

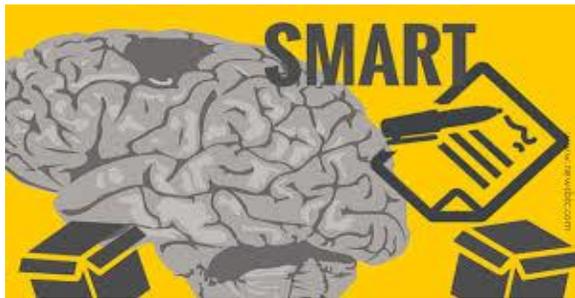
## Smart Contracts Built on the Blockchain

### Introduction

Entities interested in creating smart cultures, both internally and among their collaborative partners, need to understand smart contracts and how to deploy those smart contracts on a blockchain. Deploying these innovative new tools on a secure worldwide operating system promises to revolutionize business and government.

### Smart Contracts

Smart contracts reside on the cloud as code and self-execute when a triggering event occurs. Online bill payment systems utilize smart contracts. The due date of a bill triggers automatic payment of the bill, electronically, by executing prior instructions. Smart contracts leverage software to increase efficiency and productivity by automating workflow. The potential uses of smart contracts are legion, and limited only by the imagination of the drafters and, importantly, the appetite for risk of those entering into such agreements. Deploying smart contracts on a secure blockchain reduces those risks exponentially.



### Blockchain

Blockchains themselves rest on a secure distributed ledger that enables the use of smart contracts. That ledger creates immutable records of each transaction. As append-only databases these ledgers create the perfect audit trail, ensure transparency and accountability and, overtime, become virtually un-hackable. Bitcoin and other crypto currencies reside on such ledgers.



### Emerging Worldwide Operating System

Intrigued by the value of the blockchain, businesses and governments are exploring the use of blockchain style ledgers as secure, worldwide operating systems. Multiple sectors of the economy, ripe for digital disruption, appear poised to launch innovative versions of these new WWOS in an effort to increase efficiency, productivity, security and transparency. These include sectors as diverse as finance, government, real estate, medicine and legal marijuana growers.

Two big time players in this space are the R3 Consortium and the state of Delaware. Made up of 19 different members, all banks, the R3

Consortium controls a research lab that recently completed the origination, funding and payment of [Syndicated Loan](#) on a private blockchain.<sup>1</sup> In 2016 Delaware launched the [Delaware Blockchain Initiative](#) whereby the state intends to record all government data on a state controlled blockchain, to issue, track and update UCC filings and, ultimately, issue, record and track stock ownership in Delaware Corporations.<sup>2</sup>

## Smart Contracts on these WWOS

Deployed via distributed ledgers smart contracts harken the wide spread use of these new, secure worldwide operating systems on the web. Rather than a disparate collection of hackable information the worldwide web, informed by these innovative new WWOS, will become a dynamic, secure and efficient marketplace for information and ideas exchanged via smart contracts. From a public and corporate governance perspective, smart contracts written

on the blockchain promise a revolution akin to those triggered by the signing of the Declaration of Independence and the creation the corporation. As secure public and private versions of these WWOS emerge the economic benefit of improved workflows, on a global scale, will benefit all of humanity just as the emergence of the worldwide web did over the past 30+ years.

## Conclusion

The impact of these WWOS on global commerce cannot be understated. No sector of the economy, including the AEC industry, will be spared the digital disruption associated with the emergence of these powerful new tools. Contact Smart Built Cultures today to learn more!

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<sup>1</sup> Financial Institutions Move Closer to Realizing a Blockchain Solution for Syndicated Loans, Ipreo, March 30, 2017, accessed May 1, 2017 <http://www.prnewswire.com/news-releases/financial-institutions-move-closer-to-realizing-a-blockchain-solution-for-syndicated-loans-300431763.html>

<sup>2</sup> Delaware Blockchain Initiative: Transforming the Foundational Infrastructure of Corporate Finance, Tinianow, Andrea and Long, Caitlin, March 16, 2017, accessed May 1, 2017 <https://corpgov.law.harvard.edu/2017/03/16/delaware-blockchain-initiative-transforming-the-foundational-infrastructure-of-corporate-finance/>