Cybercrime Trends

2019 Update

WEALTH ADVISORY | OUTSOURCING | AUDIT, TAX, AND CONSULTING

Investment advisory services are offered through CliftonLarsonAllen Wealth Advisors, LLC, an SEC-registered investment advisor

Create Opportunities

Current State of Affairs

What are the bad guys up to?

WEALTH ADVISORY | OUTSOURCING | AUDIT, TAX, AND CONSULTING

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Hackers have “monetized” their activity

- More hacking
- More sophistication
- More “hands-on” effort
- Smaller organizations targeted

Current State of Affairs

Organized Crime

- Wholesale theft of personal information

Ransomware

- Holding your data hostage

Payment Fraud

- “Corporate Account Take-Over” - aka CATO
- Use of credentials to commit online banking and credit card fraud

Credential “Harvesting”

Organized Crime

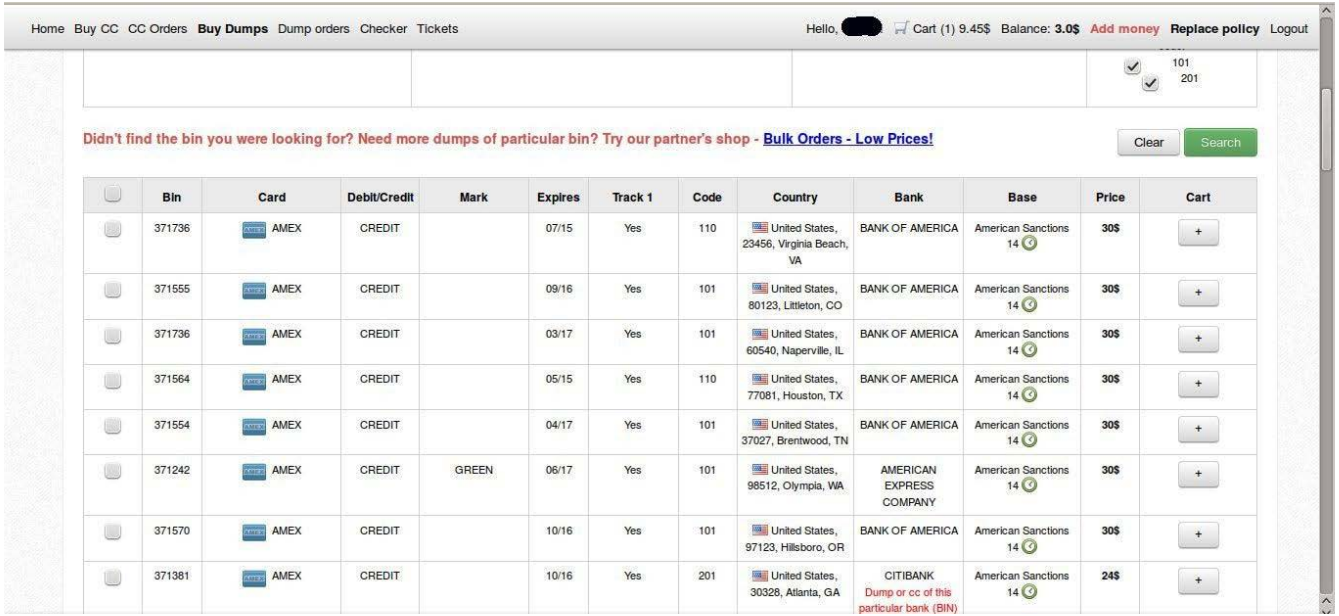
Current State of Affairs

Hacking is run like a business with different departments

- Writing malware
- Sending phishing emails
- Stealing data
- Selling data
- Conducting payment fraud
- Etc.

Organized Crime

Current State of Affairs


Home Buy CC CC Orders Buy Dumps Dump orders Checker Tickets
Hello, [redacted]
Cart (1) 9.45$ Balance: 3.0$ Add money Replace policy Logout
☑ 101
☑ 201
Clear
Search

Didn't find the bin you were looking for? Need more dumps of particular bin? Try our partner's shop - Bulk Orders - Low Prices!

□	Bin	Card	Debit/Credit	Mark	Expires	Track 1	Code	Country	Bank	Base	Price	Cart
□	371736	AMEX	CREDIT		07/15	Yes	110	United States, 23456, Virginia Beach, VA	BANK OF AMERICA	American Sanctions 14	30$	+
□	371555	AMEX	CREDIT		09/16	Yes	101	United States, 80123, Littleton, CO	BANK OF AMERICA	American Sanctions 14	30$	+
□	371736	AMEX	CREDIT		03/17	Yes	101	United States, 60540, Naperville, IL	BANK OF AMERICA	American Sanctions 14	30$	+
□	371564	AMEX	CREDIT		05/15	Yes	110	United States, 77081, Houston, TX	BANK OF AMERICA	American Sanctions 14	30$	+
□	371554	AMEX	CREDIT		04/17	Yes	101	United States, 37027, Brentwood, TN	BANK OF AMERICA	American Sanctions 14	30$	+
□	371242	AMEX	CREDIT	GREEN	06/17	Yes	101	United States, 98512, Olympia, WA	AMERICAN EXPRESS COMPANY	American Sanctions 14	30$	+
□	371570	AMEX	CREDIT		10/16	Yes	101	United States, 97123, Hillsboro, OR	BANK OF AMERICA	American Sanctions 14	30$	+
□	371381	AMEX	CREDIT		10/16	Yes	201	United States, 30328, Atlanta, GA	CITIBANK Dump or cc of this particular bank (BIN)	American Sanctions 14	24$	+

https://www.deepdotweb.com/wp-content/uploads/2014/10/listings.jpg

Ransomware

Current State of Affairs

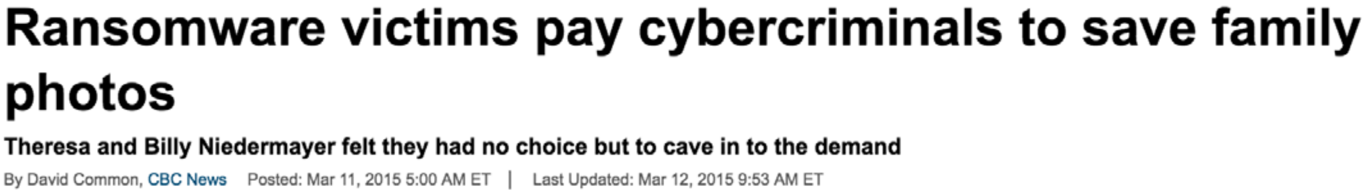
- CryptoWall, CryptoLocker, wannacry, petya, etc.
- Encrypt all data, hold it “ransom” for $$
  - Data on local machine and on network
- Attackers are putting much more time and effort into these types of attacks over the last year
- Starting to target other operating systems, like Macs

Ransomware

3 Generations

1. Local machine only
2. Local machine plus network permissions
3. Local machine plus ***ENTIRE NETWORK***

Current State of Affairs



Ransomware victims pay cybercriminals to save family photos

Theresa and Billy Niedermayer felt they had no choice but to cave in to the demand

By David Common, CBC News Posted: Mar 11, 2015 5:00 AM ET | Last Updated: Mar 12, 2015 9:53 AM ET

"Theresa and Billy Niedermayer paid an **$800** ransom to get precious family photos of their three young boys back from cybercriminals."

http://www.cbc.ca/news/technology/ransomware-victims-pay-cybercriminals-to-save-family-photos-1.2962106

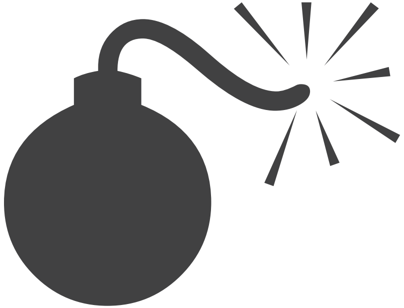
Payment Fraud

Current State of Affairs

- Public School
- Hospice
- Municipal Government (City)
- Main Street newspaper stand
- Electrical contractor
- Health care trade association
- Rural hospital
- Mining company
- On and on and on and on……………..

CATO – 3 Versions

1. Deploy malware – keystroke logger
2. Deploy malware – man in the middle
3. Recon/email persuasion
    1. ***"Whaling"***
    2. ***Business email Compromise***
    3. ***CEO attack***
        1. ***NEW – W2 attacks***



Payment Fraud

Multi-Factor Authentication Solutions

- MFA is critical
- Silver bullet?
- Text msg?

CATO Defensive Measures

- Multi-layer authentication
- Multi-factor authentication
- Out of band authentication
- Positive pay
- ACH block and filter
- IP address filtering
- Dual control
- Activity monitoring

Credential Harvesting

Credential Harvesting

- Driven by movement to the cloud
- Malware
- Social engineering

Payment Fraud

Mitigation Keys

- Train users regarding email phishing
- Maintain current patch levels
- Remove local administrators
- ***Maximize relationship with the bank***
- ***Isolate the PC used for online banking***
- Implement breach monitoring/ incident response
- Use MFA for all cloud apps

Current State of Affairs

The Cost

Global cybercrime cost business up to:
$400 **BILLION** annually

Some companies theorize it will reach:
$2.1 **TRILLION** by 2019

> "There are only two types of companies: Those that have been hacked and those that will be. Even that is merging into one category: those that have been hacked and will be again."
>
> \- Robert Mueller

Questions?

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