White Paper

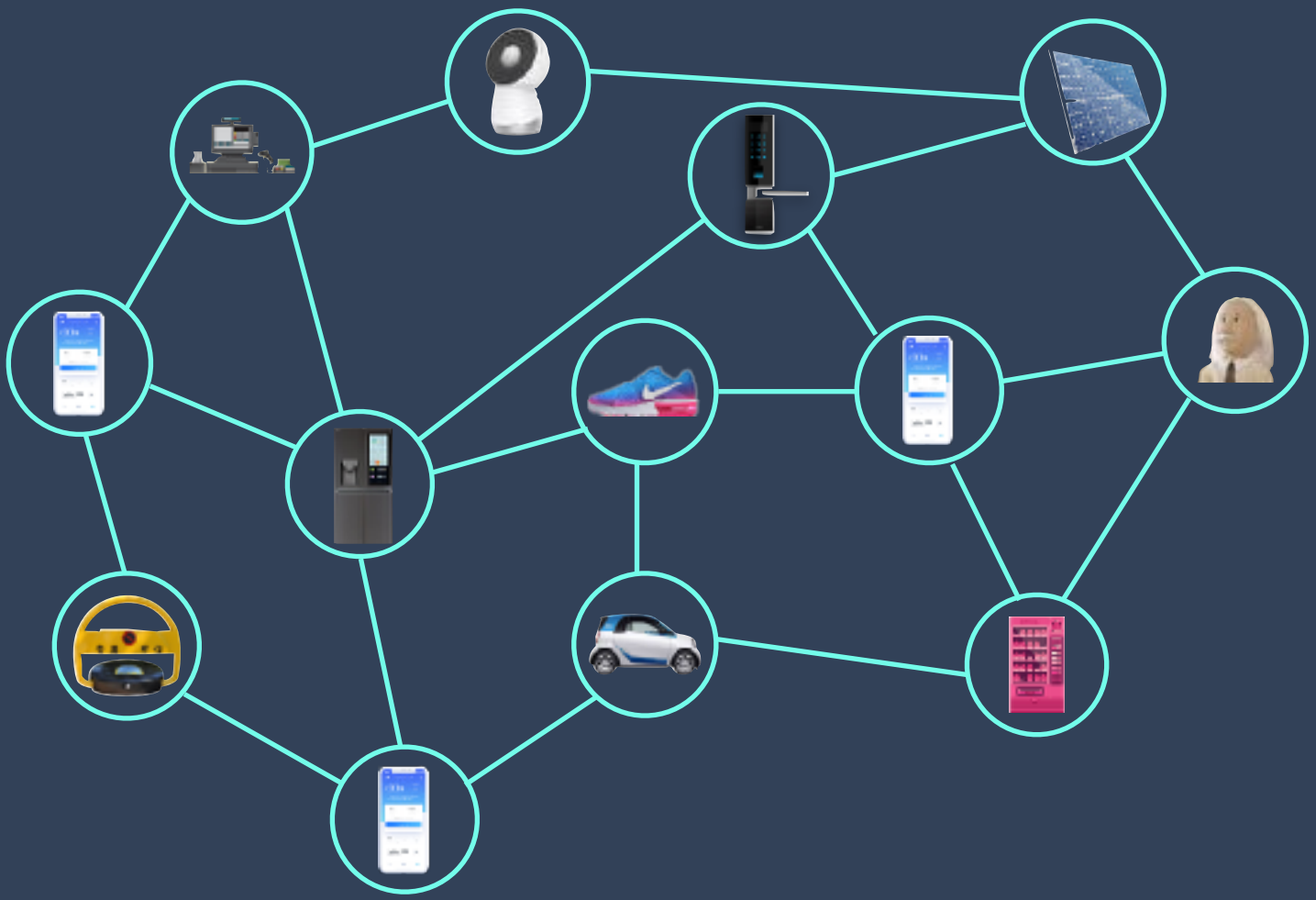
PRODUCED BY
MTC MESH NETWORK
FOUNDATION PTE. LTD

All of our blockchain networks are currently operating in a centralized network

Now, this will be REVERSED!

MTC Machines and Decentralized Mesh Network which is used to link Machines

MTC Mesh Network



MTC Mesh Network, a kind of Mesh network, connects one machine with another in the IoT, so as to achieve correspondence between them. It is a decentralized network protocol, with its correspondence being conducted by mutual data exchange between communication modules installed in these machines, like BIE and Wifi. In the Mesh Network, every machine, such as mobile phone, refrigerator, automobile, cash register and robot, can be a node. And these nodes could communicate with each other without the traditional internet, because MTC is a totally-decentralized Mesh Network protocol. For blockchain network and IoT of new generation, MTC Mesh Network is the foundation. That is, once MTC Mesh Network is built, all blockchain projects and IoT machines can exchange information and make transactions rapidly and conveniently, even offline. MTC can support all blockchain projects, including Bitcoin, Ethereu,, EOS, Qtum and Achain, to enable them to shift value and enable IoT equipment to transfer data. In this way, network congestion caused by large qualities of transactions is unblocked; IoT does not need build costly private network to transmit data. In short, it will become the mainstream network for decentralized near field communication and the IoT.

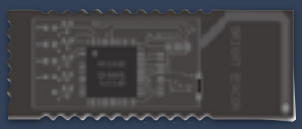
MTC Mesh Network Open platform

IOS

Android

Javascript

Open Platform



BLE Module

MTC, a totally-open-source project, supports various systems, such as IOS, Android and JS to get access to MTC network protocol quickly and provides lots of API cases, so that your intelligence devices can enjoy function of near field communication brought by Mesh Network in just 5 minutes. For instance, this can be used in forms of offline internet chat, near-field interaction App, Blockchain wallet, wisdom city, indoor localization, near-field offline payment as well as IoT control system. All the applications based on MTC mesh network combine with each other to form a node-to-node Mesh network.

Our core operation team once had participated similar IoT open platforms and attracted almost 10, 000 users. Taking the advantage of existed technologies and resources, MTC funding will continually develp the MTC network protol to a deeper level, with its target to cooperate with 50,000 Apps in 3 years, with the user coverage of MTC Mesh Network reaching one billion.

Mesh+BlockChain

Mesh Network, namely wireless mesh network, which evolves from ad hoc networks and is a multi-hop network, is one of the vital technologies to address the “last mile” logistics problem. In the process of developing a new networking, wireless is indispensable. Wireless mesh network, a dynamic self-organized networking structure which can be expanded gradually, can achieve cooperative communication with other networks, enabling two or multiple devices to maintain wireless connectivity.

Mesh network is currently applied in occasions where the network environment are complicated and near field communication are needed, such as underground parking lot, mine field, disaster rescue and relief and the control system of IoT.

The combination between the decentralized blockchain network protocol with the decentralized infrastructure of Mesh networking technology will promote the birth of a new underlying communication protocol which will be applied in the blockchain network and the IoT.

At present, the combination of blockchain and Mesh network are mainly used by four projects globally, namely Smart Mesh, Right Mesh, Nodle Team and our MTC Mesh Network. And in these projects, Mesh network are mainly applied by two forms.

One is the offline communication application between different mobile phones, such as chatting, playing game, blockchain payment. Typical projects are Smart Mesh and Right Mesh.

The other is specialized communication network for the IoT, such as data collection of IoT devices and near field offline payment. Typical projects are Nodle and MTC.

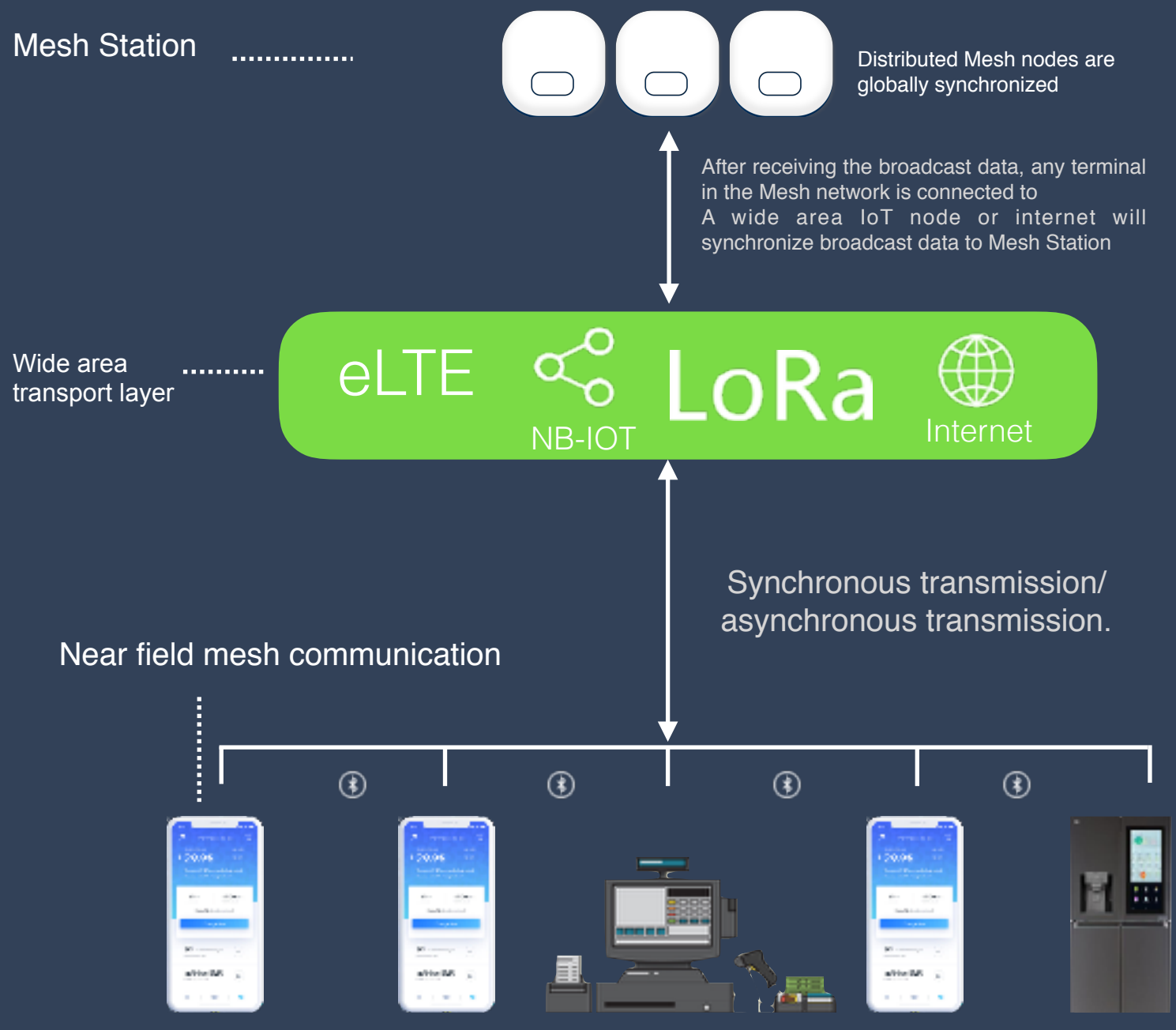
Smart Mesh, an ethereum-based application, can support all offline transactions and offline communication protocol by transacting ERC20 Tokens. And it charges certain amount of SMT tokens as commission while helping clients who possess ERC20 assests with offline transactions.

Afterwards, Smart Mesh introduced Mesh Box as one offline node and issued a new type of token to support the Mesh network, enabling clients to build distributed node system and conduct bitcoin mining through Mesh Box.

Mesh+BlockChain

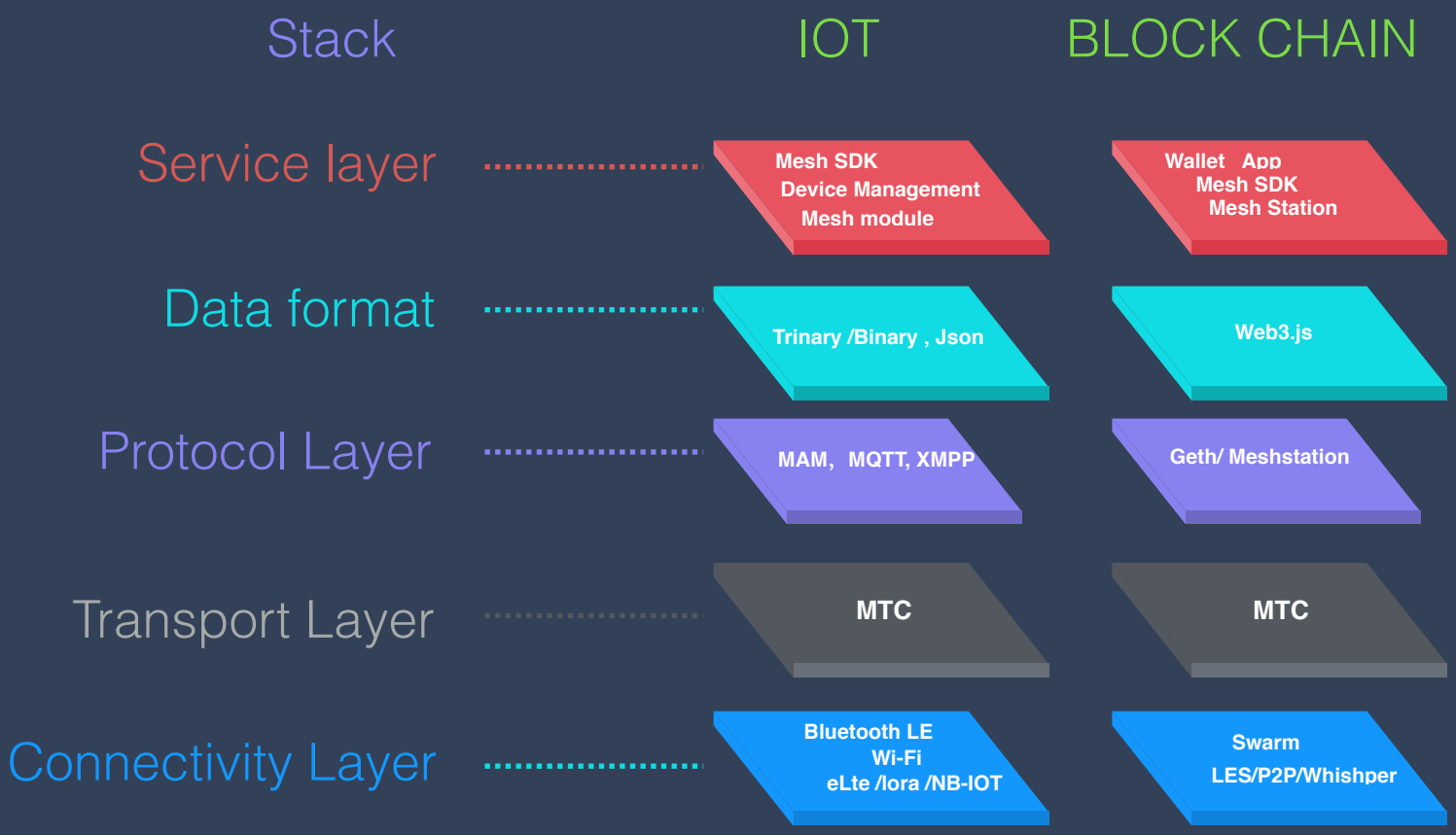
MTC Mesh Network will develop our own primary blockchain network to address problems, like low transaction speed of ethereum-based network and costly commission and to support the offline transaction of almost all blockchain assest, including BTC, ERC20, EOS and QTUM. The application of MTC primary networking tokens makes the possibility of zero transaction fee of offline transactions become reality, with focus on helping the IoT devices to build fundamental Mesh networ to replace the existing costly Wide-area network stations, like Lora and NB-IOT and other applications of Nodle. In this way, clients can be rewarded with MTC tokens due to sharing their own cell phones to provide network support to IoT deveices. Network communication expenditure will be cut by 80% per year if the MTC Mesh network is used. MTC, apart from providing Mesh communication for IoT devices, launches services of Mesh Station for IoT enterprises. Services include storing data and building Mesh network nodes as well as enables these nodes to conduct transactions in the MTC system. For clients can build the Mesh Stationto maintain the security of MTC network and earn earn MTC Tokens through sharing data storage space.

MTC Mesh Network network architecture



Through the terminal bluetooths or Wi-Fi of each IoT to convey data from the Mesh Ad-Hoc Network, MTC network can convey information to all IoT terminals in the occasion of BLE modules, with one single bluetooth covering 50 meters (Wi-Fi 100 meters), and it can extend infinitely network coverage by connecting node to node. In this way, terminal devices can make the one-to-multiple communication come true even when there is no public network. That is to say, once any device, in the whole Mesh network, had the opportunity to get access to public network, it will convey all data to Mesh Station to synchronize all data to the Mesh network system. In this indefinitely-extended network, you can make mobile payment, play on-line games, chat with others, conduct IoT communication, and etc..

MTC Mesh Network IOT



MTC is a blockchain network, with fetures of distributed ledger and node-to-node.Different from the traditional blockchain network whose data communication is often blocked because of limited size of blocks, installment of many sub-nodes can guarantee rapid communication and Off-Chain transactions. Meanwhile, encouraging individual users to share network nodes with other IoT devices by awarding them MTC Tokens to address problems like networking and data storage. One-to multiple Mesh network at the bottom-layer of the near field Mesh communication is based on many protocols like BEL/WiFi. With the increase of Mesh Station which is orgnized by distributed nodes, MTC Mesh network will become better and better. It co-works with other mainstream blockchain network, including Bitcoin, Eth, Eos and Ae, and IoT sensors to build a fundamental network protol for the IoT sector.

MTC Mesh Network IOT node









Linking each intelligent devices by MTC Mesh network to for a new basic network, in which not only the smartphone can act as node, but also all other intelligent devices around us can play as nodes.

MTC Mesh Token and MTC main network

First of all, MTC Mesh Token adopts a smart contract based on ERC20 tokens, which can be short for MTC. Ethereum is a pubic, distributed and open-source blockchain platform, rpviding a distributed turing-complete virtual machine to support the operation of the smart contract. MTC is used to motivate MTC node users or producers to purchase services in the MTC system. For instance, the IoT enterprises can use the MTC network to link their IoT devices to conduct communication. Clients will be rewarded with MTC tokens if they link their smartphones and other Mesh Stattion nodes with the Mesh network.

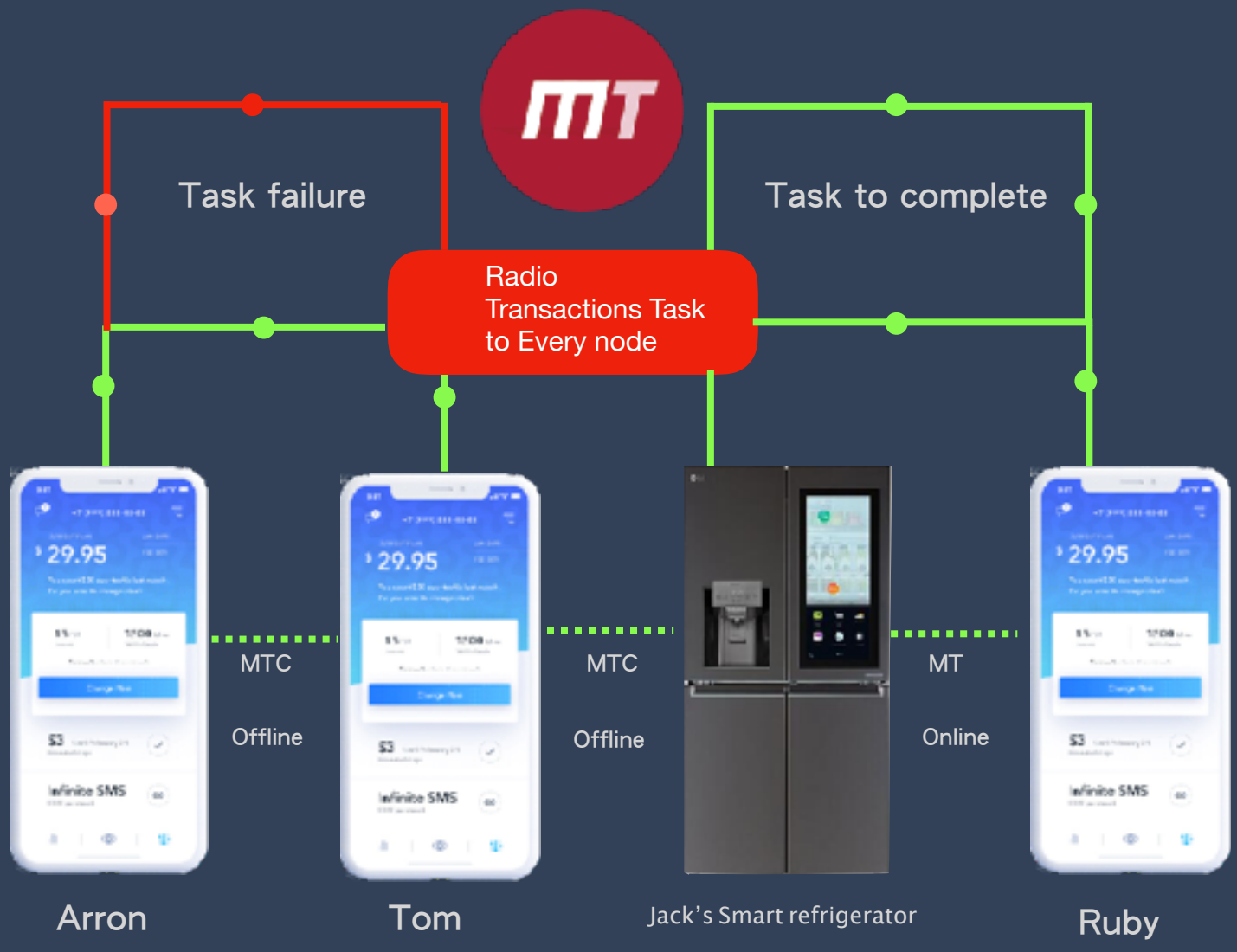
MTC Mesh Token will replace ERC20 Token which is based on Ethereum with MTC main network token. MTC main network adopts a distributed way which is guaranteed by POS Proof of Stake, with users being able to set Mesh Station in the MTC networ to protect the security of the whole network. What's more, every Mesh Station can share other users with its own networking and data storage space, to earn MTC tokens by offering data storage service with IoT enterprises.

MTC Mesh main networ can support transaction of over 10,000 TPS and any payment in MTC tokens will charge Gas fee. For example, Arron pays Bob 5 MTC and Bob will receive 5 MTC, which means the MTC platform will charge nil in the transactions. It is because users have already earned profitable MTC tokens by sharing their networking and storage sapce while they develop the POS Mesh Station. Since the Mesh Station comes with POS Proof of Stake, users do not need to build extral stations for MTC network. Plus, the fact that Mesh Station comes with BEL modules will enable users to earn MTC tokens by collecting data of various IoT devices and reporting to IoT enterprises.

MTC Offline Paymen

Living in an era when mobile payment is prevailing, any third-party payment platforms can not provide payment services as normal when the internet is cut off or the signal is weak. However, MTC makes the offline payment become reality for the first time.

MTC offline payment will confirm the transaction quickly through Mesh Nodes at first. And then, it will use the MTC Mesh network to convey synchronously the transaction data to offline nodes. MTC users can encrypt their transaction information by transfering signature by bluetooths of cellphones or Wi-Fi and make offline payment by confirming any node who is access to the Internet, to guarantee that the transaction data is notorized by clients.



I.E.

At the starters, Arron and Tom build a communication channel on the Internet by using any MTC Apps or blockchain wallets that are linking the MTC network and pleage a certain capital respectively. In the offline environment, users can make use of MTC, BTC, ETH and other blockchain assets to make payment.

·Arron/Tom/Jack's refrigerator/Ruby builds an offline Mesh network by mobile phone MTC App.

·Arron transmit the transaction information which is encrypted by signature to the whole Mesh network and all the four parties will store and encrype the transaction data.

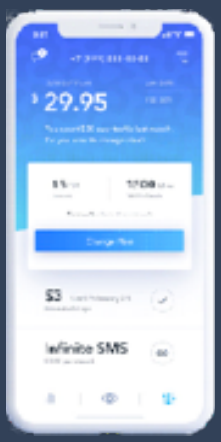
·Once the Internet is available or any node links to the Internet, it will synchronize the cryptographic transaction information to all Mesh Nodes, and then transaction data will be verified and completed.

·Mesh Node is a distributed one, supporting all blockchain network, which is similar to the Lightning Network of Bitcion and Rainden Network of Ethereum. It functions as guaranty and enables clients to conduct timely micropayment. If Arrom cheat others, the tokens he has pledged at the Mesh Node will be deducted and given to Tom.

·Mesh Node is totoall disinterested. It will support amlost all mainstream blockchain networks as their pulic nodes, including Bitcoin, Eth, Eod and AE.

·When Arron and Tom conduct offline transactions, all the four parties will store and encrype the transaction information. And once the Internet is available, any party can make synchronical verification of the data to guarantee the security and prevent the data from tampering.

MTC Near field non sense



Near-field Internet of Things (IoT) aware payment without or with network

If you have reserved the goods in advance, and the payment App used the MTC Mesh network, you cellphone will be auto-wake-up and remind that you are arriving the target location. Your real-time position will be displayed on the terminal of the corresponding shop, and they will deliver your goods to you.

MTC network helps IoT enterprises, for example vending machine, sharable charger to conduct transactions with no web support, saving costs on communication and communication module, sfor example, WIFI and 4G. It can verify the validity of the payment through the user's phone and send back the authentication information to the IoT terminal offline.

MTC Internet of Things

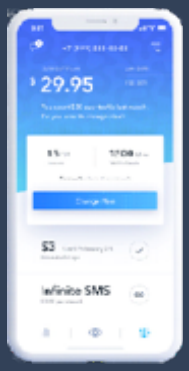
Sharing Mesh Network Resources With Iot To Earn Mtc Tokens

In reality, a large number of IoT devices require network and LBS information support, such as electricity, gas, shared bikes, anti-lost alarm, smart trash can and street lamp. They pay tens of millions per year to get online communication services. In the future, IoT industry will save more than half of the online communication fees once MTC sharing Mesh network is applied.

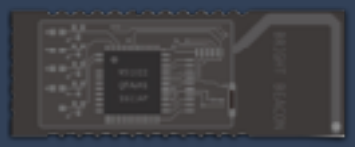
MTC Mesh network can provide Mesh network for low-power anti-lost devices for children.

Traditional children anti-lost devices is poor in its localization technology and can be used in outdoor only. Due to its high power consumption ability, it can be used in less than one week with data updating in every ten minutes. After companies adopted MTC Mesh network, they will get access to almost real-time outdoor and indoor geographical location information. Besides, it can achieve more than half a year's service life with the MTC Mesh low power consumption chip.

MTC Product

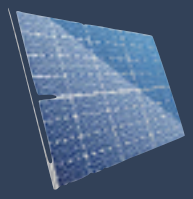


Providing Mesh network SDK for all kinds of App
It only takes 5 minutes for developers to connect Mesh network
Contributing network nodes for achieving national Mesh



BLE Mesh module

Mesh Station
Mesh network-less node (mine machine)



BEL Mesh module for IoT enterprises

By sharing Mesh nodes, it can help IoT enterprises build a state -of -the art IoT network with high efficiency and low cost.

MTC business model

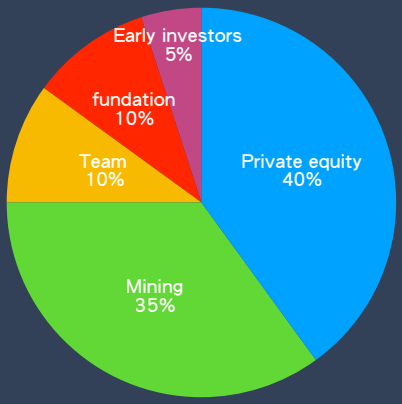
Users need to have MTC in order to make offline Mesh trade if they planned to pay by non-MTC tokens. It will charge a certain amount of MTC as Gas and reward it to miners, but if the user pay in MTC, it will be free.

IoT enterpriese users must use MTC Token to buy the right of use of Mesh network a the distributed data storage service.
Big data access and analysis need to consume MTC Tokens.

MTC Token Allocation

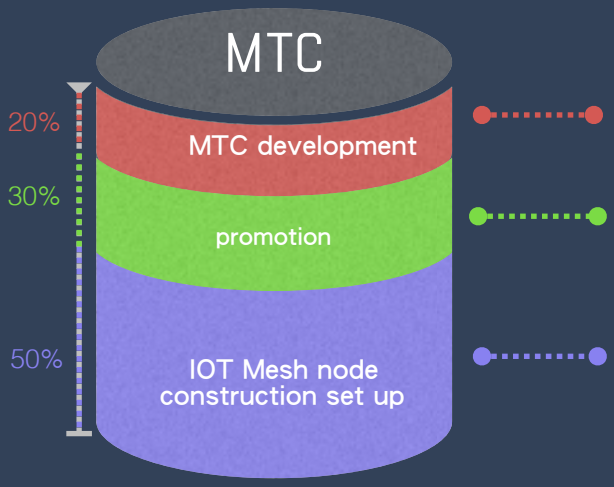
MTC team will firstly release MTC token based on ERC20 token standard. The total amount will be 1 billion. It will be converted to MTC network tocken after the master network start running.

Total private placement：40%（400 million MTC tokens）
MTC network sharing node reward：35%（350 million MTC tokens, dunked down every 20 years once every six months）
MTC Team：10%（100 million MTC tokens）
foundation：10%（100 million MTC tokens）
Early investors：5%（50 million MTC tokens）



In order to keep the project sustainable, MTC has strict restictions on the lift of ban of the token possessed by MTC team. The token possessed by the team will be frozed for 2 years.

MTC Token Usage Plan



MTC Research and Develpment MTC network early stage research investment. It will achieve profit in 2 years and undertake the research and development expenditure by itself.

Project Operation and Promotion Global market promotion, mainly including mobile users, goverments and smart cities, energy and shared economic fields.

IOT Mesh nodes contribution collaborate with goverment and shared economic enterprises to build smart city, public paking lot and electricity and to build IOT Mesh nodes of gas energy, IOT LBS and etc projects.

MTC token reward rules

Share Mesh network node

You can share your cellphone as the Mesh node of the MTC network to win token reward. Reward calculation method: the amount of token possessed by user×the amount of time user posessed the token×the amount of time of celephone node sharing×the amount of transactions made by your node and the amount of mission reported by IOT data

Mesh Station

You can buy Mesh Station as the ore machine and POS common node in MTC Mesh Network. It adopts the mixed mining mechanism of POS + storage space + networking + Mesh network Sharing, allocating Mesh Station in scenes to win token reward. Reward calculation method: the amount of token possessed by user×the amount of time user posessed the token×the amount of time online×the storage space occupied×network bandwidth × the amount of payment transactions made in the base station or the amount of mission reported by IOT data.

MTC milestone

2017.5

Technical team /
operations team set up

Technical architecture designTechnical
architecture design

2017.12

Completed $ 8.5 million private placement to sell 40% tokens
400 million MTC tokens

Support ETHMesh networkless transactions

Mesh network trading wallet 0.1Bata on-line

2018.Q1

MTC Mesh Wallets support BTC / ETH / Qtum /
webless transaction development

Mesh Station development

MTC Main Chain development

Mesh SDK v0.1 development

2018.Q2

Mesh Station v1.0bata public on-line test.

Mesh SDK v1.0bata public on-line test.

Mesh Wallet v1.0bata public on-line test.

2018.Q3

Open node share mining.
Station/SDK/Wallet/MTC Main Network public on-line test.
Global operations promotion.

2018.Q4

IOT project cooperation implementation.
1000 App access Mesh node SDK.

2019-2020

Combined with government/enterprises, the construction of Mesh network nodes of 300,000 iot assets is completed each year.

50000+App access MTC network node SDK.
Can cover hundreds of millions of users to build Mesh network.

MTC Team

Arron Lee

Serial entrepreneur, multiple IOT project financing and successful launch experience
The founder of the Offdoo technology
Founder of BrightBeacon technology
10 years experience in Internet/Internet of things products.

Meng CHili

JCBLE Founder.
World leading LPWAN solution team Leader.
Worked for China unicom/SICMICRO for 15 years in wireless communication field/IC integrated semiconductor industry

He Tao

Co-founder of Bright Beacon
Developer of Ethereum Community Forum
Eight-year experience of researching and developing mobible Internet; Participated in over 30 R&D and design projects related to mobile application; Domestic pioneer in developing navidation engine for indoor localization, a technology has been used by over tens thousands of developers; Original technology of BLE Mesh realizes offline communication, with it coverage reaching 200m^2 and control mobile Apps of IOS and Android by remote activation of back-end application through Mesh Network.

Li Shipping

Founder of jcble.com
15-year experience in research and developing communication protocol, IC and device driver
In 2004: Hired by Haier (Beijing) IC Design Co., Ltd. and in charge of the R&D of core chips, IC and devide driver
In 2009: Hired by Thomson (Beijing) Friendly Technology, leader of the R&D team of IC chips
In 2009: Manage of the R&D Department of
Chongqing China Silian Instruments and Meters Group
Independently developed Logan ans Lpwan
Many patents of LPWAN

Professor.RanPeng

Associate Profess, Master of the University of Manchester
Mainly engage in the research and development of new technologies and devices of intelligent inspection
Participated in the 863 Program (National High-tech R&D Program) and major international scientific and technological cooperation projects
Charged and participated in over 10 research projects all both national and provincial level
Published over 20 pieces of journal articles and obtained over 10 patents
Completed projects as the pricinpal head, namely the national key industrial projects “ Wearable IoT Intelligent Terminal Device” and the crossing research project “On-line Monitoring System of Environmental Information ”
Products have been accepted and adopted in many industries, like healthcare, education, military and police

Dr.PangYu

Ph.D graduated from the McGill University in 2010
Has been enaged in long-term technical research of photoelectric detecting and Mesh communication of low-power short-range
Mainly participated in assembling Chongqing Key Laboratory of “Photoelectric information Detecting and Transmission Technology”, orgnizing Chongqing innovation team addressing the development of “Wisdom Healthcare System and Key Technology ”, building of Chongqing Postdoctoral Centre and Studios for Chief Experts in Chongqing.
Headed 2 research projects of the National Natural Science Foundation, 3 research projects of provincial level and focused on one national specific research project and 3 provincial key projects
Published more than 60 SCI/EI academic articles, a monograph, and won more than 10 national invention patents
Holding concurrent posts of Nan'an District CPPCC Member, Member of the Chinese Institute of Electronics, Member of IEEE, commissioned as Shenzhen Overseas Student Entrepreneurial Expert.

MTC investors

Sun Zheyu

The Co-founder of Coldlar, the academic member of financial science and technology innovation laboratory of Peking University, the vice president of Hongjia Investment, and the well-known angel investor in blockchain who has been interviewed by CCTV and The Guardian.

Ju Xie

Working on full-time research and investment in block chain products from 2013, and is early participants in the bitshares and etheric projects, Bitshares Director, Co-founder of Bit startup, Co-founder of YOYOW project, CEO of WeiQie Information Technology Co., Ltd.

Wang Yajing

Former Global Market Leader of TaiG jailbreak team (the first domestic team of iOS jailbreak), who is now iPIN marketing partner of AI Business cognitive analysis platform.

Liu Changyong

Chairman and co-founder of Taide Caichuang
Co-founder of True-Bit forum
The popular science author of Digital Currency and Blockchain.
Symposiastx and Online forum manager of Babbitt
Doctor of economics, Peking University.
Associate professor, Chongqing Technology and Business University.

Huang Jian

Investor of Blockchain

EMBA, Guanghua School of Management, Peking University

Former Partner of Bitcoin Foundation

MTC investors

Chu Zhuang

Former CITIC Trust CIO

The current Rui Bao Gold Service CEO CITIC

Micro Finance 50 forums the first sponsor

Zhang HaiHui

Blockchain Business Angel

Secratary of BCDO

Secratary of WeFinance 50 Forum

Wang Binsheng

Blockchain angel investors

Blockchain United Development Organization consultant

Graduate School of Social Sciences Distinguished Professor

Mesh network operators for the Internet of things