

# Protect Your Clients, Protect Yourself: Avoiding a Professional Nightmare from Data Compromises



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## It CAN Happen to You

- The risk is real; professionals are prime targets for identity thieves
- Cybercriminal tactics constantly evolve
- Data loss can occur so many ways:
  - Burglar steals office computers
  - Cybercriminal breaches your systems using phishing and malware schemes
  - Disgruntled employees steal client info
  - Dispose of old devices without erasing data



## Data Theft Tactics

- Phishing emails, text or calls
  - Pose as trusted organizations
  - Embed links to fake websites
  - Use malware-infected attachments
- Risks of opening phishing scams
  - Account take-overs (Banks, IRS e-Services, Tax Software)
  - Computer breaches
- Educate employees on scams/risks



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## Emerging Scams

- Phishing emails posing as IRS e-Services
- Phishing emails posing as new clients
- Spoofing emails to payroll personnel requesting all employee Forms W-2
- Remote takeover of tax preparer computers
- Variations constantly emerge
- Know your clients; know your employees



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## Steps to Protect Client Data

- Read Publication 4557, Safeguarding Taxpayer Data
- Review current security measures
- Create a security plan
  - Use top-notch software security
  - Educate all employees
  - Use strong passwords
  - Secure Wi-Fi
  - Encrypt PII emails
  - Backup files



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## Plan Ahead for Data Loss

- Create a reaction plan for data theft
  - Call IRS Stakeholder Liaison (found on IRS.gov)
  - Notify your State Tax Agency
- Review Federal Trade Commission's "Business Center" to assist businesses with data losses
  - Notify police
  - Notify businesses
  - Notify clients



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## Help Educate Clients

- IRS, state tax administrators and tax industry working together to increase public awareness about security protections online and at home.
- Review Publication 4524, Security Awareness for Taxpayers
- Consider printing and sharing this one-page guide with your clients



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## Search on IRS.gov: “Protect Your Clients; Protect Yourself”

**Protect Your Clients; Protect Yourself**

English | Español | Chinese, Traditional | Korean | Russian | Vietnamese

Enrolled Agents	<p>Every tax practitioner in the United States – whether a member of a major accounting firm or an owner of a one-person storefront – is a potential target for highly sophisticated, well-funded and technologically adept cybercriminals around the world. Their objective: to steal your clients' data so they can file fraudulent tax returns that better impersonate their victims. Their tactics: to trick you into giving up computer passwords, e-Services passwords, to steal your EFINs or CAF numbers or even to take remote control of your entire computer system.</p> <p>No one can fight this crime alone. It takes all of us, working together. That is why the Security Summit – the unprecedented partnership between the IRS, state tax agencies, and the private-sector tax industry – came together to form a united and coordinated front against this common enemy. And, that's why the Summit partners are asking tax professionals nationwide to join this effort.</p> <p>The Security Summit created the “Protect Your Clients, Protect Yourself” campaign to raise awareness among tax professionals about their legal obligation to protect taxpayer data as well as highlight security threats they face from identity thieves.</p>	 <p><b>Security Summit</b></p> <p>We all have a role.</p> <p><a href="#">Learn more</a></p>
Annual Filing Season Program Participants		
Enrolled Retirement Plan Agents		
Certified Professional Employer Organizations (CPEO)		
Enrolled Actuaries		
E-File Providers		
Modernized e-File		



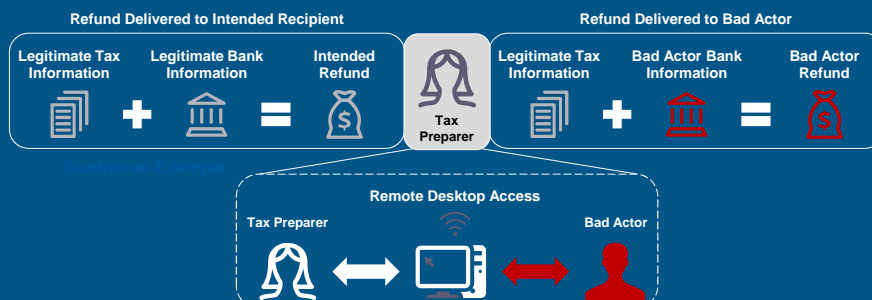
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## Bad actors attempt to gain access to tax preparer accounts in order to alter return information and divert refunds to themselves.

### Common Schemes

Common schemes that bad actors use:

- Spear phishing emails
- Account takeovers
- Remote access takeover
- Exploiting a lack of firewall and/or anti-virus



### How to Report a Preparer Account Takeover

Preparers should contact the *IRS Stakeholder Liaison* for their state.

<https://www.irs.gov/businesses/small-businesses-self-employed/stakeholder-liaison-local-contacts-1>

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## Spear Phishing

- Targets a specific audience
- 91% of all cyber attacks/data breaches start with spear phishing email
- Appears as a trusted source
  - Fellow tax practitioner/software provider
  - Potential or current client
  - IRS e-Services
- Objective: entice you to open link or download attachment



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## Spear Phishing

----- Original Message -----

Subject: Tax return

From: [REDACTED]

Date: Tue, February 28, 2017 5:10 am

To:

Hello,

Thief targets specific audience -  
such as tax pros

Email may be ungrammatical or oddly  
worded

I got your email from the local directory. Hope your doing good and actively involved in the tax filing season.

I would like to file my tax return, which includes that of me and <https://bit.ly/2loxgsa> Click to follow link  
like you to have a review and let me know the cost. Click [here](#) to view my details

Regards

[REDACTED]

Includes hyperlink using a tiny URL to disguise link  
destination.



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## Account Takeover

Often starts with a spear phishing  
email like this:

From: IRS E Services <[REDACTED]>

Sent: Wednesday, April 26, 2017 2:39 PM

Subject: Account Closure Now!

Dear Tax Pro,

We noticed you have not updated your eService and EFIN details for 2017 Tax season.

Please follow the link below to securely update your eServices account renewal details or else you will loose your account.

[update now](#)

We will suspend any Tax Preparer who fails to renew and follow this update within 24Hrs.

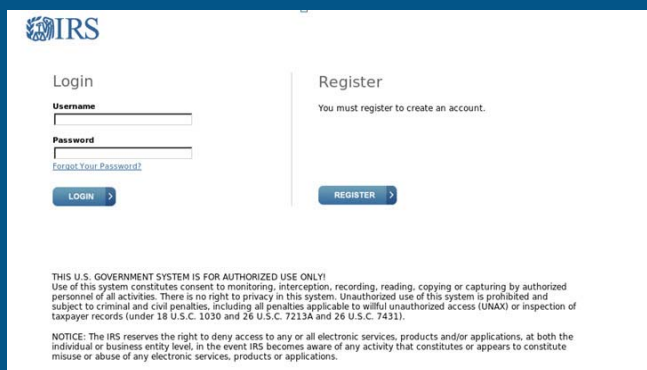
Sincerely,  
[IRS.gov](https://www.irs.gov) e-Services



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## Account Takeover

Fake e-Services site copies real one




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## Protect your EFIN

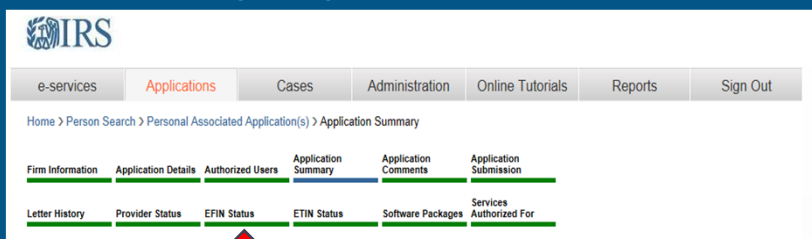
- IRS reviewing improvements to EFIN safeguards
  - Stepped up efforts to expel EFIN abusers;
  - Increased on-site visits as part of monitoring process
- EFIN holders should review return numbers during filing season
  - e-Services Account updated weekly
  - Excessive numbers can be reported to e-Help Desk (866-255-0654)



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## Account Takeover

Monitor your EFIN: Check EFIN Status  
Weekly during filing season



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## Account Takeover

Maintain your EFIN: Keep it current

- Update within 30 days of any personnel, address or telephone changes
- EFIN is not transferable
- EFIN application required for each office location where e-File transmissions occur



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## Ransomware



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## Remote Access Attack



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## Protect Your Business

How to get started?

- Small Business Information Security – The Fundamentals at NIST.gov
- Publication 4557, Safeguarding Taxpayer Data, at IRS.gov



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## The Fundamentals

NIST's five action-item categories:

- Identify
- Protect
- Detect
- Respond
- Recover



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## The Fundamentals - Identify

- Identify and control who has access to your business information
- Conduct background checks on new employees
- Require individual user computer accounts for each employee
- Create policies and procedures for information security



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## Identify

- Identify what information your business stores and uses

	Example: Client files	Payroll Data	Employee Files		
Cost of revelation (Confidentiality)	High				
Cost to verify information (Integrity)	High				
Cost of lost access (Availability)	High.				
Cost of lost work	High				
Fines, penalties, customer notification	High				
Other legal costs	High				
Reputation / public Relations costs	High				
Cost to identify and repair problem	High				
Overall Score:	High				22



## Identify

- Develop an Inventory of IT Related Equipment

	Description (e.g. nickname, make, model, serial number, service ID, other identifying information)	Location	Type of information the product comes in contact with.	Overall Potential Impact
1	Cell phone; Type – Sonic; Version – 9.0 ID – “Police Box”	Mobile T&S Network	Email; Calendar; Customer Contact Information; Photos; Social Media; Locations; Medical Dictionary Application	High
2	Computers			
3	Printers			
4	Wireless Routers			
5	Remote Access			



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## Identify

- Practitioner Breach 1 “The Printer”
  - Office printer with wireless capabilities hooked to network
  - Manufacturer default password never changed
  - Perpetrator gained access via printer’s wireless capabilities and manufacturer default password
  - Gained full access to Firm’s files



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## The Fundamentals - Protect

- Limit employee access to data and information
- Keep software/security programs updated
- Install firewalls on all business networks
- Secure all wireless access points
- Set up web and email filters



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## The Fundamentals - Protect

- Use encryption for sensitive business information
- Dispose of old computers and media safely
- Train your employees
- Passwords (At least 16 characters long)
- Alpha / Numeric values / Punctuation
- Example: Meathrowmetheball2017%!  
(This is a line is a phrase from a movie)



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## Protect

- Limit employee access to data and information
- Patch your operating systems and applications
- Install and activate software and hardware firewalls on all your business networks
- Secure your wireless access point and networks



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## Protect

- Set up web and email filters
- Use encryption for sensitive business information
- Dispose of old computers and media safely
- Train your employees



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## Protect

- Practitioner Breach 2 “Remote Access”
  - IT Service Provider on monthly retainer
  - December 2016 IT Provider identifies attempted access via Remote Access Program
  - January 2017 upgrades Remote Access to VPN
  - February 2017 returns rejected



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## Protect (continued)

- IT forensics reveal remote access compromise via employees infected home computer in 03/16
- Perpetrator loaded hidden program granting full access and capable of copying and extracting files
- Program concealed using a common file naming convention went undetected from 03/16 to 02/17
- 1/3 of clients ID Theft Victims



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## Protect (Phishing Emails)

From: **Posing as Outside Private Sector Entity**  
 Date: Thu, Jun 22, 2017 at 10:54 AM  
 Subject: Database Error  
 To: **Tax Practitioners**

In our database, there is a failure, we need your information about your account.  
 In addition, we need a photo of the driver's license, send all the data to the letter. Please do it as soon as possible, this will help us to revive the account.

\*Company Name \*  
 \*EServices Username \*  
 \*EServices Password \*  
 \*EServices Pin \*  
 \*CAF number\*  
 \*Answers to a secret question\*  
 \*EIN Number \*  
 \*Business Name \*  
 \*Owner/Principal Name \*  
 \*Owner/Principal DOB \*  
 \*Owner/Principal SSN \*  
 \*Prior Years AGI



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## Phishing E-mail (Continued)

\*From:\*SimonandMelisa Willetts [<mailto:willettsimonandmelisa@gmail.com>]  
 \*Sent:\* Monday, February 20, 2017 6:58 AM  
 \*To:\* **Tax Practitioner**  
 \*Subject:\* Re: Our 2016 Taxes

My wife and I should have all our 2016 docs in a week or two.

Last year we moved from Wyomind DE ~ Mr Pryor was our previous CPA.

Here is our 2015 Tax Documents for your review.  
 However, we can be on a call Friday 10AM ~ OK?

Simon & Melissa Willetts Shared - Tax Documents

<<http://rktaxprep.info/customers/Pryordocs2015/pdf/>

On Fri, Feb 17, 2017 at 8:45 PM, **Tax Practitioner** wrote:

Good morning Simon & Melisa,

Yes, I am accepting new clients. Are you in the City area?  
 Would you like to set up a time to meet?



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## Phishing E-mail (Continued)

**From:** Tax Software Company  
**Sent:** February 13, 2017 12:16 PM  
**To:** Tax Professional  
**Subject:** Access Locked

Dear Customers ,

Access to Tax Software has been suspended due to error(s) in your security details.

Follow the link below to unlock your access

[Unlock](#)

Thank you.

© Copyright 2017 Tax Software. All rights reserved.



IRS

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## Phishing E-mail (Continued)

**From:** Impersonating a Software Company  
**To:** Tax Practitioner  
**Sent:** 8/10/2016 7:14:26 A.M. Eastern Daylight Time  
**Subj:** Software Update Notification (Do NOT Reply)

**Software Company Product Notification System**

Dear Client,

Please DO NOT Reply to this e-mail.

All replies to this address will not be received by Software Company.

Please download and install this important update to your computer.

[Click Here](#)

Thank you for using XXXXX Software.

-Customer Support.



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## Phishing E-mail (Continued)



Dear User:

Your e-services account is secure. We are doing a one time verification to your e-mail. This will work as a recovery in case your account is compromised. Click or copy the link below to your browser to complete this process.

[https://a2.www4.irs.gov/pub/rup\\_login\\_1?TYPE=33554433&REALMOID=06-3e42c2f4-1c41-0019-0000-25b0000025b0&GUID=8:0000--4d5700004d57%26GUID%3d%26SMAUTHREASON%3d0%26METHOD%3dGET%26SMAGENTNAME%3d%26qzN0Exzjq7GXjalQAtum2VjVbftpJfXjCX5EEznNQ6gB2VzGstn8fCh3KSapr%26TARGET%3d--SM---%26PORTAL----PROD-%26CRM-%26signon-%26html](https://a2.www4.irs.gov/pub/rup_login_1?TYPE=33554433&REALMOID=06-3e42c2f4-1c41-0019-0000-25b0000025b0&GUID=8:0000--4d5700004d57%26GUID%3d%26SMAUTHREASON%3d0%26METHOD%3dGET%26SMAGENTNAME%3d%26qzN0Exzjq7GXjalQAtum2VjVbftpJfXjCX5EEznNQ6gB2VzGstn8fCh3KSapr%26TARGET%3d--SM---%26PORTAL----PROD-%26CRM-%26signon-%26html)

If you need any assistance with changing your password, please read the e-services FAQ. On-line assistance is also provided within the Change Password function.



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## Protect

207.56... [Full Info]	CA	Quebec	Montreal	Server 2008 R2	11.25 GB	119.82 MB/s	95.1 MB/s	x	x	28.02.2017	UPC/System	54.50
207.203... [Full Info]	CA	Quebec	Quebec	Windows 10	63.96 GB	21.6 MB/s	9.42 MB/s	x	x	18.04.2016	scionnet	53.25
69.79... [Full Info]	CA	Quebec	Dubau-mecanique	Server 2012 R2	15.96 GB	27.25 MB/s	12.6 MB/s	x	✓	22.01.2017	ZenZ	50.25
24.37... [Full Info]	CA	Quebec	Montreal	Server 2012 R2	31.75 GB	37.98 MB/s	29.59 MB/s	x	x	18.01.2017	Obama	50.25
72.143... [Full Info]	CA	Ontario	Collingwood	Server 2008	4 GB	25.38 MB/s	4.39 MB/s	x	✓	29.01.2017	Re-Loading	50.00
62.49... [Full Info]	GB	England	Berkeley Heath	Windows 7	3.42 GB	17.59 MB/s	37.8 MB/s	x	✓	03.02.2017	Re-Loading	50.00
69.79... [Full Info]	CA	Quebec	Montreal	Server 2008 R2	190 GB	20.72 MB/s	9.45 MB/s	x	x	23.06.2016	Obama	49.25
24.37... [Full Info]	CA	Quebec	Quebec	Server 2008 R2	31.87 GB	32.45 MB/s	17.24 MB/s	x	x	17.01.2017	Obama	49.25
74.57... [Full Info]	CA	Quebec	Riverside-Indust...	Server 2008 R2	31.91 GB	25.73 MB/s	4.62 MB/s	x	x	18.01.2017	Obama	49.25
60.27... [Full Info]	US	Texas	Lubbock	Server 2008 R2	15.96 GB	64.55 MB/s	0.1 MB/s	x	x	26.11.2016	senet	49.25
58.108... [Full Info]	AU	Western Austral...	Perth	Windows 10	3.89 GB	14.2 MB/s	504 KB/s	x	✓	27.01.2017	AutoBot	49.50
74.58... [Full Info]	CA	Quebec	Montreal	Windows 8.1	7.89 GB	67.32 MB/s	15.68 MB/s	x	x	30.01.2017	ZenZ	47.50
58.108... [Full Info]	AU	Queensland	Gold Coast	Windows 7	2.99 GB	3.14 MB/s	144 KB/s	x	x	21.07.2016	UPC/System	47.50
34.107... [Full Info]	CA	Quebec	Brossard	Windows 7	11.96 GB	35.59 MB/s	17.24 MB/s	x	✓	22.02.2017	UPC/System	47.50
47.221... [Full Info]	US	Texas	Kingwood	Windows 10	3.8 GB	26.13 MB/s	2.73 MB/s	x	✓	05.02.2017	Re-Loading	47.50
58.108... [Full Info]	AU	Western Austral...	Perth	Windows 7	2.34 GB	5.67 MB/s	698 KB/s	x	✓	22.01.2017	sigp	47.50



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## Protect

The screenshot displays a security tool interface with the following sections:

- System Information:**
  - OS: Windows 7 | x64 | EN
  - Hardware: AMD A10-5800K APU with Radeon(r) HD, Ram: 7.19 GB | CPU Cores: 4
  - Network: 24.87 Mbps / 18.9 Mbps
  - Admin Privilege: Yes
  - Direct IP: No
  - Antivirus: Unknown
  - Browsers: Blacklist: 0 / 5
  - Opened Ports: No
  - Virtual: No
  - Ransomware: No
- Payment Systems:**
  - 1. chaseonline.chase.com
  - 2. chase.com
  - 3. suntrust.com
  - 4. welfargo.com
  - 5. paypal.com
- Poker Systems:**
  - Not Found.
- Internet Shops:**
  - 1. verizon.com
  - 2. sprint.com
  - 3. officedepot.com
  - 4. verizonwireless.com
  - 5. capitallone.com
  - 6. saars.com
  - 7. qvc.com
  - 8. lowes.com
  - 9. target.com
  - 10. thephotowall.com
  - 11. ebay.com
  - 12. amazon.com
  - 13. walmart.com
  - 14. bestbuy.com
- Dating Sites:**
  - 1. match.com

The IRS logo is visible in the bottom left corner of the slide.

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## The Fundamentals - Detect

- Install and update anti-virus, spyware and other malware programs
- Maintain and monitor logs

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## Detect

- Practitioner Breach 3 “Malware”
  - Tax practitioner opens E-Mail with attachment and clicks on attachment.
  - IT Forensics reveal hidden program granting access was loaded when the attachment was opened



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## Detect (continued)

- Malware and key logger were downloaded on network
- Users on the network logged into various portals which allowed the username and passwords to be accessed.
- Perpetrators were able utilize the username and passwords to gain full access to financial information.



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## The Fundamentals - Respond

- Develop a plan for disasters and information security incidents
  - Review Publication 4557, Safeguarding Taxpayer Data
- Develop response plan should you have a data breach
  - See Data Breach Information for Tax Professionals on IRS.gov



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## Respond

- Contact IRS and State Tax Authorities
- Who to call in case of an incident (i.e. How and when to contact senior executives, emergency personnel, cybersecurity professionals, legal professionals, service providers, or insurance providers)
- State Notification Laws



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## Respond

- IRS
  - Tax professionals should contact IRS Stakeholder Liaison when a compromise is detected. The Stakeholder Liaison will refer Information within IRS (i.e. Criminal Investigations, Return Integrity & Compliance Services)
  - <http://www.irs.gov/Businesses/Small-Businesses-&Self-Employed/Stakeholder-Liaison-Local-Contacts-1>



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## Respond

- State Tax Agencies
  - Tax professionals can e-mail the Federation of Tax Administrators to get information on how to report victim information to the appropriate state authorities.
  - [StateAlert@taxadmin.org](mailto:StateAlert@taxadmin.org)



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## The Fundamentals - Recover

- Make full backups of important business data/information
- Make incremental backups of important business data/information
- Consider cyber insurance
- Make improvements to processes / procedures / technologies



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## Recover

- Practitioner Breach 4 “Ransomware”
  - Delivery of the ransomware came in the form of phishing e-mail to the human resource manager.
  - Manger clicked on the link and ransomware was installed onto the network.



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## Recover

- Ransomware shutdown the system and demanded payment of \$1,500 in Bitcoins.
- Perpetrators threatened to sell the PII on the dark web.
- Tax practitioner paid \$1,500 and had IT specialist remove and restore the data using backup tapes



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## IRS Publication 4557

### Checklist 2

ONGOING	DONE	N/A	Facilities Security
<input type="checkbox"/>	<input type="checkbox"/>		Protect from unauthorized access and potential danger (e.g., theft, floods and tornados) all places where taxpayer information is located.
<input type="checkbox"/>	<input type="checkbox"/>		Write procedures that prevent unauthorized access and unauthorized processes.
<input type="checkbox"/>	<input type="checkbox"/>		Assure that taxpayer information, including data on hardware and media, is not left un-secured on desks or photocopiers, in mailboxes, vehicles, trash cans or rooms in the office or at home where unauthorized access can occur.
<input type="checkbox"/>	<input type="checkbox"/>		Authorize and control delivery and removal of all taxpayer information, including



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## Data Theft? Here's what to do

[www.irs.gov/identitytheft](http://www.irs.gov/identitytheft)

<b>Tax Professionals</b>	<ul style="list-style-type: none"> <li>• <a href="#">Data Theft Information for Tax Professionals</a></li> <li>• <a href="#">Identity Theft Information for Tax Preparers</a></li> <li>• <a href="#">Publication 5199, Tax Preparer Guide to Identity Theft (PDF)</a></li> <li>• <a href="#">Tax Practitioner Guide to Business Identity Theft</a></li> </ul>
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## Data Theft? Here's what to do

- Contact the IRS and law enforcement
  - IRS Stakeholder Liaisons
- Contact states in which you prepare state returns
  - StateAlert@taxadmin.org
- Contact experts
  - Cyber and insurance agency
- Contact clients and other services
  - See FTC suggestions



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## Protect Your Clients

- Warn employers of W-2 scam
- Information at [www.irs.gov/identitytheft](http://www.irs.gov/identitytheft)

### Businesses

- [Form W-2/SSN Data Theft: Information for Businesses and Payroll Service Providers](#)
- [Identity Theft Guide for Business, Partnerships and Estate and Trusts](#)
- [Information for Businesses About Data Breaches and Identity Theft](#)
- [Security Summit Partners Update Identity Theft Initiatives for 2017](#)



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## Protect Your Clients

- Complete trusted customer information fields for individual returns
  - Example: Driver's license number
  - Example: Authentication document
- Complete trusted customer information fields for business returns
  - Example: Name and SSN of person signing return



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## Cyber Security Resources

- Internal Revenue Service (IRS) Publication 4557  
—<https://www.irs.gov/pub/irs-pdf/p4557.pdf>
- IRS RESOURCES for Tax Professionals  
—<https://www.irs.gov/for-tax-pros>
- Latest News Protect Your Clients; Protect Yourself  
—<https://www.irs.gov/individuals/protect-your-clients-protect-yourself>



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## Cyber Security Resources (continued)

- Federal Trade Commission  
—<https://www.ftc.gov/tips-advice/business-center/privacy-and-security/data-security>
- FTC Start with Security
- National Institute of Standards and Technology (NIST); <https://www.nist.gov/>
- Small Business Information Security: The Fundamentals  
—<http://nvlpubs.nist.gov/nistpubs/ir/2016/NIST.T.IR.7621r1.pdf>



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## Protect Your Clients; Protect Yourself

- New awareness campaign underway
- Protect Your Clients; Protect Yourself page on IRS.gov
- News releases, fact sheets, tips and alerts
- Other resources:
  - e-News for Tax Professionals;
  - Twitter.com/IRStaxpros;
  - Facebook.com/IRStaxpros



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## Summary

- The risk is real
- Make a security plan
- Make a data loss plan
- Contact Stakeholder Liaison if you experience a data compromise
- Search terms "Stakeholder Liaisons Local Contacts" on IRS.gov



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## Contact information

**Richard Furlong, Jr.**  
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**Communications & Liaison Division**  
**267-941-6343**  
**[richard.g.furlong@irs.gov](mailto:richard.g.furlong@irs.gov)**

