

Managing and Supporting iPads in the Classroom

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<http://sedccclint.com> - iPad or UEN tag

Overview

- * Things to Consider
- * Ownership models
- * Deployment strategies
- * Deployment & management tools
- * Volume Purchasing Program for apps

Things to Consider...

- ✱ The Apple ID that is used to purchase an app or to redeem a VPP (Volume Purchasing Program) code will own that app for time and all eternity.
- ✱ Apple ID's can't be deleted or merged.
- ✱ Are apps an asset or a commodity?
- ✱ Do you care who 'owns' the apps?

Ownership Models

- ✱ Depending on your answer, you can follow 3 deployment app ownership models:
 - ✱ Personal Ownership
 - ✱ Institutional Ownership
 - ✱ Layered Ownership

Personal Ownership Model

- ✱ Pros:

- ✱ Typical to normal user experience
- ✱ Deployment is fast
- ✱ Limited to no prep work on devices needed
- ✱ End user can customize their device and experience

Personal Ownership Model

* Pros:

- * Can still use Apple Configurator or Meraki for profile management/setup/rules, etc.
- * 1 Apple ID can be used on many devices
- * Using iCloud, any apps purchased (free or paid) will be automatically downloaded to all devices tied to that account
- * Can sync wirelessly and backup to iCloud

Personal Ownership Model

- * Cons:

- * End user is responsible for ongoing maintenance (backup, updates, etc.)
- * End user owns all apps and content (both purchased with individual credit card and VPP apps)
- * Licensing issues if an app is found on 1+ devices?

Deployment with Personal Ownership

- * You buy the devices
- * Hand them out and you are done!
- * People use their own Apple ID's, buy their own apps, backup and sync on their own.
- * Institutions can purchase iTunes gift cards to buy apps
 - * app = commodity

Institutional Ownership Model

- ✱ Pros:

- ✱ District/school retains app ownership

- ✱ Best model (according to Apple) if students are under 13

- ✱ they won't be using/creating Apple ID's for these devices...

Institutional Ownership Model

- ✱ Pros:

- ✱ If a student syncs to another computer, all apps are erased from the device.
- ✱ Device restrictions can be enabled to prevent users from installing or deleting apps or making other changes to the device configuration (i.e. App Store is disabled)

Institutional Ownership Model

- ✱ Cons:

- ✱ ALL app purchasing (free and paid) will have to be done by institution or on each teacher's computer (sync machine)
- ✱ Any app updates will have to be done by syncing the device with the teacher's computer (sync machine) with iTunes logged into institutional Apple ID

Institutional Ownership Model

- ✱ Cons:

- ✱ iCloud can not be used for backup*

- ✱ Recommended that the App Store be disabled on these devices (but you may want to do that anyway)

***SO SAYS APPLE**

Deployment with Institutional Ownership

- * You buy the devices
- * You set up an institutional email address and in turn an institutional Apple ID, with which all app purchases are made
 - * app = asset
- * Deploy with Apple Configurator &/or Meraki Systems Manager, with device restrictions, and hand out.
- * Any backups or updates are done by you

Layered Ownership Model

- ✱ Pros:

- ✱ Both parties retain ownership of the apps purchased.
- ✱ If the teacher moves, they remove their Apple ID and the apps that they purchased are removed from device.
- ✱ Devices retain a base of installed apps that belong to the institutional Apple ID

Layered Ownership Model

- ✱ Pros:

- ✱ Institution can purchase new apps with VPP in iTunes on teacher's sync machine and apps will be installed at the next sync.
- ✱ Teacher can get new paid or free apps on the device for immediate use - gives them more sense of ownership and will be more likely to protect the device.

Layered Ownership Model

- ✱ Pros:

- ✱ iCloud backup is enabled, which will speed up syncing since all that will need to happen is to install or update apps purchased by the institution.

Layered Ownership Model

- ✱ Cons:

- ✱ Updates and syncing can get confusing since there are apps owned by two different Apple ID's
- ✱ Users will see 'error' messages and could potentially erase apps by selecting the wrong options.

Layered Ownership Model

- ✱ Cons:

- ✱ These warnings could be turned off if tech gets in and do the first sync with the teacher's computer (sync machine) before classroom use and disable warnings.
- ✱ App store must NOT be disabled.

Deployment with Layered Ownership

- * You buy the devices
- * You set up an institutional email address and in turn an institutional Apple ID, with which initial app purchases are made
 - * app = asset, but personal apps can be purchased
- * Deploy with Apple Configurator &/or Meraki Systems Manager, with device restrictions **before iPad is set up**, and hand out.

Deployment with Layered Ownership

- * End users set up and sign in with their own Apple ID's, and purchase any additional apps of their choosing.
- * If institutional apps need updating, they sync with institutional sync machine
- * If their apps need updating, they sync with iTunes on personal/teacher computer
- * Backup is done to iCloud

Which Strategy To Choose?

- ✱ **App Ownership:** Whose apps will be allowed on this device?
- ✱ End user only: Consider Personal Ownership
- ✱ Institution only: Consider Institutional Ownership
- ✱ Both: Consider Layered Ownership

Which Strategy To Choose?

- ✱ **Device Personalization:** Are users allowed to personalize settings and content on their devices?
- ✱ Yes: Consider Personal Ownership or Layered Ownership
- ✱ No: Consider Institutional Ownership

Which Strategy To Choose?

- ✱ **Device Update Frequency:** How often should apps be updated on the devices?
- ✱ **Frequently:** Consider Personal Ownership or Layered Ownership
- ✱ **Infrequently:** Consider Institutional Ownership or Layered Ownership

Which Strategy To Choose?

- ✱ **iCloud:** Will iCloud services be used on the device?
 - ✱ Yes: Consider Personal Ownership or Layered Ownership so that only a personal Apple ID uses iCloud services
 - ✱ No: Consider Institutional Ownership

Notes on Deployment Strategies

- * Create new email accounts to be used to create Apple ID's that are tied to a device or department, unless you treat apps as a commodity.
- * These ID's can be easily transferred to someone else when the device or manager moves on
- * For example, pchs.math.apps@pchs.org

Notes on Deployment Strategies

- * Apple ID's can be created without a credit card associated with it
 - * <http://support.apple.com/kb/HT2534>
 - * Can feed the account with VPP vouchers* or gift cards
- * As long as that account has not been used for an Apple ID before

Notes on Deployment Strategies

- ✱ Syncing via USB hub to iTunes on a Mac works well for multiple devices.
- ✱ Syncing with iTunes on Windows "works best" with only 1 device connected at a time.
- ✱ iCloud should be used for wireless syncing and backup!

Notes on Deployment Strategies

- * If using 1 Apple ID for a set of iOS Devices...
 - * Licenses should be purchased for **each** copy of the app you are using
 - * 30 iPads with Angry Birds = 30 licenses
 - * If an eBook or eTextbook is purchased, it can be distributed to any device using that Apple ID
 - * 30 iPads with Biology text = 1 @ \$15

Deployment Tools

- * Apple Configurator

- * Apple Configurator can be used in several different ways to make configuration and deployment of iOS devices within your organization both easy and efficient.

- * Can be used to Prepare, Supervise, or Assign iOS devices

- * *Mac only at this time.

- * [iPhone Configuration Utility for Windows](#)

Deployment Tools

- * Apple Configurator - Prepare?
 - * You can prepare a set of new iOS devices that are configured only once and then deployed to users.
 - * Update devices to the latest version of iOS, install configuration profiles and apps, enroll the devices with your organization's Mobile Device Management solution, and then hand them out.
 - * Preparing devices is a great deployment option for enterprises and schools that provide iOS devices to employees or students for day-to-day use

Deployment Tools

- * Apple Configurator - Supervise?
 - * You can supervise a set of iOS devices that you want to control and configure on an ongoing basis.
 - * Apply a configuration to each device, and then reapply it after each use simply by reconnecting the device back to Apple Configurator.
 - * Supervision is an ideal option for sharing devices among students in a classroom or a lab or teachers in a school.

Deployment Tools

- ✱ Apple Configurator - Assign?
 - ✱ You can assign supervised devices to specific users in your organization
 - ✱ Check out a device to a user and restore the user's backup (and data!) to that device; then check the device back in and back up the user's data for later use, possibly on a different device
 - ✱ Works well in educational settings where students need to work with the same data and documents over time, regardless of which device they're given

Notes on Configurator

- * After selecting apps for installation, you MUST check the box next to each app to automatically install them once you have connected it to 'Prepare' it for deployment.
- * You can pre-install apps, but the device must have the initial setup complete (by the user) before Configurator can install a management profile on it.
- * Tutorials at <http://techrecess.com/2012/03/first-look-at-apple-configurator-resources/>

Configurator Demo?

Deployment Tools

- ✱ Meraki Systems Manager
 - ✱ Scalable cloud based mobile device management (MDM) system
 - ✱ Meraki's Systems Manager provides over-the-air centralized management, diagnostics, and monitoring for the mobile devices managed by your organization.
 - ✱ Wireless deployment of Web Clips and Free apps (VPP app deployment coming soon).
- ✱ Meraki Systems Manager is a **free** tool!

Deployment Tools

- ✱ Meraki Systems Manager - Getting Started

- ✱ Sign up for a free account

- ✱ Set up your initial network, iOS profiles, web clips and apps

- ✱ On each device, head to m.meraki.com, enter in your network ID, and install the profile on the device.

- ✱ You can now remotely install web clips & free apps (for now), monitor device location and usage - even remotely lock or wipe the device.

Meraki Demo?

Apple Volume Purchasing Plan (VPP) for Apps

Apple VPP: What is it?

- ✱ This is the main and best way to purchase apps, in small or large quantities, for your school or district iOS devices.
- ✱ All purchasing of VPP apps are done at the VPP site, and not in iTunes. <http://volume.itunes.apple.com/store>
- ✱ Most apps have a volume discount, where if you buy 20+ licenses at a time, you receive a 50% discount on each license.
- ✱ This program is an opt-in for developers, so not all available apps are discounted in volume.

Apple VPP: What is it?

- ✱ This program is an opt-in for developers, so not all available apps are discounted in volume
- ✱ Books from the iBooks, including textbooks, store can be purchased with the VPP
- ✱ Not all apps are included in the VPP. They must be education or business related. No Angry Birds!
- ✱ Can be funded with Volume Vouchers or institutional credit cards.
- ✱ Can search the VPP store by app name or URL

Apple VPP: Program Manager

- ✱ Each organization must have at least one Program Manager.
- ✱ Can be an existing Apple ID or Apple Authorized Purchaser
- ✱ Ad-hoc account with the only function of creating new 'shopper' accounts called Program Facilitator.

Apple VPP: Program Facilitator

- * Program Facilitator - 'Shopper' accounts
 - * MUST be a real, institutional email account that has NEVER been used to create an Apple ID
 - * Email addresses for PF's should be based on location or position, not on an individual - easier to pass on purchasing, management and ownership of apps
 - * For financial control - CFO, IT Dept., Department Head
 - * For content control - principals, curriculum managers, teachers

Apple VPP: Program Facilitator

- * Program Facilitator - 'Shopper' accounts
 - * These accounts create a complete purchase history
 - * Program Facilitator accounts funded by Volume Vouchers or by institutional credit card
 - * Shop and purchase apps at:
<http://volume.itunes.apple.com/store>
 - * Once purchased, PF receives a spreadsheet of redemption codes or links to distribute to end user accounts

Apple VPP: End Users

- ✱ End Users - those who use devices and apps
 - ✱ Can be any Apple ID - regular pre-existing Apple ID's or Program Managers & Program Facilitators
 - ✱ Use a redemption code in iTunes or a redemption link that will take them to iTunes to purchase and download app

Apple VPP: Getting Started

- ✱ To learn more about the program:
 - ✱ Visit the main VPP site:
<http://www.apple.com/education/volume-purchase-program/>
 - ✱ View the FAQ's:
<http://www.apple.com/education/volume-purchase-program/faq.html>
 - ✱ Attend a webinar:
<http://edseminars.apple.com/ASVPP/ondemand>

Apple VPP: Getting Started

- * To Enroll as a VPP Program Manager, head to
 - * <http://edu-vpp.apple.com/asvpp.html>
- * Once your account has been approved, you can create Program Facilitator accounts at
 - * http://edu-vpp.apple.com/asvpp_manager/
- * Program Facilitators can redeem Volume Vouchers, shop for and purchase apps at
 - * <https://volume.itunes.apple.com/store>

Apple VPP: Volume Vouchers?

- * Volume Vouchers are like BIG iTunes Gift Cards that can be purchased from the Apple Store for Education
- * Tax exempt
- * In denominations of \$100, \$500, \$1000, \$5,000 & \$10,000
- * Can be applied to one AND ONLY one Program Facilitator account - can't split up a \$500 3 ways.
- * Buy multiple small denominations to be sure.

Apple VPP: Using Volume Vouchers

- * Purchased from Apple Store for Education
- * Handed off to a PF to start shopping
- * Vouchers will be used up before a credit card or purchasing card
- * Vouchers and redemption codes do not expire
- * If you will eventually need more than 10 copies, buy 20 with the discount.
- * Best to buy in bunches, not per-request for discounts

Apple VPP: After Purchase of Apps

- ✱ Redemption codes are emailed back to PF for distribution to end users.
- ✱ Also sent in an Excel file with the redemption codes and a link to redeem that code - can be clicked or tapped on from device to be downloaded and installed.
- ✱ Once a code is used, it's marked as 'Redeemed' and can not be used again.

Apple VPP: After Purchase of Apps

- * Can be done one at a time, with a mail-merge to automatically send out many at a time, or use a mobile administration service (Meraki, Apple Configurator)
- * End-user redeems the code, or passes them off to the final end user
- * !!! Pay attention to what account is logged into in iTunes before redeeming codes!!!

Apple VPP: After Purchase of Apps

- ✱ Go to the iTunes Store, and click the 'Redeem' option. Enter the code, and the app is downloaded and will be installed the next time the device syncs.
- ✱ Or, you can use the clickable redemption links and avoid iTunes download and sync
- ✱ !!! Copies of apps should be purchased for every device, but only one code is redeemed, then synced to all devices. PF needs to mark the other un-redeemed codes as 'In Use' even though they have not been redeemed!!!

Still have questions?

- ✱ iOS 5 Deployment Guide:
http://images.apple.com/education/docs/IOS_5_Education_Deployment_Guide.pdf
- ✱ Apple Education Seminars beyond VPP:
<http://edseminars.apple.com/ASVPP/ondemand>
- ✱ Email vpp_edu@apple.com or call (800) 800-2775