The presentation will begin at 10:00 am CST
- Please **mute your computer or phone**
- Please **turn off your cameras** to save bandwidth
- Questions will be answered at the end of the presentation
- *Use the chat box for questions*
- Please complete the surveys that will be emailed after the presentation

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- Air Force Veteran
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- Former Small Business Owner
- Cybersecurity

UTSA IED

- The UTSA Institute for Economic Development (IED) provides ongoing:
  - Consulting
  - Training
  - Technical research and information services in tandem with University-based assets and resources, and other state, federal and local agencies, to facilitate economic, community, and business development throughout the 79 Counties of South Texas and the Border Region plus Oklahoma and Louisiana.
- *www.iedtexas.org*

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Our Service Areas

Supports a 79-county SBDC Network covering the following areas:

- San Antonio
- Alpine
- Austin
- Corpus Christi
- Eagle Pass

- El Paso
- Laredo
- Rio Grande Valley
- San Angelo
- Victoria

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1. **COVID Business Recovery Accelerator**
   - Assisting small businesses in the area of COVID business recovery
2. **Texas Cybersecurity Compliance Program**
   - A collaboration with the IED, UTSA Center for Infrastructure Assurance and Security (CIAS) and SBDCs throughout the state of Texas to provide the Texas Cybersecurity Compliance Program (TCCP)
3. **Cybersecurity for Small Businesses**
   - Provides awareness through training, one-on-one assistance with the cybersecurity action plan development and implementation working with other UTSA specialty centers on cybersecurity
4. **Small Business Emergency Preparedness**
   - Assist small businesses with preparing for disasters, business interruptions and being ready for anything
5. **Employer Services**
   - Provides direct assistance to small business employers in the areas of employment practices, regulatory compliance, job site safety, drug-free workplace, and effective HR management

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Agenda

- What is Cryptojacking
- Why Cryptojacking is a threat to your business
- What does it look like
- What to do if you are a victim of cryptojacking
- How to protect your business from cryptojacking
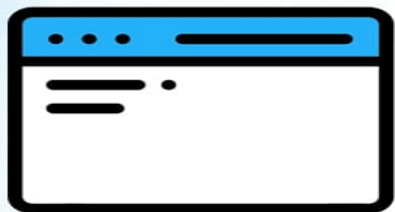- Q&A

What is Cryptojacking

cryp• to• jack •ing

/ˈkriptōjakiNG/

noun

a type of cybercrime that involves the **unauthorized use** of connected devices (computers, smartphones, tablets, or even servers) to **mine[2] for cryptocurrency[1]**. Like many forms of cybercrime, the motive is profit.
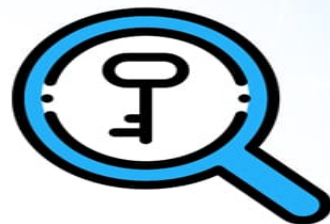
But
FIRST ★ ★ ★

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What is Cryptocurrency?

Blockgeeks

Cryptocurrency is digital money created from code.

The cryptocurrency economy is monitored by a peer-to-peer internet protocol.

Cryptocurrency is an encrypted string of data or a hash, encoded to signify one unit of currency.

Examples of Cryptocurrency

Bitcoin Market Cap
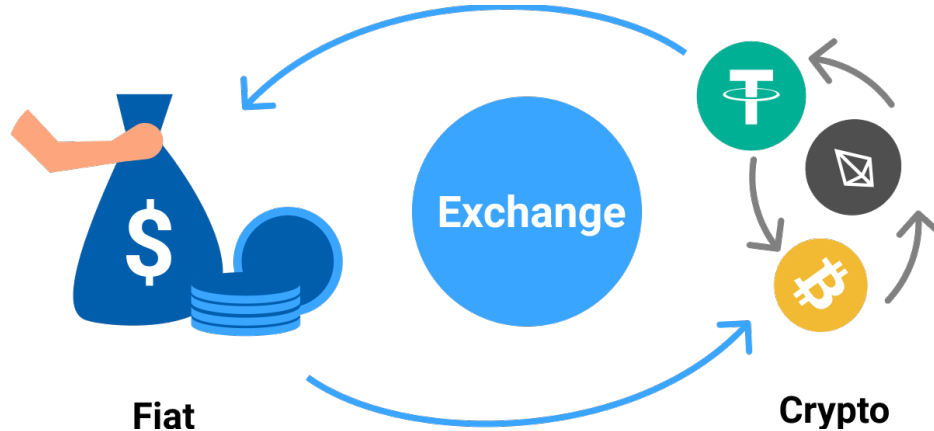$127,331,758,431

Ethereum Market Cap
$24,383,863,767

XRP Market Cap
$18,187,690,567

Buying and Selling Cryptocurrency

Exchange

Fiat

Crypto

Popular Exchanges
- Coinbase Exchange
- Binance.US
- Kraken

Popular Crypto Wallets
- Ledger Nano X
- Coinbase Wallet
- Exodus

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What is Bitcoin Mining?

How Bitcoin Transactions work

She uses her private key and signs a message with the amount of bitcoins and Bob's address, requesting a transaction.

Alice wants to buy a product from Bob using Bitcoin.

The transaction requested by Alice is bundled into a "block" with other transactions.

The block is broadcast to all mining nodes in the Bitcoin network.

The network of nodes validates Alice's transaction using algorithms in a process called mining.

The first miner to validate a new block for the blockchain receives a portion of the Bitcoin as a reward.

The transaction is complete and the new block is added to the blockchain.

The block is permanent and cannot be modified.

Bob receives his bitcoins from Alice.

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- ## What it is

Cryptojacking occurs when a cyber criminal steals computing resources from a connected device for the mining of cryptocurrency.

- ## Why it happens

Mining cryptocurrency takes an enormous amount of computing power.

Mining Malware Increases
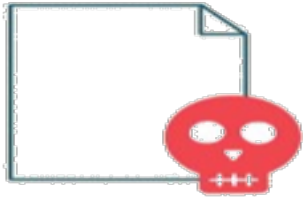**4,000%**[1]

www.blackfog.com

1. McAfee Labs, Dec. 18

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The Harm of Cryptojacking

HARMFUL

- Higher energy bills
- Reduced equipment lifecycle
- Reduced work efficiency
- Decreased speed

Cryptojacking Methods

File-Based

Browser-Based

Cloud-Based

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1. Compromise an asset to embed malicious script
2. Execute cryptomining script
3. Cryptomining begins
4. Hijacked resources are used to solve complex algorithms
5. Cryptojackers receive cryptocurrency reward for completing transactions
6. Repeat

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Signs Your Device or Network Have Been Infected

- Decrease in device performance
- Reduced internet speed across the network
- Overheating of connected devices
- Unexplained increase in CPU usage
- Physical signs (expansion, melting)
- Devices shutting down unexpectedly
- Higher energy bills!

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Preventing Cryptojacking

Employee training
Monitor network devices
Monitor your electric bill
Web filtering
Monitor your web sites for cryptojacking scripts
Use browser extensions that are designed to block crypto mining
Endpoint protection (Anti-Virus and Anti-Malware)
Install updates and patches

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1. Determine where the script "lives"
2. Isolate infected device(s) during remediation
3. Uninstall affected browsers if applicable
4. Run anti-virus/malware to detect and remove script
5. Blacklist the source of script if known
6. Install prevention tools if they are not already
7. Reinstall browser
8. Scan and monitor to verify scripts are eradicated

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Cybersecurity Maturity Model Certification (CMMC)
Level 1 : Sep 14th | 9:00 AM – 1:00 PM CST | No Cost
Level 2 : Sept 21st & 23rd | 10:00 AM – 1:00 PM CST | No Cost
Level 3 : Sept 28th & 30th | 10:00 AM – 1:00 PM CST | No Cost

Pivoting Opportunities with the City of Austin, Travis County and UT
Sept 23rd | 10:00 – 11:00 AM CST | No Cost

https://cgc.txsbdc.org/training/

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