


An abstract graphic on the left side of the slide, consisting of white lines and circles on a dark background, resembling a circuit board or network diagram.

THROUGH THE EYES OF A RESEARCHER: USING THREAT INTELLIGENCE TO COMBAT THE ADVERSARIES

A close-up photograph of a computer motherboard, showing various components like the CPU, RAM, and expansion slots. The image is slightly blurred and has a dark overlay.

WILL THOMAS
SECURITY RESEARCHER

TLP:WHITE ○

TLP:GREEN ●


TLP:AMBER ●

TLP:RED ●

WHAT IS CTI? LIKE CIA, BUT FOR COMPANIES




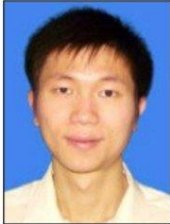


CTI – TRACKING ESPIONAGE & CYBERCRIME

 **WANTED
BY THE FBI**

**APT 40 CYBER ESPIONAGE
ACTIVITIES**

Conspiracy to Damage Protected Computers and Commit Economic Espionage;
Criminal Forfeiture



Zhu Yunmin Wu Shurong Ding Xiaoyang



 **WANTED
BY THE FBI**

**GRU HACKERS' DESTRUCTIVE MALWARE
AND INTERNATIONAL CYBER ATTACKS**

Conspiracy to Commit an Offense Against the United States; False Registration of a
Domain Name; Conspiracy to Commit Wire Fraud; Wire Fraud; Intentional Damage to
Protected Computers; Aggravated Identity Theft



Yuriy Sergeyevich Andrienko Sergey Vladimirovich Detstov Pavel Valeryevich Frolov
Anatoliy Sergeyevich Kovalev Artem Valeryevich Ochichenko Petr Nikolayevich Pliskin

 **WANTED
BY THE FBI**

MAKSIM VIKTOROVICH YAKUBETS

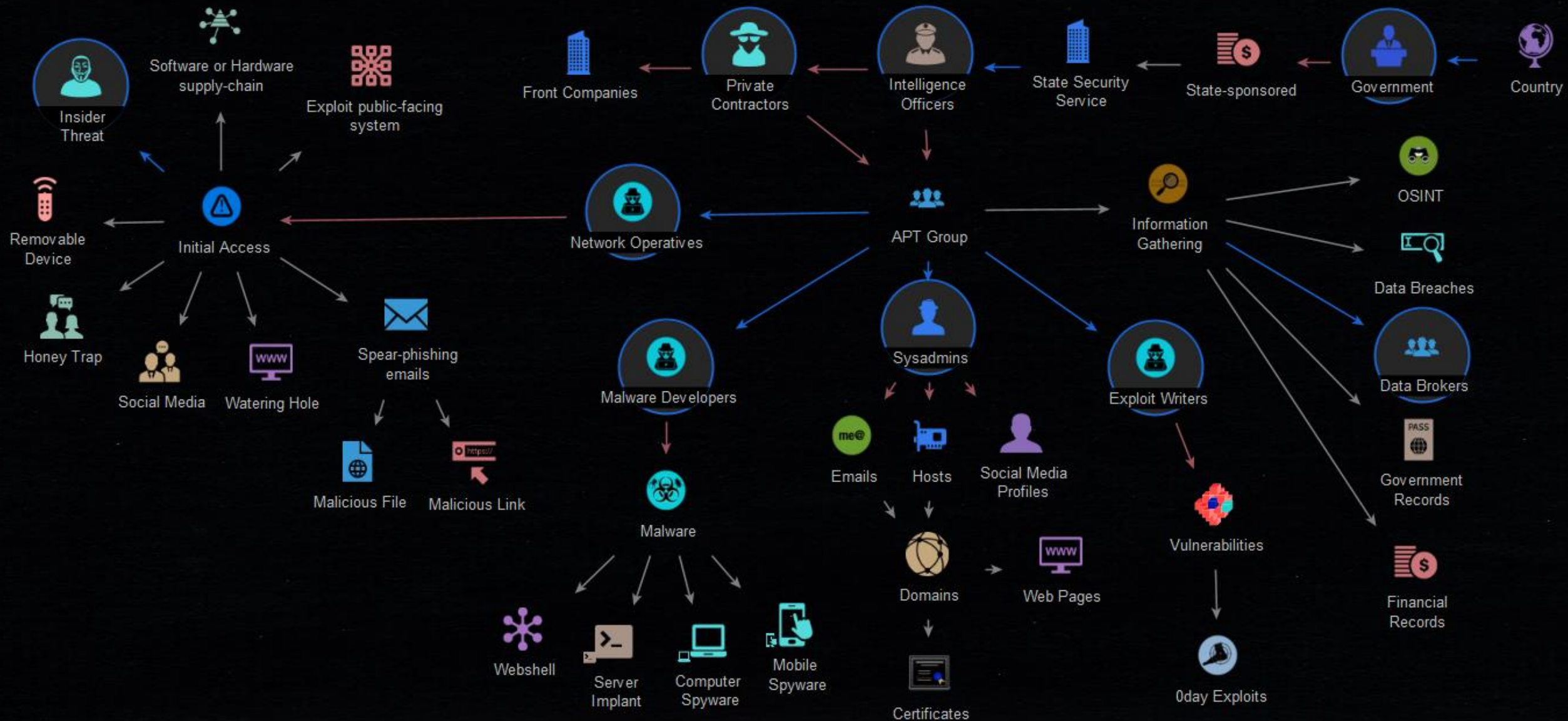
Conspiracy; Conspiracy to Commit Fraud; Wire Fraud; Bank Fraud;
Intentional Damage to a Computer



DESCRIPTION



ESPIONAGE - APT29, APT10, APT35

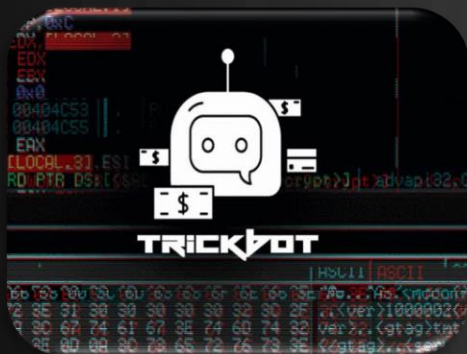




CYBERCRIME – REVIL, CONTI, LOCKBIT



CYBERCRIME – THE REST OF IT



DARKNET/FORUMS - RAAS, MAAS, IAB

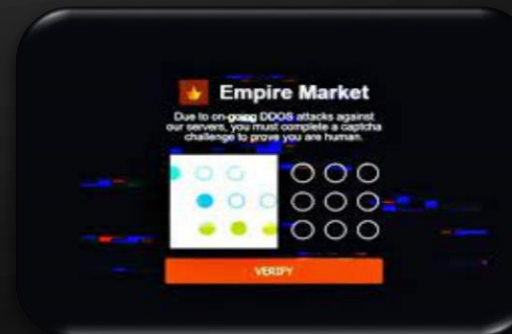
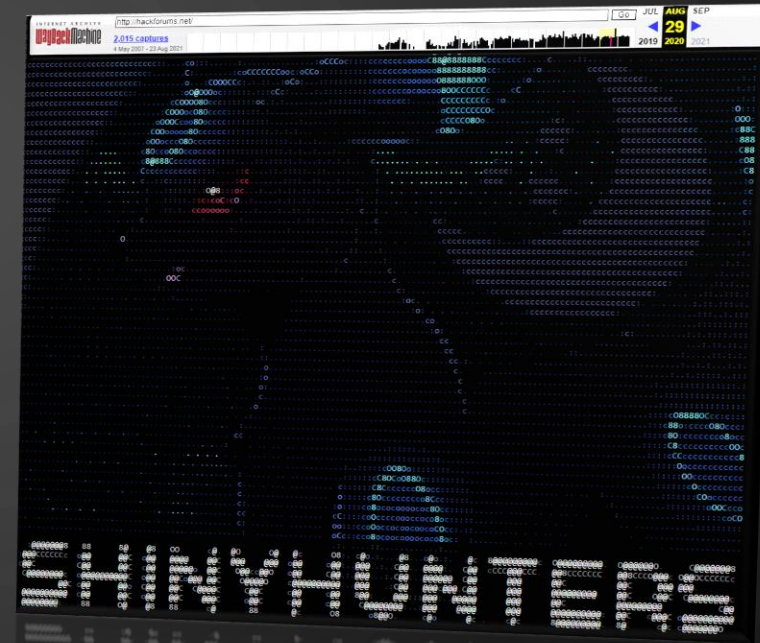
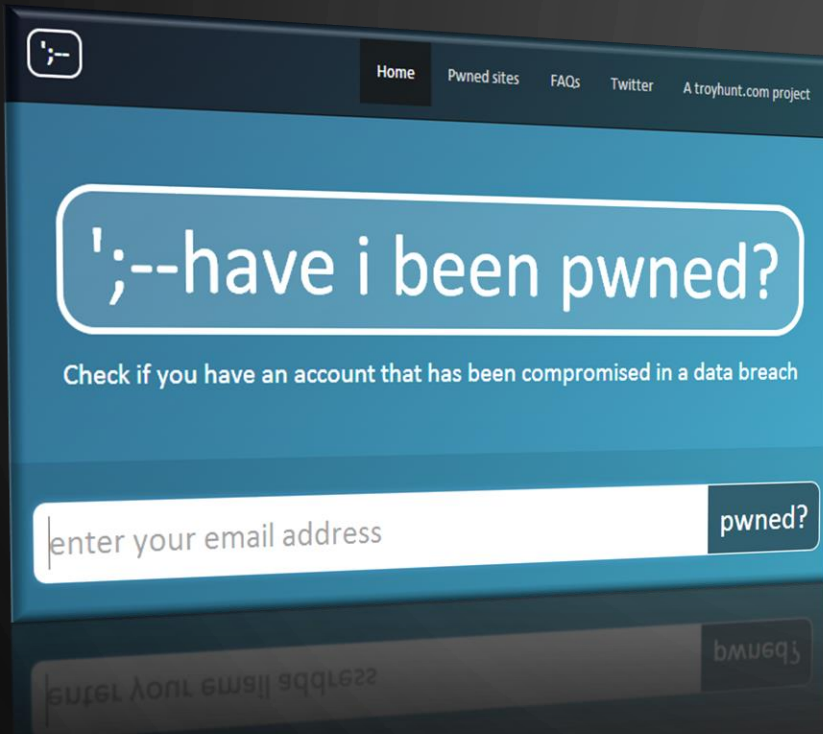
The screenshot shows the 'Maze' ransomware control panel. It has a top navigation bar with 'Flows', 'Stats', 'Chat', 'Payments', 'Transactions', and 'Advert Transactions'. The main area is divided into two panels. The left panel, titled 'Flows Stats', shows a table with columns: Name, Thread id, Price, Mixer, Price Doubles Interval, and CreatedAt. It indicates 'Showing 1 to 2 of 2 entries'. The right panel, titled 'Flows Creation', shows 'Flow Details' for 'AutoFlow0'. It includes input fields for 'Thread id' (0), 'Price' (1000), and 'Price Doubles After (Months/Days/Hours)' (00/05/01). There are checkboxes for 'Use Mixer' (checked) and 'Negotiate Price' (unchecked), and an 'Update' button.

The screenshot shows the 'Private Ransomware Control Panel' configuration options. It includes a 'Configuration Options' section with various checkboxes and input fields: 'Dynamic BTC Address' (checked), 'Capture Screenshot' (checked), 'KeyLogger' (checked), 'Get Banking Data Every: 15 minutes' (checked), 'Rise Ransom' (checked), 'Ransom Amount: 300 USD' (checked), 'Maximum Ransom: 500 USD' (checked), 'Increase Ransom Every: 2 hours' (checked), 'Increase Ransom Percentage: 10 percent' (checked), 'Erase Files Every: 60 minutes' (checked), 'Mass Mailer' (unchecked), 'Evidence Cleaner' (checked), 'Cleaner Counter: 10 restarts' (checked), 'Self Destruct' (unchecked), 'Files To Delete if Restarted: 1000 files' (checked), 'Email Reports' (checked), 'Random Domain Generator (RDG)' (unchecked), and 'RDG Visits Per Minute: 3 times' (checked). There is a 'Tor Network' section with 'UseTor Encrypted Network Technology' (checked) and a 'Tor Control Password' field. At the bottom, there are buttons for 'Send Commands' and 'Reset to Malware Defaults'.

The screenshot shows the 'Cerberus' ransomware control panel. It has a top navigation bar with 'Main', 'Bots', 'Bank Logs', 'CC Logs', 'Mail logs', and 'Inject list'. The main area is divided into two panels. The left panel, titled 'Main BOTS table', shows a table with columns: ID, Version, Mode, and Status. It includes a 'Delete selected bots' button and a 'Filter to' button. The right panel, titled 'Send sms', shows a form with a 'Phone number +1...' input field and an 'SMS Text' input field. There is also a 'Send USSD' button.

The screenshot shows a forum post on a darknet forum. The post is titled 'VPN access => RDP' and contains the following text: '500+ hosts', 'Access 150-200 rdp within the company rights administrator', 'Hunting department in one of the states of the USA', 'The company provides licenses for weapons, fishing and shooting animals in one of the states.', 'Price \$ 8000', 'Write to contacts only if you have money! (I will collect - I will advise by)', 'I am ready to work through the guarantor of the service of this forum.', and 'I am waiting for your suggestions on contacts:'. The post is signed 'Darknet'.

DATA BREACHES



0DAY VULNERABILITIES AND EXPLOITS

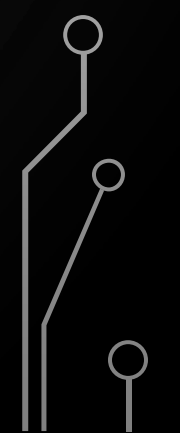
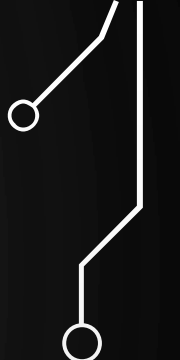


BIGGEST INCIDENTS



- Sony Pictures, Bangladesh Bank Heist, WannaCry
 - NotPetya, BadRabbit, Olympic Destroyer
- Democratic National Committee, World Anti-Doping Authority
 - Industroyer, BlackEnergy, Triton, Stuxnet
 - Shamoon
- SolarWinds, ProxyLogon, Colonial Pipeline, Kaseya, PolyNetwork (just in 2021!)





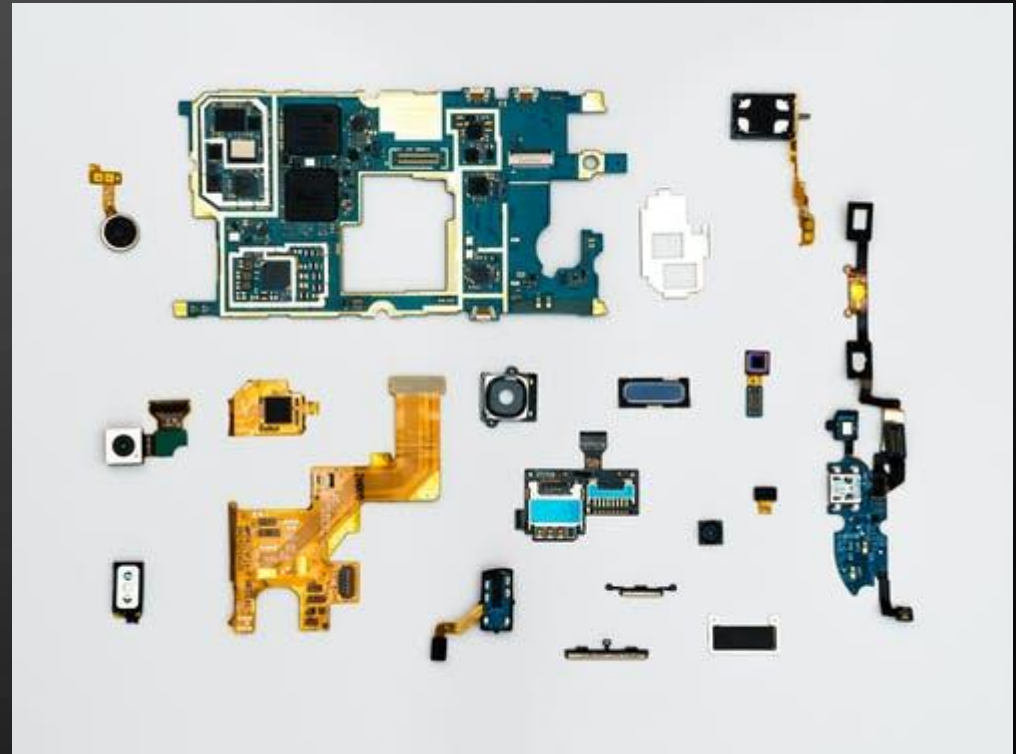
CTI TOOLS

- VirusTotal, AnyRun, URLscan, Shodan, OTX AlienVault, APKLab, Maltego, Twitter



IOC, TTP, IOA

- Indicators of Compromise
- Tactics, Techniques, and Procedures
- Indicators of Attack (New)



SCENARIO PART I

- At one time, a user work station connected to 5 different IP addresses in 5 different countries. What does the SOC do?
- They isolate the device, check netflow history of the device and others on the network, nature of the traffic (which port), device context (user privileges), check what was it doing before it reached out to the Ips
- Collection -> Analysis -> Judgement -> Action



SCENARIO PART II

- What can CTI provide about these IP addresses?
- Use open sources/paid sources e.g. VirusTotal, AbuseIPDB, IPinfo, URLscan, AnyRun, OTX, Abuse.ch, or Shodan
- Find out the owner, the type of system, its previous activity, files contacting the IP, URLs on the IP, domains on the IP, the IPs ports, running services
- Do these overlap with any known threats e.g. APTs, malware families
- Share related TTPs, campaigns, objectives, and impact



THREAT INTELLIGENCE PLATFORMS

ANOMALI



digital
shadows_



CTI-AS-A-SERVICE

VENDOR VS ORGANISATION



CTI-AS-A-SERVICE,
CONSULTANTS,
RESEARCHERS



FORTUNE 1000,
PUBLIC SECTOR,
CRITICAL INFRASTRUCTURE

HOW TO GET INTO THE INDUSTRY

- Create a Blog and GitHub page
- Be active in the community (Twitter, LinkedIn, Discord, Slack)
- Attend Virtual Conferences
- Practice OSINT
- Always Be Learning - Listen to Podcasts & Read Books
- Do Research - I started by looking at SMS phish and phishing kits
- CTFs - TraceLabs Global Search Part OSINT CTF
- Join non-profits – I am a member of the NCPTF

The image shows two screenshots side-by-side. The left screenshot is a GitHub profile for 'BushidoToken' (BushidoUK). It features a profile picture of a person in a blue hoodie with 'BUSHIDO' on the chest, set against a circular background with 'OSINT' and 'Threat Intelligence' text. The profile bio identifies the user as a 'Security Researcher' with 90 followers and 31 following. It lists social media handles for @NCPTFInc, @curatedintel, and @TheMany..., along with a website URL 'https://bushidotoken.net'. A 'Follow' button is visible. The 'Achievements' section shows a '4.8k' score. The right screenshot is a Twitter profile for '@BushidoToken Threat Intel'. The header includes navigation links for Overview, Repositories, Projects, and Packages. The profile picture is the same as the GitHub profile. The bio identifies the user as a 'Security Researcher' with 1,899 followers and 4,792 following. It lists social media handles for @CuratedIntel, @NCPTF8, @ctileague, and #OSINT, along with a website URL 'bushidotoken.net'. The 'Intro' section lists various interests and achievements, including being a security researcher, learning about cyber-espionage, and discovering OZH RAT. The 'How to reach me' section provides contact information for Twitter, email, and a website.

BushidoToken
BushidoUK

Follow

Security Researcher

90 followers · 31 following · ☆ 35

@NCPTFInc @curatedintel @TheMany...

https://bushidotoken.net

@BushidoToken

Achievements

4.8k

Block or Report

BushidoToken's GitHub Stats

Stat	Value
Total Stars Earned:	231
Total Commits (2021):	501
Total PRs:	0
Total Issues:	0
Contributed to:	0

Intro:

- I'm a Security Researcher working in Cyber Threat Intelligence
- I'm currently learning about cyber-espionage
- Ask me about Malware, Phishing, and APts
- Read about my first year in CTI [here](#)
- Fun fact: I discovered OZH RAT
- Tracking Malware Campaigns [here](#)
- Tracking Phishing Campaigns [here](#) and [here](#)
- I currently work for Cyjax, read my research Blogs [here](#)

How to reach me:

Follow @BushidoToken 4.8k

Email will@bushidotoken.net

@BushidoToken Threat Intel

OSINT blog: Reunion in Scotland

September 11, 2021

The Beer Farmers recently issued a geo-location OSINT challenge with a mystery prize for the first person to find them. Under time pressure, I put my OSINT skills to the test to see how difficult it would be to find them. Some Saturday fun. Where are @SeanWrightSec and @AppSecBroke in this photo? First to get it right wins something. @netsecfocus knows what it's like to win a prize from us. #HereForYou pic.twitter.com/L5HKGAFBIX - The Beer Farmers (@TheBeerFarmers) September 11, 2021 I examined the...

[READ MORE](#)

How Do You Run A Cybercrime Gang?

September 04, 2021

Cybercrime has many forms, the most common of which is theft and fraud. Aspiring cybercriminals may begin with off-the-shelf malware or phishing kits and run amateur, but profitable, campaigns. Banking Trojans were the next step up, which intercept and manipulate connections during online banking procedures for...

Will | Bushido
@BushidoToken

Security Researcher • Threat Intel • BSc (Hons) • @Cyjax_Ltd • @CuratedIntel • @NCPTF8 • @ctileague • #OSINT • "TLP: Don't tweet it"

bushidotoken.net Joined March 2013

1,899 Following 4,792 Followers

A decorative graphic on the left side of the image consisting of white circuit lines and nodes on a dark background.

THANK YOU

twitter.com/@BushidoToken

github.com/BushidoUK

bushidotoken.net

