



Financial Security Starts with Cybersecurity: Protecting Yourself in a Digital World

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Our Top Three

- Use Strong, Unique Passwords
- Get Multi-Factor Authentication (MFA)
- Always Be Alert for Scams



TIME IT TAKES A HACKER TO BRUTE FORCE YOUR PASSWORD IN 2024

Hardware: 12 x RTX 4090
Password hash: bcrypt

| Number of Characters | Numbers Only | Lowercase Letters | Upper and Lowercase Letters | Numbers, Upper and Lowercase Letters | Numbers, Upper and Lowercase Letters, Symbols |
|----------------------|--------------|-------------------|-----------------------------|--------------------------------------|---|
| 4 | Instantly | Instantly | 3 secs | 6 secs | 9 secs |
| 5 | Instantly | 4 secs | 2 mins | 6 mins | 10 mins |
| 6 | Instantly | 2 mins | 2 hours | 6 hours | 12 hours |
| 7 | 4 secs | 50 mins | 4 days | 2 weeks | 1 month |
| 8 | 37 secs | 22 hours | 8 months | 3 years | 7 years |
| 9 | 6 mins | 3 weeks | 33 years | 161 years | 479 years |
| 10 | 1 hour | 2 years | 1k years | 9k years | 33k years |
| 11 | 10 hours | 44 years | 89k years | 618k years | 2m years |
| 12 | 4 days | 1k years | 4m years | 38m years | 164m years |
| 13 | 1 month | 29k years | 241m years | 2bn years | 11bn years |
| 14 | 1 year | 766k years | 12bn years | 147bn years | 805bn years |
| 15 | 12 years | 19m years | 652bn years | 9tn years | 56tn years |
| 16 | 119 years | 517m years | 33tn years | 566tn years | 3qd years |
| 17 | 1k years | 13bn years | 1qd years | 35qd years | 276qd years |
| 18 | 11k years | 350bn years | 91qd years | 2qn years | 19qn years |



> Learn more about this at hivesystems.com/password

Getting Started with a Password Manager

1. Select Your Password Manager

- Compare features and pricing.
 - 1Password, Bitwarden, Dashlane, Keeper Security
**Examples ordered alphabetically*
 - KeePassXC if you want to remain completely local and cloud-free.

2. Set Up a Strong Master Password

- Use a unique, long, and hard-to-guess passphrase.
- Do not reuse this password anywhere else.
- Write it down and store it safely (*safety deposit box, safe, somewhere hidden in your home*)
<https://passwordbits.com/emergency-sheet-envelope/>

3. Add Passwords to Your Vault

- Import existing passwords manually or via CSV/browser export.
- Organize entries into folders or categories for easier access.
- Store passwords with the browser integration as you access websites (*and ideally reset/update to a new uniquely generated password*)



1Password



Dashlane



Bitwarden



Keeper

Getting Started with a Password Manager

4. Enable Browser Integration

- Install the browser extension for saving logins, autofill, and password generation.
- Disable your browser's built-in password manager.

5. Install the Mobile App

- Access your vault on the go by downloading the app.
- Turn off your mobile device's built-in password-saving feature.
- Enable Autofill in OS settings for your chosen password manager

6. Secure High-Priority Accounts First

- Use the password manager's health check to identify weak, reused, or leaked passwords
- Focus on:
 - **Banking/Financial** Accounts (e.g., banking, credit cards, investments).
 - **Email** Accounts (to protect password resets).
 - **Social Media** Accounts (to prevent impersonation).
 - **Work/Business** Accounts (e.g., VPNs, payroll, collaboration tools).
 - **E-commerce** Accounts (storing payment information).

Getting Started with a Password Manager

Bonus Tips:

- Explore features like secure password sharing and encrypted storage for important documents.
- Use password manager for TOTP multi-factor codes or better yet, use a separate app for multifactor codes.
- Again, always enable multi-factor authentication on critical accounts.
- Use a separate email address that you only use for your password manager account – don't share that email address with anyone.
- Never open your vault on a computer that you don't 100% trust.

Essential Practices for Personal Backups

Backing up your data is a crucial defense against cyberthreats like ransomware and hardware failure or software corruption. Creating backups ensures you can recover your personal and professional data if disaster strikes.

- **Follow the 3-2-1 Rule:** Keep three copies of your data—one original and two backups—on two different types of storage (e.g., external hard drives and cloud services), with one copy stored offsite.
- **Automate** backups to ensure consistency and reliability.
- **Encrypt Sensitive Data:** Use secure external drives and cloud services with end-to-end encryption to safeguard information.
- Periodically **test** your backups to ensure they work when you need them

Other Proactive Steps to Take

Update Operating Systems

- Most critical for phones and laptops
 - Use automatic updates!
 - Don't ignore these - they're frequently critical patches
- If it's "smart" it could be updated - security cameras, refrigerator, garage door, router

Look at Your Online Footprint

- Be cautious about how much personal information you share online.
 - Personal information can create vulnerability for targeted phishing and scams.
- Reconsider browser password managers

Don't Use Public Wi-fi

- Toggle off 'Auto-Join Available Network'
- Consider using a VPN if you need to use public wi-fi

Thank you for your interest!

Have comments or questions?

Email us at Perspectives@fostergrp.com

Want to request a meeting with an advisor?

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