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macOS

Sequoia Upgrade Guide For Beginners

The newest version of macOS is heading to Macs near you.

Apple releases major macOS versions every year. IT and security leaders need to provide end users with this new system and its features – without breaking workflows or slowing productivity.

Why an Apple upgrade is different

Contrary to other ecosystems, major versions of Apple's operating systems – also known as an upgrade – are released annually. This includes macOS, iPadOS, iOS, tvOS, watchOS and visionOS.

When devices are running outdated software, consistency, security and user experience are all compromised. When organizations have to support a variety of device types and multiple geographies, it's even more important to upgrade devices easily.

A combination of the simple upgrade path and zero cost for Apple operating system (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 teams 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 lockstep with Apple for over twenty years, and are here to provide step-by-step guidance for successful Apple upgrades — regardless if it is your first upgrade season or a pro looking for a quick refresher.

There are four key reasons organizations should embrace upgrades and empower IT or end users to update devices when new operating systems are released:

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 explanation of how to prepare for and implement a new operating system for Macs. You'll learn how to minimize disruptions and eliminate unplanned downtime, while gaining the knowledge to deliver organizational value and support users through their macOS Sequoia upgrade.

Get ahead with beta

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 regularly updates its operating systems, which means participating in the beta program provides months of testing ahead of an operating system release. Apple offers both paid developer and free public beta programs for macOS, iPadOS, iOS, tvOS, watchOS and visionOS.

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 upgrade 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, management and security 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.

If you have not joined in Apple's Beta programs, you always can for free and you will get benefits for future OS testing. The feedback you provide on quality and usability helps Apple identify issues, fix them and make Apple software even better for you and your users.

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

This 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. Apple had deprecated kernel extensions in favor of the System Extention framework. To utilize kernels, additional steps are needed to load and use the legacy extensions. Consult your Mobile Device Management (MDM) vendor to see if they support Apple's System Extension 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.

4 Security

Includes identity and access, endpoint protection, threat prevention and content filtering. Similar to your management provider, check that your security solution offers the ability to test new security capabilities and features.

Prioritizing your tests

Chances are your organization is 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 the differences in their users' day-to-day needs and make sure things go as smoothly as possible.

Managed Software Updates via Declarative Device Management

Jamf Cloud customers can download and schedule to install an upgrade using Managed Software Updates, powered by the declarative device management protocol, which allows you to use Jamf Pro to easily target a specific update version and deadline to a group of computers in one action.

Once the update plan is defined, macOS will handle user notifications and reminders communicating the eventual enforcement deadline and update to the end user. Computers proactively and automatically give feedback to Jamf Pro regarding the update's progress.

Macs must be on macOS 14 or later to download and schedule to install an upgrade. Available for Jamf Cloud customers only.

Learn more about deploying macOS upgrades and updates with Jamf

Upgrading to macOS Sequoia

There are several ways to accomplish upgrades on a Mac. Once you have decided to move forward with an upgrade, you need to determine how you want to upgrade the Macs in your environment.

Options for Upgrading Operating Systems

With the options below, consider using the caching service within macOS to help reduce network traffic during the upgrade process, which can increase software download speeds for computers.

Updating macOS by sending a mass action command

You can use a mass action command to upgrade an individual computer or group of computers that are supervised or enrolled via a PreStage enrollment in Jamf Pro.

For computers with Apple silicon, no user interaction is required to authorize the update when Bootstrap Token is escrowed with Jamf Pro, which is the recommended update method.

Packaging the macOS installer and installing macOS

If you want to automate the upgrade process, you can package the macOS installer and install it automatically or allow users to install it via Self Service. Additionally, you have the option of using a script to customize the end user experience. This method is recommended for major macOS releases. For more information, see Packaging and Deploying the macOS Installer.

Jamf recommends using a Download and Install command to install major macOS versions on target computers with Apple silicon.

Upgrading to macOS Sequoia

Erasing data with the macOS upgrade

If you decide to erase any data on the existing Mac when you decide to upgrade, rather than choose an option from the previous pages, you can utilize the following method to complete your upgrade.

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

1. **Stage the installer on a client Mac**

2. **Run start to install with the --eraseinstall flag**

3. **Choose to start the installation automatically or via Self Service Applications**

Note: User credentials are required to use starttoinstall and macOS installer apps with Apple silicon machines.

Not ready to upgrade?
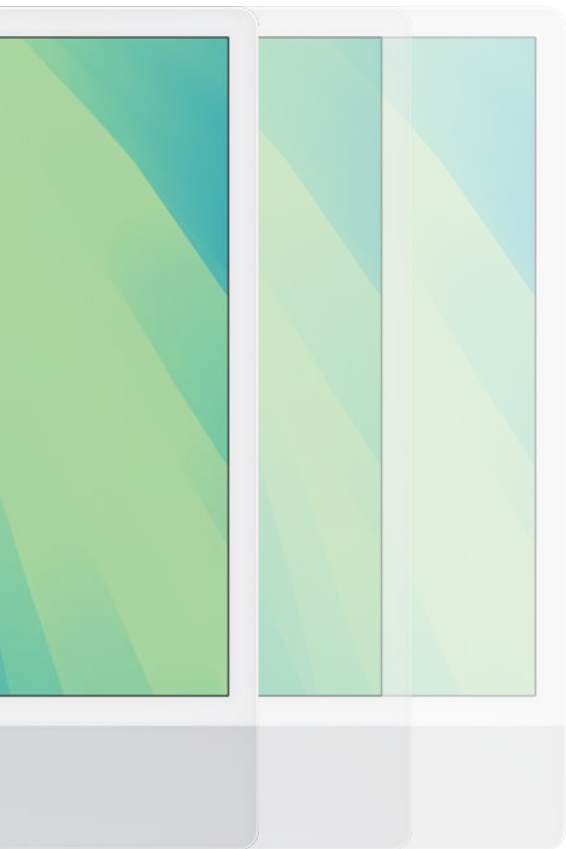
Ready when you are but with same-day security

Apple's introduction of the new RecommendationCadence key within configuration profiles allows IT admins additional options when considering updates for users.

By updating devices to macOS Sequoia when it's released, you ensure that users have all the latest features and security settings as soon as they are available.

Sounds great but what if you are not ready to roll out in your production environment and need more time? What if there are security updates that need applying before you take the leap of a full update?

Well there is now an option. IT admins will be able to choose to let devices continue using macOS Sonoma but still update with the essential security settings.

This give you additional time to make the move when you are ready, without fear of missing security updates.

Communicating to end users

A final note, and one to be very conscious of throughout this process, is that it is essential to communicate openly, transparently and often to your end users about what will happen with their devices and their role in the upgrade.

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, opening a two-way communication line with end users will lead to a smoother process.

One of the major aspects that communication may help control, 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

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. PCIDSS compliance requires 30 days.

Use email, your company's intranet, or your Jamf Self Service app catalog, to give users plenty of warning and recommendations prior to OS upgrades. They'll thank you for it.

Upgrade, enhance and enjoy

macOS Sequoia 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 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 management and security solution of scale that automates the entire lifecycle of Apple, including operating system upgrades without negatively impacting the end-user experience. Jamf hangs its hat on same-day support for Apple operating systems with over 20 years of support and compatibility on OS release dates.

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Get Started

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