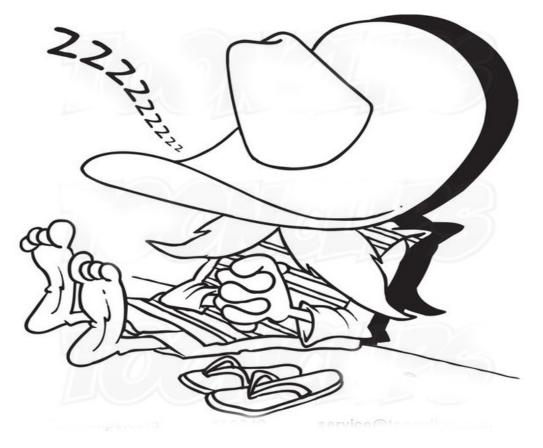
July & August 2016 Vol. XXVII, No 7





Do Not Disturb until September!

Meet us at

Bethany Village Retirement Center

Education Room 5225 Wilson Lane, Mechanicsburg, PA 17055

Tuesday, September 20 2016 6:30 p.m.

Attendance is free and open to all interested persons.

Contents

Myths and Misconceptions about macOS Sierra
by Adam C. Engst
MacNN and Tekserve Close, EveryMac and Mactracker Carry On
by Adam C. Engst
Why watchOS 3 Will Be Nimble and Nifty by Tonya Engst 5 - 7
Restricting Your Cell Carrier's Use of Your CPNI Data
by Adam C. Engst
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 © 2016, 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

Recorder Wendy Adams

Treasurer Tim Sullivan

Program Director Dennis McMahon

Membership Chair Eric Adams

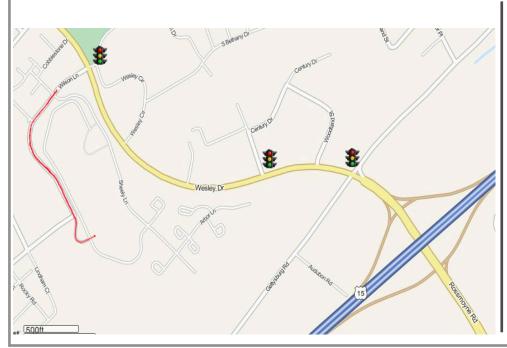
Correspondence Secretary

Sandra Cober

Newsletter Editor Tim Sullivan

Industry Liaison Eric 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

Myths and Misconceptions about macOS Sierra

After writing about Apple's announcement of macOS Sierra at WWDC and seeing comments in a variety of online venues, I'm a little depressed and disappointed (see "macOS 10.12 Sierra to Succeed OS X 10.11 El Capitan," 13 June 2016). Not with macOS Sierra itself, but with how many people are responding to its unveiling. All that anyone can accurately say about macOS Sierra is what Apple has shared; even the developer preview release is so new that it would be unfair to criticize any problems it may have.

However, that hasn't stopped the curmudgeon brigade from calling the keynote a "disaster" and referring to macOS Sierra's changes as "fluff," before complaining that they were being forced to upgrade.

I have no doubt that many people find change of any sort unsettling, but I'd like to encourage some calm and understanding. To go further, can we have some optimism for the future? The only way our experience as Apple users will improve is if Apple and its community of developers are excited to make things better. Not every change makes a positive difference, but just as with evolution, a lot of changes must be tried before we can benefit from the successes.

With that in mind, let me address three common myths and misconceptions:

#1: Apple is forcing me to upgrade. – Not true. Apple's black helicopters will not land in your front yard to disgorge an elite upgrade team that will hold you at gunpoint until you install macOS Sierra.

You can wait as long as you like to update. Just last weekend, I helped my aunt move from a 13-inch MacBook Pro running Mac OS X 10.6 Snow Leopard to a new 13-inch MacBook Pro with Retina display running 10.11 El Capitan. She had been using Snow Leopard since 2009 or so, and she skipped 10.7 Lion, 10.8 Mountain Lion, 10.9 Mavericks, and 10.10 Yosemite with no ill effects. She was ready to upgrade to El Capitan because she could no longer do online banking without a current Web browser, but she decided that after six or seven years, it was worth buying a new MacBook Pro.

Although you don't have to upgrade, I think swearing off updates entirely is foolish, which is why I wrote "**Why You Should Upgrade (On Your Own Terms)**" (4 September 2015). But you can certainly put off any upgrades until early kinks have been worked out and it's a convenient time. **#2: The new features are useless (because I don't want to use them).** — It's easy to look at the list of new features in macOS Sierra and scoff because you can't imagine using them.

"Siri on the Mac? It's not like it works that well on the iPhone. Desktop and Documents folder sharing across devices? Why would I want all that crud on my iPad? Universal Clipboard? I probably wouldn't even remember how to use it the once or twice I might need it per year. Auto Unlock? The Apple Watch is an overpriced toy. Big emojis? Invisible ink messages? What are Apple's developers smoking?"

Here's the thing we all have to remember: No one of us is Apple's target audience. Not you, not me, not anyone. Apple is a global company that wants to sell hardware iPhones, iPads, Macs, Apple Watches, and Apple TVs — to as many people as possible. Yes, Apple very much wants to sell you at least one of each, and it's going to create features that encourage buying into the overall Apple ecosystem. To do anything else would be, to quote Spock, illogical.

Plus, Apple is looking for broad appeal. While many longtime Mac users may be nonplussed by the emphasis Apple put on emoji frippery in Messages, for instance, those sort of features already exist in other messaging apps, and they're huge in Asia, particularly among younger users. Attracting that audience is key for Apple.

So no, these features aren't useless. They may not be useful to you, but they may be compelling to a teenage girl in China. Apple is just as happy to take her money as yours, and since the company has posted over \$1 trillion in revenue in the past decade, it's hard to argue with the strategy.

New features also help Apple compete with Microsoft and Google. In terms of desktop market share, Windows remains at about 90 percent, and on the mobile side, Android smartphones control 80 percent of the market. Apple may be one of the most valuable companies in the world, but there's plenty of room for it to expand, if it can attract switchers.

#3: Apple is abandoning professionals. – This myth is related to the earlier complaint about unwanted features, but debunking it requires a different perspective. Professionals don't work in the operating system, they work in apps, most of which Apple doesn't provide. Apple does make Pages, Numbers, Keynote, Logic Pro, and Final Cut

Pro, but I can't think of any category of productivity apps for which Apple is the sole supplier.

Your needs are undoubtedly different from mine, but for my work, I rely on BBEdit, Nisus Writer Pro, Adobe InDesign, Google Chrome, Mailplane, Preview, Slack, Trello, and Automator. As long those apps and the workflows I've built up around them continue to work, I can ignore literally every change in macOS Sierra.

That's an important point. No one is going to force you to use new features in macOS Sierra. If Siri, Auto Unlock, Universal Clipboard, and Desktop and Documents folder syncing don't make you more productive, don't pay attention to them. I've never found Launchpad, Handoff, AirDrop, or Notification Center to be helpful in my work, so I don't use them, and they don't get in my way.

Some may say that Apple should put more effort into specific operating system or usability improvements. There's no harm in that, but if you want to make suggestions, please be specific for two reasons. First, vague criticisms are worthless, and second, it's likely that enterprising Mac developers have already provided a solution — cue Keyboard Maestro, LaunchBar, TextExpander, and a host of others. Just as Apple doesn't provide all our productivity apps, the company shouldn't be relied on to offer every imaginable interface or workflow tweak.

More generally, the job of an operating system is to provide a stable foundation and set of frameworks upon which developers can build. Apple has aimed many operating system changes at providing developers with capabilities they couldn't afford to implement on their own. That results in more powerful apps or upgrades appearing more quickly, and that in turn makes professionals more productive. Taking advantage of new capabilities may require you to update, but time is money, and if the latest app lets you get your work done faster, it's worth it.

Onward and Upward – I won't pretend that all change is good, or even that every change in macOS Sierra is likely to work out. As I said in "macOS 10.12 Sierra to Succeed OS X 10.11 El Capitan," lots of questions surround the Optimized Storage feature that's supposed to move rarely used data to iCloud. Personally, I wouldn't trust it or encourage anyone to use it without a truly solid backup strategy. Even then, I'd want to wait until enough people had put it through its paces with no ill effects.

Although healthy caution is always warranted, it's essential to realize that in the end, all this change does move our technology experience as Apple users forward. It might happen in fits and starts, but speaking as someone who has spent every working day over the last 26 years on a Mac, I have never been more productive or capable than I am today, working in my favorite apps in Apple's current Mac operating system on recent Mac hardware.

I can't guarantee that any given upgrade will make you or anyone else more productive, but productivity gains are inevitable in the long run. Do you remember when a Mac could run only a single app at a time, or when we wasted a lot of time scrolling because Mac screens were so small, or when extension conflicts required constant rebooting, or when attaching a hard drive needed SCSI termination voodoo, or when.... You get the picture, I hope.

We've come a long way, and how far we have left to go is limited only by our imaginations and those of the developers who provide our tools. So let's not get bogged down in petty criticisms about an operating system that won't even be released for several months.

by Adam C. Engst

MacNN and Tekserve Close, EveryMac and Mactracker Carry On

Apple celebrated its 40th anniversary in April 2016, and the Mac has been changing the world for 32 years. Our 26 years of continuous Internet publication means that we've been online longer than any other Mac periodical, but it's not surprising that other Apple-related organizations have shown similar longevity.

It is thus with mixed emotion that we report two closings and two notable anniversaries. Sadly, the Mac news site MacNN, founded in 1995, has announced that it will no longer be publishing regularly, and the venerable New York City Apple reseller Tekserve will be closing its doors for retail sales and service. On the upside, particularly for those trying to establish the technical particulars of some older Mac model, the Apple spec site EveryMac.com celebrated its 20th anniversary on 2 July 2016 and the spec app Mactracker marked its 15th anniversary back on 14 May 2016.

On 20 June 2016, MacNN announced that it would be ceasing regular publication. Editor Charles Martin gave no specific details in his article about the closure, saying:

It's kind of amazing we made it this far — only TidBITS and Macworld are older and still around — but we've been told we're packing it in. We've joked before that Apple becoming a huge mainstream company is the worst thing that ever happened to us, but it's true: there's less need for an Apple-specific news site when news about Apple is plastered everywhere, on every site, all the time. This is not the sole reason why we're having to give up our comfy home (and just after repainting it, too!), but it's part of the reality we've been working in.

We appreciate the nod, and I remember MacNN as being a notable player in the Apple news world particularly back around 2000, when Adobe sued MacNN for publishing details about the upcoming versions of Photoshop 6.0 and ImageReady 3.0 (see "MacNN Sued by Adobe, News at 11," 12 June 2000). That was also around the time that Apple brought lawsuits against 25 anonymous defendants for posting trade secrets on the Internet (see "Apple Gets Serious About Plugging Leaks," 7 August 2000). We wish the staff of MacNN the best.

Even sadder in some ways is the **closing of Apple reseller Tekserve's retail store on 15 August 2016**. The company had been a stalwart of the Apple world in New York City, operating out of spaces on 23rd Street in Manhattan since 1987. It became such a fixture of the New York landscape that even the Carrie Bradshaw character in the "Sex and the City" TV show took her laptop there ("When was the last time you backed up?").

Unlike MacNN, which was presumably struggling against the near-infinite competition for online attention and a market that no longer favors advertising-supported publications, Tekserve's competitive problems were more physical. Apple has six stores in Manhattan alone, one not far from Tekserve. Plus, there's a Best Buy nearby and all the usual online options. With rising rents, Tekserve's retail operation simply didn't make business sense anymore. At least Tekserve isn't going away entirely; **the company will**

continue to provide corporate sales and professional services.

Although it's clear that Apple's rising tide does not float all boats, other sites and apps continue apace. EveryMac.com, a Web site devoted to documenting detailed specs about Apple products, has been around for 20 years now, an impressive feat on the part of founder Brock Kyle. EveryMac. com provides details on all Macs from the vintage 68000 and PowerPC lines to the latest Intel models, and it covers all of Apple's mobile devices, too. It's a treasure trove of information, featuring the original prices of Macs around the world, specs on the largely forgotten Mac clones, and Q&As for many Mac models that go beyond mere specs. The site is still evolving too — last month, EveryMac.com launched a new version of its Ultimate Mac Lookup feature that adds thousands of identifier specific tips and details.

Finally, though it's the baby of this roundup, I also wanted to acknowledge the efforts of Ian Page, whose donation-ware **Mactracker application** has been a must-have for over 15 years now. First developed in 2001 for both Mac OS 9 and Mac OS X, Mactracker has **evolved over time**, adding an iOS version in 2009. Its internal database has grown too, from information on 243 models in version 1.0 to detailed specs on over 700 models today.

Mactracker and EveryMac.com are a boon to support techs, journalists, and anyone who needs to unearth specific characteristics of older Mac or other Apple hardware. Thanks to Brock Kyle and Ian Page for keeping them going all these years!

by Tonya Engst

Why watchOS 3 Will Be Nimble and Nifty

Why bother with a smartwatch? Because it lets you check the weather, see a map, message your mother, and answer the phone, all of which are hard to do from a naked wrist. The Apple Watch can do all of these things — and quite a bit more — but it is, to say the least, slow. Apps take way too long to launch, and tapping around to set a timer or message a friend can take a while. Such actions are so inefficient that many Apple Watch users have become adept with Siri, but even Siri isn't always quick to respond.

For those of us who want to control the world from our wrists, the good news is that Apple's big goal with the just-announced watchOS 3 is improved performance. watchOS 3 will work on all currently available models of the Apple Watch, so all users can look forward to a free upgrade later this year.

watchOS 3 will get faster by keeping your favorite apps in memory, and keeping their data refreshed. If all goes

as Apple VP of Technology Kevin Lynch described in his portion of the Apple WWDC keynote, you'll perceive these apps as launching instantly — and immediately displaying the data that you want to see, like the weather or your map location. These enhancements will work for both Apple apps and third-party apps.

Another performance enhancement for Apple Watch users will be the ability to log in to a Mac running Apple's just-announced macOS 10.12 Sierra (see "macOS 10.12 Sierra to Succeed OS X 10.11 El Capitan," 13 June 2016), simply by having the watch close to the Mac.

Better Screens — watchOS 3 will offer a better set of core screens and a better arrangement of those screens. The Glances screen is gone. Instead, you'll swipe up from the watch face to access a Control Center screen, which looks a lot like the current Settings glance.

The Glances screen will be replaced by a new Dock screen, which you'll populate with your favorite apps, and which you'll access by pressing the side button. Apps in the Dock are live, so you can work with them right in the Dock without the bothersome hunting and pecking in the app cloud as in watchOS 2. You'll swipe on the Dock screen to switch between apps. Apple did not say where the funky talk-toyour friends screen accessed now by pressing the side button goes; perhaps it will disappear.

Another new screen is the SOS screen, which you bring up by pressing and holding on the side button for some time. (We hope there won't be too many inadvertent activations!) You won't use the SOS screen often, but you'll want to be aware of it, and set it up within the Health app on the iPhone. Once you open it, the SOS screen counts down (Apple's keynote implied a 3-second countdown), and then the Apple Watch triggers a call to 911 (or whatever the emergency number is in your location, including international locations). The call will be made either via the cellular connection on your iPhone or "directly from the watch if you're connected to Wi-Fi." Apple did not specify how this Wi-Fi call would work. Once the call is placed, the watch will also notify any emergency contacts specified in your Medical ID screen in the Health app on your iPhone and send them a map of your current location. Then it will display the Medical ID information that you've filled out in the Health app, such as allergies or that you have a pacemaker. This is the same information that appears on the iPhone's Medical ID screen, accessed by tapping Emergency on the Passcode screen and then Medical ID.

Also coming in watchOS 3 are more watch faces — and more flexibility for adding complications to the faces. For example, I love the animated flower face, but it can't handle many complications in watchOS 2, like a portal to my calendar or activity rings. I'll finally be able to add those complications and keep my cheerful flower. For those who love their activity rings, there will even be an entire face centered around them, and you'll be able to start a workout from that face. watchOS 3 also adds a new, elegant Numerals face and a Minnie Mouse face. Minnie's outfit can be customized by color, with colors that match Apple's band colors. Apple did not say whether Mickey will gain any sartorial options. Best of all, if you set up more than one face, you'll be able to switch between them with a single swipe.



App Changes — When it comes to individual apps, Apple's Reminders and Find My Friends will come to the wrist with watchOS 3, plus Apple plans to enhance a few apps with new features. Although the new features shown vary widely, Apple emphasized when introducing watchOS 3

that a focus is making the apps faster to get around in, especially when accessing common features. For example, the improved Timer app puts buttons for 1-, 3-, 5-, and 10-minute timers front and center, so you don't have to fiddle around to start them or try to get Siri to do it.

The Messages app will see several changes. You'll no longer need to tap Reply before answering a message. Instead, you'll immediately tap a smart-reply button or start dictating. You'll also be able to create a reply with a new feature, called Scribble, which allows you to handwrite characters in English or Mandarin with your finger tip — you'll write each letter over the entire screen, so if you were writing "Singapore," you'd write an S and then write an I over where the S was. The letters will be interpreted, displayed, and sent as normal text, not as a graphical image. As with iOS 10, Messages will also allow users to send and receive iMessages with gewgaws like stickers, oversized emoji, and invisible-ink bubble effects.



Another app Apple upgraded for watchOS 3 is Activity. It's not yet a full-on fitness app (it compares poorly to apps like Strava, which includes social networking and workout analysis). However, with its addictive rings that measure calories, workouts, and standing, the Activity app acts like a digital friend that's always with you, cheering you on as you fill your rings each day. Those who don't use the Apple Watch may find these rings inscrutable, and athletes generally find them silly, but put three Apple Watch users in a room and you'll hear at least one of them going on about how those rings are life-changing. (Speaking for myself, if I fill my blue ring for a day, my back doesn't hurt. I never realized before that my standing breaks were too short and too infrequent!) In watchOS 3, Activity will be even more friendly with an added social feature, Activity Sharing, wherein you can share your rings and heart rate with friends and send your friends canned messages offering encouragement or trash talk.



According to Apple, many wheelchair users like the Apple Watch because they can use it while their iPhones are safely stowed away. To better include them in the Activity app's feature set, Apple is adding a wheelchair mode wherein the blue ring tracks rolling, not standing, and the watch tells users "time to roll," instead of "time to stand." To better understand rolling, Apple has studied wheelchair use and taught watchOS 3 to recognize different wheel-turning hand motions, including semicircular, arc, and single loop over, among others. Apple will also add two wheelchairrelated sessions to the Workout app.

An intriguing new app, called Breathe, will help watch users enhance their fitness with regard to breath, helping us take breathing breaks and even providing guided breathing routines.

Of course, many third-party fitness apps can run on the Apple Watch, and with watchOS 3, those apps should improve dramatically as their developers take advantage of Apple allowing them to run natively in the background. watchOS 3 should make fitness apps vastly more convenient for users, and it will also give them better access to real-time heart-rate data and to the watch's gyroscope and accelerometer.

Apple has added several other behind-the-scenes changes for developers, **described on the Apple site**, including Apple Pay integration and new HomeKit APIs, so we should start seeing more watch apps with in-app Apple Pay and offering home automation features like turning off the lights and locking the doors.

Watching Out for watchOS 3 — The changes that Apple has planned for watchOS 3 are, of course, in software, so they won't bring cellular connectivity to your wrist or add a GPS chip. What watchOS 3 should do is to address many of the slowdowns and inconveniences that have made the Apple Watch feel like a 1.0 product, and I look forward to a smoother and more enjoyable experience on my wrist later this year. As an early purchaser of an Apple Watch, I'm pleased that I can look forward to a more nimble and nifty watch — without having to pay for new hardware.

by Adam C. Engst

Restricting Your Cell Carrier's Use of Your CPNI Data

I recently received a message from AT&T, my cellular service provider, alerting me to the fact that I could restrict AT&T from using my "customer proprietary network information" (CPNI) within the AT&T family of companies for AT&T's own marketing purposes. The message was plainly written yet utterly inscrutable. For instance, it defines CPNI as including:

"the types of telecommunications and interconnected VoIP services you currently purchase, how you use them and the related billing for those services. CPNI does not include your telephone number, your name, or your address."

(See the message to the right)

It's reassuring to know that CPNI does not include your telephone number, name, or address, but the phrase "how you use them" is as clear as mud. In its CPNI privacy policy, AT&T provides a little more information, such as the fact that "calling details" are also part of CPNI.

Confused, I turned to Geoff Duncan, who has written extensively on telecommunications and data privacy issues for TidBITS over the years. He explained that CPNI originally referred to anything that might appear on your bill, but now varies widely by service and carrier. With cellular carriers, it might include your data plan and usage, device info, location history, Web browsing history, and even demographic information.



AN IMPORTANT MESSAGE ABOUT THE PRIVACY OF YOUR CUSTOMER PROPRIETARY NETWORK INFORMATION (OR CPNI)

The protection of our customers' privacy is of utmost importance to the employees and management of the AT&T family of companies (AT&T)*. Please take a moment to read the following important message about the privacy of your customer information.

AT&T companies that provide telecommunications and interconnected Voice over Internet Protocol (VoIP) service (which permits VoIP customers to both send and receive calls to/from customers with traditional telephone/telecommunications service) would like to share your customer proprietary network information (CPNI) within the AT&T family of companies for our own marketing purposes, including using that information to offer you additional products and services.

What is CPNI? Your CPNI includes the types of telecommunications and interconnected VoIP services you currently purchase, how you use them and the related billing for those services. CPNI does not include your telephone number, your name or your address. Protecting the confidentiality of your CPNI is your right and our duty under federal law. As an AT&T customer, you can restrict the use of your CPNI even within the AT&T family of companies.

To allow AT&T to use your CPNI, no further action is required. AT&T and our authorized agents will not sell, trade or share your CPNI with anyone other than those who are in the AT&T family of companies or are AT&T authorized agents, unless required by law.

If at any time you would prefer that AT&T not use your CPNI to offer you additional products and services, you may:

- Submit an online form at att.com/ecpnioptout; or
- Call 800.315.8303 24 hours a day, 7 days a week and follow the prompts; or
- To speak to a service representative call 800.288.2020.

Your decision to permit or restrict the use of CPNI will remain in effect until you decide to change it, which you can do at any time without charge. Restricting our use of your CPNI will not affect the provision of any AT&T products or services to which you currently subscribe, nor will it eliminate other types of marketing contacts.

Thank you for choosing AT&T. We appreciate your business.

"The AT& Family of Companies are those comparises that provide voice, video and translated-indeted products and/or esrvices domestically and internationally including the AT&T local and long distance companies, AT&T (AT&T Mobility, DIRECTV, and other substations or affiaires of AT&T loc. That provide, design, mathet, or self feese products and/or services.

© 2016 AT&T intellectual Property. All rights reserved. AT&T, Globe logo and DIRECTV are registered trademarks of AT&T Intellectual Property and/or AT&T effiliated companies.

Privacy Policy

What is CPNI used for? AT&T says that it "does not sell CPNI to unaffiliated third parties," and **another page about CPNI** clarifies just which companies qualify as being able to use this information — there are a lot:

"The AT&T family of companies are those AT&T companies that provide communications-related products and/or services, including the AT&T local and long distance companies, AT&T Corp., AT&T Long Distance, AT&T Internet Services, AT&T Mobility and other subsidiaries or affiliates of AT&T Inc. that provide, design, market or sell these products and/or services."

Geoff said that the FCC's **original regulatory framework** was intended to prevent two practices. The first is uncompetitive upselling, which could happen if a telco used its CPNI to tweak pricing for additional services for a particular customer in ways that competitors couldn't match, for instance. The second, "pretexting," prevents CPNI from being purchased by an outside party that would then pretend to be the phone company in order to get a customer to disclose or do something they wouldn't otherwise.

The most recent changes to the CPNI legislation were back in 2007, but Geoff said that AT&T started notifying customers about the company's use of CPNI in 2012. Indeed, when I searched through my email archives on "CPNI," there was just one hit, an identically worded message from AT&T, sent in August 2012.

Are there any actual abuses of CPNI? Yes. Additional research revealed, **among many other stories** at the Electronic Privacy Information Center (EPIC), that in 2014 **Verizon paid a \$7.4 million fine** for using CPNI for marketing purposes without informing customers. Worse, **AT&T had to pay a \$25 million fine** in 2015 for disclosing personal information (and misusing CPNI data) for almost 280,000 of its U.S. customers, thanks to crooks paying off employees in three AT&T call centers in Mexico, Colombia, and the Philippines to unlock stolen and/or grey market phones.

It's important to realize that restricting a carrier from using your CPNI doesn't prevent it from being collected, so opting out might not prevent such information from being swept up in data breaches like AT&T's, but it certainly can't hurt. Regardless, the fact that the FCC felt it was important to require telcos to offer such an opt-out makes me think it's worth doing.

Restricting AT&T from using CPNI isn't difficult, but it does require information you may not have handy. Follow these steps (or you can use a voice-response system at 800-315-8303 or talk to a person at 800-288-2020):

• Go to http://att.com/ecpnioptout. (Amusingly, the link underneath the associated text in the email message used a tracking link, which makes me wonder if a click on it would become part of my CPNI.)

• Enter your account number or customer ID and billing ZIP code, select Restrict Use of My CPNI, and click Submit. The tricky part here is getting your account number, which is most easily found on your bill or by logging in to AT&T's site and looking in your profile. AT&T says it's also available on the CPNI notice, which isn't true — you can see my notice above, and there's no ID on it.

Il Restriction Request Form		Manage Ny Device & Features	
Name comparise and automs the form bency to neutritiz ATLV's use of your Castomer reprinting Measure information (CPM) for the purposes of differing new system of motional and services to prior the Net ATLV's fillingly of comparison. It featurisming our role if your CPM will not derivative other replace of maintaining cartatos from ATLV, for will is derivative our water your OPM to other additional services of the type you, streacy entrance from ATLV.		Repuet report Names ny denos & hatrives Orack orac saltas Name par senitas Rebais Revent Center	
aan Wara Alandi Castaree Peopletary tetrarek tetrarek (CPN) Nazla CPHI ATAT k vetea of castaree CPNI spins		Tools and Tips Calling and develop tools Consume and selfer fea Vie-7 Integes Creegence properties Traver with ASSY	
Restrict the use of my CPNI	"Al falos replinat		
Acct: Humber / Centemer Dr. (1) TBilling 20 Center by checking the loon 1 am requesting the (ACST resided the loss of my CPM). Restrict use of my CPMI: (1)		Contact Us Very solution via errat or proce Contact ASB7 (5)	
	School		
In ATEV tensis of comparison includes in our ATEV comparison that provide conversion action, including the ATEV court and core determine comparison, ATEV care, ATEV care, Difference to the provide provide including of attraction of ATEV core, the provide, design, market, or add system.	ice, AT&Y Internet Services,		

What about other carriers and other types of personal information that's gathered and potentially shared or sold? A page in the MIT Information Systems & Technology Knowledge Base offers links to opt out of these and other programs at AT&T, Verizon Wireless, and Sprint. I'd encourage everyone to explore those links — I discovered that although our phone numbers were opted out of AT&T's "External Marketing & Analytics Reports," they were still set to receive "Relevant Advertising — Wireless," whatever that is. MIT's page says that T-Mobile does not sell CPNI, which seems to match with T-Mobile's CPNI page.

Personally, I'm not particularly perturbed to have my information used when businesses offer me products or services. However, if this information is so valuable, why do companies get to collect it (from services we're paying for!) and use it for free? Wouldn't it be interesting to put personal information into a marketplace, where you would get to say for what purposes it could be purchased, and for how much? Some Italian researchers did a **study on the economics of personal data** back in 2014, and there's even a firm called **Handshake** aiming to do this, but it has been in closed beta since 2013, which isn't a good sign. Still, food for thought...







Software Review

Apple Updates

OS X El Capitan 10.11.6 Update Jul 18, 2016 – 759.1 MB

System Requirements

– OS X El Capitan 10.11.5

The OS X El Capitan 10.11.6 update improves the stability, compatibility and security of your Mac, and is recommended for all El Capitan users.

watchOS 2.0 - 2.2.2 Information

This release contains bug fixes and security updates.

iTunes 12.4.2

Jul 18, 2016

System Requirements

- Apple Music requires OS X version 10.9.5 or later

This update resolves a playback issue with short Apple Music songs in your Up Next queue.

Security Update 2016-004 Mavericks

Jul 18, 2016 – 371.2 MB

System Requirements - OS X Mavericks 10.9

Security Update 2016-004 is recommended for all users and improves the security of OS X.

IOS 9.3.3

Jul 18, 2016

System Requirements

- iPhone 4s or later
- iPad 2 or later
- iPad mini or later
- iPod touch (5th gen)
- Available via OTA and iTunes

iOS 9.3.3 includes bug fixes and improves the security of your iPhone or iPad.

iOS 9.3.2 fixes bugs and improves the security of your iPhone or iPad. This update:

• Fixes an issue where some Bluetooth accessories could experience audio quality issues when paired to the iPhone SE

• Fixes an issue where looking up dictionary definitions could fail

• Addresses an issue that prevented typing email addresses when using the Japanese Kana keyboard in Mail and Messages

• Fixes an issue for VoiceOver users using the Alex voice, where the device switches to a different voice to announce punctuation or spaces

• Fixes an issue that prevented MDM servers from installing Custom B2B apps

Security Update 2016-004 Yosemite

Jul 18, 2016 – 456 MB

System Requirements

- OS X Yosemite 10.10

Security Update 2016-004 is recommended for all users and improves the security of OS X.

OS X El Capitan 10.11.6 Combo Update Jul 18, 2016 – 1.5 GB

System Requirements - OS X El Capitan 10.11

The OS X El Capitan 10.11.6 update improves the stability, compatibility and security of your Mac, and is recommended for all El Capitan users.

Digital Camera RAW Compatibility Update 6.20 Jun 23, 2016 – 8.1 MB

System Requirements – OS X El Capitan 10.111

This update adds RAW image compatibility for the following cameras to OS X El Capitan:

- Canon EOS-1D X Mark II
- Canon EOS 80D
- Canon EOS Rebel T6 / 1300D / Kiss X80
- Canon PowerShot G7 X Mark II
- Olympus PEN-F
- Panasonic LUMIX DMC-GF8
- Panasonic LUMIX DMC-GX7 Mark II / GX80 / GX85
- Panasonic LUMIX DMC-ZS100 / TZ100 / TX1
- Sony Cyber-shot DSC-RX10 III 🖸





