

# Beyond Bitcoin: The Potential of Distributed Ledger Technology (Part 1)

**Morgan Lewis**

Article By

[Peter M. Watt-Morse](#)

[Cindy L. Dole](#)

[Morgan, Lewis & Bockius LLP](#)

[Sourcing @ MorganLewis Blog](#)

- [Communications, Media & Internet](#)
- [Corporate & Business Organizations](#)
- [All Federal](#)

Wednesday, September 14, 2016

“Blockchain”—the technology underlying the virtual currency Bitcoin—has become a hot topic in the business world. Proponents claim that Blockchain has the potential to be as disruptive to business as the internet, and businesses in many industries are investing significant resources into exploring and developing applications for it.

In Part 1 of our two-part post on this subject, we’ll provide an introduction to the technology, its potential applications, and organizations that have been formed to foster it (similar to organizations formed during the development of the internet).

## Background

Blockchain is a distributed ledger system that creates digital record of ownership of an asset that can be used on a peer-to-peer network of computers. Each “block” contains a record with a unique cryptographic signature that is time stamped and contains a link to a “chain” of prior blocks. Each subsequent block relies on the cryptography of the previous block in the chain to ensure the integrity of the entire chain. No block can be changed without breaking the chain, and the distributed ledger system provides a record of the sequence of events. The chain provides a complete history of a sequence of transactions that is verifiable and auditable.

Thus, a Blockchain is designed to establish accountability and transparency via a

computer program—eliminating the need for a trusted third party such as a central bank or clearing house to verify the transaction.

## **Applications**

Financial companies have been leaders in promoting distributed ledger technology because of the potential savings in settling transactions and other back-office functions without the need for third-party verification. Proponents see many other uses for the technology, such as the development of letters of credit that automatically initiate payment upon arrival of a shipment, investment vehicles that provide automatic returns without the need for human intervention, and automatic and distributed payment systems for intellectual property such as copyrighted music. Proponents believe that if, like the internet, the technology is widely adopted, there are limitless potential applications.

## **Organizations**

The [Chamber of Digital Commerce](#), a trade association representing the digital asset and Blockchain industry, was formed in July 2014. The Chamber has grown to include start-ups, major technology companies, financial institutions, investment firms, and others that are looking to support and grow distributed ledger technology. The trade association hosts a number of working groups and events relating to digital ledger technology, and tracks the regulatory landscape in this space.

More recently, many leading technology companies have joined the [Hyperledger Project](#), which has amassed more than 80 members since its inception in December 2015 and has been averaging two new members per week. The Hyperledger Project, led by The Linux Foundation, is a collaborative cross-industry effort to advance Blockchain technology by identifying and addressing important features for a cross-industry open standard for distributed ledgers.

Copyright © 2019 by Morgan, Lewis & Bockius LLP. All Rights Reserved.

**Source URL:** <https://www.natlawreview.com/article/beyond-bitcoin-potential-distributed-ledger-technology-part-1>