

# STOPPING CYBERCRIME

A presentation by the

**Financial Cybercrime  
Task Force of Kentucky**

KY Dept. of Financial Institutions



# DISCLAIMER

- The views expressed in this presentation are solely the presenter's and are not binding upon any state agency. This presentation does not necessarily reflect the views of the Department of Financial Institutions or any official within the Executive Branch.

# TASK FORCE ROLE

- The Financial Cybercrime Task Force of Kentucky:
  - DFI internal work group
  - Offers guidance and warnings for the Kentucky financial services industry
- Goal: Identify and address emerging threats in cybercrime and security and protect the integrity of the Kentucky financial system

# HARDWARE AND SOFTWARE

- Virus/malware protection
- Update software and install patches
  - *All* software – not just virus protection
- Password protect home networks
  - Never auto-fill or “remember” passwords



# CLICKING, SHARING, SAVING ...



- Never give out personal information over telephone, fax, email, social media
- Beware of emails and attachments
  - If unsolicited, don't open it
  - If from a friend, still be cautious
- Back up your files
- Be wary online

# EMAILS AND MASQUERADES

- **Phishing** - the attempt to obtain sensitive information (password, account info, etc.) by pretending to be a trustworthy entity
- **Spoofing** - someone masquerading as another using false data (forged email sender address, false Caller ID display, etc.)
- **Spear Phishing** – (phishing + spoofing) email that appears to be from an individual or business that you know and attempts to get your personal information

# EMAILS AND MASQUERADES

- Check before clicking ... If still unsure, ask before acting

**From:** Smith, Bob [<mailto:bsmith@knowandtrust.com>]

**Sent:** Tuesday, October 18, 2016 10:18 AM

**Subject:** You have a new encrypted message from "Bob Smith" <[bsmith@knowandtrust.com](mailto:bsmith@knowandtrust.com)>

This message was sent securely via an encrypted connection using SecureServer.

You have a Secure Mail message from [bsmith@knowandtrust.com](mailto:bsmith@knowandtrust.com) waiting to be read.

The message <http://badthingshappen.com/>  
Ctrl+Click to follow link

[Access Secure Email](#)

**Note:** You've received an encrypted message from [bsmith@knowandtrust.com](mailto:bsmith@knowandtrust.com)

**To view your message**

Save and open the attachment (message.html), and follow the instructions.

Sign in using your email information: d

-----  
This message was secured by **SecureServer** encrypt.

Thanks!

**Bob Smith**

President

The Company You Know and Trust



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**Subject:** You have a new encrypted message from "Bob Smith" <[bsmith@knowandtrust.com](mailto:bsmith@knowandtrust.com)>

This message was sent securely via an encrypted

<mailto:trouble@badactor.com>  
Ctrl+Click to follow link

You have a Secure Mail message from [bsmith@knowandtrust.com](mailto:bsmith@knowandtrust.com) waiting to be read.

The message will expire in 30 days.

[Access Secure Email](#)

**Note:** You've received an encrypted message from [bsmith@knowandtrust.com](mailto:bsmith@knowandtrust.com)

**To view your message**

Save and open the attachment (message.html), and follow the instructions.

Sign in using your email information: d

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# PASSWORDS

- Require a password
- Make it unique
  - Don't use manufacturer default or temporary passwords
  - Don't use the same password for all accounts
- Keep it confidential
- Change passwords
  - Every so often just for security
  - Immediately if breach/disclosure
- Choose 2-factor authentication

# POOR PASSWORDS AND PINS



- Passwords should NOT:
  - Repeat letters or numbers or use sequences or patterns
  - Use whole words or common phrases
  - Name a specific person, place, thing, date, etc.
- PINs should NOT:
  - Be a number easily identifiable with the user

# THE WORST PASSWORDS

Rank	Password		Rank	Password
1	123456		14	abc123
2	password		15	111111
3	12345		16	mustang
4	12345678		17	access
5	qwerty		18	shadow
6	123456789		19	master
7	1234		20	michael
8	baseball		21	superman
9	dragon		22	696969
10	football		23	123123
11	1234567		24	batman
12	monkey		25	trustno1
13	letmein			

# STRONG PASSWORDS

- DO Create Passwords that:
  - Are 8 or more characters
  - Contain uppercase and lowercase letters
  - Contain a number
  - Contain a special character
  - Are unpredictable

Example of a Strong Password:

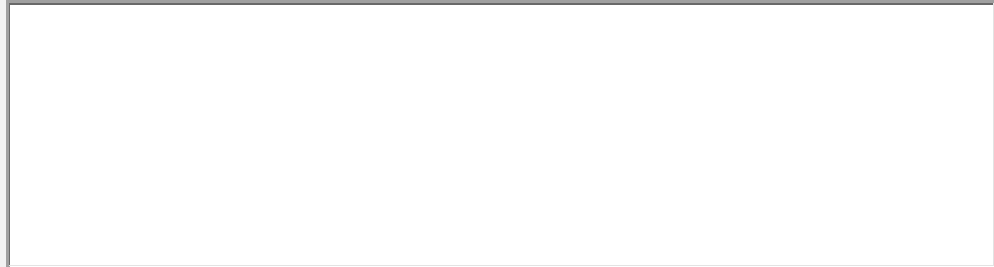
Prot3ctYfc!

= Protect Yourself From Cybercrime!



# CREATE-A-PASSWORD

```
10110 001011000101 10100
1110100110 101 100 user 010
  1101101110 101 00001 111
010101110010110001011001011
01 111 password 10010
110100 password 11011
010101110010110001011001011
  101101110010 100001011
1011011100 0110001011110100
111010011011011100 01100010
10011 spam 11001 11000010111
010101 10010110001011001011
010111001011000101111010010
1101001101 01 1001011011011
  01110010110001011001011
10011 110111001011000010111
101101110010110001011110110
  11100101100 virus 010 1110
01001101 11100101101101001
0010101110010110001 1100101
100 101111010 11011011100 1
111001011 0010101 11100
0010 01 100101100010110010
010011011011100101101101001
1 10111 101111 10
  1110010 email 11010 1110
010 1011011 01011011010
00101011100101100010 00101
100010111101 attack 01110001
111001 11000101011100111100
0010101110010 10001 00101
```



# THINGS PASSWORDS PROTECT





# BANKING AND SHOPPING

- Only give info over encrypted websites
  - Your bank will never ask for your personal information by email or phone
  - Look for “https” in the web address
  - Use a designated card for online shopping
- Review transactions regularly for unusual activity
- Check out businesses before buying



# SKIMMERS

- Avoid false readers:
  - Pull/gently tug on card reader
  - Check the keypad for a false overlay
  - Check for scratches, tape or glue around the card slot
  - Card reader should not scrape the card
- Avoid cameras:
  - Cover the keypad with a hand while typing in the PIN





# SKIMMERS

- Be cautious:
  - Use gas pumps closer to the store or pay inside/choose ATMs that are less remote
  - If you suspect tampering, avoid that reader and notify the business and local law enforcement immediately
- Double check:
  - Review your statements closely and often for any unusual activity
  - Report it immediately if it occurs (bank or card company as well as local law enforcement)
  - Review your free credit report:  
[www.annualcreditreport.com](http://www.annualcreditreport.com)

# CELL PHONE PROTECTIONS

- A smartphone is a computer too! Protect it like one.
  - Auto lock and password protect
  - Install updates
- Know your Wi-Fi
  - Turn off Bluetooth when not using it
  - Be wary of public Wi-Fi connections
- Understanding apps
  - They collect (and sometimes share) information
  - Update when available
  - Some apps come with malware

# OTHER TIPS

- Avoid GPS and cell phone labels/identifiers
- You probably don't need RFID protectors



- You might want to think about key fobs



# QUESTIONS OR REPORTS



- Report cybercrime to the Internet Crime Complaint Center (IC3) at <http://www.ic3.gov/default.aspx>.
- For more information on this topic, visit these sites:
  - <http://www.onguardonline.gov/topics/secure-your-computer>
  - <https://www.dhs.gov/stoptthinkconnect>
  - <http://kfi.ky.gov/industry/Pages/cybercrime.aspx>