OFFICE OF THE ATTORNEY GENERAL PRESENTS #WhatTheHack?! Data security and online privacy for small businesses @TECH JAM OCTOBER 20, 10-NOON CHAMPLAIN VALLEY EXPO

VERMONT TECHJAR

Today's presenters: Ryan Kriger, CIPP/US Office of the Vermont Attorney General Assistant Attorney General, Public Protection Division

Bill Carrigan, CFE Vermont Department of Financial Regulation Deputy Commissioner, Securities Division Investor Education Coordinator

Jonathan Rajewski, MS, CCE, EnCe, CISSP, CFE, TJFC Champlain College Founder & Director, the Senator Patrick Leahy Center for Digital Investigation Associate Professor of Cyber Security and Digital Forensics

Sona Makker, CIPP/US and Claire Gartland Facebook, Privacy and Public Policy



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Office of the Vermont Attorney General

Assistant Attorney General

Public Protection Division

Data Security for Small Businesses

Ryan Kriger, CIPP/US

Assistant Attorney General, Public Protection Division

October 20, 2017

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Takeaways:

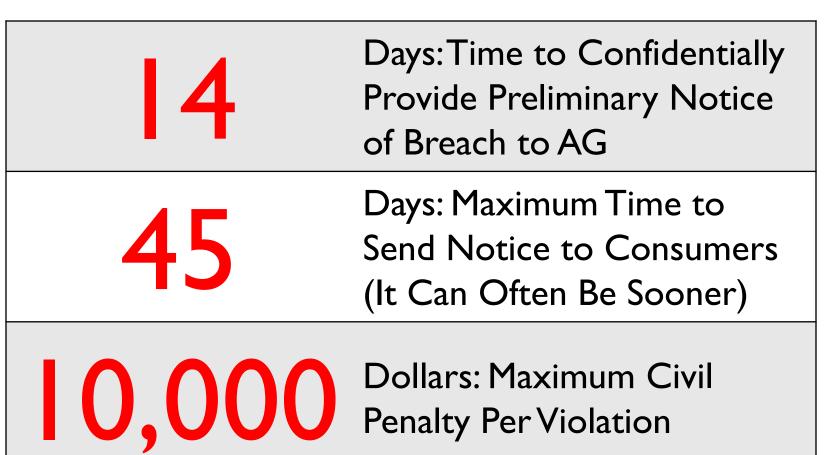
- I. Know what laws affect you
- 2. Train your employees
- 3. Think data security before you get hit
- 4. Have response plan for *after* you get hit
- 5. Get Cyber Insurance
- 6. Vendors/Contractors/Cloud Providers

Know What Laws You Have To Comply With

- Consumer Protection Act: EVERYONE
- Security Breach Notice Act: EVERYONE
- SSN Protection Act: Do you Collect SSN
- **HIPAA**: Do you do medical work?
- **FERPA**: Do you work with schools/universities?
- **COPPA**: Do you sell to kids under 13?
- **GLB**: Do you work with financial institutions?



Three Numbers



DON'T CLICK THE LINK.



What Sort of Data Should You Be Protecting?

- Credit Card info
- Social Security Numbers
- Financial Information
- Passwords
- Anything sensitive that someone might not want to fall into the wrong hands

Have Data Collection Policies:

- Don't collect data you don't need
- Only keep data as long as you need it
- Consider using a 3rd party vendor to handle sensitive data



Technology Suggestions Credit Cards:

- Search your systems to make sure you're not storing data
- Search for key loggers
- Frequent system scans
- Watch your employees
- Consider scanners that encrypt at swipe
- NO web browsing on POS Systems



Watch Out For Portable Data:

- Cell Phones
- Tablets
- Laptops
- External Hard Drives
- Thumb Drives
- Data In Transit (including E-Mail)
- And Don't Forget Back-up Tapes



Protect Portable Data:

- Password Protection
- Remote Wipe Capability
- Encryption
- Ask yourself: Should this be in a portable medium?



I've Had a Data Breach, What Next?

- I. Secure Your Data
- 2. Contact Law Enforcement
- 3. Contact Cyber Insurance
- 4. Contact Entities From Which You Obtained the Data
- 5. Notify the Attorney General's Office Of The Breach
- 6. Notify Consumers Of The Breach
- 7. Notify the Credit Reporting Agencies (if more than 1,000 consumers)



Online Resources

- VT Attorney General Site (ago.vermont.gov/focus/consumerinfo/privacy-and-data-security I.php)
- OnGuardOnline.gov
- business.ftc.gov
- IAPP: www.privacyassociation.org

CYBER INSURANCE CYBER INSURANCE CYBER INSURANCE.



Questions About Data Breaches?

Contact Us: 802-828-3171 ago.datasecurity@Vermont.gov Report Breaches: ago. securitybreach@Vermont.gov



Bill Carrigan, CFE

Vermont Department of Financial Regulation

Deputy Commissioner, Securities Division

Investor Education Coordinator

Vermont Department of Financial Regulation



DFR Overview

- Department is made up of four Divisions
 - Banking, Insurance, Securities, Captive Ins.
- All Divisions may deal with different aspects of fraudulent activity.
- The opinions and comments made today are mine and are not the position of the Department.



Introduction

- Fraud, in all its forms, costs billions in damage each year.
- Fraud involves taking something from someone else through deception or concealment.
- Occupational frauds are those committed in connection with the fraudster's occupation.



Examples of Occupational Fraud

- Stealing money or inventory
- Claiming overtime for hours not worked
- Filing fraudulent expense reports
- Giving friends or relatives unauthorized discounts on company merchandise or services
- Adding ghost employees to the payroll



Types of Fraud

Asset Misappropriation: schemes in which the employee steals or misuses an organization's assets

- Skimming cash receipts
- Falsifying voids and refunds
- Tampering with company checks
- Overstating expenses



Types of Fraud

Corruption: schemes in which a fraudster wrongfully uses his influence in a business transaction for the purpose of obtaining a benefit for himself or another person

- Conflicts of interest
- Illegal gratuities
- Bribery



Types of Fraud

Fraudulent statements: fraud schemes involving the intentional misreporting of an organization's financial information with the intent to mislead others

- Creating fictitious revenues
- Concealing liabilities or revenues

Common Frauds by Employees

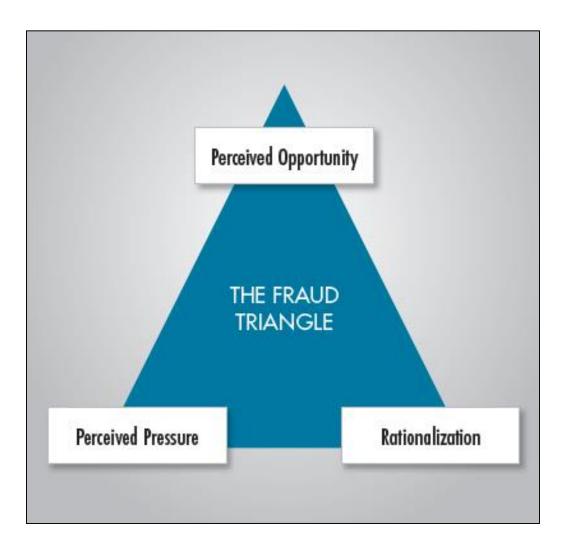
- Stealing incoming cash
- Fraudulent disbursements
 - Check tampering
 - Register disbursement
 - Billing
 - Expense reimbursement
 - Payroll
- Inventory fraud schemes



Common Frauds by Vendors

- Bid-rigging
- Price-fixing
- Overbilling
- Kickbacks
- Shell companies







© 2014 Association of Certified Fraud Examiners, Inc.

Pressure

- A gambling or drug habit
- Personal debt or poor credit
- A significant financial loss
- Peer or family pressure to succeed





Opportunity

- Lack of supervision
- Poor internal controls
- Poor record keeping
- Extreme trust in a single individual
- Lack of disciplinary action for previous frauds



Rationalization

- I was only "borrowing" the money and planned to repay it.
- The company won't even realize this amount is gone; it's not that much.
- My boss does it all the time.



Rationalization

- I've been working with the company for 15 years. They owe it to me.
- I'll stop once I pay off my debts.
- I deserved this after the way the company has treated me.



How Fraud Affects You and Your Organization

- Fewer pay increases
- Increased layoffs
- Greater pressure to increase sales and revenue
- Decreases in employee benefits
- Low employee morale
- Negative publicity for the company



Red Flags of Fraud

- Living beyond means
- Financial difficulties
- Serious addiction to drugs, alcohol, or gambling



Other Warning Signs of Fraud

- An unwillingness to share duties
- A refusal to take vacations
- A close personal relationship with vendors or customers
- Complaints about low pay
- Family problems
- Excessive pressure within the company
- Rule breakers



What to Do if You Suspect Fraud

- Be aware of warning signs
- Report irregularities, specifically:
 - If someone you work with asks you to do something that is illegal or unethical
 - If you suspect that someone— regardless of rank or position—is committing fraud or abuse

How to Report Suspected Fraud

- Hotlines or other anonymous reporting mechanism
- Anonymous letter to company official
- Share your concern with company's internal auditors or anti-fraud specialists



Conclusion

- Everyone in an organization is responsible for fighting fraud.
- Be alert to potential fraud.
- Report any suspicions to your organization.





Jonathan Rajewski, MS, CCE, EnCe, CISSP, CFE, TJFC

Champlain College Associate Professor of Cyber Security and Digital Forensics

Founder & Director Senator Patrick Leahy Center for Digital Investigation





"Behind this glass is incredible talent and this country in general and the FBI in particular needs those folks,"

> -FBI Director James Comey







Do you think your data is safe?

What

databases email spreadsheets documents pictures videos

Where

laptops / tablets computers removable devices servers cloud

Specifically

Personal Identifiable Information Protected Health Information Private / Sensitive Information

Why isn't the data on our networks secure?



Total security is a myth



Ask your IT staff two questions...

When was the last time they experienced a data breach? Are they currently breached?

Executive	Legal Human		Information	
Management	Resources		Technology	
Our job is to	Our job is to	Our job is to	Our job is to	
manage	shift liability	avoid trouble	make it work	
Security is both a legal and IT problem	Security is a technical problem	Security is trouble	Employee behavior is not our problem	

Effective/Clear/Accountable Policy

Executive	Legal	Human	Information	
Management		Resources	Technology	
Our job is to	Our job is to	Our job is to	Our job is to	
manage	shift liability	avoid trouble	make it work	
Security is both a legal and IT problem	Security is a technical problem	Security is trouble	Employee behavior is not our problem	

Demystify cyber security



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Home > Administration > Local Municipalities at Greater Risk to be "Hacked"

Posted on: July 26, 2017 🗩 0 👔 Like 0 💟 📊 0 📑 0

Local Municipalities at Greater Risk to be "Hacked"

Limited funding coupled with infrastructure capabilities have made public works and municipalities a new favorite for hackers.



Administration

Hacking has been on the mind of many Americans after reported election interference by the Russian government. In fact a recent Gallup poll noted that seven out of 10 Americans worry about hacking, placing it atop the list of crimes that Americans worry about most.

But instead of major national breaches that target top companies and government agencies, what experts say should be most alarming are networks at the local level. Cybersecurity at the local level can be summed up in a single word: "deficient." That

is according to Don Norris, a professor at the University of Maryland, Baltimore County.

Deloitte

Deloitte hit by cyber-attack revealing clients' secret emails

Exclusive: hackers may have accessed usernames, passwords and personal details of top accountancy firm's blue-chip clients



Monday 25 September 2017 08.00 EDT



Deloitte provides auditing, tax consultancy and cybersecurity advice to banks, multinational companies and government agencies. Photograph: Alamy Stock Photo

One of the world's "big four" accountancy firms has been targeted by a sophisticated hack that compromised the confidential emails and plans of some of its blue-chip clients, the Guardian can reveal.

THE WALL STREET JOURNAL.

Home World U.S. Politics Economy Business Tech Markets Opinion Life & Arts Real Estate

OPINION | COMMENTARY

On Behalf of Equifax, I'm Sorry

A new free service will let consumers lock or unlock access to their credit data any time they like.

By Paulino do Rego Barros Jr.

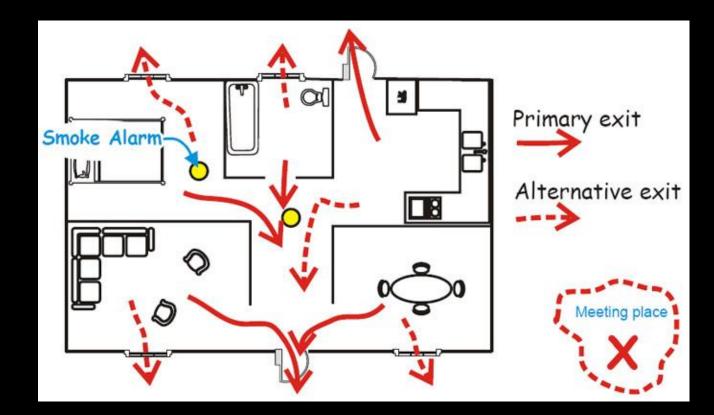
Sept. 27, 2017 5:20 p.m. ET

On behalf of Equifax, I want to express my sincere and total apology to every consumer affected by our recent data breach. People across the country and around the world, including our friends and family members, put their trust in our company. We didn't live up to expectations.

We were hacked. That's the simple fact. But we compounded the problem with insufficient support for consumers. Our website did not function as it should have, and our call center couldn't manage the volume of calls we received. Answers to key...

So how do we reduce the risk to a reasonable level?

It's not **if** you're going to have a cyber related event, it's **when**



Cyber insurance is changing the way we look at risk

Posted Jun 13, 2016 by Yoav Leitersdorf, Ofer Schreiber, Iren Reznikov

Breaking down a cyber insurance policy

Most cyber policies currently on the market offer a combination of two types of insurance coverage:

- First-party coverage: covers direct losses to the organization.
- Third-party coverage: protects against claims against the organization by third parties, such as customers or partners.

Besides financial coverage, insurers also provide risk management and post-breach services, including loss-prevention measures and remediation tools.

2016 Breach costs - \$290 - \$15MM

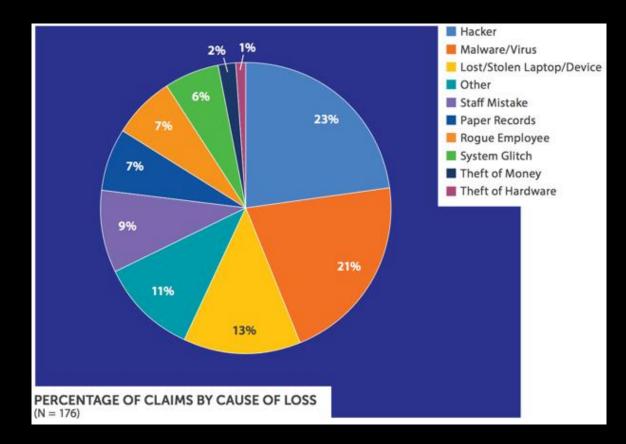
Crisis services costs (forensics, notification, credit monitoring and legal counsel), Legal damages (defense and settlement), Business interruption costs Fines (PCI and regulatory) by the type of data exposed

2016 Typical breach cost \$5,822 - 1.6MM 80% - 10th-90th percentile

2016 Average Claim \$495,000

CRISIS SERVICE COSTS						
Service	Claims with Costs	Total	Min	Median	Mean	Max
Forensics	106	18,983,603	1,234	35,450	179,091	2,456,000
Notification	53	8,942,659	58	5,000	168,729	2,000,000
Credit/ID Monitoring	57	15,990,149	298	12,198	280,529	2,900,000
Legal Guidance/Breach Coach®	109	11,012,155	290	28,394	101,029	2,500,000
Public Relations/Other	34	1,843,399	15	6,839	54,218	1,065,000

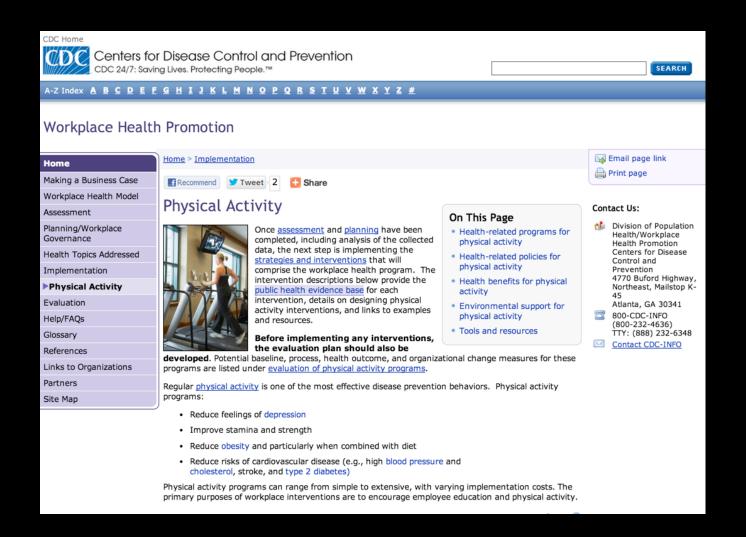
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It's not just about shifting risk...

Practical Takeaways









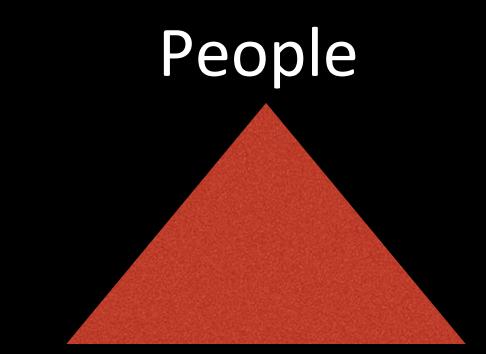
The health and wellness deals, designed just for you, will help you save on all you need to keep fit. Even better? You'll have access to two types of good-for-you deals: standing discounts (which you can redeem anytime you like) and exclusive, limited-time offers designed for living well - right in the moment.

Frequently Asked Questions

Does your business have great deals for the Blue365 community?

Click here to find out how to join the goodhealth movement.

Being proactive is smart



Where are your risks? Determine where you need help Budget accordingly

Process

Tools

Do you have mandatory trainings?

Stop Drop and Roll

Look both ways before crossing

STOP THINK CONNECT ™

https://www.stopthinkconnect.org/

PLEASE use a separate passphrase for work and compartmentalize accordingly

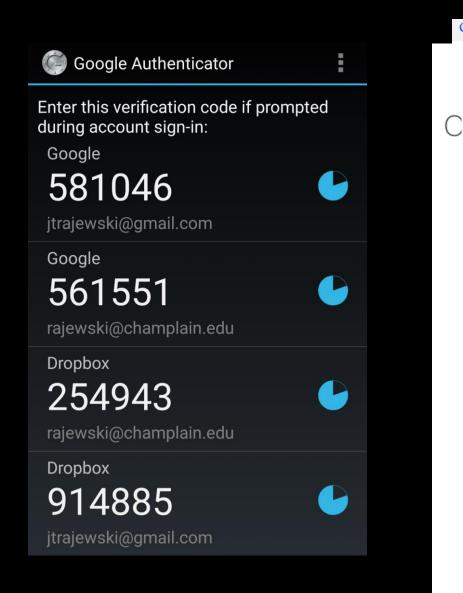


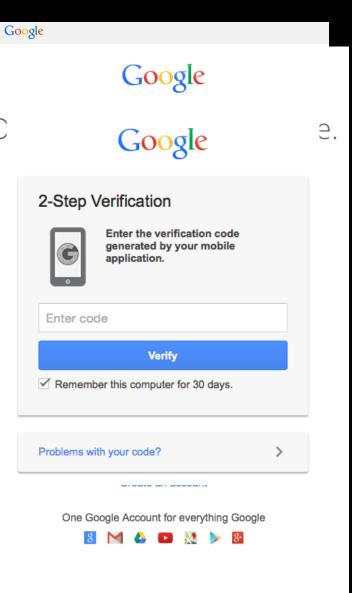
https://www.pwnieexpress.com/hubfs/password_vs_passphrase.jpg

Use Multifactor Authentication



https://www.lockdownyourlogin.org/strong-authentication/





Advanced Protection Program

Google's strongest security for those who need it most

The Advanced Protection Program safeguards the personal Google Accounts of those most at risk of targeted attacks—like journalists, business leaders, and political campaign teams.



The strongest defense against phishing

Phishing is one of the most common techniques hackers use to gain access to your account or personal information. For example, phishing emails or fake sign-in pages could trick you into revealing critical information, like your password. You'll need 2 Security Keys to turn on Advanced Protection

Already have Bluetooth and USB Security Keys? You can skip this step.



"CEO fraud," or "business email compromise."

	_HELP_IN	STRUCTION -	Notepad
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File Edit Format View Help

!! INFORMATIONS!!

All your files are encrypted with RSA2048 and AES128 ciphers. More information about the RSA and AES can be found here: URL:1 https://en.wikipedia.org/wiki/RSA_numbers URL:2 http://en.wikipedia.org/wiki/Advanced_Encryption_Standard

Decrypting your files is only possible with

he private key and decrypts programs, which is on our secret server.

Follow these steps: 1. Download and install Tor_Browsers: http://torproject.org/download/download-easy.html 2. After a successful installation, run the browser and wait for initialization. 3. Type in the address bar: http:// .onion URL2: http:// .onion 4.Follow the instructions on the site. !! Your DECRYPT-ID: !!

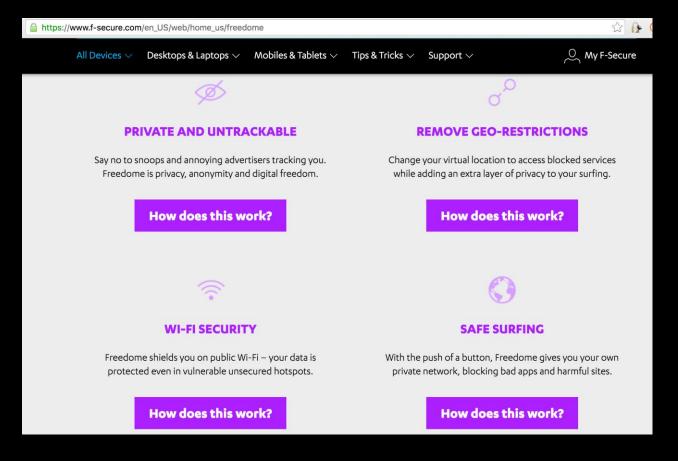
How to deal with ransomeware

- Don't click or open attachments/links that look suspicious
- Be careful on social media videos are not really videos etc...
- Backup your files! (cloud?) & TEST BACKUPS
- Call for help!

How many of you have ever connected to...



So what can you do?



•Use your phone as a wifi hotspot

Ensure you trust which wifi you are connecting to
Use a Virtual Private Network

Antivirus

It can be compared to the flu shot...



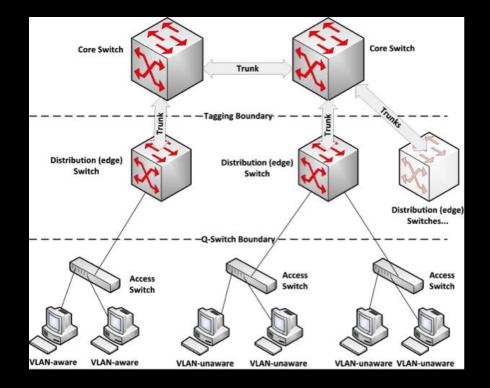
General Cyber Security Tips IT professionals

A current asset list and network map

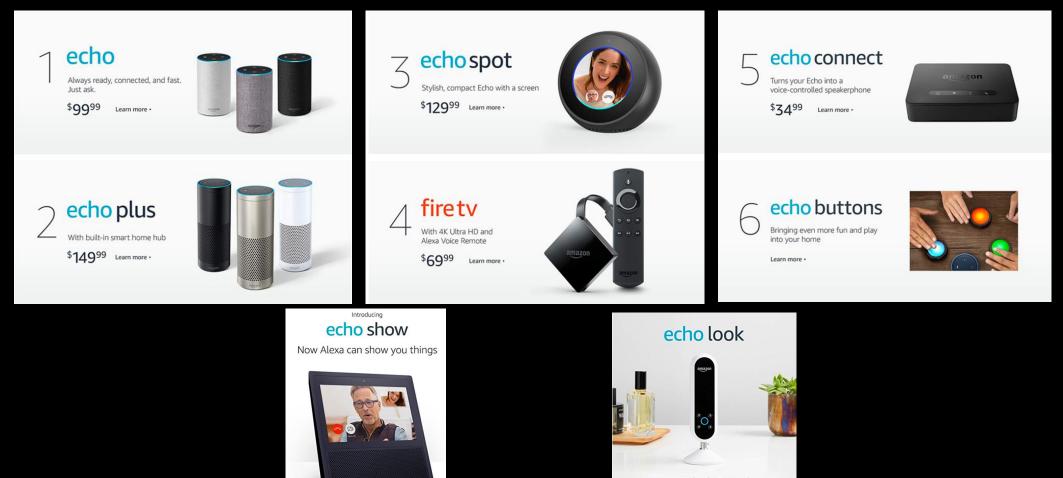
Data classification - where do you have the crown jewels

General Cyber Security Tips IT professionals





General Cyber Security Tips IT professionals



Love your look. Every day.

General Cyber Security Tips IT professionals

Enable logging on internal and external systems

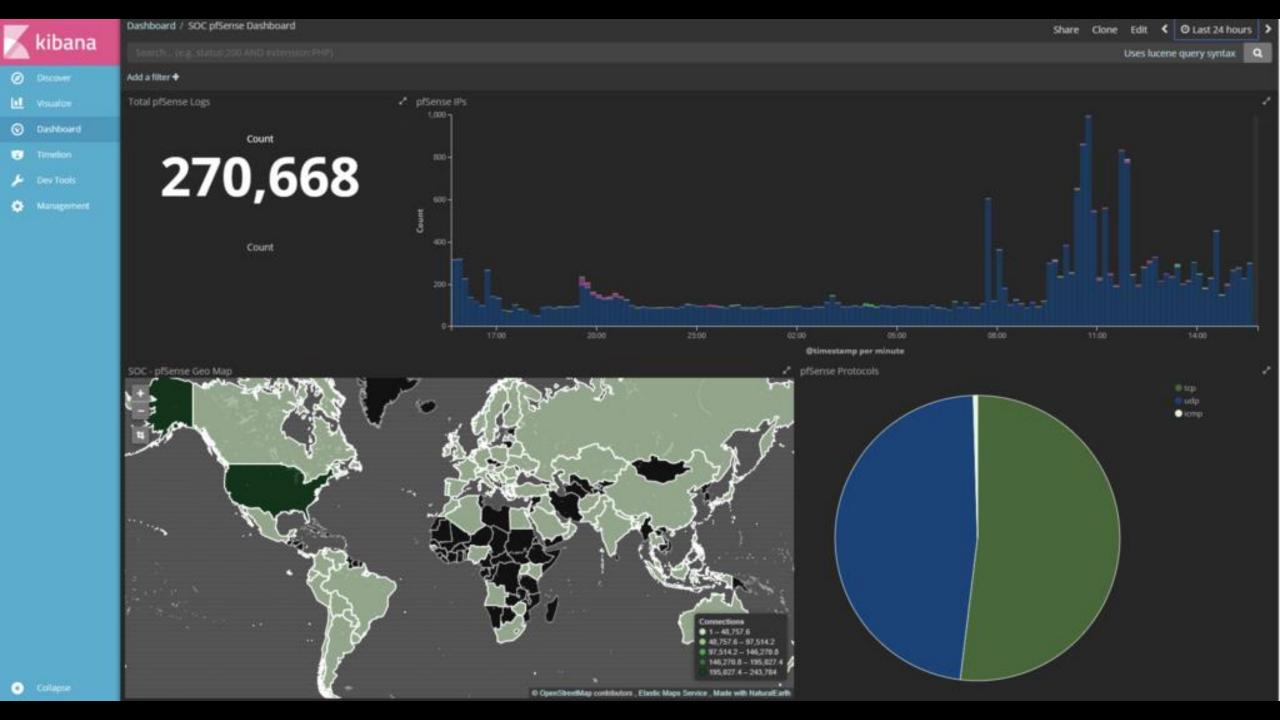
NOTE: You have to first turn on audit logging before you can run an audit log search. If the Start recording user and admin activity link is displayed, click it to turn on auditing. If you don't see this link, auditing has already been turned on for your organization.

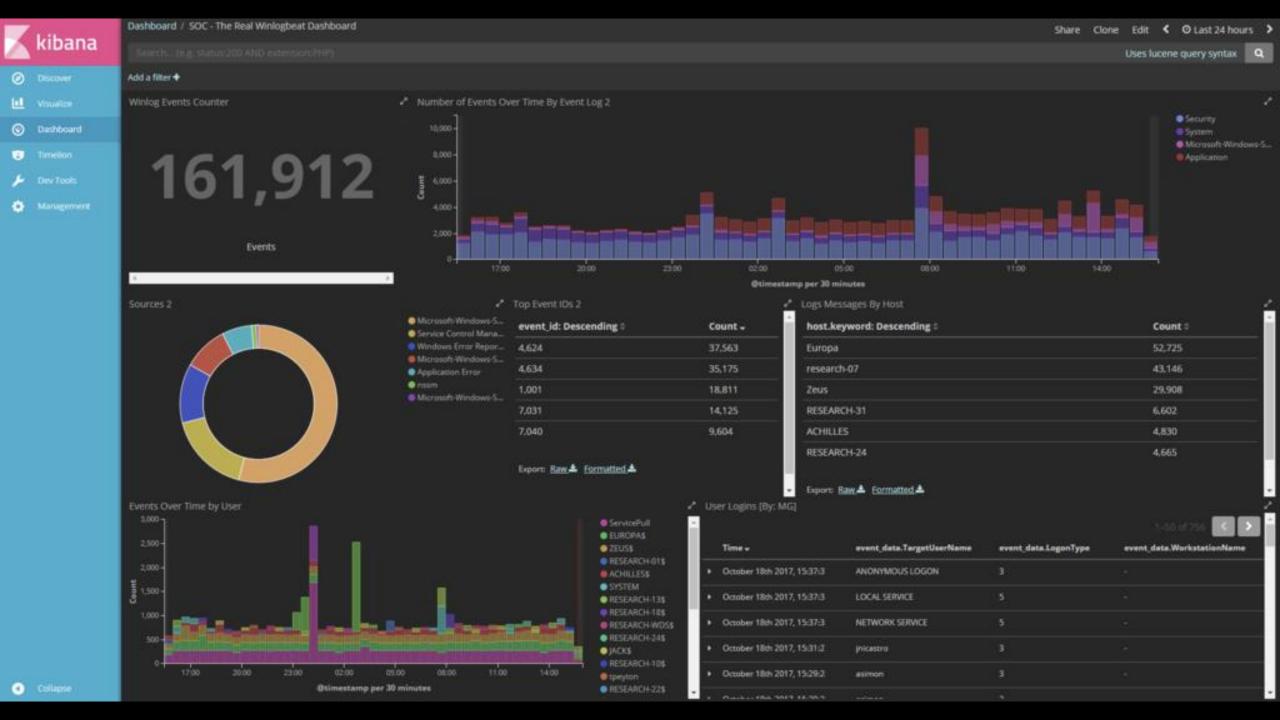
General Cyber Security Tips IT professionals

Collect data that's important to hunt for evil

System Event LogsDHCP LogsProxy LogsSMTP/Mail LogsFirewall LogsRemote Desktop/VPN LogsIntrusion Detection LogsActive Directory LogsAnti-Virus LogsApplication LogsFlow DataALL OF THE LOGS?

Data retention? Do you have time? Do you know what to look for?





General Cyber Security Tips IT professionals

Know when it's appropriate to call for help with security/response Have an expert on retainer

> Backups Conduct them but also test them

Explore regular penetration testing to test your security controls



Sona Makker, CIPP/US

Claire Gartland

Facebook, Privacy and Public Policy

facebook

Privacy Best Practices

Claire Gartland & Sona Makker

Facebook Privacy and Public Policy Team

PRIVACY *it's good for business*

knowledge control

security

5 Practical Tips for Getting Privacy Right

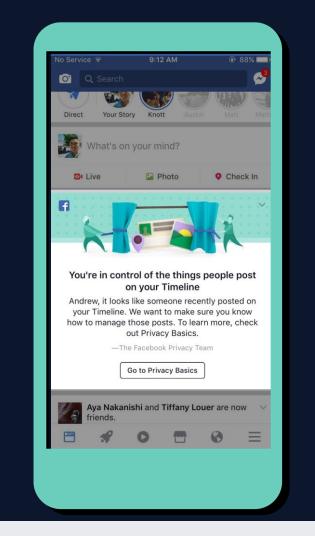
#1 Designate a "Privacy Advocate"

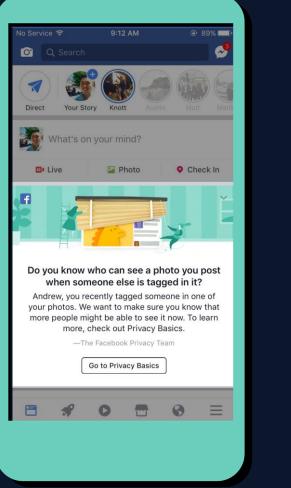
#2 Conduct a Data Audit

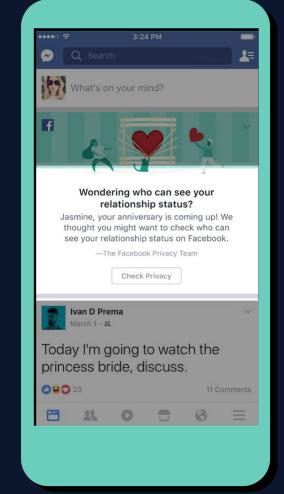
understand the Who? What? When? Where? Why? Of your data practices

#3 Build Trust Through Transparency

give people the **right information** at the **right time** to make the **choices that are right for them**







Avoiding surprises

Make sure people understand the audience they're posting to.

Update Status 👔 Add Photos/Video	
What's on your mind?	
1. V 🖸 😁	👷 Friends (559) 🔫 Post
	Public (Anyone)
	🗸 🤽 Friends (559)
	🖳 Friends except Acquaintances (365)
	Only Me (1)
	Custom (559)
	Facebook (5,000+)
	🔀 Close Friends (35)
	📃 Professional (19)
	See all lists

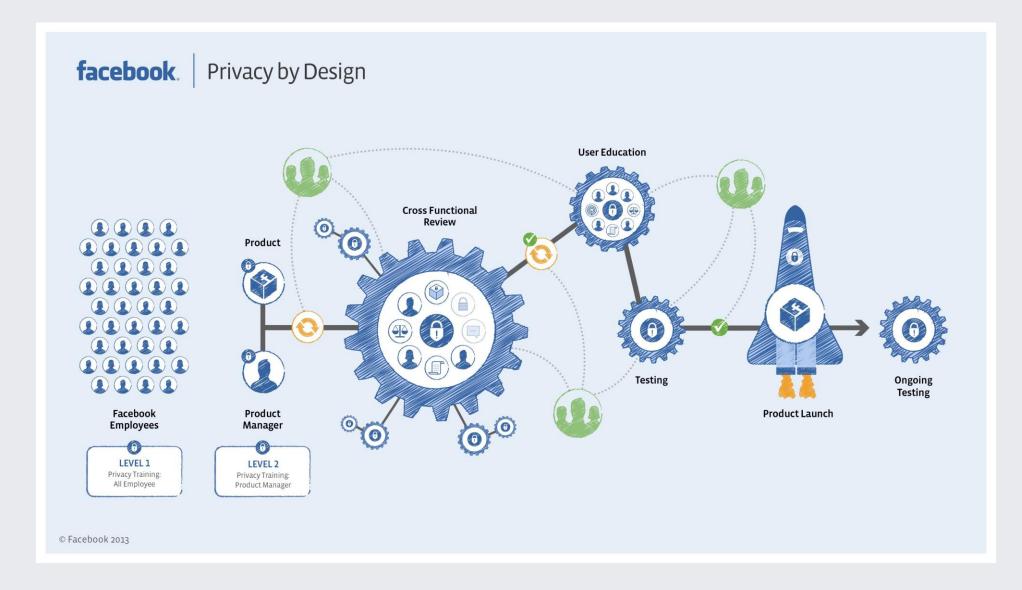
#4 Protect What You Collect

put users in control

respect expectations

be proactive, not reactive

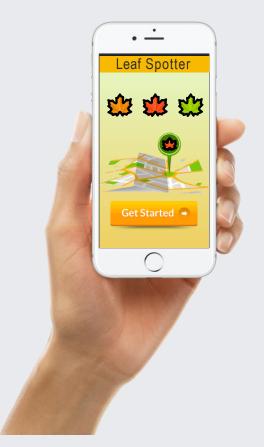
Privacy by Design



#5 Create a Culture of Privacy

Privacy by Design in Practice

The scenario

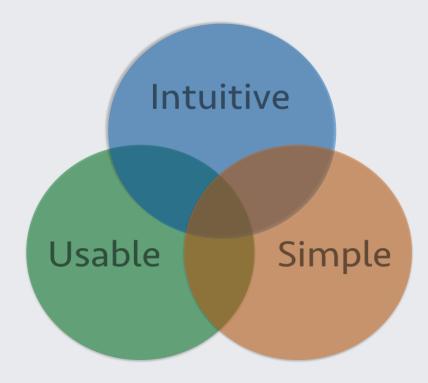


Your company is developing "Leaf Spotter"—a mobile app to crowdsource leaf peeping locations

Your Task

Design the privacy interface for Leaf Spotter

Introduce users to features in a way that's usable, intuitive, and simple



Considerations

who are your users?

what data do you collect?

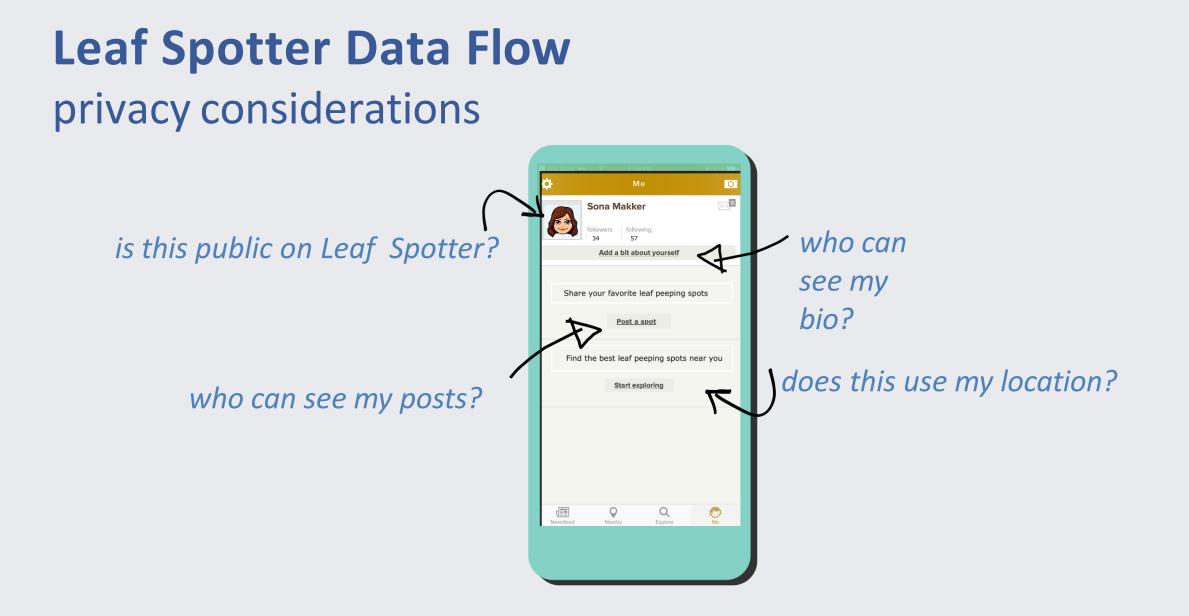
what do people expect?



avoid surprises.

be transparent.

give people control.



Discussion

- 1. What were some of the challenges?
- 2. How can you implement privacy best practices to build trust for your business?



Thank you!

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