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~1300 iPads in a K-12 environment
1:1 iPads for Grades 4 - 12
Shared classroom iPads for K-3

In charge of all OS X and iOS client deployment - provisioning, imaging, configuring, and distribution to users.



VPP, DEP, and Under 13: How New Apple ID Requirements Impact You and Your Clients

What's Apple ID's purpose?

The AppleID is the key that unlocks all of Apple's online services.

- iTunes Store, iCloud, Apple Online Store, Apple Retail Store reservations, Apple Support site, BugReporter, Program Administration, Mac & iOS App Stores, iTunes Music Store, ... *and more.*

You'll need a new / clean Apple ID(s) for Program Administration (Clean/Unused)

- Clients need Apple ID(s) to receive store content

Apple's Administration Programs

- Volume Purchase Program (VPP)
Bulk purchase store content for clients.
- Device Enrollment Program (DEP)
Automatic MDM enrollment for devices.
- Apple ID for Students
Apple ID creation for students under 13.
- Apple Push Notification System (APNS)
Apple's notification system.

Consumer Apple IDs vs. Institutional/Business Apple IDs

PAST:

Distributing VPP codes was the only way for an institution to provide App Store content to employees.

VPP codes were one-time uses; no backsies.

To retain ownership of purchased App Store content, "institutionally-owned" AppleIDs were used to redeem the VPP codes.

Consumer Apple IDs vs. Institutional/Business Apple IDs

PRESENT:

Managed distribution allows assignment and revocation of App Store apps, negating the need for organizations to create Apple IDs for employees to use.

Juggling multiple Apple IDs for personal and professional use is no longer strictly necessary.

EULA:

What's legally required today?

As a registered user of the iTunes Service, you may establish an account ("Account"). Don't reveal your Account information to anyone else. You are solely responsible for maintaining the confidentiality and security of your Account and for all activities that occur on or through your Account, and you agree to immediately notify Apple of any security breach of your Account. Apple shall not be responsible for any losses arising out of the unauthorized use of your Account.

Each user may establish an account, and is not allowed to share it.

Each Apple ID = one user.

EULA:

What's legally required today?

Only persons age 13 years or older can create accounts. Accounts for persons under 13 years old can be created by a parent or legal guardian using Family Sharing or by an approved educational institution. Children under the age of majority should review this Agreement with their parent or guardian to ensure that the child and parent or legal guardian understand it.

Age 13 or above - otherwise you must use Family Sharing or the Apple ID for Students program (for educational institutions only).

EULA:

What's legally required today?

- (i) You may auto-download iTunes Eligible Content or download previously-acquired iTunes Eligible Content from an Account on up to 10 Associated Devices, provided no more than 5 are iTunes-authorized computers.
- (ii) An Associated Device can be associated with only one Account at any given time.
- (iii) You may switch an Associated Device to a different Account only once every 90 days.
- (iv) You may download previously-acquired free content onto an unlimited number of devices while it is free on the iTunes Service, but on no more than 5 iTunes-authorized computers.

Content can be on up to 10 devices (max 5 computers).

Each device gets one Apple ID at a time, and can only switch every 90 days.

Free apps can go on unlimited iOS devices.

Apple's Deployment Programs

Get started at deploy.apple.com:

Welcome

Enroll your organization in one of the following:

	<p>Device Enrollment Program</p> <p>Streamline the on boarding of institutionally owned devices. Enroll devices in MDM during activation and skip basic setup steps to get users up and running quickly.</p>	Enroll
	<p>Volume Purchase Program</p> <p>Easily find, buy, and distribute content to users. Users enroll without sharing their Apple ID, then apps are assigned to them using an MDM solution.</p>	Enroll
	<p>Apple ID for Students</p> <p>Manage student accounts and parental consent.</p>	Enroll

Enrolling into Apple's programs

Online sign-up requires business contact info.

- Create a program-specific Apple ID (can't reuse an old one)
 - * 2-factor authentication is required
- Provide business information
- D-U-N-S number
- Address/email
- Tax status where applicable

deploy.apple.com

The screenshot shows the user interface of the Apple Deployment Programs website. On the left is a navigation sidebar with the following items: Deployment Programs (with an Apple logo), Admins, Locations, Device Enrollment Program, Volume Purchase Program, Apple ID for Students, and Terms and Conditions. The main content area features a header with the user's name 'Nick McSpadden' and a help icon. Below the header is a large 'Welcome back, Nick' message. Three program cards are displayed, each with an icon, the program name, and a 'Get Started >' link:

- Device Enrollment Program:** Represented by a red icon with a smartphone and tablet. Link: [Get Started >](#)
- Volume Purchase Program:** Represented by a blue icon with the Apple logo and a checkmark. Link: [Get Started >](#)
- Apple ID for Students:** Represented by an orange icon with the letters 'ID'. Link: [Get Started >](#)

deploy.apple.com

Add extra locations for your organization:

Manage Locations

[Add Location](#)

Name ▲	City	ZIP Code	State	Date Created
Stuart Hall For Boys School	SAN FRANCISCO	94115	California	02/28/2014

deploy.apple.com

Add additional administrator Apple IDs:

Manage Admins

[Add Admin Account](#)

Name	E-mail ▲	Roles	Date Created
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Volume Purchase Program (VPP)

Volume Purchase Program (VPP)

The VPP Program Administrator can purchase VPP credit for the Program Agent, through the online store:



Accepting credit cards and purchase orders.

Education institutions can purchase apps and books in volume using purchase orders, credit cards, and PayPal. Institutions using purchase orders can procure Volume Purchase Program Credit (VPP Credit) which provides credit to administrators electronically through email and for any amount. Education customers can buy VPP Credit through the [Apple Online Store for Education](#) or by calling 1-800-800-2775 to work with an Apple representative.

Volume Purchase Program (VPP)

The Volume Purchase Plan allows for purchasing apps in two ways:

Search Media Type Category

Purchase Details

 Keynote by Apple	Price \$9.99 ea. (1-19 units) \$4.99 ea. (20+ units)	Quantity <input type="text" value="20"/>	Subtotal \$99.80
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Distribution Type

- Redeemable Codes:** Download a spreadsheet containing redeemable codes which you can then provide to your users. Ownership of the app or book is given to the Apple ID that redeems the code. Codes will only be redeemable in the U.S. store.
- Managed Distribution:** Assign apps to users on iOS 7 or later or on OS X 10.9 or later using a Mobile Device Management (MDM) solution, such as the latest version of Apple Profile Manager. You retain ownership of apps only, allowing you to revoke and reassign them as needed.

Volume Purchase Program (VPP)

The Volume Purchase Plan allows for purchasing apps in two ways:

- Redeemable Codes: a spreadsheet of one-time use codes. The codes are lost forever to the Apple ID that redeems them. MDM can distribute these codes, or they can be emailed / distributed through external means. (MDM not required)
- Managed Distribution: iOS / Mac Apps can be assigned to an Apple ID, and then revoked later (except eBooks!). (MDM is required to use this)

VPP: Managed Distribution

- For 1:1 (or BYOD) iOS - each user must have a unique Apple ID.
- Invitations are sent from MDM server to users, who must click the agreement link to be able to receive content from the organization.
- Apps and eBooks can be assigned to these users via MDM. Content is added to the Apple ID's "Purchases" history in the App Store.
- Apps can be revoked from users and reassigned.

VPP: Redemption Codes

- Required for use with Apple Configurator, for shared iOS devices.
- Redemption Code spreadsheet can be downloaded from VPP Site, comes with a VPP redemption link that can be sent to users.
- Redemption codes can be distributed through any means - MDM, email, pieces of paper, etched wax tablets, or smoke signals.
- Once a code is redeemed, the spreadsheet on the VPP site will be updated to reflect available codes.

What does Configurator do?

App Store: <https://itunes.apple.com/us/app/apple-configurator/id434433123?mt=12>

- Installs iOS updates and apps, profiles, and supervises iOS devices in bulk.
- Requires USB connection to the computer running Configurator.
- Paid apps require VPP Redemption Code spreadsheets from VPP site.
- **Must be backed up**. If your database is lost, your devices will be very sad.

Managed vs. Unmanaged Apps

<http://help.apple.com/deployment/ios/#/iora69327fc4>

An MDM server can manage third-party apps from the App Store, as well as in-house apps. Apps installed using MDM are called “managed apps.” The MDM server can specify whether managed apps and their data remain when the user unenrolls from MDM. The server can prevent managed app data from being backed up to iTunes and iCloud. This lets you manage apps that may contain sensitive business information with more control than apps downloaded directly by the user.

In order to install a managed app, the MDM server sends an installation command to the device. On unsupervised devices, managed apps require a user’s acceptance before they’re installed.

Managed apps benefit from controls in iOS 7 or later. VPN connections can now be specified at the app layer, so that only the network traffic for that app is in the protected VPN tunnel. This ensures that private data remains private, and public data doesn’t get mixed with it.

Managed apps support Managed Open In in iOS 7 or later. This means that managed apps can be restricted from transferring data to or from the user’s personal apps, which lets your organization ensure that sensitive data remains where it needs to be.

Managed vs. Unmanaged Apps

Only MDM can distribute Managed apps.

Configurator-installed apps are not Managed, and Managed rules do not apply to them.

Apps downloaded from the App Store Purchases are not Managed; only an MDM can Manage an app.

Device Enrollment Program (DEP)

Device Enrollment Program (DEP)

A supported MDM is a requirement for using DEP:

Manage Servers [Add MDM Server](#)

Server Name	Number of Devices	Last Connected ▼	Last Connected IP
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Device Enrollment Program (DEP)

DEP will automatically search back for all purchases made with your Apple Customer Number since March 1, 2011.

Manage Devices

1. Choose Devices By:

Serial Number Order Number Upload CSV File

ABCD1234567, EFGHI8901234

Device Enrollment Program (DEP)

Devices can also be manually added to an MDM server by serial number, order number, or via CSV file:

Manage Devices

1. Choose Devices By:

Serial Number Order Number Upload CSV File

ABCD1234567, EFGHI8901234

Device Enrollment Program (DEP)

Devices can also be disowned from DEP - for sale, donation, disbursement, etc.

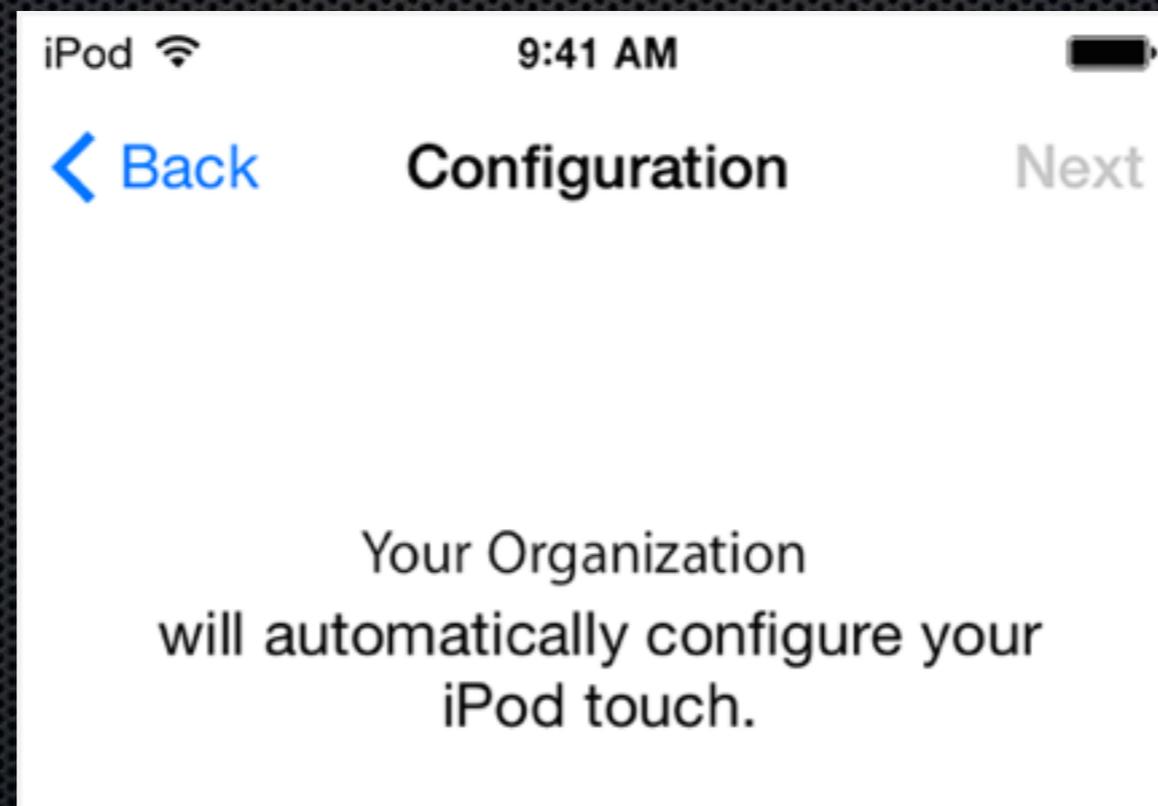
Disowning a device is permanent. It cannot be re-enrolled in DEP after being disowned.

Replaced / repaired devices can also be enrolled in DEP.

What does DEP do?

<https://support.apple.com/en-us/HT6231>

When a device activates, it automatically enrolls in your MDM and applies policies / profiles.



DEP and Configurator

<https://support.apple.com/en-us/HT201092>

Devices enrolled in active MDM cannot be used with Configurator.

Apple ID for Students

Apple ID for Students

Educational institutions can automate the creation of Apple IDs for students under the age of 13.

1. Collect emails of parents/guardians.
2. Fill out Template spreadsheet with guardian emails and student account information (names, birthdays, email addresses).
3. Emails are sent to parents, who must manually approve.
4. On approval, Apple IDs are created.

Apple ID for Students

The Apple ID for Students website has an account creation template CSV file:



Each field in the CSV must be populated.

Apple ID for Students

- **Batch ID:** Arbitrary name for this batch of students
- **Language**
- **First Name, Last Name, Date of Birth** (*must be under the age of 13 - it calculates*)
- **Parent Email Address:** parent/guardian will receive the consent request here
- **Apple ID:** desired Apple ID for student (*must be unique across all Apple IDs, standard rules*)

Apple ID for Students

Batch	No. of Accounts	Last Modified	Download	Consent Email
Test	6	09/05/2014 12:43 PM PDT	Download CSV	Resend Email

If any errors occur, the CSV will contain info about them.

"Resend Email" will resend confirmation emails to any parent/guardian email addresses that haven't already fulfilled the approval process.

You will need to work with clients to make sure all users are accounted for with the invitation process.

Rolling up your sleeves

Understand Apple's programs to be aware of the best tools for managing iOS deployments.

Clients should decide how involved they want to be:

- **Zero-touch** (MDM, Managed Distribution)
- **Light-touch** (MDM, VPP Codes)
- **Direct Management** (Configurator, VPP Codes)
- **No Management** (retail model)

Rolling up your sleeves

Relative implementation times:

- **Zero-touch, Light-touch:** Choose an MDM, set up MDM server, enroll all users in Managed Distribution or prepare VPP code distribution method.
- Heavy initial setup, but easy to make changes in the future, and won't require physically touching the devices.

Rolling up your sleeves

Relative implementation times:

- **Direct Management:** Configurator is easy to install, but requires careful management of access, storage and backup of the host computer. All devices require tethering to that host machine.
- Easy initial setup, but updating devices after initial deployment is a lot of physical work.

Rolling up your sleeves

Relative implementation times:

- **No Management:** Users are responsible for their own handling of all iOS devices and content.
- Involves no immediate work for you or your clients, but lose out on providing value-added services to users.

Transitioning to New Programs

Apple provides useful documents about transitioning to DEP:

<https://support.apple.com/en-us/HT202977>

Things to consider:

- Who will be the Program Agent, Program Administrator?
- Who will directly interact with iOS devices?
- What are the technical expertise levels of the employees responsible for managing / interacting with the iOS devices directly?

Deciding on a MDM solution

- Think about size, needs, features, and support.
- Apple provides OS X Server with Profile Manager (\$30)
- 3rd party options provide more comprehensive solutions.
- JAMF Casper (check license)
- FileWave
- Airwatch
- Bushel
- Absolute
- RobotCloud
- MaaS360
- Centrify
- Sophos
- SOTI
- MobileIron

Edu/Business Resources

- VPP: <http://www.apple.com/business/vpp/>
- VPP Business Guide: https://www.apple.com/business/docs/VPP_Business_Guide.pdf
- Apple ID for Students, Parent Guide: https://www.apple.com/education/docs/Apple_ID_for_Students_Parent_Guide_US_0514.pdf
- DEP guide: https://www.apple.com/education/docs/u13_institution_guide_en_Feb14.pdf

More Resources

- Deploying iOS: <http://help.apple.com/deployment/ios/>
- EULA: <http://www.apple.com/legal/internet-services/itunes/us/terms.html>
- MDM Comparison: http://www.enterpriseios.com/wiki/Comparison_MDM_Providers
- Transitioning to DEP: <https://support.apple.com/en-us/HT202977>

Questions?



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