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ATG LEGAL EDUCATION

Cybersecurity Risk Management for Real Estate Attorneys – Part II

December 4, 2019

Presented by:

- **Chris Burhans** CISSP, C|EH, Sec+, MS
  Senior Vice President and Chief Information Officer
  Attorneys' Title Guaranty Fund, Inc.

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Part I – Summary

- **The Threat Landscape**
  - Cybersecurity is ongoing and the threat is real.
  - People are often the weakness, not systems.
- **Attack Types**
  - Ransomware
  - Phishing/Spear Phishing
  - Smartphone Attacks
- **Risk Mitigation Techniques**
  - Prevention
  - Detection
  - Recovery

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Part II – Today's Agenda

- **Fourteen Action Steps to Secure Your Practice**
  1. Anti-Virus
  2. Encryption
  3. Physical Security
  4. Email
  5. Wireless
  6. IS Policy
  7. DR Plan
  8. Business Domains
  9. Cloud Usage
  10. Password Manager
  11. Updates
  12. Cybersecurity Insurance
  13. Wire Fraud
  14. Treat Sensitive Data Like Money

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1. Install Anti-Virus/Ransomware Protection

- **Things to Consider**
  - Who else uses it? Does it work?
  - System Load/Requirements
  - Ease of Use
  - Price
    - Make sure it updates regularly.
    - Check bells and whistles.

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Product	McAfee AntiVirus Plus	Norton AntiVirus Plus	Kaspersky Anti-Virus	Bitdefender Antivirus Plus	Webroot SecureAnywhere AntiVirus	ESET NOD32 Antivirus	Trend Micro Antivirus+ Security	F-Secure Anti-Virus	VoodooSoft VoodooShield	The Kure
Lowest Price	$19.99 McAfee SEE IT	$19.99 Symantec SEE IT	$29.99 Kaspersky Lab SEE IT	$39.99 MSRP	$18.99 Webroot SEE IT	$27.99 ESET North SEE IT	$29.95 Trend Micro SEE IT	$39.99 F-Secure SEE IT	$19.99 MSRP	$19.99 MSRP
Editors' Rating	●●●●○ EDITORS' CHOICE	●●●●○	●●●●◐ EDITORS' CHOICE	●●●●◐ EDITORS' CHOICE	●●●●◐ EDITORS' CHOICE	●●●●○	●●●●○	●●●◐○	●●●●○	●●●●○
On-Demand Malware Scan	✓	✓	✓	✓	✓	✓	✓	✓	–	–
On-Access Malware Scan	✓	✓	✓	✓	✓	✓	✓	✓	✓	–
Website Rating	✓	✓	✓	–	✓	–	✓	–	–	–
Malicious URL Blocking	✓	✓	✓	✓	✓	✓	✓	✓	–	–
Phishing Protection	✓	✓	✓	✓	✓	✓	✓	–	–	–
Behavior-Based Detection	✓	✓	✓	✓	✓	✓	✓	✓	✓	–
Vulnerability Scan	✓	–	✓	✓	–	–	–	–	–	–

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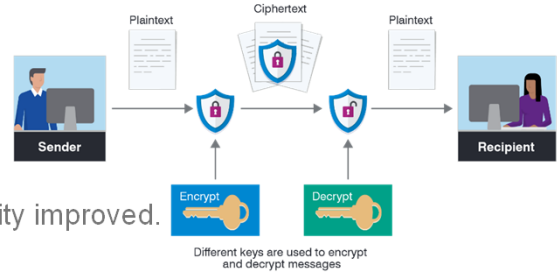
2. Implement Encryption

- **Two Kinds**
  - In Transit = Encrypted Email
  - At Rest = Encrypted Hard Drive
  - *File Level = Encrypted Documents*
  - *Application Level = Encrypted Programs*
    - Password protect files using cloud security.
    - Physical security improved.
    - Communication security improved.



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3. Pay Attention to Physical Security

- **Tips**
  - Clean Desk Policy
  - Server Rooms Under Lock/Key
  - Shredding Service
  - Remote Tracking
  - Lock Screens

    - Mitigates risk against theft.
    - Prevents data leakage.
    - Adheres to standards.

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4. Secure Email with Multiple Layers

- **Recommended Layers**
  - Spam Filters
  - MFA Logins
  - Attachment Scanning
  - Link Scanning
  - Simulated Attacks

    - Email is one of the biggest risks.
    - Real estate industry targeted.
    - Layered defense strategies.

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Wed 2/28/2018 11:40 AM

Jane Smith <jane.smith@chase.bankq.com>

Payment Instructions

To Lawly, Wiliam

This message was sent with High importance.

Miller File: Payoff Instructions
291 KB

Hey Bill,

ATG has requested that I forward you the payoff instructions, please see the attached document containing that information. To check the status after sending, please register for an account here.

Hope you're staying warm in this blizzard, our office was buried yesterday.

Talk to you soon.

Jane Smith | *Loan Officer*
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One South Wacker Drive, 24th Floor
Chicago, Illinois 60606-4654
Jane.Smith@chase.com
Direct: 312-752-1241 | Fax: 312-224-0234
www.chase.com | Follow Chase on LinkedIn

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Green Flags:

- Comfortable salutation
- Partner referenced by name
- Industry Terminology
- Reference to weather

Red Flags:

- Signature Email vs. 'From'
- Outgoing link and/or attachment
- Instructions to do something
- Normally grammar / spelling errors (SPAM filter)
- Timing

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5. Overprotect Wireless Networks

- **Action Steps**
  - Enforce WPA2 or higher.
  - Do not make SSID recognizable.
  - Change default router passwords.
  - Be mindful of rogue AP attacks.
  - Implement URL filtering.

    - Make public vs. private Wi-Fi separate networks.
    - Do not hang passwords on the wall.
    - Computers vs. phones.

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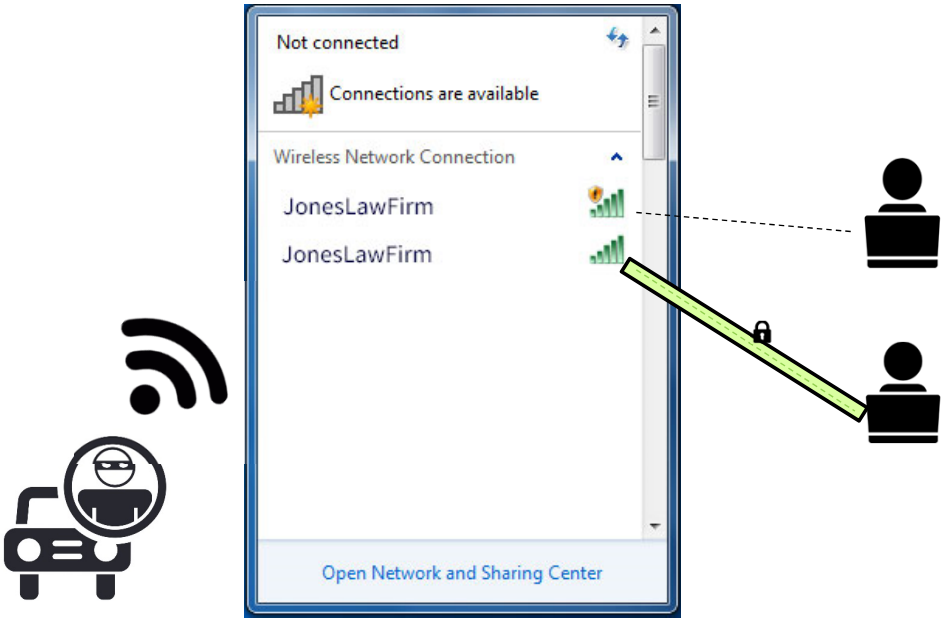

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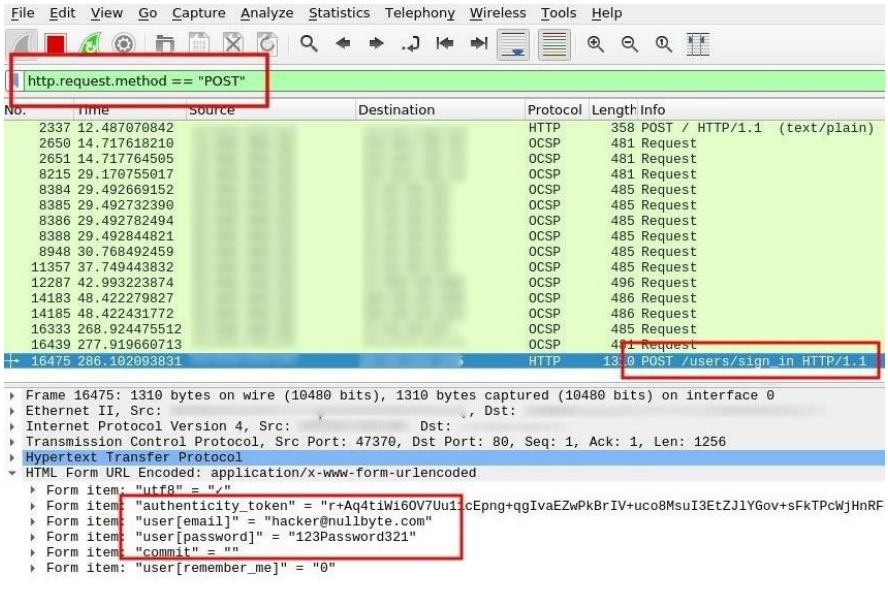

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6. Develop Information Security Policy

- **Should Answer**
  - What information needs protecting?
  - How will it be protected?
  - Who is in charge of protecting it?
  - Who does the policy apply to?

    - Starts at the top.
    - Enforcement is key.
    - Start simple.
    - NIST standards can be followed.

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Information Security Policy Templates

Welcome to the SANS Security Policy Resource page, a consensus research project of the SANS community. The ultimate goal of the project is to offer everything you need for rapid development and implementation of information security policies. You'll find a great set of resources posted here already, including policy templates for twenty-seven important security requirements.

Find the Policy Template You Need!

General

- Acceptable Encryption Policy
- Acceptable Use Policy
- Clean Desk Policy
- Data Breach Response Policy
- Disaster Recovery Plan Policy
- Digital Signature Acceptance Policy
- Email Policy
- Ethics Policy
- Pandemic Response Planning Policy
- Password Construction Guidelines
- Password Protection Policy
- Security Response Plan Policy
- End User Encryption Key Protection Policy

Network Security

- Acquisition Assessment Policy
- Bluetooth Baseline Requirements Policy
- Remote Access Policy
- Remote Access Tools Policy
- Router and Switch Security Policy
- Wireless Communication Policy
- Wireless Communication Standard

Server Security

Application Security

https://www.sans.org/security-resources/policies

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7. Create Incident Response Plan

- **Three Primary Roles**
  - Threat Researcher
  - Triage/System Analysis
  - Crisis Management
    - How much would it cost?
    - Never pay the hackers.
    - Step-by-step process.
    - Communication is key.

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SANS

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Sample Incident Handling Forms

- **Security Incident Forms**
  1. Incident Contact List
  2. Incident Identification
  3. Incident Survey
  4. Incident Containment
  5. Incident Eradication
  6. Incident Communication Log
- **Intellectual Property Incident Handling Forms**
  1. Incident Form Checklist
  2. Incident Contacts
  3. Incident Identification
  4. Incident Containment
  5. Incident Eradication
  6. Incident Communication Log
- Chain of Custody Form

https://www.*sans.org*/score/incident-forms

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8. Understand Why Business Domains Are Vital

- **Business Domains Advantages**
  - Create trust.
  - Harder to impersonate.
  - Very cheap.

  - lawyer123@gmail.com vs. lawyerl23@gmail.com
  - Tip: Read email addresses backwards.
  - Helps promote awareness.
  - Expect to be impersonated.

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9. Use the Cloud

- **Cloud Advantages**
  - Inherent Security
  - Integrated Disaster Recovery
  - Integrated Encryption
  - Low Storage Price
  - Share Links, Not Attachments

  - Use MFA for access.
  - Directory-level security recommended.
  - Audit logs make triage easier.
  - Encrypt at rest and in transit.
  - Off-site backup built in.

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CLOUD vs. ON-PREMISE

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OVERVIEW

• Low-cost up front • Predictable cost over time • No hardware/server investments	• Reduced initial price
• May end up spending more over the course of the system's life cycle	• Upfront investment can be seen as riskier • Have to pay for hardware and servers • Responsible for IT maintenance and setup

SETUP

• Quick and easy (done by your vendor) • Adding new users and instances is easy • Remote access requires no work on your part	• Setup is done by you, giving you greater control over the process
	• Implementation may take much longer • Responsible for setting up remote access • Adding users and instances may be costly

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CLOUD vs. ON-PREMISE

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CUSTOMIZATION

• Greater consistency and stability • More vendor support for customizations	• Direct database access is possible, enabling complex customizations
• Direct database access is not allowed for security reasons, which may limit complex customization	• Bespoke integrations may break when the vendor updates the software

MAINTENANCE

• Server and hardware taken care of by vendor • Updates, patches and fixes are installed automatically and regularly	
	• Perform updates, patches and fixes yourself • Maintain supporting servers, hardware, resources

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CLOUD vs. ON-PREMISE

SECURITY & DISASTER RECOVERY

• Security and backups taken care of by vendor	• Security is in your hands; greater personal control over your data
• Security and backups taken care of by vendor – quality of data center will vary	• Security is in your hands; you are responsible for data breaches and server failures • You carry cost of backups and server redundancy

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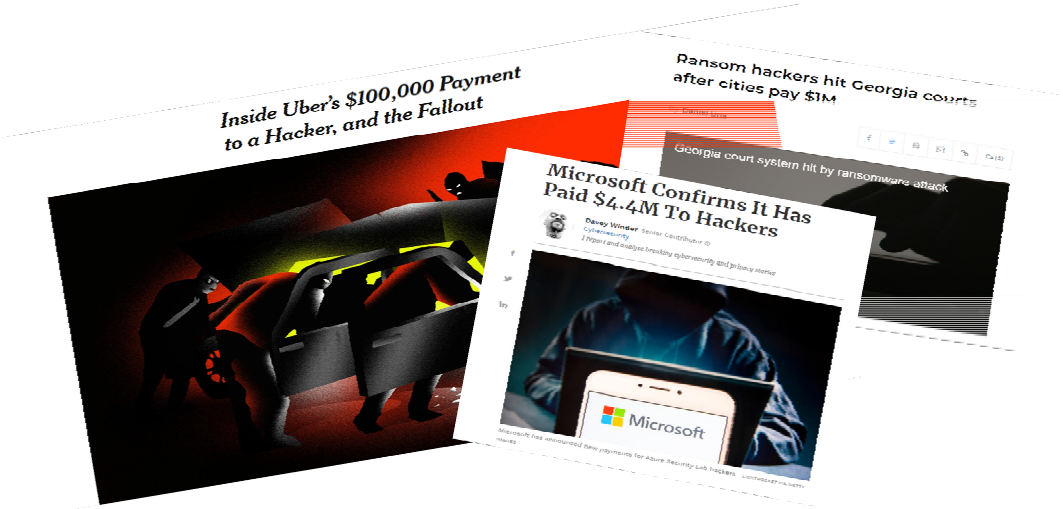

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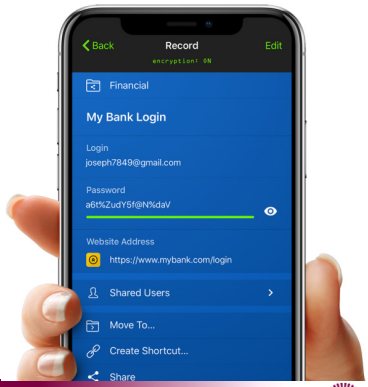
10. Consider a Password Manager

- **Password Manager Advantages**
  - Used by Thousands of Companies
  - Vault-Based Password Management
  - Active Directory Integration
  - Accessible Anywhere

    - Prevents writing passwords down.
    - Directory-level security recommended.
    - Audit logs make triage easier.
    - Encrypt at rest and in transit.
    - Off-site backup built in.



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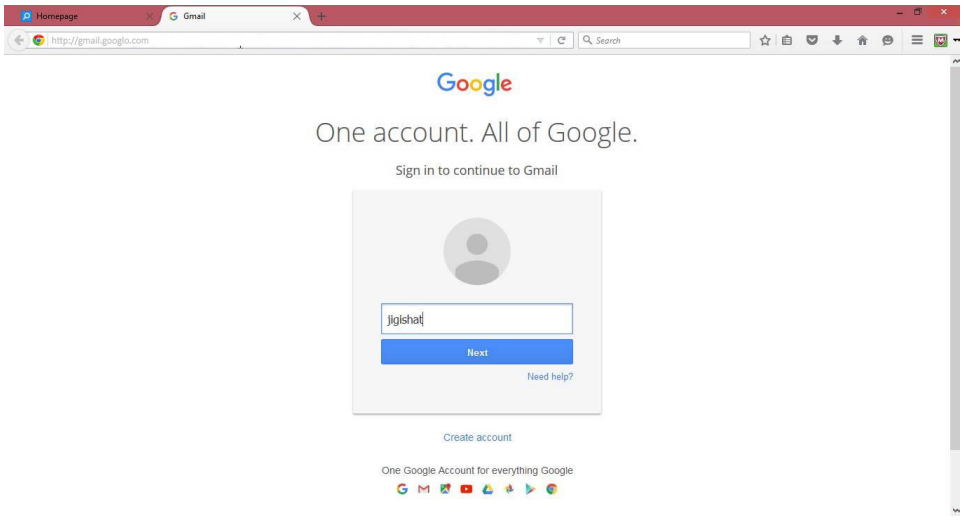

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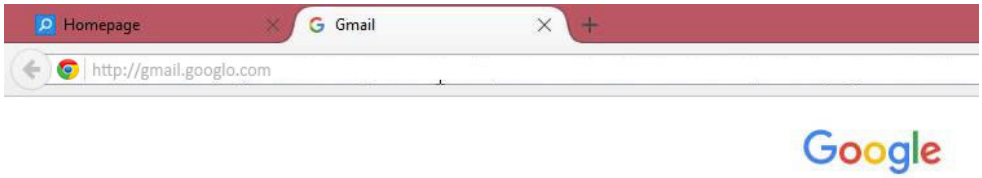

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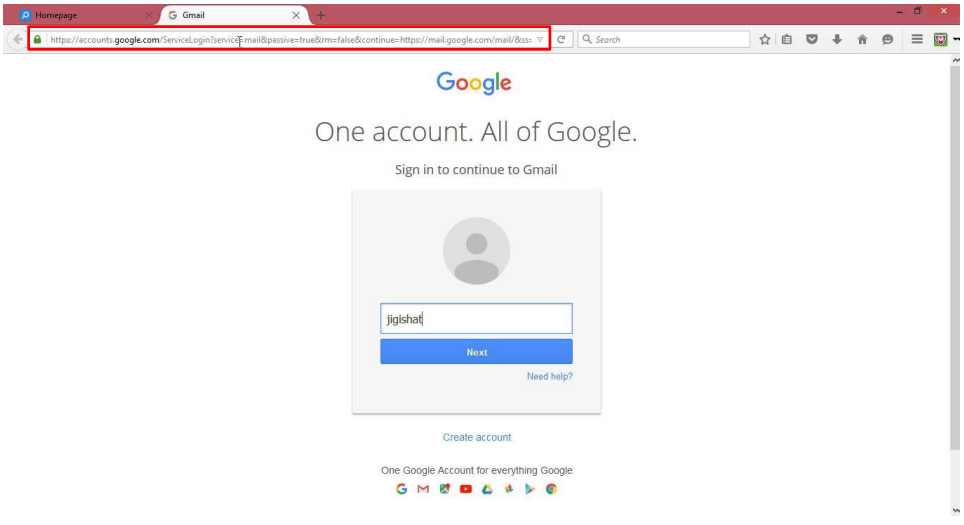

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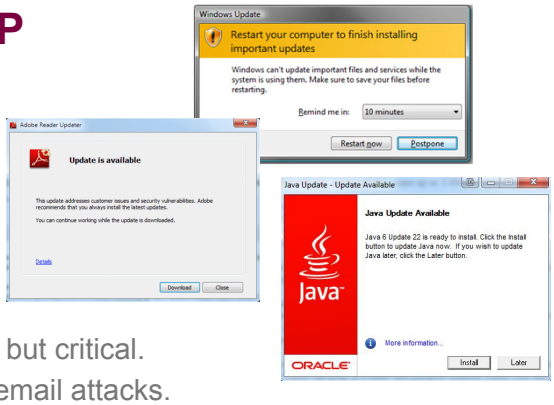
11. Run Updates ASAP

- **Types of Updates**
  - Windows Updates
  - Third-Party Updates
  - End-of-Life Cycles



  - Updates are annoying but critical.
  - Mitigates risk against email attacks.
  - Updates + Anti-Virus = Machine Security
  - Create responsible party.
  - Can be managed remotely by third-party company.

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Windows 7 End of Life

- **January 2020**

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12. Consider Cybersecurity Insurance

- **Questions to Ask**
  - What types of incidents are covered?
  - What types of incidents are NOT covered?
  - How long do I have to report it?
  - What happens after I report a claim?

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12. Consider Cybersecurity Insurance

- **Questions to Ask**
  - What is the cost; how is coverage priced?
  - If a breach occurs, does my premium go up?
  - Are there any audit or operational obligations?
  - Is there anything I can do to minimize cost?
  - Have any recent claims been denied coverage? If so, why?

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Common Reasons Why Cybersecurity Claims Are Denied

- **Failure to Maintain (Negligence)**
  - You did not protect yourself.
- **Industry-Specific Fine**
  - Your business, your responsibility.
- **Ransomware/Extortion**
  - Lost income covered, extortion bill is not.
- **Social Engineering (Negligence)**
  - Did you open the door?

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13. Go Above and Beyond for Wire Fraud

- **Wire Fraud Prevention**
  - Create educational welcome packet.
  - Consider further protection with paid services.
  - Develop specific guidelines.
  - Create separate wire fraud response process.
    - Can't stop impersonation; need to educate.
    - You are on the hook.
    - Wires are foreign; further need to educate.
    - You cannot secure buyer, seller, or agent.
    - Know what to look for.

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Real estate wire fraud complaints

Year	Victims	Dollars lost
2014	9,955	$19.8M
2015	11,562	$41.4M
2016	12,574	$47.9M
2017	9,645	$56.2M
2018	11,300	$149.5M

Source: FBI

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14. Treat Sensitive Data Like Money

- **Noteworthy Compliance**
  - GDPR
  - California Consumer Privacy Act
    - Facebook set the stage.
    - Fines are meant to be severe.
    - New York is coming.

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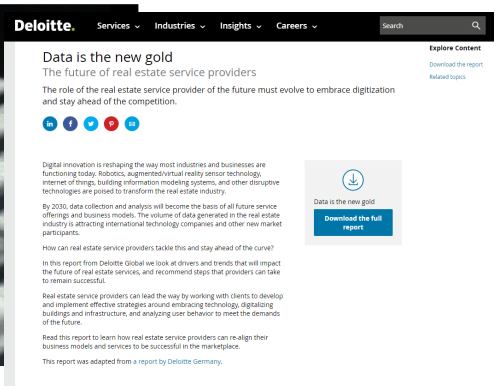
ISSIE LAPOWSKY BUSINESS 08.04.2019 07:00 AM

New York's Privacy Bill Is Even Bolder Than California's

New York is poised to become the next battleground in the fight for consumers' rights over their personal data.



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Easy Tips to Secure Your Business

- **Email**
  - Use private business domain.
  - Add multi-factor authentication to all company accounts.
  - Implement a SPAM filter.
  - Encrypt sensitive messages.

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Easy Tips to Secure Your Business

- **Wi-Fi**
  - Change default passwords on router.
  - Disguise network name.
  - Ensure use of latest security protocol for encryption.
    - WPA2 now; WPA3 coming.

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Easy Tips to Secure Your Business

- **Computers**
  - Update anti-virus software daily.
  - Encrypt sensitive documents.
  - Ensure you have effective patch management.

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Easy Tips to Secure Your Business

- **Restoration**
  - Back up to the cloud or a server.

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Easy Tips to Secure Your Business

- **Awareness**
  - Create process to regularly train staff on cybersecurity threats.
  - Create cybersecurity information packets for clients.

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Easy Tips to Secure Your Business

- **Documentation**
  - Create an information security policy and enforce it.

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Easy Tips to Secure Your Business

- **Mitigate Risk**
  - Get annual cybersecurity assessments done to measure your level of exposure.

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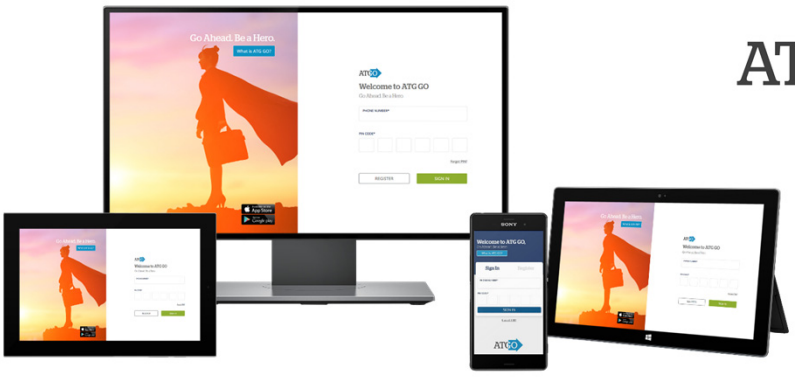

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Smart Orders

Collaborative order platform built for real estate attorneys.

Document Cloud

Cloud file storage and synchronization services.

Closing Calendar

Easily schedule your closing from any location at any time.

Enhanced Security

Iron-clad security and encryption protocols.

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