Apple TV AirPlay

with Michael Page
Walford Anglican School for Girls

Hashtag: #xw13
Please leave comments on this talk at auc.edu.au/xworld/sessions
Apple TV AirPlay Mirroring

• Wirelessly mirror an iPad, iPhone or MacBook
• Removes the inconvenience of cabling
• Screen sharing of a multiple devices with minimal fuss
• Alters the classroom dynamic
Apple TV AirPlay Mirroring

Apple TV
RRP $109
Apple TV Configuration

- Label Apple TV with location
- Connect to a hidden WPA2 Personal Wi-Fi
- Configure device name to match label
- Disable screensaver and sleep
- Set 3rd gen Apple TVs to output 720p
AirPlay + Keynote

Creating an Asset Database

- Length
- Overview
- Outcome
Creating an Asset Database

Overview

- Why make an asset database?
- Demo
AirPlay Mirroring + DVD Player
Our Solution
activate application "VLC"
set drive to do shell script "mount | grep udf | awk '{ print $1 }"

tell application "VLC"
  OpenURL "dvdnav://" & drive play next
end tell
VLC DVD Playback Script
~/Library/Preferences/com.apple.digihub.plist

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
    <dict>
        <key>com.apple.digihub.dvd.video.appeared</key>
        <dict>
            <key>action</key>
            <integer>6</integer>
            <key>otherscript</key>
            <dict>
                <key>_CFURLString</key>
                <string>file://localhost/Volumes/SYSTEM/.scripts/DVD.scpt</string>
                <key>_CFURLStringType</key>
                <integer>15</integer>
            </dict>
        </dict>
    </dict>
</plist>
AirPlay Mirroring + Passwords

Find My iPhone

mpage@walford.asn.au

Sign In

Keyboard Feedback
AirPlay Security

- Onscreen Code
- Set Password
Apple TV Update

An update is available for your Apple TV. Do you want to install it now?

Your Apple TV will restart to begin installing the update. Do not unplug your Apple TV while it is updating.

Update Now
Update Later
Control Apple TV Updates

- Apply a separate DNS server to Apple TVs
- Set time.apple.com to resolve to your local time server IP address
- Block (DNS poisoning):
  - appldnld.apple.com
  - mesu.apple.com
  - appldnld.apple.com.edgesuite.net
  - itunes.apple.com.edgesuite.net
Control Apple TV Updates

- Advantages include:
  - No update messages
  - No movie banners
  - Slightly faster boot times
Wi-Fi Requirements

- Apple TVs will pick 2.4GHz over 5GHz signal.
- Ideally there should be an access point in each room.
- Wireless access point location is important, as air conditioner vents are very bad for SNR.
- SNR needs to be at least 25dB (the higher the better)
- Test with WiFi Explorer (Mac App Store)
Bonjour

- Apple’s Bonjour protocol is a simple multicast DNS.
- Aerohive’s Bonjour Gateway allows advertising of Bonjour services (e.g. AirPlay, AirPrint, etc) over other subnets.
- Setup with a free virtual machine or using Aerohive hardware.
- Open source Avahi project
Future

- Realm based bonjour broadcasting
- iCloud Keychain
- iOS Developer Program
Thank You

mpage@walford.asn.au

@ITMichaelPage