

Kyber bezpečnost

Útoky na aplikace

Vladimír Lazecký

Obsah přednášky

- Darknet



Trendy

- ▼ Útoky jsou čím dál dostupnější laikům
- Snadné provedení
- Oběti samy útok přivolají
- OSINT velmi efektivní pro plánování útoků

Jak se stát hackerem snadno a rychle

- Vyhledávání zranitelností
- ♥ Databáze exploitů
- ☑ Identifikace cílů
- Otevřený internet
- Darknet



Hledání zranitelností

- Otevřený internet
 - Oficiální databáze:
 - Národní autority
 - Open source databáze
 - ✔ Placené databáze
 - Zprávy v otevřených zdrojích
 - ▼ Výrobci (rizika Zero Day Vulnerability)
 - Darknet



Jak najít zranitelnosti – mnoho možností



General +
Vulnerabilities +
Vulnerability Metrics +
Products +
Developers +

Contact NVD Understanding Vulnerability Detail Pages Vulnerability Statuses
Other Sites +
Search + Vulnerabilities

https://nvd.nist.gov/vuln



Jak najít zranitelnosti – národní autority







KNOWN EXPLOITED VULNERABILITIES CATALOG

Download CSV version

Download JSON version

Download JSON schema

Subscribe to the Known Exploited Vulnerabilities Catalog Update Bulletin

Back to previous page for background on known exploited vulnerabilities



VIAVIS

Zranitelnosti – otevřený internet – blogy, články



Latest cybersecurity vulnerability news

Nowadays our lives are increasingly web-connected – so keeping up with security vulnerability news is more crucial than ever.

You wouldn't leave your door unlocked for carjackers; why do the same for cybercriminals by leaving vulnerabilities unpatched?

Don't be caught out by crooks. Get the latest cybersecurity vulnerability news delivered to your desktop as and when it happens.

Check out the articles below for information on the latest IT security vulnerabilities and news on available patches.

Brace of Icinga web

Marcus Hutchins on WannaCry

'Still to this day it feels like it was all a weird dream'

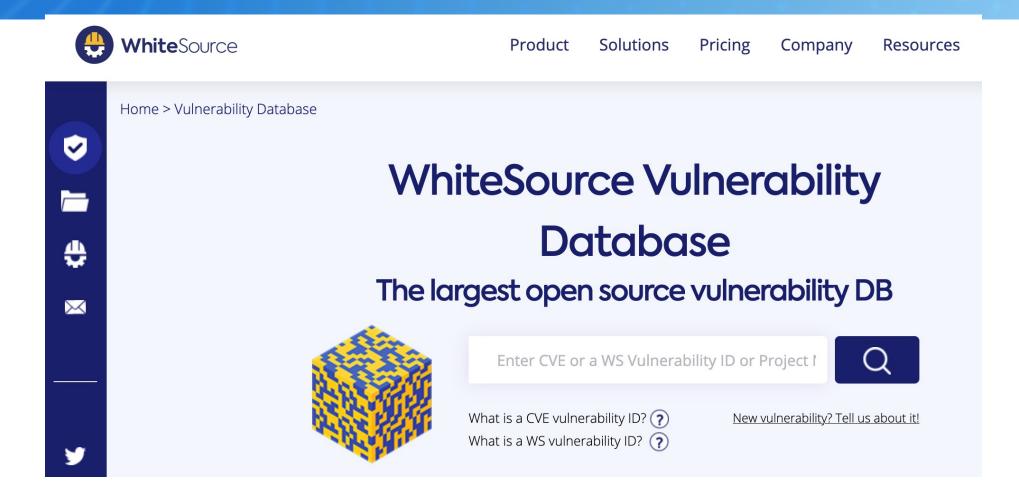
Neutralizing ransomware

Researcher stops REvil in its track with DLL-hijacking exploit

https://portswigger.net/daily-swig/vulnerabilities



Zranitelnosti – otevřený internet – placené databáze



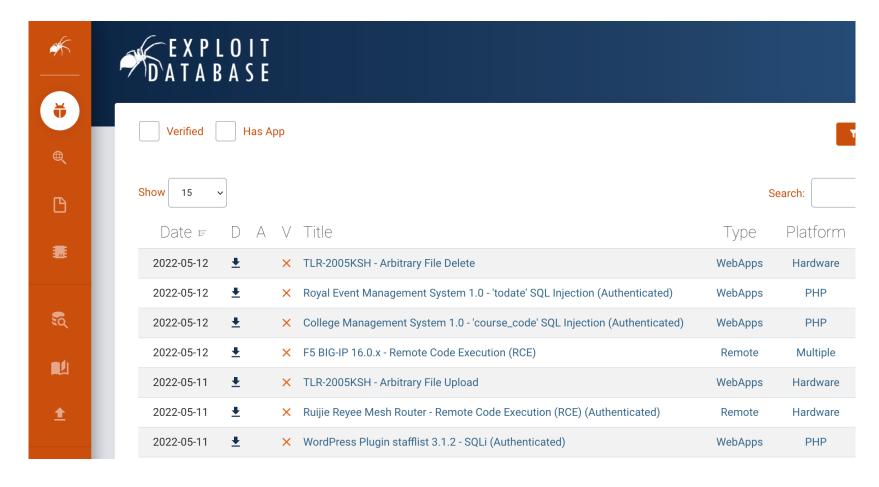


Hledání exploitů

- Exploit = programový kód využívající zranitelnost
- Otevřený internet
 - Databáze exploitů
 - Open source databáze
 - Hackerská fóra
 - Darknet



Jak najít exploit – otevřený internet



https://www.exploit-db.com/



Hackerem snadno a rychle - ukázka...

- ♥ OSINT vyhledání zranitelností kamery HIKVISION
 - ✓ Zranitelnost z roku 2016
 - Vyhledání zranitelných systémů
 - Získání exploitu
 - Plošný útok



Kamery HIKVISION – OSINT zranitelností







Hurá na zranitelné systémy – kamery HIKVISION, kde jsou

² ∂ Shodan	Explore	Downloads	Pricing 🗗	App-webs 2016 country:cz					
TOTAL RESULTS			₩ View Report	─────────────────────────────────────					
151				Keep track of what you have connected to the Internet. Check out Shodan Monitor					
TOP CITIES			185.36.160.1						
Prague	4	41	IP-185-36-160-104.bro uzdal.cz	1111/1.1 200 OK					
Nymburk		7	Brouzdal s.r.o.	Date: Tue, 17 May 2022 06:36:25 GMT Server: App-webs/ ETag: "8e5-1e0-573af102"					
České Budějovice		7	Czechia, Neratovice	vice Content-Length: 480					
Ostrava		6		Content-Type: text/html Connection: close					
Brno		5		Last-Modified: Tue, 17 May 2016 10:22:58 GMT					
More TOP PORTS				Hikvision IP Camera: Web Version: 4.0.1 build 160405 Plugin Version: 3.0.6.1					
80		54		A					
81	2	21							
88	1	11	8 0.78.137.20	08 🚰					
82	1	10	208.137.78.80.client.no rdic.tel						



Exploit – bez práce, jen hledat



Hikvision IP Camera versions 5.2.0 - 5.3.9 (Builds 140721 < 170109) - Access Control Bypass

import requests

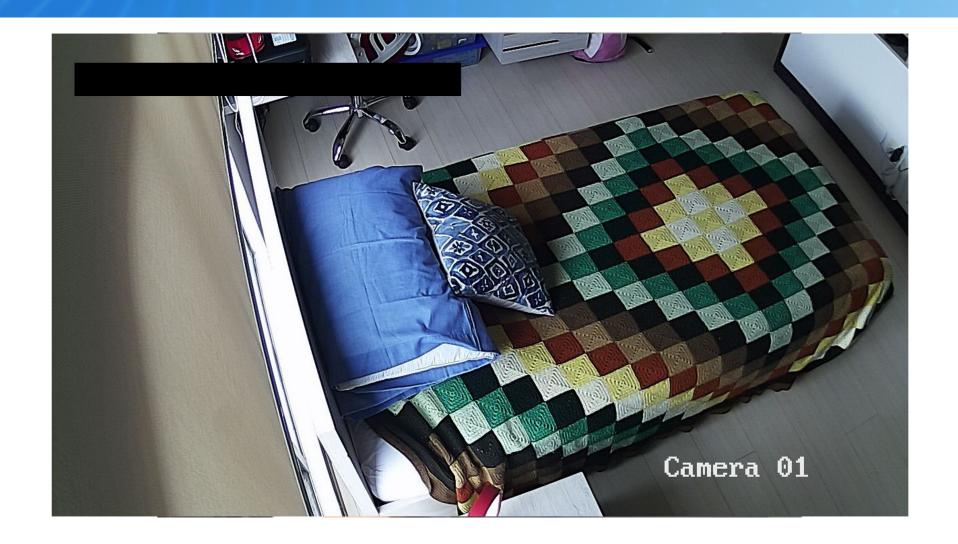
import re

import sys

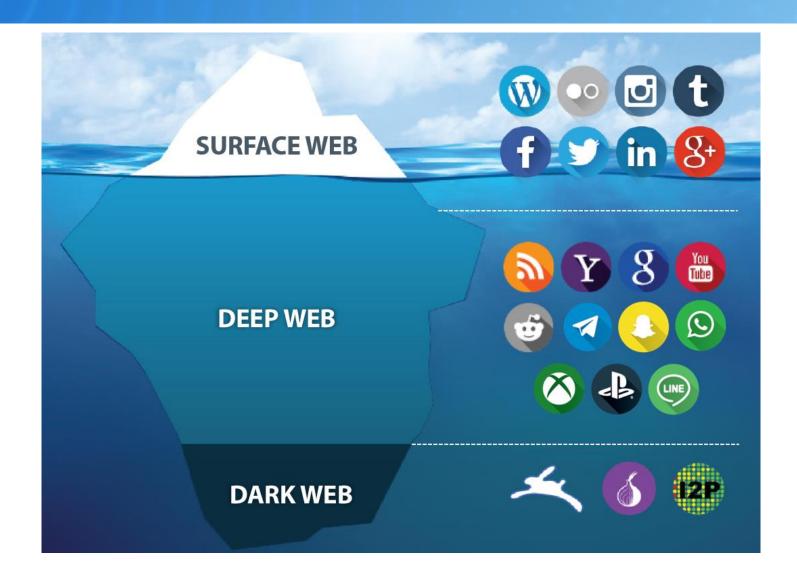
```
EDB-ID:
                    CVE:
                                    Author:
                                                                   Platfor
                                                                                  Date:
                                                   Type:
                                                   MERADDO
                                   MATAMOPDU
                                                                                  2019-02-22
       44328
                      N/A
                                            # Exploit Title: Hikvision IP Camera versions 5.2.0 - 5.3.9 (Builds: 140721 - 170109) Backdoor
                                             # Date: 15-03-2018
                                             # Vendor Homepage: http://www.hikvision.com/en/
                                             # Exploit Author: Matamorphosis
       EDB Verified: X
                                     Expl # Category: Web Apps
                                             # Description: Exploits a backdoor in Hikvision camera firmware versions 5.2.0 - 5.3.9 (Builds:
                                             deployed between 2014 and 2016, to assist the owner recover their password.
                                             # Vulnerability Exploited: ICSA-17-124-01 - http://seclists.org/fulldisclosure/2017/Sep/23
                                             #!/usr/bin/env python
https://www.exploit-db.com/exploits/#145008 python exploit.py [IP Address] [Port] [SSL (Y/N)]
```

VIAVIS

Výsledek...



Darknet... - začneme internetem



Deepweb x Darknet

- Deepweb:
 - Stránky neindexované vyhledávači
 - ✓ Používají HTTP/HTTPS protokoly
 - ✓ Lze se na ně dostat běžným prohlížečem
 - ✓ Je nutné znát adresu
 - Části firemních extranetů, blogy, eshopy...



Deepweb x Darknet

- Darknet:
 - Stránky přístupné pomocí speciálních prohlížečů TOR...
 - Snaha o anonymitu onion
 - Je nutno znát adresu
 - ▼ Nefunkční vyhledávače
 - HiddenWiki
 - POZOR využití pro nelegální činnost
 - Plnou anonymitu nikdo nezaručí
 - **♥ NIC NESTAHOVAT**



Darknet

- Legální obsah
 - Alternativní články, zpravodajství
 - Diskusní fóra
 - ✓ Informační obsah nelegální v některých zemích
 - ✓ Vazby společnosti, osoby, transakce
- ▼ Nelegální obsah
 - ▼ Tržiště nelegální zboží
 - Kriminální činy
 - Hackerská fóra
 - Obsah, který nechcete vidět



Způsoby připojení

Anone

9

Freene

A darknet that is primarily concerned with censorship rather than privacy. It is used for storing data. Will expose your IP unless you use another darknet (ie a VPN) in conjunction, or only use peers you trust.

Tor

The most well known of darknets, and one of the first. One of the best for circumventing firewalls. Tor operates by routing a given connection through a series of nodes, and optionally a bridge if necessary.

12P

The second most well known darknet, I2P operates in a peer-to-peer manner.

I2Prouter		Written in Java, the standard router
I2P+	https://i2pplus.github.io/	A fork of the Java router
I2Pd		Written in C++, is easier on resources and more minimal
Kovri	https://web.getmonero.org/resources/moneropedia/kovri.html [Archive]	An in-development i2p thing designed for the Monero/XMR cryptocurrency

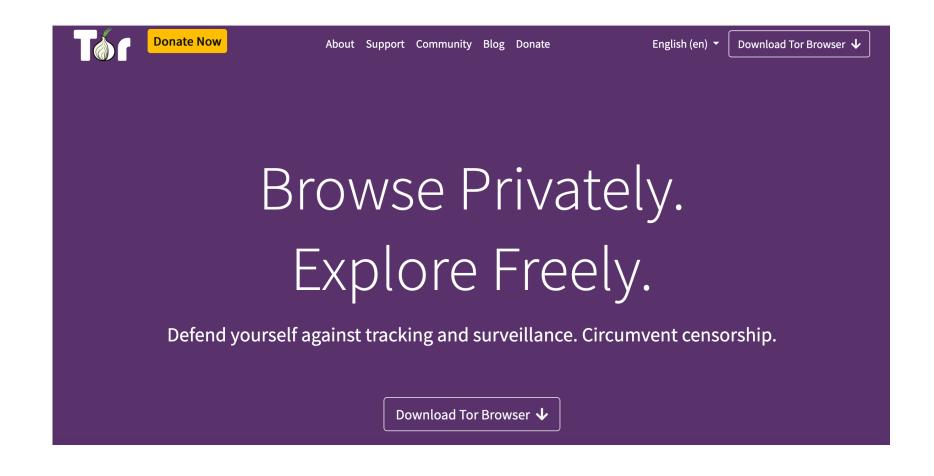
Gnune

Lokine

An onion router that seeks to fix Sybil attacks by way of having exit nodes be invested in. http://web.archive.org/web/20211228031014/http://cheapskatesguide.org/articles/lokinet.html



TOR – dále už bez odkazů...

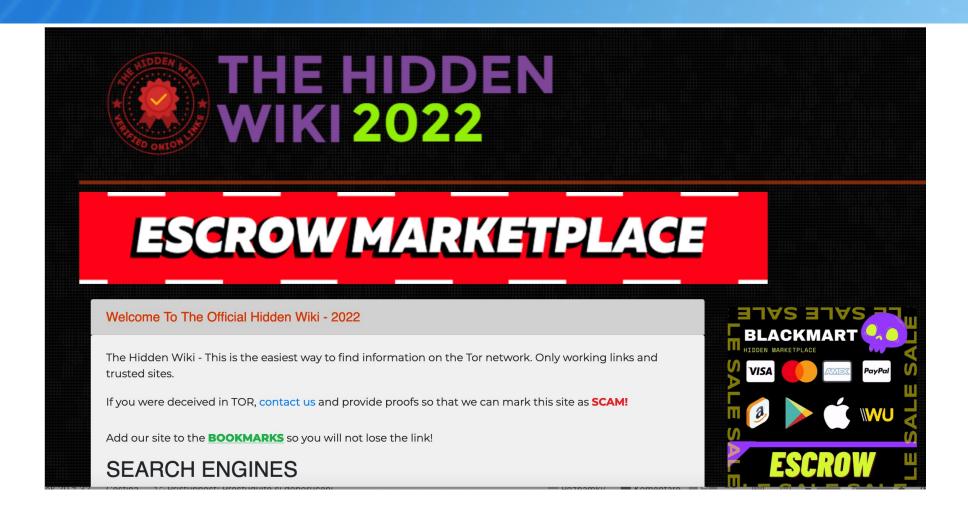




"Bezpečný" OS



The Hidden Wiki





The Hidden Wiki

TheHidden.Wiki TOR Onion Directory

Verified Dark Web Links 2022

Hidden Wiki

Hidden Wiki has been the directory for TOR onion links for the past decade, listing only verified dark web links.

Last Updated on May 2022.

Install TOR Browser from http://torproject.org/

Uncensored Hidden Wiki can be accessed using wiki47qqn6tey4id7xeqb617uj6jueacxlqtk3adshox3zdohvo35vad.onion

Take a minute and check our scam list to know more about dark web scammers.

Hidden Search Engines

- http://oniondxjxs2mzjkbz7ldlflenh6huksestjsisc3usxht3wqgk6a62yd.onion/ OnionIndex Search Engine
- http://duckduckgogg42xjoc72x3sjasowoarfbgcmvfimaftt6twagswzczad.onion/ DuckDuckGo Search Engine
- http://3bbad7fauom4d6sgppalyqddsqbf5u5p56b5k5uk2zxsy3d6ey2jobad.onion/ OnionLand Search
- $\bullet \ \underline{\text{http://tordexu73joywapk2txdr54jed4imqledpcvcuf75qsas2gwdgksvnyd.onion/}} \ \ \text{tordexu73joywapk2txdr54jed4imqledpcvcuf75qsas2gwdgksvnyd.onion/} \ \ \text{tordexu73joywapk2txdr54jed4imqledpcvcuf75qsas2gwdgksvnyd.$
- $\bullet \ \underline{\texttt{http://xmh57jrknzkhv6y31s3ubitzfqnkrwxhopf5aygthi7d6rplyvk3noyd.onion/}} \ \ \mathtt{Torch}$

The Hidden Wiki



OnionLinks



OnionLinks

Short .onion v2 websites will stop working in October 2021. Bookmark OnionLinks or **DARKWEBLINKS.COM** for working v3 .onion sites!

Navigation:

Introduction Points
Financial Services
Commercial Services
Drugs
Chans
Privacy Services
Email Providers
Blogs And Personal Sites
Hacking
News Sites
Open Source Software
Others



Dark Market – možné fungování



Home

About Us

Place Order

Services

Why Choose Us

Terms & Conditions

How it works



1. Buyer and Seller agree to terms



2. Buyer submits payment to Escrow



3. Seller delivers goods or service to buyer



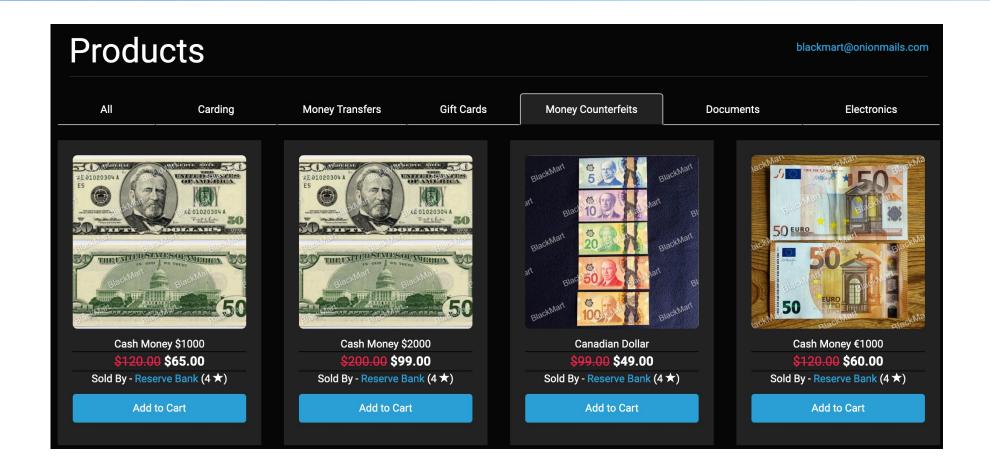
4. Buyer approves goods or services



5. The Escrow releases payment to seller



Dark Market – trestná činnost





OSINT – vazby, souvislosti

Organizations related to intel.com

ORGANIZATION DETAILS

Host intel.com

Name Intel

Contacts <u>2,868</u>

Documents 1,219

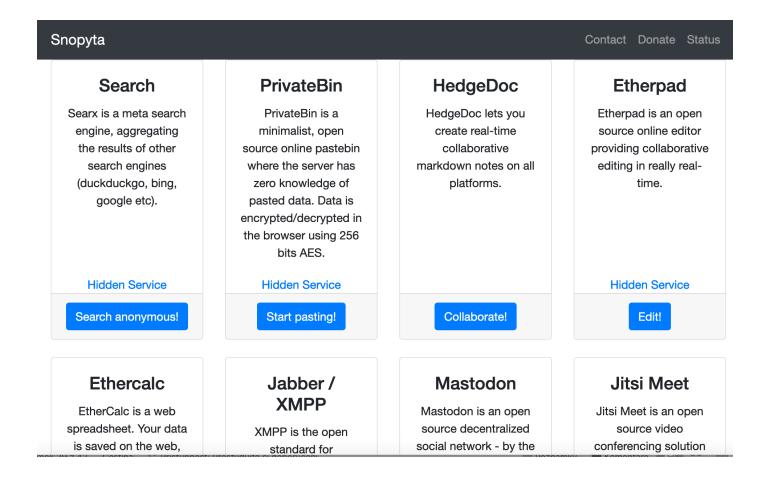
Related 17,685 organizations. Wildcards (*.org, *.edu, *.com, *.gov...) available.

What this information means and where it comes from

	Name	Site	Share of all intel.com	Share of all related site contacts	Affinity index	Common contacts
1	International Business Machines	us.ibm.com	27.36%	14.88%	3	<u>view</u>
2	Hewlett-Packard	<u>hp.com</u>	23.55%	17.31%	2	<u>view</u>
3	Army Knowledge Online (AKO)	us.army.mil	17.49%	4.46%	79	<u>view</u>
4	Qwest.net	<u>uswest.net</u>	17.21%	8.68%	32	<u>view</u>
5	IEEE - Networking The World	<u>ieee.org</u>	16.08%	12.32%	8	<u>view</u>
6	Cisco Systems	cisco.com	15.80%	16.79%	4	<u>view</u>
7	Association for Computing Machinery (ACM)	acm.org	15.37%	17.93%	12	<u>view</u>
8	Microsoft	microsoft.com	15.23%	7.63%	26	<u>view</u>



Hidden services





Darknet nabízí další možnosti...

BlackHost

Home Chat Donate Files Upload Hacker Game Mailer Pastebin Programs Search Services User Webmail Contact Me

Welcome to the Programs section

In this part of the website you can find lots of useful webservices.

Autoclicker

With this program you can set autoclicks with multiple options.

Bat to Exe

The Bat to Exe Converter is a program that enables you to easy convert batch files into executable files.

Email Bomber

With this software you can easily send hundred of mails in just some minutes!

File Crypter

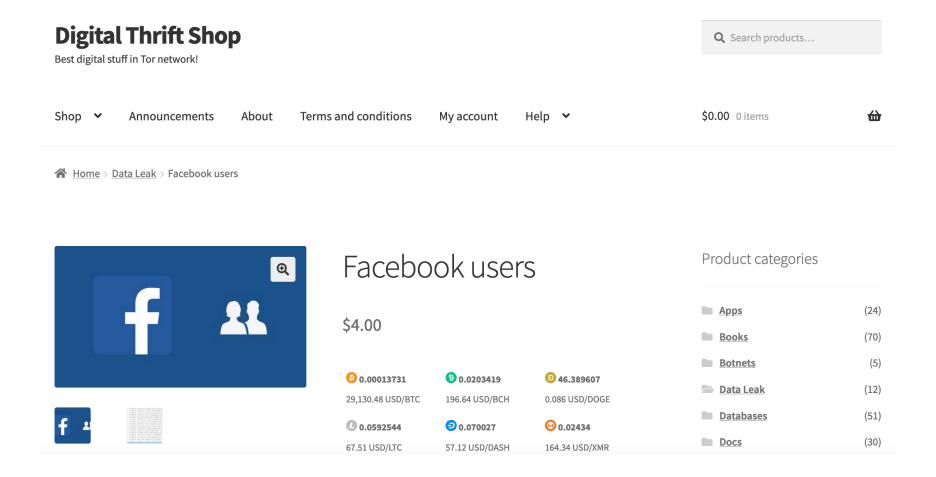
This programs crypts files with a stub and with multiple options.

Spyware – analýza SW





Uživatelské účty





Proč si hlídat digitální identitu

Dox

Stolen identity. Humiliating photos. Blackmail. Stupid chicks and few guys All profiles apply only to adults. If you are one of the girls, and want your profile to be removed from the site, or you are a boyfriend, of one, of the girls and want to help her disappear from the network, please contact us using the contact form. For only \$ 1000 in BTC, your profile will be removed from this shop. Stay safe!

Default sorting ~

Showing 1–15 of 55 results

1

3

4

. ▶



Adrianna Ba \$3.00

Add to cart



Agnieszka C. \$5.00

Add to cart



Agnieszka Kl. \$3.00

Add to cart



Aleksandra Bo. \$4.00

Add to cart



Aleksandra Sn. \$6.00

Add to cart

Jde i o osobní bezpečnost

Remote control the phone of someone else, most new models sup	700 USD = 0.02348 B	1 X Buy now				
Facebook and Twitter account hacking	500 USD = 0.01677 Β	1 X Buy now				
Other social network account hacks, for example reddit or instagra	am	450 USD = 0.01510 β	1 X Buy now			
Full package deal, getting access to personal or company devices searching for the data you need.		1800 USD = 0.06038 \$	1 X Buy now		7	T
DDOS for protected websites for 1 month	Destroying someones life: Your target will have legal problems or financial problems, proven methods including child porn that always works			Price 1700 USD = 0.05703 \$	Quantity 1 X Buy now	
DDOS for unprotected websites for 1 month	Spreading false info	rmation about someone on social media, not as life ruining but still			450 USD = 0.01510 B	1 X Buy now
Hacking webservers, game servers or other internet infrastructure	Social engineering to get secrets from a person, private or from some employee				450 USD = 0.01510 B	1 X Buy now
	Other social engine	ering work			500 USD = 0.01677 B	1 X Buy now
Z	30 days full service	, i will work 8 hours	per day for 30 days	only on your project	7500 USD = 0.25160 B	1 X Buy now

Pro představu...



Product	Price	Quantity			
Czech ID Card	500 EUR = 0.01729 B	1 X Buy now			
Netherlands ID Card	550 EUR = 0.01902 B	1 X Buy now			
Denmark ID Card	550 EUR = 0.01902 B	1 X Buy now			

Zranitelnosti, exploity...

Darknetlive

Home Arrests Markets Crypto Forums Onions Sh

Home / Posts / Paris: Versus Market Exploit "is Real"

Paris: Versus Market Exploit "is Real"

~14 mins | Published by <u>Darknetlive</u> on 18 May, 2022 in <u>News</u> and tagged <u>Darkweb Markets</u> using 2948 words. | <u>16 Comments</u>

The Versus Market exploit is legitimate, Paris claimed.

A user on Dread (/u/threesixty) hacked Versus Market "in a time span of about 2 hours," according to a post on the Versus subdread. "Please remove security driven from your website title. You are not security driven."

Hacked, you are not security driven

by /u/threesixty · 2 days ago* in /d/Versus

Please remove security driven from your website title. You are not security driven. Yes, I could probably just extort you or become a payoff for keeping quite about this, but no thank you. You can still pay me though.

This happened in a time span of about 2 hours. Think about what LE and advanced hackers might have done in the meantime.



Zranitelnosti, exploity...

Darknetlive

Home Arrests Markets Crypto Forums Onions Sh

Home / Posts / Paris: Versus Market Exploit "is Real"

Paris: Versus Market Exploit "is Real"

~14 mins | Published by <u>Darknetlive</u> on 18 May, 2022 in <u>News</u> and tagged <u>Darkweb Markets</u> using 2948 words. | <u>16 Comments</u>

The Versus Market exploit is legitimate, Paris claimed.

A user on Dread (/u/threesixty) hacked Versus Market "in a time span of about 2 hours," according to a post on the Versus subdread. "Please remove security driven from your website title. You are not security driven."

Hacked, you are not security driven

by /u/threesixty · 2 days ago* in /d/Versus

Please remove security driven from your website title. You are not security driven. Yes, I could probably just extort you or become a payoff for keeping quite about this, but no thank you. You can still pay me though.

This happened in a time span of about 2 hours. Think about what LE and advanced hackers might have done in the meantime.



Lze se bránit? Ano, lze

- Brát bezpečnost vážně
 - Důslednost, systematičnost, vytrvalost
- Nepřitahovat pozornost
 - ✓ Sledovat zranitelnosti
 - Odstraňovat je
 - ✓ Nekomunikovat je
- Mít svou digitální stopu pod kontrolou
 - OSINT
 - Proaktivní kroky



Proč OSINT

- ▼ Trend v plánování útoků (nejen kyber)
- ♥ OSINT lze jen velmi obtížně zachytit
- ▼ Český jazyk pomalu ztrácí svou výhodu
- ▼ Kdo z nás má svou digitální stopu pod kontrolou?

OSINT – Open Source Intelligence



A Beginners Guide to OSINT

OSINT - Open Source Intelligence that refers to a collection of data/information by exploiting publicly available resources. It is used for digital intelligence and investigation process that uses cyber tools to find strategic information in open sources that are obtained legally and ethically.

https://www.csnp.org/post/a-beginners-guide-to-osint



OSINT – něco odkazů pro inspiraci



https://i-intelligence.eu/



Doporučení

- Nepodceňovat digitální stopy
- Mít přehled o zranitelnostech
- Pravidelný OSINT organizace, osoba
- Brát bezpečnost vážně

Profesionální OSINT

- Otevřený WEB, deepweb, darknet
- ♥ Organizace, osoba
- ▼ Vazby mezi subjekty, uniklé dokumenty a data, hesla, osobní data
- ▼ Nejde o levnou službu (placené přístupy do tržišť)
- OSINT vyplatí, jde o nezbytnou součást bezpečnosti



