10 Things Every Lawyer Should Know About Legal Software-as-a-Service

In this document we aim to demystify the concept of Software-as-a-Service and educate attorneys on how to evaluate the suitability of available solutions for their practice.

Topics addressed include an overall description of Software-as-a-Service, a discussion of the security and privacy issues surrounding Software-as-a-Service, and how to evaluate the costs associated with Software-as-a-Service vis-a-vis traditional desktop software.

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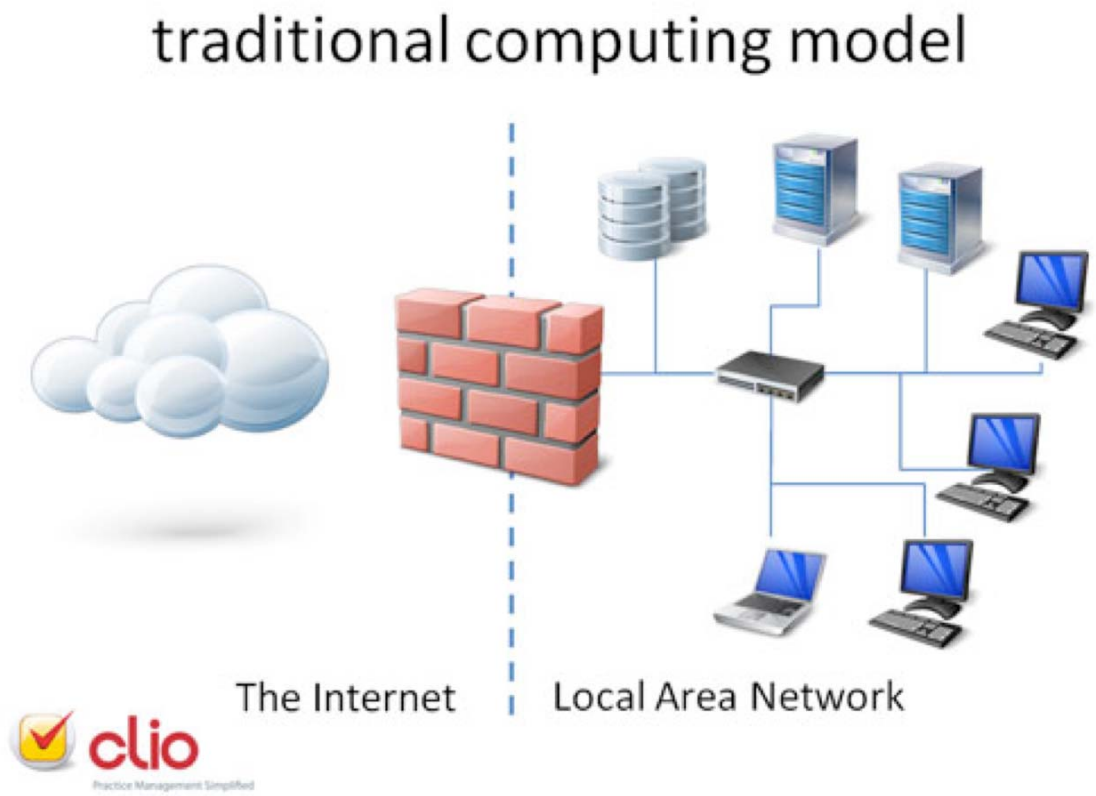
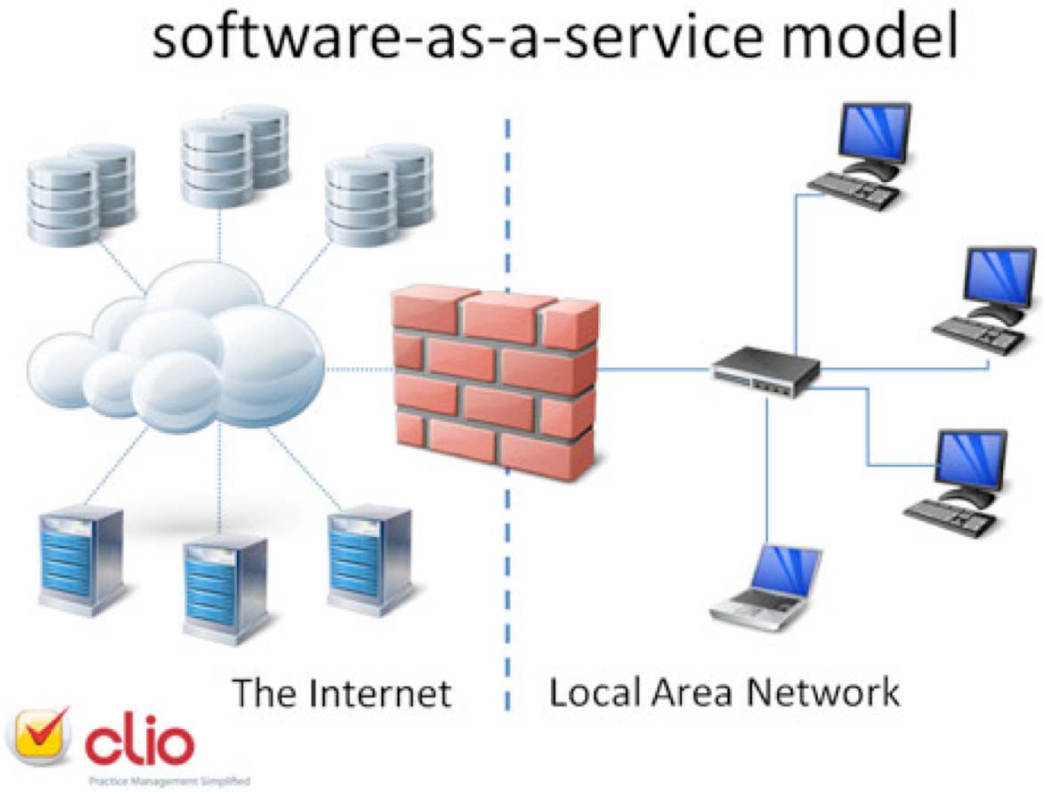
What is Software-as-a-Service?

Over the past few months we've been honored with invitations to speak at several legal conferences and bar association meetings on the topic of Software-as-a-Service and its growing impact on how leading-edge attorneys are practicing law today. Among the most well-received of these talks was titled "10 Things Every Lawyer Should Know About SaaS", which aimed to demystify the concept of SaaS and educate attorneys on how to evaluate the suitability of available solutions for their practice. In this series of articles we hope to address many of the lingering questions on what it means to practice in "the cloud". In the first of these articles, we'll build a solid foundation by addressing the question "What is Software-as-a-Service?"

So, what exactly is Software-as-a-Service (SaaS)? Generally speaking, any software application which is licensed for use on an on-demand basis could be classified as SaaS, however, the terminology is typically used to describe any application which is delivered via the internet and accessible through a web browser. In contrast to the more traditional boxed software distribution model, SaaS applications seldom require that anything be installed on the user's computer. Instead, everything required to interface with the application is downloaded each time the service is accessed.



Similarly, where traditional software requires local data storage, either on a local hard drive or on a networked resource, SaaS applications store their clients' data in "the cloud", which is a generic moniker used to encompass the many outsourced (or hosted) storage and computing resources employed to support most internet websites and applications. As shown in the figure above, server resources, databases, and other key elements of a practices IT infrastructure are stored on the "Local Area Network" side of the firewall in the traditional computing model. However, with the Software-as-a-Service model, as depicted below, many of these resources can be externalized and securely accessed via the Internet.



Though SaaS has come into fashion fairly recently as a legitimate alternative to conventional desktop software, the concept of serving applications over the web has been around since the early days of the internet, and many users of the longstanding free email services such as Gmail, Hotmail and Yahoo Mail may unknowingly already be SaaS subscribers. SaaS has just begun to impact the legal technology industry, and over the course of remainder of this document we'll aim to cover the key benefits and issues surrounding legal SaaS, and the questions that you, as a user, should consider asking before using any web-based products.

Why (Or Why Not) Choose a SaaS Solution?

Nowadays the process of legal software selection is not a trivial undertaking, and these waters have only been muddied with the introduction of Software-as-a-Service (SaaS) as a legitimate alternative to more traditional software offerings and platforms. Already burdened with complex feature comparisons and nuanced competitive offerings, many attorneys are now challenged to weigh the pros and cons of traditional solutions versus newer offerings delivered via the web. To help shed some light on the problem, the following will continue in the spirit of our first article, What is Software-as-a-Service?, and endeavor to explore the fundamentals of why (or why not) SaaS might be the right choice for your practice.

SaaS offers many advantages over traditional software applications, but in our view three stand out in our mind:

1. **Managed IT security and backups**: Many of the primary concerns around SaaS center around the issues of privacy, security, and client confidentiality. However, we view this as one of the biggest advantages of SaaS. Many small businesses, solos, and small firms simply don't have the resources to implement a comprehensive security and backup system. However, SaaS providers can leverage the economies of hosting clients for hundreds or thousands of customers and invest heavily in enterprise-class security and backup. Just as companies such as Iron Mountain can provide highly secure offsite document storage facilities that surpass the physical security and safety of most homes or offices, SaaS providers can provide a level of data security and redundancy that simply wouldn't be economically viable to implement for a small business.
2. **Availability and mobility**: Attorneys are frequently on the move, and increasingly seeking greater convenience in accessing their practice details and essential work tools when at home, at a client meeting, in court, while traveling, or any other time that might be necessary. SaaS applications are capable of offering an unprecedented level of mobility and connectivity across a broad range of platforms, meaning that, whether on a Mac, a PC, Linux, or even an iPhone users can gain access to their critical data from virtually anywhere.
3. **Lower Total Cost of Ownership**: When purchasing traditional desktop software, the cost is typically only evaluated in the context of the off-the-shelf price, rather than the lifetime cost of ownership. In many cases there exists significant additional contributions to the total cost of a solution, including infrastructure upgrades and improvements, along with ongoing service and support contracts. Though there exists some legitimate debate as to whether SaaS is more cost efficient than traditional solutions as a long-term investment, there is little dispute over the generally superior affordability of SaaS due to it's inherently low-priced monthly subscription model. Moreover, the web-based nature of most SaaS products minimizes the technical overhead which normally accompany traditional software products,

requiring that users only have an internet connection and a web-browser in order to interface with the data stored in the legal application.

Despite these advantages, SaaS isn't necessarily a solution for everyone. A prerequisite to using virtually any SaaS solution is a high-speed, reliable Internet connection. If you are in a rural area with unreliable or dial-up Internet, SaaS may not be the solution for you. Some desktop software products also offer an extremely high degree of customizability, while many SaaS solutions offer a simplified, streamlined interface. If you have highly specialized needs, there may be desktop software products that fit your needs with no SaaS-based counterparts as of yet.

Over the remainder of this series we'll cover the specific advantages of web-based practice management and discuss other aspects of SaaS, such as security, backup, and Total Cost of Ownership, which should be weighed when choosing a SaaS solution.

Why Web-Based Practice Management?

In our previous two articles we've moved to answering what software-as-a-service is and why software-as-a-service offers benefits over traditional desktop software.

In this article we hope to address why Software-as-a-Service makes sense for attorneys, and in particular why web-based practice management makes sense for solos and small firms.

Solos and small firms are the majority of the legal market - and SaaS is a perfect fit for their needs: As many of our readers know, the popular notion of attorneys practicing law in a large firm is completely inaccurate. Almost 80% of lawyers in North America practice law in firms with less than 10 attorneys, and a full 50% of North American lawyers practice law as solos.

Despite this fact, most of the software offered for attorneys is a good fit for mid-size to large firms with dedicated IT departments, a pre-existing server infrastructure, and plenty of existing desktop software.

What if you're a solo or small firm? Traditional desktop software inevitably leads to having to install a server, specialized server software, and having to hire an IT consultant to put all the pieces together.

For a mid-size or large firm, this investment, which can easily run into the tens of thousands of dollars, is easily justified. However, for a solo or small firm, this investment in IT infrastructure can be cost-prohibitive. Worse, since all this IT infrastructure is being managed on-premises, the firm must bear the ongoing cost of patching, upgrading, repairing, and eventually replacing this IT infrastructure.

The SaaS model for solos and small firms is a much better fit. Rather than having to host the entire IT infrastructure for their practice management on-premises, the solo/small firm can outsource this management headache to a third party. Aside from the obvious cost benefits that can be derived from this (which we'll cover later in this series), we see the major benefit being that more of your time can be spent practicing law.

Spend time practicing law, not managing IT: Traditional desktop software solutions are seldom as user-friendly as they're portrayed, frequently involving steep learning curves and long familiarization periods, in addition to complex implementation and configuration of software on both a server in and the various user computers. The software then needs to be secured, backed up, and regularly updated. And this assumes everything goes according to plan. As many have learned, either anecdotally or first-hand, complex software solutions typically travel with baggage in the form of technical hurdles and user support. For this reason many leading-edge attorneys are turning to SaaS solutions to avoid losing billable hours to managing IT infrastructure by outsourcing business-related technology overhead to a trusted third party.

Since most Software-as-a-Service applications run within your web browser, the learning curve associated with understanding how to use these applications is typically very shallow. If you know how to browse the web, you'll already know the basic mechanics of navigating almost any web-based application.

Your practice, your choice: As we touched on in Part 2 of this series, one of the key advantages of SaaS is its inherent availability and platform independence. Though the Mac versus PC war wages on, SaaS users can enjoy Swiss-like neutrality, peaceful in the knowledge that regardless of platform, be it Windows, Mac, or Linux, their applications are available in the click of a browser. Better still, as the battlefield heats up on the mobile application front, iPhone, Blackberry, Windows Mobile and Web OS users need not worry about being left out in the cold. The platform agnostic nature of SaaS will accommodate the needs of attorneys and their firms as their needs evolve over time. Practice where you want, how you want, on the device you want, without worry that your SaaS application won't accommodate your needs.

Collaboration: Attorneys need to collaborate and share information with clients and other attorneys extensively. By virtue of living on the web, Software-as-a-Service providers have a unique opportunity to provide value-added client collaboration services that would be virtually impossible with traditional desktop software.

Take Clio's recently released ClientConnect feature. ClientConnect allows Clio users to securely share and collaborate on documents with their clients or other attorneys. Furthermore, bills can be securely sent to clients, and online payments can be received via PayPal.

What we see as most exciting about the shift from desktop software to Software-as-a-Service is the opportunity to build features such as ClientConnect that are uniquely available to web-based products. There are inherent limitations to what can be done with desktop software, and with web-based applications and features such as ClientConnect, we believe Software-as-a-Service truly has the ability to deliver a competitive advantage to attorneys using it as opposed to those that are using traditional desktop software.

Security

For many attorneys contemplating the switch to a SaaS solution for their practice, the matter of security is chief among their concerns - especially given the critical importance of ensuring client confidentiality and data security. The challenge with security in the realm of technology is that it's a tricky metric to measure in any sort of absolute way. Often, the specific weakness of any given system is only realized once its been compromised. So, if data security is so hard to evaluate, what's a responsible attorney to do if they're not an armchair security expert?

In this article we'll outline four of the most important aspects of web security: SSL, Server Security, Client Security, and Password Security.

SSL

One important component of the security equation is a technology called SSL, which stands for Secure Sockets Layer. SSL is an industry-standard technology which enables secure online banking and secure e-commerce sites such as Amazon.com.

Perhaps the best way to understand how SSL helps keep confidential information secure is to understand how non-SSL-encrypted communications over the Internet work. As the figure below shows, if we request information from our bank - say, the balance of our bank account, in a non-SSL communication both the request and response are received in plain text:

If we use SSL for this communication instead, the entire communication between your computer and your bank's server is encrypted - if someone were to intercept or evesdrop on your communications, they would look like random, unreadable data:

SSL is an extremely powerful technology, as it allows for completely secure communications even over public, untrusted networks. For example, thanks to SSL you can securely access your practice's sensitive data, which is stored on Clio's servers, while sitting in a Starbucks using a public Wi-Fi connection.

In a nutshell, if you're accessing or sending sensitive information over the web, you should ensure the website you're using supports SSL. How can you tell if a website uses SSL? Every web browser makes it easy by displaying an icon of a lock somewhere on its user interface:

Internet Explorer:

Firefox:

Safari:

Server Security

While SSL helps secure communications between your computer and web sites, you also need to know the web site you're communicating with is properly secured and not vulnerable to hackers. While it is hard for the average web user to assess this, there are services from companies such as McAfee that perform regular security audits on web sites to ensure server security.

Many secure and e-commerce website have contracts with the world's largest dedicated security company, McAfee, to perform comprehensive network security and vulnerability scanning on a daily basis. This continuous penetration testing and security scanning helps ensure your data is safe and secure from hackers. You can read more about the McAfee Secure designation here.

Client Security

While SaaS has the advantage of outsourcing server-level security and backup to a third-party service provider, one often-overlooked part of the security equation is the security of the desktop or laptop you are accessing the SaaS application from. SaaS doesn't obviate the need to ensure your desktop or laptop is properly secured with a firewall, anti-virus, and the latest security updates for your operating system and web browser. For Windows users, Google Pack offers free anti-virus, anti-spyware, and Google's own web browser, Chrome.

To ensure data stored on your desktop or laptop remains private even if it's stolen, you may want to look at installing TrueCrypt, a free tool which will encrypt the entire contents of your hard drive.

Password Security

Finally, security also encompasses password security. The best SSL encryption and client/server security can all be undone by the choice of a weak password. Be sure to choose a secure password for any website you're using, and try to avoid using a given password for more than one website. A great free password generator and manager is PasswordSafe.

Privacy

In the age of spam, social media and other privacy encroachments, its sometimes hard to envision the Internet as someplace where sensitive data can be securely hidden from scrutiny, and where privacy is guarded at all costs. Fortunately the Internet is such a place, and the availability of many excellent SaaS solutions for business are helping to restore professional confidence in the capacity of the web as a secure medium for information storage and collaboration. However, trust must be earned, and legal professionals should perform thorough diligence when selecting services to host their practice's needs, ensuring that the privacy policy and ownership terms are aligned with professional requirements and individual philosophy. The following questions provide a summary of some important considerations when evaluating a SaaS solution:

What is the Privacy Policy?: Policies should be clearly stated, and disclose how information supplied to the service is housed, protected, shared, manipulated, or disposed of.

Who owns the data?: When entrusting your practice to a SaaS solution, it's critical to understand the impact of the company's privacy policy on your ethical requirements as a legal practitioner. It may seem ridiculous to contemplate a service where the user isn't the owner of the information, however, a quick look at Facebook's privacy policy reveals a disturbing lack of control over the data supplied to the service. In the case of status updates, and photos of the weekend BBQ, this may not be a contentious issue, but when it comes to sensitive client data hosted on a SaaS solution, there should be no question with respect to ownership.

How can the data be used?: When it comes to confidential client information, the privacy policy generally outlines how the SaaS provider can (or can't) use the data you enter into the application. In general, all information you enter into a SaaS application should be treated as confidential, private information that can't be used by the SaaS provider for any other purpose. Furthermore, the SaaS provider should only be permitted to view any of your private information with your explicit consent (say, for example, to troubleshoot a technical issue).

While in many cases this seems to be the only obvious and fair way of treating private data, there have been some high-profile cases of very popular websites imposing less-than-fair privacy policies on their users. For example, Facebook recently caused a virtual firestorm with an update to its privacy policies that apparently granted the company perpetual control over content posted by its users.

The above checklist provides a rough outline of the issues to be concerned with while reviewing a web site or SaaS provider's privacy policy. However, reviewing privacy policies can be a time-consuming process, and diligently reviewing the privacy policy of every website you use can rapidly become impractical. Luckily, firms such

as TRUSTe serve as a “privacy watchdog”, and provide an independent review of a website’s or SaaS provider’s privacy policy. If the website or SaaS provider complies with TRUSTe’s stringent privacy policy guidelines, they are allowed to display the TRUSTe privacy seal. Thus, if you see the TRUSTe seal (pictured above) on a website you use, you can rest assured the website is complying with TRUSTe’s “best practices” for privacy policies.

Data Availability

In this article we'll discuss the issue of data availability. Data availability is one of the most critical aspects of Software-as-a-Service to investigate before selecting a SaaS provider. Provided an appropriate data availability strategy is in place, SaaS applications can arguably provide a much higher level of data availablility than desktop applications.

In asking a SaaS provider about their data availability strategy, you are essentially getting an answer to a very important question: "What are you doing to ensure that my data remains available, even in the event of a natural or human-induced disaster?"

The types of disasters that need to be contemplated in a data availability strategy are numerous - natural disasters could range from a lightning bolt that causes a simple power outage at one data center to an earthquake that wipes out power for an entire state; human-induced disasters could include a simple network misconfiguration to a situation where the SaaS provider must shut down for any number of business-continuity-related issues.

Although many of these scenarios are extremely unlikely, the value of the data that is being stored should motivate a comprehensive plan to mitigate the risk associated with the spectrum of potential disaster scenarios. Luckily, there are a broad range of extremely effective technologies and techniques available to both SaaS providers and end-users to ensure their data is safe and secure:

Geographic Redudancy: If a SaaS application or its data is hosted in just one data center, this means there is a single point of failure that could, potentially, make the entire application unavailable. Geographic redundancy, or geo-redundancy, takes advantage of multiple, geographically distributed data centers. The impact of an outage at one data center can thus be minimized by automatic failover to addition data centers.

SaaS Provider Backups: The SaaS provider should, at a minimum, be performing daily backups of all data and storing this backup in a secure, offsite location. Ideally, backups should be performed multiple times per day, and replicated to multiple, secure offsite locations.

User Backups: While trusting the SaaS provider to conduct appropriate backups is acceptable to some Bar Associations, other Bar Associations require their members retain on-premises copies of their practice's data. To meet this requirement, you should enquire as to whether your SaaS provider allows for a full export of your data from their system.

Data export can also be an important part of integrating your SaaS solution with other products such as document automation software. Data exports from your SaaS provider should be in a human-readable format such as Comma Separated Values (CSV) or Extensible Markup Language (XML), and, as such can be imported and used in other products to help automated repeatable tasks or eliminate duplicate data entry.

Data Escrow: While internal and external backups provide an extremely high level of protection against data loss, a question we've received from a number of attorneys considering using Clio as their practice management system is the following: "what happens if you go out of business?" While this is of course an extremely unlikely scenario, attorneys have the fiduciary responsibility to ask this question of any company being entrusted with their practice's data.

Having an up-to-date external backup of your practice's data is an acceptable way to address this concern. However, as we all know, performing backups can easily be forgotten. To help address this concern, we've established a Data Escrow policy, where we, on a regular basis, securely archive our data to a completely independent and bonded third party. The data will be held in escrow so that, in the event of an extended service interruption, users taking advantage of our data escrow service can securely retrieve their data from an organization completely independent of Clio.

These measures, taken together, make data availability one of the most compelling advantages of SaaS over traditional desktop applications. To achieve an equivalent level of data availability with desktop applications would be cost-prohibitive and technically challenging, whereas SaaS providers can make this kind of infrastructure available to users for a low monthly cost. For attorneys in geographic locations exposed to a high risk of natural disasters such as hurricanes or earthquakes, SaaS can provide a compelling solution to the problem of data availability, as the SaaS application will remain accessible even if your offices are inaccessible or damaged.

Total Cost of Ownership

One of the challenges when doing an apples-to-apples comparison of a SaaS product versus a more traditional software offering is in determining which solution offers a lower total cost of ownership (TCO). Naturally most attorneys are seeking to find the best compromise between performance and cost, however, given the radically different cost models introduced by SaaS providers, determining the financial implications of any solution (either traditional or non) has become markedly more complex. To help bring clarity to the issue, the following will expand on previous articles by exploring some important cost-related considerations for any practitioner deciding for (or against) a SaaS solution.

Cost of traditional software: When evaluating the TCO of a traditional software solution, consumers are accustomed to factoring-in the off-the-shelf price of the software license, occasionally accounting for the cost of annual software updates and renewals, along with any required annual maintenance and support contracts. What's often overlooked in the TCO calculation is the ancillary expenses that frequently accompany the purchase of more conventional solutions. Whether its as easy as an upgrade to an existing workstation, the installation of a server, or the implementation or expansion of a network, the cost of investing in any software solution is seldom limited to the purchase itself. Likewise, the more complicated the solution, the greater the probability of maintenance and configuration complexities which adds to the overall TCO in the form of ongoing support of a technical professional. In calculating the TCO of traditional desktop software, the following costs should be factored in:

- Original software purchase
- Annual software renewal
- Technical support contract
- Server(s), networking infrastructure
- Virtual Private Network installation
- Backups, data redundancy
- IT consultant to install/implement software on server and workstations

For larger firms with existing IT overhead and infrastructure, or smaller firms with more specialized requirements better suited to more conventional solutions, the above cost model may be the most appropriate and affordable. However, for many solos and small firms contemplating the merits of a SaaS solution versus a more traditional counterpart the above considerations are important to recognize prior to making any commitments with long term implications and potentially sunk costs.

The cost of Software-as-a-Service: The SaaS model has turned the concept of software licensing on its ear by introducing a service-based structure where, rather than paying a large up-front fee for software ownership, customers pay a low monthly fee for access to a web-based solution. The clear benefit to this type of model being that it affords subscribers a predictable monthly/annual cost of

software ownership, without any of the variable expenses that typically accompany non SaaS solutions. It also lowers the barrier to entry, not forcing new graduates, young firms, and cost-concerned attorneys to budget for the aforementioned (often expensive) up-front costs of software purchase and implementation. For most, getting started with a SaaS solution is as easy as launching a browser and inputting a credit card number - all of which can typically be done with the tools most firms/attorneys already have on hand. There's no computers to upgrade, no servers to install, and no networks to maintain; all of which helps to make the TCO calculation weigh in favor of SaaS solutions. The TCO costs to be factored in for a SaaS provider are relatively minimal:

- Software subscription cost
- Technical support (which is often included in subscription cost for SaaS applications)

Ultimately there are valid arguments to be made both for and against each platform, and the appropriateness of each should be evaluated in the context of firm requirements, available infrastructure, existing investment and product fit. Though traditional software can come with many hidden costs, to some businesses the control and customizability of on-premises softare installations are a non-negotiable requirement. Similarly, where some may be averse to SaaS subscribership and its long-term low-cost perpetuity, the ease of implementation and maintenance, along with low incidence of collateral costs, make it a compelling alternative for small business.

When comparing the TCO of one solution to another, the total cost of ownership over three years is often used as the comparison metric to help smooth out any significant up-front investments and to incorporate long-term costs.

Independent reports have confirmed Software-as-a-Service delivers significant cost savings over traditional desktop software. A recent Forrester report compared the cost of using Google Apps for e-mail, a SaaS solution, versus Microsoft Exchange Server, a traditional client-server application. The Microsoft Exchange solution cost on average $25.18/month per user, while the Google Apps solution only cost $8.47/month per user. In other words, the TCO of SaaS was just 1/3 of the TCO of traditional software.

We're obviously advocates of the Software-as-a-Service model at Clio, and believe it will become the dominant computing model for small businesses within 3-5 years. The ever-increasing richness and responsiveness of web applications, together with the compelling cost advantages over traditional software solutions, make it, in our view, the obvious choice for small- and medium-sized businesses.

Terms of Service

Most of us can admit to having hurried through the terms of service (TOS) agreement when installing software or subscribing to a service, often without realizing the set of terms and provisions we're agreeing to abide by. When in the context of the latest computer game or desktop widget, the consequences of a draconian agreement might not be so dire, however, when selecting a SaaS solution it's important to understand the scope of rights and protections to extended to subscribers - especially when entrusting the provider with sensitive information which must be dependably and indefinitely accessible. Although its easy to trust that most providers have their clients best interests a heart (certainly most do), ultimately most TOS documents are legal agreements intended to protect the executive powers of the service provider, and subscribers should be reasonably comfortable with the implications of the terms therein before committing any valuable information to the service.

So, what should a TOS document contain? First and foremost, the SaaS provider should indeed have a TOS document which is readily accessible to subscribers, and available prior to committing to any service agreements. The content of the document should specify the following:

Usage License: the terms by which the software or service can be used, the law governing the agreement, and the latitude retained by the licensee to modify, suspend or terminate access to the product.

Service Access: the terms detailing the scope of permitted service accessors, and the means by which access can be obtained.

Security: the security protections offered by the provider, along with the expected security practices inherited and upheld by the user.

Subscription Terms: the terms detailing payment amounts, methods and frequency, in addition to any limitations regarding refunds or subscription modification.

Cancellation: rights extended to both the subscriber and the licensee to terminate the subscription agreement, and the protocol for information management or retention following service cancellation.

Warranty and Liability: those limitations afforded to the licensee regarding service quality, security or availability.

In addition to the above (and sometimes contrary to what's specified in the TOS), Software-as-a-Service providers may additionally provide their subscribers with additional protections and remedies in the form of a Service Level Agreement (SLA), which is intended to alleviate some of the common subscriber concern over data availability and continuity. These agreements typically specify a guaranteed uptime

(availability) percentage - often 99.9% or greater - and frequently back these guarantees with compensation in the form of pro-rated access fees, or refunds.

Data Migration

One of the biggest and most important questions around moving to Software-as-a-Service (or any new software platform) is: "what happens to my existing data?"

Prospective subscribers considering migrating to a legal SaaS platform may want to bring over data from any number of existing products:

- Contacts and calendars from Microsoft Outlook
- Matters and clients from Amicus Attorney, Time Matters, Amicus Attorney, or Abacus
- Financial data from QuickBooks
- Project lists from Daylight
- Calendars from Google Calendar
- Lists of matters and clients from Microsoft Excel

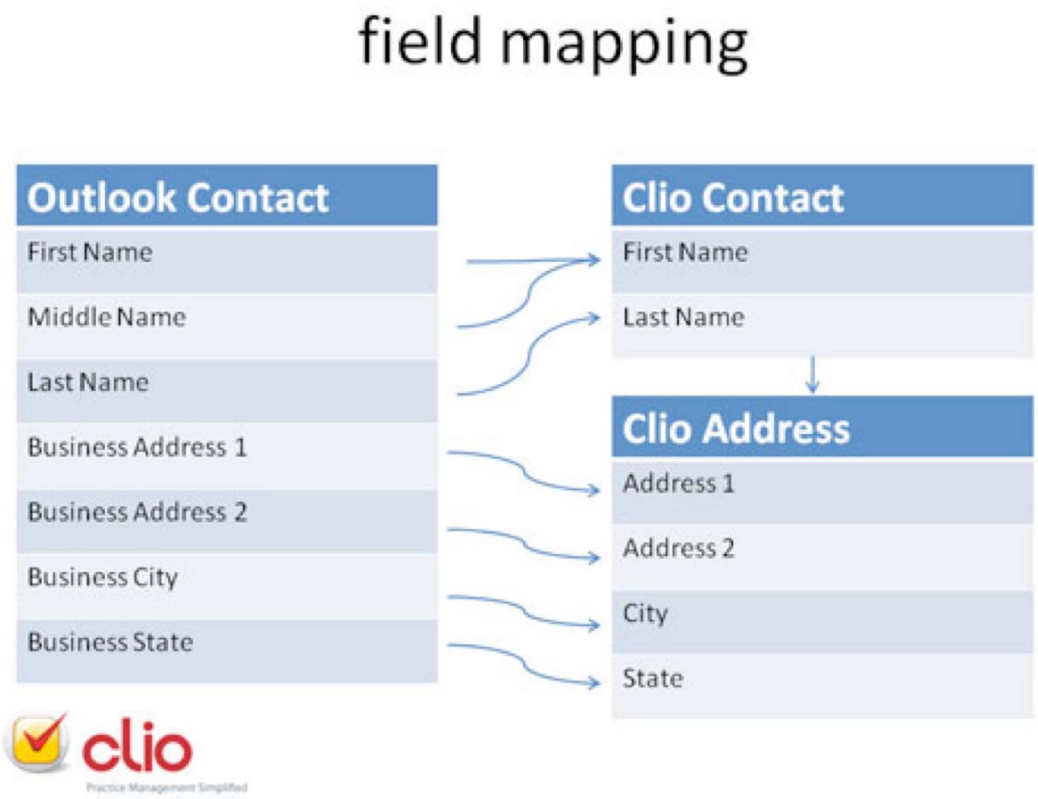
In many cases users may have years worth of data stored in one of the above systems, and the thought of manually re-entering this information is enough to make them feel stuck with their existing solution. For this reason, most attorneys and staff considering a switch to a SaaS solution want to ensure that their existing data can be migrated over to a new system. Luckily, Data Migration makes this transition possible. Virtually every program (even programs written 20 years ago!) can export data in at least one of the following plain-text, human-readable export formats:

- CSV (Comma-Separated Values)
- XML (Extensible Markup Language)

Both of the above formats are extremely flexible and platform neutral, meaning its possible to subsequently transform and import the data into a new software system, SaaS or otherwise.

However, this process isn't always trivial, as the way one software description describes, say, a Contact, isn't necessarily the same as another. This discrepancy is resolved via a process called Data Mapping, where fields from the application being migrated from are mapped to the fields of the application being migrated to.

To provide a concrete example, consider the migration from Microsoft Outlook to Clio: Outlook stores contacts in a slightly different format than Clio, so in migrating our user's data from Outlook to Clio, we've created an automatic routine for mapping data from Outlook's format to Clio's:



With this field mapping in place, it is now easy to automatically import thousands of contacts, matters, calendar dates, and tasks from Outlook (or a variety of other programs) directly into Clio.

With the help of Data Migration, it's easy to automatically transfer large volumes of data from traditional desktop applications to Software-as-a-Service applications.

Offline Access

Even the most dependable services experience the occasional unforeseen outage, and the Internet is no different. Whether due to human error or an act of God, responsible professionals are obliged to consider the worst case while hoping for the best, and for this reason, some prospective Software-as-a-Service (SaaS) users are hesitant to take the plunge out of fear over data accessibility in the event of a prolonged Internet service outage. To help abate the concern over the inherent reliance of SaaS on the Internet, many providers are leveraging the power of new technologies such as Adobe Air, Google Gears and Microsoft Silverlight which blur the lines between traditional desktop applications and Software-as-a-Service by remaining fully functional independent of the state of the Internet connection.

Dubbed Rich Internet Applications (RIA), these applications download and store a fully functional copy of the program data and controls which are then synchronized with the online data at the earliest availability of a reliable internet connection. With RIAs users need not worry about the consistency or quality of an Internet connection, and can rest assured that whether on a plane, in court or any other circumstance where the Internet is not available, access to their data is still close at hand, and will be transparently backed-up once internet service is restored.

Another method of achieving offline access is via synchronization of data with desktop products. For example, the calendar for many SaaS applications provide an iCal synchronization capability with desktop application counterparts (Microsoft Outlook or Apple iCal, for example). In the event of an Internet outage, it would be possible to retrieve your calendar via Outlook or iCal - as soon as your Internet connection is restored, the desktop applications will update as appropriate.

Google's recent addition of Gmail offline functionality is an excellent recent examples of how SaaS applications are evolving to minimize the risk of Internet down-time. Now users can browse, search, and compose emails while offline, allowing continued productivity irrespective of connectivity. Similarly, Clio's recent addition of Clio Express marks our first foray into the world of RIAs and offline functionality with the aim to provide Clio users with continued productivity independent of circumstances. Clio Express is an Adobe Air-based activity tracking application which allows all Clio subscribers to continue working with a logging time and expense slips regardless of Internet availability.

How to Reach Us

We hope you've found this article to be informative. Please feel free to reach us with comments or questions at:

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