

Deployment

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MC Services

Definition

- Get “Stuff” on computer or device
 - Software
 - Settings/Configuration
 - Updates

Automation

- avoid manual tasks
 - errors
 - inconsistencies
 - boring manual labor

Imaging Methodologies

- Monolithic Imaging aka “Golden Master”
 - Install everything on a system
 - clone to other machines as needed
 - Problematic
 - Mac OS build issues & OS Updates
 - Excess/unneeded components
 - Recovery Partition

Modular Imaging

- Build a base OS
- Build packages for everything
- Build scripts/profiles for configuration
- Using tools like DeployStudio, InstaDMG, Casper Suite, etc.

Thin/Layered Imaging

- Use existing, good OS & Recovery HD
- Build packages for everything
- Build scripts for configuration
- Using tools like Casper Suite, Munki, etc.
 - Useful for BYOD environments
 - Supported 10.7/10.8 within a day

Build a Recipe!

- What needs to be installed
- What needs to be configured
- Document as you go
 - Build a runbook!
- Test, test, test!

NetInstall/NetBoot/ NetRestore

- NetBoot - start up over network (PXE)
- NetInstall - boot/run Apple installer
- NetRestore - boot/restore an image
- Supported on OS X Server
- JAMF NetSUS appliance (Ubuntu, free)
 - <https://jamfnation.jamfsoftware.com/viewProduct.html?id=180&view=info>

Packaging

- pkg/mpkg on OS X = msi on Windows
- Potentially use package from vendor
- Many third-party packaging tools
 - PackageMaker, pkgutil, Iceberg, Packages, The Luggage, JAMF Composer, InstallEase
- Adobe apps = PAIN! (AAMEE, CCP)

Software Update Server

- Included on OS X Server
- JAMF NetSUS appliance (Ubuntu, free)
 - <https://jamfnation.jamfsoftware.com/viewProduct.html?id=180&view=info>

Caching Server

- Included in Server.app 2.2 on OS X Mountain Lion
- Either/or with Software Update Server
 - no control over which updates
- Useful only if all clients access Internet from single IP
- 2.0 (10.9) does iOS & apps, too

Managed Preferences (MCX)

- Establish Preferences for users and/or computers using Workgroup Manager
- Typically requires a Directory Service
 - LocalMCX
 - Third-party implementations (Casper)
- Deprecated in later OS X versions (but still works, sort of)

Configuration Profiles

- Introduced OS X Lion
- Extension of iOS configuration profiles
- Supported by many third-party MDMs
- 10.7 and later clients only
- Preference/configuration management
- MCXtoProfile script

Apple Remote Desktop

- Remote Support/Screen Control
- Deployment
- Asset Management

DeployStudio

- Leverages NetBoot/NetInstall
- Requires OS X Server
 - AFP, NetInstall, optionally DHCP, DNS, Directory Services
- 3 components: Assistant, Admin,
- <http://www.deploystudio.com> - free

DeployStudio

- DeployStudio Assistant
 - Setup, create NetBoot images
- DeployStudio Admin
 - Manage configs/workflows
- DeployStudio Runtime
 - installed on your NetBoot image, runs workflows

Casper Suite

- Tomcat Web App runs on OS X, Windows Server 2008+, Linux
- Also uses MySQL
- jamf agent on OS X (also supports iOS MDM)
- Management console = web browser
- Suite of apps

Casper Suite

- Composer - build scripts and base OS
- Recon - scan/get machines enrolled
- Casper Admin - upload packages and build imaging workflows
- Casper Imaging - installed on your NetBoot image, runs workflows
- Casper Remote - remote assistance and instant installs

Casper Suite

- Self Service - user-initiated installation and support (doesn't require admin rights)

Munki

- Automates software installation
- Managed Software Update app (Self Service), doesn't require admin
- Doesn't require OS X Server (http)
- Google variant - Simian (App Engine)
- <http://code.google.com/p/munki> - free

Puppet

- You specify how you want things configured
- Puppet compares to your specifications
- Makes changes if necessary
- Incredibly useful for server configurations
- <http://www.puppetlabs.com>

Absolute Manage

- Based on old netOctopus, LANrev
- Completely cross-platform: OS X, Windows, iOS, Android
- <http://www.absolutemanage.com> - commercial

FileWave

- Cross-platform (OS X, Windows, iOS)
- Can run on an OS X, Windows, or Linux server
- Lightning Thunderbolt Imaging
- <http://www.filewave.com> - commercial

Which Tool?

- Use the one that works for you, at a price that you can afford
- Don't discount "free" software, but...
- Don't discount the ability to call someone if you're stuck

Resources

- Apple - Mac Management Basics
 - <http://training.apple.com/itpro/macmgmt>
- Apple - Mac Integration Basics
 - <http://training.apple.com/itpro/macinteg>
- MacEnterprise
 - <https://groups.google.com/forum/#!forum/macenterprise>
- AFP548
 - <https://www.afp548.com>

Resources

- Managing OS X
 - <http://managingosx.wordpress.com>
- DerFlounder
 - <http://derflounder.wordpress.com>
- Krypted
 - <http://www.krypted.com>