

Managing and Supporting iPads in the Classroom

Clint Stephens
Southwest Educational
Development Center
clint@sedck12.org



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Overview

- Before and after iOS 7
- New iOS 7 Powers!
- Ownership models Too confusing, not needed now
- Deployment strategies
- Deployment & management tools
- Volume Purchasing Program for apps

Before iOS 7...

- The Apple ID that was used to purchase an app or to redeem a VPP (Volume Purchasing Program) code owned that app for time and all eternity.
 - Now, you can assign and revoke apps with Supervision in Apple Configurator or with an MDM solution like Meraki
- Apple ID's can't be deleted or merged. Still true.
- Are apps an asset or a commodity? Do you care who 'owns' the apps?
 - No longer an issue if you use Configurator &/or an MDM

New iOS 7 'Powers'

- Apple Configurator 1.4.x (requires OS X Mountain Lion and iTunes 11.1 or later):
- Support for new iOS 7 features and restrictions, including:
 - Allow modifying account settings
 - Allow AirDrop
 - Allow connecting supervised devices to any Mac
 - Configure Web Content Filter
 - Configure AirPlay mirroring destinations and passwords
 - Configure AirPrint printers
 - Configure Managed Open In
 - Allow Control Center or Notification Center on lock screen

New iOS 7 'Powers'

- A new Setup tab in Prepare, which provides options such as:
 - Enroll multiple unsupervised devices in MDM without tapping each device
 - Complete setup assistant and enroll Apple TV in MDM without using the remote
- Improved UI for installing a single profile on unsupervised devices.
- Addresses an issue that could cause one redemption code to be lost when importing a Volume Purchase Plan spreadsheet.
- A new "Allow devices to connect to other Macs" option that allows supervised devices to sync photos and videos with other Macs.

The Biggest Change??

- Once assigned, and if managed properly, an app *no longer* belongs **forever** to the Apple ID it was assigned to.
- Apps can now be assigned and revoked at will with both local management and Mobile Device Management (MDM).
- Deploying Apps with an MDM is a breeze.

Ownership Models - A Thing of the Past

- Used to be that before you really ever purchased iPads for your school/district, you had to do a lot of planning and thinking...
- The biggest question was, “Who will ‘own’ the apps?”
- Your answer drove you toward one of 3 deployment app ownership models:
 - Personal Ownership
 - Institutional Ownership
 - Layered 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 credit or gift cards
 - As long as that account has not been used for an Apple ID before

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

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.
 - VPP Apps can be assigned and revoked with Supervised devices with iOS 7

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.
- With iOS 7 and Configurator 1.4.x, updates and app installation/removal no longer requires a password for every app on every device!

Configurator Demo

Configurator Notes

- To install VPP apps and not burn one of the installation codes on the Mac running Apple Configurator, and If you do not already have a copy of the app on your computer, use the first redemption code in your spreadsheet to purchase it in iTunes. After using this code, re-download the spreadsheet and import it into Apple Configurator again. This allows Apple Configurator to automatically reassign this code to one of your devices.
- When I tried to Prepare my first device (with Supervision enabled so that I can add/remove installed apps), I had an error stating that it could not continue because Find My iPad was enabled on the device. Good for security and stolen devices! More information on this [here](#). Find My iPad can be reinstalled and enabled, but it will need to be disabled if you want to Prepare it again for another use. App updates from Configurator still work!

Configurator Notes

- Once a device has been Prepared with Supervision enabled, the devices now show up in the Supervise tab.
- First device I prepared, after an iOS update, had me go through a few setup screens even though I told it to skip them all. However, they were very simple questions that any end user could answer: choose the language and country, select which of the pre-configured WIFI networks to join, and tap Get Started. That's it!
- When installing apps, if you have installed (paid or free) apps under multiple Apple ID's, you need to authorize all of the Apple ID's in iTunes (Store menu —> Authorize This Computer...)

Configurator Notes

- When I pushed out 5 apps (4 free, one paid with VPP Code), NO APPLE ID PASSWORD WAS REQUIRED! HUGE improvement!
- Now, to revoke a paid app, I just uncheck it in it's installed app list (in the Supervision area) and click Apply. The app is uninstalled and the VPP code is now available for other devices. To install the VPP app(s) on another device, just check the box next to it, click Apply and it's done. Another HUGE improvement!

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, VPP apps with Managed Licenses & Free apps
- Meraki Systems Manager is a **free** tool!

Deployment Tools

- Meraki Systems Manager - Getting Started ([PDF Guide](#))
 - [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 apps (some setup required for VPP app distribution), monitor device location and usage - even remotely lock or wipe the device.

App Deployment

- This may be as close to magic as I've seen in this whole process, once it's all set up...
 - You must have a VPP Manager account with 2-step verification enabled (3-day waiting period?)
 - Add that VPP account to your MDM, with a VPP Service Token, downloaded from the Apple VPP Store
 - Invite any/all needed Apple ID's to participate. An email is sent with a verification link to click.
- That's about it for the setup. [Explicit Instructions here.](#)

App Deployment

- Now the magic...
 - Choose an app in your MDM
 - Select the Apple ID(s) to deploy the app to
 - That app shows up in the purchase history in the App Store App on the devices with that Apple ID signed in
 - Tap the download button, and it's there!
- Ready to revoke the app? Check a couple of boxes, and the app is gone from the devices (30 day grace period)

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?

- Books from the iBooks store, including textbooks, can be purchased with the VPP. Mac apps too!
- Not all apps are included in the VPP. They must be education or business related. No Angry Birds!
- Apps can be purchased using PO's, PayPal, VPP Credit from the online Apple Education Store 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 Administrator

- Program Administrator - 'Shopper' accounts
 - MUST be a real, institutional email account that has NEVER been used to create an Apple ID
 - Email addresses for PA'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 Administrator

- Program Administrator - ‘Shopper’ accounts
 - These accounts create a complete purchase history, viewable at the VPP site under Account Summary
 - Program Facilitator accounts funded by Volume Vouchers or by institutional credit card, PO, PayPal
 - Shop and purchase apps at:
<http://volume.itunes.apple.com/store>
 - Choose ‘Download Codes’ if using Configurator to manage apps, ‘Managed Licenses’ with an MDM

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
 - If using an MDM, these accounts must be invited and accepted invitation to participate (can upload spreadsheet of accounts)

Apple VPP: Getting Started

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

Apple VPP: Getting Started

- To Enroll as a VPP Program Manager, head to
 - <https://deploy.apple.com>
- Once your account has been approved, you can create Program Facilitator accounts at the same site.
- Program Facilitators can redeem Volume Credit, shop for and purchase apps at
 - <https://volume.itunes.apple.com/store>

Apple VPP: Volume Credit

- Used to be that you could only buy Volume Vouchers (like BIG iTunes Gift Cards) in denominations of \$100, \$500, \$1000, \$5,000 & \$10,000
- Now, you can purchase VPP Volume Credit from the Apple Store for Education in ANY amount (Product Number : D6701Z/A).
- Delivered directly to a VPP Administrator via email. No codes to enter in the VPP App Store.
- If you need 11 copies of the App, buy 20.

Apple VPP: After Purchase of Apps

- If Redemption codes are chosen, they are emailed back to Program Administrator 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.
- Excel file used for app code management in Apple Configurator
- Once a code is used, it's marked as 'Redeemed' and can not be used again (unless device is Supervised in Configurator).

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
- !!! End Users need to 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 7 & Education from Apple
- Apple Education Seminars beyond VPP:
<http://edseminars.apple.com/ASVPP/ondemand>
- Email vpp_edu@apple.com or call (800) 800-2775

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