

Malware

In This Module

- What is malware, and how does it infect devices?
- How can you recognize malware?
- How can you handle and better avoid malware?

Malware

Malware is a type of software that is designed to deliberately infect devices, causing disruptions or gaining unauthorized access to information

Malware is an umbrella term that refers to different kinds of malicious software. It can infect computers, phones, tablets, and other devices

Activity

Have you ever had to deal with malware on a device before? What happened? How did you fix it?

What Are Some Types of Malware?

- **Viruses:** Malware that attaches itself to a program and then starts replicating when you unknowingly activate the virus
- **Trojan virus:** Pretends to be something useful (like an app) to trick you into installing it. It then gains unauthorized access to your device

What Are Some Types of Malware?

- **Ransomware:** Malware that locks your device and holds it for ransom
- **Spyware:** Malware that secretly observes your activities. Related to Keylogging
- **Cryptoware:** A newer form of malware where someone hijacks your computer and uses it to mine Bitcoin

How Do You Get Malware?

Malware can infect devices in different ways, but it often gets onto your device because you unknowingly did one of the following:

- Installed an app, browser extension, or program that had malware in it
- Visited a website that contained malware
- Clicked a link or ad that contained malware
- Downloaded something that had malware in it

How Can You Identify Malware?

Here are some signs that you have malware on your device:

- Your device is running very slowly or keeps crashing
- You can't shut down or restart your device
- You keep getting pop-up windows or excessive and interfering ads

How Can You Identify Malware?

Here are some signs that you have malware on your device:

- Your battery drains quickly
- For laptops, the fan runs continuously and loudly
- There are apps, open tabs, and things you didn't open or install on your device

What to Do if You Have Malware

- Stop doing things like online shopping or entering in passwords for accounts until you've resolved the problem.
- Make sure your security software is up to date
- If you don't have security software installed, install a reputable type of security software for your particular device
- Once you have your security software ready to go, run a scan on your device to see if malware is present
- If you have malware, use your security software to help you remove it

What to Do if You Have Malware

- For more severe infections, you might need to reinstall your operating system. Visit your device manufacturer's official website for directions on how to do this
- If you still need help, contact tech support for your device (this might be covered by the warranty)

Avoiding Malware

- Be cautious when installing software, apps, and browser extensions. Malware can hide in these things
- Be on the alert for phishing schemes, and avoid clicking links or downloading files from suspicious or unknown sources
- Pay attention to the websites you are visiting, and pay attention to warnings from your browser about unsecured sites

Avoiding Malware

- Keep your security settings up to date on your devices and your browsers
- Install operating system updates and security updates in a timely manner
- Back up your data regularly to keep it protected and recoverable
- Install security software to monitor your device and help you block, detect, and remove malware

Takeaways

- Malware is a risk for anyone who uses a device with internet access
- Malware often hides in things or fools you into opening or installing something that you shouldn't in order to gain access to your device
- Be cautious with your online activity and habits
- If you get malware, use security software or seek help from your device manufacturer to remove the malware and re-secure your device

Resources

Data Detox Kit ([link](#))

Malware Guide from the FTC ([link](#))

Security Planner from *Consumer Reports* ([link](#))

Questions?

NYC Digital Safety

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