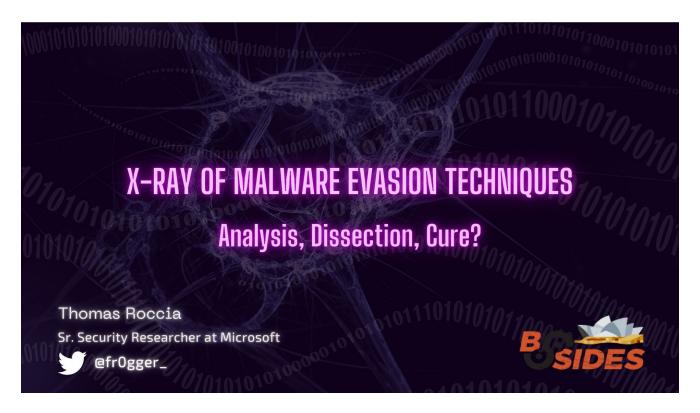
X-Ray of Malware Evasion Techniques: Analysis, Dissection, Cure?

S) speakerdeck.com/fr0gger/x-ray-of-malware-evasion-techniques-analysis-dissection-cure



This presentation has been presented at Bsides Sydney (https://bsidessydney.org/)

Malware evasion consists of techniques used by malware to bypass security in place, circumvent automated and static analysis as well as avoiding detection and harden reverse engineering. There is a broad specter of techniques that can be used. In this talk we will review the history of malware evasion techniques, understand the latest trends currently used by threat actors and bolster your security analysis skills by getting more knowledge about evasion mechanisms.

More Decks by Thomas Roccia

See All by Thomas Roccia

Other Decks in Technology

See All in Technology

API連携に伴う規制と対応 / Regulations and responses to API linkage

<u>moneyforward</u>
<u>0</u>
<u>150</u>
ユーザーテストガイドライン VERSION 2.0
<u>touzoukaikaku</u>
<u>0</u>
880
プログラミング支援Al GitHub Copilot すごいの話
<u>moyashi</u>
<u>0</u>
<u>290</u>

ROS_Japan_UG_#49_LT <u>maeharakeisuke</u> 0 <u>210</u> FlexScan HD2452Wの 後継を探して **U** tring 0 <u>6k</u> 【NGK2023S】 ノードエディタ形式の画像処理ツール「Image-Processing-Node-Edi... kazuhitotakahashi 0

250

OPENLOGI Company Profile **(**) hr01 0 <u>12k</u> DNS権威サーバのクラウドサービス向けに行われた攻撃および対策 / DNS Pseudo-R... <u>kazeburo</u> <u>5</u> 1.2k <u>Stripe / Okta Customer Identity Cloud(旧Auth0) の採用に至った理由 ~モリサワの S...</u>

tomuro

0

エアドロップ for オープンソースプロジェクト



0

350

オンプレk8sとEKSの並行運用の実際



0

220

SPA・SSGでSSRのようなOGP対応!



<u>2</u>

<u>150</u>

Featured

See All Featured

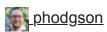
Put a Button on it: Removing Barriers to Going Fast.



<u>56</u>

2.5k

Building Your Own Lightsaber



<u>96</u>

<u>4.9k</u>

<u>Fontdeck: Realign not Redesign</u>
<u>paulrobertlloyd</u>
<u>74</u>
<u>4.3k</u>
Fight the Zombie Pattern Library - RWD Summit 2016
marcelosomers
<u>227</u>
<u>16k</u>
RailsConf & Balkan Ruby 2019: The Past, Present, and Future of Rails at GitHub
eileencodes
<u>120</u>
<u>29k</u>

Designing the Hi-DPI Web



<u>273</u>

32k

Building Adaptive Systems



<u>27</u>

1.3k

We Have a Design System, Now What?



<u>37</u>

5	g	k
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<u>52</u>

4.3k

Building a Scalable Design System with Sketch



<u>451</u>

<u>31k</u>

<u>Cheating the UX When There Is Nothing More to Optimize - PixelPioneers</u>



<u>270</u>
<u>12k</u>
Java REST API Framework Comparison - PWX 2021
<u>mraible</u>
PRO
<u>13</u>
<u>5.4k</u>
Franscript
1. <u>None</u>
2. <u>None</u>
3. <u>None</u>
4. What are Evasion Techniques? Practical examples and current trends How
can you step up on that topic? The power of information sharing

5. All the techniques used by a a software to avoid

static, dynamic, automatic and human analysis in order to understand its behavior All the techniques used by malware to avoid and evade security solutions, security configuration as well as human detection to perform malicious action the longer on the infected computer.

6. In Mitre ATT&CK, the Defense Evasion section is the most

dominant tactic For attackers, the longer the malware remains undetected the longer they can perform actions For defenders, the sooner the malware is detected the less damage it will cause

- 7. None
- 8. Anti Security techniques Anti Sandboxing techniques Anti Analyst techniques
- 9. <u>Infection Vectors Malware Delivery Malware Behavior Actions on Objectives</u>
- 10. <u>Malicious Doc Obfuscated Macro Powershell Base64 encoded Dropping</u>
 <u>Emotet</u>
- 11. <u>Binded with legit Software Fake Metadata</u>
- 12. <u>Fake Operations to harden reverse engineering and delay sandbox Anti-disassembly</u>

with Code Spaghetti

13. Encrypted data related to host sent to multiple C2 Multiple

Network Connections not available in the binary

14. 2015 2016 2017 2019 2020 2021 2022 Creation of Unprotect

Project First public release at Botconf Creation of the Unprotect POC BlackHat ASIA @DarkCoderSc joined the project Redesign, includes detection rules and code snippets API Engine, statistics

15. Community centric open project dedicated to cataloguing malware evasion techniques

Includes detection rules (Yara, Sigma, Capa) and code snippets Extends the Mitre ATTT&CK Defense Evasion Section Share and improve knowledge about evasion mechanisms Propose a detailed classification

- 16. *None*
- 17. <u>None</u>
- 18. *None*
- 19. *None*

20. Malware Evasion Techniques are used by malware to avoid detection

and analysis These techniques are highly regarded by threat actors. The Unprotect Project is a database dedicated to it and provide the broadest knowledge about evasion techniques.

21. *None*