Distributed Ledger Trademark Registry? A proposal for One Ledger to Rule Them All!

By Anthony J. Biller and David M. Chambers

From cryptocurrency, to Web 4.0, to an interactive, decentralized worldwide network of all things, people and systems, distributed ledger technology (DLT) is the hot-tech, paradigm shift du jour. As the name might imply, a distributed ledger is kept by a distributed network of computers (nodes) that track and sync a complete record of the activity that has occurred on a given network. While DLT has been most widely known as the technology underlying Bitcoin and other cryptocurrencies, these technologies transcend cryptocurrency and promise to impact a wide range of industries.

As several states advance legislative efforts to uphold the legal integrity of smart contracts and DLT-enabled transactions, here at Michael Best, we are evaluating how best to integrate and use DLT for smart contract legal services and guide our clients through the legal issues surrounding cryptocurrencies. Our colleagues at Best Strategies are assisting clients with implementing this technology coupled with artificial intelligence at federal agencies for vastly improving supply chain management and efficiencies. While there are potential technological challenges and legal and/or regulatory issues to consider, DLT-based use cases seem bound only by one's imagination.

In the latest edition of The Disruption Report on Blockchain + The Law, Anne Canfield argues that blockchain, a DLT subtype, will reach into every aspect of life as the 4th wave of disruptive change in the digital era. Time will tell. It is hard to say when or if her prediction will be 100% true, but she is likely going to be more correct than not.

Blockchain is a type of DLT where, through the use of agreed-upon algorithms or smart contracts, nodes/network participants share, validate, and sync "blocks" of data that are added to the complete record of transactions as immutable links in a "blockchain." The result is a disintermediated network that maintains a transparent, permanent record that participants can rely upon to transact without the need for central brokers to create security, trust, and verifiability.

Examples of these disintermediating use cases, many of which implement smart contracts, include applications that are in use or in development, ranging from provenance verification, demand or use-based payments, automated value transfer in IoT-based transactions, P2P networks, and the sharing economy, to grid management and financing for distributed energy assets. The list of potential applications continues to expand.

Blockchain is also being implemented by governments, companies, and institutions who value more efficiency and transparency in their own governance, transactions, and/or other internal functions. Although often obscured by cryptocurrency, DLT technology has far broader commercial applications.

The GSA has launched an initiative to evaluate how blockchain might be used to improve transparency, efficiency, and trust in federal agencies. United Solutions is using DLT and AI to accomplish the Department of Health and Human Services' project HHS Accelerate to coordinate and improve procurement and acquisition practices and efficiencies within the departments numerous agencies. Breaking Energy reports companies are using DLT to enable B2B micro-energy exchanges.; "Blockchain can, in real time, determine how much power is needed against how much power is available on the network, and

Anthony J. Biller is a Managing Partner in the Raleigh, North Carolina office of Michael Best. David Chambers is an attorney in the firm's Corporate practice group.

execute a micro-transaction between customers that is automated, verified, and secure." Other concrete examples include using blockchain to maintain shareholder transactions and corporate records, land title registries, academic and certification registries, for real-time global payments, or to track the sourcing and distribution of agricultural or pharmaceutical supplies.

While blockchain-enabled pharma supply chains (and supply chains in general) – where blockchain could provide a fully traceable and transparent product trail from the origin of chemical ingredients to the shelf – are an often talked about domain application, blockchain-based pharma solutions are a particularly large and complex area of interest. In addition to supply chains, blockchain may change drug development, management, and safety for the better. In some cases, blockchain-enabled pharma solutions will improve (and even save) lives, not just create value. Consider Rymedi, a Raleigh, NC based company that, in collaboration with the Government of Mongolia and others, is combating liver cancer with a protocol designed to enhance product traceability for quality assurance, integrated data capture for improved drug safety and efficacy assessment, cross-functional data pools, and data-driven supply management for Hepatitis B and C (chronic Hepatitis B and C lead to liver cancer) treatments in Mongolia.

We are also hearing rumblings about what DLT might mean for IP management and litigation. On the patent side, Erich Spangenberg's IPwe is launching a DLT-based patent registry that it claims will harness AI, predictive analytics, and sophisticated data management techniques to create an entirely new type of patent ledger that will efficiently perform traditional buy/sell/license patent transactions, and enable currently impractical transactions, like crowdsourcing R&D and patent-based financing. IPwe also offers a tool that evaluates the scope of patent claims and assigns ratings for patent quality and validity. In response to a question as to what should be done to crack down on the long-standing problem of fraudulent trademark registration solicitations, TTABlog's John Welch replied, presumably tongue in cheek, "Blockchain! It's the answer to everything."

While blockchain (or DLT in general) might not necessarily be the answer to everything, it could be used to create a more efficient and fair, market-based trademark registry that, if implemented as proposed herein, would provide a real time, historical ledger of trademark use and help solve several inefficiencies and problems in current trademark registry and/ or management systems. Such a system need not be confined by political geography. Consider the following common scenarios:

Scenario 1: Every trademark litigator knows the drill, FarCo, a company in a remote geographic market, sends the client located hundreds or thousands of miles away a cease and desist letter. There is no market conflict and perhaps never will be, but FarCo obtained a federal trademark registration and desires to assert its constructive federal registration rights.

Scenario 2: Pacifico Co. and Atlantic Inc. start in remote geographic markets from each other in the same industry, innocently using the same or closely related marks. Both companies prosper over the decades. As their respective markets proceed from local, to regional to semi-national, their markets and marks collide, causing marketplace confusion. A common law trademark infringement lawsuit proves difficult and costly as each company tries to prove their respective priority of use across wide trade areas.

Scenario 3: Detroit LLC enjoys rapid growth in its industry and obtains a federal trademark registration for its successful service mark. CopycatCo. begins conducting sales in Toronto offering the same services under an identical mark prior to Detroit LLC first offering its services in Canada. Detroit LLC has been deprived of its mark in a nearby market where its arrival in the market was reasonably predictable, but its U.S. registration has no effect in Canada.

Scenario 4: Homegrown Success Story Inc. moves manufacturing to a foreign market to support Homegrown's domestic U.S. marketplace demand. CounterfeitCo in foreign market registers Homegrown's marks in the foreign market and starts selling counterfeits throughout the world, including shipping them into the United States. CounterfeitCo has no assets in the United States that would be subject to a U.S. judgment and an injunction from a U.S. court is ineffective in the foreign market.

The scenarios above illustrate a few common issues with the current trademark registry system.

Current registries are defined by political boundaries, but commercial markets often do not fit neatly within political boundaries. Since the inception of the Lanham Act in 1946, markets, consumers, and trademark uses have become increasingly fluid and transnational due, in part, to the emergence of e-commerce and online media, as well as the liberalization and normalization of international trade and migration over the last century.

A blockchain-based trademark registry could securely and permanently record when and where branded goods have been manufactured, distributed, marketed, and sold. This would create a permanent record of trademark use. A blockchain-based registry could also record the extent of commercial use, channels of distribution, and the facilities of sale. Brand ledger technology could be extended to record social media usage. As we move to an AI Web 3.0, a trademark ledger could in theory implement a smart algorithm to calculate the rate of geographic expansion within market segments, e.g., within the traditional Nice classes, and project reasonable zones of expansion based on that rate of market growth. A Madrid protocol for the 21st century could involve countries agreeing to use a common blockchain registry protocol for purposes of evaluating and enforcing trademark claims.

Because blockchain is transparent, the data regarding mark usage would be public so long as the information in the ledger is not restricted from public viewing. The ledger could provide the same public notice function as the current federal trademark registry, and in fact could provide advance warnings of impending trademark conflict. The ledger would create a permanent and reliable record of actual mark usage. With such a ledger in place, trademark rights could be more efficiently and accurately defined by actual areas of use and reasonable zones of expansion, instead of presumptive rights over large political areas. Some form of constructive trademark rights should also be afforded where branded goods are manufactured, if the goods are not also sold there as well.

Infringement jurisprudence would have to develop regarding what would constitute remote, good faith use versus adopting a mark that one should reasonably anticipate to conflict with a preexisting senior user given the senior user's pattern and rate of marketplace expansion. With a Madrid style treaty for the 21st century in place, the ledger need not be confined by political boundaries, nor would rights be artificially expanded to political boundaries where there is no commercial basis for doing so. Nations and tribunals worldwide could work on network protocols that would allow them, and private party participants, to share an international trademark ledger that reflects trademark usage in real time.

So, how would such a blockchain trademark registry system impact our scenarios?

In **Scenario 1,** there would not be an apparent infringement problem, unless the client's adoption of the mark was not reasonable given FarCo's (remote senior user) demonstrated market growth prior to the client's adoption of the conflicting mark.

In **Scenario 2**, Pacifico Co. and Atlantic Inc. would be able to see on the ledger the impending marketplace collision before it occurred, and hopefully the parties would seek to find a solution prior to conflict. If they instead proceeded into marketplace conflict, the ledger would provide indelible evidence of who was the first user in each conflicting market.

In **Scenario 3**, assuming Canada adopted the blockchain trademark ledger, Detroit LLC could take legal action in Canada for CopycatCo's adoption of a nearby and rapidly expanding mark.

In **Scenario 4**, again assuming the foreign market adopted the ledger and treated branded manufacturing as a constructive use, Homegrown could pursue CounterfeitCo in CounterfeitCo's jurisdiction, where equitable relief would be effective and a monetary award could be collected. Further, if the ledger were closely integrated with transportation and POS systems worldwide, the extent of CounterfeitCo's infringing activities would be readily and easily ascertainable. Such a real-time ledger could also be used to confirm that branded goods originate from the brand owner or approved source, and thus be used to combat counterfeiting.

While the implementation of a universal, blockchain-based trademark registry may be a long way off, we can and should improve our 1946-era registry. As we head into a blockchain and AI Web 3.0, it is time to start developing Trademark Registry 2.0.