



Person of Non-Interest

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What is encryption?

Scrambling information so only the right person can read it.

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In short: encryption turns readable information into scrambled code. Only someone with the right key, like your passcode, can turn it back. It protects your phone if it's lost, your messages as they travel, and your Wi-Fi at home. Much of it works automatically. Your job is mostly to keep a strong screen lock and use secure Wi-Fi.

How it works, in plain words

Imagine writing a letter in a secret code that only you and your friend know how to read. If someone grabs the letter on the way, all they see is nonsense. Encryption does this with math, instantly, for your data.

Where you're already using it

- **Your phone or computer.** Encrypting what's stored on a device makes it useless to a thief who doesn't know your password or PIN, according to U.S. cybersecurity guidance (CISA). That's why a strong screen lock (<https://beaponi.com/checklist#doors>) matters.
- **Websites.** Most web traffic now travels encrypted (the "https" at the start of a web address).

- **Home Wi-Fi.** Your router can encrypt everything sent between it and your devices. CISA names **WPA3** as the strongest current option, with **WPA2** as the older standard.
- **Messaging apps.** Some apps use end-to-end encryption, meaning your message stays scrambled the whole way between you and the person you're writing to.

What encryption doesn't do

Encryption protects information from people who shouldn't see it on the way or at rest. It can't protect you from a scammer you choose to send information to. If you give your password or a code to someone in a phishing (<https://beaponi.com/learn/spot-phishing>) message, encryption simply delivers it to them securely.

What to do

1. **Keep a strong screen lock** on your phone and computer: a PIN of at least six digits, or a password.
2. **Check your home Wi-Fi** uses WPA3, or WPA2 if WPA3 isn't available, with a strong Wi-Fi password. Your router's settings or your internet provider can tell you.
3. **Keep your devices updated**, so they use the latest protections.

Common questions

Does encryption mean nobody can ever read my data? No. It protects data from outsiders, but anyone with the key, such as someone who knows your passcode, can still unlock it.

What does end-to-end encryption mean? That a message stays encrypted all the way from your device to the other person's device, so it can't be read while it travels.

Do I need to turn encryption on? Many phones and computers can encrypt what they store. Check your device maker's help pages to see how yours works. Either way, a strong screen lock is the first step, because it's what keeps the key safe.

Sources

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- Glossary: encryption (<https://csrc.nist.gov/glossary/term/encryption>) · end-to-end encryption (https://csrc.nist.gov/glossary/term/end_to_end_encryption) (NIST)
- Securing Wireless Networks (<https://www.cisa.gov/news-events/news/securing-wireless-networks>) (CISA)
- Choosing the VPN That's Right for You (<https://ssd.eff.org/module/choosing-vpn-thats-right-you>) (Electronic Frontier Foundation): most web traffic is now encrypted

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