



Enabling Peer-2-Peer Transactions on BlockChain

Low Cost | Lightning Speed | Highly Secure | Peer to Peer
Platform

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Executive Summary

With BlockChain we finally have a solution for decentralisation of financial assets

A Fast-Descending Digital Future: - BlockChain and AI is being hailed as the 4th Industrial revolution and may as well be the final Industrial revolution which fundamentally changes the way we live, work, do business and transact. The adoption of BlockChain is going to be much faster, non-linear, in fact exponential, the disruption it will cause is going to be severe and swift and the shifts it will bring with it in business and personal lives will be transformational. We are racing to a stage where the divide between real and digital is getting blurred and therefore life money & asset exchange and transactions must find their digital versions thereby creating interoperability and transferability between the two worlds. The Digital Future is descending faster – much faster than anyone anticipated.

Daala believes that technology can disrupt and bring benefits to the larger world as we move towards a decentralized peer to peer world. Therefore, at Daala we want to build a platform that enables peer to peer transactions, follows regulations but is decentralized and autonomous at the same time, allows freedom of transactions and exchange to everyone with inherent security but also actively detects and dissuades misuse of decentralization of control.

Our main goal is to provide low cost, fast and secure transactions by eliminating intermediaries. By creating a decentralized secure and reliable platform we want to enable peer to peer transactions without the need for centralized authorities, but within the realm of regulations and legal compliance. We want to enable a world where it is possible to send or receive money, make payments and commitments, interexchange goods and convert non-liquid assets into liquid assets which are tradeable and exchangeable.

Daala is a next generation peer to peer BlockChain platform. Using BlockChain technology Daala will provide a decentralized, trusted and secure platform to buy, sell, transfer, or exchange fiat as well as cryptocurrencies, enable free and easy transfer of money and transactions and payments over BlockChain, create an exchange for peer to peer transactions for converting non-liquid assets into liquid and tradeable assets.

In a nutshell, we want to be the platform where anything of value can be exchanged for anything else of value within seconds, securely and legally.

Vision, Mission & Objective

With Daala we want to create a world where digital peer to peer transactions take place in everyday life with the same ease as cash & fiat transactions. Where Non Liquid assets trade with the same ease as liquid assets. Where everything of value can be exchanged.

Vision: - Enabling Fast, Secure & Low Cost Peer to Peer transactions globally between the Digital & the Real world

With the world contracting in terms of reach, communication & exchange, we want to enable fast, secure and low cost Peer to Peer transactions that bridges the digital and real worlds and enables seamless interoperability between the two worlds

Mission: - To develop a Decentralized Global platform where digital & real assets can be exchanged seamlessly using the power of BlockChain and AI

We believe that a Complete Trust Level Decentralization can be created using BlockChain which will then become the platform for peer to peer exchange of value. At Daala we want to build this platform and unlock the value by creating digital liquidity of assets that can be exchanged and traded freely.

Objective: - Fast, Secure and Low Cost Transactions – Anytime - Anywhere

With the Daala Network we want to solve the above problems and provide a fast, secure and low cost Peer to Peer transaction platform which can trade crypto and fiat and enable real-life applications like Cross Border Remittance, Roaming Solutions, Digital Asset and Goods exchange, Gaming currency trading and Minting of Daala coins to enable a digital currency that has high acceptance and none of the above problems.

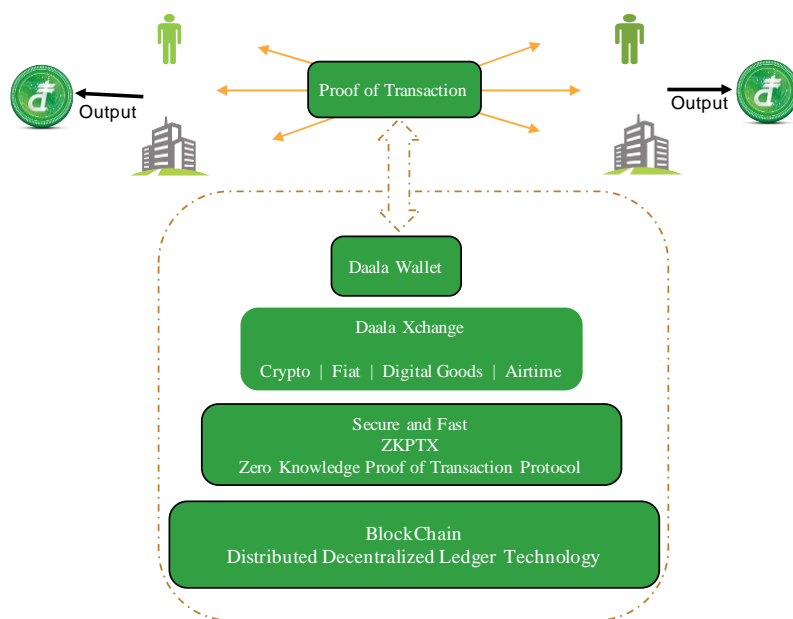
With Daala we aim to provide a transaction system that has the

- **Speed of transactions – 10 seconds**
- **Cost of transaction – 1% or lower**
- **Security – Complaint and Attack proofed**

Daala !

P2P BlockChain for global transactions which fast, secure and very low cost.

With the Daala Network we want to provide a fast, secure and low cost Peer to Peer transaction platform which can trade crypto and fiat and enable real-life applications like Cross Border Remittance, Roaming Solutions, Digital Asset and Goods exchange, Gaming currency trading and Minting of Daala coins to enable a digital currency that has universal acceptance.



Salient Features of Daala BlockChain

- Integrated BlockChain with own platform and applications
- Two Tier BlockChain
- Permissioned BlockChain at Tier 1
- Decentralized Consensus on Tier 2
- Inbuilt Peer to Peer Exchange of Fiat and Crypto
- Own Protocol – zkPOTx – which is fast and secure
- AML and CFT compliant
- Within regulatory thresholds
- Application led BlockChain
- Transaction led Mining
- Perpetual Self-Funding Model

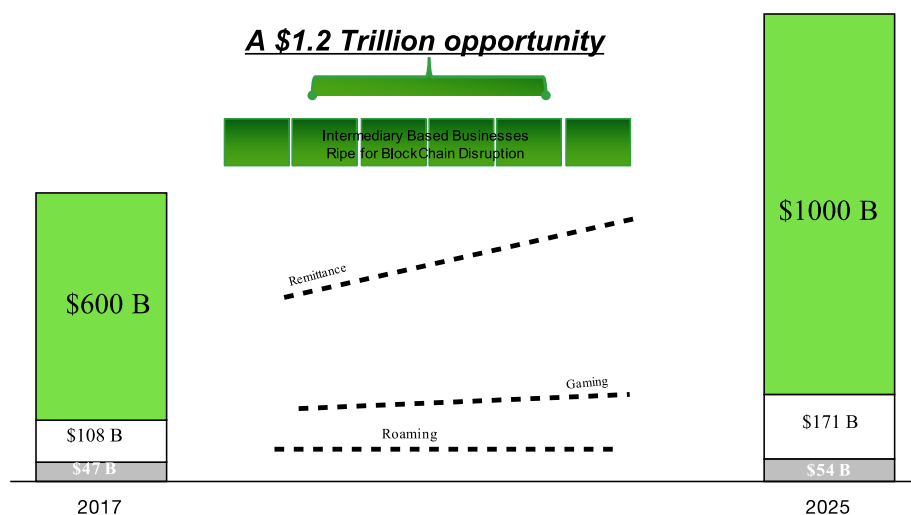
The First Problem we want to solve

We want to solve a multitude of problems as we believe that once the platform is ready and working it can solve the basic need for fast, secure and low cost transactions worldwide. But in the first phase of the Daala launch we want to address the global remittances market.

Cross Border Remittance

Cross Border remittances is a very old industry where the technology impact has not yet been felt to have caused massive disruption. It's also a very tightly controlled industry and regulatory norms are at times too cumbersome for startups to meet and disrupt, but with the advent of Blockchain disruption in this space is more feasible.

In 2017 appx. \$600 billion was remitted across the world and over 1 billion people were involved in remittances. The cross-border remittances are expected to grow to \$1 trillion by the year 2025.



Data source -World bank, Grand View Research -PRNewswire, Juniper Research

The UN – SDP program has identified Cross Border Remittance cost as a key area and we want to work with UN to reduce the cost of remittance from the current 7% for sending \$200 to less than 3%. i.e reduce from \$14 to \$6 or lower.

The Problem with Cross Border Remittances

Remittances are costly, time consuming and failure prone



- High TX costs – 7% - 14% charged to send \$200 = \$14 - \$28
- Slow Speed – Between 1 hr to 5 days
- Extra expenditure to travel & collect remittance
- A market filled with intermediaries and agents
- Liquidity issues and high Forex rates

1 Billion
People involved

1 in every 7 ppl
on earth

200m
Senders

800m
Receivers

7%
\$14 charged

to Send \$200

\$417B

70% goes to
developing
countries

The Main reasons for high costs, low speed are



Last mile
Delivery issues



Too much
Regulations



Too many
Intermediaries



Centralized
Control



Exclusive
Contracts

- Every transaction involves at least 3 mediators like Agents, MTO's, etc
- Exclusive contracts for country specific MTOs
- People have to abide by multiple regulations, that vary with each location.
- It takes 500 million trips to receive \$500 billion Remittance.
- Mandatory Licensing and Restrictive Capital Requirements

Fast, Secure and Low Cost Cross-Border Remittances

At Daala we foresee a future of P2P remittances with least amount of regulatory or centralized banking or correspondent banking requirement. We believe that a migrant worker should be able to send money back home with least cost and within seconds and that is what we want to enable as a key application of the Daala BlockChain.



Faster Last mile
Delivery

- Anyone can become a Daala Agent
- All you need is a bank account
- You get rewarded for every transaction
- We believe this will create UBERisation of Remittances



BlockChain
Based Security

- Local regulatory partners
- BlockChain based security
- AML and CFT complaint software
- Regulatory Sandbox applications
- Working with our local partners in each country we shall digitize regulatory compliance completely



Low Transaction
costs

- Zero Intermediaries
- Mid-Market Exchange Rate passed to consumers
- Transparent costing at the time of transactions
- Complete Decentralisation
- This structure ensures lowest cost

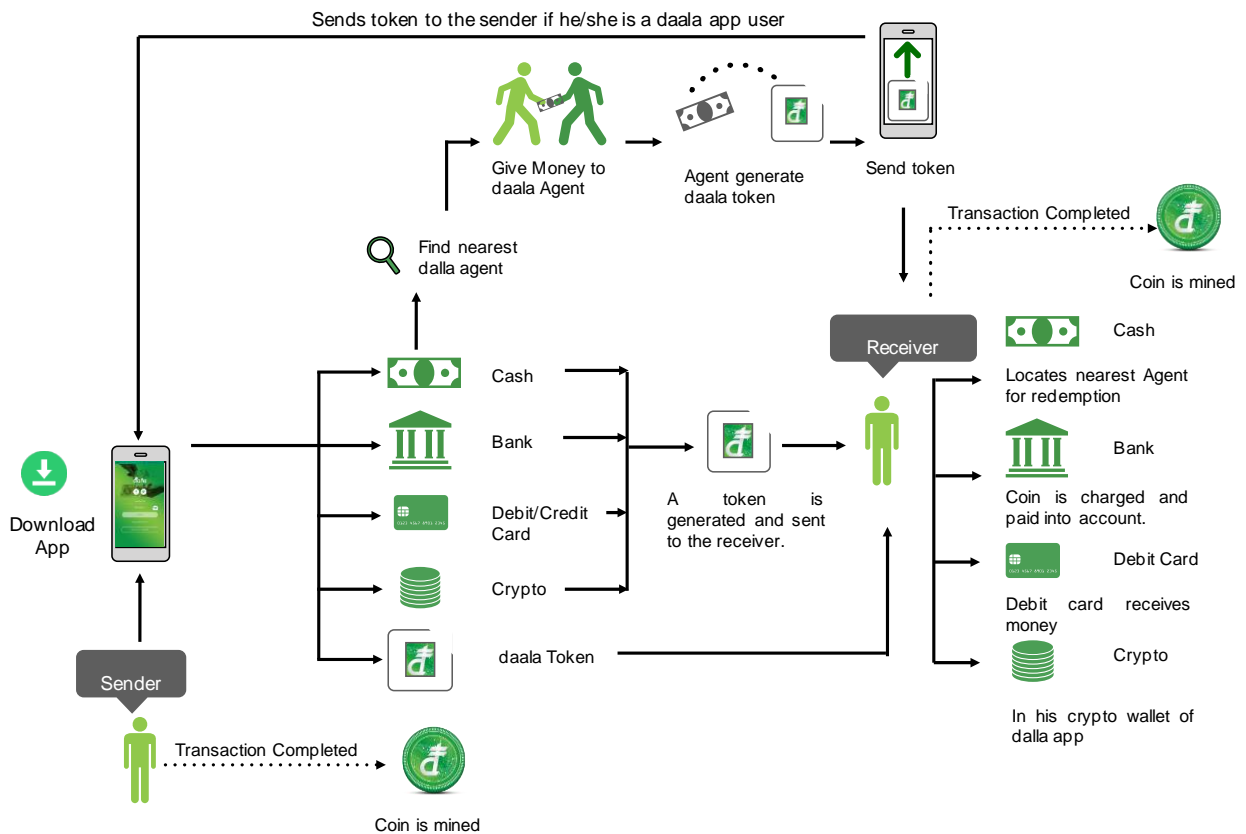


Tokenized
Transactions

- Tokenised Transactions compliant with local laws
- No Fiat exchange – so transactions are faster
- Money never leaves the country – ensures regulatory compliance

Fast transactions (within seconds)

With the Daala app & web application a customer will be able to transfer funds from one location to other and from one account to other or remit money back home with a click of a button.

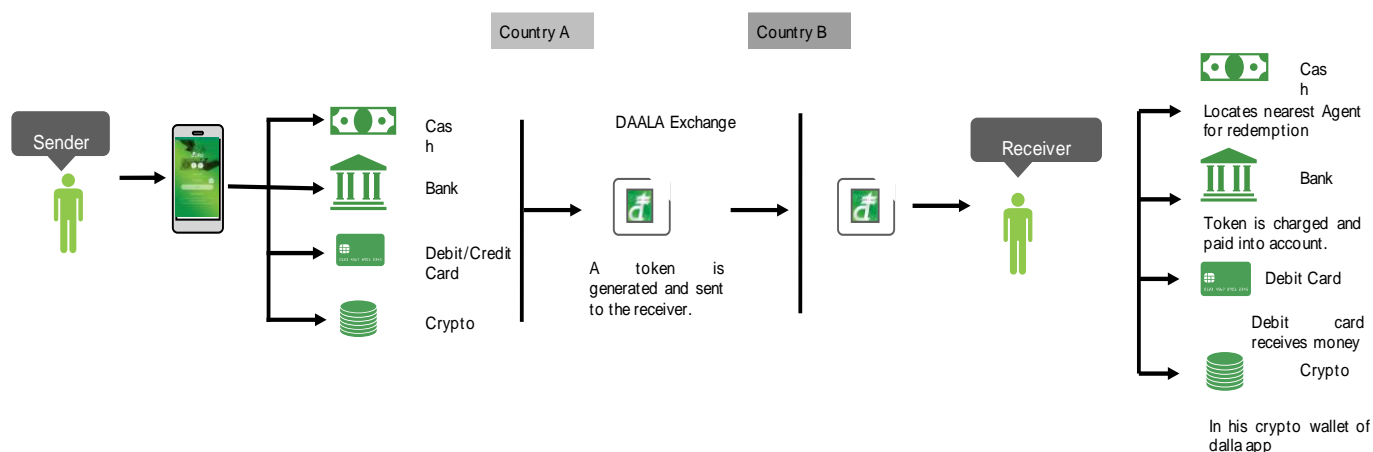


- *Transactions will be completed within seconds*
- *All modes of transfer will be available – Bank to Bank; Bank to Cash; Cash to Cash*
- *All transfers will be done through the web, app or Daala partner portals*
- *The Exchange rate applied will be the Mid-market exchange rate and clearly visible at the time of making the transfer.*
- *Transactions will be regulatory and legally compliant as per the laws of the sending and the receiving country.*

Transactions are fast because they are

- Tokenized transactions
- Fiat currency is settled locally instead of exchanged
- Pre-Funded liquid accounts and Self-Funded Daala Agents to ensure liquidity and fast settlements
- Permissioned Blockchain ensures decentralization
- Pre-Complaint due to Inbuilt AML / CFT algorithms

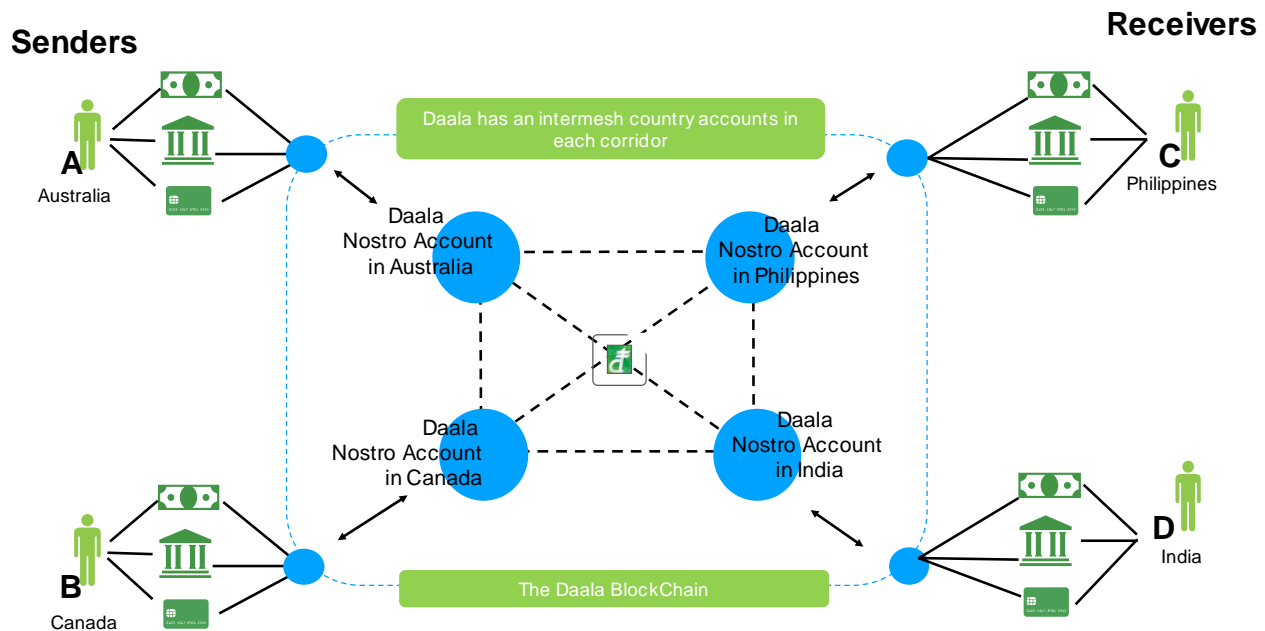
Tokenized transactions



- All transactions of cross border remittance is done thru Daala Token – DTX
- DTX is run on a permissioned Blockchain with inbuilt compliance and validating node networks
- The Money (Foreign Exchange) never leaves the country. It remains within the country but in Daala Accounts
- The DTX token is based on the zkPoTx protocol which is explained later in the white paper.

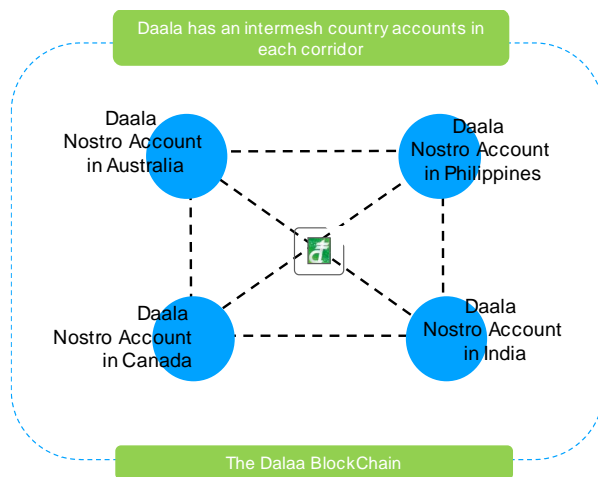
Fiat currency is settled locally instead of exchanged

In the Daala Network the money being sent is deposited in an escrow account of Daala and is debited only when the Daala Token is redeemed.



- When the sender wants to send money (eg from Australia to India), the sender uses the Daala app or the Daala agent to send the AUD equivalent INR to the receiver.
- The process (which is intransient to the sender) transfers the funds to the Local Nostro Account of Daala in Australia and generates a Daala Token (DTX).
- The Daala token DTX travels the Daala BlockChain and reaches the Sender
- The Sender receives the account in his Bank account or Daala wallet or locates the nearest Daala agent to redeem the Daala Token (DTX)
- All this happens within seconds and is secure due to the Daala BlockChain.
- Transactions are immutable and non-anonymous
- All transactions are traceable to origin and destination
- All transactions are recorded and maintained on the Daala BlockChain

Pre-Funded liquid accounts and Self-Funded Daala Agents to ensure liquidity and fast settlements

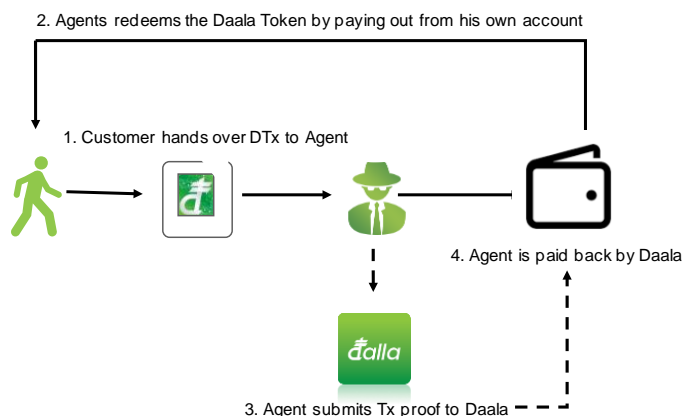
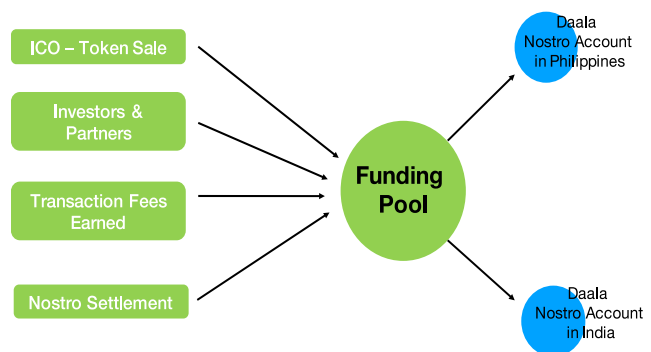


When we start operations in a corridor we pre-fund the receiving country account basis the estimated volume for the first six months for immediate payouts.

Settlement within the Daala Nostro Accounts as a parallel process ensures liquidity infill into the payout accounts

Majority of the money collected from the ICO of Token sales will be used to prefund the Daala Accounts. Funding expected from our investors and partners as we open new corridors for trade

Daala has a perpetual self-funding model (as explained later in the whitepaper) which will ensure liquidity at all times. Further faster Intra-Nostro Settlement will generate liquidity.

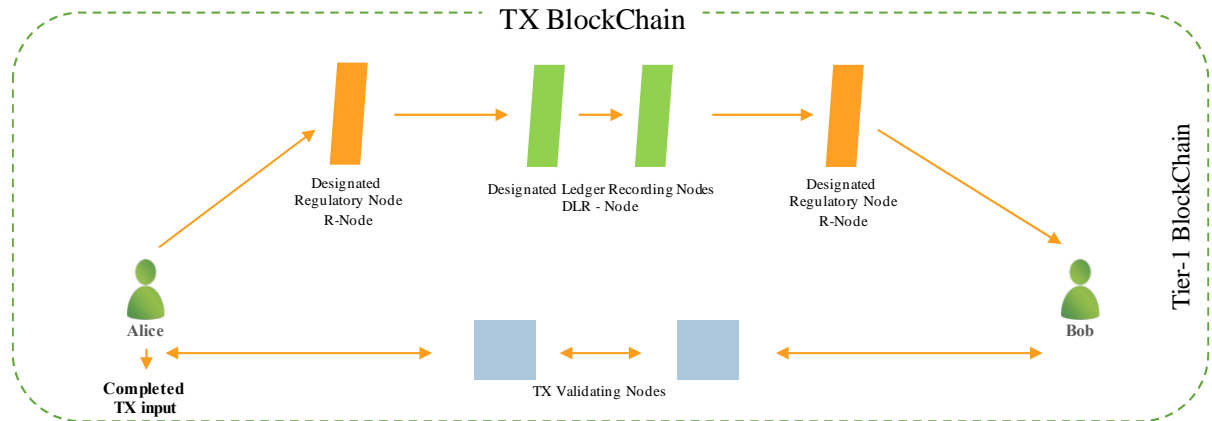


Daala agents are likely to earn more if they use their own funds to payout the receiver

Agents are likely to get higher rating and more opportunities to Mine the Daala coin. This further ensures liquidity for payouts.

Permissioned Blockchain ensures decentralization

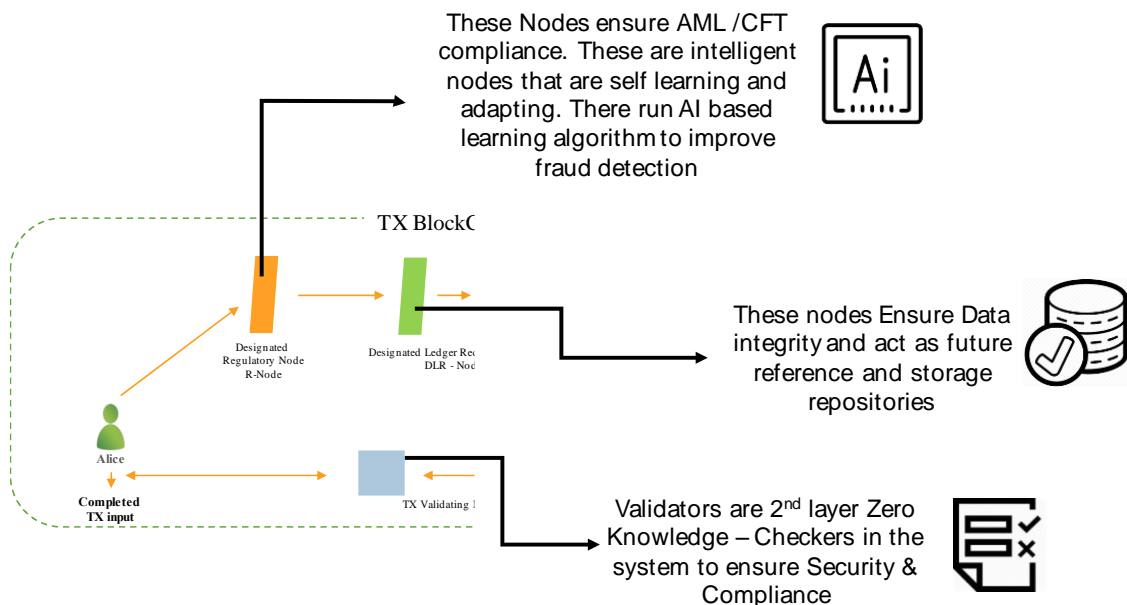
Daala is a Two Tier Blockchain with the first layer – called the Transaction layer being the layer where all the Money transfer transactions will take place. This layer generates the token and validates and redeems it.



- *At Daala we will use the Blockchain as the Distributed Secure ledger between two accounts or two parties to enable Peer to Peer cross border transfers*
- *The permissioned Blockchain will have a minimum of 6 hops to ensure mathematically proven high level of difficulty for any kind of attack*
- *Decentralization is ensured with the model, as each country will have different nodes and different partners*
- *Validating nodes are also decentralized but permissioned*
- *Consensus model is pre-determined and therefore least time consuming.*

Pre-Compliant due to Inbuilt AML / CFT algorithms

Compliance is an essential part of the Daala BlockChain, We believe that it is possible to disrupt and still be complaint with the laws and regulations of a country.



- As explained in detail in the Technical section – the Daala BlockChain is designed to allow nodes that can carry out regulatory validation in each of the remitting/receiving country and this ensures that all remittance is done as per regulations.
- Our regulatory partner or the regulatory node will also hold the necessary license of that country and we will work with the partner to ensure AML and CFT compliance.
- Also since the Tier1 BlockChain is permissioned BlockChain with a Centralized Storage Ledger – Compliance in the form of Data submission and scrutiny is also resolved.

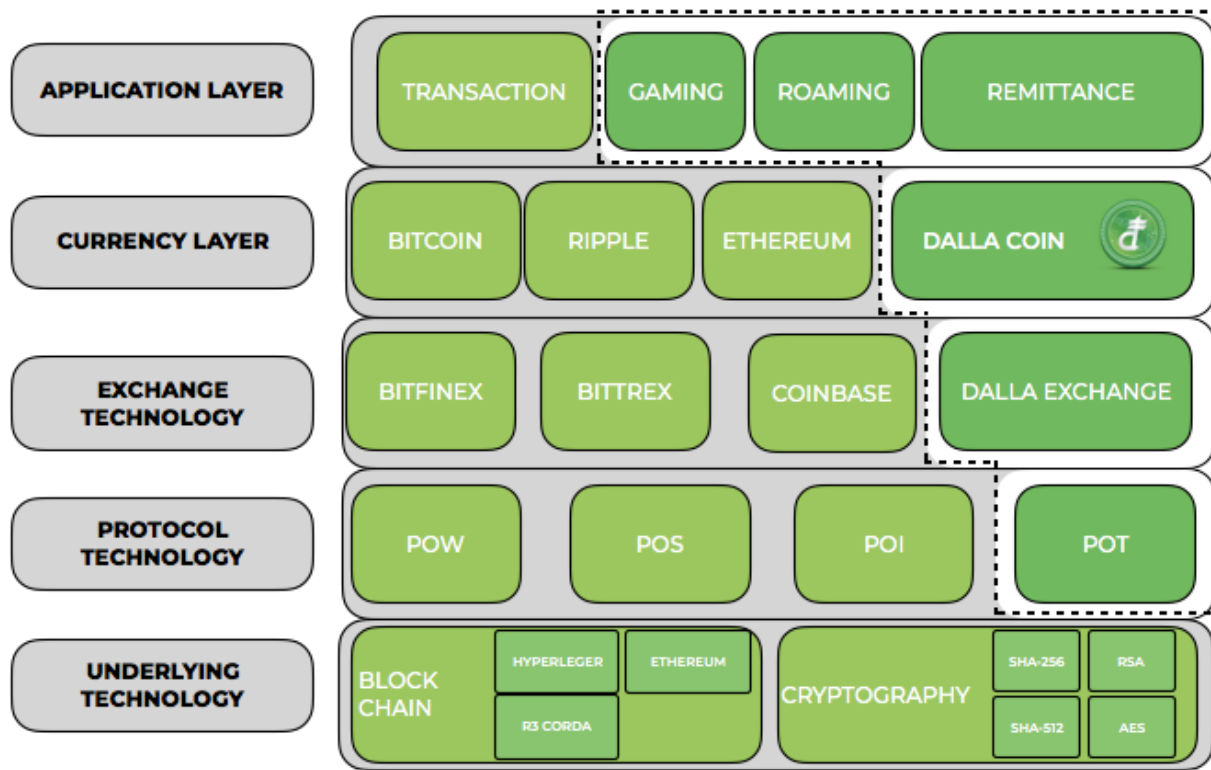
With Daala we aim to provide a transaction system that has the

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Our Products & Services

Daala will have the following products & services

- Daala P2P Exchange (DAX)
- Daala Token (DTX)
- Daala Coin (DLL)
- Daala Wallet
- Daala Money Transfer (DMT)
- Daala Money Changer (DMC)
- Daala BlockChain Platform
- Daala Microfinance Services
- Other Applications



Daala P2P Exchange

The Daala Peer to Peer (P2P) Exchange is a service that is aimed at providing easy to use, transparent and fast peer to peer transactions over the BlockChain.

DAX has the aim of providing universal exchange services of fiat to fiat and fiat to crypto & crypto to crypto across selected countries where we plan to operate. DAX aims at removing the complexity of trading and exchanging of crypto currencies and make it easy to use, invest, trade & exchange in fiat and crypto currencies. We plan to enable exchange of major fiat currencies, crypto currencies and other assets over the Daala Exchange.

Some of the features of the Daala Exchange are as under. (for a detailed description of the features pl refer to the Daala Exchange Section in the white paper)

- Peer to Peer
- Currency / Digital Goods / Airtime Focused
- Lowest Cost
- Open Source & Open Use
- AML / CFT / KYC compliant
- Two Way Authentication
- Immediate Settlement
- Very Secure

Some of the currencies we plan to enable are USD, AUD, EURO, GBP, INR, Peso, Malaysian Rupee, Singapore Dollar, Canadian Dollar, Rand, Bitcoin, LiteCoin, Ethereum, Ripple, Stellar, Bitcoin Gold, Tron, EoS etc. Each currency that is listed on the exchange is thoroughly researched and monitored and only then added to the exchange.

DAX provides past data, analytics and other measurement tools to the traders and investors to enable them to make informed investment and trading decisions. Tools like 24 hr data, Monthly data, Quarterly and Annual data.

The Product Roadmap of DAX includes

- AI based predictive model to predict the next day prices for informed investment decisions
- Availability in various languages
- Immediate Liquidity and transfer of funds
- Limited Membership to ensure high quality services
- Introduction of hybrid financial products (crypto + fiat)

DAX is inherent part of the platform that will enable cross border money transfer and rewarding the users by generating the Daala coin that can be traded on DAX.

Daala Token (DTX)

The Daala Token is a service that aims to enable fast, low cost, secure transactions over the BlockChain. Based on the zkPoTx protocol, DTX aims to provide a secure, valid and compliant (regulatory and legal) means of exchange of fiat and crypto currencies, non-liquid to liquid assets, conversion of anything of value (like points, gaming currencies, virtual goods) into a transferable asset. DTX also aims to provide a means of enabling cross border trade transactions, Roaming transactions, inter organization transactions and any other transaction that can be enabled on the BlockChain. Some of the features of the Daala Token are as under. (for a detailed description of the features pl refer to the Daala Token Section in the white paper)

- Non-Anonymous
- Input to the Exchange
- AML / CFT / KYC compliant
- Double layer security
- ZKPTX – Zero Knowledge TX Protocol
- Recorded and traceable



Daala Coin (DLL)

The Daala Coin is an auto-generated cryptocurrency which is minted every time a transaction is completed on the Daala BlockChain. The generation of the currency is backed by real money and transactions and therefore it is predicted to be a much more stable cryptocurrency. Some of the key features of the currency are (for more details refer to the DLL section in the whitepaper)

- Anonymous
- Inherent Value
- Storage Value
- Backed by Fiat money
- Mined Thru Valid Tx
- Tradeable
- Non-Volatile
- Indestructible



Daala Wallet

The Daala Wallet is a secure wallet that can store, transfer and accept Fiat currencies, Bitcoin, Ethereum, Other Altcoins like Ripple, Tron, EOS etc. This easy to use wallet is available on the web and app versions and will have its own developmental cycle. Some of the proposed features of this wallet are

- Hot & Cold Versions
- 2nd layer Security
- Retrieval layer addition (we propose an additional layer on our BlockChain which will allow the currency to be retrievable in case it is stolen)
- Web and App versions

Daala Money Transfer

Daala Money Transfer services will be the first real application of the Daala Exchange (DAX), Daala Token(DTX) and the Daala Coin (DLL). As the first application, we have developed a detailed business model which is a part of this whitepaper, which the readers can go through.

The proposed money transfer services will focus on a preselected list of 14 countries which has the top remittance sending & receiving countries.

We plan to provide an unparalleled experience in remittances which is

- Fast
- Low Cost
- Secure

Daala Money Changer

The Daala money transfer application will enable the creation of an ecosystem where there will be collection and exchange of foreign currencies and therefore we shall have a pool of currencies that can be exchanged for live and competitive rates by travelers, tourists and traders.

Daala will have Agents across all corridors who will enable cash based remittances and thus they will create a pool of foreign exchange which will then be used to offer money changer services.

Daala will either work with local MTOs or Money changers or apply for its own license and then enable the Daala agents to offer money changer services within the legal and regulatory preview of the respective country.

Daala BlockChain Platform

The Daala BlockChain platform is a Two-Tier platform that has the ability to marry both worlds of secure, regulated and non-anonymous transactions in the real world with free, peer to peer anonymous transactions in the crypto world. Therefore, we believe that this architecture is well suited to enable the transactions, transition and exchange between the real and digital world.

Some of the key features of the Daala BlockChain platform are:-

- Two Tier
- TX Based
- Cryptocoin Based
- Reliable
- Scalable
- Tamper proof
- Append Only
- Trustless System

Daala Microfinance Service

Based on the transaction data, the wallet size, remittance history we will enable a host of microfinance services that will further bring the remittance receivers into the banking world and enable the upliftment and sustainable development.

We believe that our efforts will seriously propel the SDP priorities of the UN.

Other Applications

A secure, tested and tried system will open a host of possible services that we believe will add further value to the world. Some of the focused problem we want to solve with our services are

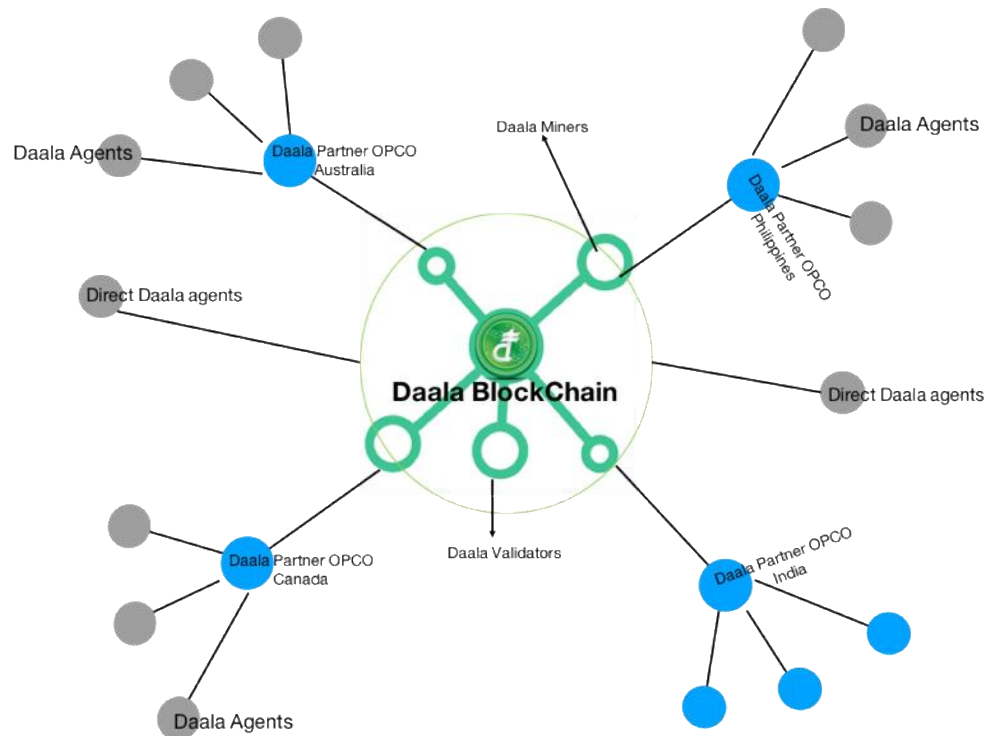
- Global Trade Finance
- Global Roaming service
- Gaming Currencies & In Gaming Goods Trade and Exchange
- Storage Value and Stable Value Currency
- Virtual Asset trading
- Other applications

Business Model

The Daala business model is based on crowdsourcing, partnerships to scale, meeting UN SDP requirements, collaboration and open source thinking.

At Daala we want to keep the core focus on technology to enable fast, low cost & secure transactions and scale up fast. To do that we believe that the Partnership & Crowdsourcing models is most suitable.

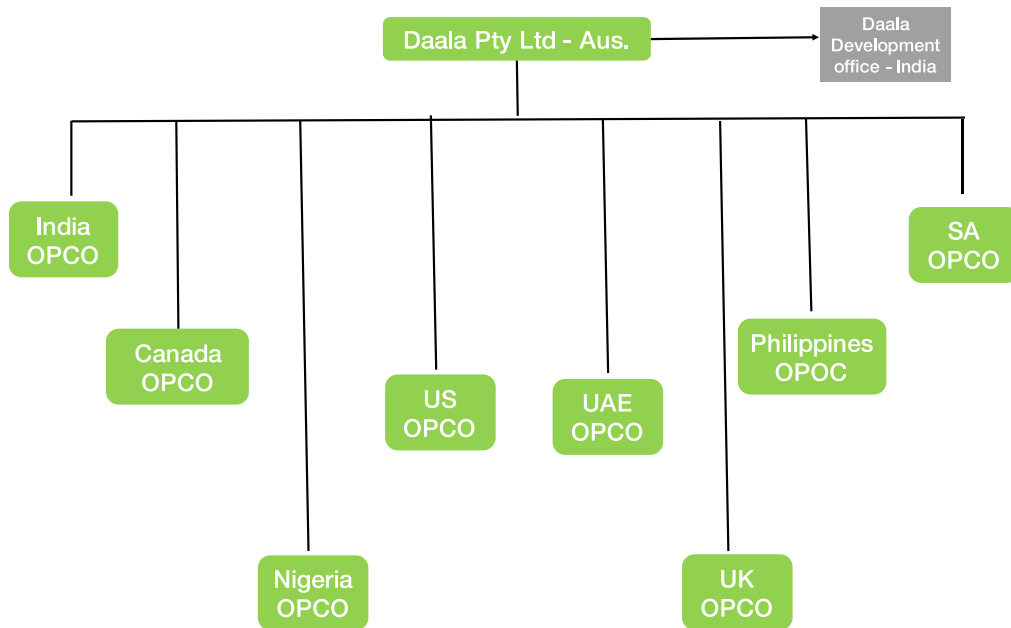
- We plan to enter into partnerships with existing MTO license holders in each operating country and create a viable OPCO in these countries.
- We want to crowdsource the Daala Agents so that anyone who meets the criterion can be a part of the Daala Agent platform.
- Our software development will largely be open sourced and shared back with the community to an extent where we do not lose a competitive advantage but are still able to give back to the community.



Daala Business Model Illustration

- Our model will be based on the basic principal of “high volume – low margin” so that the benefits of cost savings and BlockChain technology can be passed on to the consumers
- Our model is inclusive and is based on the premise that if we can pass on the margins to the end users then it will result into more development and thereby contribute to the UN SDP program on remittance & tourism
- Partner OPCOs will work together to realize the organization objective

Daala Organization and OPCOs



- Daala Pty Ltd in Australia is already formed. Regulatory Sandbox approval applied.
- Daala Development centre is already operational in India. This is where the entire development of the Daala Blockchain is being done.
- Canada OPCO is under process and so is the Canadian Regulatory Sandbox approval
- All other OPCOs are in discussion with various probable partners.

Revenue Model

The Daala Revenue model is based on the Principal of Scale – “High Volume – Low Margin”

Most of the industries the Daala BlockChain wants to disrupt are very high volume and mass scale industries. Moreover, the Remittance industry is a critical livelihood and basic development enabling industry. So, we want to keep our revenue model simple and low margin.

The Various revenue streams will be

- Transaction Fee
- Trading Fee/Subscription
- FX charges
- Agent Fees
- Financial Services subscription

Transaction fees are charged on every transaction and are spread over the ecosystem that enables the transactions. Each node that is involved in the transaction receives a payout out of the total transactions fees charged to the customers. The transactions fees will constitute the bulk of the revenue which the Daala BlockChain will earn.

Trading fees or subscription is the fees Daala will receive when it enables the trading of crypto and fiat currencies on its platform. Again, we want to enable a large no of transactions on the trading platform which will further fuel the minting of the Daala Coin and therefore the trading charges will be minimal. We are planning to launch a Zero trading fees model which is subscription based. Eg the customer just pays a monthly fee of \$10 and trades upto a certain volume & value of trade. We believe that this revenue model will help us acquire a lot of users.

FX charges are the charges that we receive when our customers send cross border remittances or exchange currency. As mentioned in the white paper, Daala expects to earn FX commission on Money Transfer and Currency Exchange.

Daala will levy an Agent Fees which will be payable annually and will be tiered based on the level of Agent and the volume of business. Eg an Agent who is annually remitting over 10,000 USD, will pay an Agent fees of \$100 annually to Daala. But please note that these fees may not be levied at the start of the network. We want to reach a critical mass of Daala Agents before any such fees is levied.

We plan to offer other financial services to all our customers who use the Daala platform. These services will range from Micro Loans to Insurance to Housing or Farming Loans. We believe that the customer segment on which Daala wants to focus will be real beneficiary of these services and will ensure their financial inclusion. We shall charge a subscription fees to offer these services to our customers.

An illustration of the revenue Daala can achieve by 2025

Year 2025

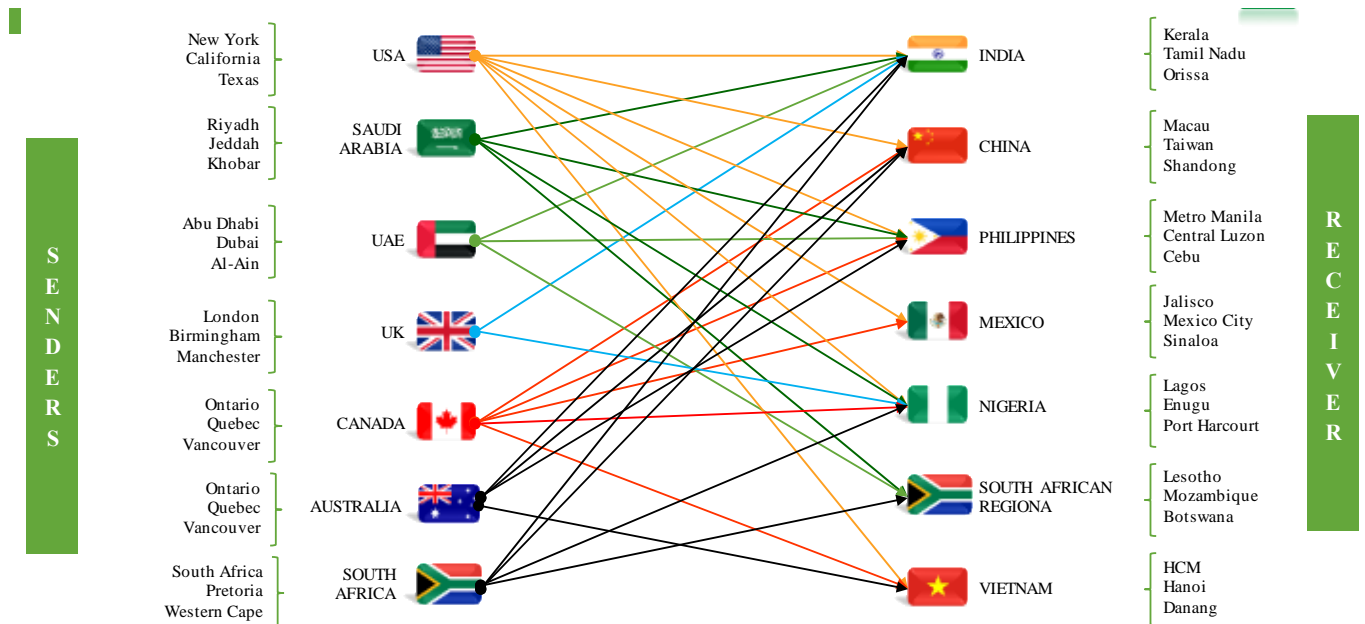
Total Market = \$1 Trillion
Avg Tx Value = \$500
Total Tx = 2 Billion
Mkt Share = 1- 5%
Revenue
(@1% commission)= \$500m
Coins Generated = 10m
(@10% of TX (Tx = 2m)
Coin Value = 10m x 0.5 = \$5m

@ 1% market share we shall generate a revenue of \$500m by year 2025.

Pl note that this is only an illustration and by no means should be considered as a commitment of achievement. And the purchase if the Tokens should not be based on this illustration

Countries of Launch & status of Licences

We plan to launch in 14 countries – 7 Sending + 7 Receiving countries



- The first corridor we plan to launch is the Australia to India corridor. India receives over \$2 billion in remittance from Australia and most of this remittance goes to Punjab, Tamil Nadu & Gujrat. We will launch Daala Remittance services in Australia to India and then expand to Philippines as it is another significant remittance receiver from Australia.
- The next corridor we want to launch is Canada to India and Philippines
- Post that we plan to enable remittances from UAE & Saudi to India and Philippines
- Nigeria & the South African corridor will be launched at the same time
- US & Mexico is targeted after that as we will have to meet significant regulatory requirements to launch in USA
- Post that we shall cover UK and China

Pl note that these plans are tentative and subject to regulatory approvals. We may see minor changes in the launch plans wherein a later planned corridor may be launched earlier if we get the regulatory clearances.

Beta Launch in Aus – Ind Corridor

Planned launch by End of July – Sept 2018

Daala Exchange and Remittance Services will be first launched as beta in the Australian and the Indian market. While the Australian market has a clear regulatory stand on crypto trading, cryptocurrencies, ICO and Remittance using cryptos, the Indian regulation environment is a bit clouded.

Therefore, the DAX will be launched in Australia and the Remittance services will be launched using Ripple, Currency Cloud, Stellar (RCS) BlockChain and at the same time we will test DTX for the transfers too. Till the time we get regulatory clearance we will continue to use RCS networks to enable fast, low cost transfers and once we receive our clearance we shall switch to DTX.

At the same time, we will also work on the Philippines market as the regulations on use of crypto for remittance is clear and we expect no regulatory hurdles.

Beta Launch Construct: -

PoP Construct	Beta Construct
Product MVP	Both
Customer App Android/iOS	Both
Customer Web Interface	yes
Wallet	yes
Agent Version	yes
Bank Integration	Yes
Secure Protocol	Yes
Blockchain	Yes
Dalla Token will use your own token	yes
Will use Ripple for Bank to Bank	yes along with our own
Will use Currency Cloud	No
Will use Stellar for P2P	yes along with our own
Will create an integrated platform for fast delivery	yes
Which Corridor	Australia to India - over \$1.78 billion is sent to India Cost range is AUD 1.04 to AUD 1.0 for transfer of \$200 AUD. Cost range of Various Modes like Cash to Cash etc. is mentioned under. The time range is 1 to 5 days which varies due to mode of transfer
Why this corridor	Presence of the team members in this corridor will enable PoC at least cost. The presence of significant no of customers, also not of competition in this market. Thus the corridor is suitable from the cost of PoC, significant competition to ensure PoC will stand the test of competition
Customer Segment & value of remittance	\$50-\$500
Customer Segment & Mode of remittance	Cash and Bank
Flow Diagram for Each mode - how solution will work	Download App/Qualify customer (focus on high freq senders) Give trail offer to capture the flow for all modes of transaction. Also capture KYC needed and AML requirements Also map the same at Receiver level
Onboarding time	10 mins
Transaction time AT	10s to 10min
Cost of transaction	<=\$4 AUD
Comparative cost and AT of competition	7 AUD & 1 to 5 days
For how long with the PoP	60 days
What is the target date of PoP	1st Sept
Do you foresee any seasonal issues at this time?	No
When will the PoC be ready	PoP is expected to be ready by 15th August
Which Segment are you looking at	We are primarily going to go after the Internet banking segment and the Cash segment where once mode of payment is cash either at Sender or Receiver level
Which Medium of transfer are you looking at	We are looking to demonstrate all medium of transfers but with focus on Wallet to Wallet and Cash
What is the value of each transaction	We are looking at AUD 50 to AUD 200 level of transactions. The reason is that we are a new platform and we need to minimise the risk perception of the sender so will focus on low value transaction
How much time will the transfer take	The transfer should be instantaneous - less than 10 mins
What A/B testing will you do	Variables to test are - Amount, Location, Mode, Loyalty Token Impact

Partners

We will create a partnership based ecosystem which will ensure speed, low cost and decentralisation

We will have three major kind of partners

- Regulatory partners
- Cash-In & Cash-Out partners
- OPCO partners
- Liquidity partners & Forex Underwriters

Regulatory partners will be country specific organizations that already have a MTO license and are willing to work with us for providing fast and low cost remittances in their markets. We will sign contracts or form JVs with these organizations as this will significantly reduce time to market, will bring in local knowledge of the country and enable us to meet regulations.

Cash-In & Cash-Out partners will also be country specific and these are organizations that already have a network of agents and provide last mile based remittance services within their countries. We plan to partner with these organizations and leverage their existing network of agents and remittance points.

OPCO partners are organizations or individuals who are keen to partner with us, in order to create a legal local entity within the respective country. It is this OPCO that will enter into the legal contract with the Regulatory partners and the Cash-In-Out partners

Ideally we expect a single organization that will be able to partner with us on all the above three areas. During our extensive research on the remittance markets in Australia, India, Philippines, Canada, Vietnam, Nigeria, South Africa we found that usually smaller MTOs who already have the licenses and approval and last mile reach are very keen to enter into such partnerships as it provides them with expanded reach, better and competitive services and avenues for further expansion.

Liquidity and Forex Underwriters are partners who will either pump in cash at the receiving country Nostro accounts or will underwrite the exchange value and give us immediate cash in the remitting county to fulfill the remittance

Go to Market (GTM) Strategy

Product

Daala Exchange – DAX – for Crypto & Fiat trading
Daala Money Transfer – DMT - for Global Money Transfer
Daala Wallet – Store, Trade, Use any kind of currency

USP

DAX – Zero Trading Fees
Daala Coin as transaction reward
Massive opportunity to earn while you trade on DAX

DMT – Fast transfer – within 10s to 10 minutes
Lowest Cost – Between 1% - 3%. Capped at a fixed charge of \$50 for \$5000 and above transactions & mint Daala coin as reward

Customer Segment

DAX – Existing crypto traders and investors – Non Experts
New Users – First Time crypto buyers

DMT – Blue Collar Migrants – Less than \$2000 transactions – Agent and cash based transactions.
White Collar migrants – More than \$2000 transactions - Internet – App based transactions

Acquisition Strategy

DAX – Mint Daala Coin as Reward
Sign up and get Daala coins to trade.
First Million signups get Daala coins in their wallet
Redeem the coins when DLL lists on exchanges

DMT - Daala Coin as Reward
Sign up and send money thru Daala - Pay the lowest fees, Send Money within seconds & mint Daala Coins every time you transfer
Redeem when DLL lists on exchanges

Marketing Channel

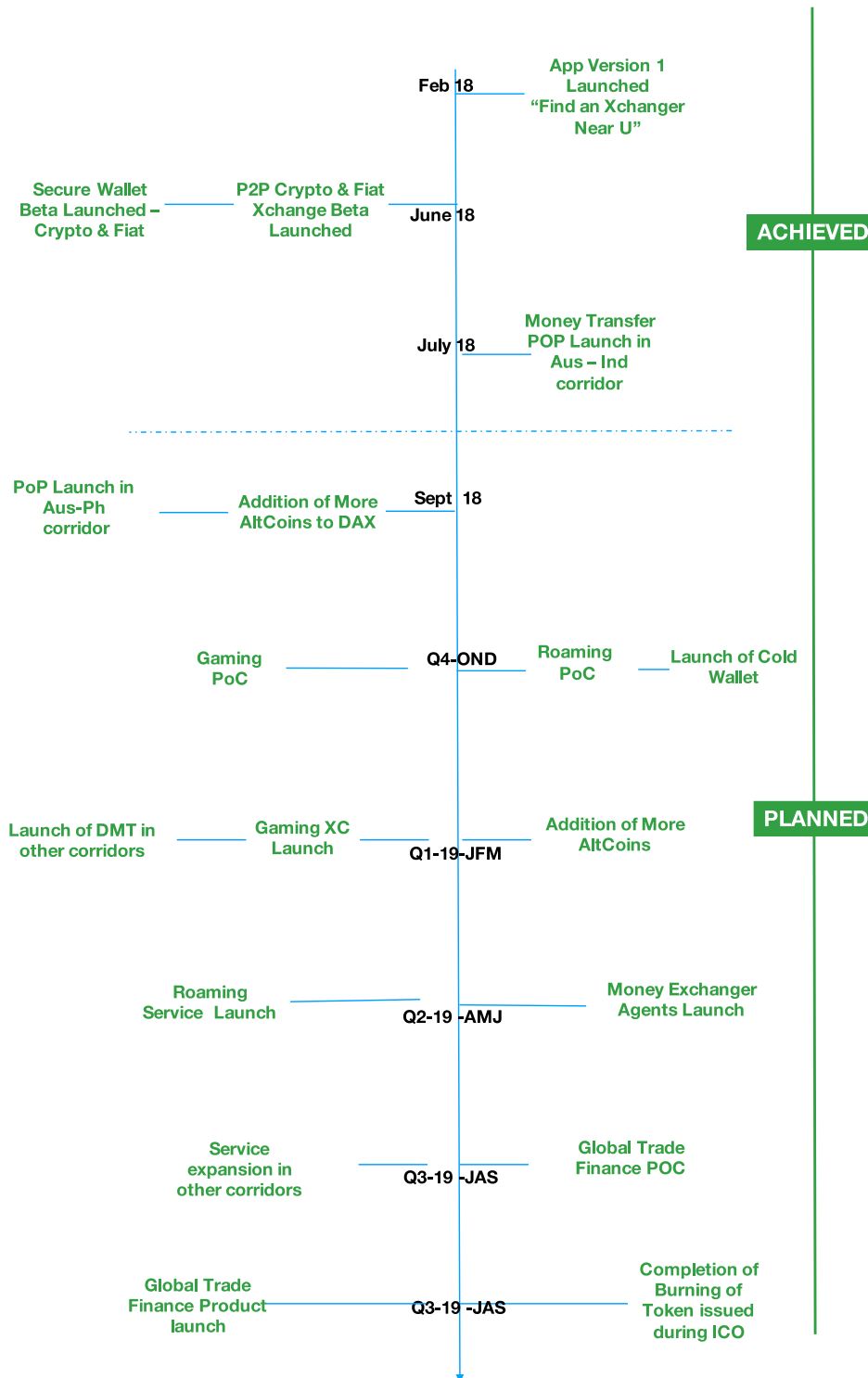
DAX – Social Media only
Referral MLM scheme

DMT – For Blue Collar Migrants -
On ground activation through existing remittance outlets
On ground activation at Work location hubs

For White collar migrants – Social Media only

Product Roadmap

Our goal is to develop Simple, Easy to use products



FAB of Daala (Features Advantages & Benefits)

Daala aims to create products that minimise operational difficulties, are easy to use and applicable across global markets

Features

Products	Code	Features
Daala Money Transfer	DMT	Fast transfers completed within 10s - 10m Low Cost transfers @ 1% - 3% of transactions amount Secure transactions over Blockchain
Daala Exchange	DAX	Best rates worldwide for crypto Fast & Secure transactions Direct Peer to Peer
Daala Wallet		Secure Wallet Fiat + Crypto + Altcoin Wallet
Daala Token	DTx	Non-Anonymous AML / CFT Compliant Recordable, Retrievable, Traceable Immutable
Daala Coin	DLL	Anonymous Backed by Real Currency - USD Tradeable Non Volatile Indestructable Immutable
Daala Blockchain		Peer to Peer Two Tier Blockchain Secure and Fast Scalable Permissioned and Decentralised

Advantages

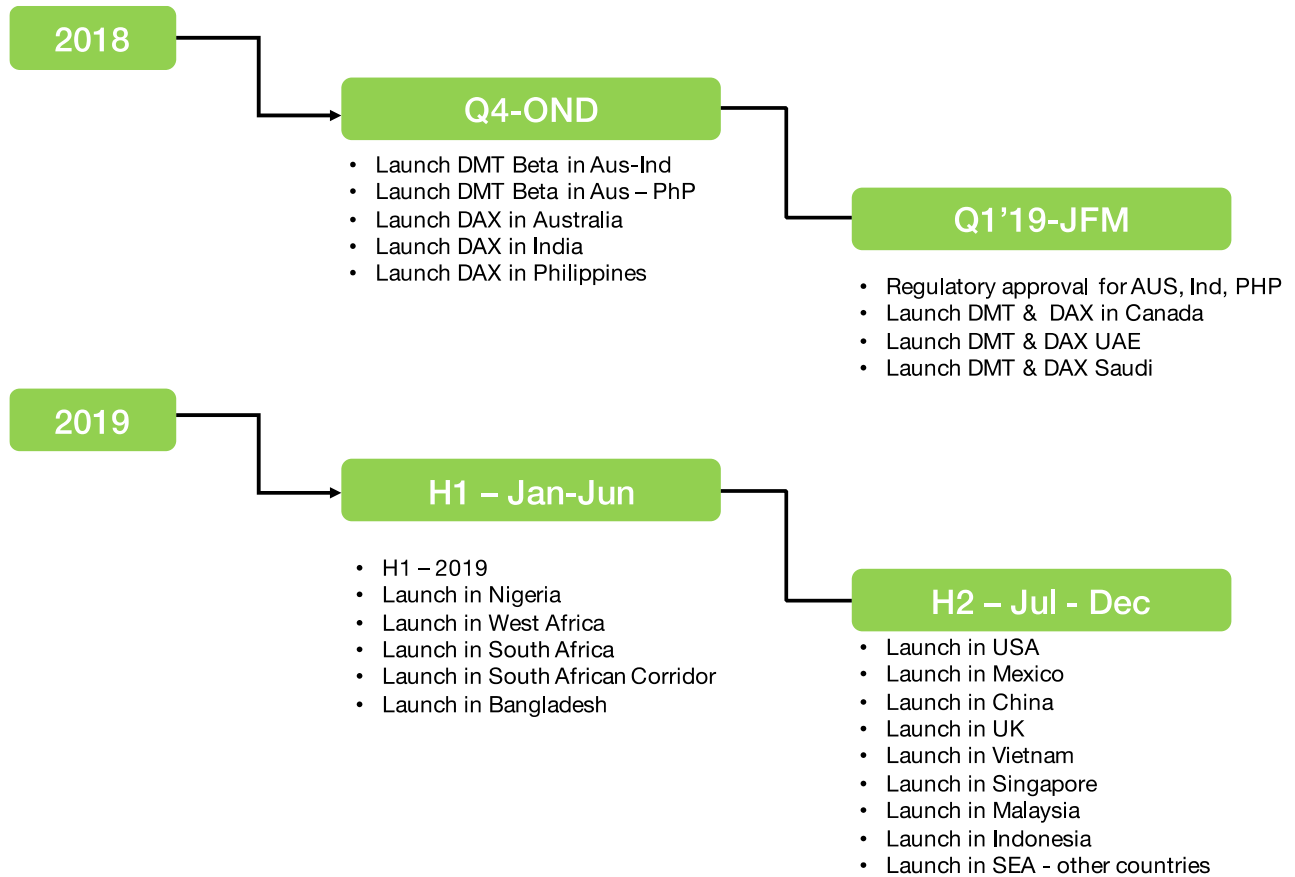
Products	Code	Advantages
Daala Money Transfer	DMT	Money is transferred very fast Receiver is paid before Debit is made Very Secure
Daala Exchange	DAX	Customers get the best possible rates Conversion is fast and easy You know the party you are dealing with
Daala Wallet		One wallet for all the currencies Easier to exchange, trade or remit
Daala Token	DTx	Legal & regulated way of sending money Legal way of doing transactions on the Blockchain Your data is secure and stored No one can change ur data
Daala Coin	DLL	Identity of ownership is completely concealed It has Inherent Value as it is backed by real money Easily tradeable due to the backing Cannot be destroyed
Daala Blockchain		There is no middlemen in your transactions Two layers enable the seamless transition from digital to real and vice-versa Consensus is permissioned so it is fast and transactions do not get stuck

Benefits

Products	Code	Benefits
Daala Money Transfer	DMT	Less Charges You Save more money You are able to send money faster and safer You get rewarded for every transaction The more u transact the more you earn
Daala Exchange	DAX	Zero Charges Trade as much as you want Know the Buyer - Seller Decide your own rate Earn on every transaction you make
Daala Wallet		All your money in one safe place Easy for accounting and using You can toggle between cold & hot wallet
Daala Token	DTx	All your transactions are legal You earn Daala Coins for every DTx You are a part of Daala not a customer
Daala Coin	DLL	High storage value and can be used as investment Speculative property enables you to earn more Easy to spend as it is accepted and converted fast
Daala BlockChain		Easy to use services. No need to be a tech Geek Web & App versions designed for easy availability Integrated player so very secure and stable Highly reliable so you don't need to worry about your money

Business Rollout

Fast & Partner based roll out in countries



Daala plans to launch in the top 14 countries as detailed earlier with a partnership model in each of the selected countries.

Wherever it is not possible to get into a partnership model, we will take our own license.

Competition

The Integrated Business Model, Peer to Peer Exchange, Transparent charges, removal of Intermediaries and BlockChain platform will give us a big advantage over our completion. The Reward and Coin Mining model will ensure stickiness of our customers and Speed, Security and Low Cost will make us a preferred platform for money transfer and other transactions

	Legacy Systems	Internet Based	BlockChain Based	TX Charges	Overheads	Currency	Mining	PayBack	Other Applications
Western Union	✓		✗	✓	High	✗	✗	✗	✗
Banking Industry	✓		✗	✓	High	✗	✗	✗	✗
UAE Exchange	✓		✗	✓	High	✗	✗	✗	✗
Money Gram	✓		✗	✓	High	✗	✗	✗	✗
Ria	✓		✗	✓		✗	✗	✗	✗
Transferwise		✓	✗	✓		✗	✗	✗	✗
PayPal		✓	✗	✓		✗	✗	✗	✗
Remitly		✓	✗	✓		✗	✗	✗	✗
WorldRemit		✓	✗	✓		✗	✗	✗	✗
Daala		✓	✓	NIL	Low	✓	✓	✓	✓

13 reasons why we have an advantage over competition

- No Intermediaries
- Direct People to People
- Immediate transactions – within seconds
- Secure transactions – Multi-layer security
- BlockChain based decentralized system
- Captive Exchange to ensure liquidity
- Daala Coins backed by real money.
- Massive Last Mile reach thru Mobile
- Specific focus on Remittance, Roaming and Gaming
- Absolutely compliant with AML and CFT
- Work within regulations and legal framework
- Perpetual Self Funding Model
- Great Team behind it



Business Risks

Product & Services Risk

- Technology Risk

Building a business that is reliant on the core BlockChain technology puts it at risk of being out-run by a better technology in future. We foresee that and therefore are building a core business that delivers end value and services to customers. To deliver value we can pivot into the latest tech that gives better results as and when such technology come up.

Also, we do not foresee a more disrupting technology to override BlockChain in the near future. So, considering a horizon of 8-10 years of BlockChain supremacy is a safe assumption.

- CopyCats

Tech is easy to copy and therefore to stay ahead of competition, an organization must continuously innovate, keep costs low and keep an eye out for changing business and customer preferences.

To keep copy-cats at bay we want to develop other moats in the form of partnerships, multi-country operations and a strong customer base. We believe that these moats will be very difficult to breach.

At the same time with continuous innovation we plan to stay ahead of competition now and in future.

- Bugs, Breakdowns & Breaches

A business based on technology is prone to bugs and they can cause huge customer dis-satisfaction and give competition a way to beat us. All software we release is rigorously tested and has inbuilt bug detecting & reporting mechanism. Our Agile team are capable of fixing bugs in production level software and release versions quickly.

Breakdowns are also common and we plan to prevent these by building redundancy models and also agile systems & teams that can detect and resolve any breakdown that may occur during operations.

Breaches are common in tech too and we plan to use the Open Source power to continuously stress test & breach test our systems. Also the inbuilt breach alert will enable us to know about such events immediately and our software team and architects will work quickly to plug these.

- Wrong Product Fit

The risk of a wrong product fit is already minimized as we have done extensive research on the business segment of Money Transfer and we believe we have the right product mix. Further each country nuance is taken care by the knowledge driven engagement with our local partners which is the inherent business model of Daala.

Before launch in any market we always do beta launches and we will fine tune minute variations to cater to the local customer requirement to enable absolute customer fitment.

Regulatory & Legal Risk

- Regulatory Risk

The first risk of regulations coming in between our product delivery has already been taken care of in the Daala Business model. As detailed there, we plan to take regulatory approvals or work with local partners who already have regulatory approvals in place. This minimizes our risk.

Also in markets where we foresee a regulatory problem in using cryptos for money transfer we plan to use other platforms like Ripple, Stellar or Currency Cloud to ensure fast, secure and low cost transfers.

Keeping this in mind, the business is registered in Australia and the 14 countries we have shortlisted are fairly covered from a regulatory standpoint for our business model

For the Daala Exchange again we have checked the regulatory environment in Australia and believe that it is conducive

For the ICO also we believe that Australia provides the right regulatory environment that ensures business continuity.

We also have the options of operating out of Canada & Singapore & Estonia in case the regulatory requirements force us to do so.

- AML / CFT Compliance

For AML / CFT compliance we will use inbuilt compliance software and use other open source resources to ensure no breach happens.

With the help of our local partners we plan to build in-country requirements for each country of operations and work with the regulator.

Over a period, we plan to develop and completely migrate the entire AML/CFT detection, blocking & reporting to an inbuilt software module that will be further enhanced through ML & AI.

- Legal Risk

The Daala business model is fairly protected against any legal risk. As detailed earlier we have extensively researched the legal environment in each of the 14 countries and foresee no legal risk in the proposed model. Furthermore, the partnership model ensures that all legal formalities are completed and complied with before operations are started in any OPCO. Daala will continuously work with legal authorities alongside its partners to ensure compliance, flexibility and positive change in laws for further business continuity and growth.

Partnership Risk

A business model that is dependent on partners is prone to significant risks. Daala has given this extensive thought and we are planning to mitigate these risks

We will have three major kind of partners

- Partner Liquidity
- Partner Break-Up
- Partner compliance & Regulatory breach

Each partner contract is duly vetted from exposure due to partner liquidity, break-up and compliance breach issues and is signed with the onus of meeting partner requirements and following regulations contractually on the partners.

Daala will also ensure that other liquidity alternatives are available as we grow, by creating an ecosystem of partners who can lend money for fulfillment of the Daala token.

We also plan to create a buffer in case of any partner break-up, by not depending on one partner only and keeping an active partner in cold storage which can be called upon immediately if needed.

For compliance and regulations, we plan to work closely with each partner to ensure the same and at the same time work with the local governments to ensure a certain sandbox is available for remittances of lower value.

Funding & Forex Risk

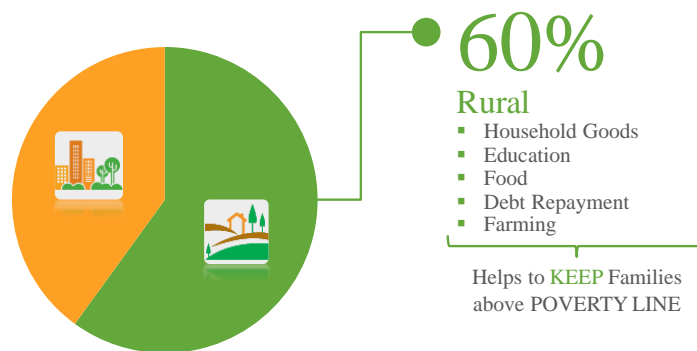
The funding risk is largely mitigated as the Daala Blockchain is self-funding and we expect to create enough funding buffer through the ICO. In case the ICO only meets the minimum Soft cap limit, then Daala still has enough funds to start operations for 2-3 corridors and success in those corridors will give us an opportunity to come back for another ICO round.

We will also be actively engaged with the investor community including angel, Series-A investors at all times to create a ready buffer for funding if needed.

For the Forex risk mitigation, we plan to partner with a forex hedging business which will give us mid-market rates which we pass on to the consumer. This will minimize our risk as the transactions are locked at that risk and the liability is with the Forex Hedging partner.

Social Impact

We believe that Daala will have a significant impact on the lives of the migrant families and will be a great service that will help reduce the cost of remittance to less than 3% and push the UN – SDP and UN Remittance agenda.



- With over 1 billion people involved in remittances any innovation that lowers the cost of sending money home will have a positive impact on the life of the migrants and their families.
- Since 60% of the worldwide remittance goes to the rural areas, any additional savings will result into spending on household goods, education, housing etc which will lead to economic upliftment of the families.



- The current charges are exorbitant considering that \$14 payable on sending only \$200 back home is a huge loss. In some countries the \$14 is almost a weeks food supply. Daala will help reduce the transaction cost and that will give additional money for better food's supply to these families.



- With Daala we aim to aid the UN – SDP program by reducing the cost of cross-border remittance to less than 3%.
- This will release over \$20 billion additional funds in the hands of the people who need it and therefore will help in economic development and contribution to the country growth.
- We want to do our bit in meeting the UN SDP objective of reducing cost of remittance to less than 3% . This is our social goal.

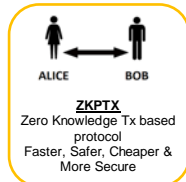
Daala Network

Technical Paper

Uniqueness of the Daala Blockchain



Daala is the only fully integrated Peer to Peer Blockchain, with its own Transaction Protocol, Mining Protocol, Consensus Mechanism, Peer to Peer Exchange, Token, Cryptocurrency and Real life use-case Customer Centric Applications



Our 2-Tier Blockchain structure ensures speed and security while maintaining low cost and interoperability. The same system enables transparent, Non-Anonymous transactions using DTX which then becomes the fuel for mining the Daala Cryptocurrency. Our Zero Knowledge DTX ensures confidentiality and prevents attacks



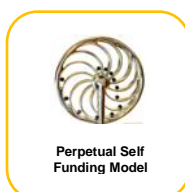
Daala uses Cryptonight hashing algorithm. CryptoNight is a proof-of-work algorithm. It is designed to be suitable for ordinary PC CPUs. CryptoNight relies on random access to the slow memory and emphasizes latency dependence. The algorithm requires about 2 Mb per instance



The Daala network has its own digital goods in the form of Daala coins and its own cryptocurrency exchange to buy and sell Daala coins and therefore we are a self-reliant business and not dependent on other applications for our success and adoption.



Each Daala Coin when minted has an equivalent amount of Fiat currency backing it (USD). This fiat currency is stored by Daala and acts as collateral and surety of liquidity. This makes Daala coin stable and tradeable and investable



On Daala network funds itself through transaction fees and also rewards users for using the network by mining coins for them every time they transact, thereby creating a perpetual loop of usage, fund, reward. This makes Daala perpetually self-funded and therefore it will have the lowest cost of transactions at any time.

Daala Network - A Two Tier BlockChain Structure

BlockChain undoubtedly can replace the traditional ledger based centralized systems, but there are certain benefits of the Centralized Ledger System (CLS) that cannot be overlooked.

Some very important aspects like Legal Value in case of disputes, Government Backing, Storage and Reserve Value, Compliance to Laws to curb Illegal practices, AML & CFT regulations, Taxation and Illicit Money tracking, are quite easily followed by the CLS of the world today.

It is therefore imperative that the any solution that can comply to regulations and ensure least number of intermediaries and enable peer to peer transactions at least cost, will be a foregone winner in the race of BlockChain and Cryptocurrencies.

So there is a need to a system that while ensuring compliances to regulations and laws of the land, can also ensure anonymity, free trade, lowest cost, immutability, legal recourse, fast transactions without the need to depend on a centralized system.

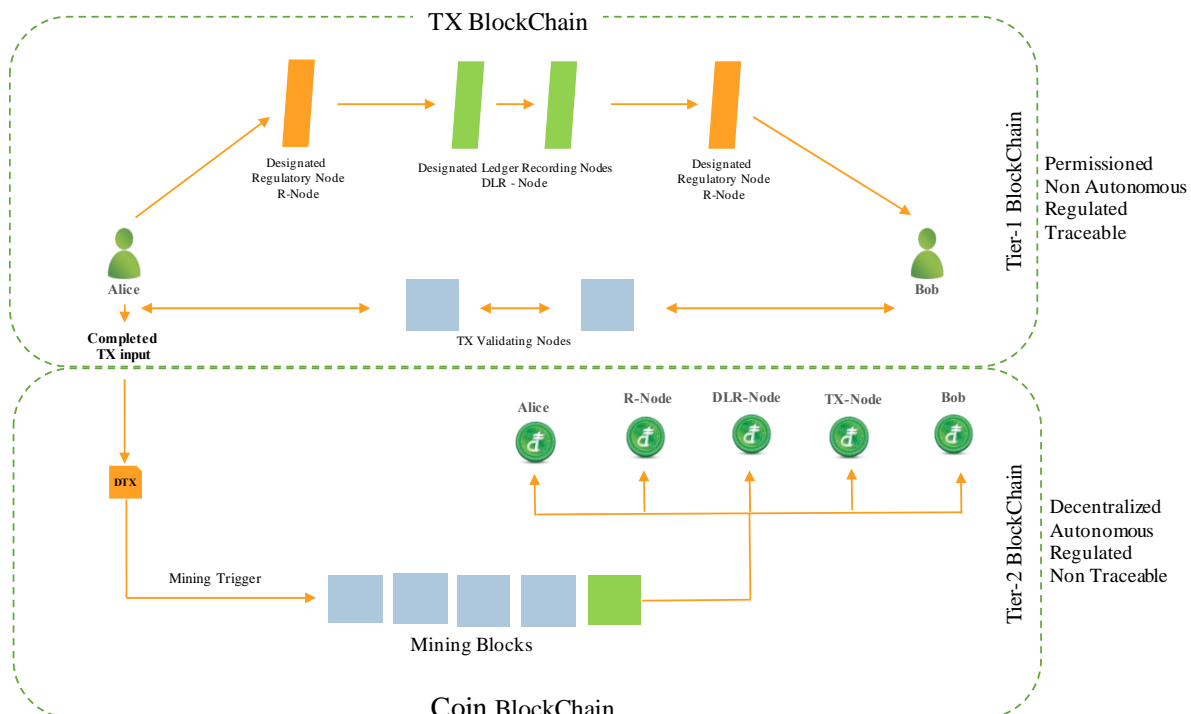
We at Daala believe that the answer to this question lies in the Hybrid Model of the BlockChain, where the Anonymity and Non-Anonymity, Traceability and Non-Traceability, Immutability and Non-Immutability, can exist in parallel. A system where one part supports the other without compromising the identity of the individual or the regulations of the land.

Therefore, we have created a two tier BlockChain Structure that supports the above needs and provides a long lasting, viable alternative to the Central and Decentral Systems of Ledgers.

The First Tier of our BlockChain

is transaction centric and focuses on enabling rapid, secure and cost effective transactions. This tier follows the Proof of Transaction (PoT) Protocol which is explained in detail in the forthcoming sections on protocols. The PoT protocol is based on the premise that in ensuring a secure, fast and cost effective TX, it is important to limit the no of nodes required to create the Bloc, also designate the role of each node so that functions can be performed with efficacy, reliability and securely and not have more than 6 hops to complete a TX.

This structure now ensures that we have designated nodes and therefore we ensure that at least two nodes are compliance centric, i.e. they ensure that each TX is as per the regulatory rules of the land, two nodes which are the central nodes capture the entire TX again to ensure security and compliance and referability at any future stage, and then the Checker nodes that ensure that the confirmation of the TX happens in complete anonymity of the Transacting nodes.



For validation, Daala uses the maker checker principle. Per maker and checker principle for each transaction, different non-linked and anonymous nodes must complete and validate each transaction. Daala uses different set of nodes to validate the sending in of a transaction and another set of nodes to validate the acknowledgement of a transaction. The structure is a self-auditing in nature as fault in one set of validating nodes can be caught by the second set of validating nodes and no one node has complete validation power on the network.

Unlike BlockChains used in many other cryptocurrencies, Daala uses a block-lattice structure. Each sender receiver pair has its own BlockChain (transaction-chain). A block is created whenever a transaction is initiated by sender to. After validation, this block is added to their respected BlockChain. When a transaction is initiated, it is carried out as a block which is not anonymous i.e. the sender and receiver data is there inside the block.

This block passes through a set of nodes who validate various aspects like correct and valid amount, valid receiver, etc. Once the block reaches the receiver end it is acknowledged back using different set of nodes. Once a transaction is made as well as completed zero proof Daala coins are generated. After coin generation, the transaction block is merged up with the transaction BlockChain.

The transaction BlockChain is divided into two sections – senders and receiver. Sender sections have accounts from where the coins are sent and receiver section has accounts from where the coins are received. A coin is anonymous and has a wallet address, amount, redemption date and is not transferable until the redemption date.

The Second Tier of our BlockChain is cryptocurrency centric and focused on mining, final validation and generation of coins, their allocation and delivery to the coin owners. Each complete TX in the 1st Tier BlockChain creates an input to the 2nd Tier BlockChain, thereby generating mining blocks. These mining blocks once completed, generate the Daala currency. The currency is allocated to the various nodes that are involved in the TX and the mining nodes in the 2nd Tier BlockChain. The 2nd BlockChain is strictly distributed and completely decentralized.

Each Token that is passed on to the 2nd BlockChain is validated and post that enveloped with encrypted key therefore ensuring that the Token Genesis details are not publicly available, this ensures that the coins that are generated are Zero Knowledge Proof of TX but they can only be generated in the actual TX has happened and validated in the 1st Tier of the BlockChain.

Once a transaction is complete and transaction block is added in the respective BlockChain, the zero-knowledge proof is transferred to a new BlockChain namely coin BlockChain. Once the zero-knowledge proof Daala coins are generated, the transaction fees is distributed amongst all the agents as well as sender and receiver. The information about the Daala coins and account is stored in coin BlockChain.

The above architecture ensures that the two BlockChain work together without the exchange of identity and proof of transactions thereby creating interdependence and independence from each other.

This also ensures that the coins generated in the 2nd BlockChain are completely Anonymous and Non- Traceable.

Any transactions carried out with the Daala Coins further rely back on the Tier 1 BlockChain for validation, transfers and allocations. Thus there is interplay between the two BlockChains. The only difference being that any DTX created for the purpose of transactions done by DLL, are auto-encrypted to maintain anonymity of the transactions of the Daala coins.

Role and Purpose of Each Node and BlockChains

TX Blockchain - DTX - the purpose of this Blockchain is to enable secure, fast, complaint, and low cost TX. These can be Money Transfer TX, Cross Border TX, Digital Currency Exchange TX, Buy & Sell of Goods TX, Roaming based Telecom TX, Payments to Merchants etc. Since DTX is a permissioned Blockchain, therefore speed and security of TX can be controlled.

Coin Blockchain - DLL Blockchain is to enable the automatic generation of a crypto-coin that can be used as currency and can be exchanged for goods. The currency generated by DLL is backed by real money and therefore that reliability, security, transferability, usability will be very high while the volatility will be very low.

Daala Coin - DLC - The Daala Coins - DLC are generated whenever a TX Block is mined in the Coin Blockchain, which triggers the release of the coins basis the value of the TX. Each coin thus generated has a genesis block that indicates the Proof of TX, but it does not carry details of the TX, thereby ensuring complete Anonymity of the Coin

Regulatory Nodes - RN - The role of these nodes is to ensure regulatory compliance and ensure recording of TX in case there is a need for the regulator to review some transactions for investigations, The RN is hosted in each country and applies the regulatory algorithm to ensure compliance in the relevant country.

Designated Ledger Recording Nodes - DLR - The role of these nodes is to ensure that there is a comprehensive record of the complete TX, The RN nodes do not maintain the complete information, they maintain part information, whereas the DLR maintains the complete TX information. The DLR also maintains the final Proof of TX – PoT, which is validated by the Validating Nodes. Therefore, the DLR ledger is the comprehensive PoT ledger.

Validating Nodes – VN – The purpose of these nodes is to ensure that there is a validation of the TX. These nodes are completely anonymous of the RN and the sender and receiver nodes and their sole propose is to validate the TX. The VN nodes also send the final confirmation to the DLR nodes to ensure validated PoTs.

Zero Knowledge Proof of Transactions – ZKPoT – These are signals that are sent to the Coin-BlockChain that signify that a TX has been completed and validated in the TX-BlockChain and therefore the ZKPoT becomes the input / trigger to the Mining Block.

Benefits of a Hybrid Blockchain

A hybrid Blockchain is probably the answer for massive adoption and legalization of cryptocurrencies, inter-operability between fiat and crypto and a completely digitized and largely decentralized market oriented currency and economy.

Speed – A two tier Blockchain works on the premise that the TX layer has limited hops, and specified roles for nodes and validating transactions, the consensus is reached because all the nodes validate, have a trust relationship and therefore TX are faster. There is no need to solve complicated mathematical equations in order to mine – TX are meant to be completed and that is what the TX layer of the Hybrid Blockchain does – while ensuring that the TX are done securely.

Security – A hybrid system is more secure as the two layers reduce the chances of Fake transaction, Double Spend Attacks, Cloning attacks. Also mining is interdependent on TX, and every TX has a cost, this ensures that Fake TX, and Cloning don't work.

Compliance & Regulations – Most of the Governments want to ensure that Blockchain does not give rise to illicit transactions and AML and Terrorist Funding channels. A Hybrid system ensures that any TX which involves money, is well regulated, tracked and managed, while the Cryptocurrencies allow anonymity.

Non-Anonymous & Anonymous – Hybrid ensures that Non-Anonymous can co-exist with Anonymous, in-fact be an incentive to generate anonymous coins. It like the analogy that when you do a legal transaction, you generate legal cash to spend the way you like it.

Flexible & Scalable – A hybrid system is more scalable and flexible. Its ability to change with time, add or remove designated nodes, decentralize more as regulators become more flexible, non-dependence on huge amount of computing power allow it to be more progressive, adaptable and scalable.

Value Creation – The above Hybrid system ensures that there is value creations for the parties involved in the TX by rewarding them with currencies that is backed by real value and likely to appreciate faster over time.

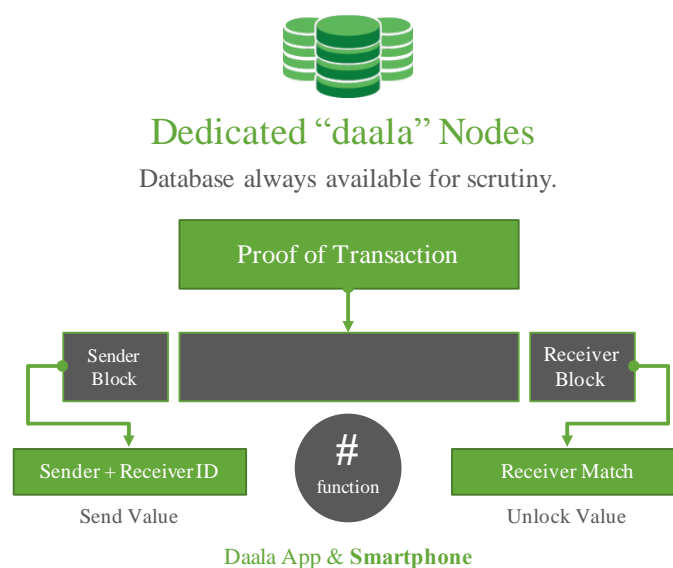
Tamper Proof – As shown in the visualization of the Hybrid system above, because of the very architecture of the BlockChain and designated roles and cross validations within the nodes, it becomes highly tamper proof

Self-Validating & Trustless System- A system that self-validates itself by ensuring a maker and checker logic along with final validation from the transacting parties becomes Trustless. One can carry out TX with the confidence that the system self-validated and self corrects itself, thereby ensuring a Trustless and reliable ecosystem

zkPOTx Protocol and its applications –

In our Blockchain we want to combine the power of zk-SNARKS with Proof of TX where the verifier cannot have knowledge about the TX, but can use the SNARKS to ensure trueness of the data. This will enable secure TX over the network which can be verified with speed and without compromise.

Using ZKPoT-SNARKS we plan to put an input into place for the mining of Daala coins that will ensure that a miner cannot trick the system with a false PoTX and thereby generate coins for his own benefit which can then later be traded or converted into other assets or currencies.



POT = SMARTPHONE = # faster = TPS is faster

Proof of Transaction (PoTX) protocol states 6 main rules-

1. No transaction can start without end points.
2. A transaction is indestructible
3. A TX is immutable but append-able
4. All transactions are end to end traceable
5. A transaction can only be completed once it reaches the end point
6. Transaction enabling and checking nodes are unlinked

Zero Knowledge Proofs (ZKP)-

The ZKP was first proposed by MIT researchers Shafi Goldwasser, Silvio Micali and Charles Rackoff in 1985, wherein it was defined as a method of proofing without exchanging any data related information.

A simple ZKP transaction will be where Alice can prove to Bob that a transaction is true without sharing the actual data of the transaction. A ZKP application must fulfill the requirement of Completeness (the ZKP always returns a binary value), Soundness (It cannot be tricked) & Privacy (the actual data is always private).

ZKP is a probabilistic model that decreases the probability of chance exponentially as the no of trials increase. For Eg the chances of getting a right answer by chance is reduced 1024 times in 10 trials, thereby ensuring that the other party

Using zk-SNARKS (Zero Knowledge Succinct Non-Interactive Arguments of Knowledge) we can further enhance the speed of these trials and ensure ZKP are more usable in daily transactions. The meaning of the sections of the acronym is as under –

- Succinct: The message size is much smaller than the actual information.
- Non-interactive: There is no need for multiple interactions for the same proof and it's a publically verifiable source – anyone can verify.
- ARguments: Protection is only limited to computationally limited provers – so someone with enough computational power can prove the system wrong
- of Knowledge: Not possible for the prover to prove without key knowledge of the transaction.
- ZKPoT-SNARKS also help us to ensure the problem of FrontRunning is taken care of. Since there is no knowledge of the TX, Frontrunning is ruled out and since the Tx happen very fast the computational FrontRunning is also ruled out.

Which Protocol and Which Hash function and Why

BlockChain Layer	Hash Function	Consensus Protocol	Framework
TX Level	SHA -256-d	PBFT / BFT SMarT	Hyperledger / Corda
Transfer layer		zkPoTX	Daala Framework
Mining Layer	SHA-256-d	PoW / PoS	BitCoin/Ethereum/Nano fork

- At the transaction level we will use Hyperledger Fabric and therefore the hash used will be SHA-256-d and the consensus protocol to be used there will be Byzantine Fault Tolerance consensus protocol.
- As we evolve we will also start using Corda ad the transaction BlockChain purely to ensure faster and secure transaction and independence from a single BlockChain Framework.
- Since both Hyperledger and Corda are evolving Frameworks, using both, for our transaction layer will give us ability to switch to the one with better KPIs.
- The PoTX protocol will also evolve along with the Hyperledger and Corda protocols as we will continuously test this protocol in transactions to ensure zero knowledge proofs.
- Once the PoTX protocol is fully evolve, we shall either shift to or add it to the protocol stacks Daala will use to enable transactions.
- At the mining level we shall fork Bitcoin and create Daala coins and the underlying protocol for Daala will be the Bitcoin BlockChain which has proven to be anonymous and secure.
- However, whenever any transaction is to be carried out by Daala coins it will fall back on the transaction layer and use DTX for speed and low cost.
- The current mining ecosystem of Bitcoin will be able to join the Daala ecosystem and therefore ensure complete decentralization of the 2nd Tier of our BlockChain
- PL note that this is an evolutionary technology and therefore it is important to state that at Daala our sole purpose it to ensure fast, low cost and secure transactions across the digital and real world and therefore we will be in an evolutionary state

and may shift to better technologies and protocols as they are developed and launched from time to time

We will be using the Byzantine Fault Tolerance (BFT) to ensure that all transactions that are recorded are valid and the instances where a node or nodes want to record a malicious transaction, it can be detected and the client and other nodes be alerted. The BFT algorithm ensures that malicious nodes can make no more than $Ff = \lfloor (n-1) / 3 \rfloor$, which ensures stability and functionality, where F is the fault tolerance of the system which consists of 'n' nodes.

At Daala we will be utilizing Upright library which is an open source library, and utilize the BFT SMarT library, which implements a highly fault tolerant and scalable PBFT solution (which is the most recent effort to maintain state machine replication).

Here is pseudo-code for the algorithm:

- Each processes i maintains an array $\text{pref}_i[j]$ where j ranges over all process ids.
- There are also utility values majority and multiplicity.
- Initially, $\text{pref}_i[i] = \text{input}$ and $\text{pref}_i[j] = 0$ for $j \neq i$.
- Phase k consists of rounds $2k-1$ and $2k$:
 - In round $2k-1$ (first round of phase k):
 - send $\text{pref}_i[i]$ to all processes (including myself)
 - set $\text{pref}_i[j] = v_j$ where v_j is the value received from process j .
 - set majority = majority value in pref_i and multiplicity = # of times majority appears in pref_i .
 - In round $2k$ (second round of phase k):
 - if $i = k$ then send majority to all processes (only the phase king does this)
 - receive king-majority from the phase king (everybody does this)
 - if multiplicity $> n/2 + f$ then
 - $\text{pref}_i[i] = \text{majority}$
 - else
 - $\text{pref}_i[i] = \text{king-majority}$
 - if $k = f+1$ then decide $\text{pref}_i[i]$

The Daala Token – DTX

All Transaction on the Daala BlockChain are done using the Daala Token – DTX which can be generated by any user who wants to transact on the platform. DTX is an Immutable, Append only Token that is generated when a transaction is initiated and the token carries cryptographically secured information on the TX (The Initiator, the Receiver, Identifications Codes, Proof of TX, Amount, Purpose, Compliance and contract information). The Daala token then passes through a series of designated nodes that apply the cryptographic hash functions (KryptoNite) in append only mode with each node signing off and validating the TX, till it reaches the Receiver who then sends the final validation PoT to the Verifying Nodes post which the DTX is closed.

Every DTX has a unique identifier and can only be used for a single transaction, which is further secured with a hash function to ensure security.

Token Features

TX based Generation - DTX is auto-generated when an actual transaction (buy, sell, transfer etc.) is carried out. If there is no transactions on the system, DTX will not exist.

Non-anonymous - This property of DTX is to ensure that the tokens carry the necessary information of the sender and the receiver, the amount of the transaction and the purpose, thereby ensuring compliance to the regulations of the Sending and Receiving locations / countries / parties.

Input to the Exchange - DTX is the fuel to the exchange. Just like there is GAS in case of Ethereum, Daala has DTX which also indicates the usage of the system

AML / CFT / KYC compliant - DTX follows the Regulations and Compliance of the countries, territories where the transaction is carried out. It also ensures the respective data on transactions is available to the authorities and regulatory bodies

Double layer security – The Transacting nodes and the Validating nodes are not interconnected or related which ensures that there is double layer of security.

ZKP0TX – Zero Knowledge TX Protocol – Our own unique protocol ensures that the transaction information is not compromised and the security and sanctity of user data is always preserved.

Recorded and Traceable – DTX is indestructible and therefore it is an important property for compliance and record reference and monitoring. It is also traceable and with the necessary authority DTX details can be released.

The Daala Coins – DLL

The Daala Currency is a cryptocurrency which uses the KryptoNite hash function and is mined on the mobile phones or computers whenever a transaction is carried out on the Daala BlockChain. Whenever a complete TX in the Tier1 BlockChain is completed and validated to be correct, which becomes the trigger for the mining of the currency.

The Currency is allocated to the various transacting and validating nodes and is backed by real fiat currency.

DLL can only be generated once ZkPOTX is completed which leads to a certain value of the TX cost to be allocated to DLL and reserved in a bank account.

The value of DLL is pegged to 1 USD and the reserves are maintained in USD or gold. This ensures that there is a real asset that is backing the currency and the generation of the currency itself can only happen if there is transactions on the Daala platform.

This creates a self-fulfilling auto generating mechanism for Daala coins. It also ensures that there is real usage of the system that is generating the currency which will further fuel the usage of Daala coins for trade, storage value, future appreciation and exchange.

It also ensures that the currency is non-volatile as it is pegged to the USD and backed by reserves and the currency can only be mined by transacting on the platform.

Currency Features

Anonymous – Daala Coins are mined whenever a zk-PoTX-SNARK is completed and therefore the source of generation and the identity of the nodes is completely anonymous. Each Daala Coin is mined basis the initial value of the transaction and therefore can be generated due to multiple transactions of a single transaction. However, the coin miner does not know the detail of the Transaction that led to mining of the coin.

Inherent Value – The Daala cryptocurrency is backed by real currency which is stored in an account and also the genesis of each coin is a monetary transaction, which therefore ensures that there is inherent value in the coin.

Storage Value- Since DLL is pegged to a USD and also an equal value in USD is stored against it initially, we believe that as the no of transactions grow and the difficulty level of mining a transaction increases that probability of mining a coin or partial coin will decrease thereby increasing the storage value of the coins in circulation.

Tx Value – Since the currency is backed by reserves therefore the exchange value and acceptability of the currency will be much higher than the other cryptocurrencies

Backed by Real Value – Every coin has a tx as its genesis and therefore there is a real value associated with each coin, besides it is anyway backed by an equal value collateral in terms of USD.

Mined on Mobile – The currency is mineable on the mobile and therefore it has much more value for future transactions and exchange and much more useful for buying and selling of goods and assets. Because it is mineable and storable on the mobile, that further enables the transactability of the currency.

Tradeable – Daala Coins are tradeable as they are backed by a real asset class. Due to this property the coin carries the inherent value of storage and spendability.

Non Volatile – This is one feature that separates it from the pack. Its backing with reserves of real USD ensures a certain level of stability that has not been seen in most of the cryptocurrencies

Indestructible- The currency is indestructible as once created it will continue to exist. The only scenario when it can be destroyed is when it loses its value, which is anyway not possible since it is backed by a real asset class.

Mining

Mining in the Daala network is very different than the traditional mining done in case of other cryptocurrencies like Bitcoin, Ethereum etc. While Mining in the traditional sense means that you solve a very large – high computational power consuming problem to mine a block and you are rewarded with a coin which actually is like “digging to find gold” and the notion that gold is precious is because of its worldwide acceptability as an asset class, its tradeability and its solvency.

In the Daala network we do not want to replace gold or any other currency with Daala as a reserve asset class, however we want to enable tradability of all asset classes using Daala and therefore as a result of successful transactions the Daala coin is mined. In the Daala network everyone and anyone who either does a transaction as a sender or a receiver or a facilitator or enables a transaction as a validator, or regulator or as a storage node, is called a miner.

The miner rewards are a function of the volume of transaction, the value of transaction, the role of the miner in the transaction, the Tier at which the miner is contributing to the network. For Eg the Sender and the Receiver and the Agent play a great role in singular transactions and therefore as a percentage receive the maximum weightage, whereas the volume of transactions a validating or a regulating node handles is very high so their weightage on a single transaction is lower and keeps getting lower as the no of transactions increase.

The computational requirements for a sender or receiver or an agent to mine the coin is much lower and can be easily done using a normal PC or a smartphone, whereas the computational requirements for a regulating node or a storage and validating node is much higher and therefore will require a larger computing ability but even then a normal Computer with i5 core processor should be able to handle the mining requirements.

However once the zk-POT-SNARKS are created and handed over to the 2nd Tier in the BlockChain the computational power required increases as at this stage the Blocks are created and merged and computationally impossible hash functions are assigned to the blocks thereby ensuring security and creation of valid coins.

Classification of Miners in Daala Network

Role	TX Volume	Mining Rewards /TX	Computational Power	Min Hardware required
Sender	Low	High	Low	Smartphone
Cash-In Agent	Medium	Low	Low	Smartphone
Cash-Out Agent	Medium	High	Low	Smartphone
Receiver	Low	High	Low	Smartphone
Sending Bank	High	Low	Medium	I5 Computer
Receiving Bank	High	Low	Medium	I5 Computer
Regulatory Node	High	Low	High	I5 Computer
Storage Node	High	Low	High	I5 Computer
Validator Node	High	Low	High	I5 Computer
Minting Nodes	High	Low	High	I5 Computer

The Mining Reward algorithm

The Daala Mining Reward Algorithm is a complex multivariable function that can self-adjust the weightage of each variable to ensure liquidity, rewardability, continuity & currency stability.

The Mining reward algorithm can generate customized reward structures to ensure shift value, has inbuilt scarcity inducing mechanism which self-contracts and expands basis the dollar and the world economy and is self-learning and adapting.

$$f(x) = \{k(C, V, v, F, T, P), e(D, dc, e)\}. SV$$

x – Mining Reward Algorithm

k – Internal function constant

C – Category of the Miner – Whether Sender, Receiver, Regulator, Validator, Minter

V – Value of TX

v – Volume of TX

F – Frequency of TX

W – Reward Level Weightage – The Miner rewards will have levels like Beginner, First time user etc

P – Computational Power requirement

e – external factor constant

Δ – Dollar fluctuation

dc – Daala coins in circulation

e – economic weightage (world economy)

D – difficulty level

Difficulty Level of mining wrt no of coins mined

$$f(m^t) = \frac{D^{t+1}}{dc}$$

Algorithm Illustration for a Sender Miner

$$fx(s) = k\left(C, \frac{V}{v}\right).P e(\Delta.e/dc) * T. f(m^t). SV$$

Algorithm Illustration for a Regulatory Node

$$f(rn) = k\left(\frac{C}{V}\right). \frac{1}{F}. e(\Delta.e/dc).P. f(m^t).SV$$

All the above functions will have an additional parameter multiplier which is called the Shift Value. This value is different for different segments and demographics and is a function that is defined as the value which has just the right incentive amount to make him do a transaction on the system. The SV is defined in greater detail in Perpetual Funding Model section.

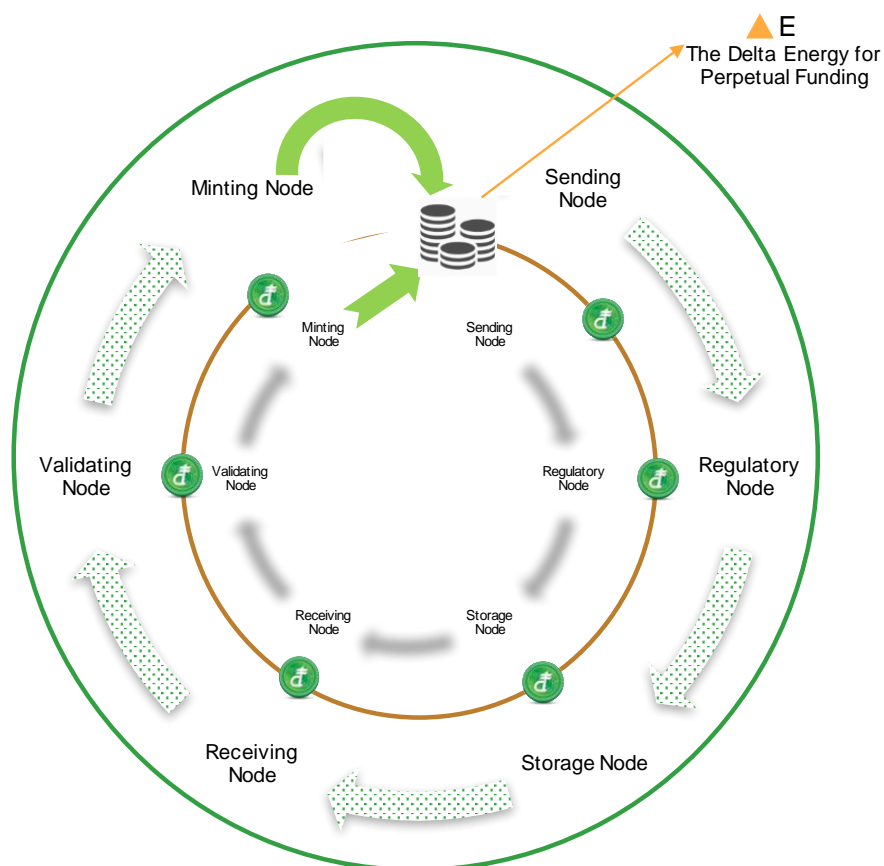
The Mining Reward Algorithm will be developed over a timeline of 6 months to one year from the launch of services. Till then a simple logic of mining reward basis the no of transactions done will be followed.

The one year timespan will be used to test, refine, retest, refine cycle till it is capable of running on its own. During the testing runs, we will also implement beta versions of the algorithm for various corridors. This step is also very important as each corridor has different demographics and different customer profiles and therefore the algorithm has to be tested over these cohorts to reach optimal performance values.

The Perpetual Funding Mechanism

Perpetual motion is motion of bodies that continues indefinitely. A perpetual motion machine is a hypothetical machine that can work indefinitely without an energy source. The perpetual motion theory tries to prove the possibility of a self-propelling machine that does not need any external source of energy once started. While the theory is perfect in visualizing such a scenario but friction plays spoilsport and thus there is always a delta energy required which is equivalent to the loss due to friction, to ensure continuous motion.

In the Daala network we want to create the perpetual funding model where the model itself can generate that Delta Energy – (Transaction Incentive in our case) to keep the network in continuous motion.



Above figure is an illustration of a perpetual funding mechanism.

Perpetual funding is a concept in which once a transaction is completed, there is a ΔE (termed as the Delta Energy) that gets created by ensuring that a certain amount of transaction reward is paid out to each player in the transaction and a reserve pool of funds is created – to be used in the instance of a system reset or restart.

As has been proved in the case of a perpetual motion machine, there is always a ΔE required to keep the motion perpetual, the Daala Perpetual Funding Model ensures that there is always that ΔE present within the system itself, that can keep the machine perpetually in motion – i.e keep the Minting machine always in motion

ΔE is the cumulative sum of all the Δe of each sender and receiver or transacting node

$$\Delta E = \sum_1^n \Delta e + \Delta S$$

Δe = Shift Value = The Amount of incentive required to shift the customer to transact on the Daala network. If you get an incentive is \$2 every time you do your regular transaction on Daala network instead of any other network, and that \$2 value makes you shift your transactions to Daala Network – then \$2 is your Shift Value.

ΔS = Store Value = The minimum value which Daala Network ensures remains in the customer wallet which ensures repeat purchase. Eg – If you have \$20 in your account, but you cannot use it till it is \$50 and you lose it if you do not transact on the network – then \$20 is the Store Value which keeps you coming back to the system

On Daala network this Shift Value is in the form to transaction fees that is paid to the end users. Once a transaction is completed on Daala network, all the nodes involved in the transaction i.e. Validators, Regulators, Storage Providers and the End-Users get the generated Daala coin in the form of transaction incentives.

Since the End Users i.e. the Sender & the Receivers will be incentivized for doing their transactions on the Daala network, they will always create transactions on the network – if the network continues to run transactions, it will continue to Mint Coins and therefore continue to produce ΔE to keep the machine in perpetual motion. If the End – Users are generating transactions on the network, then the transaction facilitators will automatically come to the platform as the customers are there already. This further ensures perpetual motion.

Failure Mode Hypothesis for Perpetual Funding Mechanism

Null Hypothesis = If $T_x = 0$, then $\Delta E = 0$, therefore the perpetual funding is not possible.

So, the only scenario when the funding and minting motion of the machine will stop will be when the T_x become zero.

The $T_x = 0$ can only happen if there is no advantage for customers to transact on the network. As mentioned earlier that there are significant advantages for customers to transact on the network due to very low cost and high speed and security features. Apart from that to kick start the initial motion of the machine – the promoters will put in the ΔE required to create the Shift Value for customers to shift to the network.

With significant advantages and an additional ΔE in the system, the T_x will never be zero

So $T_x > 0$

If $T_x > 0$

$$\Delta E = \sum_1^n \Delta e + \Delta S \text{ will always be } > 0$$

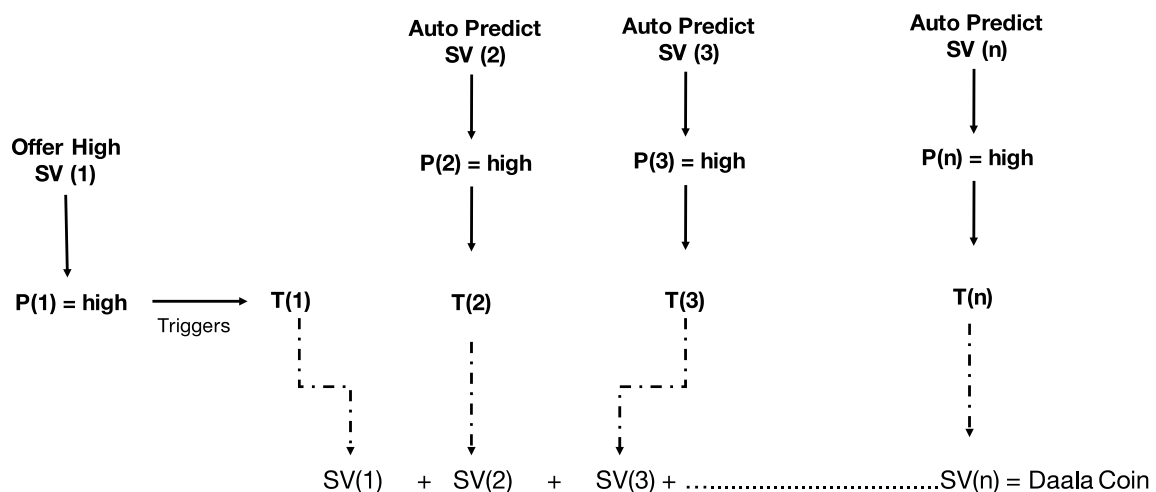
And therefore Shift Value and Store Value will kick-start the cycle of continuous motion

The Daala network will also always have ΔE in reserves which will be created as transaction fees charged by the Daala Node will be kept as reserves to ensure perpetual motion. Therefore as the transactions grow, the ΔE will grow and the reserves will be enough for any intervention needed in future to keep the machine in motion.

An Intelligent Network for Shift Value Calculations

Daala network is built on a intelligent algorithm which is capable of distributing minimum initial Shift Value (SV) which is able to trigger a transaction from the customer. The SV varies from customer to customer. For Eg the SV of an existing loyal user of some other network may be high as compared to the SV of a first-time user.

The SV is algorithmically calculated to break the minting of the Daala coin into “n” no of transactions. The SV is expected to be different for each customer and for each stage in the “n” no of transactions. Also, the “n” value will vary from user to user and basis the volume & value of transactions. We believe that we can reach an optimal value of “SV”, “T” and “n” for each customer over a period. This is the AI part of the Daala BlockChain which also ensures perpetual funding.



The Shift Value is algorithmically altered to keep the probability of triggering a transaction is high

$P(n)$ = probability of n^{th} transaction

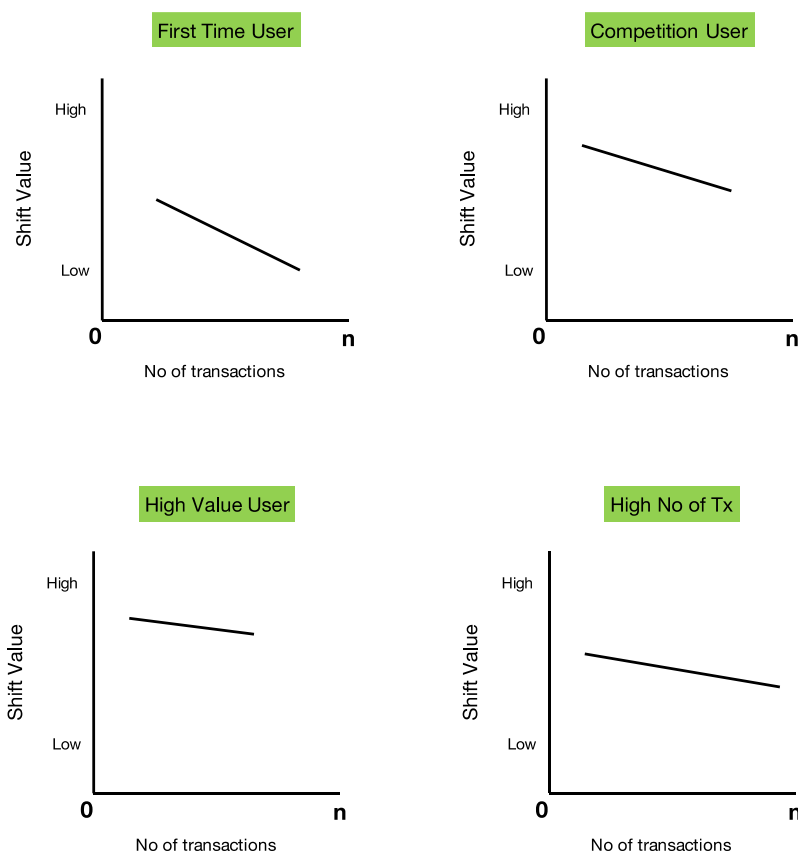
$SV(n)$ = Shift Value which triggers the n^{th} transaction

$T(n)$ = transaction carried out

Once the user is provided the initial shift value, the gas to initiate the perpetual motion is fueled. The first transaction will take place and the respective transaction fees will be given to the user. Once the user touches the total tenure amount, then user will get the

Daala coin which will further trigger transactions on the network as the user will like to spend the coin for further transactions to buy something or exchange it for goods of value.

The initial shift value can be determined intelligently. Different users will have different initial shift value and per that their total tenure amount “n” will be decided.



The above illustration shows the mapping of various categories of users and their Shift Value and how it changes with the no of transactions. The Daala Algorithm will continuously adjust this for all customer segment bands to drive optimal value of SV, that drives the maximum no of transactions and ensure minimal customer churn.

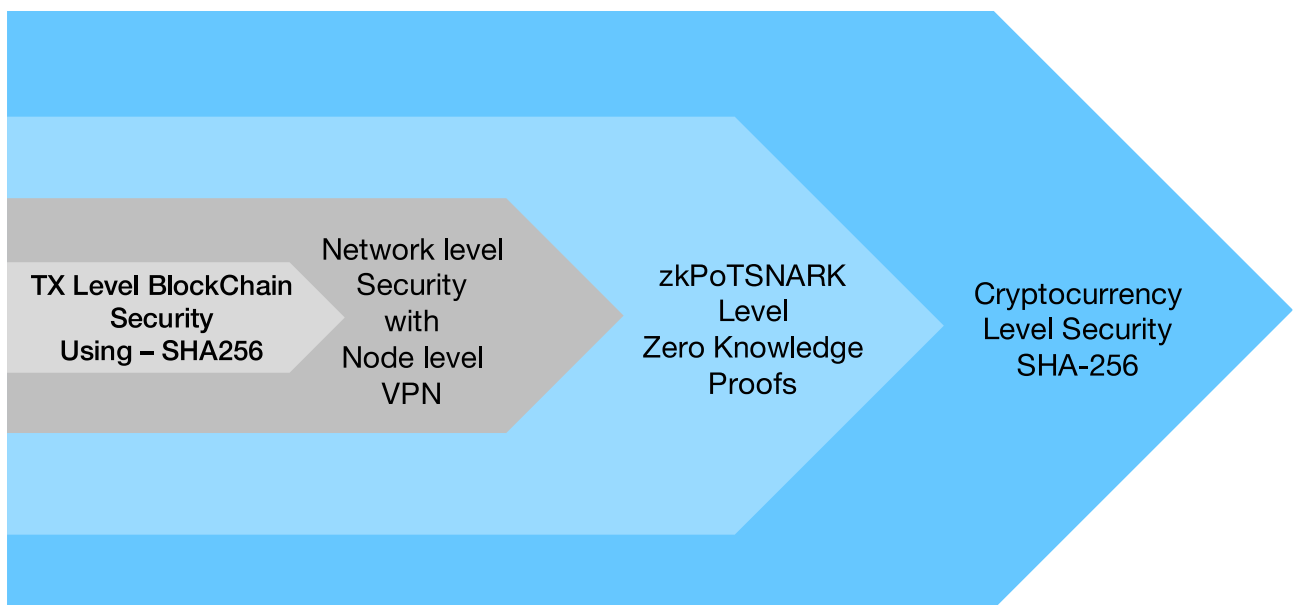
Security

Security is an integral, inherent part of BlockChain as the very design of the BlockChain ensures security.

The BlockChain Level

Our BlockChain has multiple layers of security at different level of the transactions layers. The Core transaction layer Tier1 uses the SHA-256 cryptographic algorithm and is one of the most secure algorithms that have stood the test of times.

The entire network of the Daala Nodes is secured on a VPN that has a high level of security built into it. We will initially be using the open source private VPN TINC to ensure the Nodal network is safe and secure.



When the interface between the two BlockChains will open we shall use zkPoTx SNARKS which are Zero knowledge proofs that ensure no exchange of customer centric data ever takes place while mining the coins.

These ZkPOtX blocks will form the initializing block of the full stack of blocks on the chain code which will finally generate the coins.

The TX Level – zk SNARKS

The Tx are zero knowledge and that creates an additional layer of security in the Daala system.

Validator Level

The validator level is to create a trustless system, where the validator is able to validate without enabling trust relationship. For this every transaction carries a validator key, which the validator verifies.

The Daala Wallet

Build a layer of hash (on the Daala BlockChain) on every coin during storage to ensure that it cannot be stolen, or spent.

Attack Proofing the System

In this sections we shall go through the various attacks that are possible on the network and evaluate their feasibility and network's resistance to these attacks. Since we have two BlockChains we need to look at these two BlockChains separately and evaluate and also evaluate scenarios where the attack on one BlockChain impacts the other one.

TX based Attacks

We shall first evaluate the TX based attacks. In this section of the BlockChain we are not generating any coins so therefore we need to look at the TX based attacks only and attacks that are done to generate currency or DDOS attacks. A summary of possible attacks are as under

- Dummy TX Attacks
- Counterfeit Token Attacks
- DDOS Attacks
- Customer Wallet Attacks
- User Information Attacks
- Denial of Receipt Attack

Coin based Attack

In this section we will evaluate the possible attacks that can be carried out on the 2nd BlockChain – The Mint BlockChain. A list of possible attacks are as under

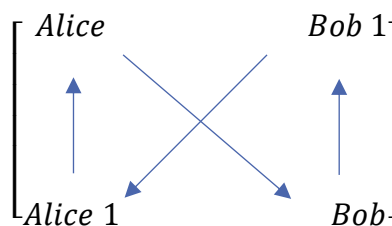
- Double Spending Attack
- Counterfeit Coin Attack
- 51% Attack

Dummy transaction attacks

A scenario where a user carries out dummy transactions in the hope of generating enough coins that will be able to offset the cost of those transactions

Key assumptions in this kind of attack are

- The Attacker has enough liquid funds to transfer or transact
- The Attacker could create 4 accounts – two in each country and is doing Tx between these accounts to send and receive the same amount amongst himself



Alice sends Bob \$100 and pays \$3 in transaction cost

Bob sends the money to his pseudo account Bob 1

Bob1 then sends \$97 back to Alice1 which is a pseudo account of Alice

And pays \$3 as transaction cost and Alice 1 transfers the money to Alice

In this way \$ 6 are spent and \$94 are received back by Alice

In the above process Alice creates at least 1 Daala coin

So Alice to Bob = 0.5 Daala coin

Bob1 to Alice = 0.5 Daala coin

The initial value of each coin is \$1, so Alice gets \$1 and therefore total money Alice gets is \$95, so net loss to Alice is \$5 which is a cost of 5%

Now lets assume that the value of the Daala coins jumps and goes from \$1 to \$6, then this will offset the loss of Alice and generate \$1 as profit for her.

So Alice will be able to double her money in 200 transactions, but this is where the Mining Algorithm comes into play and also the freshly minted Coin properties. But first the Mining Algorithm and how it prevents the above.

Refer to the Mining Algorithm section u will see that the Sender allocation of coins is a function as below:-

$$f_x(s) = k \left(C \cdot \frac{V}{V} \right) \cdot P \cdot e^{(\Delta \cdot e / dc)} * T \cdot f(m^t) \cdot SV$$

First the no of Tx between the same nodes will impact the difficulty level of the mining for the sender. $f(m^t)$.

At the same time the SV will reduce and therefore the value of each coin the sender mints will decrease. So while for the first two transaction Alice generated 1 Daala coin, for the next transactions the coin value generated will drop – or to generate another 1 Daala coin – Alice will have to carry out more than two transactions, This will significantly raise the difficulty level of the attack.

Therefore, the incentive for Alice to do dummy transactions will become costlier.

Then the factor of Newly Minted Coin properties comes into play

Any coin that is minted basis transactions will have the following properties

Lock-In Redemption Period – The Coin will have a lockin period and will not be tradeable for that period. This significantly raises the difficulty level for Alice to continue to do dummy transactions.

Non – Transferable – Lets say Alice decides to therefore not wait for the lock-in period to expire, but instead use the coins as a collateral and raise money. This is countered by the Non-Transferable property of the coin, whereby only once the lock-in period is completed, the coin can be transferred

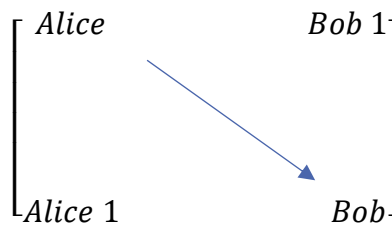
Time Variable in minting – This is the additional variable that is brought into the minting of the coin. When the system detects allocation of coins between same accounts, it raises the difficulty as \log of t and increase the lock-in period

$$D = \log(t)$$

This significantly reduces the incentive for Alice to continue doing such transactions and therefore creates enough barriers to reduce the probability of such attacks

Counterfeit Token & Coin Attacks

A scenario where a user is able to clone Daala currency and token by running a separate BlockChain and then put those coins in the market.



Lets assume that Alice learns what the details are in the script of the Daala token and then uses that to create an exact clone of her valid transaction. Using that valid transaction script she then runs it on her own BlockChain and creates an exact clone of the Daala Coin she received in for her legitimate transaction. She also changes the validity of the counterfeit coin and makes it valid as on present date

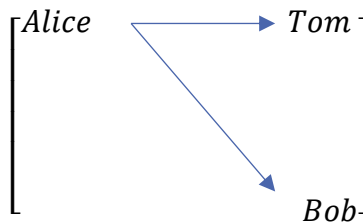
She then tries to spend that coin on the Daala BlockChain or tries to transact using that coin. However the coin will have to be validated by the Daala BlockChain and therefore the nonce to the hash will not be commutable and the counterfeit will be detected

So the Counterfeit Coin and token attack will not work

Other attacks like DDOS attacks, User Information Attacks and Denial Of Receipt Attacks are usually prevented through already existing robust network protocols which we plan to follow in case of Daala Network

Double Spending Attack

The double spending attack is similar to the Counterfeit Currency attack where Alice decides to spend the Daala coin in two separate transactions simultaneously. This is the most common of all the attacks and the very architecture of the Daala BlockChain ensures against this attack.



Alice decides to do two simultaneous transactions with her Daala coin and double spend it before the network knows about it. So Alice sends the coin to Tom and to Bob at the same time in order to double spend it, but the transaction will only be successful if the validators and the miners confirm it and it is entered in the central ledger system also and is time stamped.

The moment the coin gets time stamped and a valid transaction goes through, the coin digital id changes and a new id gets created which invalidates any coin in circulation with the previous id and therefore the chances for the double spend to go through is impossible. However, if Alice does manage to get the two coins time stamped at the same time, the central ledger will detect it and therefore invalidate both the transactions.

51% attack

Let's say that Alice can get 51% of the consensus and validating nodes and therefore is able to validate any transaction, but that does not seem to be feasible because Daala is a permissioned Blockchain where there are predesignated Nodes. Each node plays a role and the Validator and the transacting nodes are not visible to each other.

Therefore, the chances of the Validator and the Transacting Nodes to do a 51% attack is very remote. Apart from that the zk-PoT-SNARKS further ensure that the transactions do not carry any knowledge and therefore that further will raise the difficulty level. So if Alice is still able to get hold of the Validating and Transacting Nodes, she still is not able to manipulate any transaction as there is no knowledge in the system that allows her to clone the transactions or the coins.

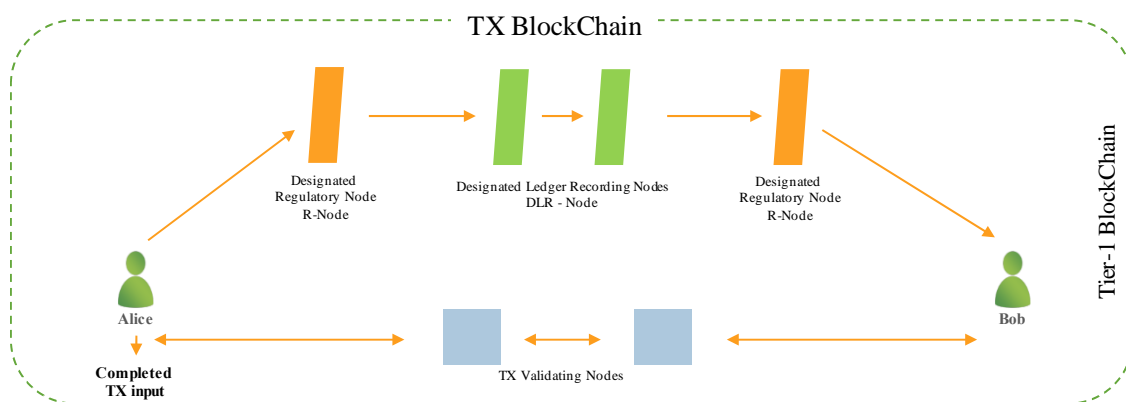
Is Daala decentralized or centralized or a hybrid BlockChain

The above explanations raise the questions if Daala is a centralized or a decentralized or a hybrid BlockChain and therefore we want to attempt to clarify the plan for Daala BlockChain.

Daala is proposed and will always be a direct Peer to Peer Decentralized BlockChain but that is the end state and to reach there we shall go through various stages to ensure efficacy and efficient system build, that enables peer to peer transactions.

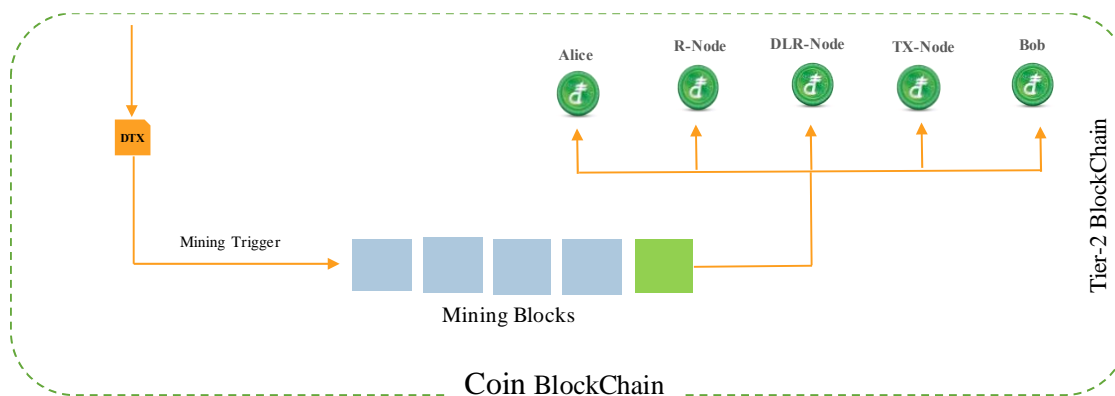
Initial Stages - BlockChain Network

Initially it will be a Permissioned BlockChain in the 1st layer and a decentralized BlockChain in the 2nd layer. There will be dedicated nodes deployed by Daala network which may be owned and operated by Daala and slowly decommissioned and handed over to other partners or players who will take up various roles in the network.



As shown in the network diagram above there will be a minimum of 6 nodes in every transaction and the role of each node will be pre-mandated. Initially all these nodes will be maintained by Daala and as we create more partnerships and increase the transactions on our network and open more and more countries and corridors for trade and transactions we shall allow miners with respective competencies and computing power to join the network and perform specific functions. This will ensure decentralization of the permissioned BlockChain also.

For the Coin BlockChain, it will be decentralized from the very start of operations. Again in order to boot the network and start operations, the nodes in the Coin BlockChain will be maintained by Daala but new miners and nodes will be added as the model gets operational.



In the Coin BlockChain we shall majorly have Minting Nodes and the role of these nodes is to Mint to coins and allocate it to the respective people basis consensus. Once the Daala Coins (DLL) becomes tradeable and exchangeable, the role of the Coin BlockChain will evolve into enabling and recording or transactions, spending and transfer of Coins and trading of the Crypto Currency

End State of Complete Decentralization

Daala will become a a completely decentralized **2 Tier BlockChain** which will be a Hybrid of Permissioned and Non-Permissioned Nodes and role of miners will be to enable transactions and mint coins

Also the AI element in the Daala BlockChain which will continuously evolve the Mining Reward Algorithm will be Open Sourced at a later stage so that market evolution of the Algorithm can take place.

We also believe that the Daala Network rules and protocols will further evolve as the BlockChain technology evolves and we do not rule out changes to the current plan which may be necessitated to ensure that the sole objective of making transaction fast and cheap is always kept at the forefront of any changes in Daala Network.

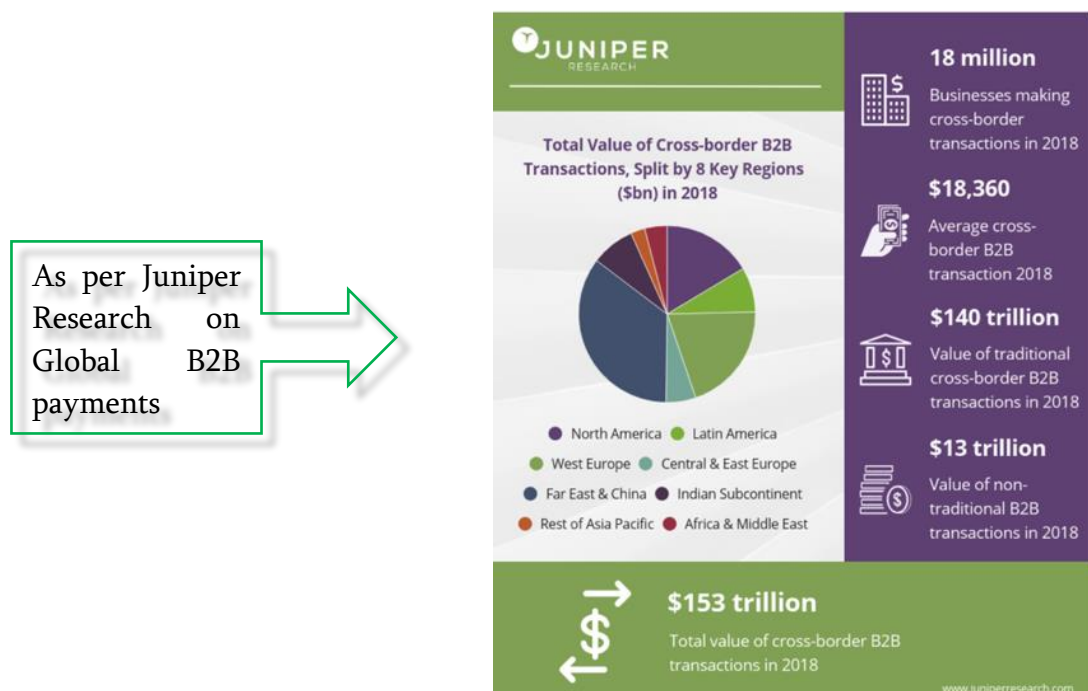
Other Applications

Global Cross Border Trade

Most of the trade whether Global, Regional or Local happens on trust and technology can provide solutions that enable this trust. As a part of global trade security of payments and transfer of ownership of goods is a key parameter and with the advent of BlockChain the need for centralized institutions like Banks and contracts can be replaced or made better.

Even today more than 92% B2B transactions happen through traditional means facilitated by traditional players. With a 136 trillion dollar worth trade happening in B2B globally , this is a very big industry and very ripe for disruption by BlockChain.

At Daala we believe that it is possible to build a Trustless system which can enable Global trade at much lower costs and much faster than it happens today.



One of the biggest drivers for cross-border B2B is globalization. The desire and need to transfer goods and processes across the globe as quickly and efficiently as possible, has led to demand for faster payments. In addition, customer expectations are constantly

changing, with expected efficiencies and levels of service ever-growing as we enter an increasingly digital world.

The Daala Blockchain effectively solves the problem by using the Trustless design to enable global trade at much lower costs and higher speed.

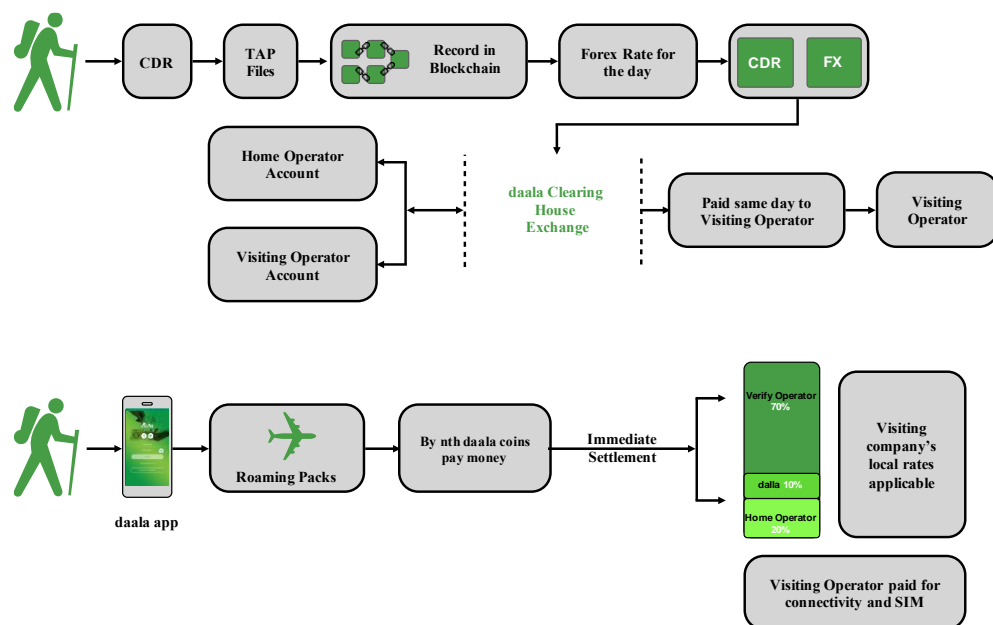
Apart from that once the system starts, it creates a Trustless currency which can be used freely in the B2B transaction or can be used as a collateral to enable trade globally. Contract executions can happen fast as these are smart contracts and can Self Execute.

For more information – pl request an exclusive implementation strategy from Daala

Global Roaming

Another key area of disruption through BlockChain is Global Roaming which is \$56 billion industry and likely to grow as global data roaming grows and new collaboration and business models emerge.

A likely new emerging roaming scenario in land-connected continents like Europe is the Vehicle roaming and IoT roaming which will further expand the industry and will require breakthrough solutions that are fast and cost effective



Once the Daala network is initiated then roaming services in collaboration with telecom players can be enabled on Daala BlockChain.

The costs can really go down if the visitor network can receive immediate payment of the service provided and the customer can get best visiting country rates.

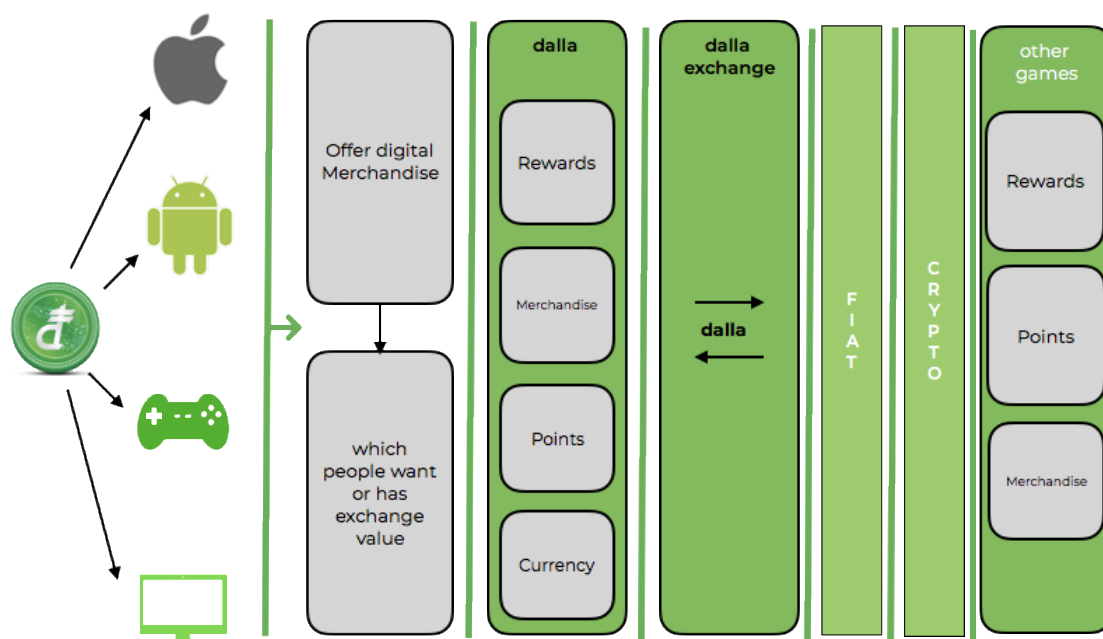
One of the key application for Daala network will be to enable roaming packs that are very cheap and the customer can freely roam on his home number.

Gaming Currencies & In Gaming Goods Trade and Exchange

The Daala network will also enable a market for Peer to Peer Digital goods exchange due to its integrated platform nature. We have built a Peer to Peer Exchange, a Digital Cryptographic wallet, A two Tier BlockChain that enables transactions and a reward mechanism that rewards users and validators and facilitators.

Therefore, the Daala network is ideal for digital goods exchange and one key application areas is the Online and Mobile Gaming space where gaming currencies and In-Game goods can be traded, transferred and exchanged.

The Daala exchange will be focused on enabling this along with the other crypto and fiat exchange services



The gaming exchange will further increase the transactions on the Daala Network and will further propel the utility and usage of the network.

Storage Value and Stable Value Currency

For a cryptocurrency to become mainstream following features are critical: -

- Stability
- Acceptability
- Privacy
- Storage Value

Out of the 4 key features listed above the most important is Stability which will ensure that ordinary people can use it for day to day transactions.

For example if Alice owns a cryptocurrency that has high level of fluctuations then no merchant will like to accept payment in that currency as it is not possible to estimate the fluctuation level and thus poses a risk to the merchant. This in effect reduces the acceptability of the currency and therefore the investors and traders and exchangers also start providing less support to the currency and eventually it leads to the death of the currency

Daala is designed as a stable currency because it is pegged to a dollar, In fact for every Daala coin minted, there is an equivalent amount of Dollars kept in reserve in a bank account.

We may also convert the dollar asset into gold to further ensure the stability of Daala currency, but the very fact that each coin has an equivalent dollar value in reserve gives Daala huge stability.



1 dalla = 1 \$ dollar to start with

THEN AS **TRADE** HAPPENS

The value of the coin can go Northwards because

- The coin is backed by real value
- 1Billion coins means 1Billion USD reserves
- 1 Billion USD @ CRR of 10% = Lending Value of \$1Trillion
- Perpetual Self - Funding Model - Each Tx funds the system
- Liquid Asset
- More Tx ---- More Users --- More Value

As the difficulty level of Daala coin will increase, the storage value will also increase. This will ensure that Daala Coins become a investable asset class.

Also the reserves build up for Daala in terms of Gold or USD further enable it to become a tradeable asset class and also a valuable collateral with high liquidity.

This feature will further enable Daala Currency to be used in B2B transaction, Global Export and Imports, Trading as an asset and Storage of the coin for future appreciation

Further Applications

Other applications can be

- Digital goods exchange
- Betting and Casino
- Smart Contracts based on Daala
- Encrypted digital pictures

.....and many more which we cannot think of

Regulatory Compliance

The very reason why Daala is conceptualized as a Two Tier BlockChain is because we want to ensure that all necessary regulations are followed and our customers, investors, partners, miners, agents, network partners, nodes do not face any legal or regulatory hurdles while disrupting the payments and transactions space.

Ensuring Regulatory Compliance

In the Daala BlockChain network there is a designated place for a regulatory node. The sole role of that node is to ensure that all transactions follow the necessary regulatory protocols of the country.

Each transaction must flow through the regulatory node before proceeding to the next node and a permission / approval from the regulatory node is mandatory for all global trade transactions like Global Remittance and Trade Finance.

AML has been encoded in the token itself and the role of the regulatory node is to also ensure AML compliance. Apart from that since there is a DLR node (Designated ledger recording node), it becomes very easy to provide and submit records for scrutiny and regulatory validation.

Apart from that the extra layer of validating nodes further ensure that each transaction is recorded and any anomaly reported.

Ensuring Financial Compliance

Daala plans to ensure financial compliance of its Tier 1 BlockChain in all the countries where transactions are opened. Also for the Tier2 BlockChain we plan to ensure financial compliance by registering the business in a country that legalizes the use of cryptocurrencies, exchange platform and trading business.

To ensure financial compliance we plan to create “In-Country” nodes that ensure financial compliance for each respective country and become part of the compliance segment of the BlockChain just like the Regulatory Nodes.

Miscellaneous

Concerns: -

In this section we shall cover some miscellaneous areas like current world scenario of Cryptocurrencies and probable future state and some of the concerns we foresee that our customer & investors may have.

Who is likely to survive in the Crypto world and BlockChain?

- Real use applications will only survive
- Companies with large alliance partners and ecosystem will survive
- Well defined companies in conducive regulatory environment
- Working with regulators and policy makers
- Companies with large customer base
- P2P will survive as more and more people are involved
- A P2P play with social fabric and customer engagement business is the most difficult for regulators to touch
- Deep Pockets – so coins that saw good market-cap and they leveraged it to enable present and future financial stability will most likely survive

What will lead to a small number of players?

- There is already a market correction that has happened which has reduced the relevance of most of the coins.
- Right now out of the thousands of cryptos only top 20-30 are relevant
- Regulations will kick in and will impact companies that were loosely formed, or not formed at the right place / location.
- Real Use applications will take over from hype and only those will survive that have created an ecosystem of applications and customer user business models.
- Most of the coins were ideas not real applications
- Within the next 2-3 years it will become a hard sector to get into due to entry barriers like – Need for big funds, regulated play, global competition etc --- this will further impact new entrants

What are the Headwinds against Crypto and BlockChain?

- Regulations are the key blockers. Since it is a new and evolving field the regulators have adopted a wait and watch approach, but one wrong move can cause regulatory intervention which can be fatal for the business, So one has to tread very carefully and work with the regulator.
- The pace at which the innovation is happening can also alter the business models and therefore speed to market and speed to innovate are critical
- Liquidity is a key concern but the same can be addressed by the ICO plan
- Licensing the operations in various countries is also a concern, but that can be addressed by finding the right partner in each country that will carry out the necessary licensing requirement or who already has the license.
- Competition replication is not difficult but the partnership ecosystem will be tough to build.

Computation and Turing-Completeness

The Mining Reward Algorithm and the Shift Value are complex mathematical calculations that will enable continuous improvement and adjustment of the algorithm. We can in a way say that the Mining Reward Algorithm and the Shift Value are AI based systems that not only calculate the best values for the above two formulas, but also continuously improve and adjust them basis market conditions.

Therefore, it is important to benchmark the Mining Reward Algorithm and the SV to the Turing Test and ensure that we reach a stage when the Turing Test is passed. Once that stage is achieved, we can then claim that the Mining Rewards algorithm and the SV are completely decentralized and autonomous.

Why do we need to pass the Turing Test?

The hypothesis is that if there is a mathematical formula (Mining Reward Algorithm) that can create mining rewards for different category of miners such that the miners continue to perform the function of mining, then the algorithm will be assumed to be Turing complete.

Also if there is a Shift Value (SV) that can be calculated for every transaction initiator such that the initiator continues to use the platform, then the SV will be considered to be Turing complete.

How do we plan to test this hypothesis?

For both Mining Reward Algorithm and Shift Value we plan to keep offering reward values to different segments of miners, sender, receiver and if we have more than 30% of these users in each segment category, continue to perform transactions in order to receive the rewards then we can say that the algorithms are Turing complete.

At Daala, we plan to continue to evolve the algorithms till it is Turing complete. Once it is Turing complete then we can also assume that the Perpetual Funding Mechanism will never stop and the ΔE we have to keep in reserve may no longer be required.

This once achieved will also be a very big milestone in the Daala Network as once perpetual motion is achieved, we will know the exact amount of ΔE required to run the network and therefore any excess reserve can be put to more productive use.

Daala ICO

The Daala BlockChain has a multi-stream business & revenue model and we may launch different ICOs at different times. But the first ICO we will launch is the Remittance ICO. Details of this ICO is mentioned below.

Daala Token Definition –

DTX is mandatory token required to process any transaction on the Daala BlockChain. The ICO will sell the DTX product to early adopters who want to use our services. With every DTX they buy a customer will get 3 free transactions on the Daala BlockChain and the DTX will be further automatically consumed when the money transfer application starts. Daala will first consume all the issued DTX and then issue new ones. So technically the existing buyers of DTX will be able to resell their tokens to the transacting users and earn money. Also they may decide to retain their tokens for individual transactions. The Coins thus minted as a process of consumption of the tokens will be issued to the ICO subscribers and they will hold the first tradeable Daala Coins as these will not have any lock-in period (unlike the Coins issued during regular transactions – which will have a lock-in period before trading or transfers)

Daala Remittance ICO	
Objective	Sales of token to generate revenue to invest in the further development of the Daala P2P BlockChain with specific application focus on Cross Border Remittances
Token Name	Daala Transaction Token
ID	DTX
Total token to be produced	40,000,000
Number of tokens to be released for Sale	20,000,000
Selling price of the Token	USD 1.0
Total Value of Planned ICO	20,000,000
Soft Cap	5,000,000
Mid Cap	10,000,000
Hard Cap	20,000,000

Future ICOs

Daala may launch future country specific ICOs or Capacity building ICOs. We may need additional funds depending on the new corridor for remittance or new capacity we may need to build on our BlockChain or for building a new application as specified in the white paper. Therefore this ICO should be considered as the Remittance ICO for Daala and hence keeps our options open for future ICOs.

Timelines for the ICO

Timelines				
		Start	End	Lock-in Period
	Pre-Sale	1st Oct 2018	30th Nov 2018	31 st –Mar 2019
ICO	Private Sale	1st Oct 2018	30th Nov 2018	
	Crowd Sale	31st Nov 2018	31st Jan 2019	

- The sale of the tokens shall be done thru our website from the following wallet –
Sdmfn;lwdnflsdnflsdn;lscdn;lksdnldcnsdlcdlcnldlkjwlkfj
- All tokens will be locked till 31st march 2019 as we do not want to allow any speculative trading till then. Post that all trading will be opened,
- The Daala management may decide to allow a trading window to the Private placements for a brief period before opening it up for public.

Total no of Tokens (DTX) & their distribution

Total no of Tokens created	40,000,000	
Token Distribution		
	Percentage	Amount
ICO	50%	20,000,000
Bonus (not for Sale)	10%	4,000,000
Partners Allocation (Not for Sale)	25%	10,000,000
Team (not for Sale)	10%	4,000,000
Community (not for Sale)	5%	2,000,000
Total	100%	40,000,000

- Partner allocation may have different or no lock-in periods depending on the individual agreements with each partner.
- The Tokens allocated to the team will have different lock-in periods depending on the offers made to various employees.
- Community tokens will also vary individually depending on the support and agreement with various community participants.

Utilization of proceeds from the ICO

Total expected proceeds from ICO	20,000,000	
Utilization of Proceeds from ICO		
Product Development	30%	6,000,000
Sales & Mkt	20%	4,000,000
Licensing	20%	4,000,000
Operations	20%	4,000,000
Bonus Payout to team	10%	2,000,000
Total	100%	20,000,000

- The proceeds of the ICO will be allocated for spending as per the above ratio. However there may be variations due to market conditions and competitive pressures and the right to shift the allocation will be reserved by the Daala management.
- All the development and spending will be transparently displayed on our website. Please note that there will be only a certain level of transparency as we do not want to give key insights to competition.
- The Bonus payout to the teams will have specific performance conditions and will not be deemed as a right of any employee.

Wallet addresses for distribution of Tokens

ICO	Wallet Address for distribution
Pre-Sale	xlkndsflksdnflksdnclsdncladncalscn
Private Sale	adlknalkdaldknalskdcnl;ksfhd
Public Sale	adlfkas;dlnas;dlcasd;ljfasd
Bonus (not for Sale)	adlkfna;sldncasdlckp'asod
Partners Allocation (Not for Sale)	asd;lknas;ldkncasldkncasd
Team (not for Sale)	a;dlkcna;lsdhvasjfv
Community (not for Sale)	a;dklna;sldncasdkcas;dlckn

The above-mentioned addresses will be used for the distribution of the Daala Tokens. This will ensure transparency and visibility to our customers and partners. The addresses may change at the time of the ICO. We shall update the same in the final version of the whitepaper.

Some Terms & Conditions of the ICO

Daala Management plans to use ICO as a medium to sell our products and generate revenue to expand its markets and product offerings. Therefore it is important for the buyers of the Daala Token ICO to understand that even a certain limited amount of sales enable us to move ahead and demonstrate the capabilities we plan to build for Daala.

Once we demonstrate and generate more interest and confidence in our products, we believe that the future ICOs of Daala may be even more worthy.

Therefore, it is important to define a min level of SoftCap which if reached allows us to operate in a few corridors and continue to build the platform. This allows us the flexibility to sell a certain minimum no of products and then go back and develop and come for another round of ICO. At Daala we plan to continue to use ICO for fueling our growth.

- DTX may be purchased using Fiat, BTC, ETH, XRP
- The project is considered a success if we reach at least 50% of Soft Cap which is 2m USD
- Any unsold DTX in any stage may be moved for sale in the next stage
- Unutilized Bonuses may also be moved to other stages.
- The customer has the right to lock his DTX when the burning of ICO -DTX starts
- The burning of the ICO DTX will be done on FIFO basis
- The selling price of 1 DTX is 1 USD and the equivalent value in BTC, ETH, XRP and other fiat currencies.
- The rate of USD will determine the purchase price of DTX by other currencies on the date of purchase.

Daala Token (DTX)

It is important to define in detail what the Daala Transaction token so that there is no ambiguity during the ICO and legal entitlements of the buyers is clear.

DTX (Daala Transaction Token) is a transaction token that is generated for doing any transaction on the Daala BlockChain. The key features of the Token have been explained in the technical section of the white paper. In this section we want to specifically define the token again and how it is not a security during the ICO.

Key Features of DTX: - (for details refer to the technical section in this whitepaper)

- Tx Generated
- Non-Anonymous
- Input to the Exchange
- AML / CFT / KYC compliant
- Double layer security
- ZKPTX – Zero Knowledge TX Protocol
- Recorded and traceable

For the ICO, we will generate 40m DTX out of which 20m DTX will be sold during the ICO to private and public buyers. Once the Daala BlockChain starts transactions, the DTX will be mandatory for every transaction and therefore the DTX issued during the ICO will be first consumed and Daala coins mined on that basis. The allocation of the Daala coins this mined will be done to the ICO DTX holders first. Once the ICO DTX are finished, the Daala BlockChain will start generating fresh DTX for transactions on the BlockChain.

The ICO buyers will also get discounted prices for the DTX so that they can benefit from the re-sale of their token once the Daala BlockChain starts transactions. Also since the ICO DTX holders will be the first ones to get the Daala Coins they will be able to trade and benefit.

So the DTX is basically a service token, that allows you to transact on the Daala BlockChain and necessary for minting any Daala coins.

The ICO DTX buyers will buy the DTX because of the following reasons

- Initial offer has Bonus – Discounted price
- Limited supply
- The DTX will be needed for any transaction on the Daala BlockChain and till the Pre-produced DTX are not consumed, no fresh DTX will be generated. Therefore we believe that there will be a lot of demand for DTX when the Daala network will start and the initial buyers can either use it or sell to other users.
- Be the First Ones to Mint the Daala coin and start trading
- Ability to resell the DTX as it is the raw material to generate the Daala Coin

Once the initial supply is consumed the generation of the DTX is only possible through the transaction done on the Daala Tier 1 BlockChain. This is also when the transaction led algorithm is initiated and the value of the Daala Coin thus minted purely depends on the

- No of transaction done on the network
- Value of transactions done on the network
- Demand & Supply for the Coin

Factors that may impact the demand and supply of DTX and the DLL (Daala Coin)

1. As the no of transactions increase the DTX supply increases but the value of each DTX may decrease thereby increasing the need for more no of DTX to generate a single DLL. This will have a favorable impact on the Daala BlockChain.
2. As the new corridors of Money transfer are opened, the transactions will increase on the Daala BlockChain which will lead to generation of more DTX and the impact will be similar to point 1.
3. On the launch of new applications like the Roaming Application, Gaming Applications, Global Trade Finance Application, the demand for DTX will rise and the supply will contract which will likely lead to price escalation of the Daala coin.
4. With the increase in trading on Daala Exchange, the demand and need for Daala Token will increase and that will further lead to increase in value of Daala Coin.
5. The management of Daala may do interventions at times to alter the algorithm to meet the demands of its customers and that may result into increase or decrease in the value of the Daala Coin. But the reason behind any such intervention will be to reduce cost, increase speed, and enable better security for peer to peer transaction on the Daala BlockChain.

Conclusion

With the Daala Network we shall finally be able to provide a platform that enables fast, low cost and secure transactions and also bridges the gap between Real & Digital, Fiat & Crypto and ensure interoperability.

We shall be able to establish a decentralized platform that has perpetual funding ability and mines coins basis an Intelligent algorithm that is tuned with the economic scenario of the world

We will be able to establish a Secure, Stable, Non-Volatile, Tradeable, Exchangeable and Anonymous Currency

We will be able to establish a Secure, Fast, Low-Cost, Non-Anonymous, Regulatory and Legally Complaint platform for Peer to Peer Trade, Exchange, Remittance and Transactions.

The Management Team

This sections will contain the details of the management team

Our Operations Team

This sections will contain the names and profiles of the operations team

Our Board Members & Advisors

This sections will contain the profiles of the board members and the advisors

Our Partners

This sections will contain names of the partners with summary of the partnership

Terms & Disclaimers of the ICO and the White-Paper

Daala ICO Terms & Conditions

Disclaimer

PLEASE READ THE ENTIRE DAALA T&C CAREFULLY. IN CASE OF DISAGREEMENT TO ANY OF THESE TERMS, DO NOT PURCHASE THE DAALA TOKENS (DTX) FROM THE COMPANY. BY PURCHASING DTX YOU WILL BE BOUND TO FOLLOW THESE TERMS AND ANY TERMS INCORPORATED BY REFERENCE. IF YOU HAVE ANY QUESTIONS REGARDING THESE TERMS, PLEASE CONTACT THE COMPANY AT..... (email_id)..... YOU SHOULD CONSULT YOUR LEGAL, FINANCIAL, TAX, AND OTHER PROFESSIONAL ADVISORS BEFORE ACCESSING THE CONTENTS OF THIS WHITEPAPER OR TAKING ANY ACTION ON RELIANCE OF IT, IF YOU ARE NOT AN EXPERT IN DEALING WITH CRYPTOCURRENCIES RELATED SYSTEMS.

By purchasing DTX, and to the extent permitted by law, you are agreeing not to hold any of the Company and its respective past, present and future employees, officers, directors, contractors, consultants, equity holders, suppliers, vendors, service providers, parent companies, subsidiaries, affiliates, agents, representatives, predecessors, successors and assigns (the “Daala Team”) liable for any losses or any special, incidental, or consequential damages arising from, or in any way connected, to the sale of DTX, including losses associated with the terms set forth below.

1. Daala, a company registered under (Australia), with Registration Number (“Issuer”) will distribute Daala Tokens (DTX) under an ICO sale as described in the following Daala White Paper.
2. Each of you and the company is a “Party” and, together, the “Parties” to these Terms.
3. The Daala whitepaper is referred to as “Daala Whitepaper” or “Whitepaper” in this T&C document
4. **For the avoidance of doubt, Issuer (the distributor of the Daala Tokens- DTX) is not licensed to conduct any regulated financial services activities, nor does Issuer purport to do so.**
5. This document describes the DTX token sale terms and is not a solicitation for investment. It does not pertain in any way to an offering of securities in any jurisdiction. The DTX tokens do not grant any ownership or security interest to anybody over Daala’s assets or properties, and do not offer any fixed or contingent assurance of financial return.
6. This Whitepaper does not constitute or form part of any opinion on any advice to sell, or any solicitation of any offer by Issuer to purchase any DTX Tokens nor shall it or any part of it nor the fact of its presentation form the basis of, or be relied upon in connection with, any contract or investment decision.
7. Individuals, entities, or companies that have significant understanding (of) and experience (with) the usage and intricacies of cryptographic tokens, including Ethereum tokens, and Blockchain based software systems should only be involved in purchasing DTX. . Purchasers should have a functional understanding of storage and transmission mechanisms associated with other cryptographic tokens. While the company will be available to assist purchasers of DTX during the sale, the company will not be responsible in any way for loss of BTC, ETH or DTX resulting from actions taken by, or omitted by purchasers.
8. No regulatory authority has examined or approved of any of the information mentioned in this Whitepaper. No such action has been or will be taken under the laws, regulatory requirements or rules of any jurisdiction. The publication, distribution, or dissemination of this Whitepaper does not imply that the applicable laws, regulatory requirements or rules have been complied with. There are risks and uncertainties associated with Issuer and its respective businesses and operations, the DTX Tokens, the Initial Token Sale, the technology platform, the Daala Currency Exchange App, and the Daala Wallet (each as referred to in this Whitepaper)
9. 9. No person is bound to enter into any contract or binding legal commitment in relation to the sale and purchase of the DTX Tokens and no cryptocurrency or other form of payment is to be accepted on the basis of this Whitepaper.
10. Any part or copy of this whitepaper must not be taken or transmitted to any country where distribution or dissemination of this Whitepaper is prohibited or restricted. No part of this Whitepaper is to be reproduced, distributed, or disseminated without permission. Where there is any variation between any information about Daala, its business, operations and the Token Sale and that contained in the Whitepaper, the Whitepaper shall prevail.
11. Your participation in DTX sale is deemed to be your undertaking that you satisfy the requirements mentioned in this paragraph.

THE PURCHASER AGREES TO BUY, AND COMPANY AGREES TO SELL, THE DTX TOKENS IN ACCORDANCE WITH THE FOLLOWING TERMS:

Daala.io Daala _terms

1. Conditions to DTX Token Sale

YOU MAY NOT ACQUIRE A DTX TOKEN IF YOU ARE A CITIZEN, RESIDENT (TAX OR OTHERWISE) OR GREEN CARD HOLDER OF THE UNITED STATES OF AMERICA, OR A CITIZEN OR RESIDENT OF THE REPUBLIC OF SOUTH AFRICA, OR THE CAYMAN ISLANDS.

When you purchase, or otherwise receive, a DTX token, you may only do so when you accept following conditions and. By accepting the conditions you warrant and represent that the following are a true and accurate reflection of the basis on which you are acquiring the DTX tokens:

- neither the Company nor any of the Daala Team has provided you with any advice regarding whether DTX is a suitable purchase for you;
- you have sufficient understanding of the following parameters associated with cryptographic tokens, such as Bitcoin and Ether, as well as BlockChain-based software systems- functionality, usage, storage, transmission mechanisms and intricacies.
- you are legally permitted to receive, hold and make use of DTX in your and any other relevant jurisdiction;
- you will provide us all the information, documentation or copy documentation that we require, which is when you allow us to accept your purchase of DTX and allocate DTX to you;
- you have not provided us with information relating to your acquisition of DTX or otherwise which is inaccurate or misleading;
- you will provide us with any additional information at any point which may be reasonably required in order that we can fulfill our legal, regulatory and contractual obligations, including but not limited to any anti-money laundering obligation;
- in case of any change in the information given by you to us, you will be responsible to notify us immediately;
- if an individual, you should be of a sufficient age legally obtain DTX, and you are not aware of any other legal reason to prevent you from obtaining DTX;
- you take sole responsibility for any restrictions and risks associated with receiving and holding DTX
- you are not making a regulated investment by acquiring DTX, as this term may be interpreted by the regulator in your jurisdiction;
- you are not obtaining or using (and will not use) DTX for any illegal purpose, you waive any right you may have / obtain to participate in a class action lawsuit or a class wide arbitration against any entity or individual involved with the sale of DTX;
- Your acquisition of DTX not automatically involve or give you rights to purchase or receipt of shares, ownership or any equivalent in any existing or future public or private company, corporation or other entity in any jurisdiction;
- to the extent permitted by law and provided we act in good faith, the Company makes no warranty whatsoever, either expressed or implied, regarding the future success of DTX and/or the Daala Network or any other products mentioned in the Daala Whitepaper.
- You accept that DTX is created and you obtain DTX on an “as is” and “under development” basis. Therefore, provided the Company acts in good faith, you accept that the Company is providing DTX without being able to provide any warranties in relation to DTX, including, but not limited to, title, merchantability or fitness for a particular purpose;
- You accept that you bear sole responsibility for determining if (i) the acquisition, the allocation, use or ownership of DTX (ii) the potential appreciation or depreciation in the value of DTX and DLC over time, if any, (iii) the sale and purchase of DTX and of DLC; and/or (iv) any other action or transaction related to DTX has tax implications.

2. About DTX Sale

DTX is required for proper operation and comprehensive utilization of Daala (as defined in the white paper (the “White Paper”) provided at (the “Website”) as of the date the Purchaser acquires DTX token). After the DTX sale, each DTX is backed by the purchase of the underlying assets, as described in the White Paper. To the extent they do not contradict these Terms, the rights connected to DTX are subject to the limitations set out in the White Paper, but this should in no case create obligations for the Company in addition to the ones contained in these Terms. The Company reserves the right to circumvent the algorithm used to select the underlying assets if it believes, in its sole discretion, that such selected underlying assets could adversely affect the Company or DTX from a regulatory or legal perspective. The Company shall have the right to sell any such underlying assets (if already part of DTX portfolio) and block their acquisition.

The maximum total amount of DTXs to be issued during this ICO is 40,000,000 (equivalent to US\$40,000,000) out of which only 20,000,000 tokens are for sale as mentioned in the Whitepaper. DTXs are generated as Purchasers buy them and the total supply of DTXs will be market driven after the end of the DTX sale. As mentioned in the whitepaper further DTX may be issued from time to time depending on the funding requirement for expansion in countries where we want to launch the remittance services, an outlook of Ownership of DTX during the DTX token sale carries no rights express or implied. Purchases of DTX are non-refundable.

The distribution of the DTX tokens is as follows:

Total no. of Tokens created = 40,000,000

- 10% Daala Team (not for sale);
- 10% Bonus (not for sale);
- 25% Partner's Allocation (not for sale);
- 5% Community (not for sale);
- 50 % ICO Participants;

3. DTX Price

Purchasers in the DTX token sale will be allocated their DTX tokens in exchange for Fiat, BTC, ETH at the following rate:

- 1 DTX = 1 USD
- 1 DTX = 1 USD equivalent of BTC at the time of purchase
- 1 DTX = 1 USD equivalent of ETH at the time of purchase

WE will maintain a section on our website which will map the current prices of USD to BTC and ETH and indicate the exact price of the Fiat, BTC or ETH a customer has to pay while buying DTX.

4. Timing of DTX Token Sale

The DTX sale will start on 1st Sept 2018 and will continue till the end of January 2019. The right to change the sale dates or extend the sale duration for any reason is reserved by the Company, including the unavailability of the Website or other unforeseen security or procedural issues.

The total number of DTX tokens currently sold, as well as the distribution of all DTX tokens between the participating **Ethereum** / BTC or any other cryptocurrency wallet we may decide to use at the time of the ICO, accounts will be made visible to general public. In the spirit of openness, the Company will constantly update on the Website the number of tokens sold as well as the share of DTX tokens allocated to the shareholders of Company. Furthermore, the **Ethereum** accounts used to store ETH during the DTX sale duration will publically available and their balances will also be made available on the Website.

5. Post DTX Token Sale

The Purchasers should have no expectation of influence over governance of the Company.

Upon the conclusion of a successful DTX sale, the digital assets backing each DTX token will be transparently purchased.

The Company will provide you with an official and regular audit conducted on the existence of the digital assets backing each DTX token. Through this audit, you can track and confirm that the digital assets backing your DTX have been received and acquired. Access to the audit results does not constitute a DTX purchase receipt or indicate in any way that the party possessing such access has rights to or ownership of the purchased DTX tokens. Prior to a Purchaser selling DTX after the DTX token sale completion, such Purchaser shall ensure that the buyer of any such DTX undertakes to comply with all the provisions of these Terms as if such person were a Purchaser in the DTX token sale.

6. The company cannot be a Purchaser in DTX Token Sale

The Company warrants that neither it nor its shareholders will purchase DTX during the ICO based DTX sale nor will be involved in purchasing DTX from any third party during the period of DTX sale.

7. All purchases of DTX are considered final

All purchases of DTX are considered final; and are non-refundable. By purchasing DTX, the purchaser acknowledges that neither the company nor any of its affiliates, directors or shareholders is required to provide a refund for any reason.

If the company believes, in its sole discretion, that any individuals or entities owning DTX creates material regulatory or other legal risks or adverse effects for the company and/or DTX, the company reserves the right to:

- Buy all DTX from such DTX owners at the then-existing market price and/or
- Sell cryptocurrency assets of the company

8. Taxation of DTX and ICO

The Purchaser bears the sole responsibility to determine if the purchase of DTX with Fiat, BTC, ETH, XRP or the potential appreciation or depreciation in the value of DTX over time has tax implications for the Purchaser in the Purchaser's home jurisdiction. the Purchaser agrees not to hold any of the Company, its affiliates, shareholders, director, or advisors liable for any tax liability associated with or arising by purchasing DTX, and to the extent permitted by law, .

9. Privacy

The Company may use email as a medium to contact the Purchasers. Such emails will be informational only. The Company will not request any information from Purchasers in an email. **See our Privacy Policy available on the Website for additional information.**

10. Risk and Uncertainties

All risks and uncertainties associated with Daala and its respective businesses and operations, the DTX Tokens, the Initial Token Sale, the Daala technology platform, the Daala Exchange, the Daala Coins and the Daala Wallet (each as referred to in the Whitepaper), as well as all information set out in this Whitepaper must be carefully considered and evaluated by the Purchasers if they wish to purchase DTX Tokens (as referred to in this Whitepaper). If any of such risks and uncertainties develops into actual events, the business, financial condition, results of operations, and prospects of Daala could be materially and adversely affected. In such cases, you may lose all or part of the value of the DTX Tokens.

11. Representations and Warranties

The Issuer does not make or purport to make, and hereby disclaims, any representation, warranty, or undertaking in any form whatsoever to any entity or person, including any representation, warranty or undertaking in relation to the truth, accuracy, and completeness of any of the information set out in this Whitepaper.

The Purchaser By accessing and/or accepting possession of any information in this white paper or such part of thereof (as the case may be), represents and warrant to Issuer as follows:

- You agree and acknowledge that this Whitepaper does not constitute a prospectus or offer document of any sort and is not intended to constitute an offer of securities in any jurisdiction or a solicitation for investment in securities and you are not bound to enter into any contract or binding legal commitment.
- You agree and acknowledge that no regulatory authority has examined or approved of the information set out in this Whitepaper, no action has been or will be taken under the laws, regulatory requirements or rules of any jurisdiction and the publication, distribution, or dissemination of this Whitepaper to you does not imply that the applicable laws, regulatory requirements or rules have been complied with;
- You agree and acknowledge that this Whitepaper, the undertaking and/or the completion of the Initial Token Sale, or future trading of the DTX Tokens on any cryptocurrency exchange, shall not be construed, interpreted, or deemed by you as an indication of the merits of Issuer, the DTX Tokens, the Issuer Initial Token Sale, the technology platform, and the Daala Wallet (each as referred to in this Whitepaper);
- You agree and acknowledge that the distribution or dissemination of this Whitepaper, any part thereof or any copy thereof, or acceptance of the same by you, may be prohibited or restricted by the applicable laws, regulations, or rules in your jurisdiction and where any restrictions in relation to possession are applicable, you have observed and complied with all such restrictions at your own expense and without liability to Issuer;
- You agree and acknowledge that in the case where you wish to purchase DTX Tokens, the DTX Tokens are not to be construed, interpreted, classified, or treated as:
 - any kind of currency other than cryptocurrency;
 - debentures, stocks, or shares issued by any person or entity;
 - rights, options, or derivatives in respect of such debentures, stocks, or shares;
 - rights under a contract for differences or under any other contract the purpose or pretended purpose of which is to secure a profit or avoid a loss;
 - units in a collective investment scheme;
 - units in a business trust;
 - derivatives of units in a business trust;
 - or any other security or class of securities.
- You have sufficient understanding of the operation, functionality, usage, storage, transmission mechanisms, and other material characteristics of cryptocurrencies, Blockchain-based software systems, cryptocurrency wallets, or other related token storage mechanisms, Blockchain technology, and smart contract technology;
- You are fully aware and understand that in the case where you wish to purchase any DTX Tokens, there are risks associated with Issuer and its respective business and operations, the DTX Tokens, the Initial Token Sale, the technology platform, and the Daala Wallet (each as referred to in the Whitepaper);

- You agree and acknowledge that Issuer is NOT liable for any indirect, special, incidental, consequential, or other losses of any kind, in tort, contract or otherwise (including but not limited to loss of revenue, income or profits, and loss of use or data), arising out of or in connection with any acceptance of or reliance on this Whitepaper or any part thereof by you; and
- All of the above representations and warranties are true, complete, accurate, and non-misleading from the time of your access to and/or acceptance of possession of this Whitepaper or such part thereof (as the case may be).

12. Limitations Waiver of Liability

The purchaser acknowledges and agrees that, to the fullest extent permitted by any applicable law, the disclaimers of liability contained herein apply to any and all damages or injury whatsoever caused by or related to (i) use of, or inability to use, DTX or (ii) the Daala team under any cause or action whatsoever of any kind in any jurisdiction, including, without limitation, actions for breach of warranty, breach of contract or fault (including negligence) and that none of the Daala team shall be liable for any indirect, incidental, special, exemplary or consequential damages, including for loss of profits, goodwill or data, in any way whatsoever arising out of the use of, or inability to use, or purchase of, or inability to purchase, DTX, or arising out of any interaction with the smart contract implemented in relation to DTX. The purchaser further specifically acknowledges that the Daala team is not liable for the conduct of third parties, including other purchasers of DTX, and that the risk of purchasing and using DTX rests entirely with the purchaser. **To the extent permissible under applicable laws, under no circumstances will any of the Daala team be liable to any purchaser for more than the amount the purchaser have paid to the company for the purchase of DTX. Some jurisdictions do not allow the exclusion of certain warranties or the limitation or exclusion of liability for certain types of damages. Therefore, some of the above limitations in this section and elsewhere in the terms may not apply to a purchaser. In particular, nothing in these terms shall affect the statutory rights of any purchaser or exclude injury arising from any willful misconduct or fraud of the Daala team.**

13. Complete Agreement

These Terms set forth the entire understanding between the Purchaser and the Company with respect to the purchase and sale of DTX. For facts relating to the sale and purchase, the Purchaser agrees to rely only on the Terms in determining purchase decisions and understands that the Terms govern the sale of DTX and supersede any public statements about the DTX token sale made by third parties or by the Daala Team or individuals associated with any of the Daala Team, past and present and during the Daala token sale.

14. Severability

The Purchaser and the Company agree that if any portion of these Terms is found illegal or unenforceable, in whole or in part, such provision shall, as to such jurisdiction, be ineffective solely to the extent of such determination of invalidity or unenforceability without affecting the validity or enforceability thereof in any other manner or jurisdiction and without affecting the remaining provisions of the Terms, which shall continue to be in full force and effect.

15. No Waiver

The failure of the Company to require or enforce strict performance by the Purchaser of any provision of these Terms or the Company's failure to exercise any right under these Terms shall not be construed as a waiver or relinquishment of the Company's right to assert or rely upon any such provision or right in that or any other instance. The express waiver by the Company of any provision, condition, or requirement of these Terms shall not constitute a waiver of any future obligation to comply with such provision, condition or requirement. Except as expressly and specifically set forth in these Terms, no representations, statements, consents, waivers, or other acts or omissions by the Daala Team shall be deemed a modification of these Terms nor be legally binding.

16. No further Information or Update

No person has been or is authorized to give any information or representation not contained in this Whitepaper in connection with Daala and its respective businesses and operations, the DTX Tokens, the Initial Token Sale, the Daala technology platform, the Daala Exchange, the Daala Coin and the Daala Wallet (each as referred to in the Whitepaper) and, if given, such information or representation must not be relied upon as having been authorized by or on behalf of Daala. The Initial Token Sale (as referred to in the Whitepaper) shall not, under any circumstances, constitute a continuing representation or create any suggestion or implication that there has been no change, or development reasonably likely to involve a material change in the affairs, conditions, and prospects of Daala or in any statement of fact or information contained in this Whitepaper since the date hereof.

The Company reserves the right, at its sole discretion, to change, modify, add, or remove portions of the Terms at any time during the sale by posting the amended Terms on the Website. Any Purchaser will be deemed to have accepted such changes by purchasing DTX. The Terms may not be otherwise amended except by express consent of both the Purchaser and the Company.

17. Cooperation with Legal Authorities

The Company will cooperate with all law enforcement enquiries, subpoenas, or requests provided they are fully supported and documented by the law in the relevant jurisdictions. The DTX purchaser also accepts that the company may need to share the purchaser's information with legal authorities in case there is a legal request for the same.

18. Indemnification

To the fullest extent permitted by applicable law, you will indemnify, defend and hold harmless the Daala Team from and against all claims, demands, actions, damages, losses, costs and expenses (including attorneys' fees) that arise from or relate to: (i) your purchase or use of DTX; (ii) your responsibilities or obligations under these Terms; (iii) your violation of these Terms; or (iv) your violation of any rights of any other person or entity. The Company reserves the right to exercise sole control over the defense, at your expense, of any claim subject to indemnification under this Section.. This indemnity is in addition to, and not in lieu of, any other indemnities set forth in a written agreement between you and the Company.

19. Security

You are responsible for implementing reasonable measures for securing the wallet, vault or other storage mechanism you use to receive and hold DTX purchased from the Company, including any requisite private key(s) or other credentials necessary to access such storage mechanism(s). If your private key(s) or other access credentials are lost, you may lose access to your Tokens. The Company is not responsible for any losses, costs or expenses relating to lost access credentials.

20. Language

Currently, an only English version of any Daala's communications is considered official. The English version shall prevail in case of differences in translation.

21. Governing Law

The Terms, the arbitration clause contained in them, and all non-contractual obligations arising in any way whatsoever out of or in connection with these Terms are governed by, construed, and take effect in accordance with Australian law.

22. Adjudication

Any dispute or difference arising out of or in connection with these Terms or the legal relationships established by these Terms, including any question regarding its existence, validity or termination ("Dispute"), shall be referred to and finally resolved by arbitration under the LCIA Rules which will be deemed to be incorporated by reference into this clause, save for any waiver of any rights the parties would otherwise have to any form of appeal or recourse to a court of law or other judicial authority, which rights are expressly reserved. The number of arbitrators shall be three. The seat of the arbitration shall be Sydney. The language of the arbitration shall be English.

A dispute arising out of or related to these Terms is personal to you and the Company and will be resolved solely through individual arbitration and will not be brought as class arbitration, class action or any other type of representative proceeding. There will be no class arbitration or arbitration in which an individual attempts to resolve a Dispute as a representative of another individual or group of individuals. Further, a Dispute cannot be brought as a class or other type of representative action, whether within or outside of arbitration, or on behalf of any other individual or group of individuals.

23. Cautionary note on Forward-looking Statements

All statements contained in this Whitepaper, statements made in press releases or through various advertisements and blogs written by Daala team in any place accessible by the public including online, social media and other digital networks and oral statements that may be made by Daala or its respective directors, executive officers, or employees acting on its behalf (as the case may be), that are not statements of historical fact, constitute "forward-looking statements". Some of these statements can be identified by forward-looking terms such as "aim", "target", "anticipate", "believe", "could", "can", "estimate", "expect", "if", "intend", "may", "plan", "possible", "probable", "project", "should", "would", "will", or other similar terms. However, these terms are not the exclusive means of identifying forward-looking statements. All statements regarding Daala's financial position, business strategies, plans, and prospects and the future prospects of the industry are forward-looking statements. These forward-looking statements, including but not limited to statements as to Daala's revenue and profitability, prospects, future plans, other expected industry trends, and other matters discussed in this Whitepaper regarding Daala are matters that are not historic facts, but only predictions.

These forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause the actual future results, performance, or achievements of Daala to be materially different from any future results, performance, or achievements expected, expressed, or implied by such forward-looking statements. These factors include, but are not limited to:

- changes in political, social, economic, and stock or cryptocurrency market conditions, and the regulatory environment in the countries in which Daala conducts its businesses and operations;
- the risk that Daala may be unable to execute or implement its business strategies and future plans;
- changes in interest rates and exchange rates of fiat currencies and cryptocurrencies;

- changes in the anticipated growth strategies and expected internal growth of Daala;
- changes in the availability and fees payable to Daala in connection with its businesses and operations;
- changes in the availability and salaries of employees who are required by Daala to operate their respective businesses and operations;
- changes in preferences of users of Daala's products and services;
- changes in competitive conditions under which Daala operates, and the ability of Daala to compete under such conditions;
- changes in the future capital needs of Daala and the availability of financing and capital to fund such needs;
- changes to regulations in the jurisdictions where Daala operates;
- war or acts of international or domestic terrorism;
- occurrences of catastrophic events, natural disasters, and acts of God that affect the businesses and/ or operations of Daala;
- other factors beyond the control of Daala; and
- any risk and uncertainties associated with Daala and its businesses and operations, the DTX Tokens, the Initial Token Sale, the Daala technology platform, the Daala Exchange, the Daala Coin and the Daala Wallet (each as referred to in the Whitepaper).

All forward-looking statements made by or attributable to Daala or persons acting on behalf of Daala are expressly qualified in their entirety by such factors. Given that risks and uncertainties that may cause the actual future results, performance, or achievements of Daala to be materially different from that expected, expressed, or implied by the forward-looking statements in this Whitepaper, undue reliance must not be placed on these statements. These forward-looking statements are relevant only as of the date of this Whitepaper.

Neither Daala nor any other person represents, warrants, and/or undertakes that the actual future results, performance, or achievements of Daala will be as discussed in those forward-looking statements. The actual results, performance, or achievements of Daala may differ materially from those anticipated in these forward-looking statements.

Nothing contained in this Whitepaper is or may be relied upon as a promise, representation, or undertaking as to the future performance or policies of Daala.

Further, Daala disclaims any responsibility to update any of those forward-looking statements or publicly announce any revisions to those forward-looking statements to reflect future developments, events, or circumstances, even if new information becomes available or other events occur in the future.

24. Market and Industry Information

This Whitepaper includes market and industry information and forecasts that have been obtained from internal surveys, reports, and studies, where appropriate, as well as research, publicly available information, and industry publications. Such surveys, reports, studies, market research, publicly available information, and publications may be based on information obtained from sources believed to be reliable, but there can be no assurance as to the accuracy or completeness of such included information.

25. No Deemed Consent of other Persons Mentioned

Including Daala and its respective directors, executive officers, and employees, advisors, board of directors, no person shall be deemed to have consented to the mention of his or her name and/or other information attributed or perceived to be attributed to such person in connection therewith in this Whitepaper. No representation, warranty, or undertaking is or purported to be provided as to the accuracy or completeness of such information about or by such person, and Daala and such persons shall not be obliged to provide any updates on the same.

Reasonable actions have been taken on Daala's end to ensure that the information is presented accurately and in its proper context, no independent review of the information extracted from third party sources has been conducted by Daala, verified the accuracy or completeness of such information, or ascertained the underlying assumptions relied upon therein. Consequently, neither Daala nor its respective directors, executive officers, and employees, advisors and board of directors acting on its behalf makes any representation or warranty as to the accuracy or completeness of such information and shall not be obliged to provide any updates on the same.

26. Daala Terms

To facilitate a better understanding of the DTX Tokens offered by Daala for purchase, and the businesses and operations of Daala, certain technical terms and abbreviations, as well as, in certain instances, their descriptions, have been used in this Whitepaper. These descriptions and assigned meanings should not be treated as being definitive of their meanings and may not correspond to standard industry meanings or usage.

Words importing the singular shall, where applicable, include the plural and vice versa and words importing the masculine gender shall, where applicable, include the feminine and other genders and vice versa. References to persons shall include corporations.

27. No Advice by Daala

No information in this Whitepaper, regarding Daala the DTX Tokens, the Initial Token Sale, the Daala technology platform, and the Daala Wallet (each as referred to in this Whitepaper). should be considered to be business, legal, financial, or tax advice,

28. Restrictions on Distributions or Disseminations

The distribution or dissemination of this Whitepaper or any part thereof may be prohibited or restricted by the laws, regulatory requirements, or rules of any jurisdiction. In the case where any restriction applies, you are to inform yourself about, and to observe, any restrictions that are applicable to your possession of this Whitepaper or such part thereof (as the case may be) at your own expense and without liability to Daala.

Anybody who as an access to this Whitepaper or to whosoever this Whitepaper reaches by distribution or dissemination is not permitted to circulate it to any other persons, reproduce or otherwise distribute this Whitepaper or any information contained herein for any purpose whatsoever nor permit or cause the same to occur.

29. Financial Disclaimer

This Whitepaper contains information, believed by Daala to be accurate. No representation or warranty, expressed or implied, is made as to the accuracy or completeness of the information contained herein, and nothing contained herein is, or should be relied upon as, a promise or representation, whether as to the past or the future. This Whitepaper contains forward-looking statements, and Company may (but is not obliged to) make additional written or oral forward-looking statements from time to time. Such forward-looking statements may Include projections of revenues, income or loss, capital expenditures, business relationships, financings, proposed financings or investments by third parties, product development plans for future operations, plans relating to products of Daala, as well as assumptions relating to the foregoing. Forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified. Future events and actual results could differ materially from those set forth in, contemplated by, or underlying the forward-looking statements. This Whitepaper is provided for informational purposes and Daala is not thereby making an offer to sell nor may a solicitation of an offer to buy any securities in any jurisdiction howsoever their laws construe token sales or s

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