

New Apple Operating Systems

macOS Sierra, iOS 10, tvOS and watchOS 3.0



MacOS Sierra (10.12)

Compatibility With Existing Macs

- MacOS Sierra will run on the following Macs:
 - 2009 AND LATER
 - iMac (Late 2009)
 - MacBook (Late 2009)
 - 2010 AND LATER
 - MacBook Air (Late 2010)
 - MacBook Pro (Mid 2010)
 - Mac mini (Mid 2010)
 - Mac Pro (Mid 2010)

Siri

- Siri is now available on Macs. Siri can perform the same functions available on iOS, like answering simple queries, looking up information, sending messages, opening apps, plus there are Mac-specific functions.
- Siri is able to search through your files to quickly find content that you're looking for with queries like "Find me the documents I opened last week." Siri also understands context, so that can be followed up with further refinements like "just the ones John sent me."
- Siri results can be pinned to the Today section of the Notification Center for later reference, or inserted into a variety of documents. Siri results are dynamic and are kept up to date, so if you ask Siri about the score of a particular sports game, you can pin the resulting answer to the Notification Center where you'll be able to see score changes at a glance.

Continuity

- Automatic unlocking feature. An authenticated Apple Watch can be used to unlock a Mac over Bluetooth whenever you are near your Mac. The feature requires a 2013 or newer Mac, as well as iOS 10 and watchOS 3 for your iPhone and Apple Watch.
- Universal Clipboard allows you to copy something on a Mac and then paste it on an iPhone or iPad and vice versa. It's essentially a cross-device copy paste feature.

Photos

- Memories tab was designed to surface photos that you might have forgotten about, like past trips. It's intelligent and can group photos based on time, location, and even the people and objects
- You can quickly generate little video montages of the photos from specific trips or locations, with the app automatically adding music, titles, and transitions. Music can be customized to convey a specific feeling, like "Epic," "Sentimental," and "Happy," or you can add your own. Titles and the photos included in each video are also customizable
- Improved facial recognition features can better tell who is in an image, and all images of people are organized into a "People" album

Messages

- Messages now supports rich links, so you can see previews of content like websites right in the messages feed. With rich links, videos can also be played without leaving the messages app.
- iOS 10 Messages features, including "Tapback" for quickly responding to messages with an icon like a heart or a thumbs up and bigger emoji, are available in macOS Sierra. When sending one to three emoji, they're displayed much larger than normal.

Apple Music

- The Apple Music section of iTunes has been redesigned with a simpler interface that's supposed to make it easier to discover new music to listen to. Tabs now include "Library," "For You," "Browse," and "Radio," for better content discovery, and a new "Search" tab makes searching for songs and albums quicker.

iCloud

- In macOS Sierra, all files stored either on the desktop or in the Documents folder are automatically synced to iCloud, making them available on other Macs and on iOS devices. On other Macs, when logging into an iCloud account, desktop and Document files are seamlessly synced and immediately available.
- On the iPhone and iPad, files located on the desktop or in the Mac's document folder are available through the iCloud Drive app.
- Files are also available on Windows machines through the iCloud for Windows app and they can be accessed on iCloud.com, making them available on all devices that support a web browser.

Optimized Storage

- feature designed to automatically free up storage space when a Mac's HD or SSD is running out of room. Optimized Storage stores infrequently used items in iCloud and removes them from the Mac, plus it sends reminders to users to prompt them to delete used app installers and clear out duplicate downloads, caches, logs, and more.

Apple Pay

- On participating websites that have signed up to accept Apple Pay, the payments service can be used for web purchases. Apple Pay purchases made on the web are authenticated through an unlocked Apple Watch that is attached to a user's wrist or through the Touch ID button on the iPhone.
- Payments are confirmed with a finger on the Touch ID button or through double clicking on the side button of an authenticated Apple Watch.

Other Features

- Picture-in-Picture
- Tabs
- RAID Support
 - Apple has reintroduced the ability to create and manage RAID volumes in Disk Utility on macOS Sierra, functionality that available in earlier versions of OS X but was removed in OS X El Capitan

What Didn't Make It - APFS

- HFS+ and its predecessor HFS are more than 30 years old. These file systems were developed in an era of floppy disks and spinning hard drives, when file sizes were calculated in kilobytes or megabytes.
- Today, people commonly store hundreds of gigabytes and access millions of files on high-speed, low-latency flash drives. People carry their data with them, and they demand that sensitive information be secure.
- Apple File System is a new, modern file system for iOS, macOS, tvOS, and watchOS. It is optimized for Flash/SSD storage and features strong encryption, copy-on-write metadata, space sharing, cloning for files and directories, snapshots, fast directory sizing, atomic safe-save primitives, and improved file system fundamentals.
- Apple plans to release Apple File System as a bootable file system in 2017.

ios 10



ios 10

iOS 10 Adoption

- iOS 10 is now installed on more than two thirds of the active iOS device install base, recording 66.7% twenty-seven days after iOS 10 was released
- iOS 10 has the fastest adoption rate than any previous update

Lock Screen Overhaul

- Widgets side panel, a redesigned Control Center, revamped notifications, and the removal of the iconic "Slide to Unlock" feature. The Lock screen also has a bright, crisp new look, as incoming notifications no longer dim the wallpaper.
- With the introduction of super fast Touch ID in the iPhone 6s and 6s Plus, many users were bypassing their Lock screens and thus their notifications before being able to view them, so Apple implemented some changes to prevent that from happening.
- A "Raise to Wake" feature activates the Lock screen of the iPhone 6s, 6s Plus, and SE when picked up, displaying all information on the screen without the need to put a finger on the Touch ID home button.

Siri Improvements

- Siri integration is available for six different kinds of functions: ride booking, messaging, photo search, payments, VoIP calling, and workouts. That means Siri can book rides, send messages, search photo apps for specific images or videos, make and request payments, place calls in apps like Skype, and initiate workouts.

Deleting Stock Apps

- Many built-in iOS apps in iOS 10 have been moved to the iOS App Store as standalone downloads, allowing them to be deleted and re-downloaded at will. The following built-in apps can be removed on iPhone, iPad, and iPod touch devices in iOS 10:

Calendar Compass Contacts FaceTime Find My Friends Home iBooks
iCloud Drive iTunes Store Mail Maps Music News Notes Podcasts
Reminders Stocks Tips Videos Voice Memos Watch app Weather

Messages

- Messages is the most used app on the iPhone, Apple has given it a lot of attention in iOS 10, introducing new features to make iMessages more personal, emotive, and fun
- iMessages can be sent with an animated background, like balloons, confetti, and fireworks, or they can be emphasized with a "Bubble Effect," There's an "Invisible Ink" Bubble Effect for a surprise-like impact, with text that remains hidden until a finger is swiped across it, and you can add quick "Tapback" replies to messages in the form of a heart, a thumbs up, and more by double tapping on a chat bubble.
- Digital Touch, the sketching feature first introduced in the Apple Watch, is now available in Messages. With Digital Touch, you can send drawings, heartbeats, and taps to friends, and on iOS devices

Photos

- Photos app in iOS 10 has been updated with Siri intelligence which equates to new deep learning algorithms and advanced facial and object recognition techniques, aka computer vision.
- Using these tools, Photos is able to scan a user's entire photo library, intelligently detecting people, animals, places, objects, and more. Based on this information, Photos groups images together to enable powerful search capabilities, allowing users to search through their images by topic. A search for "cats" for example, brings up images of cats, while a search for "beaches" brings up all beach images.

Home

- Apple added a standalone "Home" app in iOS 10, designed to control all of a user's HomeKit-connected products in one central spot.
- With the Home app, either an Apple TV or an iPad can be set as a Home Hub to allow HomeKit accessories to be used when away from home. There's also a section to create automated routines to do things like turn the lights on at specific times.
- iOS 10 brings support for new types of devices, including video cameras, air conditioning units, and doorbells, and HomeKit products can be controlled through iOS 10's new interactive notifications.

Apple Music

- Apple Music has been redesigned with a simpler interface that makes it easier to find new content to listen to. Tabs now include "Library," "For You," "Browse," and "Radio," for better content discovery, and a new "Search" tab makes searching for songs and albums quicker.

Maps

- Maps has been redesigned with easier to access controls, destination suggestions that are front and center, and more prominent feedback tools. Maps now features traffic information en route and a dynamic view that pans in and out to allow users to look ahead to what traffic conditions are like.
- iOS 10 includes Maps extensions for developers, so apps can integrate directly with the Maps app, letting users do more without having to open multiple apps. For example, with OpenTable integration, Maps can be used to book a dinner reservation, and with Uber integration, a user can call an Uber without leaving the Maps app.



watchOS 3

New Watch Faces



Additional Complications



Dock and Faster App Launching

- Navigation on the Apple Watch is quite a bit different in watchOS 3. The side button, in watchOS 2 used to bring up a list of contacts. It is replaced with a dedicated "Dock" that brings up a list of favorite apps.
- The Dock replaced the Glances view, formerly accessed by swiping up on a watch face. The same swipe now brings up a new Control Center, a navigation change meant to mirror accessing the Control Center on the iPhone.
- All apps designated as favorites in the new Dock are kept continually in the Apple Watch's memory, with information updated in the background.

SOS

- SOS is a feature activated by holding down the side button on the Apple Watch for three consecutive seconds. When this happens, the Apple Watch automatically calls local emergency services, using either a Wi-Fi connection or a connection to an iPhone.

Home

- Apple introduced a new "Home" app in iOS 10 to give users a central location for controlling all of their HomeKit-enabled devices, and there's also a Home app for the Apple Watch. With Home, there are quick-access controls for doing things like controlling the lights or adjusting the thermostat.

Messages

- In Messages, a redesign makes it quicker to reply to incoming texts and iMessages. There's no need to tap "Reply" when a message is received - the options are already listed at the bottom of the notification.
- There's also new "Scribble" feature for replying to messages. With Scribble, you can spell out your response on the Apple Watch display with your finger, writing the letters on top of each other. Scribble supports both Chinese and English.

Unlock Macs

- Mac owners can now use an authenticated Apple Watch to unlock their Macs whenever they are nearby. Unlocking works through proximity, much like the Apple Watch unlocks when an iPhone is unlocked.
- When near a password protected Mac, the Apple Watch is used to bypass the password for quicker entry. This feature requires a 2013 or later Mac and works with all Apple Watch models.