

Weldon Dodd

Certified Trainer

Weldon started his IT career managing the Mac lab and the NeXT lab at the University of California. He works on Mac stuff all day and sometimes writes about it.



@weldon



Denver Mac Admins Meetup



www.meetup.com/Denver-Mac-Admins/

Caching servers, DNS Tricks, and More

DNS

DNS is the worst form of name
resolution...

except for all the other forms that
have been tried

Configuring DNS

- WAN DNS record set
- Set DNS records (A, CNAME, etc...)
- MX Records (including SPF, etc.)
- Run change hostname tool on OS X Server
- External DNS
- Internal DNS

Hosting DNS

- Registrar
- Web Host
- DNS Provider
- Amazon Route 53
- Self Hosting

DNS on OS X Server

- Settle on naming first
- Server IP reserved in DHCP
- Set it static (even if reserved)
- FQDN and Local Host name
- Decide: What's the naming system, are there multiple servers, do you want to name based on geo location?

Minimal DNS



Do you want to set up DNS?

Server can automatically set up a DNS server that resolves your host name. Devices configured to use your server for DNS will be able to access your server using your host name. This will affect your server's network settings.

Skip

Set Up DNS

...Minimal DNS

- A DNS Zone in which the configured hostname of the server matches the zone domain and forwarders are set to initial network preferences DNS entry
- **ONLY ENTRIES** are related to the server you are setting up!
- Limits future expansion - domain itself is server.domain.com
- Only useful for clients that use the server as the DNS server

Make DNS changes easy with this
one weird trick...

Set your TTL to 5 minutes the day
before you make changes

Caching Server

What is Caching Service?

The caching server speeds up the download of software distributed by Apple through the Internet. It caches all software updates, App Store purchases, iBook downloads, iTunes U downloads (apps and books purchases only), and Internet Recovery software that local Mac and iOS devices download.

Why Use Caching Server?

- iOS 9 Launch Day
- OS X 10.11 El Capitan Launch Day



OS X Server 5.0

- OS X Yosemite v10.10
- OS X El Capitan v10.11
- <https://help.apple.com/serverapp/mac/5.0/>

Supported Content Types

iTunes and iBooks

- iTunes 11.0.4 and later (both OS X and Windows versions)
- iOS app purchases and updates
- iBooks Store content (both iOS and OS X Mavericks apps)

Supported Content Types

OS X

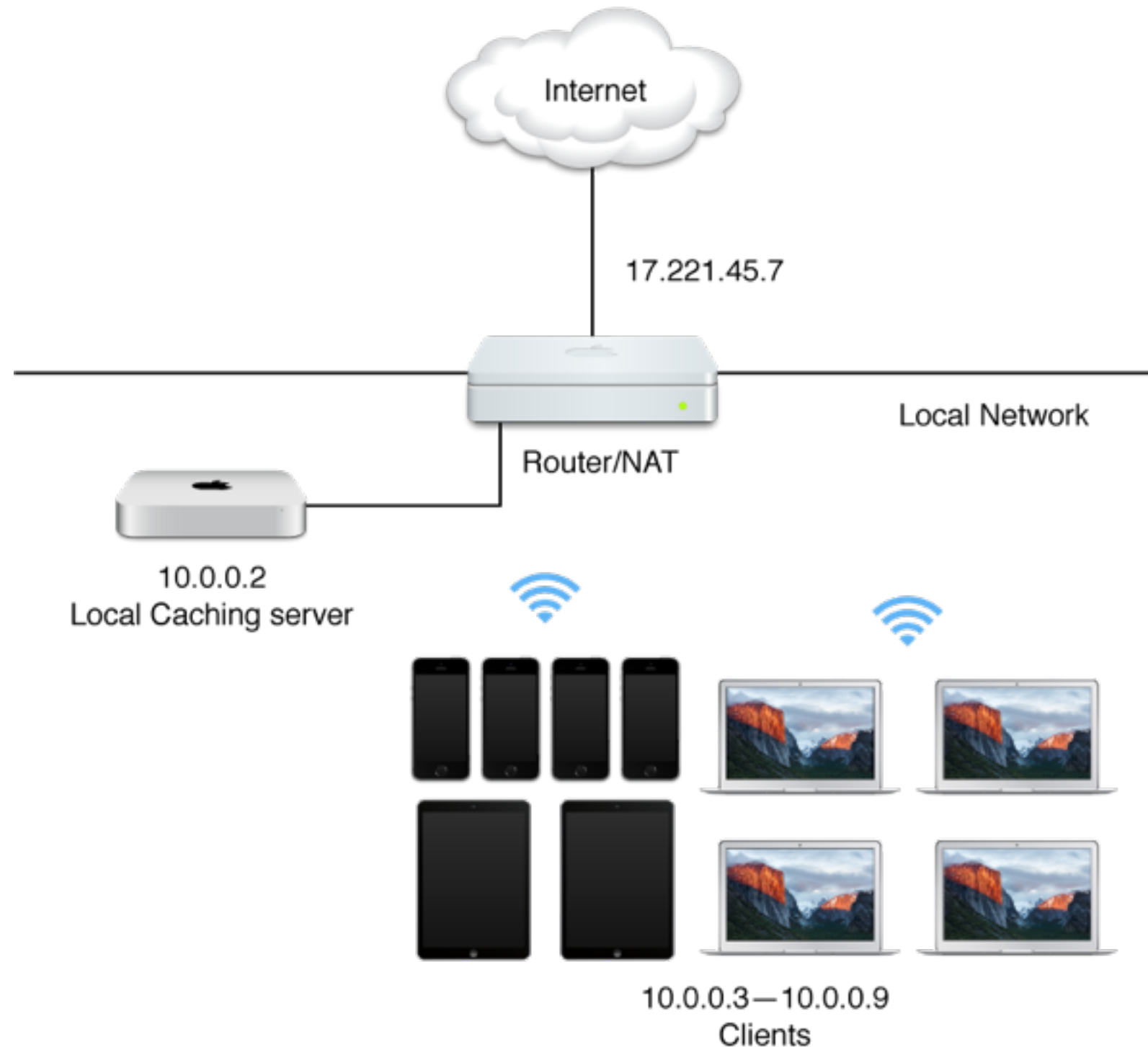
- Mac App Store (OS X Mountain Lion v10.8.4 or later is recommended)
- OS X software updates
- Other software updates (such as updates to iTunes for OS X)
- GarageBand downloadable content
- Third-party applications and updates via the Mac App Store
- Java, print drivers, and other files obtained via Software Update
- Internet Recovery OS image download (Mavericks and later)

Supported Content Types

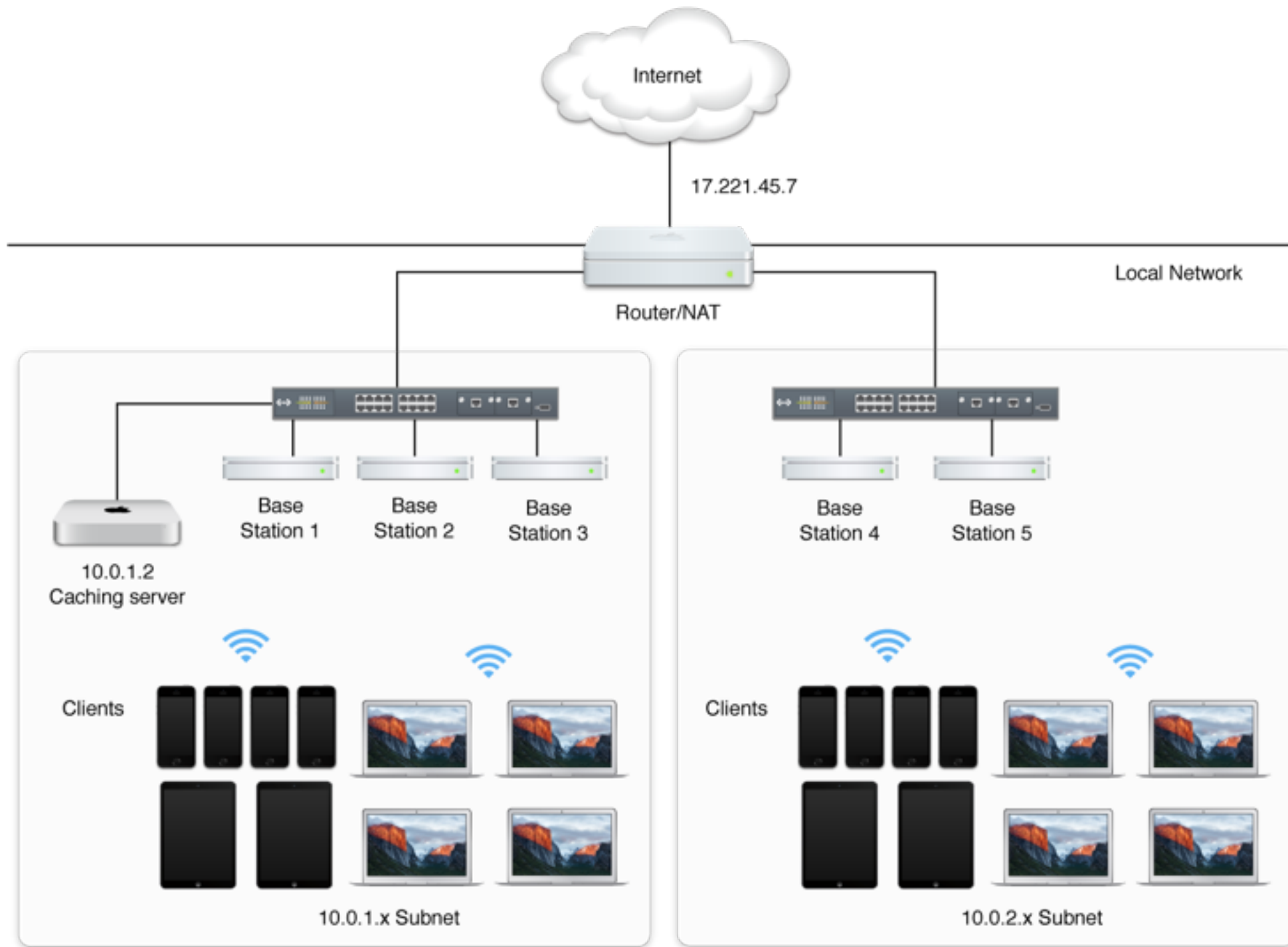
iOS 7 and later and Apple TV

- iOS and Apple TV updates
- iOS apps and updates
- iTunes U course materials from the iOS App Store and iBooks Store, as well as uploaded instructor materials such as audio, video, iWork, and iBooks Author files
- Certain mobile assets, such as Siri high quality voices, language dictionaries, and more

How caching server works



Multiple Subnets



Load Balancing

- Multiple Caching Servers from the same public IP
- Round Robin
- Clients tend to stick with first choice

Configure Caching Server

- Behind more than one IP Address
- When do you need to take special action based on different ingress/egress IPs?
- Specify the Public and Private ranges

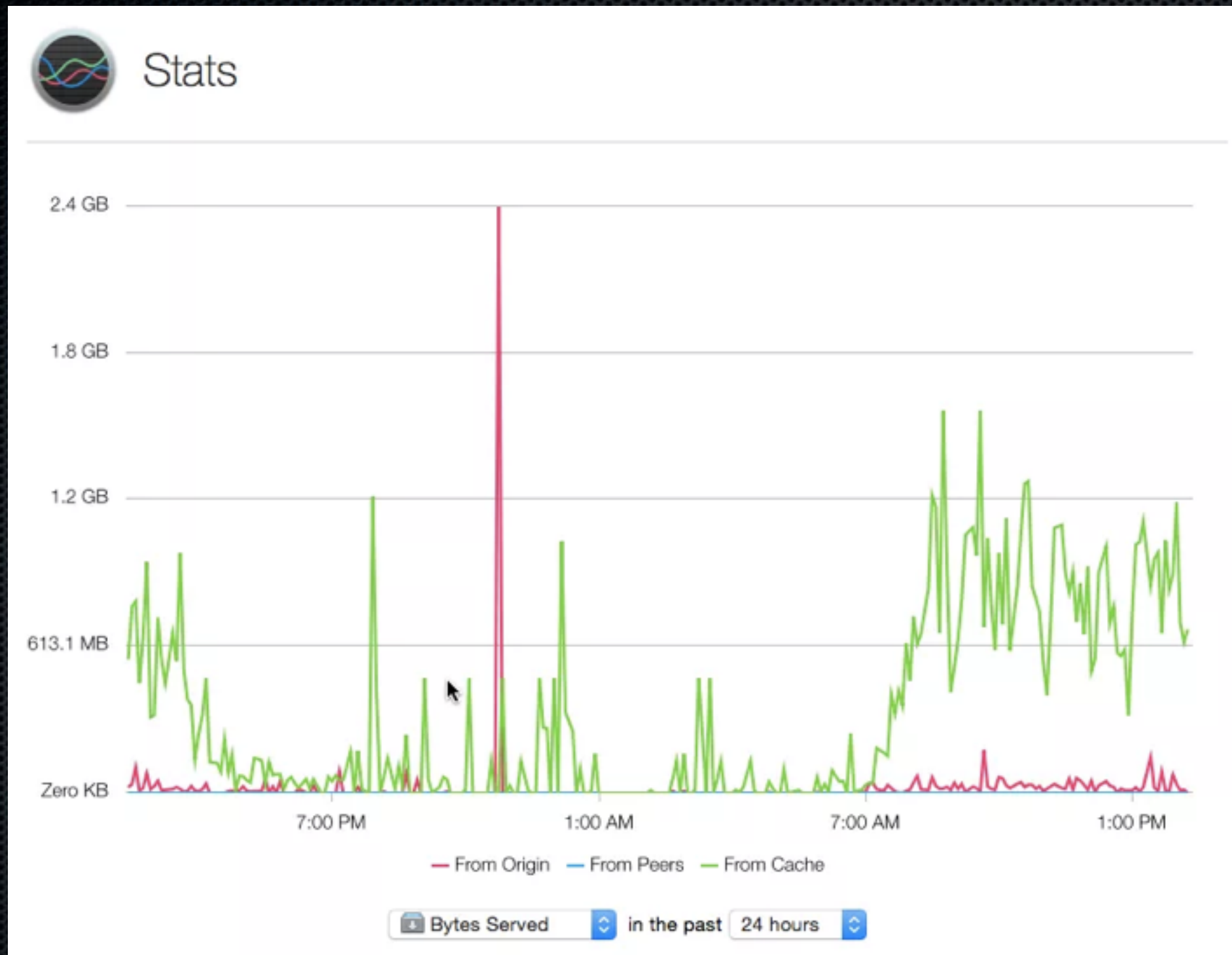
Non-Local, Non-NAT Subnets

- Relies on TXT DNS records
- `_aaplcache._tcp` 10800 IN TXT
"x2aprs=17.53.22.2-17.53.22.254,93.184.216.119"

Advanced Options

- Not available in the GUI
 - Interface
 - LogClientIdentity
 - LogLevel
 - MaxConcurrentClients
 - MaxPeersToQuery
 - OriginDownloadTimeout
 - PeerDownloadTimeout
 - PeerFilterRanges
 - PeerNotifyTimeout
 - PeerQueryTimeout
 - PeerRetryInterval
 - Port
 - ReservedVolumeSpace

Stats



Cacher

- <https://github.com/erikng/Cacher>
- Caching Server Statistics

Caching Server Data: 2015.04.13

Cacher has retrieved the following stats for 2015.04.13:
1013 GB Bandwidth served to clients.

19.25 GB Bandwidth Requested consisting of:

19.25 GB from Apple
0 GB from Other Caching Servers

18368 IP Addresses hit the Caching Server yesterday consisting of:
4865 Unique IP Addresses.

A total of 4702 iOS devices hit the Caching Server yesterday consisting of:

93 iOS 8.0 Devices
158 iOS 8.0.2 Devices
233 iOS 8.1 Devices
123 iOS 8.1.1 Devices
453 iOS 8.1.2 Devices
599 iOS 8.1.3 Devices
894 iOS 8.2 Devices
2149 iOS 8.3 Devices



More Resources

- CacheWarmer (\$4.99) by Glencode LLC - <http://blog.fraserhess.com/2014/12/introducing-cachewarmer.html>
- OS X Server Essentials 10.10 By Arek Dreyer, Ben Greisler from Pearson (10.11 coming soon)

Questions?



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