

Overview Document

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Executive Summary

COTI's vision is to build a decentralised and scalable payments network to facilitate efficient global commerce. This will set the standard for a next generation payment solution that is trust-driven, instant, cost-effective and supportive of a multi-currency wallet. By reconciling cutting edge distributed ledger technologies with the best of traditional payment solutions. COTI will be poised to spearhead the mass adoption of digital currencies in the mobile era.

To elucidate the scope of this solution, it is relevant to note that the online payments industry encompasses over 1.6 billion people worldwide1. Transactional volumes exceeded two trillion dollars in 2016 and are projected to double by 2020, while e-commerce has been amplified by increasing mobile payments. According to recent research², the volume of US in-store mobile payments is expected to grow at an annual CAGR of 80% between 2015 and 2020. Transaction volume is forecast to reach \$500 billion by 2020, and user growth is expected to increase concurrently. exceeding 150 million mobile users in the same year.

At present, decentralised online payment systems lack the ability to scale in volume and speed, and the effect is most apparent with cryptocurrencies. Although several blockchain technologies have tried to achieve a high throughput of transactions per second (TPS), it has remained an elusive goal due to scalability challenges.

What's more, current online and mobile payment solutions have recently been dealing with inadequacies that have constrained market growth while downgrading user and merchant satisfaction:

• High processing fees. Credit card networks charge a number of fees including annual fees, late fees, balance transfer fees, expedited

payment fees and more, which are imposed on both the consumer and the merchant.

- Long settlement periods with high rolling reserves³. A payment can take up to two weeks to settle and for the merchant to be paid, particularly as it concerns high-risk transactions designated by credit card networks. In such instances, provisions are withheld from merchants. potentially causing severe liquidity issues and driving up the prices of goods and services.
- Absence of a shared trust mechanism. Currently, credit scores and ratings are marketplace-specific and non-transferable across platforms. Consumers and merchants who have worked hard to obtain high ratings cannot migrate seamlessly to another marketplace without ceding their accumulated trust ratings.
- Lack of multi-currency support. While credit cards support fiat money, users have no control over currency exchange rates. What's more, digital currencies have not yet been integrated into credit card networks.

¹ https://www.statista.com/topics/871/online-shopping/

² http://www.businessinsider.com/the-mobile-payments-report

³ Provision for chargebacks



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To this end, COTI is developing a variety of technologies that will work in concert to provide consumers and merchants with a vastly improved payment experience utilising a globally decentralised digital currency, Currency Of The Internet (COTI), and a comprehensive payment ecosystem characterised by a number of key features:

- Instantaneous remittance that utilises distributed ledger technology in the form of a DAG (directed acyclic graph) structure.
- A global Trust Scoring Engine, which automatically assesses the interactions between buyers and sellers over time, assigning each network participant a unique Trust Score. Trust Scores provide a numerical representation of the relative value that each participant contributes to the COTI network and are used to assign network fees. It also facilitates the decision-making process by users and merchants and removes the dependence on a single centralised marketplace for ratings.
- A **Mediation System** that resolves disputes between transacting parties and maintains the integrity of the network. A first of its kind, the system leverages data science, game theory and an independent network of crowdsourced mediators to resolve disputes fairly and efficiently – without prompting a substantial increase in transaction costs.
- **Currency exchange** integration that provides network participants with a means of moving seamlessly between currencies – both fiat and digital – by aggregating liquidity from internal and external liquidity pools. The exchange is complemented by an automated market-maker, which maintains fair and orderly markets in a range of currencies.
- COTI is developing a suite of applications and services that will provide consumers, merchants and crowdsourced mediators with

seamless connectivity to the COTI network. For consumers, the COTI wallet and debit card will facilitate the secure storage, transmission, and exchange of digital and fiat currencies. For merchants, COTI's processing solutions will facilitate the acceptance of payments in a variety of fiat and digital currencies while substantially lower processing fees. For mediators, the dedicated client will enable mediators to contribute to, and be compensated for, the successful resolution of transaction disputes.

COTI is currently laying down the licencing foundations that will enable it to comply with existing regulations, both as a payments network and a currency exchange. With respect to COTI – and the handling of digital currencies more generally - the COTI team welcomes greater regulatory clarity and believes digital currency-specific frameworks will serve as a catalyst for the mainstream adoption of digital currencies. To this effect, COTI is in the process of applying for a distributed ledger technology (DLT) licence in Gibraltar and has initiated dialogues with regulators globally to help shape its legal framework. In the interim, COTI is adopting banking industry compliance standards to ensure that its digital currency-related activities do not serve as a conduit for money laundering or other illicit activity.

The COTI team includes veterans of the payment, cryptography, asset management and banking industries. These experts possess experience in worldwide payment solutions ranging from Processing.com and Markets. com to Investec Bank, BlackRock and HSBC. The team has set ambitious development targets and is on track to launch the first phase of the COTI network in the fourth quarter of 2018. Thereafter, COTI will build upon its robust technical foundations and forge its way to streamline online payments. Ultimately, COTI will enable higher global trade volumes by enabling the free flow of value in the same way that the Internet enables the free flow of information.



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1. Context

Worldwide consumer payment transactions exceed \$50 trillion annually and are increasingly carried out using electronic payment methods. Yet despite the intense competition within the payments industry. consumers and merchants face high fees and low approval rates. Digital currencies could represent a compelling alternative, but are not practical to use in common payment contexts in their current form.

- **Cross-border e-commerce.** Cross-border B2C e-commerce is expected to reach one trillion dollars in annual transaction volume by 20204, the clear majority of which will be performed using card-based solutions. However, as a consequence of the four-party model (consumers, retailers, issuers and acquirers) adhered to by major card networks, transactions involving card issuers and card acquirers located in different regions are inherently less reliable than equivalent domestic transactions. Cross-border card payments are encumbered by higher fees, higher abandonment rates and lower approval rates relative to domestic transactions. For US-based merchants, crossborder transactions are 2-3 times more likely to be declined relative to domestic transactions⁵, and some 31% of declined transactions turn out to be false positives⁶.
- **Online marketplaces.** Online marketplaces connecting buyers and sellers can work with existing payment solutions to an extent. However, key functions normally handled by the card networks (e.g., dispute resolution) must be administered internally by the marketplace operators. The internalisation of these functions adds considerable operational overhead to each marketplace and raises the barriers to entry to would-be competitors. Moreover, marketplaces

- that lack the capital or appetite to manage the operational burden of internalising these key functions are unable to offer payment capabilities to their marketplace participants.
- **Peer-to-peer commerce.** Numerous non-bank service providers offer solutions for peer-to-peer (P2P) transactions. These services handle the money transfer aspect of P2P transactions effectively, but their use is confined primarily to transactions that involve trusted parties. These services fail to account for the conformity and delivery of goods or services. Rather, they focus solely on the authorisation. clearing and settlement of money transfers. As such, they are not complete payment solutions and are not suited to accommodate P2P commerce involving parties that do not know each other and may never transact again. Moreover, these solutions are costly and, in effect, inefficient for micro P2P transactions.

The shortcomings faced by existing payment solutions when handling these new payment scenarios are attributable to one key factor: the lack of trust. In cross-border e-commerce, the lack of trust between issuers and acquirers located in different jurisdictions results in high fees and low approval rates. In online marketplaces, the long-tail distribution

⁴ Digital Globalization: The New Era of Global Flows, McKisnsey Global Institute, March 2016

⁵ https://www.ethoca.com/node/125

⁶ True Cost of Fraud Study, LexisNexis, 2016



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of merchants results in the need for marketplaces to internalise costly mediation functions normally administered by the card networks. And in P2P transactions, the lack of trust between parties that do not know one another inhibits the growth of P2P commerce. Universally, the lack of trust represents a major source of friction, preventing buyers and sellers everywhere from transacting to their fullest potential.

The unfulfilled promise of digital currencies

Without a doubt, blockchain technologies have revolutionised the way we transact information. However, data structures such as linear approving methodologies have become irrelevant to suit the needs of highly scalable payment solutions, creating the need for parallel transaction confirmations.

Bitcoin inventor Satoshi Nakamoto released Bitcoin: A Peer-To-Peer Electronic Cash System in late 20087. In the paper, Nakamoto was critical of the trust-based model upon which existing electronic payment systems relied, pointing out that the trust-based model requires a costly mediation layer that causes merchants to be wary of their customers. Nakamoto's solution was to propose a new electronic payment system, Bitcoin, that would enable two parties to transact directly based on cryptographic proofs alone without the need for trusted third parties.

Blockchain-based payment systems, including Bitcoin and its peers, are often described as trust-less in acknowledgement of the fact that these systems can function without trusted third parties. Transactions in such networks are recorded cryptographically on distributed, secure and irrevocable ledgers, while ledger accuracy and consistency are ensured through the consensus process. Rather than placing their trust in third party intermediaries, users of these transaction networks put their trust in cryptographic protocols and the plurality of network participants.

Some members of the blockchain community have rallied behind the notion that digital currencies will become widely used as currency in everyday payment scenarios. It has been argued that blockchain-based currencies like Bitcoin provide a low-friction alternative to the traditional payment system. They promise greater security, faster settlement times, lower transaction fees and relief from the interference of central banks. and intermediaries.

Rather than placing their trust in third party intermediaries, users of these transaction networks put their trust in cryptographic protocols and the plurality of network participants.

In practice, however, the use and adoption of digital currencies in everyday payment scenarios has been limited due to a variety of factors, as detailed below:

• **Scalability.** As the Bitcoin network has grown, it has faced severe network congestion, giving rise to higher fees and slower settlement times. The network can currently handle approximately 20

⁷ Bitcoin: A peer-to-peer electronic cash system, Satoshi Nakamoto, 2008



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transactions per second on average, compared to Visa's 65,000 transactions per second⁸.

- **Speed and consistency.** Transaction confirmation times on the Bitcoin network are not only slow, but fluctuate significantly. Since a Bitcoin transaction needs to be confirmed six times to be validated, the process can take between 30 minutes and 16 hours on average.
- **Legality.** Bitcoin has been denounced for facilitating illicit transactions and large-scale money laundering and may be called to account by new global regulatory frameworks.
- **Fungibility.** Due to the illegal nature of certain Bitcoin transactions, advanced backtracking technologies can link Bitcoins to a history of illicit activity, thus downsizing acceptance by legitimate counterparties.
- **Third party vulnerabilities.** Although the Bitcoin network itself has never been compromised, a number of Bitcoin exchanges, which enable individuals to exchange fiat currency for Bitcoin, have been hacked. These hacks have resulted in the loss of hundreds of millions. of dollars' worth of Bitcoin.
- **Volatility.** Merchants that accept Bitcoin either face a high degree of exposure to fluctuating exchange rates, or face additional costs in order to hedge against these fluctuations. Moreover, the appreciation in Bitcoin's value has prompted Bitcoin owners to retain their holdings rather than use them for payments.
- **Immutability.** Although a strength from a security standpoint, the finality and irreversibility of Bitcoin transactions limit the currency's utility in general payment contexts.
- **Complexity.** For typical consumers, the processes involved in acquiring

and spending Bitcoin are too complicated, and new users of the currency face a significant learning curve.

Perhaps the single biggest impediment to Bitcoin and its peers in becoming widely adopted in day-to-day payments is the fact that they solve only part of the payments challenge. While Bitcoin can successfully confirm that a payment has been made, it is unable to account for the conformity and delivery of the goods or services associated with the payment. The Bitcoin blockchain can only rely on data from within the Bitcoin ecosystem, without taking external data into account.

In their current form, Bitcoin and its peers can serve as cryptographicallysecure cash layers. However, in order to cross the chasm and become widely used in day-to-day payments, digital currencies will need to be extended to offer the consumer and merchant protections that are now commonplace in the payments industry. For example, major card networks allow for the correction of billing errors, the reversal of unauthorised charges and the issuance of refunds to purchasers who do not receive the goods or services that they pay for. Each of these provisions serve to instil greater peace of mind in consumers and merchants, driving their adoption of, or continued participation in, existing payments networks. Interestingly, in the Bitcoin whitepaper, Nakamoto foresaw the need for buyer protection mechanisms. Yet, in its current form, the Bitcoin network offers no such mechanisms.

While digital currencies have the potential to facilitate payments with greater security and lower transaction fees, a variety of factors inhibit their uptake in payment use cases – chief among which is the fact that they function as cash layers rather than as complete payment solutions.



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2. Objectives

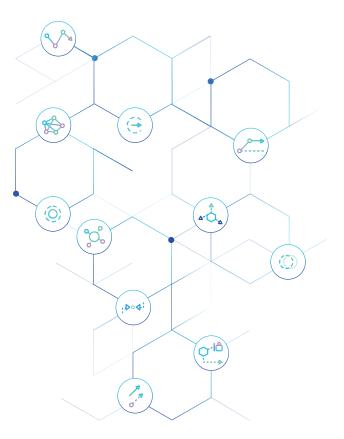
The COTI network was designed with the goal of developing a next-generation payments network that could gain widespread adoption by consumers and merchants, serving as a catalyst for the mainstream acceptance of digital currencies as a payment method.

COTI began by looking at the key factors affecting the pace and extent of payment system adoption and concluded that its next generation payments network would need to build on top of the foundations of traditional payment systems and digital currencies, incorporating their strengths while finding workarounds for their limitations.

Using the characteristics of traditional payment systems and pioneering digital currencies as benchmarks, the team defined the key objectives that its payments network would need to satisfy. The objectives are summarised in Exhibit 1: Requirements for a next generation payments network and are discussed in detail in the pages that follow.

Throughout this section, references to digital currencies are to be taken as references to the major existing blockchain-based cryptocurrencies, including Bitcoin, which is still the leading cryptocurrency in terms of market capitalisation.

To develop a distributed ledger-based payment system that provides a streamlined user experience, while harnessing the power of advanced financial tools and removing the need for financial intermediaries, we have set out to achieve the following objectives:





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EXHIBIT 1

Requirements for a next generation payments network

Factor		Status Quo		COTI's Objective	Further Reading
		Card Networks	Digital Currencies	COTT'S Objective	rortiler Reduilig
ಌೆ	Governance	• Centralised	• Decentralised	• Decentralised	• 3.6: Decentralised Governance
→	Scalability	• ~65,000 TPS' • Instant confirmation	• ~20 TPS • ~15 min. confirmation	• 10,000+ TPS • Instant confirmation	• 3.1: Introduction to the Cluster
A O	Reliability	Low, particularly in cross- border contexts	• Low	High, irrespective of industry or jurisdiction	• 3.3: Mediation System
Ö .∥	Buyer-seller protections	CentralisedCostly	• None	DecentralisedEfficient	• 3.3: Mediation System
%	Transaction costs	 High-cost Based on broad categories	• Typically low-cost	Zero-to-low cost Based on behaviour	• 3.2: Trust Scoring Mechanism
; ▶∘ 4 ;	Trust model	Trust-based(reliantontrusted third parties)	Trust-less (not reliant on trusted third parties)	• Trust-generative	• 3.2: Trust Scoring Mechansim
	Ease-of-use	• Easy for buyers and sellers	Complicated for most buyers and sellers	• Easy for buyers and sellers	• 4: Applications & Services
۵· 🖒 ۵	Compliance	• Fully-compliant	Largely unregulated	Fully-compliantWelcoming of regulation	• 5: Regulatory Approach

^{*+} Transactions-per-second



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Objective 1: Decentralisation

In order to develop a distributed ledger payment system, a decentralised governance model will be necessary alongside decentralised transaction validation. Such a mechanism will directly involve the community in the development and mass adoption of the network.

• **Current payment methods.** Credit card providers are centralised entities, and major cryptocurrencies do not offer sustainable decentralised governance mechanisms. In the long term, this may monopolise the pool of validators that can impact the trustworthiness of the network

Objective 2: Scalability and instantaneity

For a payment system to efficiently accommodate common exchanges, it should be able to provide instant payment solutions despite supporting high transaction volumes.

Current payment methods. While card providers have instant remittance, blockchain-based digital currencies have not been able to address scalability challenges effectively, which has resulted in increased network congestion.

Objective 3: Reliability

The network should provide a reliable standard for all network activity. including deposits, withdrawals, fees and transaction confirmations.

Current payment methods. Card network transaction approval rates vary widely, but are particularly low in cross-border contexts, where risk-averse fraud detection systems often reject worthy buyers. Digital currencies generally achieve high approval rates due to the lack of intermediaries; however, it has become challenging to assess their reliability as processing times and fees for many digital currencies fluctuate widely.

Objective 4: Security

To develop the next generation payment system, the network should be safeguarded against errors, fraud and counterparty abuse.

 Current payment methods. Credit card providers make provisions for resolving disputes and handling complaints. These dispute resolution services are costly, which results in higher transaction costs. Digital currencies, on the other hand, only consider the funds transfer aspect of transactions. They do not take the conformity or delivery of goods and services into consideration.

Objective 5: Low-to-zero fees

Transaction costs should be kept to a bare minimum and levied in accordance with each participant's individual contribution to the network so as to create a self-sustained and equitable payment system.

• **Current payment methods.** Card networks typically levy various fixed and percentage-based fees to process a transaction, with additional fees being levied when cross-border and cross-currency transactions are involved. Moreover, merchants operating in high-risk jurisdictions and industries are subject to higher transaction fees, regardless of their respective behaviours and risk profiles. Digital currency transaction fees vary widely depending on network congestion and can range from a few cents to dozens of dollars per transaction.

Objective 6: Trust generative

To provide a community-based decentralised payment system, it will be necessary to create trust among community members by incentivising trustworthy ecosystem participants with lower fees and higher transaction confirmations.

 Current payment methods. Card network transactions rely on trusted financial intermediaries to serve as proxies for direct trust between transacting parties. Digital currencies are trust-less insofar as their



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cryptographic protocols provide surety with respect to the transfer of funds. However, they function merely as a cash layer rather than as a complete payment solution.

Objective 7: Ease-of-use

The network should be accessible and user-friendly for buyers and sellers by way of dedicated applications during the onboarding process and transactional experience. The support of a multicurrency wallet will further enable network participants to transact using a variety of fiat and digital currencies.

Current payment methods. Card networks make the transaction process convenient for buyers. For sellers, card acceptance is relatively straightforward; however, depending on the nature of the business involved, they may need to undergo lengthy onboarding procedures. In their current form, digital currencies are too complicated for the vast majority of buyers and sellers. While card networks support virtually all fiat currencies, they have yet to integrate digital currencies. Digital currency networks, on the other hand, tend to only process payments in their native currencies.

Objective 8: Regulatory compliance

To develop digital currency-specific regulatory frameworks for widespread consumer adoption, it will be necessary to comply with the legal frameworks of all jurisdictions in which its users reside.

Current payment methods. Card networks interoperate seamlessly with existing banking and legal systems and make strict provisions for complying with anti-money-laundering (AML) regulations. Digital currencies are pseudo-anonymous, uncensorable and largely unregulated.



To provide a community based decentralised payment system, it will be necessary to create trust among community members by incentivising trustworthy ecosystem participants with lower fees and higher transaction confirmations.



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3. The COTI Ecosystem

The COTI ecosystem was designed using innovative distributed ledger technology with the goal of providing a superior payment solution that outpaces current legacy card networks and cryptocurrency technologies. The COTI base protocol, native currency, Mediation System and Trust Scoring Engine were conceptualised to produce a comprehensive payment solution for merchants and consumers that is both decentralised and scalable.

3.1 Introduction to the Cluster

The Cluster, COTI's distributed ledger, is based on a directed acyclic graph (DAG) data structure consisting of transactions that propagate in a unidirectional pathway. While greater scale in blockchain-based networks leads to adverse effects on network usability, in DAG-based networks greater network usage leads to improved network scalability. As such, there is a positive correlation between the number of network users and the rate at which transactions are confirmed.

This makes the DAG ideally suited for COTI's network base layer protocol, enabling it to achieve full decentralisation without compromising on COTI's scalability, instantaneity and low-to-zero fees. Using COTI's Trust Chain Algorithm, Trust Scores are the key mechanism by which new, unconfirmed transactions select prior transactions to validate in order to reach faster transaction confirmation consensus.

The Confirmation process

To be added to the Cluster, each transaction – represented by the user's Trust Score - must validate two previous transactions with a similar Trust Score threshold. As transactions are attached to the Cluster, they collectively form Trust Chains, or transactional sets characterised by similar Trust Score thresholds

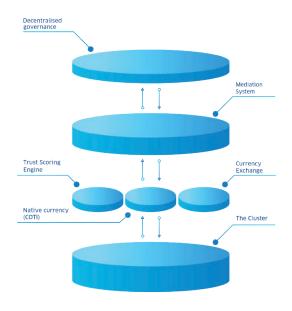


EXHIBIT 2 Components and participants in the COTI ecosystem



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The transaction validation process culminates with the Trust Chain Consensus Algorithm. This innovative algorithm ensures that trusted users (i.e. those with higher Trust Scores) are incentivised with optimised transaction confirmations, as their Trust Chains can reach the required cumulative Trust Score threshold faster.

The implicit nature of the DAG structure and validation process enables the Cluster to reach faster consensus - achieving a transaction confirmation rate of 10,000 TPS - as compared to Blockchain systems that can process an average of 20 TPS9.

Nodes

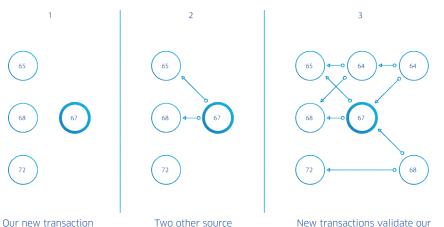
COTI provides a decentralised solution, designed specifically for secure and trustworthy payments. This solution relies on the distribution of responsibility in the Cluster to various nodes that are run by users.

Full Nodes. These are primary infrastructure components and user gateways to the network. Specifically, they receive signed wallet

transactions, retrieve Trust Score data from the Trust Score Servers. choose sources for new transactions to attach to, perform proof-ofwork (PoW) and allow new transactions to attach to the Cluster.

- **DSP Nodes**. The Double Spend Prevention (DSP) Node is COTI's solution to one of the key challenges faced by DAG-based cryptocurrencies. These nodes maintain an updated copy of the Cluster at any given point in time and monitor transactions to mitigate any possibility of double-spending attacks. To run a DSP node, a large amount of COTI must be deposited in a specialised multisignature account. All DSP node operators are remunerated by the COTI network for their efforts.
- **History Nodes**. These nodes store earlier portions of the Cluster, as well as the entire history of the Cluster. Full account history can be retrieved from the History nodes; however, if the History Node is unable to operate for any reason, COTI's History Servers can be used as a proxy.

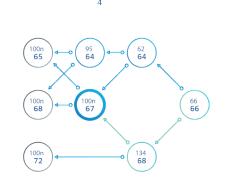
Figure 1 A depiction of COTI's DSP Nodes



transactions of similar trust

are validated





Our transaction is confirmed by the path of highest cumulative trust (the cumulative Trust Score is boldened and the path of highest cumulative trust is highlighted in green)

(bold circle)

⁹ Please refer to section 8 and Appendix A of the technical whitepaper



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3.2 Trust Scoring Mechanism

A key source of friction in commerce today is the lack of reliable metrics pertaining to the trustworthiness of buyers and sellers. The difficulty in assessing the trustworthiness of prospective counterparties undermines confidence and reduces the likelihood of potential transactions being seen through to completion, particularly in cross-border scenarios.

While the reputation systems within online marketplaces address this problem in part, such systems tend to generate reputation scores based on user ratings alone. They are subject to abuse by parties with vested interests and are typically non-transferable to other marketplaces or contexts.

COTI takes a novel approach to building trust between transacting parties through its Trust Score mechanism. The Trust Score servers analyse user data, user behaviour, and network payment statistics to calculate a Trust Score for each COTI network participant. The Trust Score as a metric helps to rate participants according to their trustworthiness and contribution to the COTI network.

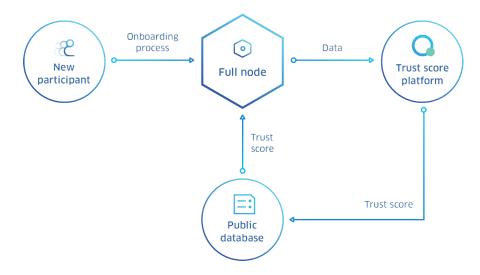
COTI is introducing a bespoke DAG-based consensus algorithm that involves the use of Trust Scores to validate transactions. These Trust Scores collectively form Trust Chains, which are used for efficient transaction consensus and validation. Trust Scores further reinforce the system through soft segmentation while minimising computational burden.

Trust Scores incentivise users to contribute to the quality of the ecosystem and serve as a proxy for how reliable a participant will be in fulfilling transactions in accordance with the associated terms. Trust Scores serve as a key driver of transaction fees: high scores are associated with low-tozero fees, while low scores are associated with comparatively high fees.

A participant's Trust Score is initially determined by a general

questionnaire and document verification. Trust Scores update automatically according to a user's payment history and Big Data collected by the network. For more details, please refer to the <u>technical whitepaper</u>.

Figure 2 COTI's Trust Scoring mechanism



Determining Trust Scores

Trust scoring is performed in a granular, dynamic way to provide high resolution insight into a party's behaviour. This granular approach runs contrary to conventional credit scoring systems, which use broad brush classification techniques to assign scores that commonly fall above or below the scores that would serve as true indications of creditworthiness.

Trust Scores are relative values plotted on a scale of 0 to 100, with 100 being the highest possible score. They provide an indication of how participants rank relative to one another within the COTI network, as measured by their contributions to the network's efficacy over time. Participants that engage in honest conduct - consistently honouring



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their obligations to other network participants - are rewarded with high Trust Scores. Conversely, participants that engage in dishonest conduct, dishonouring obligations to other network participants, are assigned lower Trust Scores, higher fees and rising confirmation times.

The Trust Score of a merchant also affects the merchant's rolling reserve requirements. The rolling reserve requirements of highly trusted merchants will be significantly lower than that of merchants with low Trust Scores.

Using an approach broadly resembling how Google's search engine algorithms consider multiple parameters to determine web page rankings and adjust rankings as new information becomes available, the Trust Scoring Algorithm considers the following parameters when determining Trust Scores:

- **Account balance** the aggregate value of transactions that the participant has engaged in over a set period.
- **Dispute occurrence** the amount of transaction disputes that the participant has been involved in, if any.
- Disputes won the amount of disputes that were resolved in favour of the participant.
- **Disputes lost** the amount of disputes which were resolved in favour of the counterparty.
- **User ratings** the ratings that other transacting parties have assigned to the participant, calibrated according to the Trust Scores of the parties providing the ratings.

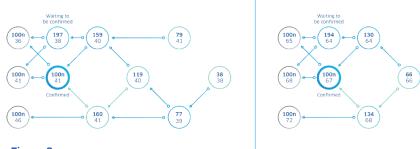
The set of parameters outlined above is non-exhaustive. COTI's <u>technical</u> whitepaper provides further details of the mechanisms used to determine Trust Scores.

Measures against Trust Score manipulation

Given the high degree to which network participants are incentivised to maximise their Trust Scores, it is incumbent upon COTI to take proactive measures to combat Trust Score manipulation and abuse. The Trust Scoring mechanism has provisions in place for detecting anomalies that signal that a party has attempted to manipulate its Trust Score or the Trust Score of another party (e.g., a competitor). In the event of a party being found by the algorithm to have attempted to manipulate a Trust Score, that party will be subject to severe penalties, including a substantial lowering of the offending participant's Trust Score.

COTI's Trust Score mechanism ensures that parties with low Trust Scores have a clear path to achieving higher Trust Scores. COTI has no intention of enforcing low Trust Scores on any one party in perpetuity, and actively encourages network participants to engage in organic, good-faith efforts to increase their scores. If a low-scoring party can demonstrate its value to the network by honest, trustworthy conduct, this value will be reflected in the party's Trust Score over time.

The Trust Score mechanism is an essential component in the road to achieving network objectives, as it encourages trustworthy user conduct and deters dishonest transacting parties. This will contribute to a more secure and reliable network that rewards trusted ecosystem participants with low-to-zero fees.



The different Trust Chain lengths needed to confirm moderately trusted transactions (left) and highly trusted transactions (right).



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3.3 Mediation System

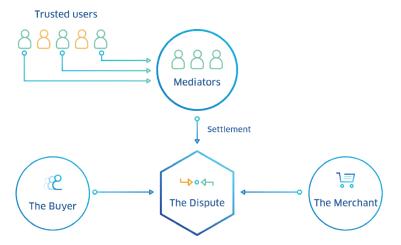
The Mediation System serves three main objectives: decentralised governance, security and reliability. In order to provide buyers and sellers with protections against errors, fraud and counterparty abuse, mediators must take responsibility if disputes arise within the network. While the Trust Score adds a layer of trust to all COTI network transactions and imposes disincentives on behaviour that is dishonest or unfair, the Mediation System provides an additional mechanism that facilitates dispute resolution in an effective and cost-efficient manner.

Typical scenarios requiring mediation include the following:

- **Billing errors.** The buyer completes a purchase, but later realises that the amount paid for the goods or services was incorrect.
- **Inadvertent transfers.** The user inadvertently sends funds to the wrong party.
- **Unauthorised charges.** The user is charged an amount without having authorised the transaction.
- **Undelivered goods or services.** The buyer pays a merchant for goods or services but the delivery of those goods or services is not fulfilled.
- **Non-conforming goods or services.** The buyer pays for and receives the goods or services, but the goods or services do not conform with the description or standards the seller conveyed at the time of the purchase.

In each of the above scenarios, if the sender and receiver of funds are unable to resolve the dispute directly, the unsatisfied party can initiate mediation.

Figure 4 COTI's Mediation System





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The role of mediators

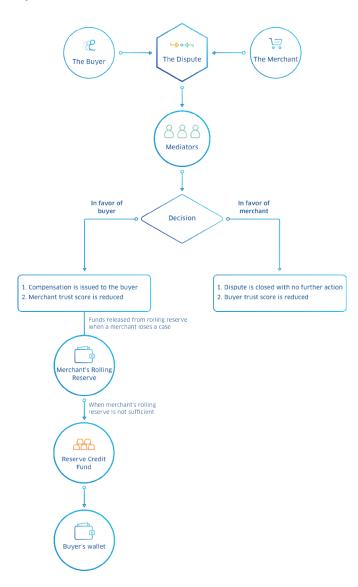
As Bitcoin's inventor Satoshi Nakamoto observed, one of the shortcomings of traditional payment systems is that, in providing mediation services, payment providers necessarily incur significant costs, which result in higher transaction fees. Thus, a key challenge was determining how to provide buyers and sellers with robust safeguards in a streamlined, costefficient manner.

COTI's approach to mediation involves harnessing a decentralised and distributed group of independent mediators to resolve disputes. Mediators work independently to validate real world information pertaining to transaction disputes and then cast votes on a mediated outcome. Mediators receive caseloads and cast their votes using the mediator client (presented in 4. Applications & Services). They are not able to communicate with one another and are unaware of how many other mediators are involved in resolving a dispute.

The method for determining consensus is underpinned by the game theoretic notion of Schelling points (i.e., focal points). The rationale here is that mediators are encouraged to reach similar conclusions on a dispute and, in the absence of being able to coordinate, to look for focal points that provide the truest proof of events that occurred between the buyer and the seller. In effect, the system relies on appealing to the intuition of each mediator.

After mediators' votes have been cast, they are assessed using a voting matrix that determines consensus automatically. Once a mediated outcome has been arbitrated by a quorum of mediators, the system compensates the winning party and returns that party's balance to its rightful state. If the customer is the winning party, he/she is remunerated using funds from the merchant's rolling reserve. In case of insufficient rolling reserve funds, compensation is remitted from the Reserve Credit Fund (RCF). When the merchant is the winning party, on the other hand, no further action is needed.

Figure 5 Main components of the COTI Mediation





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Merchant rolling reserve

Rolling reserve requirements are calculated based on the merchant's turnover and Trust Score. Because of the design of the COTI payments network, Mediation System and decentralisation, the rolling reserve requirements are substantially lower than existing payments networks.

Every merchant transaction will incur a rolling reserve fee that is reserved for a number of days. When the rolling reserve term has ended, funds are released back to the merchant's account.

The rolling reserve is used when a merchant has lost a mediated dispute and is required to compensate the consumer. Merchants that do not meet the rolling reserve requirements will forfeit their ability to sell goods and services within the COTI network.

Comparison of COTI's rolling reserve with existing online payment systems

соті		OTHER PAYMENT SYSTEMS
The minimum rolling reserve requirement is at least 3% and based on the Trust Score of the merchant	\odot	Rolling reserve requirements are usually above 10%
Funds are frozen for at least 7 days depending on the business type	\bigcirc	Funds are frozen for 14-90 days
Equitable dispute settlement by COTI's Mediation System	\bigcirc	Rampant credit card chargebacks and non- transparency

Other mediation provisions

To ensure the Mediation System is cost-effective and consistently achieves dispute resolution in a manner that benefits the network overall, COTI has taken several additional factors into consideration.

Mediator recruitment and training. Individuals who wish to register as mediators must satisfy certain requirements before being admitted to the mediator platform. Among other requirements, mediators must demonstrate relevant language proficiency and undergo an online assessment to determine they have the aptitude to perform the mediation tasks at a high standard. COTI endeavours to make mediation open to a broad group of people and will make available online training programs that can assist candidates in acquiring the requisite knowledge for contributing to the dispute resolution process effectively.

Collusion prevention. Due to its distributed nature, the Mediation System needs to account for the prospect of mediators engaging in collusion either with one another, or with one of the parties in a disputed transaction. This risk of collusion is mitigated primarily through the algorithms that determine which mediators are assigned to a specific dispute, whereby caseloads are routed intelligently to mediators who have the least likelihood to collude with one another. If mediators are found to have engaged in any form of collusion, they will be severely penalised.

Privacy concerns. Prior to distributing caseloads, COTI takes measures to ensure that only the data that aids directly in dispute resolution is disclosed. By default, COTI removes personal identifying information from all data submissions. If the parties to a dispute so choose, they can elect to forgo privacy for the sake of providing richer data. During the mediator registration process, all mediators are required to read and accept a mediator privacy policy, any violation of which will result in expulsion from the COTI network.



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3.4 Native Currency (COTI)

COTI's native digital currency sits at the centre of the COTI network and fuels the interactions between consumers, merchants, mediators and node operators. COTI was purpose-built to overcome the barriers that have limited the widespread adoption of digital currencies in day-to-day payments.

The primary function of COTI coins is to serve as the common denominator of payments, fees and mediation and to incentivise node operators in the COTI network:

- **Payments.** COTI coins function as a medium of exchange that can be used when making and receiving payments in the COTI ecosystem. While the COTI network supports multiple fiat and digital currencies, participants are incentivised to use COTI over other currencies for its efficacy as a payment method and low-to-zero transaction fees.
- **Mediation.** Mediator stakes and payouts are denominated in COTI coins. As such, mediators are required to hold COTI coins whenever they wish to engage in mediation.
- **Merchant rolling reserve.** A share of a merchant's transactions that is temporarily set aside to cover potential business risks, such as when a merchant loses a mediated dispute and must compensate the consumer. Rolling reserve funds are denominated in COTI coins and automatically accumulate in the merchant's account for a defined term.
- **Node operators.** Operators of all node types will be incentivised in COTI coins and will be required to hold COTI whenever they wish to validate node activity.

Fees. All fees incurred in the course of using the COTI network (payments, mediation, node oversight and external projects based on COTI's Cluster) are payable in COTI coins.

•••

The aspiration is for COTI to become widely adopted for general payment purposes – to become the Currency Of The Internet. Scalability will not serve as the sole catalyst of adoption, as Austrian School economist Ludwig von Mises posited in his regression theorem¹⁰, in order for a currency to reach the point of being widely accepted as a general medium of exchange, it first needs an objective framework for determining its price.

Although value transfer is the COTI coin's primary function within the COTI network, it will also be used as a means of paying fees and incentivising mediators and node operators. The above provides an objective framework that will determine COTI's price in relation to other currencies



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3.5 Currency Exchange

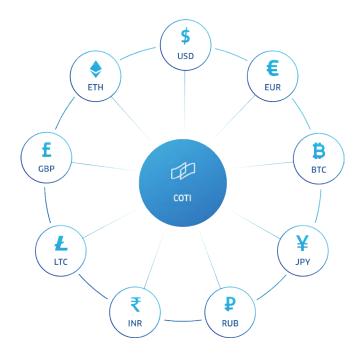
COTI aims for its payments network to be versatile with respect to currencies, thus providing an easyto-use payment solution. To this end, COTI is developing a currency exchange that provides network participants with continuous access to liquid markets in a range of digital and fiat currency pairs.

The main functions of the exchange are three-fold.

- First, it serves as an enabler of cross-currency payments by providing network participants a straightforward mechanism for paying or receiving funds in whichever currencies they choose, regardless of their counterparties' preferred currencies.
- Second, it provides end-users with a direct mechanism for transferring their holdings from one currency to another, if for whatever reason end-users wish to increase or reduce their exposure to a specific currency.
- And third, it is an enabler of the market-making activity in which COTI's native currency serves as the common denominator amongst all other currencies.

Seamless interoperability

COTI abstracts the complexity of currency exchange from end-users. The exchange functions as a foundational layer of COTI's applications and services, operating in the background to ensure that participants' currency exchange requests are fulfilled automatically in response to the actions taken from the consumer, merchant and mediator interfaces. For each order, rather than presenting an orderbook and bid/ask prices, the user is presented with a single fixed rate, inclusive of any fees.



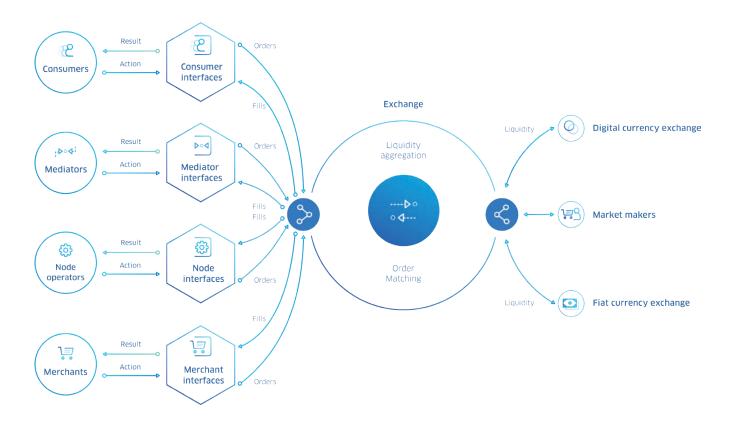


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EXHIBIT 3

Simplified depiction of the COTI network's liquidity flows





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Global order book

Behind the scenes, the exchange works for end-users to provide the best fulfilment and execution possible while guaranteeing that the originallyquoted rates are adhered to. COTI achieves this by amalgamating multiple liquidity sources to create a global order book. For a visual representation of the exchange's liquidity flows, please refer to Exhibit 3.

When generating quotes based on the order books of multiple exchanges, COTI uses 'look ahead' algorithms to predict the rates it can honour. Upon receiving an order, the exchange works through its global order book, allocating quantities that need to be reserved across COTI's exchange and third party exchanges to ensure the order is filled successfully.

Security and fault tolerance

COTI's exchange is designed to be highly secure and fault-tolerant. The exchange implements a multi-tiered security architecture that limits attack vectors and attack ingresses. All traffic in COTI's exchange is encrypted end-to-end using Transport Layer Security (TLS) 1.2 (utilising SHA256 keys), and all data-at-rest is secured with AES-256 encryption. Each step in the currency exchange process is transactional, such that if any part of a step in the exchange process fails, the entire step fails.

COTI's exchange is first and foremost a component for facilitating crosscurrency payments in a way that is maximally beneficial for network participants. It serves the secondary function of providing users with a means of adjusting their exposure to different fiat and digital currencies, and connects seamlessly to all of COTI's applications. Over time, additional exchange functionality will be added to accommodate more elaborate use cases – for example, adding support for a wider array of order types.

3.6 Decentralised Governance

To provide a decentralised ecosystem for online payments, COTI will explore various decentralised governance models. Such governance will provide voting rights for executing changes in COTI's base protocol and deciding future use cases of the COTI coin. Futarchy governance is one such methodology that utilises a team of experts who work to define metrics for implementing new developments. COTI coin holders can then collectively vote for the best possible outcome to reach a decision based on the wisdom of the crowd





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4. Applications & Services

COTI is developing a suite of applications and service offerings that will provide consumers, merchants and mediators with seamless connectivity to the COTI network.

4.1 For Consumers

The first pillar of the COTI network's success is the extent to which it establishes a critical mass of consumers equipped to use its payment solutions for peer-to-peer payments and merchant payments alike. To this end, COTI is developing consumer offerings that will provide userfriendly gateways to a range of payment-related services, encompassing both fiat and digital currencies. Because the relative complexity of digital currencies has inhibited their widespread adoption in payment use cases thus far, a primary focus of COTI's application design efforts has been on making digital currencies as easy to acquire and use as their fiat equivalents.

Wallets

COTI's main consumer offering is a multi-currency wallet that provides instant and easy access to the COTI payments network and supports a variety of consumer payment use cases.

- **Peer to peer transactions.** COTI users will be able to make instant. secure transfers to their peers who hold COTI wallets. Transfers will be instant with low-to-zero fees (depending on the users' Trust Scores and currency selections).
- Nearby wallet-to-wallet transactions. COTI wallet holders will be able to send funds in a secure, instant and intuitive manner to other COTI wallet holders through close physical proximity.

- **Storing digital and fiat currencies securely.** COTI users will be able to use their COTI wallets as de facto bank accounts for the purpose of holding funds in both digital and fiat currencies. In the first instance, funds can be deposited into COTI wallets using card, bank wire and several leading digital currencies.
- **Exchanging digital and fiat currencies.** COTI users will be able to use their wallets to move funds from one currency to another by posting market or limit orders to COTI's exchange. The currencies supported at the outset will include USD, EUR, GBP, and several leading digital currencies, including COTI's native currency.





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The COTI wallet is being developed as a native mobile application and as a web application accessible via COTI's website. Users will be able to open wallets via the COTI website and applications, as well as during the checkout procedure on COTI-powered merchants' websites.

Debit cards

To connect the COTI network with other payment rails, COTI is offering users access to debit cards that link directly to COTI wallets. The rationale for offering these cards is that they will enable users to effect payments from their COTI wallets when dealing with merchants that have not yet integrated with COTI.

COTI users will be able to specify their preferred currency each time they create a virtual debit card. When a purchase is made using a card linked to a currency that does not match the payment currency, COTI's exchange will automatically convert the required amount of the cardlinked currency to the purchase currency, thereby mitigating third-party currency exchange fees.

The relative complexity of digital currencies continues to undermine their adoption by mainstream consumers. The COTI team aims for its consumer offerings to abstract this complexity from end-users, with a view to increasing digital currencies' mainstream adoption.

In addition to supporting a variety of payment, storage and exchange use cases, COTI's wallet will provide an ideal entry point for mainstream consumers looking to venture into the digital currency domain for the first time.





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4.2 For Merchants

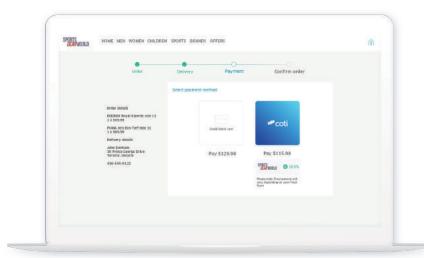
The second pillar of the COTI network's success is the extent to which it can attract and retain a large base of merchants that accept payments using COTI's rails. To this end, COTI is developing a suite of merchant tools and services that make COTI a compelling proposition for merchants, as an addition to, or as a replacement for, their existing payment systems.

Processing tools

COTI is developing processing tools that will enable merchants to start accepting payments from COTI wallet holders. Consumers who visit COTIpowered merchants' websites, but do not hold COTI wallets, will be invited to open wallets instantly as part of the checkout process. Merchants will be able to choose whether they wish to connect to COTI's payment rails via API or by embedding an iFrame into their websites. The merchant onboarding process will be streamlined to the point that integration can be completed within a few hours. The integration process will be made simpler by the fact that COTI's processing solutions will be compatible with several widely-adopted e-commerce platforms (e.g., Shopify and Magento).

COTI-powered merchants will have access to a dashboard that provides detailed data and reporting functionality on their COTI network transactions. Within this dashboard, merchants will choose which COTIsupported currencies they wish to accept, as well as their preferred settlement currencies. Moreover, the dashboard will provide merchants with wallet-like functionality that enables them to make payments to COTI wallet holders and to other COTI-powered merchants, as well as to use COTI's currency exchange facility. Merchants will also be able to run their own Full Node with a customised wallet to streamline the transactional experience for customers.

As COTI's network grows, COTI will introduce additional solutions for merchants, including supplier and employee payments, thereby enabling merchants to carry out a greater variety of payment functions from within the COTI network.





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Hedging services

COTI recognises that one of the barriers preventing merchant acceptance of digital currencies is the volatility they may be exposed to between the time a payment is received and the time of settlement. COTI will remove this barrier by providing COTI-powered merchants with access to hedging services that enable them to reduce, or eliminate, their exposure to nearterm currency fluctuations.

 To mitigate a merchant's exposure to fluctuations in COTI's price, put options will assist merchants with securing future exchange rates. In the early stages, these hedging services will initially be limited to a 30-day period and will only cover payments denominated in COTI coins. A Black-Scholes option model will be used for the put option price, while the option premium will be calculated based on the option strike price, the option term and COTI's price volatility.

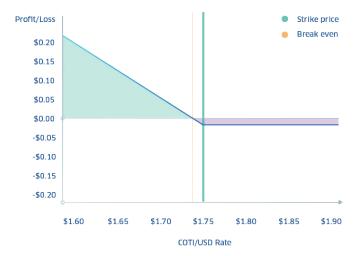
A simplified example of a 30-day option contract that would enable a merchant to hedge its downside exposure to COTI relative to the USD, together with a simplified depiction of the option's hypothetical payoffs, is provided in Exhibit 4: Simplified example of a 30-day put option.

COTI will create an internal derivatives market that enables network participants to enter forwards contracts and buy and sell put/call options that are denominated in COTI coins. Over time, derivative pairings, such as COTI/USD, will be expanded to meet market developments.

COTI will assist derivative market participants in mitigating counterparty risk. When entering forwards contracts or selling call/put options, market makers will be required to deposit collateral into a special margin account that is denominated in COTI coins. The margin requirement will be lower for network participants with high Trust Scores and higher for those with low Trust Scores.

EXHIBIT 4 Simplified example of a 30-day COTI put option





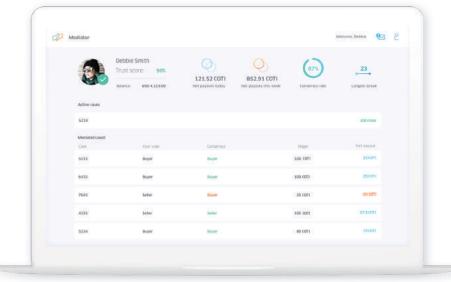


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4.3 For Mediators

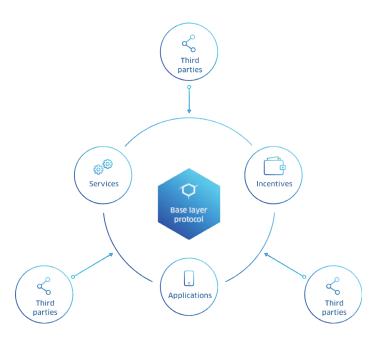
The third pillar of the COTI network's success is the extent to which it can attract and retain a sufficient volume of capable mediators to address the volume of disputes occurring in the network at any given time. In addition to having sufficient economic incentives, as described in section 3.3: The Mediation System, mediators require tools to facilitate their contributions to the dispute resolution process.

COTI is developing a separate application to accommodate mediator use cases. The mediator application will largely resemble the consumer wallet, but will offer enhanced functionality that enables mediators to serve their roles effectively. Amongst other functions, the application will allow mediators to accept invitations to receive and review caseload data, to place wagers, and, in the event of successfully contributing to a mediated outcome, to receive payouts in COTI.



4.4 External Projects

The COTI network will enable external projects to build their applications based on COTI's innovative distributed ledger technology. To this end, COTI is developing a suite of tools, services and incentive programs that will support third parties with migrating their technology to COTI's base layer protocol.





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5. Regulatory Approach

COTI's legal advisors are laying the licencing and regulatory foundations that will enable the COTI network - and its native currency, COTI - to achieve global scale and reach. While the digital currency landscape is currently characterised by a high degree of regulatory uncertainty, the COTI network stands to benefit from the onset of new digital currency-specific regulations.

Early adopters of digital currencies have long held the view that digital currencies will continue to thrive outside the strictures of governments. The COTI team's somewhat contrarian view is that. like the Internet before it, digital currencies will only come of age – and yield the greatest benefits to consumers and businesses – by operating within the bounds of the laws and regulations of sovereign states.

In order for digital currencies to achieve widespread adoption in payment. digital currency-related organisations – whether decentralised or not – they will need to adhere to the laws and regulations of the jurisdictions in which their end-users reside. And in the absence of digital currencyspecific regulations, organisations should take a proactive approach by adhering to the know your customer (KYC), anti-money-laundering (AML) and Treat Clients Fair (TCF) standards, which are now commonplace in the provision of financial services-oriented activities.

Although digital currencies today are largely unregulated, regulatory authorities in several jurisdictions have grown increasingly outspoken about their intentions to implement digital currency-specific regulatory regimes. Some jurisdictions – including Ecuador and Bangladesh – have altogether banned the use of Bitcoin and other digital currencies. However, much of the recent regulatory attention has centred on initial

coin offering warnings and the People's Republic of China's ban on it all together.

To promote the onset of suitable digital currency-specific legislation, the COTI team and its legal advisors are working with regulators globally to help shape the relevant regulatory frameworks and to share COTI's experiences as a global digital currency initiative.





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Licensable activity

Certain aspects of the COTI network's activity relate to the provision of digital wallet and exchange services, both of which are licencable activities in the jurisdictions examined. As such, COTI is pursuing licence authorisations globally in respect of the following:

- **Payments and money services.** Such licenses cover the provision of merchant processing solutions in fiat currency, enabling COTI-powered merchants to accept payments in digital and fiat currencies.
- **Exchange and e-wallet services.** Such licences cover the provision of exchange and wallet functionality, enabling COTI to provide individuals and merchants with the ability to hold, exchange and transact in digital currencies.

Pursuant to advice from its legal advisors, the COTI network will expand its licence portfolio to ensure maximum geographic coverage.

AML and KYC procedures

The COTI network is adopting appropriate AML and KYC procedures to ensure that its network cannot be used to facilitate money laundering or other illicit activity. COTI is inherently not conducive to money-laundering, as any user of COTI's wallet, exchange or processing solutions must undergo strict onboarding procedures. Notwithstanding its commitment to AML and KYC, COTI is similarly committed to protecting user privacy and has appropriate consumer data protection mechanisms in place.

COTI is not a security

According to advice received, the offering of digital currencies may also involve the offer and sale of securities, depending on the facts and the circumstances. And the offer and sale of securities is likely to face financial and securities regulation worldwide.

With respect to COTI's native currency, COTI's legal advisors have

examined the currency's unique features in consultation with additional legal experts from reputable law firms in several key jurisdictions. According to the legal opinions received, COTI does not classify as a security, and the sale of COTI coins to members of the public does not constitute a breach of the relevant regulations.

COTI is laying a global licencing footprint for its licensable activity, and is adhering to strict AML and KYC standards in all aspects of its activity – even those which are not currently subject to formal regulatory oversight.

The COTI network will benefit from greater regulatory clarity in respect of digital currencies. If properly designed, regulations will not constrain innovation, but rather function as enablers of mainstream digital currency adoption. The COTI team and its legal advisors aim to serve as catalysts for positive regulatory change and are working with regulators globally to make a meaningful contribution to the dialogue.





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6. Team

The COTI team is comprised of individuals with extensive experience in the payments, cryptography and financial services domains. The core team is supported by internationally recognised advisors with backgrounds in payments, asset management, banking, marketing and more.



Shahaf Bar-Geffen CEO

Shahaf is the co-founder and former CEO of WEB3, a leading multinational digital marketing firm. Shahaf holds a BSc degree in biotech and economics from Tel Aviv University.



Yoni Neeman Software Engineer

Yoni is a graduate in computer science from Tel Aviv University. He has previously held roles as a software engineer and full stack developer at a number of tech companies.



Erol Hallufgil Research and Software Engineer

Eli previously headed up the developers team at TechChain Solutions. He holds a master's degree in mathematics from the Technion, Israel Institute of Technology.



Stav Perle Cryptographer

Stav is a Yahoo! Inc researcher, a previous software developer at Intel Corporation and researcher at IBM. She holds an MSc degree in computer science from the Technion.



Tal Dadia Research Engineer

Tal was a former back-end developer and blockchain academic researcher. He holds an MA in financial economics and financial engineering from IDC Herzliva.



Anton Susionov Data Science

Anton is an expert in blockchain technology, applied mathematics and data science.



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David Assaraf Co-founder, Business Development

David previously served as the chief internal auditor at HSBC Israel and as an examiner in the credit risk unit of the Bank of Israel's banking supervision department.



Eyal Wagner Head of Legal

Eyal is a legal expert with vast experience in fintech. Eyal was the CEO of Safecap Investments and the group general counsel for Markets.com.



Yair Lavi Head of Operations

Yair was the former CEO and finance director at Plus500 UK. He has also held previous roles in financial planning and valuation strategy.



Gilad Hirsch CFO

Gilad has over a decade of experience at financial institutions including Ernst & Young, KPMG and the Bank of Israel.



Samuel Falkon

Co-founder, VP Community

Samuel has vast experience in the digital currency and fintech industries and has held previous roles in product development.



Neta Salomon

HR Manager

Neta has previously worked as an HR manager at a number of leading finance and hi-tech companies.

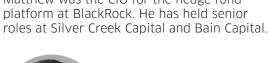


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Board of Advisors



Dr Matt McBrady Former CIO & MD BlackRock Matthew was the CIO for the hedge fund





Stas Oskin WINGS Foundation Co-founder

Stas heads up WINGS Foundation, a Swiss nonprofit focused on decentralised finance and governance systems.



Dr Zvi Gabay Partner, Barnea & Co.

An expert in financial regulation and securities law, Zvi is a partner and the head of capital markets at Barnea & Co.



Avi Chesed Co-founder, CEO Processing.com

Avi is the co-founder and CEO of Processing. com. He was previously the chair of the board of directors of Transact Europe Holdings.



Sebastian Stupurac WINGS Foundation Co-founder

Sebastian is the co-founder of WINGS, a smart contract facilitation platform operating on the DAPPS Fthereum blockchain



Stephan Wessel CEO Arcana Capital

Stephan is the founding partner of Arcana Capital. He has previously held senior roles at Rianta Capital and Gaydoul Group.



Steven Heilbron

Former CEO Investec Bank UK Steven has served as the global head of private banking and joint CEO of Investec Bank



in London.

Jon Avganim

Co-founder, President Processing.com

Jon is the executive director of Transact Europe Holdings OOD. Jon has founded and led several successful ventures in the international finance domains

For more information on the COTI team, visit

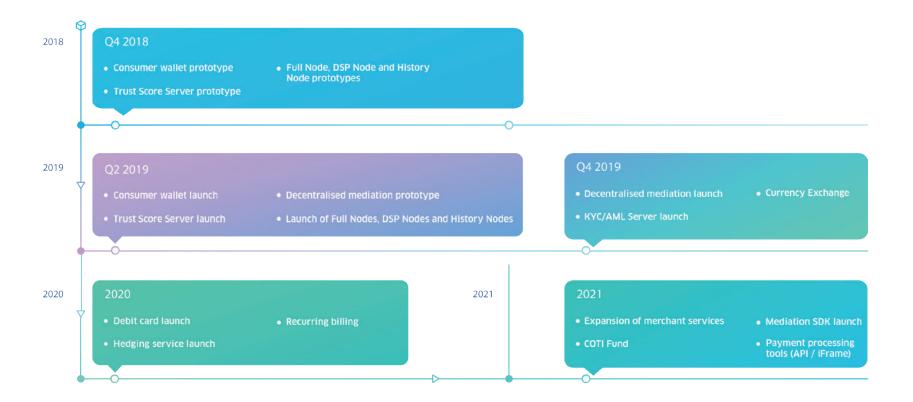
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7. Roadmap

COTI's roadmap sets out the key launch milestones that will shape development priorities between now and the end of 2021. The visual roadmap representation provided below is accompanied by detailed milestone explanations on the pages that follow.





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Development Progress to Date

Since its formation in early 2017, the COTI team has focused primarily on researching and developing the best purpose built solution for a digital payments network. The base layer protocol, modeled off of the DAG data structure, and the API for merchants are both in progress. COTI has also been working on developing its exchange infrastructure and consumer wallet offering and on defining the mechanics of its Trust Scoring Mechanism and Mediation System. The exchange and the consumer wallet are approaching completion and will be put to work this year.

Phase 1 Milestones - Q4 2018

The initial release of COTI's services in Q4 2018 will be limited to testnet.

- **Consumer wallet prototype.** The initial beta release of the consumer wallet will provide the baseline functionality of sending and receiving COTI coins and other digital currencies.
- **Full Node prototype.** This will encompass a beta version of the Full Nodes to demonstrate COTI's payment system functionality.
- **DSP Nodes prototype.** Coinciding with the release of COTI's Full Node prototype, a beta version of the Double Spend Prevention Node (DSP) will be rolled out to optimise standards for mitigating double-spending attacks.
- **History Node prototype.** To provide a functional solution for the size management of a maturing DAG structure, a beta version of the History Nodes will be released along with the Clusterstamp algorithm.
- **Trust Score Server prototype.** COTI will set the Trust Score Algorithm into motion and begin supplying Trust Scores to the Full Nodes.
- **Testnet launch.** The COTI testnet will be launched based on the functional prototypes of the servers listed above.

Phase 2 Milestones - Q2 2019

COTI aims to achieve the following milestones in Q2 2019.

- Consumer wallet launch. COTI's release of the consumer wallet will kickstart the COTI ecosystem, providing consumers with the ability to send, receive, exchange and pay with multiple fiat and digital currencies, including COTI. The iOS, Android and web application will initially support USD, EUR, GBP, BTC, ETH and COTI, with additional support to be rolled out on an ongoing basis subject to network demand.
- Launch of the Full Nodes, History Nodes and DSP Nodes. Users can begin to run their own independent Full Nodes, History Nodes and DSP Nodes
- **Trust Score Server launch.** At this stage, the Trust Score Servers will begin calculating Trust Scores in line with KYC/AML documentation and statistical parameters.
- **Decentralised mediation prototype.** COTI will release a prototype of its decentralised mediation system and will begin optimising it with a select group of mediators and test users.
- **Mainnet launch.** The network will begin to engage users to create wallets and run nodes. At this phase, COTI will be delivered to user wallets.

Phase 3 Milestones - 04 2019

COTI aims to achieve the following milestones in Q4 2019.

• **KYC/AML Server launch.** This component of the payment system will enable COTI to engage with international users and merchants by adhering to know your customer (KYC) and anti-money laundering (AML) requirements.



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- **Decentralised mediation launch.** Following extensive testing, COTI will implement its decentralised Mediation System, enabling mediators to contribute to case resolution and to be compensated in COTI coins. To coincide with the launch of the decentralised Mediation System, COTI will launch a dedicated application enabling mediators to receive caseloads and contribute to the consensus-building process.
- Payment processing tools (API). COTI's initial release of its payment processing tools will provide merchants with the ability to accept payments from consumers holding COTI wallets and to access rich reporting and analytics. Merchants will be able to integrate COTI's processing solutions via API and will be able to accept payments and receive payouts in various fiat and digital currencies, including COTI.
- Payment processing tools (iFrame). COTI will release an iFrame that merchants can embed in their websites, thereby streamlining the technical integration process. The iFrame will enable COTI wallet registration to occur as part of the checkout process on COTI-powered merchants' websites.
- **Exchange.** In order to support consumer and merchant activity. COTI will simultaneously roll out its exchange solution, allowing the wallet and processing services outlined above to connect seamlessly to sources of liquidity when exchanging funds between different currencies.

Phase 4 Milestones - 2020

COTI aims to achieve the following milestones in 2020:

Debit card launch. COTI will launch virtual debit cards that enable COTI wallet-holders to spend from their wallets using the payments rails of major card networks. COTI users will be able to obtain these cards for a nominal issuance fee, and will not be required to pay any ongoing

maintenance fees.

- **Hedging service launch.** COTI will launch a hedging service that enables merchants to limit or eliminate their exposures to fluctuations in COTI's market price.
- **Recurring billing.** COTI will enable merchants to use COTI's payment rails for recurring billing (e.g., subscription services).

Phase 5 Milestones - 2021

COTI aims to achieve the following milestones in the course of 2021:

- Expansion of merchant services. COTI will launch additional merchant services, with a view to playing an increasingly central role in merchants' payment affairs. These additional services will enable merchants to conduct an increasing array of operational functions, including payroll and supplier payments, through the COTI network.
- **COTI Fund.** The launch of COTI's Trust Scoring and Mediation SDKs will coincide with the launch of COTI's Fund, a pool of capital that will inject funds into third party development projects that are building on top of COTI's infrastructure. The Fund's principals, who will be responsible for the allocations, will be determined in part by the COTI community's preferences.
- **Mediation SDK launch.** COTI will expand the reach of its network of mediators, and corresponding systems, by allowing authorised third party developers to connect to the network and leverage the decentralised mediation capabilities. For example, a third-party payments network may wish to adopt COTI's decentralised mediation system as an alternative to its existing centralised system. The SDK will make such integrations possible while enabling COTI to improve



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• the system, both in terms of efficacy and cost-effectiveness.

COTI has set out an ambitious, yet achievable, development roadmap. This roadmap represents the COTI team's current understanding of the launch sequence that will ensure the COTI network delivers the maximum achievable benefits to all network participants within the shortest amount of time possible. Notwithstanding the aforesaid, the COTI team is committed to working with the COTI community to expand or otherwise adjust the characterisation and prioritisation of the key milestones where necessary.



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8. Risk Factors and Legal Disclaimers

IMPORTANT NOTICE: PROSPECTIVE SUBSCRIBERS SHOULD CAREFULLY READ THE WHOLE OF THIS OVERVIEW DOCUMENT. TOGETHER WITH THE "LEGAL CONSIDERATIONS. RISKS AND DISCLAIMERS" AVAILABLE ON COTI.IO. WE RECOMMEND THAT YOU CONSULT WITH A LEGAL. FINANCIAL AND TAX PROFESSIONAL OR OTHER ADVISOR FOR FURTHER GUIDANCE PRIOR TO PARTICIPATING IN THE COTI LIMITED TOKEN SALE. YOU ARE STRONGLY ADVISED TO TAKE INDEPENDENT LEGAL ADVICE WITH RESPECT TO THE LEGALITY OF THE TOKEN SALE IN YOUR JURISDICTION. YOU SHOULD NOTE THAT YOUR ACKNOWLEDGMENT AND ACCEPTANCE OF THE TOKEN SALE'S TERMS AND CONDITIONS REPRESENTS THAT YOU HAVE SOUGHT PRIOR INDEPENDENT LEGAL ADVICE.

Please note that this is a summary of the full terms, which can be found on www.coti.io, and must be read in full before: (i) making use of this Overview Document, the technical whitepaper, the Token Sale Summary and any and all information available (the "Available Information") on the website(s) of COTI Limited (the "Company") at www.coti.io (the "Website"): and/or (ii) participating in the Company's token sale outlined in the Available Information (the "Token Sale"). Any undefined capitalised terms below shall have the meaning set out in the "Legal Considerations, Risks and Disclaimers" section. This summary should not be relied on in place of reading the "Legal Considerations, Risks and Disclaimers" paper in full.

 The full version of the "Legal Considerations, Risks and Disclaimers" mentioned above applies to the Available Information and to all information available on the Website. The contents of the "Legal Considerations. Risks and Disclaimer" section outlines the terms and conditions applicable to you in connection with (i) your use of this Token Sale Summary, the technical whitepaper and of any and all information available on the Website; and/or (ii) your participation in the Token Sale, in each case in addition to any other terms and conditions that we may publish from time to time relating to Available Information and the Token Sale (such terms hereinafter referred to as the "Terms").

- The information set forth in the "Legal Considerations. Risks and Disclaimers" section may not be exhaustive and does not imply any elements of a contractual relationship. While we make every reasonable effort to ensure that all information – (i) in the Available Information; and (ii) as available on the Website – is accurate and up to date, such material does not constitute professional advice in any wav.
- The Company does not recommend purchasing coins for speculative investment purposes. Coins do not entitle you to any equity, governance, dividend, voting or similar right or entitlement in the Company or in any of its affiliated companies. Coins are sold as digital assets, similar to downloadable software, digital music and the like. The Company does not recommend that you purchase coins unless you have prior experience with cryptographic coins, blockchain-based software and distributed ledger technology and unless you have taken independent professional advice.



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- Citizens, nationals, residents (tax or otherwise) and/or green card holders of Restricted Jurisdictions and Restricted Persons (as defined in the full version of "Legal Considerations, Risks and Disclaimers") shall not process the Available Information and/or are prohibited from participation in the Token Sale, or the purchase of coins, or any such similar activity
- In no event shall the Company or any current or former Company Representative be liable for Excluded Liability Matters (as defined in the full version of "Legal Considerations, Risks and Disclaimers").
- The Company 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 accuracy and completeness of any of the information set out in the Available Information.
- You should carefully consider and evaluate each of the risk factors and all other information contained in the Terms before deciding to participate in the Token Sale.
- COTI coins are not intended to constitute securities in any jurisdiction. This Overview Document does not constitute a prospectus or offering document and is not an offer to sell, nor the solicitation of an offer to buy, any investment, security or financial instrument in any jurisdiction. COTI coins should not be acquired for speculative or investment purposes with the expectation of making an investment return. COTI coins may be impacted by regulatory action, including potential restrictions on the ownership, use, or possession of such coins. Regulators or other competent authorities may demand that COTI revise the mechanics and functionality of COTI coins to comply with regulatory requirements or other governmental or business obligations in the future.

Jurisdiction-specific regulatory disclaimers

- Non-distribution to the public in the United States: COTI coins will be made available only to subscribers who meet the "accredited investor" status. A thorough assessment will be undertaken by an external reputable US-based service provider for such applicants in an effort to deploy prudent compliance standards and to offer the COTI coins in line with regulatory frameworks to those who have the capacity to comprehend any perceived risks.
- Notice to prospective United Kingdom subscribers: In the United Kingdom, at the date of examination and to our best knowledge, this Overview Document is not a financial promotion, as COTI has been advised that COTI coins are not a specified investment to which the Financial Services and Markets Act (FSMA) 2000, as amended, applies. Accordingly, the provisions of the FSMA (Financial Promotion Order 2005), as amended, do not apply to the marketing of COTI coins in the United Kingdom, and this document may be distributed to any person in the United Kingdom without breaching the General Prohibition in FSMA. COTI coin holders do not benefit from any depositor or investor protection regimes, such as the FSCS in the UK, nor any recourse to any financial dispute services, such as the Financial Ombudsman Service in the UK.
- Notice to prospective Australian subscribers: Under Australian law, as of the date of examination and to our best knowledge. COTI coins do not constitute a Managed Investment Scheme under section 9, nor a derivative under section 761D of the Corporations Act, nor do they qualify as a share as that concept is understood in Australia. COTI coins are not any other type of financial product under the Corporations Act, and the COTI network does not constitute a non-cash payment facility. Therefore, none of the offerings, interests, or any constituent material relating to the COTI coins, have been reviewed, qualified or approved by the Australian



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Securities and Investment Commission or any other government or regulatory body in Australia, nor is there any intention to do so.

- Notice to prospective Gibraltar subscribers: At the date of examination and to our best knowledge, the COTI coins are not a regulated product, nor is the act of distributing or marketing them within Gibraltar a regulated activity in Gibraltar. The Gibraltar government announced in May 2017 that it is making amendments to regulations under the Financial Services (Investment and Fiduciary Services) Act 1989, with a proposed operative date no later than 1 January, 2018. Proposed transitional arrangements will permit firms that apply to the Gibraltar Financial Services Commission (GFSC) in the first three months from the operative date to continue providing Distributed Ledger Technology (DLT) activities until their application is processed. COTI intends to apply for DLT business regulation within the required time frame.
- Notice to persons in the People's Republic of China: On 4 September, 2017, the People's Bank of China along with six other ministries of the People's Republic of China (PRC), (the Cyberspace Administration of China, the Ministry of Industry and Information Technology, the State Administration for Industry and Commerce, the China Banking Regulatory Commission, the China Securities Regulatory Commission and the China Insurance Regulatory Commission) announced that initial coin offerings (ICOs) and other forms of digital currency financing are prohibited in the PRC. Accordingly, the distribution of this Overview Document in or into the PRC is restricted and no invitation is made by this Overview Document or the information contained herein to enter into, or to offer to enter into. any agreement to purchase, acquire, dispose of, subscribe for or any other dealing in COTI coins, other securities, or structured products in the PRC. This Overview Document is being communicated only to persons outside the PRC and has not been reviewed by any regulatory authority therein.

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