

Security

February 14, 2019



Topics

- **Vulnerabilities**

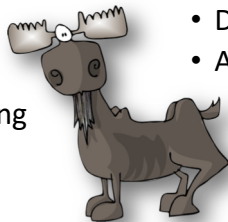
- Devices
- Types

- **How you're compromised**

- Hacking
- Spoofing
- Phishing
- Scamming
- Unintentional downloading

- **Best practices**

- Application and OS Updates
- Backups
- Security Software
- Passwords
- Secure websites
- Double Authentication
- Avoid software you don't need



Vulnerabilities: Windows, Mac, Android, iOS

- All devices are vulnerable
- Mac and iOS are a bit safer
- Windows has improved security
- Some vulnerabilities with Android apps

AAAAAHHHHHH!

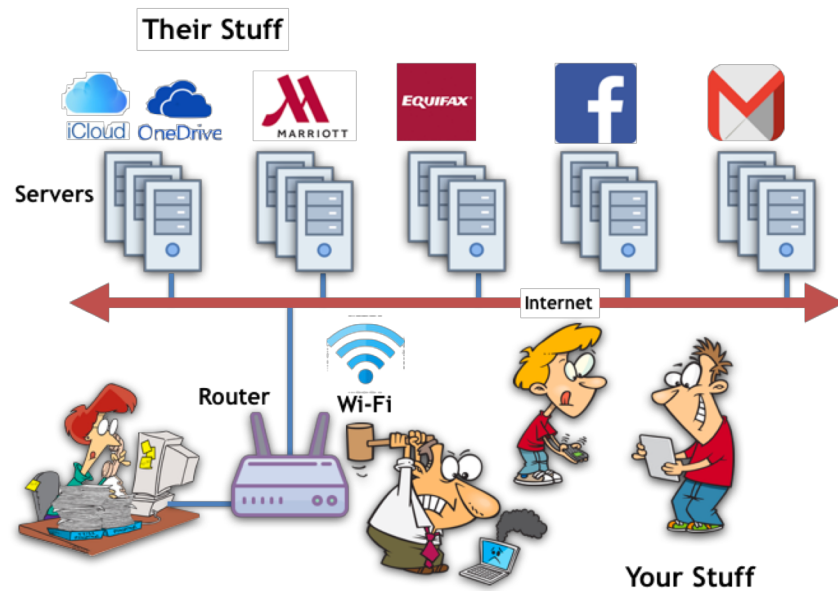


How you're compromised

- **Hacking corporate servers** to obtain your IDs and PWs
 - ...then logging in to your accounts
- **Malware** that you unwittingly install via
 - Spoofing
 - Phishing
 - Careless downloads
- **Allowing access** to your computer
 - Scams
- **Eavesdropping**



Stuff



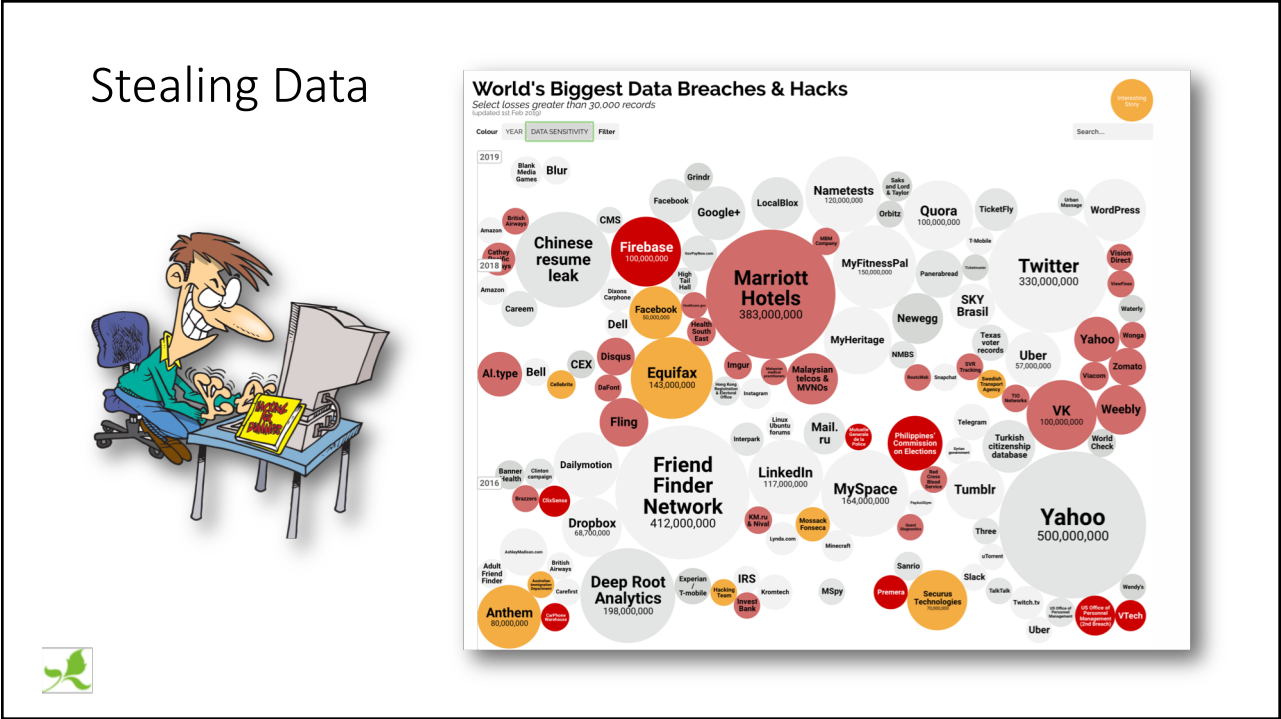
Hacking



Breaking into a computer

- Stealing data
- Inserting malware
- Corrupting files





Hacking Step 1



Number	GivenName	MidInitial	Surname	Gender	StreetAddress	City	State	ZipCode	Co
1	John	B	Blanch	male	1533 Fernell Street	Angie	WA	98113	US
2	Marie	E	Humphreys	female	3902 Bond Street	Woonsocket	RI	02895	US
3	John	C	Carlin	female	1402 Lakeland Terrace	Westland	MI	48090	US
4	William	E	Bentz	male	3318 StreetOff Road	New York	NY	10811	US
5	Shirley	A	Prescott	female	2905 Tivoli Lane	San Antonio	TX	78214	US
6	Chad	P	Henry	male	3553 Grant Street	Taylor	TX	75782	US
7	David	L	Richardson	male	1289 Main Lane	Madison	WI	53718	US
8	Stephen	A	Pratt	male	4138 Bridge Avenue	Lafayette	LA	70503	US
9	Jenny	P	Thomas	female	2843 Harris Drive	Baltimore	MD	21282	US
10	William	E	Pratt	male	4300 Tanglewood Road	Jackson	CA	90728	US
11	Julio	D	Becerra	male	4177 Lauren Drive	Madison	WI	53718	US
12	Jerry	J	Neubauer	male	2722 26th Street	Traverse	CA	90728	US
13	Thomas	A	Hunter	male	4112 Stadium Drive	Franklin	MA	2188	US
14	Thomson	C	Chapman	male	3885 Essex Court	Brattleboro	VT	5601	US
15	David	E	Mosier	male	1115 StreetOff Drive	Kona	HI	96740	US
16	Joan	L	Mayfield	female	3337 Pine Oak Drive	Whittier	CA	90603	US
17	Maria	R	Gomez	female	1723 Tivoli Lane	Richmond Hill	GA	31324	US
18	Gangney	G	Miguel	male	3233 Breckenwood Court	Madisonville	MS	39357	US
19	Earl	L	Goffin	female	2232 Ashburn Drive	Mesa	TX	11379	US



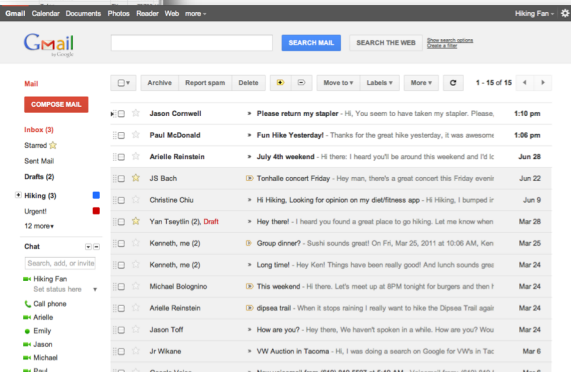
Retrieves lists of names, ID's, and PW's



Hacking Step 2



Number	GivenName	MidInitial	Surname	Gender	StreetAddress	City	State	ZipCode	Co
1	John	B	Blanch	male	1533 Fernell Street	Angie	WA	98113	US
2	Marie	E	Humphreys	female	3902 Bond Street	Woonsocket	RI	02895	US
3	John	C	Carlin	female	1402 Lakeland Terrace	Westland	MI	48090	US
4	William	E	Bentz	male	3318 StreetOff Road	New York	NY	10811	US
5	Shirley	A	Prescott	female	2905 Tivoli Lane	San Antonio	TX	78214	US
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8	Stephen	A	Pratt	male	4138 Bridge Avenue	Lafayette	LA	70503	US
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18	Gangney	G	Miguel	male	3233 Breckenwood Court	Madisonville	MS	39357	US
19	Earl	L	Goffin	female	2232 Ashburn Drive	Mesa	TX	11379	US



Logs into your E-mail account



Hacking Step 3



Number	GreenName	MidInitial	Surname	Gender	StreetAddress	City	State	ZipCode	Co
1	John	B	Blum	male	1033 Forest Street	Angie	WA	98113	US
2	Marie	E	Humphreys	female	3902 Bond Street	Woonsocket	RI	02895	US
3	John	C	Carlin	female	1402 Lakeland Terrace	Westland	MI	48090	US
4	William	E	Bentz	male	3318 Brantford Road	New York	NY	10813	US
5	Shirley	A	Prescott	female	1900 South Lane	San Antonio	TX	78214	US
6	Chad	B	Henny	male	3033 Grant Street	Taylor	TX	75782	US
7	David	L	Richardson	male	1289 Main Lane	Marathon	TX	79601	US
8	Stephen	A	Pratt	male	4318 Bridge Avenue	Lafayette	LA	70503	US
9	John	B	Blum	male	1033 Forest Street	Angie	WA	98113	US
10	John	B	Blum	male	1033 Forest Street	Angie	WA	98113	US
11	John	B	Blum	male	1033 Forest Street	Angie	WA	98113	US
12	John	B	Blum	male	1033 Forest Street	Angie	WA	98113	US
13	John	B	Blum	male	1033 Forest Street	Angie	WA	98113	US
14	John	B	Blum	male	1033 Forest Street	Angie	WA	98113	US
15	John	B	Blum	male	1033 Forest Street	Angie	WA	98113	US
16	John	B	Blum	male	1033 Forest Street	Angie	WA	98113	US
17	John	B	Blum	male	1033 Forest Street	Angie	WA	98113	US
18	John	B	Blum	male	1033 Forest Street	Angie	WA	98113	US
19	John	B	Blum	male	1033 Forest Street	Angie	WA	98113	US
20	John	B	Blum	male	1033 Forest Street	Angie	WA	98113	US



Logs into your bank account



Malware (a.k.a Viruses)



- Software that does bad things to your stuff

- Ad popups
- Brower hijackers
- Data exporters
- Ransomware

Annoying



Disastrous



Spoofing and Phishing

- Via your E-mail
 - Spoofing – someone pretending to be you
 - Phishing – someone pretending to be someone else
 - Goal: Install malware or obtain ID's and PWs



Spoofing

From: Susan Hoskins <steelingtin@aol.com>
Date: Wednesday, January 2, 2019 at 1:34 PM
To: Kathy Whalen <kwhalen@princetonsenior.org>
Subject: Re: Quick Assignment

Hi Kathy,

Are you available for a quick errand? Send me an email and let me know.

Thank you,
Susan Hoskins

Not Susan's E-mail Address

Not Susan's informal signature

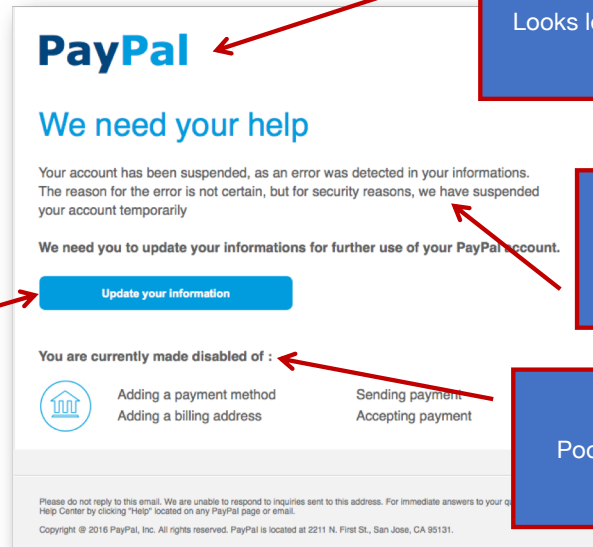
Not Susan's writing style



Phishing

PayPal doesn't
send notices like
this via email

Link to fake website



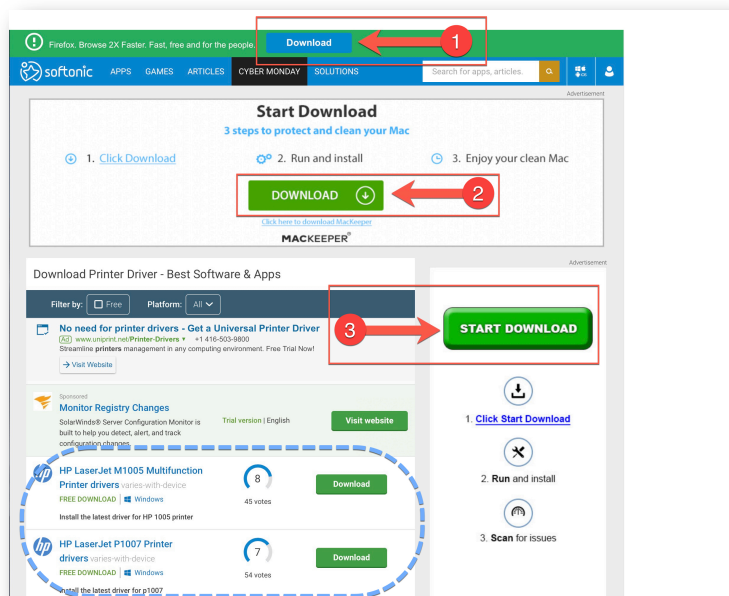
Looks legitimate

Odd wording

Poor grammar



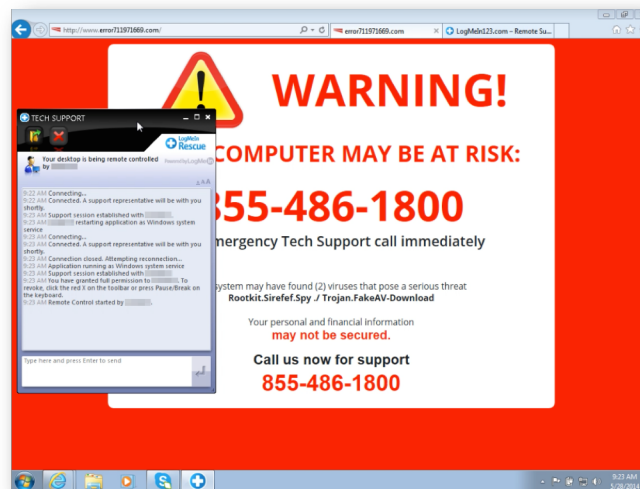
Downloads



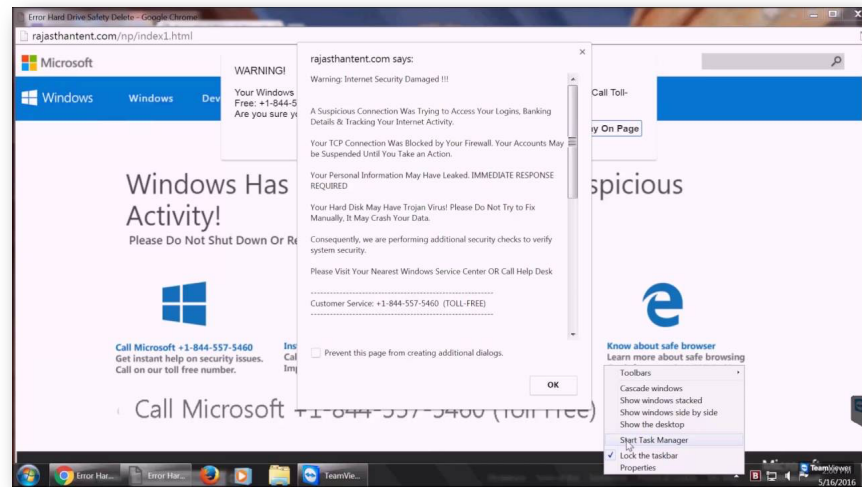
Downloads



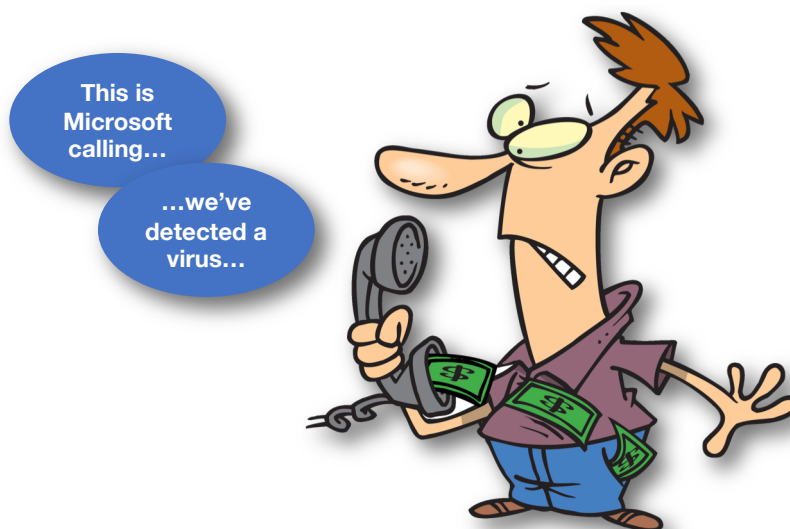
Phony Support Desks (Scams)












Phony Support Desks (Scams)



Phony Phone Calls (Scams)



Allowing access (Scams)

 Information	2/10/19 11:29:02 AM	Kernel-General
 Error	2/10/19 10:07:00 AM	DistributedCOM
 Information	2/10/19 7:37:31 AM	Kernel-General
 Information	2/10/19 7:37:31 AM	Time-Service
 Information	2/10/19 7:37:17 AM	Time-Service
 Warning	2/10/19 7:28:22 AM	DNS Client Events
 Warning	2/10/19 7:17:28 AM	DNS Client Events
 Error	2/10/19 6:07:55 AM	DistributedCOM
 Error	2/10/19 6:07:27 AM	DistributedCOM



Eavesdropping

- Keystroke monitoring (keylogging malware)
- Using unsecure Wi-Fi (without a passcode)



Topics

- **Best practices**

- OS and application Updates
- Backups
- File encryption
- Passwords
- Security Software
- Secure websites
- Double Authentication
- Avoid software you don't need



OS and Application Updates

- Windows and Mac OS
- Applications
 - MS Office
 - Flash (phasing out)
 - Java
 - Adobe Acrobat
- Computer drivers
 - Log in to your computer company's website



Backups

- Local
 - Windows – File History
 - Mac – Time Machine
- Cloud
 - OneDrive
 - iCloud
 - Dropbox
 - Carbonite
- Both?



File Encryption

- Windows – Bitlocker
- Mac – FileVault



Passwords

- Different for every website (account)
- Strong: word combinations
 - **Flaky-windmill14**
 - **mustard-raccoon-flax**
- Use a password manager

Don't write them down!



Password managers

- Chrome
- Safari (Keychain)
- Third-party – Better →

onelogin



dashlane

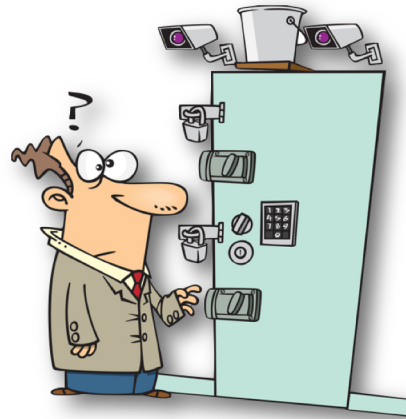
LastPass...

RoboForm



Device Passwords

- On startup and wakeup
- Fingerprint options
- Facial recognition
- Required to encrypt your files



Security Software

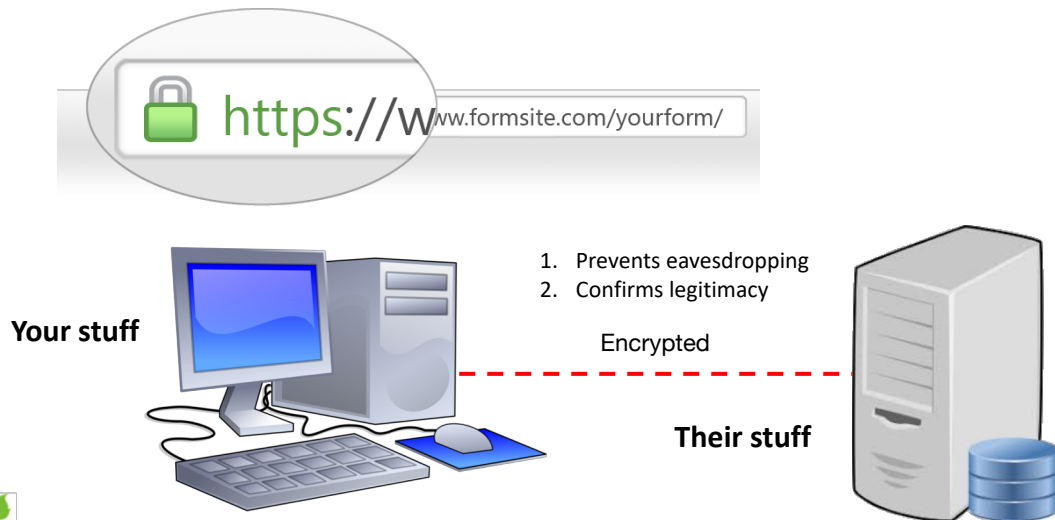
- Windows
 - Windows defender
 - Included with Windows
 - Automatic
 - Not intrusive
 - Malwarebytes Antimalware
- Mac
 - Sophos Antivirus
 - Malwarebytes Antimalware



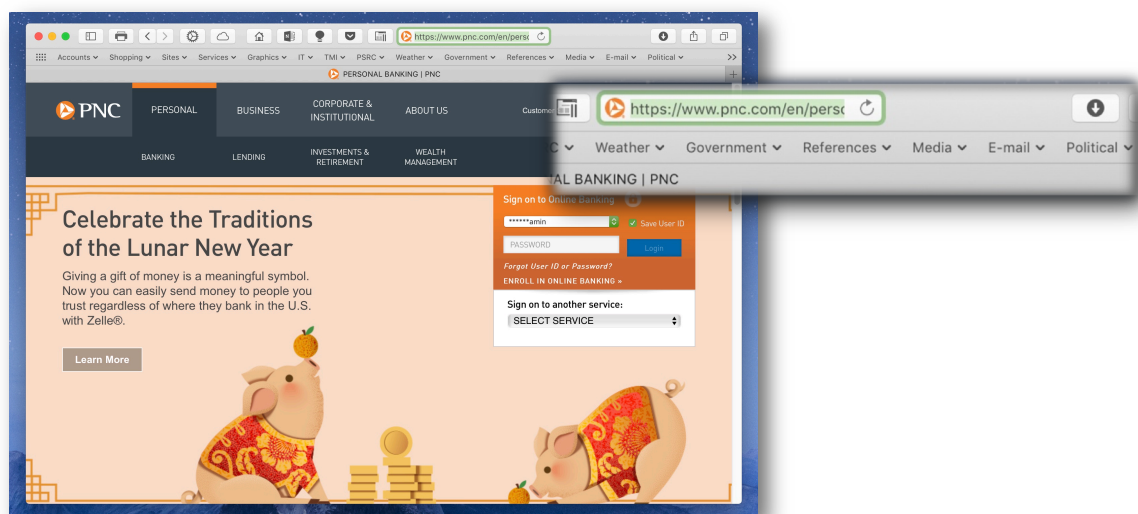
Malwarebytes



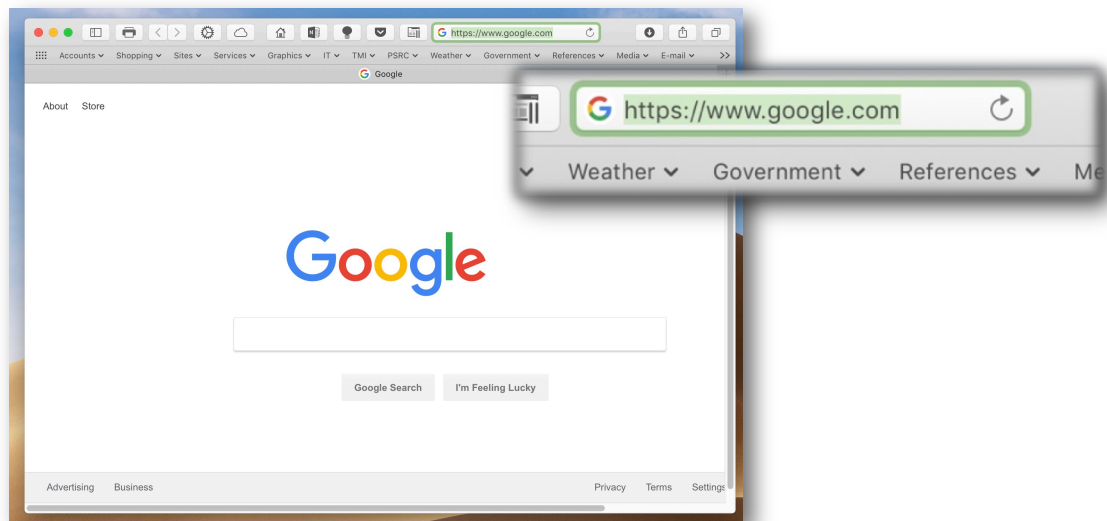
Secure websites (https)



Secure website – PNC Bank



Secure website – Google



UN-secure website - Winberie's



Double authentication



Software you don't need

- “Cleaners”
- “Optimizers”
- Driver update services



Q & A

