



How to Migrate from Windows 7 to macOS

Extended support for Windows 7 ends on January 14, 2020. Organizations currently leveraging this nearly decade-old operating system (OS) are now faced with crucial technology decisions:

Update to Windows 10
(released on July 29, 2015)

OR

Follow the growing enterprise trend and switch to Mac

Either way, security-conscious organizations can no longer sit by idly using Windows 7. After January 14, Microsoft will not provide consistent security patches or offer support for Windows 7, which for most organizations will trigger a review of what to do to deprecate Windows 7 in their environments.

If you're reading this, you're likely determining the effort and resources required to switch from Windows to Mac — and the pros and cons of doing so.

The following white paper provides [step-by-step guidance](#) for planning your transition to go as smoothly as possible and sets you up for future success with the Apple platform.

Windows and macOS differences

Prior to beginning a migration, it's good to understand the basic, fundamental differences between how to deploy and manage Windows and macOS.

Apple has specific enterprise programs to help streamline deployment and security that preserves the great out-of-box experience for users while protecting the organization users work for. Apple Business Manager offers one consolidated service to automate device deployment, app deployment and purchasing, and content distribution when integrated with a device management solution.

As you likely already have a management solution for your Windows devices, you'll want to reconsider your management philosophy for Apple. When traditional organizations manage Apple and Microsoft with the same tool, they leave gaps in management, user experience and security, as each ecosystem needs to be treated differently.

Apple offers a built-in management framework known as mobile device management (MDM). MDM allows IT to build configuration profiles that manage various settings inside macOS. These profiles are delivered over the air via Apple Push Notification Service (APNs), as are management commands, such as wiping a device or locking it if it gets lost. APNs keeps a constant connection to Apple devices, so you don't need to.

Unique to Apple, APNs ensures maximum Apple device security by forcing all Apple services through this direct, protected channel with Apple. Because APNs pushes the fact that there is a change to a device directly through Apple, your organization doesn't need to provide a less secure proxy connection — and because APNs doesn't include what those changes are, you don't have to be concerned that your sensitive data is exposed to Apple.

MDM enables management capabilities similar to the way traditional Windows admins leverage binding to Active Directory and pushing out Group Policy Object (GPO) changes to devices.

macOS

Windows

Provisioning	Apple Business Manager	Dynamic Provisioning via Microsoft Azure Active Directory
Encryption	FileVault	BitLocker
Management Framework	MDM via Apple Push Notification Service	System Center Configuration Manager (SCCM) + MDM via Windows Push Notification Service
Settings Management	Configuration profiles	Group Policy Object (GPO)
Software Licensing	Apple Business Manager	Windows Store for Business

Read this [white paper](#) for more information on the differences of Windows and macOS. And to learn the basics of Mac management, download this [beginner's guide](#).

Set a manageable migration timeline

Once the decision has been made to move to macOS, the first step is to construct a logical, realistic timeline. The timeline should include critical milestones, financial considerations and any other factors that may impact implementation success.

Every environment works at a different pace. Below are steps and a set timeline, although your organization may be able to move faster, according to how high a priority you set on the initiative.

Week 1:

Prepare infrastructure

Prepare your environment as needed to support Mac for the first time or the influx of new Mac devices being added. If not already, consider leveraging a cloud-hosted management solution and cloud-hosted resources to allow users secure access to items no matter the time of day or their location in the world.

If you have a lot of on-premises solutions and do not wish to move any of those to a SaaS-based solution, build a matrix of every tool that needs to be accessed and check that matrix to discover what is available for the Mac.

You may find that not every app is available for Mac. You may need to make adjustments to which solutions you are using if you're migrating to Windows 10 or if you're migrating to macOS. You can also leverage thin clients or virtualization to temporarily close any gaps while you migrate to other providers for each item on your matrix.

Week 2:

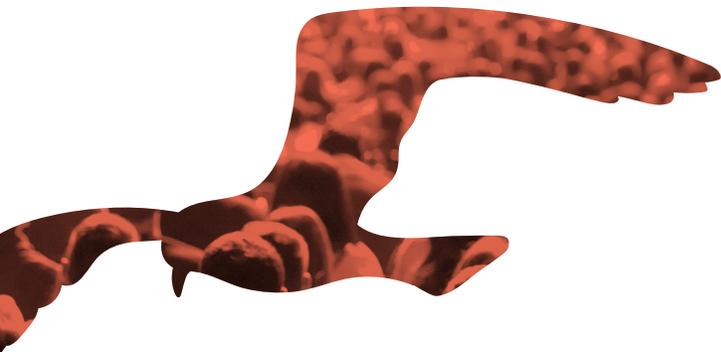
Document production workflows

During a transition, you don't want to lose any of the institutional knowledge of what's required for a device to exist as a first-class citizen on your network. Evaluate and compile thorough documentation on how Windows devices and Windows management solutions are currently being used.

This document would include the following:

- A thorough accounting of the GPOs used in your environment, as well as whether you actually need to manage those settings in the future.
- Network settings including any certificates required to access the network, PAC files to connect through proxies, VPN settings, etc.
- Settings required to join your directory services environment.
- A full accounting of any apps and services provided.
- Automations in place such as start-up scripts.

The matrix you build can then be used to help guide your choices on management solutions.



Week 3:

Purchase Apple device management solution

The management solution you choose is just as important as the hardware itself. A good management strategy can make a proof of concept or pilot go smoothly and help you get up to speed on the Apple platform and philosophy of device management.

Strongly consider a device management solution with the following:

- The ability to facilitate managing each item on your list, whether that be conditional access or keeping track of what patch level of each software title is running on each device.
- All the Mac management capabilities you need today (and ones you think you'd like to have in the future). This will save you from going through the process of switching Apple management providers as your Mac program evolves.
- A proven track record of supporting [Apple operating systems](#) as soon as they become available. This is crucial to providing the best user experience and empowering employees with the productivity tools they need.

Week 4:

Link Apple Business Manager to MDM

Once you've selected a management solution, it's time to test it out and address any gaps found. Sign up for Apple Business Manager and link your account to your new MDM server.

Once you can send MDM commands and profiles, configure enrollment settings and test each item on your matrix. This will help you narrow down a list of any vendors you need to work with to get access to tooling on the Mac platform.

Week 5:

Purchase Mac hardware

Purchase your Macs directly from Apple or an authorized Apple reseller and assign devices for enrollment. Apple, or a trusted reseller, can work with you to build out a list of computers you might want to make available for your users to choose from.

At this stage, you'll also want to find any devices that your organization owns that aren't included in your Apple Business Manager account. These can be added, allowing you to automate future device setup and reign in any Apple devices that aren't currently being managed.

Week 6:

Deploy devices

Send boxed Mac devices directly to users (onsite and remote). Once the user unboxes and turns on the device, it automatically enrolls into management.

Once enrolled and settings are applied, develop a Quality Assurance (QA) checklist. This allows you to initially do manual QA to validate that devices are in a desired state once setup is complete. Later, you will use the QA checklist to develop automated testing to maintain quality over time.



Week 7:

Move data from Windows PC to Mac

Regardless if your organization is following the growing trend of offering an [employee-choice program](#) — the right to select between Mac or PC for work purposes — or transitioning all employees to Mac, transparency is key to ensuring a smooth migration.

Allow users to leverage Apple's Windows Migration Assistant to transfer documents and data from Windows PC to Mac. This is a simple, well-documented workflow, and allowing users to run the Migration Assistant provides a maximum level of transparency on the process.

Write your own document on how to run Migration Assistant. In the document, also inform users of the change and the associated process early and consider explaining the following:

- Why the transition is taking place.
- How end users will choose or be given their new hardware.
- A timeline for the process.
- What they can expect throughout the migration.
- What IT's role is in the process.
- What each user's role is in the process.

The last point is particularly important, especially if users will be utilizing a Mac for the first time. Apple offers a great tutorial and introduction to Mac features, including how to:

- Navigate with gestures
- Use keyboard shortcuts
- Personalize the display
- Easily access documents
- Leverage Continuity across all Apple devices

These user-led assets will keep calls to your service desk at a minimum. A great example of this includes the "Meet your Mac" sessions [available here](#).

Week 8:

Windows PC turn in and device enrollment check

Ultimately, you want to collect all of the Windows 7 PCs in the environment for deprecation. These will be available following the enrollment and set up of the new devices.

Once you communicate the change, it's time to get your users to turn in their old devices. To facilitate this, check device inventory in your management solution to ensure device enrollment and put a process in place to return the old devices, maybe even gamifying the transition (e.g., the first 100 users to turn their Windows 7 device in get a sticker).



Step-by-step migration workflow

Now that you have thought through your timeline, compiled the appropriate documentation and notified all parties, it's time to get your devices deployed and enrolled. Let's look at what that looks like.

Step 1: Enroll devices into management

Before configuring devices for users, devices must be enrolled into management within an MDM solution. Two main options are available, but zero-touch deployments via Apple Business Manager is the recommended approach to drastically streamline the process and deliver the best user experience.

	Description	User Experience
Apple Business Manager	Automatic enrollment over the air	User receives shrink-wrapped box, and the device is automatically configured when turned on and attached to a Wi-Fi network
User-initiated enrollment	Manual enrollment over the air	User visits a specific URL to configure their device (which could be sent to them through an email)

To implement zero-touch Mac deployments with Apple Business Manager:

1

Sign up for [Apple's deployment program](#) via Apple's website and add your MDM server to the Apple portal.

3

As a user turns their device on for the first time, the device will automatically be enrolled — no additional interaction is required unless you want users to authenticate using their username and password so you can configure specific items for the user.

5

Advanced management tasks such as installing third-party software (Adobe, etc.) or running custom scripts will also be completed if defined by the MDM solution.

2

Purchase Mac computers and link them to your Apple deployment account. Ship them directly to users.

4

Prepare any configuration profiles and apps you'd like to apply to the devices.

6

Mac receives configurations and apps scoped to it, and the user is brought to the Home screen. The Mac is now managed and configured — all without IT physically touching the device.

Step 2: Move data from Windows PC to Mac

[Apple created a guide](#) on how to successfully move data from Windows PC to Mac leveraging Windows Migration Assistant. Prior to starting, ensure users (or you) know the name and password of the administrator account on the PC, and that the PC and Mac are connected to the same network. Also, use the check disk utility on the PC to ensure the Windows driver doesn't have any issues.

Per Apple, to transfer data:

1

Download the Windows Migration Assistant on PC.

2

Quit any open Windows apps.

3

Open Windows Migration Assistant; when prompted, click "Continue".

4

Power on Mac and walk through the Setup Assistant steps if this is a new device. If already set up, open Migration Assistant from the Utilities folder.

5

On Mac, follow the prompts and select the option to transfer information from a Windows PC.

6

When prompted, enter the administrator name and password.

7

Click "Continue" to close any open apps.

8

On Mac, select the PC from the list of available computers, then wait for the PC to show the same passcode as Mac.

9

When both display the same passcode, click "Continue" on PC and Mac.

10

Mac scans the PC drive to build a list of information to migrate. When the scan completes, select the information to migrate to Mac and click "Continue".

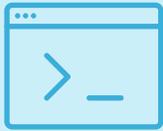
A progress bar will display and provide an estimated time of migration completion.

Once the data has transferred, close Windows Migration Assistant on the PC and log in to the new user account on Mac. The first time a user logs in, they're asked to set a password.

Post-migration Mac management

With Mac devices deployed and PCs collected, you can now go to work offering a personalized work experience on every employee device. Through automated, ongoing lifecycle Mac management with a dedicated Apple device management tool, IT now has the necessary resources at their disposal to maximize the Apple investment.

When it comes to configuring Apple devices, the possibilities are endless. With the right management tool, organizations can utilize:



Configuration profiles

to define settings within macOS. These XML files can be distributed to devices and apply Wi-Fi, VPN, email and many other settings so users can seamlessly (and securely) access the resources they need.



Policies to go beyond the management capabilities of MDM and configuration profiles. Policies are unique to macOS and help install custom software and printers, manage local user accounts and conduct advanced management workflows.



Scripts to customize commands and open the door to infinite device management capabilities. Anything that can be executed in Terminal via the command line can be turned in to a script.



Packages to install software as well as bundle policies, scripts and profiles. Packages provide much more logic than stand-alone events such as simply deploying a configuration profile.



Smart targeting to build specific device and/or user groups and trigger device management tasks automatically based on inventory data collected. Easily determine which devices require software updates, security hardening or management actions.

Turn to the Mac experts to assist

While a switch from Windows to macOS may seem like a large undertaking, with the right guidance and experts it can be just another day in the office.

Jamf is the gold standard in Mac management and the leader in helping organizations of all sizes implement Mac programs.

If you're ready to move away from Windows and deliver the modern Mac experience employees crave, we can help.



Contact us today to get your migration started or take Jamf for a free trial and put our Mac management capabilities to the test first.

[Contact Now](#)

[Request Trial](#)

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



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