

Efforts Integrating Blockchain With Intellectual Property

By Trevor Krajewski and Rich Lettiere

Intellectual property-centric businesses have been increasing their involvement with blockchain companies and technologies in recent years. The incorporation of this technology into numerous industries could lead to exceptional opportunities for valuation, litigation, and licensing of new patents and intellectual property. Perhaps the most interesting application of blockchain technology for IP professionals, though, will be within the IP space itself. Numerous organizations and efforts supporting the development and integration of blockchain in the IP world are emerging. This article intends to describe the limited number of organizations that are active, or are publicly promoting plans to become active, in this space, as well as what they plan to accomplish.

Loci: Platform for Intellectual Property Discovery and Mining

Loci is a patent search database aimed at making the invention process – from idea to patent – more efficient. LOCI Search is a blockchain powered, context-based search tool that connects investors, patent attorneys, corporate analysts and others with inventors and their ideas. Inventors provide verifiable information on the Loci blockchain, offering immutable proof of IP rights globally, while users can search this database to efficiently find relevant patent data.

Loci's InnVenn is a document search tool that provides novelty analysis, a process usually done by the inventor or patent attorneys, with increased efficiency and transparency. InnVenn also helps investors stake their claims by acting as a blockchain-integrated public disclosure platform, establishing an immutable data point with a time stamp of the invention's public disclosure. This disclosure begins a 12-month grace period for filing of a patent, and effectively streamlines the process of obtaining protection on an idea.

The InnVenn System runs with Loci's native Cryptocurrency, LOCIcoin (LOCI), creating a means for exchange of ideas between inventors and investors; inventors use LOCIcoins to stake their claims and put them on the marketplace, while investors search for and invest in ideas found on the platform, transacting in LOCIcoins.

In July 2018, Loci released a new tool called Invention Analysis, also known as LOCI Score. According to Loci, its Invention Analysis tool allows users to eval-

uate how novel or unique certain ideas actually are. Powered by patent machine learning, the analysis produces a score indicative of the novelty for the user, along with a number of other data points. This tool has the potential to streamline the invention process for inventors, saving them time and money in determining the next steps in their innovation processes.

As of October 2018, Loci has partnered with The Bureau, a global blockchain accelerator and advisory group, and has added two new board members in an effort to scale the business and provide expertise in blockchain technology.

IPwe: Blockchain Powered Patent Platform

IPwe is a blockchain-enabled patent registry and ratings database currently containing basic information on 80 percent of the world's patents. The IPwe system exists to enhance the patent ecosystem, giving patent owners exposure to potential buyers and licensees, and companies seeking new technology an easier way to find the technology they need to grow.

Integrated with the registry is Zuse, a patent analytics platform that leverages AI, predictive analytics, and data management techniques to provide information about a patent. Zuse is exclusively licensed by IPwe for use with its platform. IPwe states on its website that the Zuse system "identifies relevant prior art by taking into account the limitations of the claim under consideration... the text of the art, the link structure of the citation network, and patent classification." Zuse further renders a single "Q Score" for patents, designed to measure the overall relative quality of a patent in a collection. By producing a public record of patent transactions, and through its Zuse analysis, IPwe hopes to be able to determine the value, strength and validity of certain patents. IPwe hopes these analyses made public will likely result in faster, easier and cheaper patent transactions, thereby increasing revenue for patent owners.

By accurately identifying patent owners on the IPwe database and providing a relative analysis of the quality of patents, IPwe envisions a more efficient patent ecosystem for all parties involved.

On August 7, 2018, IPwe announced a partnership with BlockHiro. BlockHiro, a technical advisory firm, focuses on early stage blockchain start-ups and works to accelerate growth through technical due diligence

and strategic connections with key technology companies. IPwe's CTO, Dan Bork, has stated that the Block-Hiro partnership "allows [IPwe] to accelerate [its] technical and product road map by many quarters."

KodakOne: Image Rights Management Platform

On January 9, 2018, Kodak announced the launch of KodakOne and KodakCoin, an image rights management platform and cryptocurrency that use blockchain to create a ledger of rights ownership for photographers. Kodak licensed its name to WENN Digital, who will own and operate the KodakOne platform. WENN Digital's proprietary big data/AI-enabled image recognition platform continuously monitors and protects IP of the images online, while the KodakCoin native cryptocurrency enables artists and users to exchange image rights and ownership, creating a full circle platform for the enforcement, management, and sale of image rights.

With KodakCoin tokens, KodakOne aims to make payments simplified and faster. According to KodakOne, "[a]ll stakeholders involved in the licensing process worldwide will receive their share simultaneously according to the terms of the smart contract saved on [the KodakOne] Licensing Blockchain." The web crawling AI systems in place scanning the internet collecting data on photograph usage and checking for valid licenses, described by KodakOne as a "police officer," identifies violations and through simplified legal proceedings, aims to convert infringers into customers. These tools together are part of the greater effort by KodakOne to "reward creativity" and "[protect] the storytellers" by making image licensing easier for photographers and protecting their rights as the number of photos circulated online continues to increase, and licensing and policing the proper use of these images becomes more difficult.

A panel including the Chief Executive of KodakOne was held at the LESI 2018 Annual Conference discussing "Emerging Developments at the Intersection of IP, Blockchain and Cryptocurrency." This presentation included the CTO of IPC Group (see below) and was sponsored by the newly formed Blockchain Subcommittee of the LESI High Tech Committee. The workshop discussed opportunities and risk surrounding blockchain, as well as patent and copyright cryptocurrency offers and the use of blockchain to record licensing transactions.

The KodakOne planned ICO is fully compliant under US-Security-Law and a Beta version of the KodakOne platform is expected to launch by the end of 2018.

IPC Group

Intellectual Property Coin Group, Inc. (IPCG, IPC Group) is proposed to be an Ethereum-based block-

chain platform and related cryptocurrency designed to facilitate IP-based transactions, primarily the sale and license of patents. IPCG's mission is to "promote low cost and efficient use of technology for public good." The company intends to issue two offerings:

- IP Coins (IPC) or tokens are a proprietary cryptocurrency loaned to patent owners, providing liquidity to purchase and license further patent rights from third parties.
- Unit License Right Smart Contracts (ULR) represent a blockchain ledger allowing patent owners to more efficiently license their IP rights creating greater transparency, a secondary market opportunity, a clear audit trail and accounting value recognition.

The company will issue/lend IPCs to patent owners secured by the borrowers underlying patents. These patent-backed loans will be funded at the then-current IPC market price, in an amount not to exceed 25 percent of the appraised dollar value of the patent collateral and at a term not more than five years. IPC loans are expected to bear an average interest rate of LIBOR plus seven percent and may be paid back in IPCs or an approved cryptocurrency based on market pricing at the time of repayment. Combined principle and interest payment in IPCs provides for a reduced interest rate (expected to average LIBOR plus three and one-half percent). One-third of interest paid, net of any currency exchange costs, will be distributed quarterly on a prorate basis to all holders of IPCs. The balance of interest proceeds will be used to fund the company's operations. IPCs used in principle repayment will be returned to inventory as Treasury Tokens and may be loaned again; principle payments in non-IPCs will be used to purchase IPCs from the market returned to inventory as Treasury Tokens.

Example: BigCo owns 10,000 patents across the U.S., Asia and Europe. Management announced a new product and requires patent protection against competitors but has limited budget to acquire the desired rights. The Chief IP Officer has identified 500 patents to use as collateral which are appraised by an independent accountant to be worth \$40 million. IPC Group will loan to BigCo \$10 million in IPCs for five years. BigCo can then use the IPCs to purchase or license-in the required patents.

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As a market, IP Coin lending benefits from a network effect. The more patent owners which borrow and hold IPCs, the more efficient the purchase or sale of patents using IPCs becomes.

Patent owners can use ULR Smart Contracts to more efficiently make available (as Licensor) rights to use select groupings of patents, patent applications and related know-how. Estimating the likely future demand for a given technology, Licensors will offer a defined number of ULR contracts to the market at a predetermined price. Blockchain technology and standard contracts allow the patent owner to quickly present this opportunity. Interested buyers (as Licensee) can then purchase the number of contracts they require. As defined units of value, the buyer can book their purchase on their balance sheet as an asset, expensing them as they are consumed. Importantly, the blockchain ledger transforms traditional market practice by allowing the ULR buyer to resell any excess contracts into the market (at a profit or discount) creating a true seconding market for patent licenses. The company will earn a commission for each new issued ULR Smart Contract, with a reduced commission for UL's purchased using IPCs. One-third of commissions paid will be distributed quarterly on a prorata basis to all holders of IPCs.

Example: BigCo now determines that a portfolio of patents represents non-strategic technology which is needed by others in a related industry. Bigco. estimates the demand for this technology to be three million units of produc-

tion over the next two years and creates a ULR Smart Contract offering each unit for \$0.50. LittleCo anticipates making 10,000 products using this technology and purchases the same number of units, recording on its books a \$5,000 asset. Over the next two years, LittleCo makes only 8,000 products reselling the unused ULR Smart Contracts to a third party at \$0.75 a unit, making a profit due to the limited remaining supply.

Future efforts of the company may include facilitation or creation of a market to trade ULRs.

IPC Group anticipates presenting for sale a limited number of IP Coins or tokens through an SEC Regulation A+ Initial Coin Offering (Reg A+ ICO or ICO). The Company plans on proceeding under Tier two of this Regulation.

The Integration of Blockchain and Intellectual Property

Development of blockchain technologies and use-cases continue in virtually all industries and markets. When compared to other sectors developing blockchain technologies such as payment protocols or data security, the IP industry development stage remains relatively nascent; however, the potential to not only digitize intangible assets but to revolutionize how intellectual property as an asset class is monetized and managed is pronounced. ■

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