

Gathering Intelligence: *Considering issues posed by Blockchain and Smart Contracts*

With the 2017 run up in the price of bitcoin, public interest has increased in blockchain—the technology at the heart of bitcoin. Outside of the bitcoin space, this technology has the potential to make a significant impact on companies and their lawyers in the coming years. A blockchain is a distributed and digitized ledger for documenting transactions. The novelty of blockchain is that it allows for digitized transactions without the need for authentication, regulation, or oversight by a centralized third party. This technology has far reaching implications across several industries. With respect to the legal field, blockchain’s capabilities have given rise to the creation and availability of “smart contracts.” A smart contract is a software program that automatically performs contractual obligations, usually in an “if-then” format. Essentially, the software relies on blockchain to enforce pre-determined rules. For example, with respect to real property transactions, once the buyer’s payment is verified, the seller’s title to the property is automatically conveyed to the buyer and updated to reflect new ownership. The transaction is authenticated as a block in the centralized ledger that cannot be altered without consensus.

The advantages of blockchain and smart contracts are obvious: greater transparency, lower costs, and added efficiency—which makes smart contracts an increasingly popular option in areas of real estate, healthcare and securities. However, as with all new technology, smart contracts create their own share of problems. From an operational standpoint, coding errors may cause unexpected performance issues. There may be discrepancies between coding and natural language versions of a smart contract, or the contracts may perform on the basis of an inaccurate data feed. From a legal perspective, there are still fundamental issues to be resolved such as enforceability, choice of law, jurisdiction and forum selection, as well as dispute resolution. These challenges are certain to have an impact on the role of both inside and outside corporate counsel, particularly in those industries where blockchain could soon be making an impact.

Is a Smart Contract Legally Binding?

In many common law jurisdictions, a contract, to be valid, must be entered into by a natural person, or a legal person such as a corporation, with legal capacity to contract. There is also common law authority, English law, for example, that a contract cannot exist absent sufficient certainty as to the identities of the parties. Moreover, contracts are generally binding and enforceable when the parties take certain steps

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Matthew A. Moeller
The Moeller Firm LLC

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in formation of the agreement. One party makes an offer, the other party accepts, and there is consideration (or cause in Louisiana) underlying the transaction. However, in the context of smart contracts, the parties aren't necessarily practicing offer and acceptance, for they are consenting to a computer platform that outlines the if-then conditions governing the transaction. In the eyes of a court, this by itself may not create a binding agreement, in which case it may be difficult to recover damages.

What Law Governs Smart Contracts?

Last March, Arizona lawmakers amended the Arizona Electronic Transactions Act, which sanctioned the enforceability of agreements with digital signatures to include digital signatures recorded on a blockchain. The law now clearly provides that a signature secured through blockchain is considered to be an electronic signature. Furthermore, a record or contract secured through blockchain is also considered to be in an electronic form and an electronic record. Consequently, parties can seek recourse in the state court system for the breach of a smart contract. While states such as Vermont and Nevada passed laws this year aimed to bring additional clarity to blockchain firms, Arizona remains the only state so far to have cemented the enforceability of smart contracts.

Jurisdiction: Is the Area of Jurisdiction Clearly Defined?

Another potential problem for smart contracts results from blockchain's decentralized transaction system, for where the contract became final and binding can be difficult to determine. Theoretically, courts might find that parties can sue wherever validation of the transaction takes place; however, with millions validating transactions all over the country, parties could potentially be sued anywhere. This issue only emphasizes the need for a forum selection clause. A forum selection clause requires the parties agree to resolve any disputes in one particular jurisdiction. Although such clauses are usually a spot of contention as each party wants their own city as the jurisdiction selected, they decrease the risk of having to litigate in an unfamiliar or inconvenient jurisdiction. The existence of blockchain also heightens the importance of enforceability as having a court invalidate the clause potentially exposes a party to a lawsuit in the place of the opposing party's choosing.

Do Smart Contracts Have a Clear Dispute Resolution Mechanism?

If the smart contract is silent, the parties will be required to resolve any issues in state or federal court, which is often an expensive and lengthy process. If the parties add a dispute resolution clause, they can instead resolve their disputes in front of an arbitrator. Thus, parties should be sure to establish consent to arbitration. This may

be an issue in circumstances where the smart contract is entered into by a computer, is in code and/or and does not create legally binding contractual obligations under the applicable law.

Similarly, the parties should ensure that the arbitrator has some knowledge and experience with blockchain technology. Many judges, attorneys and full time mediators and arbitrators today are not familiar with this technology, much less conversant in the ins-and-outs of program complexities. Including a dispute resolution clause requiring that the arbitrator have some blockchain experience may be a benefit to both sides. Also, parties should consider having a tribunal familiar with the technology against the importance of having the dispute decided by experienced contract lawyers. There is likely to be relatively little overlap between the two, so requiring both skill sets risks restricting the pool of potential arbitrators to such an extent that the arbitration agreement becomes unworkable.

Lastly, given the distributed nature of blockchain and the operation of smart contracts, it is important to avoid satellite disputes about the applicable forum and/or procedural law. Parties should check that the law of the chosen forum does not render a smart contract illegal or unenforceable, that the disputes likely to arise are arbitrable (in some jurisdictions for example, intellectual property disputes are not arbitrable), and that the codified arbitration agreement in question will be upheld and enforced by the courts.

Smart contracts may be the future of transactions. However, the technology is in its infancy and has not been thoroughly examined by state or federal courts. The challenges sure to be faced by corporate counsel whose employers and clients move quickly to adopt blockchain as their preferred method of doing business are not entirely novel. However, the nuances and new aspects of those challenges in a smart contract world are what seem to pose the biggest challenge. Sound, adaptive legal strategies for managing those nuances and challenges will hopefully help to make the impact of smart contracts and blockchain on the corporate counsel community a positive rather than a negative. 