

Investment Management Regulatory Update

Introduction to Blockchain, ICOs and Their Regulation

Gregory J. Nowak | Partner, Financial Services & Technology | Pepper Hamilton LLP

Tom Garrambone | Founding Partner | Tetras Capital

Tim Kuhman | General Counsel and VP of Compliance | Kingdom Trust

David Madden | Business Development Director | Trident Trust

October 24, 2017

Pepper Hamilton LLP
Attorneys at Law

Presentation Overview

- ▶ Blockchain and Digital Currencies
 - Blockchain Creation
 - Key Characteristics
- ▶ Bitcoin
- ▶ Emerging Economies
- ▶ Real Applications
- ▶ Cryptocurrencies
 - Initial Coin Offerings
 - SEC's Report on Investigation
 - Securities Law Issues with ICO's
- ▶ Questions and Answers

Blockchain and Digital Currencies –

What are they?

How do they work?

How are they taxed?

What are the risks?

Introduced October 2009

bitcoin

Bitcoin: A Peer-to-Peer Electronic Cash System

Satoshi Nakamoto
satoshin@gmx.com
www.bitcoin.org

Abstract. A purely peer-to-peer version of electronic cash would allow online payments to be sent directly from one party to another without going through a financial institution. Digital signatures provide part of the solution, but the main benefits are lost if a trusted third party is still required to prevent double-spending. We propose a solution to the double-spending problem using a peer-to-peer network. The network timestamps transactions by hashing them into an ongoing chain of hash-based proof-of-work, forming a record that cannot be changed without redoing the proof-of-work. The longest chain not only serves as proof of the sequence of events witnessed, but proof that it came from the largest pool of CPU power. As long as a majority of CPU power is controlled by nodes that are not cooperating to attack the network, they'll generate the longest chain and outpace attackers. The network itself requires minimal structure. Messages are broadcast on a best effort basis, and nodes can leave and rejoin the network at will, accepting the longest proof-of-work chain as proof of what happened while they were gone.

New Digital Asset



bitcoin

Peer to Peer version of
electronic cash transfer

Relies on **cryptographic**
proof rather than trust

Winners of computational
race earn Bitcoin

No central
banking authority

Nodes agree/verify the
history of the chain

Solves the double-
spend problem

Block Creation

bitcoin

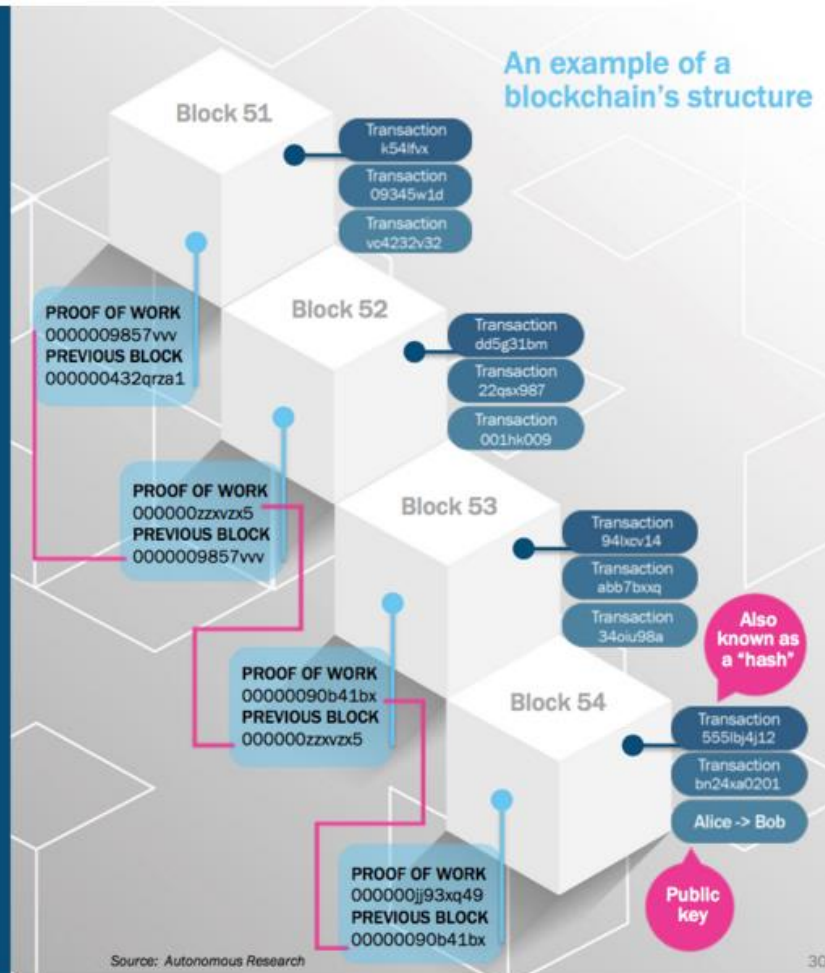
Blockchains control information and avoid duplication.

How Blockchain Transactions Work

Blockchains solve two major challenges for digital transactions, controlling the information and avoiding duplication, at once.

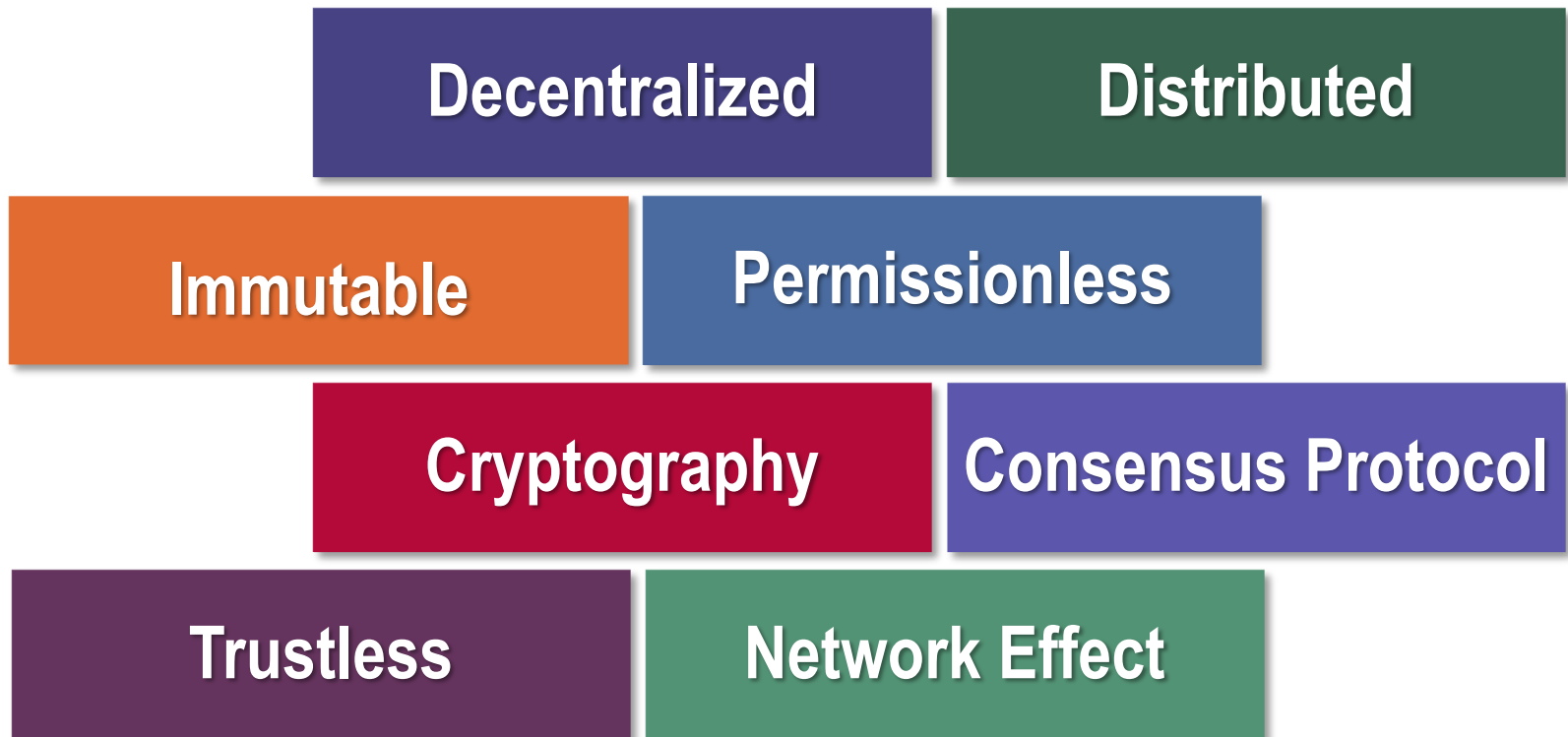
There are four major pieces of information in a block:

1. An ID referred to as a "hash" or consensus identifier. In the example below, it's called "proof of work." This is a random set of encrypted numbers.
2. The hash number from the previous block, which sets the chronological order in the ledger.
3. Transactions that are included in the block. Can be one, but can also be thousands of transactions.
4. Public key (identities) for the sender and receiver to identify the transfer of information.



Key Characteristics

bitcoin



Lessons from Bitcoin Blockchain

new DLT economy/ecosystems

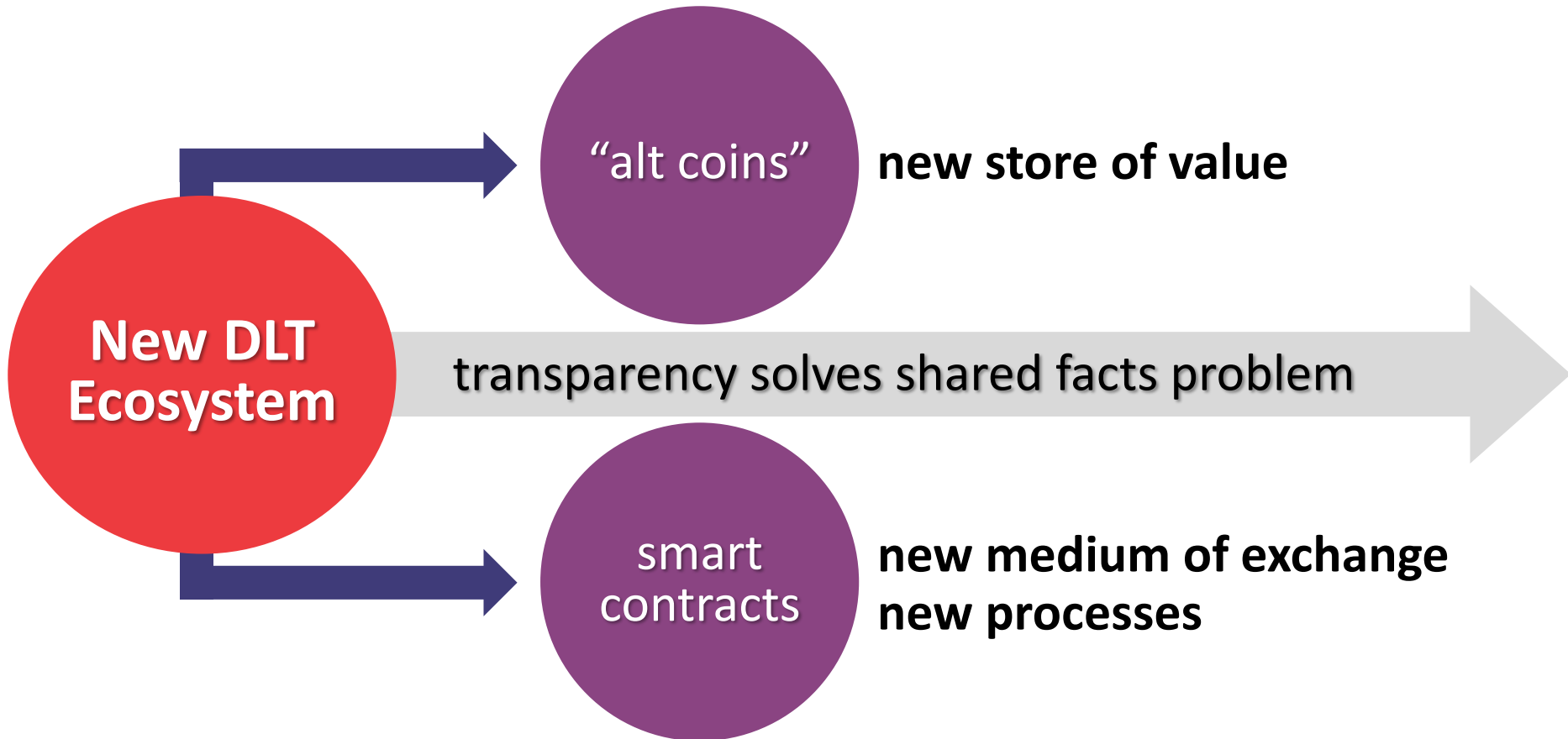
The **Internet** optimized
existing processes...



Distributed Ledger Technology...
.....a new “database”
and information sharing paradigm

Emerging Economies and Use Cases

new DLT economy/ecosystems



Smart Contracts

new DLT economy/ecosystems

Smart contracts platforms **enable self-executing rules** and business logic to be written in software code **deployed on distributed ledger technology**

Smart Contract Characteristics

new DLT economy/ecosystems

reduce the human
factor / processes

enable embedding
of contracts

multiple steps and
multiple parties

interact with
external data feeds

no central
counterparty

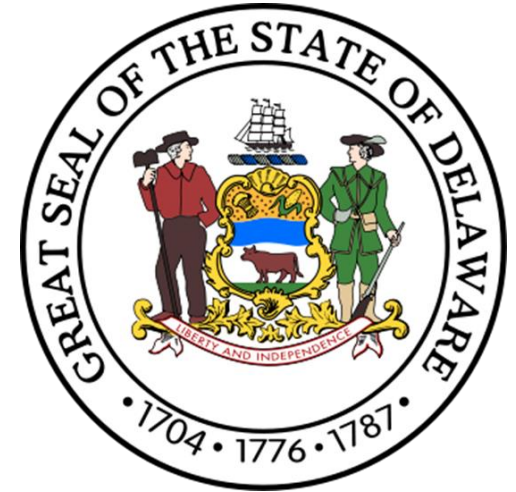
transparent

self-
executing



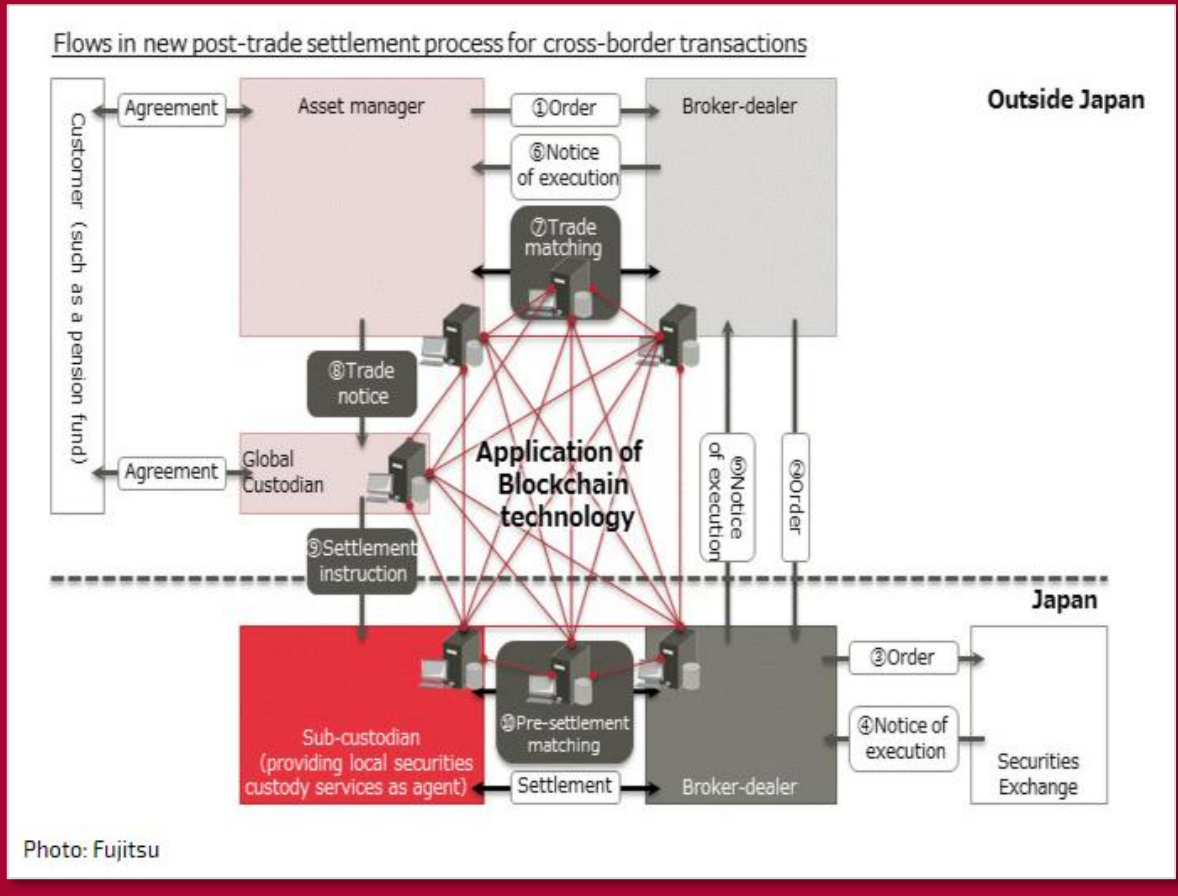
Real-World Applications

- ▶ Identity
- ▶ Provenance / Supply Chain
- ▶ Finance / Trade Settlement
- ▶ Corporate Governance
- ▶ Healthcare / Clinical Trials
- ▶ Energy
- ▶ Prediction Markets
- ▶ Initial Coin Offerings / Token Sales



Challenges Today













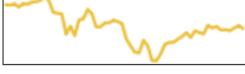




Complexity of Post Trade Settlement Process and How Blockchain Connects It All



Cryptocurrency/Altcoins

CryptoCurrency Market C x

Secure | <https://coinmarketcap.com>

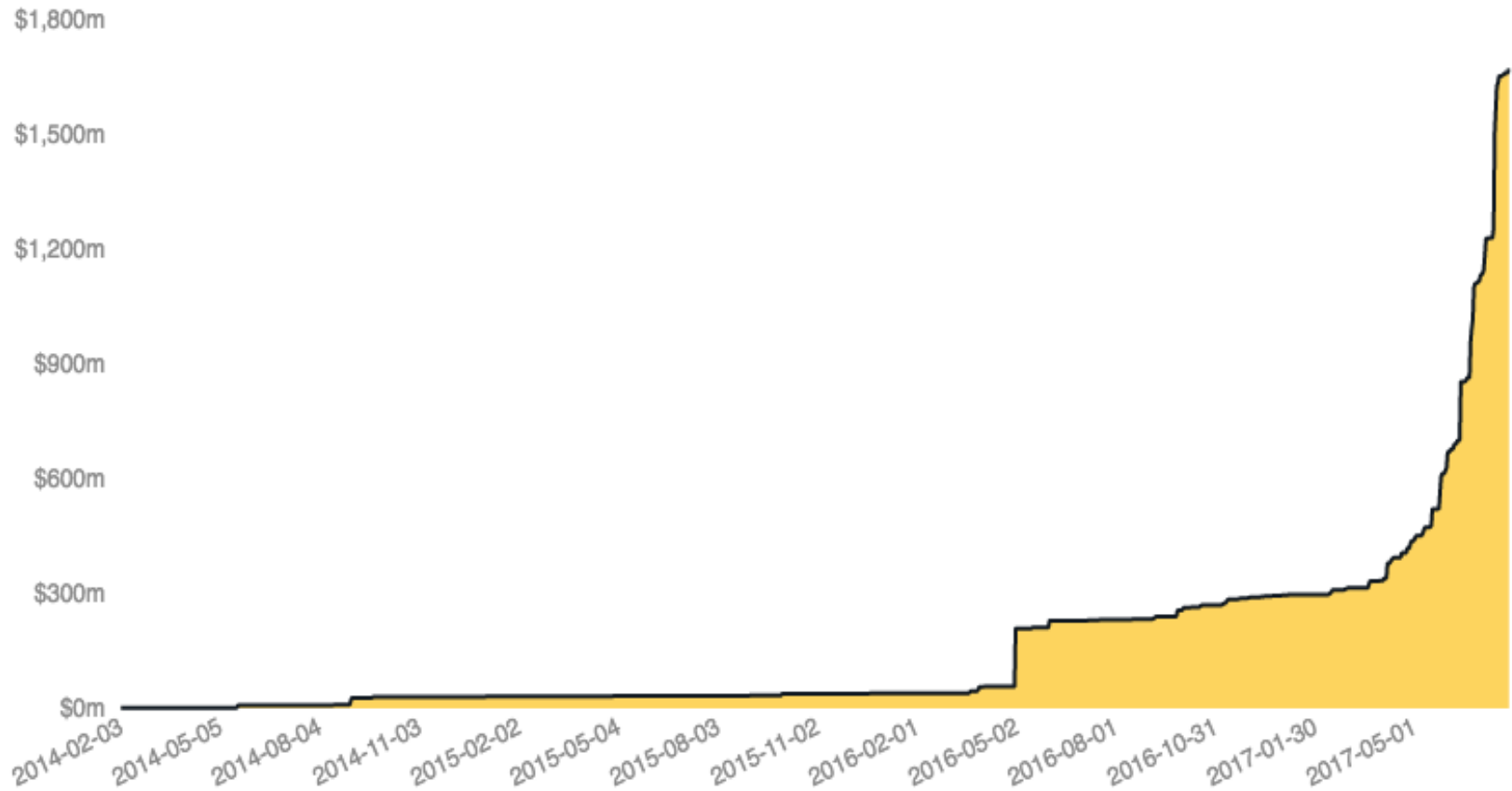
#	Name	Market Cap	Price	Circulating Supply	Volume (24h)	% Change (24h)	Price Graph (7d)
1	 Bitcoin	\$76,181,332,103	\$4602.90	16,550,725 BTC	\$1,839,950,000	0.37%	
2	 Ethereum	\$31,042,868,793	\$328.55	94,485,896 ETH	\$739,412,000	-1.17%	
3	 Bitcoin Cash	\$10,718,410,442	\$647.02	16,565,913 BCH	\$1,077,440,000	1.66%	
4	 Ripple	\$8,584,227,602	\$0.223875	38,343,841,883 XRP *	\$109,670,000	-0.07%	
5	 Litecoin	\$4,169,310,264	\$78.92	52,826,632 LTC	\$562,378,000	-0.39%	
6	 NEM	\$2,663,550,000	\$0.295950	8,999,999,999 XEM *	\$3,968,480	-2.22%	
7	 Dash	\$2,587,593,837	\$343.02	7,543,653 DASH	\$25,251,900	-0.79%	
8	 Monero	\$1,788,967,812	\$118.87	15,049,784 XMR	\$53,085,800	-2.07%	
9	 IOTA	\$1,756,554,737	\$0.631961	2,779,530,283 MIOTA *	\$29,968,800	-13.61%	
10	 Ethereum Classic	\$1,705,478,210	\$17.90	95,292,486 ETC	\$218,244,000	-1.57%	

Initial Coin Offerings

- ▶ A means of crowdfunding by selling tokens (aka initial coin offerings or ICOs)
- ▶ Security tokens
- ▶ Utility or App Token

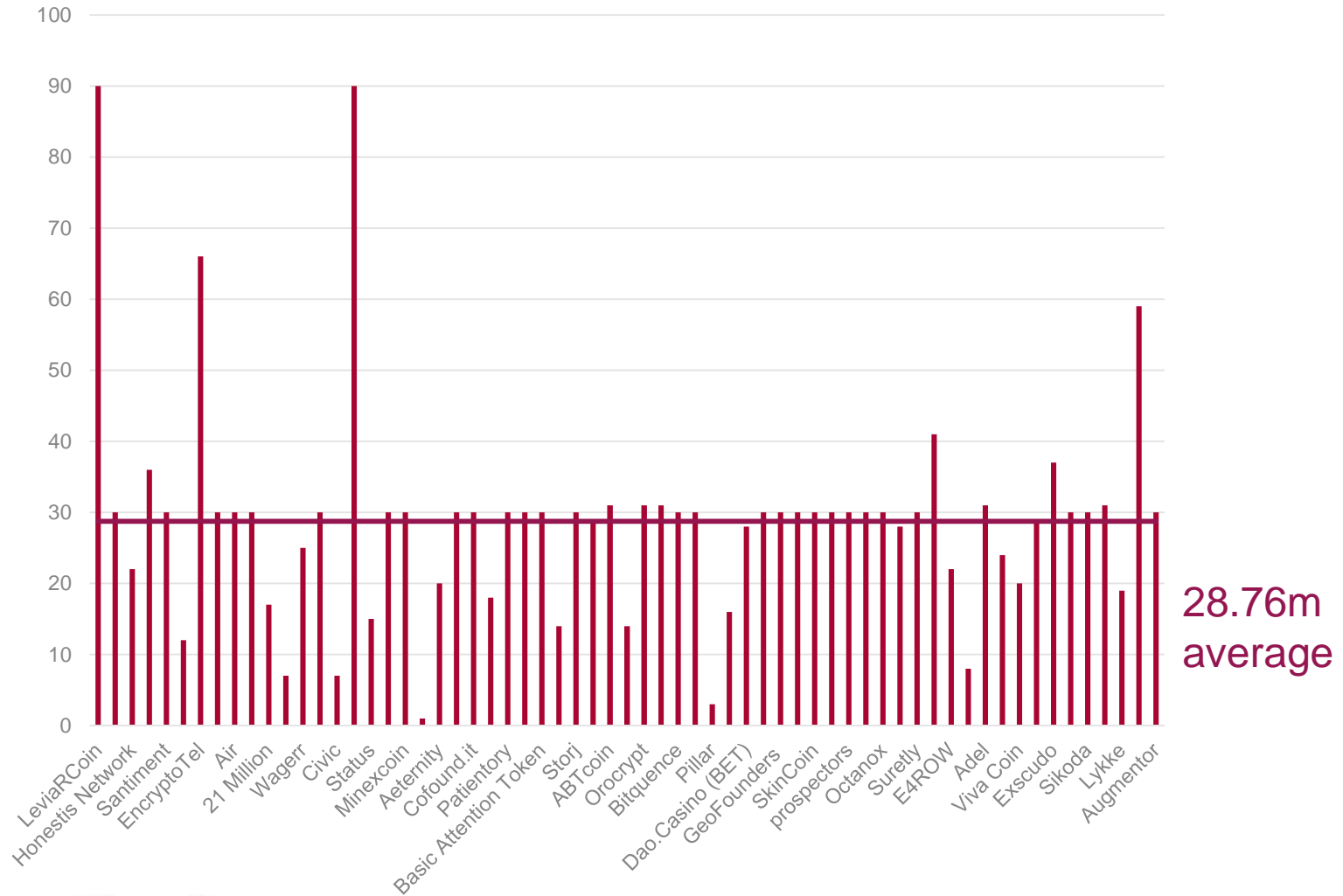
How Much Money Was Raised

All-time cumulative ICO funding



Crowd Sale Period

Crowd sales start dates to end date



Cryptocurrencies

The SEC's Report of Investigation

- ▶ The DAO (Decentralized Autonomous Organization), is one of many virtual organizations issuing a cryptocurrency, and sold 1.15 billion “DAO Tokens” between April 20, 2016 and May 28, 2016, totaling approximately \$150 million.
- ▶ DAO Tokens granted the DAO Tokenholder certain voting and ownership rights, would earn the DAO a profit on certain “projects” and provided DAO Tokenholders with a return on investment.
- ▶ Anyone was eligible to purchase DAO Tokens, and there were no limitations on the number of DAO Tokens offered for sale, the number of purchasers, or the level of sophistication of such purchasers.
- ▶ DAO Tokenholders could redeem their DAO Tokens for Ether (a virtual currency) through a multi-step process that took approximately 46 days.

Cryptocurrencies

The SEC's Report of Investigation

- ▶ The SEC analyzed the DAO Tokens under the Howey test and found that:
 - Because investors in the DAO use Ether to make their investments, and DAO Tokens were received in exchange for Ether, the investment is a contribution of value that can create an investment contract;
 - Slock.it, the co-founders of the DAO, and its curators were essential to the enterprise;
 - The DAO constitutes an “issuer” under the Securities Act of 1933;
 - DAO Tokens constitute a security under the Securities Act of 1933 and the Securities Exchange Act of 1934; and
 - Any system meeting the definition of an “exchange” under the Securities Exchange Act of 1934 must register as such or operate pursuant to an exemption.
 - Additionally, the SEC noted that “[t]he automation of certain functions through ...technology, “smart contracts,” or computer code, does not remove conduct from the purview of the U.S. federal securities laws.”

What are the securities law issues?

From the point of view of the issuer

- ▶ Is the token a utility token or an investment contract?
- ▶ Under the Howey test, a transaction/instrument is an investment contract (and therefore treated as a security) if:
 - It is an investment of money;
 - There is an expectation of profits from the investment;
 - The investment of money is in a common enterprise; and
 - Any profit comes from the efforts of a promoter or third party.

What are the securities law issues?

From the point of view of the exchange/platform

**Do I need to be a
registered broker dealer?**



**Do I need to register as an
ATS under Regulation ATS?**



**Will there be aider
and abettor liability?**

What are the securities law issues?

From the point of view of the investor

- ▶ Will I get back the benefit of my bargain? When?
- ▶ How can I do due diligence? Has anyone done due diligence?
- ▶ Is my return tied solely to speculation?

Does this have “Ponzi-like” qualities?

▶ Common red flags:

- High investment returns with little to no risk;
- Overly consistent returns;
- Unregistered investments;
- Unlicensed sellers;
- Secretive and/or complex strategies and fee structures;
- No minimum investor requirements;
- Issues with paperwork.

Can I rely on the federal courts for redress?

- ▶ The SEC has stated that investing in an ICO may limit your recovery in the event of fraud or theft. While you may have rights under the federal securities laws, your ability to recover may be significantly limited.
- ▶ If fraud or theft results in you or the organization that issued the virtual tokens or coins losing virtual tokens, virtual currency, or fiat currency, you may have limited recovery options. Third-party wallet services, payment processors, and virtual currency exchanges that play important roles in the use of virtual currencies may be located overseas or be operating unlawfully.

Can I rely on the federal courts for redress?

- ▶ Law enforcement officials may face particular challenges when investigating ICOs and, as a result, investor remedies may be limited. These challenges include:
 - Tracing money.
 - International scope
 - No central authority.
 - Freezing or securing virtual currency.

Issues Relating to Custody

- ▶ Custody Models
 - Self-custody
 - Independent Third Party Custodian
- ▶ SEC (and others) will ultimately define Custody and Custodian
- ▶ State Laws may have an impact
 - NYDFS BitLicense
 - Model Virtual Currency Regulation

Issues Relating to Administration

- ▶ Valuation – For pre-ICO investments and less liquid coins, managers need to have in place a valuation policy accepted by the auditor. Could possibly include third party valuation firm to protect manager/investor.
- ▶ Side Pockets - Used for value challenged holdings and pre-ICO investments
- ▶ AML Consideration – “In kind” transfers/payments. Source of original funding.
- ▶ Collaboration and cooperation between service providers – Work with trusted partners

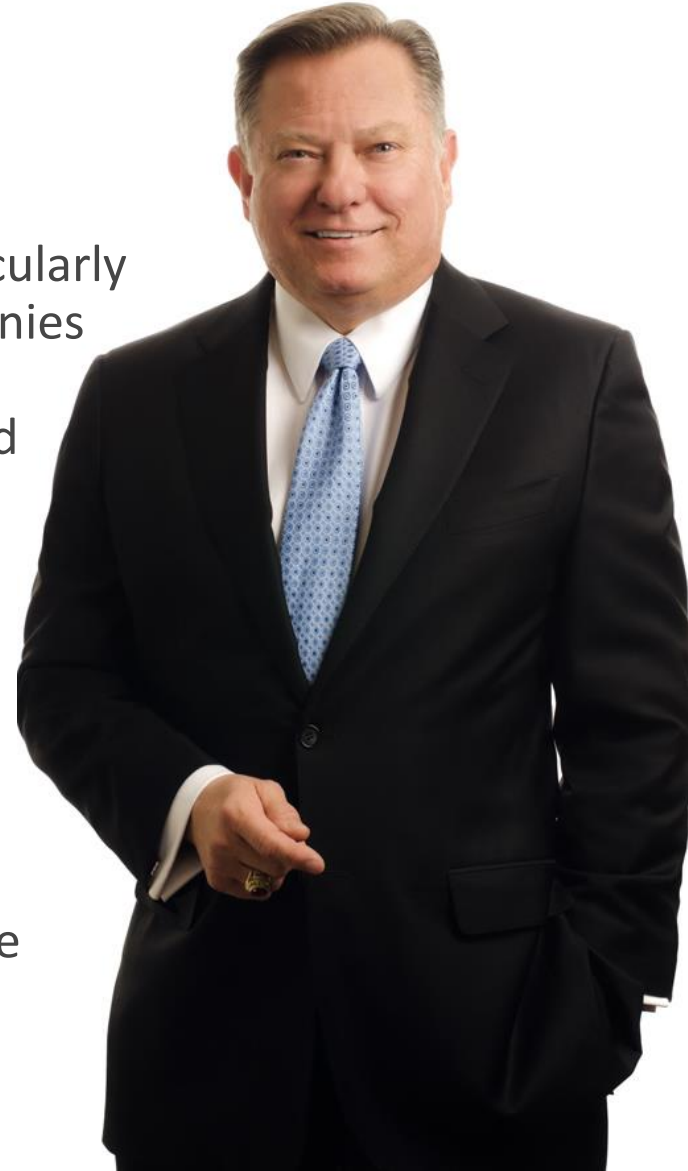
Gregory J. Nowak

Partner, Financial Services & Technology

212.808.2723

nowakg@pepperlaw.com

- ▶ Concentrates his practice in securities law, particularly in representing investment management companies and other clients on matters arising under the Investment Company Act of 1940 and the related Investment Advisers Act of 1940
- ▶ Represents hedge funds and other alternative investment funds in fund formation and investment and compliance matters, including compliance audits and preparation work
- ▶ Writes and speaks frequently on issues involving investment management, health care and other matters, and is the author of five books on hedge funds



Cassandre L. Juste

Associate, Financial Services

215.981.4216

justec@pepperlaw.com

- ▶ Focuses her practice on entities regulated under the Investment Company Act of 1940 and the Investment Advisers Act of 1940
- ▶ Assists clients with the registration of investment companies and investment advisers, as well as with SEC investigations
- ▶ Has advised various hedge funds and other alternative investment funds in fund formation and compliance matters



Tom Garrambone

Founding Partner, Tetras Capital

- ▶ Founding Partner of Tetras Capital, a New York City based Hedge Fund focused on cryptocurrencies, digital assets, and decentralized technology.
- ▶ Previously an Investment Banker at Deutsche Bank where he focused on leverage buyouts, acquisitions, and financings of mature SaaS, datacenters, e-wallet, and security companies.
- ▶ Has worked on some of the largest leverage buyouts, including Protection 1's acquisition of ADT Corporation.



Tim Kuhman

General Counsel and VP of Compliance,
Kingdom Trust Company

- ▶ Specializes in providing custody services to both individual investors and to institutional clients who require or desire a qualified custodian as well as in the custody of alternative assets like physical real estate, physical precious metals, private equity and cryptocurrency.
- ▶ Prior to joining Kingdom, he served as General Counsel to Equity Trust Company and as General Counsel to a real estate development company and a Mortgage Brokerage.



David Madden

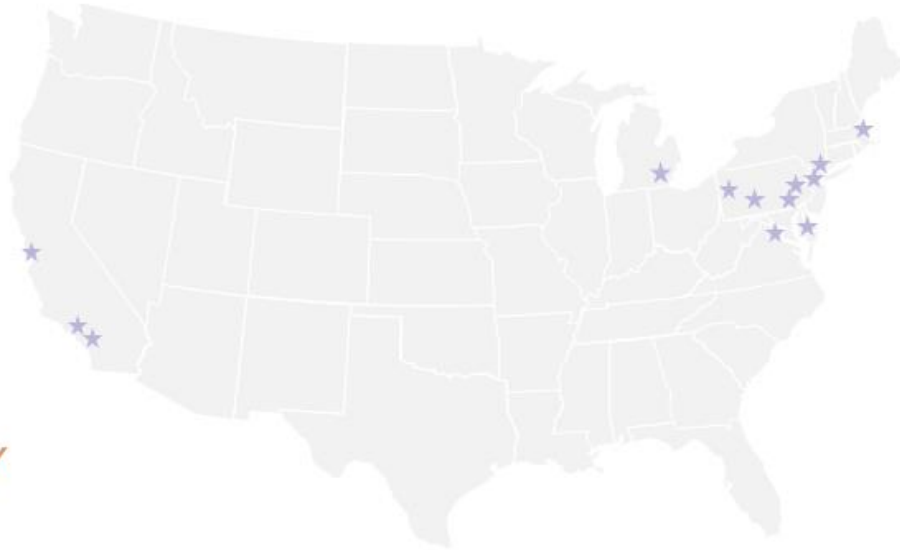
Business Development Director, Trident Trust

- ▶ Focuses on supporting and growing relationships with our investment fund clients.
- ▶ Has 20 years' experience in the Financial Services sector having held multiple roles in Accounting, Operations and Relationship Management.
- ▶ Holds a BBA in Accounting and an MBA in Finance. David focuses on supporting and growing relationships with our investment fund clients.



Locations

BERWYN
BOSTON
DETROIT
HARRISBURG
LOS ANGELES
NEW YORK
ORANGE COUNTY
PHILADELPHIA
PITTSBURGH
PRINCETON
SILICON VALLEY
WASHINGTON
WILMINGTON



Legal 500

Recommended firm for
Construction Litigation
and Pharma/Medical
Device Products
Liability

500+ lawyers

13 offices in U.S.

125 years of
serving clients

Capabilities

Best Lawyers

More than 60 lawyers listed, including 5 as Lawyer of the Year

100+

lawyers highly rated by Super Lawyers and Rising Stars

SERVICES

BUSINESS SERVICES
INTELLECTUAL PROPERTY
GOVERNMENT REGULATION
INTERNATIONAL LITIGATION

INDUSTRIES

CONSTRUCTION LAW
EDUCATION COUNSELING, LITIGATION AND INVESTIGATION SERVICES
ENERGY INDUSTRY GROUP
FINANCIAL SERVICES
FOOD AND BEVERAGE INDUSTRY
HEALTH CARE SERVICES
INVESTMENT FUNDS INDUSTRY GROUP
LIFE SCIENCES
MEDIA, COMMUNICATIONS AND ENTERTAINMENT
NONPROFIT ORGANIZATIONS AND FOUNDATIONS
PHARMACEUTICALS AND MEDICAL DEVICES
RETAIL INDUSTRY
TRANSPORTATION

Questions & Answers