Blockchain Financial Services Platform

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1. EXECUTIVE SUMMARY

Abstract

Imagine a world with no out-of-sync ledgers. No need for reconciliations, fragmented, or hidden data that produce multiple versions of the truth. Today with the emergence of this world, it has made you have just one version of a ledger, with simultaneous settlements that are seen by all parties. You could get instant visibility on the status of the payee, the payer, and other transactional information. Gone are the days of maintaining records in your traditional ledgers for a transaction between entities. You would have a transparent, chronological history of events for a single source of truth. The world is right here, and it's known as the blockchain. As a revolutionary technology for recordkeeping, it is poised to change the future of finance —in accounting, payments, remittances, trading, trade finance, collateral management, identity management, and more.

Coalculus is an advanced KYC embedded hybrid blockchain platform connecting existing financial networks that offer real economic and social value. Building on our clients' existing IT and cloud assets, Coalculus adds a new dimension for businesses to easily adopt blockchain, securely extend business processes and applications, and innovate upon old processes and create new financial services, while at the same time reducing operating costs.

Coalculus's core technology is built on the foundation of Ardor's unique parent-child chain architecture. Our objective is to advance the adoption of hybrid blockchain by opening up a new era of mass-market usage. This is an era where businesses get the best of immutability and trust from a permissionless public network while still retaining the benefits of control and performance provided by a permissioned blockchain.

2. INTRODUCTION

A distributed and decentralized network in place of a central authority, this paradigm of decentralization is key. The cryptocurrencies network is made up of thousands of nodes around the world that communicate through a peer-to-peer (P2P) protocol. The distribution of the network and its shared data registry (the famous blockchain) gives it more resilience than a central database could have. Like the Internet, if part of the network nodes become defective, it should not affect its overall functioning. This is not the case of a client-server architecture that would be impacted by the malfunction of the central server. This desire to have a distributed network stems from an alternative conception of security whereby a distributed system always provides greater protection than that provided by a central authority - such as a government - to citizens and the organizations it governs. Thus, the computer scientist and lawyer Nick Szabo asserts as early as 2001 that the term trusted third party is a nice synonym for a gaping security breach that a developer chooses to ignore.

A mechanism for authenticating transactions and establishing consensus, the cryptocurrency protocol provides a solution to an old problem in distributed computing that is that of the Byzantine generals. In short, this problem is to see if and under what conditions, different generals will be able to agree on a coordinated plan (a "consensus") knowing that there may be traitors among them and that their communications may be potentially intercepted and corrupted. In other words, the problem here is how a community of "peers," with potentially dishonest people within it, can coordinate when there is no central authority to control behavior. Blockchain is used to build consensus and update its distributed registry, while proof-of-work requires anyone wishing to register new data to this registry to solve a cryptographic problem. In doing so, the miner will be potentially rewarded for updating the network and contributing to the security of the network.

In finance, three aspects seem to us essential to explain the interest in blockchain solutions - which are often still at the proof-of-concept stage. The first promise put forward is that of better traceability of transactions - even total traceability. The second promise is that of greater reliability and integrity in data storage, which is based on the almost total blockchain immutability. Indeed, it is quickly far too expensive to seek to alter the data recorded in the past – and we would be immediately noticed. Finally, the last promise of blockchain technology is that of automation. Traceability, integrity, and automation, here are three keywords that are often found in the mouths of users interested in this technology. Two more could be added, linked to the previous ones: speed and cost reduction. The emerging usages of the blockchain in the field of payments or financial applications can be analyzed in the light of these factors.

At Coalculus, our solution is a hybrid blockchain framework that isn't looking to replace our client's current IT system, but rather to leverage on their existing IT or cloud infrastructure in combination with blockchain to build new financial transaction networks where trust and compliance is assured.

We propose to provide comprehensive IT integration and support services for clients who wish to build new financial services or unlock real value for existing financial products and business services based on Coalculus.

This whitepaper outlines our business model and technical features of Coalculus, and also our future plans and goals for increasing enterprise blockchain adoption.

3. PROBLEM DESCRIPTION

Trust is not a simple concept, nor is it necessarily an unmitigated good, but trust is the stock-in-trade of financial services. For centuries, banks have served its purpose as trusted intermediaries to help people protect and transact with their money. As large and complex as our modern financial system is, its primary function is to cope with this simple fact. Banks and financial institutions promise to keep people's money safe, provide them with records of how much money they have to debit and credit, make available means to save and invest and ensure that fraudsters don't cheat the common man of their hard-earned money.

Despite its complexity, the traditional financial system the incumbents have built is by no means perfect. It relies on large numbers of private and public entities, each with their organizations and proprietary IT systems. That makes it expensive and, as information is replicated through the system, often needlessly redundant. Many of the key parts of the system are centralized, creating potential single points of failure. By their nature opaque, financial infrastructure systems are also hard to monitor.

Subsequently, as the internet emerged in the 1980s with early broadband, digital networks began to evolve banking and financial services into what is commonly known today as the electronic financial system. New innovative technology-driven business models, for instance, digital banks, P2P (peer-to-peer) platforms and robot-advisors, have replaced some traditional financial mediators, posing separate challenges for incumbent financial institutions and banks.

With all the myriad associated technological improvements in banking, about 60% of the world population, 4 billion individuals still have no access to a bank account or basic financial services. Some of the challenges include, expensive cost, distance, and absent of credit-score information are key problems to household access to financial services. And also collateral requests, disparaging interest rates, and difficult processes affect access to financial services.

Substantial growth has been recorded on financial inclusion all over the world. However, developing Asia, cross-country, and intra-country differences are still high. A massive gap persists in accessing of bank and financial services that still benefits the rich above the poor, male over female, and urban above the rural populations (IMF 2017).

Financial services other than banks are constantly evolving their systems with the aid of cutting-edge technology in order to secure the markets by providing economically available services at cheaper rates. With the blockchain, banks, financial institutions, and payment providers have perhaps found an alternative method of record-keeping which establishes new ways of cooperation and that may very well address many if not all of these issues.

3.1 THE OPPORTUNITY WE EXPLORE

The blockchain in the financial and banking sector brings numerous benefits, such as greater confidence, transparency, efficiency, and inclusion in the financial system. As part of our current banking and financial system, sending money from one bank to another or from one country to another could sometimes take days or even weeks at very high rates. With faster options like money transfer services, commissions could reach around 20% of the transaction. These high fees and slow transaction processing are caused by the centralized nature of the current financial system and the multiple intermediaries involved. Using distributed accounting technology afforded by blockchain, this process could be executed much faster and with minimal costs.

The blockchain is an ingenious technology that allows seamless distribution and transfer of digital information that is tamper-proof. The people have compared blockchain to 'the new internet' of financial transactions. It is a self-auditing ecosystem that is verifiable by everyone in the network such that before anyone can make any change in the record kept in the ecosystem, he has to get the approval of everyone in the system. This characteristic makes blockchain the ultimate mechanism that brings everyone to the highest degree of accountability.

The industry is ready for change as its next stage of development is set to be marked with the adoption of blockchain-based financial solutions that will ensure the removal of transactional boundaries as well as a reduction in operational bureaucracy and difficulties. Not without saying that the presence of a long chain of intermediaries that exists at the different stages of financial operation will also be removed and the unbanked will eventually enjoy financial inclusion in a world that is moving in a swift pace. It has been forecasted that every financial sector entity, whether paying, trading, lending, storing, investing, or attesting to a transaction, will be affected by this emerging technology. This entirely new financial environment is formed for players in the financial sector, including governments, financial institutions, and other market participants.

With this in mind, careful and projected views into the various challenges of the current financial services industry as well as expert insights into blockchain technology and its numerous features were looked into, and this catalyzed the creation of an enterprise blockchain financial services platform - named Coalculus. In sizing the underlying opportunity for blockchain in finance, the sector will be accelerating at a CAGR of around 80% with increment growth of $2.85 trillion between 2018 to 2023. This is a growth that is driven by cross-border payments and settlement, as well as trade finance and post-trade transaction settlement. Competition is fairly fragmented with only a few major enterprise blockchain players occupying the global financial services market. 50% of the growth in market value over the 5 year horizon is expected to come from APAC, which one of the key trends for the industry is the digitalization of physical assets.

3.2 CHALLENGES RESOLVED BY COALCULUS

The independent organization of the Coalculus platform is such that is resolves most of the challenges that enterprises face while using other platforms. The principles of Coalculus blockchain hold great promise for finance organizations, including quantitative and qualitative benefits. Among them:

Hybrid Alternative Compared to Fully Public and Fully Private Blockchain Platforms:

By utilizing a hybrid design, businesses need not tear existing systems out and start again. Instead, the business can now build financial transaction networks on top of their existing IT and cloud systems and collaborate with other organizations through multichain communication. In our multichain ecosystem, intra-company permissioned enterprise blockchains work as convenient middleware between whatever existing systems a company has, and the public blockchain. In some cases, its only purpose might be to serve as a gateway between the public blockchain and whatever it is that a company wants to connect to the public blockchain.

Improved Effectiveness from Transparent Records and A Single Source of Truth:

By producing one version of a ledger that is harmonized across all computers, our blockchain helps to remove out-of-sync ledgers and, thus, the need for reconciliations. Transparency may also lead to other benefits. In trade finance, for example, all parties will be able to see when goods have shipped and reviewed all steps of the transaction, which may significantly reduce the settlement time.

Enhanced Data Integrity to Reduce Loss:

With immutable records that are visible to everyone involved, our blockchain will improve data accuracy and security, help reduce the risk of fraud, and show compliance through an audit trail. For example, when supply chain information is put on a blockchain, companies can potentially reduce fraud and errors, improve inventory management, identify issues more quickly, reduce delays from paperwork, and increase trust among all parties. We provide the potential to create a source of information around users' identity, reducing costs, and risk related to Know-Your-Customer regulations.

Improved Customer Experience Through Faster Processing:

By using our blockchain to share information with clients and vendors, businesses would be able to tap sales opportunities and serve customers far more quickly than with traditional systems for setting up new relationships. Hence, we enable consolidated, accurate repositories of customer data that can be accessed by all parties in the network.

Higher Availability of Capital and Lower Cost Of Business:

Thanks to consensus mechanism and standard application programming interfaces (APIs), our blockchain can minimize the time that capital is tied up for a transaction, instead of triggering an automatic transfer of funds between entities or known participants. Additionally, our blockchain will also eliminate some transaction fees by reducing reliance on third-party agencies and intermediaries, and it will likely free up capital flows as the purchase of managed funds moves to real-time.

4. INTRODUCING COALCULUS

General understanding of blockchain technology has thus far been limited to public blockchain versus private blockchain types, and this misconception suggests that there exist no alternatives in-between.

Coalculus have combined the benefits of public and private blockchain to launch a compliant framework that empowers data sensitive businesses with an easy and proven way to transform financial services with minimal costs, delays, and reliance on trusted third parties.

Coalculus's advanced KYC integrated hybrid blockchain platform is built around a scalable, secure, and easy to use public blockchain – The Coalculus Public Chain. Coalculus can be simply explained in two layers: The Coalculus Public Chain is the permissionless public base-layer blockchain, and The Coalculus Enterprise Chain are permissioned transactional blockchains dedicated towards specific applications and services.

Versatile by design, developers can also implement a wide range of financial applications, services, and ecosystems on top of the public and enterprise layers – a defining characteristic that sets Coalculus apart from its competitors in the enterprise blockchain arena.

Coalculus's strategic partnership with Jelurida has enabled us to leverage and build upon Ardor blockchain's proven parent child chain architecture that has been adopted by many of its existing clients. Coalculus has commissioned five teams to lead the development and pioneer a suite of services within the Coalculus ecosystem and line of products. Our team's professional capabilities combined with the technical expertise of our dependable partners and innovation of the public Ardor/NXT community brings to the fore a developer-friendly, feature-rich, and reliable open financial services network for programming business-ready solutions.

Our Vision

To create a globally-trusted financial transaction facilitation platform with an initial focus on ASEAN (Association of Southeast Asian Nations) countries, Hong Kong, and Australia.

Our Unique Framework

To establish a convergence of public and permissioned blockchains developed on the simple idea that organizations should be able to implement new financial services quickly and leverage the benefits of blockchain in the least amount of time needed.

4.1 COALCULUS PUBLIC CHAIN

4.1.1 CONSENSUS ALGORITHM

The Coalculus Public Chain is built on the time-tested Proof-of-stake (POS) consensus algorithm, which is further developed from Jelurida's Ardor Blockchain – a technology that is based on the stable and reliable codebase of NXT.

- **High performance:** Coalculus' POS algorithm has been proven to have higher performance in transaction packing and block generation even under high load conditions.
- **High security:** Coalculus' POS algorithm can handle various types of attacks, albeit theoretical concepts, including nothing at stake, long range attack, bribery attack.
- **Finality:** All transaction administered on the public network will be confirmed in a certain timeslot, which cannot be rolled back.

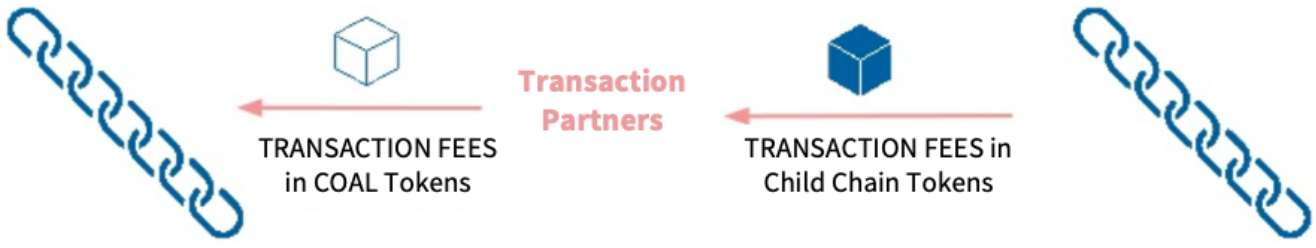
4.1.2 FORGING BLOCKS

Jelurida's Ardor blockchain platform is popularly known to offer solutions to some challenges affecting various other blockchains such as Blockchain bloats, single token dependency, and Business-as-a-Service restrictions. With Ardor, a unique blockchain architecture can be replaced with the combination of one forging chain, on which transactions are denominated in one token and multiple child chains, each having its own transactional token.

The Coalculus platform is powered by the COAL Token to replicate the right for an account to generate blocks on the Coalculus public chain and additionally utilized as fuel by transaction partners to bridge the network of enterprise chains to the public chain.

4.1.3 TRANSACTION PARTNERS

Coalculus leverages on the resources of transaction partners to bridge its network of enterprise chains to the public chain. Transaction partners perform an important role of collecting enterprise chain coin as fees and then paying COAL Token to the forgers on the public chain to pack those transactions in a block.



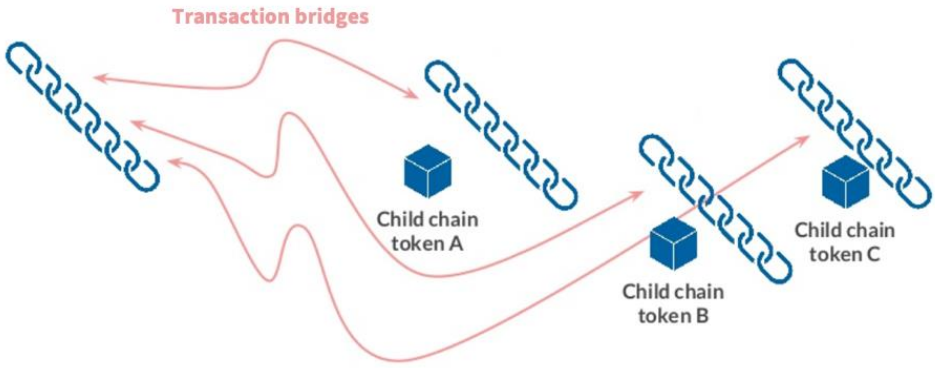
4.1.4 SCALING COALCULUS

Notable future development in scaling the Coalculus mainchain includes the ability to reduce the size of a blockchain through public chain pruning as well as implementing subnets for even greater transactional throughput. Public chain pruning curtails the storage burden of full node clients in the long run, thus significantly improving the overall sustainability of the decentralized Coalculus network. Additionally, the future implementation of subnets on Coalculus will further enable enterprise transactions to be processed by only a dedicated subnet of nodes, which is akin to scaling Coalculus via the vertical partitioning of enterprise transactions and processing them in parallel.

The implementation of pruning and subnet are planned upgrades for the Coalculus platform as indicated in our roadmap in section 7. The pruning and subnet scaling features are proofs of our long term commitment to improve the overall sustainability of Coalculus and to support the increased adoption of the Coalculus enterprise blockchain solutions by prospective clients.

4.2 COALCULUS ENTERPRISE CHAIN

4.2.1 CHILD CHAIN MECHANISM



The Coalculus Enterprise Chain solution uses the child chain mechanism to support a whole host of digital assets and financial applications. Our enterprise chain solution is beneficial for financial institutions as it automatically identifies the transaction parties, records the transaction on the private state and bundles this transaction data to the decentralized Coalculus public chain.

- **Data isolation:** This architecture guarantees isolation of transaction data on the public network and the respective application transaction data on the enterprise chain. Also, it achieves data isolation between one enterprise chain and another to effectively ensure data security and privacy.
- **Easy to develop:** The enterprise chain is fully equipped and integrates with any IT or cloud infrastructure, so our clients need not tear existing systems out and start again to make customization to specifications, parameters and transaction types.
- **Enhanced security:** The transactional functions are performed on the enterprise chains while the Coalculus public chain takes care of the processing and securing the entire network.

4.2.2 MULTICHAIN

Our enterprise chain solution implements data isolation and privacy protection by adopting a multichain environment. Multichain infrastructure is most favorable for supporting cross-department and cross-enterprise collaboration business processes and applications. Participants can join in one business or multiple enterprise chains according to their needs. The permissioned ledgers between different enterprise chains are isolated.

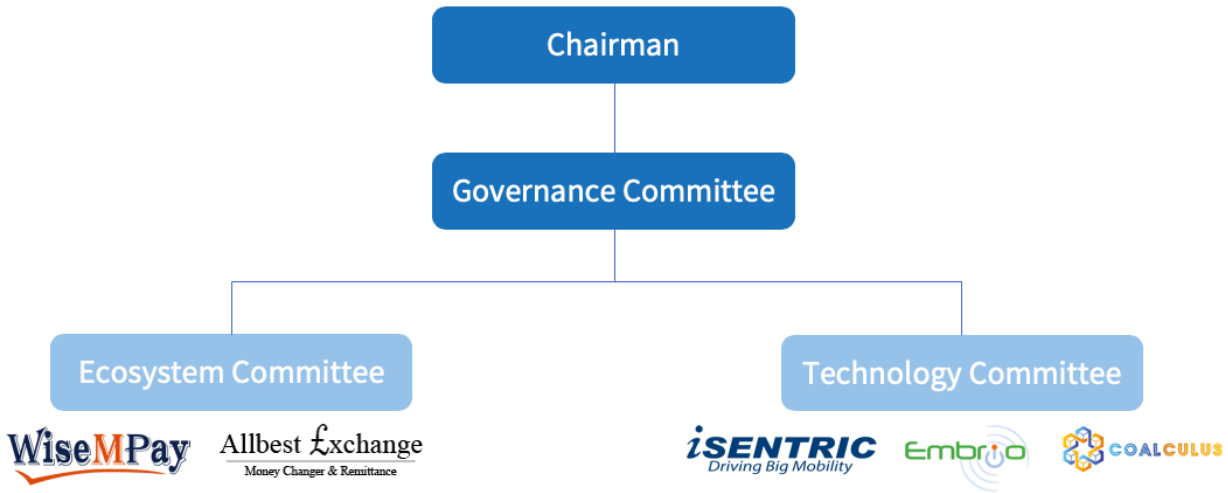
A hypothetical example – organizations A, B, C and D are participants of enterprise chain X which uses the native coin X, and organizations C, D, E, F are participants of enterprise chain Y that uses the native coin Y. Because organization C and D are verified participants of both enterprise chains, both organizations will be able to send coin X, receive coin Y or vice versa with one another although the permissioned ledgers of the different chains are isolated from each other.

4.2.3 KYC SERVICE

To remain compliant with the regulatory requirements of different applications, our enterprise chain provides a know your customer (KYC) service for service providers by auditing the process of transactions. The KYC service can also help to effectively manage risk. A fully integrated feature with our enterprise chain, it allows the service provider to verify parties' identity information (ID) during the onboarding process as well as during transaction processing.

4.3 COALCULUS GOVERNANCE COMMITTEE

Members of Coalculus's Governance Committee lend their deep experience in fintech, banking, cybersecurity, policy, and regulation in advising Coalculus. The appointed members will oversee the evolution of the Coalculus Blockchain protocol and ecosystem, and will continue to evaluate new techniques that enhance scaling and privacy in the blockchain while considering concerns of practicality, scalability, and regulatory impact.



4.4 SOLUTIONS DESIGNED TO CHALLENGE THE STATUS QUO

The solutions listed below are merely an indication of the use cases the team have worked on or are working on at the moment. Coalculus strives to provide our industry-leading solutions and pioneer more blockchain finance applications for world-leading enterprises.

1. Global Payment Service

A global payments provider uses integrated and secure online applications to enable individuals, service providers and businesses to make or receive payments online from the US, EU, UK, CN, MY and SG as if you had a local bank account.

The open source global payments network co-developed by Coalculus and Wise MPay makes it easy for any user to connect and transact across its robust network of 50+ banks and payment providers worldwide. Utilizing blockchain technology in global payments, clients can easily access on-demand liquidity in cross-border transactions and receive end-to-end visibility into fees, transaction status and customer information within seconds, not days. In addition to the common access to a standardized network of institutions worldwide, clients will also benefit greatly from significantly lower capital requirement in cross-border payments as compared to traditional alternatives.

2. Sovereign Coin

The sovereign coin represents the digital form of a fiat currency of a particular nation (or region) and is issued and regulated by a federal regulator. Sovereign coin aims to take the best from cryptocurrencies, including the safety, convenience, and security with the combination of those features based on the time-tested conventional banking system, where money circulation is controlled.

Coalculus and one of the Southeast Asian State Nations join hands to launch a sovereign coin initiative referred to as the Crypto Digital Currency Coin (CDCC) Project. The CDCC project covers the issuance of a sovereign digital currency, a nationwide roll-out of Crypto Teller Machine (CTM) as well as a national preferred digital wallet. All transactions made on the Sovereign digital wallet are traceable since an underlying register enables the recording of all transactions and identification of the rightful owner of the circulated currency.

3. Stable Coin

Stable Coin refers to a new class of cryptocurrencies which offer price stability and are backed by reserve asset(s). Stable Coins are widely used within the tokenized economy, offering users a frictionless experience that makes exchanging value as simple as sending a text message.

Coalculus has partnered with a reputable organization to implement a new regional digital currency (ASEAN) backed by a basket of fiat currencies as reserves. The compatible digital wallet will spot a user-friendly interface and easy to use transfer and payment facilities suitable for use by any user. In addition, ASEAN Token will come with the ability to exchange stable coins against the asset on which they are indexed, and they create a bridge between traditional banking systems and digital currencies.

4. New Virtual Bank

A virtual bank is accessible via the Internet. It offers the same services as a classic bank, but everything happens entirely online. Since they do not need to have a physical bank branch, they operate with much lower fixed costs. As a result, they can afford not to charge account maintenance fees to their customers and to offer unbeatable bank rates.

The new virtual banking system provided by Coalculus uses a combination of blockchain, advanced technologies and big data to onboard customers according to stringent international banking standards in KYC/AML/CFT. This proprietary solution currently explored by bank companies registered in the British Virgin Islands ("BVI") makes account opening, transfers, deposits, and withdrawals a frictionless process in today's digital world.

5. Exchange Platform

An exchange is a business that has the legal right to exchange one currency and digital assets for another to its customers. To safeguard customers' assets, banks, and other industry players that offer exchange services online are most keen to apply decentralized ledger technologies.

Our blockchain-enabled exchange system encompasses a comprehensive range of financial products and services, capable of supporting both fiat to fiat and fiat to digital asset conversions in real-time. WisXe has implemented the Coalculus exchange solution, crypto and fiat currency exchange and financial institution incorporated in Lithuania, and our solution is set to remove security breaches, program bugs, and a bank run.

6. Remittance Network

A remittance transfer provider is a business that transfers money electronically for consumers to people and companies in foreign countries. Firms have emphasized their desire to use blockchain technology to provide remittance services, including cash-based, to emerging markets.

As a core development partner for several remittance enterprises across Southeast-Asia, we have built a working blockchain-based remittance system for money transfer operators. Our model interfaces with the backend of third-party KYC service providers to enable merchants and consumers to safely utilize their stable coins and other digital assets to send fiat money globally.

With Coalculus solution, the case of costly intermediaries will be removed, underserved markets will be bypassed, and there will be intense competition with retail banks that are quickly losing their market share to such agile, customer-focused non-bank competitors.

7. Digital Identity

A digital identity is an online or networked identity adopted or claimed in cyberspace by an individual, organization, or electronic device. Multinational technology companies, including Microsoft Corporation, have already started advancing digital identity solutions leveraging on blockchain technologies.

Coalculus partnered with a leading data intelligence company to build a cutting-edge digital identity solution so that end users may access any given financial application or ecosystem and simply navigate the process for authenticating transactions. Our digital identity system transforms processes through Artificial Intelligence capabilities and stores the data leveraging on the decentralized cloud. We envision a future where managing your digital identity should be as easy as carrying a secure digital wallet, where the credentials in the new system will be wholly-owned and controlled by the user.

5. THE COAL TOKEN

Coalculus Token ("COAL Token") is the proposed utility token to operate within the Coalculus ecosystem. It aims to serve a multitude of different functions. The COAL Token is broadly speaking a unit of account that functions as fuel and medium of exchange within the Coalculus hybrid blockchain platform.

The COAL Token is the native currency of the platform, and it replicates the right for an account to generate blocks on the Coalculus Proof-of-stake blockchain. COAL Tokens will be fully transferable by any user within the platform, additionally, COAL Tokens will be utilized as fuel by transaction partners to bridge the network of enterprise chain to the public chain. COAL Token will be officially introduced onto the Coalculus main-net before the end of 2019 (current target release date is Q4 2019).

BENEFITS OF COAL TOKEN

Fast Transactions

COAL Token On-chain Transaction Speed is 10 seconds. The COAL Token speed of transaction is faster than transacting natively compared to most other assets, including fiat currencies, bitcoin, and gold.

Peer-to-peer Transactions

One of the major benefits of COAL Token native to the Coalculus ecosystem is the ability to be transacted without any intermediaries. This can be achieved via our proprietary light wallet or through decentralized exchange procedures, offering a convenient alternative to traditional payment methods.

Self-custody

COAL Token allows participants to be fully in charge of the private keys of the asset instead of relying on trusted third parties.

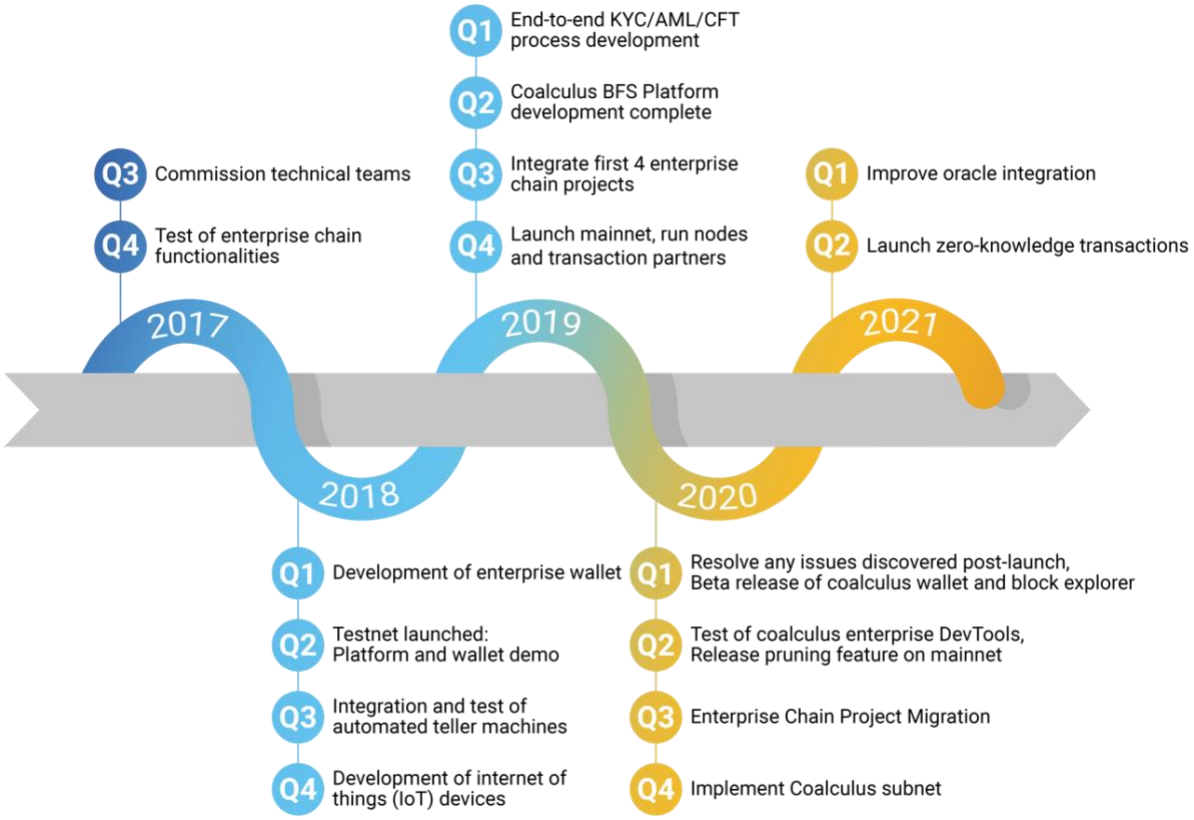
Usability

With a diverse range of third party exchanges, wallets, and applications supporting the COAL Token ecosystem, users are guaranteed a wider variety of options and free will to store and manage their COAL Token.

Improve Transparency

The total supply of COAL Tokens, COAL Token burnt transactions, number of COAL Token holders, number of block forgers, and rules and regulations for transfers can be seen on an open, public block explorer by every participant. This remarkable level of transparency is not usually available for assets such as commodities and stock.

6. TECHNICAL ROADMAP



7. COMMISSIONED TECHNOLOGY PARTNERS

Coalculus BFS Platform is an open-source project led primarily by Coalculus Lab, a for-profit entity. Coalculus Lab has commissioned five teams and over 50 developers to build Coalculus, including:

JELURIDA

ARDOR/NXT GROUP

WiseMPay

CALIBER TECHNOLOGY PTE. LTD.

Solutions Pte Ltd

8. OUR TEAM

CORE TEAM

Jack Bai
Founder & CEO
Jack Bai is a serial technology entrepreneur. Jack has over 20 extensive years of programming experience and more than 40 years in growing tech businesses. As a successful technology entrepreneur and visionary, who has successfully exited multiple companies, Jack inspires those around him and also understand what it takes to take a company globally. His team of experts is always captivated by Jack's commitment to changing the world and supporting the adoption of blockchain to provide financial inclusion.

Doris Bai
Co-Founder
Doris Bai is a successful business owner with over 20 years in running successful businesses and coding multiple successful large scale projects. Ms. Doris Bai's wealth of experience in pioneering high-growth business has propelled her to become one of the leading female entrepreneur and women in tech personality in the country.

Cheryl Lam
Co-Founder & CTO
Cheryl Lam is the Chief Technology Officer and tech lead of the Coalculus BFS Ecosystem. Her foray into core blockchain development started in 2016 as a blockchain researcher. Cheryl is familiar with blockchain protocols, which led her to become an expert developer in Jelurida's NXT/Ardor blockchain technologies. With numerous years of hands-on experience, she implements complex IT tasks with the greatest attention to accuracy and quality.

Shayne Tan
Co-Founder & CMO
Shayne Tan is the Chief Marketing Officer and ecosystem builder for Coalculus. Shayne brings to the team over 3 years' of cognate experience as a blockchain technology consultant, business strategist, and digital marketer from his professional practice within the blockchain and cryptocurrency industry. He is one of the visionaries behind the business planning of the Coalculus BFS Ecosystem. He understands the market, shapes the product offered by the company, determines the terms of its technical sales, negotiates with business partners, and leads a marketing team that works in the industry.

Galvin Peh
COO
In recognizing his strategic vision and dedication to the company, senior management appoints Galvin Peh as the Chief Operating Officer of Coalculus. This position allows him to work in close collaboration with other partners of the company. With numerous years' experience, he is always ready to take on new challenges in guiding the Coalculus BFS Platform and development experts.

PehPeh Ang
CPO
PehPeh Ang defines and implements the company's product in liaison with management's direction. She guarantees the achievement of qualitative, quantitative, organizational, and financial objectives in the pursuit of growth for Coalculus's products. With over 10 years of experience in similar capacities, she's endowed with excellent knowledge of the various constraints of fast growing companies in terms of IT support and organization. She has played a part in building many IT company's success stories over the years.

MANAGEMENT TEAM

Audrey
Graphic Design
Audrey is a Blockchain Enthusiast, experienced Graphic Designer. With strong vision and insight for Blockchain and Cryptocurrencies, now devotes time for the graphic designing and moderation of Coalculus visual contents.

Zachary
Teller Machine
Zachary is a tech visionary individual who looks back over 4 years of experience in teller machine development industry. He does not only offer dedications as part of the management team but also as a Coalculus business stakeholder.

Bao Yun
Project Manager
Bao Yun is one of the special personality in the management team of Coalculus. Her function is special because she continually proves her skills to the members of her team. With extensive years of experience, she has built some strong personal qualities; listening, the ability to negotiate, to set men in motion, and so on. It is a difficult role, but truly exciting for Bao Yun who has the required qualities and passion.

Zhang Meng
Finance Assistant
Zhang Meng is an IT enthusiast with financial assistant experience. She's versatile and able to handle a multitude of tasks as different as an organization, communication, accounting, personnel management, commercial action, legal assistance finance, and taxation. She thus acts as a "super assistant."

BOARD OF ADVISORS

Jovan Jovanonic
Head of Economics and Business Education Yunding International
Jovan Jovanonic is a business expert; he' one of the advisors of Coalculus and proposes a diagnosis to a strategic problem or assists the general manager in the implementation of a new process. With years of business experience, he helps the general management of the company to develop their strategy and their business model. It also contributes to the implementation of these strategies around issues of growth and competitiveness. He also brings a realistic vision to the client during sale or acquisition transactions.

Edin Bajric
Senior Project Consultant Vrc Horizons, USA
Edin Bajric is an experienced project consultant with over 10 years' experience. As a senior consultant, he always aims to improve the operations of the company in a particular area. He advises based on general management on improvements to be made in the area of human resources, general organization, or customer relations, and many others. He professionally analyzes the company's problems, prescribes adapted solutions, and accompanies their im plementation.

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Ricardo Piccolo Bortolan is an experienced educationist with over 15 years of a demonstrated history of service. In spite of his position as a university professor he does not teach only at the university, but also an advisor of Coalculus leveraging on his intellectual rigor, fluency and ability to lead a team which is essential qualities.

9. DISCLAIMER

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10. RISK ALERT

The development of the Coalculus project is strongly influenced by prevailing blockchain technology trends, policy orientation and regulatory guidelines. If the market is in a downturn, or a situation arises that is out of the control of the Coalculus team, the development of the Coalculus platform may be limited, blocked or even terminated. There are also risks that we have not yet mentioned or unpredictable. Participants were requested to realize the purpose and overall framework of the project before participating rationally.

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