

NICHOLAS INVESTMENT PARTNERS

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Investment Insights:

NYCEDC's "Blockchain Week New York City" (May 11-17, 2018)

Blockchain continues to capture market attention. Technology specialist, Emmy Sobieski, shares her insights of the unfolding news and trends as the series of events facilitated by the New York City Economic Development Corporation (NYCEDC) dubbed "Blockchain Week in New York City" comes to a close.

Enterprise Interest in Blockchain Technology Continues to Broaden

More pilots and broader buildouts among industry players announced, including:

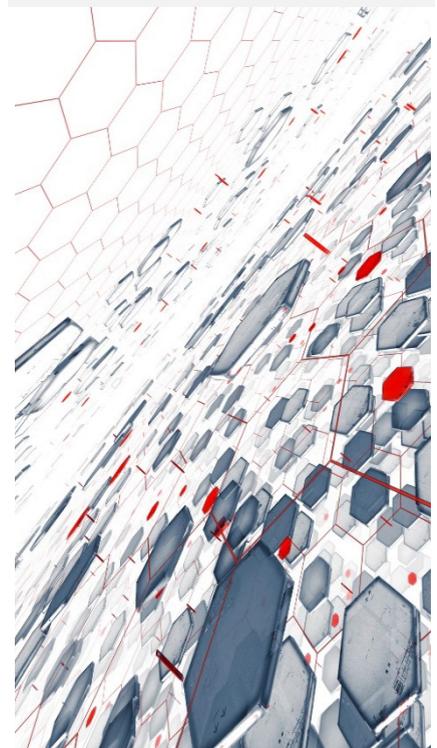
- Australian Securities Exchange (ASX) and the Depository Trust & Clearing Corporation (DTCC) are both looking to move blockchain-powered projects from pilot to production by the end of 2018
- Luxembourg Stock Exchange (LuxSE) will settle and clear ETFs using blockchain technology by January 2019, with a 60% estimated cost reduction
- The Enterprise Ethereum Alliance announced a set of common blockchain standards, which could accelerate development as enterprises see a path to interoperability
- HTC announced it will bring to market by year end a blockchain-powered smartphone called the Exodus, which would enable a mobile wallet and be a connecting point to decentralized networks. Cell phone giant Huawei also announced a bitcoin wallet in their newly launched app store, which will enable users to access cryptocurrency services
- Amazon announced AWS is partnering with Consensus to offer a blockchain-based cloud service to speed onboarding of enterprise consortium members. Consortium blockchains are permissioned blockchains between businesses who have agreed to share certain information
- Coinbase and Gemini now offer custody services, which is mandated for funds managing more than \$250 million. This enables the entry of larger funds, which should spur more investment in innovation around blockchain-driven token economies
- FedEx, a member of the Blockchain in Transportation Alliance (BiTA), announced it will explore blockchain technology deployment in the freight industry. They also expressed confidence that blockchain technologies will scale to meet their needs
- A patent application submitted by Walmart proposes to use autonomous vehicles with a blockchain-based authentication system for package delivery
- Brian Forde, a former advisor to President Obama who wrote the White House memo on cryptocurrencies, is running for the California's 45th district seat in the US House, pitching himself as "The Crypto Candidate," accepting Bitcoin for campaign donations
- Florida's Seminole County partnered with e-commerce payments company BitPay to enable residents to pay taxes and fees with bitcoin and bitcoin cash; it is BitPay's first government contract



Emmy Sobieski, CFA
Senior Research Analyst,
Technology Specialist

KEY TAKEAWAYS

- Enterprise interest in blockchain technology continues to broaden
- Deployment of blockchain technology in supply chain management is accelerating
- Protocol-level technology innovations will enable broader adoption
- Interoperability of multiple specialized blockchain protocols is likely future



- The state of Wyoming passed five major bills to make registering LLCs there friendlier toward blockchain-based companies. Wyoming is now ranked third behind Delaware and Nevada in registration of LLCs. Since passing the blockchain-friendly legislation, they have seen over 200 new LLC registrations and hope to take the #1 spot
- Bermuda announced a blockchain regulatory framework in the hopes of attracting businesses to domicile in the country. Switzerland, Singapore, and Japan also have relatively clearer regulatory frameworks, which is attracting innovative companies. The US, in contrast, has a complex regulatory framework, e.g., if a token is deemed a security, then it would be regulated by the SEC, but if a commodity, the CFTC
- Kodak announced the KODAKCoin ICO, which would be a SAFT structure, a “Simple Agreement for Future Tokens.” It would enable a platform for photographers to license their work and earn revenue through a digital ledger. It is hoped that the completion of this ICO will shed some additional regulatory guidance and insight for other projects

Deployment of Blockchain Technology in Supply Chain Management Is Accelerating

- SAP announced a new food safety-related blockchain pilot and a collaboration with a Swiss supply chain startup
- Australia's Department of Home Affairs is touting blockchain technology in a push to modernize the country's international trade supply chains
- Many firms are deploying blockchain technology in their supply chains more quietly to gain first-mover competitive advantage with Accenture, Deloitte, KPMG and EPAM Systems key players helping them navigate the emerging technologies
- Microsoft has multiple accelerator programs supporting innovations in blockchain technology as well as the Azure Blockchain Workbench, which enables developers to build, test and deploy secure blockchain-enabled applications. Microsoft's CEO is pushing its head of blockchain technologies, based in NYC, to be a leader in the space

Protocol-level Technology Innovations Will Enable Broader Adoption

Technology initiatives continue at the protocol layer to improve scaling, speed, interoperability between chains, security, new cryptographic methods, and game theory experimentation around network effects and incentive structures expressed via token economics.

Chain.io and Kadena, which have raised money through ICOs, have both permissioned-access and public-access blockchain technologies, and are working with enterprises alongside enterprise software companies like Microsoft and Oracle to apply these innovations to solve customer problems. Public blockchains secured by token incentives are interoperating with permissioned consortium chains used by enterprises. In the end, many enterprises will use a blend, the best of both worlds. It is also becoming clear that different blockchain architectures will be better for different uses, thus we will also end up with multiple specialized blockchains that interoperate.

Summary

We continue to monitor the network effects, innovations, and progress of the best blockchain technology projects. We believe that early leaders in protocol design have the advantage of attracting more developers. Also, we believe that enterprise software companies are well positioned to profit from increased spending on the development and integration of this innovative technology into companies and industries across the economy.

In our portfolios, we have been selective in identifying and investing in companies that fit these criteria while also having strong current fundamentals, a positive earnings outlook, and sustainable revenue and or earnings growth, and where the stock offers an attractive risk/reward profile supported by timely investment sentiment.

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- Our edge comes from combining fundamental equity and credit research with the objectivity and efficiency of quantitative analytics. We have a results-driven and client-centric culture centered on building lasting and value-added relationships with a select group of institutional and private wealth clients and consultants.

Meredith Genova

Director of Sales & Marketing
 mgenova@nicpartners.com
 858-381-8176 (direct)
 646-573-9248 (cell)

Laura DeMarco

Partner/Director of Client Service
 ldemarco@nicpartners.com
 858-381-8181 (direct)
 858-692-5194 (cell)

Tammy Wiseman

Partner/Client Service & Marketing
 twiseman@nicpartners.com
 858-381-8183 (direct)
 619-857-1195 (cell)