

Maintenance: Keeping Computers Up To Date

Mac Admin Fundamentals • Mac Admins Conference at Penn State 2014

How do we keep our machines up and running with what they need.

Importance

- Security
- Features
- Compatibility

Some Examples -

Websites accessed may not work if not running the most recent version of Flash or Java.

Feature - Look at iOS 7. We had Managed Deployment + DEP. Added a lot of function

Compatibility - Remember when office had docx the first time? Issues opening files.

Post-Deployment Upkeep

- Think about your year as a whole
- Updates are more than just applications
- You are not alone



As you think about your year, where are you spending the time?

Think of updates more along the lines of change management. This can be configs

When saying you are not alone ... you have a user on each machine that is a helper

During the last year...

Product	Updates
<u>OS X (Mavericks)</u>	5
<u>Java SE 7</u>	5
<u>Office 2011</u>	7
<u>Flash</u>	14

#YAFU

#YAFU = Yet Another Flash Update

More than updates

- Change a setting
- Enable / Disable a user account
- Change a local admin password
- Add a piece of software

You Are Not Alone

- Updates happen to everyone
- Impacts users
- Home-users are used to updating
- Consumer adoption can impact corporation

Need for Speed

- Let's talk about pushing packets
- 10.9.3 Delta Update: 461.7 MB
- Can your infrastructure support the number of clients and data?



Before we even start looking at the tools we can use for keeping things up to date ... we need to look at some numbers. Can we actually support the updates we are going to be doing

Time for Math

- $461\text{MB} \times 100 \text{ machines} = 46100\text{MB}$
- $46100\text{MB} / 1024\text{MB per GB} = 45.02\text{GB}$
- How are you going to get 45GB across the wire?

Wireless

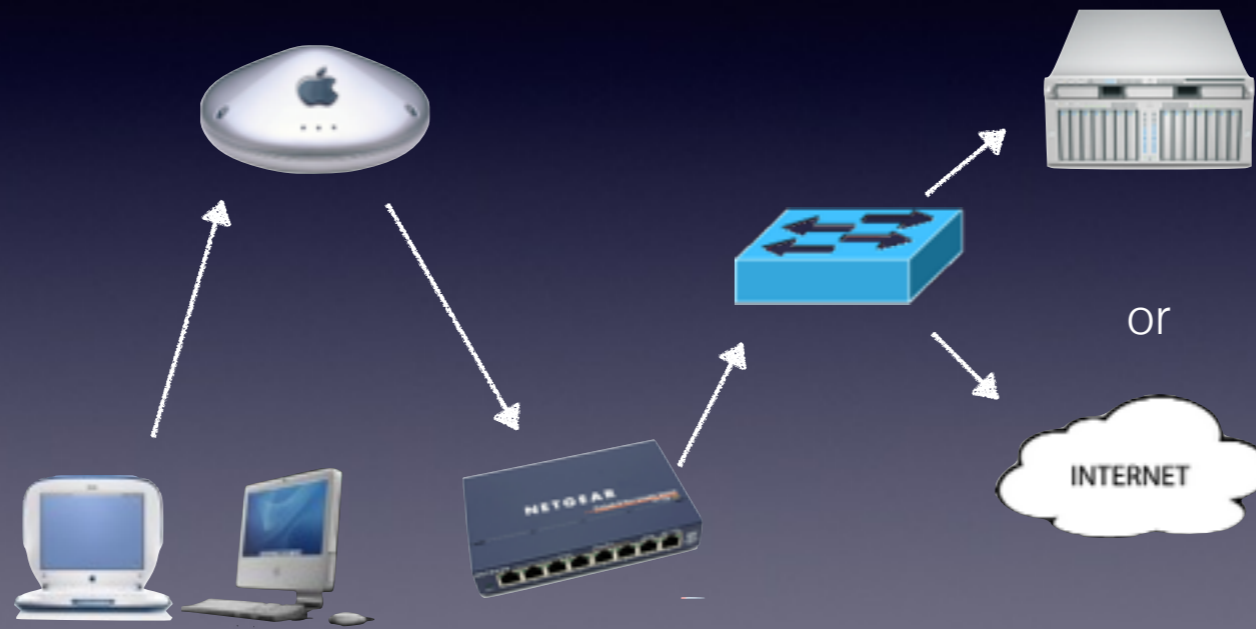
- Wireless is becoming the predominant connection
- Transition from coverage to capacity
 - BYOD, Consumerization, multiple devices
 - Plans today expect 25 devices per room
 - QoS can be used on networks for priority

Think about a few years ago. You walked around making sure you could associate to your SSID and had more than 2 bars.

Capacity relates to density

The largest capacity in the past ... a cart of clamshell iBooks

Pressure Points



Location Location Location

- Use internal bandwidth as often as possible
- “Easy” to troubleshoot

Why is it easy? Have you ever had to call up an ISP and deal with them? How long does it take to get them to respond.

Tools - Apple

- Software Update Server
- Caching Server (applies to iOS as well)
- Allow content edge to move inside WAN
- Seriously consider these regardless of your update policy.

No matter which tool or method you use, having these setup will save you time.

What tools can we use to help?

Software Update Server

- Mirror Apple Software Updates on your network
- Can auto-enable to not have to worry
- Alternately control update availability
- Set via WGM / MDM / DNS

Caching Server

- Generally more iOS Focused
- Caches the following content:

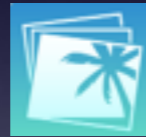




60 MB



611 MB



287 MB



635 MB



466 MB



8 MB

2067 MB

x 5 iPads

10.3 GB

Update Philosophies

Wait until update is needed

Trial updates with a few users then deploy

Deploy on day one (blindly)

Don't worry about updates and let users do it

Updates depend on ...

Organization Culture

Number of Machines

Location

Time of the year

Number of IT Staff

Budget

If you are remote ...

If you have 10 machines vs 50 vs 500 vs 5000

Location (you and the machines)

How are *you* doing it?

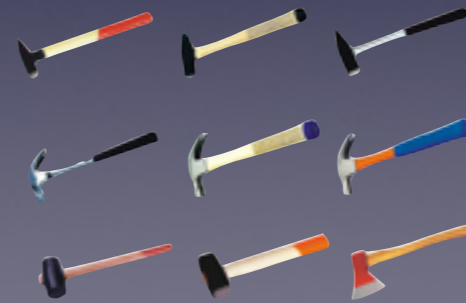
Let's share a few setups and explain why you chose that method.

Scaling Up

- Start small
- Work up
- See value
- Enjoy extra time.

Being a lazy admin

- Try and deploy a ***process*** versus a ***product***
- Which parts can be automated?
- What is the right tool?



Packages are used by multiple products.

Tools

- Commercial
- Open-Source

Commercial Tools

- Can focus on both OS X & iOS
- Integrate Reporting
- Integrate remediation actions

Free Tools

- Work in an a-la carte manner
- Can have a higher learning curve

What do we use?

Anthony

- ARD (packages, shell commands, files)
- Composer and Packages for packaging
- K2 (KeyServer) for reporting as needed
- Apple SUS (can't use Caching Server)

Small operation

What do we use?

Tom

- ARD for management/assist and one-off package deployment
- DeployStudio for adoption and imaging
- AutoPKG and AutoDMG for maintenance
- Munki + MunkiReport-PHP
- Caching Server for updates

What do we use?

Vaughn

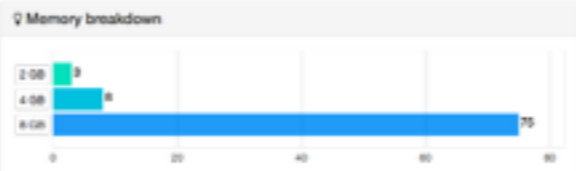
- DeployStudio
- Munki + MunkiWebAdmin
- AutoPkg
- Reposado (apple update server)

What do we use?

Randy

- ARD
- Munki + Munki Report PHP
- Caching Server + Apple SUS

Why? Fits our environments



Hardware breakdown

MacBook Pro (15-inch, Early 2011)	58
MacBook Pro (15-inch, Late 2011)	14
MacBook Air (13-inch, Mid 2012)	12
MacBook Pro (15-inch, Mid 2012)	1

Warranty status

Expired	42
Supported	43
Unregistered serialnumber	1
Not at MacStore	0

Don't forget ...

- Have a testing workflow!
- Make sure an update won't break anything
- Environmental variety

Direction

- Going to a much more user-focused approach

= self-service

Look at JAMF Portal, App Store, Munki 2, etc