

AI in the Trenches:

Enhancing Cyber Security with Artificial Intelligence



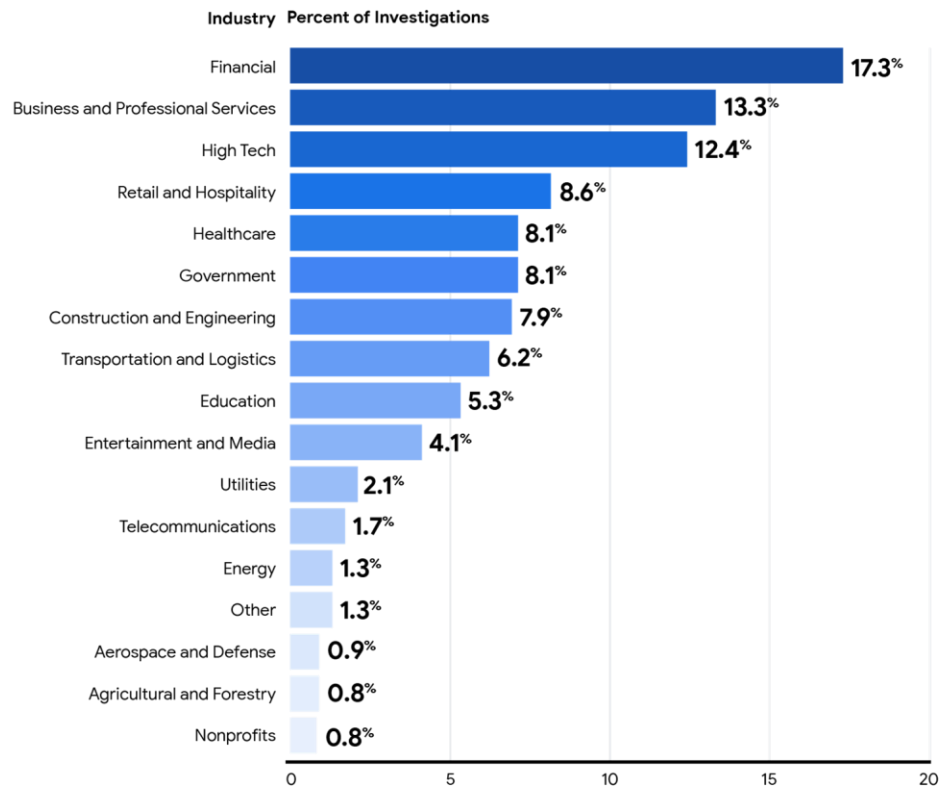
James Reynolds-Brown

Principal consultant, EMEA Government
Mandiant Consulting, Google Cloud

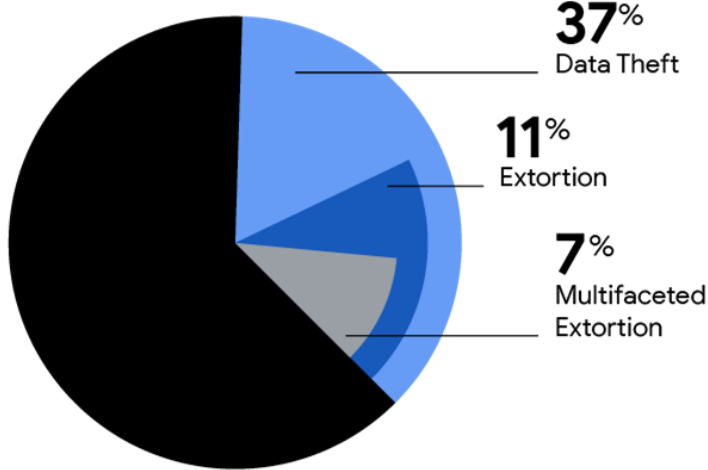
Cyber Threats: bigger and badder



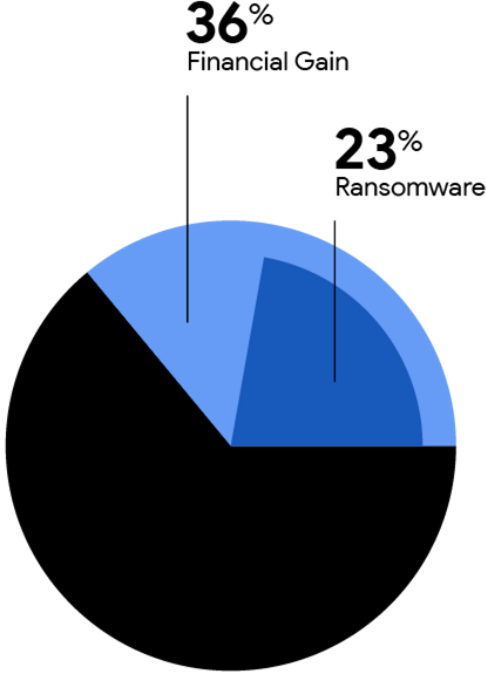
- The top four most targeted industries in this reporting period are **financial services, business services, high tech, and retail and hospitality**
- **626 new malware families** tracked.
- Median **dwell time increased to 22 days** in 2023 throughout EMEA.
- **22% of intrusions related to ransomware** — a significant increase compared to only 7% in 2022.x



Adversary mission objectives

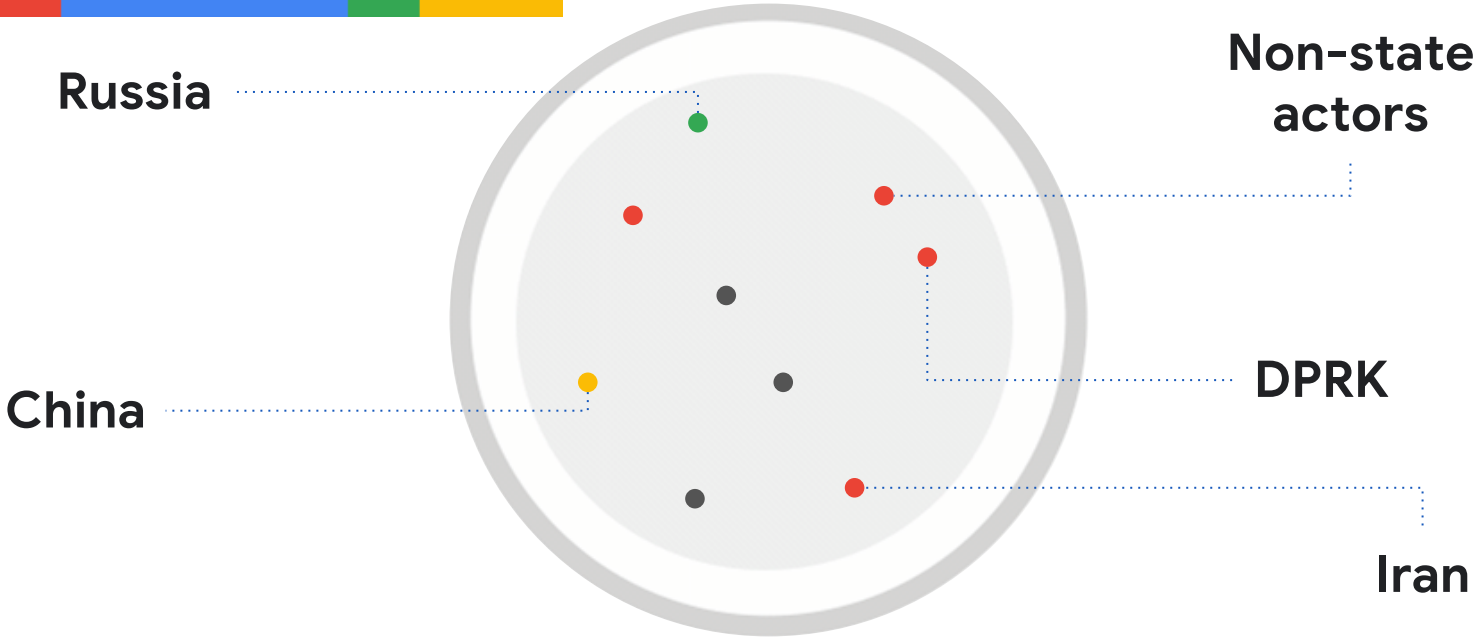


Data theft



Financial gain

Threat Picture



...cyber espionage poses an almost continuous and serious threat to NATO member states...

Adversarial use of AI



Deception and Fraud

- Attackers are using AI to help bypass Know Your Customer (KYC) requirements
- Deepfake audio and video
- Tricking biometric verification tools

Augmenting attacks

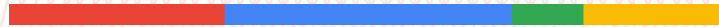
- Accelerating code development
- Identifying vulnerabilities
- Target selection
- Information operations

Threat to AI models

- Increasing number of compromises against cloud-based identities configured with MFA
- Attackers are overcoming MFA with techniques (web proxy or adversary-in-the-middle (AiTM) phishing pages) that can render MFA

Defender

The **Defender's Dilemma** or a
Golden Opportunity?



Attackers

What is Google doing?



Secure AI Framework

Enabling a safer ecosystem



Open source tools

Including Magika, a new AI-powered tool to aid defenders



Educational Programmes

Expanding our \$15 million Cybersecurity Seminars Program



Frontier Models Forum

Advancing frontier AI safety with industry partners



Thank you

