

Imaging/Deployment

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Penn State Education Technology Services

Media Commons Pilot

- 24 iPod Touches
- 7 Apps
- 12 Tutorials on iBooks
- Shooting and Editing Video

Environment

- Lab Environment
- Semester Long loans
- Preloading devices
- Wiping devices

Building an Image

- Preload the device with software
- Arrange apps



Setup Devices

- Connect to iTunes - Sync and backup
- Restore Second device
- Restore from backup
- Same process for wiping user data



Are you sure you want to restore the iPod "MC Master" to its factory settings? All of your media and other data will be erased, and the newest version of the iPod software will be installed.

iTunes will verify the restore with Apple. After this process is complete, you will have the option to restore your contacts, calendars, text messages and other settings.

Cancel

Restore and Update

Restore From Backup



Choose a backup to restore. This will restore only the contacts, calendars, notes, and settings, not the iPod firmware.

iPod Name: MC Master 1

Last Synced: 3/25/11 10:37 AM

Cancel

Restore

Setup Devices

- Rename the Device
- Setup MDM service
- Load Configuration Profile(s)
- Sync and Backup
- Once all devices are setup Lock down the backup folder

Account Management

- Accounts without credit cards
- Account works with only five computers at a time
- Unlimited amount of devices
- One account can be used on all devices if you own the licenses

Volume Purchasing

- Discounts to some apps when purchasing 20 or more
- Redemption on an account locks the app to that account
- Program Manager - Purchase Voucher
- Program Facilitator - Redeem voucher and purchase apps

Things to consider

- iTunes Activation only mode
- Parental controls on device (differ from MDM lockdowns)

Configuration Profiles

Ed Davis - System Administrator
Penn State College of Arts & Architecture

What is it?

- XML w/ Base64 encoding
- Uses same DTD as a .plist file
- .mobileconfig extension
- Supports signing/encryption

Signing/Encryption

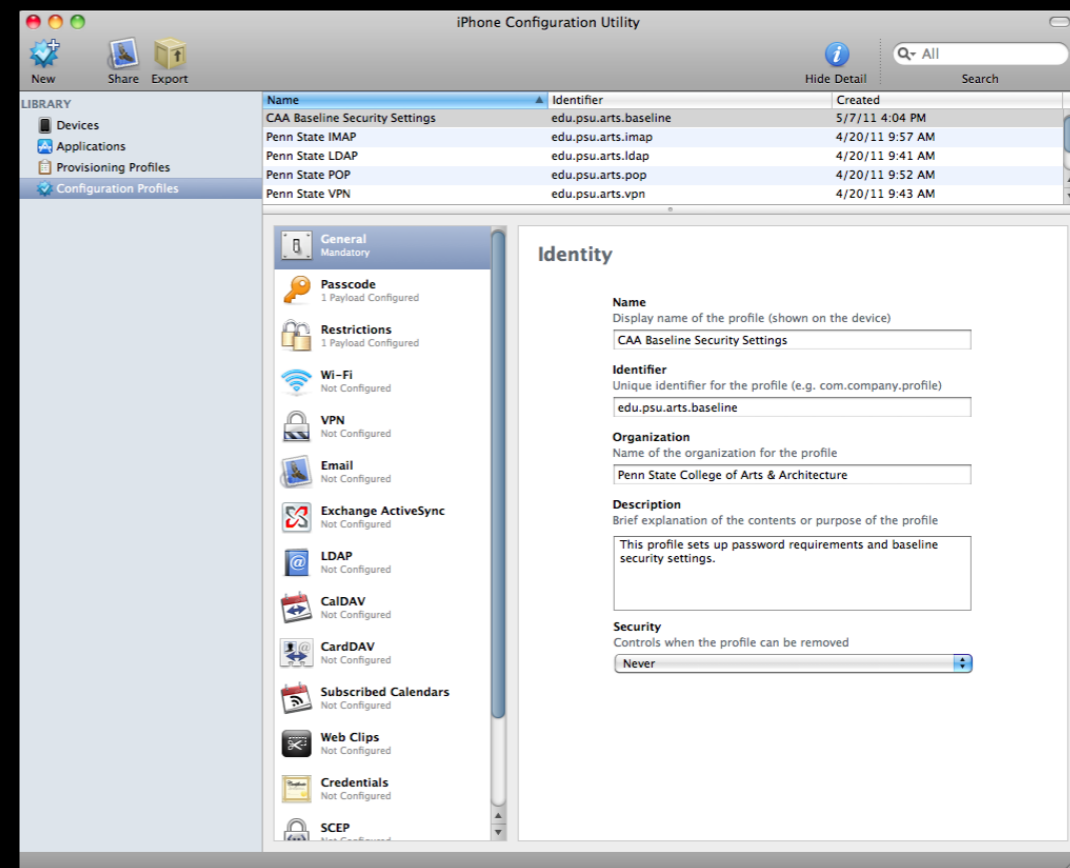
- Signed Profiles
 - Key unique to that install of iPCU
- Encrypted Profiles
 - Key unique to that device
 - Must also be signed
- **Don't lose your key!**

What is it?

- Contains Payloads
 - Collection of related settings
 - Similar to MCX
- A profile can contain many, one, or no payloads.
 - Yes, no payloads.

How do you make them?

- iPhone Configuration Utility
- 'iPCU'
- Mac/Windows



How do you make them?

- Script
 - Anything that can edit a .plist can edit a .mobileconfig
- iPCU also supports scripting
 - AppleScript on Mac OS X
 - C# Script on Windows

How do you deploy them?

- iPCU
- Email
- Web
- OTA/MDM

Mobile Device Management

A Love Story in Three Acts

Prologue

- Stuff you'll need:
 - iOS Developer Enterprise Program Membership
 - An App ID
 - Apple Push Notification
 - Specific Name

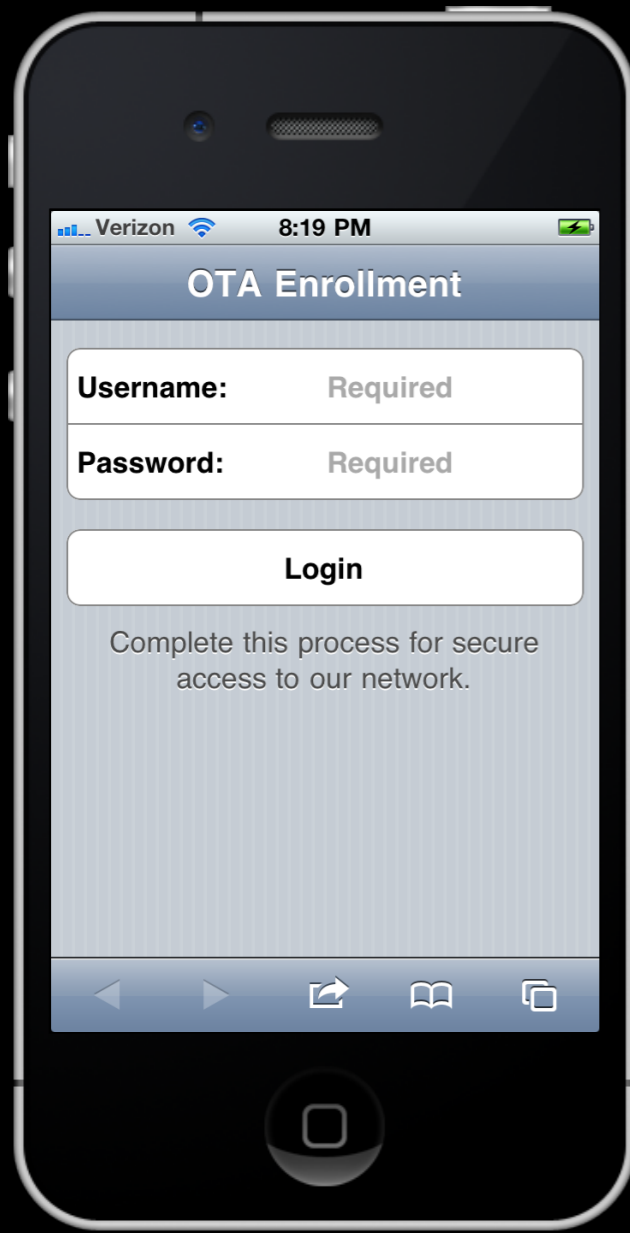
Enrollment

- Our Cast
 - A User
 - A Device
 - An MDM Service
 - A Directory Service
 - A Certificate Authority

Enrollment

- Act I - Authentication
 - They meet
- Act II - Certificate Enrollment
 - They fall in love
- Act III - Device Configuration
 - She changes his haircut

Authentication



username: jrboadbobbs
password: *****



checking...
checking...
checking...
OK



Certificate Enrollment



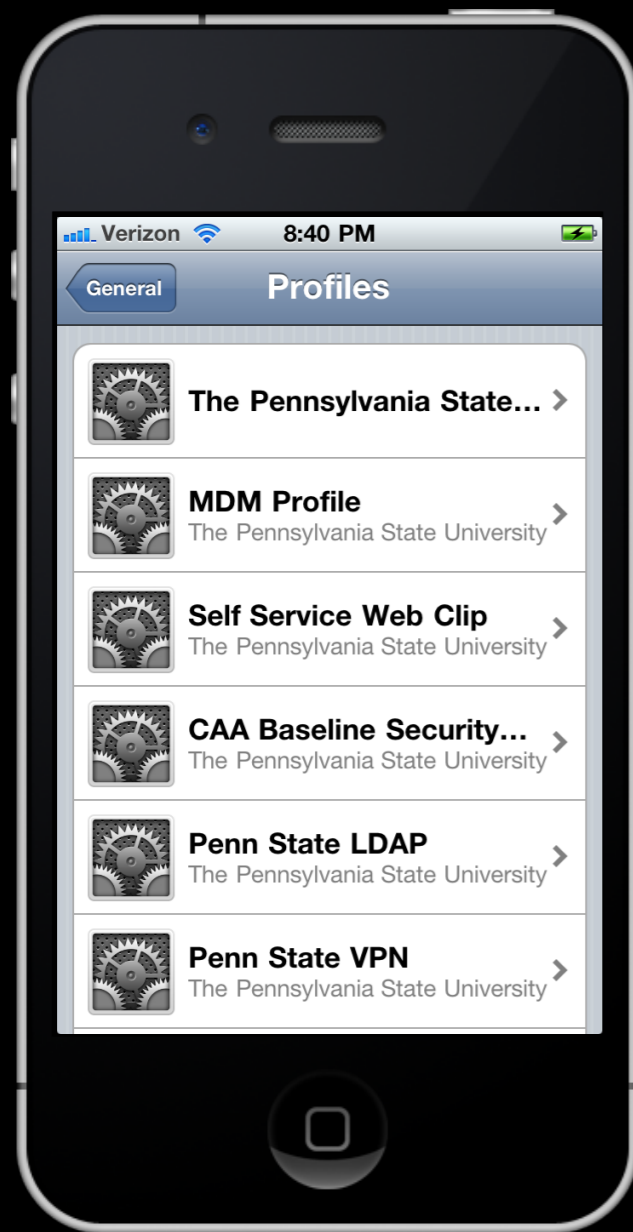
I'm an iPhone.



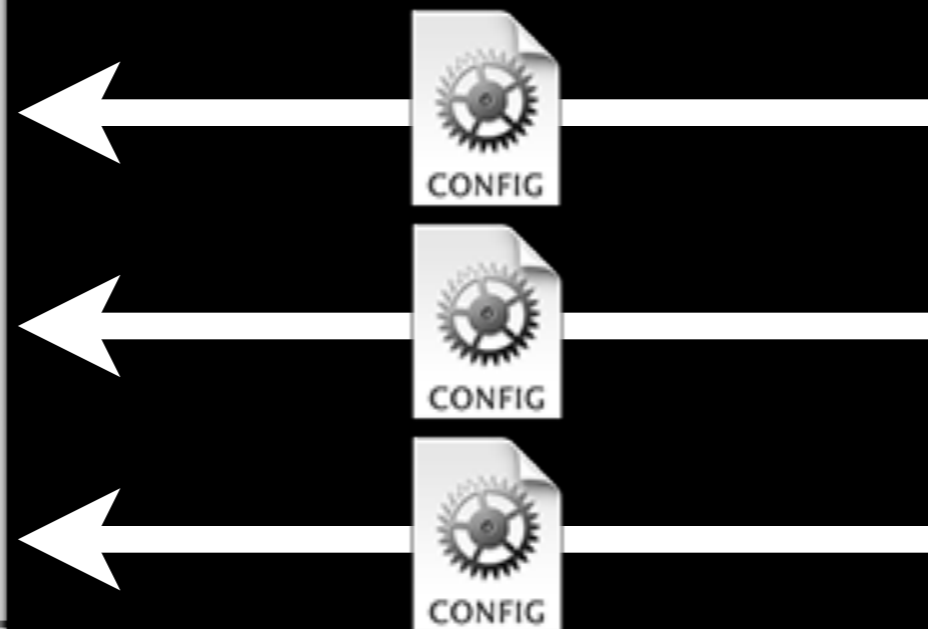
Hi iPhone!



Device Configuration



I'm in ur iPhone changin ur setingz! LAWLZ!



Caveats

- “Strong” opt-in
 - Can’t force them to enroll
 - Can’t prevent them from disenrolling
 - Can’t immediately detect disenrollment
 - Can only detect that a device that should be enrolled isn’t

Caveats

- Location tracking
 - Policy enforcement based on location
 - Don't do it

Advice

- Have a policy
 - Get users to sign off on it
- Make strong distinctions
 - Company owned
 - Company subsidized
 - Completely personal

Advice

- Carrot and Stick Approach
 - Don't tell users they have to enroll
 - Tell them they can only get their company email if they enroll
 - Easier said than done

Additional Info

- Apple iPhone in Business Page
 - <http://www.apple.com/iphone/business/>
- Apple iPhone Enterprise Support Page
 - <http://www.apple.com/support/iphone/enterprise/>

Additional Info

- iOS Developer Library Resources
 - Search for ‘Enterprise Deployment’
- “iPhone Configuration Utility”
- “iOS Configuration Profile Reference”
- “Over-the-Air Profile Delivery and Configuration”

Additional Info

- Exchange Users
 - You may already have all the MDM you need
 - Won't work at all like this
 - See “Exchange ActiveSync and iOS 4 Devices” in the iOS Developer Library

Additional Info

- Rolling your own
 - You (probably) can't
 - Old documentation
- Talk to your Apple rep
 - Give them lots of money
 - They'll think about it

Q&A