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- **I Have Seen the Future (and It Is Wireless)**

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I Have Seen the Future (and It Is Wireless)

By Jeffrey Allen

Every year the powers of the world of electronics get together to flex their muscles and show off their newest offerings in the field of consumer electronics. This event takes place each January in Las Vegas, Nevada. Each year the event grows and attracts more people. Sometimes the exhibitors offer revolutionary change. Sometimes the change is only evolutionary change. But they always bring something new to show at the party.

This year's show made it clear that the future of technology in our lives is largely wireless. More and more devices have wireless functionality. And manufacturers promised still more. The scope of wireless functionality will continue to grow in the next several years. The wireless devices use all manner of communications technologies: RF, Bluetooth, WiFi, and soon WiMax as well. In the not-too-distant future we will have remote control units for almost everything. Home appliances, office equipment, and entertainment devices will all connect wirelessly, and we will control them wirelessly.

Until now wireless gadgets have required wires to recharge batteries, but this will likely change in the near future as well. New technology will allow electronic devices, such as cell phones, cameras, recorders, and the like, to charge by

resting in close proximity to a charging station, but having no plug connecting them to the charging station. No more power bricks, no more morass of wires: simply a single plug connecting the charging station to the electrical source. Place one or more devices near the charging station, and the rest will happen wirelessly.

The growth of the Internet will continue to function as an engine, driving communications, information processing, and storage, as well as technological growth. Web-based programs will move to the fore and serve as the basis of much of our computing. Computers will continue to shrink in size and grow in function. They will wirelessly connect to the Internet, allowing complete access to information, programs, and communications at all times and from virtually all places.

We have already seen the start of this evolution. Web-based applications and storage have grown dramatically in availability and function over the last few years. They will continue to grow and do so more rapidly. Web-based applications have the advantage of allowing us to access them anywhere we can reach the Internet. We do not need to work at our personal computers to access the programs: we can access them from almost any computer. Similarly, with the availability of Web-based data storage, our information, stored in cyberspace, remains accessible to us from any location that allows us access to the Internet. With applications and data available through a browser online, we will have the ability to work anywhere that we have Internet access.

Computers will continue to shrink in size and weight. Apple opened the door with its amazing iPhone. Part computer, part telephone, part Internet appliance, it represents a new direction in technological growth. Think about what happens when you combine a device like the iPhone with a wireless virtual full-sized keyboard, Web-based applications, and Internet-accessible data. Alternatively, look at the new Apple Air Book or even the MacBook or Lenovo Thinkpad X61 (larger and clunkier, but with better connectivity than the MacBook Air). Take that package and add a small handheld scanner such as the Planon Docupen 800 or the Iris Pen and a handheld printer such as the recently announced (but not yet released) Planon PrintStick, and a normal briefcase can hold a fully functional office set up. A slightly larger computer case will let you use the Fujitsu ScanSnap 300 (automatic as opposed to manual scanning) and the Canon Pixma iP90v or the HP DeskJet 460 (higher quality inkjet portable color printers as opposed to thermal printing).

The Core 2 Duo processor has become the standard in both desktop and laptop equipment. Some companies have introduced work-alike processors, but they

have not come on as strong with this processor type as they have in the past. Some of the desktop machines have already shifted to newer quad-core technology, but for the most part new computers continue to use the Core 2 Duo processors.

More and more of the services put on display at CES relate to the Internet— social networking, advertising, music services, video services, and on and on. The Internet continues to grow in influence in all parts of our life, and the displays at CES make it clear that the electronics industry plans to see that growth continue and increase in pace.

Plan on having an ever-increasing Internet presence and on more clients finding you through the Internet. Searching for attorneys online has developed into one of the great American passtimes. If you do not have a website for your practice, run, do not walk (better yet, Google) to find a host and someone competent to create your website. You can continue to pay for Yellow Page printed ads if you want, but ask yourself this: when was the last time you even saw a phone book? I have not seen one for several years. When I want to find a supplier of services or materials, the first thing I do is go online and check.

Many law firms and sole practitioners have already reached the point of not having a library with books and shelves. Let's face it: online research is faster, more current, and generally more accurate and complete than doing it "old school." Besides, if you want to quote language from a decision in a brief, your secretary has to retype it from a printed book. If you use an online research provider, in most cases, you can copy and paste the text and avoid the redundancy of retyping.

I still keep a room full of law books in my office and refer to it as the library. In truth I do it more for show than anything else. I think it makes clients feel more comfortable as they expect to see that in a law office (that may have more significance in consideration of older clients as younger clients may already have a full accommodation to the availability of information online research). In fact, we rarely use the books as we do most of our research online.

If your office does not yet have a wireless network either as the sole source of connectivity or as a supplement to a hard-wired network, expect that it will soon. Wireless connectivity now affords speed and reliability comparable to that of a hard-wired network. Companies such as D-Link, Linksys, and Belkin offer many options for reliable, high-speed wireless connectivity. Expect to have such equipment working for you both in your office and in your home. Also expect it to operate on the "N" protocol or standard. The "N" standard remains draft only,

but that has not stopped manufacturers from creating a vast amount of equipment that uses it. Eventually the standard will finalize, but as a practical matter, it does not appear likely that it will radically differ from the current draft standard. Moreover, even if it does, your equipment will continue to work as it did before. It may, however, not work properly with newer equipment (always a risk under any circumstances).

That said, expect to see more and more equipment designed to wirelessly interact with other equipment. You will see and increasing number of wireless hot spots and, in some areas, implementation of WiMax (a form of broad area high-speed wireless connectivity).

Another Internet-related service that has an increasing number of providers relates to information storage and backup of data. I have no doubt that you have heard many people advise you of the importance of backup procedures to ensure that you do not have any significant data loss or down time in the likely event of an equipment failure or crash. In the "old" days people backed up to tape storage systems and hoped against hope that the system would work in the event of a failure or crash of the main system. These days more and more people have shifted to hard disk-based backup storage, either in their office or "off campus" or both. Many online storage sites have emerged, and more and more will offer you their services. Online sites have both advantages and disadvantages. On the plus side, they have large capacities and generally charge reasonably for the use of portions of that capacity. You will not lose information stored this way in a common disaster with the loss of the information in your office as a result of a catastrophe such as a fire, flood, hurricane, or earthquake. On the minus side, you have potential security concerns and the question of access to the data if the host company fails financially.

We recently have seen the creation of Internet-based social networking services for everyone from school kids to professionals. Expect to see more of the same as Internet accessibility expands to virtually everyone and virtually every place. Your telephone service may already have long distance through an Internet-based provider using voice over Internet protocol (VOIP). Many providers offer such services at very reasonable rates. Calling across the continent or across the ocean (or oceans) has become very reasonably priced. If you have not tried VOIP, you should. It offers very clear and reliable connections at very reasonable costs. Many people in their personal and business life now use VOIP and connect video to it for videoconference calling. Probably the least expensive way to try VOIP is to download and install Skype on your computer and then start making calls. It costs you nothing to call another Skype user anywhere. They do

charge a fee to process calls from Skype to non-Skype connections or conversely (called Skype Out and Skype In). Some of the more sophisticated VOIP systems do not even require the use of a computer. You can connect the VOIP equipment to your cable modem or DSL and then connect a phone to it and start dialing.

The telephone industry and the Internet have grown more closely intertwined in another way as well. Many of the offerings at CES related to Internet media content delivered to consumers through "smart phones." A few years ago the term "smart phone" came out to refer to a breed of telephones (such as the Palm Treo) that did more than simply make phone calls. The smart phones had contact lists and calendars and sometimes cameras and then Internet connectivity. Today's smart phones make yesterday's smart phones look dumb by comparison. The top smart phones displayed have full Internet capabilities, handle email well, do text messaging, have reasonably functional cameras, download and play MP3 files (music, audio books, etc.), and download and play Podcasts and video files (including television broadcasts, movies, etc.). And let's not forget that many of them also contain (GPS) capabilities to ensure that you will not get lost while listening to your music.

Speaking of GPS, I lost count of the number of new vendors offering various iterations of GPS devices at CES. Damned near everyone had a new GPS device or some form of converged device that included GPS capabilities. Many of the GPS devices have received the bonus of extra features making them multifunction devices too. In addition to smart phones with GPS capabilities, we now have GPS devices that play music and show 3-D as well as 2-D images of the terrain and streets on your route. Some devices also function as hands-free kits for your cell phones using Bluetooth technology. Plug them into your car, pair the phone and the device, and enjoy your conversation while you get turn-by-turn directions (visually and audibly in most cases) from your color-screen GPS device.

Closely related to the marriage of cell phones and GPS is the ability to locate you (or at least your phone) in the event of an emergency. The only problem is that it may also allow you to be located in a nonemergency situation where you would prefer not to have people able to locate you . . .

Expect to see continued growth of flat screen televisions using plasma and LCD technologies. Screens will continue to increase in size and decrease in cost. Televisions will only function digitally in the near future. In 2009 broadcasters will move to exclusively digital content. If you do not already have a digital television, you will need to plan to get new equipment, either in the form of a

new television set, or at least some form of adaptor. Likely you will end up happier if you get the new television as, in addition to shifting to digital broadcasting, more and more television has started moving to HD (high definition) broadcasting as well.

If you have not had the chance to experience HD television, go to a TV store and look at it. The quality HD offers shows significant improvement over standard digital. When you look at HD sets, note that the earlier sets came out with a 720P standard and the newer sets have increased the definition to 1080P. While you may not see a significant difference in a small set (below 40"), you will see it in larger screens. Expect to see discounting of 720P sets. Newer sets also have started to come with a much faster refresh rate (120 Hz as opposed to 60 Hz). The faster refresh rate will provide better quality display of action.

This year's CES saw the introduction of several uses for OLED (organic light emitting diode) technology, including one 27" Sony television. Expect to see more of the OLED technology, which offers significant advantages to both LCD plasma screens. As OLED screens do not require backlighting and draw relatively little power, expect to see more use of the OLED technology in computer displays and battery-powered devices.

While you look at the HD screens and decide which one to get, check out some of the audio augmentation you can acquire from speaker manufacturers. The home theater setups available range from a few hundred dollars to several thousand dollars in cost. (You can find systems that will let you spend even more if you work at it). The home systems generally include a subwoofer and additional speakers (three front channel and two back channel speakers). The surround sound definitely brings the sound on DVDs to life.

Jeffrey Allen is the principal in the law firm of Graves & Allen with a general practice that, since 1973, has emphasized negotiation, structuring, and documentation of real estate acquisitions, loans and other business transactions, receiverships, related litigation, and bankruptcy. Graves & Allen is a small firm in Oakland, California. Mr. Allen also works extensively as an arbitrator and a mediator. He serves as the editor of the Technology eReport *and the Technology & Practice Guide issues of* GPSOLO *magazine. He regularly presents at substantive law and technology-oriented programs for lawyers and writes for several legal trade magazines. In addition to being licensed as an attorney in California, Jeffrey has been admitted as a Solicitor of the Supreme Court of England and Wales. He holds faculty positions at California State University of the East Bay and the University of Phoenix. You can contact Jeffrey via e-mail at* jallenlawtek@aol.com.

Features

- ### I Have Seen the Future (and It Is Wireless) »

  Get a grip on the gadgets that will get you unplugged.

- ### Affordable Bridge Software Options

  Now solos and small firm lawyers can compete with the Goliaths.

Affordable Bridge Software Options

By Leigh Bell

Who hasn't been a David against Goliath in the courtroom? Most every small or solo litigation attorney has stood against large-firm lawyers carrying arsenals of paralegals and support staff. It's sometimes intimidating, sometimes inspiring. It's a rivalry that built the best on-screen courtroom dramas.

Yet the archetypal showdown is becoming less common as technological tools empower smaller firms and equalize the playing field. Bridge software is one of the most effective weapons for the "Davids." These less-expensive, easy-to-use programs are breaking ground and make complicated litigation-support software more accessible and manageable for firm employees and attorneys.

Bridge software simplifies the three basic steps most every lawyer takes when going to trial: 1) capture information; 2) process and load the information; and 3) use that information to win. Larger firms with bigger budgets historically had the upper-hand in this process because they could afford to buy and maximize use of high-dollar litigation-management software, which is so helpful in lengthy trials. Bridge programs make litigation software accessible and realistic for small firms and solo lawyers that before couldn't afford it. And it saves firms that already have the databases but rely on outside vendors to convert files into it.

A single license for Summation or Concordance runs between $1,500 to $2,000. But the programs require image and file data to be processed, formatted, and organized in a load file before they can be imported into the application for use. Most often small and solo practitioners shuck out thousands of dollars on outside vendors to do this job. But wouldn't it better if they could do it on their own?

Bridge software accomplishes that. It simplifies the steps from capturing information to document conversion to load-file creation. Now these functions can be done at a desktop with little training. The software virtually builds a "bridge" to the databases. Bridge software allows firms to do steps one and two of the trial process in house. A firm can scan documents, convert documents—from multipage TIF to single-page TIF, multipage PDF to single-page TIF, and so on—while creating the necessary load files. Bridge software allows this process to happen in-house, meaning a firm can increase its billable hours or pass the savings onto the client.

It also reduces a firm's cost and dependency on outside vendors. Most importantly, law firms can get work product when they need it, instead of gambling on an outside vendor's time frame. Sure, outside vendors will still be necessary for large batches of documents, but bridge software eliminates that servility for single boxes or bundles of documents. This is key for small or solo firms.

"Technology has become the equalizer between small and large firms," said Simon Aleman, whose company iDea Mill Technologies developed the latest and inventive bridge software package, called Breeze. "It provides that three-lawyer firm or solo practitioner immediate access to electronic documents. Often that edge of time is the difference in winning a case against the biggest firm in town."

He said bridge software meets clients' growing demand to get things done more quickly. "Attorneys are winning or losing cases by how fast they can get the work done," said Aleman, who has worked as a litigation specialist for more than a decade. "Their clients are demanding it. The more they can work faster and better, the more they will be able to save their clients money, and the better off they will be."

Bridge software has been around for some time, but it was expensive and clunky, much like the databases it facilitated. That's because bridge software traditionally was made for and mostly marketed to service bureaus.

"A lot of these products have a little higher level of difficulty," said Tom

O'Connor, director of the Legal Electronics Document Institute, a nonprofit corporation established to promote the development of education and standards in the field of legal electronic documents. "Is it more cost-effective to send those documents to a service bureau to dump into Summation, Concordance, or whatever? Are you wasting time flub-dubbing around with a scanner and software you don't understand? Sometimes it can be less expensive to pay 12 cents, 14 cents, a page to someone to scan and convert it for you."

The developers of Breeze realized this dilemma. Aleman knew how cumbersome bridge software can be because he uses it nearly every day in litigation support. He wanted to create the antithesis. He wanted to create simplicity. So when Aleman wrote Breeze, he cut out bells and whistles that a service provider may want but a law firm doesn't need.

"It was us saying, 'Why can't a legal secretary do this at his or her desktop?'" Aleman said. "I saw this as a great opportunity to simplify the process and develop a product that would allow the end-user to perform these functions." The result is an intuitive program that allows an untrained end-user to scan, convert documents, and create load files in a few easy steps. Breeze also processes eStamp and OCR (optical character recognition).

With Breeze, a small or solo firm can maximize its investment in a multifunction device without paying a high-dollar professional for desk time. Breeze is packed with functions that firms need and free of the ones they don't. Without this superfluity, the software is simple and clean. And affordable.

Breeze is a fresh-faced pioneer in the field of bridge software because it offers for the first time a crystallized process that requires little to no training. Plus, its framework design allows for add-ons that catch the latest technology. Just thirty days after Breeze went to market last fall, it was in twenty-seven seats, including some in the nation's top-25 law firms. One firm said Breeze paid for itself in one day.

Doculex, Inc. also makes bridge software and markets it mainly to service vendors. But word caught on at small-to-midsize law firms, said Tim Nissen, Doculex's director of marketing.

"It was a surprise," Nissen said. "The smaller firms needed a streamlined way to quickly add this document to the collection they currently had. It was the simplicity of loading into Summation, Concordance and others. The thing that people wanted was speed. They wanted to put a small batch of documents into the large databases without outsourcing every single piece of paper."

Doculex's Goby Capture gathers and converts documents. Its Discovery Capture turns a scan to a load file, and it simultaneously scans and runs OCR.

"The user is literally in control," Nissen said. "It allows them to manage the image and capturing process. They can do it. They have total flexibility."

Doculex does offer training to use the aforementioned software, but Nissen said it isn't necessary. He said the programs are very user-friendly, especially Discovery Capture. Both programs are needed to scan, convert, and create load files.

Another company maximizing on bridge software is iPro Tech. It broke ground recently with the release of iConvert+. This is a free download that converts load files between different formats and offers and electronic file inventory. More than 5,000 downloads have occurred from the company website as of late fall, said iPro Marketing Director Donald Case. iConvert+ doesn't convert image files or create load files. It doesn't OCR or eStamp. It doesn't scan. Then again, it's free. If a firm wants those capabilities, Case suggested another iPro product called eScan-IT.

eScan-IT does eDiscovery, scans and prints documents at the desktop. It processes OCR and endorses, and it loads electronic evidence discovered into Concordance, Summation, and other databases. eScan-IT can process multiple jobs at one time with multithreaded processing functionality. eScan-IT is a scanning application, and it does not convert documents like Breeze does. That's what sets Breeze apart.

Breeze is a document and image-processing application. It doesn't require additional software and only needs a multifunction copier or scanner, which is the standard in most firms. That, along with Breeze's price tag, are major selling points to small and solo practitioners.

"It's really just ROI (return on investment)," O'Connor said. "How much time will it take me to get up to speed on this program? How often will I use it? What's the investment on dollar versus time?"

Technology is forever evolving the field of law. Look back five or ten years ago. Everything was paper. Now so much is digital. Already more than 90 percent of U.S. district courts allow e-filing. And ubiquitous in the courtroom are PDFs (portable document format) invented by Adobe Systems. Electronic discovery intersects every road of litigation today.

"We successfully figured out how to get paper documents into a digital and

manageable format," Said Aleman of iDea Mill Technologies. "Breeze helped with that. Now we are trying to get all of the electronic documents under control."

Bridge software also lets small or solo firms turn paper documents into digital ones, so they can be better organized and managed. That's key after technology put its stamp on a once paper-dependent profession. Even so, attorneys still eschew technology. The NIMOs (not in my office) remain in great numbers. The dichotomy is great.

Andrew Adkins, director of the Legal Technology Institute at the University of Florida's Levin College of Law, chuckled about consulting with a law firm in Tallahassee, Florida. Some attorneys there were digital down to the bone. Others didn't even know how to open email attachments. Neither set were better attorneys because of it, Adkins said.

"You can't force technology onto people," he said. "They have to embrace it ... A lot of it is just style. It's what you're comfortable with."

Look at Ernest Svenson, who most know as "Ernie the Attorney" in the "blawgosphere." Svenson is a national resource and frequent speaker on legal technology and says the most technology small to solo firms need is Adobe Acrobat. The latest version of Adobe 8.0 costs less than $500, and yet, its functions are limited. But like Adkins says, expense is a relative term. What's a couple thousand bucks to an attorney who spends tens of thousands of dollars trying an in-depth case? That's the gap small and solo firms can close with technology like bridge software. These firms are pushing the edge of a technological evolution in the law profession, Adkins said.

"They can make it work for them," he said. "They can buy a $1,000 system or a $5,000 system and make it work for them. They are the ones pushing technology and how to use it."

They are Davids catching up to Goliath.

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MacNotes
Macworld 2008 and More
By Jeffrey Allen

MacWorld 2008 has come and gone. Super salesman Steve Jobs did the keynote, as usual. While he had many interesting and evolutionary things to talk about, he did not present anything as revolutionary as the iPhone this year.

Apple used MacWorld to introduce upgraded software for the iPhone and the iPod Touch as well as the expansion of the iTunes store movie department. The iPhone update adds new features to the mapping program, including the ability

to identify your immediate location through triangulation, enabling you to get better directions more easily. You can now modify your home screen as well. The new software allows you to send SMS messages to multiple recipients concurrently.

Apple did announce some interesting new hardware at MacWorld. With the MacBook Air, Apple advances its position in the superlight laptop competition. I have seen it, touched it, and admired it. Eventually, I will probably get one, but not for a while.

Courtesy of Apple.

The MacBook Air reflects the style that we have come to expect from Apple's products. Its three-pound weight and slim profile will make it easy to pack and a delight to carry. Its projected 5-hour battery life will make it useful on long haul flights. It uses a full-sized keyboard, making it comfortable to use as well. Significantly, you can choose between a laptop with a traditional hard disk drive (80 GB @ 4200 RPM) or a 65GB flash memory drive.

So, why haven't I preordered one (they have not yet shipped)? Several reasons. My initial concern focused on the lack of an optical drive. Apple, however, has addressed that problem cleverly enough by giving you the option of buying an external drive (slim and svelte itself) for another $100 or of using the optical drive in another Mac through a piece of wireless and software wizardry Apple calls "Remote Disk." I can live with those options, even though the additional weight of the optical drive pushes the package total closer to the weight of the 5-pound MacBook.

The MacBook Air has a maximum of 2GB of RAM, comes with a 1.6GHZ Core 2 Duo Intel processor (you can get 1.8 GHz for an extra $300) and a choice of an

80 GB 4200 RPM hard disk drive or a 64 GB flash drive. The 64GB flash (solid state) drive, however, will cost you an extra $999.

Apple designed the MacBook Air to function wirelessly. It does not even have an Ethernet port for a hard-wire connection. If you want to connect to a wired network, you will have to get a separate USB-Ethernet dongle. I can live with that too, except for the fact that the MacBook Air only has one USB port. If you need to connect more than one USB device at a time, you will have to attach a USB Hub to that one USB connection.

One expects certain sacrifices in the interest of lightness and size in a superlight computer. The MacBook Air comes stripped of most connectivity options. It has a USB connection, audio out, and a Micro DVI port. That's it other than the mag plug connector for attachment to a power source.

The MacBook Air costs significantly more than a MacBook which comes with a faster processor, a built-in optical superdrive, and a faster hard drive, but also along with a larger and clunkier-looking case and between 1.5 and 2 pounds more weight.

One other issue with the MacBook Air relates to Apple's decision respecting the battery configuration. Following its design for the iPod and the iPhone, Apple created a laptop with a sealed in rechargeable battery that the user cannot easily replace. No more popping in an extra battery when the laptop runs out of juice. When it runs out of juice, it runs out of juice and you need to find a power source for it. The only portable option available (other than plugging into a car), an external battery, will likely prove heavier than the difference between the Mac Book and the Mac Book Air.

As slick as it looks, the cost-to-performance ratio of the MacBook Air will dissuade me from reaching for my Visa card for a while. I expect that the next iteration of the MacBook Air will reflect an increase in the amount of RAM available and an increase in the amount of storage available in the flash memory and in the hard disk options. When that happens, I will bite the bullet, deal with the connectivity issues, and get the MacBook Air. With a better price-to-performance ratio resulting from more memory and a larger solid-state drive, its sleek appearance and light weight will present an attraction most difficult to resist.

Apple also announced a combination wireless N router, storage, and back up device. It calls this marvel the "Time Capsule." The time

capsule will come in 1TB and 500GB memory versions. It looks much like the current routers, and the 1TB version will cost $499. This package will work hand-in-hand with the Time Machine feature built into the Leopard edition of Mac OS X (10.5) to give you mindless, thought-free, and completely automatic back up. This is really cool. Whether or not you have your own backup regime in place, you will want this. I plan to get one for my house as well as one for my office.

Speaking of Leopard, if you have not already upgraded to it, do it! I have a MacBook, a MacBook Pro, and iMac all running on it now and have had very few problems (mostly relating to the Apple Mail program). Setting Mail up again solved those problems. Leopard boasts some 300 new features. The new features Leopard brings to the party make it a good investment.

One of Leopard's best features, the Time Machine, gives you automatic back up with some panache. As long as you have an external hard drive attached to your Mac and Time Machine turned on, the computer will back itself up on a regular schedule. Once the external hard drive fills up, Time Machine will erase earlier backups and replace them with more current ones. The program works quite nicely and allows you to quickly and easily recover a lost or erased file in a very short time and with very little difficulty. It does so with graphics out of a science fiction movie, showing you moving through time to the earlier version. As mentioned above, Time Machine also serves as the departure point for the connection to the newly announced Time Capsule.

Some of the other new features worth noting include:

- Spaces, which allows you to have four different desktops that show different things and serve as home to different programs all at the same time.
- Bootcamp has evolved beyond public Beta. It has official status as a part of the Leopard OS. It allows you to boot your Mac hardware up into the Mac OS or into a Windows OS.
- Quick Look lets you see a document or picture without actually opening up its application. It gives you an instantaneous view to let you decide if you have found what you wanted. I have found this feature very handy.
- The Finder evolves with a "Cover Flow" concept that lets you browse files as you browse music in iTunes.

For a more detailed examination of the new features in Leopard, go to www.apple.com/macosx/. Apple has put together a pretty decent introduction to its new OS.

Another big piece of news from MacWorld: Microsoft used MacWorld as the

stage to introduce Office 2008 for the Mac. Yes, it finally happened—Microsoft released the new version of the Mac Office. Written for the Intel processor, the new version (no longer accompanied in the dock by the little "R" that means it runs through Rosetta) works much more quickly than Office 2004. It comes with a completely new to the Mac interface. I like the new interface—it has a clean and simple appearance. Once you figure out how to access all the features you have come to know and use, it works very well. In fact, I am creating this column in Office 2008, and the more I use it, the better I like it.

The new version of Office includes new templates, better graphics (including 3D graphics), better interaction between the programs, and, in the Media Edition, exchange server connectivity. It also shifts to the open XML document structure Microsoft used in its Office 2007 for Windows. After we have had the chance to explore it further, look for a more detailed review. First take, however, this looks like a worthwhile upgrade.

Until you upgrade to the new version of Office, you will need to get a converter for your Office 2004 to allow it to use the open XML-formatted documents. You can get it free from Microsoft: microsoft.com/mac/downloads.ms.

Jeffrey Allen is the principal in the law firm of Graves & Allen with a general practice that, since 1973, has emphasized negotiation, structuring, and documentation of real estate acquisitions, loans and other business transactions, receiverships, related litigation, and bankruptcy. Graves & Allen is a small firm in Oakland, California. Mr. Allen also works extensively as an arbitrator and a mediator. He serves as the editor of the Technology eReport *and the Technology & Practice Guide issues of* GPSOLO *magazine. He regularly presents at substantive law and technology-oriented programs for lawyers and writes for several legal trade magazines. In addition to being licensed as an attorney in California, Jeffrey has been admitted as a Solicitor of the Supreme Court of England and Wales. He holds faculty positions at California State University of the East Bay and the University of Phoenix. You can contact Jeffrey via e-mail at* jallenlawtek@aol.com.

Technology eReport

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TechNotes
Trends in Technology

By J. Anthony Vittal

Imagineering Comes True Revisited

I last wrote on this topic in the May 2006 issue—less than two years ago—when I discussed the announcement by the Technical University of Braunschweig in Düsseldorf, Germany, that it had developed entirely transparent organic light-emitting diode (OLED) pixels. Since then much of the work on transparent OLED panels has focused on their use for lighting, rather than for video

displays.

For example, Osram Opto Semiconductors has demonstrated a transparent white OLED prototype that has achieved a luminous efficacy of more than 1000 candelas/square meter. The large•scale prototype is 55% transparent, whether on or off, and Osram expects ultimately to achieve 75% transparency. Potential applications include partitions that are almost invisible by day and then provide a pleasant diffused light at night.

In the meantime, Sony has brought to market the first in a line of OLED-based televisions—the Sony XEL-1. While small (11" diagonal screen) and expensive ($2,499 MSRP), the screen is only 3 mm thick—about the thickness of a stack of three credit cards—making the XEL-1 seriously cool. Taking advantage of an OLED pixel's ability to be completely on or completely off, the XEL-1 offers an unprecedented 1,000,000:1 contrast ratio, as well as a 178° viewing angle without distortion.

Sony also showed a prototype 27" OLED TV at CES in January, with a 10 mm thick screen. Samsung showed prototype 14.1" and 31" OLED TVs at CES in January, but the 31" device is not scheduled for production until 2010. Toshiba, on the other hand, has shelved plans to sell OLED-based TVs because of the cost of mass production. Seiko Epson, however, still has the honor of having developed the largest prototype OLED display at 40".

Sony also has announced that it has developed a new application for OLED technology called organic thin film transistor (OTFT). The OTFT can be deposited on a flexible plastic display, which is the world's first full•color display that can project full color moving images even when the display is bent. Sony demonstrated small-format (2.5") prototype at CES, but with only 160 x 120 pixel resolution. LG.Philips LCD also demonstrated a small-format (4") prototype at CES, with 320 x 240 pixel resolution.

I'm just waiting for an affordable single curved video display that can carry the equivalent of three LCD displays for my computer—and give me the equivalent of a Cinemascope experience if I ever can find time to watch a movie.

High•Speed Wireless Computing Revisited

In the same May 2006 column, I discussed alternative wireless solutions involving a wireless PC card modem accessing third-generation (3G) networks using UMTS (universal mobile telecommunications service). EV-DO, or high-speed download packet access (HSDPA) is another alternative. At the time, I

noted the nominal speed disadvantage of these cellular data networks in comparison to 802.11-based WiFi networks—and the proposed development of advanced UMTS•HSDPA (3.5G) technology, which promised to offer an order-of-magnitude or greater speed increase over that of 3G networks.

A year later, by the end of 1Q2007, there were 117 million UMTS•HSDPA users worldwide, representing 68% of all global mobile broadband 3G subscribers. In the United States, that means that Sprint and AT&T Wireless (formerly known as Cingular) customers have access to UMTS•HSDPA, while Sprint and Verizon customers still are using the CDMA networks of those providers, affording them access to EV-DO technology. That forecloses Sprint and Verizon customers from access to advanced UMTS•HSDPA (3.5G) technology. In fact, Verizon has elected not to deploy HSDPA technology at all, opting instead for LTE (long-term evolution) technology to replace its current CDMA 1xEVDO Rev A network, and Sprint/Nextel (which lost 683,000 postpaid subscribers and 202,000 prepaid users during 4Q2007) has opted for WiMax.

Some commentators have suggested that advanced UMTS•HSDPA (3.5G) technology (such as 14.4 mbps HSDPA) never will be deployed because newer, faster, and cheaper technology will be available by the time current-technology HSDPA networks are fully deployed. By that time, HSDPA networks will be thinking about deploying MIMO (multiple in, multiple out) instead of deploying the older 14.4 mbps HSDPA technology.

What does this mean for you in terms of speed? In substance, not much, especially if you are using a newer notebook computer. In the real world, CDMA (EV-DO) and HSDPA are roughly comparable, because one almost never experiences the ideal throughput capability of any network, whether because of traffic volume or because of channel constraints.

What does this mean for you in terms of access? If you have a cellular- and WiFi-equipped notebook, you no longer are tied to WAPs (wireless access points) to access the Internet. Instead, you can have wireless access anywhere you have cellular access to a data network (including courtrooms, libraries, beaches, mountains, bars and restaurants) while enjoying WiFi speed when you are near a WAP (such as your local Starbuck's[1]).

You have two options for a cellular- and WiFi-equipped notebook:

- Some notebooks, such as Dell's[2] XPS M1530 or Latitude D630, offer the option of *both* built-in WiFi cards (802.11g, 802.11a/g, or 802.11n) *and* built-in cellular wireless capability using either EVDO ($149) or HSDPA ($199),

with technology that switches seamlessly between the two connections. If you're on a WiFi WAP and move away from it and out of range, the notebook simply transfers your online session over to the cellular wireless connection.

- Other notebooks offer only a WiFi card. If you have a WiFi-only notebook in your briefcase, you can add cellular connectivity by adding an external card. They come in three forms—those using a PC Card slot (such as the Sierra Wireless AirCard 881), those using an Express Card slot (such as the Kyocera KPC680 ExpressCard), and those using a USB interface (such as the Sierra Wireless AirCard 595U or the Novatel Wireless Ovation U727). Check with your cellular service provider to see what is available as an add-on to your existing service plan.

Predictions for 2008

It's the beginning of a new year, and those who pay closer attention to the world of technology than I have offered some suggestions of what to expect during 2008. Here is a sample of the predictions, for which I take no responsibility:

- The desktop PC (computer, plus separate monitor) will become passé. Instead, it will be replaced by integrated devices like the Dell XPS One and the iMac, notebooks, UMPCs (Ultra•Mobile PCs), thin clients (think terminals of 40 years ago) for server-based computing, etc.
- The HD DVD war with Blu-Ray will end. With Blockbuster reporting in mid-2007 that more than 70% of high definition rentals were Blu•ray discs, and with Blu-Ray outselling HD DVD by about 2:1 during the first three quarters of 2007, it is expected that Blu-ray, originally developed by Sony and Pioneer, will prevail. If that is the case, look into the future for 10-layer Blu-ray DVDs with as much as a 250 GB capacity or 200 GB re-writeable. Unfortunately, while the discs can be produced, reader and writer technology lags behind and does not yet support the additional layers.
- Cellular networks will move to VoIP. That prediction may be a bit of a stretch, but with Sprint/Nextel moving to WiMax for its network backbone and the other cellular providers using networks that are designed for moving both data and voice, a move to VoIP is not much of a stretch. More importantly, a move to VoIP signals a move to personal telephony—with everyone having a unique telephone number on which to be accessed any time, any where.

We live in interesting times, and the prospects for the future—at least as to technology that will be useful to us—are bright.

---

[1] WiFi access at Starbuck's requires a T-Mobile broadband account with either a monthly subscription or pay-per-day usage.

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SurvivingEmail

Why Limit Yourself to One Personality When It Comes to an Email Address?

By jennifer j. rose

You can remember the days when a single email address—usually something like *agoodlawyer@someisp.com* or *1492555@compuserve.com*—was as good as it got. If you can't, then you're probably too young to remember who shot Jock Ewing or John Lennon. Or a time when 14 kbps dialup was considered slick and fast.

Multiple e-mail addresses were a luxury known only to the elite who had their own domain names. And then came along RocketMail, Hotmail, and Lycos, followed by Yahoo! Mail, free web-based mail. Anyone could have multiple email addresses, making up user names on the fly. Even Beto the OfficeDog had his own email address back in those days. (He didn't use it very often.) Soon nearly every email client had the capability of handling multiple personalities, enabling users to send and receive email from a number of email addresses. The times of a single email address were over.

Now, why would a lawyer—or any other reasonable person—require more than one email address? The answer's easy and obvious: multiple email addresses, used wisely, can make filtering easier, cut down on spam and junk mail, maintain a professional presence, and make life a lot simpler. When we received only a whopping ten emails a day, sorting it all out was child's play. Today, anyone with a single email address can count on receiving at least ten times that amount.

Prudent and ethical lawyers don't commingle client funds with their own money. Almost all of them have dedicated areas in which they conduct business. Even lawyers who have home-based offices don't meet with clients in the family room or the bedroom. They keep law office business separate from their personal lives. Law office email should be kept just as separate.

Establish a separate email address for each reason that you send and receive email:

- The law office and its clients.
- Your personal life.
- Mailing lists. For a heavily-trafficked listserve such as Solosez (www.solosez. net), it makes good sense to use a single email address dedicated only to that list. See Gmail: The Mail That Groks and Rocks.
- Registrations, e-newsletters, catalogs, and junk mail.
- Secret email. When you're trolling on Match.com, selling something on eBay, or haunting Craigslist, it can make good sense to use a relatively anonymous email address that does not disclose your true identity.
- And for the truly paranoid, there are even disposable email addresses such as Spamex (www.spamex.com).

Those who own their own domain names (and doesn't everyone today?) have yet another tool in their arsenal to impress clients. Let's say your law office domain name is *YourLawOffice.com*, and your name is Tom Terrific. Most of the email directed to you is addressed as *TomTerrific@YourLawOffice.com*. Assign each client his or her own email address to be used in communicating with your

office. Doing so can deliver a dose of special attention to the client while making a lawyer's email management tasks easier.

How many times have you received an e-mail like this one?

> *Date: Tue, 22 Jan 2008 09:19:18 -0800 (PST)*
> *From: QT4U <@yahoo.com>*
> *Subject: hearing*
> *To: TomTerrific@YourLawOffice.com*
>
> *Hi Tom,*
>
> *How's my case coming along? I have some urgent news. Call me right away.*
>
> *Joe*

You're representing six clients named Joe, and there's nothing in the email that provides the slightest clue as to which Joe sent that email. Was it Joe Smith, Joe Fernandez, Joe Gee, Joe Fulano, Joe Jones, or Joe Black? You're left scratching your head, trying to figure out what to do with this email. There is a solution.

When you begin your representation of each client, you created a file number in your office for that client and his or her case. Create an email address specifically for that client, using the client's file number as an email alias. If Joe Fernandez' file number is 2308Fernandez, the email addressed assigned to him could be *2308Fernandez@YourLawOffice.com*. Instruct the client to send all email concerning his case to your office at *2308Fernandez@YourLawOffice.com* instead of to *TomTerrific@YourLawOffice.com*, advising the client that this email is to be used only for communication with your law office and for no other purpose. Create a mailbox or folder within your email program just for mail sent to you from *2308Fernandez@YourLawOffice.com*, and develop a rule for filtering all mail coming from that address so that it's delivered to that mailbox or folder. You've just taken one step toward solving the mystery of the ambiguous email.

jennifer j. rose, former editor-in-chief of GPSOLO *and secretary of the GP|Solo Division, receives her email at jjrose@jjrose.com in Morelia, Michoacán, Mexico.*

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SitesForSoreEyes
Fun and Handy Reference Sites That Rock!

By Jim Calloway and Courtney Kennaday

We think the World Wide Web is like a huge treasure hunt in the biggest maze in the galaxy (*Pirates of the Caribbean* meets *Harry Potter* meets *Star Wars*). But unlike a maze, there aren't any dead ends. Even our least fruitful Internet searches often result in our finding a website that is cool or useful (or both). When we find one of these sites, we like to slap it into our Bookmarks or Favorites folder—where we sometimes forget about it until we rediscover it by chance much later. Then there are the websites we use more than any others: the

reference sites. It's not all about Google, people! There actually are websites that make your search easier and give you better results than the wild hits search engines often produce.

You already know about megareference sites like Findlaw, Wikipedia, and About.com. And while you could argue that *most* websites are "reference" sites, these sites are right handy (as we say in our neck of the woods) and some are just plain fun. Some have been around for a long time; others are newer (but we hope they stick around).

Let's begin with the mother of all reference sites, Refdesk.com. It may not be as well known and popular as the first three sites we noted, but this site bills itself quite immodestly as "the Single Best Source for Facts" and, frankly, after anyone visits it, they will find it hard to disagree. Founded in 1995, this site is quite likely the oldest Web reference site that is still incredibly useful and valuable today. For sites to be included by Refdesk, they need to be free, accurate, objective, clear, and have the author's or publisher's credentials available for verification. What else could you possible want from a reference site?

How do we even begin to describe the range of reference links provided by Refdesk? Well, let's start with a traditional media form, the newspaper. Whether you'd like to see the websites for newspapers published in Indiana (54), India (23), or Indonesia (9), you can find the lists of newspaper links in seconds on Refdesk. They may publish all or only part of their content online, but Refdesk is the path to finding any newspaper site in seconds.

But newspapers are only the beginning. Almost any collection of facts you can imagine may be located from Refdesk. Features include links to news photos and stories, photos of the day, Daily Diversions, online phone directories, area code and zip code finders, calendars, calculators, dictionaries, government sites, the Kelly Blue Book, Robert's Rules of Order, maps, and many other reference sources. In other words, if you are only going to add one link to your collection from all of the reference sources we are providing to you, Refdesk is probably it.

Wikipedia, the free encyclopedia anyone can edit, is without a doubt the largest free online reference resource. The fact that anyone can edit it and a couple of well-publicized Wikipedia hoaxes have led many lawyers to classify Wikipedia as unreliable when nothing could be further from the truth. First of all, the vast number of Wikipedia users mean that the resource is self-correcting. While someone might edit an entry in a way most of us would view as untrue, it is likely that it would be edited again by another Wikipedia user within seconds.

For high tech terms or popular culture terms, there may be no better quick reference resource. If you want to see every song that made number one each week on the Billboard 100 for a given year or a recap of the 2000 NCAA football season, Wikipedia should be your first stop. And even though you might still feel uncomfortable citing Wikipedia in a brief (we might, too), many court opinions have included citations to Wikipedia. (See this January 2007 *New York Times* article[5] on that topic.)[6]

There are lots of uses for Wikis. See, for example, wikiHow[7], the How-to Manual you can edit.

Thomas[8] has been around since 1995, but we still meet lawyers who haven't heard of it. So here's a refresher of some of its offerings: bills, resolutions, activity in Congress, the Congressional Record, Committee information, treaties, and government resources. For most small firm lawyers, the Bill search is the most useful feature. The search screen is on the home page where you can't miss it. While we're on the subject of Thomas, we would be remiss if we didn't mention the Library of Congress site[9]. You can use the "Ask a Librarian" service, read about preserving your precious documents and photos (even when flood damaged), and hop over to the Law Library of Congress.

Encyclopedias

Once the pride and joy of homes across America, the *Encyclopedia Britannica*[10] online[11] offers an exciting alternative to the dusty (and quickly outdated) print volumes. One cool feature we like is the "This Day in History" video each day. But Britannica isn't the only game in town. Encyclopedia.com[12] provides users with more than 57,000 frequently updated articles from the *Columbia Encyclopedia*, Sixth Edition. Each article is enhanced with links to newspaper and magazine articles as well as pictures and maps provided by HighBeam Research. The home page features a hit list of articles that delve deeper into today's headlines. Search articles by keyword or browse easily from the A to Z list. If your search yields a magazine or newspaper article not included in the thousands of free ones, you can get it for a fee by subscribing to HighBeam Research service.

Dictionaries

We don't know about you, but the last time we picked up a bound dictionary the Internet was down. With all the great choices online, and the speed with which

we can look words up, why would we choose a book version? For starters, there's OneLook[i]. Think of this website as a search engine for words and phrases or a portal for dictionaries. If you have a word for which you'd like a definition or translation, it will quickly shuttle you to the web-based dictionaries that define or translate that word. If you don't know how to spell the word, it will help you do that too. No word is too obscure: more than five million words in more than 900 online dictionaries are indexed by the OneLook® search engine.

If that Black's Law Dictionary is getting heavy for you, consider one of the online legal dictionaries. There's Findlaw's Legal Dictionary[ii] which provides the searchable *Merriam-Webster's Dictionary of Law* (1996) (also available at http://dictionary.reference.com/legal/.) For basic legal definitions (handy for explaining to laypersons), Wex[x], from Cornell University Law School is one of our favorites.

If you are not LOL while others are ROTFL at the latest text message on your cell phone or instant message from a colleague, head over to Netlingo.com[v]. It could be you just need a short course in net lingo, including commonly used acronyms and emoticons. At least you'll know if someone just called you a bad name. For a serious glossary of "Computer Oriented Abbreviations and Acronyms," try Babel[vi]. According to the website author, he became frustrated while reading anything pertaining to computers with all the abbreviations and acronyms used but not explained. Don't be fooled by the plain Jane looks: this list is comprehensive. On the day we checked, it was 98 print pages long.

Reference Guides

If you are searching for the proper way to construct a sentence, venture over to Bartleby.com. While Bartleby primarily features the text of books that are, ahem, a little long in the tooth, some books age better than others. From time to time, we actually use Bartleby for English usage, style and composition www.bartleby.com/usage/. In particular, we like the *American Heritage® Book of English Usage*, 1996; *The Columbia Guide to Standard American English*, 1993; and the 1918 edition of *Elements of Style* by William Strunk, Jr.

Snopes[viii] is not the only website dedicated to debunking Internet hoaxes. But after a head-to-head comparison with some other sites, we have decided that its thoroughness is unrivaled. With election season upon us, there has been a noticeable up-tick in the number of political emails littering our mailboxes. Using several of these as our test cases, we compared Snopes to TruthOrFiction[ix].

com and About.com. While the basic "truth" was uncovered in all, Snopes' research was far more exhaustive and well-documented than the other two. We also find it to be relatively uncluttered to look at and easy to use.

Did you know that *The Bluebook, A Uniform System of Citation* is now in its eighteenth printing? At least, that is what we hear. Our copies from law school are long gone or dog-eared, and for some reason, we are loathe to buy new ones. That's where Basic Legal Citation comes in. For most of our purposes (let's face it, we aren't writing many Supreme Court briefs these days), the online citation guides we find are sufficient. (Jurisdictional rules vary as to required citation form.)

All in all, these are a few of our favorite websites—ones we use on a regular basis. So get out of your search engine rut! Or at the very least, type "reference websites" in your search engine. You are sure to see the American Library Association's Index of Best Free Reference Web Sites.

Happy researching!

Jim Calloway is the director of the Oklahoma Bar Association Management Assistance Program. He served as chair of the ABA TECHSHOW™ 2005. Calloway publishes the weblog, Jim Calloway's Law Practice Tips, at http://jimcalloway.typepad.com, and was coauthor of the book, Winning Alternatives to the Billable Hour. *He serves on the GP|Solo Division Technology Board.* **Courtney Kennaday** *has been the practice management advisor of the South Carolina Bar since 2002. Her PMAP (Practice Management Assistance Program) web pages are among the most visited on the SC Bar website and were recently ranked number five by the ABA in the top six best state bar resources in the country. One of her favorite things to do is to talk about law office technology.*

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ProductNotes

» HP MediaSmart EX475

» JD Supra

HP MediaSmart EX475

By Jeff Rambin

I'd like to recommend this product. But I can't. The HP MediaSmart EX475 machine running the new Windows Home Server software could be a very useful product for many solo/small office law firms. It automatically backs up

networked computers. It's a file server, so all networked computers can share the server's files. And it allows remote access to those files anywhere you have Internet access. And it may be worthless. Microsoft is dealing with a data bug that could, sadly, be the undoing of an otherwise promising product. First, the promise.

Sprite with a Bear's Appetite

The HP machine is Sandy Duncan on the outside, William "the Refrigerator" Perry on the inside. It's small and pretty, but storage space on the EX475 is 1 terabyte standard (two 500GB hard drives – roughly equivalent to a stack of 1 million of the hard plastic 3.5" floppy discs us old timers used in college). There are four drive bays. Each bay can hold up to a 1TB drive, so 4TB of storage is possible. Even more if you count the drives that can be added with eSATA and USB external ports. All for $750 or thereabouts. Or $600 for the EX470, which has 500 GB of storage.

Home Server at the Office

Don't be fooled by the name Windows *Home* Server. This product has uses in the office. Granted, the stated target audience for this product is broadband-connected homes with multiple computers that need backing up (10 max per the WHS license), and need to share a common pool of family music files, photos, videos, and documents. Microsoft figures there are 40 million such homes. What Microsoft isn't touting is that WHS machines can be hooked up to existing server/small business server networks for file sharing, media streaming, and client backup (but not server backup). Those uses are permitted under the license (I've confirmed this with Microsoft). So what gives? Business servers don't currently have the backup features of WHS, and there are a lot of small firms with aging server machines that don't have the storage of the HP EX475. Microsoft (and their hardware vendors) would rather such businesses wait just a little while for new business server machines and software than keep their current systems going for another year or two with a WHS. At least that's my guess.

Setup

Setup is fairly easy. It's not truly plug-and-play, though. The machine is "headless" – you can't hook it up to a monitor or a keyboard. Nor, for that matter, does it have a CD or DVD drive. The only way to get to it is through a client computer. To do that, you've first got connect the WHS machine to your router via a wired (preferably gigabit) connection. Next comes installing the "connector" software on a client computer through the familiar process of putting a CD in, clicking "I agree" to the license terms and watching as the

software jumps from the CD to your hard drive. Once that's done, the client computer automatically seeks out the WHS machine on your network. The client can then pull up the WHS "console" interface – sort of a web-page that lets the clients manage the server. The console is well-laid out, and the setup walkthrough is a straightforward matter of setting up user accounts and passwords. The most difficult part of setup involves configuring the ports on your router for the remote access features of WHS. This will vary from router-to-router. Sometimes WHS can do this automatically, sometimes not. So it boils down to this: anyone who has set up a home or office wireless network can install the WHS, while anyone who hasn't set up a network before will probably be able to get the WHS up-and-running for purposes of backup and file sharing but will likely need assistance enabling the remote access features if WHS isn't able to auto-configure the router.

Drive Management

WHS is built on a pared-down version of Microsoft's business-class server software. Plus a new trick or two. The primary new trick is something called "Drive Extender." With Drive Extender, WHS spares its users the geekdom of managing multiple-drive RAID systems. If you don't know the difference between RAID 0, 1, or 5 (much less how to set up such things), you can join me in blissful ignorance. Having multiple drives on a server is good, though, because it's nice to have all of the data on multiple drives in case one goes bad. Drive Extender manages the multiple hard drives for you. All you have to do is say what shared folders you want to create, and check a box if you want WHS to maintain duplicate copies of those folders on separate drives. WHS takes care of the rest. This feature is called, are you ready . . . "folder duplication." Very handy.

Backup

Another new trick is the automatic backup feature (not presently offered on the business-class server software). Backups are automatically scheduled, but can also be done manually at any time. Microsoft recommends doing the first backup with the client computer attached via a wired connection. I tried it with a 802.11g wireless connection, and it worked fine (it took a couple of hours, but between 2 and 4 am, I wasn't really watching). Subsequent backups are much quicker, as it only backs up what has changed. Another benefit of Drive Extender is that it doesn't save the same stuff twice. For example, say you're backing up three computers and they all are Windows XP SP2 machines with Microsoft Office. WHS only maintains one set of the data for XP SP2 and Office. It keeps an index of which backups will need those files, and when you go to restore, it pulls XP SP2 and Office from the common files. Sounds iffy to me, but it works. And it saves a ton of drive space. The backups can be accessed in two ways. First,

from within the console, a client computer can "open" a backup. Opening a backup takes a few minutes as the Drive Extender looks at the index and assembles the necessary files. Once the files are assembled, they open up in a new window and you can copy and paste files as you would normally. So "opening" a backup is great if there's just one folder or group of files that you need to get to (as in using last week's backup to retrieve a folder you deleted yesterday thinking you'd never need it again). The other way backups are accessed is via the restore process. WHS comes with a client restore CD. If a client computer's hard drive crashes, just install a new drive. Put the restore CD in the client, boot it up, and the restore software will automatically connect to the WHS machine, identify the client computer (based on its MAC address), and ask which of the backups you'd like to restore. Then walk away, let the restore operation work, and twenty to thirty minutes later (assuming a wired connection between client and WHS) your client computer is back in business. Same deal if the drive is fine, but you just installed some software you wish you hadn't. Do a restore to a week or so ago (before the software installation), and when that's complete, open the automatic backup from yesterday to recover the most current version of the "My Documents" folder.

Media Sharing and Add-ins

It's clear that Microsoft, HP, and many other vendors hope to make WHS machines the hub for all things digital. One of the key parts of this strategy is the "Add-ins" feature of the WHS software. Microsoft has made a "Developer's Kit" available to programmers, and is striving to develop a broad base of independent additions to the WHS platform. HP, for one, tweaked the console on the WHS software to have built-in folders and management tabs for music, photo and video sharing within the WHS network, as well as a photoshare web interface for the outside world. There are many small developers who are tweaking WHS as well. One of the most prominent is Andrew Grant, whose Whiist add-in makes it easier to add new websites to the WHS remote access feature. Other add-ins offer remote access to home electronics (set your thermostat, turn on your lights, etc.), or allow you to tie the WHS into an online backup solution for another layer of data protection. The most comprehensive list of add-ins appears to be on Terry Walsh's We Got Served WHS site. This add-in community will bear close watching.

Beware of Bug

There have been some data loss issues with Drive Extender. The issue doesn't appear to impact the backup function, just the file-server function. Data gets corrupted when users are editing documents stored on a WHS shared folder. Which raises the question: "What good is a file server if it's read-only?" I would

say that you could work around this by temporarily saving the file on the client computer as you're working on it, and then saving the finished product back to the WHS. But Microsoft now says "We recommend that you do not use the programs that are listed . . . to save or to edit program-specific files that are stored on a Windows Home Server-based system." So, apparently, you can't even save a read-only file from the affected programs. At first (December 2007), Microsoft said the list of such programs was short. Microsoft vowed a quick fix. As of February 25, 2008, it's not fixed. And the list of affected programs has grown to include such standards as Quickbooks, Quicken, iTunes, and shockingly, Microsoft's own Outlook, Excel, and MediaPlayer. Keep an eye on Knowledge Base article #946676.

Areas for Improvement
Everyone on the WHS project should be working 24/7 to fix the bug. If they can get that done, then and only then can we quibble about more routine product tweaking. Such as: WHS's search features could be improved. WHS comes with Windows Desktop Search. But getting to it is a pain, and the interface compares poorly to the Desktop Search interface on Vista and/or XP machines with the optional Desktop Search download. It would be much more convenient if the indexes on WHS and the client computers were linked, so that a client could search its own drives and the WHS shared folders at the same time, and show the results in one window.

Drive Extender doesn't work with file names over 260 characters long. The "name" includes the folders and sub-folders where the file is located, so a little reorganization is in order before moving a set of matryoshka nesting doll folders to the WHS. Also, the folder duplication function of Drive Extender needs an "auto-suspend" feature. The manual recommends that you turn off folder duplication when copying large amounts of data to a WHS shared folder. It can slow down the system if it's trying to copy the files from the client to one WHS drive and, at the same time copy them to a second drive on the WHS. It seems to me that Drive Extender ought to be able to figure out when the incoming files will present this problem and save the duplication until the copy from the client is complete.

The HP EXs only come with 512MB of RAM. But the blogosphere is replete with posts from those taking full advantage of the media-sharing and web-hosting features who howl that 512MB isn't enough, and are posting how-to's on adding more memory –and thereby voiding the warranty. I haven't had a memory issue yet with my unit, but perhaps HP could offer more RAM on future machines or make a RAM upgrade slot easily accessible.

Also, for security purposes, it would be nice for future machines to support drive-level encryption. Internet security is always a concern for any connected machine. But the HP WHS machine is so small, and the drives so easy to remove, I'd be afraid someone might just up and walk off with one. Physically. Using their legs.

Improvements in the Works

Microsoft has announced a Power Pack to be released in Q1 2008. One of the main benefits of the Power Pack is that it allows drives to be accessed without adding them to the stable of drives managed by Drive Extender. As a result, users can pop a drive into a spare bay, copy shared folders and client backups (or even back up the WHS operating system itself), and then pop the drive back out. This is great if you want to keep a copy of all of your data in a safe deposit box or some other offsite location. The Power Pack will also permit more customization of the remote access interface. Currently, anyone set up for remote access can navigate to a tab that shows the computers connected to the WHS. This is great if you're on the road, you're the geek of your family, and you need to remote desktop in to a spouse or kid's computer to diagnose/fix a problem. Not great if you want to give a remote access password to a client for the sole and only purpose of sharing a specified folder. With the Power Pack, you'll be able to hide the tab that shows the computers on your WHS network. The Power Pack will also address compatibility issues with 64-bit machines which, as of today, don't work with WHS. HP has announced updates as well, including improved media streaming capabilities, and free (for a few months at least) McAfee enterprise virus protection for the WHS machine and all clients.

Is It a Strawberry?

Have you ever rooted for an athlete that had all of the physical gifts in the world, but was such a head case that things just never panned out? That's what Microsoft has on its hands here. And it makes me sick. I really, really hope things get turned around. I'd love to see this product fulfill its great promise. That's what my heart says. My wallet says, "Don't bet on it."

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JD Supra
By Marc Stern

In the 1930s, The Martindale Hubbell company started publishing a catalogue of lawyers. In time it grew to be the single-most comprehensive and prestigious listing of attorneys in the United States. Since its inception, competitors have sought to compete with and ultimately replace it. The age of the Internet brought new competition, i.e. Findlaw, AVVO, and others. Martindale responded with Martindale.com and Lawyers.com. Martindale and all of its competitors use the same model, a listing available to search engines and a profile by the attorney describing the firm, its members, practice, representative clients, or other information believed useful by either the company or the subscriber. The information, while published online, is substantially similar to the old model that used books.

JD Supra, founded by experienced business attorney Aviva Cuyler, is about to change all that. JD Supra takes attorney marketing into the 21st Century. It provides something different and more innovative than all of the lawyer search engines that have preceded it. JD Supra provides real content contributed by the lawyers it lists. Its trademark is "Give Content, Get Noticed."

Cuyler started the site because lawyers regularly draft documents that are used once and then forgotten. Many of these are prime examples of the lawyer's craft.

JD Supra provides a method for the lawyer to showcase that work by posting it in a searchable database linked to the lawyer's profile. The brief that took days to write and is an example of your best work need not be relegated to the file cabinet but can be uploaded to showcase your experience in this area of law.

In order to get listed, the attorney must contribute a brief, motion, article, or some other legal document. These are then indexed by area of law, jurisdiction, type of document, subject area, and contributor. Posting documents is free. A basic listing that includes a logo or photo, name, contact information, practice area description and list, honors and awards, professional associations, and education is also free. Cuyler explains that she expects to produce income by selling enhancements to the basic listing, as well as advertisements on the site. A listing with direct links to an attorney's email, websites, and blogs, will cost $20 per month or $240/year. No doubt other enhancements, and charges, will come.

Once the site is fully operational (it is scheduled to be online by the time you read this review), it will allow searches for briefs, decisions, papers, and other documents. The search engine is designed for use both by both lawyers and the lay person. You can limit the search by jurisdiction, subject matter area, document type, and search terms. This will enable a lawyer searching for a brief on a subject to find what another lawyer has done in the past, learn from it and, hopefully, improve upon it.

The site is designed to allow potential clients to read actual documents written by the lawyer before contacting or retaining the lawyer. Cuyler indicates that the site as originally contemplated would let lawyers benefit from their colleagues' work and connect with real people. Potential clients could search, determine which lawyer was doing work on questions similar to their case, and then contact the lawyer.

In the reviewer's opinion, this system offers many potential advantages, particularly for lawyers and corporate counsel looking for local counsel in a distant place. Instead of looking at what someone says about a lawyer, for the first time it will be possible to look at actual work done by the attorney before making the hiring decision. Clients may find this instructive; however, lawyers will probably be better able to judge the quality of the work actually done.

(ABA Publishing, 2005). He serves on the ABA's Task Force on Attorney Discipline of the Joint Ad Hoc Committee of Bankruptcy Court Structure and is a contributing author to its Report on the Scope of Inquiry Required Pursuant to §707(b) as amended.

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2008/09 GP|Solo Division Committee Appointments Due March 3rd! »

Robert A. Zupkus
Chair-Elect, GP|Solo Division

Each year the Division's Chair-Elect appoints more than 250+ members to leadership positions within the Division. These positions include everything from active Committee and Board Chairs who attend all GP|Solo meetings to Committee Member appointments that work via listserve.

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H. Thomas Wells, Jr. (ABA President-Elect), Karen J. Mathis (ABA Immediate Past President), Henry F. White Jr. (ABA Executive Director)

This year's Solo & Small Firm Lawyers Breakfast Caucus at the ABA Midyear Meeting included a panel discussion on the top five issues of concern to solo and small firm practitioners and featured Karen J. Mathis (ABA Immediate Past President), H. Thomas Wells, Jr. (ABA President-Elect), and Henry F. White Jr. (ABA Executive Director).

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GP|Solo Law Students Get New Webpage »

In GP|Solo, we're fortunate to have a good number of law student members, and we wanted to create a special webpage just for them. GP|Solo has added **new articles, helpful tips & tricks, and even an RSS feed** to its page just for Law Students.

Each month a new article for Law Students will also be featured in the Buzz (just look for the "Law Students" link on the left). The content will be updated frequently, so check back often!

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Call for Applications: GP|Solo Young Lawyer Fellows »

The ABA General Practice, Solo and Small Firm Division is seeking applications for its 2008/09 Young Lawyers Fellows Program. The program provides leadership opportunities for young lawyers. The GP|Solo Division is committed to increasing the participation of young lawyers in Division activities. This program will provide young lawyers the opportunity to become actively and integrally involved in the Division's meetings and committees.

The deadline for applying is April 15, 2008.

Call for Applications: GP|Solo Diversity Fellows »

The ABA General Practice, Solo and Small Firm Division is seeking applications for its 2008/09 Diversity Fellows Program. The program is designed to promote diversity within the Division and the ABA, while providing leadership development opportunities within the Division for attorneys of color, women and those with disabilities.

The deadline for applying is April 15, 2008.

Call for Nominations: 2008 Solo & Small Firm Spring Awards »

The ABA General Practice, Solo and Small Firm Division is pleased to announce a call for nominations for its annual awards program recognizing dedication to the practice of law as general practitioners or solo or small firm lawyers. Winners will be honored at the Division's 2008 Spring Meeting Awards Ceremony in New Orleans, LA on May 2, 2008.

Three awards are given, including the **Lifetime Achievement Award**, the **Project Award**, and the **Trainer Award**. For complete descriptions of each award and convenient online application forms, please visit our Solo & Small Firm Awards webpage. **Applications must be submitted online or postmarked by March 17, 2008.**