Kirk Godtfredsen

Kirk has over 26 years of Mac related IT experience - from StarControllers and 3270 emulation over Token Ring to WPA, Active Directory and iPhones, he's had to integrate it. He spent 13 years at Apple as a systems engineer and trainer (before the stock splits - natch). For the last 13 years he has provided IT support to small biz, K-12 and higher-education, and also spends time helping out @ BusyMac, the makers of BusyCal and BusyContacts. He has been involved with mobile computing since its inception, working on the first email client for the first internet-based phone w/AT&T Wireless. When he isn't working, he's biking and hiking.

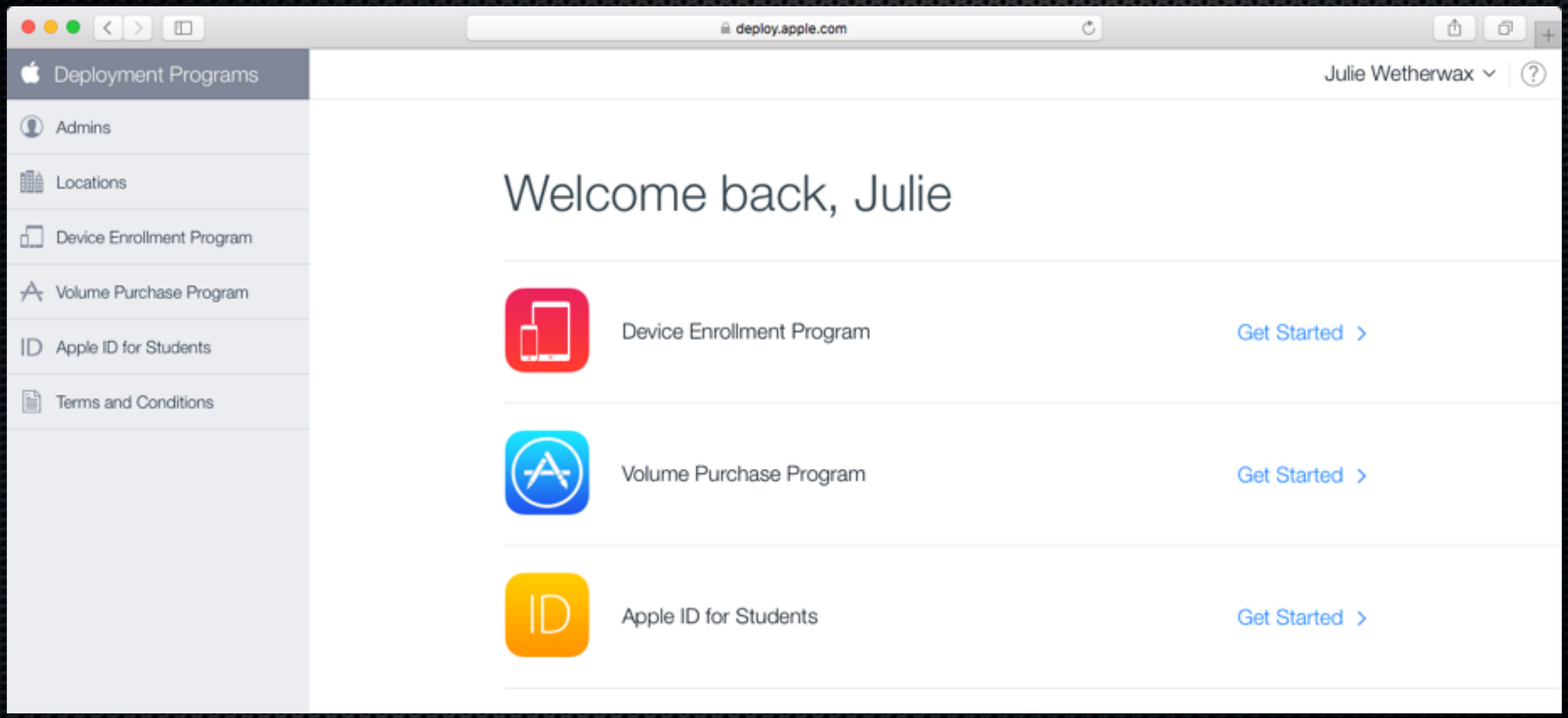


Deploying Devices: State of the Union and How to Select a MDM

What are we going to cover?

- **Apple Deployment Programs**
  - Device Enrollment Program (DEP)
  - Volume Purchase Program (VPP)
  - Apple School Manager (new)
- **Profile Manager**
- **Configurator 2**
- **3rd Party Options**

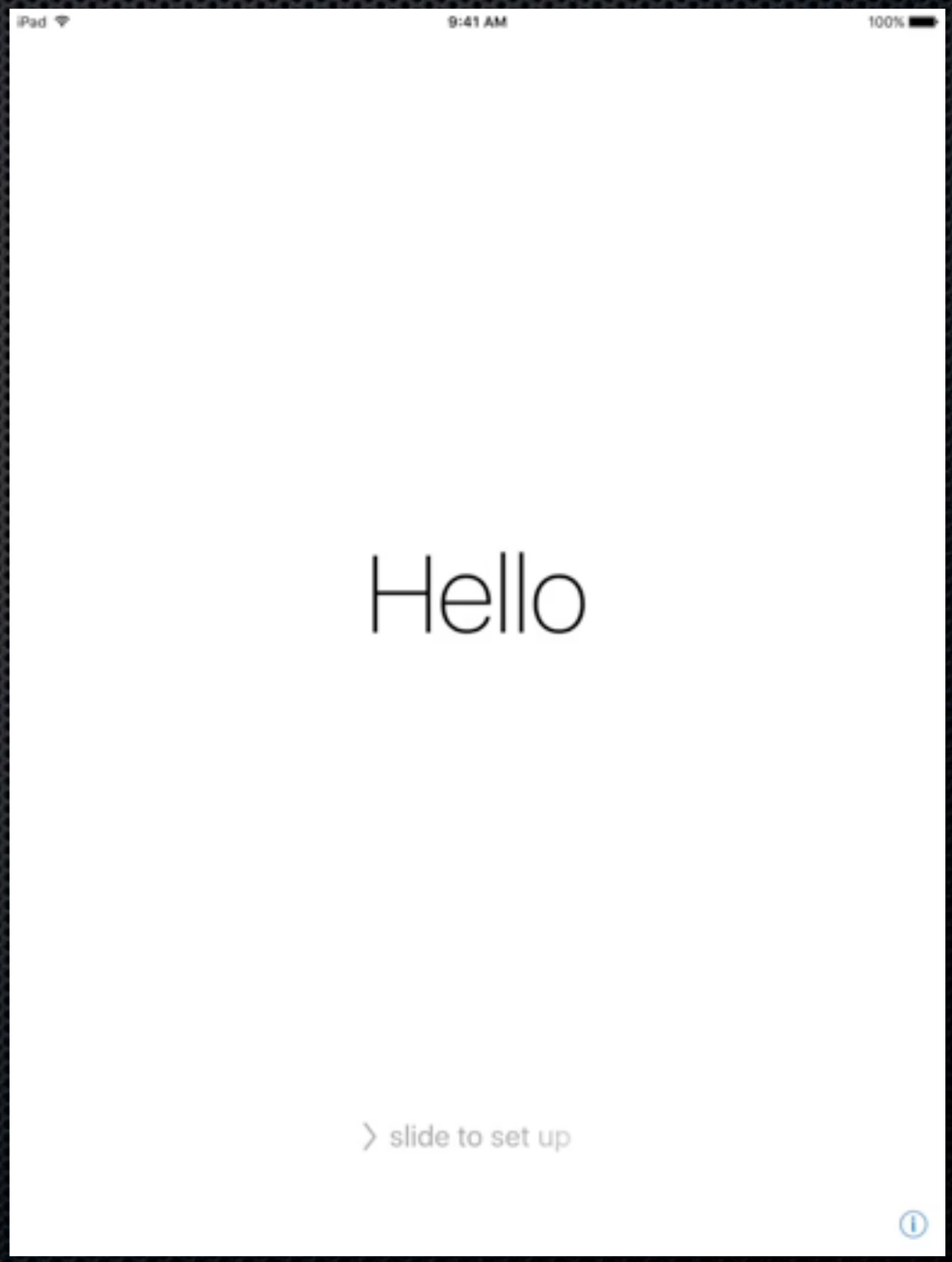
Apple Deployment Programs (ADP)



deploy.apple.com

Device Enrollment Program (DEP)

Automates and enforces MDM enrollment and supervision during setup. It's no-touch Configurator



Device Enrollment Program (DEP)

Account Creation

- ADP Apple IDs must be new and linked to your organization's domain.
- ADP Apple IDs can't be used to log into other services like iTunes. Assume some integration with new Managed Apple IDs
- Consider using generic accounts
  - DEP Accounts: domain-dep@domain.com
  - VPP Account(s): domain-vpp@domain.com
    or: domain-vpp-mdm@domain.com

Device Enrollment Program (DEP)

Enrollment Process

1. Setup an Agent Account
2. Enable two step verification
3. Provide additional institutional information
   - Verification Contact
   - Physical Address Information
   - DUNS #
   - Apple Customer # or DEP Reseller ID

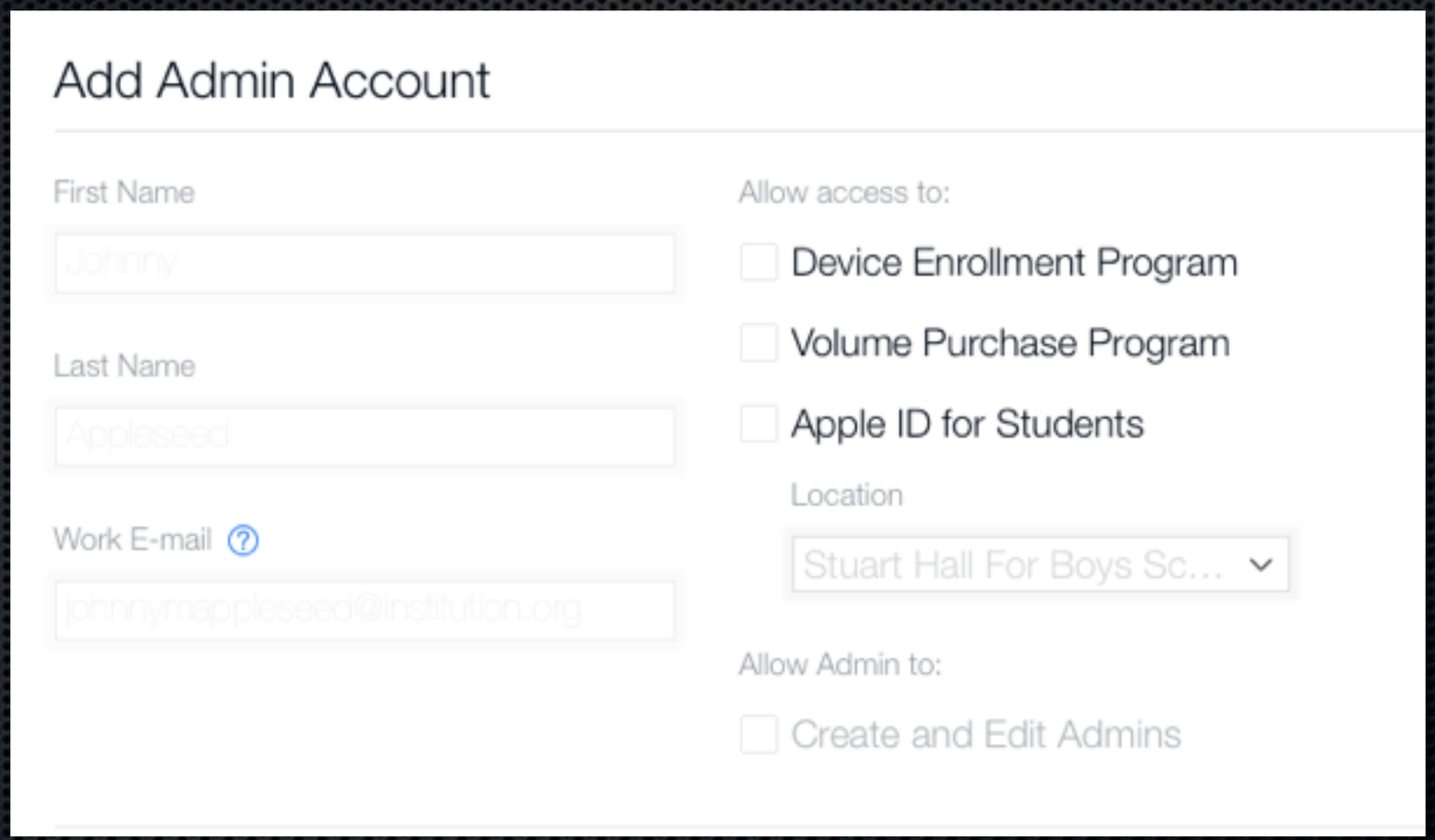
When enrollment is complete you will receive a DEP Customer ID #.

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Device Enrollment Program (DEP)

Next Steps

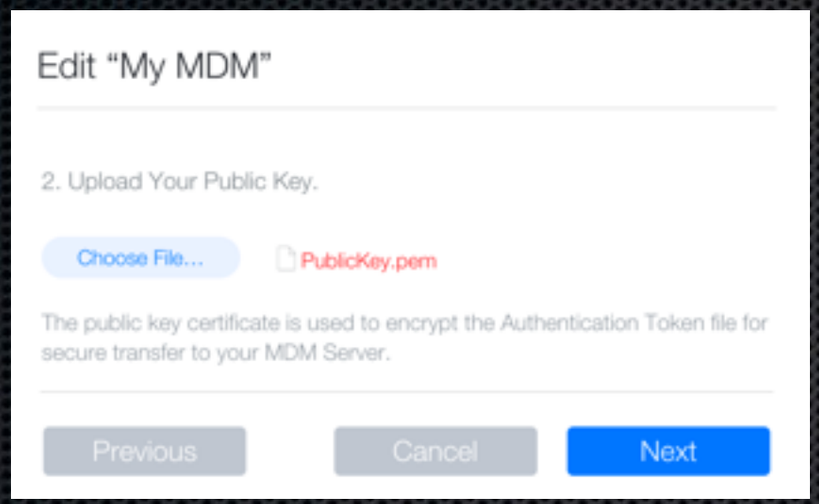
1. Create Admin Accounts

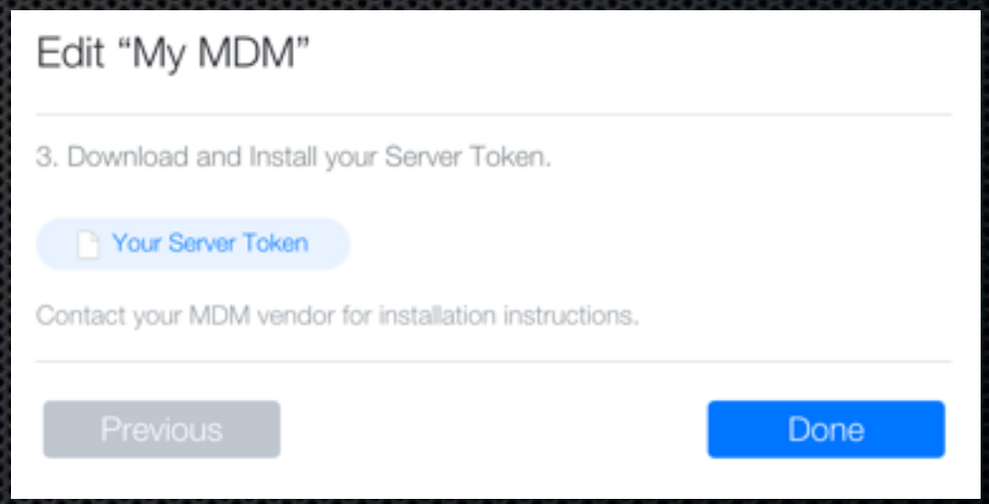


Device Enrollment Program (DEP)

Next Steps

2. Link MDM to DEP with token.





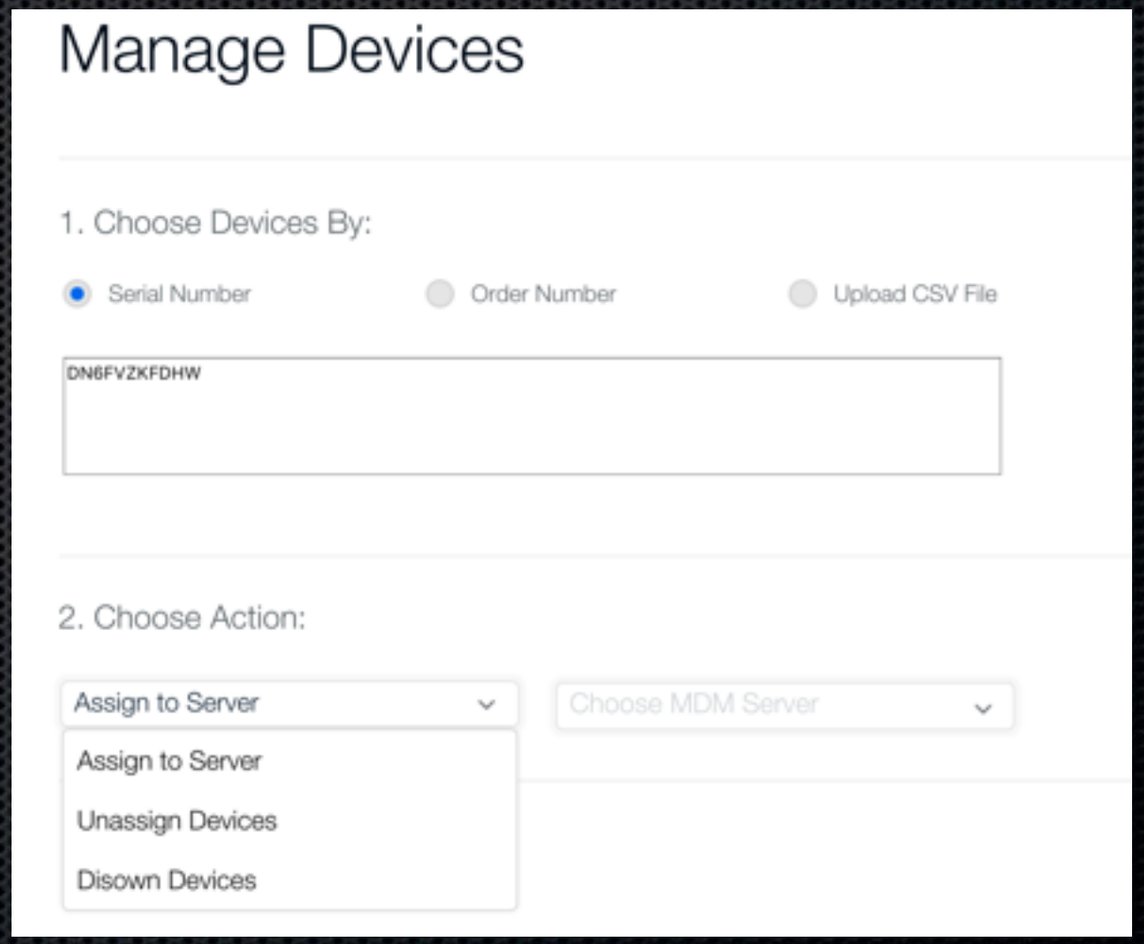
1. Download Public Key from your MDM.
2. Upload Public key to DEP
3. Download newly created token
4. Upload new token to MDM

Device Enrollment Program (DEP)

Next Steps

3. Assign Devices - Devices can be manually added by serial, or purchase order #.

Devices can also be disowned from DEP, but this is PERMANENT.



Volume Purchase Program (VPP)

- Apple program that allows you to find, buy and distribute Apps in bulk for your institution.
- Available for Business as well as Educational Institutions.



Discounts available on bulk purchases of Apps (20 or more).

Volume Purchase Program (VPP)

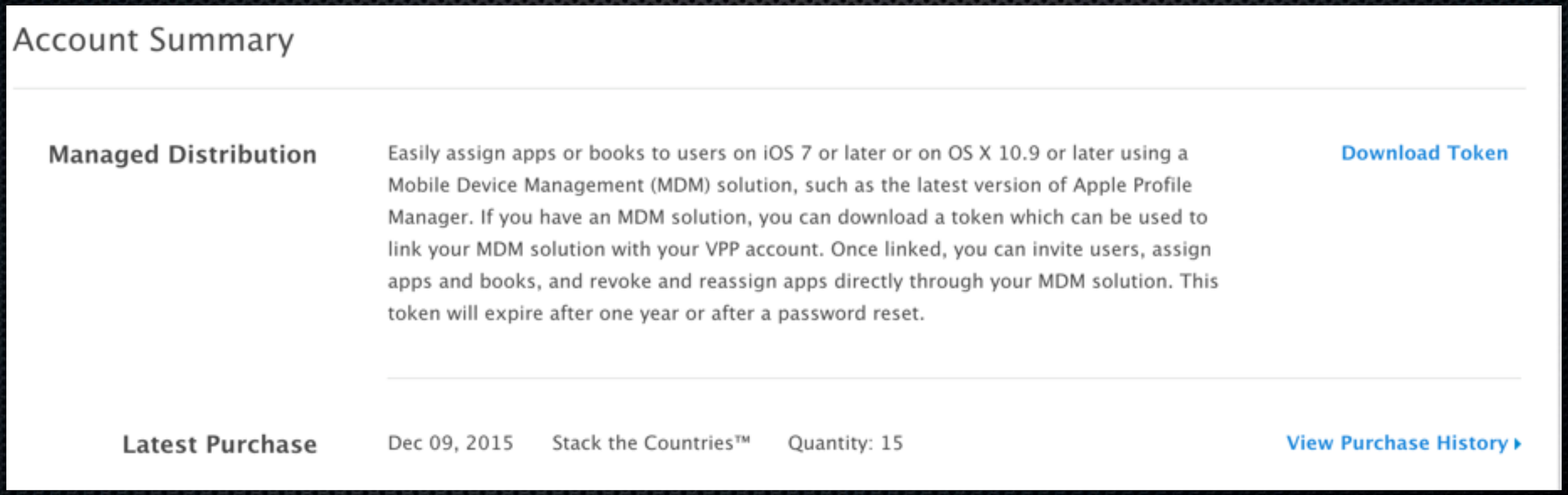
Enrollment Process

1. Create Account or use existing ADP Apple ID
2. Provide additional institutional information
   - Verification Contact
   - Physical Address Information
3. Submit to Apple for Approval

Volume Purchase Program (VPP)

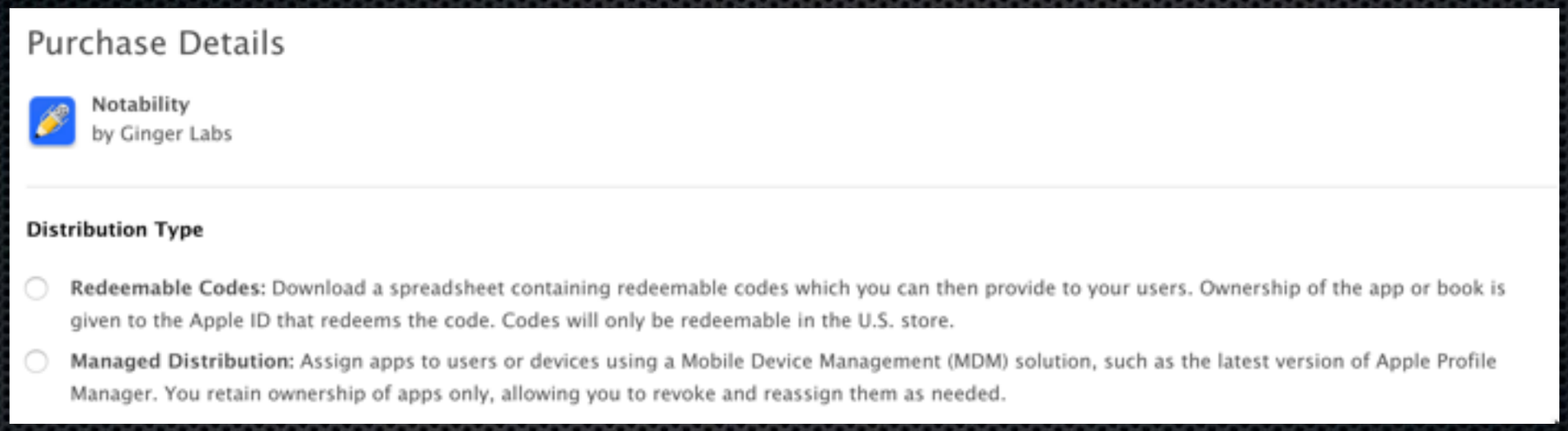
Linking to your MDM

Download token from VPP Account Summary, and upload it to your MDM.



Volume Purchase Program (VPP)

Purchasing Apps



- Redeemable Codes: Apps delivered as a spreadsheet of one-time use codes. The codes are permanently attached to the Apple ID that redeems them (Configurator)
- Managed Distribution: Apps can be assigned to an Apple ID or Device, and then revoked later. (MDM)

Volume Purchase Program (VPP)

Managed Distribution (MDM required)

- User Based: Assigned via Apple ID, available on any device that Apple ID is associated with.
- Device Based: Assigned based on device - only can be used on that device. Yahoo!

iOS 9.3 - Education is focus

Apple School Manager

- Meta meta site - better/easier than deploy.apple.com
- Adds "Managed Apple IDs" and Classes

Shared iPad

- Multiuser iPad
- Student login (w/picture), data cached and synced

Classroom App

- Teacher App to manage classroom use
- "Consolidate" classroom management apps

Apple IDs for Students

Put a fork in them,
Use Managed Apple IDs

What is a Managed Apple ID

Apple IDs owned by you

- Create:
  - Import accounts from your Student Information System (SIS)
  - Upload accounts from a .CSV file, or manually (Directory System?)
- What can't they do
  - App Store (allow browsing but not purchasing, paid or free)
  - iTunes Store (allow browsing but not purchasing, paid or free)
  - HomeKit connected devices
  - Touch ID
  - Apple Pay
  - Find My iPhone
  - Find My Mac
  - Find My Friends
  - iCloud Mail
  - iCloud photo sharing
  - iCloud Keychain
  - FaceTime (can be enabled for your institution)
  - iMessage (can be enabled for your institution)

Profile Manager

Search Classes

ladmin

LIBRARY

- Apps
- Books
- Devices
- Device Groups
- Users
- Groups
- Classes

ACTIVITY

- Active Tasks
- Completed Tasks

3rd Grade
11 Members

3rd Grade

11 Members

About | Instructors | Students | Devices

General

Class Name 3rd Grade

Welcome to Classroom

Your new teaching assistant

Screen View
Glance at any screen in your classroom with just a tap.

The Big Screen
Project any student's work on a classroom Apple TV.

Remote Control
Launch an app, website, or book on every iPad in class.

Password Reset
Help students reset their passwords directly from your iPad.

Continue

My Classes

3rd Grade

Assign | Open | Navigate | Lock | Log Out | Screens

All (33) | Safari (25) | iBooks (8)

Addison | Aiden | Alex | Anthony | Aubrey

Avery | Brayden | Brooklyn | Chloe | Claire



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Profile Manager

Apple's MDM- built into OS X Server

Features

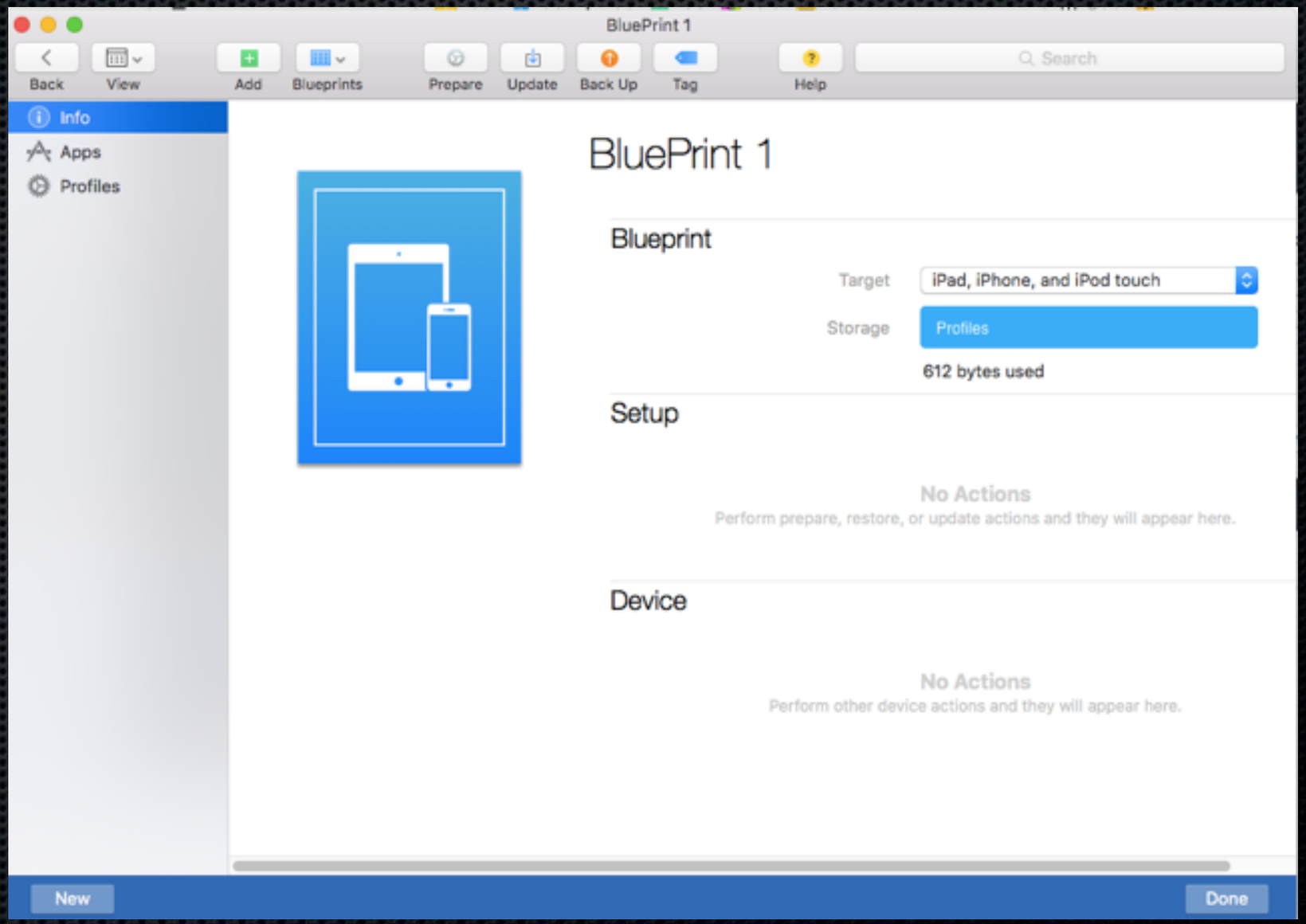
- Feature complete for testing
- Links with DEP and VPP
- Policy Setting
- Set Security Restrictions
- Assign Apps
- Inexpensive (if you have a machine to host.)



Configurator 2

Updates in Apple Configurator 2

- Interface
- Blueprints
- No database
- Scriptable



Deployment Scenarios

Getting close to zero touch…

- Shared Device
  - DEP > MDM > Enrollment
  - VPP Managed Distribution for Devices for Apps
  - Managed Apple ID for iTunes U
- 1:1
  - DEP > MDM > Enrollment
  - VPP Managed Distribution for Devices < 13
  - VPP Managed Distribution for Apple ID for Apps for > 13
  - Managed Apple ID/Apple ID for iTunes U
- When Configurator?
  - Sucky Wifi
  - Not integrated into Apple's systems, need to Supervise
  - Love making things hard, script a deployment config

3rd Party Options

- **Mobile Device Management:** MDM suites manage the whole device, that includes remote lock and wipe capability, policy enforcement, and data tracking.
- **Mobile Content Management:** MCM focuses on secure document management through authentication, authorization, and access. Users gain access to content based on usernames, passwords, IP address, and mobile device authentication.
- **Mobile Application Management:** MAM focuses on securing access and actions of applications rather than entire devices. MAM provisions, controls, monitors, updates, and removes applications from a user's device.

3rd Party Options

Airwatch

- Initial Rollout: Easy when using the paid setup assistance.
- Pricing: High per device cost.
- Supports: Mac, Windows, Chrome OS, iOS, Android and Blackberry
- Tiered "Management Suites"
- Good for BYOD programs- easy enrollment.



3rd Party Options

MobileIron



- Pricing: Tiered levels, fairly inexpensive per/device
- Supports: Mac, Windows, iOS and Android
- Scalable for large fleets or large BYOD programs
- Excellent security profiles
- Content Management

3rd Party Options

MaaS360



- Initial Rollout: Fast initial deployment
- Pricing: Inexpensive per/device for MDM, can purchase additional tools if desired.
- Supports: Mac, Windows, iOS, Android, Blackberry
- Easy to use interface

3rd Party Options

JAMF- Casper



- Initial Rollout: Lot's of support through Jumpstart program, but expensive.
- Pricing: Dependent on #s, discounts for Education
- Supports: Mac, iOS
- Great customer support team
- High focus on Education customers and features

3rd Party Options

JAMF- Bushel



- Initial Rollout: Easy setup
- Pricing: Inexpensive
- Supports: Mac and iOS
- Good for smaller rollouts
- Now support blueprints!
- Easy to use interface, good for non IT folks
- New Caspar features might be slow to arrive…

3rd Party Options

Meraki System Manager

- Pricing: Free for 100 devices or less. Per device cost is high.
- Supports: Mac, Windows, Chrome OS, iOS, Android, Windows phone and Blackberry
- Ties into Cisco Meraki systems
- Used to be a free service, but now only Enterprise version receives updates.



3rd Party Options

Filewave



- Pricing: Inexpensive for Edu
- Supports: Mac, Windows, iOS and Android
- Works with institution owned or BYOD programs
- Offer site licenses as well as per device pricing.
- Can manage multiple OS through a single UI

3rd Party Options

Absolute Manage



- Pricing: Dependent on package
- Supports: iOS, Windows Phone, and Android
- Excellent inventory and reporting system
- MDM is an Add-on option to main software package

3rd Party Options

Roll your own:

http://enterprisemac.bruienne.com/2016/01/12/apple-dep-python-module/

3rd Party Options

Points to consider

Features:

- Single or Multi Platform
- Security?
- Reporting levels?
- Scalability?
- Size of your organization?
- Cost?
- Who are your users?

- AirWatch
- MobileIron
- MaaS360
- JAMF

  Casper & Bushel
- Meraki System Manager
- Filewave
- AbsoluteManage

Resources

- ADP: https://deploy.apple.com/
- ADP Help: http://help.apple.com/deployment/programs/
- iOS 9 Deployment: http://help.apple.com/deployment/ios/#/apd5b9e6434f
- New iOS9.3 Apple Ed stuff - http://apple.com/education/preview
- Migrate VPP codes: https://support.apple.com/en-us/HT202863
- Configurator 2: https://help.apple.com/configurator/mac/2.1/
- MDM Comparison: http://enterpriseios.com/wiki/Comparison_MDM_Providers

Questions?



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