

The Power of Blockchain

ANDY ROY SIAN

Blockchain Technology Evangelist & Business Development – Government, GLC & Higher Education Institution NEM Malaysia Sdn Bhd, a fully owned subsidiary of NEM.io Foundation Ltd

Today's AGENDA

What is Blockchain?

How does Blockchain work?

What is NEM?

Where do we go from here?

WHAT BLOCKCHAIN IS NOT

- Bitcoin.
- About mining or creating coins.
 - Ponzi or Pyramid Scheme.
 - Only for Fintech.
 - Illegal or evading taxes.
- Going to replace banks or money.

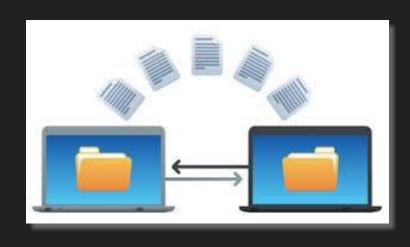


WHAT IS BLOCKCHAIN?



Blockchain as Transaction Network







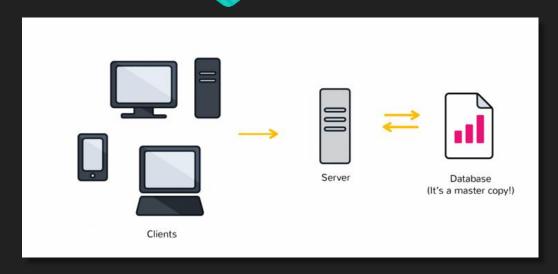
Emails

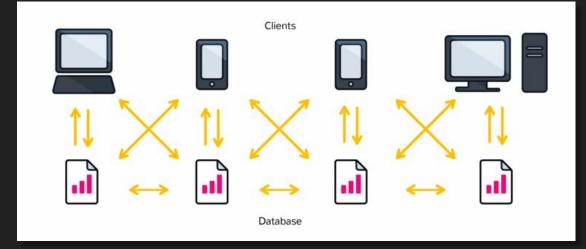
File Transfer

Transactions

BLOCKCHAIN TECHNOLOGY

A <u>distributed ledger system</u> that is <u>secure & encrypted</u>, <u>hack-proof</u>, <u>tamper-proof</u> (<u>immutable</u>), <u>scalable</u> and <u>low cost to deploy</u> and thereby creating a trusted network for any transaction through its network.

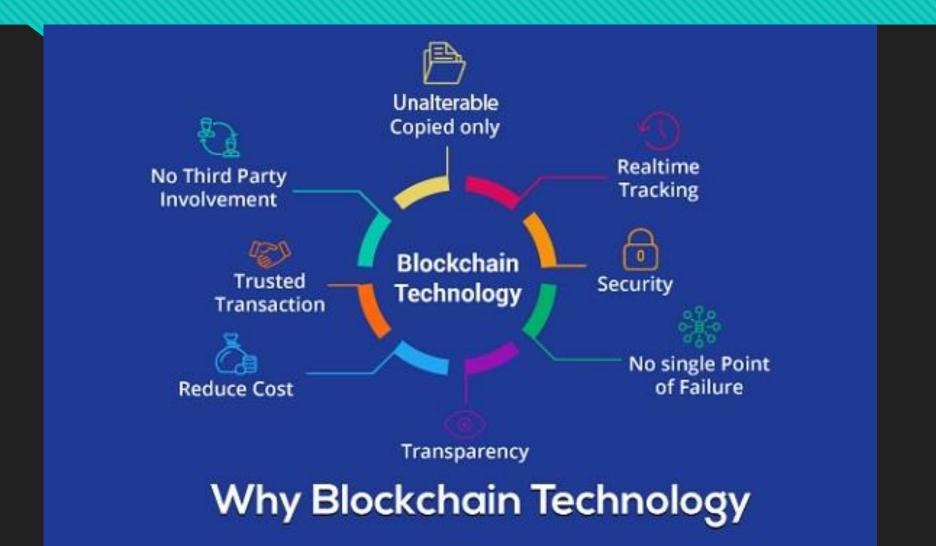




Conventional Centralised
Database



Benefits of Blockchain



NEM Blockchain Technology



www.nem.io

NEM Project



Lon Wong
Advisor, NEM.io Foundation
CEO, Dragonfly Fintech

"NEM is more than just a cryptocurrency or a new altcoin; it is an entirely new platform built on revolutionary blockchain technology, reimagining from scratch the ideal blockchain. NEM does not only allow for standard peer-to-peer value transfer transactions, but instead does much more — store data, make transactions, prove identity, timestamp documents, and create arbitrary digital assets.

Using secure cryptography, NEM can be used for a wide variety of applications across many industries, including the financial industry, government, logistics, and the medical industry. The NEM platform is a highly available system that any business, government, and/or an individual can make use to shorten the design lifecycle and help reduce their cost of operations."



NEM Project – At a glance

NEM Project Overview:

- ✓ Planning started in January 2014, and launch in March 2015.
- Built by professional developers
- √ Reboot of the ideal blockchain.
- / 100% new code from scratch

NEM Blockchain out of the box features allows:

- Multi-sig for account security
- √ Create assets that act as tradable tokens representing items of value.
- Namespaces to differentiate companies within the blockchain.
- Messages to be sent together with transaction (as labels)

NEM Node Network (public/private chain):

- √ Easy to use universal APIs
- / Nodes are cheap to implement
- Fast and cheap transactions
- Open-sourced wallets for IOS/Android/Desktop



ENTERPRISE USE CASES OF BLOCKCHAIN TECHNOLOGY

Financial Payments

Create your own Cryptocurrencies

Mobile Payments

Equity Markets

Escrow Services

Make your own PayPal

Encrypted Messaging

Authentication and Notarization

Anti-Counterfeiting

Certificate Issuance

Corporate Compliance

Land Registry

Access Control

Financial

Business Management

Secure Records

Decentralized Organizations

Automatic Accounting

Shipping & Inspections

Loyalty Reward Points

Know Your Customer (KYC)

Logistics (Supply Chain

Management)

Voting

Crowdfunding

Stock Ownership

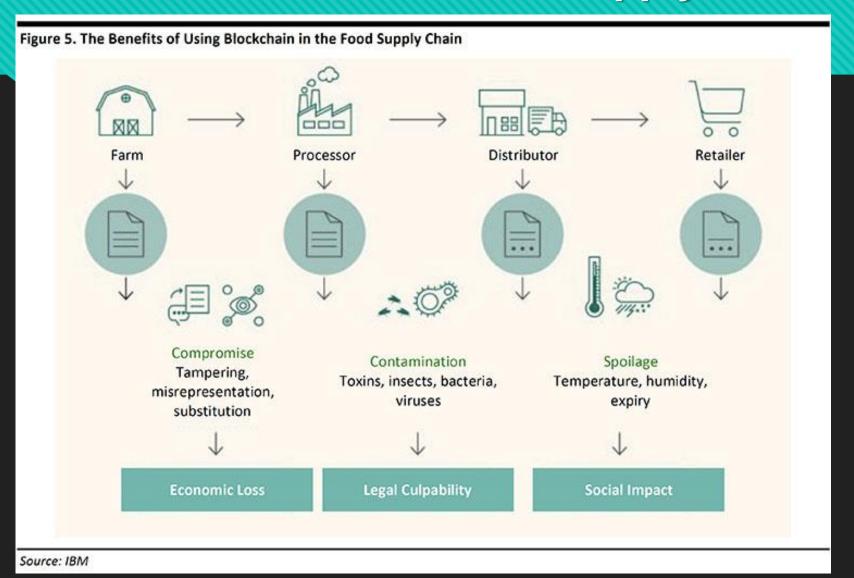
ICO's (Initial Coin Offering)

















Traceability

- one step back,
 one step up
- what, where, & when
- disparate methods



Transparency

- entire, interconnected view
- · what, where, & when
- how it's produced
- other attributes







Europe-Asia trade war looms over palm oil

Draft EU law seeks to ban all palm oil biofuel imports by 2021, a move Malaysia has likened to 'crop apartheid' and Indonesia has vowed to retaliate

By NILE BOWLE | SINGAPORE, MARCH 27, 2018 5:56 PM (UTC+8)



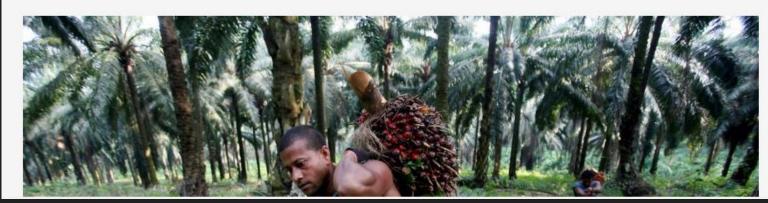














Examples in agrifood

- Provenance.org (<u>https://www.provenance.org</u>) Ethereum based, focus on traceability and transparency, wants to "tell the story" of food, uses blockchains to guarantee trust.
- Filament (<u>https://filament.com</u>) wants to use blockchain for agricultural asset tracking.







2018 has seen the first successful blockchain transaction for an agricultural commodity – using the Easy Trade Connect (ETC) platform prototype.





Tracing Food Via Blockchain

Agriculture companies are testing the use of blockchain software as a way to establish their products' bona fides. Each party is supposed to provide details related to its link in the supply chain. Here are the data points for a single Auvergne chicken sold by French supermarket chain Carrefour.

Hatchery

- O Date of birth
- O Hatchery name
- O Hatchery departure date

Producer

- Livestock farm in Auvergne, France
- O Name of livestock farmer, location
- Rearing date
- O Qualifies as GMO-free
- O Reared antibiotic-free
- O Reared out in the open
- O Departure date to the slaughterhouse

Processor

- Slaughter location
- Packaging and labeling location
- Transport to delivery platform
- O Batch number
- O Product use-by date

Blockchain

Because each party keeps a record of every change made to the digital database, it can't be tampered with after the information is submitted

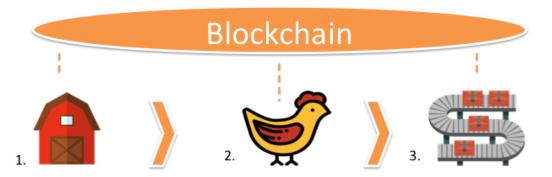
Consumer

Shoppers can use smartphones to scan QR codes on the chicken packaging to see the data from each step of the process

Data: Carrefour



End-To-End Blockchain-Enabled Supply Chain (Part 1)



Supplier

- Uploads data on antibacterial fodder
- Chicken tagged with RFID chip; provides free range

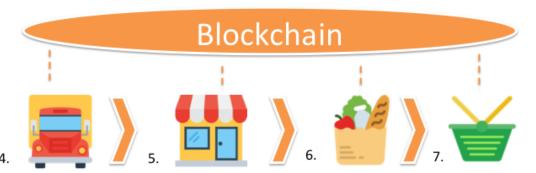
Producer

- Gets information on required cuts; prepares meat accordingly
- Adds QR code to packaging

Distributor

- Automatically receives notifications about receipt of chicken products
- Choses best suited 3PL based on all available customer data

End-To-End Blockchain-Enabled Supply Chain (Part 2)



3PL

- 3PL (Third Party Logistics) is informed about origin an destination of the product
- Is given instructions on how to store the product

Retailer

- Runs machine learning based forecasting
 Adds updates to data records
- Provides app for final customer

Store

- Has full transparency on delivery time
- Adapts orders, promos etc accordingly

Customer

- Scans QR code via app
- Gets insights into origin of the chicken product; ageing; duration etc





NEM.io FOUNDATION

The sole purpose of the Foundation is to introduce, educate, and promote the use of the NEM blockchain technology platform on an international scale to all industries and institutions



NEM Blockchain for Every Industry

NEM Blockchain technology has the potential to change the way every industry manages its information and data.

The Foundation details the opportunities in every industry to effectively store transaction, customer, and supplier data in a transparent immutable ledger.

NEM Blockchain for Governments

Government organizations across the globe are exploring the use of blockchain technology to improve operations. The ability to record transactions on distributed ledgers offers new approaches for governments to improve transparency, prevent fraud, and establish trust. The Foundation is committed to work with Governments to further spread the use of NEM Blockchain Technology.





NEM Blockchain in Academia

Educational institutions can utilize the blockchain to store data around assessments, degrees, and transcripts, as well as verification of knowledge transfer between parties. The Foundation helps institutions to adopt NEM technology so they can enjoy the benefits of Blockchain technology.





NEM Cryptocurrency

Our own cryptocurrency is the fuel and the proof of the robustness of the NEM blockchain platform. Since the day its turned on in 2015, it has been running uninterrupted processing transactions securely and accurately.

* #	Name	Market Cap	Price	Volume (24h)	Circulating Supply	Change (24h)	Price Graph (7d)
1	Bitcoin	\$175,857,680,478	\$10,455.70	\$9,234,100,000	16,819,312 BTC	-10.55%	m
2	♦ Ethereum	\$93,011,392,038	\$957.48	\$3,356,970,000	97,142,168 ETH	-10.08%	m
3	• Ripple	\$46,249,500,428	\$1.19	\$2,019,550,000	38,739,142,811 XRP *	-14.55%	Jun
4	Bitcoin Cash □	\$26,580,327,797	\$1,570.41	\$585,895,000	16,925,725 BCH	-11.98%	m
5	Cardano	\$13,769,841,236	\$0.531099	\$464,477,000	25,927,070,538 ADA *	-13.88%	W
6	4 Litecoin	\$9,509,695,877	\$173.31	\$424,218,000	54,871,333 LTC	-8.84%	my
7	♥ NEM	\$8,360,603,999	\$0.928956	\$61,866,200	8,999,999,999 XEM *	-12.72%	Jummy
8	♦ EOS	\$8,081,443,204	\$13.02	\$2,695,570,000	620,918,704 EOS *	0.82%	M
9	Stellar	\$7,870,808,300	\$0.440506	\$306,764,000	17,867,652,881 XLM *	-5.55%	J
10	♠ NEO	\$7,592,325,000	\$116.81	\$316,233,000	65,000,000 NEO *	-12.29%	My
11	☆ IOTA	\$6,539,039,558	\$2.35	\$91,877,000	2,779,530,283 MIOTA *	-14.14%	m





NEM Blockchain Centre, Kuala Lumpur











A US\$5m fund to incubate and nurture young startups to develop enterprise blockchain solutions on the NEM blockchain platform. Program will be based out of NEM Blockchain Centre & NEM@satellites.







A 250m XEM fund to incubate and nurture young startups to develop blockchain solution on the NEM blockchain platform. Receipients can receive from 500k – 3.0 million XEMs for their results driven projects.







Where Do We Go From Here?

- Learn about the world of blockchain & cryptos?
- Build a community for learning & education together?
- Cook for blockchain use cases in your organisation??
- Ask how will blockchain change my life & pivot?
- Digital currencies as the new way of doing business?
- Cryptos as an alternative investment vehicle?

Evolution of the Internet

- Version 1.0 World Wide Web www
- Version 2.0 Internet Email
- Version 3.0 Social Media & Cloud computing
- Version 4.0 Blockchain & distributed ledgers and peer-to-peer networks

Some useful reference sites:

www.cointelegraph.com www.coindesk.com

www.coinmarketcap.com www.youtube.com "blockchain"



Join the Revolution & be a NEMber



Thank you for your time.



ANDY ROY SIAN

andy@nem.my

Blockchain Technology Evangelist and Business Development – Government, GLC and Higher Education NEM Malaysia Sdn Bhd +6017 – 303 9088