# Instructor Guide

*to accompany*

# Managing Apple Devices, 2$^{nd}$ Edition

## Deploying and Maintaining
## iOS 8 and Yosemite Devices

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# Introduction

In the *Managing Apple Devices, Second Edition* course, your students will learn to create an effective plan for deploying and maintaining groups of Apple devices using iOS 8 and OS X Yosemite in their organizations.

# Facility Guidelines

## Classroom

- A workspace must be provided for the instructor and for each student in the class.
- The instructor's workspace should be located at the front of the classroom and have access to the Internet, an Ethernet cable for the classroom network, a power outlet, and a VGA or DVI cable for the projection system.
- Each student workspace must be able to accommodate two Mac computers, an iOS device, and an opened workbook.
- Each student must be provided with workstation-style seating (as opposed to a shared conference table workspace).
- There must be a location for a classroom server, with an Ethernet cable for the classroom network, cables for the video and USB switch-box, and a power outlet.
- Power outlets need to be provided for all computers, monitors, and peripheral devices used in the class, and should provide approximately 5 amps of power for each device.
- A projection screen, as specified in the "Projection" section below, must be provided at the front of the classroom and at a reasonable distance from the students.
- A wall-mounted or freestanding whiteboard (with dry-erase markers and erasers) should be located at the front of the classroom.
- Lighting and temperature controls should be adjustable.

## Projection

- The projection equipment must be on a sturdy table or stand, or ceiling-mounted. Access to a spare bulb or backup projector is recommended. Minimum requirements for the projection system are as follows:
- Resolution of 1680 x 1050 pixels at 75 Hz (HD resolution and 16:9 widescreen are preferred)
- Projection rating of at least 2000 lumens

- Projection screen at least 6 feet x 6 feet
- Appropriate cables to connect the instructor's presentation computer to the projection system without impeding movement through the classroom

# Network

- Gigabit Ethernet switch with at least one port per student plus an additional port for the classroom server.
- Each student server computer and the classroom server computers should be connected to the same Ethernet classroom network.
- The classroom Internet connection must allow direct (non-proxied) HTTP and HTTPS traffic. Specifically, for the Profile Manager service, TCP ports 2195, 2196, 1640, and 5223 need to be open; all traffic to and from the 17.0.0.0/8 network should be open.
- Except for the classroom router, the classroom network should be isolated (that is, no connections other than the classroom computers).
- Wi-Fi access with a non-hidden SSID must be provided on the same subnet as the wired Ethernet network so that iOS devices can access student server computers.
- DHCP should be provided.
- DNS service for the public Internet should be provided.

# Software

A training center must purchase a copy of the relevant software for every student and instructor station. For Yosemite and OS X Server, we recommend the following:

- If the classroom computers came with OS X Yosemite and/or OS X Server, no additional license is required.
- The training center must purchase a copy of OS X Server for each seat. The training center can use the Volume Purchase Program and choose Redeemable Codes (note that Managed Distribution is not an appropriate choice) to purchase an appropriate number of licenses for OS X Server, and use a unique Apple ID for each student station. These Apple IDs can all be set up on one computer, and can use the same credit card or no credit card.

# Student Computers

Two dedicated Mac computers must be provided for each student in the class. Software installations should be identical for all student computers. Because systems may be re-imaged before the start of class and repartitioned during class, provide only systems with hard disks that can be erased.

- OS X Yosemite-compliant Macintosh computer with OS X Yosemite installed, including OS X Yosemite Recovery. See Apple Support document HT201475, "How to install OS X Yosemite on your Mac," for more information.

- Minimum of OS X Yosemite v10.10 or later installed and at least 2 GB of RAM.

- A single display with minimum resolution of 1024 x 768 pixels, 16-bit resolution.

- Appropriate disk space to install all applications (OS X Server requires 10 GB free disk space).

- Each student's Mac computer to be used as a server computer must have an additional 50 GB free disk space in order to start the Caching service.

- Each student's Mac computer to be used as a server computer must either have a built-in Ethernet port, or you must provide an Apple USB to Ethernet adapter or an Apple Thunderbolt to Gigabit Ethernet adapter.

- Internet access.

The guide is written for the .local namespace; if you choose to use fully qualified domain names (FQDN) instead, periodically remind students to use their server's FQDN.

## Classroom Server

There should be a classroom server, with OS X Server, with the following configuration:

- Computer Name: Mainserver.

- File Sharing service turned on.

- Guest-accessible shared folder named Public.

- StudentMaterials folder in the Public folder.

- Place a licensed copy of the Server app in StudentMaterials/Lesson4/.

- Place up-to-date iOS ipsw files for the devices in your classroom in StudentMaterials/Lesson9/Firmware/.

- If appropriate, place your in in-house enterprise iOS app in StudentMaterials/Lesson15/.

# Apple IDs

For the Apple IDs that you provide (or students create), include a student number (1 through 16).

The exercises include detailed instructions for students to create their own Apple IDs. Although this is fine for students who perform the steps

on their own, in an instructor-led classroom environment **you may reach the limit for the number of Apple IDs that can be created** from a single public IP address, leaving some (or all!) students unable to perform the rest of the exercises.

If you **do** have a temporary white-listing exception, to prevent issues with students not having spare email addresses or not being able to check additional email accounts, we recommend that you provide each student with at least four (4) unused email addresses, along with webmail access to check that email account, for the purposes of:

- creating an "administrator Apple ID"

- configuring an alternate email address for administrator Apple ID

- creating a "client testing Apple ID"

- creating an "Apple Configurator Apple ID"

If you **do not** have a temporary white-listing exception from Apple for your public IP address or domain, have students skip all sections that create Apple IDs, and provide pre-created Apple IDs for students.

Provide one of each of the following per student:

- "Administrator Apple ID" that has access to at least Services Test (for iOS, currently $0.99 US).

- "Client testing Apple ID" that has access to Keynote for iOS.

  The "Client testing Apple ID" should be upgraded for iCloud for Exercise 13.1, "Control Activation Lock on a Managed Device." If students use a device that has already reached its lifetime limit of Apple IDs upgraded to iCloud, they cannot complete the exercise without an alternate Apple ID that has been upgraded to iCloud. Creating a set of iCloud accounts is outside the scope of this document.

- "Configurator Apple ID"

- Volume Purchase Program (VPP) administrator account; to provide the best possible student experience, each student should have a VPP administrator account that has never been used before; otherwise, they will see the purchases of the previous student, and they will not experience what happens when they assign an app with only three copies purchased to a user group with four members.

- Device Enrollment Program (DEP) administrator account; this account can be reused between classes.

Each student uses their "administrator Apple ID" in the following exercises:

- In Exercise 2.2, "Create Apple IDs," each student must create an "administrator Apple ID."

- In Exercise 2.3, "Verify Administrator Apple ID Access," each student must verify their administrator Apple ID and has the option of adding an additional email address to the administrator Apple ID.

- In Exercise 3.1, "Verify Network Service Availability," to get Push Diagnostics for OS X and to buy Services Test for iOS.

- In Exercise 4.2, "Install OS X Server for Yosemite," remind students to skip the section "Option 2: For the Independent Reader, Download or Purchase Server in the App Store"; otherwise, they would attempt to purchase a copy of Server with the administrator Apple ID. Instead, the training center should provide the licensed copy of the Server app in the student materials folder.

- In Exercise 4.3, "Configure OS X Server for Yosemite," students will use their administrator Apple ID for enabling push notifications.

- In Exercise 5.1, "Turn On and Verify the Caching Service," each student uses the administrator Apple ID to download Local Path as an example item for the Caching service to cache.

- In Exercise 8.1, "Get Apple Configurator," each student uses her "administrator Apple ID" to get Apple Configurator. If you choose to preinstall Apple Configurator on student Mac computers, prepare students to see and use the Open button (instead of the Get button or Download icon) next to the Apple Configurator search result in the Mac App Store.

- See the possibility of using the administrator Apple ID in Exercise 16.2, "Use an OS X Server WebDAV Share," in the following section.

Each student uses their "client testing Apple ID" in the following exercises:

- In Exercise 2.2, "Create Apple IDs," each student uses the Mac App Store to purchase TextWrangler (for free) to create their own "client testing Apple ID."

- In Exercise 9.1, "Apple Configurator: Prepare an Unsupervised iOS Device," to illustrate an end-user using their personal Apple ID with an enrolled device.

- In Exercise 10.1, "Apple Configurator: Prepare a Supervised iOS Device," to illustrate an end-user using their personal Apple ID with an enrolled and supervised device.

- In Exercise 13.1, "Control Activation Lock on a Managed Device," in the section "Enroll with Your MDM and Enable Find My iPad During the Device Setup Assistant," the student uses their client testing Apple ID, and taps "Use iCloud" in order to enable Find My iPad (name may vary by device).

- In Exercise 14.3, "Invite Participants for VPP Managed Distribution," in the section "Allow VPP Access to Your iTunes Account," the student uses their client testing Apple ID to accept the invitation to participate in VPP.

- In Exercise 14.4, "Install VPP Apps Manually," in the section "Associate Your Client Mac with Your Client Testing Apple ID."

- In Exercise 16.2, "Use an OS X Server WebDAV Share," in the section "Option A: Download Keynote on an iOS 8 Device Purchased After September 1, 2013," the student uses their client testing Apple ID to download Keynote. Alternatively, in "Option B: Purchase Keynote for Managed Distribution," the student uses their VPP admin account to purchase Keynote for managed distribution, then uses their client

testing Apple ID to accept the invitation. Alternatively, in "Option C: Purchase Keynote on an iOS Device Purchased Before September 1, 2013," the student uses their administrator Apple ID to purchase Keynote (none of these options require the client testing Apple ID to have any payment details associated with it).

- In section 17.1, "Exercise 17.1, "Manage Open In," in the section "Use the App Store to Install an App That Can Read PDF Documents," students use their client testing Apple ID to purchase Adobe Acrobat DC.

- In Exercise 17.1, "Manage Open In," in the section "Accept the VPP Invitation."

- In Exercise 17.2, "Restrict Access to Services via Profile," in the section "Attempt to Install OS X Apps," to accept a VPP invitation on their client Mac.

Each student uses their "Apple Configurator Apple ID" in the following exercise:

- In Exercise 11.1, "Apple Configurator: Prepare to Distribute a Free App," each student uses iTunes to purchase Adobe Acrobat DC (for free) to create their "Apple Configurator Apple ID."

Each student uses their "VPP administrator account" in the following exercises:

- In Exercise 14.2, "Purchase and Assign Licensed Apps and Books," to purchase Guest Pass, iBooks Author, and SSL Detective for managed distribution via VPP.

- In Exercise 17.1, "Manage Open In," in the section "Use VPP to Get Two Apps That Can Read PDF Documents," to get Acronis Access and File Manager.

- In Exercise 17.2, "Restrict Access to Services via Profile," in the section "Purchase a New Free OS X App for VPP Managed Distribution," to purchase Local Path for OS X.

Each student uses their "DEP administrator account" in the following exercises:

- Exercise 12.2, "Configure Profile Manager for DEP"

- Exercise 12.3, "Assign Devices to an MDM Service"

- Exercise 12.4, "Create and Manage Device Enrollments"

## Two-Step Verification

Logging in to the Apple Deployment Programs website for DEP requires two-step verification.

For setting up two-step verification for an Apple ID, you need at least one trusted device that you control that can receive four-digit verification codes using SMS.

If you have multiple instructors associated with each Apple Deployment Programs admin Apple ID, you may decide to associate each instructor's

trusted device with each Apple ID, so that a trusted device is always available when teaching this course.

Each time a student logs in to the Apple Deployment Programs website for DEP, they see the "Verify your identity" page; at this point they must select the appropriate instructor's trusted device and click Continue. We recommend that you instruct students to confirm that the trusted device is ready for them before they click Continue; otherwise, your trusted device may receive multiple verification codes, and you will not know which student gets which verification code.

# Lesson and Exercise Details

Each exercise contains the following sections:

- Challenge: Gives you an opportunity to try to complete the exercise without using the detailed steps.

- Considerations: Includes information that might help you complete the exercise.

- Solution: Includes the detailed steps you can use to complete the exercise.

Encourage students to attempt to complete each exercise without using the "Solution" section.

You should not teach this class without first performing each of the exercises in the course as part of your self-study.

Before having your students perform each lesson's exercise, give them a brief overview of the challenges, and the tools and techniques they will use to accomplish the challenge. After students have either completed the exercise or exhausted the allotted time, review the exercise or exercises they just completed. Ask if there was anything that didn't work as expected (committing mistakes or running a problem often leads to a more memorable experience).

## Lesson 1: About This (Course)

Give students an overview for the course, and cover logistics (hours, meals, breaks, fire exits, and so on).

Introduce yourself, and give the students the opportunity to introduce themselves. Ask if they have a particular problem to solve by taking this course, and use that as an opportunity to reset expectations if necessary.

## Lesson 2: Apple Management Concepts

Presentation: 48 minutes (including Lesson 1)

Exercises: 40 minutes

**Instruction Action:** Make sure the student materials folder is available on the classroom server.

In this lesson you will help your students understand that a system administrator's life can be considerably easier by not attempting to circumvent Apple's goals. This lesson covers general Apple deployment terminology, the current state of the Apple Deployment Programs, and the three most common Apple deployment scenarios. Remember that this lesson serves as an introduction, and most of the items will be detailed later in the class. In other words, at this point, don't spend too much time covering each subject.

## Exercise notes:

Exercise 2.1, "Configure Your Client Mac":

• Instructor: Make sure you have the student materials folder available on the classroom server.

**SKIP Exercise 2.2, "Create Apple IDs":**

• Each student creates their own "client testing Apple ID" by purchasing TextWrangler for free. If you re-use Apple IDs between classes, this exercise is not necessary. It's recommended that students experience creating a new Apple ID.

Exercise 2.3, "Verify Administrator Apple ID Access":

• **SKIP "Add an Alternate Email Address (Optional)"**


# Lesson 3: Infrastructure Considerations

Presentation: 28 minutes

Exercises: 24 minutes

This lesson is also introductory in nature, covering general deployment considerations. Again, don't get lost in the details of each subject; instead you can describe examples of how each subject can be handled. Alternately, you can ask students if they have any examples of inadequate infrastructure causing a project to fail.

## Exercise Notes:

Exercise 3.1, "Verify Network Service Availability":

• The Push Diagnostics app for OS X is free. The Services Test app could be an instructor-led demo. Services Test is not formatted for iPad, so students must include iPhone in their search. Services Test is $0.99 (USD). If students created their own "administrator Apple ID," they need to associate a credit card with that administrator Apple ID. If you provide an "administrator Apple ID," you should purchase the app in advance.


# Lesson 4: OS X Server for Yosemite

Presentation: 13 minutes

Exercises: 1 hour 14 minutes

It isn't until we cover the importance of a proper infrastructure that we have students actually configure the Server app.

### Errata:

- Page 124: Add step 8: "After the configuration has completed, from the Apple menu, choose Restart, then in the confirmation dialog, click Restart." This is according to Apple Support article HT204607, "Reboot your server after setting up an Open Directory master or replica in OS X Server (Yosemite)."

- Page 126: In "Import Users into Your Server's Shared Directory Node," replace step 1 ("In the Server app, choose Manage > Import Accounts from File.") with "In the Server app, click the Action (gear icon) pop-up menu, then choose Import Users."

- Page 126: In step 7, change "click Import" to "click Continue."

- Page 127: In the section "Import Groups into Your Server's Shared Directory Node," change step 1, "In the Server app, choose Manage > Import Accounts from File" to "In the Server app, select Groups in the sidebar, then click the Action (gear icon) pop-up menu and choose Import Groups."

### Exercise Notes:

Exercise 4.3: "Configure OS X Server":

- Students set up mail for Barbara@server*n*.local on the server or the client computer. If you want students to experience DEP for OS X, and your client Mac computer is enrolled in DEP, remind students to leave their client computer turned off for now.

# Lesson 5: Caching Service

Presentation: 11 minutes

Exercises: 10 minutes

**Instructor Action:** Make sure the classroom server has the Caching service turned on.

The Caching service is one of the most compelling uses for OS X Server in an organization with multiple Mac computers and iOS devices.

### Exercise Notes:

Exercise 5.1, "Turn On and Verify the Caching Service"

- Students use the Local Path app to test the Caching service.

- Students are not guaranteed that their server will cache anything if there are multiple caching servers available.

# Lesson 6: Configuration and Profiles

Presentation: 16 minutes

Exercises: 40 minutes

The concepts of configuration profiles, settings, and payloads are crucial for the remainder of this course, and for Mobile Device Management in general.

We turn on Profile Manager before enabling device management; when we create configuration profiles, they are available only for manual download (not automatic push yet).

### Errata:

- The last figure on page 176 shows "Removable and Fullscreen" entries in the configuration profile. These entries are not visible on iOS devices running iOS 8.3 or later.

### Exercise Notes:

Exercise 6.2, "Create, Download, and Install Profiles for Users and Groups":

- Students configure a web clip for Barbara Green (developer.apple.com/enterprise).

- Students configure a web clip for Marketing (www.apple.com/business).

- After students download the profile, they update the Marketing profile to add another web clip (www.apple.com/education/ipad), and confirm that this is not automatically updated on their device.

Exercise 6.3, "Inspect the Effects of Signing":

- Students enable the option "Sign configuration profiles."

# Lesson 7: Mobile Device Management

Presentation: 25 minutes

Exercises: 37 minutes

Remind students that you don't need to use the Profile Manager service for Mobile Device Management; we are simply using it as a reference. On the other hand, Profile Manager has historically embraced new features before other MDM systems have.

### Exercise Notes:

Exercise 7.2, "Enroll Over the Air":

- Students enroll iOS and OS X as Gary Pine.

Exercise 7.3, "Deploy Management Settings"

- Students create a group wiki for Engineering and edit the Engineering configuration profile to include a web clip for that wiki.

- Students set the minimum passcode length to 5.

- Students use custom settings to configure Safari (for OS X) to open to help.apple.com/profilemanager/mac.

# Lesson 8: Apple Configurator: Planning and Setup

Presentation: 12 minutes

Exercises: 6 minutes

This quick lesson is short to prevent unnecessary dependencies if students want to skip one of the other Apple Configurator lessons.

## Exercise Notes

Exercise 8.1, "Get Apple Configurator"

- Students use their "administrator Apple ID" to get Apple Configurator.

# Lesson 9: Apple Configurator: Unsupervised iOS Devices

Presentation: 6 minutes

Exercises: 19 minutes

**Instructor Action:** Make sure you have the appropriate iOS firmware ipsw files (for the devices in your classroom) in a folder named Firmware in the student materials Lesson9 folder.

## Exercise Notes

Exercise 9.1, "Apple Configurator: Prepare an Unsupervised iOS Device":

- Students download and install Trust_Profile_for_MDM_Project_$n$.mobileconfig on their server.
- Students save MDM Project $n$ Open Directory Certificate.cer on the Desktop.
- Students change Marketing profile from Manual to Automatic.
- Students create My Devices web clip in Configurator.
- Students copy Firmware folder to caches folder.

# Lesson 10: Apple Configurator: Supervised iOS Devices

Presentation: 9 minutes

Exercises: 15 minutes

Of course, not all devices can be enrolled in DEP. Some workflows require you to use Apple Configurator.

### Exercise Notes:

Exercise 10.1, "Apple Configurator: Prepare a Supervised iOS Device":

• Students create a Wi-Fi profile in Configurator.

# Lesson 11: Apple Configurator: App Management

Presentation: 11 minutes

Exercises: 25 minutes

This is the last exercise that focuses on Apple Configurator.

### Exercise Notes:

Exercise 11.1, "Apple Configurator: Prepare to Distribute a Free App":

• Students create an "Apple Configurator Apple ID" by downloading Adobe Acrobat DC with iTunes.

• Students add Adobe Acrobat DC to apps in Apple Configurator.

# Lesson 12: Out-of-the-Box Management via DEP

Presentation: 24 minutes

Exercises: 35 minutes

This might be the first time some students have used DEP devices; they will be eager to try this out for themselves.

### Errata:

• Page 382, step 4: Replace "Read the terms and conditions, select the checkbox 'I have read and agree to the Administrator Terms and Conditions,' and then click Agree" with "If necessary, read the terms and conditions, select the checkbox 'I have read and agree to the Administrator Terms and Conditions,' and then click Agree."

### Exercise Notes:

Exercise 12.1, "Enroll with Apple Deployment Programs,":

• Instructor: **Skip**, because you must provide the Apple Deployment Programs administrator accounts to be used for DEP and for VPP.

Exercise 12.2, "Configure Profile Manager for DEP":

• Students create new MDM server on Deployment Programs site.

- Students enable Profile Manager for DEP.
- Students create device group for DEP devices.

Exercise 12.4, "Create and Manage Device Enrollments":

- Instructor: Remind students that they will unassign their assigned device; if they disown the device, you will not be able to use that device in DEP for this class ever again.

## Extra Optional Challenge for Students:

This could be an instructor demonstration if you have only one DEP-enrolled Mac computer.

Adapt Exercises 12.3 and 12.4 for the client computer if it's enrolled in DEP.

Hint: The serial number on the bottom of your Mac computer is very small. Let students know: You can start up your client computer, hold down Command-R to start in OS X Recovery, open Terminal, and use the command "ioreg -l | grep IOPlatformSerialNumber" to get your client Mac computer's serial number (it is the letter l, not the number 1, in the -l flag).

# Lesson 13: Activation Lock Management

Presentation: 6 minutes

Exercises: 24 minutes

The exercises are somewhat cumbersome, but it drives home the point that unless otherwise managed, supervised devices can't have Activation Lock enabled. A good discussion question is: "Does your organization already have organization-owned iOS devices in the hands of your users, but they have Find My Device enabled, and you don't have bypass codes for them?"

## Exercise Notes:

Exercise 13.1, "Control Activation Lock on a Managed Device":

- Students need to use an Apple ID that has been upgraded for iCloud. If they use a device that has already reached its lifetime limit of Apple IDs upgraded to iCloud, they cannot complete the exercise without an alternate Apple ID. Be prepared to supply an Apple ID that's been upgraded for iCloud.

# Lesson 14: VPP-Managed Apps and Books

Presentation: 15 minutes

Exercises: 51 minutes

It's pretty amazing to remember back to the time when using redeemable codes was the only way to distribute apps.

**Instructor Action:** Tell students that the exercise has them purchase three copies of an app, but they may purchase three (but not more) copies of a free app instead, or if there is already an app with only three copies available in their apps list, they can use that.

## Errata:

- Page 450, step 7: Replace "Read the terms and conditions, select the checkbox that you have read and agree to the various terms and conditions, and then click Agree" with "If necessary, read the terms and conditions, select the checkbox that you have read and agree to the various terms and conditions, and then click Agree."

- Page 460, step 3: Replace "Click Select All" with "Select the checkbox for the app with only 3 available (such as Guest Pass), then click Select All."

## Exercise Notes:

Exercise 14.1, "Configure Profile Manager for VPP":

- Instructor: Tell students to **Skip the following sections** because you already created and verified the Apple Deployment Programs administrator accounts to be used for DEP and for VPP:

- **Skip "Create a VPP Administrator Account."**

- **Skip "Activate Your VPP Administrator Account."**

Exercise 14.2, "Purchase and Assign Licensed Apps and Books":

- Students purchase the following:

    - SSL Detective (5)

    - Guest Pass (3) ($0.99 USD)

    - iBooks Author for Mac (5)

    - Self-Publishing Using iBooks Author by JAMF Software (5)

- Students assign all apps to Engineering.

Exercise 14.3, "Invite Participants for VPP Managed Distribution":

- Students send Mail invitations to 4 members of Engineering.

- Students accept invitation as Lucy Sanchez with client testing Apple ID.

Exercise 14.4, "Install VPP Apps Manually":

- Students manually install 2 apps: Guest Pass and SSL Detective.

- Students install Self Publishing Using iBooks Author.

Exercise 14.5, "Remove VPP Managed Distribution Services and Unassign Apps":

- Students click Remove From Program for Engineering.

- Students unassign apps from Engineering.

# Lesson 15: In-House Apps and Books

Presentation: 5 minutes

Exercises: 23 minutes

Even if a student's organization does not plan on distributing in-house enterprise iOS apps, challenge them to think about how they can use in-house OS X apps and in-house books

## Exercise Notes:

If your organization has an iOS Developer Enterprise Program account, you can build and provide an iOS app for use in Exercise 15.1; otherwise, they cannot upload the in-house app for iOS and must read along instead. However, they can continue with the in-house app for OS X.

Exercise 15.1, "Deploy In-House Apps via Profile Manager (Optional)":

- Students enroll iOS device as Carl (Marketing)

- Students add an in-house iOS enterprise app.

- Students add "Send System Report" as an in-house OS X app.

Exercise 15.2, "Deploy In-House Books via Profile Manager":

- Students enroll iOS device as Carl (Marketing) if not enrolled.

- Students add the in-house document Handbook.ibooks.

# Lesson 16: User Data and Services

Presentation: 6 minutes

Exercises: 53 minutes

iCloud Drive is a compelling feature, but some organizations might not want to store organizational data in servers they cannot control. This lesson gives a brief overview of some different options, using Server as just an example.

## Exercise Notes:

Exercise 16.2, "Use an OS X Server WebDAV Share":

- Students should use Option A to install Keynote on their iOS device, using their client testing Apple ID.

- Instructor: Be aware of the various permutations for whether or not students need to purchase Keynote, or if the student iOS device qualifies for a free copy.

# Lesson 17: Managing Access

Presentation: 7 minutes

Exercises: 1 hour 14 minutes

This lesson's exercises are the last exercises with the Mac computers and iOS devices, and they are long, easily over an hour. Remind students that because iBooks comes preinstalled as of iOS 8, it is not installed via MDM, so it is not considered a managed app.

### Exercise Notes:

Exercise 17.1, "Manage Open In":

- Students configure Mail for Workgroup.
- Students purchase Adobe Acrobat DC with their client testing Apple ID.
- Students purchase 5 copies each of Acronis Access and File Manager via VPP.
- Students restrict "Allow documents from managed sources in unmanaged destinations"
- Students restrict "Allow documents from unmanaged sources in managed destinations"

Exercise 17.2, "Restrict Access to Services via Profile":

- Students restrict "Allow installing apps" for Workgroup
- Students create standard local account on client Mac (Chris Johnson)

## Lesson 18: Develop a Management Plan

Remind students that this course uses Apple tools just as a launching pad; their needs may lead them to third-party tools, which is fine. It's important to plan, but also keep in mind that the landscape changes quickly.

## Students Hand In Equipment

**Instructor Action:** Ask students to open Settings > General > Reset on their iOS device, then wait for you. When you are ready for each student, tap Erase All Content and Settings, enter the passcode if necessary, then tap Erase [device] to confirm that activation lock is not enabled.

# Tasks to Perform After and Before Each Class:

After the class has ended:

- Change the password for each Apple ID so that students cannot use it outside of class.

- Remove any additional email addresses associated with each administrator Apple ID, in particular because of the section "Add an Alternate Email Address (Optional)" of Exercise 2.3, "Verify Administrator Apple ID Access."

- Confirm that students have not added additional email addresses for any other Apple ID.

- Confirm that no devices have been disowned in DEP.

- Log in to the DEP portal to unassign all devices and remove servers.

- If you have a temporary white-list: create and verify a new set of VPP administrator accounts for each student for the next class.

- If you have a temporary white-list: create and verify a new set of email addresses for each new student for the administrator Apple ID, alternate email address for administrator Apple ID, client testing Apple ID, and Apple Configurator Apple ID.

- If a different instructor will be delivering the course next, remove the current instructor's trusted device from each DEP administrator account's two-step verification, and add the new instructor's device.