SOCIAL ENGINEERING

Percent of hackers that use social engineering as part of every attack

84%

Amount the average 10,000-employee company spends a year dealing with phishing attacks

$3.7M

https://blog.willis.com/2016/01/social-engineering-is-bigger-than-hacking-but-countermeasures-work/

TYPES OF SOCIAL ENGINEERING

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<thead>
<tr>
<th>PHISHING</th>
<th>SPEAR PHISHING</th>
<th>VISHING</th>
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<th>SMISHING</th>
<th>MINING SOCIAL MEDIA</th>
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www.vasco.com/crontosign
WHAT IS DEFENSIVE SOCIAL ENGINEERING

SOCIAL CYBERDEFENSE OF URBAN CRITICAL INFRASTRUCTURE

TYPES OF DEFENSIVE SOCIAL ENGINEERING

• Cyber negotiation
• Honeypots and decoy systems
• Obfuscation techniques
• Misinformation campaigns
• Employee education and awareness efforts
• Devaluing assets upon compromise
• Proactive defensive signaling

and now... Blockchain Business Process
WHAT IS BLOCKCHAIN

WHERE SHOULD WE FOCUS THIS YEAR?  “BLOCKCHAIN”

IT WILL CHANGE EVERYTHING.

EVERYBODY IS TALKING ABOUT IT.

THE POTENTIAL APPLICATIONS ARE ENDLESS.

WE DON’T WANT TO BE LEFT BEHIND.

WHAT EXACTLY IS BLOCKCHAIN?

ALSO, “ARTIFICIAL INTELLIGENCE”

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HOW DOES IT WORK?

One party requests a transaction.

Requested transactions are forwarded into a P2P network and broadcast to each individual computer/nodes.

Individual nodes receive the request and validate the transaction using an algorithm.

Approved transactions are represented as blocks and added to a public ledger.

Once the block is added to an existing chain, transactions are complete and permanent.
BLOCKCHAIN NODES

- Computer that joins the blockchain
- Downloads the entire blockchain
- Consistently updates blockchain by adding new blocks to the node in defined intervals
- Communicates with other blockchain nodes
- Validates and relays transactions

https://blockgeeks.com/guide/what-is-blockchain-technology/

BLOCKCHAIN BENEFITS

- No central control
- No single point of failure
- Transparent
- Immutable
- Trustless
TO TRUST OR NOT?

https://medium.com/@preethikasireddy/eli5-what-do-we-mean-by-blockchains-are-trustless-a240635d596

TRUSTLESS

https://medium.com/@preethikasireddy/eli5-what-do-we-mean-by-blockchains-are-trustless-a240635d596
HOW CAN WE USE THIS PROCESS TO DEFEND OUR ORGANIZATIONS?

1. A hacker targets a company.
2. Following the social trail, he identifies some people the employee may know.
3. A fake but recognizable email address is created to impersonate a colleague or boss.
4. A personalized email is sent to the employee from the fake address with a link or attachment.
5. The email passes the spam filter and arrives at the employee's inbox.
6. The employee is tempted because they know the sender.
7. A link is clicked or attachment opened.
8a. Opened website causes configuration to be stolen/database to be installed.
8b. Opened attachment causes malware to infect the computer, smartphone/network.
9. The hacker uses the backdoor to steal information.

RADICAL TRANSPARENCY AND ACCOUNTABILITY

How email works

Blockchain

https://cybersail.org/tipofthemonthphishing/

DO WE NEED BLOCKCHAIN FOR THIS?

• What use cases of business processes would benefit from trustless interactions and protect against social engineering?

• Is blockchain needed to facilitate radical transparency and accountability? What else can be used?

• What is realistic to build or do in your organization?
RECAP

- Social Engineering is an issue for your organization
- We need to figure out better ways to defend ourselves
- Current training and processes are expensive
- Rethinking how we trust each other and our devices can reduce risk exposure
- Blockchain-like thinking could help get us to a trustless model that can defend against hackers

QUESTIONS?