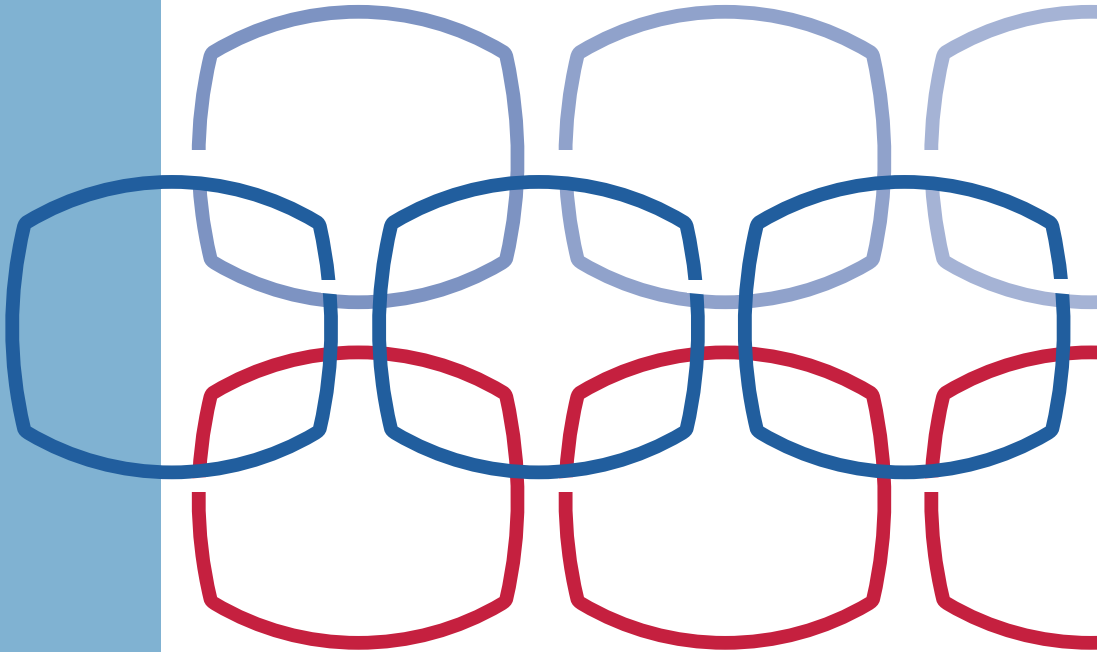




# Safeguarding Taxpayer Data

A GUIDE FOR YOUR BUSINESS



# Contents

## Introduction

Safeguarding Taxpayer Data..... 3

## Protect Your Clients; Protect Yourself

Take Basic Security Steps ..... 4  
Use Security Software ..... 5  
Create Strong Passwords ..... 5  
Secure Wireless Networks ..... 6  
Protect Stored Client Data ..... 7

## Be on Guard

Spot Data Theft..... 8  
Monitor EFIN/PTIN..... 8  
Recognize Phishing Scams ..... 9  
Guard Against Phishing Emails..... 10  
Be Safe on the Internet..... 10

## Report and Respond

Report Data Loss to IRS/States..... 11  
Respond and Recover from a Data Loss ..... 12

## Comply with the FTC Safeguards Rule

Understand the FTC Safeguards Rule ..... 13  
Comply with the FTC Safeguards Rule ..... 13  
Checklist for Creating a Plan ..... 14  
Employee Management and Training..... 14  
Information Systems ..... 15  
Detecting and Managing System Failures..... 17

## Glossary..... 19

# Introduction - Safeguarding Taxpayer Data

Combatting today's cybercriminals takes all of us working together. The Internal Revenue Service works with state tax agencies and the tax industry to fight these 21st century identity thieves. After forming the Security Summit and enacting a series of safeguards, the partners are making inroads. But, there's more work to be done.

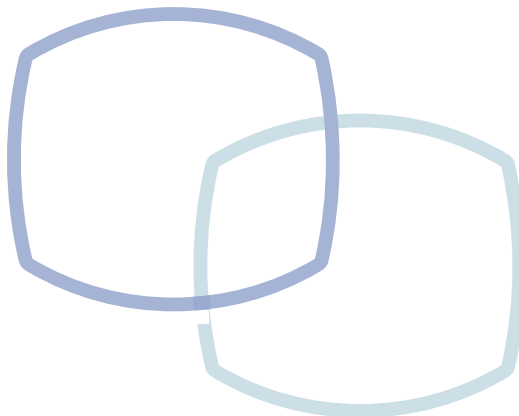
Data thefts at tax professionals' offices are on the rise. As the Security Summit makes progress, identity thieves need more taxpayer data to file fraudulent tax returns. And they have placed tax practitioners firmly in their sights. Data security is now a necessity for every tax professional, whether a partner in a large firm or a sole practitioner, and every Authorized IRS e-File Provider. Every employee, both professional and administrative staff, should be educated about security threats and safeguards. Everyone has a role to play in protecting taxpayer information.

Protecting taxpayer data is the law. Federal law gives the Federal Trade Commission authority to set data safeguard regulations for various entities, including professional tax return preparers. According to the FTC Safeguards Rule, tax return preparers must create and enact written information security plans to protect client data. Failure to do so may result in an FTC investigation. Online providers also must follow the six security and privacy standards in [Publication 1345](#), Handbook for Authorized IRS e-file Providers of Individual Income Tax Returns.

Protecting taxpayer data is good business. Data security can protect your business as well as your clients. A theft may also mean a loss of reputation, a loss of clients or a loss of money. Consider engaging security professionals for assistance or check with your professional liability carrier about data theft coverage.

This guide seeks to help tax professionals to:

- understand basic security steps and how to take them;
- recognize the signs of data theft and how to report data theft;
- respond and recover from a data loss;
- understand and comply with the FTC Safeguards Rule.



# Protect Your Clients; Protect Yourself

## Take Basic Security Steps

Here are some basic security steps that tax professionals can take today to make their clients' data and their businesses safer:

- Learn to recognize phishing emails, especially those pretending to be from the IRS, e-Services, a tax software provider, a new or existing client or cloud storage provider. Never open an embedded link or any attachment from a suspicious email.
- Create a written information security plan using IRS [Publication 4557](#), [Safeguarding Taxpayer Data](#), and [Small Business Information Security – The Fundamentals \(NISTIR 7621r1\)](#), by the National Institute of Standards and Technology.
- Review internal controls:
  - Install anti-malware/anti-virus security software on all devices (laptops, desktops, routers, tablets and phones) and keep software set to automatically update.
  - Use strong passwords of eight or more characters, use different passwords for each account, use special and alphanumeric characters, use phrases, password protect wireless devices and use a password manager program.
  - Encrypt all sensitive files/emails, especially those with the taxpayer's personally identifiable information, and use strong password protections.
  - Back up sensitive data to a safe and secure external source not connected fulltime to a network.
  - Make a final review of return information – especially direct deposit information - prior to e-filing.
  - Wipe clean or destroy old computer hard drives and printers that contain sensitive data.
  - Limit access to taxpayer data to individuals who need to know.
  - Check e-File Applications and PTIN accounts weekly for total returns filed using EFINs and PTINs; deactivate unused EFINs.
  - Withdraw from any outstanding authorizations (power of attorney/ tax information) for taxpayers who no longer are clients.
- Report any suspected data theft or data loss immediately to the appropriate [IRS Stakeholder Liaison](#).

- Stay connected to the IRS through subscriptions to [e-News for Tax Professionals](#), [QuickAlerts](#) and [Social Media](#).
- Educate clients about the availability of the Identity Protection PIN for taxpayers.
- Review FTC's security tips at [Cybersecurity for Small Business](#) and [Protecting Personal Information: A Guide for Business](#)

## Use Security Software

- A fundamental step to data security is the installation and use of security software on your computers. Here are the various types of security software you need and their purpose:
- Anti-virus – prevents bad software, such as malware, from causing damage to a computer.
- Anti-spyware – prevents unauthorized software from stealing information that is on a computer or processed through the system.
- Firewall – blocks unwanted connections.
- Drive Encryption – protects information from being read on computers, tablets, laptops and smart phones if they are lost, stolen or improperly discarded.

Both Windows and Mac operating systems come with factory-installed security software and with encryption technology. Both operating systems also come with built-in firewall protection, which you should enable unless your anti-virus software includes a firewall feature. Or, you also may separately purchase security software that offers a suite of protections.

For product recommendations, check with colleagues, professional associations or, for those who have electronic data theft insurance protection, the insurance carrier. Never select “security software” from a pop-up advertisement while surfing the web. Download security software only from the chosen vendor's site.

Set security software to update automatically. This step is critical to ensuring the software has the latest protections against emerging threats. For additional safety, ensure that your internet browser (Chrome, Edge, Firefox, Safari, etc.) is set to update automatically so that it remains secure.

## Create Strong Passwords

It is critical that all tax practitioners establish strong, unique passwords for all accounts, whether it's to access a device, tax software products,

cloud storage, wireless networks or encryption technology. Here's how to get started:

- Use a minimum of eight characters; consider minimum of 16 characters for an administrator's password.
- Use a combination of letters, numbers and symbols, i.e., ABC, 123, !@#.
- Avoid personal information or common passwords; opt for phrases.
- Change default/temporary passwords that come with accounts or devices, including printers.
- Do not reuse passwords, e.g., changing Bgood!17 to Bgood!18 is not good enough; use unique usernames and passwords for accounts and devices.
- Do not use your email address as your username if that is an option.
- Do not disclose your passwords to anyone for any reason; do not share password among employees. Each individual with access to client accounts should have a unique password. Use a password manager program to track passwords, but protect it with a strong password.

Do not overlook a critical step to protecting accounts: Multi-factor authentication. This simple feature can protect your accounts even if your username and password are stolen. Tax software products for both taxpayers and tax professionals now offer multi-factor authentication. Use the most secure option available, not only for your tax software, but other products such as email accounts and storage provider accounts. An example of multi-factor authentication: you must enter your credentials (username and password) plus a security code sent as a text to your mobile phone before you can access an account.

If hosting your own website, also consider some other form of multi-factor authentication to further increase your login security.

## Secure Wireless Networks

Failing to protect your wireless network makes the network or data vulnerable to attack or interception by cybercriminals. Thieves could be stealing your data without your knowledge. If you can, do not use wireless networks for computers or devices that process, display, or print client information. If you must use wireless, you can take these protective steps with setting up your router or review your router's manual to make changes. Here are basic steps:

- Change default administrative password of your wireless router; use a strong, unique password.
- Reduce the power (wireless range) so you are not broadcasting further than you need. Log into your router to WLAN settings, advanced settings and look for Transmit (TX) power. The lower the number the lower the power.

- Change the name of your router (Service Set Identifier - SSID) to something that is not personally identifying (i.e., BobsTaxService), and disable the SSID broadcast so that it cannot be seen by those who have no need to use your network.
- Use Wi-Fi Protected Access 3 (WPA-3).
- Do not use Wired-Equivalent Privacy (WEP) to connect your computers to the router; WEP is not considered secure.
- Do not use a public wi-fi (for example, at a coffee café or airport) to access business email or sensitive documents

Use of multi-factor authentication (discussed earlier) and a secure Virtual Private Network (VPN) should be minimum standards for remote access to the firm's office network. A VPN provides a secure, encrypted tunnel to transmit data between a teleworking employee and the company network. Search for "Best VPNs" to find a legitimate vendor. Some firms issue laptops to teleworking employees in order to control the IT environment.

## Protect Stored Client Data

Cybercriminals work hard through various tactics to penetrate your network or trick you into disclosing passwords. They may steal the data, hold the data for ransom or use your own computers to complete and file fraudulent tax returns. Here are a few basic steps to protect client data stored on your systems:

- Backup encrypted copies of client data to external hard drives (USBs, CDs, DVDs) or use cloud storage; keep external drives in a secure location; encrypt data before uploading to the cloud. This is your best protection against ransomware attacks.
- Use drive encryption to lock files and all devices; encrypted files require a password to open.
- Avoid attaching USB drives and external drives with client data to public computers.
- Avoid installing unnecessary software or applications to the business network; avoid offers for "free" software, especially security software, which is often a ruse by criminals; download software or applications only from official sites.
- Perform an inventory of devices where client tax data are stored, i.e., laptops, smart phones, tablets, external hard drives, etc.; inventory software used to process or send tax data, i.e., operating systems, browsers, applications, tax software, web sites, etc.
- Limit or disable internet access capabilities for devices that have stored taxpayer data.
- Delete all information from devices, hard drives, USBs (flash drives), printers, tablets or phones before disposing of devices; some security software include a "shredder" that electronically destroys stored files.

- Physically destroy hard drives, tapes, USBs, CDs, tablets or phones by crushing, shredding or burning; shred or burn all documents containing taxpayer information before throwing away.

## Be on Guard

### Spot Data Theft

You or your firm may be a victim and not even know it. Here are some common clues to data theft:

- Client e-filed tax returns begin to reject because returns with their Social Security numbers were already filed.
- Clients who haven't filed tax returns begin to receive authentication letters (5071C, 4883C, 5747C) from the IRS.
- Clients who haven't filed tax returns receive refunds.
- Clients receive tax transcripts they did not request.
- Clients who created an IRS online services account receive an IRS notice that their account was accessed or IRS emails stating their account has been disabled; or, clients receive an IRS notice that an IRS online account was created in their names.
- The number of returns filed with tax practitioner's Electronic Filing Identification Number (EFIN or Preparer Tax Identification Number (PTIN)) exceeds number of returns you actually filed.
- Tax professionals or clients responding to emails that practitioner did not send.
- Network computers running slower than normal or computers turning themselves on.
- Computer cursors moving or changing numbers without touching the keyboard.
- Network computers locking out tax practitioners.

### Monitor EFIN/PTINs

You can obtain a weekly report of the number of tax returns filed with your Electronic Filing Identification Number or your Preparer Tax Identification Number. Tax professionals who file 50 or more returns may obtain PTIN information. Weekly checks will help flag any abuses. Here's how:

For EFIN totals:

- Access your e-Services account and your EFIN application;
- Select "EFIN Status" from the application;



- Contact the IRS e-help Desk if the return totals exceed the number of returns you filed.
- Deactivate unused EFINs to avoid potential abuse/misuse

For PTIN totals:

- Access your online PTIN account;
- Select “View Returns Filed Per PTIN;”
- Complete Form 14157, Complaint: Tax Return Preparer, to report excessive use or misuse of PTIN.

If you have a Centralized Authorization File (CAF) number, make sure you keep your authorizations up to date. Remove authorizations for taxpayers who are no longer your clients. (See “Withdrawal of Representation” in [Publication 947](#), Practice Before the IRS and Power of Attorney.)

## Recognize Phishing Scams

All employees in your office must be educated on the dangers of phishing scams. These scams can result in cybercriminals taking over your computer or accounts to steal client data.

- A common way cybercriminals steal data is by using phishing scams. An even more successful tactic is called spear phishing, where the thief specifically targets you or your firm, perhaps seeing your email address from the office website.
- The thief may pose as your tax software provider, your data storage provider, the IRS or even a prospective client. The thief may pose as your bank or as a professional colleague whose email was compromised. See [Don’t Take the Bait](#).
- Thieves may hijack your email account to send spam emails under your name, tricking colleagues and clients into disclosing information.
- Generally, phishing or spear phishing emails have an urgent subject line. Example: Update Your Account Now. The objective is to entice you to open a link or an attachment.
  - Link: The link may take you to a fake web page designed to look like a familiar website. Example: IRS e-Services. Again, there will be a call to action, such as “Click here NOW.” You may be asked to enter your username and password for an account, but you actually are disclosing your credentials to thieves.
  - Attachment: The attachment may contain computer code called malware that can infect your computer and network systems. A common malware is keystroke tracking, which allows the criminal to see the words you type on your device, eventually disclosing your username and password to various accounts. In turn, this gives them access to your tax software provider, bank or encrypted client files.

- A legitimate business will never email and request personal or sensitive information be sent to them via email, unless through a secured mail service.

## Guard Against Phishing Emails

Educated employees are the key to avoiding phishing scams, but these simple steps also can help protect against stolen data:

- Enable your tax software’s multi-factor authentication option and use it.
- Use separate personal and business email accounts; protect email accounts with strong passwords and two-factor authentication if available.
- Install an anti-phishing tool bar to help identify known phishing sites. Anti-phishing tools may be included in security software products.
- Use security software to help protect systems from malware and scan emails for viruses.
- Never open or download attachments from unknown senders, including potential clients; make contact first by phone, for example.
- Send only password-protected and encrypted documents if you must share files with clients via email or use Secure File Transfer Protocol (SFTP) to transmit files instead of email.
- Do not respond to suspicious or unknown emails; if IRS-related, forward to [phishing@irs.gov](mailto:phishing@irs.gov).

## Be Safe on the Internet

Data security takes an ongoing awareness about the threats posed from a variety of sources, including browsing the Internet. Here are some general steps for staying safe while using the Internet or protecting your website.

- Keep your web browser software up to date so that it has the latest security features.
- Scan files using your security software before downloading to your computer.
- Delete web browser cache, temporary internet files, cookies and browsing history on a regular schedule.
- Look for the “S” in “HTTPS” connections for Uniform Resource Locator (URL) web addresses. The “S” stands for secure, e.g., <https://www.irs.gov>.
- Avoid accessing business emails or information from public wi-fi connections.
- Disable stored password feature offered by some operating systems.
- Enable your browser’s pop-up blocker. Do not call any number from

pop-ups claiming your computer has a virus or click on tools claiming to delete viruses.

- Do not download files, software or applications from unknown websites.
- Note if your browser homepage changes; it could be a sign of malware or an intrusion. Review your last downloads and browser settings, check to see if you have anything new in your toolbar.

## Report and Respond

### Report Data Loss to IRS/States

Tax practitioners should report data losses or thefts immediately to the IRS so that appropriate precautions can be made to protect clients from fraudulent returns being filed in their names. Here's how to report data thefts to the IRS:

- Contact the IRS and law enforcement:
  - [Internal Revenue Service](#), report client data theft to your local stakeholder liaison.
  - [Federal Bureau of Investigation](#), your local office (if directed by IRS).
  - Local police – To file a police report on the data breach.
- Contact states in which you prepare state returns:
  - Email the Federation of Tax Administrators at [StateAlert@taxadmin.org](mailto:StateAlert@taxadmin.org) to get information on how to report victim information to the states.
  - [State Attorneys General](#) for each state in which you prepare returns. Most states require that the attorney general be notified of data breaches.
- Contact experts:
  - Security expert – to determine the cause and scope of the breach, to stop the breach and to prevent further breaches from occurring.
  - Insurance company – to report the breach and to check if your insurance policy covers electronic data breach mitigation or cybertheft remediation expenses.

For a complete checklist, see [Data Theft Information for Tax Professionals](#).

If you are a victim of a ransomware attack, please contact the FBI and Cybersecurity and Infrastructure Security Agency (CISA) of the Department of Homeland Security (DHS) in addition to the IRS.

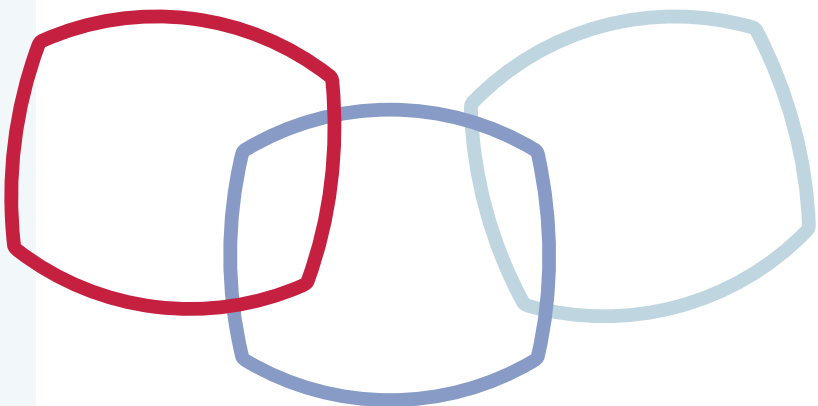
## Respond and Recover from a Data Loss

The Federal Trade Commission offers assistance to businesses who were victimized by data thefts and provides templates for letters that, for example, notify clients that a data loss has occurred. Here are some basic suggestions on how to recover from a data theft:

- Update your IRS Stakeholder Liaison with developments; IRS telephone assistants cannot accept third-party reports of identity theft.
- Review FTC's [Data Breach Response: A Guide for Business](#) for helpful guidance in notifying clients and tips for responding and recovering.
- Determine how the intrusion or theft occurred and make any required fixes before resuming tax preparation activities and being issued a new Electronic Filing Identification Number (EFIN).
- Develop a continuity plan.
- Make full backups of all business data and files. If you weren't doing it before the data loss, start as soon as your systems are clean.
  - A routine backup means you will have a copy of your data. A data loss or ransomware attack (as well as a hurricane or flood) will not destroy all your files.
  - Encrypt backed up files.
  - Consider a monthly backup schedule, or more often during the filing season.
  - Backup files after completing a routine system scan.
  - Use an external hard drive or cloud storage; encrypt files prior to uploading to the cloud and use multi-factor authentication if offered.

Consult with your professional insurance provider about data theft protection.

- Insurance firms can help preparers recover from a theft.
- Insurance firms may help provide security experts to analyze protections or detect intrusions.



# Comply with the FTC Safeguards Rule

## Understand the FTC Safeguards Rule

Under the Safeguards Rule, financial institutions must protect the consumer information they collect. The Gramm-Leach-Bliley (GLB) Act requires companies defined under the law as “financial institutions” to ensure the security and confidentiality of this type of information. The “financial institutions” definition includes professional tax preparers.

As part of its implementation of the GLB Act, the [Federal Trade Commission](#) issued the Safeguards Rule, which requires financial institutions under FTC jurisdiction to have measures in place to keep customer information secure. The [Safeguards Rule](#) requires companies to develop a written information security plan that describes their program to protect customer information.

## Comply with the FTC Safeguards Rule

According to the FTC, the required information security plan must be appropriate to the company’s size and complexity, the nature and scope of its activities and the sensitivity of the customer information it handles. As part of its plan, each company must:

- designate one or more employees to coordinate its information security program;
- identify and assess the risks to customer information in each relevant area of the company’s operation, and evaluate the effectiveness of the current safeguards for controlling these risks;
- design and implement a safeguards program, and regularly monitor and test it;
- select service providers that can maintain appropriate safeguards, make sure your contract requires them to maintain safeguards, and oversee their handling of customer information; and
- evaluate and adjust the program in light of relevant circumstances, including changes in the firm’s business or operations, or the results of security testing and monitoring.

The requirements are designed to be flexible. Companies should implement safeguards appropriate to their own circumstances.

# Checklist for Creating Plan

The Safeguards Rule requires companies to assess and address the risks to customer information in all areas of their operation, including three areas that are particularly important to information security: Employee Management and Training; Information Systems; and Detecting and Managing System Failures.

Not each of these recommendations will apply to circumstances found in tax preparer offices, but they still provide the building blocks for the creation of a security plan and reinforce IRS recommendations that tax professionals establish strong security protocols. Depending on the nature of their business operations, firms should consider implementing the following practices:

ONGOING	DONE	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The success of your information security plan depends largely on the employees who implement it. Consider these steps:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The success of your information security plan depends largely on the employees who implement it. Consider these steps:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Check references or doing background checks before hiring employees who will have access to customer information.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ask every new employee to sign an agreement to follow your company’s confidentiality and security standards for handling customer information.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Limit access to customer information to employees who have a business reason to see it. For example, give employees who respond to customer inquiries access to customer files, but only to the extent they need it to do their jobs.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Control access to sensitive information by requiring employees to use “strong” passwords that must be changed on a regular basis. (Tough-to-crack passwords require the use of at least six characters, upper- and lower-case letters, and a combination of letters, numbers, and symbols.) <b>(IRS suggestion:</b> passwords should be a minimum of eight characters, the NIST standard. Prevent password sharing; ensure each employee with access to taxpayer accounts uses a unique password.)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Use password-activated screen savers to lock employee computers after a period of inactivity.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Develop policies for appropriate use and protection of laptops, PDAs, cell phones, or other mobile devices. For example, make sure employees store these devices in a secure place when not in use. Also, consider that customer information in encrypted files will be better protected in case of theft of such a device.

ONGOING	DONE	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Train employees to take basic steps to maintain the security, confidentiality, and integrity of customer information, including:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• Locking rooms and file cabinets where records are kept;</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• Not sharing or openly posting employee passwords in work areas;</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• Encrypting sensitive customer information when it is transmitted electronically via public networks;</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• Referring calls or other requests for customer information to designated individuals who have been trained in how your company safeguards personal data; and</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• Reporting suspicious attempts to obtain customer information to designated personnel.</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Regularly remind all employees of your company’s policy — and the legal requirement — to keep customer information secure and confidential. For example, consider posting reminders about their responsibility for security in areas where customer information is stored, like file rooms.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Develop policies for employees who telecommute. For example, consider whether or how employees should be allowed to keep or access customer data at home. Also, require employees who use personal computers to store or access customer data to use protections against viruses, spyware, and other unauthorized intrusions.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Impose disciplinary measures for security policy violations.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Prevent terminated employees from accessing customer information by immediately deactivating their passwords and user names and taking other appropriate measures. ( <b>IRS Suggestion:</b> Deactivate access prior to termination.)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	( <b>IRS Suggestion:</b> Add labels to documents to signify importance, such as “Sensitive” or “For Official Business” to further secure paper documents.)

## Information Systems

			Information systems include network and software design, and information processing, storage, transmission, retrieval, and disposal. Here are some FTC suggestions on maintaining security throughout the life cycle of customer information, from data entry to data disposal:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Know where sensitive customer information is stored and store it securely. Make sure only authorized employees have access. For example:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• Ensure that storage areas are protected against destruction or damage from physical hazards, like fire or floods.</li> </ul>

## SAFEGUARDING TAXPAYER DATA

ONGOING	DONE	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• Store records in a room or cabinet that is locked when unattended.</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• When customer information is stored on a server or other computer, ensure that the computer is accessible only with a “strong” password and is kept in a physically secure area. <b>(IRS Suggestion:</b> If using a cloud storage service, use a strong password, multi-factor authentication options and beware of thieves posing as providers.)</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• Where possible, avoid storing sensitive customer data on a computer with an Internet connection.</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• Maintain secure backup records and keep archived data secure by storing it off-line and in a physically-secure area.</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• Maintain a careful inventory of your company’s computers and any other equipment on which customer information may be stored.</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Take steps to ensure the secure transmission of customer information. For example:</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• When you transmit credit card information or other sensitive financial data, use a Secure Sockets Layer (SSL) or other secure connection, so that the information is protected in transit. <b>(IRS Suggestion:</b> Transport Layer Security 1.3 is newer and more secure.)</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• If you collect information online directly from customers, make secure transmission automatic. Caution customers against transmitting sensitive data, like account numbers, via email or in response to an unsolicited email or pop-up message.</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• If you must transmit sensitive data by email over the Internet, be sure to encrypt the data. <b>(IRS Suggestion:</b> Rather than using email, transmit files via Secure File Transfer Protocol (SFTP), successor to File Transfer Protocol (FTP)).</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Dispose of customer information in a secure way and, where applicable, consistent with the FTC’s <a href="#">Disposal Rule</a>. For example:</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• Consider designating or hiring a records retention manager to supervise the disposal of records containing customer information. If you hire an outside disposal company, conduct due diligence beforehand by checking references or requiring that the company be certified by a recognized industry group.</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• Burn, pulverize, or shred papers containing customer information so that the information cannot be read or reconstructed.</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• Destroy or erase data when disposing of computers, disks, CDs, magnetic tapes, hard drives, laptops, PDAs, cell phones, or any other electronic media or hardware containing customer information.</li> </ul>



ONGOING	DONE	N/A
---------	------	-----

# Detecting and Managing System Failures

			<p>Effective security management requires your company to deter, detect, and defend against security breaches. That means taking reasonable steps to prevent attacks, quickly diagnosing a security incident, and having a plan in place for responding effectively. Consider implementing the following procedures:</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Monitor the websites of your software vendors and read relevant industry publications for news about emerging threats and available defenses.</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Maintain up-to-date and appropriate programs and controls to prevent unauthorized access to customer information. Be sure to:</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• check with software vendors regularly to get and install patches that resolve software vulnerabilities;</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• use anti-virus and anti-spyware software that updates automatically;</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• maintain up-to-date firewalls, particularly if you use a broadband Internet connection or allow employees to connect to your network from home or other off-site locations;</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• regularly ensure that ports not used for your business are closed; and</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• promptly pass along information and instructions to employees regarding any new security risks or possible breaches.</li> </ul>
			<p>Use appropriate oversight or audit procedures to detect the improper disclosure or theft of customer information. It's wise to:</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• keep logs of activity on your network and monitor them for signs of unauthorized access to customer information;</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• use an up-to-date intrusion detection system to alert you of attacks;</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• monitor both in- and out-bound transfers of information for indications of a compromise, such as unexpectedly large amounts of data being transmitted from your system to an unknown user; and</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• insert a dummy account into each of your customer lists and monitor the account to detect any unauthorized contacts or charges.</li> </ul>
			<p>Take steps to preserve the security, confidentiality, and integrity of customer information in the event of a breach. If a breach occurs:</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• take immediate action to secure any information that has or may have been compromised. For example, if a computer connected to the Internet is compromised, disconnect the computer from the Internet;</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• preserve and review files or programs that may reveal how the breach occurred; and</li> </ul>

## SAFEGUARDING TAXPAYER DATA

ONGOING	DONE	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• if feasible and appropriate, bring in security professionals to help assess the breach as soon as possible.</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Consider notifying consumers, law enforcement, and/or businesses in the event of a security breach. For example:</p> <hr/> <ul style="list-style-type: none"> <li>• notify consumers if their personal information is subject to a breach that poses a significant risk of identity theft or related harm;</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• notify law enforcement if the breach may involve criminal activity or there is evidence that the breach has resulted in identity theft or related harm;</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• notify the credit bureaus and other businesses that may be affected by the breach. See <a href="#">Information Compromise and the Risk of Identity Theft: Guidance for Your Business</a>; and</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• check to see if breach notification is required under applicable state law.</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• <b>(IRS suggestions:</b> Practitioners who experience a data loss should contact the IRS and the states. Also, consider having a technical support contract in place, so that hardware events can be fixed within a reasonable time and with minimal disruption to business availability.)</li> </ul>

# Glossary

## **Adware**

Computer advertising software that may or may not monitor computer use to target ads.

## **Confidentiality**

Restrictions placed on information access and disclosure, including means for protecting personal privacy and proprietary information.

## **Denial of Service**

An attack that prevents or impairs the authorized use of networks, systems or applications by exhausting resources.

## **Encrypt**

To convert plain text to unintelligible text using a cryptographic algorithm.

## **Information Security**

The process that ensures the protection of information and information systems from unauthorized access, use, disclosure, disruption, modification or destruction.

## **Intrusion Detection**

The act of detecting actions that attempt to compromise the confidentiality, integrity or availability of a resource.

## **Keylogging**

The action of recording (logging) the keys struck on a keyboard, typically covertly, so that the person using the keyboard is unaware that their actions are being monitored. Often secretly downloaded by malware, keylogging enables the theft of usernames and passwords among other things.

## **Malware**

Refers to malicious software (malware) programs designed to damage or perform other unwanted actions on a computer system. Examples of malware are viruses, worms, Trojan horses, and spyware.

## **Management Safeguards**

The security safeguards or countermeasures for an information system that focus on the management of risk and the management of information system security.

## **Multi-factor Authentication**

A security system that requires returning users to enter more than just credentials (username and password) to access an account or device, such as two-factor or three-factor authentication. Example: e-Services is protected by IRS Secure Access, a two-factor authentication process that requires returning users to enter their credentials and a security code sent as text to a mobile phone. Tax professionals should always use the highest multifactor authentication available.

## **Operational Safeguards**

Security for an information system that is primarily implemented and executed by people rather than by a system.

## **Phishing**

An attempt by an individual or group to solicit personal information from unsuspecting users by employing social engineering techniques. Phishing emails are crafted to appear as if they have been sent from a legitimate organization or known individual. These emails often attempt to entice users to click on a link that will take the user to a fraudulent website that appears legitimate.

### **Ransomware**

A type of malicious software, or malware, designed to block access to a computer system until a ransom is paid. Ransomware is typically spread through phishing emails or by unknowingly visiting an infected website.

### **Risk**

The likelihood that the unwanted impact of an incident will be realized.

### **Risk Assessment**

The process of identifying risks and determining the probability of occurrence, the resulting impact and additional security controls that would mitigate this impact.

### **Risk Management**

The process of managing risks through risk assessment; cost-benefit analysis; the selection, implementation, and assessment of security controls; and the formal authorization to operate the system. The process includes consideration of effectiveness, efficiency and constraints due to laws, directives, policies, or regulations.

### **Safeguard**

Protective measures prescribed to meet the security requirements specified for an information system. Safeguards may include security features, management constraints, personnel security and security of physical structures, areas, and devices.

### **Security Controls**

Safeguards designed to protect the confidentiality, integrity and availability of a system and its information.

### **Security Plan**

Formal document that provides an overview of the security requirements for the information system and describes the security controls in place or planned for meeting those requirements.

### **Spear Phishing**

Phishing attempts directed at specific individuals or companies; attackers may gather personal information about their target to increase their probability of success. This technique is by far the most successful on the Internet today, accounting for 91% of attacks

### **Spyware**

Software installed into an information system to gather information on individuals or organizations without their knowledge.

### **Social Engineering**

The manipulation of people into performing actions such as deviating from standard security practices or divulging confidential information that give attackers access to systems or confidential information.

### **Technical Safeguards**

Controls for a system that are primarily implemented and executed by the information system through mechanisms contained in the hardware, software or firmware components of the system.

### **Threat**

Any circumstance or event with the potential to adversely impact operations, assets or individuals through an information system via unauthorized access, destruction, disclosure, modification of information and/or denial of service.

### **Trojan Horse**

A computer program used to attack a computer system by secretly allowing, among other things, unauthorized access or alteration of data or software.

### **Virus**

A computer program used to compromise a computer system by performing functions that may be destructive. A virus may alter other programs to include a copy of itself and execute when the host program or other executable component is executed.

### **Vulnerability**

Weakness in a system through procedures, internal controls or implementation that could be exploited or triggered by a threat source.

### **Worm**

A computer program used to compromise a computer system by impacting performance. A worm can travel from computer to computer across network connections replicating itself.

NOTE: The Internal Revenue Service prepared this guide as an outreach educational effort for all tax preparers, transmitters, and software developers. If you have any comments or suggestions for future updates, please send an e-mail to:

[Safeguard.data.tp@irs.gov](mailto:Safeguard.data.tp@irs.gov)

