

tech
sparks



CYBER SECURITY 2022

Resources and Bonus Material



Beth Z

YOUR NERDY BEST FRIEND

ONLINE SECURITY 2022

Are you taking steps to protect yourself from cyber thieves, hackers, scammers and unscrupulous marketers?

This eBook gives you resources to protect your online privacy, identity and sanity.



Three Focus Areas

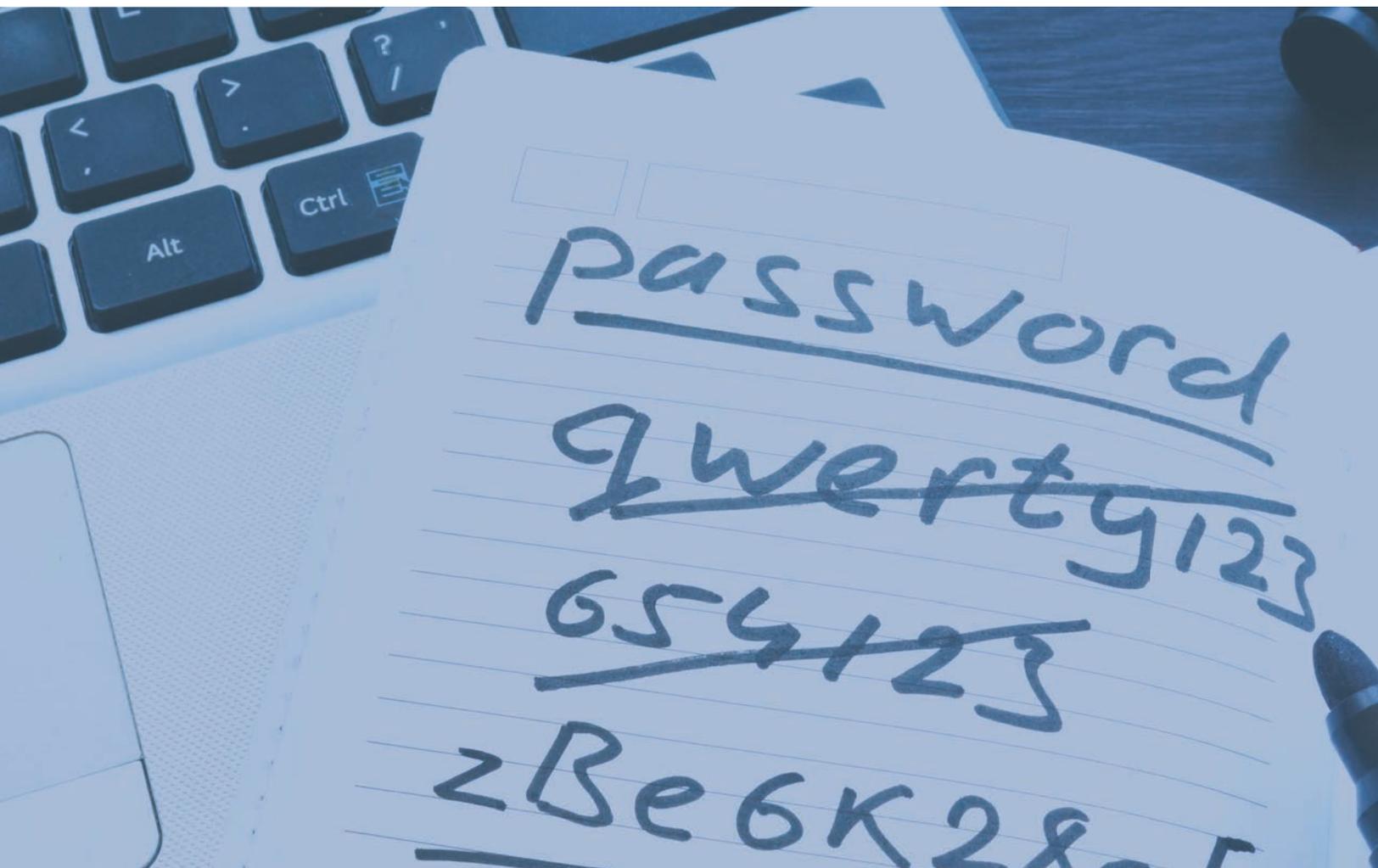
FOR ONLINE SECURITY

■ **PASSWORDS**

■ **2FA**

■ **PRIVACY**





■ Get Your Passwords in Order

One of the most common online security mistakes we make, besides picking passwords that are too easy, is using the same password for multiple sites.

The bad guys know this, and when they hack into a site, they get our username/password combos and try them on other sites and eventually get to some pretty valuable information. It's time to truly take charge of your password and Internet security issues.



Beth Z's #1 Password Rule

**YOU NEED A
UNIQUE, UNGUESSABLE
PASSWORD FOR
EVERY ACCOUNT**

yournerdybestfriend.com

PASSWORDS

■ Are Your Passwords in the Green?

Short simple passwords take milliseconds to crack, but add a few characters, a number and a symbol, and your password could be (almost) uncrackable.

TIME IT TAKES A HACKER TO BRUTE FORCE YOUR PASSWORD IN 2022

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	Instantly	Instantly	Instantly
5	Instantly	Instantly	Instantly	Instantly	Instantly
6	Instantly	Instantly	Instantly	Instantly	Instantly
7	Instantly	Instantly	2 secs	7 secs	31 secs
8	Instantly	Instantly	2 mins	7 mins	39 mins
9	Instantly	10 secs	1 hour	7 hours	2 days
10	Instantly	4 mins	3 days	3 weeks	5 months
11	Instantly	2 hours	5 months	3 years	34 years
12	2 secs	2 days	24 years	200 years	3k years
13	19 secs	2 months	1k years	12k years	202k years
14	3 mins	4 years	64k years	750k years	16m years
15	32 mins	100 years	3m years	46m years	1bn years
16	5 hours	3k years	173m years	3bn years	92bn years
17	2 days	69k years	9bn years	179bn years	7tn years
18	3 weeks	2m years	467bn years	11tn years	438tn years



➤ [Learn about our methodology at hivesystems.io/password](https://hivesystems.io/password)

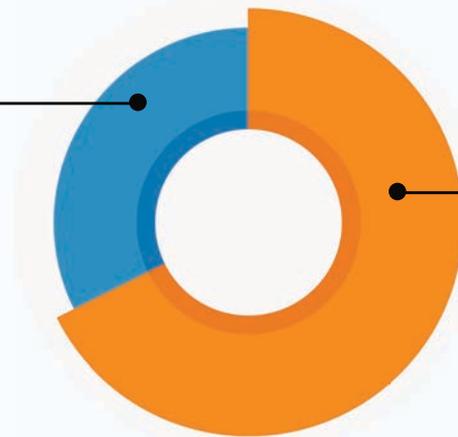
PASSWORDS

Reuse Your Password? You're Not Alone

Security.org's survey of password habits shows that we're reusing our passwords... and it's getting us into trouble.

Do you ever use the same passwords for different accounts?

No
32%



Yes
68%

38%

of Americans surveyed have had at least one password guessed or cracked.

Common Practices Among Hacking Vicims

Used a password more than one **89%**

Shared personal passwords **74%**

Passwords were less than 8 characters **61%**

More Survey Results:

<https://www.security.org/resources/online-password-strategies/>

PASSWORDS

■ Why Is Reusing Passwords So Dangerous?

Darknet Diaries is a podcast that talks about the dark things on the web. In episode 112, , Host Jack Rhysider interviews a 16-year-old boy who hung out with a lot of other teenagers and preteens who were hacking the blank out of us, and teaching each other how to do it.

The teen offered up all kinds of next-generation hacker secrets, including what the bad guys are doing when they discover username/password combos that have been reused for different accounts.

[Click here to listen to the excerpt about reusing passwords](#)



PASSWORDS

■ Tips and Tools to Improve Your Passwords

If you are overwhelmed at the thought of remembering a unique, unguessable password for every single account, fear not.

Use these tools to up your password game.

Check Your Existing Email and Passwords

Have I Been Pwned?

Search Engine for Hacked Emails and Usernames
haveibeenpwned.com

How Secure is My Password?

Password Checker to See How Long It Would Take to Be Decrypted
security.org/how-secure-is-my-password



PASSWORDS

Use a Password Manager

1Password

Top Password Manager with Offline Storage and Manual Sync

1password.com

Bitwarden

Password Manager with Generous Free Version

bitwarden.com

Dashlane

Top Password Manager with Online/Offline Storage Options

dashlane.com

Keeper

Top Password Manager with Extra Secure Security

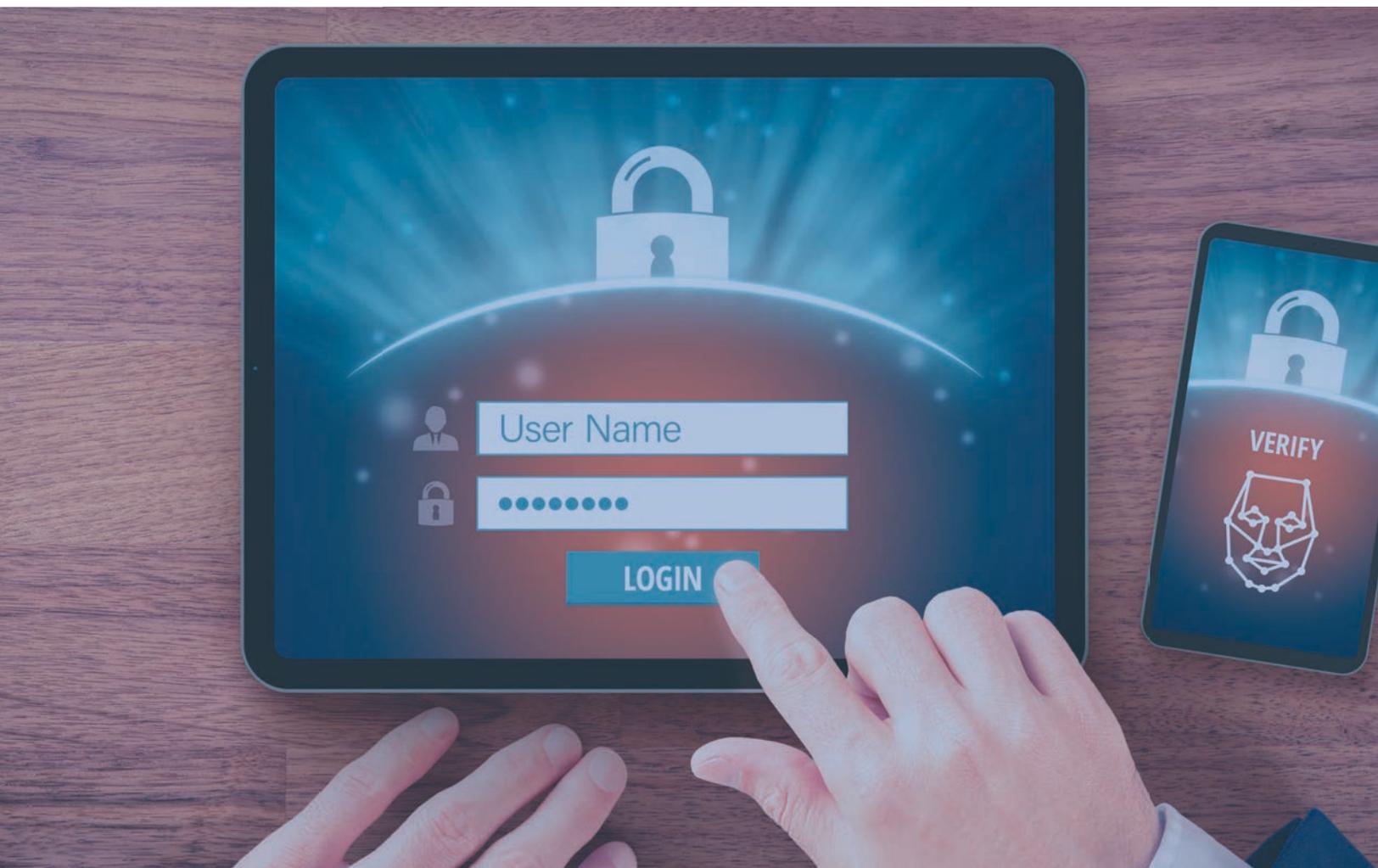
keepersecurity.com

LastPass

Beth Z's Favorite Password Manager

lastpass.com





■ Use Two-Factor Authentication

Having a unique, unguessable password for every account is one piece of the puzzle. But if you use two-factor authentication, recent surveys by Google and Microsoft found that you can reduce the likelihood of an account breach by 99%.

■ Two-Factor Authentication

Two-factor authentication is based on a principle of three. To up your security, you want to secure your account with at least two of three factors.

Something You Know

A password, security question or another knowledge-based credential.



Something You Have

A phone where you receive a code or a separate email sent to another device.



Something You Are

Biometrics such as your fingerprint, face recognition, iris or other personal bio identifier.

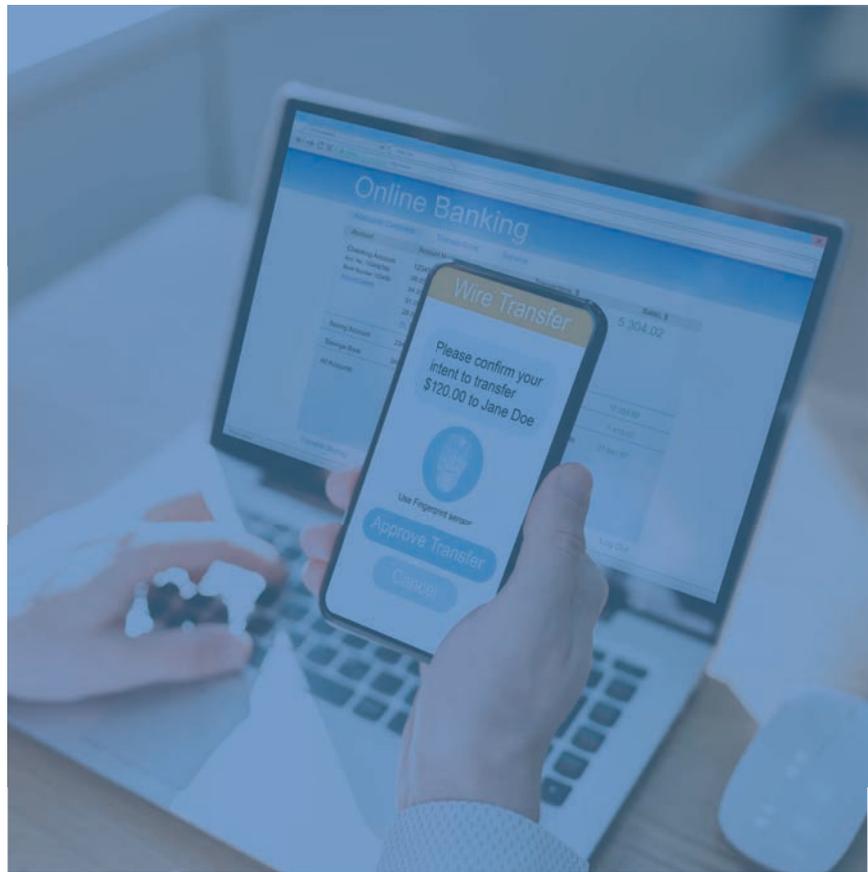


■ Not All Two-Factor Authentications Are Created Equal

Many banks and shopping sites require two-factor authentication, making you stop to get a code on your phone or via email to verify your identity.

But scammers can manipulate SMS-based verifications, tricking you into giving up your code or rerouting the codes to their devices. Instead you can use a third-party authenticator app or a security device to serve as a verifier.

After you set up two-factor authentication with an account, authenticator apps will generate six-digit, one-time passcodes that refresh every 30 seconds. You enter the one-time-use code into your account to login.



■ Two-Factor Authentication Apps

Google Authenticator

Possibly the Most Popular Third-Party Authenticator
safety.google/authentication

Microsoft Authenticator

Multi-Functional Authenticator Tool with Bonus Features for Passwordless Microsoft Products Access
microsoft.com/en-us/security/mobile-authenticator-app

Twilio Authy

Another Authenticator with an Excellent Reputation
twilio.com/authy





■ Two-Factor Authentication Hardware

You can take two-factor authentication to another level with authentication devices like **YubiKey** from Yubico. These gadgets give you access to secure accounts with a click or a touch while they are near your smartphone or computer.

Yubikey

Authentication Gadget

yubico.com



■ Resources to Protect Your Privacy

You strike up a random conversation about bowling, and the next time you open Facebook, an ad for bowling shoes hits your feed.

Coincidence? Maybe, maybe not. But we all need to take steps to limit the information that marketers and bad actors can find out about us from our online activities.

Use Disposable Email Addresses to Stay Off Spam Lists

10 Minute Mail

Disposable Emails that Disappear after 10 Minutes
10minutemail.com

Apple's Hide My Email Feature

Apple's iCloud-Based Email Masking Feature
[On iOS Devices](#)

Burner Mail

Masked Email Address Generator for Privacy and Spam Protection
burnermail.io

Disposable Emails Continued

Email on Deck

Temporary Emails for
Privacy and Spam
Protection

emailondeck.com

Gmail Email Privacy Hack

Gmail Feature to Let You
Mask Your Email Address
with a Plus Sign and Word
or Phrase

[Gmail Feature](#)

Mailinator

Disposable Email
Addresses on the Go

mailinator.com



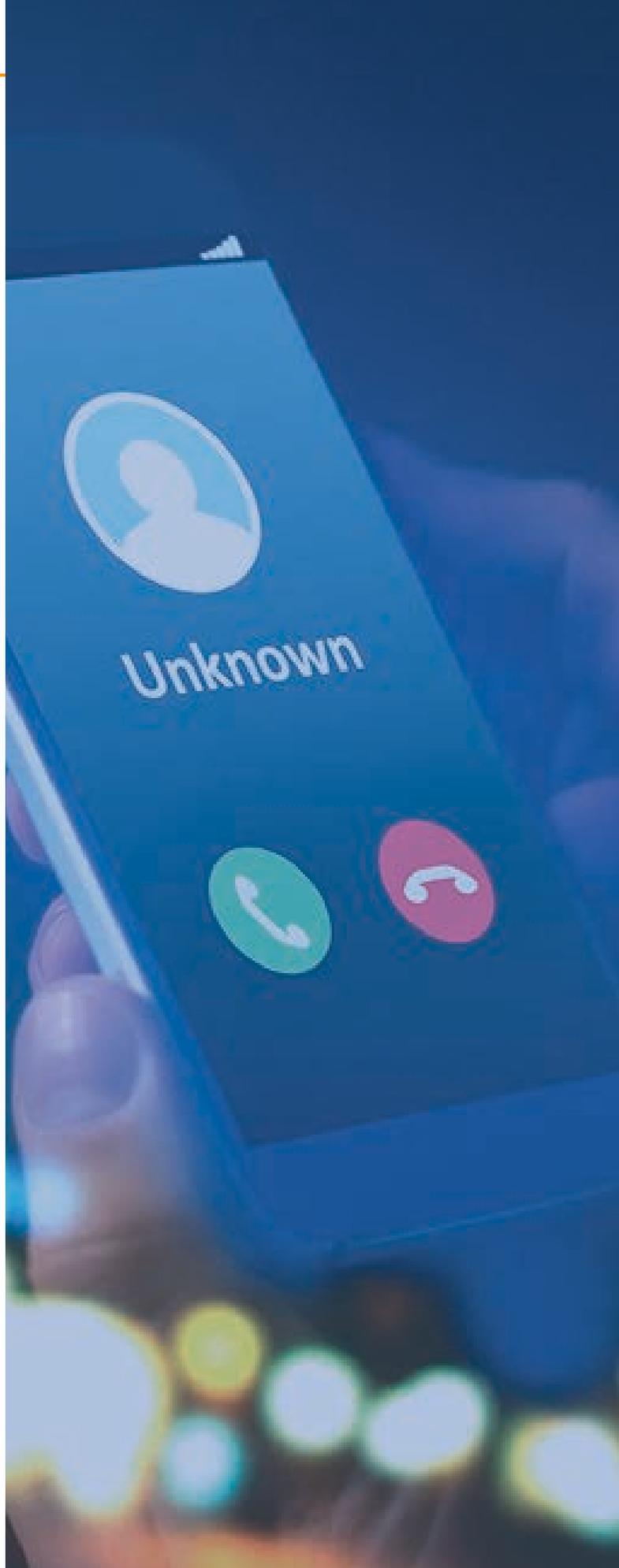
Register Your Phone Number on the Do Not Call List

Federal Trade Commission

Government Site with Resources to Report Identity Theft and Fraud
consumer.ftc.gov

National Do Not Call Registry

Site to Register Your Numbers to Avoid Telemarketing Calls
donotcall.gov



Flip the Tables on Phone Scammers

Hiya

Spam Caller Blocker with
Free Version and \$15 a
Year for Pro

hiya.com

Nomorobo

Award-Winning Robocall
Blocker with Free VoIP
Landline Service and
Budget Mobile Protection

nomorobo.com

RoboKiller

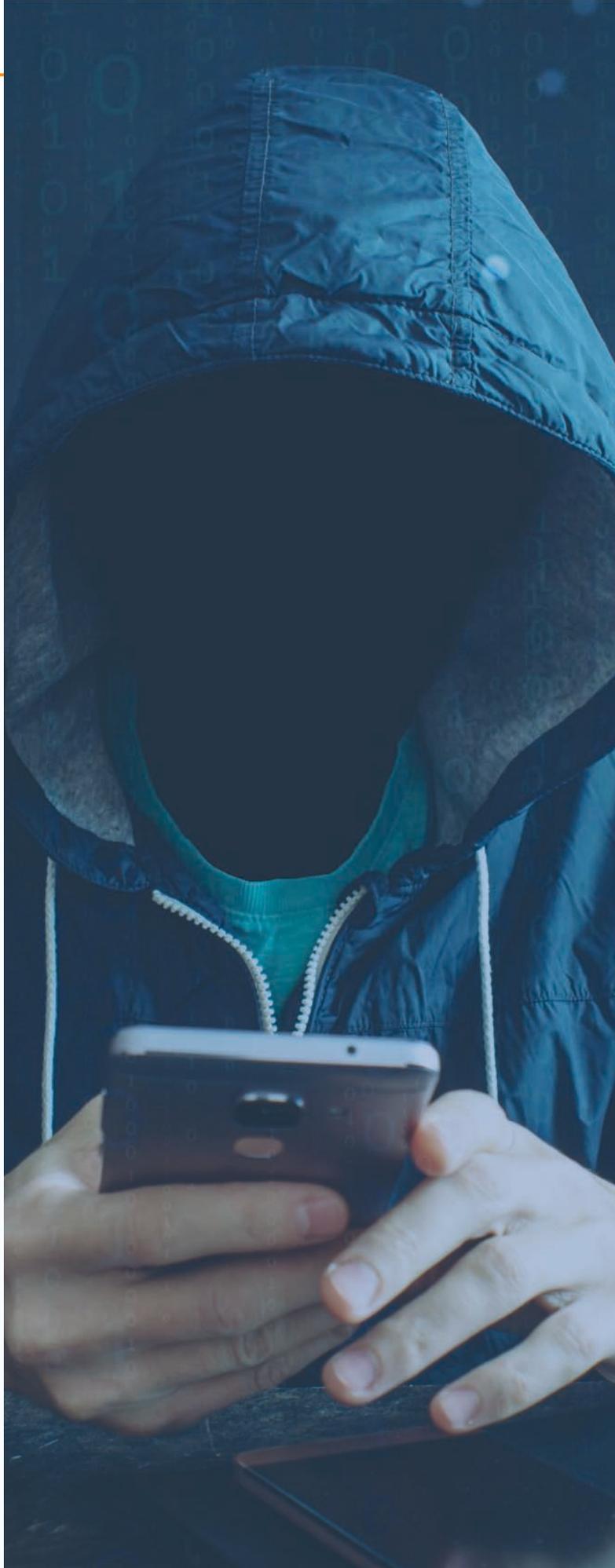
Robocall and Spam
Blocking Service with
Spammer Revenge

robokiller.com

YouMail

Phone Spam Protection
with a Smart Voicemail
Solution

youmail.com



PRIVACY

Use a Virtual Private Network (VPN) to Keep Your Surfing Private on Public WiFi

ExpressVPN

Top-Rated VPN

expressvpn.com

NordVPN

Another Top VPN with Multi-Device Pricing

nordvpn.com

Windscribe

Respected VPN with Free Level

windscribe.com



Learn How to Surf Safer

Safer Internet Day USA

Site with Resources for
Staying Safe Online

saferinternetday.us

Protect Your Digital Data

CyberSecure My Business™

Interactive, Easy-to-
Understand Workshops
for Small and Medium-
Sized Businesses

staysafeonline.org/cybersecure-business

Cybersecurity Tip Sheets

Dozens of Downloadable Checklists and Tip Sheets for Everything from Romance Scams to Online Shopping

nerdybff.com/privacytipsheets

Manage Your Privacy Settings

Listing of Direct Links to Check Privacy Settings for Popular Devices and Online Services

nerdybff.com/privacysettings

Online Safety Basics

Straightforward Tips for Protecting Yourself, Your Family and Devices

nerdybff.com/safetybasics



Increase Your Cybersecurity Smarts

Cybersecurity Awareness Month

Event to Raise Awareness
about Cybersecurity so the
Hackers Won't Get You
[staysafeonline.org/
cybersecurityawareness-
month](https://staysafeonline.org/cybersecurityawareness-month)

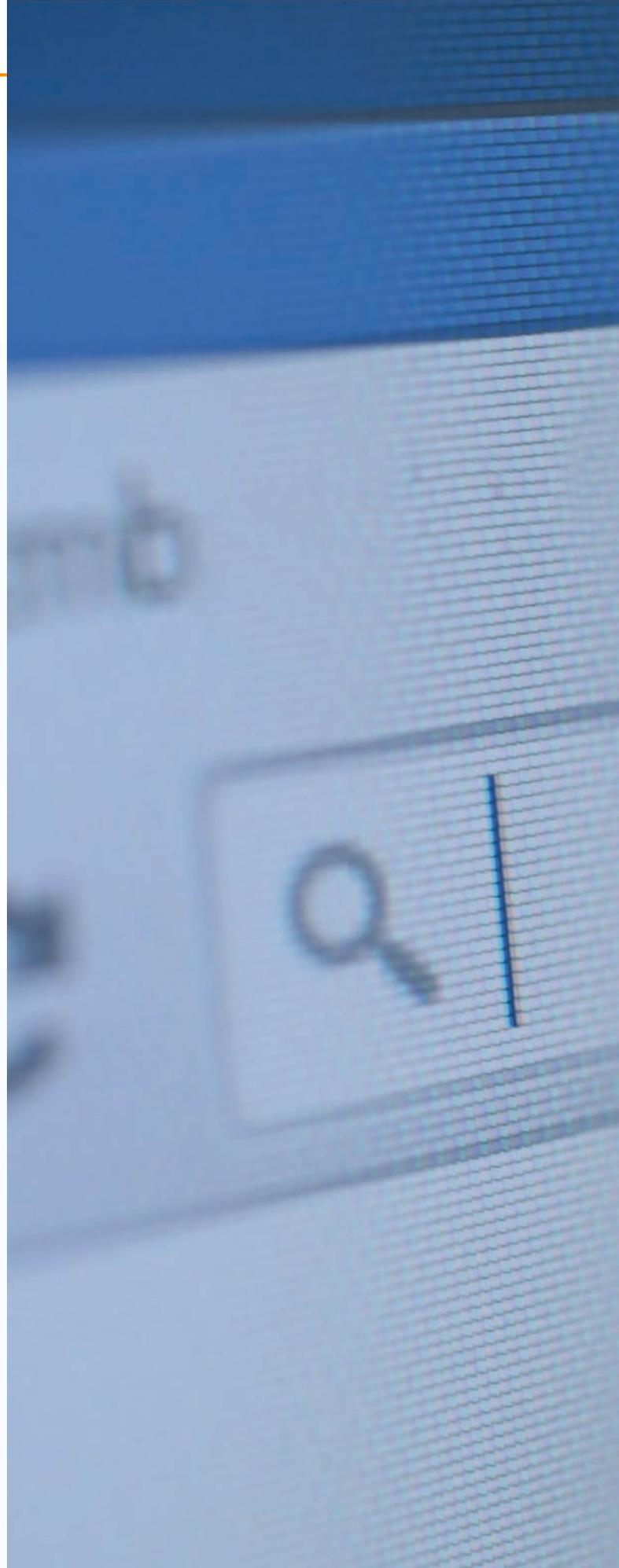
Ask Your Private Questions in Private

DuckDuckGo

Privacy-First Browser and
Search Engine
duckduckgo.com

StartPage

Extreme Privacy Browser
and Search Engine with
Google Searching
startpage.com



ABOUT BETH Z

CERTIFIED SPEAKING PROFESSIONAL

To find technology to make your life easier, you could hunt for hours, demo for days or Google for greatness.

Or you could just ask Your Nerdy Best Friend...

Beth Z, Your Nerdy BFF, sorts through the digital clutter to discover tech tips, tools and tricks to solve life's everyday problems.

Then she shares her best tips in easy-to-understand short bites with humor and pizzazz.



AUTHOR. SPEAKER. NERD.
(NOT NECESSARILY IN THAT ORDER)

What Audiences Say About BETH Z...

- ✓ "I love all your virtual training seasons! I've improved my Zoom presentations due to your tips, tricks and technology recommendations. Thanks!"
- ✓ "I love My Nerdy Best Friend, Beth Z! Her tools are GENIUS and super helpful for work and everyday life."
- ✓ "I love listening to NERDY Beth Z. She's entertaining while offering many great tips and education to help me with my business. Thank you for your NERDY but great offerings."
- ✓ "Beth is the right blend of serious information and seriously fun!"
- ✓ "Beth delivers. I've hired her, gifted her books and brainstormed new ideas. Go easy on yourself... Hire her today!"
- ✓ "I have been following Beth for years, and she never fails to teach me something new!"
- ✓ "I love listening to NERDY Beth Z. She's entertaining while offering many great tips and education to help me with my business. Thank you for your NERDY but great offerings."



THANK YOU

WANT FUN AND USEFUL CONTENT?

Beth Z's presentations marry the funny with the functional with interaction and hands-on learning built-in!

AUTHOR SPEAKER NERD

yournerdybestfriend.com