As this election year draws to a close, forecasting the future is a topic of discussion, not only in political circles, but in technology circles as well. To chart the best way forward, it is important to understand emerging trends. Each year, Gartner Inc., in its Gartner Symposium/ITxpo, releases its annual list of the Top 10 Strategic Technology Trends that will shape digital business opportunities. Three themes emerged from the symposium this year: Intelligent, Digital, and Mesh, representing the top 10 technology trends expected to have substantial disruptive potential in 2017.

THEME 1: Intelligent – The mere execution of predefined instructions is being supplanted with intelligent systems that learn, adapt, and act autonomously.

1. Artificial Intelligence (AI) and Advanced Machine Learning (ML) – Deep learning, neural networks, and natural-language processing will make smart machines appear “intelligent”. This will encompass physical devices, such as robots, autonomous vehicles, and consumer electronics, as well as virtual personal assistants and smart advisors. Machine learning is already involved in all types of consumer applications, such as Amazon offering recommendations based on prior purchases.

2. Intelligent Apps – With technologies such as virtual personal assistants (VPAs), the workplace has the potential to be transformed with apps that perform the functions of a personal assistant, such as prioritizing emails, and highlighting important content and interactions. Using AI, advanced analytics, AI-powered business processes and AI-powered immersive, and conversational and continuous interfaces, intelligent apps can be useful in transforming the nature of work and structure of the workplace. Although VPAs like Siri, Cortana, and Google Now are not new, such services have expanded in such areas as virtual customer assistance and other specialized tasks.

3. Intelligent Things – These generally fall into the categories of robots, drones, and autonomous vehicles. Internet of Things (IoT) devices will be incorporated into the home, office, factory floor, and medical facility, and will shift from a stand-alone intelligent thing to a more collaborative things model.

THEME 2: Digital – The physical and digital world will continue to blur creating new opportunities.

4. Virtual Reality (VR) and Augmented Reality (AR) – Businesses can overlay real-world objects with virtual graphics affecting the way individuals interact with each other and with software systems. This technology promotes integration across multiple mobile, wearable, IoT, and sensor-rich environments, creating an immersive environment (think the Oculus Rift and Pokémon Go). Rooms and spaces will become active with things, and their connection through the mesh will appear and work in conjunction with virtual worlds.

5. Digital Twin – These are software models of a physical thing or system. A digital twin, by using physics data on how things operate and respond to the environment as well as data provided by sensors in the real world, can be used to analyze and simulate real world conditions, respond to changes, improve operations, and add value. This technology is particularly useful where there is a need for increased digital representation of the real world for simulation, analysis, and control.

6. Blockchain – This is a type of distributed ledger in which value exchange transactions are sequentially grouped into blocks (in bitcoin or other tokens). It is a way of distributing a database across a multitude of computers. Blockchain and distributed ledger concepts are gaining traction in the financial services industry, music distribution, identity verification, title registry, and supply chain, as they add trust to untrusted environments.
THREE: Mesh – The trend is for interconnectivity of people, processes, things, and services, since applications rarely exist in isolation.

7. Conversational Systems – This technology is shifting the model to one where the computer hears and adapts to a person’s desired outcome. Currently focused on chat bots and microphone-enabled devices, it uses multiple modalities such as sight, sound, and tactile interfaces, in addition to voice/text, to communicate across sensors, appliances, IoT systems, etc. Businesses are building chat bots for their applications, so that one day intelligent objects will have some form of conversational interface.

8. Mesh App and Service Architecture (MASA) – In order to support the intelligent digital mesh, and to support multiple users in multiple roles using multiple devices, an architectural shift is occurring so that the digital mesh is continuously accessible through different channels (e.g. desktop, smartphone, and the automobile), through apps that talk to each other, work together, learn, and collaborate.

9. Digital Technology Platforms – Every business will need a digital technology platform, with the fundamental building blocks comprised of information systems, customer experience, analytics, intelligence, the IoT, and business ecosystems, with a particular focus on IoT, AI, and conversational systems.

10. Adaptive Security Architecture – As the digital mesh becomes more intelligent, and digital technology platforms and applications architectures become more complicated, security techniques, particularly in IoT platforms, must become fluid and adaptive.

Buchalter’s Technology Industry Group is comprised of a dedicated team of attorneys with diverse backgrounds and many years of experience in all areas of the law which affect technology and emerging growth companies. Our attorneys think like entrepreneurs, with a practical, solutions-oriented approach. We offer a full range of legal services, including advice on entity structure and formation, angel, venture capital and private equity financing, private placements, distribution and licensing agreements, mergers and acquisitions, intellectual property (including patents, trademarks, and copyrights), insolvency and restructuring, labor and employment, Internet, social media & e-commerce (including regulatory issues), trade secret litigation, and eHealth advice, and guidance.

We welcome you to reach out to our talented team of professionals should you have any questions or desire further input on any of topics covered in our Newsletter.

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Litigation Basics: A Top Ten List of What to do When You are Served a Lawsuit!
Anne Marie Ellis

Forming and operating a technology company is a challenging endeavor, made even more complicated when you, your company, or employees are faced with civil litigation. The technology sector is expansive and includes various industries focused on the manufacturing of electronics, software, computers, or information technology. Because this sector covers such a broad array of industries, it is very important that you hire a lawyer with industry expertise due to the unique aspects of your company. This is where Buchalter provides value to your company. Buchalter lawyers have a broad base of knowledge and experience across numerous industries, and have successfully represented companies in all stages of deals and litigation.

In the technology sector, it is likely that you will face litigation regarding intellectual property, trade secrets, contracts, disputes between manufacturers, suppliers, or competitors, and even employees. Civil litigation is a stressful, time-sensitive, and all-consuming process that can be filled with landmines if it is not handled properly. We hope this article provides you with a basic framework of issues to keep in mind when you are faced with issues and questions during the process.

1. Determine the appropriate court – Civil cases can be filed in either state court or federal court, depending on the nature of the claims and damages sought. Federal courts hear cases that involve violations of federal statutes, patents, trademarks and copyrights, and cases between residents of different states where the amount in controversy exceeds $75,000. State courts interpret state laws, including trade secrets, and hear a wide variety of cases from small claims to unlimited jurisdiction. Courts are very impacted and judges have taken an active role in controlling cases and pushing them toward trial, often within a year of filing.

2. Consider what your allegations and damages are – Make sure you have a clear understanding of what the claims and damages are. For example, monetary damages, statutory damages based on a violation of statutes, punitive damages for malicious and despicable conduct, an injunction to stop someone from acting in a certain way, or attorney’s fees and costs of litigation based on breach of a contract. We are seeing an increase in class action filings against companies alleging false, misleading, or unlawful advertising, requesting the court to certify a class and award damages to a massive amount of aggrieved consumers.

3. Determine if there is jurisdiction – This is a complicated matter that goes beyond this article. To have jurisdiction, the court must be able to exercise control over the defendant, or the property must be located in an area under the court’s control. Venue refers to the county or district within a state where the lawsuit is to be tried. Many patent cases are being filed in the Central District of California where judges can decide whether they are interested in and have the experience to handle a patent case, and will make efforts to streamline the process to make it more efficient.
4. **Be organized and keep track of deadlines and relevant paperwork** – Litigation is fraught with important deadlines. All cases involve statutes of limitations, which are time limits in which the plaintiff (person/entity filing the Complaint) must file a Complaint based on the allegations. These statutes vary widely. If a case if filed after the statute of limitations has expired, it is considered untimely and may be dismissed. When you are the defendant (or the person/entity being sued) you must be diligent about responding to the Complaint in a timely manner, either through a general Answer, or a motion asking the court to strike certain allegations against you. Generally, the response to the Complaint must be filed 21-30 days after proper service of the Summons and Complaint.

The Summons and Complaint are generally served by a registered process server either on the defendant personally, or if the defendant is an entity, on the designated agent for service of process.

5. **Preserve evidence, including sending a litigation hold memo** – Before you file the Complaint, you must have a reasonable and good faith basis for doing so, and this is usually supported by documents and other evidence. It is crucial for you to preserve evidence related to your case or your defense. This can include photographs, videos, emails, text messages, property, etc.

You should also consider sending out a “litigation hold memo” notifying all persons with knowledge and information related to the Complaint to segregate, maintain, and not throw away any documents or information related to the claims.

Again, it is crucial to protect your confidential information during this process and make sure you educate your employees about the importance of this as well. This includes properly marking such documents “Confidential” and “Proprietary.”

6. **Limit conversations about the case** – You should limit any conversations, emails or writings about the pending case with anyone other than your attorney, or else you risk them being discovered by the opposing party. The attorney-client privilege protects communications among privileged persons, made in confidence, for the purpose of seeking or obtaining legal advice. Make sure that you label any documents, correspondence or emails between you and your attorney as “attorney/client privileged.”

7. **Be prepared for discovery** – Discovery refers to the process whereby each party, pursuant to the laws of civil procedure can obtain evidence from the other party. This is through devices such as document subpoenas, sworn depositions, and requests for production of documents, requests for admissions, and special interrogatories. These vehicles help each party know in advance of trial, what the other side has in its possession. They are also designed to prevent “trial by ambush.” Discovery can be an expensive process and often leads to motions before the court to limit the burden and expense of the process. During discovery, be prepared to enter into and file a protective order with the court.

Courts generally allow broad discovery and require all parties to produce all relevant documents—even if that information constitutes a trade secret. As such, a company may be forced to produce its own confidential information to proceed with the litigation. The good news is that you or your company can protect the confidential information by filing a stipulated protective order with the court. A protective order is a court order that prohibits the use of your company’s confidential information from being used outside of the litigation.

Protective orders are essential to ensure that your company’s intellectual property, trade secrets, or confidential information is not disclosed to the public during the litigation. Truly, for a tech company, protecting confidential information during the course of the litigation may be more important than succeeding on the merits!

8. **Consider whether you need to hire experts** – You may need to hire experts to prove or defend your case. There are many qualified and unqualified experts, and it is crucial that you properly vet anyone who purports to be an expert witness. Expert witnesses are also quite costly, and must do a lot of work to assist with your case. They are also subjected to depositions, and will be required to prepare reports and testify at trial. Bad testimony from an expert can be fatal to your case. Choose wisely!

9. **Engage in alternative dispute resolution** – Many courts require the parties to engage in an informal dispute resolution process before undergoing the time and expense associated with trial. Mediation involves a third party neutral who assists the parties to reach a negotiated settlement, but does not decide the case. Arbitration involves submitting the dispute to a neutral third party who hears evidence and renders a binding decision.

10. **Trial and appeal** – Once you have undergone the entire process above, and you have not settled the case, it is time for trial. Cases can either be tried by a judge (“bench trial”) or by jurors chosen from a cross section of the community in state and federal courts. In California state court, a majority of the 12 jurors must agree on the verdict, and in federal court, the jurors must be unanimous. Prior to trial, there are numerous documents, motions, pleadings, and hearings that must occur to limit evidence presented at the trial. After the trial and depending upon the outcome, a losing party may appeal the case to a higher court. An appeal is not a retrial of the case. Rather, it is confined to perceived errors in procedure or the judge’s interpretation of the law.

**Take-aways:** Be prepared and be vigilant! The outline above should also underscore just how important it is to retain an experienced attorney early in the process to help you preserve your rights and save you time and money in the long run!

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Insolvency: What Every Technology Company Needs to Know About Preference and Avoidance Actions
Shawn Christianson and Valerie Bantner Peo

When a customer files for bankruptcy protection, the technology companies which provided goods and services to that customer are sometimes the target of a demand to recover payments made by the customer in the months prior to the bankruptcy filing. These demands are called “preferences” and a technology company that understands the unique nature of preference actions and the available defenses can ultimately save a significant amount of time and money. This discussion, which is the third installment in the Tech Industry Bulletin about bankruptcy topics of interest to technology companies, focuses on the steps that a technology company may take to analyze and defend against preference actions.2

In addition to being left with unpaid debts, a technology company that has done business with a now-bankrupt customer or business partner will sometimes receive a demand letter requesting that the company return any payments made by the bankrupt entity in the 90 days before the bankruptcy petition was filed. The letter will usually state that if the company fails to comply, the bankrupt entity, or a trustee appointed to administer the bankruptcy estate, will sue the company to recover the payments – a so-called preference or “avoidance action.”

These letters are based on a provision in the Bankruptcy Code that is intended to prevent creditors from rushing to demand payment from their customers the minute they sense that a customer is experiencing financial difficulty. The theory is that the creditors who were paid in the 90 days before the bankruptcy petition was filed are “preferred” to other creditors, who were not paid as the company slid into bankruptcy; and that these “preferential” transfers should be “avoided,” or returned to the bankruptcy estate, so that the funds can be evenly distributed among all of the company’s creditors.

There are several defenses to avoidance actions which frequently apply in these scenarios. A company’s defenses typically arise out of the history of dealings between the company and the now bankrupt customer or business partner, and generally require a detailed review by counsel of the transactions at issue. In addition, if the technology company’s contracts have been assumed by the customer, the technology company will likely have a defense to any preference action. (Please refer to Part Two of this three-part series for a discussion of contract assumption, assumption and assignment, cure payments, and rejection.)

Often, when confronted with an in-depth analysis of the company’s defenses, the bankrupt company or its trustee will agree to settle an avoidance claim for far less than the amount originally demanded. Thus, conducting a defense analysis and engaging in negotiations will frequently place the technology company in a better position than either acceding to the demand or flatly denying liability and thereby triggering the bankrupt company to pursue the complaint.

Conclusion

Although technology companies may be tempted to simply “close the book” on a bankrupt customer or business partner, doing so will usually result in the loss of valuable rights, including a right to at least partial compensation for debts left outstanding. Technology companies that understand the bankruptcy process can protect their rights by acting promptly and asserting their available claims and defenses.

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Planning for Acquisition Debt Financing: What the Acquirer Needs to Know
Bukola Mabadeje

Technology companies have been some of the busiest in the acquisition space in 2016, with over $250 billion in global value in the first half of 2016 alone. With this in mind, it is important for the players in the industry to understand how these deals are financed. The purpose of this article is to explore some legal aspects of debt financing.

When an acquiring company identifies a target company with the potential to create a synergy between their business models or operations, negotiating the terms of the acquisition, in particular the purchase price, is only one step in a long process. There is another equally important task of raising financing for the acquisition. Apart from the very few companies with the cash to finance their acquisitions, most companies have to source for funds to finance their acquisitions. There are several options available to the acquiring company looking to raise acquisition financing, including senior secured debt, junior secured debt, equity, and in many cases a mix of some or all of these options. Due to the peculiarities of an acquisition – the various interests represented (including the acquiring company, the target company, the target shareholders, existing lenders) and the mix of financing structures available – the acquirer seeking debt financing (in this capacity, a borrower) would need to consider the following:

Choice of Lender – At the point of shopping for lenders for the acquisition, the acquirer may find itself speaking with multiple lenders in order to gauge which lender offers the best deal. There are many factors which will come into play in deciding on a lender, chief of which is the size of the required loan. A bigger loan means a lender with the appetite to finance the loan by

1The authors acknowledge the contributions of Ivo Keller to the preparation of this article.
2This is the third and final installment of a brief overview of the measures that technology companies can take, and the procedures they should be aware of, to protect their rights in this area of law. Part One, published in the March/April 2015 Tech Industry Bulletin, discussed claims which creditors can assert against the estate of a bankrupt customer or business partner. Part Two, published in the October 2015 Tech Industry Bulletin, discussed the assumption, assumption and assignment, or rejection of contracts in the bankruptcy context.
subordination

A term loan may be amortizing in which case a portion of the principal and/or interest, and any earnout payments. Other instances where a subordination agreement is likely to be required are where there is a junior lender, where the owners of the target company are also creditors of the company, and where there are intercompany loans among the borrower and its affiliates.

Collateral – In acquisition financing, as in most other secured lending, the assets of the company secure the debt of the company. More specific to acquisition loans, however, are certain types of collateral securing the loan, including stock or ownership interest pledges, and collateral assignment of rights. By taking a pledge of 100% of the ownership interests of the target company, upon foreclosure the lender owns the company outright and it has the option of either selling the company as a whole, or taking over the company until it recoups its debt and perhaps selling it eventually. This ability to transfer the company either to itself or to a third party is a benefit over and above the ability to transfer solely the assets of the company, as would be the case if the lender only had a security interest in the assets of the company. Upon executing the pledge agreement, the owner delivers the stock/membership interest certificate over to the lender and signs a blanket transfer power through which the lender can transfer the pledged stock or ownership interests upon foreclosure.

Guaranty – The lender in an acquisition loan may also require the guaranty, secured or unsecured, of certain affiliate companies to provide additional support for the debt. Depending on the entity that is the borrower under the loan documents, i.e. the acquiring company or the target company, the non-borrowing affiliate entity would be required to provide a guaranty, i.e. an upstream or downstream guaranty. Other affiliate companies may also be required to provide guaranties, now or in the future when such affiliate entities are formed or acquired, i.e. side-stream guaranties.

An awareness of these issues will go a long way towards preparing the acquirer for negotiations with the lender, and to some extent, the seller.

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Letters of Credit for Start-up Tenants
Manuel Fishman and Rebecca Freed

A letter of credit can be a useful tool for a start-up company, especially where a contracted counter-party requires a large amount of cash, up front, to secure some obligation of the start-up company to perform over time. The perfect example is a lease, where a landlord may ask for a large sum of money to hold as a security deposit for the company's payment of rent under the lease. A letter of credit keeps cash on the company's books, although it may be held in a blocked account by the company's bank.

What is a letter of credit? It is a contractual obligation of an “issuer,” a bank, to pay up to a stated amount of money to the party who is issued the letter of credit, a “beneficiary,” upon the occurrence of an event under a contract between the beneficiary and the bank’s customer, called an “applicant” – in our example, the start-up company.

While the purpose of a letter of credit is straightforward, and most letters of credit are no more than two or three pages, the law governing enforcement of a letter of credit is highly structured. A bank’s obligation to honor its contractual obligation is governed by both published rules of the International Chamber of Commerce and applicable state commercial codes. A misstep in the procedure for obtaining funds under a letter of credit or an ambiguity in language generally works against the beneficiary, so care is usually taken in reviewing and negotiating changes to a bank’s form of letter of credit. For example, all letters of credit have an expiry date (even if the bank agrees to periodic renewals), and if the beneficiary does not make a draw under the letter of credit by the expiry date, the bank has no obligation to honor any draw request. In addition, unless the language is modified, a bank has five business days to honor a draw request. Lost or mutilated letters of credit present significant problems as well, and focusing on the location where a beneficiary has to present the original letter of credit to get available funds can present challenges if the bank is out of state.

Given all this - why use a letter of credit? Where a large sum of money is involved, letters of credit offer an alternative to cash. While the start-up company's bank may require that the start-up company place the amount of the letter of credit in a “blocked” account, the cash is still considered an asset of the company. Alternatively, where a large amount of money is involved, a start-up company may not want to let its contract counter-party, such as a landlord, hold that much cash because of the risk that the landlord will face financial challenges.

Finally, it bears remembering that a letter of credit is only as good as the creditworthiness of the bank issuing it. Recipients of letters of credit carefully consider which banks they will agree to accept for issuance of a letter of credit, and often reserve the right to draw on the letter of credit and hold the money if a bank’s credit rating is lowered.

While useful for start-up companies, getting legal advice in submitting applications and in reviewing the language of a letter of credit is generally recommended.
About Buchalter
Buchalter is a full-service business law firm that has been teaming with clients for over six decades, providing legal counsel at all stages of their growth and evolution, and helping them meet the many legal challenges and decisions they face.

The firm is consistently ranked among the leading law firms in California by Chambers and Partners, Best Lawyers, The Daily Journal and the Los Angeles Business Journal. It is also ranked among the leading firms nationally by American Legal Media and the National Law Journal.

Buchalter represents technology companies at all stages of development, from entrepreneurs to public corporations, as well as the industry’s leading investors. We provide a full range of legal services, including: advanced technologies, intellectual property, mergers & acquisitions, corporate governance, start-ups, emerging companies and venture capital, private equity, labor & employment, and domestic & international tax.

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