

The logo graphic consists of three overlapping, curved white shapes that resemble stylized waves or a swoosh, positioned to the right of the main text.

***filewave***<sup>TM</sup>

*Take control of your software*



**C T i P**

**Sébastien Tomasi**

System Administrator



**John Clayton**

Head of Development - FileWave





# Ritz, Bastionsplatsen 2

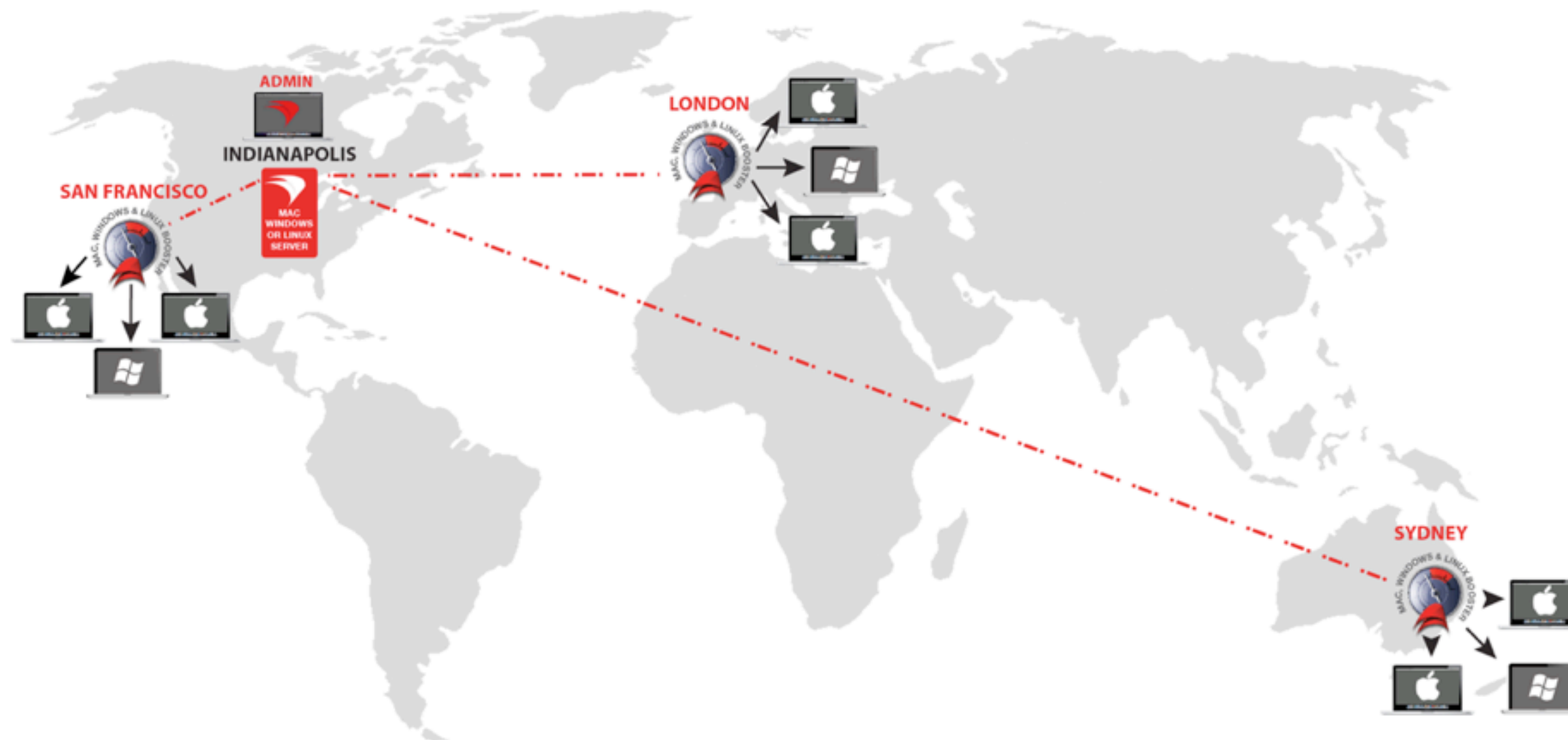


# What's FileWave?



# Scalable and Robust

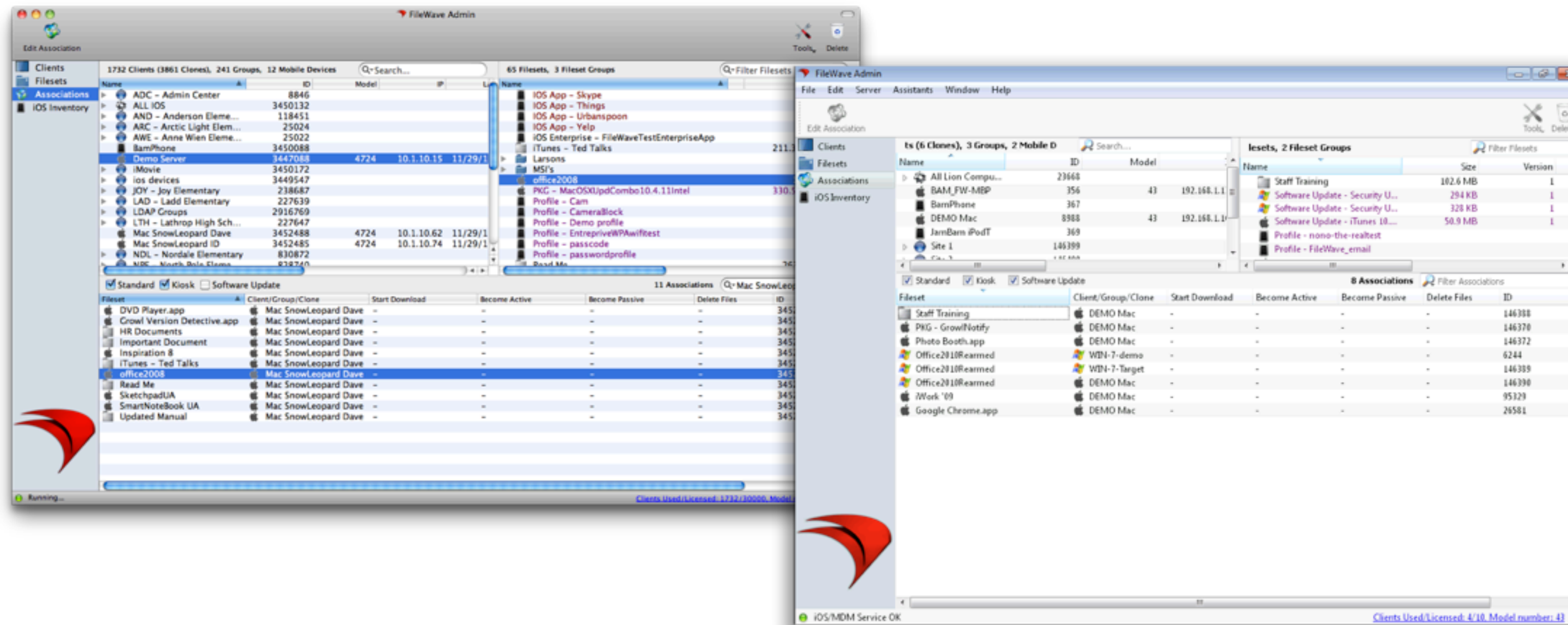
thanks to the Booster and Client "pull" technology





# Cross Platform

Runs on Mac, Windows & Linux





# Self Service Portal / Kiosk

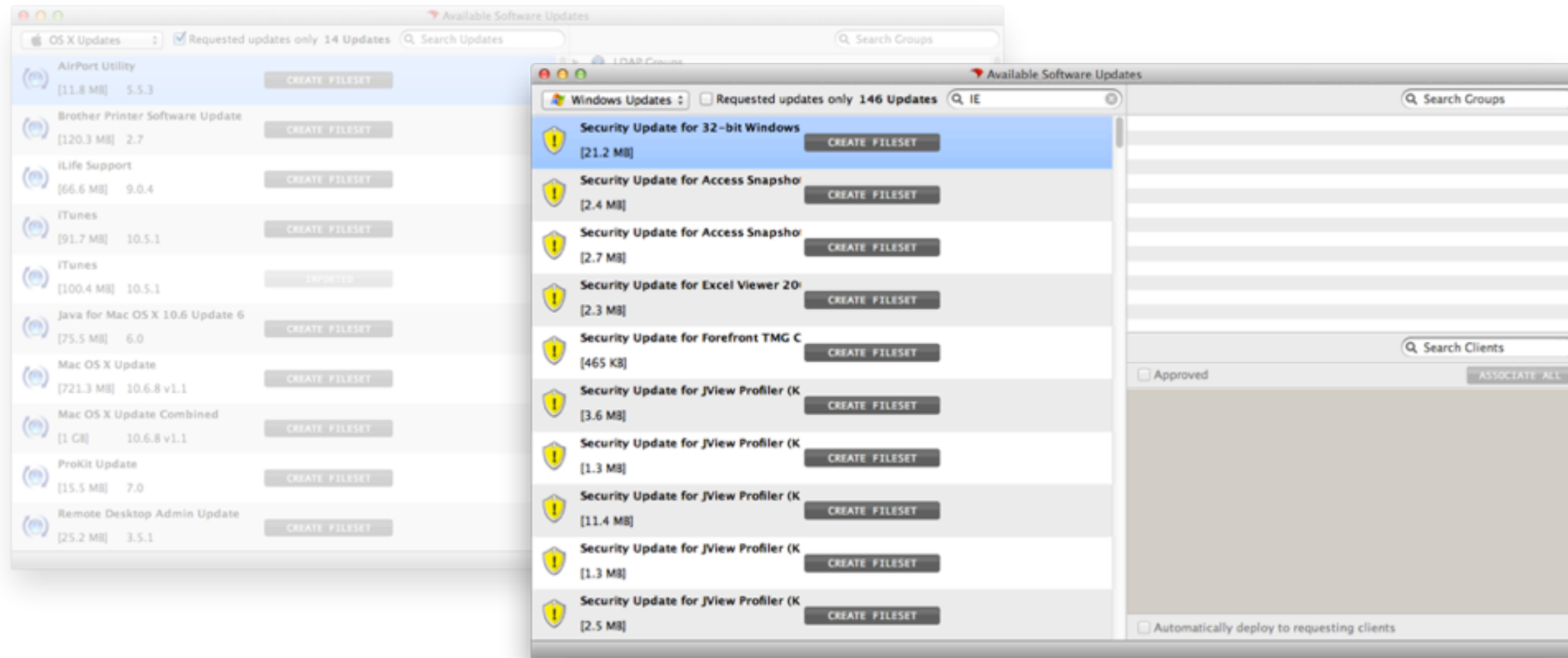
For both Mac and Windows





# Manage Software Updates

For both Mac and Windows





# MDM - Mobile Device Management

Deploy any Apps, at any time, to any of your Apple iOS devices

Business Apps FileWave distribution



**C T i P**

# Sébastien Tomasi

System Administrator





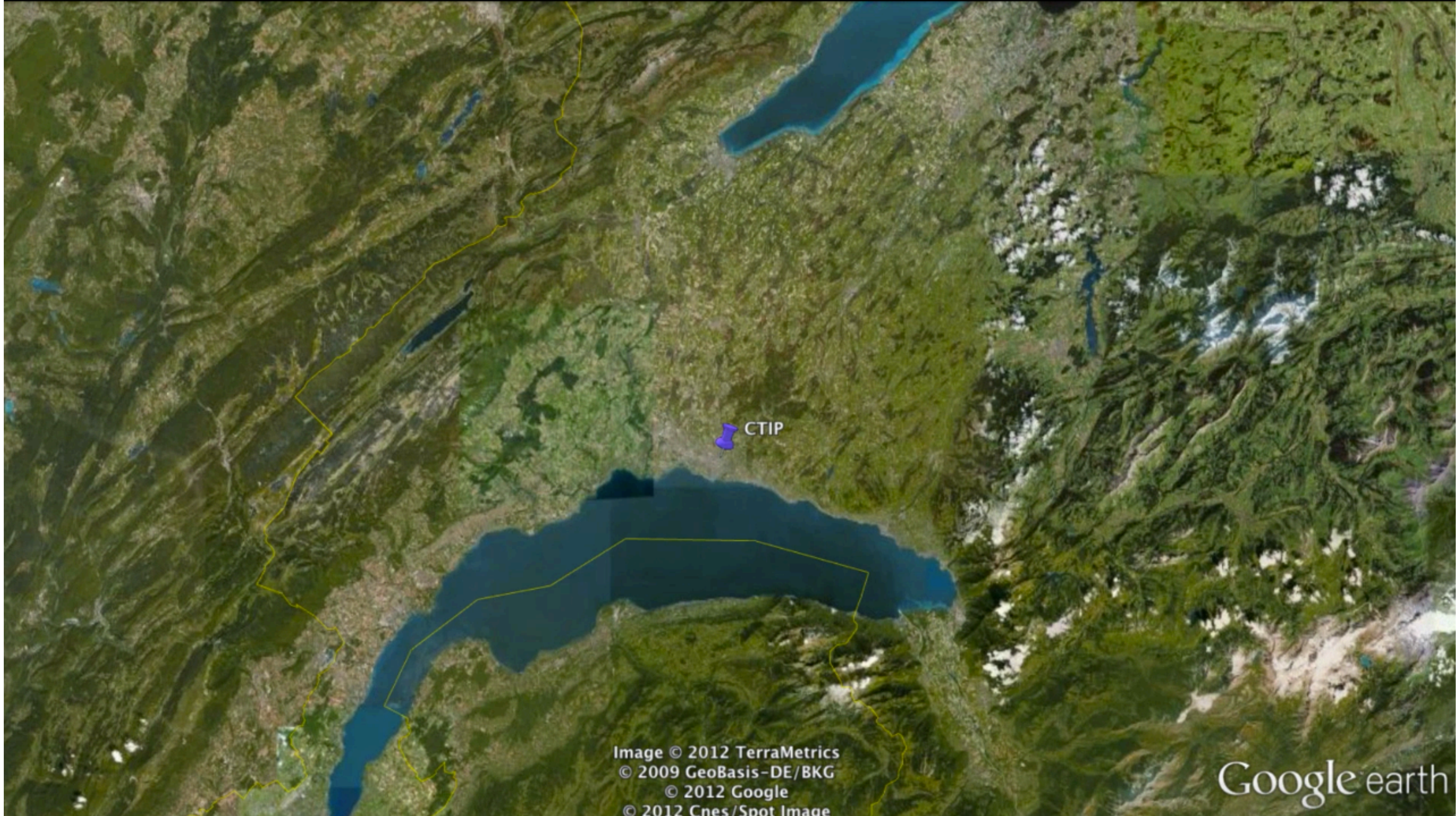


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© 2012 Google  
© 2012 Cnes/Spot Image

Google earth



# Why FileWave?

- Canton requires one provider
- Close relationship with Vendor
- Reliability & Scalability





# Campus: Ollon

- 200 Macs
- 4 routers & boosters
- Geographically dispersed







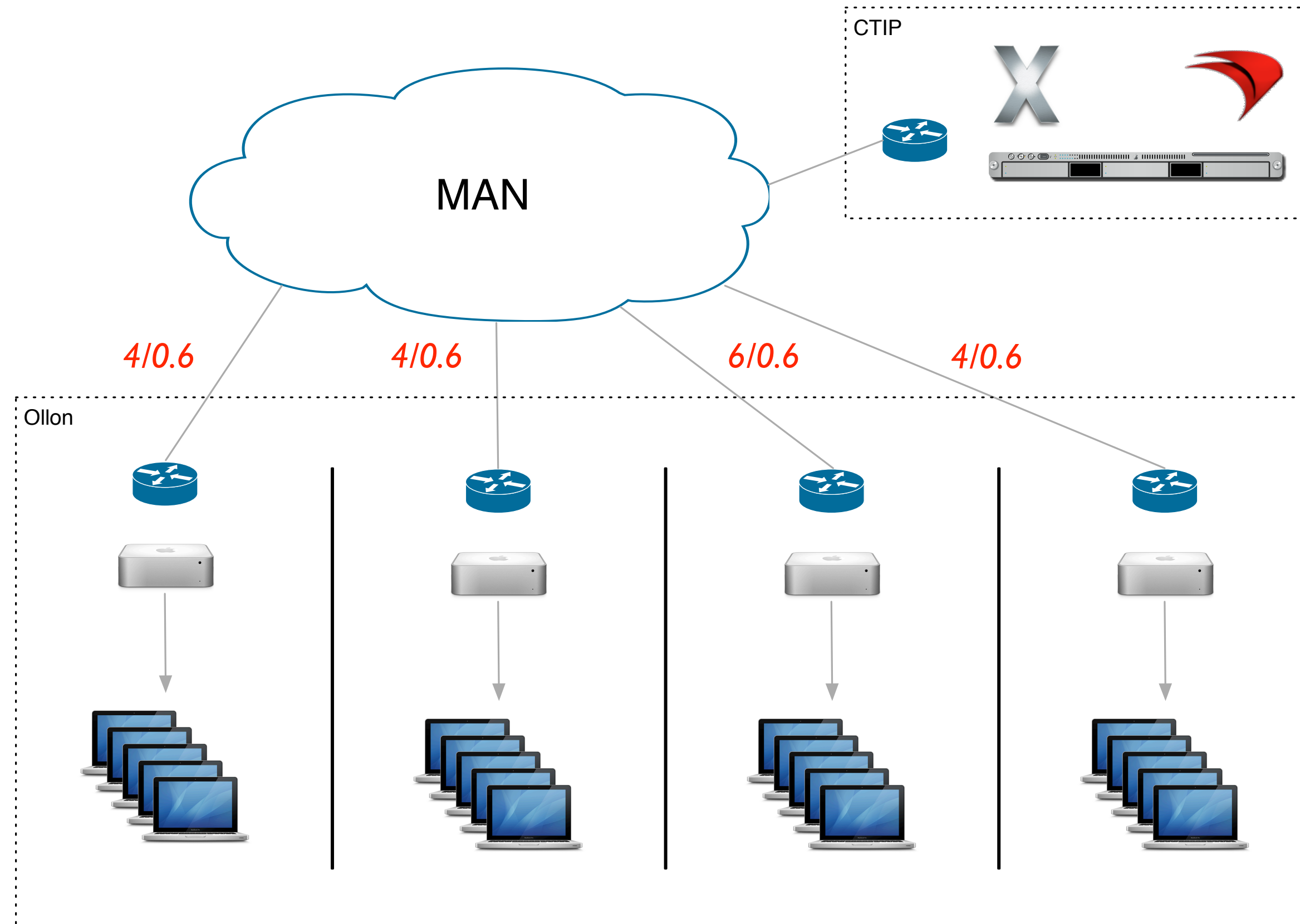
CTIP

Image © 2012 GeoEye

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Image © 2012 DigitalGlobe

Google earth







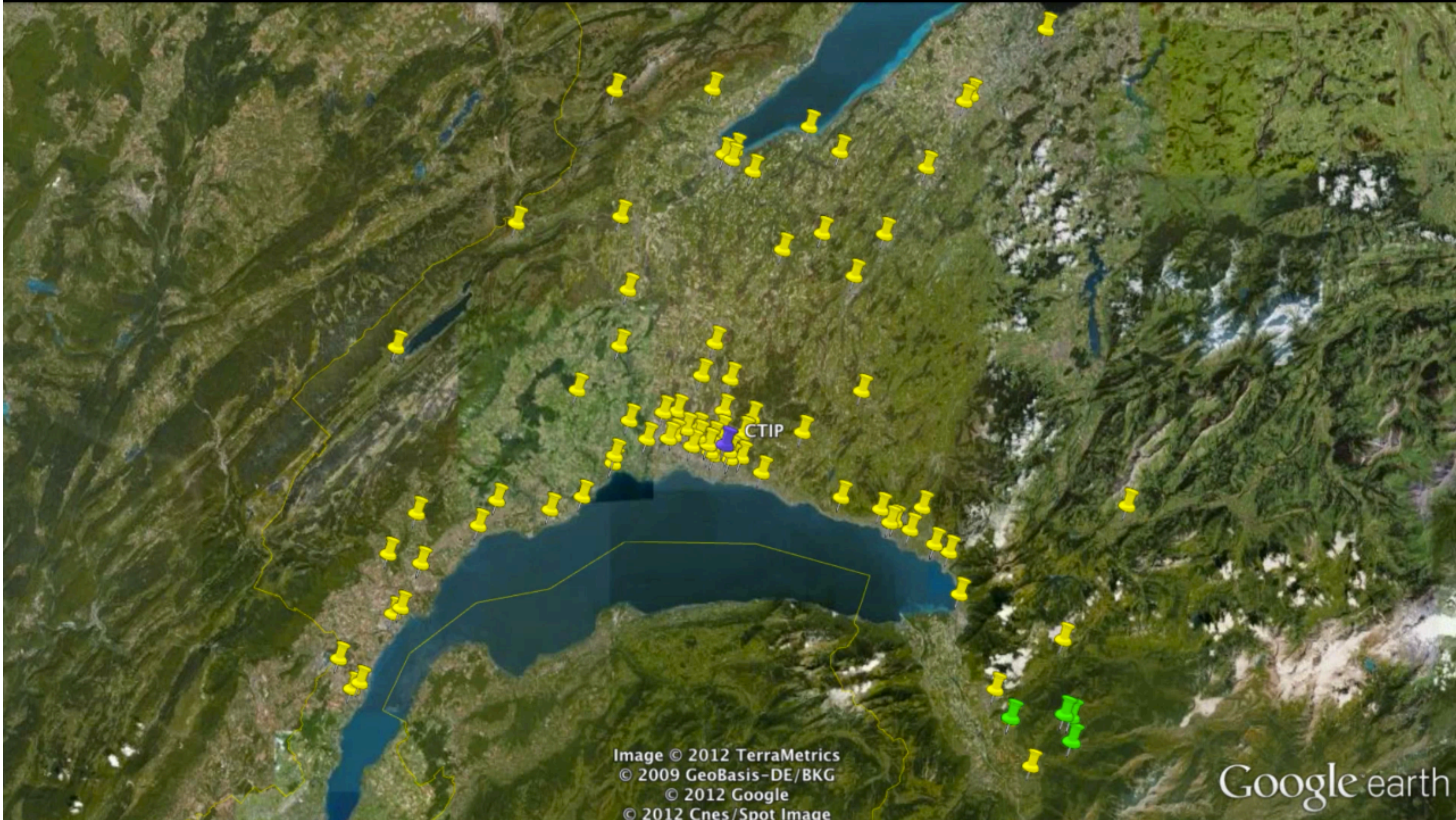


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Google earth



# Sometimes size matters (#1)

- 15,000 Macs (10.5 -> 10.8)
- > 600 Routers
- 1,000 Buildings
- > 100 Boosters
- One Telco. to bind them



# Sometimes size matters (#2)

- b/w incredibly variable (0.6 mbit - 50 mbit)
- 50 / 50 - WiFi & Cabled
- ~ 20 gig of data per computer
- ~ 200 apps





In one word:

“Tricky”

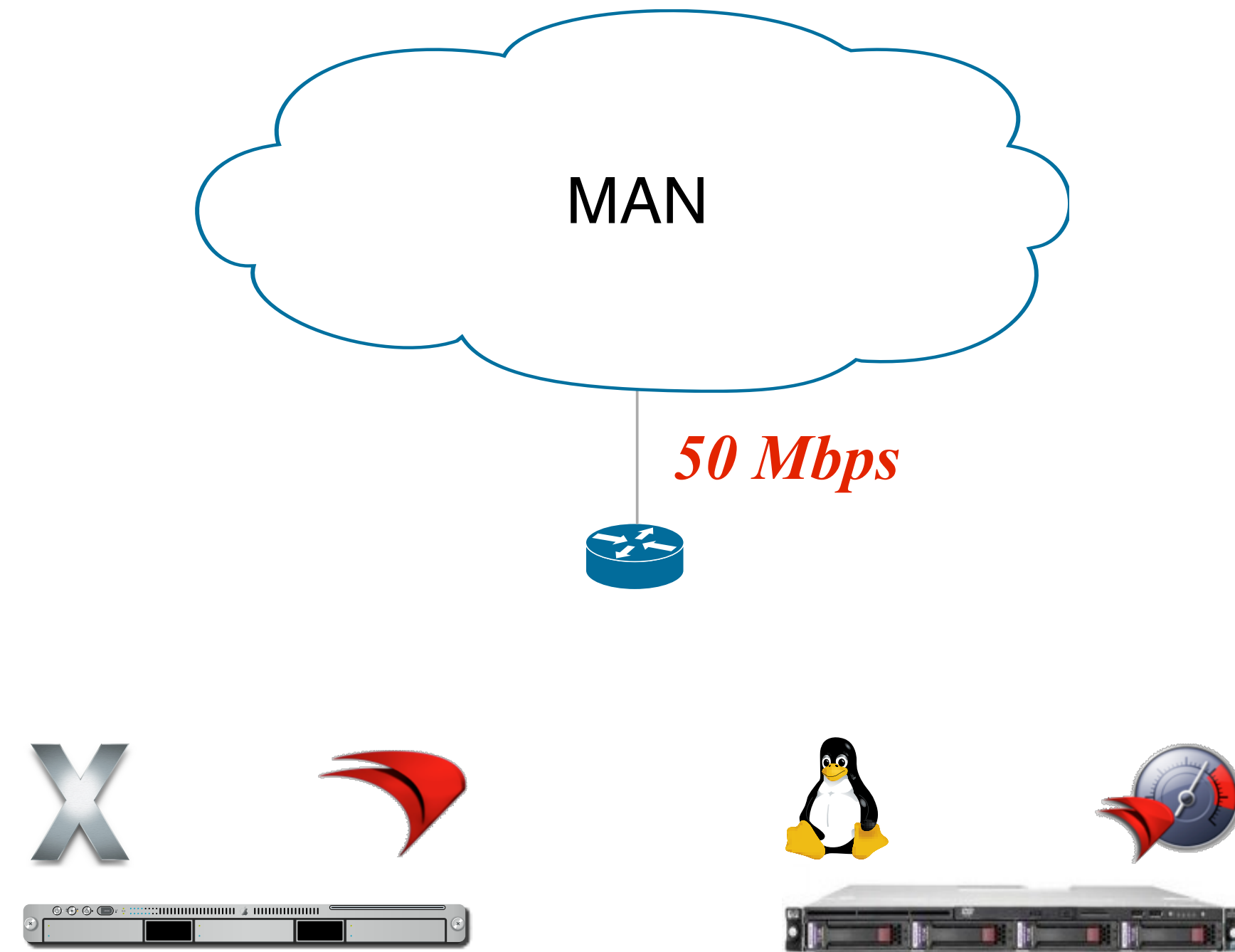




# But sometimes size does not matter







- One xServe  
Mac OS X 10.6.8
- One Booster  
CentOS 5.8
- b/w 50 Mbit symmetric



# Who runs it?

- 10 admins in total
- 3 of admins create filesets
- The rest add machines into groups





# Deploying an entire Canton

- PKG's to begin with (but had issues)
- Boosters + Filesets





Fileset Contents: iLife11 w-updates

Import File/Folder New Folder Get Info Edit Registry Edit Text Export Files Delete Release Control  Hide unused folders Search...

Name	Size	Access	User	Group	Verification	ID	Modification Date	Comment	Creation
Applications		rwxrwxr-x	root	admin		103			
Library		rwxrwxr-t	root	admin					
Application Support		rwxrwxr-x	root	admin					
GarageBand		rwxrwxr-x	root	admin					
iDVD		rwxrwxr-x	root	admin					
iLife		rwxrwxr-x	root	admin					
iLifeSlideshow		rwxrwxr-x	root	admin					
iPhoto		rwxrwxr-x	root	admin					
CachedThumbnails		rwxrwxr-x	root	admin					
iPhoto Library Upgrader.app		rwxrwxr-x	root	admin					
Contents		rwxrwxr-x	root	admin					
_CodeSignature		rwxrwxr-x	root	admin					
CodeResources	56 B	rw-r-xr-x	root	admin					6/19/12
Frameworks		rwxrwxr-x	root	admin					
Info.plist	1.9 kB	rw-rw-r--	root	admin					6/19/12
MacOS		rwxrwxr-x	root	admin					
PkgInfo	8 B	rw-rw-r--	root	admin					6/19/12
PlugIns		rwxrwxr-x	root	admin					
Resources		rwxrwxr-x	root	admin					
version.plist	462 B	rw-rw-r--	root	admin	Ignore At Verify (Left Behind)	3,089,295	9/8/10 7:30 PM		6/19/12
Themes		rwxrwxr-x	root	admin		2,624,352			
Themes.Common		rwxrwxr-x	root	admin		2,624,805			
Themes.db	22.7 MB	rw-rw-r--	root	admin	Ignore At Verify (Left Behind)	3,094,078	2/28/12 10:34 AM		6/19/12
Audio		rwxrwxr-x	root	wheel		2,630,300			
Documentation		rwxrwxr-x	root	wheel		2,631,937			
Frameworks		rwxrwxr-x	root	wheel		319,637			
iLifeFaceRecognition.framework		rwxrwxr-x	root	wheel		2,632,186			
CodeResources	48 B	rw-r-xr-x	root	wheel	Ignore At Verify (Left Behind)	3,095,744	9/17/10 1:14 PM		6/19/12
iLifeFaceRecognition	74 B	rw-r-xr-x	root	wheel	Ignore At Verify (Left Behind)	3,095,745	9/17/10 1:14 PM		6/19/12
Resources	52 B	rw-r-xr-x	root	wheel	Ignore At Verify (Left Behind)	3,095,746	6/19/12 2:18 PM		6/19/12
Versions		rwxrwxr-x	root	wheel		2,632,191			
A		rwxrwxr-x	root	wheel		2,632,192			
_CodeSignature		rwxrwxr-x	root	wheel		2,632,195			
CodeResources	1.8 kB	rw-r-xr-x	root	wheel	Ignore At Verify (Left Behind)	3,095,747	9/17/10 1:14 PM		6/19/12
CodeResources	56 B	rw-r-xr-x	root	wheel	Ignore At Verify (Left Behind)	3,095,748	9/17/10 1:14 PM		6/19/12

Editing Info.plist (ID 3089158)

**Info.plist**

```

<string>NSApplicationIcon</string>
<key>CFBundleIdentifier</key>
<string>com.apple.iPhotoLibraryUpgrader</string>
<key>CFBundleInfoDictionaryVersion</key>
<string>6.0</string>
<key>CFBundleName</key>
<string>iPhoto</string>
<key>CFBundlePackageType</key>
<string>APPL</string>
<key>CFBundleShortVersionString</key>
<string>8.1</string>

```

Line Endings:  Unix  Windows

Cancel Save



# Deploying an entire Canton

- PKG's to begin with (but had issues)
- Boosters + Filesets
- Filesets cheaper to deliver than PKG's
- Passive / active associations





# What else?

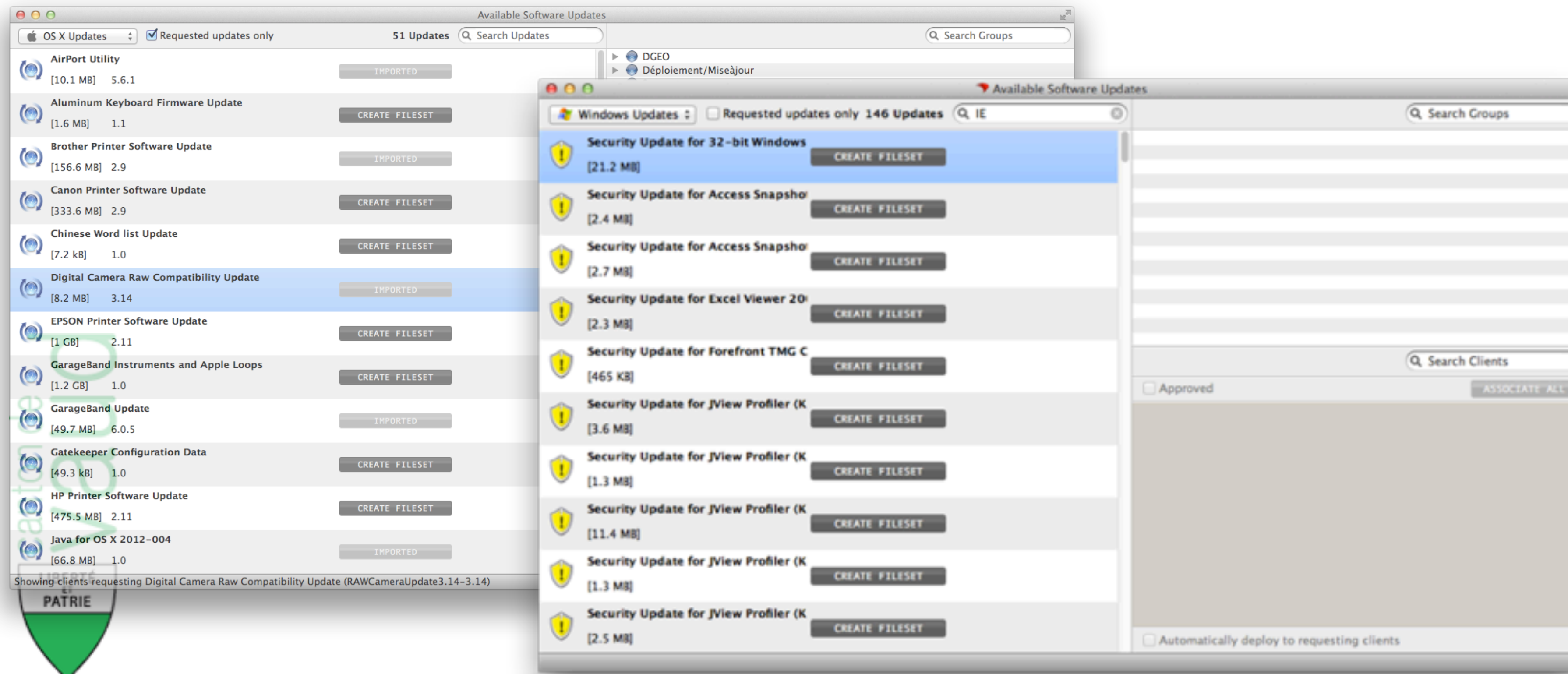
- Software Update





# Manage Software Updates

For both Mac and Windows



The screenshot displays two overlapping windows from the FileWave management console. The background window, titled 'Available Software Updates', shows a list of OS X updates for 51 clients. The foreground window, titled 'Available Software Updates', shows a list of Windows updates for 146 clients. Both windows include search bars and 'CREATE FILESET' buttons for each update item.

Update Name	Size	Version	Action
AirPort Utility	[10.1 MB]	5.6.1	IMPORTED
Aluminum Keyboard Firmware Update	[1.6 MB]	1.1	CREATE FILESET
Brother Printer Software Update	[156.6 MB]	2.9	IMPORTED
Canon Printer Software Update	[333.6 MB]	2.9	CREATE FILESET
Chinese Word list Update	[7.2 kB]	1.0	CREATE FILESET
Digital Camera Raw Compatibility Update	[8.2 MB]	3.14	IMPORTED
EPSON Printer Software Update	[1 GB]	2.11	CREATE FILESET
GarageBand Instruments and Apple Loops	[1.2 GB]	1.0	CREATE FILESET
GarageBand Update	[49.7 MB]	6.0.5	IMPORTED
Gatekeeper Configuration Data	[49.3 kB]	1.0	CREATE FILESET
HP Printer Software Update	[475.5 MB]	2.11	CREATE FILESET
Java for OS X 2012-004	[66.8 MB]	1.0	IMPORTED

Update Name	Size	Action
Security Update for 32-bit Windows	[21.2 MB]	CREATE FILESET
Security Update for Access Snapshot	[2.4 MB]	CREATE FILESET
Security Update for Access Snapshot	[2.7 MB]	CREATE FILESET
Security Update for Excel Viewer 20	[2.3 MB]	CREATE FILESET
Security Update for Forefront TMG C	[465 KB]	CREATE FILESET
Security Update for JView Profiler (K	[3.6 MB]	CREATE FILESET
Security Update for JView Profiler (K	[1.3 MB]	CREATE FILESET
Security Update for JView Profiler (K	[11.4 MB]	CREATE FILESET
Security Update for JView Profiler (K	[1.3 MB]	CREATE FILESET
Security Update for JView Profiler (K	[2.5 MB]	CREATE FILESET





Available Software Updates

OS X Updates  Requested updates only 51 Updates Search Updates Search Groups

Update Name	Size	Version	Status
AirPort Utility	[10.1 MB]	3.0.1	IMPORTED
Aluminum Keyboard Firmware Update	[1.6 MB]	1.1	CREATE FILESET
Brother Printer Software Update	[156.6 MB]	2.9	IMPORTED
Canon Printer Software Update	[333.6 MB]	2.9	CREATE FILESET
Chinese Word list Update	[7.2 kB]	1.0	CREATE FILESET
Digital Camera Raw Compatibility Update	[8.2 MB]	3.14	IMPORTED
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Search Groups

- DGEO
- Déploiement/Miseàjour
- Support
- Infrastructure
  - Apple\_SoftwareUpdate

2 Clients Search Clients

Approved ASSOCIATE ALL

dm004504	ASSOCIATE
dm006308	ASSOCIATE

Automatically deploy to requesting clients

Showing clients requesting Digital Camera Raw Compatibility Update (RAWCameraUpdate3.14-3.14)

# What else?

- Software Update
- App Kiosk (in-house App Store)















# Self Service Portal / Kiosk

For both Mac and Windows



EDU-VD Store

All Items Search by Name...

All (146)	 <b>MacTracker 6.4</b> Utilitaires	Installed	UNINSTALL
▼ Educatif (19)	 <b>Minuteur 4.7.2.066</b> Utilitaires	Installed	UNINSTALL
Espace (4)	 <b>Cyberduck 4.2.1</b> Utilitaires	Not Installed	INSTALL
Dessin (2)	 <b>Carbon Copy Cloner 3.4.5</b> Utilitaires	Not Installed	INSTALL
<b>Utilitaires (10)</b>	 <b>SimplyBurns 4.28</b> Utilitaires	Installed	UNINSTALL
Multimedia (8)	 <b>coconutIdentityCard 3.0</b> Utilitaires	Not Installed	INSTALL
Bureautique (2)	 <b>SnapNDrag 2.6.5</b> Utilitaires	Installed	UNINSTALL
Internet (2)	 <b>Stuffit_Expander 15.0.4</b> Utilitaires	Installed	UNINSTALL
	 <b>coconutBattery 2.7.3</b> Utilitaires	Not Installed	INSTALL
	 <b>XMind 3.2.1</b> Utilitaires	Not Installed	INSTALL

FileWave International Holding AG © 2012 10 Items



# What else?

- Software Update
- App Kiosk (in-house App Store)
- Imaging...



# FileWave Lightning

- Creates “never booted” images
- For 10.7 and 10.8
- Include any PKG in the image
- via Thunderbolt in 40 seconds
- via FireWire in... well... longer.







Lightning Image Library

Original Installation Media

Lightning Image Library  
Mac OS X 10.8 (12A239)  
/Users/lion/Desktop/Install OS X Mountain Lion.app

- iWork 09.pkg  
/Users/lion/Desktop/iWork 09.pkg
- Skype.pkg  
/Users/lion/Desktop/Skype.pkg
- Remote Desktop.pkg  
/Users/lion/Desktop/Remote Desktop.pkg
- Team Viewer.pkg  
/Users/lion/Desktop/Team Viewer.pkg
- FileWave Client.pkg  
/Users/lion/Desktop/FileWave Client.pkg

User Options

Disable welcome screen

Username: admin

Password: .....

Confirm password: .....

Close Create Imageset

Lightning Image Library

Choose a volume to burn:

Macintosh HD

Detect volumes continuously  
 Exclude Internal Volumes  
 Auto-restore each connected volume

Restore Cancel

Import Create Deploy Delete



<http://filewave.com/lightning>

**Get it for FREE**



# iOS / BYOD

## The Future

- BYOD is the future.
- We need to be ready for it.
- Huge scope...





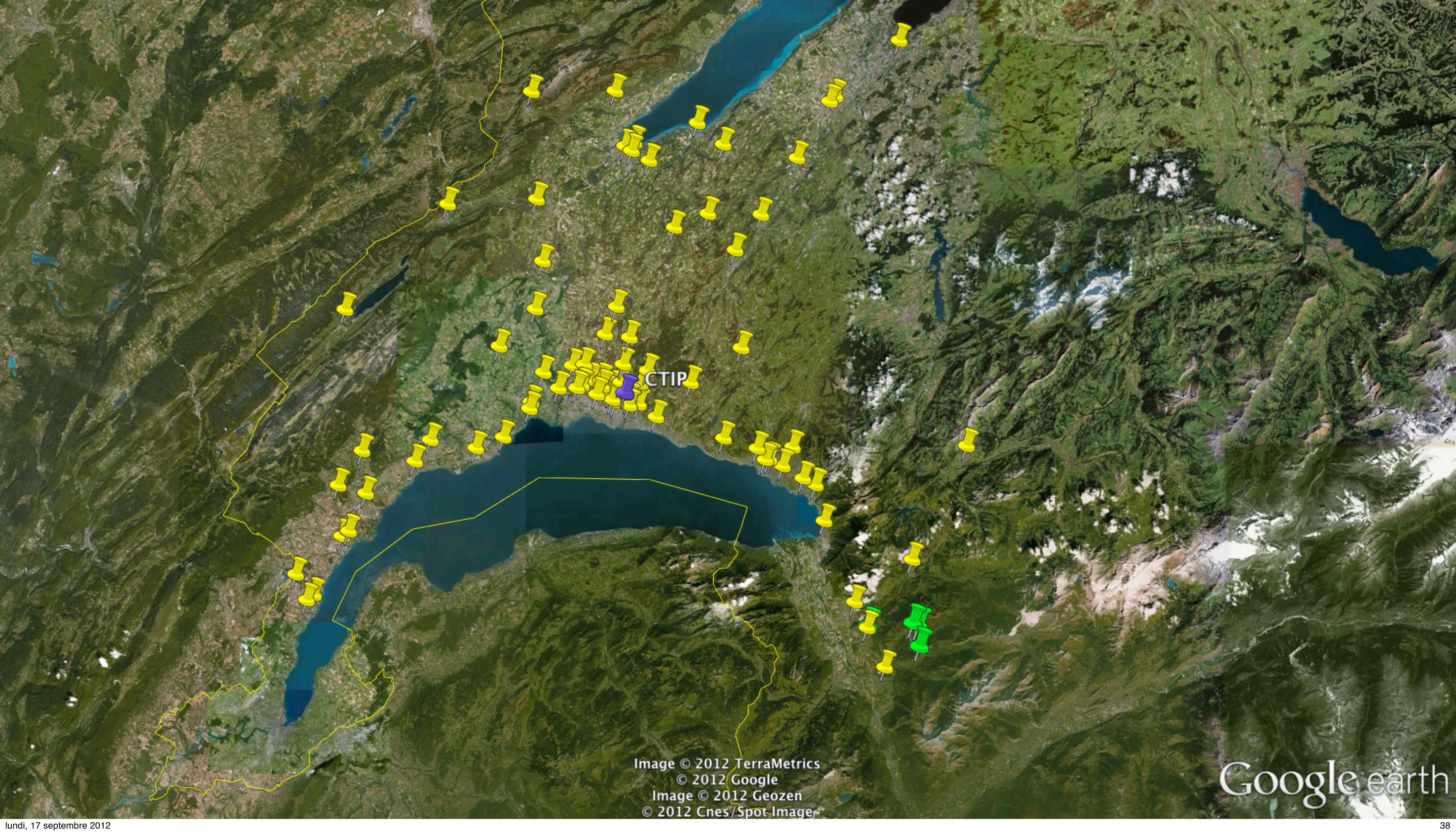


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© 2012 Google  
Image © 2012 Geozen  
© 2012 Cnes/Spot Image

Google earth



# iOS / BYOD

## The Goal

- Provide services to pupils and teachers - huge potential!
- Start by running pilot project in Genolier





# iOS / BYOD

## The Pilot: Genolier



- Using a strong and reliable wireless network.
- Working on building our own Cantonal app catalog.
- Testing rollout / management (profiles).



# iOS / BYOD

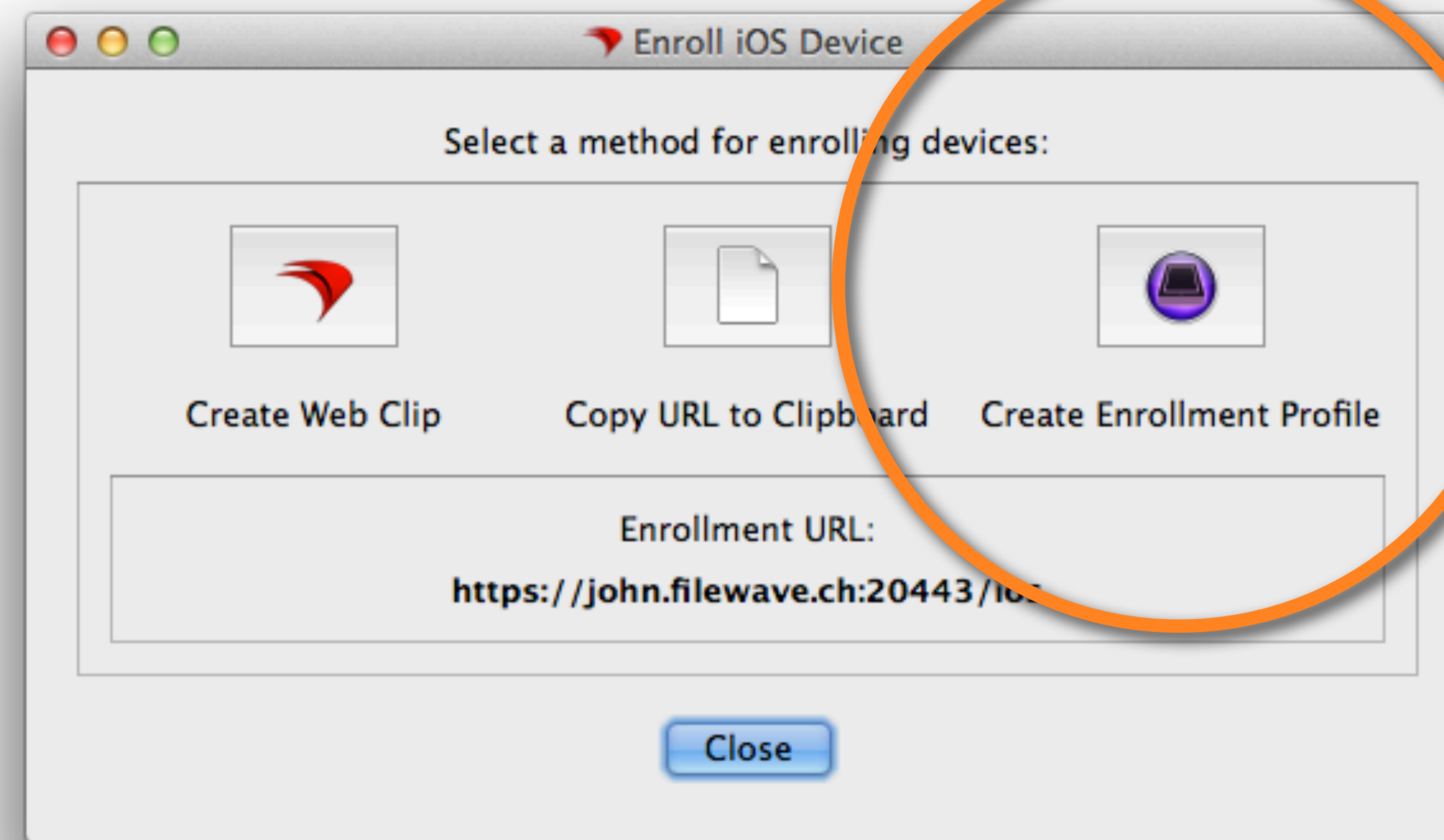
There are some questions:

- How to enroll the devices?
- MDM profile can be removed?
- Distribution of paid apps isn't "enterprise" ready, requires Apple ID.
- VPP in Switzerland?

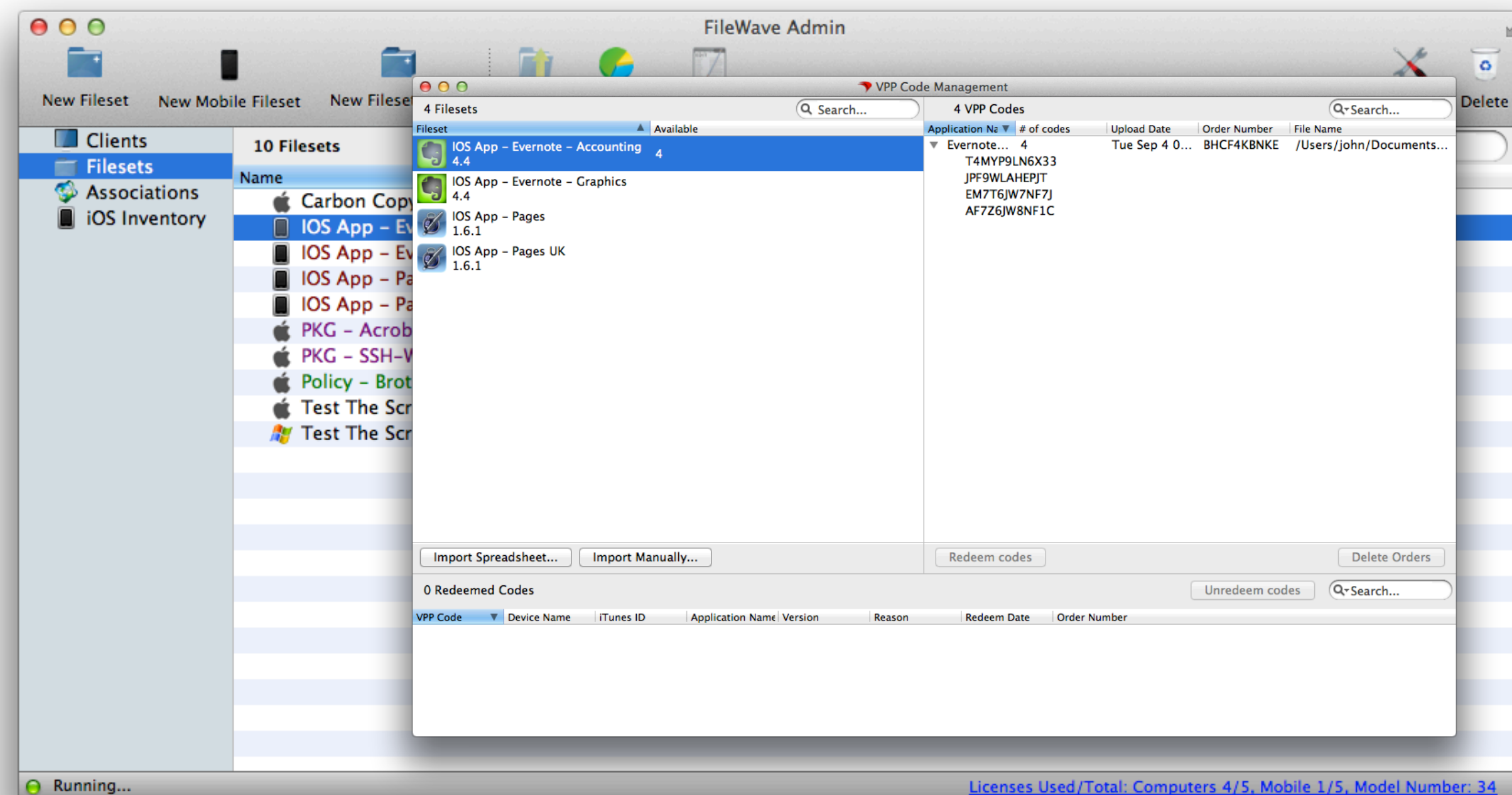




# Enrollment



# VPP in FileWave





VPP Code Management

4 Filesets

Fileset Available

- IOS App – Evernote – Accounting 4.4 4
- IOS App – Evernote – Graphics 4.4
- IOS App – Pages 1.6.1
- IOS App – Pages UK 1.6.1

4 VPP Codes

Application Na	# of codes	Upload Date	Order Number	File Name
Evernote...	4	Tue Sep 4 0...	BHCF4KBNKE	/Users/john/Documents...
T4MYP9LN6X33				
JPF9WLAHEPJT				
EM7T6JW7NF7J				
AF7Z6JW8NF1C				

Import Spreadsheet...
Import Manually...
Redeem codes
Delete Orders

0 Redeemed Codes

Unredeem codes

VPP Code	Device Name	iTunes ID	Application Name	Version	Reason	Redeem Date	Order Number

VPP Code Management

4 Filesets Search...

Fileset	Available
IOS App – Evernote – Graphics 4.4	2
IOS App – Evernote – Accounting 4.4	2
IOS App – Pages UK 1.6.1	
IOS App – Pages 1.6.1	

2 VPP Codes Search...

Application Na	# of codes	Upload Date	Order Number	File Name
Evernote...	2	Tue Sep 4 0...	BHCF4KBNKE	/Users/john/Documents...
			T4MYP9LN6X33	
			AF7Z6JW8NF1C	

0 Redeemed Codes Unredeem codes Search...

VPP Code	Device Name	iTunes ID	Application Name	Version	Reason	Redeem Date	Order Number



# iOS / BYOD

## Summary



- Enrollment & enterprise questions...
- Pilot has the potential to scale to 100,000 devices.
- FileWave & Canton Vaud working actively together.

The logo graphic consists of three overlapping, curved white shapes that resemble stylized waves or a shield, positioned to the right of the main text.

**filewave**<sup>TM</sup>

*Take control of your software*

**Q & A session**



A microscopic image showing a cross-section of a biological specimen. The upper portion is a white, textured layer with a regular, grid-like pattern of small, rounded protrusions. Below this is a yellow, bubbly layer with numerous small, spherical structures. The overall appearance is that of a cross-section of a plant or animal tissue, possibly showing a specific type of cell wall or membrane structure.

# Ritz, Bastionsplatsen 2