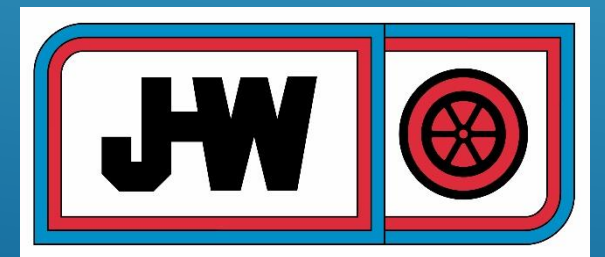


PRACTICAL CYBER SECURITY

Chris Atkinson

Sr. Network Engineer

J-W Power Company



- ▶ 1 in 100 emails contains malware. (Over 300 Billion are sent daily).
- ▶ In the U.S. alone, nearly a billion new attacks are seen every day.
- ▶ Cyber crime damage is estimated to reach \$6 Trillion by 2021
- ▶ Cybersecurity spending exceeds \$1 Trillion today.

As overwhelming as these statistics may seem there is hope to counter this ever increasing threat landscape. Whether you're a Fortune 50 company or an individual user, employing some key best practices can significantly reduce your threat risk.

DID YOU KNOW?



- ▶ **Top Threats**
 - ▶ Spear Phishing, Ransomware, Consumer related data breaches
- ▶ **Username & Password Best Practices**
 - ▶ Long is strong...same is shame
- ▶ **The Human Firewall**
 - ▶ The best and sometimes only defense
- ▶ **Considerations When Traveling**
 - ▶ Not all Wi-Fi is created equal
- ▶ **Learning & Networking Resources**
 - ▶ Staying informed and connected

AGENDA



From: IRS Online <ahr@irxt.com>
Reply-To: "noreply@irxt.com" <noreply@irxt.com>
Date: Thursday, April 11, 2013 12:15 PM
Subject: Final reminder: Notice of Tax Return. ID: I3H583326/13



Department of the Treasury
Internal Revenue Service

04/11/2013

Reference: I3H583326/13

Claim Your Tax Refund Online

Dear Taxpayer,

We identified an error in the calculation of your tax from the last payment, amounting to \$ 319.95.

In order for us to return the excess payment, you need to create a e-Refund account after which the funds will be credited to your specified bank account.

Please click "Get Started" below to claim your refund:

[Get Started](#)

TOP THREATS

Spear-phishing attempt

- *Scary IRS 'final reminder'*
- *Legit-looking ID number*
- *Wooing with a refund amount*
- *Must click a link to continue*
- *Bogus E-mail address, domain*
- *The IRS will only contact you by mail; never by phone or E-mail*



----- Forwarded Message: -----

From: "alerts@citibank.com" <ALERTS@CITIBANK.COM>

To: recipient@email.com

Subject: Security Alert: 06699

Date: Thu, 29 May 2008 12:41:41 +0000



This is a Security Alert you requested to help you protect your account.

Your account has been blocked.

219 You have exceeded the number of three (3) failed login attempts.

To unlock your account, please [your account](#)

Thank you for your cooperation.

Sincerely Yours,

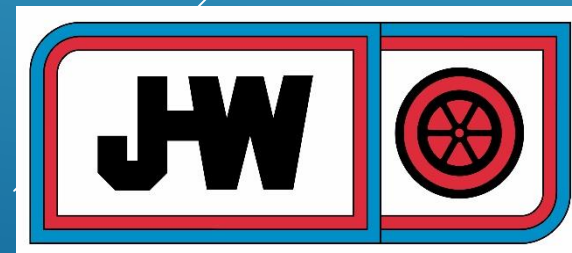
Letha Cox

Letha.Cox@citibank.com

TOP THREATS

Spear-phishing attempt

- *Serious-looking Citi security alert*
- *Account has been blocked!*
- *Failed login attempts! Wasn't me!*
- *Must click a link to continue*
- *Bogus E-mail address- spoofed*
- *Highlight over the link for real URL*



TOP THREATS

Ransomware Infection

- What may happen if you open an unknown attachment or link
- All files are encrypted/locked
- Too late! You backed up, right?
- Do not send any payment; no guarantee they will decrypt your files



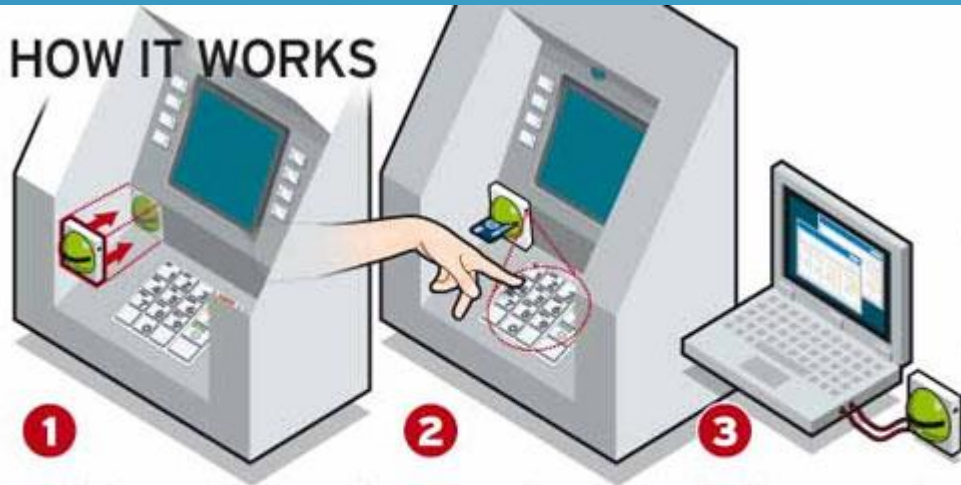


TOP THREATS

Consumer Data Breaches

- Protecting credit/debit/fleet charge cards from skimmers
- Chip cards add an add'l. layer
- Check ATMs and fuel pumps for loose readers and keypads
- Use a quality RFID wallet and monitor your bank accts. daily

HOW IT WORKS



1
Duplicate card reading device placed over existing one

2
Device reads your card while a pinhole camera records you entering PIN

3
Device removed and attached to a laptop to download card details



USER NAMES & PASSWORDS

The Stronger The Better.

- Your username can be guessed with relative ease
- Use CAPITAL letters, numbers, and characters in all passwords
- Typical strong usable password is 8-13 characters in length
- Change them quarterly at work and at least annually at home

i shall use strong passwords.

i shall use strong passwords.

i shall use strong passwords.

i shall use strong passwords.

I 5ha!! u53 \$4r0ng-p@5sw0rdz!

x	0	x
0	x	x
0	0	x

Strong passwords are a minimum of 8 characters in length & include uppercase, lowercase, numbers & special characters.



WHAT'S THE WEAKEST LINK IN THE SECURITY CHAIN?



The best processes, and technologies can be rendered completely ineffective if users do not take responsibility to safeguard information assets from disclosure, alteration, and destruction.

BE A HUMAN FIREWALL

INFORMATION SECURITY IS EVERYONE'S RESPONSIBILITY

THE HUMAN FIREWALL

Situational Awareness is Everything.

- *Firewalls are automated and always work once on- people are usually the weakest link*
- *We may be the last defense*
- *Do you know the stranger in the lobby? Who gave you that USB drive? Can you trust that link?*
- *Question more. Trust but verify.*



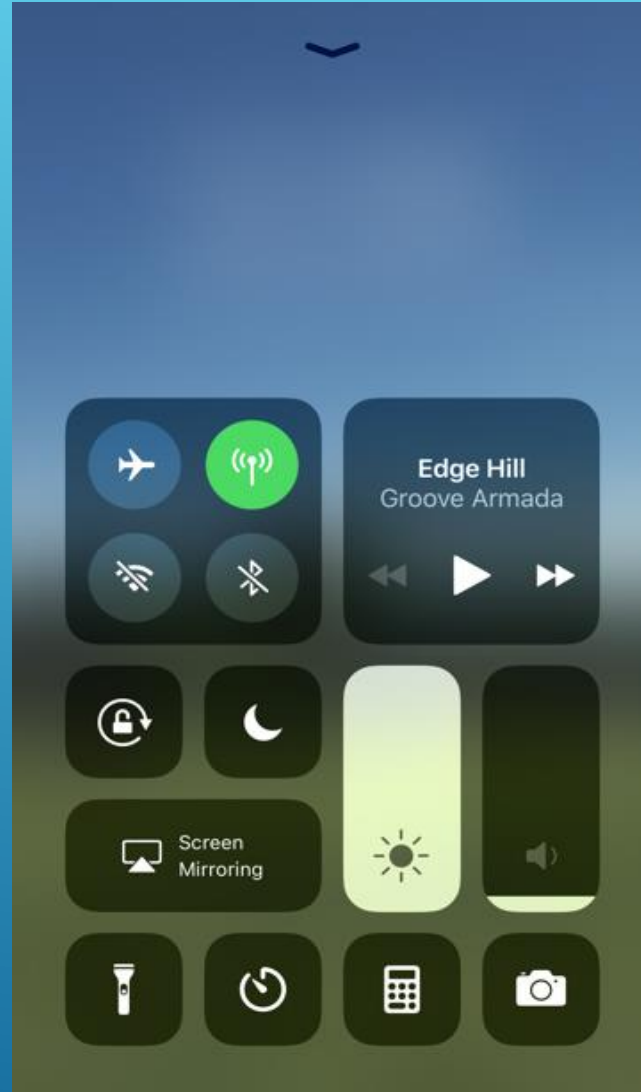
FREE
WiFi

TRAVEL CONSIDERATIONS

Not All Wi-Fi is Created Equal.

- *You get what you pay for and it works both ways*
- *With free services, you usually become the product*
- *Only use trusted and secured Wi-Fi networks at your home and work*
- *Use a personal hotspot otherwise*





TRAVEL CONSIDERATIONS

Disable Wi-Fi and Bluetooth in Public.

- *When you walk out your door*
- *Your name and device type are typically broadcasted to anyone within a 30-50' radius*
- *Traffic... airports... hotels... here...*
- *Think about disabling AirDrop and other 'convenience' features...*



- ▶ **OnGuard Online** - <https://www.consumer.ftc.gov/features/feature-0038-onguardonline>
- ▶ **FBI** - <https://www.fbi.gov/investigate/cyber>
- ▶ **Ridge Wallet** – <https://www.ridgewallet.com>

ONLINE RESOURCES



PRACTICAL CYBER SECURITY

Chris Atkinson

Sr. Network Engineer

J-W Power Company

