

## **Outline**

- What is the Difference between Digital Security and Digital Privacy?
- How to Protect Your Digital Assets.
- How to Protect Your Digital Privacy.
- You've Been Compromised Now What?

### **Outcomes**

- Know What is Digital Security and Digital Privacy.
- Know Top Actions You Should Take to Protect Your Digital Assets & Privacy.
- Know When Your Digital Security and Digital Privacy have been Compromised and What to Do.

## What is Digital Security & Privacy?

- Digital security and privacy are two significant issues.
- Digital security pertains to protecting your digital assets.
- Digital privacy has two parts:
  - How you protect your digital identity.
  - How you protect your digital privacy.

### **Top 5 Actions**

### **Protect Your Digital Assets, Identity, & Privacy**

- 1. Use a Password Policy
- 2. Protect Your Credit Files
- 3. Protect Digital Data in the Cloud
- 4. Use Privacy Controls
- 5. Do Not Allow
  - 3<sup>rd</sup> Party Cookies
  - Clickstream Tracking
  - Geotracking

## What are my Digital Assets?



















### What is my Digital Identity?











Programmer
Web Developer
Program Assistant
Project Manager
Program Manager



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200	WT21		209426	12/28/2009	12/28/2009	1/1/2010
-17	WSP200W		CREDIT	2/19/2009	2/19/2009	2/20/2009
-1	WSP200W		CREDIT	2/19/2009	2/19/2009	2/20/2009
5	WPBD452		210441	11/18/2010	11/17/2010	11/19/2010
1	WPB382		TOWN	11/5/2010	11/5/2010	11/5/2010

## What Threats to My Digital Identity?

Compromised
Personal Identifying
Information (PII)

Compromised
Digital
Credentials

Compromised Digital Device Identification

Name

**Driver's license number** 

SSN

Home address Birthplace Passport number

Date of Birth

Telephone number Fingerprints

Credit card numbers

Facial Recognition Nickname

Vehicle registration plate number

**Email address** 

Login name

IP address

**Password** 

Handle

Screen name

**Tracking ID** 

**Digital Certificate** 

IP address

**ESN** 

Serial No

**MAC Address** 

Barcode

**RFID** 

### What are Digital Threats?

#### **Types of Threats**

Physical damage
Natural events
Loss of essential services
Compromise of information
Technical failures
Compromise of functions

#### **Threat Origination**

Deliberate
Accidental
Environmental
Negligence

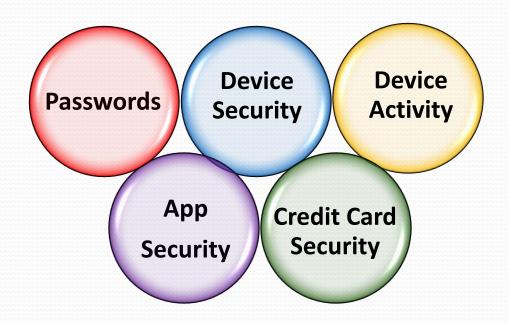
#### **Threat Classification**

(STRIDE Model)
Spoofing of user identity
Tampering
Repudiation
Information disclosure
(privacy breach or Data leak)
Denial of Service (D.o.S.)
Elevation of privilege

## **FBI Top Cyber Threats for 2020**

- Ransomware
- E-Mail Compromise
- Malware/Scareware
- Phishing/Spoofing
- Credit Card Fraud / Misuse
- Data Breach
- Denial of Service

### **Protect Your Digital Assets in 5 Domains**



# How to Protect Your Digital Assets Passwords

- Use a Password Policy
- Use a Password Manager
- Use a Separate Password for:
  - Devices
  - Online and Offline Accounts

### **Password Protection Policy**

Asset Value	Type of Site	Password Strength
Low	Social Media	3 Level
Medium	Site where you pay for something	6 Level
High	Medical Site	8 Level & MFA
Very High	Banking	10 Level & MFA

- Develop a password usage policy based on type of asset.
- Never use the same password for your router/computer/email or online accounts.
- Avoid information of commonly known information (friends/family/colleagues).
- Encourage writing down passwords:
  - Keep in a safe place
  - Password Manager
  - Encrypted File

## **Password Strength Levels**

Level	Asset Value	Alpha Characters	Numeric Characters	Special Characters	Total	MFA
1	None	4 (1 -UC)	2 (0-9)	2 - !@#\$%^&*()?<>	8	No
2	Low	5 (2-UC)	2 (0-9)	2 - !@#\$%^&*()?<>	9	No
3	Little	6 (3-UC)	2 (0-9)	2 - !@#\$%^&*()?<>	10	No
4	Some	7 (2-UC)	2 (0-9)	2 - !@#\$%^&*()?<>	11	No
5	Medium Low	8 (4-UC)	2 (0-9)	2 - !@#\$%^&*()?<>	12	No
6	Medium	8 (4-UC)	3 (0-9)	2 - !@#\$%^&*()?<>	13	No
7	Medium High	8 (4-UC)	3 (0-9)	3 - !@#\$%^&*()?<>	14	No
8	High	4 (1 -UC)	1 (0-9)	1 - !@#\$%^&*()?<>	6	Yes
9	Very High	4 (2-UC)	2 (0-9)	2 - !@#\$%^&*()?<>	8	Yes
10	Extremely High	6 (2-UC)	2 (0-9)	2 - !@#\$%^&*()?<>	10	Yes

### **Number & Special Character Sequence Password Use**

- Old Telephone Number Reversed
- Old House Number Addresses
- Graduation Date
- Other Special Date
- No SSN
- No Birthdate

#### **Numbers**

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 0

#### **Special Characters**

- 1 !
- 2 @
- 3 #
- 4-\$
- 5 %
- 6 ^
- 7-&
- 8 \*
- 9-(
- 0 )

#### **Special Characters**

- \
- "
- •
- •
- ;
- <
- >
- ?
- /

### **Mnemonic Password Protection Policy**

- Mnemonic Password
  - Slogan
  - Lyric of Song
  - Passage
  - Part of a poem
  - A Number Sequence.
  - Replace Lower Case with Upper Case.
  - Replace Number with special character.

- I Can't Believe I Ate The Whole Thing IcBlaTwT

  AlkaSeltzer TV Commercial
- Imagine there's no countries, It isn't hard to do - ItNcliHtD

**Imagine – John Lennon** 

 The most beautiful things in the world cannot be seen or touched – tMbTiTwCbSoT

**Quote from Hellen Keller** 

You may shoot me with your words, You may cut me with your eyes - yMsMwYwyMcMwYe

**Still I Rise by Maya Angelou** 

#### **Multi Factor Authentication Protection**



**Security Token** 



Smartphone Security Code



Web-based Security
Authorization



**Smartphone App** 



**Biometric Security** 

### **Password Generators & Checkers**

#### **Online Password Generators**

- Strong Password Generator
- Strong Password Generator 2
- LastPass Password Generator
- Strong Random Password Generator
- <u>DashLane Password Generator</u>
- Random Password Generator
- 14 Best Password Generators

#### **Online Password Checkers**

- Kaspersky Lab Password Checker
- Dashlane Password Checker
- My1Login's Password Strength
   Checker
- Password Checker Online
- RoboForm How Secure Is My Password

## **Password Managers**

#### **PC Magazine Best Password Managers**

RANK	PROGRAM	COST
1 – Editor Choice	Dashlane 3	Free / Premium - \$5/M / Plus - \$10/M
2– Editor Choice	Keeper Password Manager & Digital Vault	Free / Express - \$2/m / Advanced - \$5/M / Pro \$15/M
3	RoboForm Everywhere 7	Free / Indiv - \$23.88/Y / Family - \$47.75 /Y
4	LastPass 3.0	Families (6) - \$4/M
5	LastPass 3.0 Premium	\$2/M
6	Zoho Vault	Free / \$0.9 per user per month
7	Sticky Password 7	Free / 14.99/Y
8	Intuitive Password 2.9	Free / Express - \$2/m / Advanced - \$5/M / Pro \$15/M
9	Keeper Password Manager & Digital Vault 8	Personal \$2.50/M / Family \$5/M
10	Norton Identity Safe	Free
11	my1login_	Free

# How to Protect Your Digital Assets Application Security

- Use and Update Antivirus Programs
- Update Your Apps Regularly
- Online / Cloud Apps
- Mobile Apps
- Local Resident Apps



# How to Protect Your Digital Assets Device Security

- Secure All Devices Antivirus & App Updates:
  - Desktop
  - Laptop Tablet
  - Smartphone
  - Smart Watch
  - IoT Devices
- Backup Your Data Regularly



# How to Protect Your Digital Assets Device Activity

- Monitor Your Computer Activity.
- Never open attachments or links in email, IM's from unknown people.
- Watch out for Social Engineering

# How to Protect Your Digital Assets Credit Card Security

- Use Online CC for all Online Purchases.
- Use Offline CC for all Offline Purchases.
- Use Single Use CC for big purchases.
- Monitor Your Financial Accounts (Text Alerts)
- Receive Free Credit Report Monitoring.
- Freezing and Lock Your Credit Files
- Free Dark Web Scan



# How to Protect Your Digital Assets Stopping Robocalls - Text - Phone Scams

- Don't answer calls from unknown numbers. If you answer such a call, hang up immediately.
- Be aware: Caller ID showing a "local" number does not necessarily mean it is a local caller.
- Do not respond to any questions, especially those that can be answered with "Yes."
- Never give out personal information:
  - account numbers
  - Social Security numbers
  - mother's maiden names
  - Passwords
  - other identifying information in response to unexpected calls or if you are at all suspicious.
- Inquiry from someone who says they represent a company or a government agency
  - Hang up
  - Call the phone number on your account statement in the phone book Company's or government agency's
    website
  - Verify the authenticity of the request.

# How to Protect Your Digital Assets Stopping Robocalls - Text - Phone Scams

- Use a voice mail account password.
- Contact your phone company about call blocking tools.
- Use robocall-blocking technology
- Register your number on the <u>Do Not Call List</u>.
- File a complaint with the FCC.

# How to Protect Your Digital Assets Robocall Blocker Apps

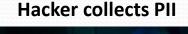
#### **Android**

- Call Blocker Free
- Master call blocker
- Safest Call Blocker
- Should I Answer?
- Blacklist Plus
- <u>Truecaller</u>

#### iOS

- <u>Call Controls</u> (iOS) ...
- Whoscall (iOS) ...
- Truecaller (iOS) ...
- Avast Call Blocker Spam Blocking \$\$
- Mr. Number (iOS)
- YouMail \$\$

e-Skimming







Hacker post PII on Dark Web



PII entered on Fraudulent Receiver site









## **How to Protect Your Digital Assets** e-Skimming

- Apple Pay
- PayPal
- Similar mobile payment
- Send one-time token of your CC info.

- Shop on well-known, reputable sites.
- Use one-time-use money or credit cards.
- Enable two-factor authentication.
- Use strong passwords that are unique to the websites and accounts they unlock. Change passwords frequently.
- Activate transaction alerts on all credit cards and bank accounts for free.
- Consider freezing your credit to prevent the creation of new accounts.

If you've been notified of such breaches - get a new credit card. Check your statements weekly for misuse.

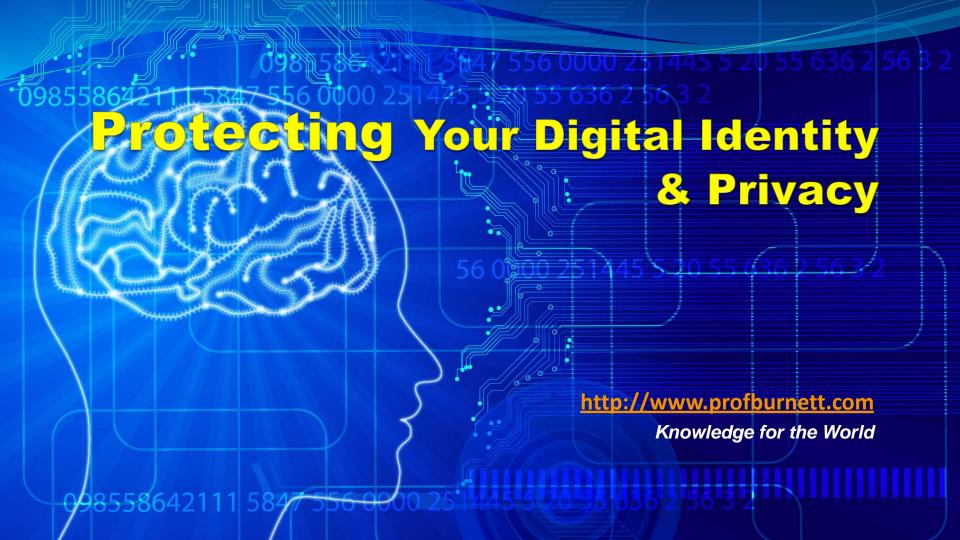
File a detailed complaint at the FBI Internet Crime Complaint Center

#### What digital security measures can I take to protect my digital assets?

- Use a strong password (Multi-Factor Authentication)
- 2. Use a Password Manager
- 3. Use a separate password for your devices and accounts.
- 4. Use and Update Antivirus Programs
- 5. Update your apps regularly
- 6. Secure Your Cellphone
- 7. Secure your laptop/tablet
- 8. Backup your data regularly
- 9. Monitor your computer activity.

- 10. Never open attachments or links in email, IM's from unknown people.
- 11. Watch out for Social Engineering
- 12. Use online Credit Card for all online purchases.
- 13. Use a offline Credit Card for all offline purchases.
- 14. Monitor your financial account (Text Alerts)
- 15. Receive <u>free credit report monitoring</u>.
- 16. Freezing and locking your credit file.
- 17. Free dark web scan.

# Break



# Top 5 Actions Protect Your Digital Assets, Identity, & Privacy

- 1. Use a Password Policy
- 2. Monitor Your Credit Files
- 3. Backup Your Critical Digital Data (Offline & Cloud)
- 4. Use Privacy Controls
- 5. Do Not Allow
  - 3<sup>rd</sup> Party Cookies
  - Clickstream Tracking
  - Geotracking

## **Privacy Controls**

- Facebook
- Twitter
- Google
- Microsoft
- Apple
- LinkedIn
- Yahoo
- Amazon

- TV's STB
  - Comcast
  - Verizon
  - Verizon Email (See Yahoo)
- Cellphone Providers
  - AT&T
  - T-Mobile
  - Sprint
- WiFi Routers

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  - AT&T
  - T-Mobile
  - Sprint
- WiFi Routers

## **Facebook Privacy Controls**

- <u>Technolicious Facebook</u>
   <u>Privacy Guide</u>
- Facebook Privacy Basics
- Data Policy
- Posts
- Apps
- Profile
- https://stalkscan.com/

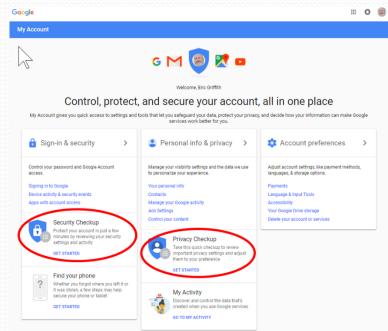
- Advanced Privacy Controls
  - Timeline and tagging options
  - Manage blocking
  - Customize app privacy
  - Apps, websites and Platforms
  - Apps others use
  - Ad Settings

## **Twitter Privacy Controls**

- Privacy Policy & Data Controls
- Privacy Settings
- Personalization and Data settings
- gPost Article on Twitter Controls

# **Google Privacy Settings**

- Google Privacy Policies
- Security Checkup
- Privacy Checkup
- My Activity
- Data Takeout
- PC Magazine Google Privacy Article



# **Microsoft Privacy Controls**

- Privacy at Microsoft
- Privacy Dashboard

# **Apple Privacy Controls**

- Apple Privacy Policies
- Manage Your Privacy By Device
- Touch ID
- Face ID

# **LinkedIn Privacy Controls**

- LinkedIn Privacy Settings
- Account
- Privacy
- Ads
- Communications

# **Yahoo Privacy Controls**

- Oath Verizon
  - AOL
  - Yahoo
  - Tumblr
  - MapQuest
- Oath Privacy Controls

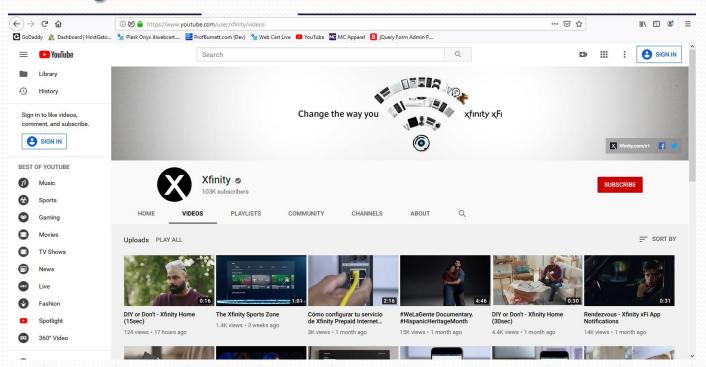
## **Amazon Privacy Controls**

- Amazon Privacy Notice
- Your Profile
- Wish Lists
- Customer Reviews
- Amazon Prime

# TV's - STB Privacy Guidelines

- Set Top Box (STB)
- Disable interactive services
- Limit ad tracking
- Opt out

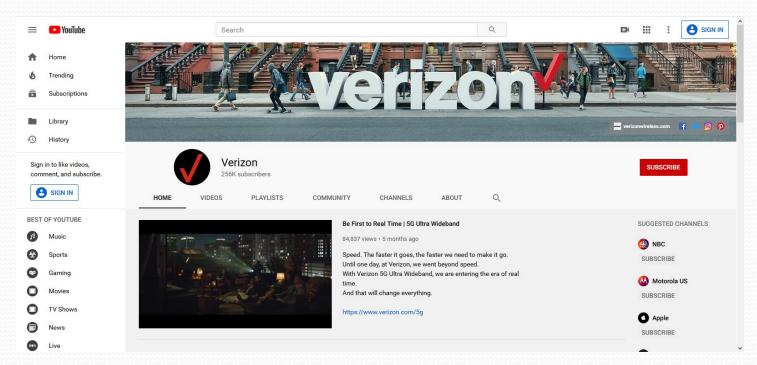
## **Xfinity YouTube Channel**



## **Comcast Customer Privacy Notice**

- Online Privacy Notice
- PDF
- XFINITY Data Usage Center

## Verizon YouTube Channel



# **Verizon Privacy Policy**

- Verizon Privacy Policy
- Verizon Selects Preference Center
- Fios Privacy Policy (for email See Yahoo)
- Verizon Fios TV Terms of Service

### **Cellphone Providers Privacy Controls**

- AT&T Privacy Policy / Smart Controls
- T-Mobile <u>Privacy Statement</u> / <u>Protecting your Privacy</u>
- Verizon Privacy Dashboard (OATH)

## **WiFi Routers**

- Change you defaults
  - Admin Name:
  - Password:
- Turn Off Wireless Router Broadcasting
- Use MAC Addressing

# Top 5 Actions Protect Your Digital Assets, Identity, & Privacy

- 1. Use a Password Policy
- 2. Monitor Your Credit Files
- 3. Backup Your Critical Digital Data
- 4. Use Privacy Controls
- 5. Do Not Allow
  - 3<sup>rd</sup> Party Cookies
  - Clickstream Tracking (Do Not Track)
  - Geotracking (Do Not Track)

### **How to Protect Your Digital Identity & Privacy**

What security measures can I take to protect my digital identity?

**De-identification** 



**Implement DO-NOT -TRACK** 



Do Not Accept
Third-Party Cookies



**Anonymous Searching** 



**Destroy Click-Stream Data** 



**Use a Password Policy** 

**Destroy Tracking Cookies** 

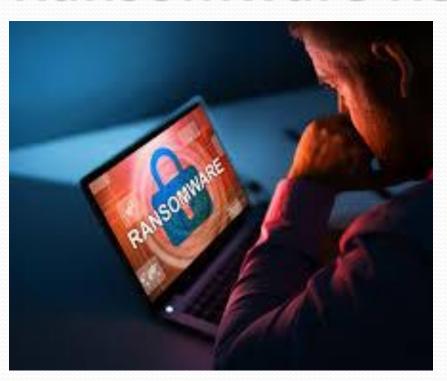




# Break



### Ransomware Remediation



- DO NOT PANIC!
- Never Pay Ransom!
- Restart Your Computer Scareware Ransomware will be cleared.
- Follow Virus Protection Remediation Procedures
- Find/Determine Corrupted Accounts /Files
- Disable Accounts
- Delete Accounts / Files
- Use System Restore to Restore Accounts from Backups
- Restore Files from Unaffected Offline Backup Files
- Contact the FBI Internet Crime Complaint Center (IC3)

#### **E-Mail Compromise Remediation**

- DO NOT PANIC!
- Restart Your Computer
- Change Account Password
- Run Advanced System Repair Software
- Shutdown Email Account
- Contact anyone since your account was compromised
- Contact the FBI Internet Crime Complaint Center (IC3)



### Malware/Scareware Remediation



- DO NOT PANIC!
- Restart Your Computer
- Check Antivirus Software
- Run Antivirus Software for Malware/Scareware
- Download and Run
   <u>Malwarebytes Anti-Malware</u>
- Contact the FBI Internet Crime Complaint Center (IC3)

### **Phishing/Spoofing Remediation**

- DO NOT PANIC!
- Restart Your Computer
- Turn on your Email spam filter / Robocall App.
- Don't click on links or open attachments in emails/texts if it is from an unknown sender.
- Log in through a separate tab or window.
- Pick up the phone Call or text the sender and confirm the sent the email/text.
- Contact the FBI Internet Crime Complaint Center (IC3)



#### **Credit Card Fraud / Misuse Remediation**



- DO NOT PANIC!
- Contact Credit Card Issuer
- Get New Credit Card
- Freeze / Lock Credit Agency Files
- Freeze / Lock Other Credit
   Files
- Contact the FBI Internet Crime Complaint Center (IC3)

# How to Protect Your Digital Assets Credit Freeze

- Starting Sept. 21, 2018
- Free to place or remove a freeze on your credit report.
- Equifax or 800-349-9960
- Experian or 888-397-3742
- <u>TransUnion</u> or 888-909-8872

# **Other Credits Agencies**



https://www.innovis.com/personal/creditReport 1-800-540-2505



https://www.chexsystems.com/ 800.428.9623



https://www.nctue.com/ 1-866-349-5185

## **Data Breach Remediation**

#### DO NOT PANIC!

- Forty-eight U.S. states, Guam, District of Columbia, Puerto Rico, and Virgin Islands, have data breach notification laws.
- Mandated to notify customers in the event that their sensitive information is lost in a data breach.
- Pertain to only personal identification data, including bank account and Social Security numbers
- Does not require notification if the data is encrypted and unusable.
- Some companies are required by state law to offer credit monitoring and remediation services.
- Contact the FBI Internet Crime Complaint Center (IC3)



### **Denial of Service Remediation**



- DO NOT PANIC!
- Business service mitigation is only remedy.
- Contact the FBI Internet
   Crime Complaint Center
   (IC3)

# Questions

### Review

- What is the Difference between Digital Security and Digital Privacy?
- How to Protect Your Digital Assets.
- How to Protect Your Digital Privacy.
- You've Been Compromised Now What?