I'm a Mac AND I'm a PC AND I'm an Android - How to Manage Multiple Operating Systems and Keep Them in Sync

Presenter
Catherine Sanders Reach
BYOD

Bring-your-own-device (BYOD) uptake accounts for about 40 percent of U.S. enterprise employees, according to the latest statistics by Gartner.*
Use Cloud Computing

“You know, you can do this just as easily online.”
What’s Your Workflow?

Cloud

[Diagram with icons connected to the cloud]
All Devices Are Not Equal

Evernote

Penultimate is iPad only

See Penultimate Notes on Android
MS Exchange: The Tie That Binds
MS Exchange: The Tie That Binds
## MS Outlook Exchange Integration

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Yes</th>
<th>No</th>
<th>Google Apps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abacus Law (Installed and Virtual)</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Action Step</td>
<td>x</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Amicus Attorney</td>
<td>x</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Amicus Cloud</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cosmolex</td>
<td>x</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Time Matters</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PCLaw</td>
<td>x (Outlook plugin sync)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MyCase</td>
<td>x (Outlook plugin sync)</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Clio</td>
<td>x (Outlook plugin sync)</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>PerfectLaw</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ProLaw</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RocketMatter</td>
<td>x (Outlook plugin sync)</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Tabs3/Practice Master</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm Central</td>
<td>x (Outlook plugin sync)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm Manager</td>
<td>x (Outlook plugin sync)</td>
<td></td>
<td>Yes</td>
</tr>
</tbody>
</table>
Apps: The Ties That Bind
<table>
<thead>
<tr>
<th>Product Name</th>
<th>iOS</th>
<th>Android</th>
<th>Other</th>
<th>Mobile Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>AbacusLaw</td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Action Step</td>
<td>Yes</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Amicus Attorney</td>
<td></td>
<td></td>
<td>Web App</td>
<td>Yes</td>
</tr>
<tr>
<td>Amicus Cloud</td>
<td></td>
<td></td>
<td>Web App</td>
<td>Yes</td>
</tr>
<tr>
<td>Cosmolex</td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Time Matters</td>
<td></td>
<td></td>
<td>Web App</td>
<td>Yes</td>
</tr>
<tr>
<td>PCLaw</td>
<td></td>
<td></td>
<td>Web App</td>
<td></td>
</tr>
<tr>
<td>MyCase</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Clio</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>PerfectLaw</td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>ProLaw</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RocketMatter</td>
<td>iPad</td>
<td></td>
<td>Web App</td>
<td>Yes</td>
</tr>
<tr>
<td>Practice Master</td>
<td></td>
<td></td>
<td>Web App</td>
<td></td>
</tr>
<tr>
<td>Firm Central</td>
<td></td>
<td></td>
<td>Web App</td>
<td>Yes</td>
</tr>
<tr>
<td>Firm Manager</td>
<td></td>
<td></td>
<td>Web App</td>
<td>Yes</td>
</tr>
</tbody>
</table>
iTimeKeep / Chrommeta
Integrate with the following:

- Elite® Enterprise
- Elite® Webview
- Elite® 3E
- Aderant®
- Rippe & Kingston LMS
- CarpeDiem® / TimeKM®
- DTE
- Juris® LexisNexis
- ProLaw®
- Omega®
- LawBase®
- Total Office (Former Client Profiles)
- Client Profiles Financial

- Client Profiles Financial
- TABS3®
- Amicus®
- LSS®
- Versys®
- ProVantage®
- PCLaw®
- TimeMatters®
- Equinox®

Integrations

- Clio
- RocketMatter
- FreshBooks
- Basecamp Next
- Basecamp Classic
- Xero
- Box.com

Beta Integrations

- QuickBooks Online
- QuickBooks Desktop
- Timeslips
- PCLaw
- Google Calendar
Host Your Desktop
Have a Terminal Server
ThinStuff
Publish Apps – Terminal Services
Citrix / VMare
Professional Data Center
IT Services
Amazon Workspaces
LogMeIn / GoToMyPC
Everything Else
Best Browser for Cross Platform
Dual Boot Systems
Use a Password Manager

LastPass
The Last Password You’ll Ever Need.

Roboform PRO
Remembers Passwords... So You Don’t Have To!

Password has been generated. You can drag it to any field now.

Aq60xMBN

Copy new generated password to clipboard

Advanced settings

- Number of characters: 8
- Exclude similar characters
- Hexadecimal 0-9, A-F
- A-Z
- a-z
- 0-9
- !@#$%^&*
- Minimal number of digits: 1

Bit Strength = 45

1Password
Email Signatures

Signatures for hosted email
Compose and centrally manage email footers for Outlook 2013, 2010 (or older) connected to hosted email accounts. The program will automatically update settings in your users' email clients on their PCs and deploy predefined signatures and other policies.

Support for OWA app for Android 4.4 and iOS
You can now also apply your email signatures and disclaimers on mobile devices. The signatures distributed to Office 365 users' via CodeTwo Email Signatures policies are now also visible in the native OWA apps for Android and iOS.

Central management
The program allows you to create, deploy and control mail signatures, disclaimers for all those platforms from one place. An intuitive user's interface makes it easy to manage multiple policies and quickly compose or edit footer templates for selected users.
Security Tips
Written Policy
Remote Wipe
File Encryption
Peripherals
Catherine Sanders Reach
Law Practice Management & Technology
The Chicago Bar Association
312-554-2070
www.chicagobar.org/lpmt
csandersreach@chicagobar.org
Why limit your choices? Your phone is Android, your tablet is an iPad, and your office computer is a Windows PC. So how do you keep them synched and working together? It's entirely possible with a little planning and a sprinkle of know-how. Your ambiOSextrous panelists will show you exactly how all your devices can work together so that you can enjoy the precious freedom of digital choice.

How to Manage Multiple Operating Systems and Keep Them in Sync

Craig Bayer and Catherine Sanders Reach
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>2</td>
</tr>
<tr>
<td>Workflows: Integrations and Apps</td>
<td>2</td>
</tr>
<tr>
<td>Installs, Apps and the Cloud</td>
<td>3</td>
</tr>
<tr>
<td>Put your Desktop or Program in the Cloud</td>
<td>4</td>
</tr>
<tr>
<td>Terminal Services</td>
<td>4</td>
</tr>
<tr>
<td>ThinStuff</td>
<td>4</td>
</tr>
<tr>
<td>Published Apps via Terminal Server</td>
<td>5</td>
</tr>
<tr>
<td>Citrix/VMWare</td>
<td>5</td>
</tr>
<tr>
<td>Data Centers</td>
<td>5</td>
</tr>
<tr>
<td>IT Services</td>
<td>5</td>
</tr>
<tr>
<td>LogMeIn / GoToMyPC</td>
<td>6</td>
</tr>
<tr>
<td>Maximizing Your Experience</td>
<td>6</td>
</tr>
<tr>
<td>Browsers</td>
<td>6</td>
</tr>
<tr>
<td>Portals</td>
<td>6</td>
</tr>
<tr>
<td>Add-Ons</td>
<td>7</td>
</tr>
<tr>
<td>Dual Boot</td>
<td>7</td>
</tr>
<tr>
<td>Email Signatures</td>
<td>7</td>
</tr>
<tr>
<td>Security</td>
<td>7</td>
</tr>
<tr>
<td>Policy and Procedures</td>
<td>8</td>
</tr>
<tr>
<td>Remote Wipe</td>
<td>8</td>
</tr>
<tr>
<td>Password Managers</td>
<td>8</td>
</tr>
<tr>
<td>Third Party Encryption</td>
<td>9</td>
</tr>
<tr>
<td>Hardware Compatibility</td>
<td>9</td>
</tr>
<tr>
<td>Conclusion</td>
<td>9</td>
</tr>
</tbody>
</table>
Introduction

Lawyers today have many choices when considering which devices to purchase for working at the office, at home, and in between. In a larger firm setting your office may issue Windows PCs as the standard supported device, or in a sole practice you might find that a Windows PC provides compatibility with your existing software. But, given a choice in smartphones, you may crave the newest Samsung Galaxy running the Android operating system, primarily because your daughter really seems to like hers. And, all the attorneys at the courthouse have an iPad. Should you try to run all of these different operating systems and can you stay in sync and stay efficient? Absolutely, though it does require a little know how.

A primary reason that you have choices is the pressure from the consumer market infringing on the enterprise. Bring-your-own-device (BYOD) uptake accounts for about 40 percent of U.S. enterprise employees, according to the latest statistics by Gartner.* Developers of traditionally business class software, such as Microsoft, are recognizing the need to develop for multiple operating systems and make their software available through the browser, as well as a download. This is good for end consumers, whether for personal or business use, because it gives you more choices at a variety of price ranges for the devices you carry.

Workflows: Integrations and Apps

The trick with using multiple operating systems and keeping everything in sync is to find the programs that allow you to keep data connected, even if the app is not available for one of your devices. For instance, Penultimate is a notepad/handwriting app available for iPad only. However, it is owned by Evernote. I can use my iPad to take notes with Penultimate, which automatically syncs to my Evernote, which is then available to me on a browser, installed and synced to my Windows PC, and on my Android phone. Since the iPad is the device I’d most likely use for the notes, and then they are available on all my devices, this makes sense. It is this kind of fluidity that you must look for when you are a multi-OS user.

One way to easily manage workflows and interconnections on multiple operating systems is to start with your primary machine and then find the ways to connect it with your mobile devices (though, they might all be mobile!). Say, for instance, you use a MacBook Pro as your primary computing device (your power machine). All the things you need will be installed or available over the cloud on that machine. Then you connect it with your Chromebook and your BlackBerry (hey, this is just an example!) by either using native apps that sync with the primary account through the Cloud or via a mobile browser or serving the data from your office to your devices. Let’s look at each of these options a little more closely.
Installs, Apps and the Cloud

More and more you will find that the primary software you use, including Microsoft Office, your accounting software and your practice management software, provide many options for remote access and using them on the go. Microsoft’s Office is a good example of software that is now available on many platforms and connected through cloud services. In the few years Microsoft Office 365 has been available we have seen a software suite move from a “only at my desktop” to “edit anywhere on anything”. Well, almost. Microsoft Office (Excel, PowerPoint & Word) now has versions for local install on Macs and Windows PCs, as well as apps for Windows Mobile, Android, and iOS. You can retrieve, save, and access files through Microsoft’s OneDrive or Dropbox on most devices. If you have a free Office.com account you can get the apps for free, with some limitations in functionality. Why the limits? Because Microsoft would like for you to get their subscription-based version of Office, Office 365. With Office 365 Business Premium you can get 5 installs of the Office software, including Windows and Mac versions, plus the apps for $12.50 per user per month. Of course, the default file storage is MS OneDrive, though if you have apps for Box, Dropbox, or Google Drive you can easily save to these as well.

Let’s talk about email, calendar and contacts. There are many ways this information can be shared across devices, but the most seamless way I know is to use Microsoft Exchange, which is available as a local server, a hosted server, or with your Office 365 account. Why? Because you will have wide availability and bi-directional synchronization with almost any device and browser access. Even without the MS Outlook software you can easily get your email, contacts and calendars on your mobile device’s native apps (the ones that came installed on the device). However, now MS Outlook is available as an app for iOS and Android, and you can set it up with Exchange, Outlook.com (f/k/a Hotmail), iCloud, GMail and anything with iMap (mail from your ISP). You can similarly set up Google for Work, with web access and native apps for most operating systems, but I do like the Outlook app and software to be able to see email, calendar and contacts fluidly in one place.

For MS Office or Google for Work you have lots of choices and options to work with practically any operating system, with apps, mobile web, and installs all at the ready. But what about the other products your rely upon to get work done at the office? The integration and app availability begin to narrow, though you can still get plenty of work done if you plan accordingly.

If you are using a web-based practice management system (PMS) you are accessing and working with files through a browser. Smaller screens may make this tedious, so you will want an app - if it is available. While the PMS may have a mobile friendly version or an iOS app, they may be more limited in their functionality - as many native apps are. Most of the cloud based PMSs do not have a native Windows or Android app. You will need to decide what you need to do on those systems when you are not at your primary machine to ensure you can work on what you need to, when you need to.

While you can access and save files easily from most cloud file storage hosts (Dropbox, OneDrive, Box, GoogleDrive, iCloud) using a web-based document management system will
need some consideration for how and where you will use it. For instance, NetDocuments is a browser-based document management system with tight integration with MS Office software. They also have a iOS app for iPad and iPhone. However, if you are on an Android or Windows Mobile device you will need to use the browser, and it is worth testing to see how easy it is to open, edit, and save a document in the browser edition on a mobile device without a native app. NetDocuments offers a work-around for Android users with a third party tool called FolderSync™ by Tacit Dynamics.

More and more accounting systems are going to the cloud, so Freshbooks, the venerable QuickBooks, and the up-and-coming Xero are now available through a browser and have native apps. All of the above have apps for iOS and Android.

Put your Desktop or Program in the Cloud

The above examples presume a smaller firm environment and one that is mostly in the Cloud, with multi-user subscriptions for file sharing. What about legacy systems? Firms with multiple file servers, complex server-based trial prep software or other installations not readily available on a mobile device? What if your firm is not ready to store files to the Cloud? You still have options!

Terminal Services

This is one of the oldest technologies for remote connection. Built by Microsoft, the firm would purchase a Windows Terminal Server and then load all their programs on it. On your windows / Mac / chrome book, you would download the small Remote Desktop App, plug in the address, your username and password and login in and start working. The Terminal Server is doing all the work, nothing besides screen viewing, and keyboard and mouse input are happening on your machine. You can transfer files between your computer and the terminal server and if you print something on the Terminal Server, it should show up on your local printer, however this is sometimes very difficult to do. You cannot run multiple monitors with Terminal Services.

ThinStuff

This is a Terminal Services competitor. The nice thing about ThinStuff is it allows you to turn a Windows 7 machine into a Terminal Server. It is much cheaper than terminal services and very easy to setup. ThinStuff has been around for 10 years and is headquarters out of Slovekia. There are some debates about if using it violates Microsoft licensing.

ThinStuff:  http://www.thinstuff.com/
Price: $799 for 10 Connections
Published Apps via Terminal Server

Maybe there are only one or two apps you need to use through Terminal Services and the rest you get through cloud products. Instead of having to log in to the Terminal Server to use one program, you can “Publish the App”. In that case, when you click on Remote Desktop, the program launches and looks like it is running on your machine, although in reality it is running on the terminal server. This especially works well if you want to run Windows only programs on a Mac. It can be problematic if you have integrations between programs, like Microsoft Office. They tend not to work.

For example, I have my billing and accounting software on my terminal server. When I access it from my Mac, I can run the program but I cannot email bills because the link with Outlook does not work.

Citrix/VMWare

Citrix is software that lies on top of Terminal Services that fixes all the problems with integrations, printing, multiple monitors, smartphones, etc. Just like Terminal Services, you can have the full desktop experience or just publish a group of Apps. Citrix has a thin client that you can install in Windows, Mac, or Chromebook to connect to your apps. So you can be on your Mac and run the full version of Word 2013 for Windows.

Data Centers

Regardless if you go the Terminal Services or Citrix Route, you are going to need a pretty powerful server to run this. If your server loses connection to the internet, no one is going to be able to work, even if they are in the office. Therefore most firms that go this route decide to move the servers to a datacenter that has backup generators and redundant internet connections. The one I used in New Orleans survived Hurricane Katrina with no down time.

IT Services

Setting all this up to run is somewhat complicated, and can go beyond the skills of the average IT Person. Companies like ProCirrus will rent you all the equipment in their datacenter and setup all your programs. Therefore you won’t have to worry about buying all the equipment and getting it play together.
LogMeIn / GoToMyPC

This is the easiest way to run your programs from anywhere, on any machine. You don’t need to be a tech to set it up and it cost about $9.99 a month. You install LogMeIn or GoToMyPC on your main desktop and then you can remote into that desktop from pretty much any device. LogMeIn has a mobile application and GoToMyPC has apps iOS and Android. However, universally people that use this method complain about the performance and lag time.

Maximizing Your Experience

Browsers

The best browser to be cross platform is Google Chrome, hands down. Chrome is available on Windows, Mac, iOS, Android, Chromebook. It does not have a Windows Phone version

Firefox only works on Windows and Mac, Internet Explorer does not work on Mac or iOS and no one uses Opera anymore. You can use Safari on Windows

If you use Google Chrome all of Favorites, Bookmarks, and some settings will synchronize across all devices. You will need a free Google Account to do this. You can use iCloud to sync Internet Explorer and Safari.

Portals

Amicus Attorney, Practice Master, and TimeMatters are the traditional practice management software (PMS) that you buy and install at your office on a Windows Server. In the past couple of years they have come up with Web Portals for their products, similar to Outlook Web Access. Once you have the program running at your office, you can login to a web browser from any device and use a web version. You could be on your Mac or Chromebook and run any of these products.

Cons

● You have to buy and maintain the servers
● You have to a support plan
● Limited functionality
● Unreasonable security policies.
Add-Ons

iTimeKeep is a piece of software that you install at your office. It connects to your windows based legal accounting software and allows you to enter your time from any device as long as it has access to the internet. So if you are running Juris, Elite, PCLaw, etc. and have a group of Mac users that need time entry, iTimeKeep could be an option.

Dual Boot

Dual Boot Systems are programs that allow you to run Windows and Mac on the same machine. Parallels is one of the most popular Dual Boot programs. It allows you to run Windows on your Mac along with the original Mac operating system. Since you are going to be running two operating systems at the same time it is highly recommended that you have at least 8GB of RAM. Parallels has a feature called Coherence which allows you to basically “publish” Windows Apps onto your Mac. That means that you don't have run Windows Apps on the Mac OS without having to jump into the Windows Operating System.

Bootcamp will also let you run Windows on your Mac, but you have to restart the computer and just run Windows, you cannot run Windows and Mac Side by Side.

Windows 8 OEM ($100):  [http://tinyurl.com/bj4kh6u](http://tinyurl.com/bj4kh6u)

Email Signatures

One of the big problem using multiple devices is having to set a separate email signature on each one. Unfortunately Google Apps and Microsoft 365 don't have any ability to synchronize signatures to multiple devices. There are third party tools like Code Two that allow you to do this. You create a uniform signature and it gets pushed to all your devices so it always looks the same.

Security

This is was a lot easier when the firm owned all the equipment. Now, it’s less likely that the firm owns their employees smartphones, and some lawyers are using their own personal computer as their work computer. So how do you protect the firm’s data when it is on a personal device?
Policy and Procedures

A firm needs to remind users that law firm data on a personal device is still the property of the firm, as well as public cloud storage services employees created to store work data on. To protect confidential data, companies must monitor data-in-use and data-in-motion on employees’ personal devices and from cloud services. For example, a firm can implement an acceptable use policy (AUP) highlighting the appropriate use of information that employees have already agreed upon and signed.


Have a policy stating that firm data is still owned by the firm and have a procedure and checklist in place to disable a user’s account when they leave the firm.

Remote Wipe

The firm needs to be able to remote wipe all of their data off 3rd party devices. This should be done in case a device is stolen, but also if you are have to fire an employee. In Microsoft 365, you have the ability to remote wipe the firm’s email, contacts and calendar off a mobile device.

If you are using Google Apps and Gmail, you just need to change the password. If you are using Microsoft 365 and Outlook, don’t setup Outlook in Cached Mode. That way, if you disable or change the password in Microsoft 365 you will prevent the person from getting into Outlook.

You can remote wipe a Dropbox Pro or Business Account, but the user’s PC needs to be online. If the PC is offline you can’t remote wipe it, and they have access to everything.

Products like Lookout Mobile Enterprise solutions can help a firm manage multiple devices from an administration portal, plus identify threats, lost devices, and help add security like malware and anti-virus in a BYOD environment.

Password Managers

Password management is important, but it becomes more critical when you are using multiple devices. If you constantly have to login to sites on your laptop, phone and tablet, it becomes very difficult remember a complex password. This is one reason why people just use the same easy to guess password. A Password Manager creates a complex password that is not your cat’s birthday and syncs it across your phone, tablet, and computer. Let’s say you are using Roboform. You have it installed on your Windows computer, your Macbook, your iPhone, and your Android tablet. Anytime you add or need a password on one device it syncs to all other ones. Some of the more popular password managers are:
- LastPass
- Roboform
- 1Pass

Third Party Encryption

For particularly sensitive or confidential files you many need an extra layer of protection. Services like BoxCryptor, Viivo, Sookasa and Cloudfogger all offer the ability to create a lockbox of sorts that allows a user to drag files to a local drive that encrypts the file and then syncs it to an encrypted folder in most popular cloud file storage services. These services have apps for most devices, so you can decrypt and encrypt while mobile.

Hardware Compatibility

Peripherals, cords, etc. are often not interchangeable between Apple, Android and PCs. Some, like Chromecast, have apps for iOS and Android, but Apple TV isn’t available for non-Apple products. Figure out what you need and where you will need it and on what device you will usually be using it. Keep your cords in a go bag, and have duplicates for the things you will use the most.

Conclusion

With some planning it is quite possible to use many operating systems on many devices and work from a combination of these devices as the situation demands. While more storage can be purchased for mobile devices, the best plan is to identify the one machine, whether it be a local PC or Mac or cloud file storage, where all information is stored so that it can be easily backed up and replicated when a new device is added. Choice is yours!