



**WORLD
FINANCIAL
TECHNOLOGY
DIGEST**

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PAYPAL ANNOUNCED A NEW E-COMMERCE PAYMENT SOLUTION

The largest payment system allowed online retailers to embed electronic wallets and other alternative methods of payment for goods and services on their website. The PayPal Checkout technology displays payment options for customers depending on their location in a country or a region.

JP MORGAN CHASE LAUNCHES A PAYMENT APP

The financial corporation has released a new mobile bank account management app called Finn. The new users will earn a \$100 credit on their account after ten transactions performed in the app.



THE FIRST MOBILE PAYMENT SOLUTION FOR PAWNSHOPS HAS BEEN DEVELOPED

Data Age Business Systems software developer introduced a product called TxTPaym. The app reminds pawnshop customers about their payments by sending push notifications to their mobile devices and informing them of alternative ways of depositing money.

The service enables pawnshops to reject customer loan payments from credit cards, thus reducing financial risks.

YANDEX.CHECKOUT UPDATED ITS MOBILE SDK

The Eastern European market leader of business payment systems has enabled its customers to accept mobile payments through Apple Pay, Google Play and Sberbank Online Mobile Bank. When using the Checkout function, customers do not need to obtain data security standards' certification from the payment card companies because it is built into the system by default.



RAZER PAY LAUNCHES AN ELECTRONIC WALLET

The major manufacturer of gaming equipment announced the launch of Razer Pay wallet. The wallet is used both for online transactions in games and entertainment, and for payments in stores. At the same time, the developers integrated an option that provides internal transfers and withdrawal of funds to a fiat bank account.



NFC TECHNOLOGY IS EVOLVING IN SAUDI ARABIA

The Visa global payment system has developed a mobile app called Madapay that supports users of credit and debit cards in Saudi Arabia, and allows them to make contactless mobile payments. The app has a built-in security technology provided by Visa Token Service and Tokenisation Platform that aims to protect cardholders' account information.

DEALS

JAPANESE START-UP RAISED \$55 MILLION FOR A NEW PROJECT

Paydi has launched a service for bank card-free online purchases. The customers can pay using their mobile phone numbers and an e-mail addresses.

The largest US investment bank Goldman Sachs took part in the first round of funding.



COINBASE CO-FOUNDER FUNDED A BLOCKCHAIN START-UP

Fred Ehrsam took part in the first round of investment for Dirt, a blockchain start-up, that raised \$3 million. The company is creating token-controlled registers for developers of third-party decentralised apps.

BIOMETRICS

A NEW BIOMETRIC CREDIT CARD WAS RELEASED

Smarmetric announced the release of a product with a built-in fingerprint scanner inside of a debit or credit card. The technology is used both for card activation and confirmation of a payment.



AN APP FOR IDENTITY DOCUMENT AUTHENTICATION WAS RELEASED

The IDMerit software developer introduced IDMvalidate, a service that verifies the identity of a public document holder using databases. The app has a face recognition feature and automatically scans a submitted document to verify its graphic data. The developers claim that the technology supports twenty languages.

A SAFE PAYMENT SYSTEM WAS PATENTED

Western Union, the market leader in cross-border transfers, has obtained a patent for its system of transaction confirmation for digital money and cryptocurrency payments. Transactions between external systems or client devices in different regions or jurisdictions around the world are confirmed by scanning the user's retina, fingerprints or voice.

CRYPTOCURRENCIES

CHINESE CRYPTOCURRENCY EXCHANGE LAUNCHED IN THE US

The OKCoin cryptocurrency exchange has announced the opening of a branch in California. The residents of the state are now able to trade Bitcoin, Bitcoin Cash, Litecoin, Ethereum and Ethereum Classic paired with the fiat dollar.



BITCOIN ROSE TO \$8,500

The major cryptocurrency demonstrated an 18% growth from July 16 to 19. This is its best performance since June 10. The Bitcoin capitalisation increased to \$128 billion dollars.

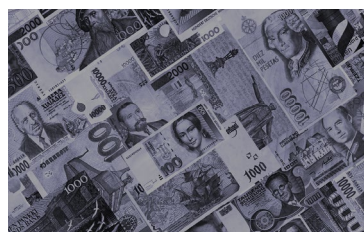


SINGAPORE'S CRYPTOCURRENCY EXCHANGE ENTERS THE AUSTRALIAN MARKET

Huobi enables the country residents to trade Bitcoin, Litecoin, Ethereum, Ethereum Classic and Bitcoin Cash. The exchange also paired cryptocurrencies with the national currency, the Australian dollar.

MONERO COMPLETED THE FIRST INDEPENDENT AUDIT

Kudelski Security has completed the audit of the cryptocurrency focused on confidentiality and decentralisation. As the auditors assure in their report, "the efficiency of the new version of the Bulletproofs protocol is especially suitable for the distributed and reliable nature of blockchain."



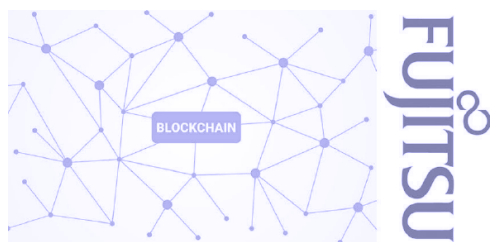
THE EUROPEAN ANALOG OF TETHER WAS LAUNCHED

Stasis, operating in the jurisdiction of Malta, introduced a currency that supports one-to-one exchange rate in relation to the fiat Euro. The new stablecoin was named EURS. The currency is already traded on the London-based DSX cryptocurrency exchange.

MYETHERWALLET ADDED A FEATURE TO BUY ETH WITH FIAT CURRENCIES

One of the largest cryptocurrency wallets announced the start of its co-operation with Simplex, an anti fraud platform. Wallet users can now purchase ETH using Visa or MasterCard, which will require user verification. The card issuer will have to authorise operations with cryptocurrencies.

BLOCKCHAIN



FUJITSU LAUNCHED A SUBSCRIPTION SERVICE FOR BLOCKCHAIN SOLUTIONS

The Japanese corporation claimed that it could launch the first prototype of solutions on the fifth day of the product use. The corporate package includes introductory lessons on blockchain technology and an assessment of the proposed scenarios for usage of the project that is under development.

BLOCKCHAIN APP FOR VOIP WAS RELEASED

The Emercoin project team announced the launch of the Enumer IP telephony system that allows calls to any number registered on the platform, including toll-free numbers in the US, without engagement of traditional telecom operators. The new service is a distributed address book built on Emercoin blockchain and is freely available to everyone.



TESTING OF A BLOCKCHAIN-BASED VOTING SYSTEM IS COMPLETED

An experimental platform for electronic voting developed by Luxoft was launched in the Swiss city of Zug. The referendum using blockchain solutions was held from June 25 to July 1. The press release of the city government notes that blockchain allows citizens to express their will and be less susceptible to manipulation and external interventions.



PROVER RELEASED A VIDEO AUTHENTICATION PRODUCT

The tech startup presented a blockchain app that verifies the validity of any video content provide help in making financial, managerial and legal decisions. The product discloses the video recording time and confirms the lack of editing, pasting and other alteration methods.



FIRST REAL ESTATE TRANSACTION WAS MADE ON BLOCKCHAIN IN THE US

Ten acres of land in California were sold via Ethereum smart contracts. The processing was performed by Proper, a decentralized marketplace for real estate and land rights registration. At the time of the transaction payment, the buyer of the land was in New York, while the realtor was in Hong Kong.



KT CORPORATION LAUNCHED ITS OWN BLOCKCHAIN NETWORK

The South Korean telecom giant uses blockchain to authenticate users and improve international roaming services. The initial network capacity can reach up to 2,500 transactions per second.

REGULATION

FIRST LICENSE FOR CRYPTOCURRENCY PAYMENT PROCESSING WAS OBTAINED IN THE US

Bitbay has announced that the New York Department of Financial Services approved its application. The city-based companies that accept payments in bitcoins can activate transactions from any computer or mobile device.



FIRST ICCO EVER WAS LAUNCHED

Palladium blockchain company and Bittrex cryptocurrency exchange ran an initial offering of convertible coins. The buyers of the new token can exchange it for Palladium shares within three years after the ICCO (Initial convertible coin offering). The project is being implemented in Malta and is supported by Prime Minister Joseph Muscat.

SEC RECEIVED A REQUEST FROM THE CBOE FOR BITCOIN ETF

The US Securities and Exchange Commission has registered an application from the Chicago Board of Options Exchange to create a cryptocurrency index fund. According to the official comment from the exchange, the share price will be expressed in the major cryptocurrency and will initially amount to 25 bitcoins.

THE SUPREME COURT OF INDIA UPHELD THE BAN ON CRYPTOCURRENCIES

The highest judicial body prohibited financial institutions from providing any services related to virtual currencies. The court upheld the position of the Central Bank of India that coins must exist physically, be made of metal and be minted by the Government of India.



NEW ICO REGULATION RULES ENFORCED IN THAILAND

The Securities and Exchange Commission of Thailand obliged organisers of initial token offerings to have companies registered in Thailand. In addition, the company must have a statutory capital of at least \$150 000. The threshold of the maximum investment size for retail investors is limited to \$9 000. Fiat currencies can be raised only in Thai baht during an ICO.

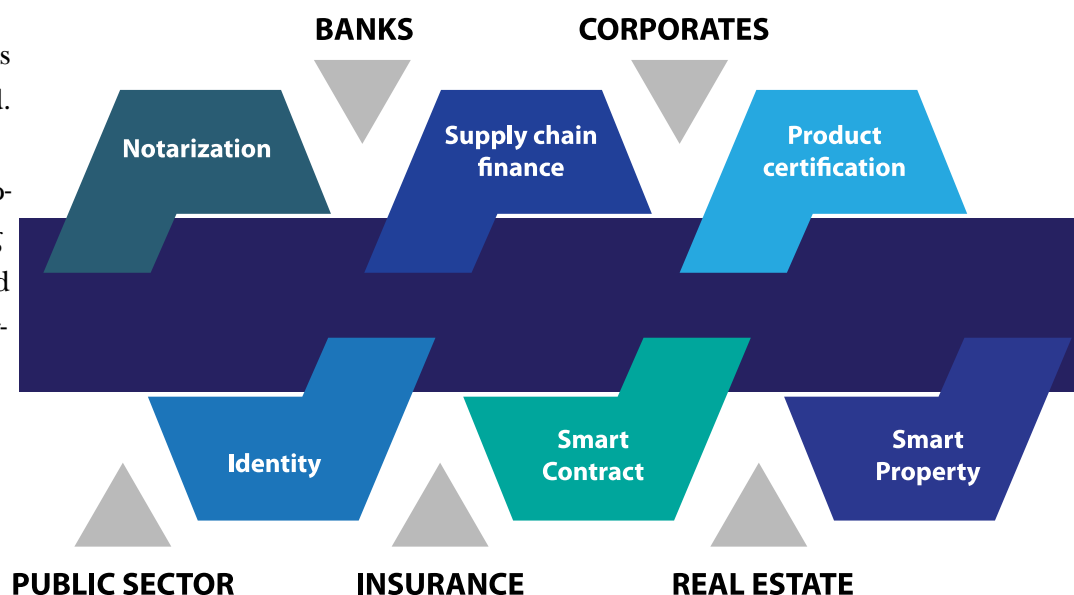


SOUTH KOREA HAS ESTABLISHED A TEMPORARY CRYPTOCURRENCY REGULATOR

The Commission, which is part of FSC, will have power to guide policies in the field of financial innovation, including blockchain, big data and cryptocurrencies. The institution will be operating for two years.

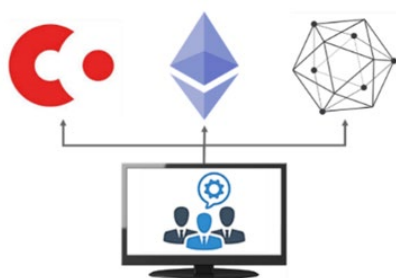
SIACHAIN: WHAT ARE THE ADVANTAGES OF THE NEW BLOCKCHAIN PLATFORM?

Analysts of PwC consulting company Roberto Lorini, Marco Monaco and Lorenzo Parussio have told about new solutions in the rapidly developing blockchain market in their series of publications about the existing blockchain platforms, where SIACHain platform and its capabilities were analysed. According to the authors of the report, the developers are constantly looking for newer, more advanced solutions based on a peer-to-peer network. They aim to create distributed computing standards of operating systems for decentralized applications (dApp).



THE BIG THREE

Most of the blockchain solutions are currently built on one of the three blockchain platforms: Corda, Fabric or Ethereum. Each of the technologies of the Big Three provides a different solution to the main problems that blockchain faces: scalability, confidentiality and interoperability of assets. These systems have one thing in common: they are all open-source blockchain platforms. However, they are not similar in all respects.



- 1) Corda was developed from scratch and tailored for the needs of the financial industry. In theory, it can ensure a high level of scalability and confidentiality, but the product needs some improvement.
- 2) Hyperledger Fabric ensures a high level of flexibility and it can provide a good balance between control of data access and scalability in the future. The platform is well suited for projects where all the participants are conditioned to use the same type of a shared ledger.
- 3) Ethereum Enterprise is a technology underlying a cryptocurrency

of the same name. It ensures compatibility for thousands of open-source projects running on Ethereum Blockchain.

The authors of the report believe that Corda is the most scalable project, Fabric is the least mature and flexible, and Ethereum Enterprise is somewhere in-between the two.

DIFFICULTIES AND OBSTACLES

According to PwC's studies, each of these technologies has its problems. The main difficulties arise in joint management of participants. They relate to almost all management stages: update procedures, on-board/offshore planning process, commercial and technological decisions, legal structure development, interaction with technology suppliers and dApp designers. Management difficulties in blockchain reduce the speed of decision-making and lead to increased costs.

ATTEMPTS TO OVERCOME THE DIFFICULTIES: SIACHAIN

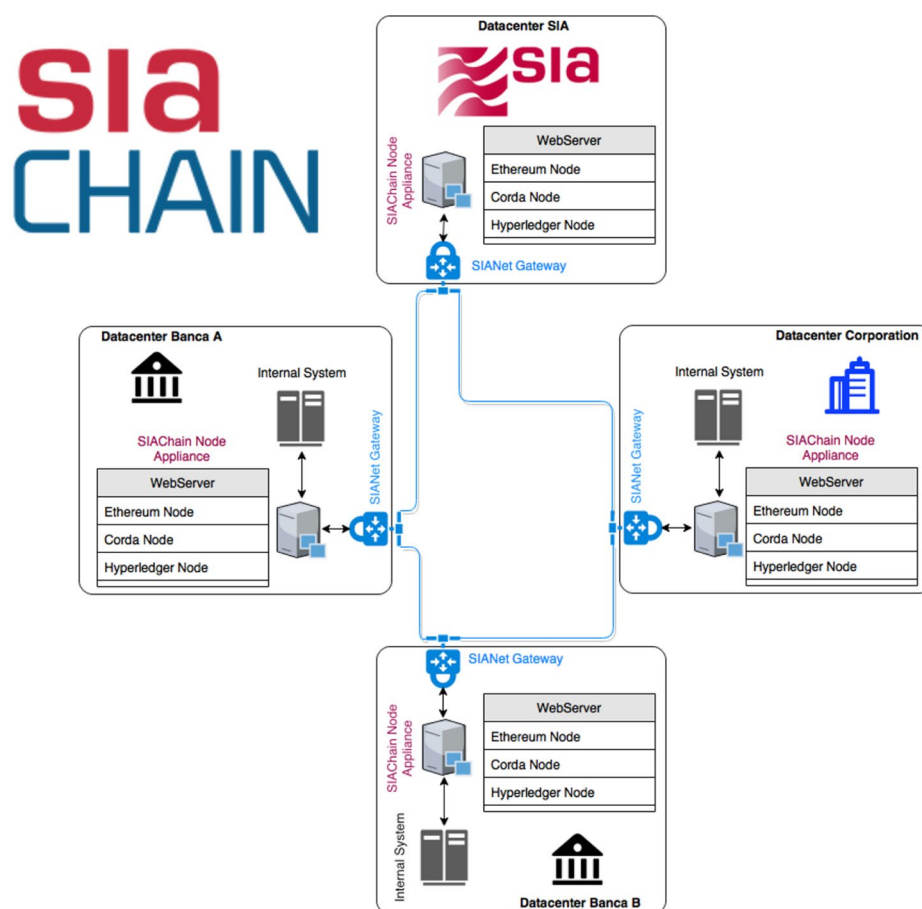
SIACHain, the first European blockchain platform, was recently created on the basis of R3 Corda DLT.

PECULIARITIES

SIA uses SIAnet – a private network consisting of more than 600 nodes. The platform is based on the Supernodes hardware device, which supports DLT clients with several dApps. Several clients are served at a time, which allows each client to join the existing network or create their own Business Networks. As a result, various business communities grow around dApps.

ADVANTAGES

SIA certifies all the decentralized apps, and all the Supernodes that operate in SIA use the same version of the software, both for the DLT clients and the subscribed dApps. In general, this ensures security and automates the interaction between the customers and their subcontractors (notaries, contractors, oracles, etc.)



Therefore, the SIACHain structure solves the problems of management and allows participants to focus on business tasks.

The beta version of SIACHain operates on the basis of R3 Corda DLT, where SIA has a priority over Fabric and Ethereum, but product options based on Fabric and Ethereum are already being developed

WHAT A CFO NEEDS TO KNOW ABOUT BLOCKCHAIN. PART 1.¹

The Deloitte experts have developed a detailed memo for CFOs that introduces them to all aspects of blockchain related to business.

¹ <https://www2.deloitte.com/ie/en/pages/finance-transformation/articles/crunch-time-iv-blockchain-for-finance.html>

BLOCKCHAIN BASICS

1. Blockchain or DLT (Distributed Ledger Technology) is a distributed ledger technology that enables digital assets to be transacted and traded in near real-time. The record it keeps is permanent and irreversible.
2. Blockchain in finance has two main applications, according to the authors' report. The first one is cryptocurrency trading. The second one is managing financial transactions. The latter type is also known as business blockchains.
3. CFOs should learn about both DLT technologies, but understanding business blockchains should be their focus. They will be reviewed in this report.



BUSINESS BLOCKCHAIN. FAQ.

DO I REALLY NEED TO BE THINKING ABOUT THIS NOW?

Blockchain will become increasingly influential in every marketplace over the next five years. Sooner or later, you will face it. The sooner you figure out the intricacies of the technology, the more efficiently you will manage your business in the near future. Blockchain could be an effective strategy in fighting competition.

DO I NEED TO RECONFIGURE THE ENTIRE EXISTING BUSINESS SYSTEM?

No. With a blockchain platform, the legacy technologies and systems will remain in place. The DLT simply shares data with your counterparts so they can see the same information you're seeing at the same time.

WHAT FINANCE PROCESSES CAN I IMPROVE WITH DLT?

Blockchain can be used to improve almost any finance process: procure-to-pay, accounts receivable, accounts payable, general ledger, reconciliation, etc.

WHY ARE WE TALKING ONLY ABOUT BUSINESS BLOCKCHAIN?

Business blockchain is used by a single company or a group of companies to ensure transparency: all the participants are known. Business blockchain is designed to improve transaction processing. Public blockchain platforms that support cryptocurrencies (like Bitcoin) operate on an entirely different principle.

WHAT DOES BUSINESS BLOCKCHAIN TECHNICALLY DO?

Platforms for business blockchain integrate different systems to get data right at the point of origin. This can simplify business processes: eliminate downstream reconciliations and enable straight-through processing (also known as touchless transactions). For example, a company uses blockchain to match a customer purchase order with the buyer order: all actions are recorded on a single blockchain, which both parties can access.

IS IT TRUE THAT BLOCKCHAIN REDUCES RISKS?

Yes, it is. The DLT platform enables trust and security through transparency. A shared ledger is visible only to the participating parties, and the data access is restricted for all other organisations.

HOW ARE DLT PLATFORMS GOVERNED AND CONTROLLED?

Smart contracts provide the governance mechanism for blockchain platforms. Once a smart contract is locked down, the terms and conditions can't be changed unless all those affected agree.

WHY DO CFOS CREATE BLOCKCHAIN PLATFORMS FOR USE WITHIN THEIR OWN COMPANIES?

The sale of goods and services across internal legal entities involves reconciliation, transfer pricing, internal audit, and similar transactions. Using DLT for these purposes can allow you to create a system for managing operations within the company, even if it is a transaction with external trading partners. For example, a company has more than 2,000 people involved in managing transactions across dozens of business units. An intercompany blockchain for document agreements, receipt confirmation of goods and services, settlement facilitation, and payment processing could cut that number by half or more.

HOW DOES BLOCKCHAIN FIT WITH ERP?

Major ERP vendors are making significant investments to integrate DLT into ERP platforms.

WHY IS THIS MORE SECURE THAN THE TOOLS I ALREADY HAVE?

Blockchain is not a magic bullet in terms of risk reduction, but it does have significant benefits in how the technology operates. The permanent and irreversible nature of blockchains greatly reduces the possibility of fraud and errors.

WHAT ARE AUDITORS AND REGULATORS GOING TO SAY?

In the short term, they'll be skeptical. But because blockchain relies on smart contracts and the transactions are irreversible, many auditors and regulators already see blockchain as a way to save time and improve compliance and control.

