

Usher in the new era of education

5

APPLE EDU
TRENDS

You don't want to miss



Technology has opened doors and new opportunities to enhance the educational experience.

Among a multitude of platforms to choose from, Apple excels when it comes to multifaceted collaboration, creativity and critical thinking, as well as security and privacy. And, this isn't lost on schools. According to a recent global survey conducted by [Dimensional Research](#), 90 percent of the 300 schools surveyed use iPad to help students not only thrive in the classroom, but prepare them for life once they graduate. With both a deep history and

commitment to education, Apple unveiled classroom-altering education features with iOS 9.3 and iOS 10.3 to further enhance the teaching and learning experience, while making it easier for you to empower your users. And, by unlocking this new Apple functionality with a mobile device management (MDM) solution, you can maximize the potential of Apple — all without adding additional resources.

Whether you are evaluating if Apple is right for your school or you have Apple, but haven't implemented the latest education features, read on to learn:

What's new for Apple in education



How to take advantage of the latest functionality with MDM

Evolving device management practices

Early education technology programs were not without their challenges. Student device programs required IT to deploy, secure and manage hundreds, if not thousands, of devices manually, which was both time-consuming and lacked quality assurance measures. In 2010, Apple delivered — and improved upon every subsequent year — a robust

management framework called mobile device management for managing iOS devices. MDM offers a clear path to streamline large- and small-scale device deployments, enrollment into management, inventory collection, consistent app and content distribution, and device security.

We'll walk you through...

1



Apple School
Manager

2



Shared iPad

3



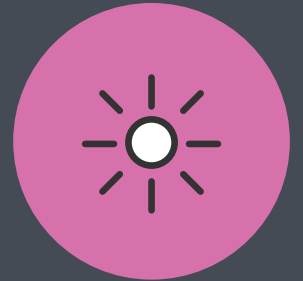
Classroom App

4



Managed
Apple TV

5



New MDM
Features

But first

LET'S COVER WHAT

MDM Offers



Deployment

MDM Technology

Enroll devices through three different methods:

1. Apple School Manager
2. User-initiated enrollment via a website
3. Apple Configurator

Purpose

Apple School Manager automates the enrollment process, so you never have to touch the device. Enrollment happens when the device is powered on for the first time.



Inventory

MDM Technology

Capable of querying devices to collect:

- Hardware details
- Software information
- Management status and security configurations
- User assignment

Purpose

Create smart groups to collect up-to-date device information, enabling informed management decisions and immediate action based on the data collected. No student data is collected via MDM.



Configuration Profiles

MDM Technology

Configure settings on devices including:

- Passcodes, restrictions and Wi-Fi
- Email, Exchange and LDAP

Purpose

Configuration profiles define settings within the operating system to ensure consistency across all devices under management. You can lock and secure devices without having to touch them.



Management Commands

MDM Technology

Send remote commands to:

- Enable MDM Lost Mode
- Lock and wipe a device
- Clear restrictions and passcodes
- Update iOS and set the device name

Purpose

Management commands allow you to locate and recover lost or stolen devices without compromising student privacy through ongoing location tracking. When MDM Lost Mode is activated, the iOS device receives a customized lock screen message, is disabled from use, sends its location to you and can play a sound too.



App Deployment

MDM Technology

Purchase and deploy apps:

- Assign to devices (or users) — no Apple ID required
- Prevent apps from exporting data
- Pre-configure settings within apps

Purpose

School-used apps are deployed directly to devices. The apps are owned by the school and don't require Apple IDs. School data is then secure and can't be exported.



Security

MDM Technology

Enforce security policies for compliance:

- Passcode with enabled 256-bit encryption
- Per-app VPN to tunnel internet traffic securely
- Remotely wipe a missing device
- Proxy, certificates and SCEP

Purpose

With the ability to enforce security policies through MDM, devices across the school will meet security standards.



Supervision

Supervision is a special mode of iOS that enables deeper management by an MDM server.

A growing number of configurations are only available if a device is supervised. It is recommended that school-owned devices are put into supervision mode.

Examples of Supervision-only Commands:

- Disable Camera
- Disable App Store
- Disable Safari
- Disable modifying wallpaper
- Disable adding email accounts
- Plus many more...

An education solution for any environment

No two schools are exactly alike. Class size, demographics and budgets vary by school, and even among grades within a given school. Plus, students come and go. Turnover is something you must take into account. But, you are not alone in this situation.

With the launch of iOS 9.3 in the spring of 2016, Apple made it easier than ever for you to empower students and teachers, while staying efficient and current with the latest education tools available at the same time.



Apple School Manager

Apple School Manager is a simple, web-based portal for IT administrators to manage people, devices and content all from one place.



Shared iPad

Maximize the educational value by offering students a personalized learning experience on a shared device.



Classroom App

Empower teachers to streamline classroom transitions, encourage interaction and collaboration, focus student iPad devices on a specific app or webpage, and view student devices to see how they are doing.

Consolidate Apple deployment programs through Apple School Manager



By leveraging MDM, Apple's **Device Enrollment Program (DEP)** allows customers to purchase iPad devices directly from Apple or an Apple authorized reseller. Hardware purchases can then be associated with a school's Apple customer number or reseller ID and linked with DEP to automatically enroll into device management.



The **Volume Purchase Program (VPP)** allows schools to purchase apps and books in bulk from Apple and distribute them to their students and teachers. Apps can be assigned to devices or users and later reassigned as deployment needs change. Schools can link a VPP token (received from Apple) to their MDM solution for assignment and distribution.



Built exclusively for education as a foundational tool for you to specifically streamline the way you manage your education devices, **Apple School Manager** is a powerful way to manage common education tasks and achieve greater control over accounts and classes. This consolidated portal ensures that no one person is solely responsible for a school's deployment programs — greatly reducing the risk of a staff departure disrupting management workflows.

With Apple School Manager and MDM, you can:

Create Managed Apple IDs

and dynamically update user information, as well as organize classes through integration with your school's Student Information System (SIS).

Set up iPad devices for shared use

and allow students to log in to their device. Upon logging in, students can pick up right where they left off and benefit from a customized experience on their shared device.



Automate device enrollment

and deployment of iPad, Mac and Apple TV in schools so students are equipped with the learning resources they need the minute they turn on their device.

Strengthen a teacher's ability to utilize Classroom

and guide students to the appropriate website or app, share work to an Apple TV, and perform routine management tasks such as password resets.

Best Practice: Migrate to Apple School Manager

Schools currently utilizing DEP and VPP can upgrade to Apple School Manager and enjoy all of these benefits in one program.

Per Apple's guidance, before upgrading to Apple School Manager, you need to consolidate your existing DEP and VPP accounts (if you have any) under a single Apple Deployment Programs account. If you can log in at deploy.apple.com, you have an existing Apple Deployment Programs account. Your account may include DEP, VPP or both.

If the same Deployment Programs Apple ID is used for DEP and VPP, you're all set to upgrade. If you use different Apple IDs for your various DEP and/or VPP accounts, you'll need to contact AppleCare and ensure all accounts get associated to your main Deployment Programs account prior to upgrading to Apple School Manager.

If your school doesn't have an existing Apple Deployment Programs account, [you can enroll](#) and upgrade your existing VPP account to prepare for migration. When you upgrade your Apple Deployment Programs account to Apple School Manager, you'll be asked to enter your school's website. Apple School Manager uses a school's website as the base for the default domain for their Managed Apple IDs.

For new Apple customers

For new Apple customers who have never used DEP or VPP, you can simply sign up for [Apple School Manager](#) to get started.

For more information, consult the [Apple tutorial](#).

Best Practice: Configure Apple School Manager

Once all accounts are consolidated, log in to school.apple.com using the school's Apple Deployment Programs Agent account and follow the instructions. Upgrading will only take a few minutes.

After upgrade, Apple School Manager will have all of your school's:

- Accounts
- Account credentials
- MDM servers
- MDM devices
- Server tokens
- Device orders
- Other items associated within the account

Apple School Manager Portal

After upgrade completion, you will no longer be able to access the Apple Deployment Programs. Instead, you will use the [Apple School Manager](#) portal.

For more information, consult this [Apple support article](#) and the [Apple School Manager Help site](#).

Selecting the appropriate Apple iPad model

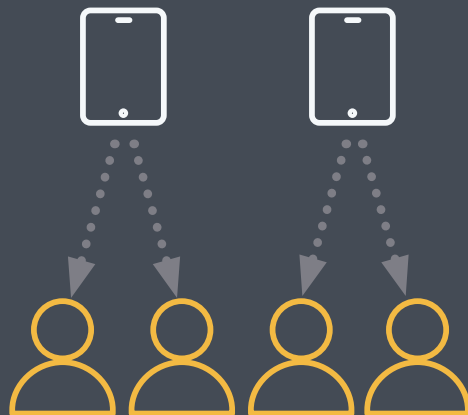


Deciding whether a 1-to-1 or shared technology program is right for you depends on many factors, including your school's goals, student population and budget.

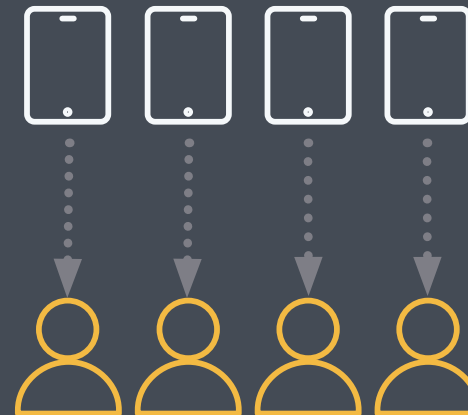
Shared technology programs allow you to set up iPad devices for shared use. The Shared iPad model is ideal when a 1-to-1 iPad ratio isn't possible and schools are scaling their iPad deployments, but still want to offer students the best ecosystem education has to offer. There are two versions of a shared program: personalized Shared iPad and non-personalized shared iPad.

No matter which path you choose, Apple has made it easier than ever to accommodate your needs.

Shared



1-to-1



The 1-to-1 iPad model



1-to-1

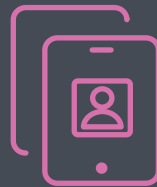
Through a 1-to-1 program, students are given their own iPad and allowed to utilize it for learning during and outside of school hours, creating a continuous learning environment where students can access materials at any time.

iPad can be tailored to each student's individual needs and class load, allowing for the most personalized, rich educational experience a student can have. Plus, when provided with their own device, students are given a larger sense of ownership and accountability over their educational tools.

Jon Baudek, associate principal, Longfellow Middle School, School District of La Crosse, said the ability to provide the same device to everyone is imperative to providing consistent educational experiences.

"It has taken away the feeling of the haves and the have-nots," he said. **"It's giving kids equal access in the classroom and at home."**

The personalized Shared iPad model



Personalized Shared iPad

Schools that use Apple School Manager have a new option to create a personalized Shared iPad experience for all students. Shared iPad allows students to have a continuous learning experience from class to class and day to day, picking up exactly where they left off. This personalized iPad experience allows students to pick up any Shared iPad and simply click on their photo to log in. Students then gain access to all the learning resources that the school deems applicable for their specific learning needs. Once the lesson is through, students simply log out and the iPad is ready for the next student to use in a similar, yet customized experience.

Devices that meet the [system requirement](#) for Shared iPad can be enrolled and configured as a Shared iPad. You set the number of users for each iPad. It is recommended to allow for more users than you think you will need in case new students are added to the class. In order to change the number of user partitions configured on Shared iPad, you must erase and re-enroll the device.

Personalized Shared iPad through Apple School Manager is the closest thing to a 1-to-1 experience since student data persists between uses. It allows students to pick up any Shared iPad, log in and resume their work from the previous session. Also similar to a 1-to-1 program, personalized Shared iPad is fully compatible with the Classroom app and allows teachers to utilize this teaching tool without limitations.

The non-personalized shared iPad model



Non-personalized shared iPad

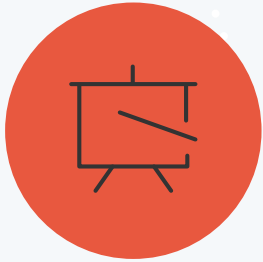
Schools have offered a shared, non-person specific iPad experience for years. This legacy shared iPad model limits capabilities on the iPad. A student may use an iPad to browse content or interact with apps; however, no personal information is saved and no progress is tracked.

This means that students cannot pick up where they left off during the previous session. While not ideal, this model is still valuable for schools using iPad hardware that does not meet the requirements for a Shared iPad model.

77% of **300**

K-12 schools surveyed by Dimensional Research in January 2017 believe iPad is easier to deploy than other tablets.

Spectrum of Classroom adoption



Apple unveiled Classroom with iOS 9.3 and provides teachers with the ability to launch apps, lock student devices into a specific app or webpage, and view a student's iPad screen. With iOS 10.3, Apple released Classroom 2.0. One of the main features of Classroom 2.0 is that supervision or MDM is not required for use, creating an opportunity for schools planning

a small-scale iPad deployment or considering a pilot program to benefit from this Apple technology. While Education Profiles within MDM are not required, they can still enrich the Classroom experience. Depending on your Apple and MDM implementation, you can leverage Classroom in three different ways with three different sets of capabilities:

	Classroom without Education Profiles	Classroom with Education Profiles	Classroom with Education Profiles & Apple School Manager
Manually create unmanaged classes	●	n/a	n/a
Share documents and links via AirDrop	●	●	●
Mute audio on student devices	●	●	●
Launch any app, website or book on student devices	●	●	●
Observe student iPad screens	●	●	●
Utilize student photo server		●	●
Create managed classes		●	●
Automate class generation		●	●
SIS integration			●
Reset Managed Apple ID passwords			●
Power Shared iPad			●

Best Practice: Getting started with Classroom and managed classes



If your school is looking to utilize an MDM solution (recommended) to streamline the set up and usage of Classroom, you'll want to begin by enabling Education Support within your MDM. Doing so generates Education Profiles for all your classroom devices. Apple School Manager is not required to use Classroom with 1-to-1 iPad, but supervision is required to manage classes. Classes are automatically deployed for teachers and students, with no manual creation required. This is crucial for schools looking to scale their Classroom usage in the future.

If your school is leveraging the power of Apple School Manager, classes can be populated automatically by linking your SIS or by manually creating classes within your MDM solution. Student photos are an optional enhancement that IT admins can host and configure for Classroom and Shared iPad.

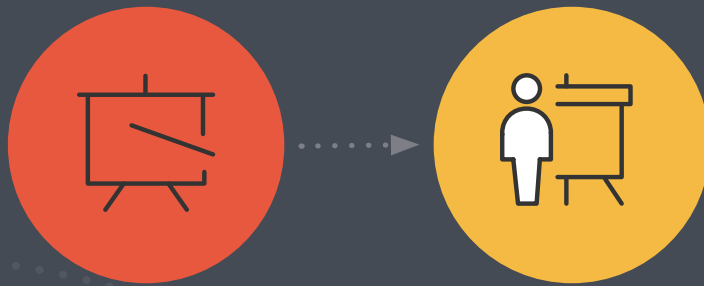


Did you know?

Apple School Manager integrates directly with Powerschool, SunGARD eSchoolPLUS and Infinite Campus. Many other SIS offer pre-formatted exports for SFTP upload. Apple School Manager provides CSV templates to integrate with any other SIS vendor.

Best Practice: Automatically Import Apple School Manager classes into MDM for automatic class and user creation

To accomplish seamless Apple ecosystem integration, link your MDM solution to Apple School Manager. By importing classes from Apple School Manager, users will be added and updated as SIS changes are propagated through Apple School Manager. These imported classes can be used with the Classroom app, Shared iPad, device assignment, app deployment and more.



Importing classes first will automatically import the users associated with those classes. Any new students or instructors that get added to a class within Apple School Manager will sync to the MDM solution.

For schools with a significant number of users or classes, you can segment your imports. For instance, it's possible to import all first graders, followed by all second graders. Similarly, you can import a subset of classes at a time. Importing users and classes separately can improve the speed and integrity of large imports. The best results are achieved by limiting user imports to fewer batches at a time. Importing users before classes can also streamline the class import performance.



Did you know?

You can configure your Apple School Manager integration to match new users imported from Apple School Manager to existing users with your MDM. This means users who already exist within the MDM solution can be updated with the information from Apple School Manager, preventing duplicate users and ensuring all records stay organized and updated. For the best performance, look for matching criteria between Apple School Manager and your MDM (i.e., Student Number). If no exact matches are available, utilizing the criteria “Begins with” is the next most performant criteria.

Best Practice: Utilize Shared iPad with Apple School Manager and Classroom

To combine three powerful aspects of Apple's education offerings — Shared iPad, Apple School Manager and Classroom — and eliminate the manual IT work, ensure your devices are linked to your school's Apple School Manager instance for automated device enrollment. Configure enrollment options in your MDM, including supervision and Shared iPad.

- 1** You will need to specify the number of user partitions when configuring Shared iPad. If this number ever needs to be changed, the iPad must be erased and re-enrolled into management. It's best to add more users than you anticipate. Shared iPad can accommodate any number of users, but note that the user experience may suffer if you utilize too many user partitions and your Shared iPad runs out of space.
- 2** Next, import users and classes from Apple School Manager, and associate one or more Shared iPad devices to the classes within the MDM solution. An MDM solution, such as Jamf Pro, will automatically deploy the appropriate Education Profiles to each student, teacher and Shared iPad. By configuring these Managed Classes with Jamf Pro, each student's Managed Apple ID is automatically populated.
- 3** On the Shared iPad, students will be presented with all of the classes currently configured on the device. Selecting a class will allow them to select their user. They will simply tap on their user icon or photo and type their Managed Apple ID password to log into the Shared iPad. You can leverage your MDM to automatically set the proper passcode type for Shared iPad users (i.e., four digit, six digit or complex). This passcode setting will specify the proper keyboard layout for each user that logs in on Shared iPads.



Did you know?

In the lower left hand corner of every Shared iPad is the option for an “other” user to log in. Any user from the school's Apple School Manager instance can type their full Managed Apple ID and password to log in on a Shared iPad.

Enhanced learning with Apple TV



With tvOS 10.2 and fourth-generation Apple TV, you can now deploy and configure Apple TV devices in the same manner you would iPad and Mac.

New management capabilities for Apple TV include zero-touch setup, over-the-air configuration, remote commands and in-house app distribution. This means you can not only mass deploy Apple TV with ease, but also create an even more seamless and interconnected experience among your school's Apple devices.



Zero-touch deployment

tvOS 10.2 supports Apple School Manager automated enrollment to power a completely automated setup experience. Schools purchasing Apple TV devices through Apple, or an authorized reseller, can configure their newly purchased devices with MDM.



Configuration Profiles

Using an MDM, you can define settings with tvOS configuration profiles and distribute them to Apple TV devices. As a result, Wi-Fi, restrictions and AirPlay settings are more easily applied over the air. Further, Apple TV devices can be put in Single App Mode to customize the Apple TV experience by class.



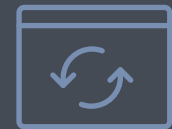
Smart Targeting

With the ability to automatically collect inventory details, including Apple TV device names from all managed devices, you can quickly and accurately identify which devices require action. Based on this inventory information, you can build targeted groups to trigger automatic device management tasks.



AirPlay Management

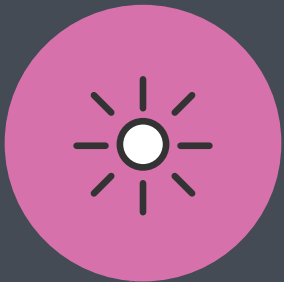
You can mass associate and configure iOS devices with Apple TV. This empowers teachers and students to easily display content. This functionality minimizes the need to troubleshoot display issues by guiding users to exactly the right displays.



Wipe and Restart

With the ability to remotely wipe, re-boot and place into Single App Mode, you can easily troubleshoot Apple TV devices without having to go to the device's physical location.

New MDM Features



Configuration profiles give you the ability to tell your devices how to behave. Prior to MDM, you had to manually configure your devices, but now you can automate the process of configuring passcode settings, Wi-Fi passwords and more. And, Apple is adding new, pertinent configuration profiles and management commands for education all the time, including Lost Mode Sound, Restart Device and managed Wi-Fi restrictions. For example, with configuration profiles, you can restrict items in iOS, such as the Camera or Safari web browser — features that come in handy when prohibiting students from accessing certain apps and sites.

Wi-Fi Restrictions**	MDM for tvOS**
AirPlay Pairing**	Shared iPad*
Hide/Show Apps*	Home Screen Layout*
Lock Screen Message*	Notifications*
Apple School Manager*	Network Settings
Passcode	Single App Mode
Restrictions	LDAP



Management commands are specific actions that you can apply to individual devices to ensure security of student data. Leverage this capability within MDM to take action on lost or stolen devices by locking or wiping the iPad completely. Additional commands allow you to send push notifications, update iOS to the latest version, and change the device name to make it easier for you to manage your fleet of 1-to-1 or Shared iPad devices.

Shutdown Device**	Restart Device**
Lost Mode Sound**	MDM Lost Mode*
Lock Device	Wipe Device
Logout User	Delete User
Update Inventory	Update iOS
Send Notification	Change Name
Clear Passcode	Clear Restrictions

* New with iOS 9.3 ** New with iOS 10.3

Succeeding in education with Apple and Jamf

Jamf has a strong heritage and commitment to education. Known as the only management vendor to support new Apple operating system and feature releases on day zero (or earlier), Jamf is the standard in Apple device management.

Ready to join the nearly 5,000 global education customers who rely on Jamf to help them get the most out of Apple?



Start Your Free Trial