

BY ALAN ROSENBERG

Automatic Contracts and the Automatic Stay

A Primer on “Smart Contracts” in Bankruptcy



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As the old saying goes, a contract is only as good as the people signing it. However, with technology shrinking the global market, it is not always possible to accurately gauge the creditworthiness of those with whom we contract. To ensure the safety, security and validity of commercial transactions, contracting parties often utilize third parties, including banks, escrow agents and attorneys. Unfortunately, the inclusion of these third parties in contractual arrangements reduces transaction speeds and increases costs. Even with these added layers of protection, it is virtually impossible to determine, with any degree of certainty, whether a contract will ultimately be breached, but smart contracts might soon change all of that.

Smart contracts are loosely defined as “agreements wherein execution is automated, usually by computers.”¹ Because they are self-executing, the parties to a smart contract do not need additional parties to monitor their transactions. This promise of cost-efficiency and increased transaction speed has led industry leaders to invest in and develop specialized smart contracts for their particular needs.² From the purchase and sale of real estate³ to self-executing insurance,⁴ smart contracts are gradually gaining support in commercial settings.

Despite their benefits, the automatic, self-executing nature of smart contracts might be problematic for bankruptcy practitioners. A smart contract can inadvertently violate the automatic stay, prevent the rejection of an executory contract or unexpired lease, and cause confusion in bankruptcy court. For this reason, bankruptcy practitioners should have a basic understanding of smart contracts and how to advise clients who are parties (or potential parties) to such contracts.

What Exactly Is a Smart Contract?

Smart contracts are “self-executing contracts with the terms of the agreement between [a] buyer and seller being directly written into lines of code. Once a smart contract has been created, computer transaction protocols will execute the terms of a contract automatically based on a set of conditions.”⁵ To determine whether contractual conditions have been met, smart contracts utilize “oracles.”

Oracles are mutually agreed-upon, real-time data providers used to confirm a variety of triggering events:⁶ “Oracles can be connected, for example, to a data feed from a third party conveying the latest London Interbank Offered Rate (LIBOR), or they can be sensors that transmit temperature, humidity, or other relevant information about a location.”⁷ In fact, even Thomson Reuters (one of the largest business-publishing firms) is reportedly making some of its data feeds available to function as smart contract oracles.⁸ Although smart contracts were formally proposed more than 20 years ago, they did not gain traction in the technological community until the adoption of blockchain technology.⁹ Prior to blockchain, “the idea of smart contracts was stymied by general uncertainty, identity and transaction verification issues, and concerns that transactions would not be secure.”¹⁰ However, “[b]lockchain’s distributed ledger characteristics allow code to be embedded into a single, publicly distributed ledger where there is no need for duplication.... [T]his means that blockchain is effectively tamper-proof, which

1 Max Raskin, “The Law and Legality of Smart Contracts,” 1 *Geo. L. Tech. Rev.* 305, 306 (2017).
2 See John Ream, Yang Chu and David Schatsky, “Upgrading Blockchains: Smart Contract Use Cases in Industry,” *Deloitte Insights* (June 8, 2016), available at [deloitte.com/insights/us/en/focus/signals-for-strategists/using-blockchain-for-smart-contracts.html](https://www.deloitte.com/insights/us/en/focus/signals-for-strategists/using-blockchain-for-smart-contracts.html) (unless otherwise specified, all links in this article were last visited on May 20, 2019).
3 According to its website, “Propy is a global real estate marketplace with decentralized title registry” that “allows buyers, sellers, brokers, and escrow/title agents/notaries to come together through the utilization of a suite of smart contracts on blockchain to facilitate transactions.” See “About Propy,” available at [propy.com/about](https://www.propy.com/about).
4 Fizzy, a product released by French insurance firm AXA, provides automatic, self-executing insurance coverage for flight delays of two hours or more. According to its website, they “offer you a one-shot coverage tailored to your own flight route, with automatic compensation in case of a delay. And no exclusion.” See “About Us,” available at [fizzy.axa/en-gb/faq](https://www.fizzy.axa/en-gb/faq).

5 *Rensel v. Centra Tech Inc.*, 17-24500-CIV, 2018 WL 4410110, at *10 (S.D. Fla. June 14, 2018) (citing Tsui S. Ng, “Blockchain and Beyond: Smart Contracts,” *Bus. L. Today* (September 2017) (Am. Bar Assoc.)).
6 See “A Primer on Smart Contracts,” U.S. Commodity Futures Trading Commission, LabCFTC, Nov. 27, 2018, available at [cftc.gov/PressRoom/PressReleases/7847-18](https://www.cftc.gov/PressRoom/PressReleases/7847-18).
7 See “Smart Contracts’ and Legal Enforceability,” Cardozo Blockchain Project, Research Report No. 2, Oct. 16, 2018, available at [cardozo.yu.edu/sites/default/files/Smart%20Contracts%20Report%20%232_0.pdf](https://www.cardozo.yu.edu/sites/default/files/Smart%20Contracts%20Report%20%232_0.pdf).
8 Kevin Werbach, “Trust, but Verify: Why the Blockchain Needs the Law,” 33 *Berkeley Tech. L.J.* 487, 545 (2018) (citing Maria Terekhova, “Thomson Reuters Is Making a Blockchain Push,” *Bus. Insider* (June 15, 2017), available at [businessinsider.com/thomson-reuters-is-making-a-blockchain-push-2017-6](https://www.businessinsider.com/thomson-reuters-is-making-a-blockchain-push-2017-6)).
9 “Blockchain technology consists of a publicly distributed ledger that records transactions between multiple parties by containing a cryptographic hash of the previous transaction, a timestamp, and transaction data. These transactions are distributed and recorded across multiple computers, ensuring that there are multiple copies to prevent altering a transaction record. This allows the ledger to be easily verifiable despite being decentralized.” *Founder Starcoin Inc. v. Launch Labs Inc.*, 18-CV-972 JLS (MDD), 2018 WL 3343790, at *1, n.3 (S.D. Cal. July 9, 2018) (citing “The Great Chain of Being Sure About Things,” *The Economist* (Oct. 31, 2015), available at [economist.com/briefing/2015/10/31/the-great-chain-of-being-sure-about-things](https://www.economist.com/briefing/2015/10/31/the-great-chain-of-being-sure-about-things)).
10 Scott A. McKinney, Rachel Landy and Rachel Wilka, “Smart Contracts, Blockchain and the Next Frontier of Transactional Law,” 13 *Wash. J.L. Tech. & Arts* 313, 317 (2018).

gives smart contract users certainty that the deal will not be changed unilaterally and allows the transaction to be self-enforcing.” In short, smart contracts “are designed to ensure performance without recourse to the courts.”¹¹

Smart Contracts and the Bankruptcy Code

Automatic, self-executing contracts might be at odds with the automatic stay. Among other things, the automatic stay prevents “any act to obtain possession of property of the estate or of property from the estate or to exercise control over property of the estate,”¹² as well as “any act to collect, assess, or recover a claim against the debtor that arose before the commencement of the case.”¹³

To deter stay violations, the Code imposes harsh penalties. Moreover, “an individual injured by any willful violation of a stay ... shall recover actual damages, including costs and attorneys’ fees, and, in appropriate circumstances, may recover punitive damages.”¹⁴ As such, “‘Willfulness,’ for purposes of being subject to damages ... for violating the automatic stay, does not mean that one intends to violate specific provisions of the Bankruptcy Code, but that there is ‘deliberateness of conduct’ coupled with knowledge of the bankruptcy filing.”¹⁵

The determination of whether a computer code “willfully” violated the automatic stay is a challenging and perplexing endeavor. Without case law to guide this analysis, some degree of speculation is warranted.

Starter Interrupters in Bankruptcy

An area where smart contracts and bankruptcy are likely to intersect involves leased or financed vehicles, particularly those equipped with global positioning system/starter interrupter devices (GPS/SID). A GPS/SID is a device that “permits lenders who front money to facilitate the sale of motor vehicles to track the vehicles, and audibly reminds customers when a payment is due. If the customer fails to pay after the warning is issued, the device can disable the starter, and can help the lender find and repossess the motor vehicle.”¹⁶

While GPS/SIDs, as they currently exist, are operated manually, *i.e.*, they are not linked to smart contracts via blockchain technology, “large corporations, like Toyota, have contemplated using blockchains to enforce their contractual arrangements.”¹⁷ In fact, Porsche began integrating and testing blockchain technology in some of their vehicles, albeit for other applications.¹⁸

If GPS/SIDs are used to enforce blockchain-based smart contracts, smart-contract creditors will lose their discretionary authority regarding enforcement. In the event of a bankruptcy filing, the automatic enforcement of such contracts using a GPS/SID could constitute a violation of the automatic stay.

In *In re Hampton*,¹⁹ the U.S. Bankruptcy Court for the Eastern District of Arkansas was tasked with determining whether the use of a manually operated GPS/SID violated the automatic stay. In this case, the debtor was required to obtain and input a special code into the GPS/SID each month for her vehicle to remain operable. The lienholder would only provide the debtor with the appropriate codes after receipt of each monthly payment. However, after the debtor filed for chapter 13, she was unable to rely on the use of her vehicle. Moreover, the debtor alleged that the lienholder, among other things, failed to provide her with the appropriate monthly codes and occasionally (and perhaps inadvertently) provided the debtor with the wrong codes.

The *Hampton* court found that the GPS/SID “resulted in an overt exercise of control over estate property in violation of the automatic stay.”²⁰ However, the court primarily focused its analysis on whether the “violation was willful due to the creditor’s failure to take the necessary action, such as removing the device or ensuring that [the] Debtor always had a correct code to start her car.”²¹ Although the court was unable to find any reported bankruptcy cases involving GPS/SIDs, it noted that “there are many examples of creditors exercising control over estate property by *failing to take appropriate action to ensure that they did not violate the automatic stay.*”²² The court found that while the existence of the GPS/SID was not in itself a stay violation, the creditor’s “inaction in making sure that [the] Debtor had use of her car while in bankruptcy ... caused the automatic stay to be violated.”²³ Thus, under the *Hampton* analysis, a court may impose stay-violation damages on a party to a smart contract who fails to take appropriate actions to ensure that the smart contract does not violate the automatic stay.

Smart Solutions to Smart-Contract Issues

One way to prevent an inadvertent stay violation is through the use of oracles — more specifically, an oracle that references the federal court’s Public Access to Court Electronic Records (PACER) system for bankruptcy filings. By cross-referencing a debtor’s personal information with PACER (*i.e.*, the debtor’s full name, address and the last four-digits of the debtor’s Social Security number), an oracle can presumably identify when a party to a smart contract files for bankruptcy. If the oracle identifies a bankruptcy filing, the smart contract could be preprogrammed to stop and/or revert to human control.

Another potential solution to the stay-violation problem lies in the multi-signature verification process, more commonly known as “multisig.” “In order for a multisig smart contract to execute, more than one party must provide its private encryption keys, indicating approval to execute the previously agreed-upon transaction.”²⁴ By

11 Raskin, *supra* n.1 at 306.

12 11 U.S.C. § 362(a)(3).

13 11 U.S.C. § 362(a)(6).

14 11 U.S.C. § 362(k)(1).

15 *In re Grau*, 172 B.R. 686, 689 (Bankr. S.D. Fla. 1994) (citations omitted).

16 *Quik Find Plus Inc. v. Procon Inc.*, 3:09-CV-184, 2010 WL 2158808, at *1 (E.D. Tenn. May 25, 2010) (citing plaintiff’s amended complaint).

17 Raskin, *supra* n.1 at 333 (citing Peter Coy and Olga Kharif, “This Is Your Company on Blockchain,” *Bloomberg BusinessWeek* (Aug. 25, 2016), available at bloomberg.com/news/articles/2016-08-25/this-is-your-company-on-blockchain).

18 See Sean Williams, “This Automaker Just Became the First to Test Blockchain in Its Cars,” *Motley Fool*, March 4, 2018, available at fool.com/investing/2018/03/04/this-automaker-just-became-the-first-to-test-block.aspx.

19 *In re Hampton*, 319 B.R. 163 (Bankr. E.D. Ark. 2005).

20 *Id.* at 171.

21 *Id.*

22 *Id.* (emphasis added).

23 *Id.* at 174-75.

24 Kevin Werbach and Nicolas Cornell, “Contracts *Ex Machina*,” 67 *Duke L.J.* 313, 345 (2017).

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requiring multisig verification, a smart-contract creditor would be given an opportunity to first verify that the enforcement of its contract is not violative of the automatic stay. The creditor could then manually review its records and PACER to ensure that the smart-contract debtor is not a debtor in bankruptcy. Unfortunately, this added level of protection comes at a cost. By requiring multisig verification, the smart contract at issue will no longer be automatic and self-executing, which is presumably what the parties to a smart contract are attempting to achieve.

Conclusion

Just as a contract is only as good as the people signing it, a smart contract is only as “smart” as the programming with which it is created. While it is impossible for contracting parties to identify every potential contingency, it is safe to assume that bankruptcy is always a possibility. So, before entering into a smart contract, the parties should be certain that the contract is equipped with a mechanism that accounts for a bankruptcy filing. The failure to include such a mechanism could potentially result in the imposition of damages for violating the automatic stay. **abi**

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