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Unmasking The Trap
A Study of Canary Tokens

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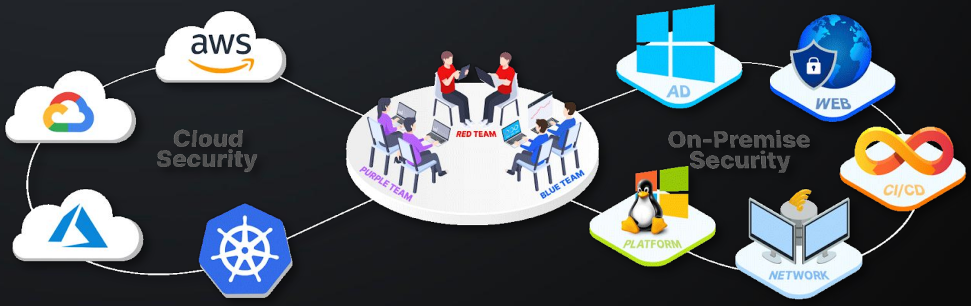
About CyberWarFare Labs

CW Labs is a renowned Infosec company specializing in cybersecurity practical learning. They provide on-demand educational services. The company has 3 primary divisions :

1. Learning Management System (LMS) Platform
2. CWL CyberSecurity Playground (CCSP) Platform
3. Infinity Learning Platform



INFINITE LEARNING EXPERIENCE

About Speaker

Abhijeet Kumar (Security Researcher)

His research areas include Red Team Operations, Network Security, Cloud Infrastructure, and Linux Systems. Apart from this, he enjoys researching Adversarial TTPs and experimenting in his homelab.

"All warfare is based on deception. There is no place where espionage is not used. Offer the enemy bait to lure them."

- Sun Tzu

The garlic in your soup waiting for you to confuse it for a piece of potato

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  - ○ Zscaler Deception
  - ○ Thinkst Canaries

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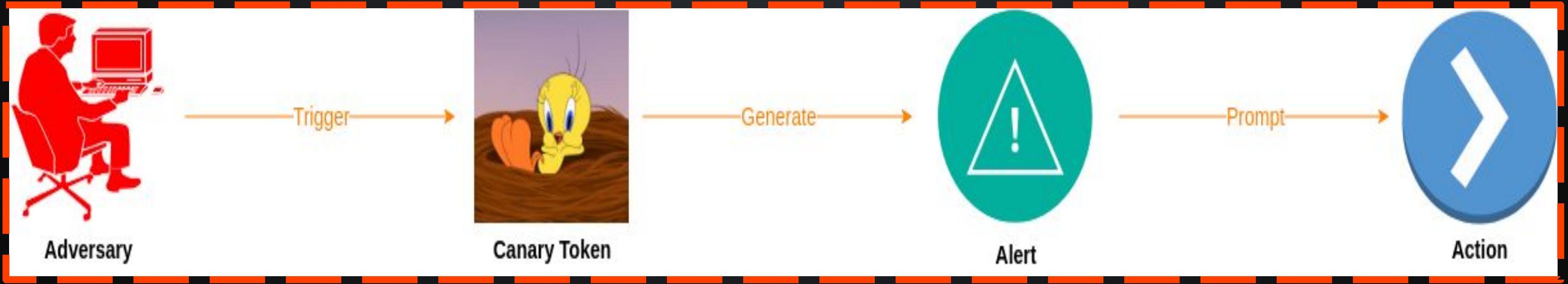
- Some common locations include:-
    - Applications
    - Credentials
    - Files
    - URLs

CANARY TOKEN FLOW



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  - For e.g: Microsoft Graph APIs
  - For e.g: AADInternals Azure Function for Tenant Info
- Gather data from Public IOCs/Community/Vendor itself

ARTIFACT-BASED CANARY TOKENS

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  - ○ Look for suspicious fields
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CANARY TOKEN DETECTION

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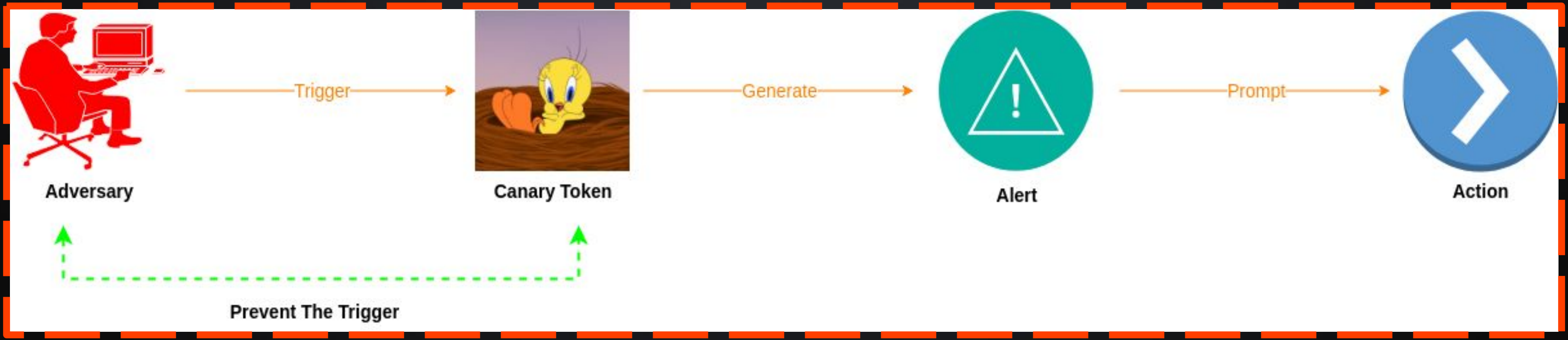
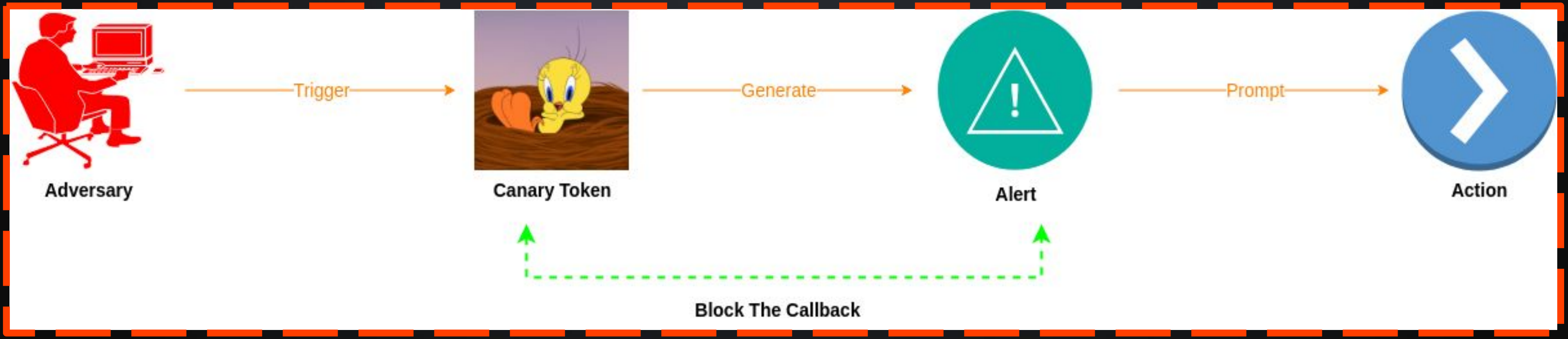
  - Check signatures
- Dissect the artifact locally without opening
  - Extract URLs from document
- Open in sandbox (*without internet access*) and analyse network traffic

DEFEATING CANARYTOKENS 01



DEFEATING CANARYTOKENS 02



WAIT A MINUTE
ARE YOU TELLING ME THAT IT ACTUALLY WORKS?
quickmeme.com

SHUT UP AND
SHOW ME A DEMO
memegenerator.es

OPSEC CONSIDERATIONS

- ★ Use own infrastructure for configuring Canary Tokens whenever possible
  - ○ Don’t reuse the infrastructure

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OPSEC CONSIDERATIONS

- Use own infrastructure for configuring Canary Tokens whenever possible
  - Don’t reuse the infrastructure
- Hide endpoint URLs behind CDNs/proxy
  - For e.g: CloudFront, Azure CDN
- Rotate Canary Tokens once triggered

RESOURCES

- ★ Zachary's Talk: https://youtu.be/1WLxvq_130U
- ★ Original Repo: https://github.com/CatchingCanaries/CanaryEnumeration
- ★ My Fork: https://github.com/wand3rlust/CanaryEnumeration

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Thank You

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