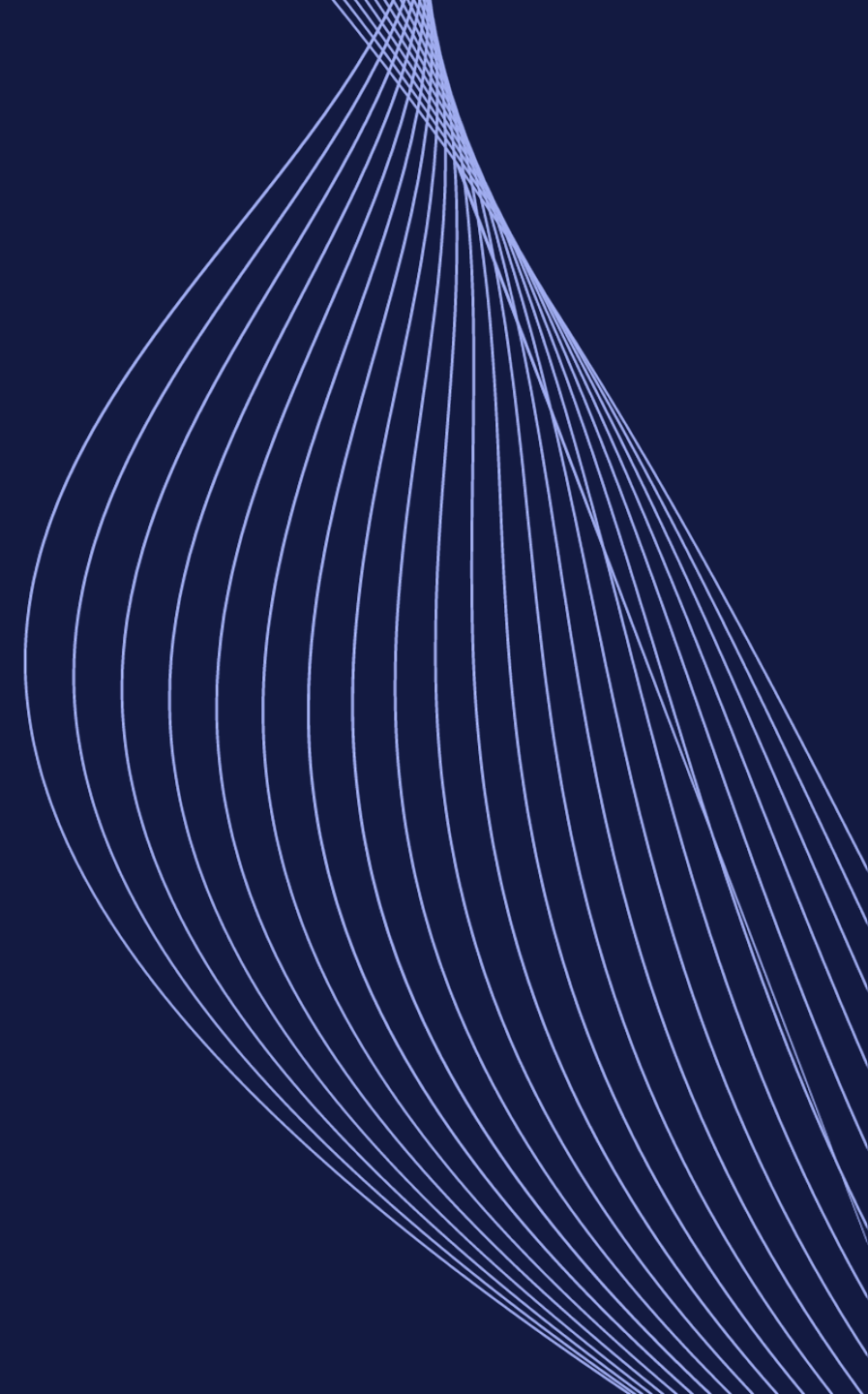




The Ouroboros of Cybercrime

Witnessing threat actors go from Pwn to Pwn'd.



About us



Cyber Threat Intelligence Researcher

Offensive Security Background

**British gentleman pursuing Professor Moriarty's career path
(legally)**



Cyber Threat Intelligence Researcher

Mathematics and Criminology Background

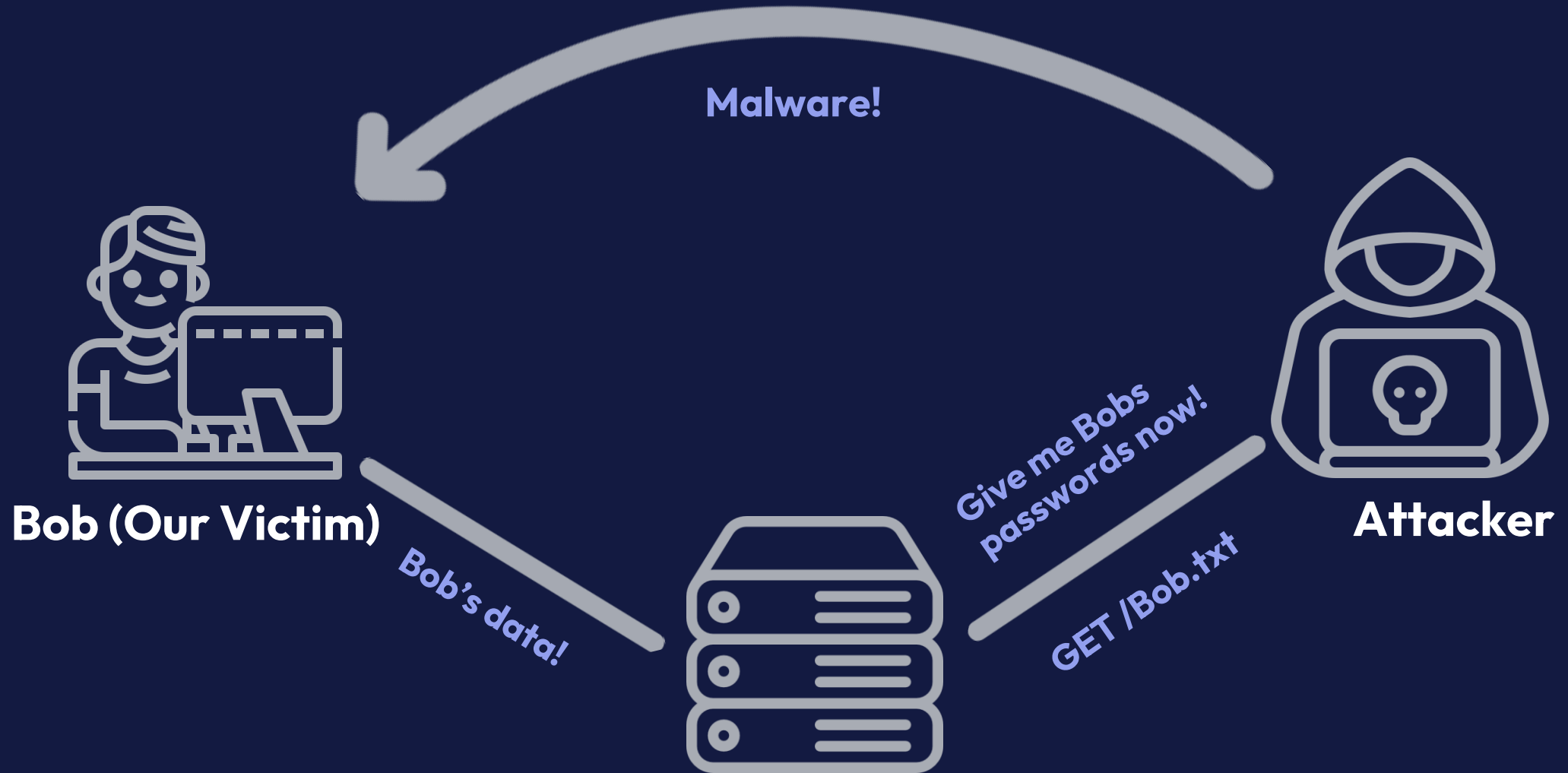
**French Lady on a mission to uphold Sherlock Holmes's legacy
(minus the hat)**

*What if C2 operators also fell victim to their own skim :
the biter bit.*

Command & Control (C2) Servers



Infostealers & C2s: The Exfiltration Link





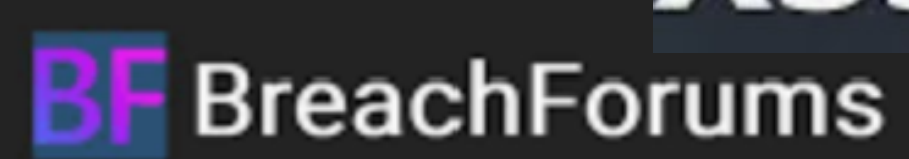
DATA

Data

4,258 Stealer Logs



25% cross-forum logs



C2 Detection with Viriback and URLScan



11,000 C2 Hostnames



8,049 C2 Hostnames



The BITERS BIT
From thousands to few.

The bitters bit

1 C2 IP



```

https://my-odin.com/auth/reg
https://my-odin.com/auth/reg
https://my-odin.com/auth/reg
https://www.nulled.to
https://www.nulled.to/index.php
https://www.nulled.to/topic/260331-
https://www.nulled.to/index.php
https://nulledbb.com/member.php
https://forum.exploit.in/register/
https://russianmarket.to/login

```



1 C2 IP



1 C2 IP



3 C2 IPs



1 C2 IP



- Extension
- Second-level domain
- Full domain

com 362

it 32

ir 362

cn 41

gov.cn 12

```

http://fuwu.rsj.beijing.gov.cn/csibiz/indinfo/login.jsp
http://www.12333.gov.cn/cas/silogin
http://www.bjrbj.gov.cn/csibiz/indinfo/login.jsp
https://bjt.beijing.gov.cn/renzheng/p/login/login.html
https://login.gjzfwf.gov.cn/tacs-uc/login/index
https://xkczb.jtw.beijing.gov.cn/

```

The bitters bit



<https://beyond-dev.ir/register/>
<http://seniordevs.ir/>



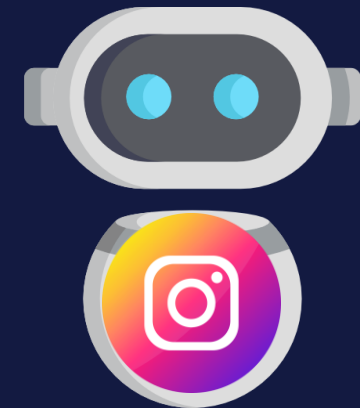
<https://protrader.vantagemarkets.com/>
<https://worthstart-trading.com/indxef82.php>



<https://my-odin.com/auth/reg>
<https://www.nulled.to>



'<https://btc-casino.io/>',
'<https://btcclicks.com/>',



<http://instagrambotmanager.ir/auth/login>
<http://instagrambotmanager.ir/users/update>



BEGINNING OF SUSPENSIONS

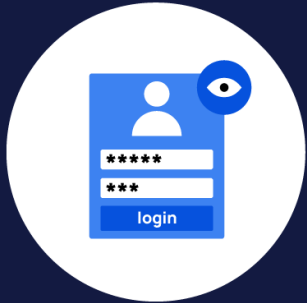
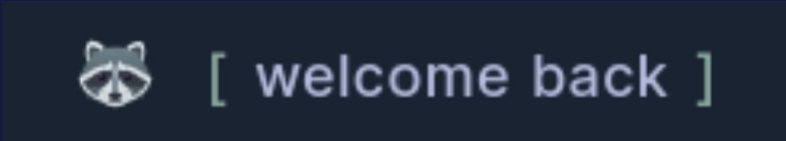
Beginning of Suspicious



>100 credentials

Beginning of Suspisions

```
[ 'http://49.12.226.201/1dd31ab602153676/auth.php',
  'http://5.42.64.2/6ffb12d22cdea840/auth.php',
  'http://5.42.66.25/53b4bb7541555c9d/auth.php',
  'http://65.108.48.89/f5afe5d538bbefdd/auth.php',
  'http://83.217.11.0/53b4bb7541555c9d/auth.php',
  'http://83.217.11.40:3122/login',
  'http://94.142.138.121/d5e67564029c6f11/auth.php',
  'http://exit-slightly.com/2a31b91cbc7df29c/auth.php',
  'http://global147.com/c35e91cb41e7285c/auth.php',
  'http://weak-sar.com/56019c142bf1b2d6/auth.php',
  'https://account.proton.me/login',
  'https://account.proton.me/mail/signup',
  'https://albanybandung.com:2083/',
  'https://avcheck.net/login',
  'https://bill.pq.hosting/billmgr',
  'https://cookie.pro/login/login',
  'https://discord.com/reset',
  'https://faceless.cc/login',
  'https://gstatic-service.io/login',
  'https://installbank.com/',
  'https://login.360installer.com/register',
  'https://lumar-show.com/',
  'https://m.installbank.com/',
  'https://my-odin.com/auth/reg',
  'https://my.lethost.co/account/login',
  'https://ppcash.net/analytics/register',
  'https://raccoon.biz/',
  'https://raccoon.biz/logs',
  'https://raccoon.biz/reg',
  'https://scanner.to/login',
  'https://stealer.app/',
  'https://vision.stark-industries.solutions/auth/login',
  'https://wallet.ton.org/',
  'https://www.dropbox.com/register',
  'https://xss.is/lost-password/286258/confirm',
  'https://zelenka.guru/login/login' ]
```



~30 credentials



THE MALWARE MAESTRO

The Malware Maestro

Raccoon[.]biz

Faceless[.]cc

Scanner[.]to

Stealer[.]app

Raccoon[.]biz/logs

Raccoon[.]biz/reg

[welcome back]

Username

Password

[SIGN IN](#) [CANCEL](#)

[REGISTRATION](#)

The Malware Maestro

Username	Password
admin	HW4*****
[UNKNOWN]	adm*****

Mystic – Multi-Functional Malware

PrivateLoader – Malware Loader

Asuka - Trojan

Hashed Victim

```
'http://45.140.147.104/login/ ',  
'http://49.12.226.201/1dd31ab602153676/auth.php ',  
'http://5.42.64.2/6ffb12d22cdea840/auth.php ',  
'http://5.42.66.25/53b4bb7541555c9d/auth.php ',  
'http://65.108.48.89/f5afe5d538bbefdd/auth.php ',  
'http://83.217.11.0/53b4bb7541555c9d/auth.php ',  
'http://83.217.11.40:3122/login ',  
'http://94.142.138.121/d5e67564029c6f11/auth.php ',  
'http://exit-slightly.com/2a31b91cbc7df29c/auth.php ',  
'http://global147.com/c35e91cb41e7285c/auth.php ',  
'http://weak-sar.com/56019c142bf1b2d6/auth.php ',  
..
```



THE MAESTRO'S SYMPHONY

The Malware's Symphony



PrivateLoader



Mystic



Raccoon



Asuka

Movement I – Initial Infection



PrivateLoader

Malware Loader



Deliver Malicious Payloads





PrivateLoader



Delivers Payloads



Mystic

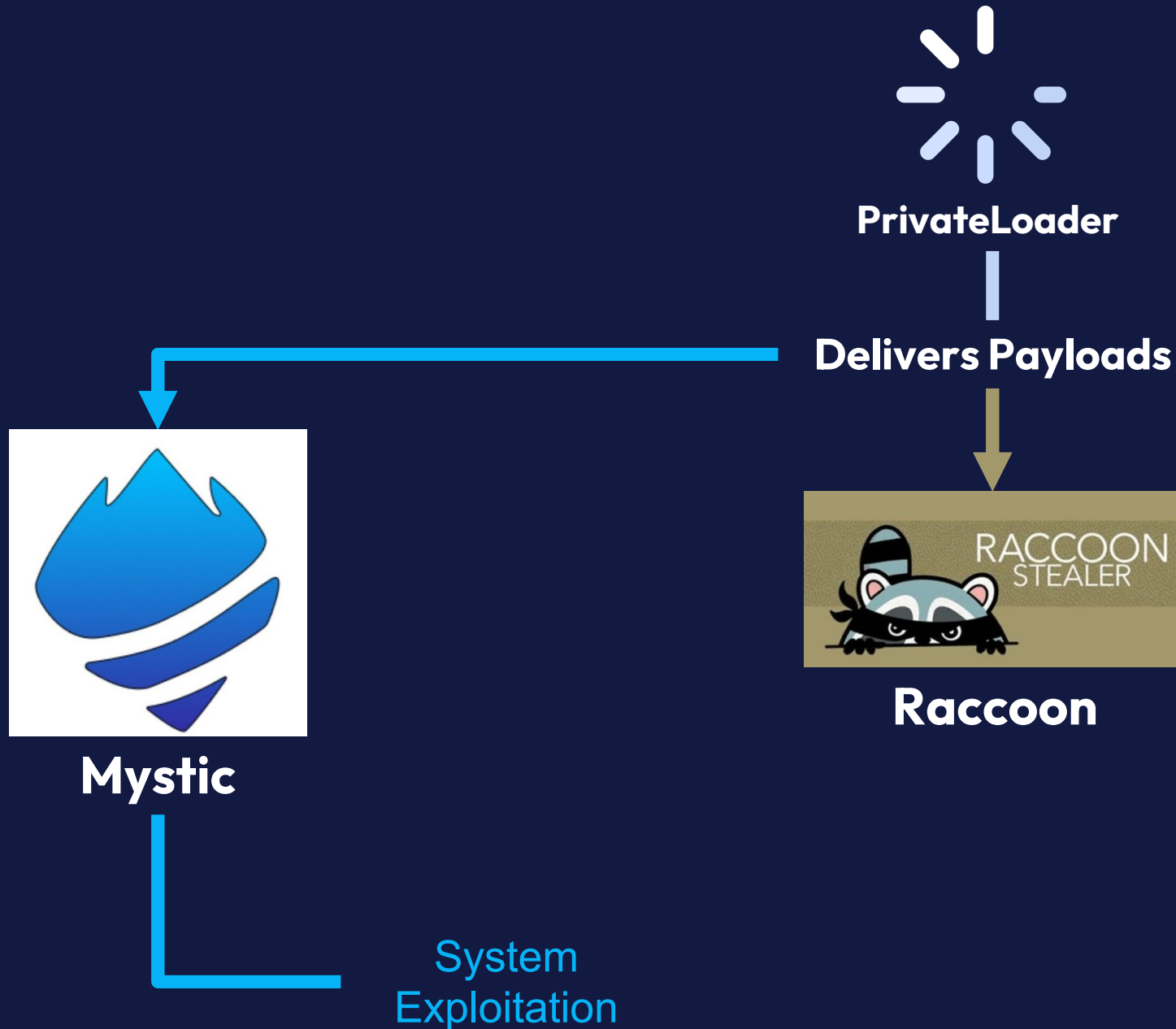
Movement II – System Exploitation



Mystic

Multifunctional Malware

- Stealing data
- Keylogging
- Persistence



Movement III – Data Extraction



Raccoon

Infostealer

- Loggin Credentials**
- Cookies**
- Wallets**



PrivateLoader

Delivers Payloads



Raccoon

Data Extraction



Mystic



Asuka

System
Exploitation

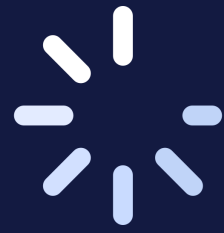
Movement IV – Persistence



Asuka

Trojan

- Maintain Control**
- Persistent Backdoors**



PrivateLoader

Delivers Payloads



Raccoon

Data Extraction

Maximum exploitation



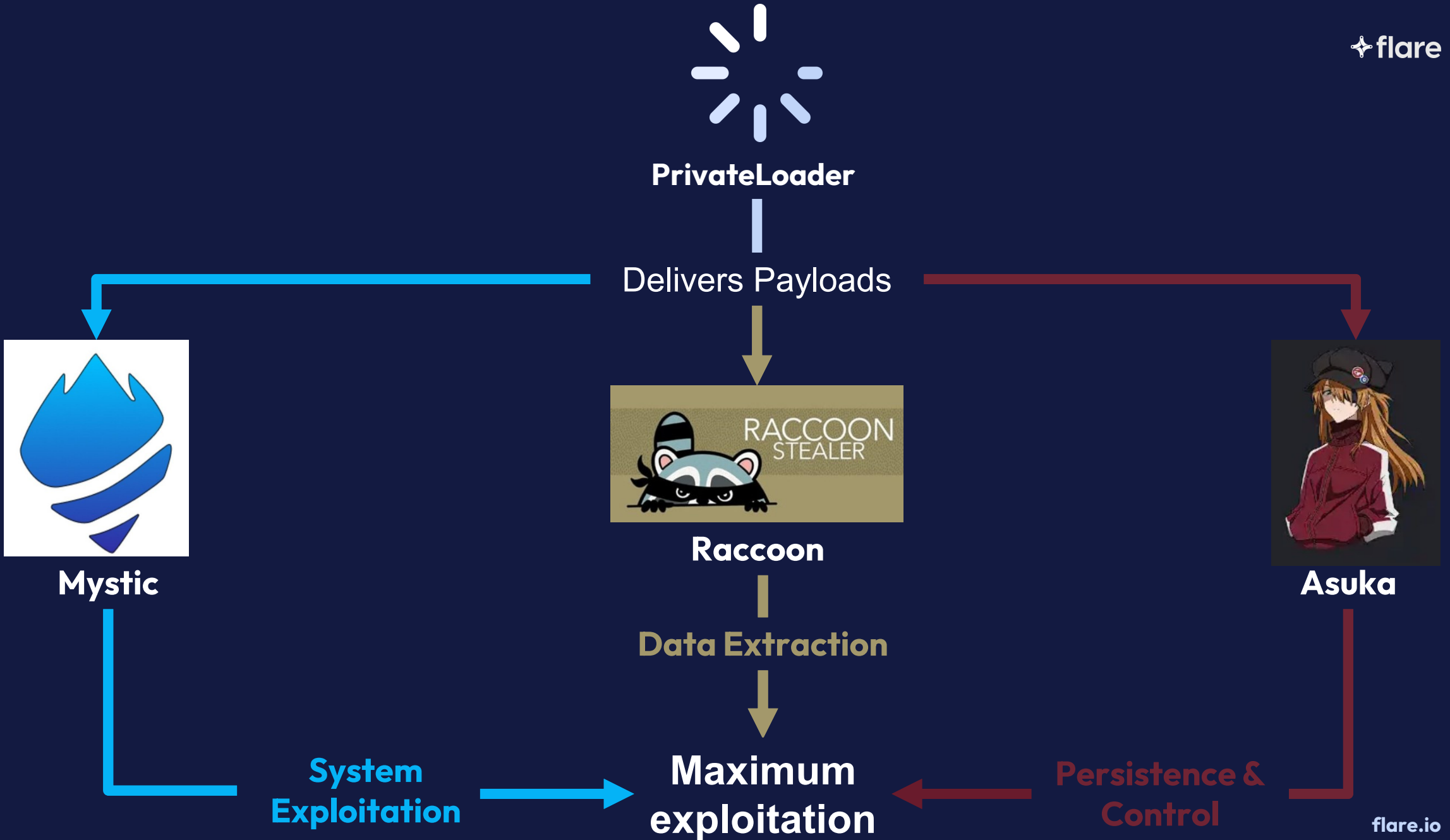
Mystic

System Exploitation



Asuka

Persistence & Control



FROM LOGS TO ACTION: Practical Applications in Security





Stuart Beck
Cyber Threat Intelligence Researcher

Estelle Ruellan
Cyber Threat Intelligence Researcher