

CHAPTER THIRTEEN

**YOUR OFFICE - DON'T LEAVE HOME WITHOUT IT!
MOBILE LAWYERING**

July 2012

Barron K. Henley, Esq., Partner

Affinity Consulting Group
1405 Dublin Road, Suite 100
Columbus, OH 43215

Phone: (614) 340-3444
E-mail: bhenley@affinityconsulting.com

BARRON K. HENLEY is an attorney, a "legal technologist" since 1990, and a founding member of Affinity Consulting Group (formerly Henley March & Unger Consulting, Inc.) which handles all aspects of law practice automation including document assembly, case management, document management, legal accounting software, trial presentation/litigation support, paper reduction/scanning, hardware, networks/servers and security. Barron received his Bachelor of Science in Business Administration (majoring in marketing and economics) and J.D. from The Ohio State University and is a member of the American, Ohio and Columbus Bar Associations, and the Worthington Estate Planning Council. He is a member of the ABA Law Practice Management Section and is the former Chair of the Ohio State Bar Association Law Office Automation & Technology Committee. Barron heads Affinity's HotDocs document assembly and software training departments; and has authored legal-specific manuals on HotDocs document assembly, Microsoft Word, Microsoft Excel and Adobe Acrobat. Barron teaches continuing legal education (CLE) classes throughout the U.S. and Canada covering practice management, document management, file management, server and personal computer issues, remote access, mobile lawyering, scanning and paper reduction strategies, electronic case filing, Word, Excel, Outlook, WordPerfect, HotDocs document assembly, Adobe Acrobat, malpractice avoidance, voice recognition, and many other topics.

Copyright © 2012 Affinity Consulting Group LLC

Note: WSBA does not recommend or promote any particular product or service.

Your Office - Don't Leave Home Without It! Mobile Lawyering

Table of Contents

I.	MOBILE LAWYER DEFINED	1
II.	NOTEBOOK COMPUTER.....	1
A.	Types of Notebook Computers.....	1
1.	Look for a Notebook Designed for Business.....	1
2.	Smaller Notebooks Generally Have Better Battery Life.....	1
3.	Solid State Drives Offer Better Battery Life and Performance	1
4.	Netbooks	1
5.	Ultrabooks.....	2
B.	Can I Run My Practice on an iPad?	2
C.	Appropriate Notebook Computer for a Law Office	2
1.	Notebook Computer Configuration.....	2
D.	Optional Upgrades To A Notebook Configuration	3
1.	9 Cell Battery.....	3
2.	FIPS Compliant Fingerprint Reader	3
3.	Docking Station	3
4.	Dual 23" External Monitors	3
5.	Extra Battery	3
6.	Extended Battery Warranty.....	3
E.	Computer Buying Guide for Lawyers.....	4
1.	Appropriate Windows Operating Systems For A Law Firm	4
a.	Windows XP or Windows 7?	4
b.	Should You Upgrade from XP to Windows 7?.....	4
c.	Should You Upgrade from Vista to Windows 7?.....	4
d.	What About 64 Bit Windows 7?	4
2.	Should You Buy An Apple Computer?.....	5
a.	Apple Is Much More Expensive	5
b.	Limited Support	5
c.	Most Legal Specific Programs Will Not Run on the Apple Operating System	5
3.	Brands Law Firms Should Consider	6
4.	Get The Software You Need Included With the New PC.....	6
5.	Get a DVD Player Even If You Don't Watch Movies On It.....	6
6.	Don't Be Afraid of a PC with an AMD CPU	6
7.	If You Have a Need for Speed - Go SSD.....	6
8.	Avoid Integrated Video.....	7
9.	Avoid 5,400 rpm Hard Drives	7
10.	Don't Buy Small External Monitors.....	7

11.	Do Not Get Mail In Warranties or Warranties Less Than 3 Years On Site	7
12.	Avoid Huge Notebook PC Screens.....	8
13.	Never Buy the Fastest CPU	8
14.	Avoid a "Home Configuration" On Your New PC.....	8
15.	Avoid Brands That Don't Specialize In Business Computers.....	8
F.	Notebook Computer Security and Accessories	9
1.	Encryption.....	9
a.	PGP Whole Disk Encryption	9
b.	SecuriKey Pro	9
c.	AlertBoot.....	9
d.	SecureDoc Full Disk Encryption.....	9
e.	TrueCrypt.....	9
f.	BitLocker	9
2.	Notebook Lock.....	9
3.	Motion Detector.....	9
4.	Recovery Tag Your Laptop.....	9
5.	Recovery Software for your Laptop.....	10
6.	Travel Mouse.....	10
a.	Logitech Wireless Anywhere Mouse MX	10
b.	Logitech MX Logitech Performance Mouse MX	11
7.	3M Computer Privacy Filter	11
8.	Carrying Cases.....	11

III. OTHER COMPONENTS OF YOUR MOBILE OFFICE 11

A.	Backup Options	11
1.	Synchronize With Server or Other Computers/Devices.....	12
a.	DropBox.....	12
b.	SpiderOak	12
c.	Microsoft Live Mesh.....	12
d.	SyncToy from Microsoft	12
e.	ViceVersa	12
f.	Syncplicity	12
g.	Sugar Sync.....	12
h.	BeInSync Professional from Phoenix Technologies	12
i.	PeerSync Workstation Edition from Peer Solutions.....	12
2.	External Hard Drives	12
3.	Internet Backup Options.....	12
a.	Mozy Pro	12
b.	Mozy Home	13
c.	Carbonite	13
d.	SOS Online Backup.....	13
4.	Other Mobile Backup Options.....	13
a.	Clickfree Automatic Backup Traveler	13
b.	SanDisk Ultra Backup	13
B.	Smartphones.....	13
1.	What Is a Smartphone?.....	13

2.	How Prevalent Smartphones Are Among Lawyers	13
3.	Why Lawyers Need a Smartphone	14
4.	If You Rely on an Electronic Docketing/Calendar System, You Must Be Able To Access It Remotely	14
5.	Paper Docketing Systems Are No Longer Acceptable	14
	a. Synchronization	15
	b. Search Capability	15
	c. Sharing	15
	d. Easy Changes and Modifications	15
	e. Backup	15
	f. Reminders	15
	g. Mobility	15
	h. Reports	16
	i. Redundancy.....	16
6.	Smartphones Are Great Reference Tools	16
7.	Smartphones Can Be Used To Access Documents	16
8.	Smartphones Can Aid Your Marketing Effort.....	16
9.	Smartphone Allow You To Work Remotely	16
10.	Smartphones Allow You To Be More Responsive to Clients	17
11.	Cell Phone Security for Lawyers	17
	a. Best Approach - Don't Put Confidential Information On Your Phone.....	17
	b. Security Options If You Do Carry Confidential Information On Your Phone	17
12.	Which Phone Is Most Secure?	20
13.	Wireless Carriers/Networks	20
	a. Big Players	20
	b. Tools For Researching Wireless Carriers	20
14.	Highest Ranked U.S. Wireless Carrier.....	20
15.	Picking The Network is More Important Than Picking The Phone	20
16.	3G v. 4G and What It Means to Lawyers	21
	a. Definitions	21
	i. 3G	21
	ii. 4G	21
	b. 4G Technologies	21
	c. Speed Differences	21
	d. 4G Benefits.....	21
	e. 4G Reality.....	21
	f. The iPhone 4G CANNOT Use 4G Data Services.....	22
	g. Upgrade 3G Phones to 4G?	22
	h. 4G Does Not Currently Support Voice.....	22
17.	Choosing A Phone.....	22
	a. Mobile Phone Operating Systems.....	22
18.	Tools for Researching Wireless Phones	23
19.	Wireless Phone Terminology	23
	a. Wired Synchronization	23
	b. Wireless Synchronization	23
	c. Outlook Contact, Calendar and Task Synchronization	23

d.	Microsoft Exchange Server	23
e.	Hosted Microsoft Exchange Server	24
f.	Tethering	24
g.	Security.....	24
C.	Noise Canceling Headphones	24
D.	USB Flash Drives	24
E.	Digital Voice Recorder	24
1.	Benefits of Digital	24
2.	Occasional Dictation Recommended Recorder	25
3.	Serious Dictation Recommended Recorders.....	25
a.	Philips Pocket Memo LFH-9600.....	25
b.	Philips Pocket Memo LFH-9500.....	25
4.	Conference/Meeting Recorder Recommendation	25
a.	Olympus LS-10	25
b.	Olympus LS-11	26
5.	Transcription Systems	26
a.	Olympus AS-2400 Transcription Kit.....	26
b.	Start Stop Universal Transcription System	26
c.	Philips 7177 SpeechExec Transcription Set	26
d.	Philips LFH-7277 Pro Transcription Kit.....	26
6.	Excellent Headset for Digital Recording.....	26
F.	Digital Camera	27
1.	Best Brands.....	27
2.	Where to Research Your Purchase.....	27
G.	Portable Scanners.....	28
1.	Why a Portable Scanner?.....	28
2.	Recommendations	28
a.	Fujitsu ScanSnap S1100.....	28
b.	Fujitsu ScanSnap S1300.....	28
c.	Planon X50 DocuPen Xtreme Color Scanner.....	29
d.	Visioneer Strobe 500 (Scanner + Docking Station)	29
H.	Belkin 7-in-1 Retractable Cable Travel Pack.....	30
I.	Power for the Road.....	31
1.	Monster Outlets To Go Powerstrip	31
2.	Tripp Lite The Traveler - Surge suppressor.....	31
3.	Targus® Compact Laptop AC Charge	32
IV.	WORKING REMOTELY.....	33
A.	Get High Speed Internet From Anywhere.....	33
1.	Air Cards or USB Modems	33
2.	Mobile HotSpot	33
3.	Tethering	33
4.	MiFi	33
B.	Accessing Other Computers Remotely	33

1.	Logmein.com.....	33
2.	Gotomypc.com	33
3.	WebEx PCNow.....	34
C.	Accessing Documents Remotely/Sharing Files	34
D.	Online Document Collaboration.....	34
E.	Online (Web) Meetings.....	35
1.	GoToMeeting.....	35
2.	WebEx MeetMeNow	35
3.	Adobe Acrobat Connect.....	35
4.	Microsoft Office Live Meeting	35
5.	Join.Me.....	35
F.	Printing Outside of the Office.....	35
1.	Printing Without a Printer	35
a.	Hotel Business Centers	35
b.	efi PrintMe.....	35
c.	FedEx Kinko's	36
2.	Printing with a Portable Printer.....	36
a.	Hewlett Packard OfficeJet 100 Mobile Printer.....	36
b.	Canon Pixma IP100.....	37
G.	Faxing Outside of the Office	37
a.	Myfax.....	37
b.	EFax	38
c.	RingCentral.....	38
d.	GreenFax.....	38
e.	RingCentral.....	38
f.	Onebox	39
g.	faxZERO.....	39
H.	Hosted Microsoft Exchange.....	39
1.	What Is Microsoft Exchange.....	39
2.	Email Remote Access Options With Exchange.....	39
a.	Outlook Web Access.....	39
b.	Outlook via VPN.....	39
c.	Encrypted RPC.....	39
3.	Exchange Options	39
a.	Get Your Own Server.....	39
b.	Hosted Exchange	39
4.	Hosted Exchange	40
5.	Options for Hosted Exchange	40
I.	Email Huge Files and Get Encryption	40
1.	Pricing	40
2.	Features of a Pro Plus Account.....	41
3.	Outlook Plugin.....	42
V.	CLOUD COMPUTING	42
A.	Cloud Computing Defined.....	42

B.	Variations On a Theme.....	43
C.	Why Cloud Computing Is Important If You're On A Tight Budget	43
D.	Advantages of Cloud Computing	43
	1. Up Front Price Advantage	43
	2. No Hardware Required	43
	3. Works in Apple or Windows	43
	4. Updates Included.....	44
	5. Technical Support Included.....	44
	6. Access From Anywhere.....	44
	7. Share Applications Among Users Spread Out Geographically	44
	8. Data Backup Provided	44
E.	Disadvantages of Cloud Computing	44
	1. Nearly All Cloud Applications Are Inferior To Their Shrink Wrapped Counterparts	44
	2. Give Up Integration.....	44
	3. Usually More Expensive	45
	4. Difficult To Disentangle	45
	5. You May Not Be Able To Use The Data You Get Back.....	45
	6. Loss of Internet Connection Means No Access	46
	7. Vendor May Increase Prices	46
	8. No Offline Access.....	46
	9. Vendor Service Disruptions	46
	10. Upgrades Are Forced On You	47
	11. Vendor Bankruptcy	47
	12. What If You Have Internet But Still Cannot Get Access?	47
	13. Bandwidth Caps.....	48
F.	Cloud Applications for Lawyers	48
	1. Case Management Options	48
	a. AdvologixPM	48
	b. Clio	48
	c. Credenza	48
	d. Houdini Esq	48
	e. Rocket Matter	48
	f. Total Attorneys	48
	2. Accounting Options	48
	a. QuickBooks Online	48
	b. Bill4Time	48
	c. Legal Billing	48
	d. Toggl	48
	e. FreshBooks.....	48
	f. TimeSolv Legal	48
	g. Case Management additional features.....	48
	3. Word Processor Suites.....	49
	a. Google Docs	49
	b. Zoho Writer	49
	c. Microsoft Office Live.....	49

	d.	ThinkFree Office Suite	49
	e.	HyperOffice	49
4.		NetDocuments.com Document Management	49
5.		Backup Services.....	49
	a.	Mozy Pro	49
	b.	Mozy Home	49
	c.	Carbonite	49
	d.	SOS Online Backup.....	49
VI.		LAW PRACTICE UNTETHERED.....	49
A.		Do I Need To Keep Doing This?	49
	1.	Internal Collaboration & Communication	49
	2.	External Communication	49
	3.	Sharing Files.....	50
	4.	Meeting Clients.....	50
B.		The Trend Toward an Untethered Practice.....	50
C.		Benefits of an Untethered Practice	50
	1.	Lower Overhead	50
	2.	Better Life/Work Balance	50
	3.	Solitude When You Want It.....	50
D.		Telephone.....	50
	1.	Cell Phones	50
	2.	VoIP	50
	3.	Softphones.....	50
E.		Instant Messaging	51
	1.	What It Is	51
	2.	Why IM Is A Valuable Communication Tool	51
	3.	Consumer-Grade IM.....	52
	4.	Secure IM Options	52
	a.	Microsoft Lync	52
	b.	IBM Lotus Sametime	52
	c.	IceWarp Instant Messaging Server	52
	d.	Cisco Jabber	52
	e.	Bopup Messenger from B-Labs Software	52
	f.	BigAnt.....	52
	g.	Brosix.....	52
F.		Phone Answering.....	52
	1.	Ruby.....	52
	2.	TotalAttorneys.....	52
	3.	Instant Answering Service	52
	4.	Attorney Answering Services	52
	5.	Map Communications	52
	6.	Hosted Receptionist	53
	7.	Grasshopper.....	53
	8.	VoIP Providers.....	53

G.	Sharing Files	53
H.	Sharing Case Information.....	53
I.	Meeting Clients.....	53
VII.	TRAVEL TIPS.....	53
A.	Discount Deals	53
1.	The Big Two.....	53
2.	Priceline.com.....	53
3.	Hotwire.com.....	54
4.	Sites for Bidding Strategies and Other Tips	54
5.	www.BudgetTravel.com.....	54
6.	Last Minute Deals	54
a.	www.LastMinute.com	55
b.	www.VacationsToGo.com	55
c.	www.LickeyTrip.com	55
7.	www.Liftopia.com	55
8.	www.MouseSavers.com.....	55
9.	www.Travel-Ticker.com.....	55
B.	House/Condo Rental Sites	55
1.	www.vrbo.com	55
2.	www.airbnb.com.....	55
3.	www.flipkey.com	55
C.	Big Travel Sites	55
D.	www.tripit.com.....	55
E.	www.tripadvisor.com	56
F.	Airfare Sites	56
1.	Big travel sites.....	56
2.	www.Airfarewatchdog.com	56
3.	Make Sure You Get The Best Seat on the Plane	56
a.	www.SeatExpert.com	56
b.	www.SeatGuru.com.....	56
4.	www.bing.com/travel	56
5.	www.yapta.com.....	56
G.	Places to Stay.....	56
1.	Big Hotel Chain Sites.....	56
a.	www.marriott.com	56
b.	www.hilton.com.....	57
c.	www.ichotelsgroup.com.....	57
d.	www.starwoodhotels.com	57
e.	www.wyndham.com	57
f.	www.hyatt.com.....	57
2.	www.vrbo.com	57
H.	Food/Restaurant Reviews.....	57

I.	Map Sites.....	57
J.	Microsoft Streets and Trips.....	57
K.	www.airlinequality.com	58
L.	www.sitorsquat.com	58
M.	www.frommers.com	58
N.	www.lonelyplanet.com	58

Your Office - Don't Leave Home Without It!

Mobile Lawyering

I. MOBILE LAWYER DEFINED: For purposes of this seminar, a mobile lawyer is any lawyer that works outside of the office. This is becoming increasingly common. Some lawyers have home offices, some prefer to work at home or somewhere other than the office. There are also many lawyers who prefer to work part of the year from another location (i.e., beach house). Even if you rarely work outside of the office, you'll find some mobile technology beneficial.

II. NOTEBOOK COMPUTER:

A. Types of Notebook Computers: The categories of notebook computers are constantly changing. Here are a few factors to consider when choosing a notebook for your practice:

- 1. Look for a Notebook Designed for Business:** There are two main target markets in the computer world, home users and business users. Computers aimed at home users tend to be more cutting edge but less durable. The warranties aren't as good as business computers and their software bundles are aimed more at entertainment than productivity. Business computers are more rugged, have better warranties, a longer product cycle and their configurations are tried and true. Business computers tend to have docking station options when home computers do not; and you can usually get Microsoft Office and other business software included with the new computer. For example, Dell has 5 main notebook computer lines: Inspiron and XPS (aimed at home users); and Vostro, Latitude and Precision (aimed at business users).
- 2. Smaller Notebooks Generally Have Better Battery Life:** If battery life is really important to you, then you may want to consider a notebook with a 10 to 12 inch screen.
- 3. Solid State Drives Offer Better Battery Life and Performance:** An option on many higher-end notebooks is an upgrade to a solid state drive ("SSD") rather than a traditional hard drive. SSDs are considerably more expensive (sometimes a \$500 upgrade), but they are much faster than traditional hard drives and because there are no moving parts in them, they use less battery.
- 4. Netbooks:** Netbooks are small notebooks which typically weigh 3 lbs. or less and have 11" screens or smaller. Most are \$400 or less and they are designed primarily for Internet browsing, email and light computing tasks like word processing. In a word, they are *small*. In spite of their limited power and capabilities, they are very popular because frankly, most people use computers for exactly what they do - internet, email and word processing. Note that most netbooks do not have an optical drive or a

major software suite like Microsoft Office. Therefore, you may need to buy an external DVD drive and the word processor you want separately.

5. **Ultrabooks:** This is a relatively new class of notebooks. "Ultrabooks are a new category of notebook computers that seeks to fill the gap between lightweight laptops and tablets. Intel dubbed the ultrabook category when it announced it would be directing its mobile computing efforts towards a new class of laptops that would offer an extremely thin (less than 20 millimeters, or 0.8 inches) and lightweight profile to go along with high-powered, low voltage processors, long battery life, near instant-on and instant-resume capabilities, and fast storage, typically via solid state disk drives (SSDs), all in a sub \$1,000 package."¹ Basically, think super-thin, sexy and fast. Because they boast bigger screens and faster processors, they are much more expensive than netbooks, but expect prices to drop over time.

B. Can I Run My Practice on an iPad? In short, not likely. iPads are fantastic toys and consumption devices (great for reading, browsing the Internet, checking email, etc.), but they are not designed for creating content (documents, etc.) and that's what lawyers *do*. You can't load Microsoft Office on one. You can't load just about any legal-specific application on an iPad. An iPad 64 GB is \$735 and a keyboard is \$50. So add a stylus, case and all of the apps you have to buy to make it functional, and you're pretty close to \$1,000. You can buy a much more powerful and useful netbook or budget notebook for that amount. That doesn't mean that an iPad isn't a good accessory for your practice. It's just not the engine of it.

C. Appropriate Notebook Computer for a Law Office:

1. **Notebook Computer Configuration:** The configuration detailed on Exhibit A (page 59) is what we'd recommend for a law office Windows notebook computer. As you can see, the price is **\$2,100.00**. NOTE: You should pay less than the price indicated because I simply pulled it off Lenovo's web site. For a Mac recommendation, see Exhibit B (page 60). As you can see, the price is **\$3,347.00** (60% more expensive than the Lenovo). I made the configurations as similar as I could, but the Windows computer is still significantly better in many respects:
 - a. The Windows computer has a larger screen.
 - b. The Windows computer has an on-site warranty (Mac is mail-in or carry-in).
 - c. The Windows computer includes 3 years of accidental damage protection (even if you break the computer by accident - a drop for example - it still gets fixed for free for 3 years). If you accidentally break the Mac, you'll have to pay to get it fixed.

¹ See <http://www.webopedia.com/TERM/U/ultrabook.html>

- d. The Windows computer has a fingerprint reader and advanced security (Mac does not)
- e. The Windows computer has a faster processor (i7 2.6 GHz compared to an i7 2.5 GHz)
- f. The Windows computer has a docking station option, but the Mac does not.
- g. The Windows computer has a better video adapter (2 GB compared to 1 GB)
- h. The Mac has a slightly larger hard drive (750 GB v. 500 GB)

D. Optional Upgrades To A Notebook Configuration:

1. **9 Cell Battery:** Upgrade to a 9 cell battery (it comes with a 6 cell). It makes the notebook bigger and heavier, but it will add considerably to the battery life.
2. **FIPS Compliant Fingerprint Reader:** FIPS stands for Federal Information Processing Standards. It is a higher-quality biometric reader and your computer can be configured to be unusable unless it recognizes the user's fingerprint. Note that this is already included in the Lenovo laptop on Exhibit A but isn't even an option on the MacBook Pro.
3. **Docking Station:** You can get a ThinkPad W700 mini dock which is built specifically for the ThinkPad notebooks (\$219); and since the ThinkPad has a USB 3.0 port, you can add a variety of 3rd party docking stations as well. Apple does not make a docking station for the MacBook Pro.
4. **Dual 23" External Monitors:** I recommend two of the Dell Professional P2312H 23-inch Widescreen Flat Panel Monitors. They tilt, swivel and rotate to portrait; they have great quality and they're \$219 each.
5. **Extra Battery:** An extra 9 cell battery will cost from \$125 - \$200, but if you need backup power for long periods of being unplugged, there's no substitute.
6. **Extended Battery Warranty:** Most notebook batteries are only covered by a one year warranty, even if the rest of the computer is covered by a 3 year warranty. Unfortunately, if you regularly use your computer unplugged, your battery is likely to stop working around the 24th month of ownership. If it is an option, extend your battery warranty to 3 years.

E. Computer Buying Guide for Lawyers:

1. Appropriate Windows Operating Systems For A Law Firm:

- a. **Windows XP or Windows 7?** Don't be afraid to go with Windows 7; and I would definitely not recommend buying XP since it makes little sense to load such an old operating system on a new PC when Windows 7 is so good. Before you buy, make sure all of your peripherals have Win 7 drivers available and that your software will operate correctly in that environment.
- b. **Should You Upgrade from XP to Windows 7?** No! Just wait until you get your next computer and have it pre-loaded. It is very demanding from a hardware perspective and it's very likely that you'll have to upgrade your old hardware to run it with any speed.
- c. **Should You Upgrade from Vista to Windows 7?** Upgrading from Vista to 7 isn't nearly as dangerous as upgrading from XP to 7 because many of the drivers are the same between these versions. Vista was a complete re-write of XP; 7 is an incremental upgrade to Vista. If you're going to do it, then you need to back up everything and we recommend wiping the drive clean and installing 7 on a clean drive.
- d. **What About 64 Bit Windows 7?** If the peripherals (printers, scanners, multifunction machines, etc.) and software you intend to use with your new computer have 64 bit drivers (in the case of peripherals) and will work in a 64 bit environment (in the case of software), then we would recommend Windows 64 bit rather than 32 bit. You can find out whether drivers are available by checking the web site of the manufacturer of the peripheral or software program. There are still a few programs and peripherals that are not compatible with 64 bit. The basic advantages of a 64 bit operating system are as follows:
 - Increased memory support beyond that of the 4-GB addressable memory space that is available in a 32-bit operating system. Therefore, if you purchased 8 GB of RAM with a new computer, a 64 bit system would be able to use it (and would therefore perform better) whereas a 32 bit system would only be able to use the first 4 GB and ignore the rest.
 - Increased program performance for programs that are written to take advantage of a 64-bit operating system.
 - Enhanced security features.

2. **Should You Buy An Apple Computer?** Despite well-deserved acclaim for design and ease of use, Apple's share of the worldwide PC market is tiny compared to Windows. Apple makes excellent computers, but here's why I'd recommend avoiding them in a law firm environment:

a. **Apple Is Much More Expensive:** As you can see on Exhibits A & B, there is a pretty big price difference between Windows and Apple computers, even when similarly configured.

Lenovo ThinkPad Notebook:	\$2,100.00
Apple MacBook Pro:	\$3,347.00

b. **Limited Support:**

i. **Network Support:** Let's say you want to set up a small network with an Apple Server and 4 connected Apple computers along with a network printer and scanner. If you're not sure how to do that yourself, good luck finding someone who can help. Apple has never aimed at business users and there are frankly very few network design firms that do anything with Apple. On the other hand, if you wanted a Windows network, there are probably hundreds of options for help with that depending upon the size of the market you're in. In the Columbus, OH phone book (for example), there are well over 200 computer consulting firms that can set up Windows networks and computers.

ii. **Computer Support:** Apple doesn't offer on-site warranties with its laptops. Therefore, you'll have to ship it to them for service or find an Apple Store or other authorized service center and take it there. Desktops to offer on-site support, but it's a last resort.

c. **Most Legal Specific Programs Will Not Run on the Apple Operating System:** For example, the top 5 legal case management applications or top 5 time/billing and accounting programs will not run on the Mac OS. The best document assembly or trial presentation programs also do not work on a Mac. Finally, I've never seen a practice area-specific program that would work in the Mac OS. For example, leading Bankruptcy programs like Best Case and leading estate planning drafting systems like WealthDocx only work in Windows. Yes, you could run Windows on a Mac and use those programs. However, see the price penalty you get to pay above. Furthermore, many programs require a Windows server in order to run so you wouldn't be able to use an Apple server.

3. **Brands Law Firms Should Consider:** Safe brands for notebooks in general are Fujitsu, Lenovo, Sony, Toshiba, Dell, Gateway and HP/Compaq. At this point, the survivors in the computer hardware world have to be good or they would have gone out of business by now.
4. **Get The Software You Need Included With the New PC:** It is *always* less expensive to have the software you want included with the new PC compared to what it would cost to buy it separately. For example, it costs an extra \$229 to include MS Office Home & Business 2010 and Adobe Acrobat X included with a new Dell business computer (like a Latitude notebook). If you buy Microsoft Office Home & Business edition after-market (equivalent version), it's \$225 and Adobe Acrobat will cost you another \$275. So buying Office Basic with Acrobat included with a new computer will save you **\$271** over buying them after the fact.

Look for a software bundle that includes an office suite of programs. Be warned that a lot of retailers will only carry a home configuration. If you experience this, keep shopping or look to online vendors. No matter what you do, make sure you get your office suite included if possible. Most vendors offer Microsoft Office and Corel WordPerfect Office with new PCs. Corel WordPerfect Office is so inexpensive to have included with a new PC, it's worth getting it even if it's not your primary word processor.

5. **Get a DVD Player Even If You Don't Watch Movies On It:** Some people figure they don't need an optical drive that can play DVDs since they don't plan to watch movies on their computers. Don't make this mistake. Because DVDs hold so much more data than regular CDs, many software manufacturers are selling software on DVD only (it's obviously cheaper to include one DVD rather than 3 CDs with a new software package). Therefore, if your computer will not play DVDs, then you might not be able to install the new software you buy. Note that it does *not* have to be a Blu-Ray DVD player unless you want to watch high-def movies on your computer. A standard DVD player will do just fine (and they cost a lot less).
6. **Don't Be Afraid of a PC with an AMD CPU:** AMD processors aren't currently as fast as Intel's fastest offerings, but they're close and they cost less, sometimes a lot less. More and more manufacturers are offering AMD processors and you'll have no problems with compatibility.
7. **If You Have a Need for Speed - Go SSD:** SSD stands for Solid State Drive. It is now a common option for PC manufacturers to offer an upgrade to an SSD drive in lieu of a standard hard drive. They cost more and they tend to be a bit smaller in terms of how much data they can store. However, they're significantly faster, they have no moving parts (and therefore far fewer mechanical issues), they're less fragile, they give notebook computers better battery life and they're silent.

320GB 7200rpm Hard Drive

[? Help Me Choose](#)

- 250GB 5400rpm Hard Drive [subtract \$60.00]
- 250GB 7200rpm Hard Drive [subtract \$30.00]
- 320GB 7200rpm Hard Drive [Included in Price]

Dell Recommends

- 320GB 7200rpm Hard Drive, 512e/4K, Encrypted [add \$20.00]
- 320GB 7200rpm Hard Drive, 512e/4K, FIPS Encrypted [add \$40.00]
- 500GB 7200rpm Hard Drive [add \$50.00]
- 128GB Mobility Solid State Drive [add \$240.00]
- 256GB Mobility Solid State Drive [add \$540.00]

8. **Avoid Integrated Video:** The video process in a computer requires memory. If your video adapter doesn't have its own memory, then it steals it from your system RAM. This will slow down your entire computer. Furthermore, many programs, including Windows Vista are very graphics intensive. If you get a cheap, integrated video adapter, you're going to severely compromise your computer's performance.

Video Card

Intel® HD Graphics 3000 Integrated Video

[? Help Me Choose](#)

- Intel® HD Graphics 3000 [Included in Price]
- nVidia® NVS™ 4200M 512MB DDR3 Discrete Graphics for Dual Core [add \$69.00]

Dell Recommends

- nVidia® NVS™ 4200M 512MB DDR3 Discrete Graphics for Quad Core [add \$69.00]

9. **Avoid 5,400 rpm Hard Drives:** You should be getting at least a 7,200 rpm hard drive on any computer. The slower the rpm, the slower the computer can access data on the hard drive.
10. **Don't Buy Small External Monitors:** Get at least a 22" external monitor if you're going to get one. There is no excuse, whatsoever, for small monitors considering how inexpensive 22" monitors are these days (you can easily find them for \$200 or less). Stop squinting and getting a headache.
11. **Do Not Get Mail In Warranties or Warranties Less Than 3 Years On Site:** These will leave you annoyed and with an unacceptably long down-time as you wait for the fixed computer to be returned.

12. **Avoid Huge Notebook PC Screens:** I would avoid anything 17" or bigger. These enormous screens on notebooks sound like a good idea until you see how big and heavy it makes the notebook. Just get an external monitor if you need something bigger, but I wouldn't go bigger than a 15.5" notebook screen to keep the size of the machine reasonable.
13. **Never Buy the Fastest CPU:** You're always going to pay a premium to get the fastest CPU available at any given time and they just aren't necessary in a law firm environment. Therefore, look for a standard business computer one or two steps down from the fastest CPU to get the best bang-for-the-buck. For example, in the list of processors options below (from a new Dell notebook), I'd pick the i5-2520M and avoid the \$180 penalty for getting the fastest one.

Intel® Core™ i5-2520M (2.50GHz, 3M cache) with Turbo BoostTechnology 2.0

Help Me Choose

- Intel® Core™ i3-2310M (2.10GHz, 3M cache) [subtract \$100.00]
- Intel® Core™ i5-2410M (2.30GHz, 3M cache) with Turbo BoostTechnology 2.0 [subtract \$75.00]
- Intel® Core™ i5-2520M (2.50GHz, 3M cache) with Turbo BoostTechnology 2.0 [Included in Price]

Dell Recommends

- Intel® Core™ i5-2540M (2.60GHz, 3M cache) with Turbo BoostTechnology 2.0 [add \$50.00]
- Intel® Core™ i7-2620M (2.70GHz, 4M cache) with Turbo BoostTechnology 2.0 [add \$120.00]
- Intel® Core™ i7-2720QM (2.20GHz, 6M cache) with Turbo BoostTechnology 2.0 [add \$180.00]

14. **Avoid a "Home Configuration" On Your New PC:** Most manufacturers have a hardware and software combination that is targeted at office/business use and another combination that is targeted to home use. Make sure you get an office combination. You don't need a 320 GB hard drive, an AGEIA PhysX physics accelerator, a Dual TV Tuner with Remote Control, a Sound Blaster Audigy 2 Gamer sound card, you don't need surround sound speakers with a powered subwoofer, and you probably don't need photo editing software. So don't pay for those things! If they come with the computer you're considering and can't be removed from the configuration, then you're paying for them.
15. **Avoid Brands That Don't Specialize In Business Computers:** Some manufacturers just don't cater to a business consumer. For example, Sony makes great computers, but they don't have a single line of desktop computers aimed at the corporate world. For example, one line of computers is described: "The VAIO RC also brings Sony's professional audio, video and broadcast expertise to your desktop. Create, manage, edit and archive video, music and photos like a pro. Capture and edit high-definition camcorder video and store your content on a Blu-ray Disc™, the next generation of high-capacity optical storage." Another is described: "The VGX-XL2 Digital Living System merges Sony's industry-

leading home theater expertise with the powerful computing performance of a VAIO PC. Store your CDs and DVDs in one place while managing and browsing your content from the comfort of your sofa using the wireless keyboard and remote control.” You get the idea. That's all of the lines they have and they are all clearly targeted at the home market. Therefore, you should avoid them for your office.

F. Notebook Computer Security and Accessories:

1. **Encryption:** According to the Open Security Foundation, the largest single type of security breach is a stolen or lost laptop (see <http://tinyurl.com/6akybe2>). If you've got a notebook computer, there's always the chance that someone will steal it or that you'll misplace or otherwise lose it. If you have confidential client information on the laptop, then it would be prudent for you to encrypt the laptop. Encryption would prevent a thief or finder of your laptop from obtaining any information from the hard drive, even if they remove the hard drive and install it in another computer. There are many choices for this type of software, including the following:
 - a. **PGP Whole Disk Encryption** - <http://tinyurl.com/39seow>
 - b. **SecuriKey Pro** - www.securikey.com
 - c. **AlertBoot** - <http://tinyurl.com/63h36wt>
 - d. **SecureDoc Full Disk Encryption** from Winmagic Data Security - <http://tinyurl.com/4vek6ot>
 - e. **TrueCrypt** - this is free, open-source encryption software for Windows, Mac and Linux; although free, it is extremely highly rated - www.truecrypt.org
 - f. **BitLocker** - included for free with Windows Vista & 7 Ultimate & Enterprise.
2. **Notebook Lock:** These are necessary if you occasionally have to leave the notebook unattended. There are dozens of options for this and most of them cost less than \$20. If you go to any online vendor's site and search the terms "notebook lock" you'll find many options.
3. **Motion Detector:** This is a device that attaches to your laptop and can be activated by you whenever you need it. If your computer is touched once activated, it will emit a piercing alarm. Options include the Targus DEFCON 1 Laptop Computer Security System (\$45) or the Doberman Security Laptop Defender SE-0210 (\$30).
4. **Recovery Tag Your Laptop:** This is a simple idea that really works. You put small stickers on each piece of hardware (laptop, PDA, etc.)

which has a phone number people can call to return it to you if it is found. Check out these services:

- www.boomerangit.com
- www.stuffbak.com
- www.returnmoi.com
- www.trackitback.com
- www.YouGetItBack.com
- www.zreturn.com

5. **Recovery Software for your Laptop:** These services install a program on your laptop that can't be removed, even if the hard drive is reformatted. If your laptop is stolen and the thief reconnects to the Internet, the program starts sending out a homing beacon. The responsible company works with local law enforcement to try and recover your computer. Yes, it really works! Consider these services:

- www.lojackforlaptops.com
- www.pcphonehome.com
- www.locatemylaptop.com
- www.ztrace.com/zTraceGold.asp

6. **Travel Mouse:** If you don't like touch pads and eraser head pointing devices, you'll want a travel mouse.

a. **Logitech Wireless Anywhere Mouse MX:** The new Logitech Darkfield Laser Tracking works on more surfaces than other mice even on glass. I love this mouse - \$50 at www.amazon.com



- b. **Logitech MX Logitech Performance Mouse MX:** This is a high-end mouse that will work on almost any surface, including glass. However, it's strictly for right-handed users. \$89 from www.buy.com.



- 7. **3M Computer Privacy Filter:** Wandering eyes beside you see only a dark screen, it's easy to attach and remove, and it's available for laptops in many sizes. To find the one right for your laptop, go to <http://tinyurl.com/lxqcm>. Expect to pay around \$50.
- 8. **Carrying Cases:** You need a case to carry all of your gear around in so we recommend that you survey the field by going to **www.ebags.com** which has a vast selection of computer carrying cases. Recommended features:
 - a. Get wheels - no matter how dumb you think it looks to pull around a wheeled case, it's better than sweating through an airport with a dull throb in your shoulder which results from lugging around traditional carrying cases.
 - b. Ballistic Nylon cases have much better durability over the long haul than leather
 - c. Make sure the case you choose has a well-padded computer compartment
 - d. Don't forget to get a case with room for all of your stuff. Better that you have one larger bag than several smaller ones. Remember the two carry-on limit on most flights and if you fly smaller jets or puddle-jumpers, then it might be a 1 bag limit.

III. OTHER COMPONENTS OF YOUR MOBILE OFFICE:

- A. Backup Options:** You absolutely must backup everything, every day. Here are some ideas for protecting yourself against data loss.

1. **Synchronize With Server or Other Computers/Devices:** If you have a server that is backed up every night (as it should be), then you can simply synchronize with it and you're covered. You could also sync with an external hard drive. Consider the following options:
 - a. **DropBox:** One of the most impressive services I've seen, DropBox gives you file sync, file sharing, online backup, web access to your files from a computer or smartphone and security. See www.dropbox.com.
 - b. **SpiderOak:** See www.spideroak.com - similar service to DropBox except that it is more secure because your data is encrypted even on SpiderOak's servers.
 - c. **Microsoft Live Mesh:** FREE - see <http://tinyurl.com/8xaaauqa>.
 - d. **SyncToy from Microsoft (FREE):** See <http://tinyurl.com/a8dnx>
 - e. **ViceVersa** from TGRM Software: \$34.95 for the Standard version; \$59.95 for the Pro version. See www.tgrmn.com.
 - f. **Syncplicity:** See www.syncplicity.com.
 - g. **Sugar Sync:** See www.sugarsync.com. This service offers online backup of your files and file synchronization among multiple PCs and smartphones. You can access your files anywhere you have Internet access thanks to apps for BlackBerry, iPhone and Windows Mobile.
 - h. **BeInSync Professional from Phoenix Technologies:** \$59.95 per year, see <http://www.beinsync.com/>
 - i. **PeerSync Workstation Edition from Peer Solutions:** See <http://tinyurl.com/5geufm>, \$149.
2. **External Hard Drives:** The options here change too frequently, but look for a drive that spins at 7,200 rpm and at least 1 TB. If you have a newer computer with a USB 3.0 port, then look for a USB 3.0 hard drive because USB 3.0 is 10 times faster than USB 2.0.
3. **Internet Backup Options:** This is becoming more and more common as a *secondary* backup method. Some use it as a primary backup but we recommend against this because internet connections frequently go down.
 - a. **Mozy Pro:** <http://mozy.com/pro> - \$3.95 + \$0.50/GB per month. Therefore, to backup 40 GB of data would only cost \$23.95 per month.

- b. **Mozy Home:** <http://mozy.com/home> - \$4.95 per month - unlimited storage.
- c. **Carbonite:** www.carbonite.com - \$54.95/year - unlimited storage.
- d. **SOS Online Backup:** www.sosonlinebackup.com - pricing determined by how much data you intend to backup. 40 GB is \$72/month or \$720/year (\$60/month if paid in advance). Highly rated service.

4. **Other Mobile Backup Options:**

- a. **Clickfree Automatic Backup Traveler:** Razor thin and light flash drive with backup software. Comes in 16 - 64 GB capacities. See www.clickfree.com.
- b. **SanDisk Ultra Backup:** It looks like a standard USB flash drive, but inside this 2.8 x 0.8 x 0.4-inch stick is software that begins automatically backing up your data when you pop the drive into an available USB port, and press the dedicated backup button. Comes in 8 - 64 GB capacities. See <http://tinyurl.com/yawhqlb>.

B. Smartphones:

- 1. **What Is a Smartphone?** To be clear, a smartphone refers to a mobile phone which also has additional information accessing and storage capabilities. Aside from the obvious phone functionality, common features include:
 - sophisticated calendaring, contact management (names, addresses, phone numbers, etc.), task lists
 - the ability to send/receive email
 - browsing the web
 - running applications (increasingly important)
 - taking photos
 - recording video
 - synchronization with 3rd party applications such as Microsoft Outlook
 - GPS navigation capability
- 2. **How Prevalent Smartphones Are Among Lawyers:** It's not easy to glean statistics on this subject, but the American Bar Association Legal

Technology Resource Center² conducts an annual survey of legal technology usage. According to the 2010 survey³, just under 80% of lawyers responding to the survey report using a mobile device (defined as "PDAs/Smartphones/BlackBerrys") which is an increase from prior years. Since PDAs are virtually extinct, one can safely assume that the huge majority of these respondents are referring to smartphones (BlackBerry being a subset thereof). Even if this survey is off significantly, it's clear that a large majority of lawyers are using smartphones.

3. **Why Lawyers Need a Smartphone:** Most lawyers want ONE device that does everything. It's unwieldy and inconvenient to carry around a phone and a PDA or a paper day planner/calendar/rolodex. Notwithstanding those facts, I routinely see lawyers scribbling in paper calendar books, Day-Timers and the like. I appreciate that when people have done things a certain way for a long time (like rely on paper organizers), it's often difficult to change. However, smart phones are clearly superior. Further, they're not just communication devices. If they are synchronized with your office calendar/contacts/tasks/email, they can play an extremely important role in keeping you organized and on top of your practice.

4. **If You Rely on an Electronic Docketing/Calendar System, You Must Be Able To Access It Remotely:** More and more lawyers are relying on an electronic calendar, and for good reason (see paragraph 5 below). Popular options for this include Microsoft Outlook, Lotus Notes and Novell GroupWise. Many lawyers also utilize case management software, and *all* of the significant players in that area also contain an electronic calendaring system. However, if you're at court and need to schedule a hearing on your calendar, it isn't going to do you much good if your calendar is only accessible back at the office. Smartphones play an important role here because they can be synchronized with an electronic calendaring system either via a sync cable (workable but not preferred) or wirelessly (definitely preferred). Therefore, if properly configured, a lawyer would be able to see her calendar while at court and schedule that hearing on the phone. If the sync is occurring wirelessly, then as soon as the hearing goes on the phone, it is transmitted back to the office so that interested parties there can also see it. Of course, that sync also works in reverse so that if someone back at the office added an appointment to the lawyer's calendar, it would instantly show up on the phone as well.

5. **Paper Docketing Systems Are No Longer Acceptable:** To be blunt, paper calendar systems are inferior to electronic calendars synced with smartphones in every measurable respect (except possibly the size of the viewable area). I understand that many lawyers are more comfortable with paper systems, but in most cases that is simply because they've never tried a good electronic calendar program coupled with a

² See <http://www.abanet.org/tech/ltrc/home.html>

³ See <http://www.abanet.org/tech/ltrc/survstat.html>

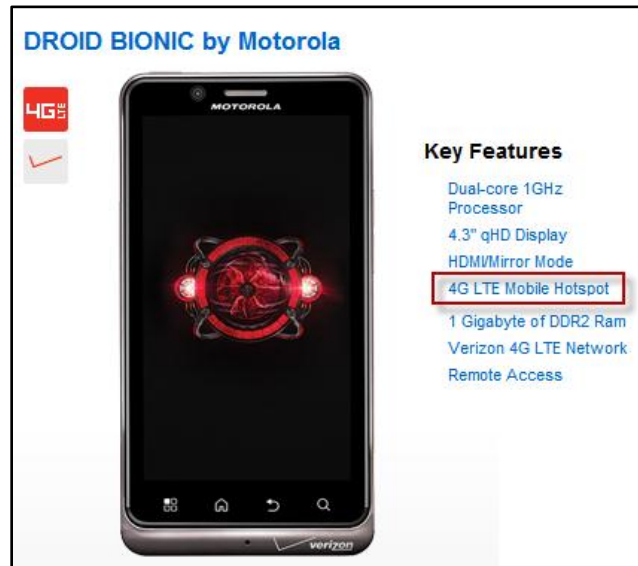
smartphone; or no one ever showed them how to use one properly. A few of the significant benefits offered by electronic calendaring systems (compared to paper) are listed below and many of them are also malpractice issues.

- a. **Synchronization:** You cannot synchronize paper calendars to a computer or vice versa. This costs you extra time trying to match up entries that are in your paper system with entries that may be in the calendar on your computer. Also, with paper systems, changes you make while you are out of the office don't automatically update your office's calendar resulting in double bookings or potentially missed deadlines. Smartphones synchronize no matter your location and solve these problems.
- b. **Search Capability:** You can't instantly search all of your appointments or contacts for something like a client name, a city, a company name, etc. Smartphones all have this feature.
- c. **Sharing:** Paper calendars can't be shared electronically with anyone else in your office. Once synchronized with a computer, all data in a smartphone is sharable electronically. Paper calendars can only be in one place at a time.
- d. **Easy Changes and Modifications:** Appointments, tasks and contact information can't be easily changed in paper organizers without erasing or crossing out. Smartphones can be changed easily with no mess.
- e. **Backup:** You can't backup a paper system to anything unless you make copies of every page. The act of synchronizing a smartphone also backs it up. For many smartphones, this process can even occur wirelessly. For example, I use Microsoft Outlook. My calendar is on my BlackBerry, my laptop, and my file server. Further, the file server is backed up daily.
- f. **Reminders:** Paper calendars don't have alarms. They can't interrupt what you're doing, turn themselves on or give you an audible alert that a deadline is approaching. All smartphones do these things.
- g. **Mobility:** Paper calendar/contact systems are typically large books you have to lug around and buy replacement paper for every year (compared to a small smartphone that fits in your pocket). Most paper calendars I see are in binders; they're usually very thick and stuffed with business cards, sticky notes, pens and even receipts. A phone is obviously a lot easier to transport.

- h. **Reports:** You can't pull reports out of a paper calendar of all future hearings, etc. Smartphones enable you to do this.
 - i. **Redundancy:** If you lose your sole paper calendar, you're going to have a pretty hard time remembering all of your deadlines and appointments (think malpractice). By contrast, an electronic system is backed up on desktop PCs, on the server, on a smartphone and on a backup system. With 4 copies, it's nearly impossible to lose all of them.
- 6. **Smartphones Are Great Reference Tools:** Some lawyers will complain that entering appointments, tasks and contacts into a smartphone is annoying. The keyboards are small and the screens are small (relative to a standard computer). However, the reality is that the only time you need to enter something into the phone is when you're out of the office and have to enter it immediately. Generally, that doesn't happen very often. A smartphone is much more valuable as a reference tool. For example, when I'm out of the office, in just a few seconds I can: a) tell you whether I have an opening on my calendar next Thursday, b) look up the phone number of any of the 7,000+ contacts in my phone (no, I'm not kidding), c) reply to or send an email to a client, d) check my to-do list for tomorrow, or e) get directions to my client's office.
- 7. **Smartphones Can Be Used To Access Documents:** Documents you receive via email on a smartphone can be read and sometimes edited depending upon the type of document and software you have installed on your phone. Further, there are services such as www.dropbox.com which allow you to gain access to office documents and files via a smartphone app.
- 8. **Smartphones Can Aid Your Marketing Effort:** If you engage in social media marketing (twitter, Facebook, LinkedIn, blogs, etc.), it can all be done from a smartphone wherever you are. Smartphone apps exist for all of the aforementioned social media options. For more information on this issue, see *Law Firm Marketing Pointers: Cash in on the Smartphone Frenzy* by Rene Perras.⁴
- 9. **Smartphone Allow You To Work Remotely:** Thanks to the proliferation of notebook computers, it is commonplace for lawyers to work remotely, from home or on the road. However, in order to be completely connected to the office, one typically needs an internet connection. Smartphones allow you to connect your notebook computer to the Internet in a couple of ways. First, you can "tether" which involves connecting your smartphone to your notebook with a cable and running special software on the notebook which allows it to tap the Internet through the phone. Second, many smartphones are also "hotspots"

⁴ See <http://tinyurl.com/4tycp6r>

which means that you can connect yours and others to the internet through the phone wirelessly. For example, see the screenshot below from www.verizonwireless.com:



10. **Smartphones Allow You To Be More Responsive to Clients:** With my smartphone, clients can reach me at virtually any time of day or any day of the week via email, phone or text message. Furthermore, my smartphone allows me to view client documents or faxes (I use an internet faxing service called www.myfax.com); and I can browse the internet via the phone or use the phone to connect my notebook PC to the internet. The bottom line is that thanks to my smartphone, I'm always reachable and my clients appreciate that. Having said that, I appreciate that not everyone wants to be that connected to their clients. On the other hand, there are many clients who will switch lawyers/law firms if they feel that one is more responsive than the other.

11. **Cell Phone Security for Lawyers:**
 - a. **Best Approach - Don't Put Confidential Information On Your Phone:** To minimize risk, the best approach is not to carry client confidential information on your phone. However, that's easier said than done as we rely more and more on our phones to stay connected to the office and our clients. Further, many lawyers don't store confidential information on their phones, but use apps and other remote connection options to access confidential information from their phones. Of course, those same apps might be used by unauthorized users to access the same information if the phone fell into the wrong hands.

 - b. **Security Options If You Do Carry Confidential Information On Your Phone:** If you are going to carry to access confidential client information on your phone, it is essential that you employ

security. Phones are extremely easy to lose and they can be compromised by worms, phishing and hacking (smartphones can be accessed through public Wi-Fi, Bluetooth capabilities, malware and other methods). Below are some of your options.

- i. **Password Protection:** At a minimum, you need to password protect your smartphone and all of the major players offer this. In other words, the phone can't be used without entering a password.
- ii. **Encryption:** Encryption is the process of transforming information (referred to as plaintext) using an algorithm (called a cipher) to make it unreadable to anyone except those possessing special knowledge (usually referred to as a key). The result of the process is encrypted information (in cryptography, referred to as ciphertext). In many contexts, the word encryption also implicitly refers to the reverse process, decryption (e.g. "software for encryption" can typically also perform decryption), to make the encrypted information readable again (i.e. to make it unencrypted).⁵ In any event most smartphones have encryption capabilities built in and this functionality is also available via many apps which one could install on a smartphone. The point is, encryption is available and you should be using it.
- iii. **Remote Wipe:** This is the ability to remotely destroy all data on your phone. If someone steals it (or you lose it), you would be able to delete all of the information. All major cell smartphones allow for this (iPhone, BlackBerry, Android, Windows Mobile and Palm WebOS). There are also apps which will perform this function such as Lookout Mobile Security⁶ which works for Android, Windows Mobile and BlackBerry devices.
- iv. **Firewalls and Antivirus Software:** Particularly if you use your phone to access the Internet or email, you should consider firewall and antivirus software. Smartphones are vulnerable to the same types of issues that can affect personal computers.
- v. **Beware of Bluetooth:** If you leave your phone's Bluetooth functionality turned on and "visible", it's possible for hackers to gain access to your phone without you knowing. Therefore, if you're going to leave Bluetooth turned on, you should adjust the phone settings so that it

⁵ See <http://en.wikipedia.org/wiki/Encryption> for an excellent explanation of this.

⁶ See <https://www.mylookout.com/>

isn't visible to others and disable contact transfer ability if that is an option.

- vi. **Consider Remote Tracking Tools:** There are apps such as the aforementioned Lookout Mobile Security which will allow you to track the location of your cell phone on a GPS map (assuming that it is turned on).
- vii. **Backup Your Phone Often:** All smartphones have some type of backup utility. Some backup options store the backed up data on your personal computer and some store it on a secure web server. Whatever options are available to you, make sure you use them.
- viii. **Research Your Apps:** Make sure that the apps you decide to load are safe and are not compromising the security of your phone or otherwise transmitting personal information back to the creator of the app. If you google the name of the app you're considering loading, you can typically find out a lot of information about it. If you can't find any information about the app you're considering, then I wouldn't load it. Be particularly wary of free apps. For a good discussion of the risks associated with this issue, see Droid Smartphone - Not So Safe For Lawyers by Finis Price.⁷
- ix. **Cell Phone Security Resources:** The purpose of this seminar is not to provide you with step-by-step instructions for securing your phone since those steps are different from one phone to another, and new phones are released weekly. However, here are some good resources for you which explain your security options:
 - Smartphone Security Tips for Attorneys, by Randall Ryder, January 6, 2011 - read the article here: <http://tinyurl.com/23dmuru>
 - How to Secure Your Smartphone, by Adam Dachis, read the article here: <http://tinyurl.com/2e7qvfx>
 - What Is The Most Secure SmartPhone?, by Sharon Nelson, April 13, 2010 - read the article here: <http://tinyurl.com/2ehcejh>
 - Top 20 Android Security Apps, by Jeff Goldman, September 3, 2010 - read the article here: <http://preview.tinyurl.com/27qbb6w>

⁷ See <http://www.technoesq.com/law-office-use/2010/07/29/droid-smartphone-not-so-safe-for-lawyers/>

- Tech Insight: Tools For Securing Your Smartphones - What major smartphone vendors provide from a security standpoint, by John Sawyer, January 15, 2010 - read the article here:<http://tinyurl.com/2w9ojav>
 - Lookout Mobile Security - cell phone app for BlackBerry, Android and Windows Mobile phones - protects your phone from viruses, hackers, loss and theft - see www.mylookout.com
12. **Which Phone Is Most Secure?** Without question, BlackBerry leads in this area.
13. **Wireless Carriers/Networks:**
- a. **Big Players:** The biggest players in the U.S. market are Verizon, AT&T, Sprint and T-Mobile. Which carrier is right for you depends upon a lot of variables such as which one has the best coverage in your geographic area, what kind of phone you want, and which network is used by people you will call most often.
- b. **Tools For Researching Wireless Carriers:**
- www.jdpower.com
 - www.consumerreports.org
 - www.wirelessadvisor.com
 - www.phonedog.com
14. **Highest Ranked U.S. Wireless Carrier:** Verizon is widely considered the best in the U.S. in terms of coverage and overall service;⁸ while AT&T and Sprint battle for the bottom spot in most surveys. Many iPhone users have complained about AT&T's bad coverage, propensity for dropping calls and unavailability of 3G coverage. AT&T claims the problems are a result of them handling more data traffic than any other carrier. However, ABI Research puts AT&T in 3rd place behind Verizon and Sprint - see <http://tinyurl.com/3x2pnml>.
15. **Picking The Network is More Important Than Picking The Phone:** If you choose a network that has poor coverage in your area, any phone you choose is going to drop calls all the time. Further, if you need to browse or use email on your phone but you can't get 3G coverage consistently, it's going to be painfully slow. The bottom line is that if your network is bad, any phone you buy is going to be a brick.

⁸ See PC Magazine's annual reader satisfaction survey: <http://tinyurl.com/3xs9y4j>; or Top Ten Reviews: <http://tinyurl.com/2qe9ef>. Consumer Reports magazine also ranks Verizon number one.

16. **3G v. 4G and What It Means to Lawyers:**

a. **Definitions:**

- i. **3G:** Third Generation - a technology that gives you a high-speed connection to the Internet, video and multimedia on your cell phone.⁹
- ii. **4G:** This is a marketing term that service providers are using to describe the "fourth generation" of wireless services. Such services may use different underlying technologies, depending on the provider, but they typically offer between four and ten times the performance of "3G" networks.¹⁰

b. **4G Technologies:** The two main technologies of 4G are WiMax and Long Term Evolution (LTE). Both WiMax and LTE use advanced antenna technology to improve reception and performance. However, the technologies rely on different types of wireless spectrum. WiMax services are already in use in many other countries, including Japan, Korea, and Russia; and one commercial LTE network is running in Sweden.

c. **Speed Differences:** WiMax providers are offering contracts that advertise download speeds of between 2 megabits per second ("mbps") and 6 mbps, with peak speeds of 10 mbps and more. Verizon, which intends to launch LTE networks in the United States in late 2010, is expecting to offer download speeds in the 5 mbps - 12 mbps range. Most 3G data systems today deliver speeds of between 400 kilobits per second (that is, 0.4 mbps) and 1.5 mbps.

d. **4G Benefits:** 4G should significantly improve the performance of demanding apps such as streaming video, videoconferencing, and networked gaming. It's so fast that you may be able to replace your home DSL or cable modem service with a 4G service.

e. **4G Reality:** As of this writing, all of the carriers are claiming to have 4G. However, only Verizon is using LTE and offering speeds that are clearly far beyond 3G. Everyone else is *calling* their service 4G but it's really just trumped up 3G and it's running on their same old networks. The chart below from PC World magazine underscores the fact that everyone but Verizon is just pretending.

⁹ Macmillan Dictionary - see <http://www.macmillandictionary.com/dictionary/american/number-3G>

¹⁰ *4G Wireless: 20 Questions Asked & Answered*, PC World magazine, by Paul Kapustka, PC World Apr 26, 2010, see <http://tinyurl.com/3ytwvzz>.

4G Smartphone Shootout: ThunderBolt Scorches, Atrix Underwhelms

The average download speeds, upload speeds, and network latency times of the service providers' 4G smartphones in each of our five testing cities.

CITY	Verizon HTC ThunderBolt			T-Mobile Samsung Galaxy S 4G			AT&T Motorola Atrix 4G			Sprint HTC EVO Shift 4G		
	Download Speed (mbps)	Upload Speed (mbps)	Latency (milliseconds)	Download Speed (mbps)	Upload Speed (mbps)	Latency (milliseconds)	Download Speed (mbps)	Upload Speed (mbps)	Latency (milliseconds)	Download Speed (mbps)	Upload Speed (mbps)	Latency (milliseconds)
Seattle	20.71	10.85	56	3.66	1.50	142	1.72	0.16	191	0.86	0.42	287
San Francisco	17.24	6.22	41	2.41	0.97	113	1.93	0.23	298	2.10	0.57	277
San Jose	17.14	7.70	41	2.64	1.12	81	2.02	0.22	302	1.25	0.81	296
Los Angeles	18.80	7.74	71	3.23	0.92	86	1.37	0.20	165	0.84	0.35	187
Las Vegas	17.59	4.42	77	4.95	1.13	93	1.38	0.12	279	3.20	0.36	140
5-City Average	18.30	7.39	57	3.38	1.13	103	1.68	0.19	247	1.65	0.50	237

CHART NOTES: Speeds expressed in megabits per second (1 megabit=1000 kilobits). Latency is the time needed for a single packet of data to travel through the network; latency times of less than 100 milliseconds are ideal, while delays of more than 200 can limit throughput and impair real-time services like VoIP and videoconferencing.

- f. **The iPhone 4G CANNOT Use 4G Data Services:** The iPhone 4G isn't really 4G. Apple's name for the phone simply means 4th generation, not that it can tap 4G networks. This is clever marketing by Apple, but creates a completely false impression. On the other hand, some phones like HTC's EVO 4G really do offer 4G data speeds.
- g. **Upgrade 3G Phones to 4G?** You can't do this without buying a 4G phone. 3G and 4G run on different frequencies so you can't upgrade a 3G phone.
- h. **4G Does Not Currently Support Voice:** Other than using something like Skype, there is no voice support with 4G. Therefore, 4G phones currently use a 4G chip for data and a 3G chip for voice. However, it is speculated that since 4G will start relieving 3G of some of the data burden, it will free up the 3G spectrum to handle voice better.

17. Choosing A Phone:

- a. **Mobile Phone Operating Systems:** The operating system ("OS") determines the interface for the phone, not the wireless carrier or phone manufacturer. Because the OS is largely responsible for your experience with a phone, the one you choose is critically important. Your main choices are:
 - i. **BlackBerry:** from Research In Motion - see www.blackberry.com for full information about all of their phones
 - ii. **iPhone:** from Apple - see www.apple.com/iphone/

- iii. **Palm webOS:** from Palm, Inc., now owned by HP - see www.palm.com. Note above that HP has discontinued webOS device development and Pre phones.
- iv. **Android:** from Google - see www.android.com
- v. **Windows Phone 7:** from Microsoft - See www.windowsphone7.com for more information. This is Microsoft's reboot of its phone OS, they're betting the farm, and the reviews are excellent.

18. **Tools for Researching Wireless Phones:**

- www.phonescoop.com
- <http://reviews.cnet.com/cell-phones>
- <http://www.pcworld.com/products/phones.html>
- <http://tinyurl.com/2yc8c4> (PC Mag)

19. **Wireless Phone Terminology:**

- a. **Wired Synchronization:** This means the smartphone's data is only synchronized with your computer when it is physically connected to your computer (either through USB or Bluetooth). Years ago, this was the only option and while it still works well and is free, wireless offers distinct benefits (see below).
- b. **Wireless Synchronization:** This means the smartphone's data is synchronized wirelessly through the cellular carrier's network to your office network, your office PC or a server on the cellular network. Depending on the smartphone in question, the options are different for each smartphone. We'll examine those options below.
- c. **Outlook Contact, Calendar and Task Synchronization:** The idea here is to get your Outlook data synced into your phone. Preferably, it is a two way sync so that anything you enter into the phone will also show up in Outlook.
- d. **Microsoft Exchange Server:** This is Microsoft's server application for backing up and sharing email, contacts, calendars, tasks and other information in Microsoft Outlook. It provides centralized data storage, sharing abilities, plus synchronization with various phones and other devices. Exchange Server comes bundled with Windows Server as part of the Small Business Server bundle or may be purchased separately.

- e. **Hosted Microsoft Exchange Server:** This is essentially renting Exchange on a server you access through the Internet. It is exactly the same as having it in-house except for the fact that you avoid the expense of buying and maintaining a file server, Windows and Exchange. In other words, rather than paying \$8,000 + ongoing maintenance, you're paying \$10/month/user. Depending on the size of your office and physical setup of remote offices or telecommuters, hosted Exchange Server is often much less expensive than having Exchange Server on-site. Other benefits of hosted Exchange Server: multiple internet connections, multiple power sources, guaranteed uptime, no cost for backup or maintenance.
 - f. **Tethering:** Term used to describe connecting a smartphone (either wired or wireless through Bluetooth) to a laptop computer whereby internet access is provided by the phone to the laptop. Some carriers charge extra for this service while others do not. The method used depends on the carrier (more information below). This is tremendously beneficial if you often need Internet access when you're not in a WiFi hotspot and is usually less expensive per month than an "aircard".
 - g. **Security:** Most people don't realize that their Smartphone can become infected with a virus, spyware, or even hacked to give someone access to all of the call logs, emails, text messages, etc that are on the phone. Even if you delete a file from you Smartphone, just like on a PC with the right software and knowledge that data can be recovered. Simply deleting the data and throwing out your old phone is not a good idea either. Security for the various smartphones is discussed in more detail below.
- C. Noise Canceling Headphones:** You're unquestionably going to find yourself in noisy places where you still need to get work done. Tune out the ambient noise with a great set of noise canceling headphones you can plug into your computer, MP3 player or cell phone that plays digital music.
- D. USB Flash Drives:** There are many options for this; too many to mention. I would look for something that is encrypted like the IronKey (see www.ironkey.com) or a Sandisk Cruzer Biometric.
- E. Digital Voice Recorder:**
- 1. **Benefits of Digital:** Digital voice recorders do not use tapes because they store your recorded voice digitally on memory chips inside the device. Since there are no moving parts inside a digital voice recorder, the batteries tend to last longer. There are no tapes to buy or erase every time you want to record something. The recorded voice quality is vastly superior to that of tape-based recorders and the recorders

themselves are typically smaller than tape recorders. A digital audio file has many advantages over tape, including easy storage and portability. Used both in the office and out of the office, an attorney can dictate into a handheld digital recorder, automatically transfer the dictation to a computer, and instantly email the audio file containing the dictation to his or her secretary in the next room or hundreds or thousands of miles away. If you are not using voice recognition software, there are digital dictation foot pedals that connect to a secretary's or legal assistant's computer via USB or serial port that work like traditional tape based pedals. The document is then transcribed and returned by email to the lawyer for final proofing and editing. The edited version can be sent by return email back to the office to be printed and mailed.

2. **Occasional Dictation Recommended Recorder:** If you want something small and handy for when you're in the car (for example), consider something like the Sony Digital Voice Recorder ICD-PX720. Capture your next big idea with this digital voice recorder. Playback and record MP3s and store up to 280 hours of crystal clear audio. Expect to pay around \$55.
3. **Serious Dictation Recommended Recorders:** If you dictate frequently, then you have two basic options for a high-end digital voice recorder:
 - a. **Philips Pocket Memo LFH-9600:** The Philips Digital Pocket Memo 9600 series sets new standards in advanced functionality and style. Voice commands, on-board file encryption and password protection are but a few of the powerful features of the 9600. The ergonomic design lends itself to unparalleled user friendliness to create dictations, and the intuitive controls are easy to use. Coupled with SpeechExec Pro Dictate, the network-based dictation software and a docking station for uploading your files, the new 9600 is the ultimate in digital dictation. \$499 from www.recorders.com.
 - b. **Philips Pocket Memo LFH-9500:** Philips Digital Pocket Memo 9500 (LFH9500) is a professional dictation recorder that is perfect for professionals and non-professionals alike who wish to upgrade to digital dictation. The 9500 includes the popular four-position slide switch for familiar, single-handed operation. The large backlit LC display and ergonomic design with a full metal case ensure quality and usability. SpeechExec Pro Dictate, the professional dictation software, is also included for simple integration into your everyday document workflow. \$399 from www.recorders.com.
4. **Conference/Meeting Recorder Recommendation:**
 - a. **Olympus LS-10 (\$249):** Combining the advanced technologies derived from Olympus' decades of experience in the recording

field, the compact and portable LS-10 brings you high-fidelity sound recording that's ideal for everything from live music to the singing of birds. The LS-10: unparalleled sound quality, anytime, anywhere.

- b. **Olympus LS-11** (\$299): Drawing on 40 years of experience, Olympus has put a feature-packed audio studio in one 5-ounce PCM recorder. The LS-11, with two high-sensitivity microphones and 8GB of internal memory, is the star of the show when it comes to capturing and playing back crystal clear audio, whether for personal enjoyment, hobbies, or even important business functions. Features include:

- 24BIT / 96KHZ LINEAR PCM RECORDING
- 8GB BUILT-IN MEMORY AND SD CARD SLOT
- WAV, MP3 AND WMA RECORDING (STEREO AND MONAURAL)

5. **Transcription Systems:** Now, for your transcriptionist, you'll need those familiar foot pedals with a headset that is designed for use with digital voice recordings. You have several choices:

- a. **Olympus AS-2400 Transcription Kit:** - \$153 from www.recorders.com. Olympus also makes higher end transcription systems - the AS-4000 (\$329) and AS-5000 (\$347).

- b. **Start Stop Universal Transcription System:** The Start-Stop UNIVERSAL Transcription System is a pedal-controlled PC transcription system that plays a wide range of file formats with a focus on workflow and efficiency. \$169 from www.startstop.com.

- c. **Philips 7177 SpeechExec Transcription Set** - \$185.

- d. **Philips LFH-7277 Pro Transcription Kit** - \$379

6. **Excellent Headset for Digital Recording:** If you want to record hands-free in the car or you want a better headset for voice recognition software, consider the Sennheiser ME3 computer headset microphone. It is absolutely the best - \$155.



F. Digital Camera: Many smartphones now have 8 MP cameras which is pretty impressive and may obviate the need for any other camera. However, in the event your smartphone camera isn't very good quality, it's an excellent idea to have a separate digital camera with you at all times. Which is best is a moving target so I'm not going to make any specific recommendations. You can take photos of clients, situations or anything you'd like to later show someone else.

1. **Best Brands:** Generally speaking, here are the highest ranked manufacturers:

- Overall: Canon, Nikon, Panasonic
- Compact: Canon
- Ultracompact: Canon
- Enthusiast: Canon
- Superzoom: Panasonic
- D-SLR: Canon and Nikon

2. **Where to Research Your Purchase:** Here are some good places to get reviews on the latest and greatest in any price range:

- Steve's DigiCams: www.steves-digicams.com
- CNET: <http://reviews.cnet.com/digital-cameras/>
- Digital Photography Review: www.dpreview.com
- Digital Camera HQ: www.digitalcamera-hq.com/digital-cameras

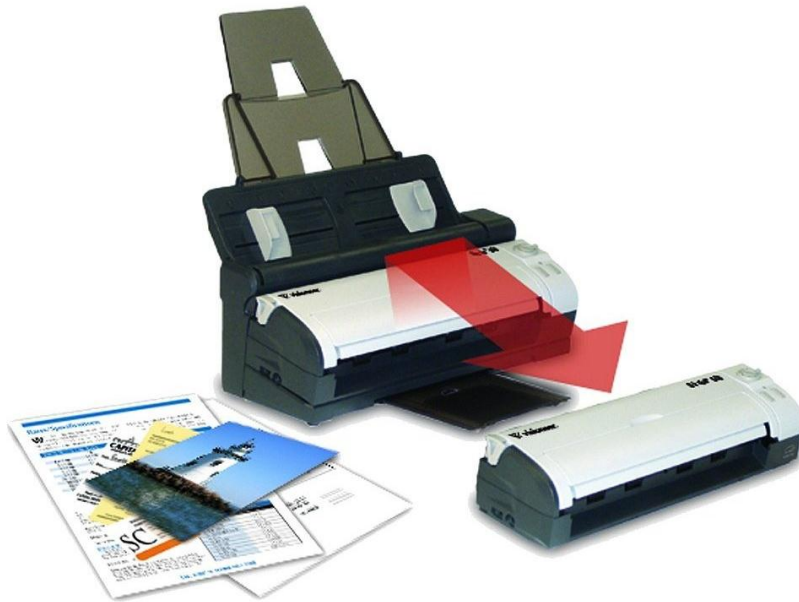
G. Portable Scanners:

1. **Why a Portable Scanner?** If you've got a portable scanner, then you essentially have a copier with you as well since you can always scan something and then print it on your portable printer.
2. **Recommendations:**
 - a. **Fujitsu ScanSnap S1100:** (\$189 - part number PA03610-B005) At nearly 12 ounces, the new ScanSnap S1100 is the lightweight companion for front-side document scanning at home or on the road. Whether scanning receipts, contracts, recipes, or plastic cards, ScanSnap takes scanning beyond the desktop and into your world.
 - Create a searchable PDF file with the touch of a button
 - Scan paper as small as an inch up to 34 inches long
 - Scan to an editable Word and Excel file
 - Create searchable keywords with a highlighter
 - Business card scanning software
 - Supports scanning a plastic ID card
 - Cross-platform compatibility for PC and Mac
 - USB powered
 - b. **Fujitsu ScanSnap S1300:** (\$246 - part number PA03603-B005) Take document scanning to a whole new level with the ScanSnap S1300 mobile scanning solution. Whether you're at home digitizing receipts, bank statements or term papers, or at the office capturing mission critical documents for a business trip, ScanSnap takes scanning beyond the desktop and into your world.
 - Scan up to 8 double-sided pages per minute
 - Holds up to 10 pages in the automatic document feeder
 - Cross-platform compatibility for PC and Mac
 - One button Searchable PDF creation, PDF, and JPEG
 - Scan to editable Word and Excel files
 - Create searchable keywords from highlighter text

- Business card scanning software
 - USB or AC powered
- c. **Planon X50 DocuPen Xtreme Color Scanner:** The pen-sized Planon DocuPen Xtreme X50 Color Scanner delivers high quality images up to 8" wide with up to 1200 dpi resolution. It is equipped with a Bluetooth interface so you can send your scans wirelessly to a Blackberry, Windows Mobile smart phone, laptop computer or other compatible devices. It has a 200MHz computer processor, 64MB of SD RAM and a microSD expansion slot so you can scan a page in about 4 seconds at 200 dpi. The DocuPen X50 has a clear 2-line OLED display which provides you with information such as full file names, date & time, battery and memory levels, color and mono modes, and multi compression levels. You can also copy a document and print it with Planon's portable PrintStick mobile printer so you can work at home or on the road. PaperPort SE software is included which is a great image editing and organizing tool for all your letters, receipts, pictures, business cards. It also integrates with your Outlook, Word, Excel and other applications. The X50 includes ABBYY FineReader Pro OCR software for creating editable and searchable electronic files from scanned paper documents, PDFs and digital photographs. Dimensions: 8.9 x 0.5 x 0.5".



- d. **Visioneer Strobe 500 (Scanner + Docking Station):** \$330, part number STROBE-500. The Strobe 500 has all the features you expect in a powerful desktop scanner such as an 20-page Automatic Document Feeder, 30 images per minute duplex scanning speed, and Visioneer OneTouch with Kofax VRS technology. Then at the push of a button, the Strobe 500 ejects from its docking station to become a full function mobile scanner with USB-powered operation. When your office is not contained within four walls and can be anywhere you are, you need a scanner with flexibility. Healthcare, real estate, construction, financial services, insurance are just some of the occupations the Strobe 500 was designed for. Whether scanning contracts, forms, receipts, photos, ID cards, handwritten notes or virtually any document of varying size or complexity, the Strobe 500 does its job so you can do yours.



- H. Belkin 7-in-1 Retractable Cable Travel Pack:** The 7-in-1 Retractable Cable Travel Kit gives you an easy way to connect USB and networking devices to your notebook computer by carrying and organizing your USB and networking cables in transit. Carries multiple cable formats. Includes a complete set of retractable USB and networking cables with adapter. Eliminates loose, tangled cable clutter. Provides convenient storage of your cables and adapters when not in use. Includes retractable USB Cable A Male/A Female 0.8m USB adapter extension cable; retractable CAT5e Cable RJ45/RJ45 1.1m Computer to DSL/cable modem, gateway router, patch panel; retractable modem cable RJ11/RJ11 1.3m computer to phone jack; USB Adapter A Male/B Male Computer to printer, hub, scanner, CD/DVD drive; USB Adapter A Male/4-Pin Mini-B Male Computer to digital camera, MP3 player, PDA, cell phone; USB Adapter A Male/5-Pin Mini-B Male Computer to digital camera, MP3 player, PDA, cell phone; Crossover Adapter RJ45 Computer to computer and other networking devices. \$24 from www.amazon.com.



I. Power for the Road:

1. **Monster Outlets To Go Powerstrip:** Designed for travel from the ground up, the award-winning Monster design team created a truly portable outlet strip: Outlets To Go. Exclusive Monster features include ultra-flat design with FlatProfile™ Plug and FlatWrap™ Cord for neat and compact storage. Outlets To Go is so light and thin, you'll take it everywhere! Better yet, the space-saving 3-outlet Dual-Side design with extra-wide spaced outlets prevents bulky AC adapters from blocking free outlets. Part number MP OTG300 BK EFS - \$10 from www.amazon.com.



2. **Tripp Lite The Traveler - Surge suppressor:** Tripp Lite's portable TRAVELER surge suppressor offers complete AC and phone line surge suppression for laptops, electronic notepads, personal organizers and other portable electronic devices. Extra-small portable housing weighing less than 4 ounces neatly fits into laptop travel cases. Retractable input plug prevents scratching of expensive portable electronics. Heavy grade

AC surge suppression shields connected equipment from damage and performance problems due to transient surges. Set of RJ11 telephone line suppression jacks protect dialup and DSL modem lines. TRAVELER offers 2 total outlets in a space saving direct plug-in format and diagnostic LEDs to warn of wiring problems and suppressor damage. Heavy grade AC suppression is rated at 870 joules shields equipment from surges and line noise. - \$11.99 at www.buy.com.



3. **Targus® Compact Laptop AC Charge:** Half the size and weight of typical AC chargers. Easily powers or charges your laptop and one additional device at the same time. Includes 9 laptop tips and 1 mini-USB tip for cell phones, cameras or other compatible devices. Additional tips are available from the manufacturer. AC plug pivots up to 180°. Allows charger to plug into a power strip without blocking other outlets. The plug can fold flush with charger, for added portability. Integrated tip storage clips onto the power cord. The thin, lightweight power cord packs quickly and easily. \$99 from www.officedepot.com



IV. WORKING REMOTELY:

A. **Get High Speed Internet From Anywhere:**

1. **Air Cards or USB Modems:** All of the major cell services offer a card you can plug into your notebook computer and gain Internet access from almost anywhere. Pricing is usually \$50 to \$80 per month and the cost is determined by the monthly data allowance you choose.
2. **Mobile HotSpot:** This is a standard smartphone feature you can add (it typically costs an additional \$20/month) which allows you to transmit a web connection to up to 5 computers/devices.
3. **Tethering:** Provided your phone offers this functionality, most cell phone providers offer an option which allows you to connect your notebook to the Internet using the cell phone as a modem. For example, I have a Blackberry through Verizon. I can connect it to my notebook via the sync cable that came with it. Once the phone is connected to my notebook, I just run a little program Verizon provides and my laptop is connected to the Internet in about 60 seconds. It is not a rocket-fast connection, but certainly fast enough for me to browse the internet, take care of email, etc. You can also accomplish this if your phone has "mobile hotspot" capability. This feature usually allows up to 5 computers to connect to the internet via the phone, all wirelessly.
4. **MiFi:** These are portable broadband wireless devices about the size of a credit card that combine functions of a modem, router and access point. For a really great example of this, check out the Virgin Mobile MiFi service (<http://tinyurl.com/24dhlzb>).

B. **Accessing Other Computers Remotely:** When you're on the road, you often need to connect to PCs back at the office. Here are some options:

1. **Logmein.com:** FREE - If you need to be able to access a computer at your office when you're on the road, this is the best free option out there. Gives you the ability to easily control the mouse and keyboard of any remote PC. You can open remote files, check your email, run programs, run system diagnostics, access from any browser, access from wireless Pocket PC and it's all easy to use.

Logmein Pro gives you everything the free version does AND File Manager (securely access, transfer and backup important files and folders), Guest Invite (allow friends and colleagues to temporarily view or control your PC) and File Share (easily share files - even those that are too large for email). This costs only \$12.95/month or you can buy a year for \$99.95 (\$8.33/month).

2. **Gotomypc.com:** \$9.95/month - see www.gotomypc.com. Take over any other PC via the Internet. Unlimited remote access to your PCs from

any other Internet-connected computer; ability to swap host PCs at will; unlimited software and service upgrades; unlimited technical support and maintenance. Absolutely amazing service which we highly recommend.

3. **WebEx PCNow:** Securely connect from a remote PC, Mac, or mobile device. Instantly access files, programs, and your remote webcam. Share your screen for collaboration, support, or training. Pricing:

Computers	Monthly Plan (No long-term commitment)	Prepaid Annual Plan Save 20%
1 computer	\$12.95/mo.	\$10.35/mo. (\$124.20 prepaid)
2 computers	\$14.95/mo.	\$11.95/mo. (\$143.40 prepaid)
5 computers	\$34.95/mo.	\$27.95/mo. (\$335.40 prepaid)
10 computers	\$59.95/mo.	\$47.95/mo. (\$575.40 prepaid)

- C. Accessing Documents Remotely/Sharing Files:** There are several free options for storing documents on line. Consider the following:

- DropBox (www.dropbox.com) - This is my favorite service for this function. It's free for up to 2 GB.
- SpiderOak (www.spideroak.com) - Better security than DropBox.
- Microsoft SkyDrive - 25 GB free! See <http://tinyurl.com/2acvfzz> for more information.
- MediaFire (www.mediafire.com) - unlimited storage - FREE
- Box.com (www.box.com) - 5 GB of free storage
- TrueShare (www.trueshare.com)
- ShareFile by Citrix (www.sharefile.com)
- FileGenius (www.filegenius.com) - free trial and completely encrypted, secure way to share confidential documents with others.
- iDrive (www.idrive.com) - 2 GB of free storage
- NetDocuments (www.netdocuments.com) - this is a full-featured document management systems that runs in the cloud.

- D. Online Document Collaboration:** These services allow you to create, store and share word processing documents and spreadsheets online.

- Microsoft Office Live (<http://www.officelive.com/en-us/>) - FREE
- Google Docs & Spreadsheets (<http://docs.google.com>) - FREE
- Zoho Office Suite (www.zoho.com) - FREE
- weboffice from webex (www.weboffice.com)
- HyperOffice (www.hyperoffice.com)

E. Online (Web) Meetings: It makes little sense to waste time and money traveling around the country for meetings when you can often accomplish the same thing from your office via web meetings. These meetings usually do not involve web cameras so the others in the meeting can't see your face. However, they can hear your voice and see whatever you want to show them on your computer. This is often all you need for a successful meeting. Some options to consider:

1. **GoToMeeting** (www.gotomeeting.com)
2. **WebEx MeetMeNow** (www.webex.com):
3. **Adobe Acrobat Connect** (<http://tinyurl.com/2nbcwt>)
4. **Microsoft Office Live Meeting** (<http://tinyurl.com/yyugt2>): Very inexpensive - contact www.EventBuilder.com.
5. **Join.Me** (<http://join.me>) - FREE!

F. Printing Outside of the Office:

1. **Printing Without a Printer:** You don't always have to carry around a printer in order to print. Here are some options:
 - a. **Hotel Business Centers:** Most hotels now offer "business centers" which offer computers, Internet access and printers.
 - b. **efi PrintMe** (www.printme.com): PrintMe works for hotels, airports, conference centers and hot spots. The PrintMe station enables your printer to be accessible over the internet via the web and email. Users can use any Internet-connected devices to print, including desktops, laptops, and PDAs. They do not need any software, cables, or drivers. They can print to the PrintMe-enabled printer from their room, the road, a meeting, or anywhere else they have Internet access. Currently, there are 1800 PrintMe locations, the vast majority of which are American or Canadian hotels. Via the Web: Users simply go to www.PrintMe.com. They can browse and upload any document, enter their information, and print. They are given a receipt number (DocID), which is used

to retrieve the document on-demand at the printer. Documents stay secure and confidential. Via e-mail: Files can also be sent via e-mail. Guests can forward e-mails with documents attached to a unique e-mail address that PrintMe assigns to each printer. Similar to Web printing, they are given a DocID to retrieve the document at their convenience. PrintMe can handle most document formats including Microsoft® Word™, PowerPoint™, and Excel™, HTML, JPEG, PDF, and more. With built-in end-to-end 128-bit SSL encryption, documents are secure from the time they are uploaded until they are printed.

- c. **FedEx Kinko's**: You can also upload a document to FedEx Kinko's web site at <http://tinyurl.com/2kuw3> and direct exactly what you want and at which FedEx Kinko's location you'd like to pick up your documents.

2. **Printing with a Portable Printer**: Here are a few top rated portable printers for your consideration:

- a. **Hewlett Packard OfficeJet 100 Mobile Printer** - \$226 - 6.9 x 13.7 x 3.3 inches and weighs 5.1 pounds. Prints 22 pages per minute.



- b. **Canon Pixma IP100** - \$199 + \$92 for battery - 12.7"(W) x 2.4"(H) x 7.2"(D), 4.4 lbs.



- G. **Faxing Outside of the Office:** If you've got an internet connection, then you can send and receive faxes from the road. Internet faxing options allow you to fax directly from your PC without using a fax modem or a telephone line.
 - a. **Myfax:** www.myfax.com - pricing shown below. Toll free number and faxes are emailed as PDFs attached to email.

BEST VALUE	MOST POPULAR	FAX MORE
Send 100, receive 200 free pages/month	Send 200, receive 200 free pages/month	Send 400, receive 400 free pages/month
\$10 PER MONTH	\$20 PER MONTH	\$40 PER MONTH
30 DAY TRIAL	BUY NOW	BUY NOW

- b. **EFax:** www.efax.com - This is a more expensive option. Pricing shown below:

eFax Plus	eFax Pro
Annual Membership ⓘ \$14.13/mo. (Save 2 months)	Annual Membership ⓘ \$16.63/mo. (Save 2 months)
Monthly \$16.95/mo.	Monthly \$19.95/mo.
Setup fee \$10.00	Setup fee \$19.95
Receiving faxes 150 FREE pages every month! Then \$0.10/pg	Receiving faxes 200 FREE pages every month! Then \$0.10/pg
Sending faxes 150 FREE pages every month! Then \$0.10/pg	Sending faxes 200 FREE pages every month! Then \$0.10/pg

- c. **RingCentral:** www.ringcentral.com. With RingCentral, you get a toll free or local number; you can receive faxes on your PC, via email or with a mobile app; and you can send faxes via email or your PC from any application. Prices start at \$7.99/month for 500 pages and go up from there.

MOST POPULAR			CORPORATE PLAN
Fax 500	Fax 1000	Fax 2500	Fax ProUnlimited
500 FREE Pages included monthly**	1000 FREE Pages included monthly**	2500 FREE Pages included monthly**	Unlimited Pages** included monthly†
\$7.99 / MONTH*	\$19.99 / MONTH*	\$49.99 / MONTH*	\$39.99 / MONTH*
			Includes 2 fax numbers Add'l fax numbers \$4.99 / mo
FREE TRIAL	FREE TRIAL	FREE TRIAL	CONTACT SALES
BUY NOW	BUY NOW	BUY NOW	1-888-389-0854
5.9c for additional pages** Includes All Features	4.9c for additional pages** Includes All Features	3.9c for additional pages** Includes All Features	

- d. **GreenFax:** www.greenfax.com - Includes a local dedicated fax number for receiving faxes in the city or area of your choice. Pricing is \$12.95 per month (billed quarterly). One time setup-charge: \$10.00. Plan includes 250 inbound pages received per month. Pages received in excess of 250 per month are billed at 3 cents per page.
- e. **RingCentral:** www.ringcentral.com - \$7.99/month for 500 pages.

- f. **Onebox:** www.onebox.com - See their website for pricing information.
- g. **faxZERO:** \$1.99 per fax

H. Hosted Microsoft Exchange:

1. **What Is Microsoft Exchange:** Microsoft Exchange is a program that must run on a Windows server and allows Outlook users to warehouse their data (email, contacts, calendars, tasks, etc.) on the server as a backup. Exchange also allows users to share information in Outlook. For example, I could allow someone else in my office to access my calendar electronically and add appointments. Exchange also allows users to gain access to office email while out of the office in many different.
2. **Email Remote Access Options With Exchange:** All of the following can be available with either your own server running Exchange or hosted Exchange:
 - a. **Outlook Web Access:** Exchange offers this method of remote access wherein email is accessed via a secure web site. Although web based, it looks amazingly like actual Outlook.
 - b. **Outlook via VPN:** If I connect to my office via VPN, then I can run Outlook on my remote computer (laptop) and connect to Exchange just like I would if I were actually at my office.
 - c. **Encrypted RPC (Remote Procedure Call) Over HTTP:** Using this method, I can connect to my Exchange server securely from my laptop even though I'm not connected to the VPN. This means I can run Outlook on my laptop and as long as I have an Internet connection of any type, I can access all of the mail, contacts, calendar, etc. on my server back at the office. I won't go into a big technical description of this, but it's built into Outlook & Exchange 2003+ and is easy to set up. This is useful when I'm in hotels or airports which have firewalls that prevent me from connecting to my VPN (somewhat common).
3. **Exchange Options:**
 - a. **Get Your Own Server:** Of course, you would also need to have Exchange running on that server.
 - b. **Hosted Exchange:** With hosted Exchange, you're essentially renting Exchange and accessing it securely via the Internet. It is fairly inexpensive (usually \$10 - \$18 per month, per user) and avoids the cost of buying and maintaining a file server and Exchange.

4. **Hosted Exchange:** This is essentially renting Exchange on a server you access through the Internet. It is exactly the same as having it in-house except for the fact that you avoid the expense of buying and maintaining a file server, Windows and Exchange. In other words, rather than paying \$8,000 + ongoing maintenance, you're paying \$10/month/user. Depending on the size of your office and physical setup of remote offices or telecommuters, hosted Exchange Server is often much less expensive than having Exchange Server on-site. Other benefits of hosted Exchange Server: multiple internet connections, multiple power sources, guaranteed uptime, no cost for backup or maintenance.
5. **Options for Hosted Exchange:** There are hundreds but here are a few:
 - www.godaddy.com
 - www.1and1.com
 - www.mailstreet.com
 - www.apptix.com
 - www.exchangemymail.com
 - www.appriver.com

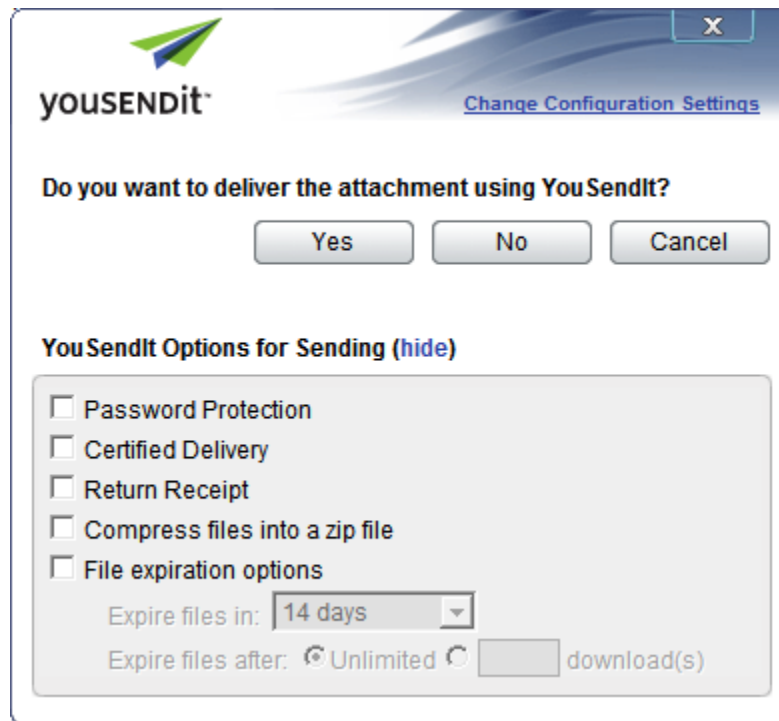
I. Email Huge Files and Get Encryption: YouSendIt (www.yousendit.com) is a service that allows you to email a large files securely. If you're on the road a lot, then you're going to need to send very large files to people occasionally. YouSendIt allows you to email files up to 2 GB in size. Furthermore, you can add passwords so they attached files cannot be opened without it. In my opinion, this service is indispensable.

1. **Pricing:** Lawyers should consider the Pro Plus version because it includes the advanced security options.

	Lite	Pro	Pro Plus	Corporate Suite
Special Offer Buy Pro Annual & save nearly 40% \$109.99 \$69.99 Go!				
	Free Single User SIGN UP	\$9.99/mo Single User BUY NOW	\$14.99/mo Single User BUY NOW	Free Trial Minimum 5 Users BUY NOW
Send				
Maximum file size	100MB	2GB	2GB	2GB
Storage for saved files	✗	2GB	6GB	30GB+
Send multiple files and folders	✗	✓	✓	✓
Control the expiration date on uploaded/sent files	✗	✓	✓	✓
Advanced Security Options	Pay-Per-Use	Pay-Per-Use	✓	✓
Maximum downloads per file	100	500	Unlimited	Unlimited
Receive				
Dropbox: YouSendIt hosted page where others can send files to you	✗	✓	✓	✓
SiteDrop: Receive files directly on your website (additional fee)	✗	✗	✗	\$29.99/month
Track				
Detailed tracking - see who downloaded each file and when	✗	✓	✓	✓
Return receipt: receive notifications when files are downloaded	Pay-Per-Use	Pay-Per-Use	✓	✓
Support				
Knowledge base	✓	✓	✓	✓
Email	✗	✓	✓	✓
Live Chat	✗	✓	✓	✓
Phone Support (6AM - 6PM PST)	✗	✗	✓	✓
Administration				
Centralized user management	✗	✗	✗	✓
Reporting and audit log	✗	✗	✗	✓

2. **Features of a Pro Plus Account:** Securely share large files and folders up to 2 GB and track delivery with Pro Plus. Enjoy peace of mind by using the advanced security options and large storage up to 6 GB.
- Store up to 6 GB saved files, three times more storage space than YouSendIt Pro.
 - Advanced Tracking - Control who sees and downloads files. Track delivery with a click.
 - Transmit multiple files and folders up to 2 GB.
 - High Security - As with all YouSendIt solutions, Pro Plus meets standards that include HIPAA and the Gramm-Leach-Bliley (GLB) Act. Read more about YouSendIt seven-layer security policy.

3. **Outlook Plugin:** Download the free plugin and when you send an email with an attachment, you'll get the following dialog. It's easy and efficient.



V. CLOUD COMPUTING:

- A. **Cloud Computing Defined:** Cloud computing is an umbrella term that covers several concepts. Within the scope of legal technology, it most often refers to **Software-As-A-Service ("SaaS")**. There are a ridiculous number of definitions of SaaS, but I think this one sums it up succinctly without using 15 more acronyms requiring definitions:

"Generally speaking, it's software that's developed and hosted by the SaaS vendor and which the end user customer accesses over the Internet. Unlike traditional packaged applications that users install on their computers or servers, the SaaS vendor owns the software and runs it on computers in its data center. The customer does not own the software but effectively rents it, usually for a monthly fee. SaaS is sometimes also known as hosted software or by its more marketing-friendly cousin, 'on-demand.'"¹¹

To be clear, this means that you do *not* have the software installed on your computer - it is accessible only via a browser on the Internet. Further, your data and/or documents are located on the vendor's servers and not on your computer or server.

¹¹ *Software as a Service (SaaS) Definition and Solutions*, by Meridith Levinson on May 15, 2007, www.cio.com, see <http://tinyurl.com/24cofbx> for full article.

- B. Variations On a Theme:** Of course, there are slight variations on the SaaS idea. With pure SaaS, you don't own anything except your data. However, services like Hosted Exchange¹² are a little different. In that case, you do own the application necessary to view the data (Outlook), it's installed on your computer, you own the data, and you can access/view the data offline regardless of whether you continue to subscribe to the service. Finally, you can rent a Windows server which you access via the Internet and use it to run programs you actually own. For example, programs like Citrix XenApp¹³ provide a delivery mechanism so that regular shrink-wrapped software you own can be delivered to you through the Internet.
- C. Why Cloud Computing Is Important If You're On A Tight Budget:** In a nutshell, it's always cheaper up front. Because of that and several other reasons, many lawyers are moving to the cloud. However, it is extremely important to go in with your eyes wide open because although there are certainly advantages to this approach, there are also definite drawbacks. Below, I've outlined the main advantages and disadvantages. Many of the advantages are self-evident, but many of the disadvantages are not. So make sure you read through the discussion below before taking the plunge.
- D. Advantages of Cloud Computing:**
- 1. Up Front Price Advantage:** Let's say you want to start using a case management application for your practice. If you were to buy one such as Time Matters, you would have to pay for the software outright along with the annual maintenance contract which is mandatory (\$905 for the first license and \$525 for each license thereafter). You may have to buy a file server or otherwise upgrade your hardware in order to run the program. For an example cost, a new server plus installation and set up could easily run \$5,000 - \$8,000. Therefore, buying software may turn out to be quite expensive. In the alternative, you could begin subscribing to something like www.rocketmatter.com in which case you would pay \$59.99 for the first user per month and \$49.99 per user for the next 5 users per month. You wouldn't have to buy a server and you probably wouldn't have to upgrade any of your existing equipment assuming you already have high speed Internet access.
 - 2. No Hardware Required:** If you already have a computer and high speed Internet access, then you probably don't need anything else from a hardware perspective.
 - 3. Works in Apple or Windows:** Since these applications are browser based, they will usually work with both Apple and Windows computers.

¹² Microsoft Exchange is Microsoft's server application for backing up and sharing email, contacts, calendars, tasks and other information in Microsoft Outlook. It provides centralized data storage, sharing abilities, plus synchronization with various phones and other devices. Hosted Exchange is essentially renting this service by paying a monthly fee per user.

¹³ See <http://tinyurl.com/dv3jx> for more information about XenApp.

4. **Updates Included:** Most cloud application include all updates which are installed for you.
5. **Technical Support Included:** With most cloud applications, you get “free” technical support included with your monthly subscription fee. Of course, purchased software also provides technical support but it is often an extra fee on top of the original software purchase price.
6. **Access From Anywhere:** As long as you’re using a computer with internet access, you can probably use your cloud applications. You wouldn’t need a VPN, gotomypc or any other type of additional remote access application to accomplish this.
7. **Share Applications Among Users Spread Out Geographically:** For lawyers with multiple offices or who wish to work from multiple locations, cloud applications provide a lot of flexibility. Of course, there are other ways to gain access to programs besides subscribing to cloud applications, but this feature is obviously built in to cloud apps without buying anything else.
8. **Data Backup Provided:** Since your data is stored on the host company’s servers, they almost always provide backup services along with that so that there is little (if any) risk that you would lose your data or access to your application due to a physical hardware failure.

E. Disadvantages of Cloud Computing:

1. **Nearly All Cloud Applications Are Inferior To Their Shrink Wrapped Counterparts:** We have tested dozens of cloud applications and have found only a few that are as functionally complete as server or PC based software. For example, Google Docs¹⁴ is virtually useless for drafting legal documents. You can’t even do something as basic outline automatic paragraph numbering. Even the Microsoft Word Web App is pathetically inadequate compared to the desktop version of MS Word. So for something as fundamental as word processing, there are no cloud options which are even close to the functionality built into MS Word 2010.
2. **Give Up Integration:** If I have a case management system like Amicus Attorney, it can integrate (share data) with Microsoft Word, my accounting program (PCLaw, Tabs, Timeslips, QuickBooks, etc.), and my document management program (Worldox). It can synchronize with Microsoft Outlook. All of these things are possible because Amicus Attorney and all of the other programs I mentioned are installed on my computer and server. In other words, they’re not in the cloud. So let’s say I decided to try an cloud based case management program instead of Amicus Attorney (there are many to choose from). Since the case management program isn’t installed on my server, it can’t integrate with

¹⁴ See www.docs.google.com

Word, my accounting program or my document management program; and it certainly can't synchronize with Outlook. It also cannot sync its calendar, contacts or tasks with any smart phone. So now I am forced to enter everything at least twice and maintain two separate databases of client data. Obviously, this destroys the efficiency I had when everything was installed locally.

3. **Usually More Expensive:** These technology rental programs were not designed by the vendors to take less money from you. To the contrary, they are generally designed to take more money from you over a longer period of time. Here's a great quote on the subject:

"The tech press is full of people who want to tell you how completely awesome life is going to be when everything moves to 'the cloud' – that is, when all your important storage, processing and other needs are handled by vast, professionally managed data-centers.

Here's something you won't see mentioned, though: the main attraction of the cloud to investors and entrepreneurs is the idea of making money from you, on a recurring, perpetual basis, for something you currently get for a flat rate or for free without having to give up the money or privacy that cloud companies hope to leverage into fortunes."¹⁵

In almost every case we've looked at, the subscription model becomes more expensive than buying an equivalent program outright by about the 18th month (sometimes sooner).

4. **Difficult To Disentangle:** Let's say you're using an on-line document management service and you're unhappy with it or are just tired of paying the monthly fee and want to bring your documents back in-house. How do you get all of your documents back, how long will it take and how much will it cost? You would obviously have very little leverage.
5. **You May Not Be Able To Use The Data You Get Back:** Your SaaS vendor may store your data in a proprietary structure or database. Therefore, if you stop using the vendor and get your data back, you may not be able to do anything with it since you no longer have access to the vendor's software. Further, you may or may not be able to import the data into another system. Even if the vendor gives you back a non-proprietary database like SQL, do you have any idea what to do with it? If not, you'll have to find someone to help and it's not likely to be inexpensive.

¹⁵ Doctorow, Cory, "Not every cloud has a silver lining - There's something you won't see mentioned by too many advocates of cloud computing – the main attraction is making money from you" The Guardian - guardian.co.uk, September 2, 2009, <http://www.guardian.co.uk/technology/2009/sep/02/cory-doctorow-cloud-computing>.

6. **Loss of Internet Connection Means No Access:** If all of your documents, accounting or practice management data is only accessible via an Internet connection, then what happens if the connection goes down?
7. **Vendor May Increase Prices:** Many SaaS vendors reserve the right to adjust prices periodically. If they do, for the reasons outlined above, you may feel you have no choice but to pay whatever they're asking. Here's an actual example:

"We're all for startups trying to make money, but we also recognize a good old 'bait and switch' tactic when we see one. Case in point: on-demand help desk software maker Zendesk, which has just emailed its customers to let them know they're raising their prices – resulting in a 300+ percent increase in monthly fees for some. The announcement, which was also posted on the company's forums, comes in the form of an introduction of new product features, with the new pricing scheme mentioned underneath (never a good sign). The startup claims the new pricing plans are being offered in response to 'customer requests for different packaging and features'. But judging from the commentary on the forum entry and on Twitter, we're not so sure that's really the case."¹⁶

8. **No Offline Access:** Let's say you have an on-line case management program and you're going to be traveling via airline and won't have Internet access during that time. With most cloud applications, there is no way to "download" your information so that you can access it when you don't have access to the Internet.
9. **Vendor Service Disruptions:** The following quote from an article by Jon Brodtkin published September 10, 2011 on ARS Technica explains this risk best:

"Outages are becoming a distressing fact of life for Microsoft's cloud e-mail customers, and users of other cloud services such as Google Apps. Two weeks of e-mail glitches plagued Exchange Online customers using Microsoft's Business Productivity Online Suite (BPOS) in May. Office 365, the successor to BPOS which launched in late June, suffered an e-mail outage in August and then again last night and this morning. Google Docs suffered an outage this week, and Amazon's Elastic Compute Cloud infrastructure-as-a-service platform was plagued by outages and lost customer data in April and August. The latest Microsoft outage was caused by what the company vaguely called a "DNS issue" and affected not just Office 365 but also the consumer

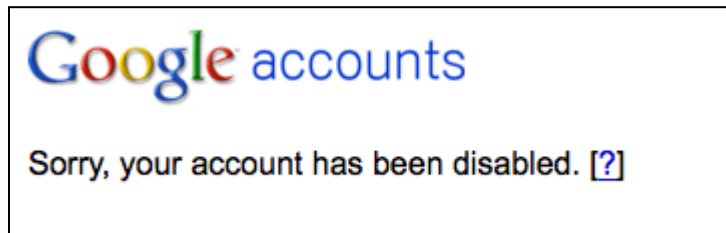
¹⁶ *Zendesk Raises Prices, Pisses Off Customers*, by Robin Wauters on May 18, 2010 for TechCrunch, see <http://techcrunch.com/2010/05/18/zendesk-pricing/> for full article.

services Hotmail and SkyDrive. The outages were spread throughout the world. Taken together, the outages may put second thoughts in the minds of IT executives considering the move from locally hosted Exchange servers to Microsoft's cloud, to Google Apps or to Amazon's cloud."¹⁷

10. **Upgrades Are Forced On You:** Having been in the legal tech industry for a lot of years, I can promise you that there are lot of upgrades people don't want. Whether it's case management, accounting or even a word processor, sometimes the "upgrades" introduce big changes you're not comfortable with. Furthermore, there have been plenty of examples when an upgrade breaks a feature that worked perfectly before. With cloud applications, the upgrades are performed without your knowledge or consent and you may not be happy with the result.
11. **Vendor Bankruptcy:** Particularly in this economy, online vendors can end up in bankruptcy. What happens if a Bankruptcy Trustee now has possession of all of your important information?
12. **What If You Have Internet But Still Cannot Get Access?** This is most easily illustrated by a recent blog post I read from C. C. Chapman (see <http://tinyurl.com/zastat>):

"Yesterday I woke up in NYC and went about my day. Part of every day is checking my e-mail, calendar and other things. I do almost all of this using Google products. My phone kept saying that I had the wrong password for my e-mail which was confusing, but I just sort of shrugged and told myself that I'd check my e-mail later in the day.

But, it kept doing it and it wasn't until I got to the train station that I was able to get on a computer and was then told by Google that my account had been temporarily disabled due to a "perceived violation of either the Google Terms of Service or product-specific Terms of Service."



I tried going through their SMS code verification as well as every other way I could go and still nothing.

¹⁷ *Office 365, Google Docs Go Down Again, Could Give Pause To The Cloud-Wary*, by Jon Brodtkin, September 10, 2011, see <http://tinyurl.com/3gfh7w>

This morning I asked about this on Twitter and someone showed me that Chris Brogan¹⁸ is going through the EXACT same thing.

A hack? Something bigger broken at Google? I don't know what it is, but I just want my stuff to work. I forgot how much I rely on Google. Time to make backup plans because I'm realizing that up until now I haven't had any and that is a bad thing!"

13. **Bandwidth Caps:** Many Internet Service Providers (ISPs) are imposing maximum GB download limitations on their customers per month. As you'll read here (<http://tinyurl.com/3ny9uk4>), these limitations may act to cut your access off to your cloud applications and/or force you to pay far more per month than you expected.

F. Cloud Applications for Lawyers: This is just a sampling of what is available.

1. **Case Management Options:**

- a. **AdvologixPM:** www.advologix.com
- b. **Clio:** www.goclio.com
- c. **Credenza:** www.credenzasoft.com
- d. **Houdini Esq:** <http://houdiniesq.com/esq.html>
- e. **Rocket Matter:** www.rocketmatter.com
- f. **Total Attorneys:** www.totalattorneys.com

2. **Accounting Options:**

- a. **QuickBooks Online:** <http://quickbooksonline.intuit.com>
- b. **Bill4Time:** www.bill4time.com
- c. **Legal Billing:** www.chaossoftware.com
- d. **Toggl:** www.toggl.com
- e. **FreshBooks:** www.freshbooks.com
- f. **TimeSolv Legal:** http://www.timesolv.com/timesolv_legal.html
- g. **Case Management additional features:** Most of the foregoing case management programs also have accounting modules so they could be considered accounting options as well.

¹⁸ See <http://tinyurl.com/zasn1t> for Chris Brogan's post entitled "When Google Owns You - a New Chapter", April 22, 2010.

3. **Word Processor Suites:**
 - a. **Google Docs:** www.docs.google.com
 - b. **Zoho Writer:** www.writer.zoho.com
 - c. **Microsoft Office Live:** These are stripped down versions of the Microsoft Office suite available for free online. This service will soon be re-christened Microsoft Office 365. 365 will include calendaring, email, office apps, instant messaging and online meetings. See www.officelive.com.
 - d. **ThinkFree Office Suite:** www.thinkfree.com
 - e. **HyperOffice:** www.hyperoffice.com
4. **NetDocuments.com Document Management:** See www.netdocuments.com.
5. **Backup Services:**
 - a. **Mozy Pro:** <http://mozy.com/pro> - \$3.95 + \$0.50/GB per month. Therefore, to backup 40 GB of data would only cost \$23.95 per month.
 - b. **Mozy Home:** <http://mozy.com/home> - \$4.95 per month - unlimited storage.
 - c. **Carbonite:** www.carbonite.com - \$54.95/year - unlimited storage.
 - d. **SOS Online Backup:** www.sosonlinebackup.com - pricing determined by how much data you intend to backup. 40 GB is \$72/month or \$720/year (\$60/month if paid in advance). Highly rated service.

VI. LAW PRACTICE UNTETHERED:

- A. **Do I Need To Keep Doing This?** Every time a lawyer writes the monthly office rent check, they probably ask themselves, "do I really need this overhead?" Many people feel more comfortable in their home offices and would prefer to spend more time there. Let's assume two lawyers and two support staff in a firm. The big questions to answer are:
 1. **Internal Collaboration & Communication:** How do you work together, collaborate and communicate easily on client matters?
 2. **External Communication:** How do clients and others reach you? If you're not available to answer the phone, then do you want your current or prospective clients taking to voice mail or an auto-attendant?

3. **Sharing Files:** If everyone works out of their homes, how do you share client files with one another?
 4. **Meeting Clients:** Most people aren't comfortable having client meetings in their home offices; and since most matters being discussed are confidential, it makes finding a suitable location for meetings difficult if one doesn't have an external, private office. So how does one address this issue?
- B. The Trend Toward an Untethered Practice:** All I mean by this is the ability to run a full-service law firm without a physical office. Technological advances have made this idea fairly easy to pull off and lawyers are doing it increasing numbers. Before we get into the pieces and parts necessary to do it, let's talk about the "why" first.
- C. Benefits of an Untethered Practice:** Here's the short list.
1. **Lower Overhead:** For many firms, the biggest annual cost behind payroll is the cost of physical space (in rent or mortgage payments). Saving \$20,000 - \$50,000 per year is nothing to sneeze at.
 2. **Better Life/Work Balance:** It's easier to deal with personal and family needs when you work from home. You're probably more comfortable and more relaxed. If you need to get something knocked out on off-hours, at least you don't have to be isolated in your remote office. Finally, you can work from the home office, your vacation home, the lake cabin or anywhere else you can get Internet access.
 3. **Solitude When You Want It:** When one is under pressure and needs uninterrupted time to get something done, the office is often the last place they want to be due to the many distractions present there.
- D. Telephone:** The first big issue to address is telephone communication. Thankfully, you have many options.
1. **Cell Phones:** To state the obvious, many lawyers rely solely on their smartphones and if it's just you, this makes a lot of sense. However, when you start adding people to the mix, relying exclusively on cell phones becomes a little more difficult. After all, you might want a central number that anyone can call into and then be transferred to others. You might also want direct dial numbers, the ability easily to transfer calls from one person to another, conference calling and the like. Cell phones don't make that easy.
 2. **VoIP:** For an extensive explanation of VoIP, see paragraph XXI below.
 3. **Softphones:** A softphone is a software program for making telephone calls over the Internet using a general purpose computer, rather than using dedicated hardware. Often a softphone is designed to behave like a

traditional telephone, sometimes appearing as an image of a phone, with a display panel and buttons with which the user can interact. A softphone is usually used with a headset connected to the sound card of the PC, or with a USB phone.¹⁹ Basically, you just need your computer and a headset. For an example of a good headset, see the Sennheiser PC31 for \$28 (<http://tinyurl.com/co92hvh>). There are many softphone providers including Skype.com, Vonage.com and RingCentral.com

E. Instant Messaging:

1. **What It Is:** Typically abbreviated as IM, this is a type of communications service that enables you to create a kind of private chat room with another individual in order to communicate in real time over the Internet. It's analogous to a telephone conversation but using text-based, not voice-based, communication. Typically, the instant messaging system alerts you whenever somebody on your private list is online. You can then initiate a chat session with that particular individual. IM systems often also include video (users can see each other via webcam), file-sharing/transfer capabilities, and phone (users can talk to each other using microphones connected to or built into their computers).
2. **Why IM Is A Valuable Communication Tool:** When you and your colleagues are spread out geographically, this can be invaluable (and it's typically free). For example, someone in one office might need a quick answer from someone in another office. It's often difficult to reach someone on the phone and email queries are easily lost among the torrent of daily incoming email that each person has to deal with. This is when instant messaging is the perfect solution. With one click, the individual who needs an answer can determine if the person they need to communicate with is online and available. If that person is available, the asking individual can pop his/her question up on the computer screen of the person who can answer it. As long as the recipient can type (even if they're on the phone), they can quickly reply without interrupting what they are already doing. No phone call or email is necessary. One of our clients who started using IM commented:

"This is also critical when working with support staff who are working through issues on a phone call with an external party. By having access to the supervising attorney in real time, issues can be resolved immediately, rather than through several follow up calls or emails as questions go back and forth. I often use a paralegal in another office for litigation support and this has assisted me in working seamlessly with her, despite the fact that she is 45 miles away."²⁰

¹⁹ See <http://en.wikipedia.org/wiki/Softphone>

²⁰ Erin Stewart, attorney in the office for the General Counsel of the University of North Texas

3. **Consumer-Grade IM:** Common services include AOL AIM (www.aim.com), Google Talk (www.google.com/talk), IBM Lotus Sametime (<http://tinyurl.com/62nvm2>), Microsoft's Live Messenger (<http://explore.live.com/messenger>), Skype (<http://tinyurl.com/3hbdr7y>), Yahoo! Messenger (<http://messenger.yahoo.com>), and Apple iChat (<http://tinyurl.com/3lxdld6>).
4. **Secure IM Options:** Some businesses elect to deploy a secure instant messaging system. These systems are typically closed (limited to intra-company communication only), secure and can be monitored. Options include:
 - a. **Microsoft Lync:** See <http://tinyurl.com/358j58j>
 - b. **IBM Lotus Sametime:** See <http://tinyurl.com/62nvm2>
 - c. **IceWarp Instant Messaging Server:** See <http://tinyurl.com/66roosj>
 - d. **Cisco Jabber:** See <http://tinyurl.com/65wqyf5>
 - e. **Bopup Messenger from B-Labs Software:** See www.bopup.com/products/messenger
 - f. **BigAnt:** See www.bigantsoft.com
 - g. **Brosix:** See www.brosix.com

F. Phone Answering: Some prefer an auto-attendant and some prefer a live human to answer their phones. Here are some options:

1. **Ruby:** See www.callruby.com.
2. **TotalAttorneys:**²¹ From their site: Total Attorneys knows that it matters who answers your phone. That's why every virtual receptionist on the Total Attorneys team is thoroughly trained specifically to handle law firm calls. Our Chicago-based telephone answering service is flexible enough to handle any needs, including: Full-time answering service; After-hours coverage, including late-night; and Short-term coverage for holidays, office closure and staff leave.
3. **Instant Answering Service:** See <http://tinyurl.com/cf38bvX>. This is a general answering service that has a sub-specialty of law firms.
4. **Attorney Answering Services:** Alert Communications provides this service - see www.attorneyanswerservices.com.
5. **Map Communications:** See <http://tinyurl.com/83qybcj>.

²¹ See <http://www.totalattorneys.com/services/virtual-receptionist/>

6. **Hosted Receptionist:** See <http://tinyurl.com/8yw4h99>.
 7. **Grasshopper:** See www.grasshopper.com. This service is interesting because you get all of the benefits of a VoIP phone system and call management without buying any phones (it works with whatever phones you already have).
 8. **VoIP Providers:** Just about every VoIP provider offers some kind of call management feature.
- G. Sharing Files:** There are many ways to share electronic files with others in your organization. See paragraph IV.C. above for a full list of options.
- H. Sharing Case Information:** Of course, there are many options for web-based legal case management programs which allow you to seamlessly share all case information with everyone else in your firm, no matter where they are. Some options include AdvologixPM (www.advologix.com), Clio (www.goclio.com), Credenza (www.credenzasoft.com), Houdini Esq (<http://houdiniesq.com>) and Rocket Matter (www.rocketmatter.com).
- I. Meeting Clients:** Of course, you could always meet the client at their home or office. However, that doesn't work in every situation. Enter the ever-increasing number of executive office suite options. If you are close to a metropolitan area, you probably have many choices here. A good example is Regus (www.regus.com) which is a national company. For a small monthly fee, you can have access to an office, conference rooms, mail service, phone answering and a variety of other services. For example, I just conducted a Google search on "executive office suites, Columbus, Ohio" and found literally dozens of options.

VII. TRAVEL TIPS:

A. Discount Deals:

1. **The Big Two:** Try using www.priceline.com or www.hotwire.com. Both web sites give bargains on hotels, rental cars and air fare if you are willing to make your selections and pay **before** you know exactly which hotel/car rental company, etc. you are using. The principle is simple—if these companies have empty hotel rooms, available cars, etc. in the date and location you seek, they are willing to make deep discounts as long as they don't have to advertise the low fares. If they openly advertised the low rates, then their "brand" and regular pricing would be undermined.
2. **Priceline.com:**
 - a. I've had good experience using Priceline for hotels and rental cars. To get the best prices, you need to use the portion of the website that involves bidding. You commit to the hotel or car **before** you know the name of the hotel or car rental company. You still can

exercise a fair amount of control over the hotel by selecting the geographic region you want for your destination city (example, for Phoenix you might select "Scottsdale"). You can also select the star level (1 to 5 stars). I usually select 4 stars and, if a place is available, it's always been 4 star level. I once got a room at Camelback Inn in Scottsdale for \$150 a night on dates where all the rooms listed at the Inn's website for those dates were \$500+. The best strategy is to start with a really low price, maybe even \$80 for a 4 star hotel. Your goal is to get rejected on the first try. If your price hasn't been rejected, you don't know how much lower you could have gone. Next, work your way up in price until your price is accepted. (This does require the hassle of re-entering your contact/payment information each time but it's the only way to get the best price.)

- b. If you bid on car rentals, again, start low and see what you get. I usually start with \$15 a day for a mid-sized car. I often get a mid-sized car for about \$20-22 a day. The agency is often a name-brand agency such as Avis. All the major car rental companies participate--if they have extra cars available on your dates in your location, they are willing to make a "deal". If rental cars are in short supply in your desired location, you won't get any bargains. The same is true for hotels. Priceline delivers bargains when the supply exceeds the demand on your selected dates.
 - c. You can also use Priceline for air travel but I haven't done so personally. I'm only willing to take non-stop flights which rules out lots of the biggest bargains in airline travel.
3. **Hotwire.com:** Hotwire operates on a similar principle to Priceline. You can get bargains if you commit to purchase before you know the name of the hotel or transportation agency. With Hotwire, you do not submit bids. Instead, you select the region of your desired city and the desired star rating and search. The website will tell you if any hotels in that region at your selected star rating are available and the price per night. If you accept the price and pay, you then are given the name of the hotel. The same principle applies to rental cars and air travel on Hotwire.
 4. **Sites for Bidding Strategies and Other Tips:**
 - a. www.BiddingForTravel.com
 - b. www.Betterbidding.com
 5. **www.BudgetTravel.com** - editors of this site pick the best travel deals and vacation packages world-wide
 6. **Last Minute Deals** - if you're spontaneous (or procrastinate), here are some sites you should know about.

- a. **www.LastMinute.com** - Last-minute travel deals lists air/hotel and air/car packages, most in North America, priced up to 70% off on departures from hours to three weeks in advance.
 - b. **www.VacationsToGo.com** - Save up to 75% on last minute cruises
 - c. **www.LicketyTrip.com** - last minute vacation rentals
- 7. **www.Liftopia.com** - Discount skiing and snowboarding packages
 - 8. **www.MouseSavers.com** - great deals on all things Disney
 - 9. **www.Travel-Ticker.com** - deal aggregator from HotWire

B. House/Condo Rental Sites:

- 1. **www.vrbo.com** - This is my favorite site for vacation planning. VRBO stands for Vacation Rental By Owner. It's global so all you need to know is where you want to go (they have 140,000 listings). In my experience, it's almost always cheaper to rent a house than it is to rent two hotel rooms for a week. There are lots of photos of the houses & condos here, some have videos you can watch, they let you know if the house you're considering is pet friendly and all of the amenities the house/condo has.
- 2. **www.airbnb.com** - Rentals in 11,428 cities in 180 countries.
- 3. **www.flipkey.com** - Search over 100,000 vacation rental homes.

C. Big Travel Sites: There are a few major travel sites that you should know about.

- 1. **www.kayak.com** - this is typically the highest rated travel site because it compares hundreds of travel sites at once
- 2. **www.expedia.com**
- 3. **www.travelocity.com**
- 4. **www.orbitz.com**
- 5. **www.southwest.com** - I mention this here because Southwest Airlines (my favorite airline) does not allow its fares to be shown on any of the other travel sites. So if you want to check their prices, you have to go directly to their site. It is easy to navigate and always worth checking.

D. www.tripit.com - make your reservations and email your receipt to www.plans@tripit.com (create an account first - it's free). Then you can review your entire itinerary in one place AND, tripit will email you reminders about your

trip, gate changes, luggage carousel information, driving directions, etc. And, you can share your itinerary with your friends, family and your spouse.

E. www.tripadvisor.com - You can use this site to find flights, cruises, restaurants, hotels, vacation rentals and things to do. In particular, I find it to be invaluable in finding good restaurants, hotels and things to do in a particular city. If I'm going to be somewhere new, I always check www.tripadvisor.com for recommendations. It is valuable because visitors to the site enter their own reviews of everything so it's very much like www.amazon.com in that the reviews are probably the most valuable thing about the site. Another site that is good for this kind of information is **www.citysearch.com**.

F. Airfare Sites:

1. **Big travel sites:** Any of the big travel sites listed in paragraph VII.C above are good for this. However, I will normally use the big travel sites to determine which airlines are flying to my destination city and then visit the airline sites directly to make reservations if the prices are the same. In my opinion, it's just easier to deal directly with the airline if you have a problem.
2. **www.Airfarewatchdog.com** - Airfare deals and money saving tips. See fares from a city, to a city, top 50 fares, and provides fare alerts. The site and newsletter emphasize unadvertised, time-sensitive deals, including Web-only fares. Deals are checked for availability, and the site points out when a "bargain" really aren't bargains.
3. **Make Sure You Get The Best Seat on the Plane:**
 - a. **www.SeatExpert.com** - my favorite of these sites
 - b. **www.SeatGuru.com** - owned by www.tripadvisor.com
4. **www.bing.com/travel** - formerly known as www.farecast.com, this site predicts whether a fare will rise or fall so it helps you decide when to buy
5. **www.yapta.com** - Track flight prices BEFORE you buy - Yapta email alerts let you know when prices drop and when to buy to save money on airfare. Get airline refunds AFTER you buy - If the price of your flight drops below what you paid, Yapta helps you get a refund for the difference.

G. Places to Stay:

1. **Big Hotel Chain Sites:**
 - a. **www.marriott.com** - search all of the hotel brands under Marriott - includes Marriott, Renaissance, Courtyard, Residence

Inn, Fairfield Inn, TownePlace Suites, SpringHill Suites and Ritz Carlton, among others.

- b. **www.hilton.com** - search all of the hotel brands under Hilton - includes Conrad, Doubletree, Embassy Suites, Hampton Inn, Hilton Garden, Homewood Suites and Waldorf Astoria, among others.
- c. **www.ihotelsgroup.com** - this site includes InterContinental, Crowne Plaza, Holiday Inn, Holiday Inn Express, Staybridge Suites and Candlewood Suites.
- d. **www.starwoodhotels.com** - this site includes Sheraton, Four Points, Westin, W Hotels, Aloft and Phoenician, among others.
- e. **www.wyndham.com** - this site includes Wyndham, Ramada, Days Inn, Wingate, Baymont, Microtel, Hawthorn, Howard Johnson, Travelodge, Knights Inn and others.
- f. **www.hyatt.com** - only searches the various Hyatt hotels, but Hyatt is the 10th largest chain in the world.

2. **www.vrbo.com** - see description in paragraph VII.B. above.

H. Food/Restaurant Reviews:

1. **www.yelp.com** - restaurant reviews from across the U.S.
2. **www.zagat.com**
3. **www.urbanspoon.com**
4. **www.dine.com**
5. **www.fodors.com**
6. **www.roadfood.com**
7. **www.restaurant.com** - discount gift certificates

I. Map Sites: There are many. My two favorite are:

1. **www.maps.google.com**
2. **www.maps.live.com** or **www.bing.com/maps**

J. Microsoft Streets and Trips - this is NOT A WEB SITE. It is a software program that I dearly love and use daily. Streets and Trips 2010 is only \$40 and is sold in most software stores. With tools and features to help you create custom routes, set driving preferences, plan breaks, and calculate travel costs,

this trip planning software makes travel easier, whether you're going around town or anywhere across the U.S. and Canada. As the #1 best-selling travel and map software, it gets you where you're going quickly, easily, and without all the guesswork.

- K.** **www.airlinequality.com** - The world's largest Airline and Airport review site - over 665 airlines and 660 airports. Passenger trip reports, flight reviews, airline seat and lounge Reviews. Check airline standards in the Official Airline Star Ranking guide.
- L.** **www.sitorsquat.com** - Find a clean public toilet by address, zip code, city or intersection. Apps for iPhone, Blackberry or you can get information by texting "sitorsquat" to DOTCOM (368266)
- M.** **www.frommers.com** - Not only can Frommers.com visitors easily find candid, timely articles written by Frommers.com experts, they also can read excerpts from and purchase Frommer's Guidebooks, while gaining additional insights from our lively message boards and purchasing travel products and services from our high-quality booking partners.
- N.** **www.lonelyplanet.com** - This is the largest travel guide book and digital media publisher in the world. Owned by BBC Worldwide.

Exhibit A
Recommended Windows Notebook Computer Configuration

RECOMMENDED WINDOWS NOTEBOOK COMPUTER		
Lenovo ThinkPad W530		\$2,100.00
Battery:	6 Cell Li-Ion TWL 70+	
Bluetooth:	Bluetooth 4.0 with Antenna	
Card Reader	Express Card Slot & 4-in-1 Card Reader	
Display:	15.6" HD+ (1600 x 900) LED Backlit AntiGlare Display	
Fingerprint Reader:	UltraNav with Fingerprint Reader	
Graphics:	NVIDIA Quadro K1000M Graphics with 2GB DDR3 Memory	
Hard Drive:	500GB Hard Disk Drive, 7200rpm	
Keyboard:	Keyboard Backlit - US English	
Memory:	8 GB PC3-12800 DDR3 (4 DIMM)	
Modem:	None	
Network Card:	10/100/1000 Ethernet adapter integrated	
Office Suite:	Microsoft® Office Home and Business 2010	
Operating System:	Windows® 7 Professional, 64-bit	
Optical Drive:	DVD Recordable	
Processor	Intel Core i7-3720QM Processor (2.60GHz, 6MB L3, 1600MHz)	
Security Software:	None included - buy separately (recommend Trend Micro Titanium Antivirus for \$32)	
Warranty (Technical support):	3YR Onsite NBD + 3YR Priority Support + 3YR ThinkPadProtection	
Webcam & Microphone	720p HD Camera with Microphone	
Wireless Networking:	ThinkPad 1x1 b/g/n	

Exhibit B
Recommended Apple Notebook Computer Configuration

RECOMMENDED MAC NOTEBOOK COMPUTER		
MacBook Pro 15-inch		\$3,347.00
Battery:	6-cell	
Bluetooth:	Bluetooth 2.1 + EDR (Enhanced Data Rate) wireless technology	
Display:	MacBook Pro 15-inch Hi-Res Glossy Widescreen Display	
Fingerprint Reader:	None	
Graphics:	AMD Radeon HD 6770M with 1GB GDDR5	
Hard Drive:	750GB Serial ATA Drive @ 7200 rpm	
Keyboard:	Backlit Keyboard	
Memory:	8GB 1333MHz DDR3 SDRAM - 2x2GB	
Modem:	None	
Network Card:	10/100/1000BASE-T Gigabit Ethernet	
Office Suite:	Microsoft Office for Mac 2011 Home and Business Edition	
Operating System:	OS X Lion	
Optical Drive:	SuperDrive 8x (DVD±R DL/DVD±RW/CD-RW)	
Processor	2.5 GHz Quad-core Intel Core i7	
Security Software:	None included - buy separately	
Warranty (Technical support):	AppleCare Protection Plan for MacBook Pro - note that this is NOT on-site; you have to take it to a service center or mail it in	
Webcam & Microphone	FaceTime HD Camera & mic	
Wireless Networking:	Wi-Fi wireless networking2 (based on IEEE 802.11n specification); IEEE 802.11a/b/g compatible	