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## INTELLECTUAL PROPERTY

# The evolving cryptocurrency patent landscape: who is winning the race?

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If the past is any indication of what is to come, those who invest in cryptocurrencies, such as Bitcoin, Ethereum and Litecoin, just to name a few, had better buckle-up. It is surely going to be a wild ride as more cryptocurrencies emerge and the growing array of use cases blows hot and cold. The extreme volatility of cryptocurrencies themselves does not appear to be a phenomenon of the patents directed to the technologies underlying these digital currencies and their ecosystems. As the flurry of innovation continues and the cryptocurrency ecosystem becomes increasingly more mainstream, expect to see exponential growth in the cryptocurrency and blockchain-related patent landscape as financial services companies, FinTech startups and a growing number of tech companies from a wide range of industries all vie for a dominant position.

## Cryptocurrency and blockchain-related patent landscape

As we welcomed 2018, the combined market capitalisation of all cryptocurrencies eclipsed \$800bn. Over the past few years, there has been a



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steady and significant growth in the number of businesses and people using cryptocurrency, identifying new use cases and developing new and improved cryptocurrency and blockchain-related technology. While much uncertainty exists with regard to the evolution of the cryptocurrency ecosystem, the explosive growth is undeniable. There are a growing number of thought leaders who believe that cryptocurrency and the blockchain will have the same transformational impact on our lives as the internet. And even if the major players in the financial services industry and others in tech are not entirely convinced, some are clearly trying to position themselves to dominate the patent landscape and protect their innovations.

Focusing on the period 2013 to 2017, the records of the US Patent and Trademark Office indicate the acceleration of patent filings and the growing number of patents issued directed to cryptocurrency and blockchain-related technology: from 35 published US patent applications in 2013 and eight issued patents, to 794 published applications and 139 issued patents in 2017.

We have seen the emergence of an active and growing business

ecosystem enabling the use of cryptocurrency and the blockchain. That use, for the most part, can be broken down into four categories, which are the key cryptocurrency industry sectors. Those four categories are: (i) exchanges, used to buy, sell and trade cryptocurrency; (ii) wallets, used for secure storage of cryptocurrency; (iii) payments, to facilitate payments using cryptocurrency; and (iv) mining, to identify unconfirmed transactions and secure the global ledger. The bulk of these current patent filings appear to track closely with these key cryptocurrency industry sectors, which is not unexpected.

The financial services companies, FinTech startups and other tech companies investing in developing the systems, methods and computer programme products for their cryptocurrencies, trading platforms, virtual wallets, payment schemes, mining activities and the growing list of use cases are likely well aware of the value of securing patent rights to protect their innovations and to leverage their respective positions in the industry. As the ecosystem matures, the number of industry participants rises and the issues surrounding standards and the regulatory framework for

cryptocurrency are hashed out, cryptocurrency and blockchain patent stakeholders should be well positioned.

### Who is winning the race?

The list of the top patent assignees to date, for US patent filings, includes some of the world's leading financial institutions and technology companies, and some of the hottest FinTech startups. IBM, Bank of America, MasterCard International, Apple, Fidelity Management and Research, Coinbase, PayPal and Accenture Global Solutions are included among the top patent filers in the US for cryptocurrency and blockchain-related inventions. Of course, the measure of patent strength in a particular industry or technology sector is not simply a numbers game, and there may be key enabling patents that issue to companies or individuals that are relative unknowns.

What is notable is the recognition that some of the world's leading companies in financial services and technology are actively pursuing patent protection for their cryptocurrency and blockchain-related innovations. These patents can really pay dividends down the road in terms of potential licensing and



cross-licensing activities, options for enforcement and for use to secure investment. And from the looks of it, some companies are clearly angling to develop large patent portfolios as a means of gaining a strategic advantage and hopefully being in the driver's seat when the real action starts.

### **Observations about the future direction for protecting cryptocurrency and blockchain-related innovations**

The move of cryptocurrency and blockchain-related technology into the mainstream is clearly global in scope, so expect cryptocurrency industry participants to be developing patent portfolios, in these early stages, primarily in the US, Europe and Asia, and later, as the industry matures and the ecosystem grows, to expand into other parts of the world, including Latin America, Africa and the Middle East. That said, an important consideration in various countries is the applicable patent laws regarding subject matter eligibility for software and business methods. Companies seeking to protect their innovations

in cryptocurrency and blockchain-related technology will need to assess the availability of patent protection on a country-by-country basis. In the US, for example, since the Supreme Court's decision in *Alice*, software patents and, particularly, business method and financial patents, have faced significant challenges in both the US Patent and Trademark Office and the courts. Some more recent court decisions have provided further guidance and, with the right drafting of the patent specification and claims, subject matter eligibility for software patents can be proved. Of course, given the nature of the technology, product lifecycles, speed of innovation and typical timeframe to obtain enforceable patent rights, another important strategic consideration is whether to maintain the technology, or at least certain aspects of it, as a trade secret.

It is also inevitable that a body of international standards and government regulations will be developed and adopted for buying, selling, trading and securing cryptocurrency, using cryptocurrency for making payments, using smart

contracts and many other services and activities that are performed using cryptocurrency or blockchain. As these standards and regulations go through the development process, we may see significant patent filings by industry participants seeking a dominant position and to gain leverage with competitors as a key essential patent holder.

Finally, we must be mindful of the fact that, from its inception, cryptocurrencies and the blockchain were developed as open source software projects. While some of the current cryptocurrencies and blockchain use cases are implemented as private, many are not and, in fact, they tout the public nature of the tech. This can create, and it has in other industries, an inherent tension with seeking patent protection. It is, however, inevitable that cryptocurrency and blockchain patent portfolios will grow at a fast pace and, with that, the licensing and enforcement process will follow. And if past experience is any guide, whoever is winning the patent race may just have the upper hand. ■