



# TROUBLESHOOTING 101 GUIDE

**Version 3**

**April 26<sup>th</sup>, 2019**



## TIP #1

### Anti-Virus Software

Anti-virus software such as McAfee, Microsoft Security Essentials, or Windows Defender is used to detect, neutralize and eradicate malware (i.e., malicious software). It can also minimize other threats such as phishing attacks, worms, Trojan horses, and rootkits.

#### NOTES:

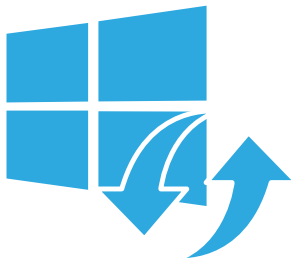
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## TIP #2

### Windows Update

The Windows Update is used to keep Microsoft OS and Software programs current. Updates often include feature enhancements and security updates to protect Windows from malware and malicious attacks.

#### NOTES:

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## TIP #3

### Strong Password

A secure password has at least 8 characters, which includes letters, numbers, and special characters. For example a strong password is "12earthWormS!". A weak password is "Password1234".

#### NOTES:

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## TIP #4

### 3-2-1 Data Backup Rule

The most critical aspect of your computer is data. There are various causes of data loss, which may include hardware failure, data corruption, viruses, etc. Use the 3-2-1 rule: keep at least three (3) copies of your data, and store two (2) backup copies on different storage media, with one (1) of them located offsite.

#### NOTES:

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## TIP #5

### Disk Clean-Up

Disk Clean-Up creates more computer hard drive space. This computer maintenance utility is included in Microsoft Windows.

#### NOTES:

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## TIP #6

### Disk Defragmenter

Help speed up your computer with a Disk Defragmenter. It increases access speed by rearranging files stored on a disk. It is a computer maintenance utility included in Microsoft Windows. Please note: on Windows 10, Disk Defragmenter is known as Optimize Drives and it runs automatically.

#### NOTES:

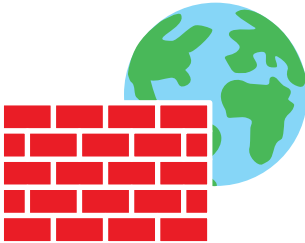
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## TIP #7

### Windows Firewall

Block unwanted access with a Firewall. This is a part of a computer system or network which is designed to block unauthorized access while permitting outward communication.

#### NOTES:

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## TIP #8

### Test Wi-Fi Connection

This tip mainly relates to internet-related problems. Do some detective work and try plugging your ethernet cable to your PC. For wireless routers, try powering off your router and waiting 90 seconds to turn it on again. If you still are having issues, contact your internet service provider.

#### NOTES:

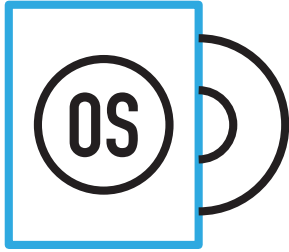
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## TIP #9

### Reinstall Operating System

This is a last resort option. You can reinstall Windows or your Mac operating system to wipe out all troublesome programs, most viruses and malware. Before doing this, make sure to backup your data.

#### NOTES:

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## TERMS

**Applications** are types of software (also called “apps” and often used to refer to mobile device software) designed to provide a function for a user or another app. Apps include everything from web browsers, to word processors, to photo and image editing tools, to chat programs like Skype and Google Hangouts.

**Bugs** are coding mistakes or unwanted pieces of code that keep a website or program from working properly.

**Cookies** are small files that a Web server automatically sends to your PC when you browse certain Web sites. Cookies are stored as text files on your hard drive so servers can access them when you return to sites you’ve visited before.

**Defrag** to optimize your hard drive, usually with a program that “cleans it up” and makes it run as smoothly as possible.

**Ethernet cable** is one of the most common forms of network cables used on wired networks. Ethernet cables connect devices within a local area network, like PCs, routers, and switches.

**Firewalls** are systems designed to protect and secure a computer network—everything from a commercial web service to your home Wi-fi network—from external security risks. Firewalls monitor inbound and outbound network traffic and determine whether to allow the traffic through based on a user-defined set of security standards.

**Keywords** are words or phrases commonly used in search engines to look for online content. Keyword research is a powerful internet marketing tool, since web advertising and website search engine placement can be optimized to match high traffic keywords, making it more likely that Googlers will end up on your site.

## TERMS

**Operating System** is the primary software that manages all the hardware and other software on a computer. The operating system, also known as an "OS," interfaces with the computer's hardware and provides services that applications can use.

**Routers** are the devices used to connect personal computers to the internet via a service provider like cable or DSL. The device that your computer is either directly connected to via an ethernet cable or that you use to access your home Wi-fi network is a router.

**Software** is a program or set of instructions that instructs a computer, phone, or tablet to take specific actions. Software includes individual applications (web browsers, word processors) as well as system software like operating systems (Microsoft Windows), drivers (software that allows operating systems to communicate with hardware like printers), and utilities (tools like anti-virus programs or hard drive defragmenters).

**User** is a term that defines the online audience. It also refers to anyone who "uses" a computer. The term "users" rubs some people the wrong way because, in the past, if you said you were a user, it meant you were habitually consuming an illicit drug. Nowadays, a user is a person who is online. It comes from techies, who refer to people as "computer users."

**Web apps** are websites that look and feel like an app (as opposed to a series of linked pages). Facebook, Pandora, and Google Docs are all examples of web apps.

**Wi-Fi** is the name of a wireless networking technology that uses radio waves to provide high-speed network and Internet connections.



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