

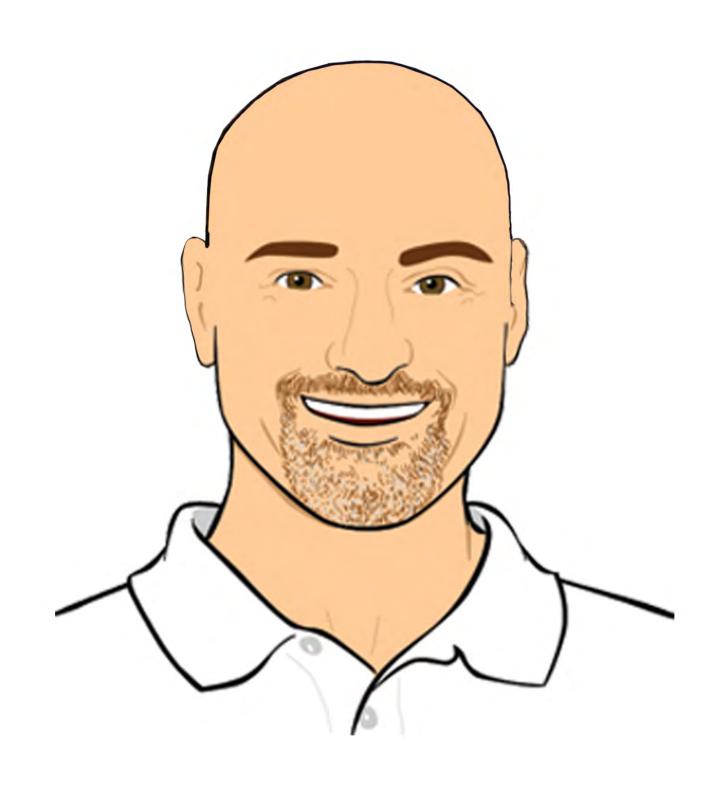






### **About Your Instructor**

- I have been using the Mac platform since 1986, and began using Macs during English and Journalism courses at Northern Kentucky University. I have never owned a PC.
- Certified Support Professional macOS Sonoma
- Certified Associate Mac Integration macOS 14
- I provide on-site support and training in the Naples, Florida area, and remote support and training for anyone with an internet connection and a Mac.
- I assist both residential and business clients.



Jeff Bohr jeff@jeffbohr.com 239.595.0482





### Agenda

- Why a password manager is important.
- Methods for creating strong and secure passwords.
- Starting with 1Password.
- How to identify scams and threats
- Passkeys
- Protecting Safari
- Avoiding other scams





- Why a password manager is important.
- · Methods for creating strong and secure passwords.
- Starting with 1Password.
- Using 1Password on multiple devices, and with multiple browsers.
  - Other data and information that can be stored safely in 1Password.
- Sharing 1Password data with others on a selective basis.





# Creating and Managing Passwords Reasons you have not switched to a secure password manager?

- You don't want to pay the money for a secure password manager.
- You don't want to give up using the same password on all sites.
- You figure you can always remember your various passwords.
- You don't want to go to all the trouble involved in learning a new method.



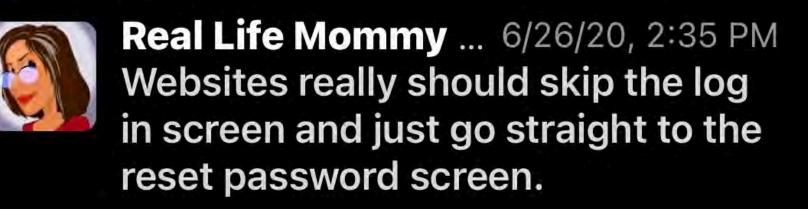
M.J. Crockett @moll... 1/15/21, 2:58 PM too many usernames, too many passwords





# Creating and Managing Passwords About Passwords

- No one but you cares about your passwords. This does not mean you should not care about them!
- · It's very unlikely someone can steal money from you
- Banks have gotten much more proactive in protecting your data
- It's very likely they will cause a headache
- Having to get a new credit or debit card, add new cards to recurring billing profiles, changing passwords, email accounts, etc.







# Creating and Managing Passwords About Passwords

Me: What's the wifi password?

Bartender: you need to buy a drink first.

Me: Okay, I'll have a coke.

Bartender: Is Pepsi ok?

Me: Sure, How much is that?

Bartender: 3\$

Me: There you go. So what's the wifi

password?

Bartender: you need to buy a drink first. No spaces, all lowercase.



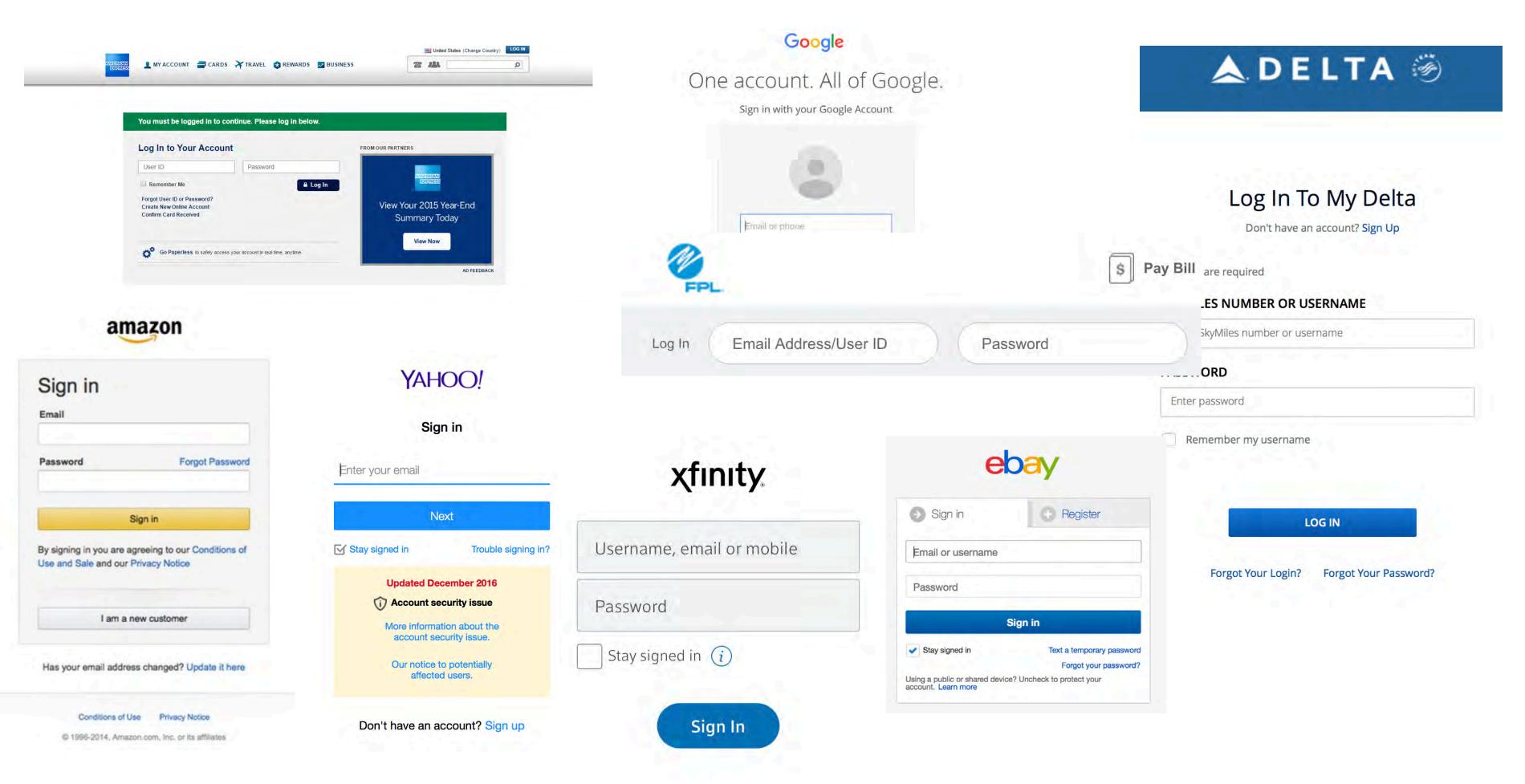
My wife can't remember the Netflix password she changed last week, but can remember what I said on March 5, 2014.



John Green



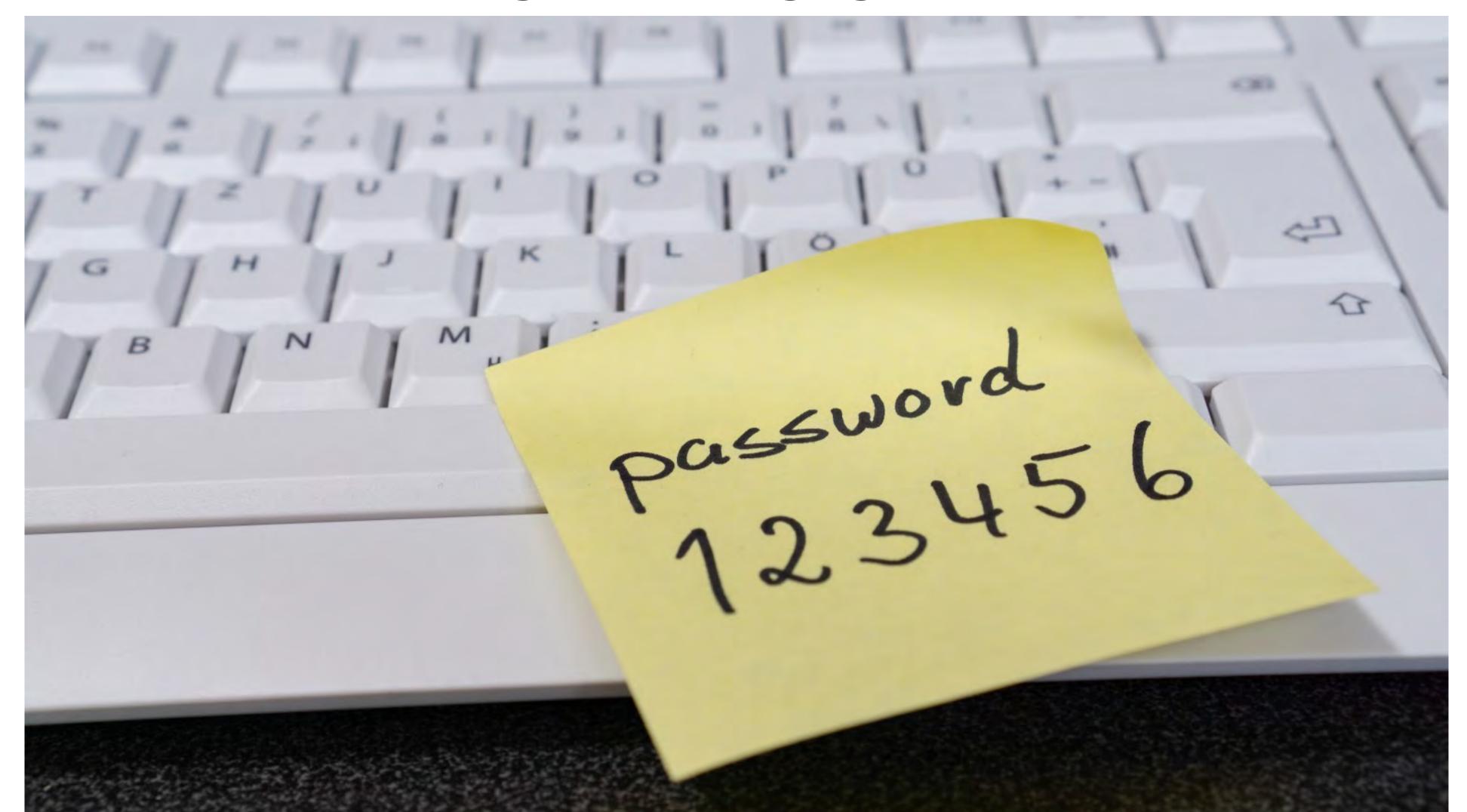








Creating and Managing Passwords



















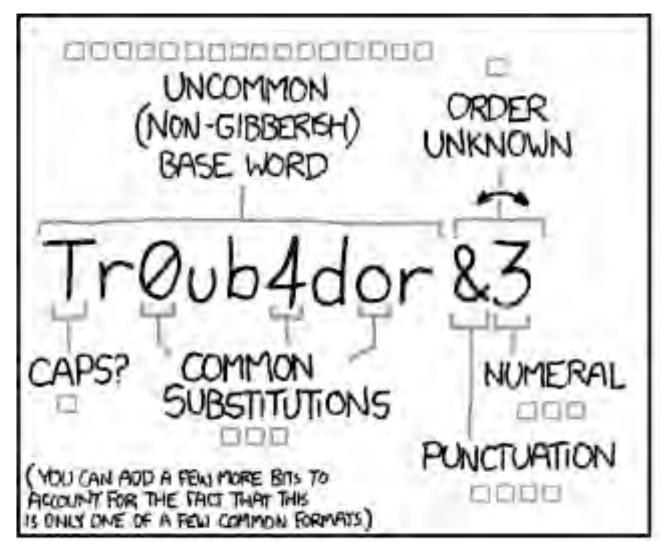
- A password book:
- If you lose the book while out and about, you've lost access to everything.
- Having to type in your passwords while reading them from a book, instead of having a
  password manager do it for you, could encourage people to use simple passwords
  instead of complex ones. It's a lot easier to copy and paste.
- Books become a form of abandonware over time, with missing entries, torn pages, logins which have been changed online and not updated, and other logins which never end up in the book at all.

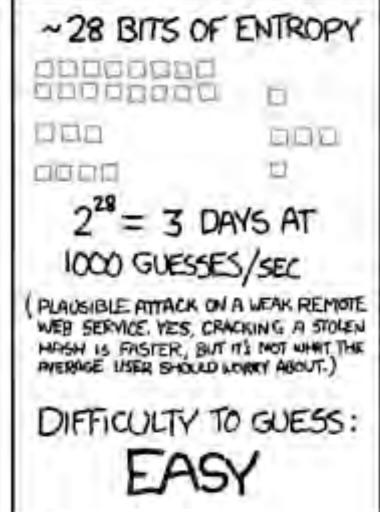


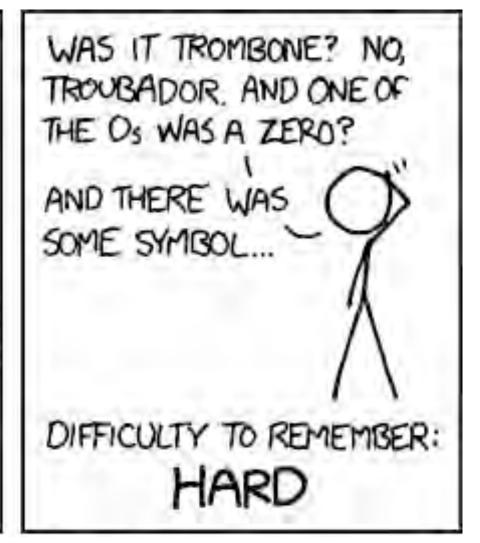


### Creating and Managing Passwords

This has been the common method for a while now.....







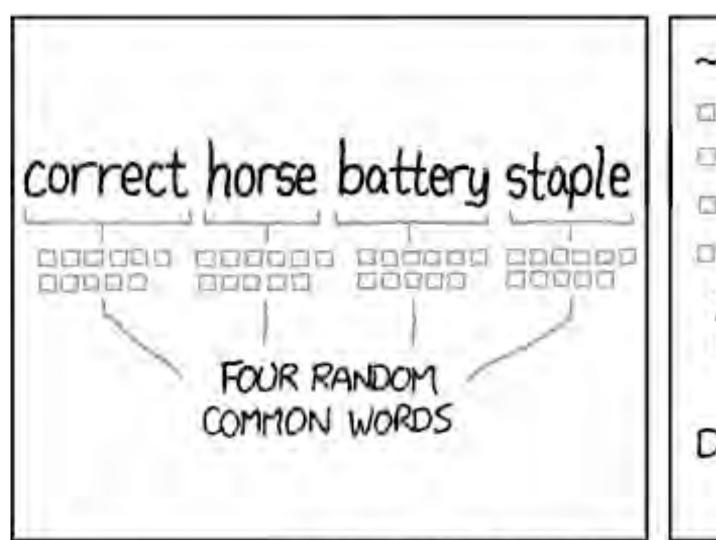
xkcd.com/936/



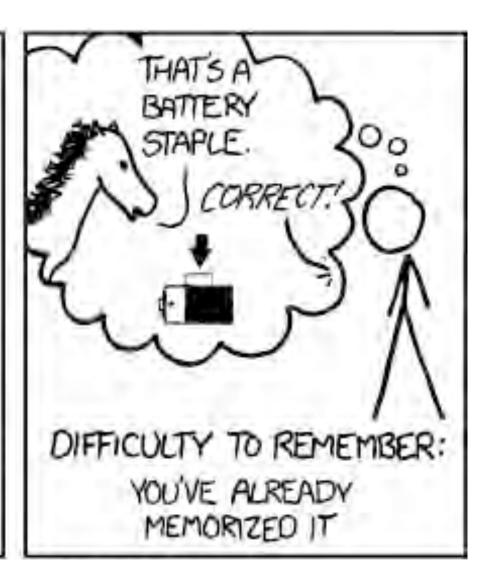


### Creating and Managing Passwords

There is a better way!





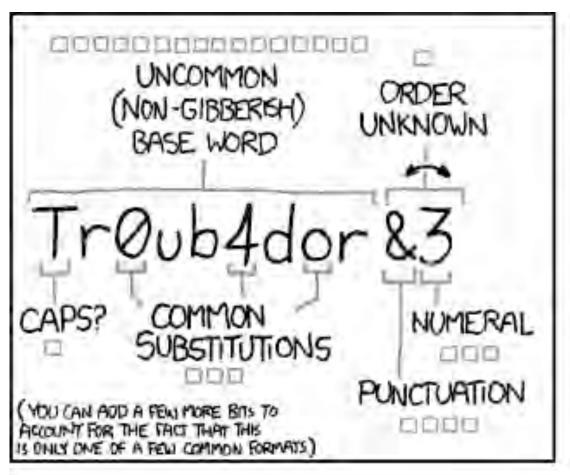


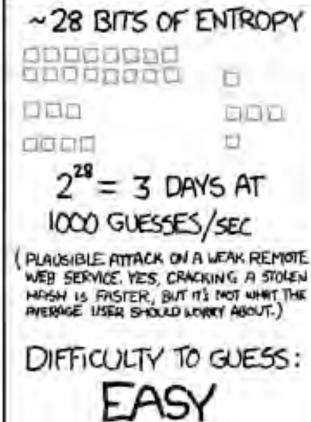
xkcd.com/936/

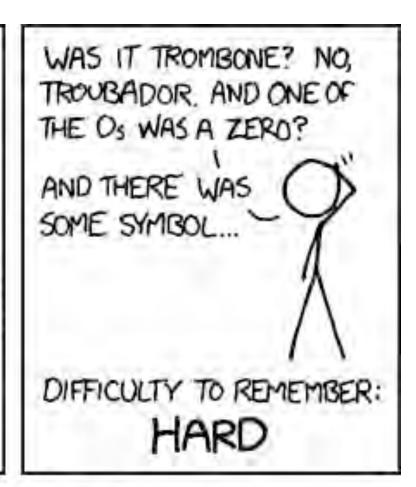


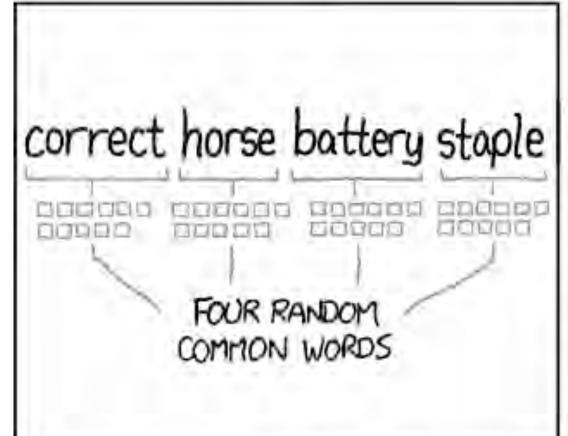


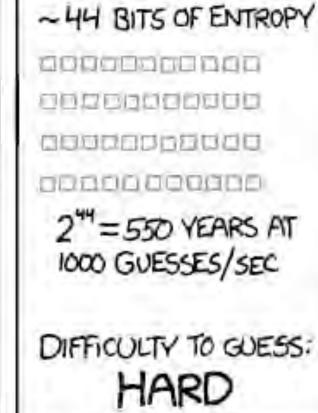
### Creating and Managing Passwords

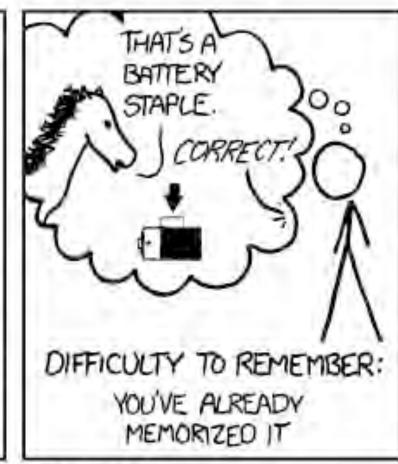












THROUGH 20 YEARS OF EFFORT, WE'VE SUCCESSFULLY TRAINED EVERYONE TO USE PASSWORDS THAT ARE HARD FOR HUMANS TO REMEMBER, BUT EASY FOR COMPUTERS TO GUESS.





Creating and Managing Passwords

THROUGH 20 YEARS OF EFFORT, WE'VE SUCCESSFULLY TRAINED EVERYONE TO USE PASSWORDS THAT ARE HARD FOR HUMANS TO REMEMBER, BUT EASY FOR COMPUTERS TO GUESS.





### Creating and Managing Passwords



Joesmith

1444parkstreet

2006 requirements:6 digit passwordNo Criteria!

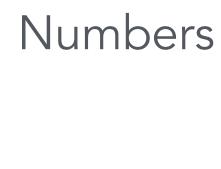
March1934

fido123





### Creating and Managing Passwords



Symbols

2016 Requirements:
Strong and Unique
Passwords for EACH Site

Uppercase

Lowercase



### Creating and Managing Passwords



Phrases Random

2024 Requirements: Unique and random passwords generated by software

Spaces Symbols



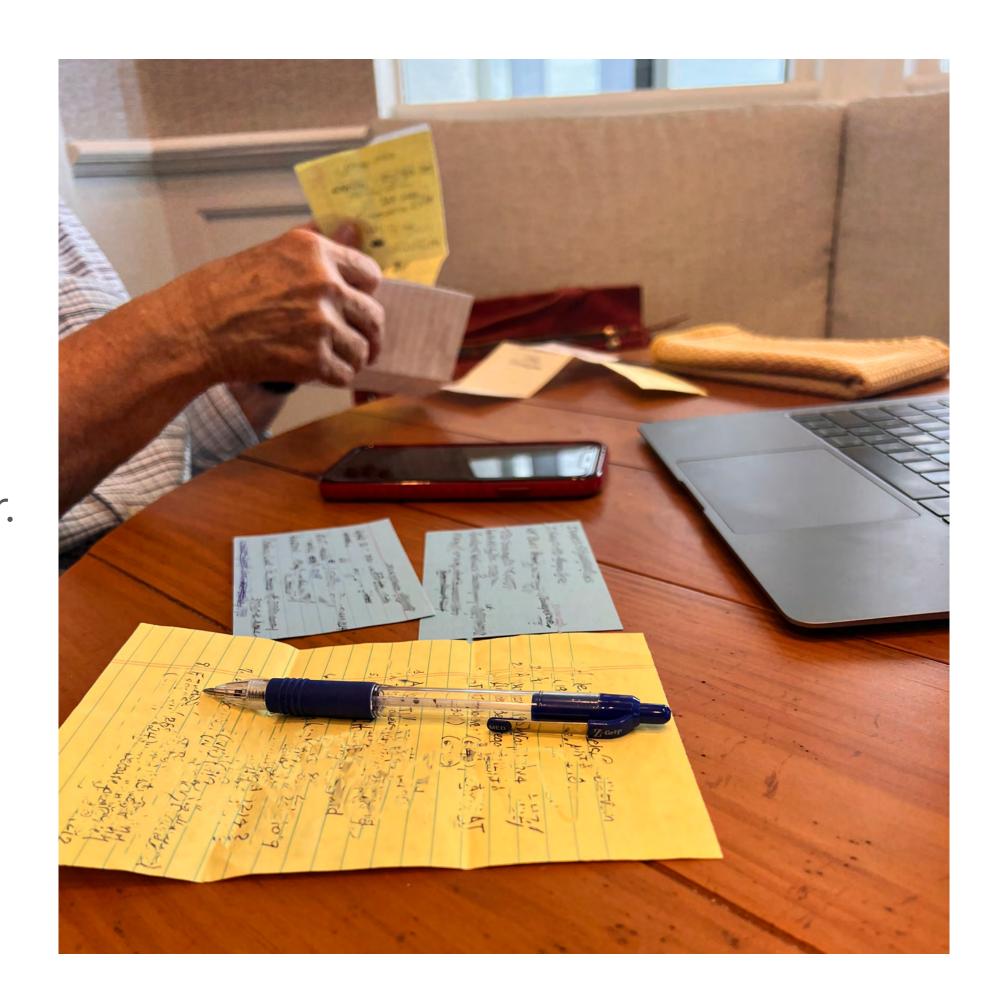


### Creating and Managing Passwords

This is an actual client looking for a password.

She said I could use the photo but not identify her.

Don't let this be you.







### Getting Started with 1Password

What if you only had to remember one password?

Wouldn't that be nice....?





### Getting Started with 1Password



1Password uses a single Master Password to manage them all!



### Getting Started with 1Password



### Individual

Take control of your online security.

2.99

USD per month, when annual billing is selected.

Try FREE for 14 days

- ✓ Use on all your devices
- ✓ Unlimited items
- ✓ 1GB secure storage

### **Families**

Peace of mind for you and the whole family.

\$4.99

USD per month, when annual billing is selected.

Try FREE for 14 days

### √ 5 family members

- ✓ Simple admin experience
- ✓ Friendly, expert support

### Best value for up to 10 users

### **Teams Starter Pack**

Protect up to 10 team members.

\$19.95

USD per month.

Try FREE for 14 days

✓ Built-in risk detection

✓ Friendly, expert support

✓ Selective sharing

Security that adapts to your business.

**Business** 

\$ 7.99

USD per user, per month, when annual billing is selected.

Try FREE for 14 days

Get a quote

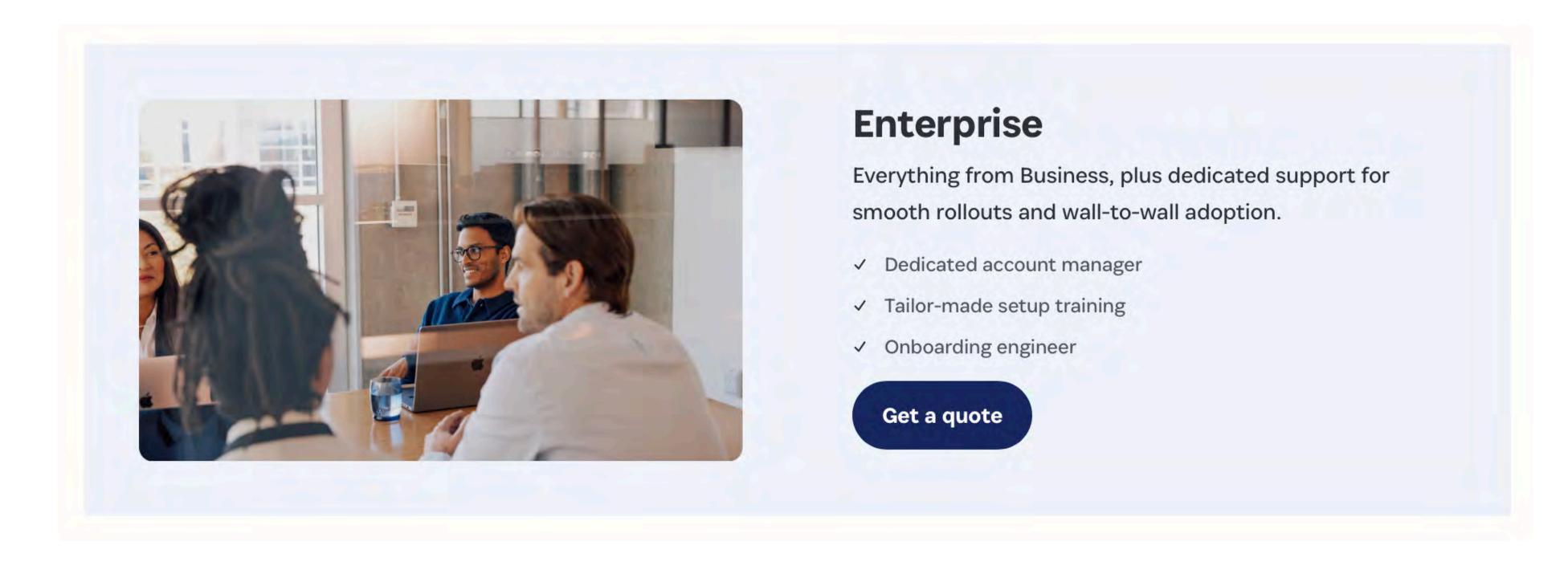
- SSO and automated provisioning
- ✓ Custom reports
- ✓ Customizable policies





### Getting Started with 1Password

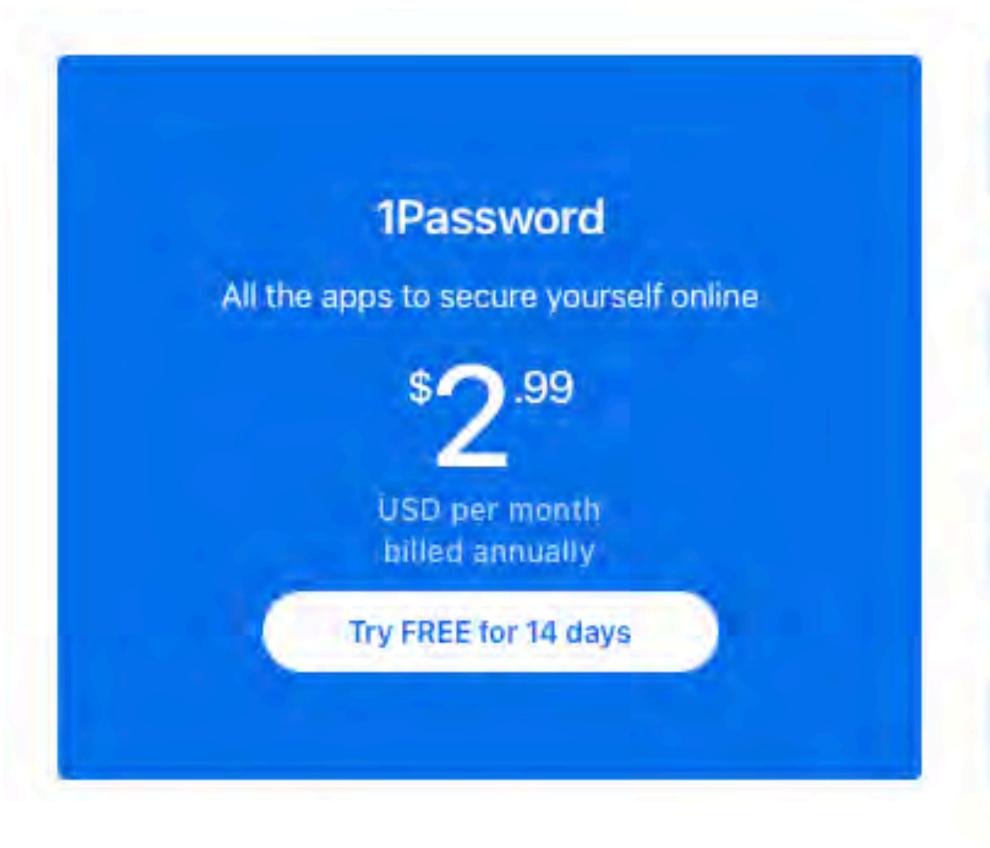
Have a business? 1Password can help!





### Getting Started with 1Password





Apps for Mac, iOS, Windows, Android, Linux, and Chrome OS

Unlimited passwords, items, and 1 GB document storage

Friendly 24/7 email support

365 day item history to restore deleted passwords

Travel Mode to safely cross borders

Two-factor authentication for an extra layer of protection

Share your sensitive information securely, with anyone



### Getting Started with 1Password









### Getting Started with 1Password

### All 1Password accounts include



### Unlimited Devices

Use TPassword on as many computers and devices as you own, whether at home or at work.



### 1Password Watchtower

Receive alerts for compromised websites and vulnerable passwords so you can take action to stay secure.



### Digital Wallet

Securely store credit and debit cards, online banking information, and PayPal logins so you can fill them from any device.



### Unrivaled support

Whenever you need it, our global team is here to help. Get free, oneon-one support from the 1Password team.



### Travel Mode

Remove sensitive data from your devices when you cross borders, and restore access with a click when you arrive.



### Advanced Encryption

Our security recipe starts with AES-256 bit encryption and uses multiple techniques to protect your data at rest and in transit.



### Total privacy

Only you can access your data. We don't use it, we don't share it, and we don't sell it. You're our customer, not our product.



### Getting Started with 1Password



- 1. Download 1Password
- 2. Install 1Password
- 3. Create Master Password





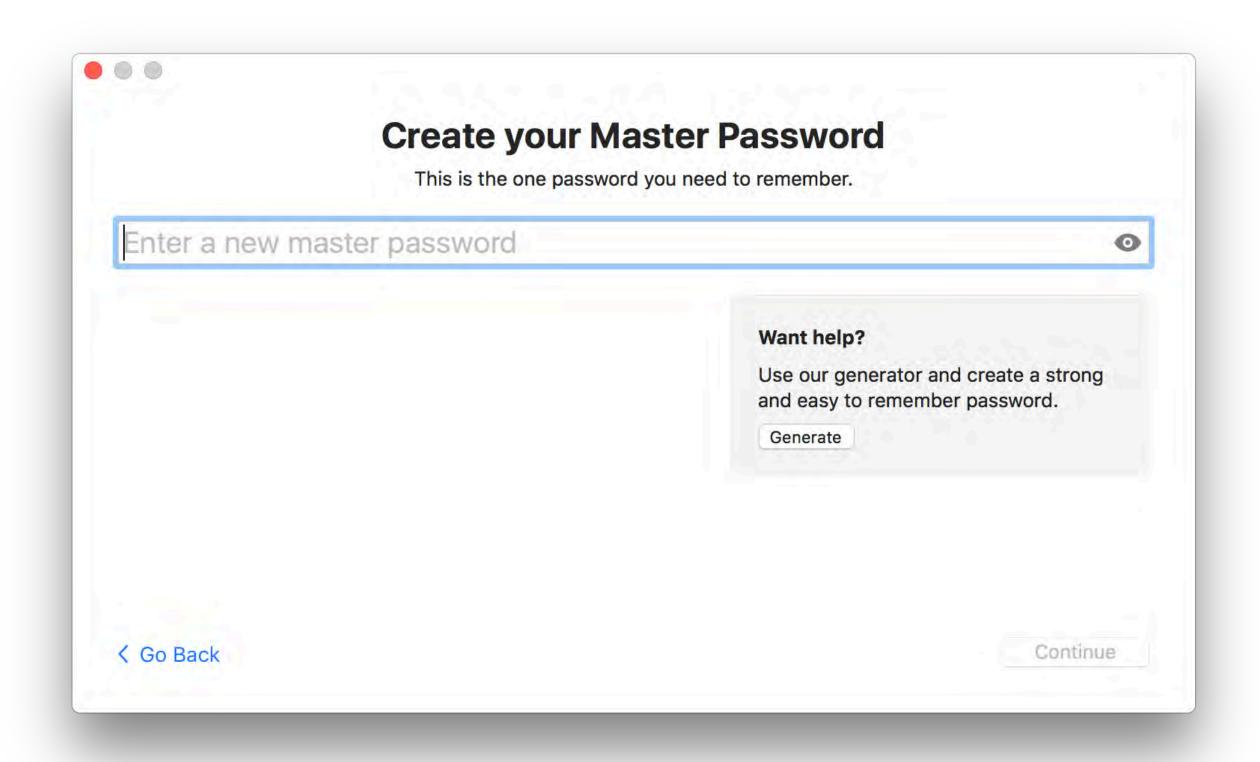
### Getting Started with 1Password

1Password 8 is not yet in the App Store, you must get it from 1Password.com

ry 1Password free for 14 days	
Ty II assword free for 14 days	Create your account
1 personal account with unlimited devices	Name
Advanced security with authenticated encryption, PAKE, and more	Email address
Alerts for compromised websites and vulnerable passwords	
24/7 customer support	Get emails from 1Password with our latest announcements, product updates, advice, events, and research opportunities. Unsubscribe any time.
Available on Mac, iOS, Windows, Android, Chrome OS, and Linux	Next
	By proceeding, you agree to the Terms of Service and Privacy Notice.
poking for a family, team, or business account? See all account options.	



### Getting Started with 1Password

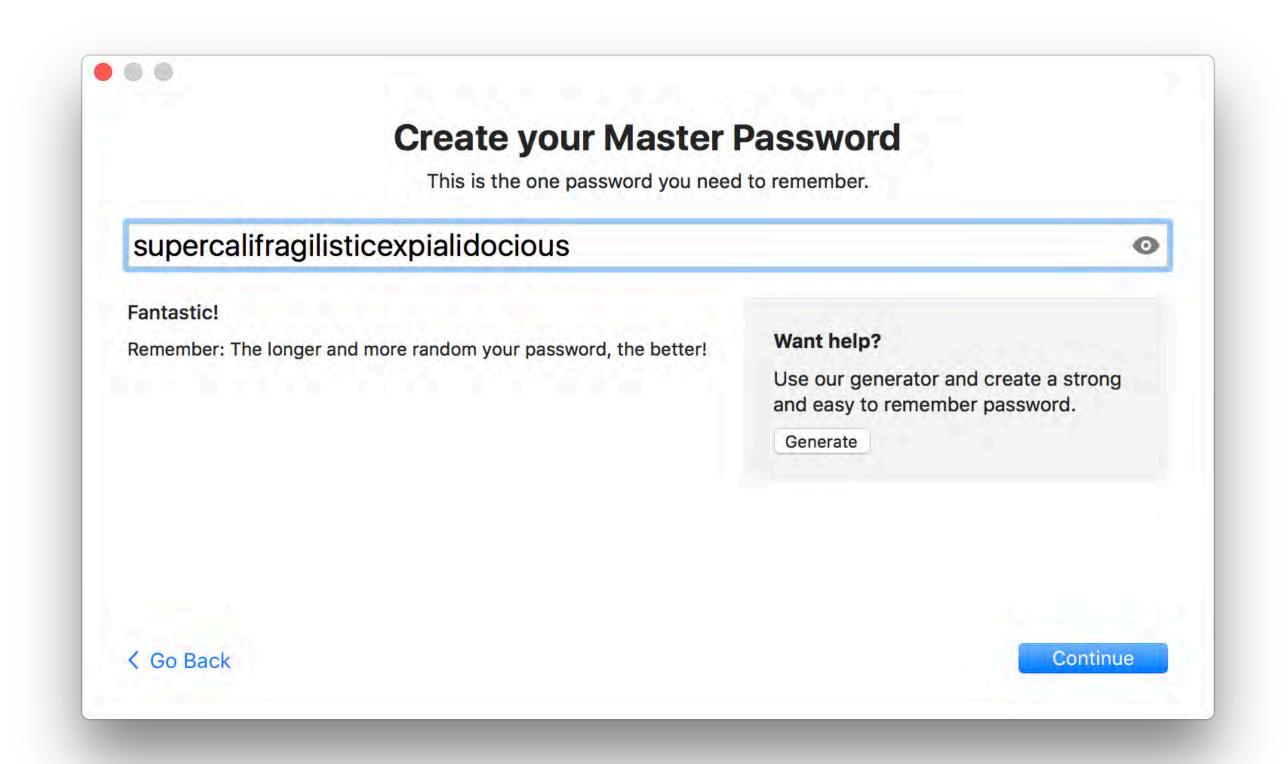


Create your Master Password





### Getting Started with 1Password

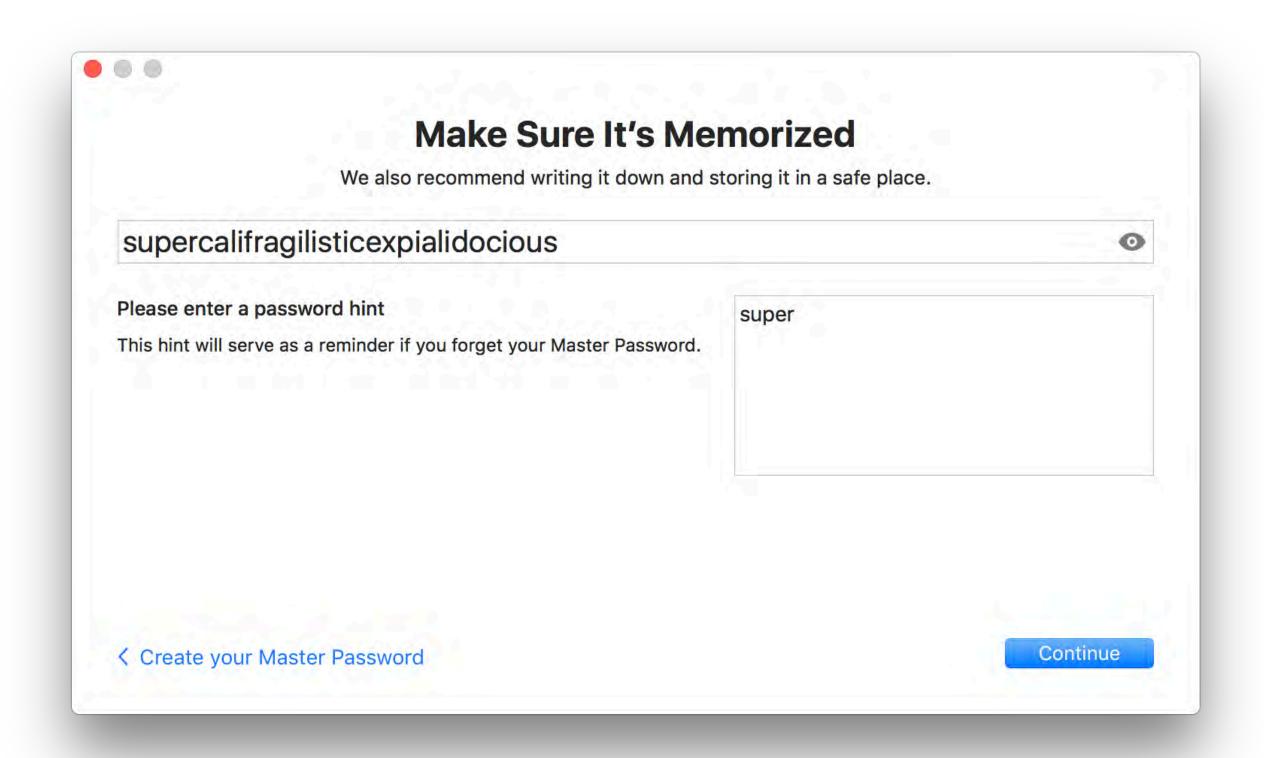


Create your Master Password





### Getting Started with 1Password



Create your Master Password





### Getting Started with 1Password

- 1Password is great for generating strong random passwords for sites without you
  ever having to memorize (or even see) those passwords. But there are a few
  passwords that we all do need to remember. I have a small number (I wish I could
  say just one) high security passwords that I need to remember. One, of course, is my
  1Password master password.
- It has to be memorable: it won't do any good if you can't remember it. You don't want to leave it out, easily accessible, so it MUST be something you can remember. It could be a full sentence and you can include spaces and punctuation in your 1Password master password. But, it would be much better if the sentence doesn't make logical sense; so, you could make a sentence of unconnected words, like "Incredible squids calculate horrible wallpaper!" Or, another way to create a password is to create a sentence and then use the 1st letter of each word for the sentence, while adding a couple of digits and interspersing capitals and lower case letters.

Toward Better Master Passwords by Jeffrey Goldberg http://bit.ly/2n1t5y6





### Getting Started with 1Password

- Avoid predictability: this would include phrases like 1234; Larry, Moe & Curly; I love my husband, wife, dog, etc.;
- Identifiable info: don't use phone number, address, year of birth, graduation, marriage, etc., etc.
- Don't tell the truth: For once, you don't have to be truthful and it's better if you're NOT! You might, for example, write some sentence that has your dog's name or husband's name or your child's name but you could make up a name instead of putting the REAL names in.

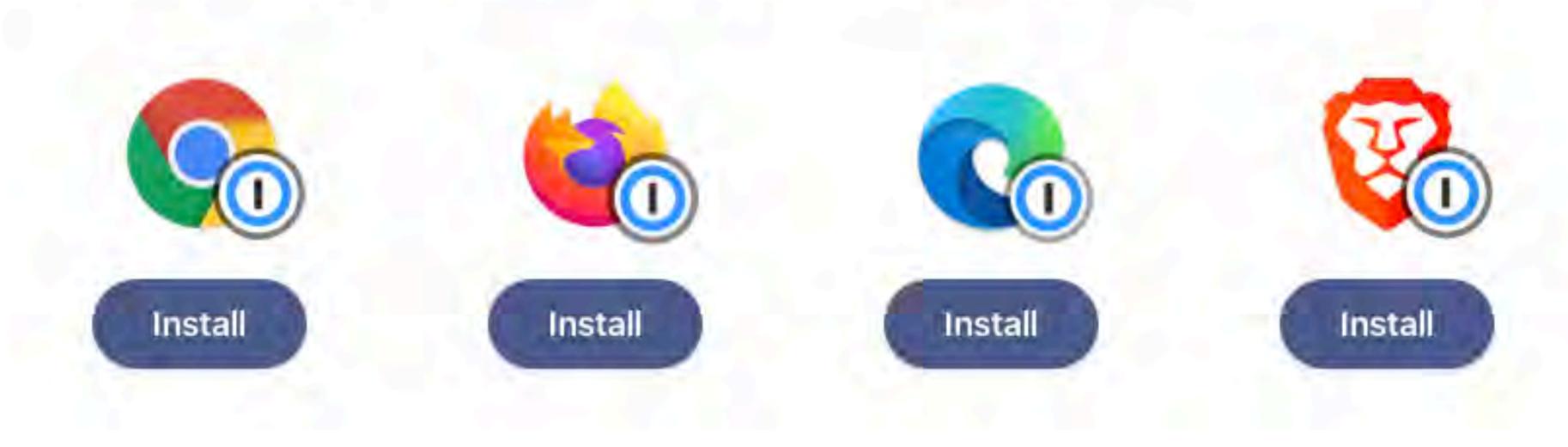
Toward Better Master Passwords by Jeffrey Goldberg http://bit.ly/2n1t5y6





### Getting Started with 1Password

1Password lets you easily sign in to sites, use suggested passwords, and find what you need – all without leaving your browser.

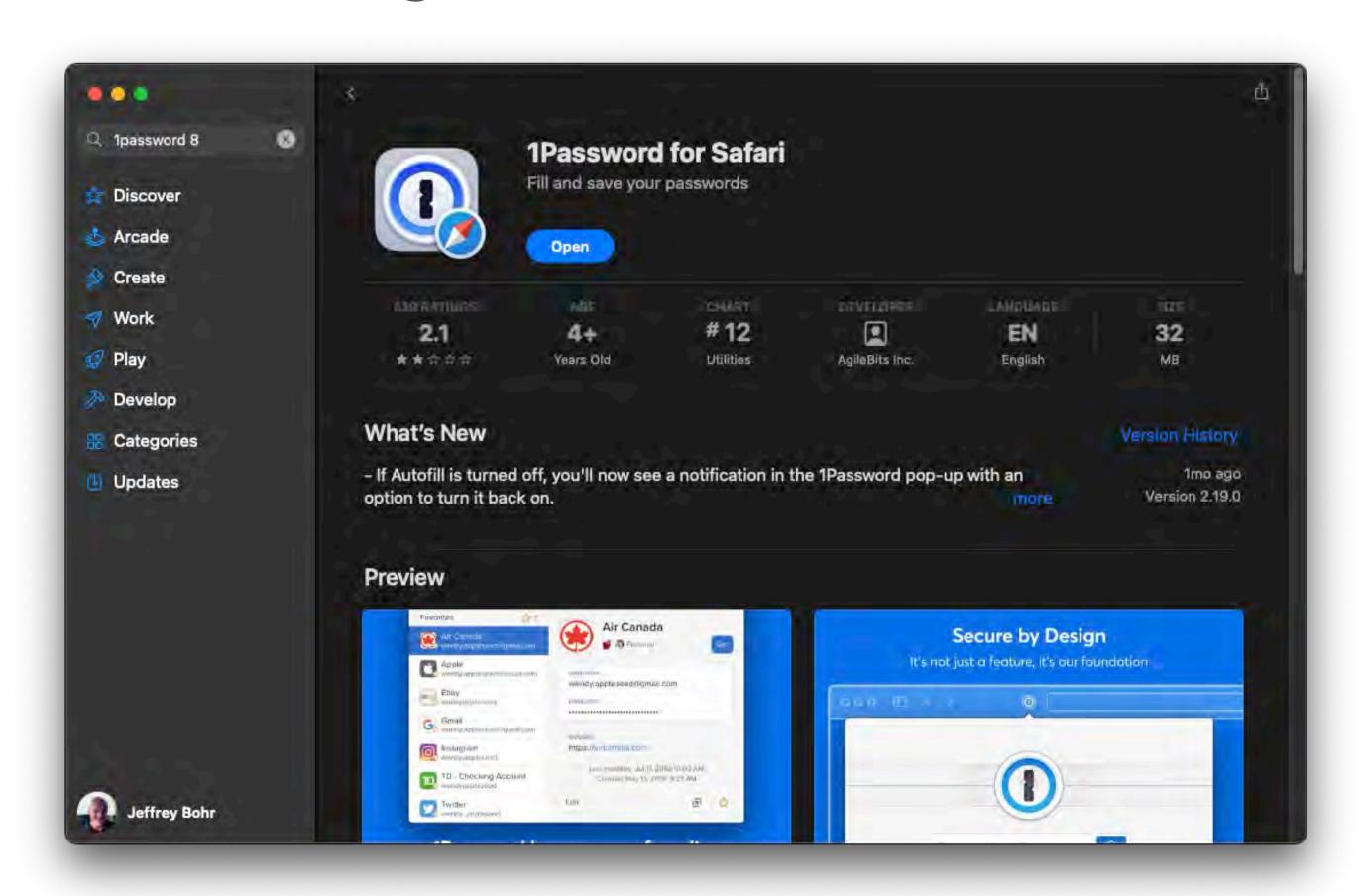


With 1Password 8, the Safari extension is installed through the App Store





### Getting Started with 1Password



With 1Password 8, the Safari extension is installed through the App Store

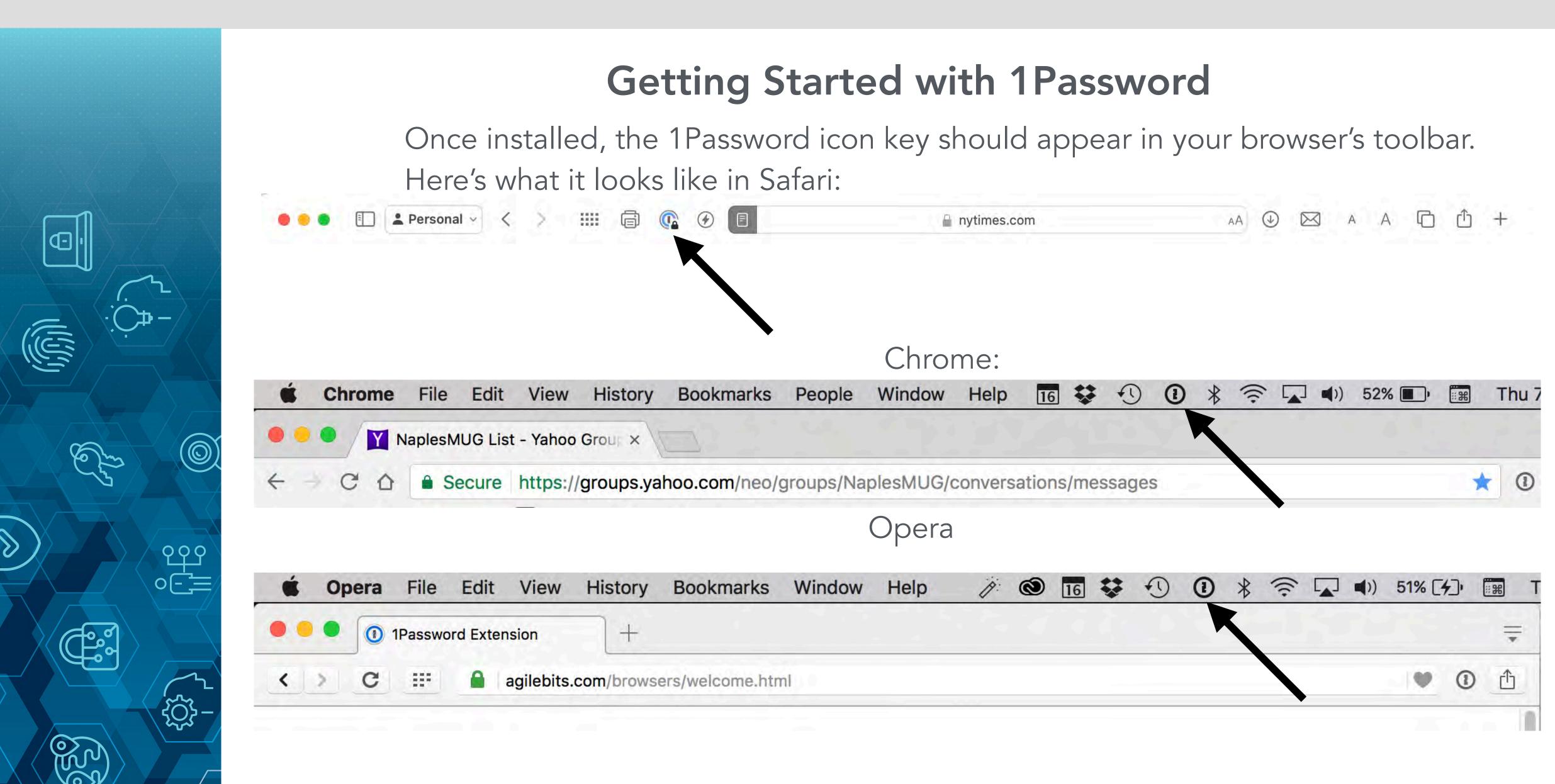




- With 1Password 8, the Safari extension is installed via the App Store.
- Go to Safari > Settings >
   Extensions to enable the extension by checking the box in front of it.



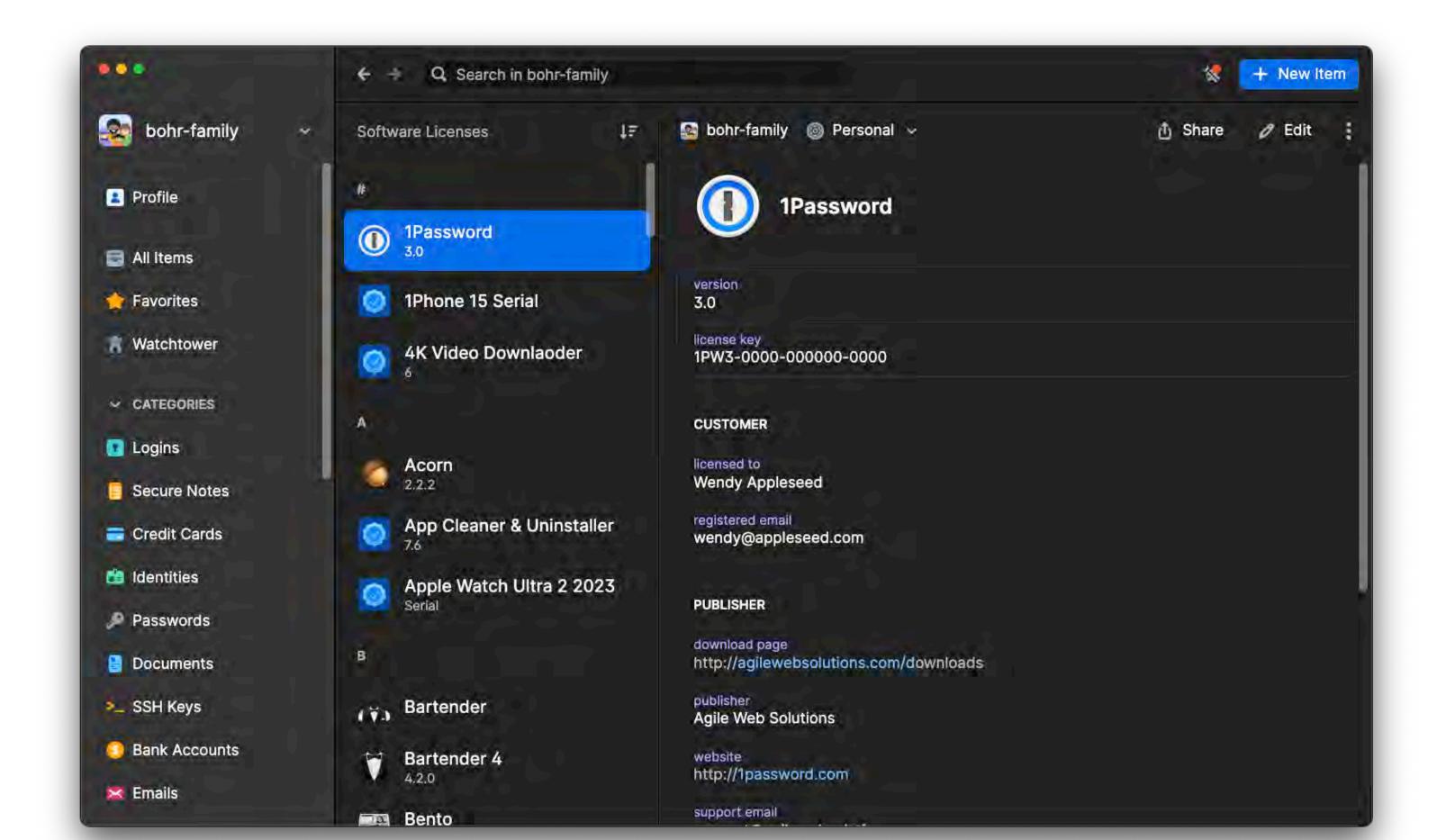






#### Getting Started with 1Password

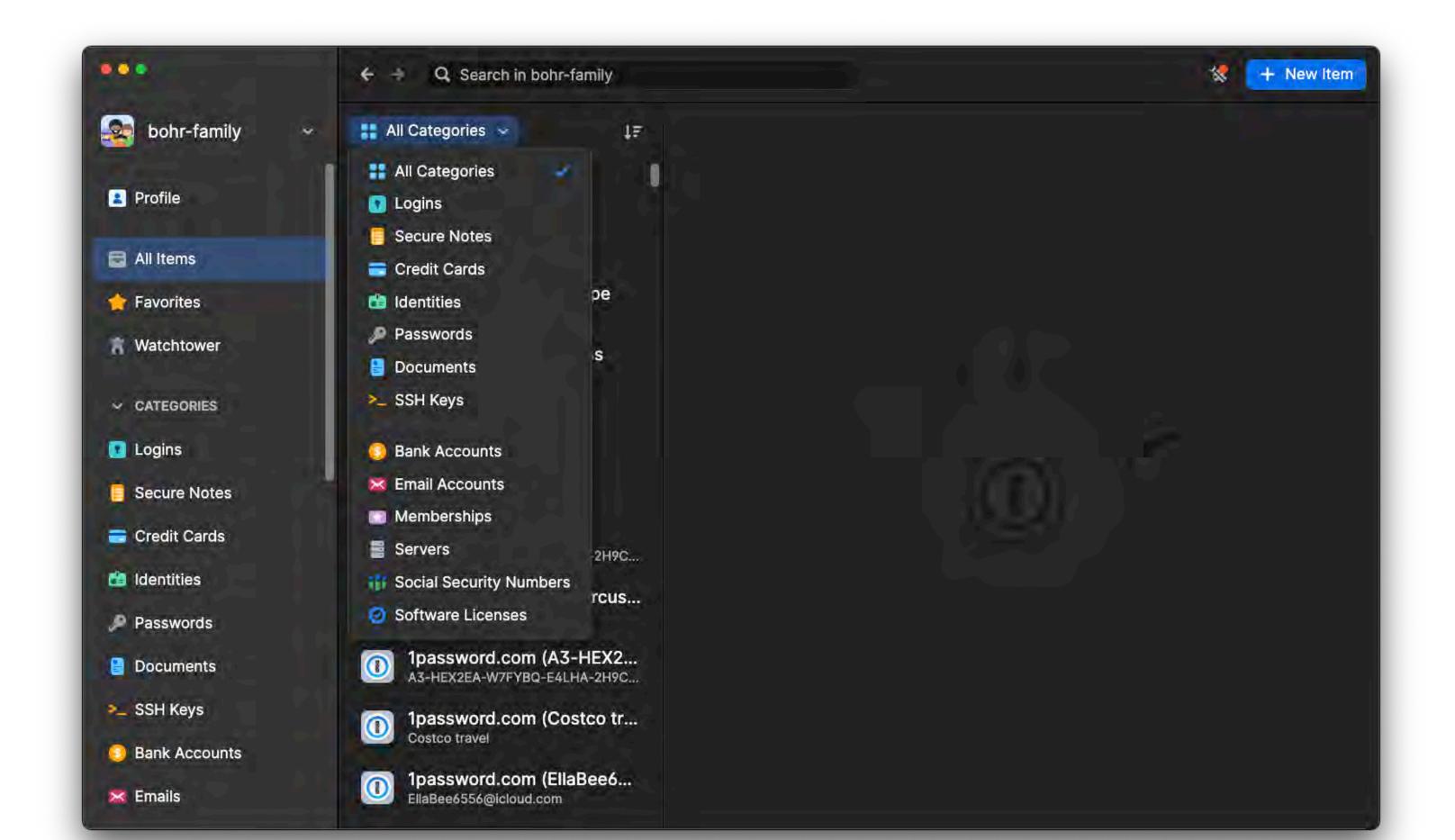
The 1Password Application





### Getting Started with 1Password

The 1Password Application







- The 1Password Application
- The main 1Password app shows all your data and provides numerous ways to organize, edit, and search it. It's also where you'll go to configure preferences, check for updates, and carry out other housekeeping tasks.
- Tip: Passwords are hidden by default in the main 1Password app you'll see only bullet characters. On a Mac, you can temporarily display a password without changing this setting or opening an item for editing—simply press the Option key!





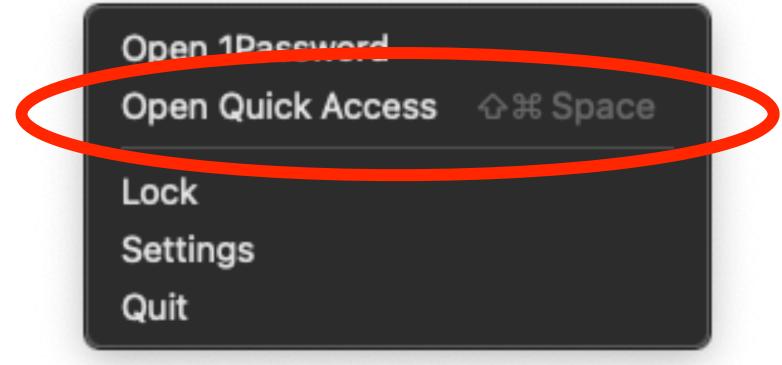
- 1Password Mini
- You can display it by clicking the 1Password key icon in the menu bar, if it is visible. 1Password mini drops down from your main menu when you click the icon. It's designated as a "helper" app, but 1Password mini is quite powerful on its own, and because it's available instantly throughout your system and nicely compact, you may choose to use it more often than the main app. Other than organizing your stored items and performing advanced searches, the 1Password Mini can do everything that the main 1Password application can do.



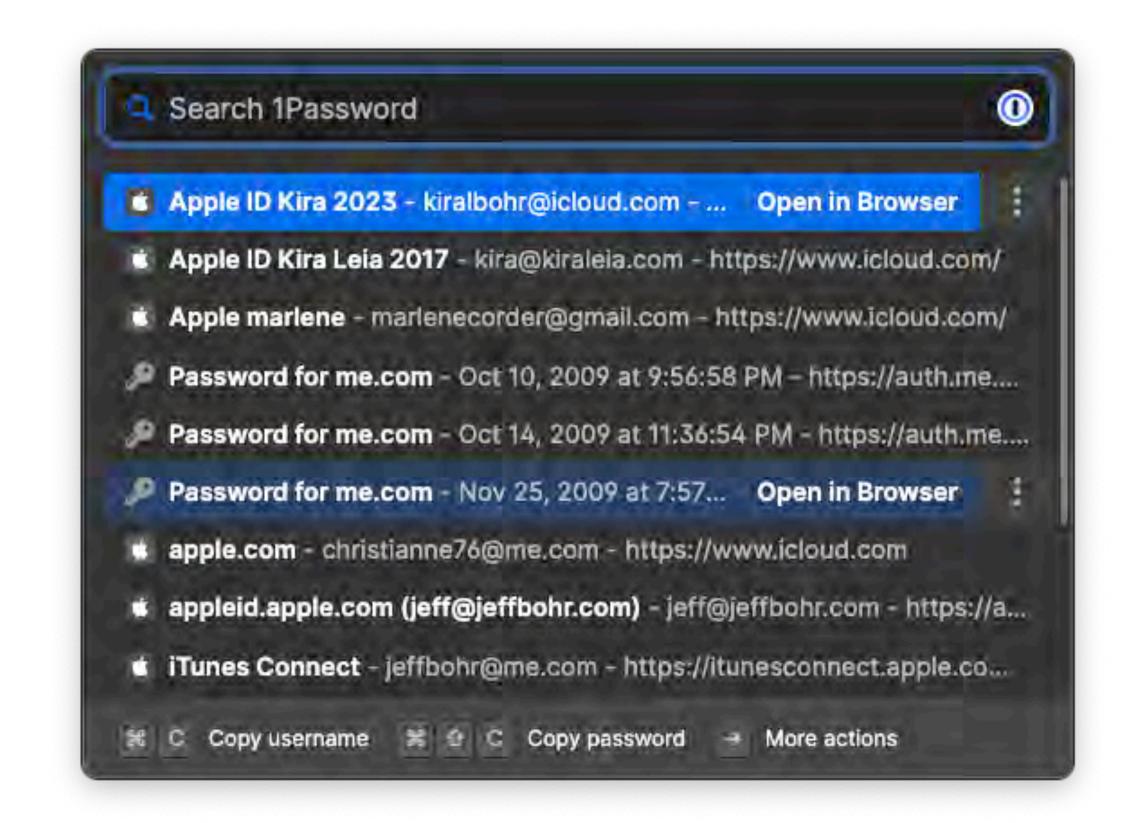




#### Getting Started with 1Password



The new Quick Access lets you see recent and frequently uses passwords, and it is searchable!







- 1Password Browser Extensions
- The next component that we have already talked a bit about are the browser extensions. In order for 1Password to perform tricks like filling in Web forms and automatically saving the credentials that you enter on Web pages, it needs low-level access to your browser.







- How Logins work:
- In 1Password, a login is a collection of information—
- Typically including a username, password, and URL among other things—that you can use to log in to a site or service. Although logins are most often used for Web sites where you have password-protected accounts, 1Password treats "login" as a generic term that can be used for almost any type of resource, even if you don't technically use it to log in to anything.
- Most Web sites that require you to log in display a username field or email address, a password field, and a button or icon you click to submit your credentials.





- Setting Up a New Account Login with 1Password
- If you don't already have an account on a site and choose to sign up, you will see a form, which asks you to enter a username (often in the form of an email address), pick a password, and confirm that password. You'll type your preferred username yourself, but then you can use 1Password's built-in password generator to create a password and fill it into both password fields with a single click. Once you submit the form, 1Password prompts you to save that login. Click Save, and 1Password stores your new password (along with your username and the site's URL) for you.



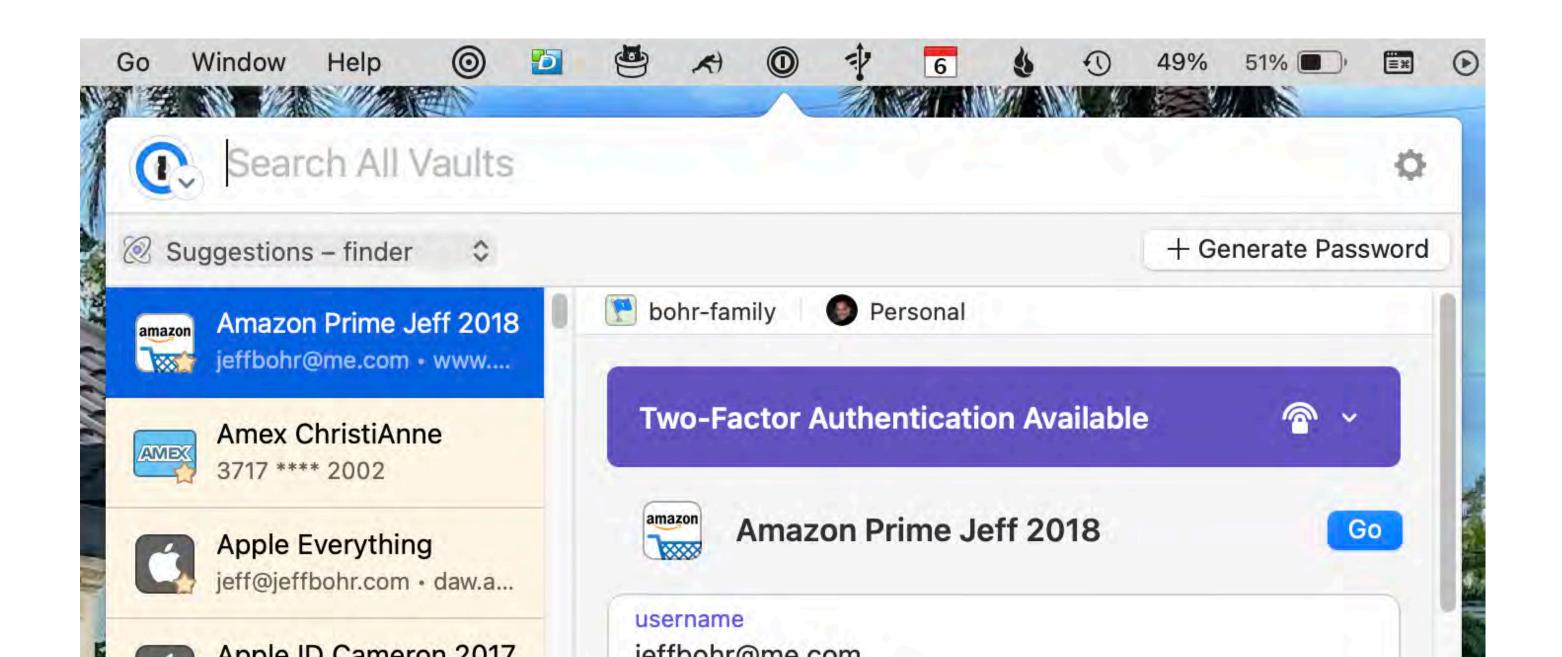


- Using An Existing Account Login with 1Password
- First, you access a login screen on a website, or you can click somewhere to enable a login.
- Once you see the login window, you can automatically start the login by pressing the command key (光) and the back slash (\) key (which is just above the return key on your keyboard). This command alerts 1Password to enter the login information, including your password automatically. Also note that 1Password will ask for your master password first. It couldn't be easier!





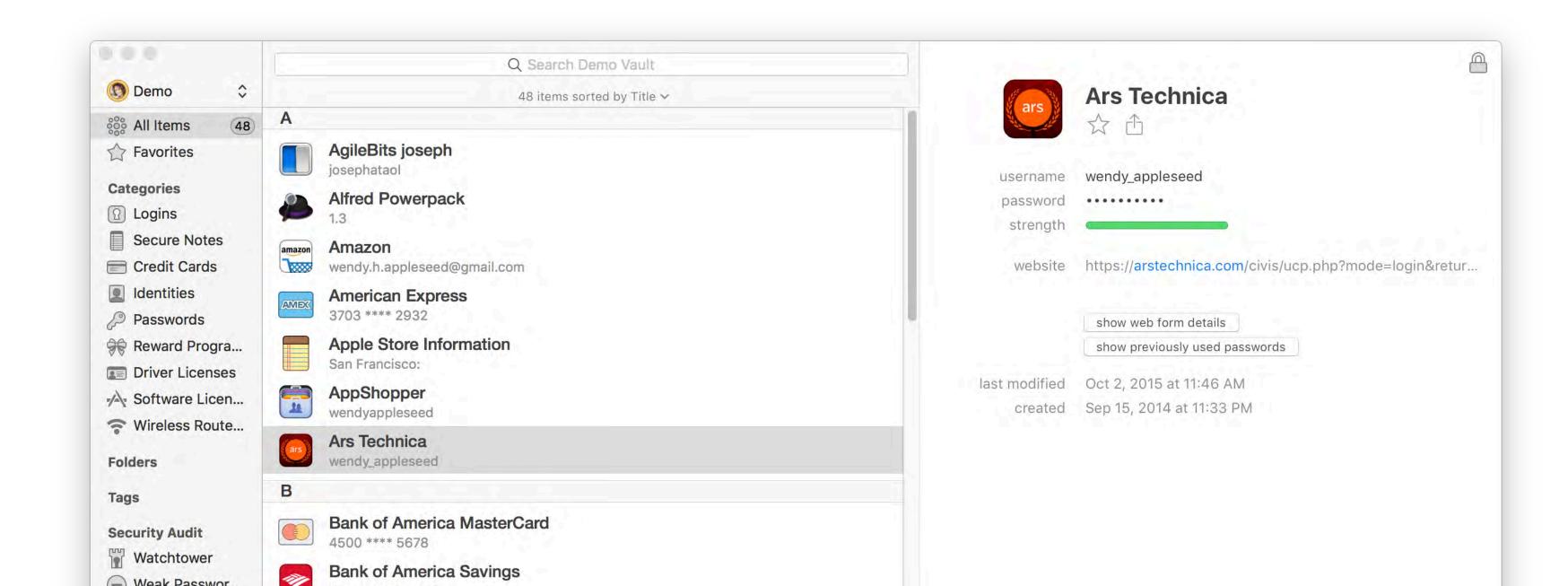
- Using An Existing Account Login with 1Password
- An alternate way to login using 1Password in the browser is to access the information from the 1Password Mini app that is located up in your menubar. Its icon is the 1Password logo, a keyhole. This is what the 1Password Mini method would look like for my Amazon login. So, you can see here the keyhole icon in the menubar.







- Using An Existing Account Login with 1Password with 1Password Mini
- App-centric approach, using the 1Password Application
  - 1. Enter your 1Password "Master" password to unlock 1Password
  - 2. Double-click on entry in 1Password

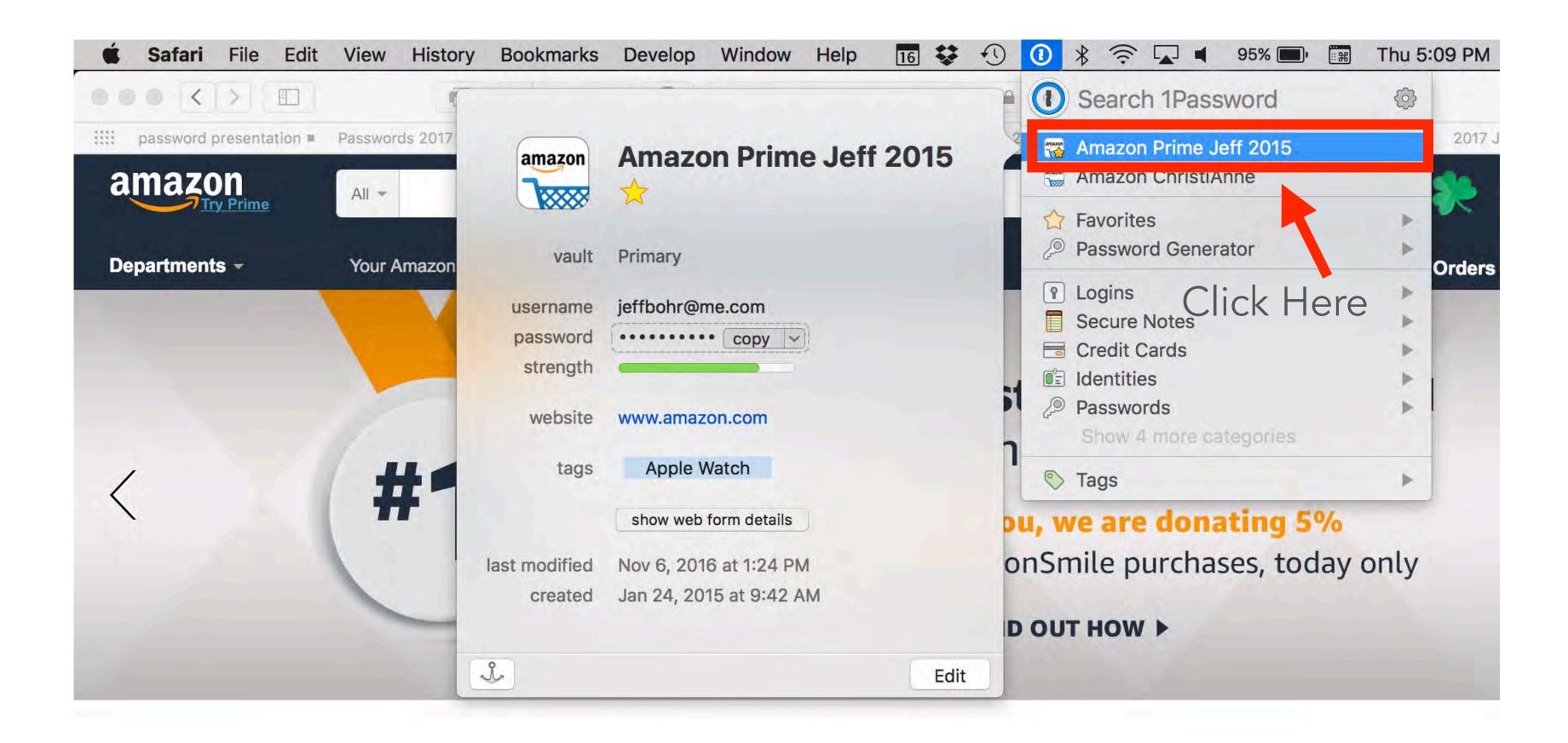






#### Getting Started with 1Password

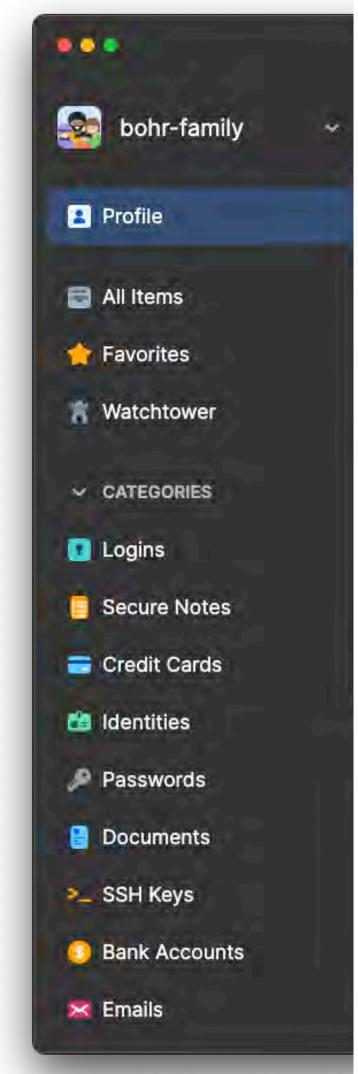
Using An Existing Account Login with 1Password with 1Password Mini

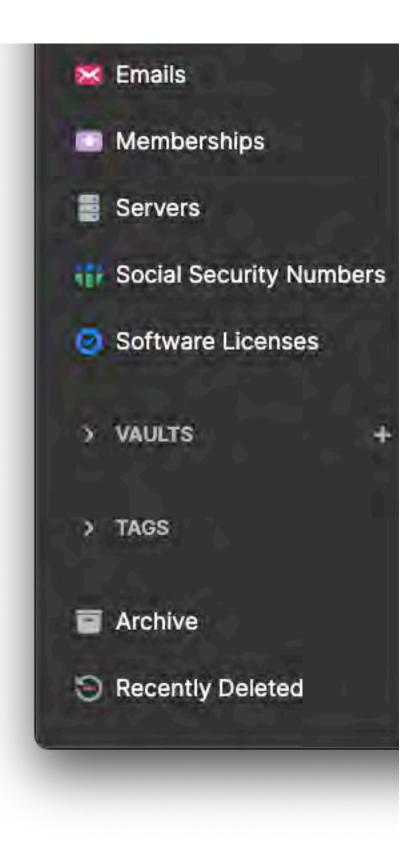






- Using The 1Password Sidebar
- Organized by Type
- Security Audit Section
- Watchtower
- Compromised websites
- Vulnerable passwords
- Reused passwords
- Weak passwords
- Unsecured websites
- Two-Factor Authentication
- Expiring









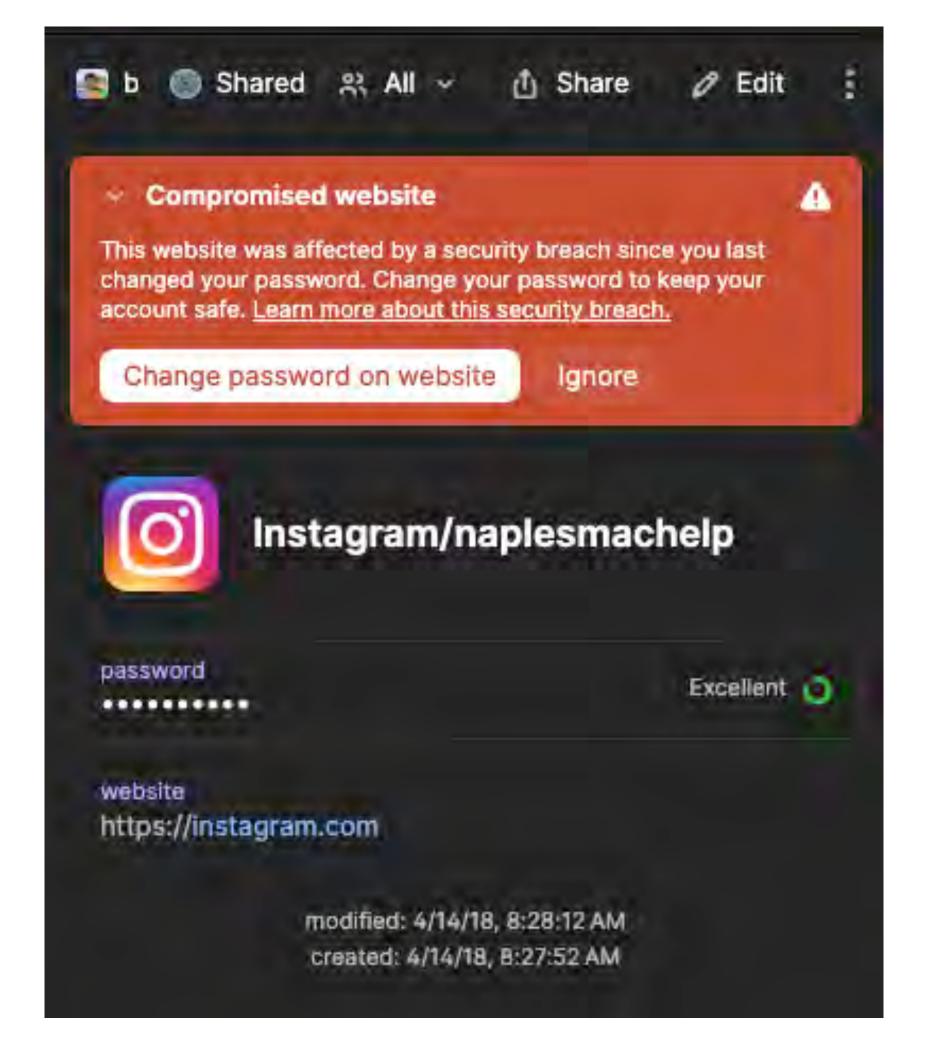
- Using The 1Password Sidebar
- Organized by Type
- Security Audit Section
- Watchtower
- Compromised websites
- Vulnerable passwords
- Reused passwords
- Weak passwords
- Unsecured websites
- Two-Factor Authentication
- Expiring Items (credit cards, memberships, etc.)







- Using The 1Password Sidebar
- Watchtower notifies you if the website has been exposed to a security breach



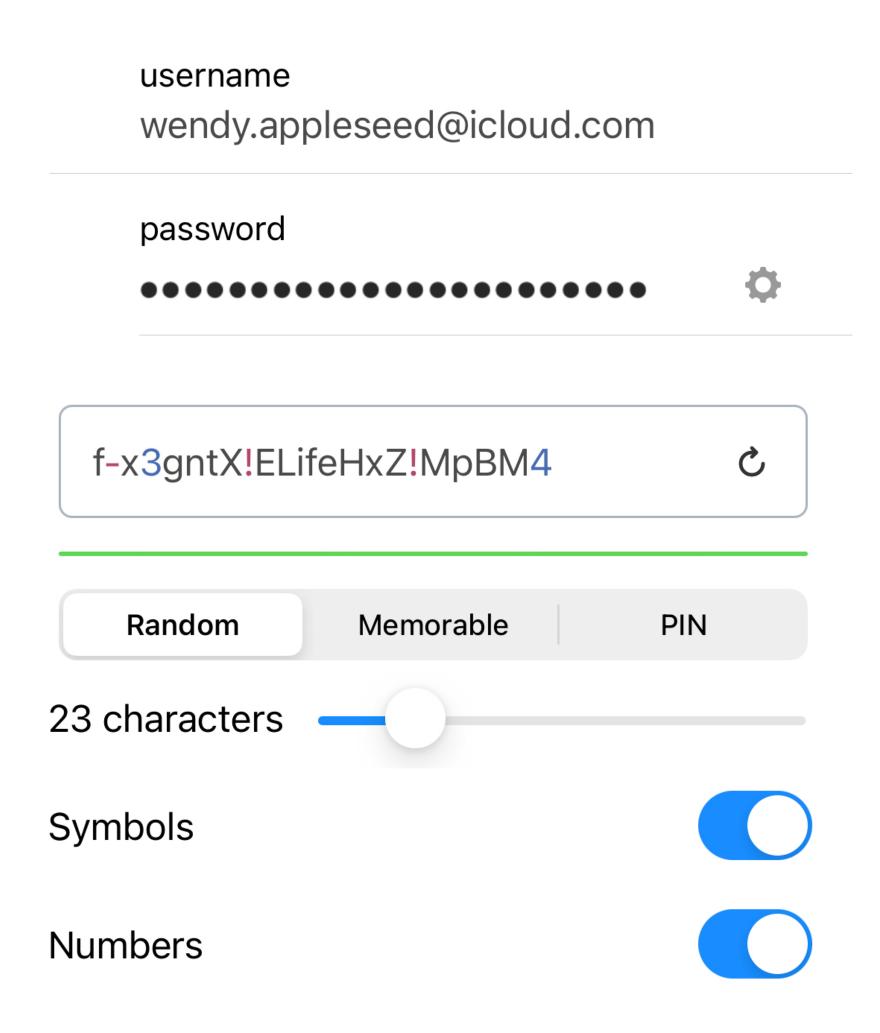




### Getting Started with 1Password

Using the password generator



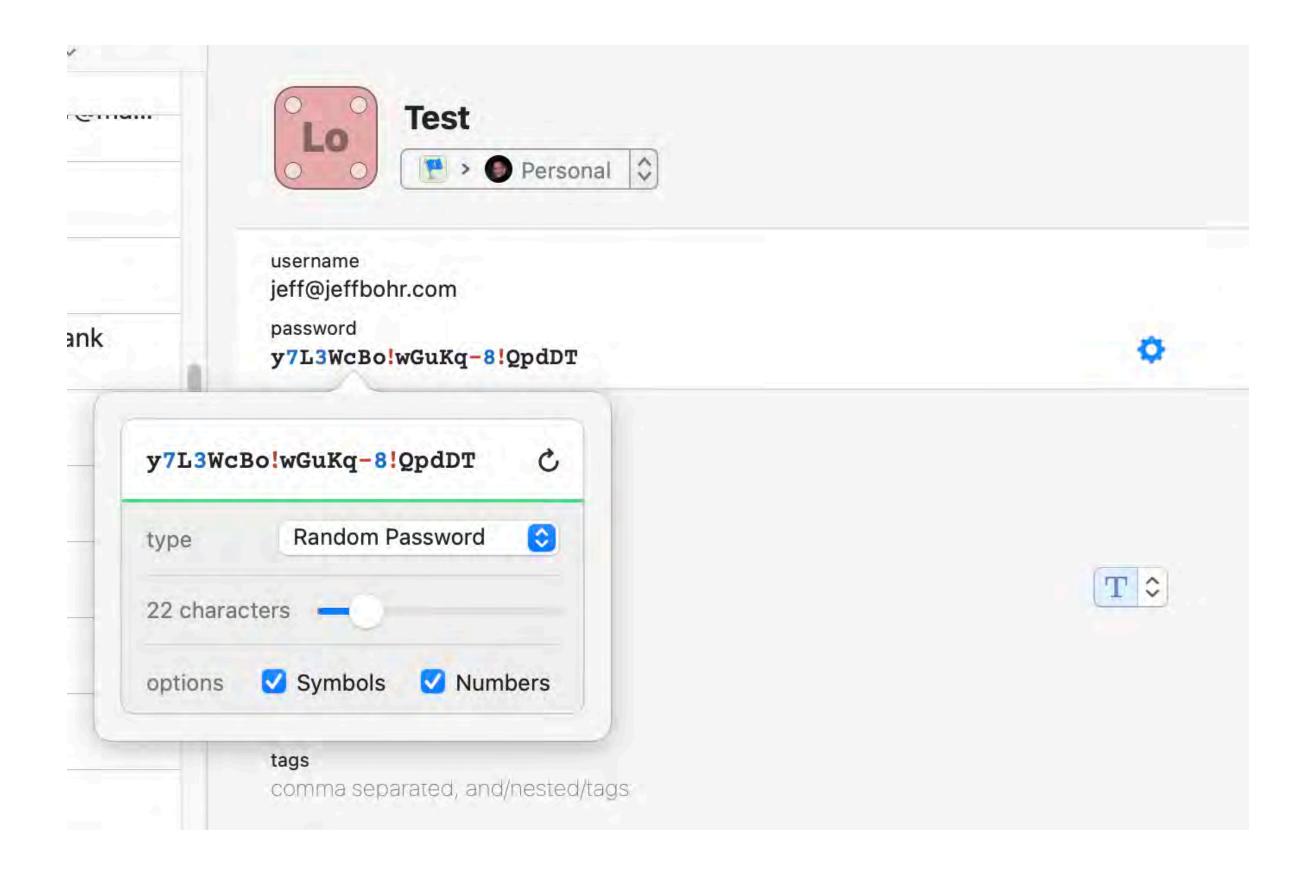






#### Getting Started with 1Password

Using the password generator: random







#### Getting Started with 1Password

Using the password generator: memorable

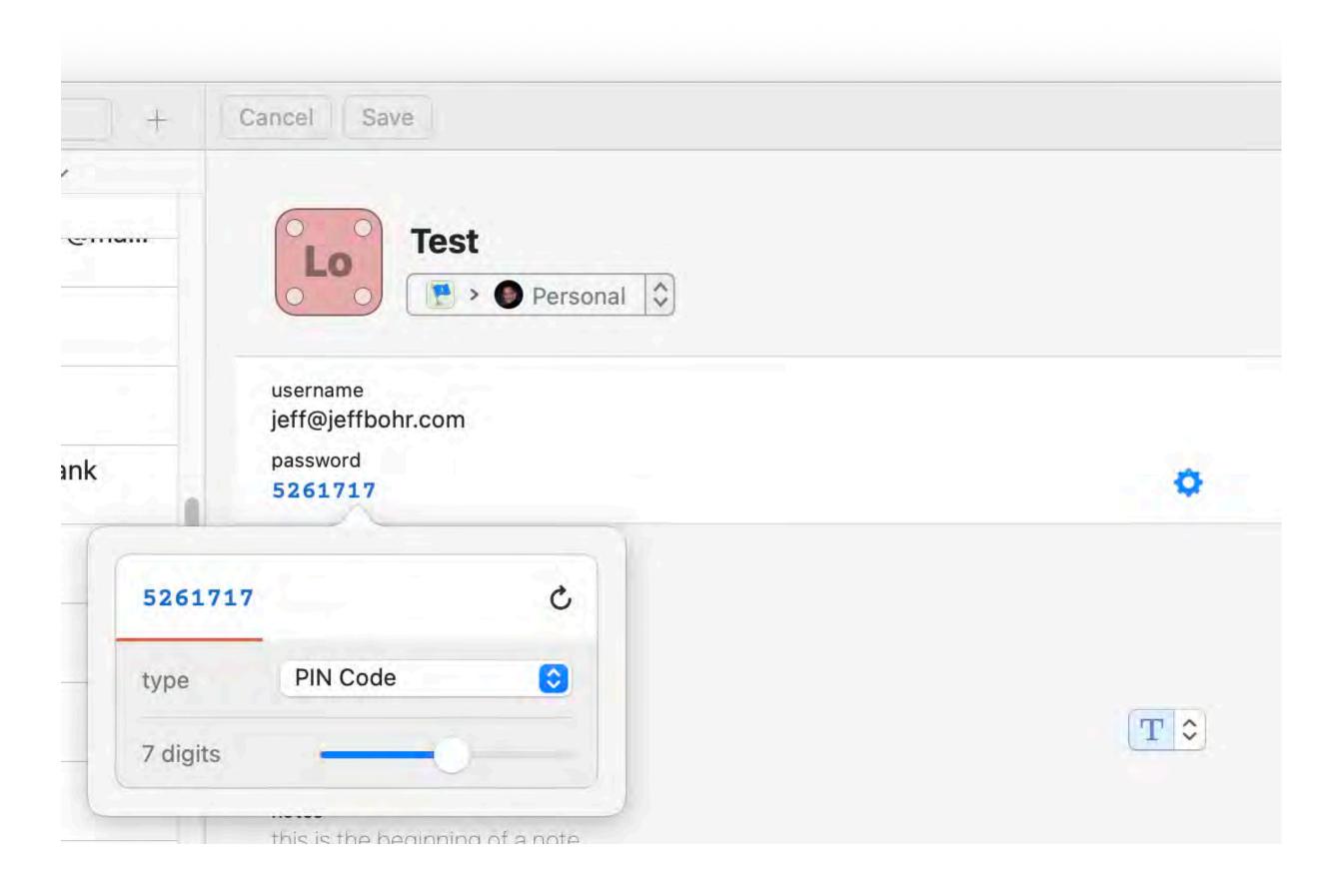
+	Cancel Save	
	Test  Personal  Personal	
	username jeff@jeffbohr.com password lyra-footpad-genre-CREPE-emirate	•
	-footpad-genre- E-emirate	
type	Memorable Password 📀	T :
5 word	dsat	
	The state of the s	
option	s Capitalize V Full Words	





#### Getting Started with 1Password

Using the password generator: PIN Code







#### Getting Started with 1Password

Using the password generator

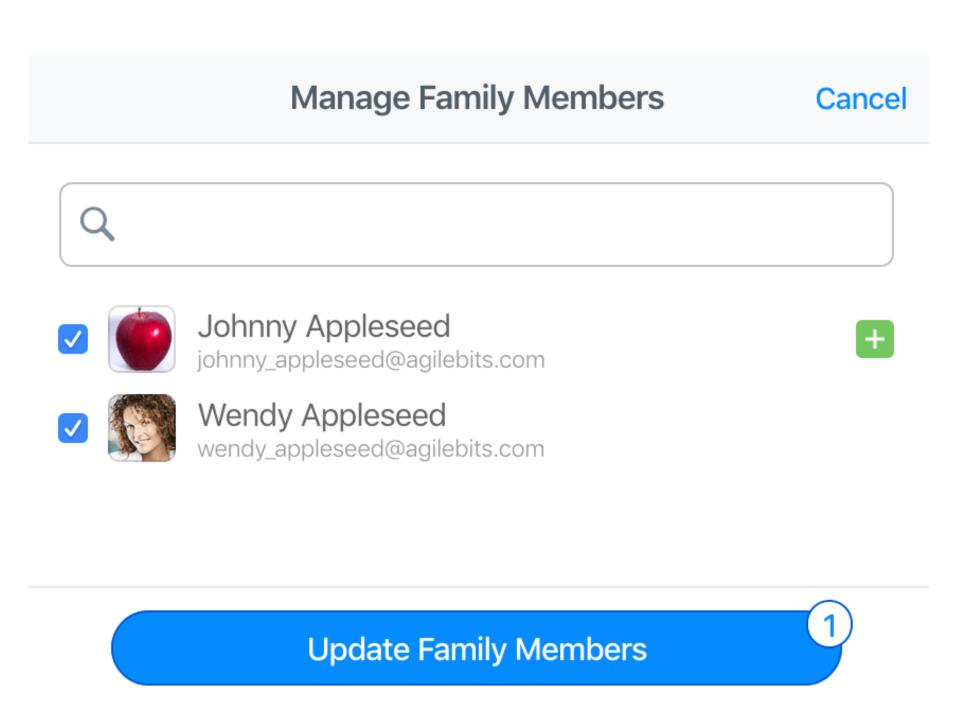
PBKDF2 Interations	1000 Iternations		25000 Iterations	
GPU Accelration	No GPU	GPU	No GPU	GPU
Guesses/second	5000	1000000	200	40000
3 words (39 bits)	544 days	2 days 17 hours	37 years	68 days
4 words (51 bits)	11,561 years	58 years	289,000 years	1,445 years
5 words (64 bits)	90 million years	449,528 years	2.25 billion years	11 million years
6 words (77 bits)	700 trillion years	3.5 billion years	17 trillion years	87 billion years
7 words (90 bits)	5,400 trillion	27 trillion years	136,000 trillion	680 trillion years
	years		years	

"Billion" =  $10^9$ ; "trillion" =  $10^{12}$ ; Times are mean time to crack. Words are chosen at *random* from list of 7776 words.





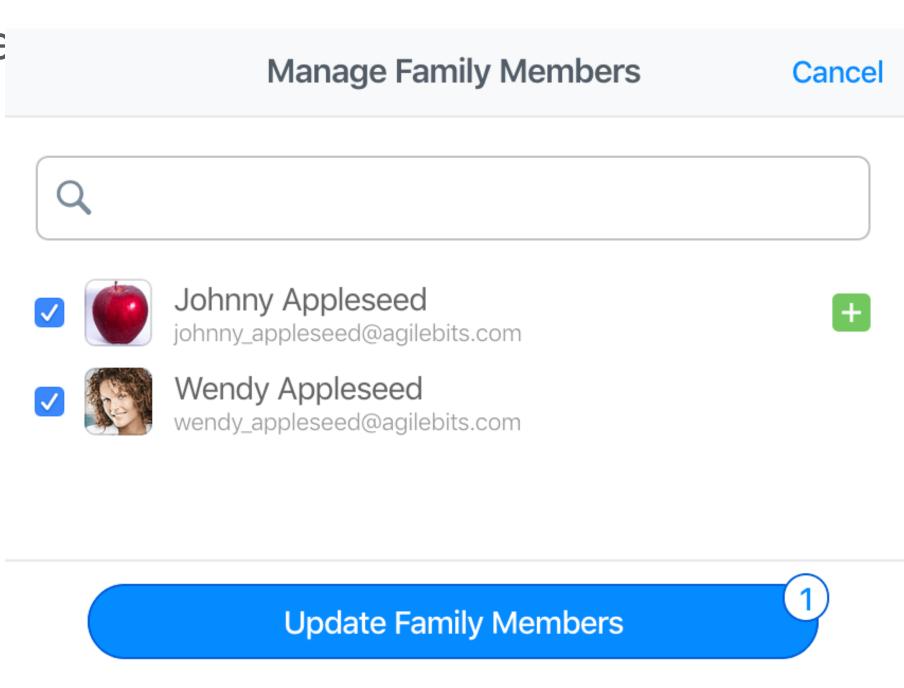
- Sharing 1Password
- Share passwords with your family
- Learn how to give everyone in your family access to the items they need, like wireless network passwords or shared credit cards.







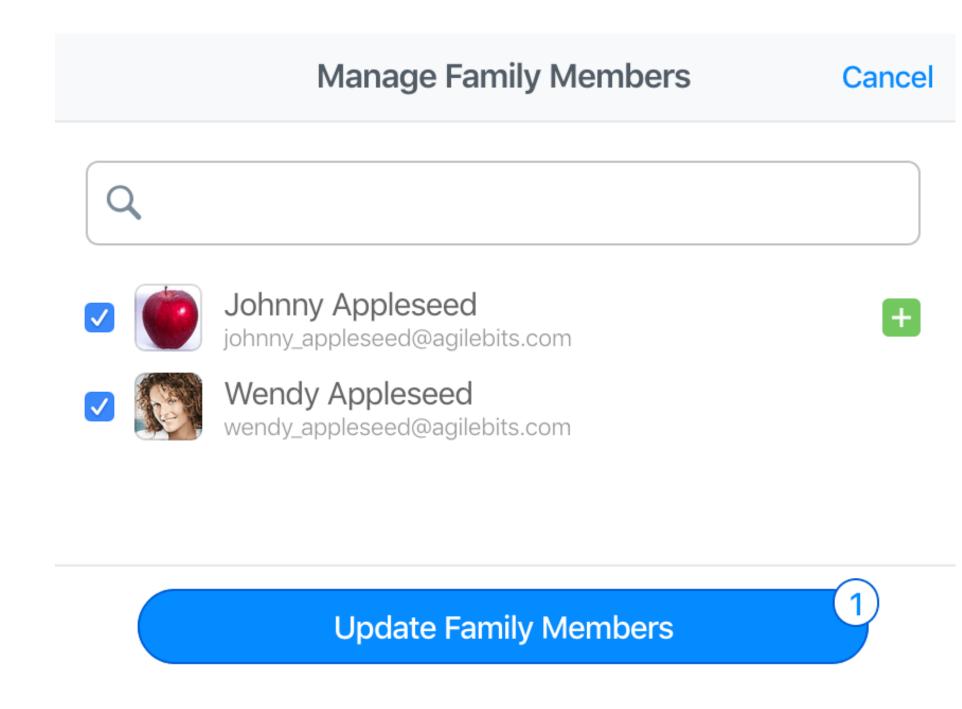
- Sharing 1Password
- Your 1Password Families account includes a Shared vault that everyone in your family can use. Move passwords and other items to the Shared Vault to share them with your whole family:
- your wireless network password
- your Netflix password
- emergency credit cards
- passports
- anything your whole family needs access to
- Don't have a family account? You can upgrade to one.
   Sign in on 1Password.com, click your name in the top right to open the menu, and choose Invite People.







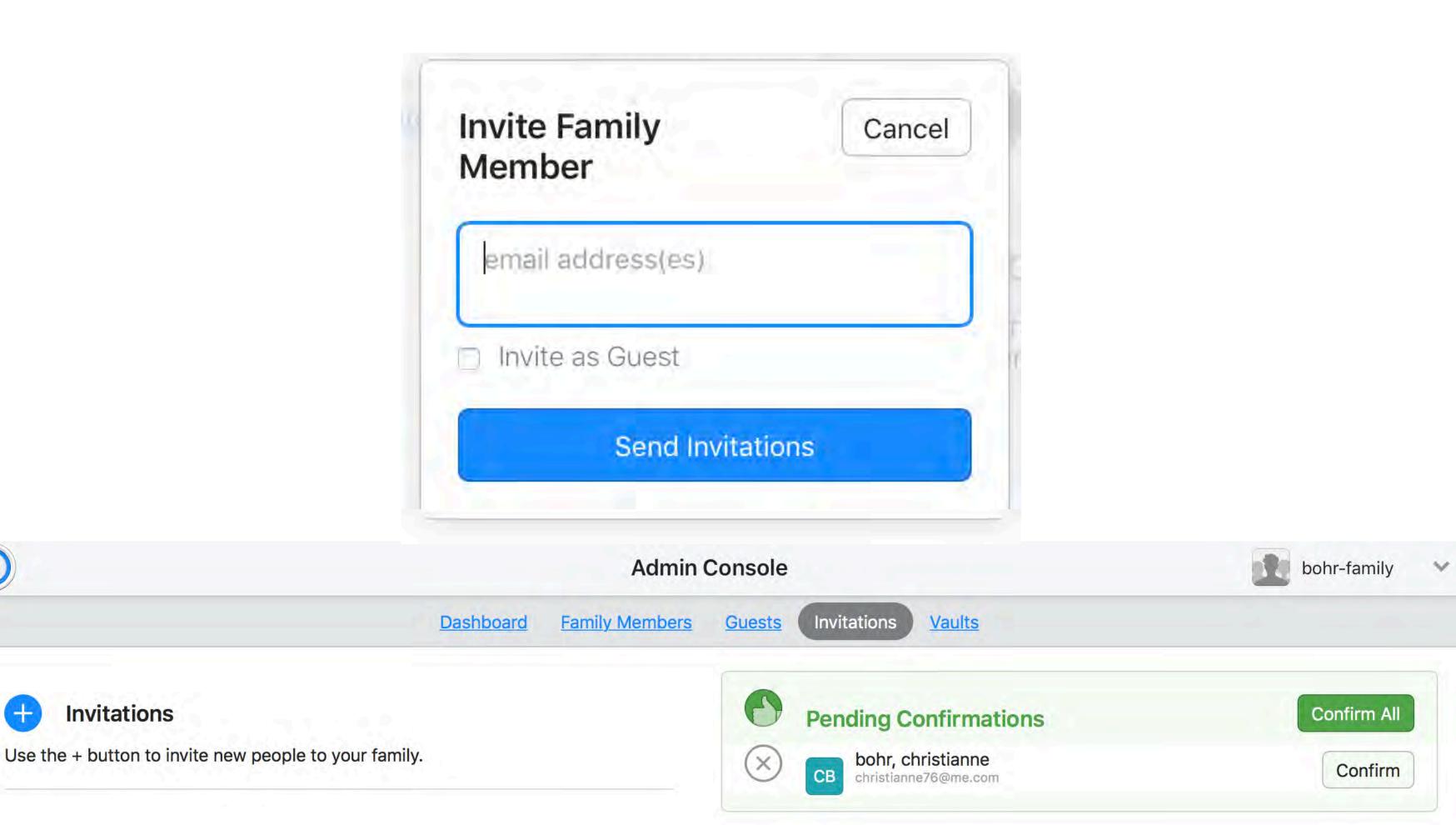
- Sharing 1Password
- Invite your family
- Before you can share with your family, you'll need to invite them:
  - 1. Sign in to your account on 1Password.com.
  - 2. Click your family name in the top right and choose Admin Console.
  - 3. Click Invitations and click
  - 4. Enter their email addresses, then click Send Invitations.
- After each account is set up, you'll receive an email notification. Click the link in the email to confirm each account.







Invitations







### Getting Started with 1Password

- Use the Shared vault
- Once you've invited your family and confirmed their accounts, you can share items by moving them into the Shared vault:
  - 1. Sign in to your account on 1Password.com.
  - 2. Click to open a vault, then select the item you want to share.
  - 3. Click and choose Move/Copy.
  - 4. Click Move next to your Shared vault.
- To share items with individual family members, create a new vault and share it with them.



#### **Amazon**



Move/Copy...

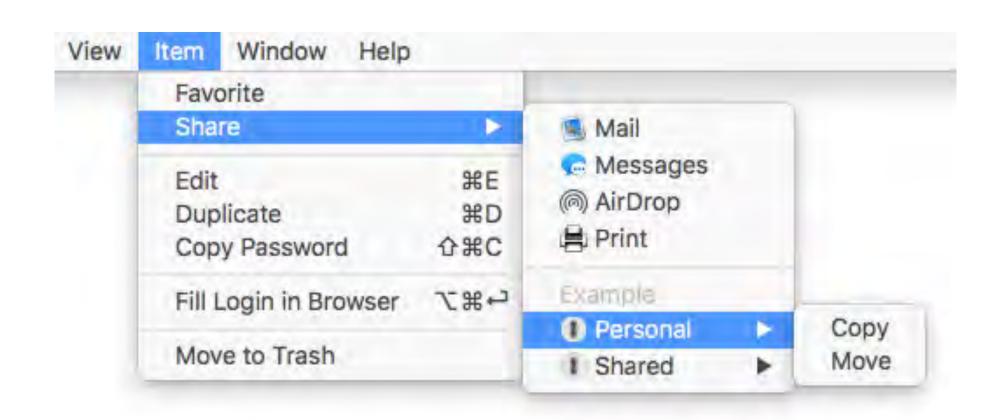
Duplicate

Print





- Use the Shared vault
- You can move multiple items at once in the 1Password app on your Mac.
- 1. Open and unlock 1Password.
- 2. Select an item. Select multiple items by holding down the Command key and selecting them. Select all items in a list by pressing Command-A.
- 3. Choose Item > Share.
- 4. Select your Shared vault, then choose Move.







- The 1Password Emergency Kit
- Your Emergency Kit is a safety net for accessing your account.
- Your Emergency Kit is a PDF document with your account details and a place to write your Master Password. If you can't sign in or if a family member needs to access your account in an emergency, it will provide access.





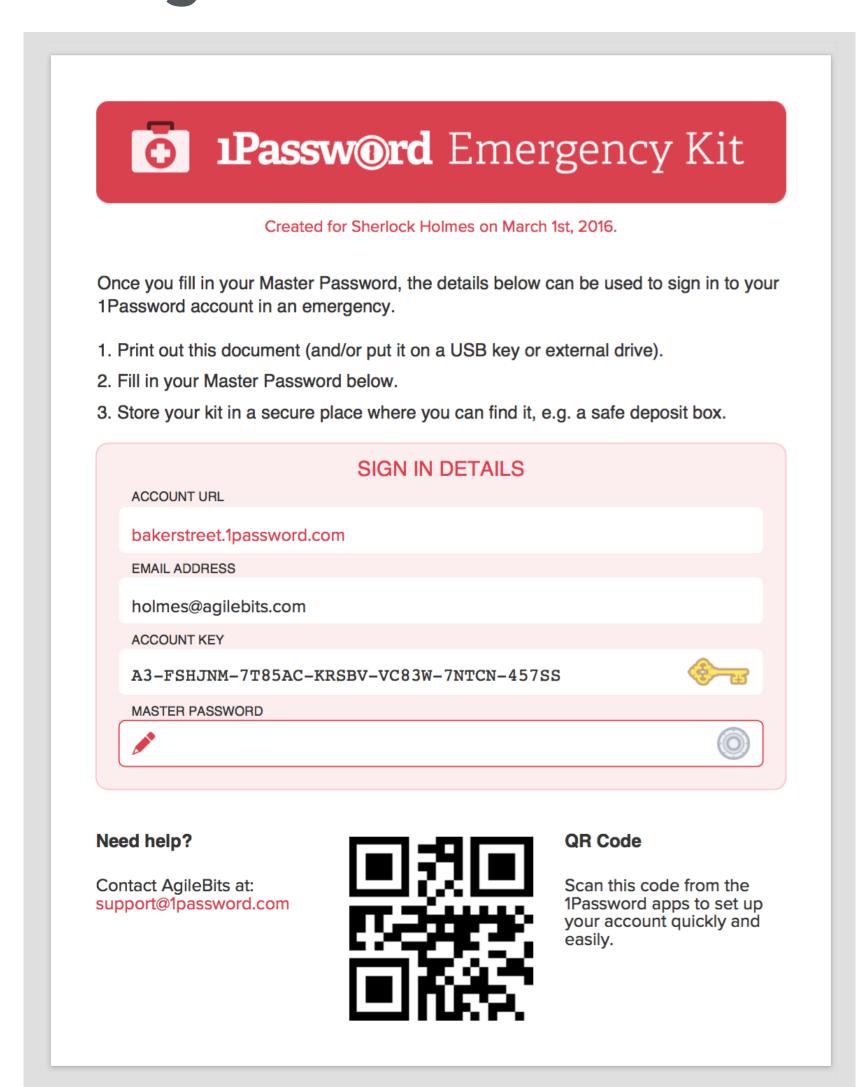


- The 1Password Emergency Kit
- Save your Emergency Kit
- 1Password prompts you to save your Emergency Kit when you create an account. Check your Downloads folder to see if you already have yours. To save a new copy of your Emergency Kit:
  - 1. Sign in to your account on 1Password.com.
  - 2. Click your account name in the top right and choose My Profile.
  - 3. Click Generate Emergency Kit and follow the onscreen instructions to save the PDF.

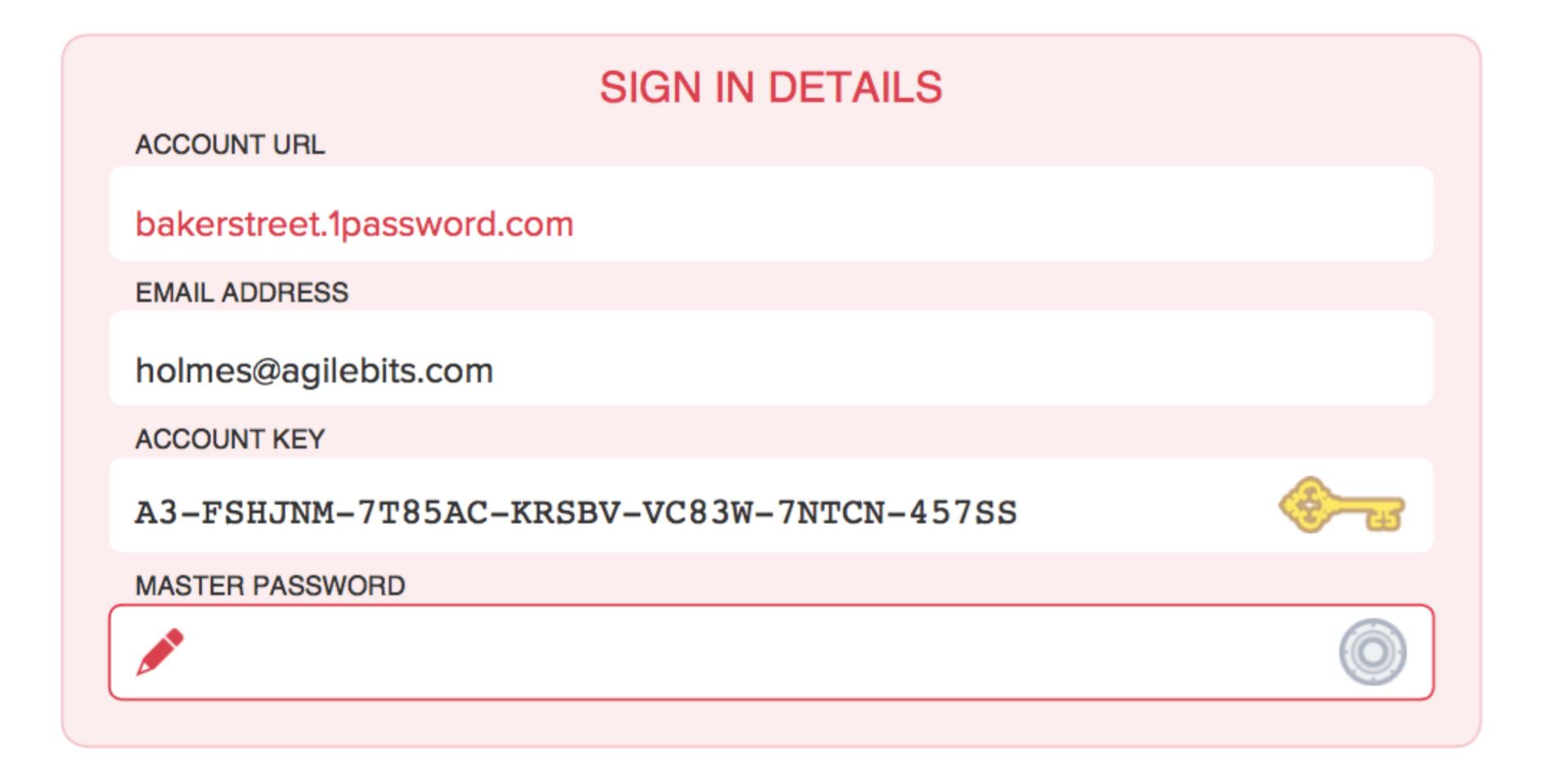
















### Getting Started with 1Password

- The 1Password Emergency Kit
- Your Emergency Kit contains everything needed to sign in to your account on 1Password.com, or in the apps:
- Sign-in address. The web address you use to sign in to your account.
- Email address. The email address you used to create your account.
- Account Key. A unique code which protects your data.
- Master Password. A place to record your Master Password.
- Account code. A square barcode that makes it convenient to sign in on new devices.



#### **QR Code**

Scan this code from the 1Password apps to set up your account quickly and easily.





- 1Password Encryption
- 1Password security begins with your Master Password. It's used to encrypt your data so no one but you can read it, and it's also used to decrypt your data when you need to use it. Your Master Password is never shared with anyone, even us at AgileBits, which means that you're the only person who can unlock your 1Password vaults and access your information. Here's how 1Password secures your data – and the Master Password used to protect it – from all kinds of attacks:





- 1Password Encryption
- End-to-end encryption.
- 1Password never saves decrypted data to disk, and whether you use a 1Password account or sync your data via iCloud or Dropbox, everything is end-to-end encrypted – in transit, at rest, and on the server. This makes it impossible for someone to learn anything by intercepting your data while it's in transit.





- 1Password Encryption
- 256-bit AES encryption.
- Your 1Password data is kept safe by AES-GCM-256 authenticated encryption. The data you entrust to 1Password is effectively impossible to decrypt.
- Secure random numbers.
- Encryption keys, initialization vectors, and nonces are all generated using cryptographically secure pseudorandom number generators.
- PBKDF2 key strengthening.
- 1Password uses PBKDF2-HMAC-SHA256 for key derivation which makes it harder for someone to repeatedly guess your Master Password. A strong Master Password could take decades to crack. Learn more about how PBKDF2 strengthens your Master Password.





#### Getting Started with 1Password

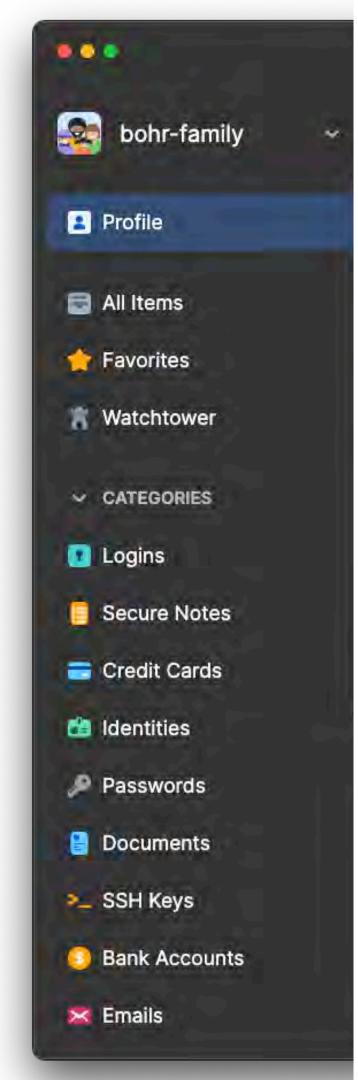
- 1Password Encryption
- A secret Master Password.
- Your Master Password is never stored alongside your 1Password data, or anywhere at all. Taking this precaution is a bit like making sure the key to a safe isn't kept right next to it: Keeping the two separate makes everything more secure. The same principle applies here.
- Secret Key.
- The data in your 1Password account is protected by a 128-bit string of random characters called the Account Key, which is combined with your Master Password to encrypt your data.

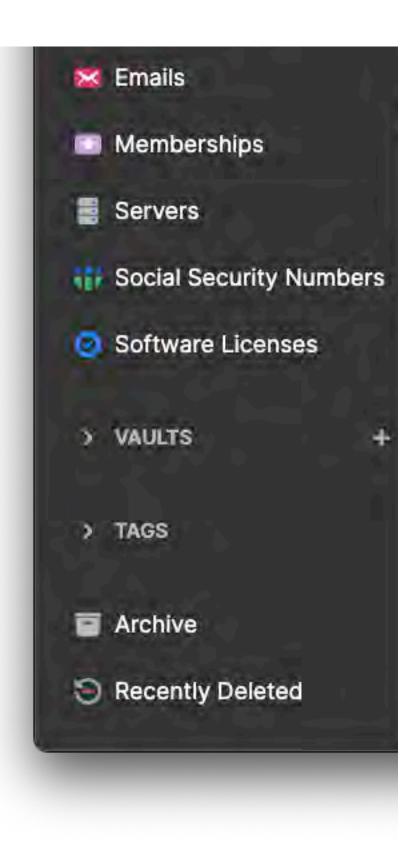




#### Getting Started with 1Password

- Other types of data kept safe with 1Password
- Secure Notes
- Credit Cards
- Identities
- Documents
- SSH Keys
- Bank Accounts
- Emails
- Memberships
- Servers
- Software Licenses









#### Getting Started with 1Password

- Ready to start? Here's a good way to begin:
- Clean up your existing bookmarks
- Identify the sites you actually use and login into
- Buy and Install 1Password
- Create a great master password
- As you visit your existing sites, use 1Password to create great new passwords!







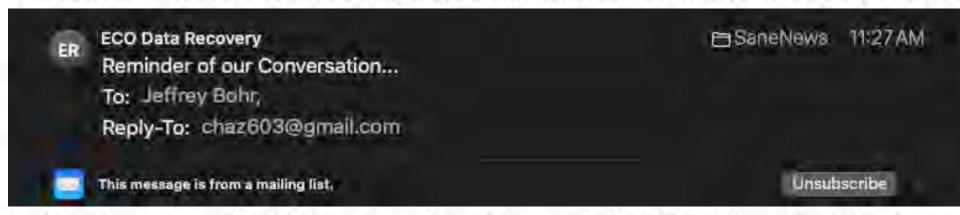
#### Easily unsubscribe from email

### Unsubscribe from mailing lists in Mail on Mac

If you receive email messages from a mailing list, such as from a shopping website, you can easily unsubscribe from the list directly in Mail.

1. In the Mail app 🔲 on your Mac, select a message you received from a mailing list.

A banner below the message header indicates if the message is from a mailing list.



2. In the banner, click Unsubscribe, then click OK in the alert that appears.

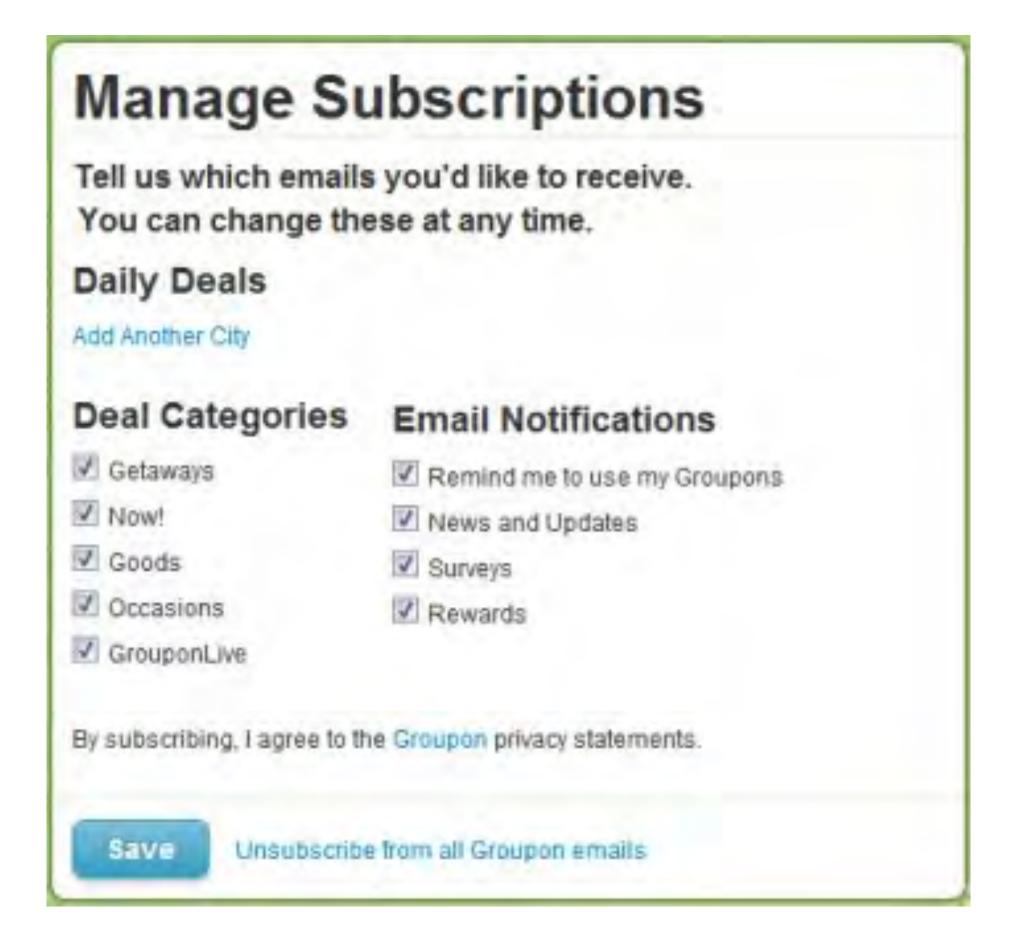
The banner disappears from the email as Mail unsubscribes you from the mailing list.





#### Easily unsubscribe from email

 Or go to the website of sender, sign in and unsubscribe. Also remember that sometimes you may need to repeat the process.







#### Easily unsubscribe from email

 This is legitimate, it has your address and is something you signed up for

You are subscribed to the following newsletters with your jeff@jeffbohr.com email address:

Kibbles & Bytes
Tech Tails
Best in Showroom
Deal Retriever

Click here to manage your subscriptions or unsubscribe.

Join our networks on the web: FaceBook Twitter Flickr YouTube

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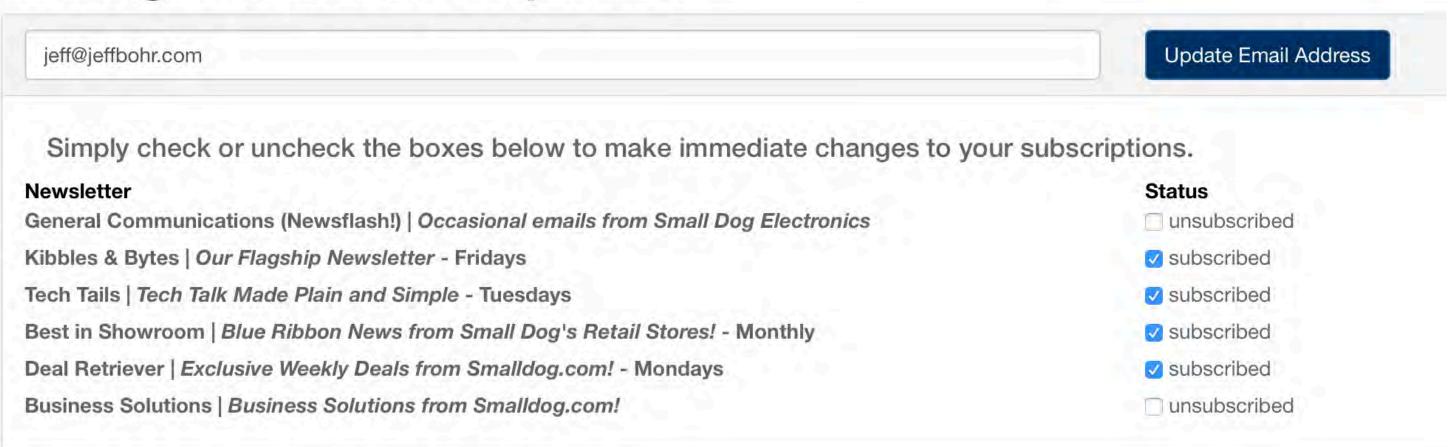


#### Easily unsubscribe from email

 They know who you are, and give you options.



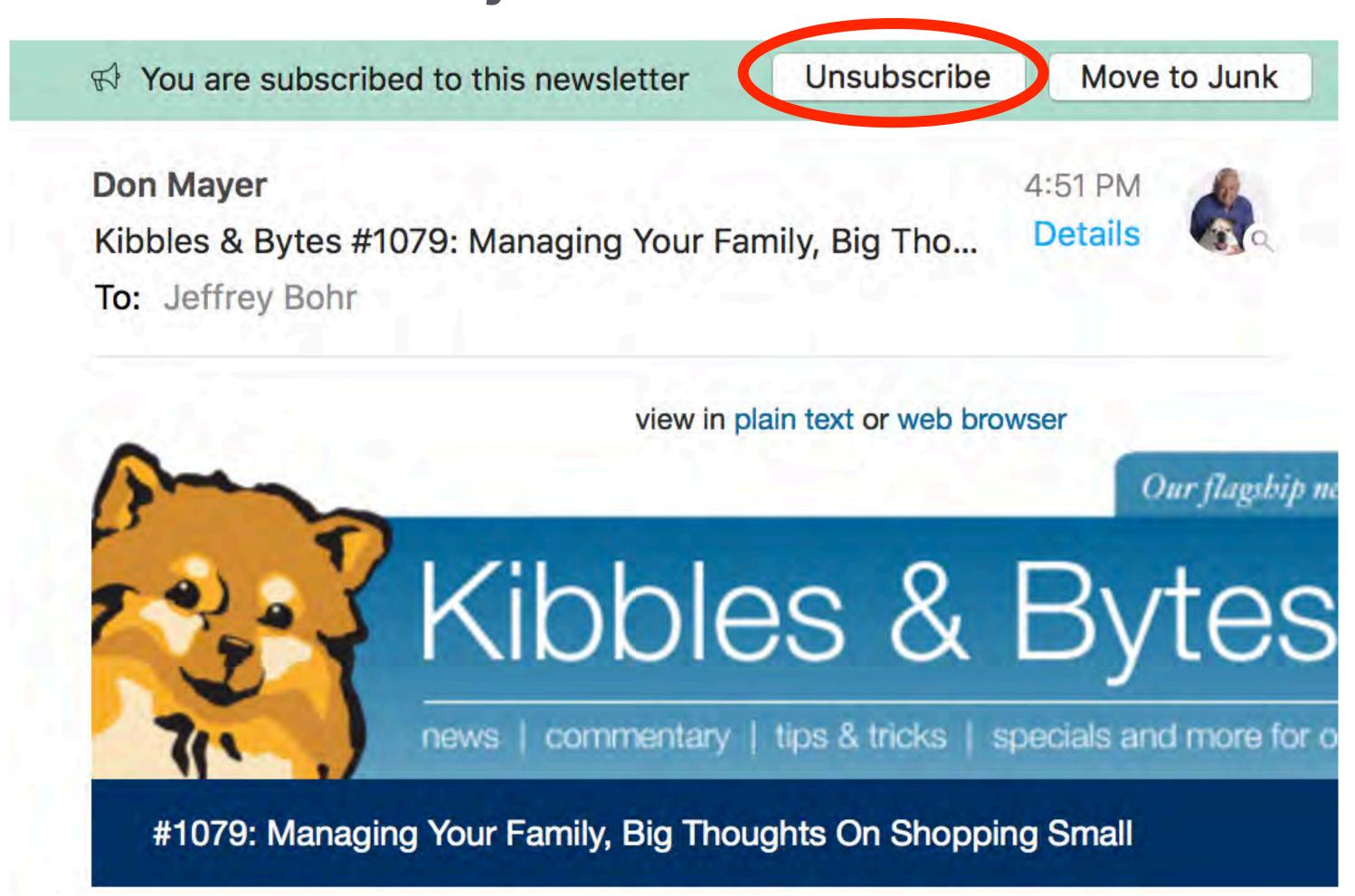
#### Manage Your Subscriptions







#### Easily unsubscribe from email







#### How to block a sender in Mail

#### **Block senders**

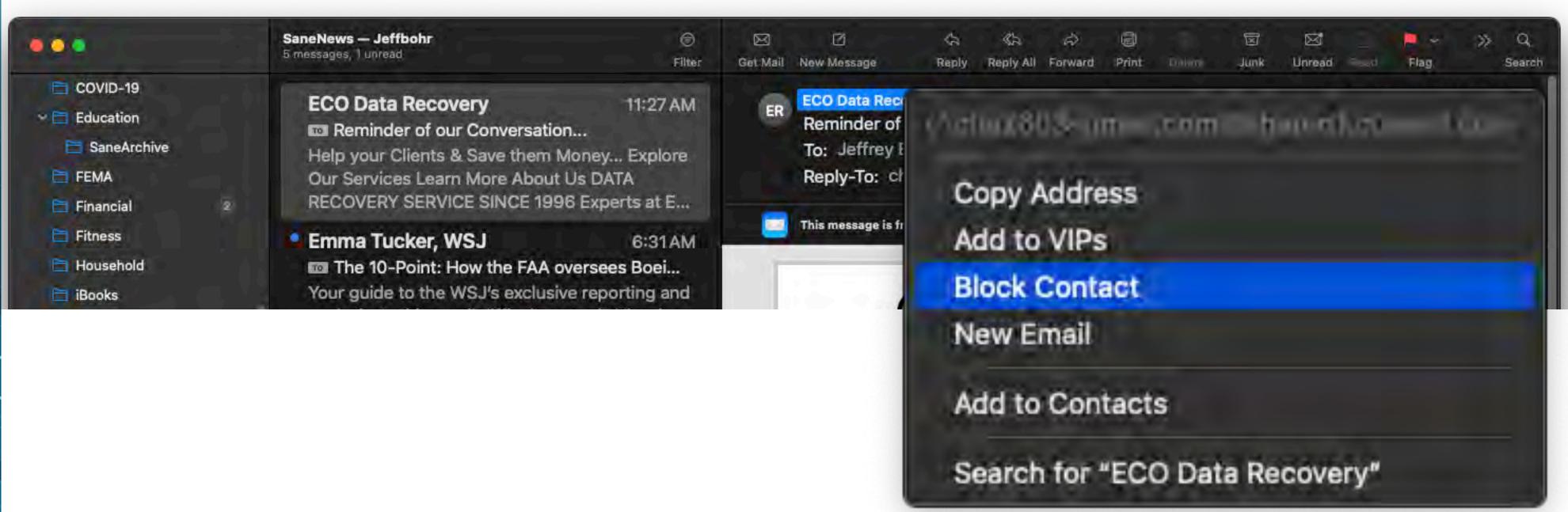
- 1. In the Mail app 🖾 on your Mac, select a message from the sender you want to block.
- Move the pointer next to their name in the message header, click the arrow, then choose Block Contact.

The Blocked icon S appears next to the sender's name in the message list and a banner is added to their messages to indicate they're blocked. The banner also provides a link to the Blocked pane in Mail preferences where you can manage blocked senders.

You can also add senders directly to the list of blocked senders. Choose Mail > Preferences, click Junk Mail, then click Blocked.



#### How to block a sender in Mail



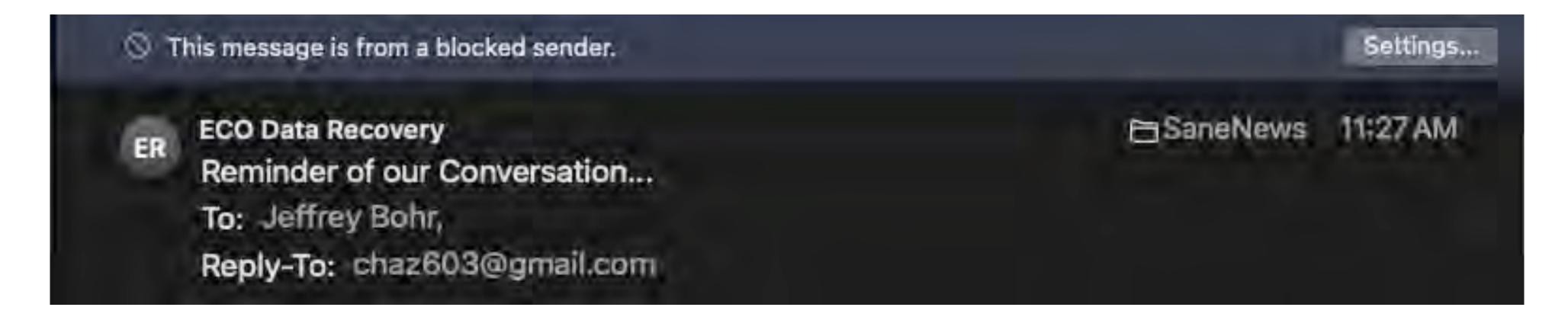
Click the chevron next to the senders name to bring up the option to block







#### How to block a sender in Mail



Click Settings button to configure what happens to blocked messages

Also available in Mail > Settings > Junk Mail





#### How to block a sender in Mail







#### How to block a sender in Mail

#### **Blocked**

Option	Description
Enable blocked mail filtering	Block email messages from specific senders and control what happens to the messages when they arrive.
Mark as blocked mail, but leave it in my Inbox	Indicate a sender is blocked but leave their messages in your Inbox.  These messages contain a banner across the top with a button to display the Blocked pane in Mail preferences, where you can manage blocked senders.
Move it to the Trash	Automatically move messages from blocked senders to the Trash mailbox, so you don't see their messages in your Inbox.
Email address list	The list of email addresses whose messages you're blocking.
Add +, Remove —	Add an email address to the list of blocked senders, or remove one.  You can also add an email address to the list or remove it by clicking the arrow next to the sender's name in a message, then choosing Block Contact or Unblock Contact.





#### **Trivia Time**

Jean-Louise Gassee (1944-), former executive of Apple Computer, suggested that the Apple logo is a symbol of lust and knowledge, "bitten into, all crossed with the colors of the rainbow in the wrong order. You couldn't dream of a more appropriate logo: lust, knowledge, hope, and anarchy." In 1997, Jobs replaced the rainbow color of the apple logo with solid white.

Source: Linzmayer, Owen W. Apple Confidential: The Real Story of Apple Computer, Inc. San Francisco, CA: No Starch Press, 1999.





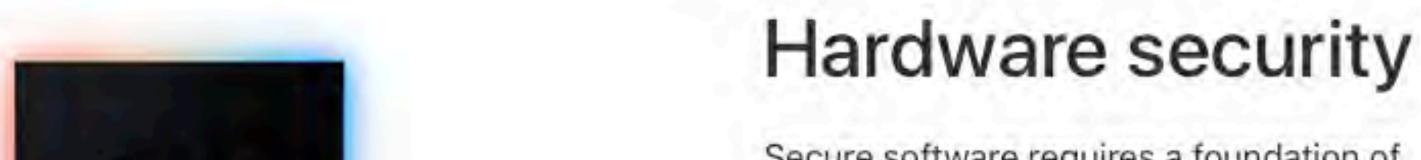
**Apple and Security** 







### **Apple and Security**



Secure software requires a foundation of security built into hardware. That's why Apple devices—running iOS, iPadOS, macOS, tvOS, or watchOS—have security capabilities designed into silicon.

Learn more about Apple hardware security >



### **Apple and Security**

### System security

Building on the unique capabilities of Apple hardware, system security is designed to maximize the security of the operating systems on Apple devices without compromising usability. System security encompasses the startup process, software updates, and the ongoing operation of the operating system.

Learn how Apple protects users with system security >







### **Apple and Security**



# Encryption and Data Protection

Apple devices have encryption features to safeguard user data and enable remote wipe in the case of device theft or loss.

Learn more about Apple device and software encryption and Data Protection >





#### **Apple and Security**

### App security

Apple provides layers of protection designed to ensure that apps are free of known malware and haven't been tampered with. Other protections help ensure that access from apps to user data is carefully mediated.

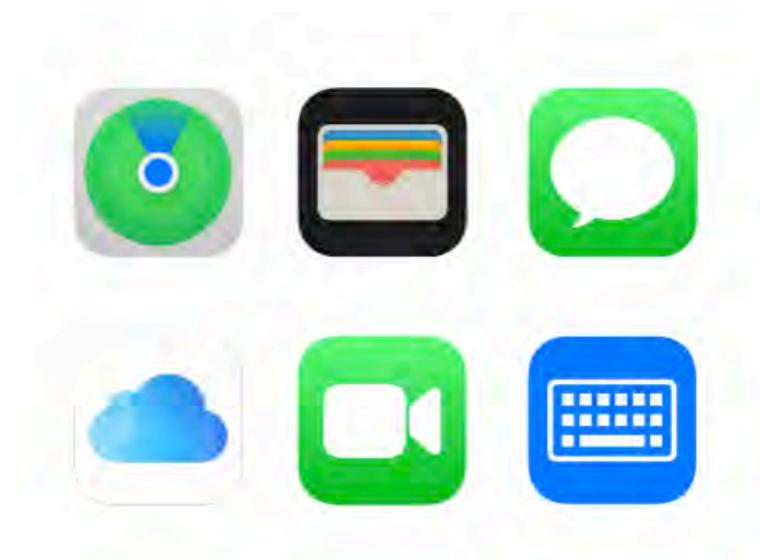
Learn how Apple protects users with many layers of app security >







### **Apple and Security**



#### Services security

Apple has built a robust set of services to help users get even more utility and productivity out of their devices. These services include Apple ID, iCloud, Sign in with Apple, Apple Pay, iMessage, FaceTime, and Find My.

Learn how Apple makes its services secure >





#### **Apple and Security**

- There are fewer attacks and malware on Mac OS X systems for a variety of reasons, almost none of which having any relation with the notion of "software quality":
- There are fewer OS X systems than Windows systems (right now, about 13% of computers involved in Internet browsing use OS X, according to StatCounter), making OS X a less interesting target for malware authors. Developing malware costs efforts and time, so the malware authors want to get a good return over investment. So they hunt where there are the most prey, i.e. on Windows, not OS X.





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Thomas Pornin, Information Security Stack Exchange





### **Apple and Security**

- Malware usually enters a machine through explicit user action, i.e.
  installation of some software package that turned out to be dodgy.
   OS X users tend to install less third-party packages, mostly because
   OS X comes out-of-the-box with more accessories.
- In a similar vein, when it comes to supporting hardware, OS X has its own drivers, so the normal Mac user plugs his new device: either it works right away, or it will never work. There is usually little point, in the OS X world, to try to download and install third-party drivers. On the other hand, for Windows, driver download is the norm. This does not mean that third-party drivers are often infected, but it implies that Windows users are accustomed to downloading executables and running them with full administrator rights.

Thomas Pornin, Information Security Stack Exchange





#### **Apple and Security**

- Is Apple Pay secure?
- Yes. Apple doesn't save your transaction information or card numbers on its servers, though your most recent purchase receipts are kept in the Wallet app. Apple Pay, which has a tokenized backend infrastructure, makes card payments secure by creating a number or token that replaces your card details. More specifically, it creates a Device Account Number for each one of your cards. According to Apple, the Device Account Number is assigned, encrypted, and securely stored in the Secure Element, a dedicated chip in iPhone and Apple Watch, and when a payment is initiated, the token is passed to the retailer or merchant. The retailer or merchant therefore never has direct access to your card details.







#### **Apple and Security**

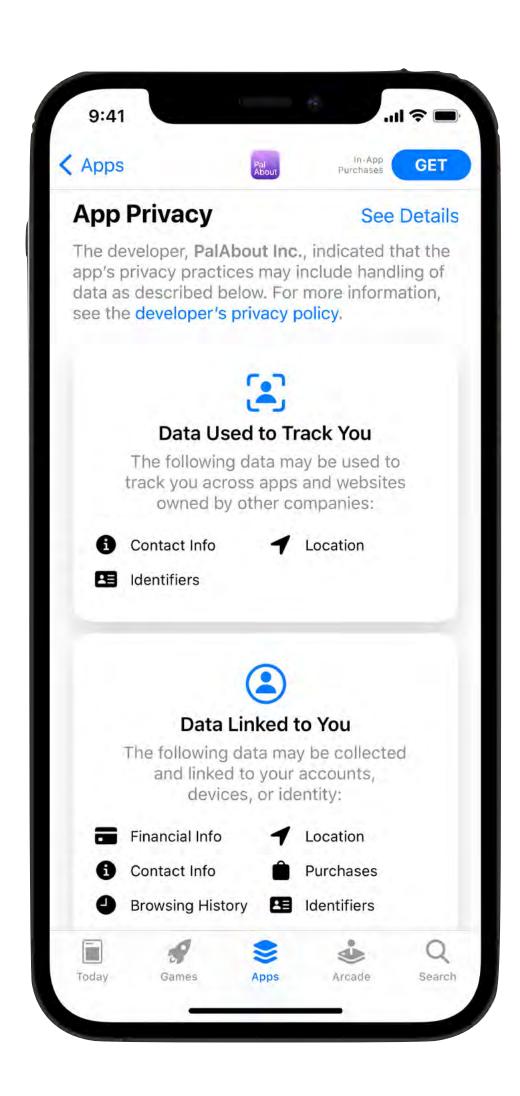
Apple designs security into the core of its platforms. Building on the experience of creating the world's most advanced mobile operating system, Apple has created security architectures that address the unique requirements of mobile, watch, desktop, and home. Every Apple device combines hardware, software, and services designed to work together for maximum security and a transparent user experience in service of the ultimate goal of keeping personal information safe. For example, Apple-designed silicon and security hardware powers critical security features. And software protections work to keep the operating system and

third-party apps protected. Finally, services provide a mechanism for secure and timely software updates, power a protected app ecosystem, and facilitate secure communications and payments. As a result, Apple devices protect not only the device and its data but the entire ecosystem, including everything users do locally, on networks, and with key internet services. Just as we design our products to be simple, intuitive, and capable, we design them to be secure. Key security features, such as hardware-based device encryption, can't be disabled by mistake. Other features, such as Touch ID and Face ID, enhance the user experience by making it simpler and more intuitive to secure the device. And because many of these features are enabled

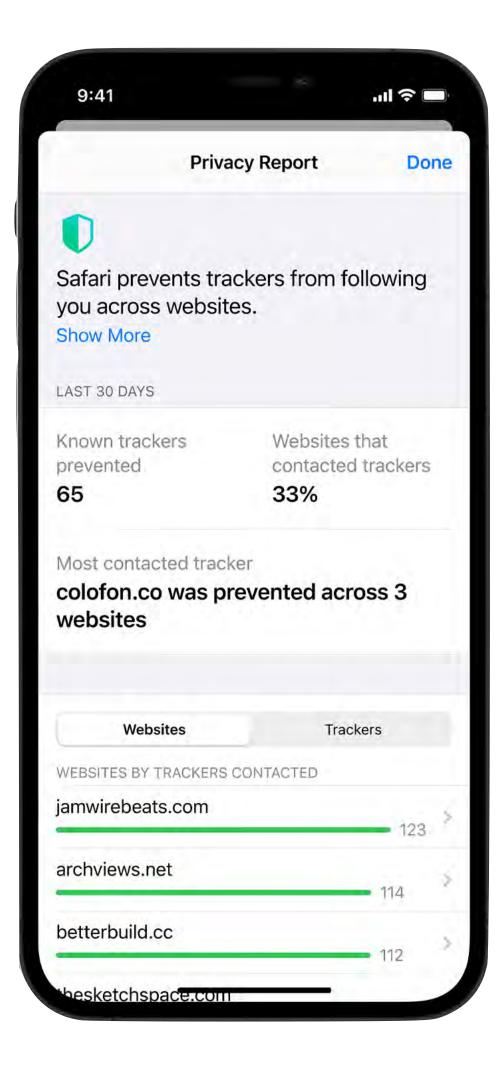
by default, users or IT departments don't need to perform extensive configurations.

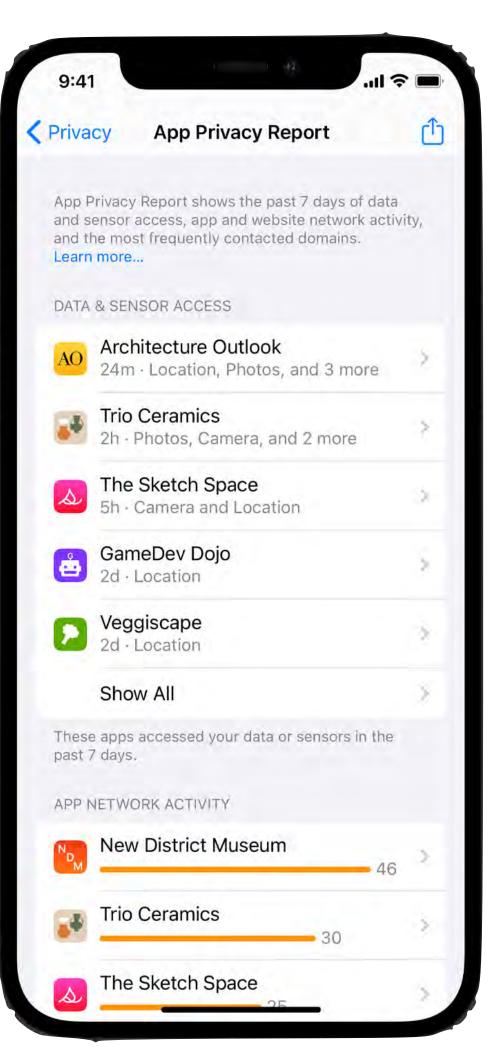






#### **Apple and Security**

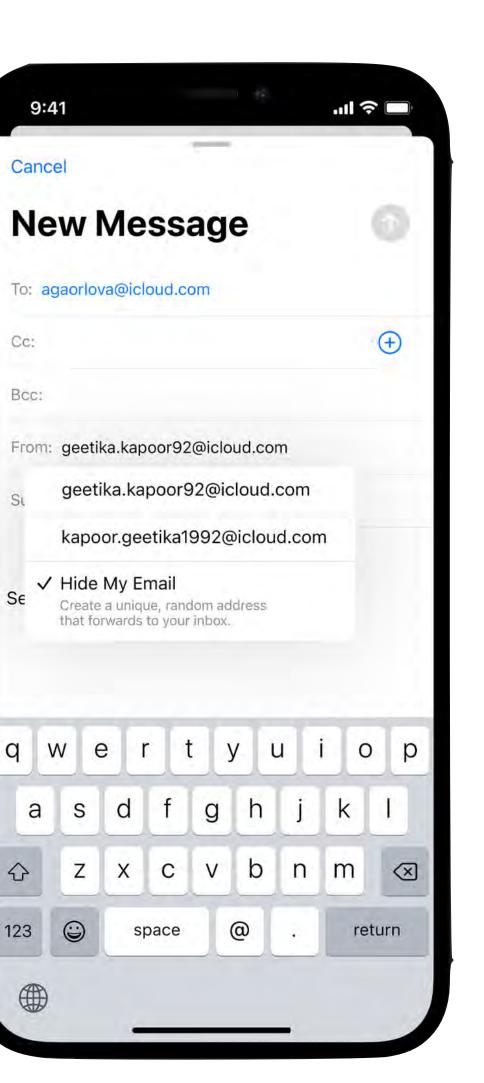


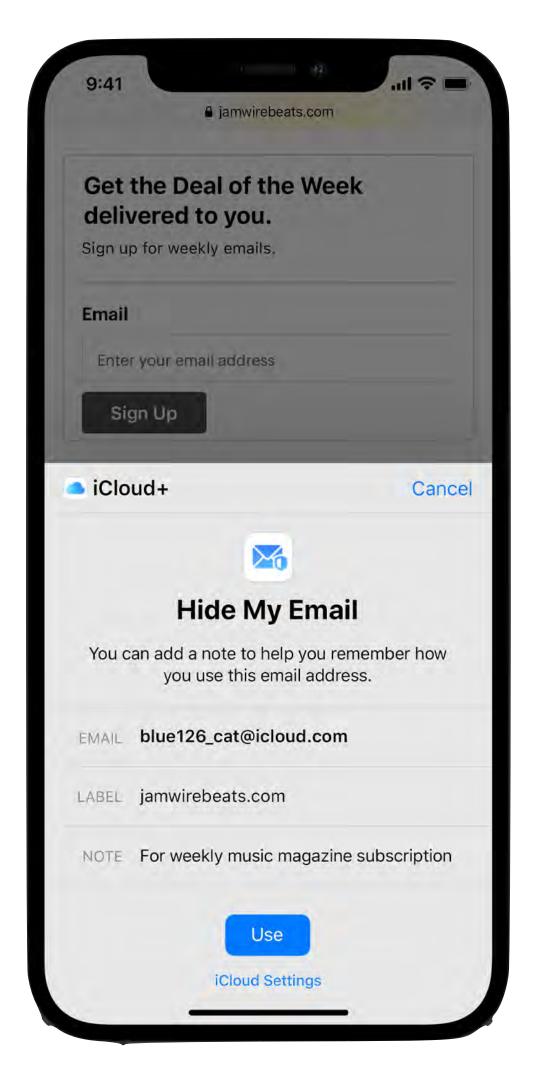


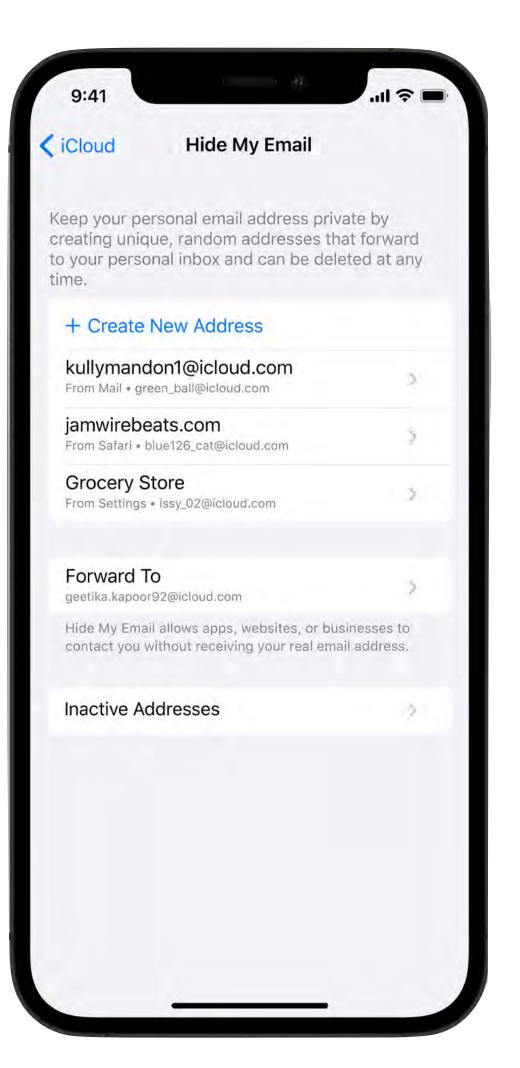
















#### **Apple and Security**

**Hide My Email** lets you create unique, random email addresses to use with apps, websites, and more so your personal email can stay private. It's built in to Sign in with Apple and iCloud+.

Hide My Email is a service that lets you keep your personal email address private whether you're creating a new account with an app, signing up for a newsletter online, or sending an email to someone you don't know well.

There are two key ways to use Hide My Email: With Sign in with Apple, which lets you create an account using a randomly-generated email address directly within a supported third-party app or website. Or with iCloud+, which lets you generate as many random email addresses as you need on your device, in Safari, or on iCloud.com, which you can use for whatever site or purpose you choose.





### **Apple and Security**

How to Create an Email Address Using Hide My Email

The following steps show you how to create a new dummy email address with Hide My Email, for use in Safari and Mail. Make sure your iOS device is running iOS 15 or later.

- 1. Launch the Settings app on your iPhone or iPad
- 2. Tap your Apple ID name at the top of the main settings menu.
- 3.Tap iCloud.
- 4. Tap Hide My Email.
- 5. Tap Create new address.
- 6. Tap Continue, then give your address an identifying label. You can also optionally make a note about it.
- 7. Tap Next, then tap Done.





### **Apple and Security**

#### iCloud Private Relay

Private Relay sends web traffic to a server that is maintained by Apple to strip the IP address. Once IP info has been removed, Apple sends the traffic to a second server maintained by a third-party company that assigns a temporary IP address and then sends the traffic to its destination, a process that prevents your IP address, location, and browsing activity from being used to create a profile about you.

Involving an outside party in the relay system is an intentional move that Apple says was designed to prevent anyone, including Apple, from knowing both a user's identity and the website the user is visiting.





### **Apple and Security**

How to Turn iCloud Private Relay On and Off

- 1. Launch the Settings app on your iOS device.
- 2. Tap your name at the top of the main settings menu.
- 3. Tap iCloud.
- 4. Tap Private Relay.
- 5. Toggle on/off the switch next to iCloud Private Relay. If you're turning it off, tap Turn Off Private Relay to confirm.
- 6. With Private Relay enabled, by tapping IP Address Location you can use the default Maintain General Location option to retain local content in browsing, or change to the less geographically specific and more private Use Country and Time Zone option.





### **Apple and Security**

Turn on App Privacy Report

- 1. In Settings, tap Privacy.
- 2. Scroll to and tap App Privacy Report.
- 3. Tap Turn on App Privacy Report.

App Privacy Report starts gathering information only after you turn it on, so it may take a little time for details to appear. You'll see more info as you continue using apps on your device. The data in your App Privacy Report is encrypted and stored only on your device.

You can turn off App Privacy Report at any time in Settings > Privacy > App Privacy Report. Doing so will also clear the report data from your device.





### **Apple and Security**

The four Mac security options everyone should know

#### 1. Enable the OS X firewall

The firewall in OS X is a network filter that allows you to control which programs and services can accept incoming connections. While classic firewalls do this on a per-port basis—regardless of which software is using the port—OS X's firewall can work on a per-application or per-service basis, giving you more flexibility.





### **Apple and Security**

The four Mac security options everyone should know

#### 2. Enable FileVault

FileVault is the full-disk encryption routine in OS X that will secure all files on the drive, including OS X system files, applications, caches and other temporary files; any of which may contain personal or sensitive information.

Full disk encryption is primarily useful for protecting a stolen Mac. When your drive is unlocked, files on it can be read. However, before it's unlocked (ie, your Mac is shut down), all data on the drive will be scrambled. This prevents data recovery by unauthorized third parties, who might try to access it using Target Disk mode on your Mac or by removing your Mac's hard drive and attaching it to another computer.





### **Apple and Security**

The four Mac security options everyone should know

#### 3. Password management

If you use numerous online services regularly then you will (or should) have different credentials for each one. These may be difficult to remember. Often people store their credentials in a text, Word, or Pages file for easy access, but this is a highly insecure way to store passwords. In OS X you have a built-in alternative for managing passwords called the keychain.

Unlike other security options, the keychain is enabled by default to store your various passwords for online services, email accounts, sharing services, and many other authentication routines. Whenever you see a checkbox for saving your password, or in a drop-down menu when using Safari, this is OS X asking you to store these passwords in an encrypted file called the login keychain.





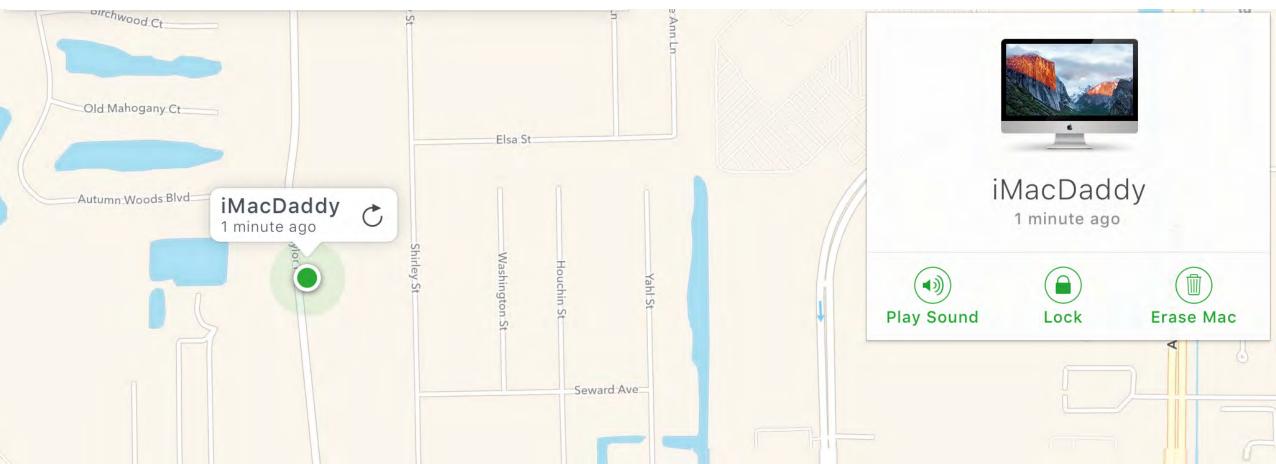
### **Apple and Security**

The four Mac security options everyone should know

#### 4. Locking and locating

A final couple of options for protecting your Mac include securing your computer when you have to leave it unattended and enabling remote access to it—not only to interact with it from afar, but also to track and lock it down, if needed. This feature also works with iOS devices.

D







#### **Apple Stolen Device Protection**

This feature was introduced in January 2024

Apple's major iPhone security update is now available to download, designed to keep thieves from accessing users' vast personal data stored on the devices, the company announced on January 22.

The "Stolen Device Protection" update adds an extra layer of protection by creating additional steps to access information. It is available with Monday's iOS 17.3 update. You can turn it on by updating your iPhone and scrolling down to Face ID & Passcode in your settings. You will be prompted to type in your passcode, and then you can scroll down to Stolen Device Protection and turn it on.





#### **Apple Stolen Device Protection**

This feature was introduced in January 2024

To use Stolen Device Protection, you must have two-factor authentication and "Find My" enabled for your Apple ID account.

Before the update, iPhone users could view highly sensitive information (from credit card information to every stored password) and make major changes to their phone's settings with just a passcode – typically a four or six-digit number.

With Stolen Device Protection, users will be asked to enter biometric data via Face ID (face scan) or Touch ID (fingerprint) to access data or make changes.

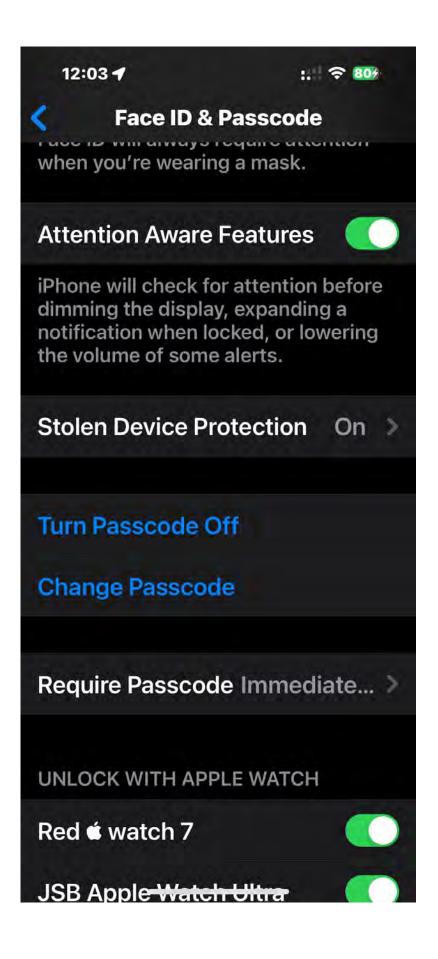
For more sensitive actions – changing an Apple ID password, adding or removing face or fingerprint scanning, turning off Find My or turning off the stolen device protection itself – users will be asked for biometric data and then wait through an hour-long security delay before re-entering biometric data to make the changes.

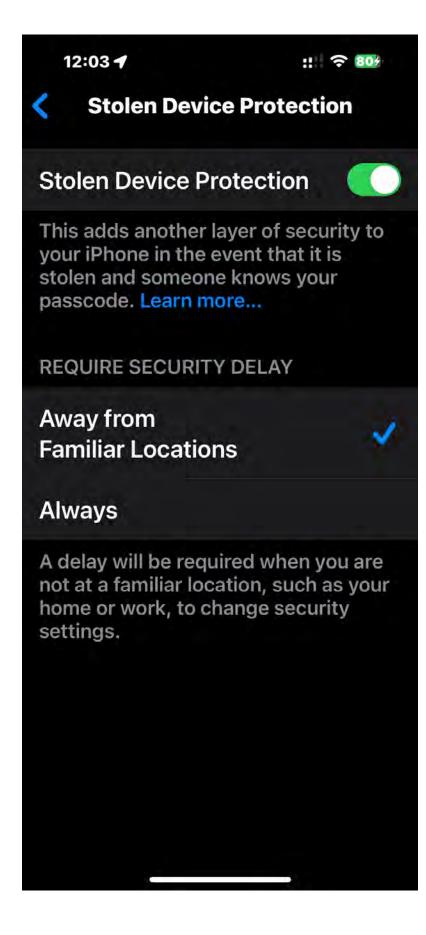




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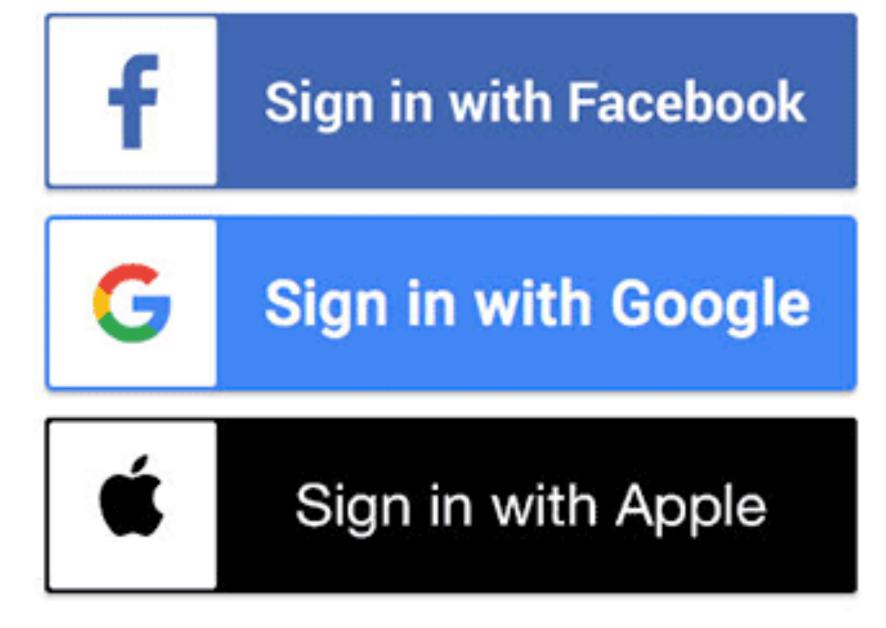








### **Using Passkeys**



I personally will only sign in with Apple, as Google and Facebook are both advertising companies





#### **Using Passkeys**

#### Use passkeys to sign in to apps and websites on iPhone

You can create and save passkeys to replace the passwords you use to sign in to supported apps and websites on your iPhone.

Passkeys are more secure than passwords, because they're uniquely generated for every account by your own device, and are less vulnerable to phishing. And they work on all your devices that are signed in to the same Apple ID.

Like passwords, passkeys are encrypted and stored in your iCloud Keychain, where they aren't visible to anyone (including Apple).

Note: To use passkeys, iOS 16, iPadOS 16, macOS 13, or tvOS 16 (or later) is required. iCloud Keychain and two-factor authentication must also be turned on.





#### **Using Passkeys**

#### Create and save a passkey using your iPhone

You can create and save passkeys for apps and websites that support them.

Note: The instructions for creating and saving a passkey can vary depending on the app, website, or browser, but they typically consist of steps similar to the ones below.

On your iPhone, go to the sign-in screen for a supported website or app and do one of the following:

If you're setting up a new account: Tap the button or link for setting up new accounts, then follow the onscreen instructions.

If you already have an existing account: Sign in with your account name and password, then go to the account settings or management screen.

When you see the option to save a passkey for the account, tap Continue. Your passkey is saved.





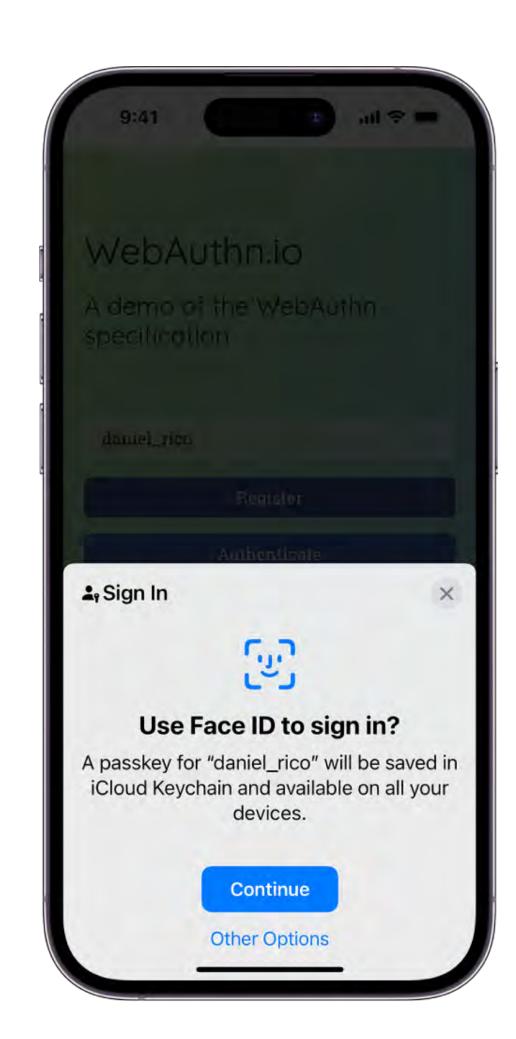
#### **Using Passkeys**

Note: If you don't see a passkey option, it means the app or website doesn't currently support passkeys.

The passkeys you create are stored on your iPhone at Settings > Passwords.

You can have a passkey and password for the same app or website, and find them both under the same account in Settings > Passwords.

You can also save a passkey to a hardware security key. Tap "Other options," "Save on another device," or similar (if available), then follow the onscreen instructions for saving a passkey.







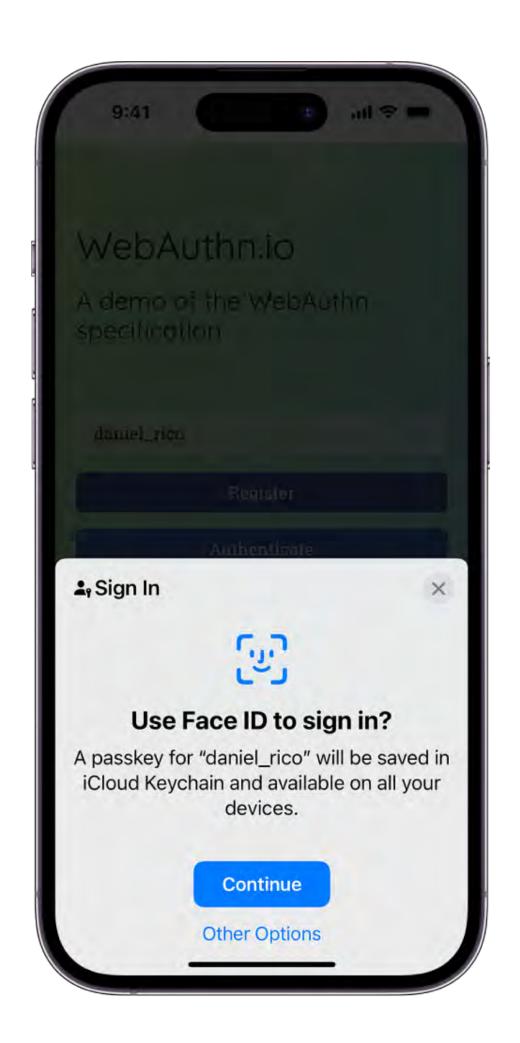
#### **Using Passkeys**

Use a passkey to sign in to a website or app on your iPhone After you create and save a passkey for a website or app, you can use the passkey whenever you sign in.

Note: The instructions for signing in with a passkey can vary depending on the app, website, or browser, but they typically consist of steps similar to the ones below.

- 1.On your iPhone, go to the website or app and tap the account name field on the sign-in screen.
- 2. Tap the suggested account name that appears at the bottom of the screen or near the top of the keyboard. If the account name doesn't appear, or you want to use a different one, enter it.
- 3.Use Face ID or Touch ID to complete sign in. If you didn't set up Face ID or Touch ID on your iPhone, enter your device passcode (the code you use to unlock your iPhone).

The passkey you saved completes the sign-in automatically.







#### **Using Passkeys**

Use a passkey saved on your iPhone to sign in on another device If you're using a device not associated with your Apple ID (such as a computer at a public library, an internet cafe, or a friend's house), and you have your iPhone with you, you can sign in to apps or websites on that device using the passkeys you created for them.

Note: The instructions for using a passkey on another device can vary depending on the app, website, or browser, but they typically consist of steps similar to the ones below.

- 1.On the other device, go to the website or app and enter your user name in the account name field on the sign-in screen.
- 2.Select "Other options," "Passkey from nearby device," or similar, then follow the onscreen instructions to display a QR code on the screen.
- 3.Use your iPhone camera to scan the QR code.

  The passkey that's saved to iCloud Keychain completes the sign-in automatically.





#### **Using Passkeys**

#### Create a passkey on a device that's not your own

If you have your iPhone with you, you can create a passkey while using a device not associated with your Apple ID (such as a computer at a public library, an internet cafe, or a friend's house) and save it to iCloud Keychain instead of the device you're using to create the passkey.

Note: The instructions for creating a passkey can vary depending on the app, website, or browser, but they typically consist of steps similar to the ones below.

On the other device, go to the sign-in page for a supported website or app, then do one of the following:

If you're setting up a new account: Tap the button or link for setting up new accounts, then enter a new username.

If you already have an account: Sign in with your account name and password, then go to the account settings or management screen.

When you see the option to save a passkey for the account, select "Other options," "Save on another device," or similar (instead of Continue).





#### **Using Passkeys**

#### Create a passkey on a device that's not your own

Note: If you don't see a passkey option, it means the app or website doesn't currently support passkeys.

Select "Save a passkey on a device with a camera," or similar, then follow the onscreen instructions to display a QR code on the screen.

Use your iPhone camera to scan the QR code.

The passkey is saved to your iPhone and iCloud Keychain.





#### **Using Passkeys**

#### Change a passkey

You might need to create a new passkey to replace the existing one (if, for example, you previously shared it with someone to whom you no longer want to give access).

To change a passkey, follow the steps for an existing account in Create and save a passkey using your iPhone or Create a passkey on a device that's not your own.

#### Delete a passkey

Go to Settings > Passwords, then tap the account for the passkey you want to delete.

Tap Delete Passkey.

If you delete a passkey, you can create a new one at any time.





#### **Avoiding Cyber-Scams**

The Phone Call



The phone call usually rings your land line, but cellular lines are being called more often. The caller identifies themselves as being from Apple, Google, Microsoft, etc.

They noticed you were "having a problem with your computer."





#### **Avoiding Cyber-Scams**

The Phone Call



At any given time, almost everyone is having some kind of computer issue: email password not working, printer not responding, documents can't be found and so on. "What a relief," you think, "help is on the way!"





#### **Avoiding Cyber-Scams**

The Phone Call

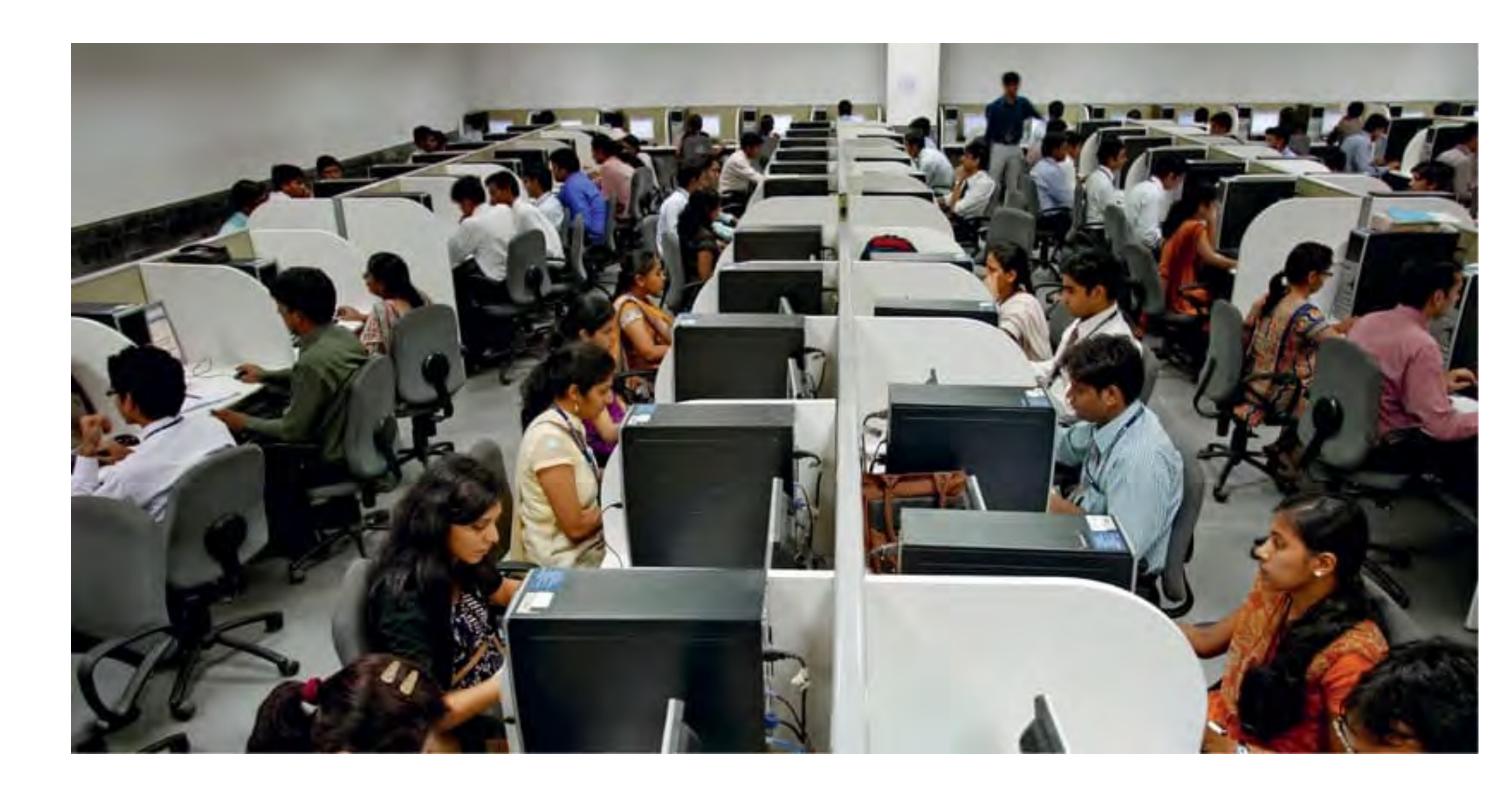


These professionals prey on fear. They will suggest things that may be wrong with your system that they have "detected remotely", and then they continue down that path, eventually getting you to download a small program so that they "can get into your computer and fix this for you," for a low fee from \$99 to \$750, conveniently charged to your credit card or via a direct debit from your checking account.





- The Phone Call
- In reality, they are installing programs that will cause more problems (and more charges) and even deleting files that they will later charge you to recover!







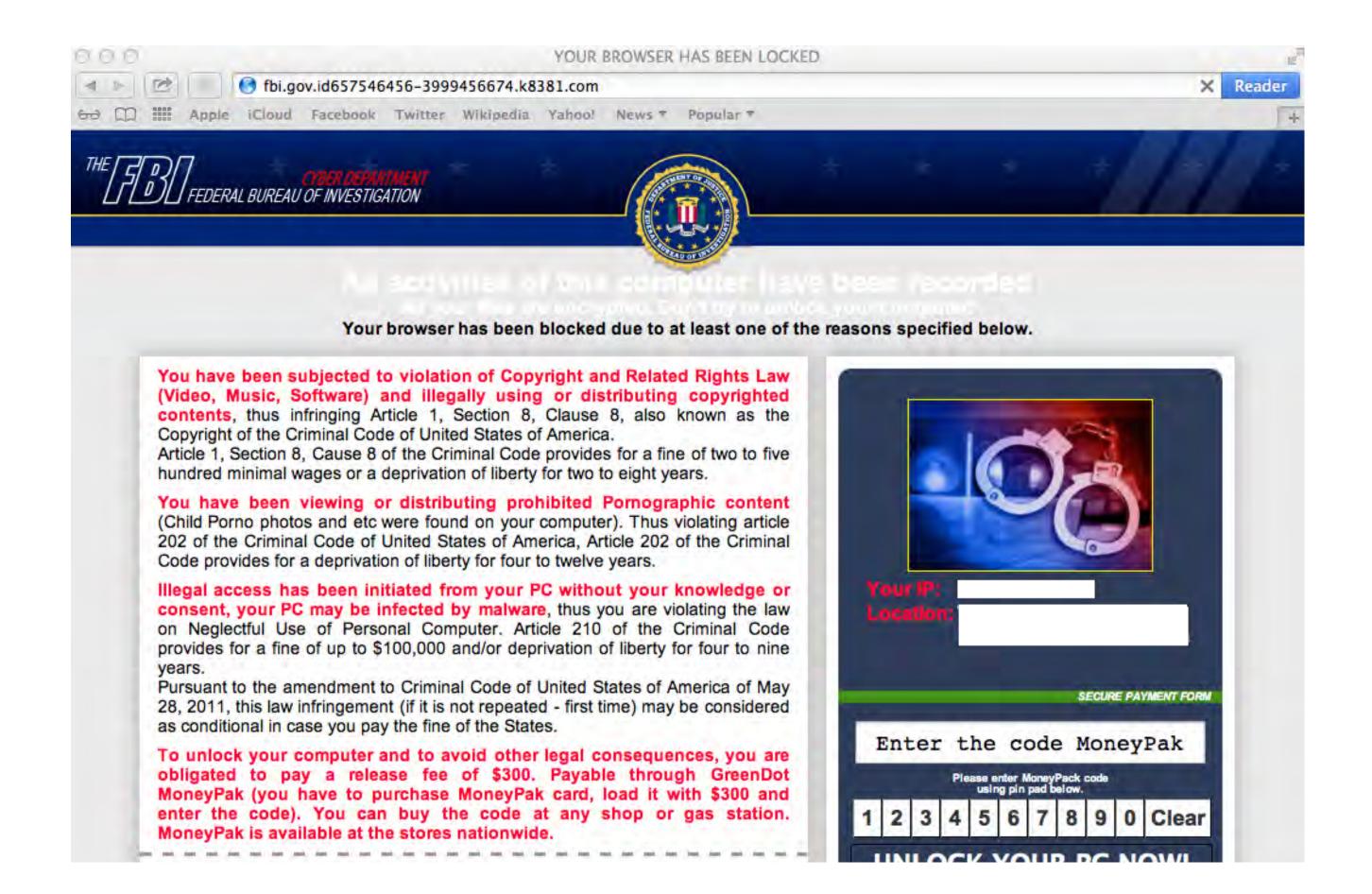
- The Phone Call
- The most important thing to remember when you get a phone call like this is that no one outside your home or office can see what is happening to your computer unless they are sitting at your desk! They claim to have access, and by following your lead they create a problem to solve.





#### **Avoiding Cyber-Scams**

The Website Popup

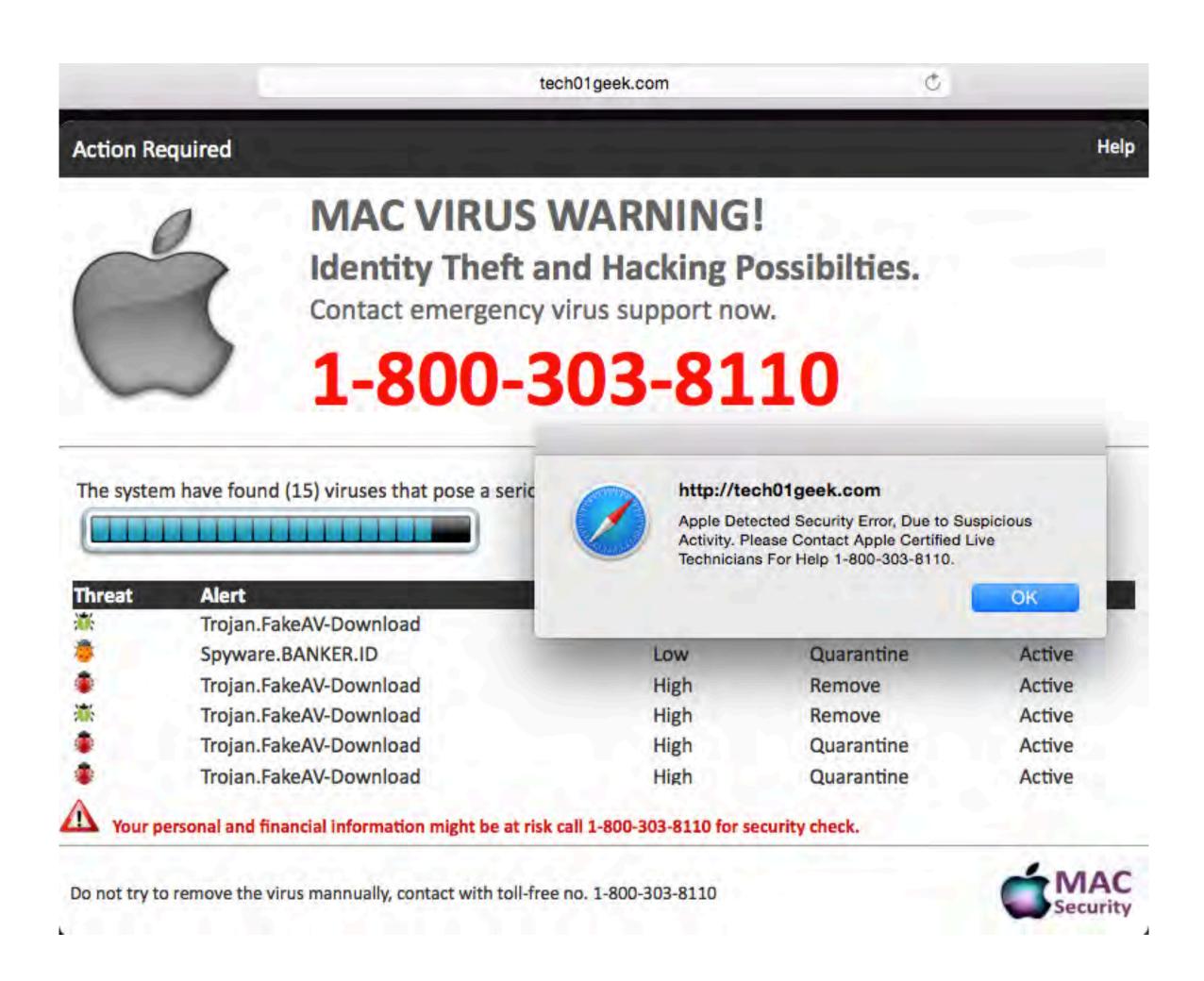






The Website Popup

This is a common scam that happens without warning and through no fault of the user.







### **Avoiding Cyber-Scams**

#### The Website Popup

A popular web site is hacked for a number of minutes, and any visitor during that time will be exposed to a pop up ad that says "Your computer is at risk! Call 1-800-GET-HELP" so that we can solve your problem!" If you try to close this popup, it won't close. If you restart your computer, it comes back. It seems to have taken over your computer, and you are tempted to call. Don't!

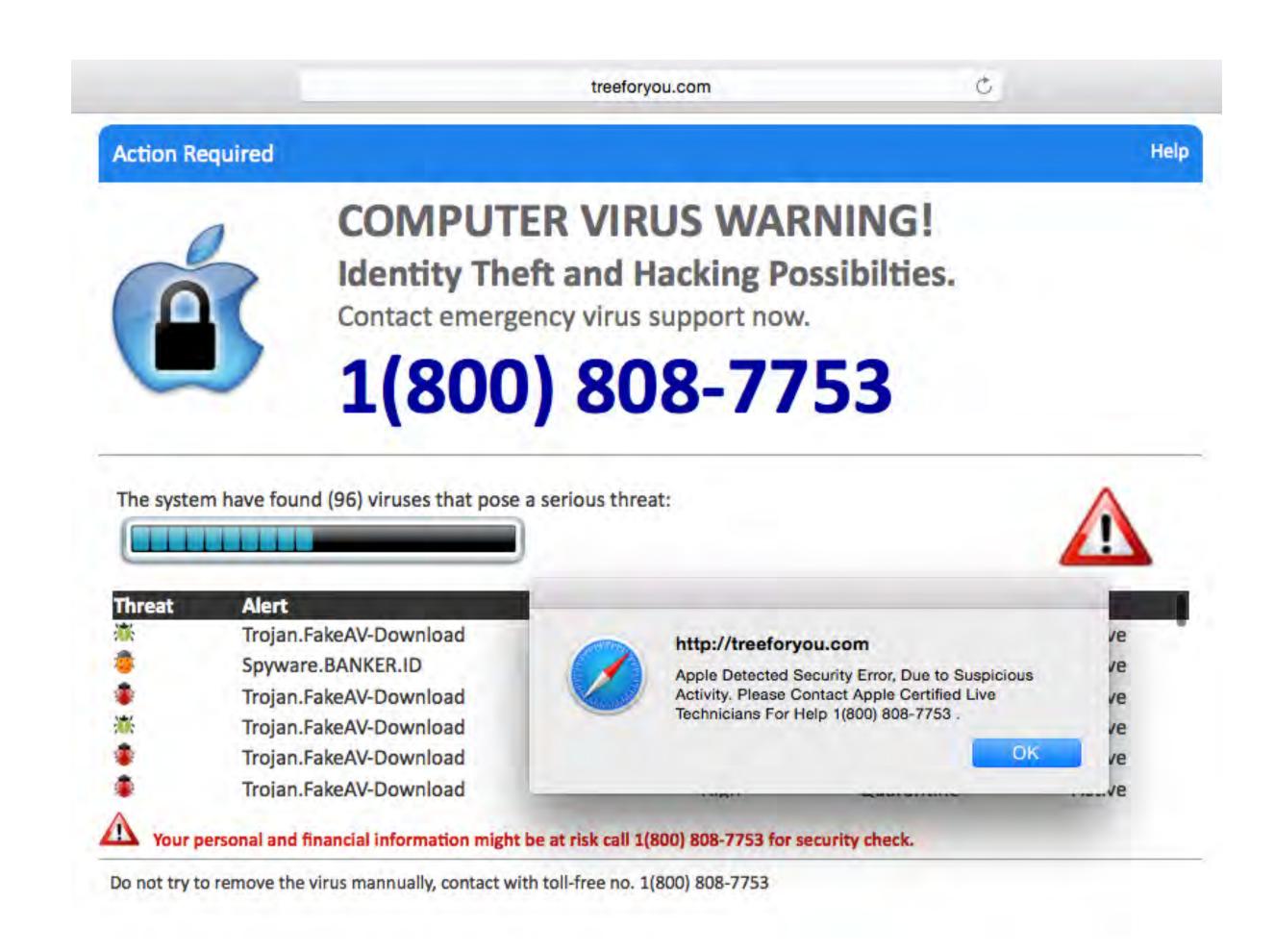






### **Avoiding Cyber-Scams**

The Website Popup
 The Apple Security scam







#### **Avoiding Cyber-Scams**

The Website Popup

The Safari Security scam

000 < > 1 safarialert.info From "http://safarialert.info": Critical Security Warning! Your Device (iPad, iPod, iPhone) is infected with a malicious adward attack. Please contact tech support at +1-844-483-8886 and provide error code ROOTKITS1178 to scan and resolve any potential threats to your personal and financial information, which was being tracked by **Connection Failed** suspicious connection. Consequently we are performing additional security checks to verify the source of the attack and have es an Invalid Security Certificate. halted all your system resources in order to prevent any additional dama d, because the issuer Certificate is Unknown sec\_error\_unknown\_issuer) Don't show more alerts from this webpage he server's configuration, or it could be someone trying to impersonate . If you have connected to this server successfully in the past, the error may be temporary, and you can to

CALL TOLL FREE +1-844-483-8886

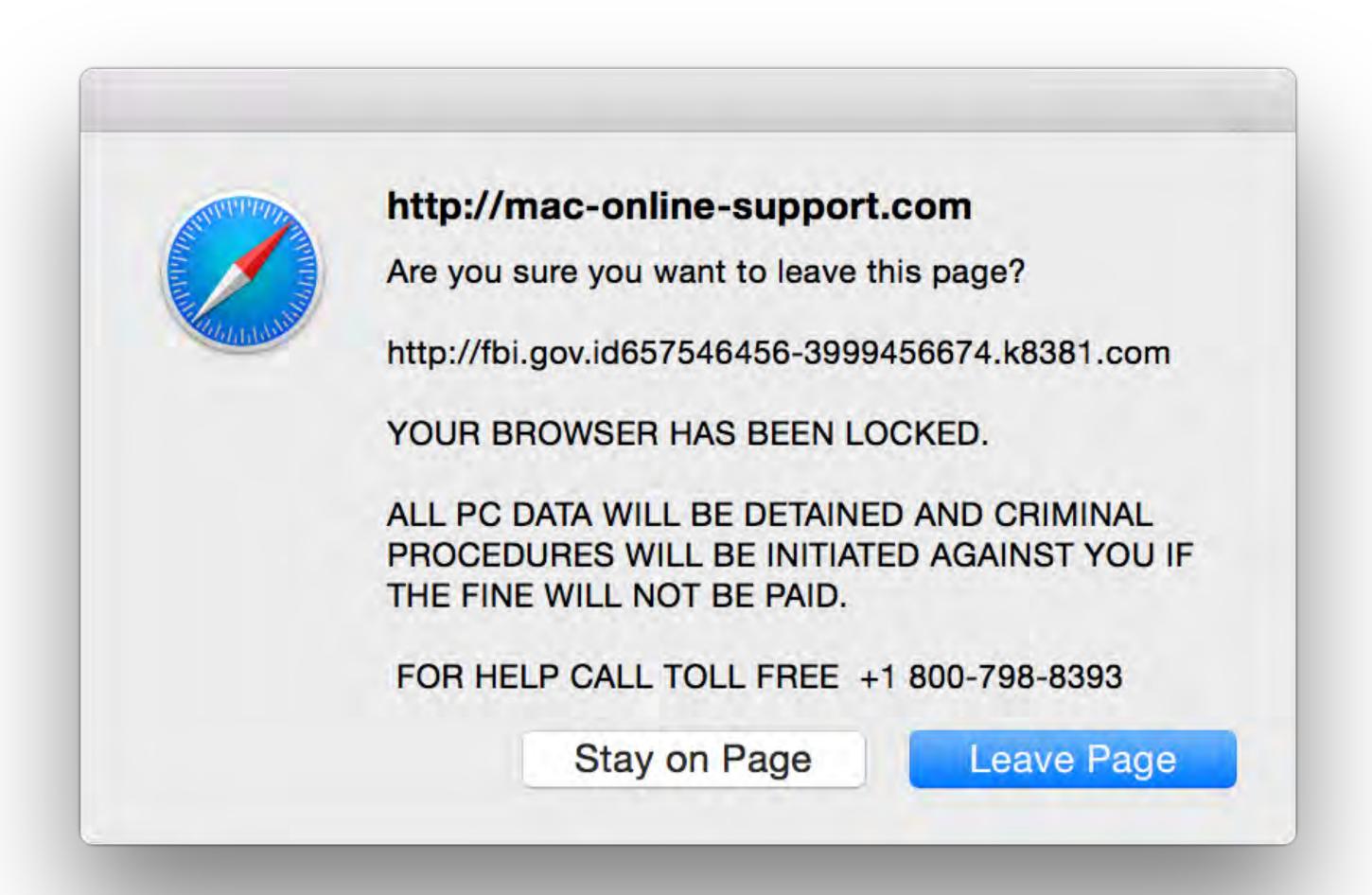




#### **Avoiding Cyber-Scams**

The Website Popup

The FBI scam

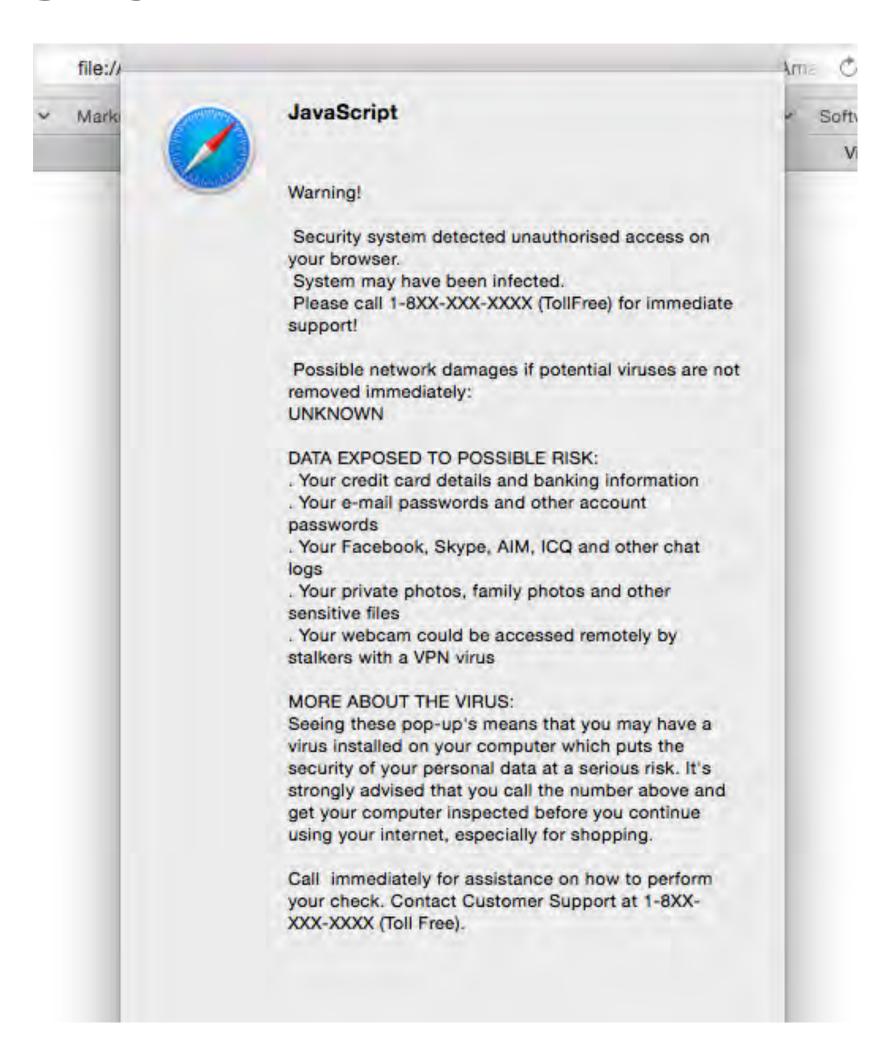






#### **Avoiding Cyber-Scams**

The Website Popup







### **Avoiding Cyber-Scams**

The Website Popup

The Mac Tech Alert scam

(1) Mac OS Browser warning: Your computer might be infected with adware! Your lo day, January 02, 2015 Las Crud http://www.mac-tech-alerts.com Suspicious Activity Found On Your Computer, Due to Pop-Up Advertisement Windows and Invasive Links. What to ( omputer might ith adware: Please Contact Certified Live Technicians 1-855-809-6230 (Toll Free) Call 855-80 OK with removing t windows that viruses. (Toll-FREE, High Priority Call pop up randomly. Line) 2. Strange links or menus appear in the browser. **More Information:** 3. Unauthorized release of files, Seeing these pop-up's means that you may usually via e-mail. have adware installed on your computer which puts the performance of your 4. A sudden decline in PC or computer at a serious risk. It's strongly Internet performance. advised that you call the number above to get your computer fixed before you continue 5. Programs not opening or accessing the internet. taking a long time to start. UNMATCHED SERVICE AND SUPPORT

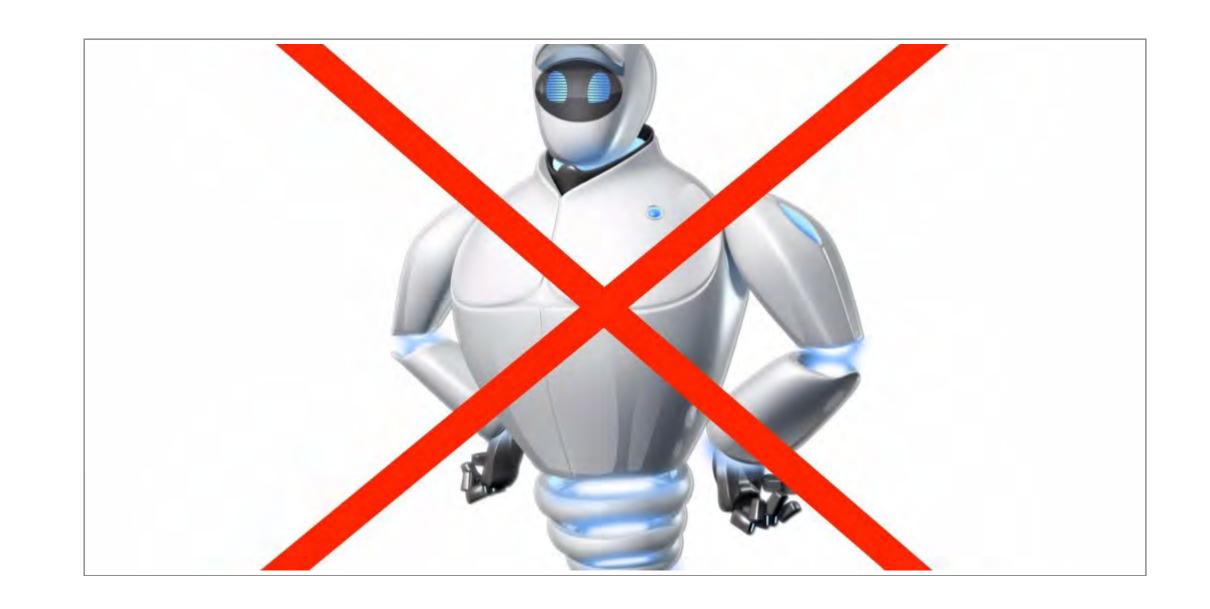




#### **Avoiding Cyber-Scams**

The Website Popup

In reality, they are installing programs that will cause more problems (and more charges) and even deleting files that they will later charge you to recover!







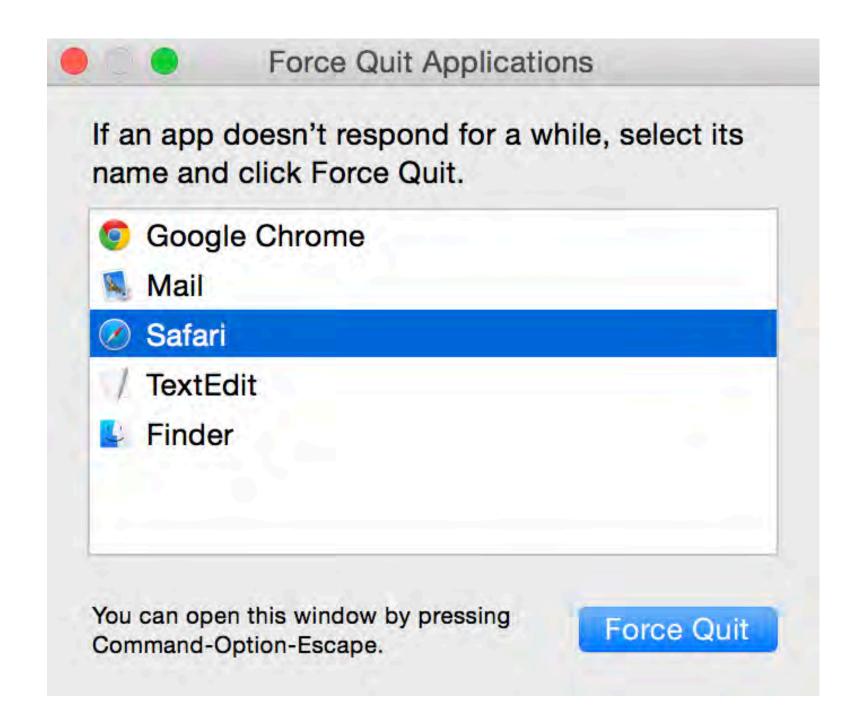
- Safari stuck on a bad web page?
- To remove this type of scam, follow these steps.
  - 1. Reset Your Browser
  - 2. Force Quit and Restart Browser







- Safari stuck on a bad web page?
- First you will need to force-quit Safari as you would expect, either by going to the Apple menu and choosing "Force Quit" and choosing to quit Safari, or by using the keyboard-combination Command + Option + Escape (%+Option+Esc) to bring up the same window.
- The other scare tactic simply targets the function that resumes open windows after a crash, which can be disabled by holding the Shift key while starting Safari.

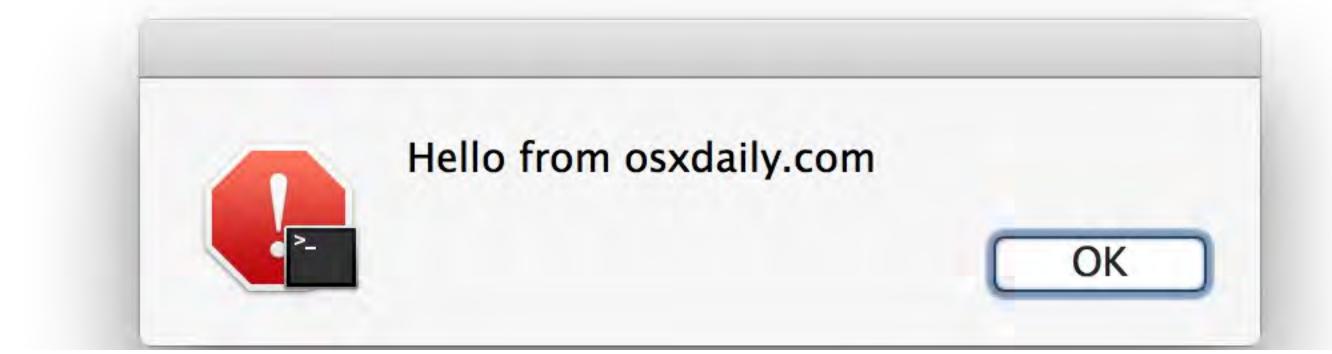






#### **Avoiding Cyber-Scams**

The Notifications Scam

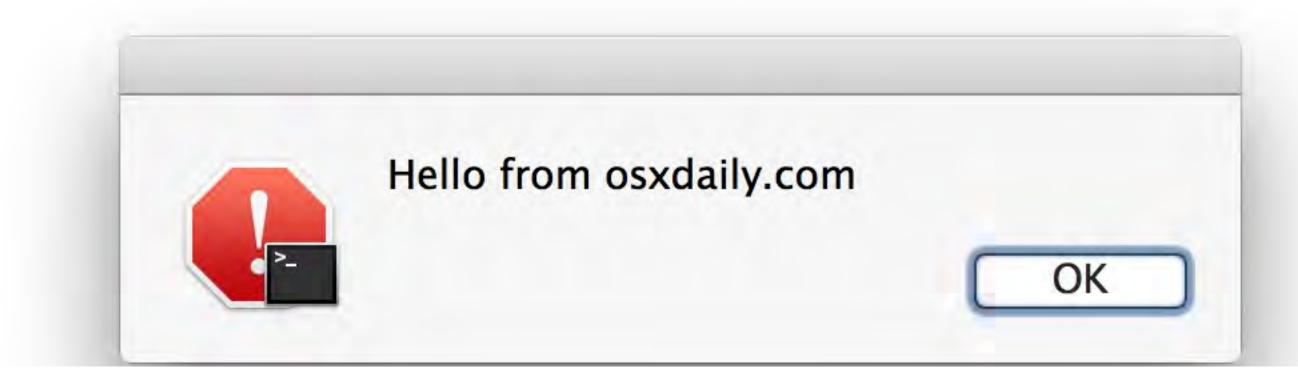


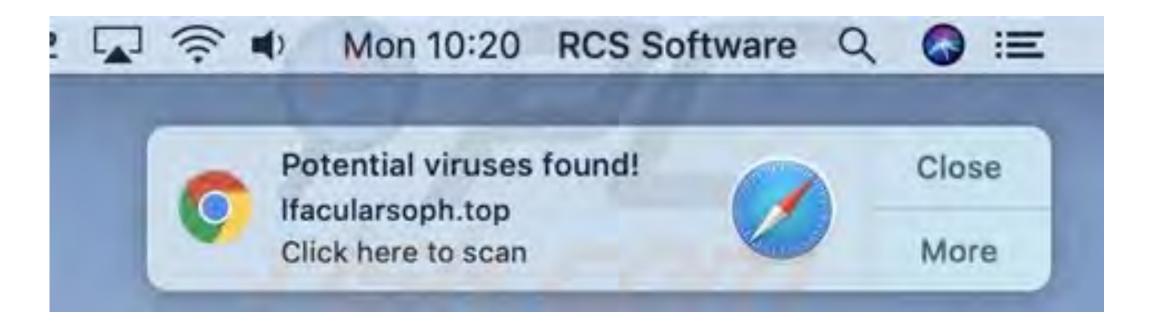




#### **Avoiding Cyber-Scams**

The Notifications Scam









#### **Avoiding Cyber-Scams**

The Notifications Scam

 These are actually not viruses, they are a small app that snuck into your Notifications! An easy fix!







#### **Avoiding Cyber-Scams**

The Notifications Scam

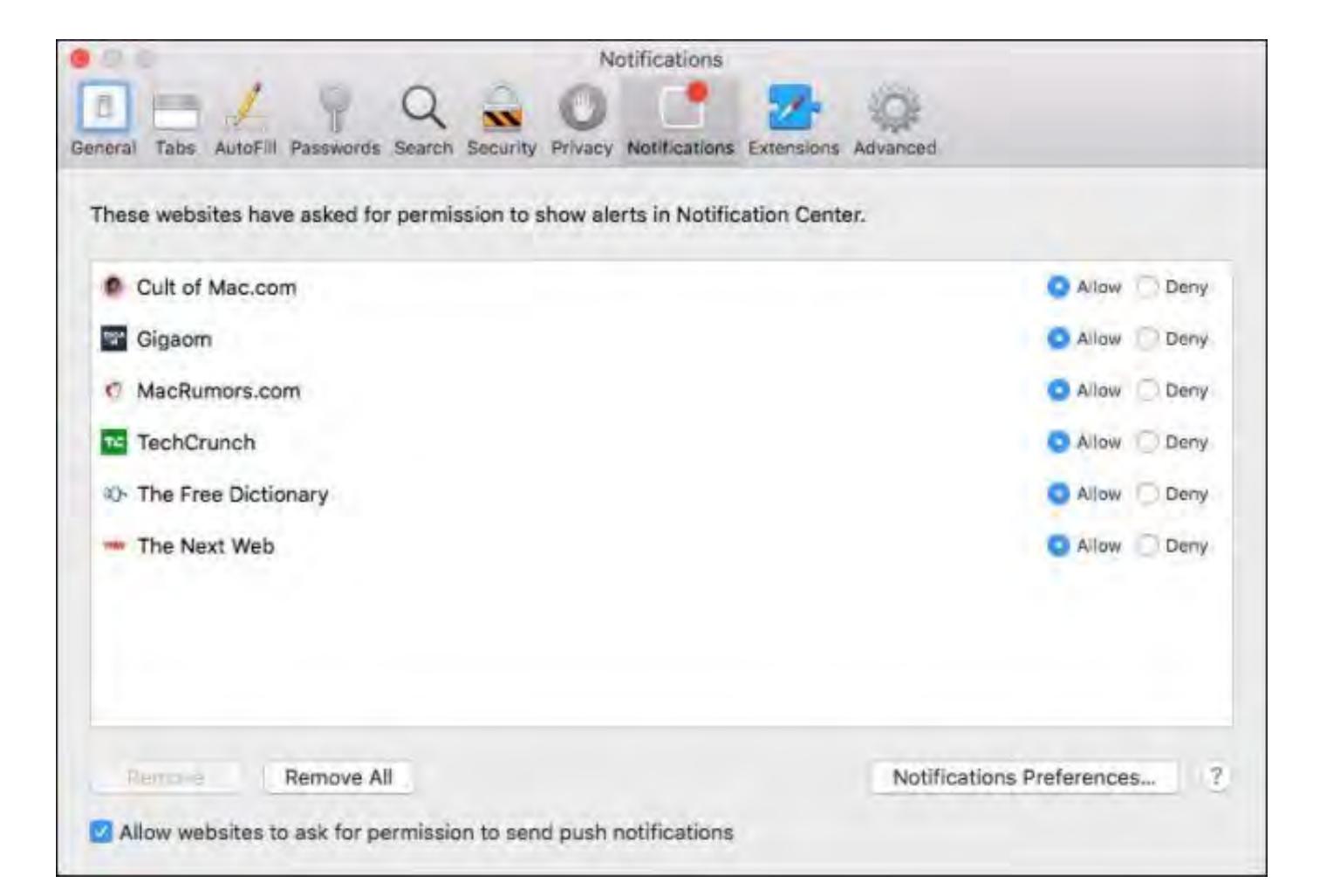
Go to Safari > Settings > Websites > Notifications to manage and remove these messages.







Anything listed here can show a notification, you can remove any that you do not recognize!







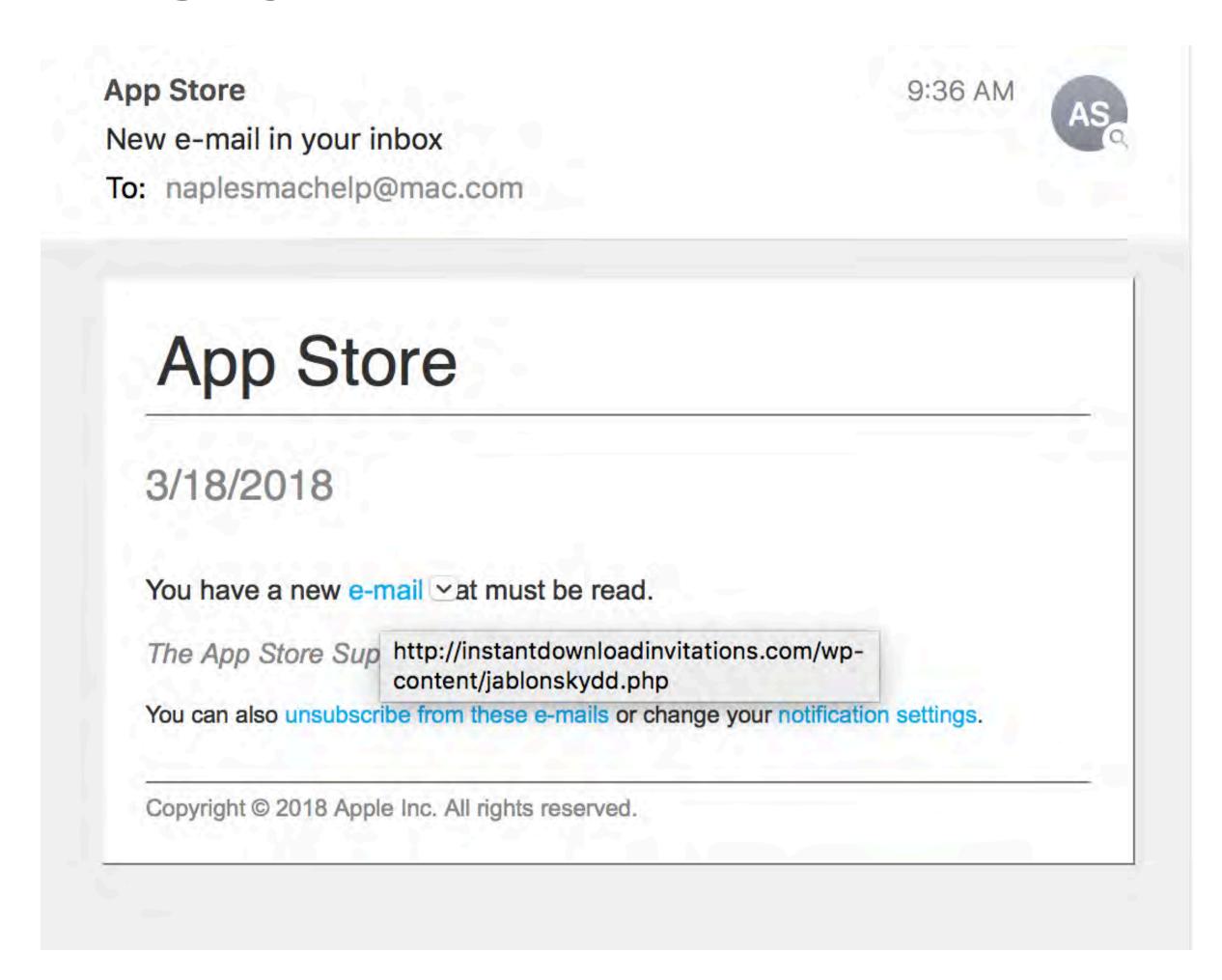
- The Rogue App
- These commonly appear after
  you think you have downloaded a
  Flash update or other update that
  was searched for on the web,
  rather than an in-app update.
  Since Flash was killed off in
  December 2020, these should be
  appearing less often. If you have
  any Flash or FlashPlayer
  updates in your downloads
  folder, delete them immediately!







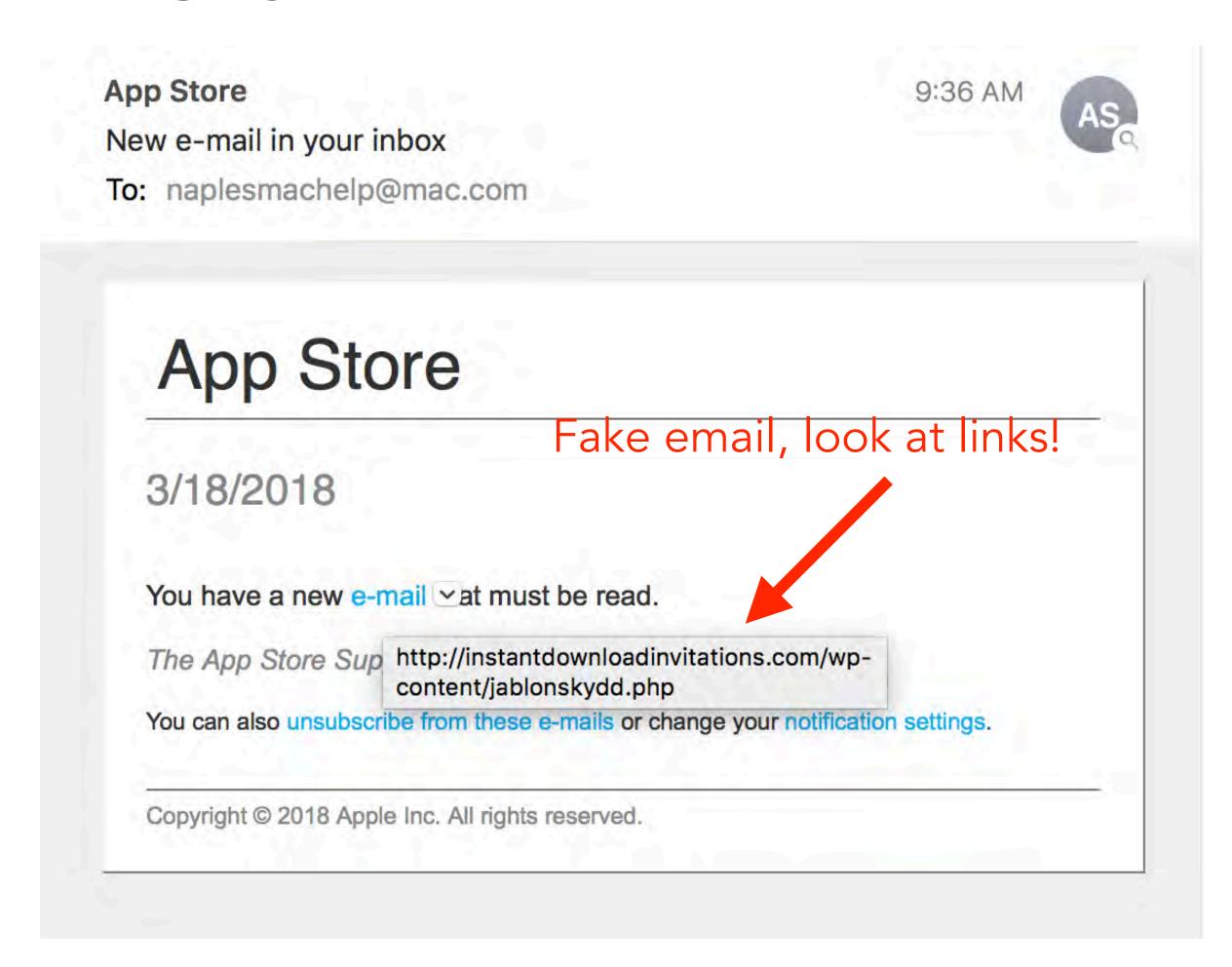
- The Rogue App
- Could also appear in a file download







- The Rogue App
- Could also appear in a file download







### **Avoiding Cyber-Scams**

The Rogue App

Places to look for bad apps

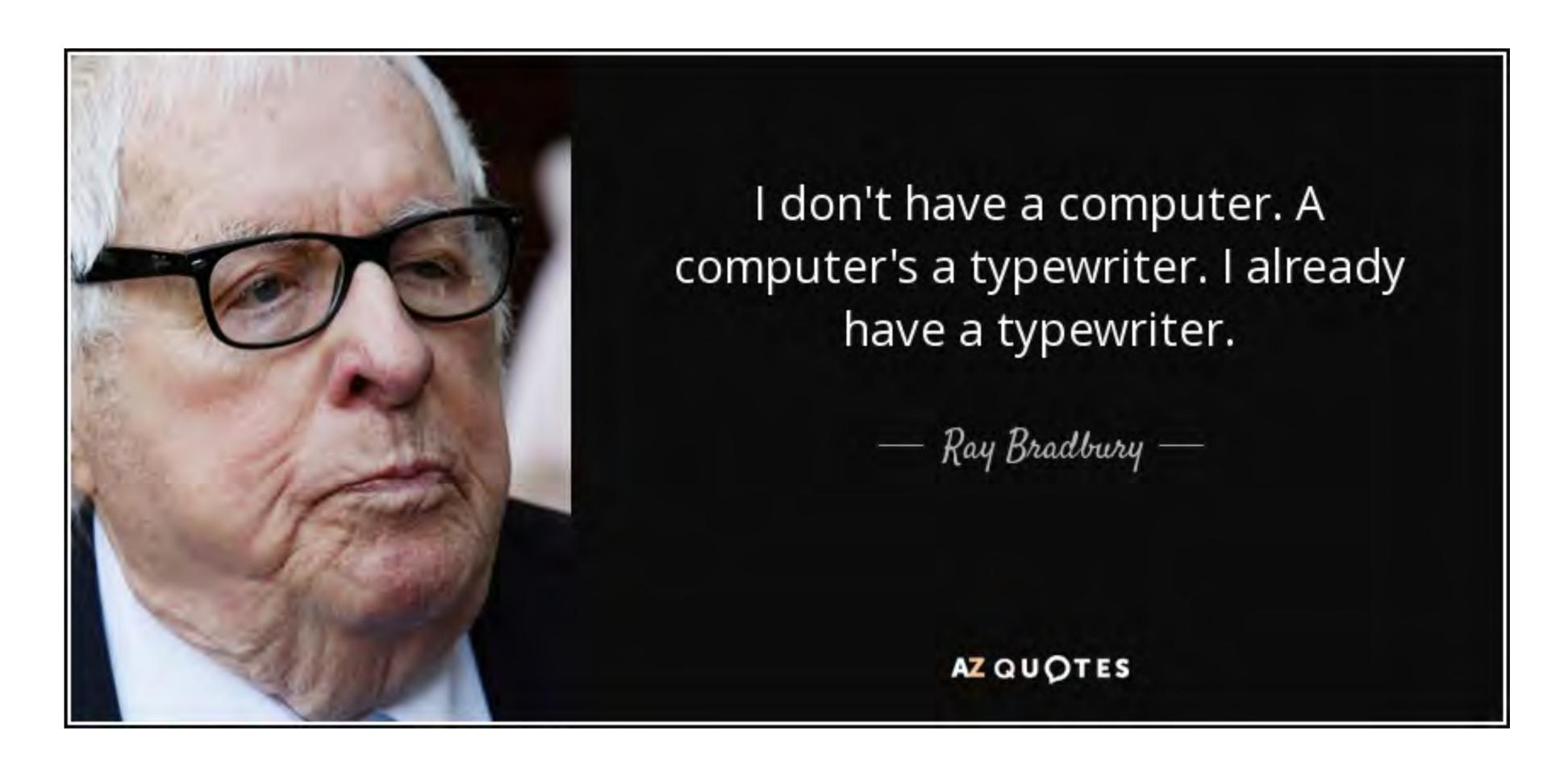
- 1. Open Safari > Preferences > Extensions
- 2. If there is anything listed in the left column besides 1Password or another App you have installed, select the rogue extension, there will be an uninstall button you can click





### **Avoiding Cyber-Scams**



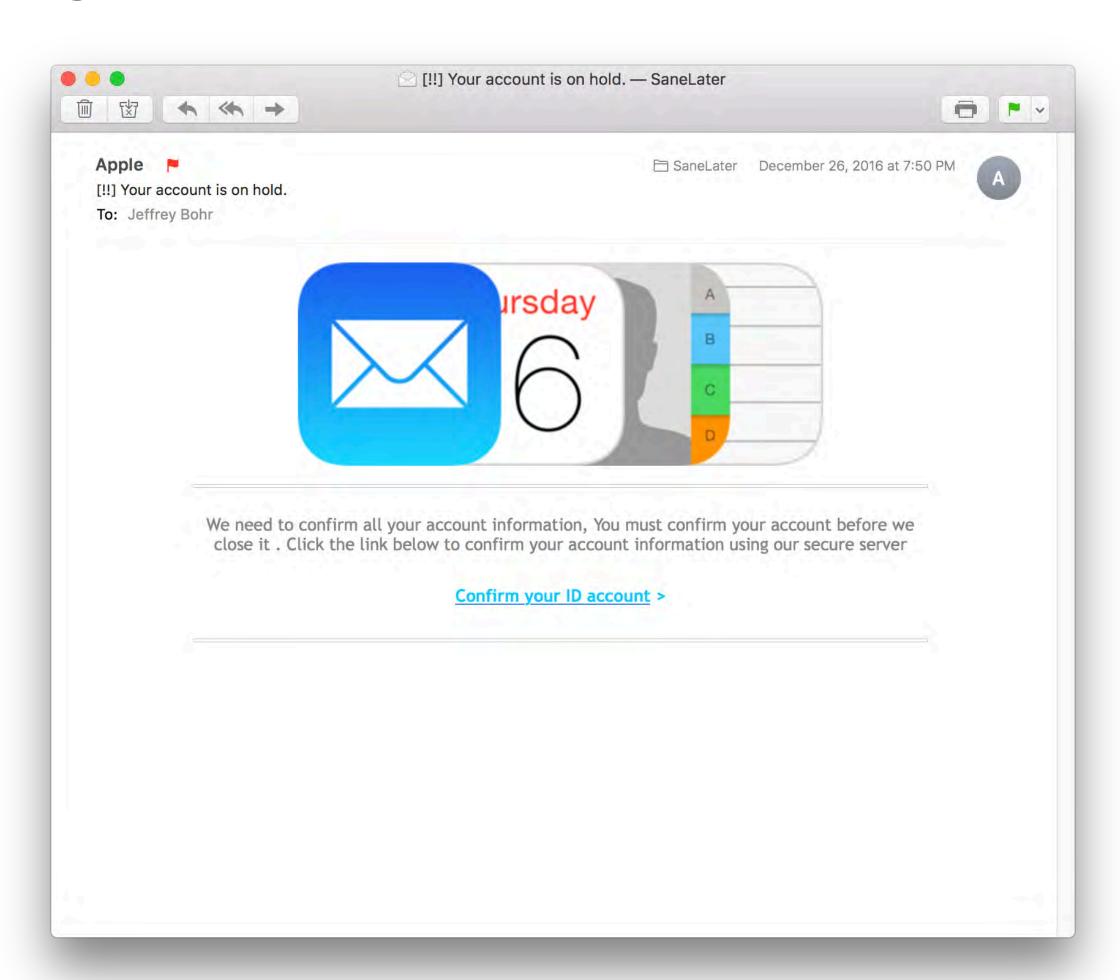






### **Avoiding Cyber-Scams**

The phony email

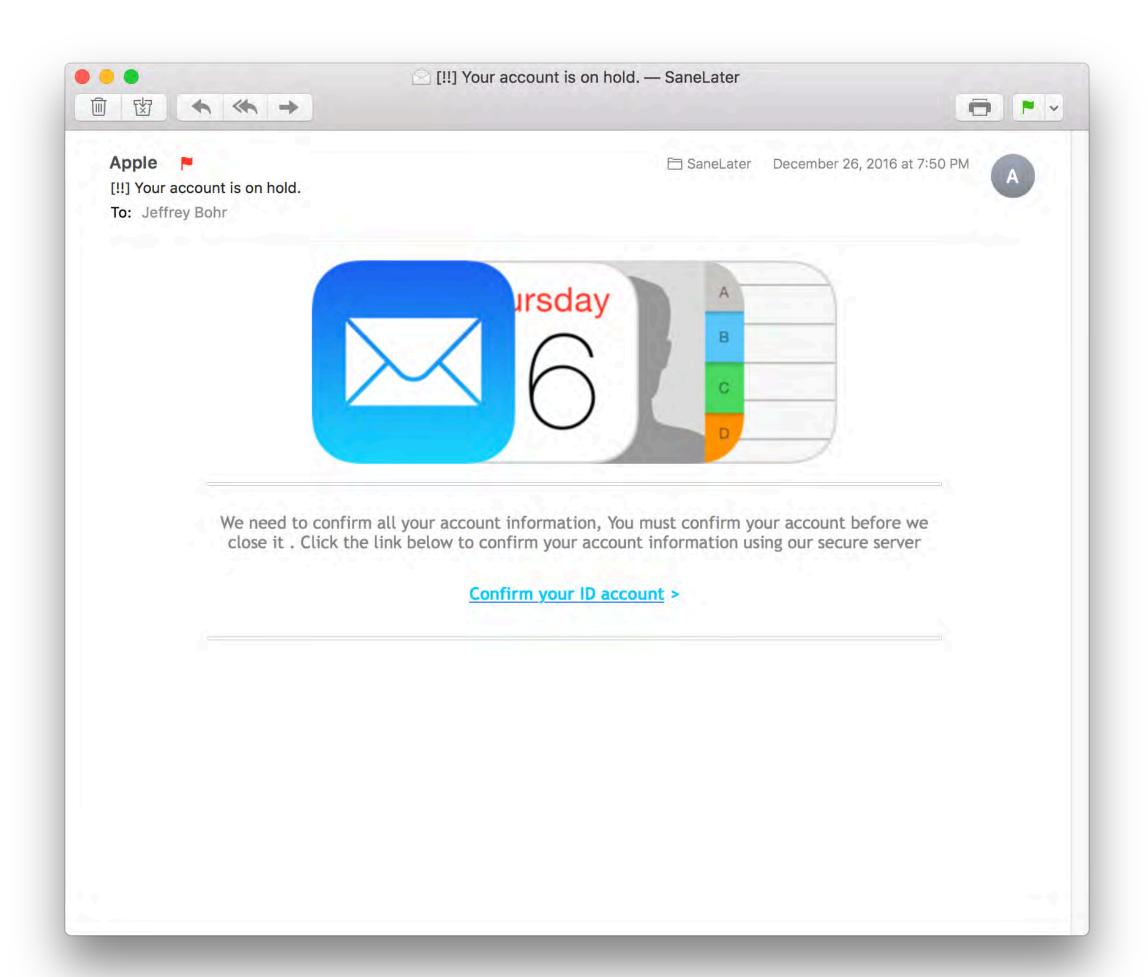






### **Avoiding Cyber-Scams**

- The phony email
- Another common scam is a message in your mail inbox appearing to be from your bank, credit card issuer, airline or any secure site that you may use. The message may say something like this, and has the appearance of one that is legitimate:
- We need to confirm all your account information, You must confirm your account before we close it. Click the link below to confirm your account information using our secure server.







### **Avoiding Cyber-Scams**

- The phony email
- To identify this email as a scam, hover over the address that it appears to be from or click on the information arrow, in this case Apple, and you will see the actual senders address revealed:
- As you can see, the address does not contain apple.com and does contain some unknown address, delete this message immediately! Do not attempt to unsubscribe from these type messages, those are also attempts to harvest your personal data!







### **Avoiding Cyber-Scams**

The phony email

One I have been seeing more often is the bogus McAffee or Norton order, do not call the number and pay attention to the sender!



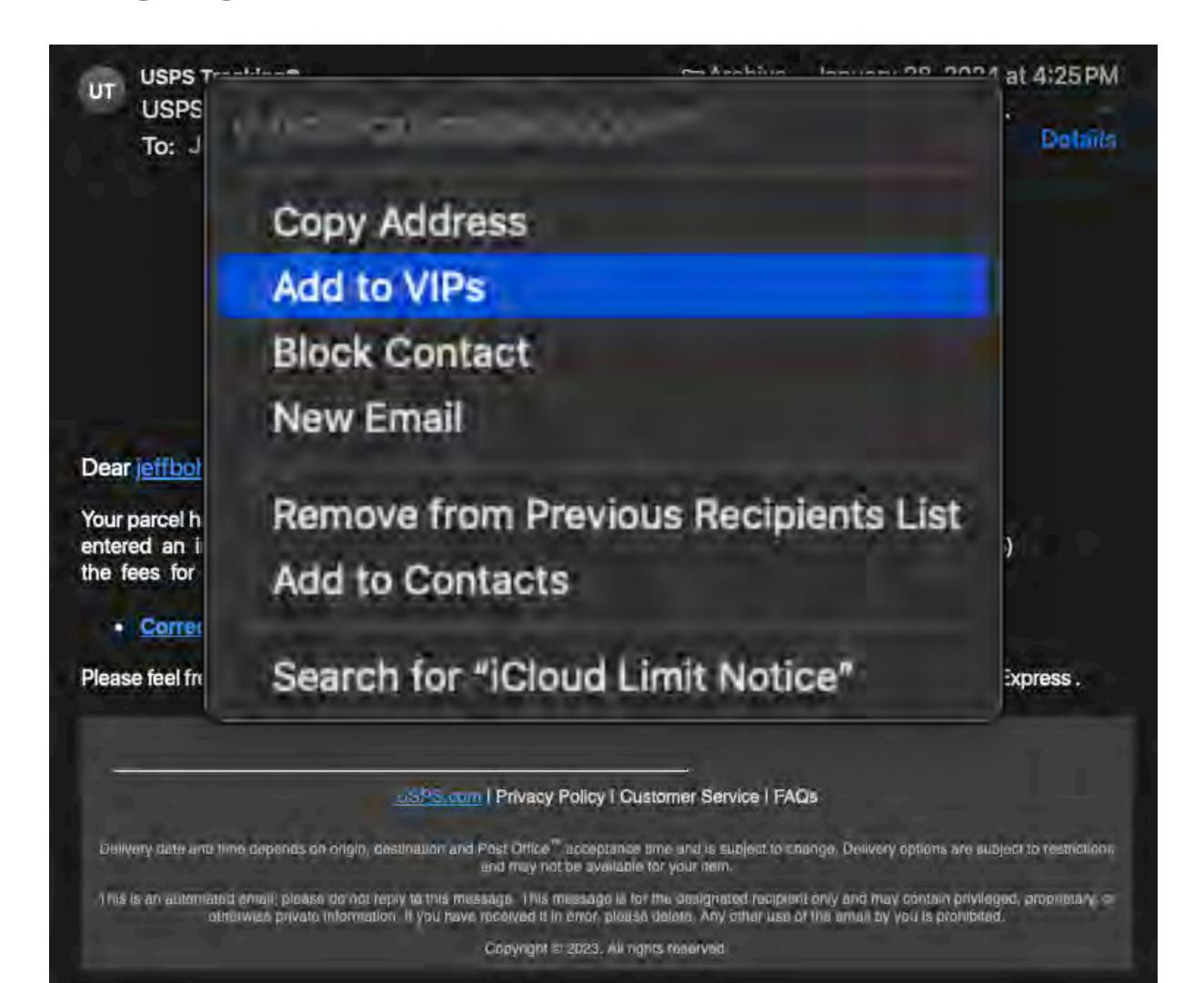




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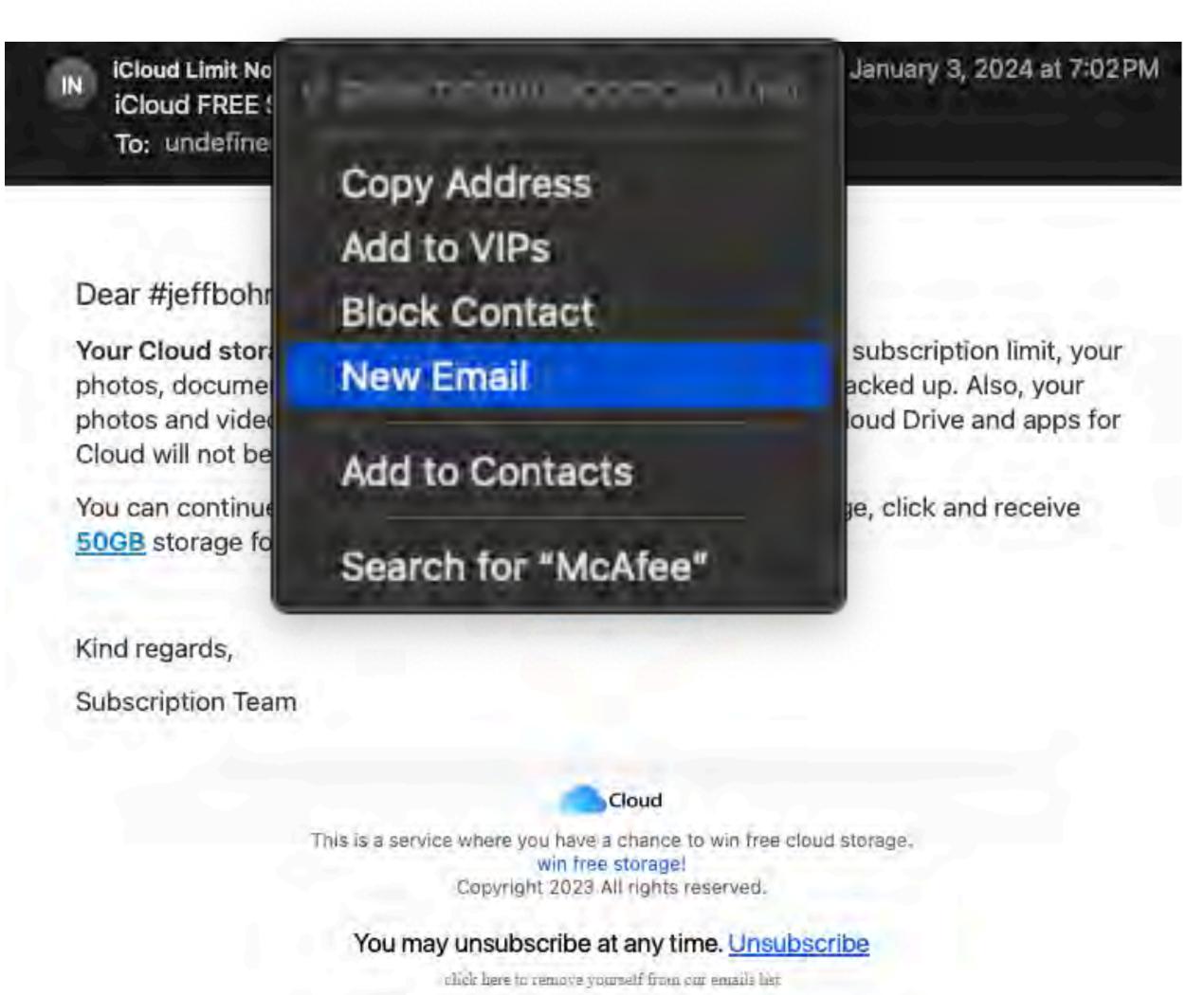




### Avoiding Cyber-Scams

The phony email

One I have been seeing more often is the bogus McAffee or Norton order, do not call the number and pay attention to the sender!







### **Avoiding Cyber-Scams**

- The phony email
- Know that banks and other online
  accounts do not send emails asking to
  to verify data unless you have
  requested a password change or other
  account change, these do not come
  out of the blue. Most online entities
  now have text message alerts or phone
  calls to verify activity on your accounts,
  they do not send emails asking you to
  login!







#### **Avoiding Cyber-Scams**

What Can You Do?

Use caution when you see these types of calls, pop ups and emails. When in doubt, hang up, quit and delete! If it is important, they will contact you through the mail, or knock on your door!

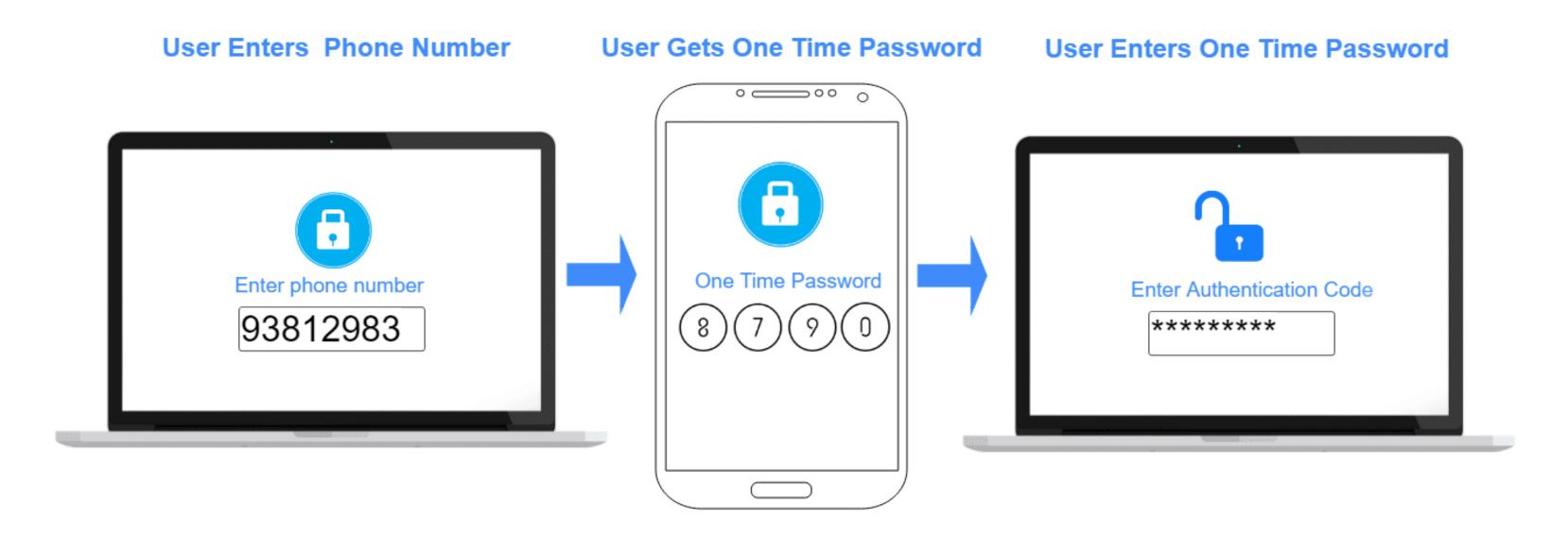






### **Avoiding Cyber-Scams**

- What can you do?
- Enable Two-Step verification for accounts that allow it.
- Two-step, or two-factor authentication protects your accounts by requiring you to provide an
  additional piece of information after you give your password to get into your account. In the
  most common implementation, after correctly entering your password, an online service will
  send you a text message with a unique string of numbers that you'll need to punch in to get
  access to your account.







### **Avoiding Cyber-Scams**

- What Can You Do?
- Visit <u>haveibeenpwned.com</u>
- This site will let you know if your email address has been the victim of any known security breaches. They will compare your email to the email addresses exposed and identify which ones your email was leaked in.

jeff@jeffbohr.com



Check if you have an account that has been compromised in a data breach

Oh no — pwned!

Pwned in 14 data breaches and found no pastes (subscribe to search sensitive breaches)





### **Avoiding Cyber-Scams**

- What Can You Do?
- Visit
   <u>haveibeenpwned.com</u>
- These are website breach stats







### **Avoiding Cyber-Scams**

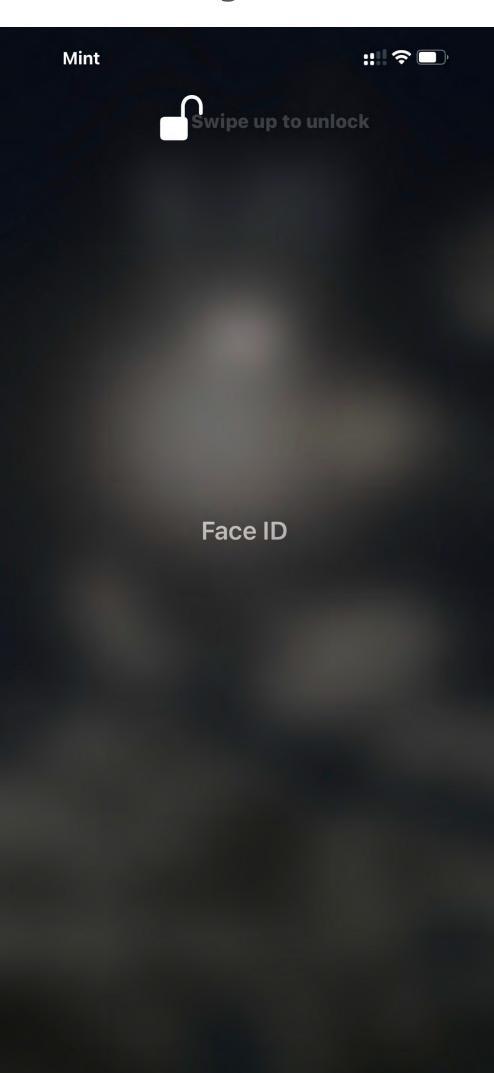
By following these steps, you can avoid falling prey to these popular scams that target your online activity. Remember that no one outside your home or office can see what is happening to your computer unless they are sitting at your desk! If you suspect your are being preyed upon by a cyber stalker, call law enforcement, a family member or your IT Professional immediately for help.







#### Protect your iPhone







#### Protect your iPhone

- Disable tracking of your Device
- By default, iOS tracks your devices most frequently visited locations. Disabling this feature in shores that information could never end up in the wrong hands:
- Navigate to Settings > Privacy >
   Location Services > System
   Services > Significant locations;
   clear history
- Switch Off: Significant locations

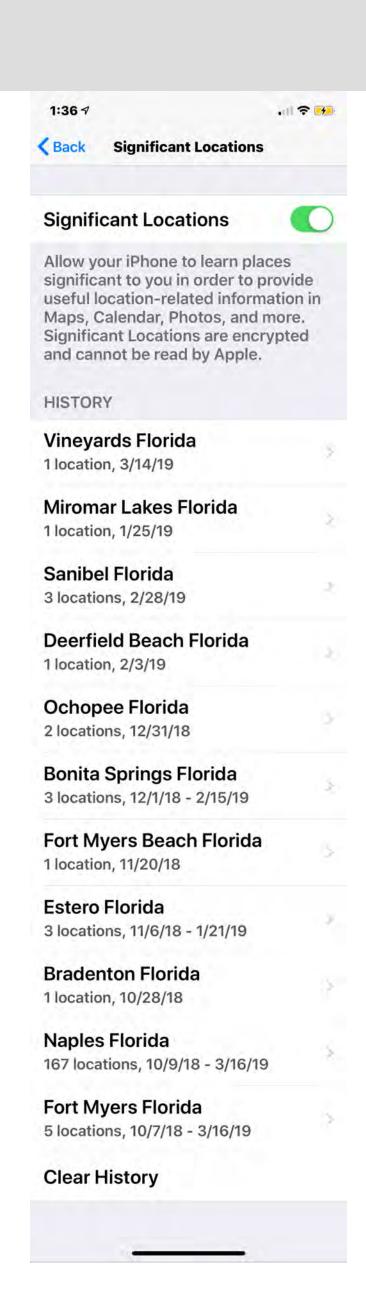






#### Protect your iPhone

- Significant Locations
- This is the list that will appear if you have significant locations turned on
- Note: You will need to authenticate with Face/Touch ID or passcode to view Significant Location data













- Mac Anti-Virus Software
- Lots of choices, what do you need?







- Mac Anti-Virus Software
- The only one I recommend is the only one Apple recommends: Malwarebytes







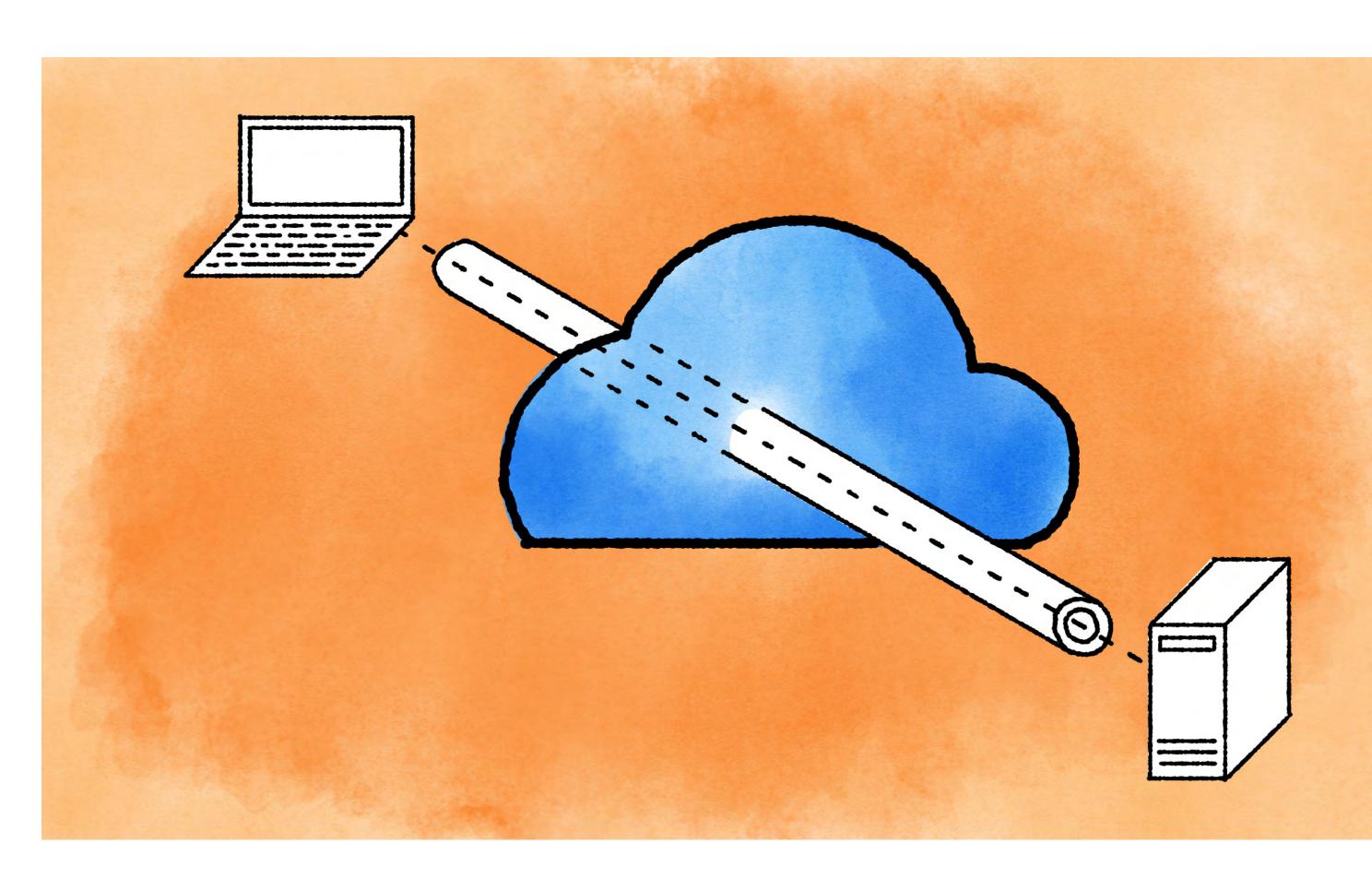
- Mac Anti-Virus Software
- malwarebytes.com
- Only get the free version, the paid version allows scheduled scans, otherwise it scans daily with the free version
- It will identify and quarantine any files that may be questionable or dangerous







- What is a VPN?
- to the internet, your internet service provider can see everything you do. Every search. Every file you download. Everything. To protect their privacy, more people are using virtual private networks, or VPN for short, to stop companies from tracking what they do online.



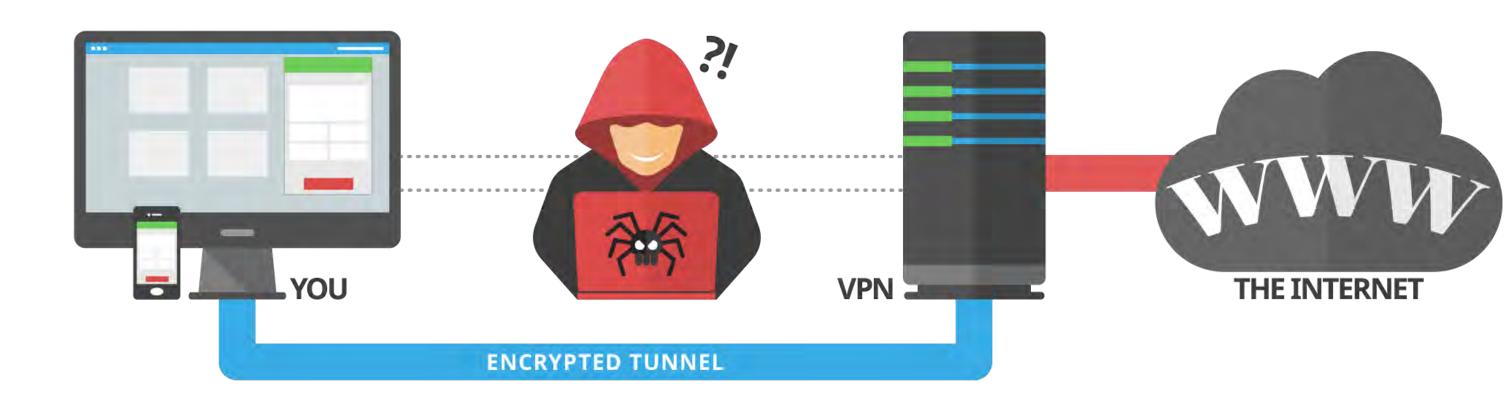




#### Protect your Mac

#### What is a VPN?

A VPN, or Virtual Private Network, is a layer of security between you and the web when on an unencrypted WiFi system. At home, you are on a secure network that is safe from eavesdropping, but in a public place with an unencrypted network, data could be intercepted between your device and the web.







#### Protect your Mac

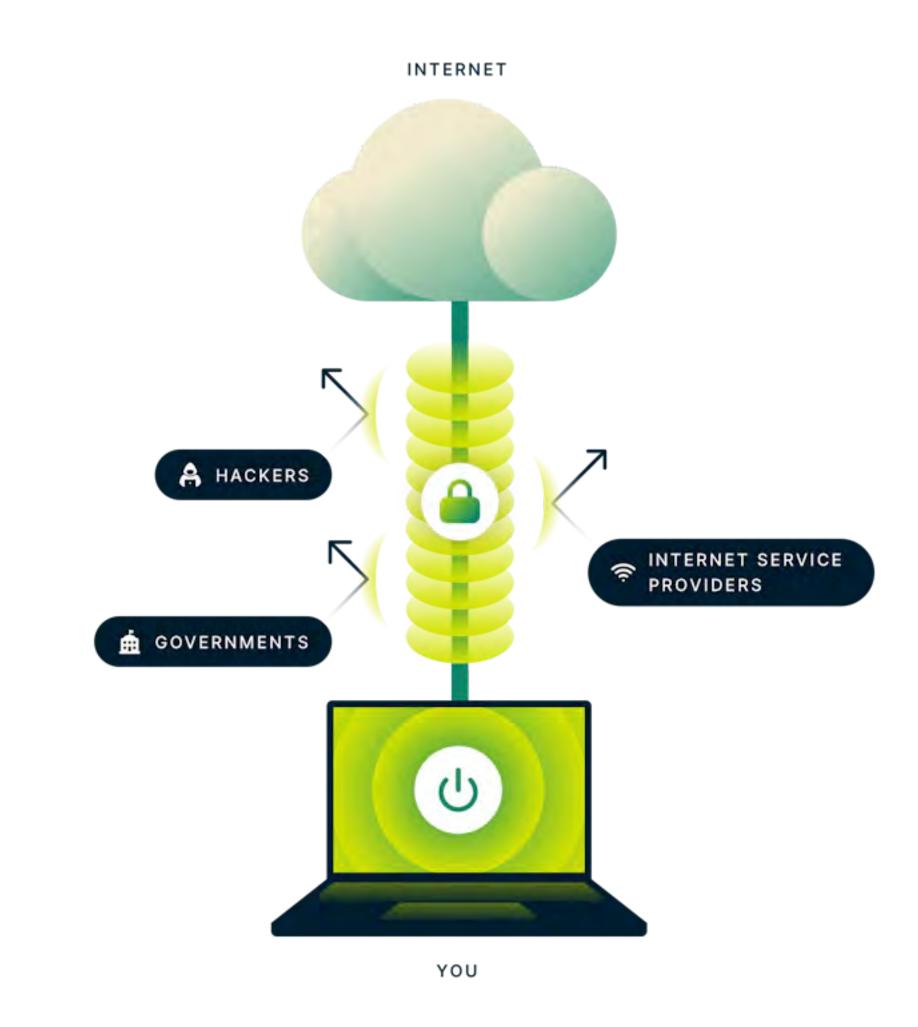
- What is a VPN?
- A VPN is a service that you sign up for online for a small monthly charge. Once you have an account, your VPN service should be "on" when you're online.
- A VPN, in action, takes your Internet connection and makes it more secure, helps you stay anonymous and helps you get around blocks and access censored sites.

 The key to a VPN is that it lends you a temporary IP address and hides your true IP address from every website or email to which you you connect.





- What is a VPN?
- It's Virtual...because it's as if you have a private connection directly to any website or another computer you connect to.
- It's **Private**...because all your website visits and online activity is between you and the websites you visit.
- It's a Network...because you're using a special network of VPN servers that covers the entire globe.







#### Protect your Mac

Best Paid VPN: ExpressVPN















- Number of IP addresses: 30,000
- Number of servers: 3,000-plus
- Number of VPN server locations: 160
- Number of simultaneous connections: 5
- Country/jurisdiction: British Virgin Islands
- 94-plus countries
- · Three months free with one-year plan







#### Protect your Mac

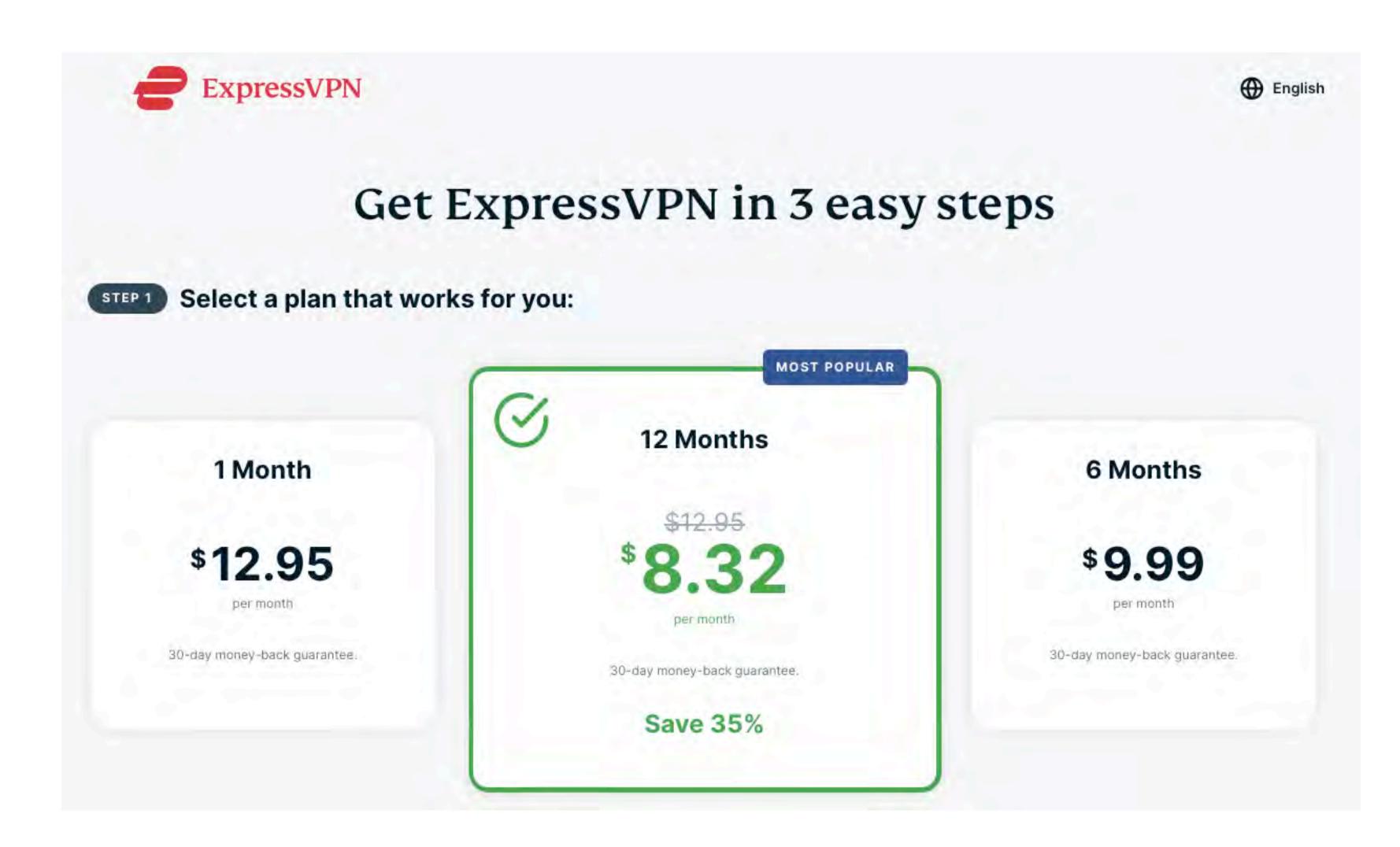
- Best paid VPN: ExpressVPN
- Get ExpressVPN on all your devices. A single ExpressVPN subscription comes with easy-to-use apps for every device you own. Mac, Windows, Android, iOS, Linux, routers, and so much more.
- Powerful online protection: Defeat hackers and spies with best-in-class encryption and leakproofing.
- Internet without borders: Access any content, no matter your location. Say goodbye to geo-blocks.

 Supercharged VPN: Connect to any of our unlimited-bandwidth, ultra-fast VPN servers.













### **Backup Strategies**

There are two types of people:

those who backup

and those who will





### **Backup Strategies**

- Peter Krogh, a photographer, writer, and consultant introduced the 3-2-1 backup rule when he published his book, "The DAM Book: Digital Asset Management for Photographers," in 2005. The Cybersecurity and Infrastructure Security Agency (CISA) recommends that individuals and businesses use the 3-2-1 strategy.
- Here's what the 3-2-1 backup rule involves:
- 3: Create one primary backup and two copies of your data.
- 2: Save your backups to two different types of media.
- 1: Keep at least one backup file offsite.

 A 3-2-1 backup strategy reduces the impact of a single point of failure, such as a disk drive error or stolen device. For example, you may keep a backup on an external hard drive, a USB drive and cloud storage. If a disaster wipes out your on-site backups, your off-site cloud-based backup can save the day.



Peter Krogh





#### **Backup Strategies**

Software: Time Machine

Do you want to use My Backup (1 TB) to back up with Time Machine?

Time Machine keeps an up-to-date copy of everything on your Mac. It not only keeps a spare copy of every file, it remembers how your system looked, so you can revisit your Mac as it appeared in the past.

Percrypt Backup Disk

Don't Use

Use as Backup Disk

to use: simply connect an external drive

https://support.apple.com/en-us/HT201250





#### **Backup Strategies**

Software: Time Machine

Do you want to use My Backup (1 TB) to back up with Time Machine?

Time Machine keeps an up-to-date copy of everything on your Mac. It not only keeps a spare copy of every file, it remembers how your system looked, so you can revisit your Mac as it appeared in the past.

Percept Backup Disk

Don't Use

Use as Backup Disk

After you choose the destination, if it is a new drive, you will be prompted to Erase the disk, this is safe as it is empty and it is being formatted for your Mac!





#### **Backup Strategies**

Software: Time Machine

Back up using Time Machine

After you set up Time Machine, it automatically makes hourly backups for the past 24 hours, daily backups for the past month, and weekly backups for all previous months. The oldest backups are deleted when your backup disk is full.

- To back up now instead of waiting for the next automatic backup, choose Back Up Now from the Time Machine menu .
- To stop automatic backups, open Time Machine preferences, then either deselect Back Up Automatically (macOS Sierra or later) or turn off Time Machine (OS X El Capitan or earlier). You can still back up manually by choosing Back Up Now from the Time Machine menubar icon.

https://support.apple.com/en-us/HT201250





### **Backup Strategies**

Software: Time Machine

Back up using Time Machine

- To cancel a backup in progress, choose Skip This Backup (or Stop Backing Up) from the Time Machine menu.
- To check backup status, use the Time Machine menu. The icon shows when Time Machine is backing up, idle until the next automatic backup, or unable to complete the backup.
- To exclude items from your backup, open Time Machine preferences from the Time machine menu, click Options, then click and select the item to exclude.

https://support.apple.com/en-us/HT201250





#### **Backup Strategies**

Software: Time Machine

•

Back up using Time Machine

Rostoro specific items from a Time Machine h

Restore specific items from a Time Machine backup

Open a window for the item that you want to restore. For example:

- To restore a file you accidentally deleted from your Documents folder, open the Documents folder.
- · To restore an email message, open your inbox in Mail.
- If you're using an app that automatically saves versions of documents as you work on them, you can open a document, then use Time Machine to restore earlier versions of that document.

https://support.apple.com/en-us/HT201250





## **Backup Strategies**

Software: Time Machine

Restore specific items from a Time Machine backup

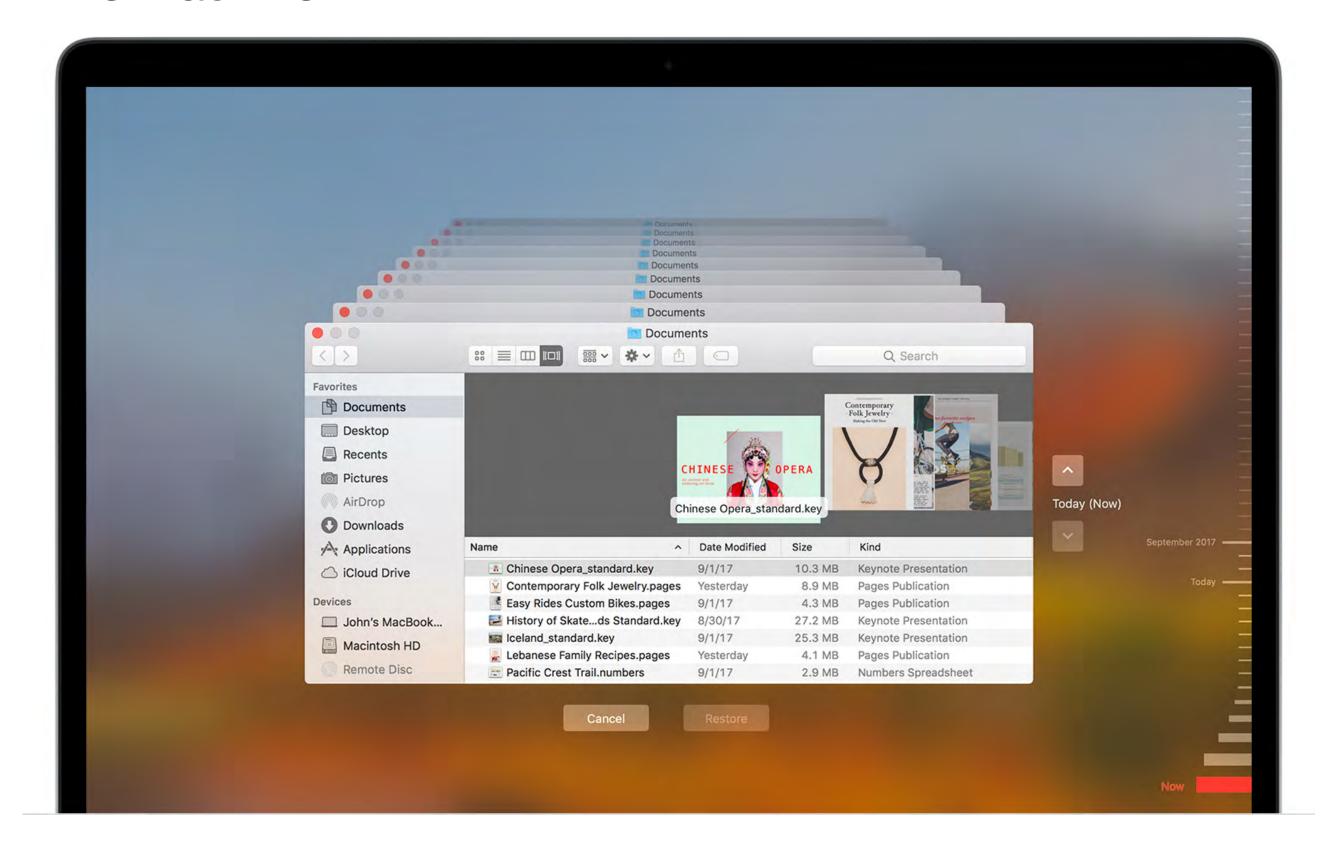
- <sup>1</sup>. Choose Enter Time Machine from the Time Machine menu, or click Time Machine in the Dock.
- 2. Find the items to restore:
- 3. Use the timeline on the edge of the screen to see the items in your Time Machine backup as they were at that date and time. The timeline may also include local snapshots.
- 4. Use the onscreen up and down arrows to jump to the last time the contents of the window changed. You can also use the search field in a window to find an item, then move through time while focused on changes to that item.
- 5. Select an item and press Space Bar to preview it and make sure it's the one you want.
- 6. Click Restore to restore the selected item, or Control-click the item for other options. <a href="https://support.apple.com/en-us/HT201250">https://support.apple.com/en-us/HT201250</a>





#### **Backup Strategies**

Software: Time Machine



https://support.apple.com/en-us/HT201250





#### **Backup Strategies**

Software: Backblaze



"I like and recommend Backblaze."

Walt Mossberg Recode



"You will sleep much better knowing that you have Backblaze."

John Gruber Daring Fireball



"I've used other online backup services, Backblaze is my favorite."

Marco Arment Accidental Tech





## **Backup Strategies**

Software: Backblaze

## Unlimited Computer Backup

Unlimited files. Unlimited file size. Blazing fast. Backblaze will automatically back up all your files including documents, photos, music, movies, and more. It's that easy.



#### Easy & Automatic

Instantly start an account and have your files automatically backed up.



#### Backup & Archive

Back up all of your attached external drives.



#### Fast & Smart

Intelligent throttle and threadings make backups fast. Check your speed.







## **Backup Strategies**

Software: Backblaze

•



## Access Anywhere

Access files through the web, or on iOS or Android. No matter where you are, your files will always be with you.









## **Backup Strategies**

Software: Backblaze

•

## Restore Rapidly

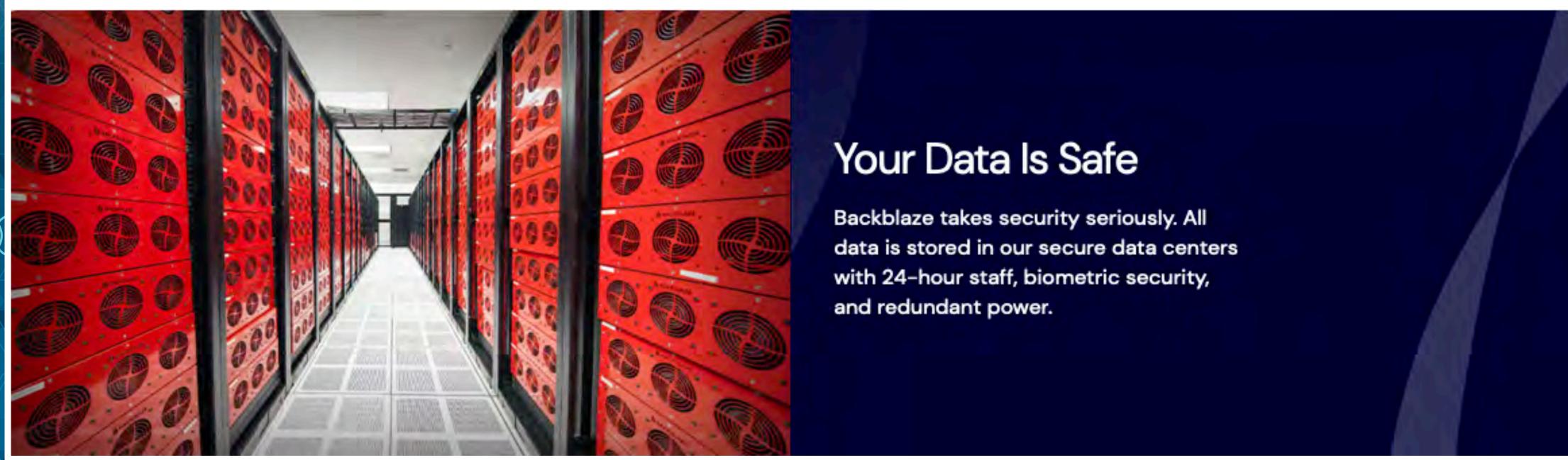
Download files for free from the web, or <u>have</u> <u>your data shipped</u> to you on a flash drive (\$99) or external drive (\$189) with full refunds upon return.





## **Backup Strategies**

Software: Backblaze





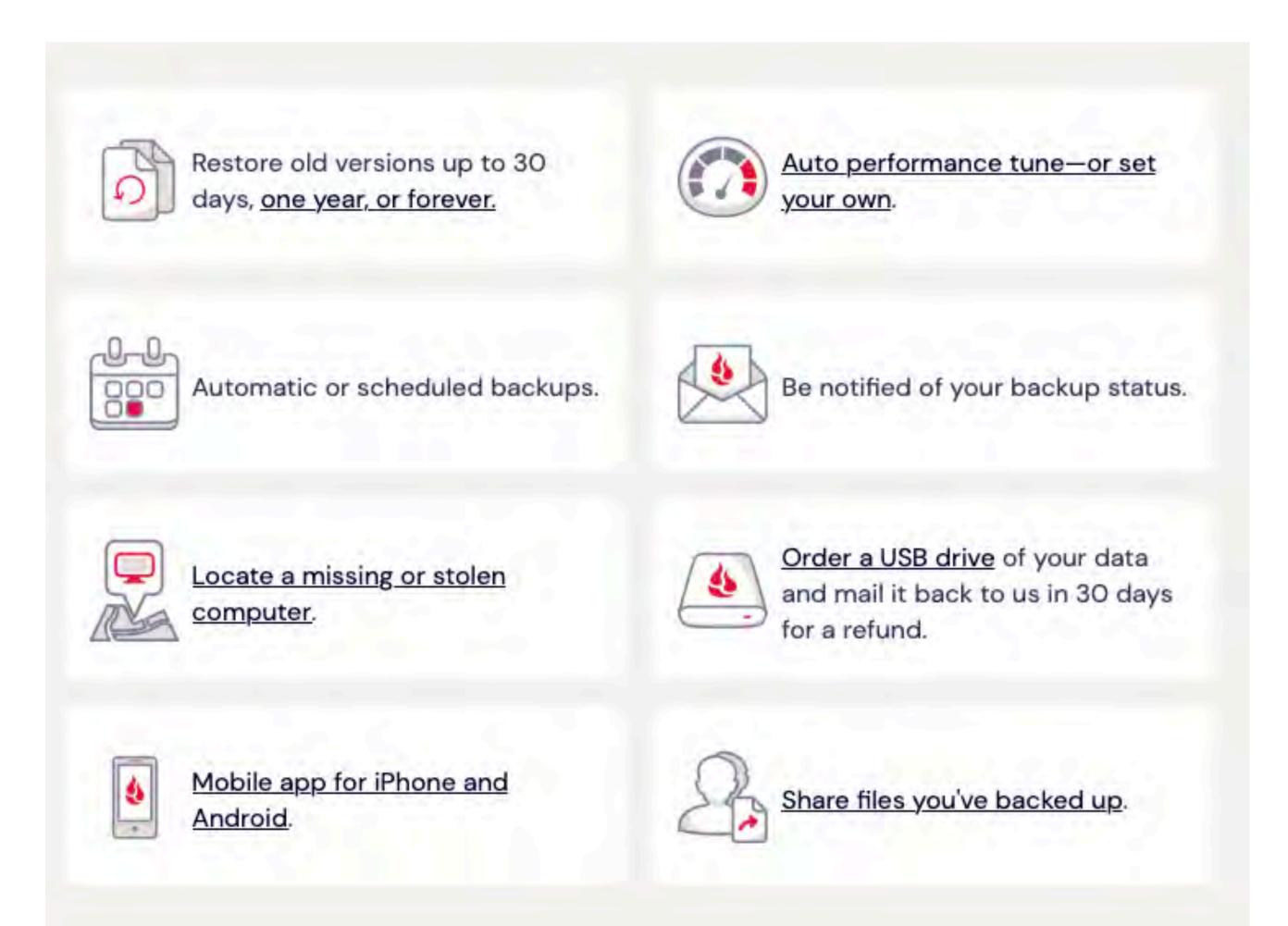




## **Backup Strategies**

Software: Backblaze

•





## **Backup Strategies**

Software: Backblaze



#### Private Key

You can use a private encryption key for additional security, ensuring only this key can unlock your backup.



#### Encryption

All your files are encrypted before being transmitted over SSL and stored encrypted.



#### Native Software

Backblaze's code is native to Mac and PC and doesn't use Java.



#### Two-factor

Two-factor verification via ToTP and SMS is available for all Backblaze accounts.







## **Backup Strategies**

Easy to Use, Unlimited Backup, Simple Pricing. No Catch.

Protect your data for just \$99 per computer per year, with no surprise charges, plus monthly, yearly, or two-year billing flexibility to suit your needs.





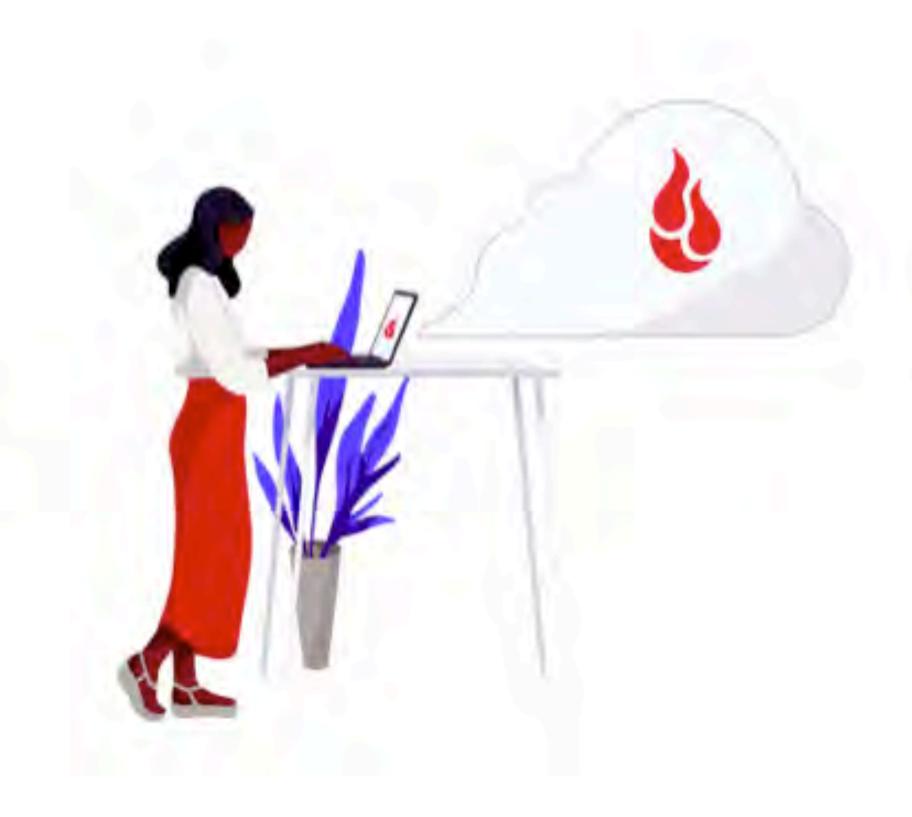




## **Backup Strategies**

#### Restore Easily

Get your data back with multiple options: free web restore, or order a USB drive with your data and mail it back to us in 30 days for a refund. You can restore just one file, a folder, or all your backed up files. Use the mobile app and have access to all your files on the go.







## **Backup Strategies**



#### Simple & Automatic

Instantly start an account and have files on computers or external drives automatically backed up.



#### Easy Admin & Restore

Monitor backups, check files and enjoy multiple intuitive recovery options in the event of data loss.



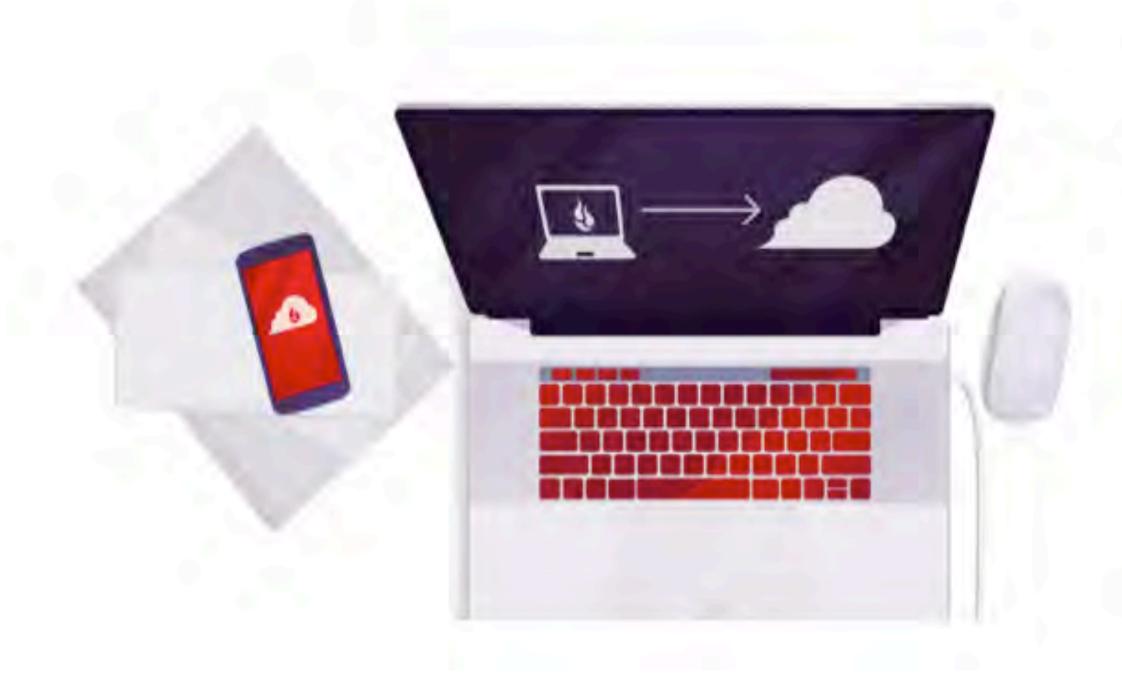
#### Affordable & Predictable

Intelligent throttle and threading options make uploading backups fast and customizable.





## **Backup Strategies**



# Recommended By The New York Times IHE VERGE tom's guide 9TO5Mac DARING FIREBALL Lifewire PCWorld





#### **Backup Strategies**

Software: Backblaze

Use this code for a 30 day free trial of Backblaze:

https://secure.backblaze.com/r/01ohgx





## **Backup Strategies**

Carbon Copy Cloner and SuperDuper









#### **Backup Strategies**

Carbon Copy Cloner and SuperDuper

With Apples new system architecture, bootable clones like CCC and SD performed are no longer possible, so they are just file-duplication services much like Time Machine. I no longer use either.





#### **Backup Strategies**

Carbon Copy Cloner Statement

With the announcement of macOS Big Sur, Apple has retired Mac OS X (10) and replaced it with macOS 11. As the numeric change would suggest, this is the biggest change to macOS since Apple introduced Mac OS X roughly 20 years ago. The system now resides on a cryptographically sealed "Signed System Volume"

. That seal can only be applied by Apple; ordinary copies of the System volume are non-bootable without Apple's seal. To create a functional copy of the macOS 11 System volume, we have to use an Apple tool to copy the system, or install macOS onto the backup. CCC 6 will not attempt to create a bootable backup of Big Sur by default, however the functionality is available via the Legacy Bootable Backup Assistant.





#### **Backup Strategies**

Carbon Copy Cloner and SuperDuper

How are bootable copies made differently on macOS Big Sur?
When configured via the Legacy Bootable Copy Assistant, CCC will use Apple's APFS replication utility, "ASR", to establish a bootable copy of your startup disk. Apple's utility does not offer as much flexibility as you've grown accustomed to with CCC on older OSes, in particular it requires that the destination is erased and that everything is copied from the source to the destination. When you configure a legacy bootable copy of your startup disk on Big Sur, CCC will offer a few options, depending on the size and current format of your destination device: Allow CCC to erase the destination to make a bootable backup Add a new, dedicated backup volume to an existing APFS destination (if there is enough free space)





#### **Backup Strategies**

Carbon Copy Cloner and SuperDuper

Proceed with a Standard Backup (this is a complete backup of all of your data, applications, and system settings)

To learn more about these options, and what to expect when running your first "Full Volume Backup" see Creating legacy bootable copies of macOS (Big Sur and later).

Does my CCC backup have to be bootable for me to restore data from it?

No, in fact we no longer recommend that you attempt to make your backup bootable. Bootability is a convenience that allows you to continue working if your startup disk fails, but it is not required for restoring data from a CCC backup. You can restore individual folders and older versions of files (i.e. from snapshots) using CCC while booted from your production startup disk. CCC backups are also compatible with Migration Assistant, so you can use Migration Assistant to restore all of your data to a clean installation of macOS (e.g. on a replacement disk).





## **Backup Strategies**

 As with many things in life, there is often no right or wrong, personal preferences are in play. There are often several ways to perform the same task in life and in tech. Pick one that works for you and stick with it.









The End

Questions?

Comments?

Observations?





#### **Contact Jeff**





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