



# Blockchain Law 101: Understanding Blockchain Technology and the Applicable Laws

by Dave Berson and Susan Berson

**B**lockchain software technology has rapidly evolved from a few bitcoin software nodes ten years ago to a multi-billion dollar industry backed by Wall Street, Silicon Valley, and major banks. Blockchain software, which permits the maintenance of a public ledger secured by cryptography, can be used to increase the speed and lower the cost of consumer and business transactions.

Expect that within the next decade, small businesses which choose to utilize the technology will be able to purchase software to issue their shares of stock as digital tokens, rather than as paper certificates. Likewise, state and local governments which choose to implement the technology will be able to purchase software to permit real estate transactions to be instantly recorded through “smart contract” software. Smart contracts utilize electronic signatures and metadata, rather than physical filings. Banks will be able to permit their customers to utilize blockchain-based software that will enable instantaneous and irrevocable transfers of funds between bank

accounts (rather than on a delayed basis using wire or ACH transfers).

This article will provide you with the basics of blockchain technology and an overview of the applicable laws and regulatory framework that apply to it.

### **Blockchain Technology**

Blockchain software creates a transaction ledger database that is secured by cryptography and shared by a distributed network of computers. The blockchain software records and stores every transaction that occurs on the computer network. All of the computers on the network can view all of the blockchain records, with any change to the distributed ledger being visible to everyone.

Blockchain software can create a blockchain that is either decentralized or centralized. The differences between these two types of blockchains are as follows:

- **Decentralized.** Decentralized blockchain technology is used in the creation of cryptocurrencies (such as Bitcoin) and other digital assets. In a decentralized and public blockchain, anyone can download software to send and receive funds, without the need for a centralized financial institution (such as a bank) to process the transactions. Transaction processing is done through a decentralized mesh of computers located around the world, with anyone being able to operate a computer node to process transactions.

- **Centralized.** Centralized blockchain technology is used in the creation of secure and high-speed record-keeping by businesses and governments. A significant amount of centralized blockchain software development is being done using IBM's Hyperledger Fabric software. Access to a centralized blockchain is restricted, with only known participants being permitted to process and view records on the blockchain. Centralized blockchains are usually distributed among fewer computer nodes. The advantage of centralized blockchains is that they can currently process records and transactions at a higher speed, and with a lower energy cost, than decentralized blockchains.

Here are some examples illustrating how blockchain technology is currently being implemented by businesses and governments:

- **Deed Recordation.** In the United States, the high-speed recordation of real estate deeds through the blockchain has been tested in Cook County, Illinois, and South Burlington, Vermont. In addition, deed recordation through blockchain software has also been tested internationally in Brazil, Dubai, Georgia, and Sweden.

- **Automobile Recordkeeping.** In May 2018, Ford, General Motors, BMW and Renault formed the Mobility Open Blockchain Initiative (MOBI). The intent of MOBI is to create common standards for blockchain software related to such data as vehicle identity, vehicle history, and supply chain tracking.

- **Higher Speed Funds Transfer.** In September 2018, two New York non-depository trust companies (Paxos and Gemini) launched FDIC-insured "stablecoins," with each digital token backed by a stable \$1.00 in value. In December 2018, Signature Bank, a New York bank, announced the launch of a blockchain-based digital payments platform to enable real-time payments for its commercial clients.

- **Food Safety.** In August 2017, IBM, Walmart, Nestle and other grocery companies began collaborating on the creation of a centralized blockchain food tracking system to in-

crease the safety of food and reduce the spread of food-borne illnesses.

- **Healthcare Recordkeeping.** Estonia is currently implementing blockchain technology to better protect the security of over 1 million electronic medical records. Estonia has already issued smart cards to its citizens, which enable them to have online access to over 1,000 government services (including the viewing of their health records).

## Blockchain Law

The ownership and sale of cryptocurrency and other digital assets are subject to a complex patchwork of federal and state laws and regulations. Below is a summary of the significant areas of law

**Taxation.** At the time of this writing, tax planning for the 2018 filing season is underway. So, be aware that Federal income taxes are owed on any realized gains in the value of cryptocurrency upon the following events:

- the sale of cryptocurrency for cash;
- the purchase of goods and services with cryptocurrency; and
- the exchange of one cryptocurrency for another cryptocurrency.

Ordinary income tax is also owed for the "fair market value" of any cryptocurrency that has been mined by the taxpayer. To the extent, mining of cryptocurrency is done as a hobby activity, then the value of the cryptocurrency on the date of mining would be reported in the "other income" line of the taxpayer's Form 1040.

IRS Notice 2014-21, *Guidance on Virtual Currency* (March 25, 2014)

details that, for tax purposes, "virtual currency" (such as Bitcoin and other cryptocurrency) is treated as "property". This means that taxes are owed on any realized gain on sale. For an individual filing a federal income tax return, the gains or losses from a sale of virtual currency that was held as a "capital asset" (*i.e.*, for investment purposes) are reported on (1) Schedule D of IRS Form 1040 and (2) IRS Form 8949 (Sales and Other Dispositions of Capital Assets).

On Form 8949, the IRS requires, that the following information be disclosed for each virtual currency transaction: (1) a description of the amount and type of virtual currency sold; (2) the date acquired; (3) the date the virtual currency was sold; (4) the amount of proceeds from the sale; (5) the cost (or other basis); and (6) the amount of the gain or loss. It should be noted that the recordkeeping requirements of IRS Form 8949 can be particularly onerous for those who have



used cryptocurrency to make numerous small purchases of goods or services throughout the year. Any realized gains on cryptocurrency held for more than one year as a capital asset by an individual are subject to capital gains tax rates. Any realized gains on cryptocurrency held for one year or less as a capital asset by an individual are subject to ordinary income tax rates.



It should be mentioned that, as of this writing, the IRS has not yet provided specific guidance as to whether or not it is a taxable event for a taxpayer to retrieve, through wallet software, a free “fork” or “airdrop” of cryptocurrency. For example, individuals who held Bitcoin in certain types of software wallets as of Aug. 1, 2017, are able to use software to retrieve an equal amount of Bitcoin Cash. If the IRS specifically determines that cryptocurrency retrieved from a fork is not a taxable event, then taxable gain will not be realized until the forked cryptocurrency has been sold or exchanged. If the IRS determines that cryptocurrency received from a fork or airdrop is a taxable event, it is possible that the IRS could deem ordinary income to be realized for the “fair market value” of the coin on the date of retrieval of the cryptocurrency.

**Securities.** The Securities and Exchange Commission (SEC) has regulatory authority over the issuance or resale of any token or cryptocurrency that has the characteristics of an “investment contract.” Under Securities Act § 2(a)(1) and Securities Exchange Act § 3(a)(10), a security includes “an investment contract.”<sup>1</sup> An “investment contract” has been defined by the U.S. Supreme Court as an investment of money in a common enterprise with a reasonable expectation of profits to be derived from the entrepreneurial or managerial efforts of others.<sup>2</sup>

In making a determination as to whether a token is an “investment contract,” both the SEC and the courts look at the substance of the transaction, instead of its form.

In 1943, the U.S. Supreme Court determined that “the reach of the [Securities] Act does not stop with the obvious and commonplace. Novel, uncommon, or irregular devices, whatever they appear to be, are also reached if it be proved as matter of fact that they were widely offered or dealt in under terms or courses of dealing which established their character in commerce as ‘investment contracts,’ or as ‘any interest or instrument commonly known as a ‘security.’”<sup>3</sup> In 1990, the U.S. Supreme Court determined that “Congress’ purpose in enacting the securities laws was to regulate investments, in whatever form they are made and by whatever name they

are called.”<sup>4</sup> On September 11, 2018, the U.S. District Court for the Eastern District of New York held that a digital token can be deemed to be a security under the Howey test.<sup>5</sup>

The Chairman of the SEC has taken the position that even if a cryptocurrency token issued in an initial coin offering (ICO) has “utility,” the token can be still be deemed a security that is regulated under the Securities Act. On Feb. 6, 2018, in written

testimony to the U.S. Senate Banking Committee, the chairman of the SEC stated as follows: “Tokens and offerings that incorporate features and marketing efforts that emphasize the potential for profits based on the entrepreneurial or managerial efforts of others continue to contain the hallmarks of a security under U.S. law.”

**Commodities.** On Sept. 17, 2015, the Commodities Futures Trading Commission (CFTC) ruled that “virtual currencies” are commodities subject to CFTC regulation. The Commodities Exchange Act (CEA) provides the CFTC with enforcement jurisdiction to investigate and conduct civil enforcement action against fraud and manipulation in both cryptocurrency derivatives markets and in underlying cryptocurrency spot markets.<sup>6</sup>

On March 6, 2018, a U.S. district court upheld the authority of the CFTC under 7 U.S.C. § 9(1) to take enforcement action against a contract of sale of a virtual currency in interstate commerce.<sup>7</sup>

**Anti-Money Laundering.** Under the Bank Secrecy Act (BSA), a money services business (MSB) is subject to the federal anti-money laundering regulations of the Financial Crimes Enforcement Network (FinCEN). In addition, the Internal Revenue Service (IRS) has the authority to examine MSBs with respect to their compliance with FinCEN’s anti-money laundering regulations. A “money transmitter” is a type of MSB that is regulated by FinCEN.

On March 18, 2013, FinCEN deemed a “money transmitter” to include a virtual currency exchange and an administrator of a centralized repository of virtual currency who has the authority to both issue and redeem the virtual currency. FinCEN issued guidance that stated as follows: “An administrator or exchanger that (1) accepts and transmits a convertible virtual currency or (2) buys or sells convertible virtual currency for any reason is a money transmitter under FinCEN’s regulations, unless a limitation to or exemption from the definition applies to the person.”<sup>8</sup>

An MSB that is a money transmitter must conduct a com-

prehensive risk assessment of its exposure to money laundering and implement an anti-money laundering (AML) program based on such risk assessment. FinCEN regulations require MSBs to develop, implement and maintain a written program that is reasonably designed to prevent the MSB from being used to facilitate money laundering and the financing of terrorist activities. The AML program must (1) incorporate written policies, procedures and internal controls reasonably designed to assure ongoing compliance; (2) designate an individual compliance officer responsible for ensuring day-to-day compliance with the program and Bank Secrecy Act requirements; (3) provide training for appropriate personnel that specifically includes training in the detection of suspicious transactions; and (4) provide for independent review to monitor and maintain an adequate program.<sup>9</sup> FinCEN requires a money transmitter's anti-money laundering program to identify its customers, report suspicious activities for transfers in amounts of \$2,000 or more in a day, retain detailed records for transfers by a single customer in one day of \$3,000 or more, keep records for at least five years, and file a Currency Transaction Report for single customer transactions that are more than \$10,000 a day.

**State Money Transmitter Regulation.** Currently, in most states, a virtual currency exchange is deemed to be a money transmitter that is subject to the same state licensing and regulation requirements as other money transmitters. The State of Kansas has certain exemptions from licensing for certain types of limited virtual currency exchange activities.<sup>10</sup> A virtual currency exchange that desires to be licensed in all 50 states is subject to the following expensive licensing requirements: (i) minimum surety bond requirements that range from \$1,000 to \$500,000 per state, (ii) application fees that range from \$0 to \$5,000 per state, (iii) licensing fees that range from \$0 to \$3,750 per state, and (iv) minimum net worth requirements that range from \$5,000 to \$1,000,000. In addition, a money transmitter is required to comply with the financial disclosure and consumer compliance requirements of each state in which it does business.

## Conclusions

Blockchain technology made a public debut about a decade ago in the form of virtual currency. There continues to be an immense potential for further innovation and harnessing

blockchain technologies in our professional, business and personal lives. Practitioners and users can expect regulatory compliance issues to continue to arise with the continued expansion of blockchain technology uses and the adoption of its benefits by industries and the general public. ■

## About the Authors

The authors, **Dave Berson** and **Susan Berson**, are co-founders of Berson Law Group LLP (banktaxlaw.com). They represent entrepreneurs, blockchain and tech startups, businesses, their boards and owners, along with financial institutions. More detailed information about blockchain law can be found at: blockchainlawguide.com. Susan is also the author of "Federal Tax Litigation" (Law Journal Press 2001—updated twice a year) and served on the ABA Tax Section's Virtual Currency Subcommittee, which provides comments to the IRS about issues arising from IRS and U.S. Department of Treasury regulation and treatment of blockchain-based currencies.

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1. See 15 U.S.C. §§ 77b-77c.
2. See *SEC v. Edwards*, 540 U.S. 389, 393 (2004); *SEC v. W.J. Howey Co.*, 328 U.S. 293, 301 (1946).
3. *SEC v. C.M. Joiner Leasing Corp.*, 320 U.S. 344, 351 (1943).
4. *Reves v. Ernst & Young*, 494 U.S. 56, 61 (1990).
5. See *U.S. v. Zaslavskiy*, No.17- CR-647(RJD) (E.D.N.Y. September 11, 2018).
6. See 7 U.S.C. § 9(1) and (3).
7. See *CFTC v. CabbageTech Corp.*, No. 18-CV-361 (E.D.N.Y. March 6, 2018).
8. See FIN-2013-G001, Application of FinCEN's Regulations to Person's Administering, Exchanging or Using Virtual Currencies (March 18, 2013).
9. See 31 U.S.C. §§ 5318(a)(2) and 5318(h); 31 C.F.R. § 1022.210.
10. See Kansas Office of the State Bank Commissioner, *Regulatory Treatment of Virtual Currencies Under the Kansas Money Transmitter Act* (June 6, 2014).

