



The December meeting of Keystone MacCentral will be held on December 15 at Bethany Village Retirement Center. Our meeting will feature a video about iOS 9.

It's also time for socializing with food and drink. KeyMac will provide sodas and we ask members to bring in something good to eat. Tom Bank volunteered to bring chili.



Meet us at Bethany Village Retirement Center Education Room 5225 Wilson Lane, Mechanicsburg, PA 17055

Tuesday, December 15 2015 6:30 p.m.

Attendance is free and open to all interested persons.

Contents

Christmas Get-Together	
Keystone MacCentral Minutes by Gary Brandt 3	6
How to Revive The Levelator in El Capitan by Adam C. Engst 4	ŀ
Turn Live Photos into GIFs for Wider Sharing	
by Julio Ojeda-Zapata	/
Turn on Wi-Fi Calling in iOS 9 by Glenn Fleishman)
Rumors and Reality by Tim Sullivan)
Software Review)

Keystone MacCentral is a not-for-profit group of Macintosh enthusiasts who generally meet the third Tuesday of every month to exchange information, participate in question-and-answer sessions, view product demonstrations, and obtain resource materials that will help them get the most out of their computer systems. Meetings are free and open to the public. The *Keystone MacCentral printout* is the official newsletter of Keystone MacCentral and an independent publication not affiliated or otherwise associated with or sponsored or sanctioned by any for-profit organization, including Apple Inc. Copyright © 2015, Keystone MacCentral, 310 Somerset Drive, Shiresmanstown, PA 17011.

Nonprofit user groups may reproduce articles form the Printout only if the copyright notice is included, the articles have not been edited, are clearly attributed to the original author and to the Keystone MacCentral Printout, and a copy of the publication is mailed to the editor of this newsletter.

The opinions, statements, positions, and views stated herein are those of the author(s) or publisher and are not intended to be the opinions, statements, positions, or views of Apple, Inc.

Throughout this publication, trademarked names are used. Rather than include a trademark symbol in every occurrence of a trademarked name, we are using the trademarked names only for editorial purposes and to the benefit of the trademark owner with no intent of trademark infringement.

Board of Directors

President Linda J Cober

Vice President Tom Owad

> Recorder Gary Brandt

Treasurer Tim Sullivan

Program Director Gary Brandt

Membership Chair Eric Adams

Correspondence Secretary Sandra Cober

> Newsletter Editor Tim Sullivan

Industry Liaison Wendy Adams

> Web Master Tom Bank II



Keystone MacCentral Essentials

Meeting Place Bethany Village West Maplewood Assisted Living (Bld 21) 5225 Wilson Lane Mechanicsburg, PA 17055

Web Site http://www.keystonemac.com

Mailing Address

310 Somerset Drive Shiresmanstown, PA 17011

Keystone MacCentral Minutes November 17, 2015

Business Meeting

Eric Adams presided over the November meeting. He announced that we would again be having a holiday party at our December meeting. Members were asked to bring in something to eat. The club will provide sodas, plates, napkins, and utensils. Thomas Bank II will be making a batch of chili.

Eric told members of the problem we had with the battery in the club's MacBook. We have removed it because it was overheating and warping the case. In addition, it sometimes runs slowly with newer operating systems. Jim Carey mentioned that we may also need to buy several adapters if we would decide to buy a new laptop. The board had discussed at its November meeting a suitable amount that they thought would be enough to buy what we needed. Charles Palenz made a motion to approve the expenditure of up to \$1200 for a new laptop and adapters. Wendy Adams seconded and the motion was passed by a voice vote of members present.

Q&A & Comments

Those contemplating upgrading to El Capitan may need to update drivers for their external drives. Dennis McMahon reported that a friend of his lost networking access to an external drive after upgrading to El Capitan. Dennis suggested loading El Capitan onto an external drive to test it out before installing it on the internal hard drive of your Mac.

Eric Adams reported an issue where he could not delete an unwanted file from the Trash. He keeps getting a message that the file was in use. We offered our suggestions to him for working around this problem.

Linda Cober joined us via Skype to view the November program.

Program Notes

Dennis McMahon began the November program by talking about Microsoft Office 365, which is a subscription model of the program. The personal version is available for \$7 per month or \$70 per year. Office 365 Home allows for up to five users of PCS, Macs, and portable devices for \$10 per month or \$100 per year. As part of MS Office 365, you have the right to download Office for Mac 2011 (for Mavericks or older) or Office 2016 for later operating systems. Office 365 includes Outlook and each user gets a 1 TB OneDrive account for one year. Dennis said there is not much new in Office 2016 that was not in Office 2011. Don Fortnum asked about discontinuing an Office 365 subscription and what that would do to his ability to access his older files. Dennis mentioned OpenOffice and LibreOffice as free options that would read most older Microsoft Office files.

The second part of Dennis' presentation was on creating bootsticks. You can buy 8 GB USB sticks for as low as \$5 and use them to hold an OS installer file as well as some disk utility programs. Dennis also said that some SD cards can act as boot devices. Dennis used Disk Maker X to make bootsticks in the past. He reported it may not yet be updated to work with El Capitan.

He recommended using Terminal to create El Capitan bootsticks. You can go online to find the commands you can cut and paste into Terminal to accomplish this. The Install OS El Capitan file you downloaded from Apple should be put into the Applications folder before you install it on your hard drive. The USB stick you are going to install to must be called Untitled. The process should take about ten minutes.

Dennis recommended creating a bootstick for Mavericks or Yosemite so you have the older version of Disk Utility that has options that the newest version does not have.

Jim Carey continued the November program by bringing in his iPhone 6s Plus. Apple Maps and iOS 9 combine for a better user experience. You can get spoken directions from the iPhone. The camera in Jim's iPhone has image stabilization. Jim demonstrated how well it works by showing us a handheld video he had taken with his iPhone. Even panning works quite well. Jim talked about Live Photos, an option that can be turned off. Live Photos saves frames from before and after a photo is taken.

Jim demonstrated the quality of photos that could be taken, even in our darkened meeting room. He also used the new 3D Touch Sensor to navigate in Mail.

How to Revive The Levelator in El Capitan

Many people who record podcasts use a free tool called **The Levelator** to ensure that audio files use a consistent loudness, something that can be tricky to achieve otherwise with multiple people in the same podcast, and between podcast episodes. Because of this capability, The Levelator is part of our process for recording TidBITS articles for those who would rather listen than read (see "PodBOT Improves TidBITS Audio," 7 May 2012). Unfortunately, as of the end of 2012, The Levelator is no longer being maintained, and worse, it displays an error when used in OS X 10.11 El Capitan. That in turn confuses PodBOT, throwing a serious wrench into our audio automation.



The Conversations Network Levelator

Level reports: dyld: Library not loaded: @executable_path/../ Frameworks/libsndfile.1.dylib Referenced from: /Applications/Levelator.app/Contents/ Resources/osx/./level Reason: image not found



We had thought The Levelator was just dead, and were trying to figure out how we'd maintain a Mac running 10.10 Yosemite to facilitate processing our audio, when I stumbled across a **comment in a Mac Forums discussion** that pointed to the solution. So if you want to use The Levelator in El Capitan, follow these steps:

• Control-click on the Levelator icon in the Applications folder, and choose Show Package Contents.

• Within the Levelator package, open the Contents folder, then Resources, and finally osx. You should see a file called libsndfile.1.dylib. If a full path would be helpful, it's Contents/Resources/osx/libsndfile.1.dylib.

•	•		Levelator			
Name ^			Date Modified	Size	Kind	
v 📄	Cont	lents	Feb 8, 2010, 10:53 AM		Folder	
►	E F	rameworks	Feb 8, 2010, 10:54 AM		Folder	
	1	nfo.plist	Feb 8, 2010, 10:53 AM	3 KB	BBEdit text document	
►		MacOS	Feb 8, 2010, 10:54 AM		Folder	
	DF	PkgInfo	Feb 8, 2010, 10:53 AM	8 bytes	TextEdit Document	
v	- F	Resources	Feb 8, 2010, 10:53 AM		Folder	
	6	bootpy	Feb 8, 2010, 10:53 AM	4 KB	BBEdit text document	
	6	errorsh	Oct 17, 2009, 12:43 PM	44ytes	BBEdit text document	
		cn.icns	Feb 8, 2010, 10:53 AM	49 KB	Apple icon image	
	► .	images .	Feb 8, 2010, 10:53 AM		Folder	
	*	include	Feb 8, 2010, 10:53 AM		Folder	
	► [lib	Feb 8, 2010, 10:53 AM		Folder	
	6	main.py	Dec 14, 2009, 4:13 PM	52ytes	BBEdit text document	
	v	osx	Feb 8, 2010, 10:54 AM		Folder	
		ez_setup.py	Feb 8, 2010, 10:53 AM	8 KB	BBEdit text document	
		installer-background.jpg	Feb 8, 2010, 10:53 AM	12 KB	JPEG image	
		level 1	Feb 8, 2010, 10:54 AM	5.5 MB	Unix executable	
		💙 libsndfile.1.dylib	Feb 8, 2010, 10:53 AM	822 KB	Dynamic Library	
		🔮 setup.py	Feb 8, 2010, 10:53 AM	2 KB	BBEdit text document	
	8	site.py	Oct 17, 2009, 12:43 PM	4 KB	BBEdit text document	
		site.pyc	Oct 17, 2009, 12:43 PM	3 KB	Document	
	1	e version.txt	Feb 8, 2010, 10:53 AM	2 KB	BBEdit text document	

• Finder window, choose Go > Go to Folder (Command-Shift-G), type /usr/local into the dialog that appears, and press Return. The window should display the contents of that otherwise hidden folder, and it's entirely likely there won't be anything there.

• If there is a lib folder inside /usr/local, open it. Otherwise, choose File > New Folder (Command-Shift-N) to make a new folder, and name it lib exactly. You'll need to enter an administrator password to create a folder there.

• Press the Option key, and drag libsndfile.1.dylib from the first Finder window into the second Finder window, which should be showing the path /usr/local/lib, to make a copy. Again, enter an administrator password when prompted.

• Restart your Mac.

That's it — once your Mac comes back up, you should be able to continue using The Levelator as before. $\mathbf{\vec{v}}$

by Julio Ojeda-Zapata

Turn Live Photos into GIFs for Wider Sharing

Live Photos, one of the new features built into the iPhone 6s and iPhone 6s Plus, can be a hoot and a half.

With the feature enabled in the Camera app, every snapped photo is accompanied by a 3-second video. Pressing down

on the photo using 3D Touch plays the companion movie clip, making it look like the still image has magically come to life, Harry Potter-like.

You can share Live Photos, as well, though so far only in a few ways. Live Photos retain their interactivity if shared

via the Messages app, by AirDrop, or as part of a Shared Photo Album. Emailing them, tweeting them, or sending them via Facebook Messenger, however, will not work (recipients see only still imagery).

What's more, even for the sharing methods that do work, recipients must be on an iPhone or an iPad running iOS 9 or later, or on a Mac running OS X 10.11 El Capitan. Live Photos will work on the Apple Watch, too, and can be used as animated watch faces.

To get around these limitations, you need to convert Live Photos. That's where Apple's newfangled format meets an ancient but still-thriving format, the animated GIF. Turn your Live Photos into animated GIFs, and you can share them with a much wider audience, though not without some difficulty at times.

There are a number of ways to accomplish this. One roundabout method is importing Live Photos into your Mac's Image Capture app, where you can harvest a Live Photo's bundled .mov file and use a utility like **GIF Brewery** or **Gifrocket** to create an animated GIF.

					Image Capture					
DEVICES		Sugar and the second	Name	Kind	Date v	File Size	Width	Height	Location	Aperture
Phone 6 Pi	lus									
BAAKO	0	100	IM0_3098	JPG	Oct 26, 2015, 1:12:58 PM	1.6 MB	4,032	3,024	44*56*49.351*N 93*8*43.501*W	\$/2.2
			IMG_3098	MOV	Oct 26, 2015, 1:12:58 PM	2.8 MB				
			IMG_3097	MOV	Oct 26, 2015, 1:12:57 PM	2.9 MB				
			IMG_3097	JPG	Oct 26, 2015, 1:12:57 PM	1.6 MB	4,032	3,024	44° 56° 49 351° N 93° 8° 43 501° W	1/2.2
			IMG_3096	JPG	Oct 26, 2015, 1:12:52 PM	1.4 MB	4,032	3,024	44° 56° 49.351° N 93° 8° 43.501° W	1/2.2
			IMG_3096	MOV	Oct 26, 2015, 1:12:52 PM	2.9 MB				
			IM0_3095	MOV	Oct 26, 2015, 1:12:50 PM	3.2 MB				
			IMG_3095	JPG	Oct 26, 2015, 1:12:50 PM	1.5 MB	4,032	3,024	44° 56' 49.351' N 93° 8' 43.501' W	1/2.2
		5 O Import To	Pictures		8				Import	Import All
		= =:			1 of 1,606 selected					

GIFs on the iPhone – A quicker, more convenient option involves using iOS apps. The \$1.99 Live GIF is one such app, but for this article I'll focus on the more flexible Lively, which also happens to be free.

Lively is simple to use. Open it, and it shows you the Live Photos stored on your iPhone (with the option to Peek and Pop using 3D Touch). It has two export options: movie and GIF.

The movie option is self-explanatory. The GIF option is more interesting because it gives you several options for tweaking a Live Photo before exporting it.



You can slow the GIF down or speed it up. You can make the clip play backward, or play forward and loop back again. There are two file-size options, since Twitter and some other services choke on GIFs that are too big.

Let's look at one clip, consisting of three Mexican musicians at my favorite St. Paul burrito joint. The dude on the left is strumming an accordion as he turns his head to look at me.

The clip struck me as plodding at its normal speed so I cranked it to 1.5.

I then flipped an auto-reverse toggle for a **looping effect**.

It now appears the accordion player is turning his head to look in my direction, nodding somewhat haughtily in greeting, and then looking away as if to curtly dismiss me. Neat.

Sharing GIFs with Lively isn't as easy as making them, alas. You have lots of share sheet options, yes, but there are complications.

Sharing with Apple's Messages app and Facebook Messenger works fine, but Facebook rejects my GIFs. A workaround is to transfer the GIF to the Mac, upload the GIF to the Giphy service, and then share the generated URL on Facebook.

Apple said Facebook will support Live Photos at some point, but when and how this will happen is unclear.

Sharing to Twitter from Lively doesn't work via the share sheet, so you must instead save the GIF to the photo roll, and then post it via a Twitter app like **Tweetbot**, **Twitterific**, or **Twitter's official app**.

I ran into one hiccup: my forward-and-backward-looping GIF was too big, so I turned off Lively's auto-reverse toggle, and re-exported as a shorter GIF that was small enough to tweet.

Sharing to Google+ works fine, but Instagram sharing didn't seem to work at all. Instagram also rejected my

Lively generated animated GIFs as too short. Huh? As with Facebook, though, you can share indirectly by Giphy.

More Loop-Making Tools – Once you've got the loop-making bug, don't limit yourself to the Live Photos route.

Instagram has released **Boomerang**, an image-capture app that records 1-second videos. This doesn't sound like a lot, but it can be plenty to immortalize some of life's kooky moments. Clips play forward and backward in a loop, too, which achieves the same effect as the Lively auto-reverse toggle.



Once created, Boomerang videos can be saved to Instagram and Facebook (along with secondary options via the Share Sheet).

Giphy Cam is another option. It's a GIF-making camera app with options to festoon your creations with filters and all manner of animated stickers. You can share by email, Messages, Facebook Messenger, Twitter, and Instagram – though Instagram appeared to upload only a static image.



Another way to create animated GIFs is with photo bursts, which have traditionally been the raw material for such moving images. iOS's stock Camera app has a burst mode that you activate by pressing and holding the shutter to fire off a rapid succession of photos.

Once you have captured such a burst, upload it in its entirety to the **Google Photos** service using one of Google's **companion apps**.

Magic then ensues. Google Photos automatically converts the burst into an animated GIF, though results are sometimes sloppy and unpredictable. If that's too messy for your inner neat freak, another option gives you more control.

In the Google Photos app, search for burst sequences and tap to check off a series of consecutive images. Google limits you to 50 shots per project. Then tap the + button and pick "animation."



In seconds, you'll have an animated GIF you can then export to social networks or messaging services like Facebook Messenger.



Experiment with GIF durations. If you use all 50 of the allotted images, you will likely end up with a GIF too large for Twitter.

Get Your GIF On – The animated GIF has been around for decades but has recently skyrocketed in popularity, largely as a social media plaything.

Now Live Photos users can get in on the fun. Instead of sharing animated shots only within Apple's walled garden, you can transform them into animated GIFs, and make them viewable by just about anyone.

That's where apps like Lively, Boomerang, Giphy Cam and Google Photos come in – with many more likely to come.

by Glenn Fleishman

Turn on Wi-Fi Calling in iOS 9

Making phone calls over Wi-Fi isn't anything new — except to many iPhone users. Several years ago, T-Mobile pioneered a hybrid Wi-Fi/ cellular calling option in a push to supplement its relatively small cellular network footprint. With home routers that optimized voice calls and special handsets, T-Mobile subscribers could shift usage of what were then expensive cellphone minutes to unlimited Wi-Fi calling.

Over the years, more carriers came on board, but Apple didn't add support for making calls over Wi-Fi on an iPhone until iOS 8, and initially only for T-Mobile. Sprint flipped its switches later in iOS 8's release cycle, and AT&T enabled it only after iOS 9 was released. **Verizon just filed paperwork** to offer the feature as well. (AT&T claims T-Mobile and Sprint violate the law by offering Wi-Fi Calling without providing adequate support for accessibility services.)

Again, this isn't new to people who have had used it for years. But for the vast number of iPhone users who have experienced only AT&T's and Verizon's networks, the details are worth understanding.

While the iPhone 6, 6 Plus, 6s, and 6s Plus are supported by all three network operators that allow Wi-Fi Calling, check with your carrier about minimum iOS version and older iPhones.

Unified Phone Calling via any Network – Wi-Fi Calling is a particular sub-class of Voice over IP (VoIP) and Internet telephony. While services like Vonage offered a "real" (public switched telephone network or PSTN) phone number starting many years ago, and Skype and other mobile apps enabled voice connections that are phone calls for all intents and purposes for the last few years, Wi-Fi Calling ties directly into the existing cellular telephone infrastructure. (This is true in both iOS and other mobile platforms, including Android.)

The idea is that instead of having separate phone numbers and apps and choosing from which to originate calls, your iPhone handles all incoming and outgoing calls for a single number through its Phone app and related settings. With some cellular carriers, Wi-Fi Calling can relay from other devices so you can even place calls from a Wi-Fi-only iPad or iPod touch. You don't need to know whether a particular call is using Wi-Fi Calling or the cellular network — it's seamless and should only give you better performance, not worse.

When T-Mobile introduced its flavor of Wi-Fi Calling way back in 2007, it was trying to leverage what was then a very slender spectrum profile. Years earlier, to compete with carriers that had higher-speed networks and more coverage, T-Mobile had partnered with Starbucks and other locations to put Wi-Fi access in thousands of spots.

T-Mobile also lacked sufficient spectrum licenses to provide a consistent experience in homes and offices. Wi-Fi Calling was a good bridge. With a then-special Wi-Fi router that prioritized voice data using the relatively slow 802.11g standard, T-Mobile could let people make and receive calls at home, at work, and at Wi-Fi hotspots. They also didn't count the calls against minutes used. (Carriers later started offering tiny cellular base stations — femtocells — that plugged into a Wi-Fi network and used licensed frequencies operated by the carriers, but that approach never caught fire because of the cost to consumers and poor quality.)

This goal continues to drive modern Wi-Fi Calling: carriers can't always provide a great calling experience inside a home or office, and with so many customers, it's guaranteed that a decent percentage will live and work outside strong coverage areas. My family once stayed in a house on Mount Desert Island in Maine that had no cell service at all but nonetheless boasted 8 Mbps/1 Mbps ADSL Internet service, even though we were deep in the woods. I have many friends who can barely make calls in their houses today, including one in the heart of a major residential neighborhood in Seattle.

Wi-Fi Calling thus leverages an alternate path to the same network. Since 2G cell standards emerged, mobile calls are all digital, anyway. As standards have progressed, the calls work more and more like any other data — though still tagged for priority through what's often called quality of service (QoS).

(In a separate effort to improve mobile calling, all U.S. carriers are also moving towards Voice over LTE (VoLTE), in which voice calls use 4G LTE data networks to dramatically improve dynamic range, clarity, and consistency. Newer LTE phones support VoLTE, but carriers are still

rolling out support city by city, and VoLTE between different carriers still doesn't exist. When you get a VoLTE-to-VoLTE call, though, it's almost shocking how much better it sounds — like talking on a good Skype connection!)

You don't have to use Wi-Fi Calling, especially if you have a typical service plan that allows unlimited voice calls in the United States (and sometimes within and to other countries) and you never suffer from poor reception. However, if you have sketchy connectivity, or travel a lot, Wi-Fi Calling is a big advantage for ensuring that you can always make and receive clear calls.

This is especially true outside America's boundaries with some carriers. T-Mobile charges nothing for incoming calls over Wi-Fi Calling, wherever you are, and counts minutes for calls placed to U.S. numbers, whether on U.S.-based Wi-Fi or elsewhere in the world, against plan minutes, which can be unlimited; Sprint is the same. AT&T, by contrast, is so far limiting calls to be received and placed when a customer is in the United States, Puerto Rico, and the U.S. Virgin Islands. However, this seems likely to change.

Manage Wi-Fi Calling — Turning on Wi-Fi Calling is a low-stress operation. Here's the procedure for AT&T; it varies only a little for other carriers:



- In Settings > Phone > Wi-Fi Calling, enable Wi-Fi Calling on This Phone.
- You're prompted with a long explanatory message labeled Enable Wi-Fi Calling? Tap Enable.
- You get an AT&T-specific welcome screen. Tap Continue.

• You're presented with extensive information about 911 emergency calling. While AT&T tries to switch to cellular for 911 calls to identify your whereabouts, it can't always and needs a street address as a fallback location. Tap to continue.

• Enter your street address and tap to continue.

• Tap Verify Address if the address shown — as corrected by AT&T to match its location database — is accurate.

SEATTLE		
State		ZIP Code
WA	~	98112
	Verify	address

• Finally, tap OK.

Phone

Wi-Fi Calling can take a few minutes to activate. When it's ready, the text "Wi-Fi" appears in the status bar, between the carrier name and the Wi-Fi signal strength waves.

•••••• AT&T Wi-Fi 奈 💶 🕈 🌮 🕇 🍽 🕯 94% 💶 🕨

You can return to the same setting location to disable Wi-Fi Calling. I had to do this when my home Internet connection went wonky just before I switched ISPs. (Once I got my new ISP's connection working properly, I re-enabled Wi-Fi Calling.) You may need to do the same if you find yourself on a Wi-Fi network with inconsistent service that causes phone calls to drop or suffer poor quality. You can also update your emergency address later on, should it change.

Wi-Fi Calling

Wi-Fi Calling on This iPhone



Make and receive calls over Wi-Fi with your AT&T account. About Wi-Fi Calling & Privacy...

Update Emergency Address

Wi-Fi calling requires an address to help emergency response services respond to calls. Review your carrier's emergency calling information to understand the limits of emergency calling over Wi-Fi. Beyond the iPhone, T-Mobile and Sprint let you **relay Wi-Fi Calling** from other devices; T-Mobile requires iOS 9.0 or later, while Sprint requires iOS 9.1 or later. That means you can place calls using an iPad, iPod touch, a Mac running OS X 10.11 El Capitan, or an Apple Watch with watchOS 2. The iPhone doesn't have to be within range or even powered on, Apple says, except for calls originated from the Apple Watch. (This is an extension of a **Continuity feature** that allows placing and receiving cell-based calls via an iPhone, but works in only the specific carrier and OS combinations described.)

On your iPhone in Settings > Phone > Calls on Other Devices, you can choose whether to allow any relayed calling or not, and which devices. The Apple Watch can already place calls just by being paired with an iPhone. On the Mac, you use FaceTime to place audio calls by clicking the phone icon, just as if you were making a cellular call relayed through an iPhone.



by Tim Sullivan

(A note on 911 emergency calling: 911 calls are routed over Wi-Fi only when a cellular connection can't be made. The hierarchy, according to AT&T, is first cellular, then Wi-Fi plus your location information derived from Apple's Wi-Fi location database, and lastly Wi-Fi plus your registered address — even if you're not at that address, it's the best information available. That may not sound ideal, but think of it this way: without Wi-Fi Calling, the 911 call would be entirely impossible to make.)

The End of Voice as a Separate Thing — Wi-Fi Calling is a particularly old-school service, taking what began life as a switched-network, circuit-based hardware routing system (the PSTN) and dropping what is effectively a PSTN simulation into the Internet. It has taken a long time to arrive, especially given that we've had Skype-like equivalents for so many years, but it's nonetheless welcome since Internet telephony remains fragmented and flaky.

I switched to making most office calls using Skype's PSTN offering long ago. That service has only gotten better over time, and when integrated with Google Voice for forwarding, I seldom know from where a call originates. The call rings all over, and I pick it up wherever is convenient — on my Mac using a headset or an iPhone, via Skype or Face-Time or the Phone app.

The future of Internet telephony is the disappearance of voice as a separate service to think about. Wi-Fi Calling is an odd step in that direction, but it dissolves more of the boundaries between voice and data.

Rumors and Reality

Around Apple

• A couple of months back, how we purchase iPhones changed.

First, the carriers (AT&T and Verizon) are abandoning the new phone every two years in exchange for a two year contract. You can pretty much bet that the cost of new iPhone was folded into the monthly payments.

Second, with new phones coming out every year, users had to use an old out-of-date phone for a year. And Apple wasn't selling these impatient users new phones. Apple has come up with a new initiative, called the iPhone Upgrade Program, that will allow customers to finance the iPhone 6s and the iPhone 6s Plus in monthly installments, starting at \$32 per month, and upgrade to the newest iPhone for no extra charge each year. The phones will be unlocked, meaning customers can choose a wireless carrier at will. The phones also come with AppleCare+, Apple's extended warranty and technical support program.

Actually Apple's site offers iPhone 6's at \$27.45 per month (\$329.4 per year or purchase the iPhone for \$549) and iPhone 6 Plus' at 32.45 per month (\$389.40 per year or purchase the iPhone for \$649.) These are starting prices depending upon how much memory and so forth you want in your phone.

Down with Wifi, up with Li-Fi. It appears that LED lights can be adapted to send data signals by switching the lights on and off at a very high right. Alternating current causes incandescent light bulbs to flicker. I very seldom notice. No one will detect any flicker in the LEDs.

That said, some of the aspects of Li-Fi include

– The LEDs would have to be on all of the time, but they could be dimmed to below visibility. Using portable devices outside will be a problem. In daytime, sunlight will overwhelm the artificial light. Nighttime has its own issues.

– Wi-Fi uses almost all of its allotted share of radio waves. The visible light spectrum is 10,000 times larger.

– In the wild (offices and industrial environments in Tallinn, Estonia) data transmission at 1 GB per second have been achieved - that's 100 times faster than current average Wi-Fi speeds. Lab-based record of 224 gigabits per second have been achieved - that's 18 movies of 1.5 GB being downloaded in a single second.

– Apparently the LEDs would need to incorporate a small microchip to the LED to make this work.

Google has provided its developers with a code snippet that allows apps to bypass app security. That in turn allows more ads to be sent. The new App Transport Security (ATS) feature ensures that only connections encrypted using HTTPS are permitted. The value for the switch is normally set to false so that adds are restricted in HTTP connections.

According to Apple: "Starting in iOS 9.0 and OS X 10.11, App Transport Security (ATS) is enabled as a system default behavior. It improves the privacy and data integrity of connections between an app and web services. by using the Transport Layer Security (TLS) protocol. ATS converts all HTTP requests to HTTPS automatically; attempts to connect insecurely over the Internet fail." Enabling this key is intended for debugging and development purposes.

Ads are like my e-mails: overwhelming.

Apple's iOS9 version of Safari includes support for content blocking extensions, much like its Mac counterpart — in other words, it can block ads. You only have to install an app with the right Safari extensions to make cookies, images, scripts and other unwanted material disappear.

In a New York Times test, using a mobile ad-blocker in the Safari browser netted a 21 percent increase in battery life (that's with internet browsing only though), significantly lowered the device's data usage and often shaved seconds off loading times. This means ad-blockers can save you money, as well. For example, hitting up the Boston.com homepage every day for a month costs about \$9.50 in data usage in ads alone, the study found.

More than half of all data on the tested pages came from ads, the study found. It took Engadget's homepage 0.9 seconds to load ads and 6.3 seconds to load editorial content. That

was near the low end of ad load times (the lowest was 0.2 seconds for The Guardian) and in the mid-high range for editorial. Boston.com topped out at 30.8 seconds to load 15.4MB of advertising content, and 8.1 seconds to load 4MB of editorial content.

Ad-blockers are a double edges sword. Installing one now can save you time and money. However some sites depend on them for revenue. With no income from ads, the sites will have to charge a subscription fee or shut down.

Wall art from photos: Jeremy Horwitz has put together a four part "How-To" for converting photos to wall art.

"What's the best large format to choose for your photos? That depends on the type of images you have, and the results you're looking for. To illustrate the options, I reached out to a number of popular photo printing services to see how digital photos would look on metal, glass, and canvas — large-format alternatives Apple doesn't offer."

Part 1 of this How-To guide looked at metal prints that apply dyes and gloss directly onto aluminum surfaces.

Part 2 looks at large-format canvas and glass prints.

And Part 3 looks at several additional options that provide unique twists on these options. Inside, you'll see how each process has its own unique appeal..."

Part 4: "After looking at other materials in prior parts of this guide, the one I really wanted to see for myself was printing on wood — a process that can either create a rustic, earthy look, or have a less prominent texture, depending on your preferences." Some other option discussed include 1) Standard metal printing is done on a single sheet of aluminum, but Double Float actually joins two layers of metal together to create a three-dimensional picture frame, 2) CanvasPop specializes in printing photos on canvas — a process commonly known in the art world as giclée, and 3) two distinctive acrylic printing options.

The first emoji were created in 1998 or 1999 in Japan by Shigetaka Kurita, who was part of the team working on NTT DoCoMo's i-mode mobile Internet platform. Kurita took inspiration from weather forecasts that used symbols to show weather, and from manga (Japanese style cartoons) that used stock symbols to express emotions, such as lightbulbs signifying inspiration. The first set of 172 12×12 pixel emoji was created as part of i-mode's messaging features to help facilitate electronic communication, and to serve as a distinguishing feature from other services. Kurita created the first 180 emoji based on the expressions that he observed people making and other things in the city. Considering their origin, a some of the emoji are **meaningful only in** Japan.

Tracking down the various emoji, their meanings, and uses can use up a whole evening. To catch up on Apple's latest addition in iOS9 check out **mashable.com**. Check **emojipedia.org** for an extensive list of emoji.

Software Review

Ghostnote

by Frank Petrie

I remember placing Post-It Notes® on my computer with passwords, todo lists and such, until my computer resembled a botched attempt by Jackson Pollack to dabble in papier-mâché.

Back in the day, it was not uncommon for dozens upon dozens of brightly colored reminders to festoon ones electronic landscape, invariably resulting in countless hours frantically sifting through the nasty little things, trying to find the precise one with the vital piece of information (usually a password) that you absolutely needed at that precise moment. Bother.

Over time, a host of apps were developed to replace this daunting, yet necessary, task. Over the years, I have reviewed a plethora of these apps.

And unfortunately, no matter how good that app might have been, you still had to bounce from app to app(s) to accomplish your desired task.

It's been a while since I have reviewed my favorite kind of app; The One-Trick Pony. But I have found one and this one's a thoroughbred.

"Ghostnote <http://www.ghostnoteapp.com> is a new concept in note taking. A folder, a file, an application, a document in an application or even a website. Ghostnote lets you attach notes to all of these and will automatically remember the context you took them. Simply click the ghost icon to add your notes and simply click it again to call it back up."

Let's take a look.

THE JUICE

THE PULP

This is a prayer answered with its extremely useful features <<u>http://www.ghostnoteapp.com/features/</u>>.

Using Document/Application Switcher, switch between adding notes to your applications or your documents by using view mode functionality.

You have the ability to integrate Ghostnote with Evernote to enjoy seamless backup and the ability to search through your notes.

You can use customizable keyboard shorcuts for quick access to your own notes.

Ghostnote is a breeze to use. Simply highlight the file, folder, application, a specific document in an application or even a website. Then click on the Ghostnote icon in your MenuBar and up comes a blank note that you can create for that particular item.

At the bottom of your note you'll find listed the item's home (i.e., the Finder icon accompanied with the item's name, such as the file or app).

The beauty is that the Ghostnote stays adhered to that particular item from that point on. (NOTE: One issue that the developers are currently addressing is is that when you move a file or folder, the link will break. They are currently working on a solution that will allow you to move files or folders around without it breaking said link.)

It's that easy. Using it becomes addictive, as every little idea that you have, you'll find yourself reflexively adding a Ghostnote to that item. The beauty being is that when you unselect the file, website, or whatever, the Ghostnote(s) disappear from the screen.

And Ghostnote is very customizable. Your note can be in any one of six colors. You can set your text in bold or italic and adjust the font size.

The nicest piece of customability I found was that you can change your layout orientation from horizontal to vertical. This is great for creating lists, either numeric, bulleted or using a plain dash, which will automatically appear each time you hit 'Return' to begin your next line. You can even add a checkbox anywhere you'd like.

You can detach the note from the Ghostnotes' icon and place your note wherever on your desktop is most convenient for you. To speed up your workflow, you can use customizable keyboard shortcuts for quick access.

It comes with 36 scripts which supply document support that you can put to use right away with specific third-party apps (for example, they have both Microsoft and Adobe fairly well covered). Or create your own scripts, which you can share with the community. For example, you can connect to Evernote or export to RTF format. (To be honest, I wasn't able to wrap my head around the scripts feature as I couldn't find any material that explained how to use them. It doesn't mean that they're useless, it probably just means that I'm dim.)

For support (aside from the community on their website <<u>http://www.ghostnoteapp.com/support/</u>>, there is also a FAQ, a blog, a video and a list of available features. I wish there was manual though.

December 2015 Page 11

THE RIND

None that I could find.

SUMMARY

Simple and customizable with a clean UI, Ghostnote is a utility that I can't see being without. The amount of time saved by being able to attach notes directly to a file is priceless. (Particularly with my mental colander.)

Ghost note costs \$9.99 and is available at the App Store. There's a free trial <<u>http://www.ghostnoteapp.com</u>> so I recommend that you give it a bash first and see if it fits into your workflow.

Apple Updates

Canon Laser Printer Drivers 3.1 Nov 3, 2015 – 74.7 MB

System Requirements

- OS X 10.7 Lion
- OS X 10.8 Mountain Lion
- OS X 10.9 Mavericks
- OS X 10.10 Yosemite
- OS X 10.11 El Capitan

This update installs the latest software for your Canon laser printer and scanner for OS X 10.7 Lion through OS X 10.11 El Capitan.

Share Keystone MacCentral with other MACaholics

Name	 To join Keystone MacCentral, mail this form with your membership dues (payable to Keystone MacCentral) to: 			
Address				
City	State Zip	Kevstone MacCentral		
Home Phone	Day Phone	Membership Chair		
E-mail Address		Shiresmanstown, PA 17011		
Date	Is this \bigcirc Renewal or \bigcirc New?	Keystone MacCentral meetings are		
How did you hear about us?		held at 6:30 p.m. on the 3rd Tuesday of		
Dues for one person are O \$20/yr.	Family or Corporate dues are O \$30/yr.	the month at Bethany Village Retirement Center, 5225 Wilson Lane, Mechanicsburg, PA 17055		