

Cryptocurrencies & Blockchain: Legal and Ethical Issues You Need to **Know to Help Clients**

Edward H. Block eblock@foley.com

Jason B. Freeman

Jason@freemanlaw-pllc.com





Harvard Business Review



TECHNOLOGY

The Truth About Blockchain

GUEDDA HASSAN MOHAMED

O Loading...

by Marco Iansiti and Karim R. Lakhani FROM THE JANUARY-FEBRUARY 2017 ISSUE

🗐 SUMMARY 🕒 SAVE 🖆 SHARE 📕 TEXT SIZE 🔓 PRINT \$8.95 BUY COPIES

ontracts, transactions, and the records of them are among the defining structures in our economic, legal, and political systems. They protect assets and set organizational boundaries. They establish and verify identities and chronicle events. They govern interactions among nations, organizations, communities, and individuals. They guide managenial and social action. And yet these critical tools and the bucesucracies formed to manage them have not kept up with the economy's digital transformation. They're like a rush-hour guidlock trapping a Formula 1 arcs car. In a digital world, the way we regulate and maintain administrative control has to change.

VIEW MORE FROM THE January-February 2017 Issue



Blockchain promises to solve this problem. The technology at the heart of bitcoin and other virtual currencies, blockchain is an open, distributed ledger

Blockchain, what is it?

The underlying technology that allows cryptocurrencies to operate which is a decentralized distributed database with trust Database: Stores data (can be any type of data)

Blockchain

- Financial data
- Personally Identifying Information
- Contracts
- Any digital asset

Decentralized: Authority is transferred to a network, not a single database

Distributed: Data is stored in multiple locations

- Each entry is "chained" to the whole

Trust: Cryptographic security

- Built on public key infrastructure (PKI)
- Distributed nature means to modify without authorization



Think of it like a giant excel spreadsheet

- shared on the internet
- can only be added to
- nothing can be deleted once written.
- each transaction has a sender, a recipient, and data

Trust

Data is semi-public

- Write once, read many

Uses public-key cryptography to ensure integrity and confidentiality

- Anyone can view and verify your signature
- Only you can see the contents

Distributed Database

No central authority Infeasible to modify all copies of the data at the same time

"Blocks"

Someone wants to transfer something to someone else (cryptocurrency, property, contract)

"Blocks"

The first miner to determine validity is rewarded

"Chains"

Addresses "double-spending" problem

Lawyers Get Ready, There's a Blockchain Coming

BY DENNIS KENNEDY AND GWYNNE MONAHAN ON JANUARY 13, 2017 ·

Lawyers have an ethical requirement of competence. Comment 8 to Rule 1.1 of the Model Rules

Get even more resources to help you practice law better. Join the ABA Law Practice Division.

Learn More

SPONSORED BY

THIS ISSUE OF LP TODAY

Not logged in Talk Contributions Create account Log in

Q

Search Wikipedia

[hide]

Read Edit View history

WikipediA

Smart contract

Proponent

associated

1 History 2 Implen

3 Replica 4 Securit 5 In popu

6 See als 7 Refere

Histor

The phras "Formalizi

1996 Szat

traditional

With the p Foundatio

internation

Net

No Szabo in:

Article Talk

Main page Contents Featured content Current events Random article Donate to Wikipedia Wikipedia store

| Interaction | |
|-------------------|---|
| Help | |
| About Wikipedia | |
| Community portal | |
| Recent changes | |
| Contact page | |
| Taala | |
| 10015 | |
| What links here | |
| Related changes | |
| Upload file | |
| Special pages | |
| Permanent link | |
| Page information | |
| Wikidata item | |
| Cite this page | |
| Print/export | |
| Create a book | |
| Download as PDF | |
| Printable version | |
| Languages | ø |
| Deutsch | |
| Español | |
| Francais | |
| 하국어 | |
| Italiano | |
| 日本語 | |
| Português | |
| Русский | |
| | |

- This article possibly contains original research. (December 2016)
- This article may be confusing or unclear to readers. (November 2016)

A smart contract is a computer protocol intended to digitally facilitate, verify, or enforce the negotiation or performance of a contract. Smart contracts allow the performance of credible transactions without third parties. These transactions are trackable and irreversible.^[1] Smart contracts were first proposed by Nick Szabo, who coined the term, in 1994.^[2]

> A smart contract is a computer protocol intended to digitally facilitate, verify, or enforce the negotiation or performance of a contract. Smart contracts allow the performance of credible transactions without third parties.

16,^[3] and then later reworked as veen strangers on the Internet. In mimate paper-based ancestors. stitute a sharp improvement over d for example by the Ethereum

and to reduce other transaction costs

ther arbitration method, especially for

Q

Free Trial

Online Training Top Content

- Lab
- Articles
- Guides
- Interviews
- Job Listings
- Q&A
- Hackathon
- Advertising Post a job Write for us Members Guidelines Policy
- Feedback
- Contact
- About

🖌 f in 🖸

What are Smart Contracts?

Smart contracts help you exchange money, property, shares, or anything of value in a transparent, conflict-free way, while avoiding the services of a middleman.

The best way to describe smart contracts is to compare the technology to a vending machine. Ordinarily, you would go to a lawyer or a notary, pay them, and wait while you get the document. With smart contracts, you simply drop a bitcoin into the vending machine (i.e. ledger), and your escrow, driver's license, or whatever drops into your account. More so, smart contracts not only define the rules and penalties around an agreement in the same way that a traditional contract does, but also automatically enforce those obligations.

An option contact between parties is written as code into the blockchain. The individuals involved are anonymous, but the contact is the public ledger.

A triggering event like an expiration date and strike price is hit and the contract executes itself according to the coded terms.

Regulators can use the blockchain to understand the activity in the market while maintaining the privacy of individual actors' positions

Not logged in Talk Contributions Create account Log i

a public key infrastructure

WIKIPEDIA The Free Encyclopedia

Main page

Current events

Random article

Donate to Wikipedia

Contents Featured content

Public key infrastructure

From Wikipedia, the free encyclopedia

Article Talk

In crypto

of certific

The PKI

request.

An entity

1 Desig

2 Metho

2.1

2.2

2.3

2.4

3 Histor

4 Uses

5 Open

6 Critici

7 See a

8 Refer

Desig

Public ke

A public

securely

A PKI co

A cer

A rec

A cer

A cer

A public key infrastructure (PKI) is a set of roles, policies, and procedures needed to create, manage, distribute, use, store, and revoke digital certificates and manage public-key encryption. The purpose of a PKI is to facilitate the secure electronic transfer of information for a range of network activities such as e-commerce, internet banking and confidential email. It is required for activities where simple passwords are an inadequate authentication method and more rigorous proof is required to confirm the identity of the parties involved in the communication and to validate the information being transferred ^[1]

עברית

A public key infrastructure (PKI) is a set of roles, policies, and procedures needed to create, manage, distribute, use, store, and revoke <u>digital certificates</u> and manage public-key encryption. The purpose of a PKI is to facilitate the secure electronic transfer of information for a range of network activities such as e-commerce, internet banking and **confidential email.** It is required for activities where simple passwords are an inadequate authentication method and more rigorous proof is required to confirm the identity of the parties involved in the communication and to validate the information being transferred.

Read Edit View history Search Wikipedia

Q

which map public keys to entities,

Read Edit View history

Search Wikipedia

Q

Article Talk

WIKIPEDIA The Free Encyclopedia

Main page Contents Featured content Current events Random article Donate to Wikipedia Wikipedia store

Interaction

Tools

Help About Wikipedia Community portal Recent changes Contact page

What links here Related changes Upload file Special pages Permanent link Page information Wikidata item Cite this page

Print/export

Languages

Create a book Download as PDF Printable version

ø

العربية Български Čeština Cymraeg Deutsch Español Euskara فارسع Français 한국어 Bahasa Indonesia Italiano עברית

Public key infrastructure

From Wikipedia, the free encyclopedia

A public key infrastructure (PKI) is a set of roles, policies, and procedures needed to create, manage, distribute, use, store, and revoke digital certificates and manage public-key encryption. The purpose of a PKI is to facilitate the secure electronic transfer of information for a range of network activities such as e-commerce, internet banking and confidential email. It is required for activities where simple passwords are an inadequate authentication method and more rigorous proof is required to confirm the identity of the parties involved in the communication and to validate the information being transferred.[1]

Diagram of a public key infrastructure

ertificates which map public keys to entities,

Enter symbol, name or keyword

Search

7 Major Companies That Accept Cryptocurrency

January 31, 2018, 09:56:10 AM EDT By Due.com

OUR BUSINESSES

Shutterstock photo

Digital currency, or cryptocurrency, is becoming more talked about and well known to the general public as time passes. In addition, increasing numbers of companies are accepting it as a form of payment for goods and services every day.

There are several different kinds of cryptocurrency that businesses may accept as payment for goods and

services. Although not all do at the present, there are more than 7 companies that accept cryptocurrency.

1. Overstock

In August 2017, Overstock.com announced their acceptance of cryptocurrencies as a form of payment for goods they sell. They will take not only Bitcoin, but Ethereum, Litecoin, Dash, and Monero as well.

They utilize a digital asset exchange company called ShapeShift to complete transactions. It converts currencies through blockchain in seconds without an account having to be set up.

Most Popular Highest Rated

- Medical Marijuana, Inc. and Subsidiary Kannaway® Announce March 2018
- World Mahjong Completes Acquisition of Cryptocurrency Mining
- SunContract Platform Released -Disrupting the Energy Sector
- Tesla Q1 2018 Vehicle Production and Deliveries
- Coupa Teams Up with the San Francisco Giants as a Proud Sponsor

Enter symbol, name or keyword

Search

7 Major Companies That Accept Cryptocurrency

January 31, 2018, 09:56:10 AM EDT By Due.com

OUR BUSINESSES

Shutterstock photo

Digital currency, or cryptocurrency, is becoming more talked about and well known to the general public as time passes. In addition, increasing numbers of companies are accepting it as a form of payment for goods and services every day.

There are several different kinds of cryptocurrency that businesses may accept as payment for goods and

services. Although not all do at the present, there are more than 7 companies that accept cryptocurrency.

1. Overstock

In August 2017, Overstock.com announced their acceptance of cryptocurrencies as a form of payment for goods they sell. They will take not only Bitcoin, but Ethereum, Litecoin, Dash, and Monero as well.

They utilize a digital asset exchange company called ShapeShift to complete transactions. It converts currencies through blockchain in seconds without an account having to be set up.

Most Popular Highest Rated

- Medical Marijuana, Inc. and Subsidiary Kannaway® Announce March 2018
- World Mahjong Completes Acquisition of Cryptocurrency Mining
- SunContract Platform Released -Disrupting the Energy Sector
- Tesla Q1 2018 Vehicle Production and Deliveries
- Coupa Teams Up with the San Francisco Giants as a Proud Sponsor

| BUY BITCOIN | BUYING GUIDES 🗸 | MINING GUIDES \sim | WALLET REVIEWS $$ | NEED HELP? V | Q | |
|-------------|-----------------|----------------------|-------------------|--------------|---|--|
| | | | | | | |

YOU ARE AT: Home » Bitcoin Values » Who Accepts Bitcoins As Payment? List of Companies, Stores, Shops

Who Accepts Bitcoins As Payment? List of Companies, Stores, Shops

By JONAS CHOKUN 🛛 🥺 932 Comments

Last updated on March 15th, 2018 at 01:52 pm

FIND THE BEST PLACE TO BUY BITCOINS

Google play

WordPress.com – An online company that allows user to create free blogs
Overstock.com – A company that sells big ticket items at lower prices due to overstocking
Microsoft – Users can buy content with Bitcoin on Xbox and Windows store
Virgin Galactic – Richard Branson company that includes Virgin Mobile and Virgin Airline
Expedia.com – Online travel booking agency
1-800-FLOWERS.COM – United States based online floral and gift retailer and distributor
Dell – American privately owned multinational computer technology company
Wikipedia – The Free Encyclopedia with 4 570 000+ article
Tesla – The car company
Whole Foods – Organic food store (by purchasing gift card from Gyft)

PRESS

WHY FREEMAN LAW PRACTICE AREAS *

ATTORNEY BIOS ≈ FREEMAN LA

FREEMAN LAW BLOG CONTACT US

Contact Us

Initial Coin Offerings ("ICO") Regulation

🖋 JASON FREEMAN AND SPENCER BANKS / 🋗 APRIL 3, 2018 / 오 LEAVE A COMMENT / PRINT NOW

f 💟 📴 in

HOME

| CONTACT US |
|--|
| Name: |
| Email: |
| Contact Number: |
| Please provide a brief description of your inquiry |
| SEND |

Cryptocurrency[1] regulation has evolved into a complex patchwork. There is currently no central federal regulator; instead, several agencies have taken an active role in developing the regulatory framework—though not all regulators have taken consistent approaches in their classification of cryptocurrency and related investment vehicles. This regulatory landscape can present challenges for companies seeking to employ virtual currency instruments. Perhaps nowhere is this more evident than the ICO market.

In a hearing before the Senate Committee on Banking, Housing and Urban Affairs on February 6th, both Jay Clayton, chairman of the SEC, and J. Christopher Giancarlo, chairman of the CFTC, testified about efforts to regulate Initial Coin Offerings ("ICOs"). Both affirmed that their agency would regulate it.[i] This article looks closer at the statements of both the SEC and the CFTC and educates the reader on recent developments.

What is an ICO?

A TAX TOPICS

Bitcoin and Beyond: The Reality of Taxing and Regulating Virtual Currency

By Jason B. Freeman, JD, CPA | Column Editor

itcoin and other virtual currencies have become a growing part of our modern economy. Although their future remains a source of uncertainty – they could, after all, become anothing from the future of finance Nonetheless, major retailers like Overstock, Microsoft and Amazon have jumped on board, accepting Bitcoin in some form or fashion – either directly or through an industry of gift card providers that serve as a go-between for exchanging virtual currency – lending number of contexts. Virtual currencies, after all, bear characteristics of both property and currency. The IRS, for its part, has opted to treat Bitcoin as property, much like stock or real estate. This characterization appears in line with the position taken by the Commodity Futures Trading Commission (CFTC), which characterizes Bitcoin and other virtual currencies as "commodities," but seems in tension with the U.S. Treasury Department's Financial Crimes Enforcement Network's (FinCEN) position that virtual currencies are more akin to (or at least a substitute for) real currencies for purposes of regulating "money transmitters." Perhaps the relevant principle at play here is that regulators are likely to take the view that brings virtual currency within their purview and, of course, it is not necessary that federal, state or foreign jurisdictions take consistent stances.

The Basic Tax Approach

The use of convertible virtual currency like Bitcoin can have "real" federal tax implications.

Bitcoin, Blockchain and the Revolution to Come

Tickets are selling fast. Register for Consensus today

Cryptos Are Commodities, Rules US Judge In CFTC Case

| Bitcoin | \$8,134.76 + | | |
|--|---------------------|--|--|
| Ethereum | \$516 + | | |
| Bitcoin Cash | \$770.73 + | | |
| Litecoin | \$128.22 + | | |
| XRP | \$0.6651 + | | |
| 1 Do Not Buy Bitcoin The smartest bitcoin investors putting their money here inste crowdebility.com | are S | | |
| 2 DoubleTree Suites Austin \$214 Austin Hilton.com | by Hilton | | |
| 3 AIBITTECH Pre-ICO Bonus 50% - The Best ICO in the World | | | |
| i ne complete ecosystem of | \bigcirc | | |

FinCEN Fines BTC-e Virtual Currency Exchange \$110 Million for Facilitating Ransomware, Dark Net Drug Sales

BTC-e July 26 Press Release FINAL1.pdf

108.12 KB

Contact: Steve Hudak 703-905-3770

Immediate Release: July 27, 2017

Treasury's First Action Against a Foreign-Located Money Services Business

Where's Blockchain headed?

Internet, IT & e-Discovery Blog

Get Ready for Artificial Intelligence (AI) in the middle of Blockchain!

POSTED BY PETER S. VOGEL ON 19 MAY 2017 POSTED IN ECOMMERCE

The eCommerceTimes column described combining "AI with blockchain allows for the

| | | | | | THE Unit | ed States | Welcome [IBM Sign in / Register] |
|--|------------------------|----------|----------|----------------|----------|-----------|------------------------------------|
| IBM. | Industries & solutions | Services | Products | Support & down | loads | Му ІВМ | Search for: |
| News room News room > News releases > News room IBM Watson Health Announces Collaboration to Study the Use of Blockchain Technology for Secure Exchange of Healthcare Data | | | | | | | |
| aimed at defining a secure, efficient and scalable exchange | | | | | | | |

of health data using blockchain technology. *IBM and the* FDA will explore the exchange of owner mediated data from several sources, such as Electronic Medical Records, clinical trials, genomic data, and health data from mobile devices, wearables and the "Internet of Things." The initial focus will be on oncology-related data.

NEWS & ANALYSIS AS OF APRIL 16, 2018

Blockchain > Uniform Commercial Code (UCC)

+ Follow

Search

Tickets are selling fast. Register for Consensus today!

Arizona's Governor Signs Latest Blockchain Bill Into

Law

| Bitcoin | \$8,064.32 + |
|--------------|--------------|
| Ethereum | \$515.19 + |
| Bitcoin Cash | \$768.54 + |
| Litecoin | \$128.04 + |
| XRP | \$0.6616 + |

Internet, IT & e-Discovery Blog

Blockchain insurance promises faster claims payments and cheaper coverage!

POSTED BY PETER S. VOGEL ON 20 MARCH 2018 POSTED IN ECOMMERCE

Insurance.com reported that Allstate Insurance is optimistic that "Blockchain has the

ABOVE THE LAW

INTELLECTUAL PROPERTY

How Blockchain Just May Transform Online Copyright Protection

When it comes to online copyright protection and enforcement,

BlGtoken

Claim your data

WIPO WORLD INTELLECTUAL PROPERTY ORGANIZATION

| IP Services Policy Cooperation Knowledge About IP About WIP | Search WIPO |
|---|-------------|
|---|-------------|

Home > About IP > WIPO Magazine > 2018 > 1/2018

WIPO | MAGAZINE

Blockchain and IP law: a match made in crypto heaven?

February 2018

By Birgit Clark, Baker McKenzie, London, United Kingdom

Blockchain and related distributed ledger technologies have been a hot topic

How Stock Exchanges Are Experimenting With Blockchain Technology

1) Ameritrade

Contributor: Prableen Bajpai Stocks, Technology, Blockchain

June 12, 2017, 08:50:48 AM EDT By Prableen Bajpai

Internet, IT & e-Discovery Blog

Private Blockchains may not be secure!

POSTED BY PETER S. VOGEL ON 12 MAY 2017 POSTED IN CYBER; ECOMMERCE

Coindesk recently published a blog which "attacks the idea that true immutability can be achieved in blockchain systems, arguing a more relative definition of this feature better encapsulates what's the technology can achieve." The May 9, 2017 article entitled "The

Current Blockchain Examples

- Diamond trade
- Realty chain of title
- Healthcare information
- International trade oil, steel
- Luxury goods
- Consumer goods farm to table, produce recall

Internet, IT & e-Discovery Blog

Blockchain news -Legal risks are one of the 5 myths of bitcoin (which is powered by Blockchain)!

POSTED BY PETER S. VOGEL ON 19 DECEMBER 2017 POSTED IN ECOMMERCE

Business Data & Research

Consensus

Search

lickets are selling fast. Register for Consensus today!

Why Sweden is Taking a Chance on Blockchain Land Registry

| Bitcoin | \$8,073.65 + |
|--------------|--------------|
| Ethereum | \$513.8 + |
| Bitcoin Cash | \$766.72 + |
| Litecoin | \$128.02 + |
| XRP | \$0.6595 + |

Tesla's Production Problems Aren't Going Anywhere

Tesla's production challenges and financial...

Malaysia's Petrochemical Industry Is Booming

Rising demand for downstream hydrocarbons...

Energy investors rave about this new investment resource And it's 100% FREE...

Home / Energy / Energy-General

DEPT

More Info

Blockchain Tech Could Disrupt The Oil Industry

By Editorial Dept - Aug 19, 2017, 11:59 PM CDT

MOST POPULAR

Disaster Hits Canada's Oil Sands

Why Oil Prices Just Rallied To \$70

Oil Prices Surge After Houthi Missile Attacks On Riyadh, Aramco Facilities

Russia Wants To Drop Dollar For Oil Payments

Why Is U.S. Oil So Cheap?

Blockchain Opportunities

- Real Estate
- Sports, Media & Entertainment
- Advertising
- Retail
- Supply Chain Management

Justice for All

Home What is It How It works

A Judicial System for the Internet Era

Try Demo

What Is It?

Justice without lawyers or courthouses

CROWDJURY

 \bigcirc

Crowdjury is an online platform that crowdsources judicial proceedings: filing of complaints, evaluation of evidence, trial and jury verdict.

Español

How It Works

Wrongdoing

Matt, a civil servant, discovers that this boss, the Secretary, takes bribes from government contractors.

Fact Checking

Facts are checked by self-selected experts from the crowd.

Report

Matt reports the offense in CrowdJury.org.

Trial

The trial takes place online and is broadcasted to the public. Any user can interrogante the defendant and comment on the evidence.

Evidence Discovery

Evidence (photos, docs, videos) are stored in a secure vault. Other witnesses provide additional evidence.

Verdict

A collective jury of randomly selected users decides whether the defendant is guilty or not.

Compensation

All who helped by reporting the wrongdoing, gathering evidence, checking facts and voting as jurors are rewarded in Bitcoin.

Absolute transparency

Evidence and jury decisions are recorded in the blockchain and are fully auditable.

Where CrowdJury can help

Car Insurance

0 0

Software Patent Dispute

Academy

Cryptocurrencies & Blockchain: Legal and Ethical **Issues You Need to Know to Help Clients**

Edward H. Block

eblock@foley.com

Jason B. Freeman

Jason@freemanlaw-pllc.com

