

# Integration with Apple School Manager

VMware Workspace ONE UEM

You can find the most up-to-date technical documentation on the VMware website at:

<https://docs.vmware.com/>

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# Introduction to Apple School Manager Integration

# 1

As part of Apple Education, Workspace ONE UEM powered by AirWatch provides a configuration called Apple School Manager.

## Overview

To maximize the benefits of the use Apple devices in the classroom, Apple School Manager (ASM) enables you to:

- Install an MDM profile on a shared iPad that is not removable.
- Provision devices in Supervised mode over-the-air to access extra security and configuration settings.
- Create accounts for teachers, students, and staff by connecting to your Student Information System, through bulk import, or manual creation.
- Use Managed Apple IDs.
- Purchase Apple content and use other Apple Services, such as iTunes U, and managed Apple IDs.

This guide helps you integrate Apple School Manager with your existing VMware Workspace ONE UEM deployment, to combine the unique advantages of Workspace ONE UEM device management and Apple School Manager.

This chapter includes the following topics:

- [Deployment Prerequisites](#)
- [Apple School Manager Device Enrollment Program \(DEP\) Option](#)
- [Apple Configurator Option for Apple School Manager](#)
- [Shared iPads and One-to-One Devices in Apple School Manager Deployments](#)
- [Deployment Workflows for Apple School Manager Deployments](#)

## Deployment Prerequisites

## Software and Hardware Prerequisites

Before enrolling in [Apple School Manager](#), read the Apple [Deployment Resources](#) and meet the following software and hardware requirements to access Apple School Manager.

### Software

- Safari 6.0.3 or later on macOS
- Google Chrome 27.0.1 or later
- UEM console v8.4

### Device Eligibility

- Devices were ordered after March 1, 2011 and purchased directly from Apple using your enrolled and verified Apple Customer Number. For more information, see [Apple School Manager Help](#).
- Devices were purchased directly from a participating Apple Authorized Reseller or carrier and (for resellers only) linked to the DEP Reseller ID. The Apple Authorized Reseller or carrier sales history determines the actual date of eligibility, but the date cannot be before March 1, 2011. For more information, see [Apple School Manager Help](#).

### Minimum Device Requirements for Shared iPads

- iPad mini 4 or later running iOS 9.3+ using 32+ GB of memory
- iPad Air 2 or later running iOS 9.3+ using 32+ GB of memory
- 9.7-inch iPad Pro or later running iOS 9.3+ using 32+ GB of memory
- 12.9-inch iPad Pro or later running iOS 9.3 using 32+ GB of memory
- Must be Bluetooth enabled
- Configuration profile containing class information must be pushed to the student iPad

### Minimum Device Requirements for One-to-One Devices

- iPad third generation or later running iOS 9.3+
- iPad mini or later running iOS 9.3+
- 9.7-inch iPad Pro running iOS 9.3
- 12.9-inch iPad Pro running iOS 9.3+
- Must be Bluetooth enabled
- Supervision is required for student devices
- Configuration profile containing class information must be pushed to the teacher iPad or student iPad

## Integration Requirements

The following tasks must be completed before you configure Workspace ONE UEM Education functionality.

### Institutional Accounts

- **Apple School Manager** - Register your school or institution with [Apple School Manager](#) and create an administrator account.
- **Managed Apple IDs** - Credentials required to sign into Shared iPads to access Apple services. Create these credentials in the Apple School Manager portal.
- **Optional Apple IDs** - Optional credentials required to sign into Apple Services that may be used for one-to-one devices if needed. Create these credentials in iTunes or using the device Setup Assistant.
- **Device Enrollment Program** - Required for shared iPads. Optional for one-to-one devices. Enroll with the Apple Device Enrollment Program (DEP) and create an administrator account to automate enrollment and manage devices. For information on integrating DEP with Workspace ONE UEM, see the **VMware Workspace ONE UEM Guide for the Device Enrollment Program**.

### Applications

- **Apple Volume Purchase Program** - Register with [Apple Volume Purchase Program](#) (VPP) and purchase applications using the managed distribution, device-based method. For information on this method and integrating Apple VPP with Workspace ONE UEM, see the VMware Workspace ONE UEM Mobile Application Management Guide.
- **Apple's Classroom App** - [Classroom](#) is a stand-alone application that customers order through the Volume Purchase Program and push to devices as a managed application. The Classroom application is not covered in this documentation. For information about using Classroom, see [Apple Classroom Help](#).

### Console Configuration

- **Apple Push Notification service (APNs)** - Configure APNs certificates in the UEM console to push notifications to managed devices. For more information on APNs, see [Generating and Renewing and APNs Certificate](#).
- 
- **Enrollment Users** - Add all one-to-one enrollment users to the UEM console. For information on users, see the **VMware Workspace ONE UEM Guide for Mobile Device Management**.

## Apple School Manager Device Enrollment Program (DEP) Option

Apple's [Device Enrollment Program](#) (DEP) program provides a streamlined way to deploy organization-owned iOS devices. Configure devices in bulk and specify which Setup Assistant screens are seen so users can start using their devices right away.

After enrolling in the program, administrators log in to the program website, link one or more MDM servers to the DEP account, and then associate specific devices to one of the MDM servers. The devices are managed through the UEM console. Once a device is enrolled, all device configurations, restrictions, or policies are automatically installed. For more information about Apple's Device Enrollment Program, see the **VMware Workspace ONE UEM Guide for the Device Enrollment Program**.

## Apple Configurator Option for Apple School Manager

Use Apple Configurator 2 with Apple School Manager integration to configure added educational functionality for Shared iPads. Setting up Apple Configurator includes creating supervised identities so devices can pair with each other and pre-assigning applications that were ordered using the Volume Purchase Program.

## Shared iPads and One-to-One Devices in Apple School Manager Deployments

When using Apple Education with managed devices, select device deployments specifically for students and teachers.

### Shared iPad Deployments

Deploy education functionality to Shared iPads that are checked in and checked out by multiple users. Users are configured in bulk in Apple School Manager. Education settings are pushed to device carts and assigned to the class.

- iPads must be supervised.
- iPads must meet all hardware requirements.
- iPads are enabled as a Shared iPad.
- iPads have a specific number of cached users associated with them.
- Student data is stored separately on the iPad and pushed to iCloud Drive or other cloud-based solutions that use apps from the App Store.

### One-to-One Deployments

Deploy education functionality to individual devices which are only used by one person. This person may be a teacher or a student. Education settings are configured when classes are created and members are mapped to classes in the UEM console and pushed to devices.

- iPads have one unique enrollment user associated with it.



- iPads must meet all hardware requirements.
- iPads must be supervised using the Device Enrollment Program or Apple Configurator 2.

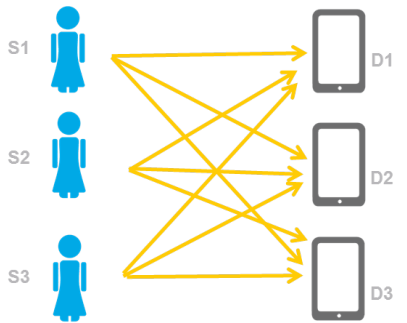
## Deployment Workflows for Apple School Manager Deployments

Before setting up education functionality, review the following preferred configurations.

### Shared iPad Workflow

Use the following table as a reference for configuring Shared iPads.

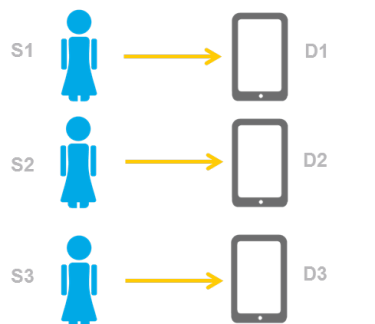
Table 1-1. Configure Shared iPads

 <p>The diagram illustrates a shared iPad workflow where three students (S1, S2, S3) are connected to three iPads (D1, D2, D3). Each student is connected to every iPad, represented by multiple yellow arrows from each student icon to each iPad icon.</p>	1. <a href="#">Enable Education Functionality</a> .
	2. <a href="#">Configure Apple School Manager</a> with the Apple School Manager portal using the Workspace ONE UEM DEP wizard.
	3. <a href="#">Sync Class Rosters</a> you set up in Apple School Manager with the UEM console.
	4. <a href="#">Create Device Carts for Shared iPads</a> .
	6. <a href="#">Manually Manage Carts and Applications in Classes</a> to each class.
	5. Map enrollment users to members for all teacher devices and other one-to-one devices and optionally map image URLs to students in the UEM console.
	7. <a href="#">Chapter 7 Device Enrollment</a> .

### One-to-One Workflow

Use the following table as a reference for configuring one-to-one devices.

Table 1-2. Configure One-to-One Devices

 <p>The diagram illustrates a one-to-one workflow where three students (S1, S2, S3) are each connected to a single iPad (D1, D2, D3). Each student is connected to exactly one iPad, represented by a single yellow arrow from each student icon to its corresponding iPad icon.</p>	1. <a href="#">Enable Education Functionality</a> .
	2. <a href="#">Configure Apple School Manager</a> with the Apple School Manager portal using the Workspace ONE UEM DEP wizard.
	3. <a href="#">Sync Class Rosters</a> you set up in Apple School Manager with the UEM console.
	4. <a href="#">Map Members to Enrollment Users in Bulk</a> in the UEM console. Optionally, map image URLs to students.
	5. <a href="#">Manage Applications for One-to-One Devices</a> that were acquired through the Apple Volume Purchase Program to groups of users by class. Optionally, <a href="#">Pre-Assign Applications for Shared iPads (Optional)</a> applications.
	6. <a href="#">Chapter 7 Device Enrollment</a> .

# Apple School Manager Integration

# 2

## Overview

Before you can manage classes in Workspace ONE UEM, you must integrate with Apple School Manager (ASM). You must complete tasks in both the UEM console and in the Apple School Manager portal. To complete integration, your organization must already be registered with [Apple School Manager](#).

Workspace ONE UEM requires the following:

- If you are uploading CSV files to Apple School Manager, have all your files prepared.
- When you begin configuring the DEP profile using the wizard in the UEM console, keep the same browser session open. You cannot save your activity until you complete the final configuration step, so it is important to finish the entire configuration in one browser session.
- Do not use Internet Explorer as your browser when performing any of the integration steps.

This chapter includes the following topics:

- [Enable Education Functionality](#)
- [Configure Apple School Manager](#)
- [Link to Apple School Manager](#)
- [Profiles for Workspace ONE UEM School Manager Shared Device Management](#)
- [DEP Profiles for ASM](#)
- [DEP Profile Requirements for Shared iPads in Apple School Manager Deployments](#)
- [DEP Profile Requirements for One-to-One Devices in Apple School Manager](#)
- [Manually Assign or Remove a DEP Profile](#)
- [Sync Class Rosters](#)
- [Use Sync Reports](#)

## Enable Education Functionality

Enable education functionality to sync information later between Apple School Manager and the UEM console. Ensure that the organization group is set to the Customer level.

### Procedure

- ◆ Navigate to **Groups & Settings > All Settings > Devices & Users > Apple > Education.**

Setting	General
Enable Education Features	Select <b>Enable</b> to turn education functionality on.
Class Source	Select your Apple or Workspace ONE UEM as your Education functionality provider. Note that changing sources and saving the configuration will delete all existing classes.
Set Maximum Resident Users	Specify the maximum number of users each device's memory can support. This value divides the local storage on the iPad evenly for that number of users. If the number of users exceeds this setting, additional users' information is stored on iCloud instead of on the device.

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**Note** Enabling Education setting prevents any other configurations of Apple Business Manager at child Organization Groups.

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## Configure Apple School Manager

Use Apple School Manager (ASM) to create classes, individuals, managed Apple IDs and a virtual MDM server container to assign devices for management. Before you begin, your institution must be enrolled with ASM and an administrator account must be set up.

Do not use Internet Explorer to complete these steps.

### Procedure

- 1 Navigate to [Apple School Manager](#).
- 2 Sign in with your organization's Apple credentials.
- 3 Confirm your identity by entering the verification code.  
The Apple School Manager portal screen appears.
- 4 Choose to **Trust Your Browser** if you are on a secure network.
- 5 Select **Get Started** to automate MDM enrollment the first time you sign into ASM.

- 6 Use the **Set Up Assistant** to add **Managers**, and **Find Students Staff and Classes** by connecting to your Student Information System or by uploading CSV files, and **Create Accounts and Classes**.

For more information, see [Apple School Manager Help](#).

- 7 Select **Close Setup Assistant** when you are finished.
- 8 Navigate to **Device Assignments** and select **MDM Server** in the left-navigation pane to begin configuring a server.
- 9 Select **Add MDM Server** and enter the **MDM Server Name** to create a container that groups devices in the ASM portal for management in the UEM console. Leave this window and the browser session open.  
  
The MDM server name may refer to a server, department, or location.
- 10 Navigate to the UEM console and obtain a [Link to Apple School Manager](#).
- 11 Select **Upload File** to upload the key.
- 12 Download the **Server Token** and save it in a convenient location to upload to the UEM console later.
- 13 Select **Save MDM server**.
- 14 Choose to **Assign Devices to Server** and select the server name.
- 15 Choose how to **Manage Devices** and add devices by manually adding serial numbers, order numbers, or uploading a CSV file.
- 16 Select **Done**.

## Link to Apple School Manager

Now that you created an MDM server in Apple School Manager (ASM), exchange keys to allow for mutual authentication between Workspace ONE UEM and Apple so that you can sync devices and class information later.

### Procedure

- 1 In the UEM console, navigate to **Groups & Settings > All Settings > Devices & Users > Apple > Device Enrollment Program** and select **Configure**.  
  
A **Device Enrollment Program** window appears.
- 2 Download the public key by selecting the **MDM\_DEP\_PublicKey.pem** file and save the public key.  
  
Leave this window and the browser session open.
- 3 Navigate back to the **Apple School Manager** window you left open.
- 4 Select **Upload File** and **Upload your Public Key** in Apple School Manager.

- 5 Navigate to the MDM\_DEP\_PublicKey.pem that you downloaded from the UEM console and upload it. Select **Next**.
- 6 Select **Your Server Token** to receive an encrypted Apple Server Token file (.p7m) and save it in a convenient location.
- 7 Navigate back to the **Device Enrollment Program** window of the UEM console.
- 8 Select **Upload** and select Apple Server Token File (.p7m). Select **Next**.

## Results

Now, Workspace ONE UEM and Apple can authenticate each other.

## Profiles for Workspace ONE UEM School Manager Shared Device Management

Profiles are the primary means by which you can manage devices. Profiles are the settings, configurations, and restrictions that, when combined with compliance policies, help you enforce corporate rules and procedures.

The individual settings you configure, such as Wi-Fi, VPN, and passcodes, are called payloads. In most cases, only one payload is associated per profile for security profiles, which means you have multiple security profiles for different settings you want to establish.

When you configure a profile for a deployment integrated with Apple School Manager, you must select whether a profile applies to a Device or a User. User profiles are important for Shared Device deployments where users may log in to multiple devices, and need the proper Profile configuration present on each device.

## DEP Profiles for ASM

Enrollment through DEP is required for Shared iPads and suggested for one-to-one devices to enable supervision on devices. After you create class rosters and configure your MDM server container, create an MDM configuration profile for devices using the Device Enrollment Program (DEP) wizard in the UEM console. For more information on configuring DEP profiles and syncing them in the UEM console, see the **VMware Workspace ONE UEM Guide for the Apple Device Enrollment Program**.

Build one profile for either Shared iPads or one-to-one devices using wizard now, and then select **Add Profile** to create additional profiles if you are deploying both shared and single-user devices. To do this, navigate back to the **Device Enrollment Program** window in the UEM console and continue using the **DEP profile wizard**.

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**Important** If you do not use the DEP option, then you must supervise devices using Apple Configurator 2 and enroll devices through the Web or the Workspace ONE Intelligent Hub.

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## DEP Profile Requirements for Shared iPads in Apple School Manager Deployments

Shared iPads require specific configuration. Use the following table as a reference when completing the DEP wizard to ensure that your profile meets the following requirements.

Setting	Description
<b>Authentication</b>	Prepare devices for enrollment using the following method. <ul style="list-style-type: none"> <li>■ Turn Authentication <b>Off</b> for Shared iPads.</li> <li>■ Set the <b>Staging Mode</b> to <b>Multi-User</b> with Default Enrollment User options.</li> </ul>
<b>MDM Features</b>	Enable <b>ALL</b> of the following features that are required for management. <ul style="list-style-type: none"> <li>■ <b>Supervision</b> - Put the device in Supervised mode, which is an alternative to configuring Supervised devices using Apple Configurator 2.</li> <li>■ <b>Shared Devices</b> - Enable this option to use Shared iPads.</li> <li>■ <b>Await Configuration</b> - Use if the MDM server is expected to send another command such as Maximum Resident Users before the device allows the user to proceed in the Setup Assistant. This feature is optional for Shared iPad management:</li> <li>■ <b>Device Pairing</b> - Allow the device to sync with any workstation through iTunes, Configurator, and Xcode.               <ul style="list-style-type: none"> <li>■ Optionally, set this to <b>Disable</b> and choose specific devices with which to pair. Select <b>Add &gt; Upload &gt; Choose File</b> and follow the prompts to upload a supervised identities certificate that was downloaded from Apple Configurator 2 to pair those devices.</li> </ul> </li> </ul>
<b>Setup Assistant</b>	Choose to <b>Skip</b> all the Setup Assistant features except for <b>Locations Services</b> if you want to search for devices in Lost Mode or track devices.

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## DEP Profile Requirements for One-to-One Devices in Apple School Manager

Configure these devices as needed for your organization. Use the following table as a reference when completing the DEP wizard.

Setting	Description
<b>Authentication</b>	Choose any of the features that best meet your organizational needs.
<b>MDM Features</b>	Choose any of the features that best meet your organizational needs.
<b>Setup Assistant</b>	Choose any of the features that best meet your organizational needs. You can choose to <b>Skip</b> or <b>Don't Skip</b> features. Choose <b>Don't Skip</b> for the <b>Locations Services</b> option if you want to search for devices in Lost Mode or track devices.

## Manually Assign or Remove a DEP Profile

For Apple School Manager deployments, you must assign profiles to the appropriate devices after creating them for both Shared iPad and one-to-one configurations.

- 1 Navigate to **Devices > Lifecycle > Enrollment Status**.
- 2 Select the devices needed for the action.
- 3 Select the **More Actions > DEP Profile** and select one of the following options:
  - **Assign Profile** – Assign new or additional DEP profiles to selected devices. The DEP profile is not updated on a device until the device is factory wiped or re-connected to Wi-Fi.
  - **Remove Profile** – Removes existing DEP profiles from selected devices.

## Sync Class Rosters

After configuring Apple School Manager and the corresponding DEP profiles, sync the information with the UEM console. All the available classes and members populate the **Class List** and **Members** under the **Education** tab.

### Procedure

- 1 Navigate to **Hub > Education > Class List**.
- 2 Select **Sync Classes**.
- 3 View the statuses that appear at the top of screen to notify you when the sync is in progress and when it's complete. Refresh the page as needed.

**Note** Whenever you update information in Apple School Manager, you must **Sync Classes** again to update the UEM console and enrolled devices.

When the sync is complete, the time and date of the most recent sync is recorded in the tool tip for reference.

## Use Sync Reports

If the UEM console fails to sync with Apple School Manager and the classes do not load, then review reports to find out why the sync failed.

### Procedure

- 1 Navigate to **Monitor > Reports & Analytics > Events > Console Events**.
- 2 Scroll to the **Roster Sync Failed** report and select the hyperlink to review the report.



# Apple School Manager Device Distribution

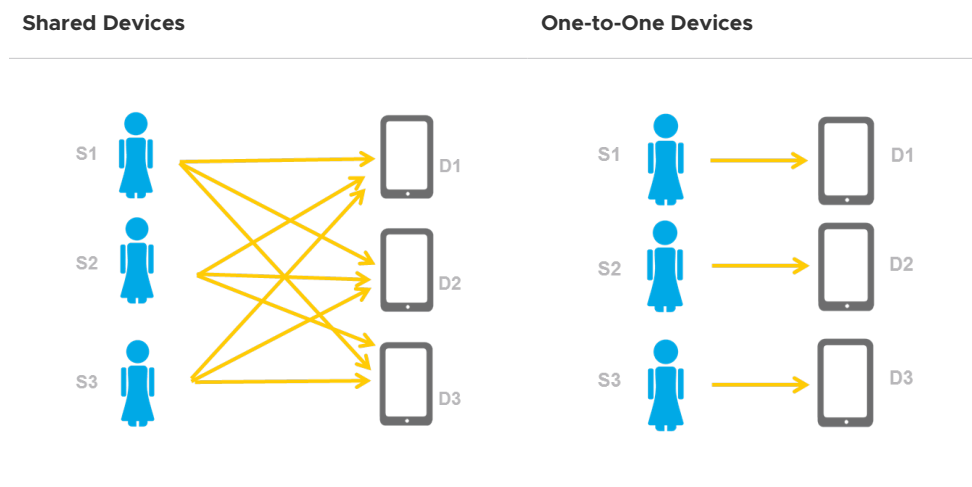
# 3

## Overview

Classes are uploaded in bulk using Apple School Manager and synced with the Workspace ONE UEM console. For Workspace ONE UEM MDM purposes, classes are made up of device carts (Shared iPads only), members, and applications.

## Devices in the Classroom

Configure classrooms in two ways, either using Shared iPads or one-to-one devices. Shared iPad distribution requires management through device carts.



## Device Carts for Shared iPads

Device carts are created in the UEM console for Shared iPads only. Device carts function as smart groups of serial numbers to manage Shared iPads and are assigned to classes. Multiple carts may be created and assigned to multiple classes.



This chapter includes the following topics:

- [Apple School Manager Classroom Overview](#)
- [Applications for Apple School Manager Devices](#)

## Apple School Manager Classroom Overview

Before configuring classes in the UEM console, understand how devices are used in classrooms.

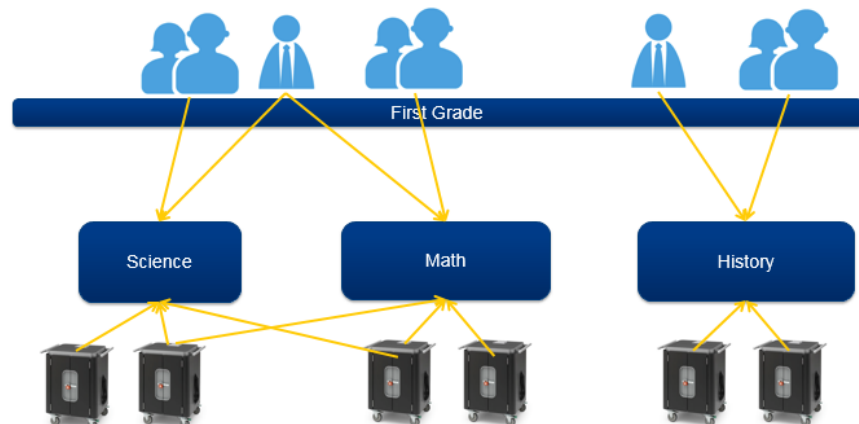
### Shared iPads

Shared iPads live on device carts and are shared with many classes and many students.

#### Configure:

- 1 Create Device Carts for Shared iPads
- 2 Manually Manage Carts and Applications in Classes or use a Pre-Assign Applications for Shared iPads (Optional) option

Optional: Map image URLs that display student photos when using the Apple Classroom application.

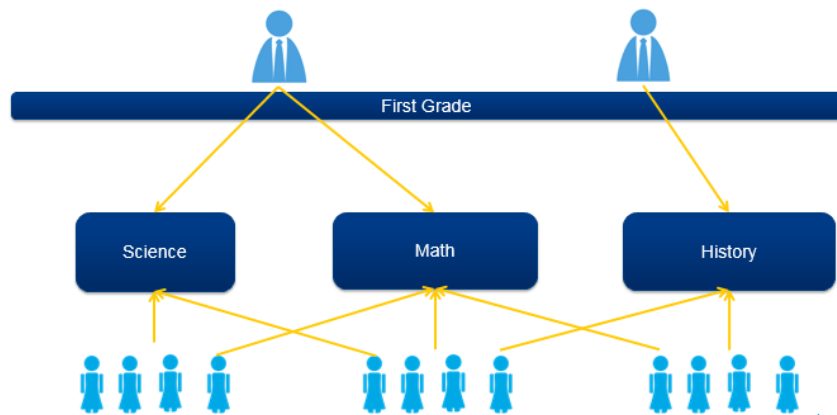


## One-to-One Devices

Distribute one-to-one devices to both students and teachers for use in their classes.

**Configure:**

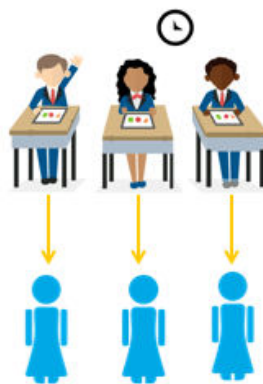
- 1 Map Members to Enrollment Users in Bulk by mapping them to members and optionally map members to image URLs
- 2 Manage Applications for One-to-One Devices



## Members in Classes

Members contain information about enrollment users including:

- Managed Apple IDs
- Image URLs that display student photos when using the Apple Classroom application.



## Applications for Apple School Manager Devices

Applications are purchased through the Apple Volume Purchase Program and assigned to devices. Assign and install all applications before allowing users to log in to devices. If new applications are added while a user is logged in, the user is automatically logged out new applications are installed.

For more information on integrating applications with education functionality, see: **Deploying Content by Device Serial Number Using Managed Distribution** and **Deploying Public VPP Content Using Managed Distribution** in the **VMware Workspace ONE UEM Mobile Application Management Guide**.

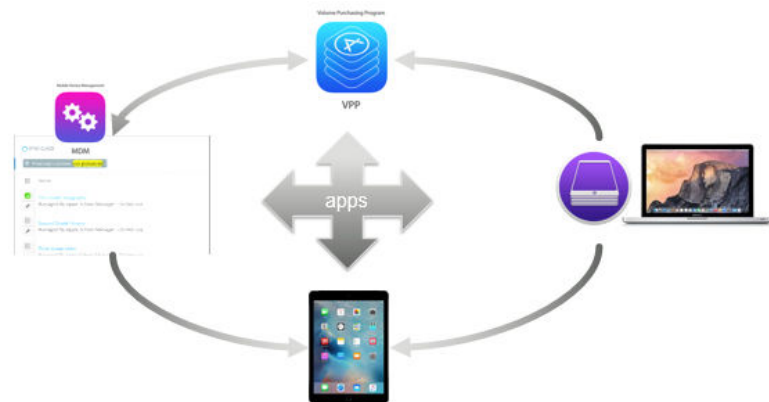
## Pre-assignment for Shared iPads (Optional)

Pre-assign VPP apps to classes using Apple Configurator 2.

### Configure:

- Apps using the class wizard and save the settings.
- MDM management for apps in the UEM console and then assign them to devices Apple Configurator 2.
- The Apple VPP portal with selected apps.

Workspace ONE UEM assumes management of applications upon enrollment of the device.



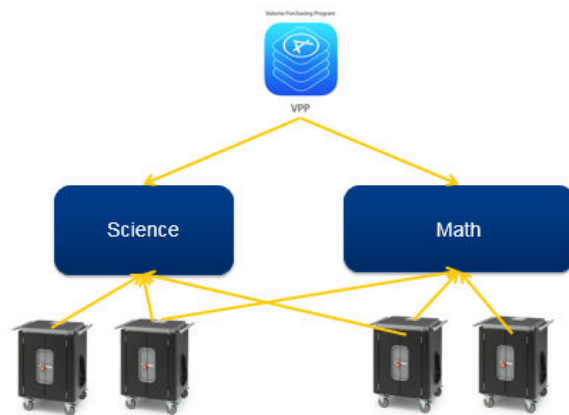
## Manually Assign Apps on Shared iPads

Push VPP apps to groups of devices. Apps are shown or hidden based on the login credentials.

### Configure:

- Apps using the class wizard and save the settings.

If a device cart is added or removed from a class, the apps in the cart are also added or removed from the class and must be reassigned if needed.



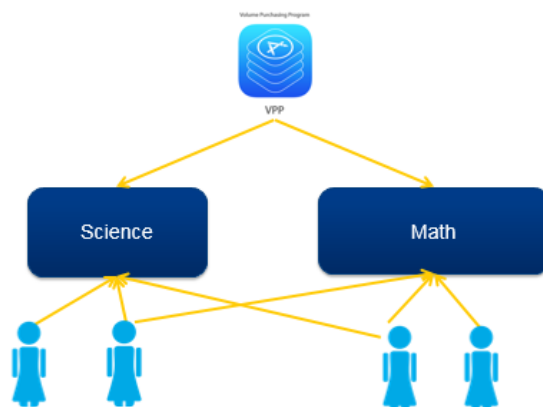
**Note** When applications are removed from the class, the application is removed from any device associated with it and the license is automatically revoked for Shared iPads.

### Apps on One-to-One Devices

Push apps to each device.

### Configure:

- Apps through the **Apps & Books** tab in the UEM console.



## Managed Apple IDs to Manage Books and Applications on Shared Devices

Managed Apple IDs are accounts that are tied to the same organization as the VPP Program Facilitator users who manage VPP licenses.

In such case, the MDM server chooses to instruct the VPP service to associate Managed Apple IDs with the given VPP users. When Managed Apple IDs are associated with the VPP users, the MDM server no longer sends out invitations (email or push) to users and wait for them to accept the device prompts.

Students with Managed Apple IDs created in Apple School Manager do not need to accept any prompts to install applications and books on devices. Workspace ONE silently accepts these prompts on the Managed Apple ID's behalf with no admin interaction.

For more information, refer the *Managed Distribution by Apple IDs* section in the *Integration with Apple Business Manager* guide.

# Apple School Manager One-to-One Device Management

# 4

## Overview

After your devices are enrolled and configured, manage the devices using the Workspace ONE<sup>®</sup> UEM console. The management tools and functions enable you to keep an eye on your devices and remotely perform administrative functions.

You can manage all your devices from the UEM console. The Dashboard is a searchable, customizable view that you can use to filter and find specific devices. This feature makes it easier to perform administrative functions on a particular set of devices. The Device List View displays all the devices currently enrolled in your Workspace ONE UEM environment and their status. The **Device Details** page provides device-specific information such as profiles, apps, Workspace ONE Intelligent Hub version and which version of any applicable OEM service currently installed on the device. You can also perform remote actions on the device from the Device Details page that are platform-specific.

Use one-to-one management for individual devices which are only used by one person. Education settings for one-to-one devices are configured when classes are created and members are mapped to classes in the UEM console and pushed to devices.

This chapter includes the following topics:

- [Map Members to Enrollment Users in Bulk](#)
- [Map Members to Enrollment Users Individually](#)
- [Manage Applications for One-to-One Devices](#)

## Map Members to Enrollment Users in Bulk

Map users to their Managed Apple IDs using a CSV file to import and map users in bulk. Also, add image URLs and keypad configurations for use with the Apple Classroom app.

### Procedure

- 1 Navigate to **Hub > Education > Members**.
- 2 Select **Assign Enrollment Users**. A **Batch Import** window appears.
- 3 Select the **Download format** link to download the template CSV file.

- 4 Complete the template by entering the required information for each user.
  - **Apple ID**
  - **User Name** - Workspace ONE UEM enrollment user name
  - (Optional) **Image URL** - URL for user image on the device log-in screen. The preferred image size is 512 x 512 pixels.
  - (Optional) **Keyboard Layout** - Enter **four**, **six**, or **complex** to nominate a keyboard layout for passcode entry. Match the keyboard layout with the passcode complexity you have selected.
- 5 Save the CSV file locally and return to the Workspace ONE UEM console window.
- 6 **Name** the CSV file, complete the **Description**, and upload the CSV template using the **Choose File** button.
- 7 Select **Save**.

### Results

The enrollment user information populates the **Members** page and enrollment groups are created for one-to-one configurations.

### What to do next

To delete enrollment user assignments from the **Members** list, select one or more users, and then select the **Delete User** button.

## Map Members to Enrollment Users Individually

Map users to their Managed Apple IDs using the UEM console to create and map users. Also, add image URLs and keypad configurations for use with the Apple Classroom app.

### Procedure

- 1 Select the **radio button** next to the member in the list.
- 2 Select the **Assign User** button. An **Assign User** window appears.
- 3 Under the **Advanced** tab, enter the following for the user.

Option	Description
<b>Image URL</b>	(Optional) URL for user image on the device log-in screen. The preferred image size is 512 x 512 pixels.
<b>Keyboard Layout</b>	(Optional) Enter <b>four</b> , <b>six</b> , or <b>complex</b> to nominate a keyboard layout for passcode entry. Match the keyboard layout with the passcode complexity you have selected.

- 4 Enter the **Enrollment User** that corresponds to the Managed Apple ID listed.
- 5 Select **Save**.

## Results

The **Username** column in the console populates for the user you mapped.

## Manage Applications for One-to-One Devices

Push applications to single-user devices by assigning licenses to smart groups that were created when you mapped members to their Apple IDs.

### Procedure

- 1 Navigate to **Apps & Books > Purchased**.
- 2 Select the **Edit Assignment** button on the left-side of the screen.
- 3 Select **Enable Device Assignment** if not already done.
- 4 **Allocate** licenses to this smart group or **hold** licenses as required.
- 5 Complete the **Deployment** information by assigning apps to smart groups of enrollment users for each class.
- 6 Select **Save**.  
The number of licenses used shows up **Managed Distribution** column.
- 7 Roll over to the **arrow** button on the left-side of the screen.
- 8 Select **Publish**.



# Apple School Manager Shared Device Management

# 5

## Overview

After your devices are enrolled and configured, manage the devices using the Workspace ONE<sup>®</sup> UEM console. The management tools and functions enable you to keep an eye on your devices and remotely perform administrative functions.

You can manage all your devices from the UEM console. The Dashboard is a searchable, customizable view that you can use to filter and find specific devices. This feature makes it easier to perform administrative functions on a particular set of devices. The Device List View displays all the devices currently enrolled in your Workspace ONE UEM environment and their status. The **Device Details** page provides device-specific information such as profiles, apps, Workspace ONE Intelligent Hub version and which version of any applicable OEM service currently installed on the device. You can also perform remote actions on the device from the Device Details page that are platform-specific.

Shared devices allow multiple users to check out a device, log in, and access their assigned applications and files. Education settings are pushed to device carts and assigned to the class. Consider the following use requirements and limitations:

- iPads have a specific number of cached users associated with them.
- Student data is stored separately on the iPad and pushed to iCloud Drive or other cloud-based solutions that use apps from the App Store.

This chapter includes the following topics:

- [Create Device Carts for Shared iPads](#)
- [Pre-Assign Applications for Shared iPads \(Optional\)](#)
- [Manually Manage Carts and Applications in Classes](#)
- [Delete Device Carts From Shared iPads](#)

## Create Device Carts for Shared iPads

Create device carts to manage groups of Shared iPads using device serial numbers.

### Procedure

1 Navigate to **Hub > Education > Cart List**.

2 Select **Add Cart**.

An **Add Cart** window appears.

3 Create a **Name** and **Description** for the cart.

4 Select **Download format** to download a CSV template. Enter a unique serial number for each device cart on the template.

5 Select **Choose File** to upload the template.

6 Select **Save**.

### Results

Each cart creates a smart group of devices based on serial numbers. Tags are added to groups so devices can be assigned to the appropriate smart group upon enrollment. The new carts now appear in the **Cart List**.

## Pre-Assign Applications for Shared iPads (Optional)

Although not required, Workspace ONE UEM recommends this workflow to assign and install VPP applications using Apple Configurator 2.

### Procedure

1 Navigate to **Hub > Education > Class List**.

2 Select the **class name** or **pencil icon** to edit the class.

An **Edit Class** window appears and list of students and teachers displays.

3 Review the members and select **Next**.

4 **Add Device Carts** to the class by typing name of the cart you already created in the text box or select the **Create New Carts** shortcut to add a cart without leaving the class wizard. Select **Next**.

For more information, see [Create Device Carts for Shared iPads](#).

5 Select **Add App** to add applications purchased through the Apple's Volume Purchase Program.

A list of common applications that can be applied to all carts within the class appears in the window.

6 Choose applications and select **Next**.

---

**Important** You must have sufficient application licenses for each of the applications that are applied to the class. For more information on licenses and applications see the VMware Workspace ONE UEM Mobile Application Management guide.

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- 7 Review the **Summary** page and select **Save** to save the class settings.  
Devices receive the education configuration profile upon enrollment.
- 8 Navigate to **Apps & Books > Applications > Native > Purchased**.
- 9 Select an application to assign to the class configuration profile that you just saved.
- 10 Scroll to **Deployment**.
- 11 Select **Make App MDM Managed if User Installed**.
- 12 Select **Save**.
- 13 Navigate to **Apple Configurator 2** on your desktop.
- 14 Enter the credentials for the VPP account where the required apps were purchased.
- 15 Select all the required applications from the list.
- 16 Select **Add Apps**. The applications are pushed to the device upon enrollment.

## Manually Manage Carts and Applications in Classes

Use a class wizard to assign and manage carts and applications for classes. Applications are converted to a device-based assignment upon saving the class.

### Procedure

- 1 Navigate to **Hub > Education > Class List**.
- 2 Select the **class name** or **pencil icon** to edit the class.  
An **Edit Class** window appears and list of students and teachers displays.
- 3 Review the members and select **Next**.
  - a If you need to edit the member list, return to Apple School Manager to do so. Sync class rosters again.  
For more information, see [Sync Class Rosters](#).
- 4 **Add Device Carts** to the class by typing name of the cart you already created in the text box or select the **Create New Carts** shortcut to add a cart without leaving the class wizard. Select **Next**.  
For more information, see [Create Device Carts for Shared iPads](#).
- 5 Select **Add App** to add applications purchased through the Apple's Volume Purchase Program.  
A list of common applications that can be applied to all carts within the class appears in the window.

- 6 Choose applications and select **Next**.

---

**Important** You must have sufficient application licenses for each of the applications that are applied to the class. For more information on licenses and applications, see the **VMware Workspace ONE UEM Mobile Application Management Guide** available on Workspace ONE UEM Resources.

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- 7 Review the **Summary** page and select **Save** to save the class settings.

#### Results

Devices receive the education configuration profile upon enrollment.

## Delete Device Carts From Shared iPads

Once device carts are assigned to classes, they cannot be removed from the **Cart List** until the cart assignment and any external assignments, such as profiles, are removed from the class. Navigate to each class and delete the cart using the class wizard, then delete the cart from the list view.

#### Procedure

- 1 Navigate to **Hub > Education > Class List**.
- 2 Select the **class link** to edit the cart assignment. Select **Next**.
- 3 Find the device cart and select the **X** button next to the name of the cart on the drop-down menu.
- 4 Follow the prompts to delete the device cart.
- 5 Select **Next** to move through the screens in the wizard.
- 6 Select **Save** to update the class assignment.
- 7 Navigate to the **Cart List** tab and select it.
- 8 Select the **X** button to remove the cart.

#### What to do next

Once the cart is deleted, the apps may be reassigned to new carts.

# View Users of Shared Devices

## 6

Use the shared device log to view a history of users that logged in to the device.

### Procedure

- 1 Navigate to **Devices > List View > Select Device**.

The **Details View** appears.

- 2 Select **More > Current User** to view the current user of a shared device and history of all users who have used the device.

## Create a Restrictions Profile for Education Devices

Devices configured with Apple School Manager or AirWatch School Manager can support additional restrictions related to the use of iOS devices in a classroom setting. These restrictions only appear on the Restrictions Profile Configuration page if you have Education enabled at the Organization Group you want to configure.

### Procedure

- 1 Navigate to **Devices > Profiles & Resources > Profiles > Add**. Select **Apple iOS**.
- 2 Configure the profile's **General** settings.
- 3 Select the **Restrictions** payload from the list.

You can select multiple restrictions as part of a single restrictions payload.

- 4 Configure Classroom 2.0 **Education Restrictions** settings.

Restriction	Description	Version
Force unprompted screen observation for managed classes	Enable this setting to allow instructors to view student devices remotely in an managed classroom.	iOS 10.3+ Supervised
Allow unprompted app and device lock in unmanaged classes	Enable this setting to allow instructors to restrict access to apps and devices in an unmanaged classroom.	iOS 11+ Supervised

Restriction	Description	Version
Allow automatic joining of unmanaged classes	Enable this setting to allow student devices to join an unmanaged class group automatically.	iOS 11+ Supervised
Force Students to request to leave unmanaged classes	Enable this setting to allow students who are part of unmanaged classes in the classroom app to request permission from teacher to leave the class.	iOS 11.3+ Supervised

## 5 Select **Save & Publish**.

# Perform Remote Actions on All Devices

You can perform various remote actions on devices that are enrolled to Apple Business Manager using DEP.

## Procedure

### 1 Navigate to **Devices > List View > Select Device**.

The **Details View** appears.

### 2 Select **More Actions** and choose from the following education-specific actions.

Option	Description
<b>Device Configured (Admin)</b>	Send this command if a device is stuck in an Awaiting Configuration state.
<b>iOS updates (Admin)</b>	Select individual devices or devices in bulk to update devices.
<b>Enable/Disable Lost Mode</b>	Lock a device and send a message, phone number, or text to the lock screen. Lost Mode is disabled by administrators only. When Lost Mode is disabled, the device returns to normal functionality. Users are sent a message that tells them that the location of the device was shared.
<b>Request Device Location</b>	Query a device in Lost Mode, and then access the Location tab to find the device. (iOS 9.3 + Supervised)

# Disable Education

When you disable education functionality in the UEM console, education functionality options disappear in the **Hub**.

All information in the **Class List** and **Members** view is deleted. All mapping to classes and members is deleted. All Device Enrollment Program (DEP) profiles for Shared iPads are deleted. All application licenses assigned through a class are revoked. Smart groups of enrollment users are deleted unless the group is mapped to applications, profiles, or compliance policies. However, smart groups of device carts are still accessible.

## Procedure

- ◆ To disable education functionality, navigate to **Groups & Settings > All Settings > Devices & Users > Apple > Education > Disable**.

## Wiping Apple School Manager Devices

You should not perform a device wipe through Workspace ONE UEM on an enrolled device. Instead, perform an enterprise wipe, so the user is forced to re-enroll when it is reactivated. To discourage a device wipe, Workspace ONE UEM displays an additional warning in the UEM console when performing the command.

If a device wipe is performed, the device must be factory reset using iTunes or Apple Configurator 2.

## Manually Log Out a User

Workspace ONE allows the administrators to forcefully log out a user from Shared iPads.

Shared iPad users, when they are idle, they do not appear to be automatically logged out. Workspace ONE enables the admins to manually log out a user. Once the administrator log outs a user, it returns to the main lock screen. The next user can log in and use the Shared iPad later.

To log out a user from shared device, perform the following steps:

### Procedure

- 1 In the Workspace ONE UEM, navigate to **Devices > Details View > More Actions**.
- 2 Select **Admin**.
- 3 Select **Log Out User**.

You have successfully logged out the user from a Shared iPad and returned to the main screen.

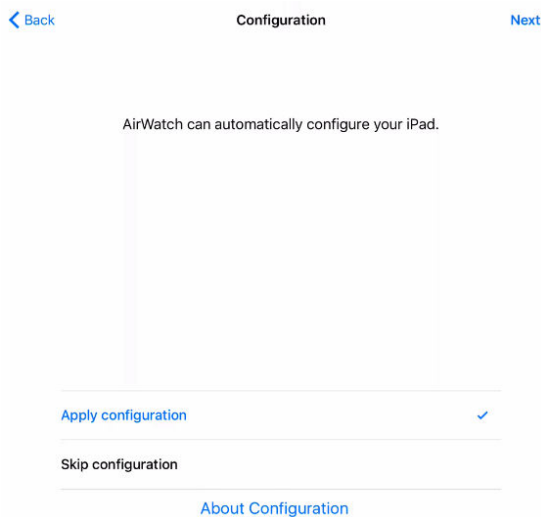
# Device Enrollment

# 7

Enroll shared devices after assigning the shared DEP profile. Upon enrollment, users can access their classes and applications if previously configured.

## Procedure

- 1 Turn on the device. Apple's Setup Assistant begins.
- 2 Tap a **Wi-Fi network** to and connect to it.
- 3 Tap **Apply Configuration** to allow Workspace ONE UEM to configure the Shared iPad.



- 4 Select **Classes**. A class list is displayed.
- 5 Sign in to the device by selecting the student icon or entering a Managed Apple ID and password.

## Results

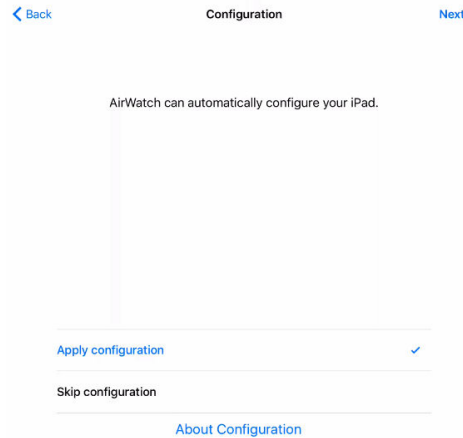
Upon enrollment, the device receives an education profile that includes all the class assignments for the device cart. The device also receives a public key certificate to facilitate communication with a teacher device. Upon logging in, the device receives another profile that shows or hides all applications that are applicable or not applicable to the student.



## Enroll One-to-One Devices

Enroll one-to-devices after optionally assigning a DEP profile. Upon enrollment, users can access their classes and applications if the enrollment users were mapped to the members.

- 1 Turn on the device. Apple's Setup Assistant begins.
- 2 Tap a **Wi-Fi network** to select it and connect to it.
- 3 Tap **Apply Configuration** to allow Workspace ONE UEM to configure the Shared iPad.



- 4 Tap **Get Started** to begin using the device. If installing non-device based VPP applications, log into **iCloud** to install these applications.