What’s New in Device Configuration, Deployment, and Management

Session 304

Todd Fernandez, Senior Manager, Device Management and Server
2016
Addison Smeds
Student · Township Elementary School
Enrollment
Distribution
Management
Tools update
Enrollment

Bob Whiteman, Senior iOS Device Management Engineer
Enrollment

tvOS
Device Enrollment Program
Security enhancements
Best practices
Apple School Manager
Enrollment
tvOS

Can now enroll via DEP

Touch-free enrollment
  • Power
  • Ethernet
  • There’s no step three

Supervision is no longer the default
Enrollment
Adding devices to DEP

Add devices purchased outside of supported channels to DEP
- Devices with iOS 11 or tvOS 11
- Apple Configurator 2.5

Supervised and mandatory MDM

30-day provisional period
Enrollment
DEP settings

Unsupervised is deprecated

Optional MDM is deprecated
Enrollment
New DEP skip keys

iOS
• Keyboard chooser
• Apple Watch migration

tvOS
• Sign in to TV provider
• Set up with your iOS device
Enrollment
Security enhancements for MDM

Certificate partial-trust
Untrusted for SSL, trusted for all other uses

Automatic installation: Full trust
Manual installation: Partial trust

MDM enrollment has a gap in the speed bump
MDM and certificate in the same profile
Enrollment
Security enhancements for MDM

App Transport Security (ATS) will become a requirement in 2018

SCEP server capabilities
- DES no longer supported in iOS 11 or tvOS 11
- Make sure yours advertises its capabilities
- Support AES and SHA-512
Enrollment
Security enhancements for MDM

Certificate pinning

Hard revocation checking of pinned certificates

Test before deployment

macOS
Enrollment

Best practices—Administrators

Shared iPad—Enable diagnostics submission

Shared iPad—User storage quota on APFS
  • Upgrade to latest iOS
  • Erase and set up again OR
  • Delete all users

macOS—Use profiles command line tool for startup profiles
Enrollment
Best practices—MDM Solutions

Support diagnostics submission command
Support up to 100 byte APNs tokens
Keep MDM enrollment profile lean
Simplify the administrator's job
Enrollment
Troubleshooting tips

Get logs using Console or Apple Configurator 2

iOS—Filter by process
• Profiles and certificate installation: profiled
• Restrictions: profiled
• MDM: mdmd, dmd
• Apps: mdmd, dmd, appstored, itunesstored

macOS—Filter by subsystem com.apple.ManagedClient
Demo
Adding devices to DEP

Can Aran, Device Management Engineer
Apple School Manager

Juan Pinzón
Apple School Manager

Streamlined user interface

Improved search, filtering, and navigation

Activity view to track background actions

Create up to five Administrator accounts

Support for PowerSchool SIS integration
Demo
Apple School Manager
Apple School Manager

Streamlined user interface
Improved search, filtering, and navigation
Activity view to track background actions
Create up to five Administrator accounts
Support for PowerSchool SIS integration
Volume Purchase Program integration  Coming Soon
Distribution
Distribution

VPP in Apple School Manager
tvOS
Distribution
VPP in Apple School Manager

Integrated, updated UI

Easier management of purchases

License transfer between locations
“I want to centralize my purchases in one place.”

Johnny Appleseed
Distribution
VPP in Apple School Manager—Purchases associated with location

Content Managers buy for location

Single token needed for each location

Content Managers manage all licenses at location
Distribution
VPP in Apple School Manager—Purchases associated with location

Location 1

Content Manager 1

Content Manager 2

Location token

Apps

Apps

Books
"I want to move licenses to a different token."

Jane Appleseed
Distribution
VPP in Apple School Manager—Location transfer

Licenses can be transferred between locations

Apple School Manager shows number of available licenses

Available licenses can be transferred

Assigned licenses cannot be transferred
Distribution
VPP in Apple School Manager—Location transfer

Location 1
- Apps
- Apps

Location 2
- Location token

Location 1 token

Location 2 token
Starting Shakespeare
Deeper Richer iPad App

Art an Art Authority
Charles H. Whitaker - iBook

Buy Licenses

Price: $12.99
Total Cost: $0.00

Transfer Licenses
Quantity: Up to 20

Manage Licenses

Covington Elementary: 10, 2
Los Altos High School: 20, 0
Los Altos Middle School: 80, 80
Los Altos School District: 80, 8
Distribution
VPP in Apple School Manager—Call to action

Expose the location name when a token expires or becomes invalid
• Admins may not know which token needs renewal
• Responses to API calls have been enhanced with more information

Check for duplicate location tokens
• If not, admins may see higher than accurate license count

Be aware that unassigned licenses counts may change outside of MDM
• Licenses may have been transferred between locations in Apple School Manager
• Refresh the license count before displaying
Distribution
VPP in Apple School Manager—Timing

MDM Protocol Reference documents API changes
Testing support available soon
Release of new VPP features later this summer
Support new customer workflows prior to back-to-school deployment
Distribution

tvOS

Enterprise apps

Managed app configuration
Management

Pradhap Natarajan, Profile Manager Engineer
iOS Setup

Require tether for MDM commands

Software updates on
- Passcode locked devices  SUPERVISED
- Non-DEP devices  SUPERVISED

Preserve data plan when erasing device  NEW
iOS
Lost and Found  SUPERVISED

Lost Mode sound
Location accuracy
System app removal  NEW
**iOS**

Data protection

Join only Wi-Fi networks configured by profiles

- Exempts carrier profiles

Allow VPN creation

Exchange and mail—Control S/MIME signing and encryption independently
iOS

Classroom  SUPERVISED

Unprompted screen observation

Unprompted app and device lock  NEW

Automatic joining of classes  NEW
iOS
AirPrint

Custom port
Require TLS

iBeacon discovery  SUPERVISED
Credentials storage in Keychain  SUPERVISED
Require TLS  SUPERVISED
Allow AirPrint  SUPERVISED
iOS
Networking

DNS proxy extension  SUPERVISED  NEW

Internet Protocol version(s) for cellular connections
macOS
Setup

System migration

Smart card configuration

Any 802.1X Ethernet config

Software update delay

Deferred updates query info
macOS
Firmware password

Set password
Query password status
Verify password
macOS
Account management

List users
Delete user
Unlock user
macOS
Data protection

Extensions management
Query active extensions for a user

Escrow FileVault personal recovery keys
iCloud desktop and documents
tvOS

Setup SUPERVISED

Erase device

Set device name

Prevent modifying device name NEW

Allowed content restrictions NEW

Show/Hide apps NEW

Home Screen Layout NEW
tvOS
Conference Room  SUPERVISED

Conference Room Display

AirPlay Security  NEW
tvOS
Kiosks and Dashboard  SUPERVISED

Single App Mode

Allow remote app pairing

Allow AirPlay
iOS, macOS, tvOS

Shared

VPN IKEv2, Wi-Fi—min/max TLS versions

Installed app list consistent

Restart  SUPERVISED

Shut down  SUPERVISED
Assessments
Automatic assessment configuration

Activity continuation
Universal Clipboard
Dictation
Smart punctuation
Classroom screen observation
<table>
<thead>
<tr>
<th>Restrictions</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervised only</td>
<td></td>
</tr>
<tr>
<td>App installation</td>
<td>Explicit content</td>
</tr>
<tr>
<td>App removal</td>
<td>iCloud documents and data</td>
</tr>
<tr>
<td>FaceTime</td>
<td>Multiplayer gaming</td>
</tr>
<tr>
<td>Safari</td>
<td>Add GameCenter friends</td>
</tr>
<tr>
<td>iTunes</td>
<td></td>
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</tbody>
</table>
Demo
Managing tvOS

Graham McLuhan, Device Management Engineer
Tools Update
Tools Update

Apple Configurator 2.5
Profile Manager in Server 5.4
Classroom
Content caching
Roster simulator
Classroom

Classroom 2
• Teacher-created classes
• Document transfer between teacher and students
• Mute devices

Classroom 2.1  NEW
• Managed class behavior for teacher-created classes on supervised devices
• Student activity view
3rd Grade
May 16, 2017

App Usage 13 apps

Podcasts 6 Students
Safari 12 Students
Notes 6 Students
Maps 6 Students
Contacts 4 Students
Camera 4 Students
Photo Booth 4 Students
iBooks 4 Students
Keynote 5 Students

Items Shared 5 items

Students 27 of 31 students joined
### Class Summary

**3rd Grade**

**May 10, 2017**

#### App Usage

<table>
<thead>
<tr>
<th>App</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Podcasts</td>
<td>6</td>
</tr>
<tr>
<td>Safari</td>
<td>12</td>
</tr>
<tr>
<td>Notes</td>
<td>5</td>
</tr>
<tr>
<td>Maps</td>
<td>6</td>
</tr>
<tr>
<td>Contacts</td>
<td>4</td>
</tr>
<tr>
<td>Camera</td>
<td>9</td>
</tr>
<tr>
<td>Photo Booth</td>
<td>4</td>
</tr>
<tr>
<td>iBooks</td>
<td>4</td>
</tr>
<tr>
<td>Keynote</td>
<td>5</td>
</tr>
</tbody>
</table>

#### Student Activity

<table>
<thead>
<tr>
<th>Name</th>
<th>Activity Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ava</td>
<td>3 minutes</td>
</tr>
<tr>
<td>Gabriel</td>
<td>6 minutes</td>
</tr>
<tr>
<td>Noah</td>
<td>6 minutes</td>
</tr>
<tr>
<td>Julia</td>
<td>3 minutes</td>
</tr>
<tr>
<td>Riley</td>
<td>2 minutes</td>
</tr>
<tr>
<td>Brooklyn</td>
<td>3 minutes</td>
</tr>
<tr>
<td>Isabella</td>
<td>2 minutes</td>
</tr>
<tr>
<td>Gavin</td>
<td>2 minutes</td>
</tr>
<tr>
<td>Jordan</td>
<td>3 minutes</td>
</tr>
<tr>
<td>Claire</td>
<td>4 minutes</td>
</tr>
<tr>
<td>Mia</td>
<td>3 minutes</td>
</tr>
<tr>
<td>Savannah</td>
<td>3 minutes</td>
</tr>
</tbody>
</table>

#### Items Shared

- 5 items
3rd Grade
May 16, 2017

App Usage 13 apps

Items Shared 5 items

Students
Addison 2 apps
Aiden 1 app
Audrey 3 apps
Ava 1 app
Avery 2 apps
Braylen 2 apps
Brooklyn 2 apps
Chloe 4 apps
Clarke 5 apps
Clare 1 app
Elizabeth 3 apps
Ella 2 apps
Gabriel 4 apps
Gavin 3 apps
Isabella 2 apps
Jordan 2 apps
Julia 5 apps
Landon 4 apps
Liam 2 apps
Logan 2 apps
Mason 4 apps
Mila 4 apps
Nash 1 app
Owen 2 apps
Riley 4 apps
Savannah 3 apps
Tristan 3 apps
Zoe 2 apps

Isabella shared a link

Sharing Edit
Content Caching

Built into macOS

Tethered caching UI
Demo
Tethered caching

Nolan Astrein, Device Management Engineer
Summary

App developers

Managed app configuration
• Now for tvOS apps!

Shared iPad
• Store app data in cloud
• Don’t rely on backup or local data

Cisco Fastlane
• Optimize your app’s network traffic
Summary
MDM vendors and administrators

Support new features

Adopt security enhancements

Take advantage of new capabilities to create compelling new use cases

Be ready for restrictions to be supervised only
More Information

## Related Sessions

<table>
<thead>
<tr>
<th>Session</th>
<th>Location</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>What's New with Screen Recording and Live Broadcast</td>
<td>Grand Ballroom B</td>
<td>Friday 10:00AM</td>
</tr>
<tr>
<td>iOS Configuration and APIs for Kiosk and Assessment Apps</td>
<td>Grand Ballroom A</td>
<td>Friday 1:50PM</td>
</tr>
<tr>
<td>Lab</td>
<td>Location</td>
<td>Time</td>
</tr>
<tr>
<td>--------------------------------------------------------------------</td>
<td>---------------------</td>
<td>--------------------</td>
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<tr>
<td>Device Configuration, Deployment and Management Lab</td>
<td>Technology Lab I</td>
<td>Thurs 3:10PM–5:10PM</td>
</tr>
<tr>
<td>Device Configuration, Deployment and Management Lab</td>
<td>Technology Lab I</td>
<td>Fri 1:00PM–3:00PM</td>
</tr>
<tr>
<td>Networking Lab</td>
<td>Technology Lab J</td>
<td>Fri 1:50PM–3:50PM</td>
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