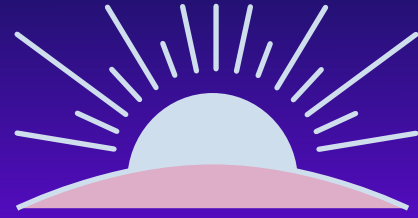


macOS

Monterey Upgrade for Beginners





The newest version of macOS is heading to Mac devices near you.

As IT leaders, your job is to get macOS Monterey's new features and system into the hands of users, all without disrupting workflows or slowing productivity.

Contrary to other ecosystems, major versions of Apple's operating systems, macOS, iPadOS, iOS and tvOS, are released annually. When devices are running old software, consistency, security and user experience are all compromised. This is especially true when organizations attempt to support a variety of devices and OS platforms with a single management solution.

A combination of the simple upgrade path and \$0 cost for Apple OS upgrades help drive industry-leading adoption rates for consumers. End users are excited to access the new features; yet, you're responsible for maintaining security controls and an accurate systems inventory at all times.

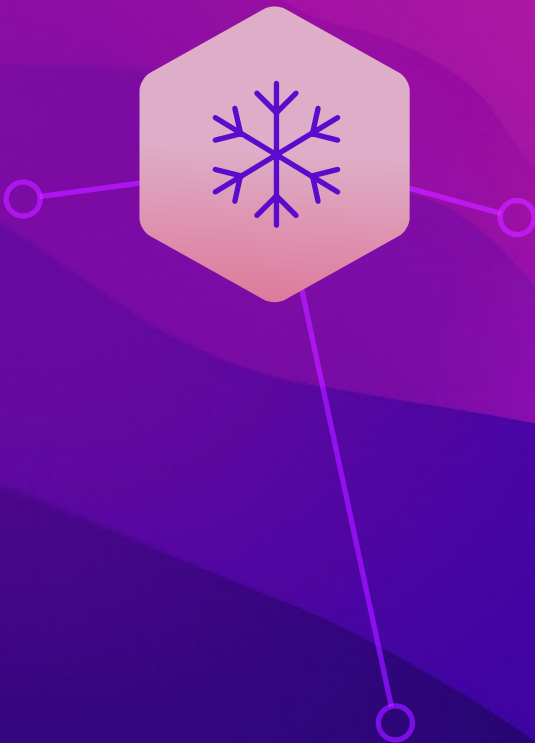
As most IT organizations know, this may be easier said than done, especially when it comes to upgrading at the pace your Apple users are expecting. Now for the good news.

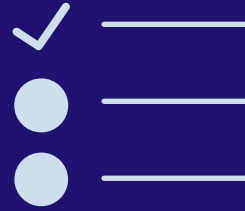
At Jamf, we've been doing this for more than 19 years, and are here to provide step-by-step guidance for successful Apple upgrades — regardless if it is your first, fifth or 10th OS season.

There are four key reasons organizations should embrace upgrades and empower end users to update their device(s) when your environment, organization and team is ready:

- 1. Reduce security vulnerabilities**
- 2. Keep end users happy**
- 3. Keep users productive**
- 4. Access new IT management features**

This guide provides you with a thorough understanding of the new Mac operating system, and ways to carefully prepare for and implement an upgrade. You'll learn how to minimize disruptions and eliminate unplanned downtime, while gaining the knowledge to deliver organizational value and walk users through their macOS Monterey upgrade.

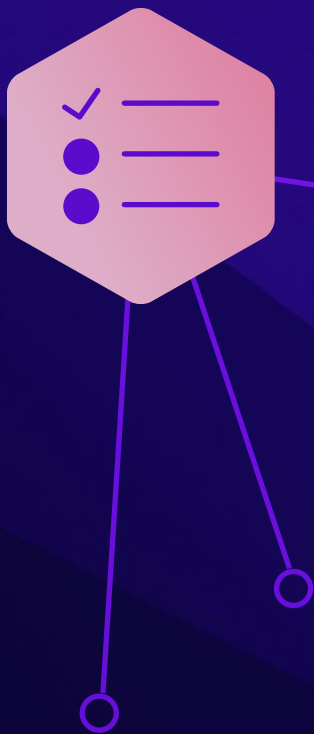




What comes with the new macOS?

There are a lot of new and great features involved with this operating system. The workflows between iPhone, iPad and Mac have never been so seamless and are continuing to get better. If you have some time, it is worth viewing the full list of new **macOS Monterey** features, but here are some of our favorites that we think matter to you.

What comes with the new macOS?



User Privacy

Apple continues its unparalleled tradition as a privacy-first company. The new macOS privacy features include Private Relay, a new iCloud+ service that protects user privacy by hiding the IP address and location from visited websites when browsing with Safari.

Erase All Content and Settings

Erase All Content and Settings is now available for macOS Monterey and works as it does on iOS/iPadOS, with the option to erase all user data and user-installed apps while maintaining the currently installed operating system version.

macOS Managed Software Updates

Managed software updates allows MDM admins to delay software updates on supervised devices and is now available for M1 Macs. By delaying the availability of software updates, you can test critical apps and infrastructure before rolling it out to your team. This allows a major release (like Monterey) to be deferred up to 90 days, with important security updates and minor versions of macOS still available for users to install.

macOS Recovery Lock

macOS Recovery Lock is a way to secure the most sensitive parts of the Mac by preventing users from accessing the recovery mode of the device without a password.

Screen Sharing

Screen sharing is now available in FaceTime with SharePlay. SharePlay extends the ability for users to receive remote assistance, bringing support to a new level.

Apps & Books

Apple's new API delivers a more performant and scalable Apps and Books experience for organizations. In addition, Xcode for developers provides a way to continue to expand the Mac App Store and support for Mac apps.

All of these changes can be used to make your users more productive, better equipped for their day, more self-reliant and have an overall better work experience, but what are the best ways and steps to getting these features to your users in a timely fashion?

Get ahead with beta

1
STEP
↓

Arm yourself with previews of upcoming releases from AppleSeed for IT to get an early look at how new OS versions and features will impact your organization.

Apple is regularly updating its operating systems, which means participating in the beta program provides months of testing ahead of an operating system release. Apple offers AppleSeed for IT which provides free beta programs for macOS, iPadOS, iOS and tvOS. To join, sign up with your Managed Apple ID you use Apple Business Manager or Apple School Manager.

Why join beta programs?

1 The beta cycle for these operating systems typically occurs in multiple phases. Participating early and submitting feedback to Apple increases the likelihood that the features and issues that impact you most will be addressed before the update is generally released. And, when submitting feedback to Apple, you can use the Feedback Assistant app to have visibility to the issue's status and OS version where a potential resolution occurs.

2 Participating in the beta not only gives you early access to test new features and compatibility, but it also offers a deeper understanding of how the end-user experience will be impacted. Knowing which new settings have been added, any features that have moved, or changes to labels can inform necessary updates to your training materials, onboarding kits, etc. This helps your organization best prepare for changes to the end-user experience, so you can execute a more user-centric support model and communication plan accordingly.

3 Lastly, in addition to new OS settings and features, application, infrastructure and management compatibility testing is critical for continuity with current software offerings in your environment. We recommend you run Apple's betas to test their deployed apps for issues. Apple has various test plans available for organizations to validate how beta OS versions interact in numerous customer environments.

Testing



For best results and to ensure the upgrade won't impact any unforeseen aspects of your end users' workflows, be sure to test your entire tech stack including:

1 Infrastructure

Includes anything outside of your application stack, such as VPN or testing printer drivers (which should always be tested with new operating systems). Testing infrastructure is less of a concern for organizations moving toward cloud-hosting services.

2 Applications

Includes both web and non-web-based applications. If you don't have time to test all apps, prioritize based on an application vendor's statements related to compatibility.

macOS Monterey includes changes to legacy kernel extensions. Consult your vendor(s) to see if they support Apple's modern System Extensions framework.

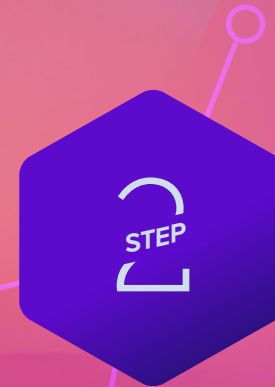
3 Management

Includes device deployment and management solutions (MDM, EMM, UEM, etc.). Check that your device management solution offers the ability to test new restrictions, management capabilities and features.

Chances are your organization may be using a variety of different apps. After all, you have a variety of teams that are using devices in vastly different and individual ways. Prioritizing your app testing is critical to success.

Some choose the route of ranking apps into priority buckets of high, mid and low levels of importance, while others look at the usage of each app and prioritize accordingly. Once that is decided and broken out, recruiting representation from each department (Finance, Marketing, Sales, etc.) to test can help understand their day-to-day uses and make sure things go as smoothly as possible.

Prioritizing your tests



There are several ways to accomplish upgrades on a Mac. However, once you have decided to move forward with an upgrade, you need to determine what to do with the existing data on your Macs. Are these shared in a lab? Are they assigned to a specific user? The bottom-line question you need to answer — do you want to keep the data intact?

Ready to upgrade?

The most common upgrade path for macOS is an in-place upgrade. An in-place upgrade involves installing the operating system while keeping user data intact.

Keep Data

There are 3 methods to deploy the new macOS for your users with the data intact. In options 1 and 3, using the [caching service](#) within macOS will help reduce network traffic. Consider using this service on your network. All of these options could be considered as you move forward.

1 Supervised Mac or those enrolled via Apple Business Manager or Apple School Manager can be upgraded by sending an MDM command to download and install updates. When this command is ran as a Mass Action, IT admins can choose to include updates to major OS versions like macOS Monterey. For computers with Apple silicon, no user interaction is required to authorize the update when a Bootstrap Token is escrowed with Jamf Pro.

2 Download the “Install macOS Monterey.app” directly from Apple for deployment from your preferred distribution points. Once deployed to devices, a policy can be triggered to either run automatically, or users can start the install themselves from Jamf Self Service. These methods can reduce the time to install for end users, as the update is already downloaded.

3 Alternatively, you can simply encourage your users to download and run the “Install macOS Monterey.app” from the Mac App Store, or allow them to download from System Preferences to install.

Upgrading to macOS Monterey



Erase Data

Since you have decided to erase any data on the existing Mac, you can utilize two methods to complete your upgrades. macOS requires an internet connection to upgrade macOS.

`--eraseinstall` option is a command to install macOS and erase the hard drive at the same time. Simply download the macOS Monterey installer and upload via your MDM solution. Deploy macOS Monterey via policies:

- 1) Stage the installer on client Mac and
- 2) Run `startosinstall` with the `--eraseinstall` flag. Start install automatically or place in Jamf Self Service.

Once devices are running Monterey, the “Wipe Device” MDM command will be able to do an Erase All Content and Settings workflow for any T2 Macs or computers with Apple silicon, as described on page.

Additional considerations with Apple silicon are:

- User credentials are required to use `startinstall` and macOS installer apps
- Select “Include major updates, if available” option with a Jamf Pro Mass Action MDM command
- No user interaction is required when a Bootstrap Token is escrowed to Jamf Pro. macOS will request the token to authorize software updates

Upgrading to macOS Monterey



A final note, and one to be very conscious of throughout this process, is communicating openly, transparently and often to your end users about what is going to happen with their devices and what their role will be.

Whether you are communicating to them about when they can upgrade, what the process will be, or why they won't be able to upgrade for a set period of time, including them and opening a two-way communication line will lead to a smoother process.

One of the major aspects that communication may help control, very simply, is the number of help desk tickets or calls you receive on this topic. Additionally, getting ahead of these requests and calls will keep your end users happy, as well as engaged in the process should you need their assistance at some point.

Steps to preparing end users for when it is time to upgrade

1 Not every end user is aware of the time it takes to upgrade. Inform users of the average upgrade time and provide tips on the best time of day to upgrade.

2 Recommend that your end users back up their device(s) before they update. This applies to localized and iCloud backups.

3 Implement a policy to require end users to update within 30 days from the start date you determined or let them know you will update for them. PCI DSS compliance requires 30 days.

Use email, your company's intranet, or if using Jamf, your Jamf Self Service app catalog, to give users plenty of warning and recommendations prior to OS upgrades. They'll thank you for it (or if all goes well, they'll say nothing.)

Communicating to end users





Upgrade, enhance and enjoy

macOS Monterey brings improvements and workflow enhancements to make your devices the flexible, customized machine you need and expect from Apple.

Providing a seamless upgrade process to your organization not only ensures security measures are met, accurate system inventory is maintained and downtime is eliminated, it will make IT look like the heroes they are. A purpose-built Apple enterprise management solution equips you with the tools you need to take advantage of the latest Apple OSs without negatively impacting end users or putting abundant strain on IT personnel.

Jamf is the only Apple Enterprise Management solution of scale that automates the entire lifecycle of Apple in the enterprise, including device deployment, management and security, and upgrades without negatively impacting the end-user experience or requiring IT to touch the device.

Let Us Prove It

Or contact your preferred authorized reseller of Apple devices to take Jamf for a test drive.