A Comprehensive Guide

Zero-Touch Apple Device Deployments

For Beginners
Is your organization receiving an influx of Apple devices? Ready to move away from hands-on, time-consuming imaging practices? Or maybe you’re the only person responsible for deploying your entire fleet of Apple devices and you need a more efficient way of doing so?

Either way, you’ve come to the right place.

In this e-book, we simplify Apple deployment vernacular and show you exactly what it takes to automate Mac, iPad, iPhone and Apple TV deployments in your organization.
Apple had two different programs for businesses and educational institutions to deploy devices and procure apps:

- **Device Enrollment Program (DEP)**
  - To provide automated device enrollment into a mobile device management (MDM) server.

- **Volume Purchase Program (VPP)**
  - To purchase app licenses in bulk.

Historically...

However, these programs have given way to new education and business-focused portals that combine the power of DEP and VPP, plus add new device management capabilities.
Introducing Apple Business Manager and Apple School Manager

Apple Business Manager and Apple School Manager offer key features needed to enable a zero-touch deployment strategy.

These programs tell your device the first time it’s taken out of the box and powered on to automatically enroll in your mobile device management (MDM) server. They also allow you to procure app and book licenses from Apple and remotely deploy and manage them with your MDM solution.

Through one program, you can set up devices and deploy apps without getting Apple IDs tangled up in the works. Apple IDs are unique identifiers to know who the user of the device is. To make this extra simple, Apple now allows for Managed Apple IDs (for Apple School Manager only) which empowers IT to be fully in charge of setup and management of the Apple ID — saving students (and parents) the need to create and remember their own ID and password.

Best of all, these programs specifically designed for businesses and schools are available at no cost; the only requirement is that you procure your Apple technology from a supported vendor.

OUT WITH THE OLD

These changes bring some new language in to replace the old. Here is the vernacular that has changed:

- **DEP**  ➤ Automatic device enrollment
- **VPP**  ➤ Volume purchasing of apps and books
- **DEP + VPP**  ➤ Apple Business Manager (for businesses)
- **DEP + VPP**  ➤ Apple School Manager (for schools)
With the knowledge of Apple’s deployment programs under your belt, it’s time to dig into why you’ll love having a zero-touch deployment strategy in your environment.

Not surprising, IT is busy. They constantly deal with incoming tickets, network issues, provisioning accounts across various services, hardware requests, software deployments, and general help notifications by any user at any time.

Add the task of unboxing each device, powering on and configuring prior to deploying to users, and there is virtually no time for anything else. By implementing a zero-touch deployment strategy, you will be able to save time and money by automating and empowering users to accomplish these steps on their own.
**Enrollment options for macOS**

There are a few ways you can enroll devices.

<table>
<thead>
<tr>
<th>For macOS</th>
<th>Description</th>
<th>User Experience</th>
<th>Best For</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Automatic zero-touch enrollment</strong></td>
<td>Automatic enrollment over the air</td>
<td>User receives shrink-wrapped box, and the device is automatically configured when</td>
<td>Providing users an out-of-box experience. With zero-touch deployment you can:</td>
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<tr>
<td>with Apple Business Manager or</td>
<td></td>
<td>turned on</td>
<td>• Ship devices to remote employees</td>
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<tr>
<td>Apple School Manager</td>
<td></td>
<td></td>
<td>• Speed up the onboarding process</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>• Support education institutions with Mac programs</td>
</tr>
<tr>
<td><strong>User-initiated enrollment</strong></td>
<td>Manual enrollment over the air</td>
<td>User visits a specific URL to configure their device</td>
<td>BYOD programs or when automatic zero-touch enrollment is not an option</td>
</tr>
<tr>
<td><strong>Network scan</strong></td>
<td>Scan your network for existing Macs and deploy an</td>
<td>Hands-on for IT — enrollment is completed remotely through your MDM when Mac is</td>
<td>Enrolling Macs en masse which are known to be on the same network</td>
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<tr>
<td></td>
<td>enrollment package</td>
<td>on the same network</td>
<td></td>
</tr>
<tr>
<td><strong>Imaging</strong></td>
<td>Use pre-configured drive images to set up Macs</td>
<td>Time consuming for IT to create images, images go out of date quickly, software</td>
<td>Not recommended — as new Apple hardware does not support imaging</td>
</tr>
<tr>
<td></td>
<td></td>
<td>will likely need updates upon first boot, does not work on new Macs</td>
<td></td>
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# Enrollment options for iOS

<table>
<thead>
<tr>
<th>For iOS</th>
<th>Description</th>
<th>User Experience</th>
<th>Supervision</th>
<th>Best For</th>
</tr>
</thead>
</table>
| Automatic zero-touch enrollment with Apple Business Manager or Apple School Manager | Automatic enrollment over the air | User receives shrink-wrapped box, and the device is automatically configured when turned on | Yes (wirelessly) | Providing users an out-of-box experience. With zero-touch deployment you can:  
• Ship devices to remote employees  
• Speed up the onboarding process  
• Support education institutions with iPad programs |
| User-initiated via URL | Rely on users to enroll their own iOS devices via a URL your MDM server creates | User visits a specific URL to configure their device | Via Apple Configurator, but MDM is removable | Unmanaged devices currently in the field or devices that need to be reenrolled into a new MDM server  
* Does not guarantee adoption |
| Apple Configurator | Enrollment through a Mac app that connects to devices via USB | IT manages the setup process and hands devices to users | Yes | Shared and cart-device models, labs devices purchased through a retailer  
* Time consuming |
# Enrollment options for tvOS

<table>
<thead>
<tr>
<th>For tvOS</th>
<th>Description</th>
<th>User Experience</th>
<th>Supervision</th>
<th>Best For</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autom. zero-touch enrollment with Apple Business Manager or Apple School Manager</td>
<td>Automatic enrollment over the air</td>
<td>User receives shrink-wrapped box, and the device is automatically configured when turned on and plugged into ethernet</td>
<td>Yes (wirelessly)</td>
<td>Providing users an out-of-box experience</td>
</tr>
<tr>
<td>User-initiated via URL</td>
<td>Rely on users to enroll their own tvOS devices via a pre-made config file made available online</td>
<td>User uses Apple TV remote to plug in URL of a pre-made MDM profile</td>
<td>Via Apple Configurator, but MDM is removable</td>
<td>Unmanaged devices currently in the field or devices that need to be reenrolled into a new MDM server</td>
</tr>
<tr>
<td>Apple Configurator</td>
<td>Enrollment through a Mac app that connects to devices via USB</td>
<td>IT manages the setup process and hands devices to users</td>
<td>Yes</td>
<td>When Apple Business Manager or Apple School Manager are not an option</td>
</tr>
</tbody>
</table>

Zero-touch deployments via Apple School Manager or Apple Business Manager is the recommended way to enroll Mac, iPad, iPhone and Apple TV devices to save your organization time and preserve the user experience.
The zero-touch enrollment workflow

There are three basic steps to follow when implementing zero-touch enrollment: prepare, purchase and deploy.

**Prepare**
1. Sign up for Apple Business or Apple School Manager
2. Link account to your MDM server
3. Configure enrollment settings

**Purchase**
1. Order Apple hardware*
2. Assign devices for enrollment

* Must be purchased via Apple directly or an authorized reseller

**Deploy**
1. Send devices to users
2. Users unbox and turn on device
3. Devices enroll into management automatically
Pairing MDM with Apple’s deployment programs

Your MDM server communicates to devices via the Apple Push Notification service (APNs) and tells them how to behave. This maintains a constant connection to your devices, so you don’t have to. Commands, apps and profiles are all sent to the device over the air.

MDM software leverages the MDM framework built into Apple’s operating systems. With your MDM solution, you can build configuration profiles based on the various settings you’d like to deliver and push them to your devices over the air via APNs. Configuration profiles are XML files and can be built inside of Jamf — the gold standard for Apple MDM.
Common configuration profiles

Below are some examples of configuration profiles you can build and deploy to your Apple devices.
Mobile device management for macOS

The MDM framework Apple has available for macOS provides baseline control over Mac computers, and many organizations need more control and functionality than what Apple provides by default. Some additional functional needs include: modify a user account, send terminal commands and deploy apps outside of the App Store.

By leveraging client management, organizations can install a Mac agent, or binary, that is automatically installed after enrollment and gives you, the IT admin, more control over your managed Macs. It adds a hidden admin account that you have full control over and grants you remote root access. This enables you to run advanced policies, custom scripts, install custom software, and a whole lot more.

Below are a few examples of things you can do using client management from Jamf for macOS.

- Install PKG/DMG
- Run Scripts
- Install Printers
- Enforce FileVault
- Customize Dock
- Create Accounts
- Bind to Directory
- Set EFI Password
- Set Software Update

Combining the MDM framework with the Mac agent gives you total control of configuration and management of your Macs.
Purpose-built Apple ecosystem management

When you let Apple Business Manager or Apple School Manager automatically enroll your devices into management and Jamf handle all the device settings and app configurations, you can be virtually hands-off with all Apple deployments — giving you more time to focus on projects that better serve the organization.

To get the most out of these deployment programs, you need an MDM software solution that understands Apple. As the best-of-breed Apple management solution, Jamf is the product trusted by businesses and schools that want to provide a consistent management experience across the entire ecosystem.

See for yourself why 96 percent of Jamf customers stay with us once they begin utilizing the benefits of automated Apple device management.

Start Trial

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