

Website: <http://www.miniapples.org>

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From the Editor:

Several meetings (iOS SIG and Mac Apps SIG) will not be held this month, one due to the summer holidays and the other because of a consolidation of two SIGs into the Mac OSX SIG. There have been several software fixes from Apple and a bit of a problem in the App Store where a hacker had gotten in and has allowed apps to be sold for free. There are a couple of articles in this issue on internet bandwidth from TidBits and a number of links dealing with historical aspects of Apple.

*Tom Ostertag, Publications*

*Director*

### Meeting Calendar

This information was compiled as this newsletter was being assembled and is subject to change. As always, confirm the Special Interest Group (SIG) date, time, and location with the SIG Leader or the mini'app'les website: [www.miniapples.org](http://www.miniapples.org).

Meeting Calendar – August 2012			
Tuesday	August 7	7:00 pm	Mac OSX SIG
Wednesday	August 8	7:00 pm	VectorWorks SIG*
Wednesday	August 8	7:00 pm	TC Photoshop User Group*
Thursday	August 16	7:00 am	Mac Consultants SIG
Wednesday	August 22	7:00 pm	Board of Directors Meeting
Wednesday	August 22	6:30 pm	Mac Q&A SIG
Thursday	August 23	6:30 pm	FileMaker Pro SIG

### Meeting Locations and Leaders

Meeting	Location	Leader
Mac OSX SIG	Ridgedale Library, 12601 Ridgedale Drive, Minnetonka	Bob Demeules, 763-559-1124
VectorWorks SIG*	CJR Office, 4441 Claremore Dr., Edina	Charles Radloff, 952-941-1667
TC Photoshop User Group*	Mpls College of Art & Design, 2501 Stevens Ave. South, Minneapolis	Jeff Tranberry
Mac Consultants SIG	Good Day Cafe, 5410 Wayzata Blvd., Golden Valley	Bob Demeules, 763-559-1124
Board of Directors Meeting	Southdale Library, 7001 York Ave. S., Edina	Tim Drenk, 952-479-0891
Mac Q&A SIG	Merriam Park Library, 1831 Marshall Ave., St. Paul	Harry Lienke, <a href="mailto:qasig@miniapples.org">qasig@miniapples.org</a>
FileMaker Pro SIG	Erik's Bike Shop Corporate, 9201 Penn Ave S. #1, Bloomington	Steve Wilmes, 651-458-1513

\* This SIG is NOT sponsored by mini'app'les; the listing is provided as a service to members.

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### iOS SIG Meeting Report • 9 July 2012

By [Tim Drenk](#)

This month we covered tips for better iPhone photography. Here are a few of the tips we covered to help us take fewer blurry images and more of the pictures we want.



**Take lots of shots:** The more pictures you take, the greater the chance of getting the shot you want.

**Hold the iPhone like a camera:** You can hold it with 2 hands, which can steady the phone, and you can use the Volume Up button as the shutter button.

**Keep your camera app handy:** With iOS 5.1, the default camera app is available from the lock screen (swipe up from the camera icon). If you like to use a different camera app, keep it on the first home page or even the dock so it's easy to get launch. If your iPhone is jailbroken, there are apps that change the lock screen icon to the app of your choice.

**Zoom with your feet:** Since the iPhone only has a digital zoom, zooming only enlarges a portion of the image, thus simulating zoom. You lose quality and it makes the image more susceptible to shaking.

**Tap on different parts of the screen:** The default focal point is in the middle of the screen. When you

tap on a different point on the screen, it will focus on and change the exposure for that spot.

**Stay still:** The most common contributor to a blurry picture is a moving or jittery hand. The iPhone, like most digital cameras, is more sensitive to blurriness in low-light settings. Find something for support if necessary. When you take the picture, make sure you are holding still through the opening and closing of the camera shutter.

**Carry extra power with you:** Capturing and editing pictures can use a lot of power, and you don't want to run out of battery just before the perfect moment happens. There is a wide variety of portable chargers available that can easily be carried with you.

**Take advantage of Photo apps:** The editing process is probably one of the most important parts of iPhone photography. Here are some of the iOS apps we covered:

- **Camera+ (\$1).** Developed by a professional photographer, Camera+ has lots of features such as an image stabilizer, exposure and focus controls, a built-in camera roll, and editing tools.
- **Instagram (Free).** Easily use custom-designed vintage filters and borders and share with other Instagram users. It has a large community that offers likes and comments as well as being able to follow other Instagram users.

- Photogene<sup>2</sup> for iPhone (\$1; In-app: Pro \$6, Collage templates \$1). With Photogene, you can easily browse, improve, and export multiple photos. It has a full featured photo editor and multiple options for exporting and sharing.
- 360 Panorama (\$1). 360 Panorama uses the iPhone's gyroscope to create the panoramic mosaic and stitches the images in real time.

We will not be meeting in August so our next meeting will be in September. We are moving the night to the third Tuesday of the month (which will be September 18th) and will continue to meet at the Hack Factory at 7:00 P.M.

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## Q&A SIG Report • 27 June 2012

By [Harry Lienke](#)

The construction at the Merriam Park Library is complete so the Question and Answer Special Interest Group (Q&A SIG) meeting was called to order in Conference Room B again.

Several months ago, we had a question about how to change the desktop icon text to make it more readable. We came up with several suggestions but none of them really satisfied the need. The original questioner spent some time investigating the situation and came up with a very good solution. When the Finder's Label property is used on a file or folder, the text within the label becomes black rather than a shadowed white and the label background takes on a color different from that of the desktop. When running OS X 10.7.4, one can select any or all desktop icons (other than the icon for the boot drive) and use either Finder > File > Label or Ctl-click > Label to change the label(s) for the icon(s) which was (were) selected so the text is black and the background is, for example, blue. Note that for some reason, Apple has decided for us that this procedure cannot be used to change the text for the boot drive. Once the text has been changed to black, the Finder's View Options (Finder > View > Show View Options) can be used to move the icons farther apart

(Grid Spacing) so the Text size can be increased to make the icon names easier to see.

A new utility called MachineProfile was called to our attention. This free software, provided by the folks at Micromat who offer TechTool, gathers and displays a variety of hardware information more conveniently than the OS X System Information. If you are interested in seeing many characteristics of your processor, you can find MachineProfile on MacUpdate.

Before the meeting I received a suggestion we talk about a new technology called DNSCrypt. DNS is an acronym for Domain Naming System; the DNS is a distributed network for associating a website with its numerical address similar to a telephone book which associates people with their telephone number. A DNS service provider uses the Domain Naming System to help people find the information stored at particular websites on the Internet. OpenDNS is one of the companies providing the naming service to individuals and organizations. Their service includes various means of protecting their customers from the nasty folks who try to steal information to use that information to make themselves rich. DNSCrypt is another way to protect your information that OpenDNS would like to make a standard for all companies providing DNS services. DNSCrypt is software that encrypts your requests to your DNS service provider so that other folks listening in to your DNS requests will not be able to understand the information you are sending. This is similar in operation to using a secure link to talk to your bank but extends the security so that the bad guys listening in cannot tell who you have asked to talk to. At this time, you must use OpenDNS' servers and beta software if you wish to avail yourself of this security service. We did not have any network experts at the meeting, so the impact of this new security service could not be evaluated and will have to be discussed in the future. You can investigate this new technology at <http://www.opendns.com/technology/dnscrypt/> if you desire.

A meeting attendee has a G4 Mac he is thinking about replacing and wondered about the capabilities

of new Macs. Specific items of interest were FireWire, an analog headphone jack, and the capability to run PowerPC software. It was indicated that FireWire is still supported in new Macs, headphone jacks are still present, but Apple has decided that PowerPC software is a thing of the past; anyone upgrading from a PowerPC machine to a current Mac must replace their old software with programs which run on Intel processors. We indicated that one might be able to find an older new machine that is capable of running Rosetta to allow the PowerPC applications to be run.

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## Are You Getting the Bandwidth You're Paying For?

By [Adam C. Engst](#)

Not long ago, I was invited to participate in a post-session Google Hangout On Air at the Le Web conference in London. When the organizer asked me to report on my bandwidth, though, there was much head-shaking as to whether my roughly 1 Mbps upstream bandwidth would be sufficient to provide high-quality video (my 15 to 20 Mbps downstream bandwidth wasn't a problem). After a couple of brief Internet outages several weeks before this, Time Warner had replaced both my cable modem and the entire cable from the street, so I was pretty certain all the hardware was working within spec.

I hadn't revisited [Time Warner Cable's service offerings](#) in years, but some quick research online showed that I had the Turbo Internet plan, which promises up to 20 Mbps downstream and up to 2 Mbps upstream. Ignoring the fact that I wasn't ever seeing the 2 Mbps upstream I should have been getting, I decided that an extra \$20 per month to upgrade to the Extreme Internet plan (30/5 Mbps) was worthwhile, since we upload a fair amount of data and the 5 Mbps of upstream bandwidth would be welcome for video conferencing in particular. But since downstream bandwidth has never been our problem, the Ultimate Internet plan (50/5 Mbps) didn't seem worth the extra cost. Time Warner made it easy to click a link to chat with an online customer

service rep, who was only too happy to help me upgrade. While we were chatting, I explicitly asked if my current cable modem — which had just been replaced, remember — would be sufficient for the Extreme Internet service level, and I was assured it would be. Some 20 minutes later, everything was done, and I was told that I'd start seeing improved performance either immediately, or within 2 to 4 hours.

(In fact, what happened was that 2 hours later, the entire connection went down, and I had to call support and get them to do something. It's always a little unclear what they do, although I believe it involved properly linking my cable modem to the updated account. Luckily, they managed to fix it just as my iPhone dropped the call because I was in a low-reception part of the house.)

When I started testing the performance again, [Speedtest.net](#) reported consistently that I was getting between 20 and 30 Mbps downstream, and while my upstream performance wasn't 5 Mbps, it was regularly between 1.5 and 2.5 Mbps. Bandwidth is very often shared, so it's entirely common to get a bit less than your promised bandwidth, and while 2.5 Mbps was less than the 5 Mbps I'd been promised with the Extreme Internet plan, it was good enough for the Le Web conference hangout ([with Kevin Rose of Google](#), if you want to watch). But as the days went by afterwards, that 2.5 Mbps upstream maximum nagged at me, and when some ebook uploads were taking way too long, Speedtest.net reported I was seeing only about 800 Kbps upstream.

Frustrated, I called Time Warner once again, the support rep agreed that I should be seeing better performance, and he dispatched a tech to my house. As with the first tech who had replaced my cable, the second tech was extremely amiable and knowledgeable, but he had some choice words for the online customer service rep who had upgraded my account. Apparently — and this is so common that the techs have a word for it: "office-only'd" — the change had been made only in the office, and there was no way my cable modem could support 5 Mbps upstream bandwidth. Making this even more

obvious was the fact that the Extreme Internet plan includes wireless clients — the cable modem also acts as a wireless gateway — and the cable modem I had didn't have any wireless capabilities at all (I didn't notice this discrepancy when ordering, since I was focused on the bandwidth and had no desire to replace my AirPort Extreme).

After trying two cable modems that he'd been told were new (the first had a locked wireless network named "We no speak Americano" configured on it, and the second didn't advertise any wireless network or allow wired connections), he grew irritated and gave me one straight from a shrink-wrapped box. It worked properly and provided the full 30 Mbps downstream and 5 Mbps upstream, as you can see in my graphs below, which also show the improvements over time.



(Or, rather, it worked for about 2 hours, at which point the entire connection went down again, and I had to work my way through three levels of Time Warner phone support before I got to a guy who was able to link my fancy new cable modem to my account properly and get it all to work again. It seems clear that the Time Warner system has some

disconnects between what happens in the office and what happens in the field.)

So the moral of this story is that it's absolutely worth using Speedtest.net (or a similar service) to check your downstream and upstream bandwidth. Performance does vary throughout the day, so be sure to run multiple tests in Speedtest.net over a number of days and at different times of day. Also be sure to test from a computer — although I like the [Speedtest.net Mobile Speed Test](#) app for testing general connectivity, its download numbers are often way too low and its upload numbers are often a bit high. Speedtest.net will keep track of your results (as you can see in the screenshots above), assuming you keep the same IP address, or you can set up an account to ensure that your tests are collected regardless.

Once you have a pretty good sense of your average downstream and upstream bandwidth, compare that against what your Internet service provider promises you. Based on my experience, here's what I'd advise:

- Internet plans are a bit like phone plans — they're always changing, and there are often limited-time signup discounts — so what you signed up for a few years ago (or more) may not be the best plan that's available to you now.
- If you decide to change plans, I recommend calling rather than using online chat, if that's available. Online chat is fine for determining service levels and asking questions (and it eliminates issues with heavy accents from offshore phone banks), but I think it's better to have quick interaction with someone while actually making changes.
- While you're talking to the rep, make absolutely certain that your cable or DSL modem will be able to handle the new service level. Be insistent on this point, and make sure that the rep understands how long you've had your current hardware if it's old. Modems are generally identified by their unique MAC addresses, but there might be several such numbers on your device, so it's worth taking pictures of all the

appropriate labels ahead of time so you can read out numbers easily if requested.

- If a tech comes to your home or office to troubleshoot problems, stick with them while they're working and tell them whatever you can think of that might help. For instance, my house was wired with coaxial cable in the walls, and while we originally had to use it, the first tech found that it was adding interference. Relocating the cable modem to avoid the internal wiring helped with upstream bandwidth. Also ask them to check your cable's connectors, since corrosion there can cause loss of signal.
- Don't let the tech leave until you have tested the connection with Speedtest.net and can prove to your satisfaction that you're getting the promised bandwidth. Although I had two good techs, the second one grumbled that there were a number of others in the organization who did shoddy work and ended up having to be bailed out later.
- If trenching is necessary, be certain to talk with the crew doing the work and tell them if you know where any underground wires are located. And, regardless, ask them to try to locate whatever electric, phone, invisible fence, or other wires might be buried in the trenching area, since trenching machines can slice right through existing cable with little or no indication (speaking from hard-won experience here). Personally, I plan to photograph the area and mark up the photos for future reference, now that we know what wires go where.
- Lastly, whenever you talk with anyone from the Internet service provider, make sure to write down a case number or get contact information, so it's easier to get back into the support queue should you need additional help. In my case, both the service level upgrade and the second cable modem swap required phone follow-ups to bring the connection back online, so be aware that such efforts might be necessary.

I certainly wasn't expecting my Internet connection — which is generally quite reliable — to require so many phone calls and truck rolls to my house, but

I'm glad I stuck with it in the end, since I appreciate actually getting the full bandwidth that I've been promised. It's easy to imagine someone who's not particularly network-savvy suffering with a lousy Internet connection, just because they don't realize what they should be getting.

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## Dropbox Public Folder Leaves and Returns

*By Adam C. Engst*

One notable feature of the Dropbox file-sharing service is the Public folder. Put any file or folder in that folder, Control-click the item, and choose Dropbox > Copy Public Link to get a download URL for it, while not exposing any other items in the Public folder or having to set up explicit sharing. When clicked, the file loads in the user's Web browser, which means, for everything other than the file types that Web browsers display internally (HTML, JPEG, GIF, often PDF), that the file downloads immediately.

It's a great way to let someone — or better yet, an arbitrary group — download a file without sending it in email or fussing with a specialized service like YouSendIt. (Such services have their place, since they offer additional features such as time-limited downloads, password protection, and so on. But they're often overkill, and Dropbox is super easy.)

You can even use Dropbox's Public folder as a way of publishing a simple Web site; just put all your site files in a folder, copy that folder to the Public folder, and use the same technique to get the URL to the index.html file of the site. As long as your site uses relative links for internal navigation, everything will just work.

A few months ago, however, Dropbox made it possible to share any file or folder from any place in the Dropbox hierarchy in much the same way. Control-click the item and choose Dropbox > Get Link. This nominally does the same thing — enables

you to share a single file or folder via a URL without sharing the enclosing folder with that person. But there's a difference. This new method always takes you to a Web page on the Dropbox Web site, displaying the content if the browser can do so. But if it can't display the content, instead of downloading the file as happens with files in the Public folder, Dropbox displays a custom Web page that lets the user download the file or add it to their own Dropbox. And as a result, you can't publish a simple Web site that way.



You might think that these two features sound quite similar, and that's where our story starts, about a month ago, when word appeared on the Dropbox forums that Dropbox would be eliminating the Public folder from new accounts. Current accounts would retain the Public folder, Dropbox said, but the company claimed that many users were confused by the Public folder and shared files offering essentially the same functionality.

This announcement provoked a storm of protest — and even a “Save the Public Folder” petition that garnered over 900 signatures — since even if only a small percentage of Dropbox users rely on the Public folder, some of those who do have use cases that require direct file access rather than an intermediate Web page. Plus, some developers had built software that assumes the presence of a Public folder.

About a week after the initial announcement, Dropbox pulled back, with another forum post saying that new users wouldn't have the Public folder enabled by default, but that there would be a way for them to get one. That post also said that developers should still avoid relying on the Public

folder, since not every Dropbox user would necessarily have one, and that the company wants to provide equivalent functionality through the API where possible. It's not quite clear if that is true at the moment, but progress is being made.

It's easy to see this as a tempest in a teapot, but there's no way for us to know if the public outcry was key for the company making the Public folder an option for new users and extending the Dropbox API for developers. It's entirely possible that Dropbox simply underestimated the desire for the Public folder and some of its associated features, and the hue and cry from users and developers alike caused the change in policy. If so, there's no reason to assume negative intentions anywhere — Dropbox removed the feature to make the product easier for new users, and after hearing customer feedback, reinstated it for those who want it and extended the API to compensate further.

The moral of the story would seem to be that all's well that ends well, and if you're helping a new user set up Dropbox in the future, you may need to poke around in the settings to enable the Public folder.

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## Apple User Group Bulletin - 16 July 2012

Recent Highlights from the Apple User Group Resources website:

<http://appleusergroupresources.com>

- MCE: Plan to Attend Mac Expo 2012
- The Toronto Apple User Group: Focus on iOS
- Chicago Apple User Group: Ohanaware's Sam Rowlands Presents
- John Buono's New Book: The World Through My Lens
- CPUG Amsterdam SuperMeet: Five Years and Counting
- LA Web Professionals: Jeanine Warner and CSS Techniques
- O'Reilly: Reviews, Banners and More

## - Offers for User Group Members:

- Special Offer – Disk Drill data recovery: 35% Off
- Special Offer – Premium iPad Leather Bag for Everyday Use: 50% Off
- Special Offer – L5 Remote for iDevice: 50% Discount
- Special Offer – Dynaflo LIQUID-ARMOR: 20% Discount
- Special Offer – Camtasia for Mac
- Special Offer – Snagit for Mac: 30% OFF
- Special Offer – SEIntelligence Optimization: 50% Discount
- Special Offer – PDP Mobile device accessories: 20% Off
- Special Offer – RUNNUR Body Strap: 20% Discount
- Special Offer – WaveCradle: 25% Off
- Special Offer – Softpress Freeway: 25% Discount
- Special Offer – SlideShark iPad PowerPoint Viewer: Free App plus
- Special Offer – Dolly Drive backup/sync/storage: 20% Off
- Special Offer – AgileBits 1Password and more: 25% Discount
- Special Offer – O'Reilly: Wonderful Discounts for User Group Members
- Special Offer – Eltima Software multimedia products: Pay 20% less
- Special Offer – Take Control Books: 30% Discount on All eBooks
- Special Offer – Peachpit Press, Macworld Magazine, Mac|Life and more

## - Expiring Soon:

- Special Offer – Slidevana, the Ultimate Keynote Template: Almost 60% Off
- Special Offer – 30% off Rugged Portable Hard Drives
- Special Offer – Dolly Drive's Dolly Space iDisk Replacement: 4 months free
- Special Offer - Leaders – Fantastical Presentation Special

[http://appleusergroupresources.com/?page\\_id=653](http://appleusergroupresources.com/?page_id=653)

New password from May 16 - November 15, 2012:

ugspecials

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## Small Pipes and High Bills: Keeping Bandwidth Use in Check

by [Glenn Fleishman](#)

Our computers chat all day long with Internet servers near and far, and we can usually remain blissfully unaware of how much data they send and receive, so long as we're using a high-speed Internet connection. This is a relatively recent development — it wasn't all that long ago that we relied on 56 Kbps (or slower!) modems for our Internet connectivity, meaning our computers had to assume that Internet connectivity was both *intermittent* and *constrained*. With broadband Internet connections, computer makers first made the transition to assuming *always-on* connectivity, and in the past decade those assumptions have evolved into software and services expecting an *always-big* bandwidth pipe.

But those assumptions aren't always true even now, because the more mobile we become, the more likely we find are to ourselves in places in which we either have too little bandwidth available or are paying too much for the bandwidth our computers want to consume. An automated backup agent, a sync service program, background email checking, and even Apple's automatic software updates could leave us frustrated by network performance or shocked by a too-large bill.

Limited bandwidth situations are also becoming a tragedy of the commons, where a small number of people can ruin it for everyone else. Public Wi-Fi networks, whether in hotels, at conference centers, in coffee shops, or on an airplane or cruise ship, are increasingly becoming less reliable to use, thanks in part to heavier use of video and the large number of smartphones and iPads. Amtrak even warns users of this problem with their "continuous" Wi-Fi service, as I found while working on this article during a train trip between Seattle and Portland.

### Streaming Video

One person streaming video from a site like YouTube or Netflix can block hundreds of other people on the train from accessing Wi-Fi so those sites, and others like them, are blocked. We apologize for your inconvenience.

### Passengers Request other Blocks

Some sites are blocked because passengers are very strict regarding what their child's eyes may happen upon.

### The Train is a Moving Target

We are at the mercy of the strength of the signal along the route. You will likely experience slower speeds in rural areas and when many people are logged on at the same time. You may also lose service in rural areas and in tunnels. We are happy to offer you this

But our computers are also to blame, due to software assuming it has an always-available, high-speed Internet connection. The hotel Wi-Fi that used to be sufficient for checking email and editing files in Google Docs now struggles with even such low-bandwidth tasks, thanks to all the other people watching Netflix, backing up via CrashPlan, and synchronizing files via Dropbox. These scenarios aren't hypothetical — Adam Engst found his hotel Internet connectivity too slow to use at times during Macworld | iWorld in January 2012, and Joe Kissell experienced huge frustration when sharing on-ship Wi-Fi during a recent MacMania river cruise (the Internet connection in the latter case came from multiple bonded 3G cellular data connections). The CSS guru Eric Meyer told me about a 50 Mbps connection used at his An Event Apart design conference being [accidentally hogged](#) by a speaker's corporate backup software kicking in.

And while you can sometimes carve out sufficient bandwidth for your needs by switching to a mobile broadband connection and tethering your computer, usage limits on mobile broadband mean that you have to start counting bytes. In the United States, cellular providers now typically levy surcharges when you exceed a fixed amount of data in a plan, whether 300 MB, 2 GB or 10 GB. In many other countries, instead of charging overage fees, mobile carriers throttle accounts to between 64 and 256 Kbps after a threshold is reached.

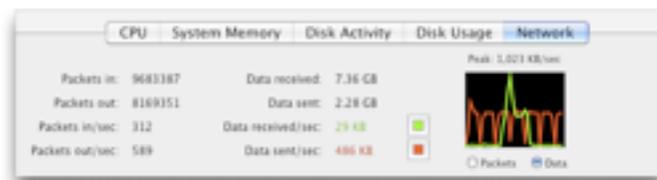
(I won't be discussing a related situation, which is how to deal with permanently low-bandwidth scenarios, whether in the American hinterlands where dial-up modem or low-speed satellite are the only options, or in developing nations in which

expensive low-speed cellular connections or dial-up modems over pricey landlines are all that are available. If there's interest, we'll look into a separate article about that topic in the future.)

In the rest of this article, I'll explain how, when you find yourself in one of these low-bandwidth or high-price situations, you can figure out which applications are blindly consuming bandwidth and then throttle, pause, or quit them. Then I'll share some thoughts about a proposed utility that could help us automatically reduce our bandwidth use when desired.

**Find and Track the Talkers** -- The main obstacle I ran across in researching this topic is how best to figure out which of the many daemons, background applications, and Apple components transfer more than a handful of kilobytes per day. The obvious culprits were easily found, but a real-world Mac OS X system is full of software that fires up as needed in the background, and that's easily overlooked. Tools for ferreting out such software abound, but none is perfect.

You can use Mac OS X's Activity Monitor (found in /Applications/Utilities) to see bandwidth consumption as it happens. After launching, click the Network button at bottom right and watch the red and green lines on the graph. But the graph doesn't tell you what program is burning up the wire, just that transfers are happening.



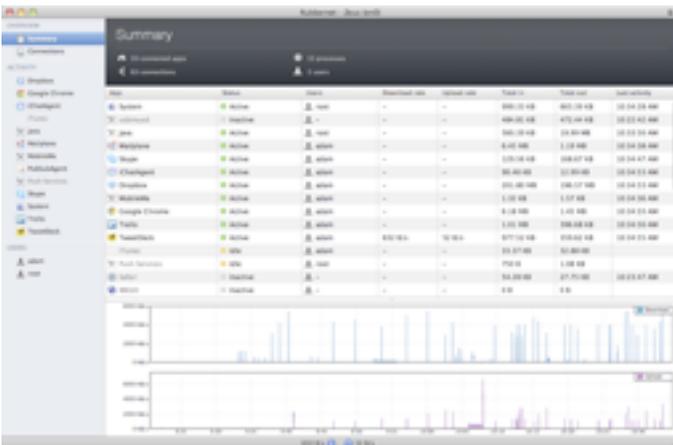
The \$34.95 traffic monitoring utility [Little Snitch](#), which I'll advise the use of later as one way to halt unwanted usage, has an attractive network monitoring display that shows consumed bandwidth over time and lets you drill down to usage by program and domains accessed by that program. But there's no additional information you can extract. You can watch the tool to see which apps are being chatty (for the previous 60 minutes only) or review

the overall usage later, but not get details that might help shape the rules you set in it.



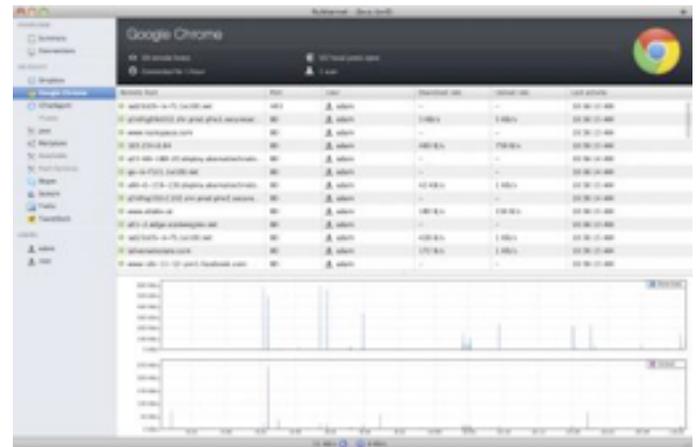
The best solution to this problem that we've found so far is Conceited Software's [Rubbnet](#), a €29.99 (roughly US\$37) Mac OS X program with a 15-day free trial. For casual research, its price might be too high, although it's almost (but not quite) perfect for our needs.

While Rubbnet is running, it summarizes all the traffic (sent and received) by every application, showing you the app name, whether or not it's active, which user the app belongs to, the download and upload rates, the total data in and out, and the time of the last activity. Double-clicking an active app (or clicking it in the sidebar), shows you the remote host names, port used, user, download and upload rate, and last activity. Both views show download and upload graphs for the last two and a half hours or so.



The Summary window is useful for identifying when significant amounts of data are being transferred, and then you can go to an app's detail view to try to

figure out what's happening (by examining the remote host and port columns). This works well for bandwidth-intensive apps that are relatively obvious, like SkyDrive or Transmit. (A tip: Rubbnet's "System" category is a whole bunch of unrelated things — we found that it even included RSS checking in Safari, which explained some otherwise inscrutable domains that were being pinged regularly.)



What Rubbnet doesn't offer, though, is a historical view of this data, which falls away after 150 minutes. That makes it tricky to understand certain events if you were otherwise occupied at the time. Rubbnet also omits past data consumption for inactive programs, making broader analysis even harder. We'd like to see a future version of Rubbnet do just that: add the capability to maintain data for longer, and alert the user when certain transfer rates are exceeded, so you could investigate bandwidth use when it's happening, rather than just seeing later that it did happen.

If running a network monitoring utility is more effort than you're willing to invest, you can still make some suppositions about what types of software will transfer non-trivial amounts of data, and once you've identified some possible culprits, throttle, pause, or quit them, as described later. The main types of software to watch out for are:

- Cloud-based synchronization services like Box, Dropbox, Google Drive, SkyDrive, and many others run in the background and constantly keep files up to date. If you're sharing folders with collaborators, any changes they make will be

pushed to your computer directly as well, which means that you could be bringing in significant quantities of data even when you're not sitting at your Mac.

- Internet backup services like Backblaze, Carbonite, CloudPull, CrashPlan, Dolly Drive, Mozy, SpiderOak, and many others also run in the background, copying your changed files out to the cloud. Backup services may run on a schedule rather than continuously, making them a bit more predictable than synchronization services, but if you've made substantial changes, downloaded large files, imported photos or videos from a camera, or anything else that creates or changes lots of data, you will likely see spikes in usage.
- Apple software updates can be an unpredictable source of significant data transfers. In the Software Update pane of System Preferences, you can set your system to download updates automatically whenever they're available. While many of these updates are small, updates to Mac OS X and some of Apple's applications can be in the 500 MB to 1 GB range. Software Update provides no indication that these downloads are happening until the Software Update application notifies you that updates are ready to be installed.
- Various uses of iCloud can consume significant Internet bandwidth, perhaps without you realizing. For instance, if you use iTunes Match and you play a song that isn't stored locally, iTunes will stream it from iCloud in the background. Or, if you purchase content from the iTunes Store or the Mac App Store, that content may be downloaded automatically to multiple devices without any further interaction from you. As more programs start relying on iCloud for synchronization of files, we'll could start seeing non-trivial bandwidth usage occurring in the background as iCloud keeps all our devices in sync.
- Google, because the company thinks in terms of Web-based applications, has set most, if not all, of its desktop applications to update automatically in the background. This prevents the user from having to think about updates, and protects users against

bugs and security holes, but could prove troublesome if an update decided to download while you're in a low-bandwidth situation.

Controlling when — and how often — Google Software Update checks for and downloads updates requires [working in Terminal](#).

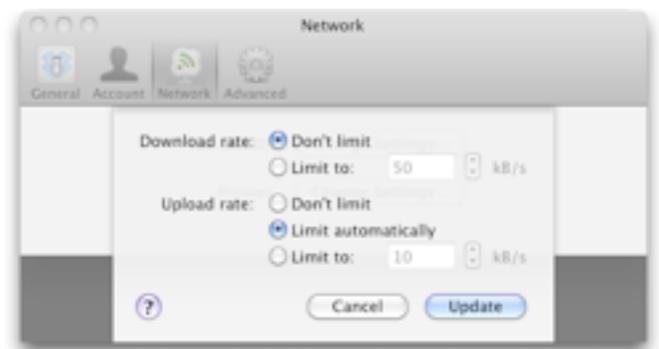
- Some applications, such as Google Chrome and Firefox, can update themselves automatically, downloading a new version when you launch the app.

Once you've identified the software on your Mac that's likely to transfer significant amounts of data, you can figure out some ways that you can limit bandwidth usage whenever you're in a situation where unbridled transfers would be inappropriate.

**Throttle, Pause, or Quit** -- Some applications that use data continuously may be throttled to reduce bandwidth usage, paused for a period of time or until you resume manually, or simply quit to prevent their activity entirely.

Throttling is the least extreme of the bandwidth-limiting solutions — when an app allows throttling, it lets you restrict its bandwidth usage. Throttling is best when you have an app that can do some useful work with limited bandwidth but which might try to consume significant bandwidth if not throttled. We're aware of only two popular apps that offer throttling: Dropbox and CrashPlan.

- Dropbox: From the Dropbox menu, choose Preferences, click Network, and then click the Change Settings button for Bandwidth. You can limit upload and download rates separately.



- CrashPlan: In the CrashPlan app's Settings screen, click the Network button. You can set rates in the

Limit Sending Rate pop-up menus for the WAN (the remote connection to your own or peer backups or to CrashPlan Central). There's little reason to limit LAN rates on most modern Wi-Fi or Ethernet networks.

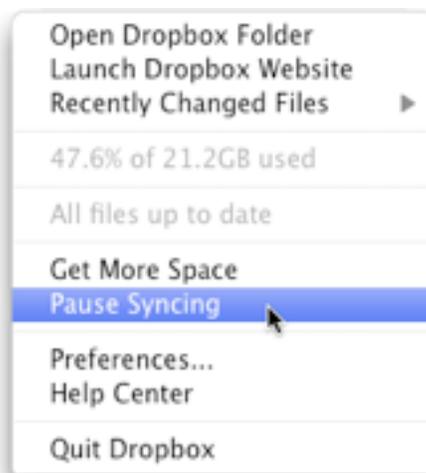


Some less-common applications include such a feature as well. SpiderOak lets you limit the upload rate to a user-defined kilobytes per second, Dolly Drive lets you set a slider that represents a percentage of available bandwidth, and SugarSync offers a similar slider labeled Low, Medium, and High. (The new Google Drive and updated Microsoft SkyDrive lack throttling.)

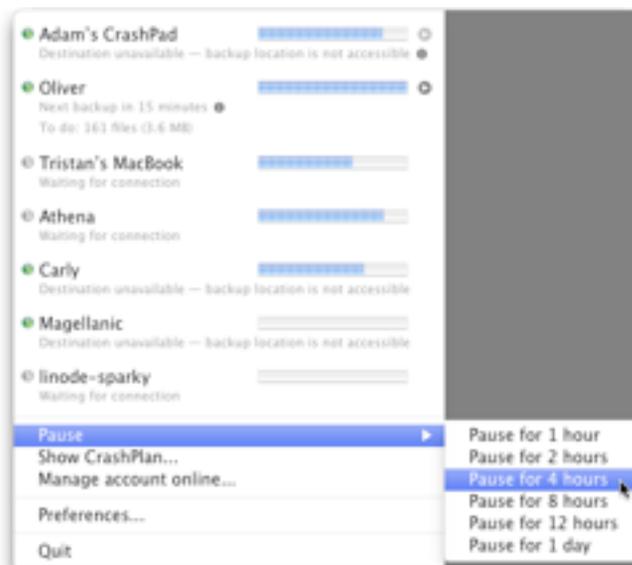
If throttling isn't available, you might be able to pause the application's data transfer activities entirely. Pausing is often more useful than throttling because then you know the app won't be using any bandwidth at all. Be careful, though, since it's easy to pause software while traveling, for instance, and then forget to re-enable it once you're back home. (Adam caused some version control confusion by pausing Dropbox during January's trip to Macworld | iWorld and then forgetting to turn it back on, thus working on an older version of a shared file.) Many network-intensive applications include a pause feature as a menu item or button in the interface; here's how to pause Dropbox and CrashPlan and various other types of programs:

- Dropbox: From the Dropbox menu, choose Pause Syncing. You'll notice that the little green badge that indicates that Dropbox is fully synced

disappears. To start syncing again later, choose Resume Syncing.

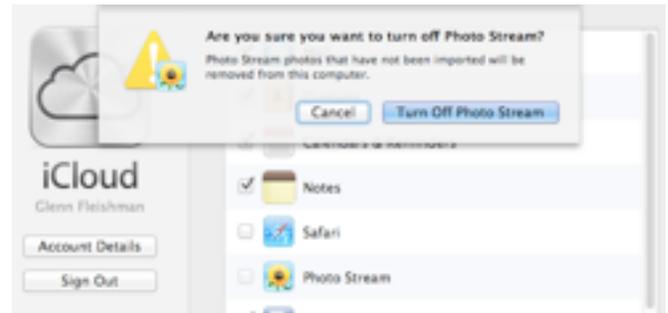
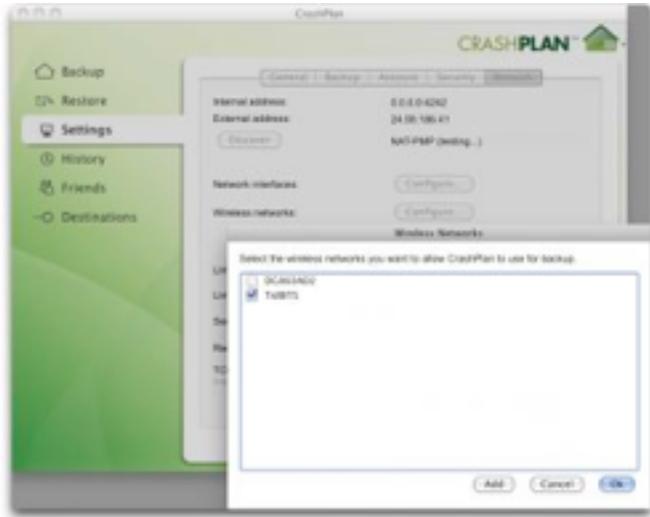


- CrashPlan: To pause CrashPlan, you must enable the system-wide CrashPlan menu bar icon (click Launch in the CrashPlan app's Settings screen) and then choose an amount of time to pause from the Pause submenu. If you want to start backing up again before the time elapses, choose Resume from the same menu. You can also run the CrashPlan app, double-click the house icon in the upper right corner to show CrashPlan's Command window, and then type pause; entering resume restarts backups.



CrashPlan can also be set to work only on selected Wi-Fi networks, pausing otherwise: in the Settings screen, click the Network button, then the

Configure button to the right of Wireless Networks. Select the checkbox next to the networks over which you want CrashPlan to work. Every new network to which you connect is automatically enabled, so you'll want to come in here to disable low-bandwidth networks.)



Finally, for a good deal of software, quitting or disabling its network functionality is the only way to stop it from chattering incessantly. That can be tricky if the software doesn't have standard menus with a Quit command, or at least an icon that appears in the Dock. If that's not the case, try these approaches:

- Email programs: Many email programs let you go offline or disable automatic checking through a menu item or a checkbox. You can opt for that, or, as is also common in many programs, set a maximum download file size threshold beyond which only the first part of a message is retrieved as a preview (an option with POP accounts) or just the message part without attachments (with IMAP accounts).
- iCloud: For iCloud, Apple offers only a binary control with a major flaw that we hoped would be rectified in Mountain Lion (it's not). You can disable iCloud services, like Photo Stream, Documents & Data, and Contacts, but Mac OS X will (with a warning before you proceed to turn the service off) delete the local copy of everything. For Photo Stream, it deletes all the photos in iPhoto that weren't imported. For the others, your data is washed clean from the Mac, but can be synced again if you re-enable. Logging out of iCloud is even worse: it deletes all synced content on your computer.

- A lot of applications that work primarily in the background provide a system-wide menu in the menu bar. Most such applications offer a Quit command, but it's worth verifying in Activity Monitor that you can actually quit the background process that's transferring data, and not just a companion application that provides the menu. If you don't see a Quit command, try holding down Option before clicking the app's menu bar icon to see if the menu reveals one.
- Check System Preferences for a preference pane for the app that might contain otherwise non-obvious controls to stop, pause, or quit the service. Some applications may also install companion apps in the Applications folder for such purposes.
- With Apple's Software Update, open the System Preferences pane and uncheck the option to Download Updates Automatically.



- Keep browsers from updating. Google Chrome will try to update itself in the background. Firefox can be set to do so as well in Firefox > Preferences > Advanced > Update.
- Twitter clients now typically use Twitter's streaming feed, which continuously polls and updates content. Although the overall bandwidth burden may be low, it could add up over time. Quit your Twitter client to ensure that it's not consuming bandwidth.
- As a last-ditch effort, look at the processes in Activity Monitor and quit any that you think might be transferring a lot of data. This is a brute force approach, and shouldn't be used routinely because it could corrupt data, produce unexpected behaviors, or cause general instability. Plus, such daemons tend to restart themselves automatically, so quitting them manually is seldom successful for long.
- Track bandwidth usage by protocol and application to help you discover which programs are transferring significant quantities of data.
- Provide warnings when data transfers approach or exceed preset values, either via alert dialogs, Growl, or Mountain Lion's notifications.
- Offer bandwidth throttling controls that could apply globally, or just to specific applications.
- Let you create and switch between profiles that either automatically (as with [Sidekick](#) and [Control Plane](#)) or manually (as with Little Snitch 3, noted above) change the throttling controls to match a location, or any time you're *not* in a particular location.
- Provide a central kill switch for blocking all incoming and outgoing network connections without having to resort to the Network preference pane or turning off the AirPort adapter.
- Automatically test the current connection to be able to report on the available bandwidth and potentially throttle apps dynamically in response to network conditions. (This is a more advanced feature, but would be welcome.)

As an alternative to quitting a particular program, you could also consider using Little Snitch to block its capability to communicate with the Internet. Starting with version 3 (available now in a preview release), Little Snitch lets you create and switch between profiles. You could, therefore, create a low-bandwidth profile in which *no* network traffic is allowed except for a few things you define, such as Web browsing via port 80 for http or 443 for https.

While using Little Snitch to block network traffic in a low-bandwidth situation isn't the best use of an application firewall, it can be effective. Be aware that hobbling some applications in this way may cause them to throw up alerts repeatedly to tell you they can't connect to the Internet.

### **Wishing for a Data Transfer Management Utility**

-- It wouldn't be that hard for a developer to write software to help users manage their bandwidth usage. (Apple could do so as well, but the fact that we don't see such capabilities built into Mac OS X suggests that Apple isn't interested.) What we need is a piece of software that combines monitoring, notification, and firewall capabilities. Such software should:

We're happy to talk more with anyone who's interested in writing such a utility, but in the meantime, developers of network-intensive applications should give more thought to notifying users of significant bandwidth use, providing throttling capabilities, and — at minimum — making it easy to pause and resume the software. Without such awareness and control, it's all too easy for a small number of users to ruin shared public bandwidth for many others, and even for individuals with tethered computers on mobile broadband to suffer from lousy network performance.

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Need Help? Have a question the manual doesn't answer? Members Helping Members is a group of volunteers who have generously agreed to help. They are just a phone call or an email away. Please

call only during the appropriate times, and **only if you are a current mini'app'les member** and own the software in question.

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Please call at reasonable hours and ask if it is a convenient time for helping you. By the way, many of these volunteers can also be contacted on our forums. We appreciate your cooperation.

**Mini'app'les needs more volunteers for Members Helping Members** — If you are willing to be a Members Helping Members volunteer, please send an email message to Membership Director Les Anderson or contact him on our forums with your name, telephone number, contact hours, and the software and hardware areas you are willing to support.

## Mini'app'les Membership Application and Renewal Form

Membership cost is \$15.00 for one year. To pay electronically using PayPal, visit the mini'app'les [website](#).

If you prefer to pay by check, use the form below. Please make your check payable to "mini'app'les."

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*Your email address will NOT be sold, shared, or distributed. It will be used only for official mini'app'les business such as distribution of the newsletter and membership renewal reminders.*

\_\_\_\_ Check if this is a change of address notice

\_\_\_\_ Check if you want to volunteer

\_\_\_\_ Check if you want to be added to "Members Helping Members"

\_\_\_\_ Check if you were referred by a club member (if so, please give member's name)

Please mail this application and your payment to:

mini'app'les

P.O. Box 796

Hopkins, MN 55343-0796

Thank you for your support!

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- Access to the mini'app'les online forums. Post questions and/or answers about issues, trouble shooting, products, buying and selling, special events, discounts, and news about Apple and the mini'app'les club.
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- Participation in drawings for computer hardware, software, and other computer related materials.
- Discounts from vendors and manufacturers. Refer to the on-line forums for current offers.

# mini'app'les

the minnesota apple computer users' group, inc.

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**Submissions** — We welcome contributions from our members. Perhaps you're using new software that you just can't live without. Maybe you have a new piece of hardware that you find extremely useful and of high quality. On the other hand, you might be struggling with problematic software or hardware. Why not share your experience with other members by writing a product review? Doing so may steer others towards quality products or help them avoid the problems you may be having.

Submissions must be received by the 15th day of each month to be included in the next month's newsletter. Please send contributions directly to our post office box (mini'app'les, PO Box 796, Hopkins MN 55343), or email them to [info@miniapples.org](mailto:info@miniapples.org).

The deadline for material for the next newsletter is the fifteenth of the month. An article will be printed when space permits and, if in the opinion of the Newsletter Editor or Publications Director, it constitutes material suitable for publication.

This newsletter was produced using Apple's Pages word processor.

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