



Are You Secure? (No You're Not): Digital Security & You



Jim Spellos
Unique Venues
October 22, 2018



All rise for our brief security assessment





Do You Feel That You Done The Basics to Protect Yourself Online?

No – Take a seat

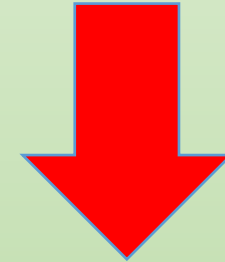


Yes – Keep standing



Do You Reuse Passwords To Help
You Remember Them?

Yes – Take a seat

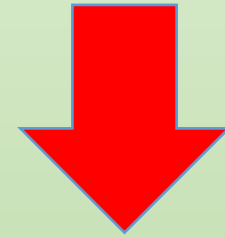


No – Keep standing

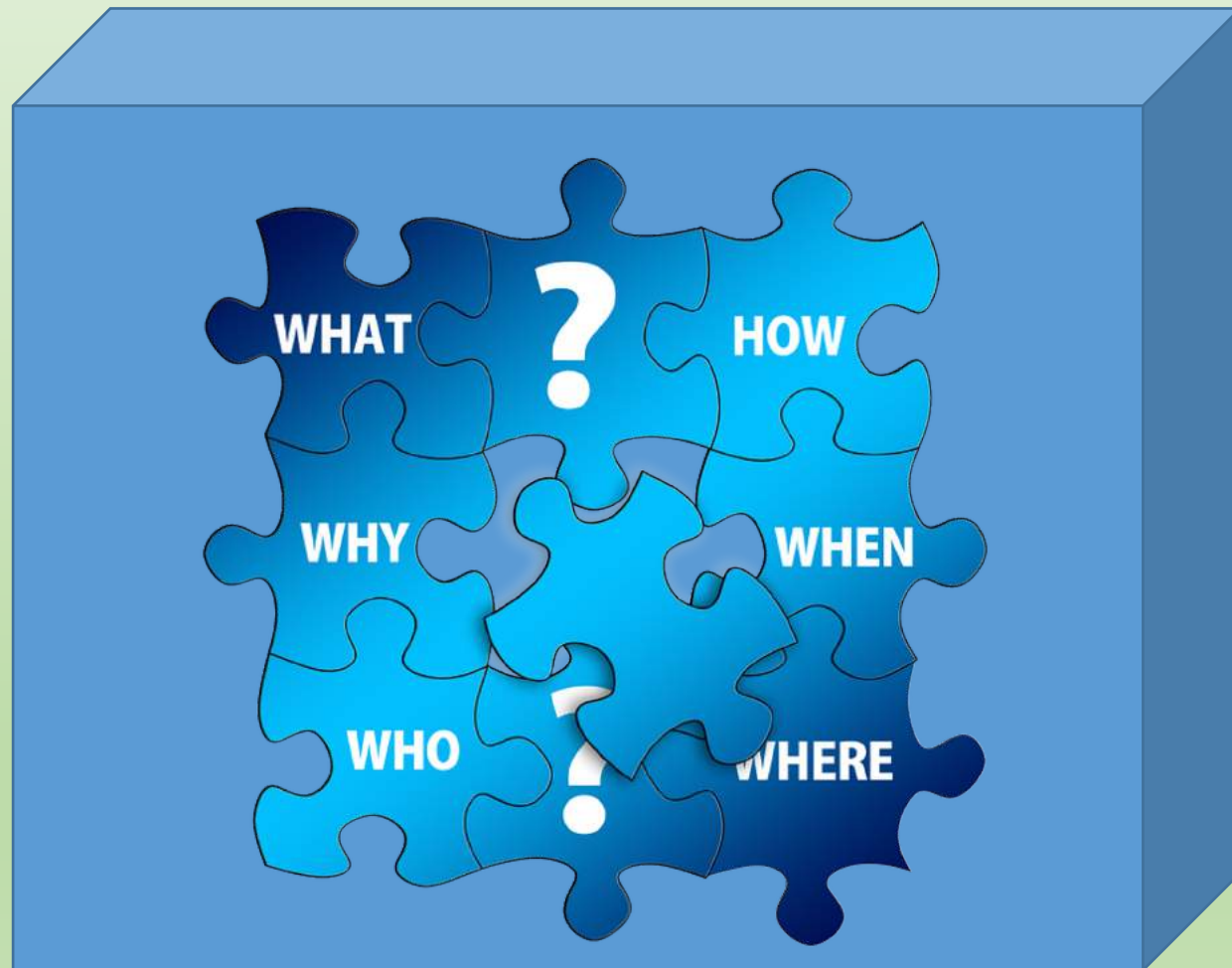


Do You Always Use a VPN When
You're Out of the Office/Home?

No – Take a seat



Yes – Keep standing





Privacy vs. Security – It's The Same Thing, Right?





Definitions

Privacy – The state or condition of being free from being observed or disturbed by other people.



Security – The state of being free from danger or threat.



Privacy

- Retargeting...



HEADSET REVIEWS ▾

VR GAMES ▾

VR INDUSTRY REPORT

EXEMPLAR PC

VORPX VR DRIVER

DAILY ROUNDUP ▾



facebook



Facebook VP Teases Company's 'biggest AR/VR news to date' Coming to F8 Conference

Feb 28, 2018



4



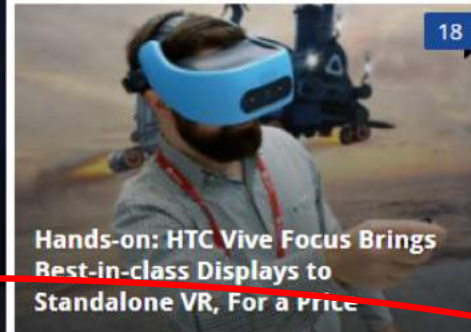
Volkswagen Group to Train 10,000 Employees in VR This Year

0



Varjo Announces AR Pass-through Capability for Its 'Bionic Display' Headset

4



Hands-on: HTC Vive Focus Brings Best-in-class Displays to Standalone VR, For a Price

18



Weta's Concept First-person Shooter is Really Coming to Magic Leap One

4



mets.com/tickets

Way
Cool



Way
Creepy



Privacy

- Retargeting
- Are they always listening...





Does Alexa/Google Home/Facebook
Listen & Serve Relevant Ads Based on
Your Conversations?





“Facebook does not use your phone’s microphone to inform ads or change what you see in your News Feed.”

Statement from Facebook

Privacy

Is Google Home recording all of my conversations?

No. Google Home listens in short (a few seconds) snippets for the hotword. Those snippets are deleted if the hotword is not detected, and none of that information leaves your device until the hotword is heard. When Google Home detects that you've said "Ok Google" or that you've physically long pressed the top of your Google Home device, the LEDs on top of the device light up to tell you that recording is happening, Google Home records what you say, and sends that recording (including the few-second hotword recording) to Google in order to fulfill your request. You can delete those recordings through My Activity anytime.

But What About Alexa?

Is Alexa Listening? Amazon Echo Sent Out Recording of Couple's Conversation



Amazon said that one of its Echo devices mistook a woman's words for a set of commands instructing it to record her conversation with her husband and send it to one of his employees.



Is There Such a Thing as Privacy in the Digital Age?

TECH

[TECH](#) | [MOBILE](#) | [SOCIAL MEDIA](#) | [ENTERPRISE](#) | [CYBERSECURITY](#) | [TECH GUIDE](#)

Facebook reportedly gave personal data to 60 companies including Apple, Amazon and Samsung

- The New York Times revealed Sunday that Facebook had formed at least 60 data-sharing partnerships with device makers including Apple, Amazon, Microsoft and Samsung over the last 10 years.
- The embattled social media giant is already facing intense scrutiny from lawmakers, regulators and users around the world over its handling of personal data.



Privacy in the New GDPR Landscape

APPS MOBILE TECH

Instapaper is temporarily shutting off access for European users due to GDPR

The read-it-later app needs time to make changes ahead of GDPR going into effect on Friday

By [Alex Heath](#) | May 23, 2018, 7:48

Europe's top court has just blown a big hole in Facebook's fan-page terms

New CJEU ruling in Facebook case could have "far-reaching effects" for GDPR contracts.



for The German View | June 5, 2018 -- 12:33 GMT (05:33 PDT) | Topic: CYO

IN DEPTH >

Notoriously secretive Snapchat is giving users more control over their data ahead of GDPR

By [Alex Heath](#) - 15 May 2018 07:00am



What Can You Do???





Privacy Fix – Ad Permissions

Facebook

- Settings
- Ads (Preferences)
- Ad settings

iOS

- Settings
- Privacy
- Advertising

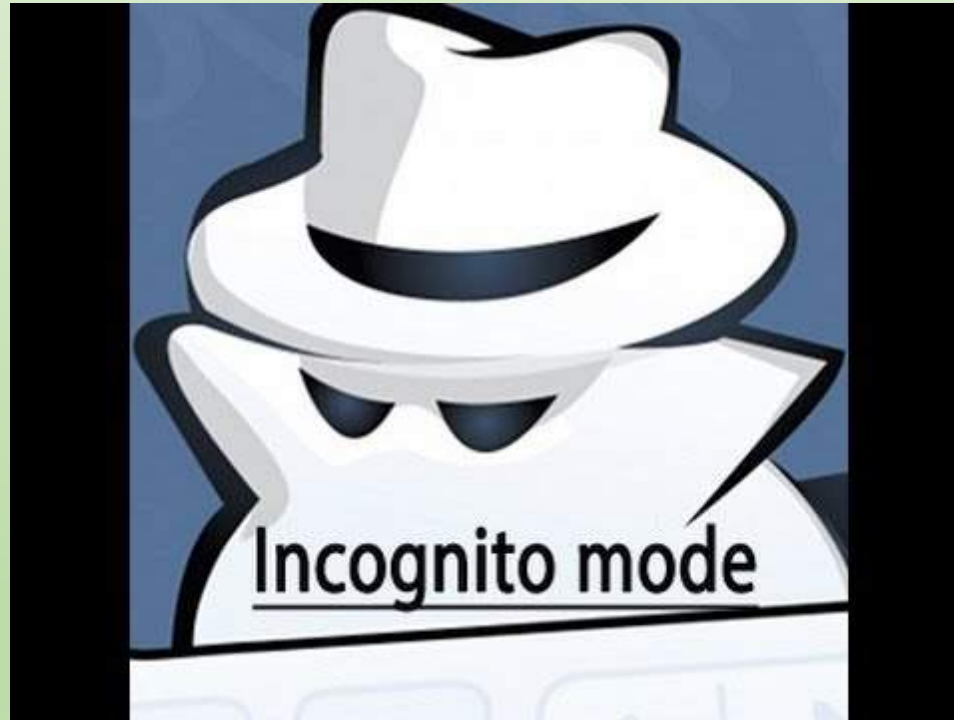
Android

- Settings
- Google
- Ads





Another (Sort of) Good Privacy Fix





But Are We Looking the Wrong Way?

While We Are Obsessed With Our Privacy (Understandably), We're Nonchalant About Our Security



Security Issues

- Man In The Middle...





It's So Easy, a 7 Year Old Can Do It





Security Issues

- Man In The Middle
- Phishing...





Dear valued customer of TrustedBank,

We have recieved notice that you have recently attempted to withdraw the following amount from your checking account while in another country: \$135.25.

If this information is not correct, someone unknown may have access to your account. As a safety measure, please visit our website via the link below to verify your personal information:

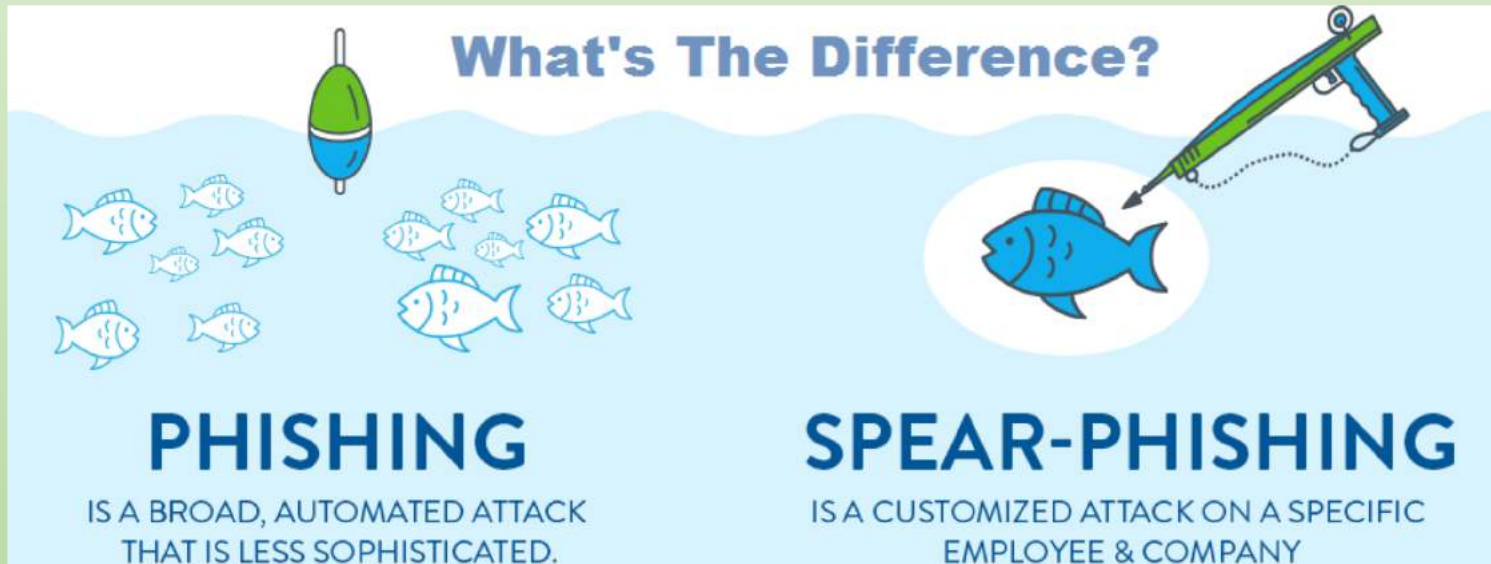
<http://www.trustedbank.com/general/custverifyinfo.asp>

Once you have done this, our fraud department will work to resolve this discrepancy. We are happy you have chosen us to do business with.

Thank you,
TrustedBank

Member FDIC © 2005 TrustedBank, Inc.

Targeted Phishing





Think Before You Click!



Security Issues

- Man In The Middle
- Phishing
- Evil Twins
- Dictionary Attacks.





Ransomware is Still Out There...



Atlanta pays \$2.6 million for cybersecurity issues stemming from \$51,000 ransomware attack

Apr 30, 2018

EMAIL

in SHARE

Tweet

G+

f Recommend 4

COMMENTS 0

You became victim of the PETYA RANSOMWARE!

The harddisks of your computer have been encrypted with an military grade encryption algorithm. There is no way to restore your data without a special key. You can purchase this key on the darknet page shown in step 2.

To purchase your key and restore your data, please follow these three easy steps:

1. Download the Tor Browser at "<https://www.torproject.org/>". If you need help, please google for "access onion page".
2. Visit one of the following pages with the Tor Browser:

<http://petya37h5tbhpyki.onion/N19fvE>
<http://petya5koahsf7sv.onion/N19fvE>

3. Enter your personal decryption code there:

If you already purchased your key, please enter it below.

Key:

Screen shot of a Petya Ransomware attack, which first affected businesses worldwide in 2016. Image via Wikimedia Commons.

54% of businesses were hit by Ransomware in 2017 (Stat from Sophos).

...But Is the Larger Problem Cryptocurrency Mining?



Cryptominers have impacted 55% of organizations globally.



Have You Ever Been Hacked?





Hacking 101

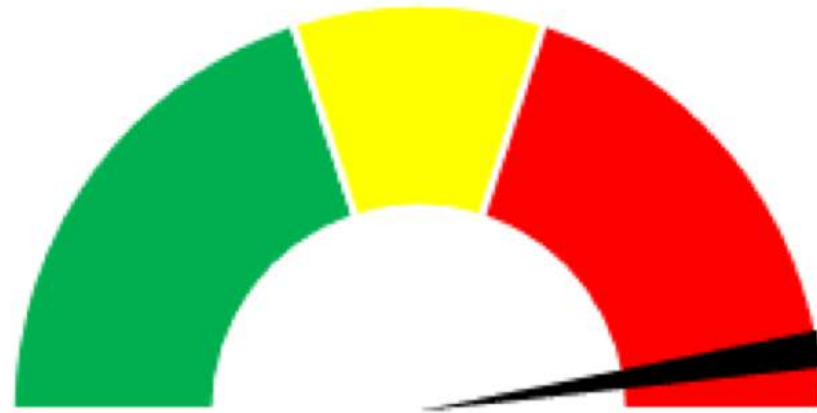




Social Engineering



Way
Cool



Way
Creepy





Online Security... A Very Abbreviated Overview

- PCI - Payment Card Industry...





PCI Fundamentals

- Data security for credit card processing
- Different levels per credit card based on volume & how you accept payments
- Never keep credit card info
- Ensure your vendors follow PCI standards (most do!)
- Compliance ensures payment processing is secure, up to date & controlled.





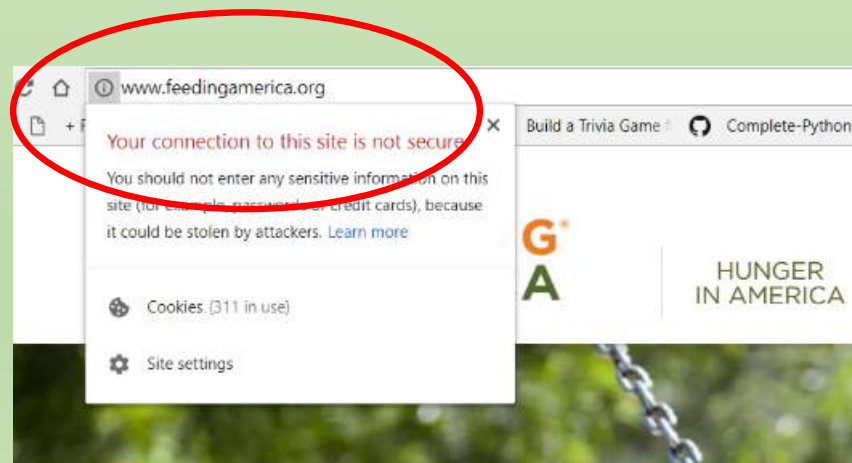
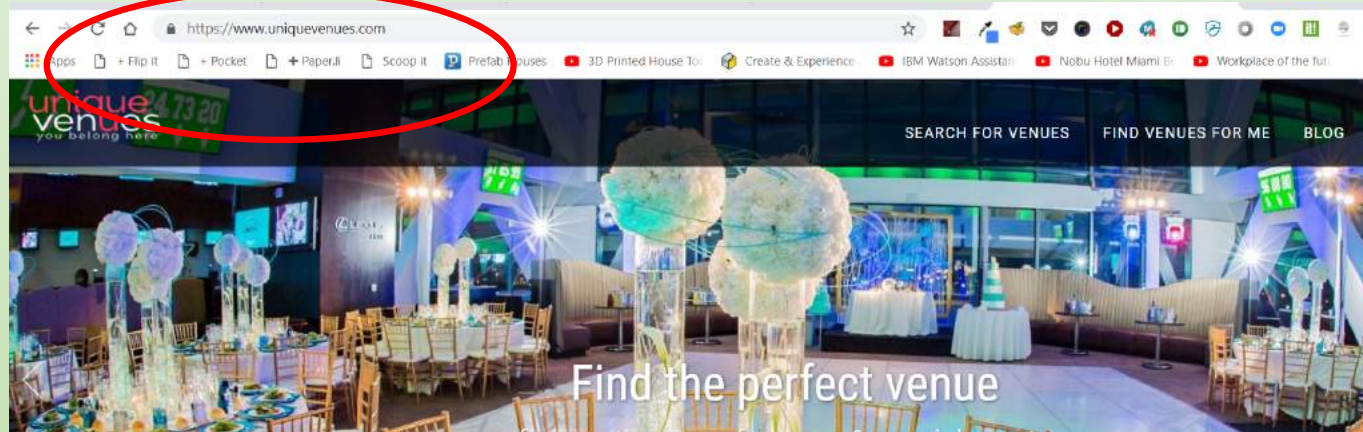
Online Security...A Very Abbreviated Overview

- PCI - Payment Card Industry
- SSL - Secure Sockets Layers...





SSL...The Good and the Not So Good





Why This is Important - Google SSL Update

- Goal to force all websites to go to HTTPS
- Will mark sites as NOT SECURE if they don't have SSL certificate.

Eventual treatment of all
HTTP pages in Chrome:

 Not secure | example.com



Online Security... A Very Abbreviated Overview

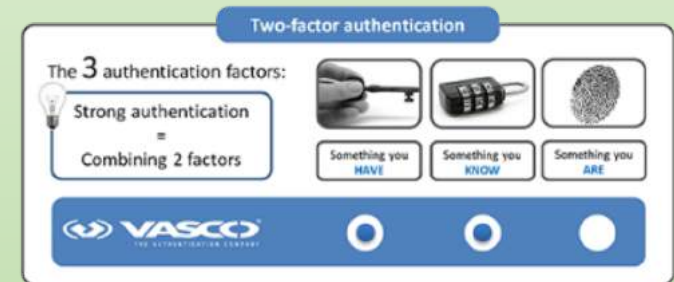
- PCI - Payment Card Industry
- SSL - Secure Sockets Layers
- 2FA - 2 Factor Authentication...





Something You Have...Something You Know...Something You Are

- One factor – Password only
- Two step – Password + PIN
- Two factor – Password + Something you have/are.





2FA Options

- Google Authenticator – Mobile solution
- Authy – Mobile & desktop.





5 Layers of Protection Are You Using Them All?

- Anti-virus
- Anti-malware
- VPN
- Password Manager...





Do You Use a Password Manager?





25 Most Popular Passwords

- 123456
- 123456789
- qwerty
- 12345678
- 111111
- 1234567890
- 1234567
- password
- 123123
- 987654321
- quertyuiop
- mynoob
- 123321
- 666666
- **18atcskd2w**
- 7777777
- 1q2w3e4r
- 654321
- **3rjs1la7qe**
- google
- 1q2w3e4r5t
- 123qwe
- zxcvbnm
- 1q2w3e



I (Probably) Know Your Home Router Password

RouterPasswords.com

Welcome to the internet's largest and most updated default router passwords database.

Select Router Manufacturer:

LINKSYS ▼

Find Password

Manufacturer	Model	Protocol	Username	Password
LINKSYS	WAP11	MULTI	n/a	(none)
LINKSYS	DSL	TELNET	n/a	admin
LINKSYS	ETHERFAST CABLE/DSL ROUTER	MULTI	Administrator	admin
LINKSYS	LINKSYS ROUTER DSL/CABLE	HTTP	(none)	admin
LINKSYS	BEFW11S4 Rev. f	HTTP	admin	(none)
LINKSYS	BEFSR41 Rev. 2	HTTP	(none)	admin
LINKSYS	WRT54G	HTTP	admin	admin
LINKSYS	WA054G	HTTP	admin	admin
LINKSYS	LINKSYS DSL		n/a	admin
LINKSYS	WAP54G Rev. 2.0	HTTP	(none)	admin
LINKSYS	WRT54G Rev. ALL REVISIONS	HTTP	(none)	admin



Forgot Your WiFi Password? No Worries, I'll Get It For You

```
Administrator: Command Prompt
(c) 2016 Microsoft Corporation. All rights reserved.
C:\WINDOWS\system32>netsh wlan show profiles

Profiles on interface Wi-Fi:

Group policy profiles (read only)
-----
<None>

User profiles
-----
All User Profile : DianeNSyd_5GHz
All User Profile : SJ-Conf3
All User Profile : ResidenceInn_GUEST
All User Profile : CallawaysLavu
All User Profile : Capitol
All User Profile : Liaison_Meeting
All User Profile : Hynes Wireless Network
All User Profile : WQUEST_WiFi
All User Profile : Cumberland
All User Profile : SDSU_Wireless
All User Profile : Axis
All User Profile : JSMM
All User Profile : JSMM_5GHz
All User Profile : Rosen Guest Wireless
All User Profile : attwifi
All User Profile : SpellosMiFi
All User Profile : liveoakbank
All User Profile : JWMarriott-MEETING
```




5 Layers of Protection Are You Using Them All?

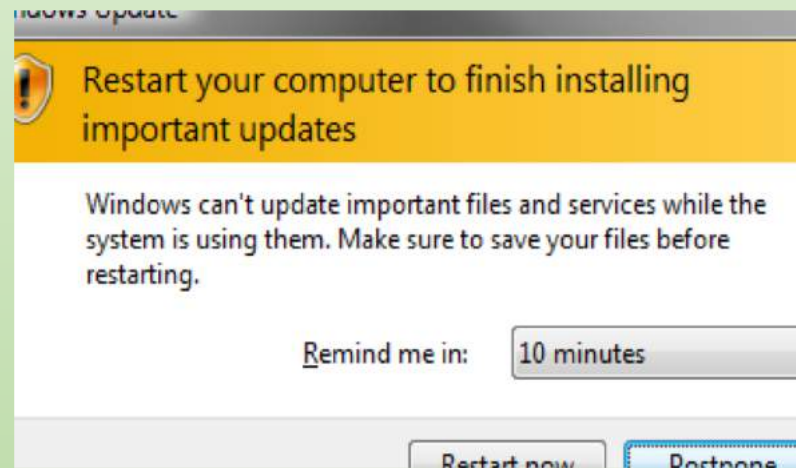
- Anti-virus
- Anti-malware
- VPN
- Password Manager
- 2FA.



Is your team/staff educated about these? Remember social engineering!



One More Layer...



Annoying...perhaps. But those Zero Day attacks can be brutal.



And What About Your Phone?

- Got protection?
- Is your hotspot secure?
- Malware malware everywhere (especially on Android)
- But are you iSafe?





Malware Insurance?

- Cloud based premium
- Freemium tools
- Niche backup
- External drive.





Was This Your Approach to Security?





Your Security Scorecard

Security Question	Points
Do you have an anti-virus product installed & always running?	<input type="checkbox"/>
Do you have an anti-malware solution installed & always running?	<input type="checkbox"/>
Do you always use a personal VPN when on public Wi-Fi?	<input type="checkbox"/>
Do you always have your auto-updates on?	<input type="checkbox"/>
Do you only use Apple products?	<input type="checkbox"/>
Do you use a password manager?	<input type="checkbox"/>
Do you only download apps from official app stores?	<input type="checkbox"/>
Do you only click on an email link if you're 100% certain it's authentic	<input type="checkbox"/>
Do you have the most updated version of your browser	<input type="checkbox"/>
Do you use two step authentication whenever possible?	<input type="checkbox"/>
Does nobody else ever use your device?	<input type="checkbox"/>



We're Not Done Yet...

Bonus Points (sort of)

Security Question	Points
Do you have lots of common sense?	<input type="checkbox"/>
Do you use Internet Explorer	<input type="checkbox"/>
Do any kids under 21 use your computer?	<input type="checkbox"/>
Do your parents use your computer	<input type="checkbox"/>
Do both your kids & parents use your computer?**	<input type="checkbox"/>

****Note – You should get a computer just for yourself**



Your Takeaways

- Online security abbreviations
- VPN
- Password Manager
- Anti virus, malware (& ransomware)
- Always have system updates turned on
- Common sense helps...sometimes.





Stay Safe!

James Spellos

094- [REDACTED]

You didn't think I'd give you my
Social Security Number, did you?