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# Why Mac-OS is Safer Better than Windows

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**Abstract:** The "Mac-OS" which is an operating system of Apple laptop which provide their user a safer, faster and experience of using the devices.

**Keywords:** Safer, faster, seamless experience.

## I. INTRODUCTION

Mac OS, the operating system (OS) is developed by American computer company Apple Inc. The OS was introduced in 1984 to run the company's Macintosh line of personal computers (PC). The Macintosh has announced the era of graphical user interface (GUI) program, and is prompted Microsoft Corporation to upgrade its GUI, Windows OS. Macintosh. Marketing of Apple The launch is very focused on its ease-of-use Operating System. Unlike almost all other PC's Time, Mac OS (originally named System only) software, installed with version number) was based on graphics. Instead of writing instructions and Catalog in text command, users move mouse Pointer for navigating the Finder, folders represented by thumbnails, and a series of visual files. Most computer applications eventually adopted the GUI model. In the 1980s, Apple entered into an agreement that allowed Microsoft to use some features of the Mac interface in earlier versions of Windows. However, with the exception of a brief period in the 1990s, Mac OS has never been licensed for use on computers manufactured by manufacturers other than Apple.



Fig: Mac-OS

Mac-OS recently releases a new feature such as file sharing online, network browsing, and multiple user accounts.

In 1996 Apple acquired its rival Next Computers, founded by Steven Jobs after he left Apple, and in 2001 the company launched Mac OS X, a major redesign based on both the Next Step program and the release of Apple's latest OS. OS X used the UNIX kernel (core software code) and provided technological advances such as memory protection and multitasking, as well as a flexible Finder, a nice-looking interface called Aqua, and an easy-to-use graphical bar "Dock". frequently used apps. OS X updates have added features such as automatic backups and a "dashboard" manager for small, useful applications called widgets.

Since 2007 Apple has introduced a number of mobile devices that can go online, including the iPhone smartphone and the iPad tablet. Apple soon emphasized OS X's ability to communicate with these devices.

In 2011 Apple launched Cloud, a cloud computing service that allowed users to share data between all their Apple devices, both OS X and the iOS mobile operating system. Apple has added additional features that allow connectivity between devices to successive versions of OS X, iOS, and the latest watch-OS (Apple Watch's smart watch app). These features include the ability to receive phone calls (made on the iPhone) and ways to quickly share data (such as photos and text) between devices.

## II. PROS OF MAC-OS

### A. Streamlined User Interface Without Compromising Functions

One of the benefits of macOS over Windows is the simple and organized user interface. Note that both operating systems have an easy-to-use and functional user interface or GUI. However, macOS has a more straightforward GUI similar to the seamless iOS interface available for iPhone and iPad.

The user interface of macOS is similar to iOS. For example, installing and launching apps is almost the same on both Mac computers and iPhones or iPads. This is also true of updating and deleting apps. Apps are widely available in the App Store.

Once And you'll be prompted before any app can access the camera or mic, capture keyboard activity or take a photo or video of your screen. Downloaded and installed, they are placed in a central app cabinet called Launchpad.

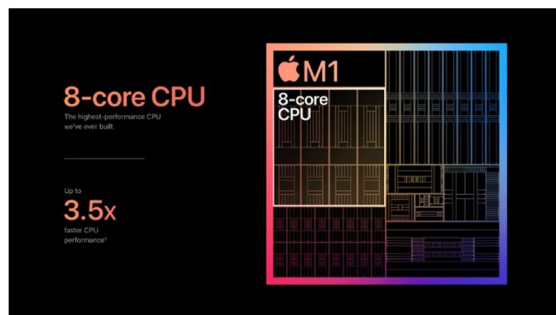
One destination folder called Application also contains additional information and components related to each application. Windows has a very complex workflow because applications or applications are installed on multiple folder and root paths. Software updates are not in one place anymore. The whole system has its own update system unlike macOS even in Chrome OS. A simple GUI can attract people who just want to get their work done. However, it is appropriate to emphasize the fact that each operating system has its own level of simplicity and complexity. They are not intuitive automatically. However, compared to Windows, macOS is cleaner and more advanced. Simple as iOS but powerful as Windows.

### B. Better and Consistent Operating System And Hardware Integration

Fans of Apple products may argue that their MacBook laptops or iMac desktop computers are over. Note that Apple is a software engineer and hardware designer. This dual role enables the company to optimize macOS based on the specification of hardware components of a particular Mac computer. The result is a seamless integration between the operating system and the integrated hardware. Moreover, this integration due to good performance results in efficient and effective computer performance.

In the case of Windows, while Microsoft designs and manufactures its Windows-based computers, there are other Windows-based manufacturers. Some of these manufacturers simply combine different sources of hardware components from different real-time equipment manufacturers or OEMs. These random combinations are at risk of compliance problems.

Apple silicon is a series system on chip (SoC) and system in package processor (SiP) designed by Apple Inc., mainly using ARM architecture. It is based on Mac and iPhone computers, iPad, Apple TV, and Apple Watch, as well as products such as Air Pods, Home Pod, iPod Touch, and Air Tag.



Since the end of 2021, Apple is replacing Mac computers from Intel processors to Apple silicone. The plan was announced at WWDC 2020 on June 22, 2020, the first Macs built next to the Apple M1 processor were unveiled on November 10, 2020. Apple outsourced the chip manufacturers but fully controls its integration with the company's hardware and software. Johnny Srouji holds Apple's silicon design.

### C. Lesser Malware And Other Security Issues Or Vulnerabilities

Another significant advantage of macOS compared to Windows therefore, one of the reasons why Mac computers are better than Windows-based PCs is less prone to security issues and vulnerability. Unlike Windows, there are a few types of malwares such as viruses and worms designed for macOS. Well, while some Apple fans may say that their MacBook laptops or iMac desktop computers are completely harmless to malware, be aware that this is no longer true. The growing popularity of Mac devices redirects hackers' attention to the development of certain types of malwares that can exploit macOS security risks.

Apple has managed to keep macOS and Mac computers generally safer than Windows and Windows-based PCs by promoting the use of the App Store rather than downloading apps from third-party sources. Apps found in the App Store have been checked to ensure they are not malware or suspicious programs.

- 1) *Control What data Apps Can Access:* Apps need your permission to access your Documents, Downloads and Desktop folders, as well as files in iCloud Drive and external volumes. And you'll be prompted before an app can access the camera or mic, capture keyboard activity, or take a photo or video of your screen.
- 2) *File Vault 2 Encrypts your Data:* File Vault 2, your data is safe and secure — even if your Mac falls into the wrong hands. File Vault 2 encrypts the entire drive on your Mac, protecting your data with XTS-AES 128 encryption. Mac computers built on the Apple M1 chip take data protection even further by using dedicated hardware to protect your login password and enabling file-level encryption, which developers can take advantage of — just as on iPhone.



#### *D. Bundled with several free Productivity Applications*

The MacBook laptop or iMac desktop computer comes pre-loaded with a few apps that are useful for production. For example, Apple has its own office production system that competes with Microsoft Office Suite. These applications include Pages, Numbers, and Keynote, equivalent to MS Word, MS Excel, and MS PowerPoint, respectively.

Mac devices are also pre-loaded with creative professional apps. Examples are the iPhoto photo app and the iMovie video editing app, as well as the music production app called GarageBand. Other useful applications include the Safari web browser, Mail client, and other communication applications such as messaging and Facebook Time. For Windows, Microsoft Office Suite is usually sold separately. Note that both Windows and production programs from Windows are very expensive. In addition, Windows-based PCs come with random programs that automatically destroy the entire system and available storage.

#### *E. Specialized and Incomparable Multitasking Feature*

Multitasking is another commercial and profitable macOS platform over Windows. Note that Windows handles many functions well, but compared to macOS, it lags far behind. Mac devices have special keys and a trackpad or mouse touch for easy switching between apps. There are also many "desktops" equivalent to splitting workstations in macOS. These workspaces allow the user to configure all operating applications based on their preferences. For example, the first desktop may use all production applications while the second desktop may integrate Internet browsing applications with media usage. Switching between desktops is much easier using dedicated shortcut keys or a specific trackpad or mouse touch.

It is worth repeating the fact that macOS is specially designed and seamlessly integrated with the hardware components of a particular Mac computer. This means that every function is always smooth and responsive, especially when heavily used or when the user is doing a lot of things among a few running apps.

#### *F. Integration with other Apple Products Such as iOS Devices*

One of the amazing strengths of Apple is that most of its products and services are fully integrated, thus creating a single ecosystem. Note that the iPhone or iPad works best with a Mac computer, especially for backing up, troubleshooting, and managing files installed on a particular iOS device. The seamless match between macOS and iOS makes switching between devices easier and more convenient. The user can start the work using the app installed on his iOS device and run it using the same app installed on his Mac computer. This obviates the need to sync devices using cables and plugs or upload and download a file or document using cloud-based storage services like Google Drive and OneDrive.

Syncing relevant data and information such as user information or preferences, the address book, and messages between a Mac computer and an iPhone or iPad is straightforward. In addition, there are many similar apps in the macOS and iOS apps that facilitate cross-platform use. Examples of these applications include Pages, Numbers, and Keynote, among others.

### **III. CONS OF MAC-OS**

#### *A. Integration with other Apple Products such as iOS Devices*

The biggest disadvantage of macOS over Windows is that the devices running this app are very expensive. The fact is that the standard MacBook Pro or 12-inch MacBook are more expensive devices compared to similar Windows laptops.

Remember that macOS is an application designed for Mac devices only. Although there is something out of macOS called Mackintosh. Mackintosh is actually a non-Apple or non-Mac computer running macOS. Note that this is illegal. An app from Apple remains a copyrighted product and users found using Mackintosh may be liable for infringement of intellectual property rights, in particular copyright laws. However, the expensive price of a Mac computer reduces the popularity or capture of macOS. Remember that Mac computers come with macOS. Consumers who are aware of the budget are better off buying a computer with Windows or building their own devices using a licensed and purchased Windows operating system.

#### *B. Limited Options or flexibility for Upgrading the Hardware*

It has been found that one problem with macOS is that it naturally binds to Mac computers. This feature also addresses other disadvantages: limited hardware upgrade options. For example, some MacBook or iMac hardware components such as CPU or RAM cannot be easily upgraded. Many of these components are sold and assembled at both the design and engineering levels.

On the other hand, a wide range of Windows-based PCs, including desktops and laptops, offer a high level of development and customization. Note that the user can also build his own Windows desktop PC based on his preferences or requirements by purchasing and assembling the required hardware components.

Hardware development and optimization is important to extend computer time. Even though Mac computers have a longer life due to the combination of hardware and performance, a partial failure can leave the entire device inoperable, thus requiring repair with Apple technical support. Without a warranty, repairs can be very expensive.

#### *C. Scarcity of game titles and absence of advanced gaming experience*

The fact is that MacOS is not attractive to gamers, despite the growing popularity of this operating system. Inevitably, there are more game titles available for Windows. In addition, there are game titles that are exclusive to Windows. This is another notable disadvantage of macOS. Simply put, this operating system from Apple is not for gamers. Software developers often develop games for Windows before developing for macOS. This is because Windows is an established operating system for gamers. In addition, some titles from small or independent developers that have been followed in large numbers are not available for Mac computers. Cross-platform development can be expensive.

Hardware is also an issue. Standard MacBook laptops such as the base model of the MacBook Pro or the 12-inch MacBook, as well as base models of the iMac, are not built for gaming due to limited RAM and lack of dedicated graphics processors. Remember that most Windows PCs offer a high level of hardware upgrades and customization. This means that a Windows-based computer can easily adapt to changing gaming needs by featuring the latest and necessary hardware components.

#### *D. Limited Number of apps Available in the App Store or other Sources*

Similar to the lack of a comprehensive list of game titles, macOS also suffers from a limited app ecosystem. Windows has more programs, and developers often consider developing and releasing programs for this operating system first.

Developers' favourable trend towards Windows comes from the fact that Windows-based PCs are still more popular than macOS or Mac computers. This popularity is due to the affordability and accessibility of Windows-based tools. Developing programs for Windows means greater market access and, thus, better profitability. This is especially true for small or independent software developers. Although Mac computers have become more popular in recent years, the fact remains that there are still more Windows users around the world. As a result, Windows has more programs available than any other operating system.

### **IV. CONCLUSION**

According to this advantages and disadvantages and choice of people professionals opt for Mac-OS as they all require work and seamless experience that an Apple device provides to its user and 8 out of 10 people's choice is Mac-OS.

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