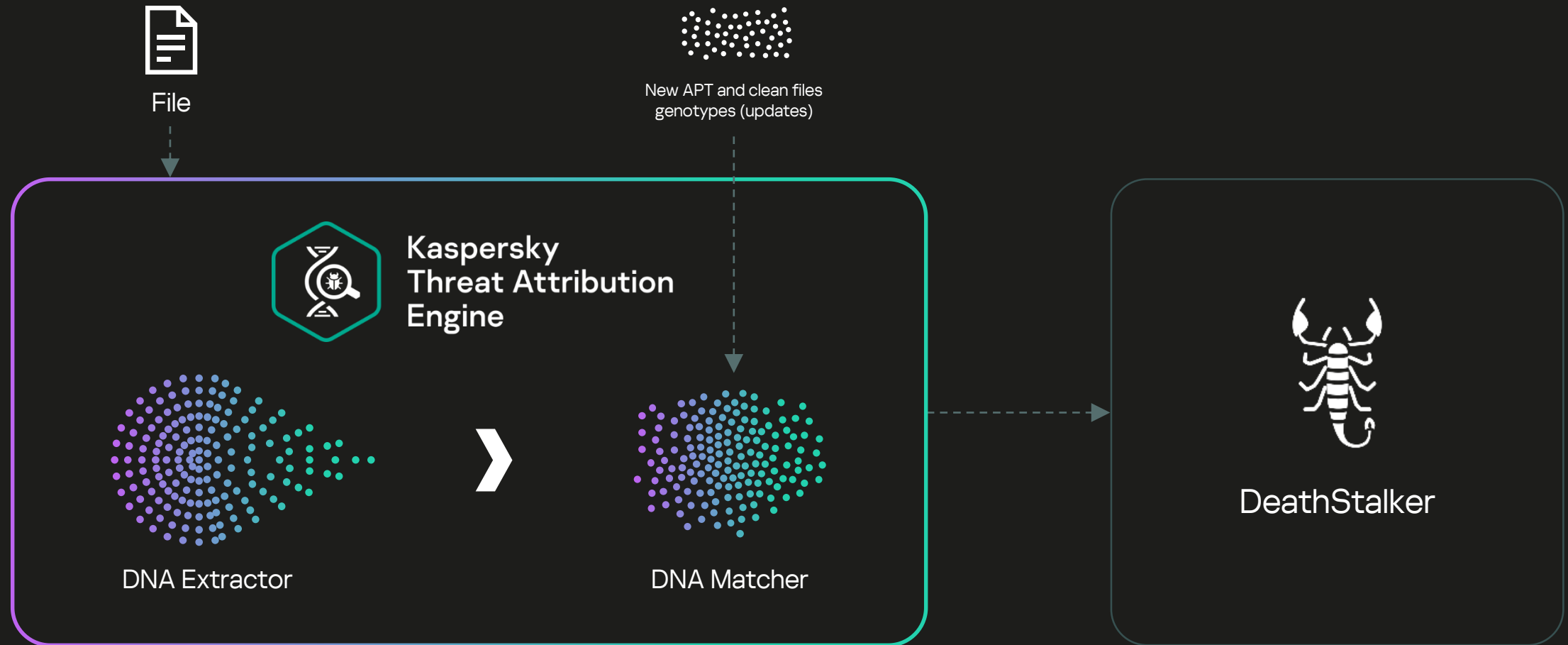
33

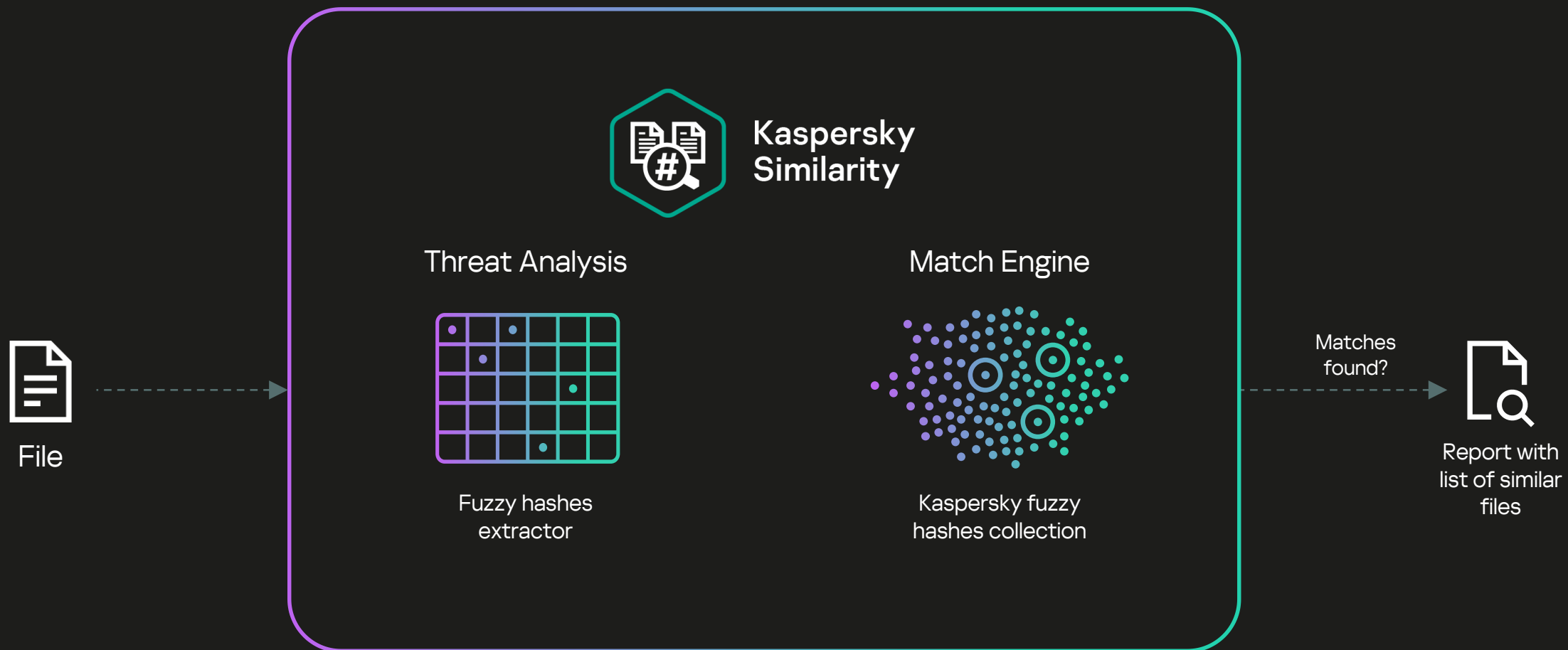




Kaspersky Threat Attribution Engine

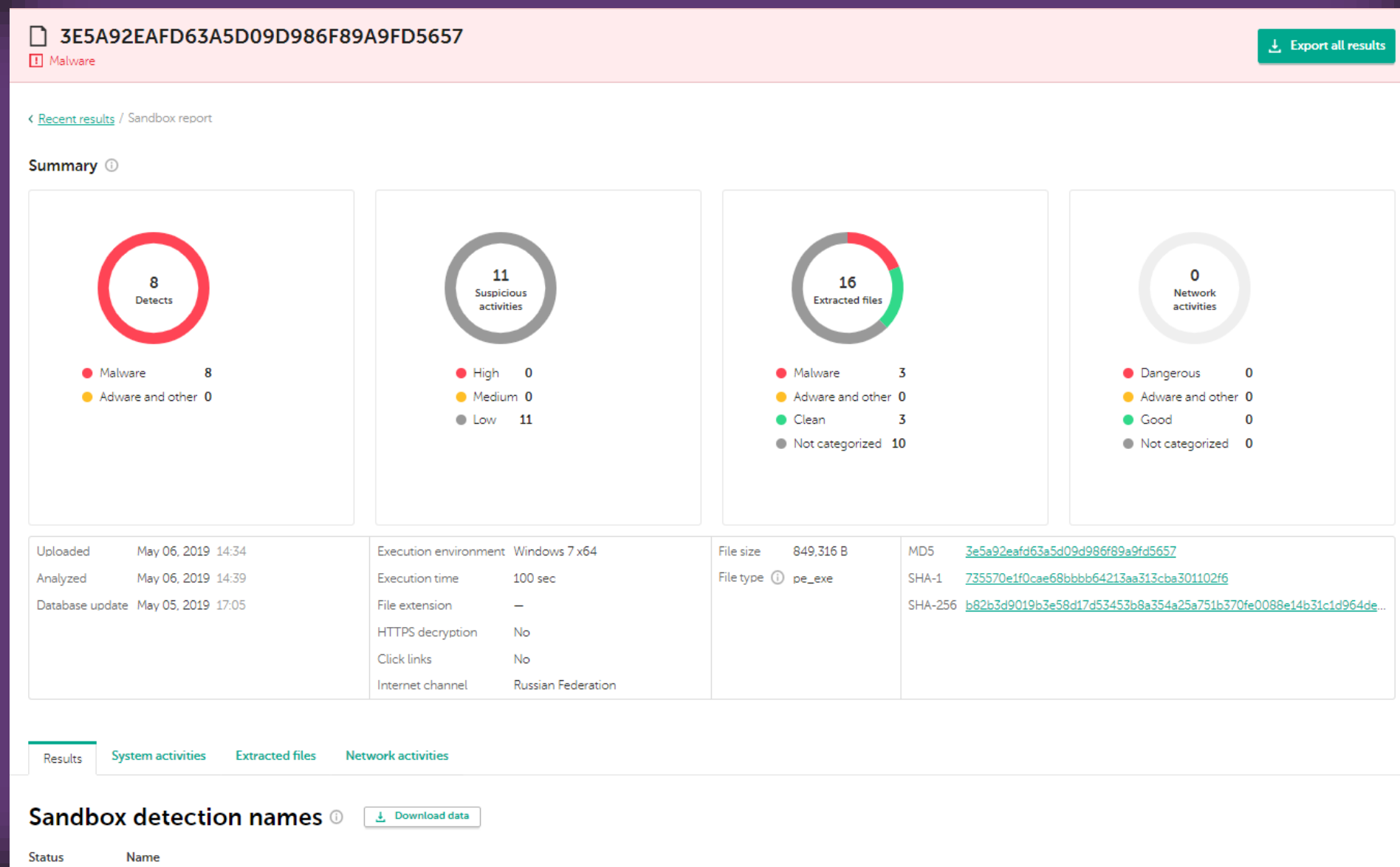
35





Kaspersky Cloud Sandbox – 儀表版

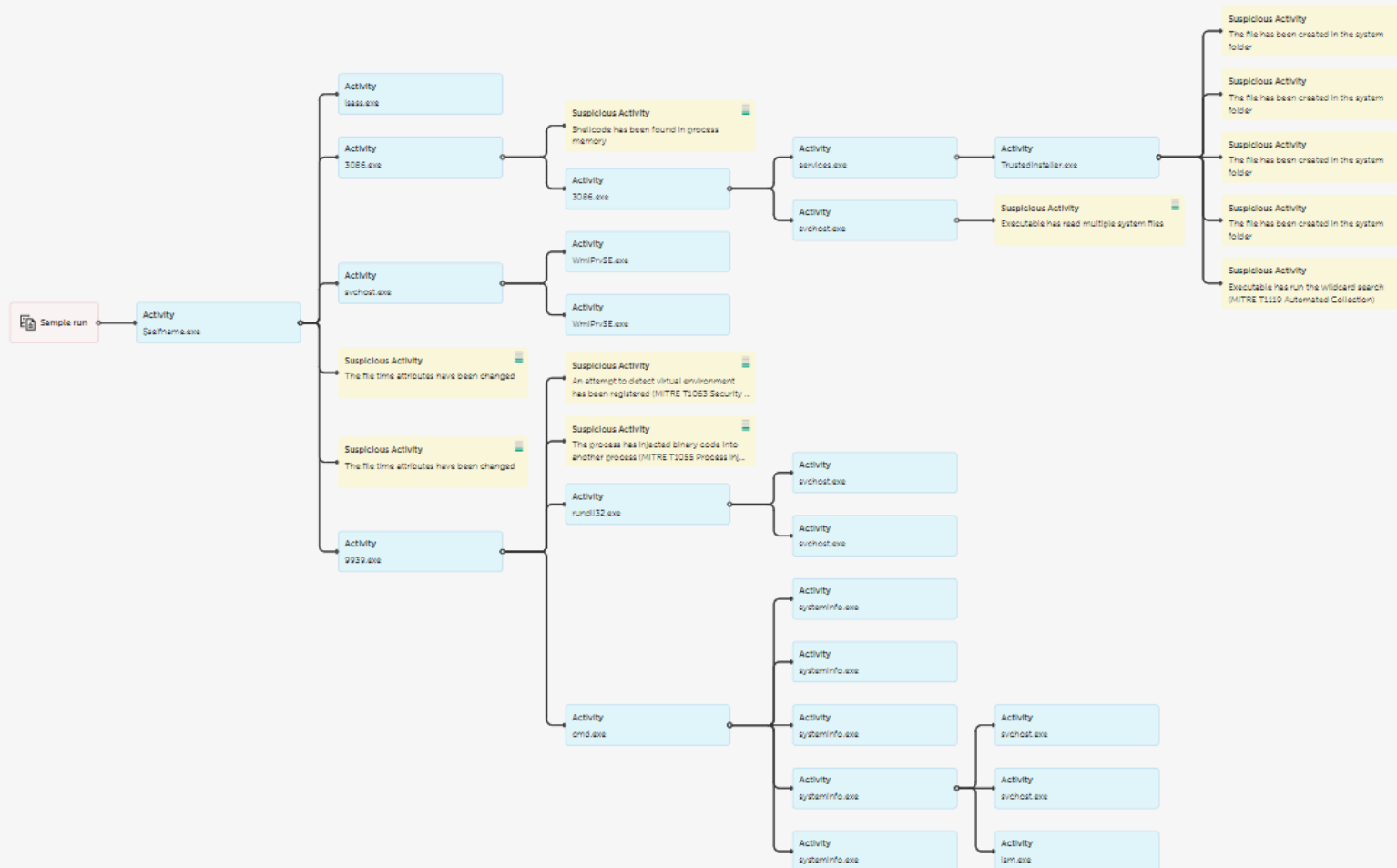
37



Kaspersky Cloud Sandbox – 執行關聯圖

38

Execution map ⓘ



Kaspersky Cloud Sandbox – 可疑行為分析及執行截圖

39

Suspicious activities ⓘ

[Download data](#)

Status	Severity	Description
🔍 Low	290	The process \$windir\servicing\TrustedInstaller.exe has created the file in the system folder: \$windir\system32\config\COMPONENTS(016888b8-6c6f-11de-8d1d-001e0bcde3ec).TxR.blf.
🔍 Low	290	The process \$windir\servicing\TrustedInstaller.exe has created the file in the system folder: \$windir\system32\config\COMPONENTS(016888b8-6c6f-11de-8d1d-001e0bcde3ec).TxR.0.regtrans-ms.
🔍 Low	290	Shellcode has been found in the memory of the process \$user\Stemp\RarSFX0\3086.exe.
🔍 Low	290	The process \$user\Stemp\RarSFX0\9939.exe has attempted to detect a virtual environment (MITRE: T1063 Security Software Discovery).
🔍 Low	290	The process \$user\Stemp\RarSFX0\9939.exe has injected the binary code into the process \$windir\system32\rundll32.exe (MITRE: T1055 Process Injection).
🔍 Low	290	The process \$windir\system32\svchost.exe has read multiple system files.
🔍 Low	290	The process \$windir\servicing\TrustedInstaller.exe has created the file in the system folder: \$windir\system32\config\COMPONENTS(016888b8-6c6f-11de-8d1d-001e0bcde3ec).TxR.1.regtrans-ms.
🔍 Low	290	The process \$windir\servicing\TrustedInstaller.exe has created the file in the system folder: \$windir\system32\config\COMPONENTS(016888b8-6c6f-11de-8d1d-001e0bcde3ec).TxR.2.regtrans-ms.
🔍 Low	200	The process \$windir\servicing\TrustedInstaller.exe has run the wildcard search: \$windir\servicing\sqm*.sqm (MITRE: T1119 Automated Collection).
🔍 Low	100	The process \$selfpath\$selfname.exe has modified the time attributes of the file \$user\Stemp\RarSFX0\3086.exe.

[Show more \(100\)](#)

Screenshots (19) ⓘ

[Download data](#)



Kaspersky APT Intelligence Reporting



TLP: AMBER

Kaspersky APT Intel

kaspersky

Two zero-day exploits for Internet Explorer 11 and Windows are exploited in targeted attacks

Report Id: 20200804

Version: 1.0 (11.August.2020)

Executive Summary

In May 2020, Kaspersky technologies prevented an attack on a South Korean company by a malicious script for Internet Explorer. Closer analysis revealed that the attack used a previously unknown full chain that consisted of two zero-day exploits: a remote code execution exploit for Internet Explorer and an elevation of privilege exploit for Windows. Unlike a previous full chain that we discovered, used in Operation WizardOptum, the new full chain targeted the latest builds of Windows 10, and our tests demonstrated reliable exploitation of Internet Explorer 11 and Windows 10 build 18363 x64.

On June 8, 2020, we reported our discoveries to Microsoft, and the company confirmed the vulnerabilities. At the time of our report, the security team at Microsoft had already prepared a patch for vulnerability CVE-2020-0986 that was used in the zero-day elevation of privilege exploit, but before our discovery, the exploitability of this vulnerability was considered less likely. The patch for CVE-2020-0986 was released on June 9, 2020.

Microsoft assigned CVE-2020-1380 to a use-after-free vulnerability in JScript and the patch was released on August 11, 2020.

We are calling this and related attacks 'Operation PowerFall'. Currently, we are unable to establish a definitive link with any known threat actors, but due to similarities with previously discovered exploits, we believe that DarkHotel may be behind this attack. Kaspersky products detect Operation PowerFall attacks with verdict PDM:Exploit.Win32.Generic.

This report in a nutshell:

- In May 2020, our technologies prevented a targeted attack that consisted of two zero-day exploits.
- Both exploits were built to exploit the latest builds of Windows 10 x64. Our tests demonstrated that the exploits were very reliable.
- Information about the existence of CVE-2020-0986 in splwow64.exe was made public on 19 May 2020. One day later the same vulnerability was used in an attack.
- The patch for CVE-2020-0986 was released 09 June 2020.
- The patch for CVE-2020-1380 was released 11 August 2020.
- We attribute 'Operation PowerFall' to DarkHotel with a low confidence level based on similarities to previous exploits.

Threat actor profiles

Mapping to MITRE ATT&CK

Executive summary

- C-level oriented information

Deep technical analysis

- Attack methods
- Exploits used
- Malware description
- C&C infrastructure and protocols description
- Victim analysis
- Data exfiltration analysis
- Attribution

Conclusions and recommendations

Indicators of Compromise (IOCs) and YARA rules



追蹤超過 **300+** 威脅
來源 超過 **500+** 不同
組織



每年超過 **200+** 公
開/未公開報告

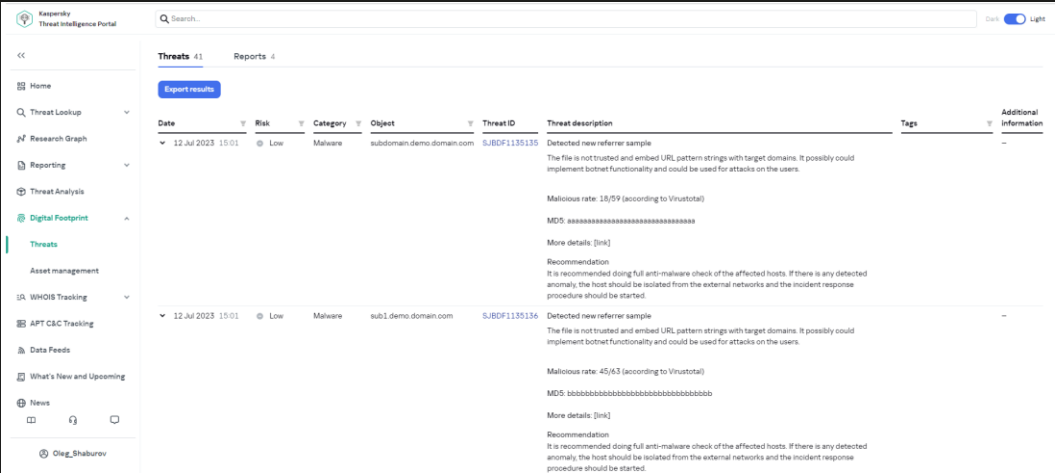


超過 **17000+** IoCs
及 **2500+** Yara rules

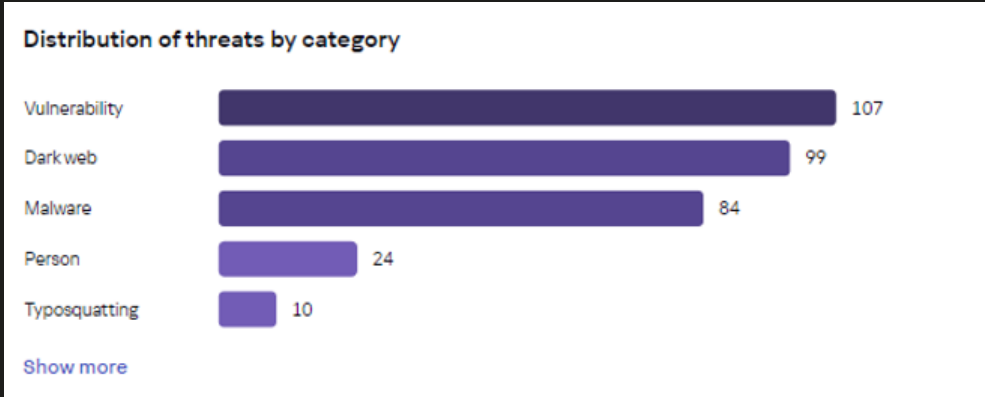
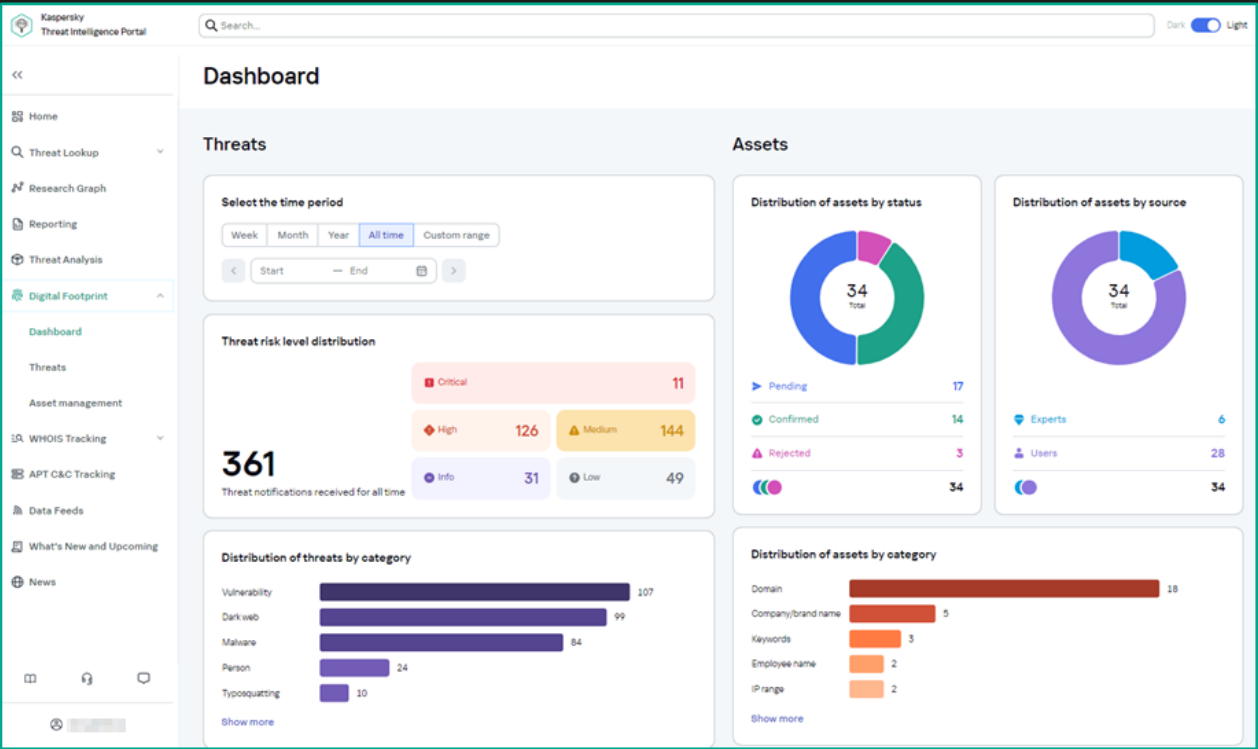
Kaspersky Digital Footprint Intelligence 攻擊面風險管理



- 邊界網路資訊清單
- 暗網監控
- 品牌保護
- 資料外洩發掘



DFI 常見威脅內容：外部攻擊面分析、暗網洩露訊息收集



可先了解自己有哪些弱點是被別人掌握的



暗網監控 Dark Web Monitoring

80%
論壇

10%
通訊平台

5%
洋葱

5%
私人訪問論壇

語言限定?!



500 000+
每日分析資訊數量

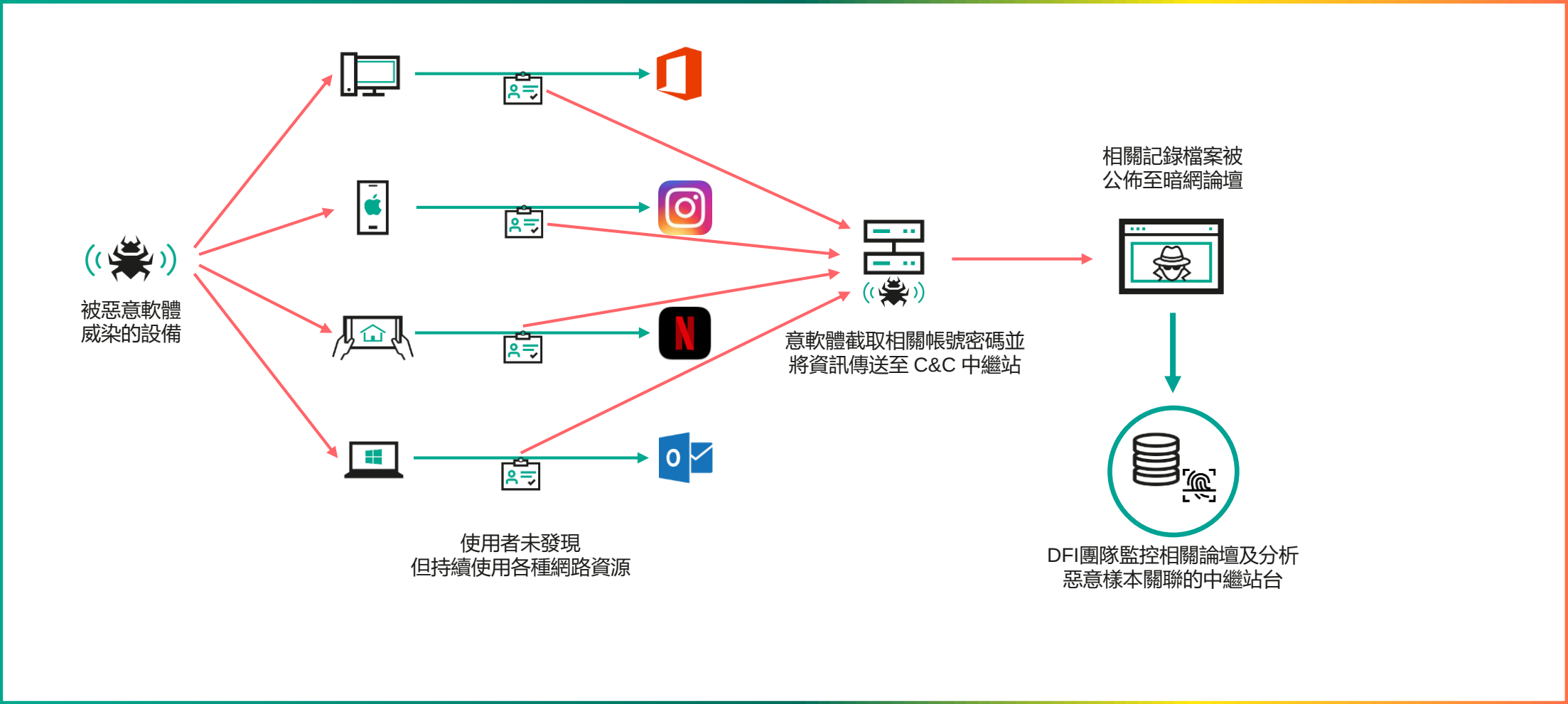
全球趨勢
已知攻擊事件的結果/內容
使用簡單腳本即可進行攻擊
舊的外泄資料

與駭客組織相關廣告
與客戶相關的零日漏洞
資料外泄

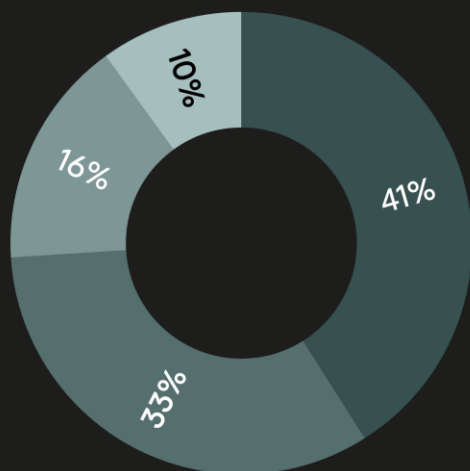
攻擊者計劃 (出售感染網路的存取帳號)
被盜的員工帳號
內賊的招募活動

Source alphvmmm27o3abo3r2mlmjrpdmzle3rykajqc5xsj[REDACTED].onion

資料泄露分析 (malware log files)

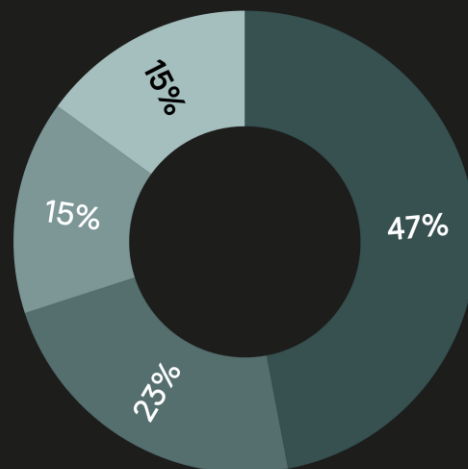


XXX vulnerabilities



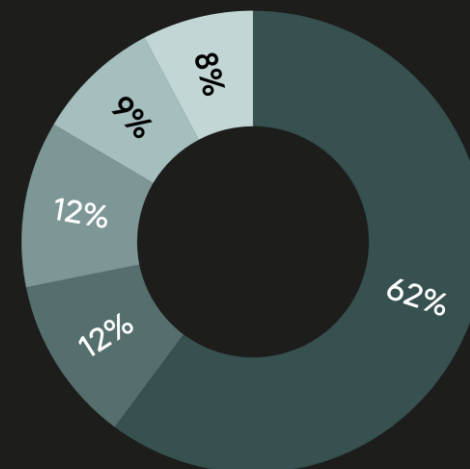
- Critical
- High
- Medium
- Low

Types of vulnerabilities



- Outdated software
- Open protocols
- Security misconfigurations
- Security flaws

Exposed services



- Web services
- Mail services
- DBMS
- Remote Management
- Other

網路邊界資訊-常見威脅類型

- 未正確設定的網路服務
- 可辨識的已知漏洞
- 被洩漏或已被入侵的相關資源

惡意程式-常見威脅類型

- 釣魚郵件攻擊
- 僵屍網路活動
- 針對式攻擊
- APT 活動

品牌冒充

- 假冒網站
- 假冒社群帳號
- 假冒手機 apps

暗網資訊-常見威脅類型

- 欺詐計劃和網路犯罪的計劃
- 信用卡被盜和外洩的帳號資訊
- 內賊活動

資料外洩

- 公司文件被公開存取
- 員工在社群網路外洩的資訊
- 遭到外洩的帳號

先了解自己有哪些弱點是被別人掌握的

威脅情報服務選擇的要點



情報來源能否覆蓋全球區域的範圍



情報的品質有時比情報的數量還重要



非安裝式產品，沒有地緣政治的疑慮



現有安全服務的使用是否滿足企業**SOC**短、中、長期的需求



知識的分享 + 提昇現有安全等級
(是否有別人沒有的情報，或別人都有為什麼我沒有?!)



Why Kaspersky

為什麼選擇 Kaspersky?

國際認證 威脅獵捕

我們的專家團隊皆有通過各種專家認證並專注在 數位鑑識、逆向工程、惡意程式分析及網路安全...等相關領域。

自適性研發 工具及遙測數據收集

威脅偵測 透過 IoC、TTP、YARA 及威脅智能情報。

透過簡易過程就可修正我們的偵測規則、工具及數據收據方式，找出新類型的威脅。

可執行的 威脅智能情報內容

身為全球威脅智能情報提供者，並非只是提供黑名單資料。而是包含白名單及各種關聯性數據庫。可方便快速找出威脅訊息。



FORRESTER®

Kaspersky is Positioned as a Leader in Forrester New Wave:
External Threat Intelligence Services, 2021

Kaspersky Threat Intelligence Recognitions

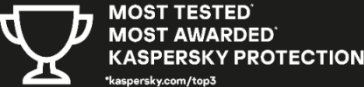
安全行業別威脅
情報的最佳提供
廠商之一



Interpol accelerates fight
against cybercrime through
Kaspersky partnership



Kaspersky TI powered by our globally recognized
expert team – Kaspersky GREAT that maintain a
successful track record of spotting new threats early



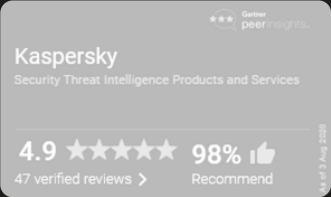
The quality of our intelligence is backed by our most
tested and most awarded threat protection technologies



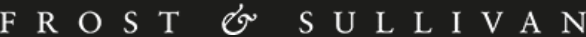
Kaspersky has contributed info about CozyDuke, Carbanak
prior the MITRE Evaluation Round2 and Round 3 preparation
stage to support improvements to MITRE ATT&CK



Kaspersky is Positioned as a Leader in Forrester New
Wave: External Threat Intelligence Services, 2021



Kaspersky has the highest overall rating and the most
recommended among all vendors in the Security Threat
Intelligence Products and Services Market



Kaspersky has been named as an Innovation Leader in
the Cyber Threat Intelligence research 2024



“Kaspersky’s suite of threat intelligence solutions, its
services and intelligence network positions it as a
leader”



Kaspersky has been recognized as a
Leader in the 2024 SPARK Matrix™:
Digital Threat Intelligence
Management by Quadrant Knowledge
Solutions

卡巴斯基威脅情報來源



Kaspersky Threat Intelligence provides access to a wide range of information gathered by our world-class analysts and researchers to help your organization counter today's cyberthreats effectively.

卡巴斯基威脅情報來源



Every center contributes to Kaspersky's solutions and services

- Threat Research
- Incident Investigation



Kaspersky Global Research and Analysis Team

- Researches the most complex threats; APT, cyber espionage campaigns, global cyber epidemics, etc.
- Security of future-focused technologies
- Investigates sophisticated financial cybercrime



Kaspersky Threat Research

- Anti-Malware Research
- Content Filtering Research
- SSDLC & Secure-by-Design Methodologies



Kaspersky AI Technology Research

- AI Cybersecurity
- GenAI Research
- AI-Powered Threat Detection / Solutions



Kaspersky Security Services

- MDR
- Security Assessment
- Digital Footprint Intelligence
- Incident Response
- SOC Consulting

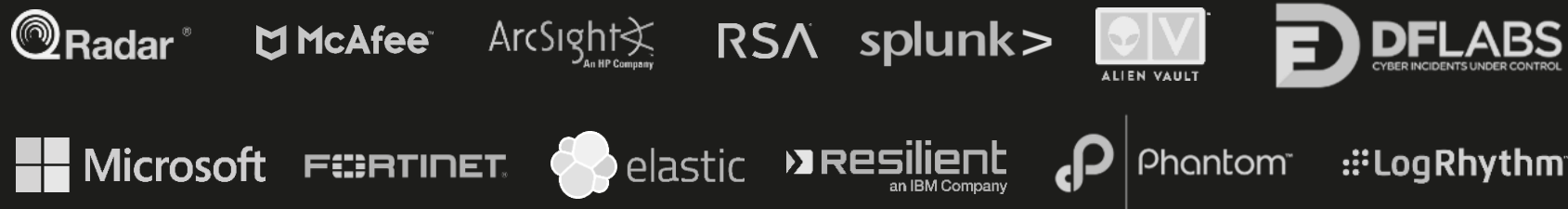


Kaspersky ICS CERT

- Critical Infrastructure Threat Analysis
- ICS Vulnerability Research and Assessment
- Technology associations, analytics and standards

支援整合多種不同平台及應用

SIEM / SOAR /
IRP



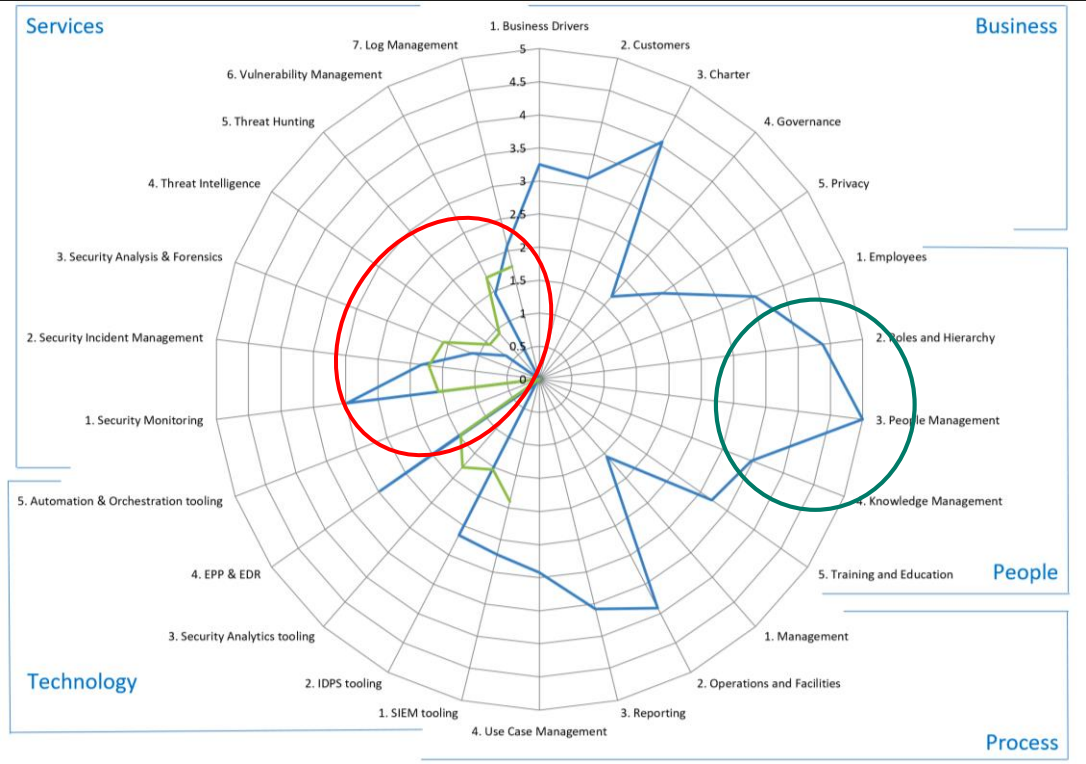
Threat Intelligence
Platforms



Network Security
Controls



SOC 顧問服務 – 成熟度評估、架構開發、流程設計



Kaspersky Threat Intelligence

2. Detection & Investigation



Kaspersky
CyberTrace



Kaspersky
Threat Data
Feeds



Kaspersky
Threat
Lookup

5. Investigation & Response



Kaspersky
Intelligence
Reporting



Kaspersky
Threat
Lookup



Kaspersky
Threat
Analysis

6. Vulnerability Management



Kaspersky
Vulnerability
Feed

3. Investigation & Response



Kaspersky
Threat Intelligence
Portal

- Threat Intelligence Reporting
- Digital Footprint Intelligence
- Ask the Analyst
- Takedown Service
- Threat Lookup
- Threat Analysis

1. Prevention



Kaspersky
Threat Data
Feeds

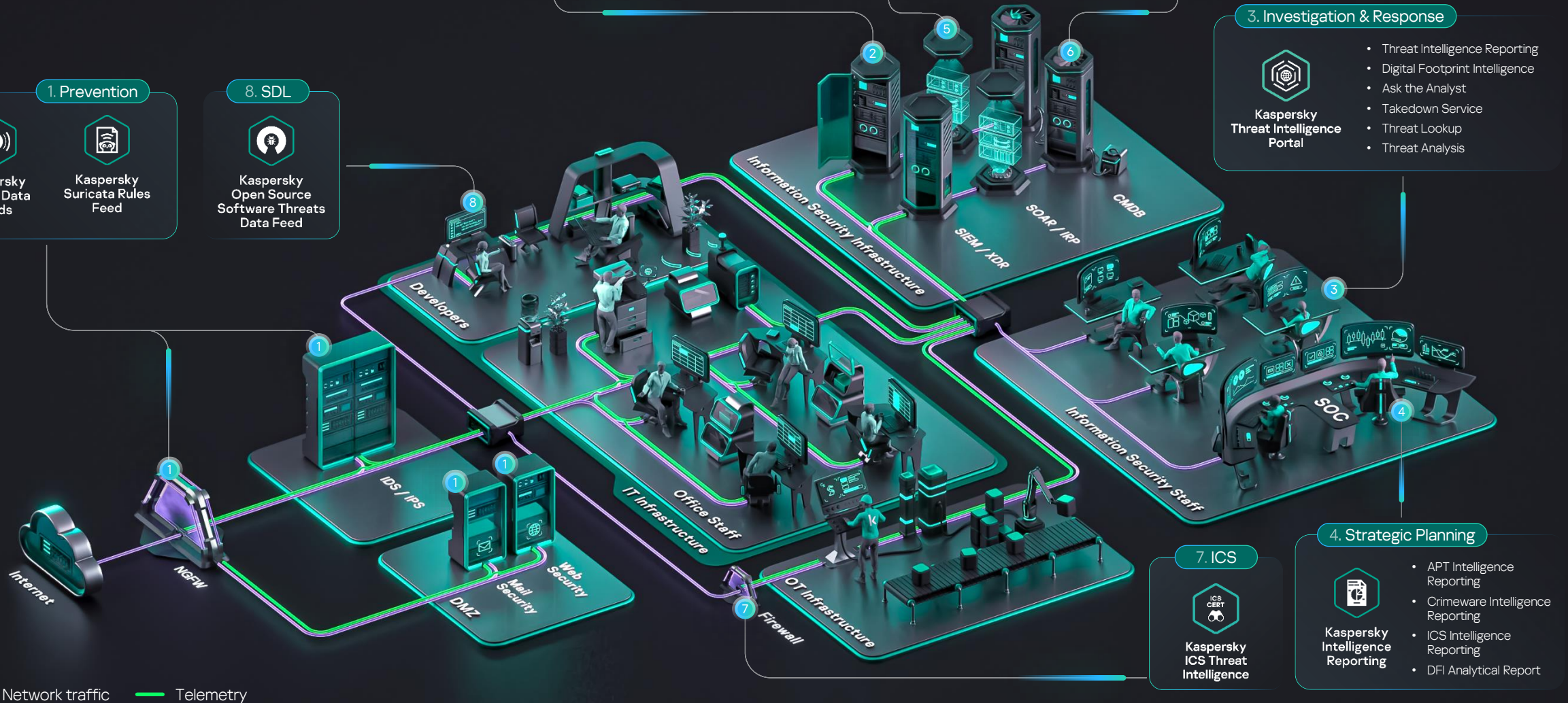


Kaspersky
Suricata Rules
Feed

8. SDL



Kaspersky
Open Source
Software Threats
Data Feed



4. Strategic Planning



Kaspersky
Intelligence
Reporting

- APT Intelligence Reporting
- Crimeware Intelligence Reporting
- ICS Intelligence Reporting
- DFI Analytical Report

7. ICS



Kaspersky
ICS Threat
Intelligence

— Network traffic — Telemetry

Thank you!

kaspersky