



ELITE CASH (ELC)

Whitepaper v.2.0

Executive Summary

The document below covers the main aspects of how Elite Cash (ELC) works and an overview of how transactional cryptos can make a difference in real-world payments.

Elite Cash is a set of blockchain software solutions and a utility payment token that is decentralized, advanced, and secured. In other words, it's a modern cryptocurrency that retailers can use to accept payments in crypto — be it in a cafe, restaurant, or beauty salon.

Our product integrates into existing point-of-sale systems or offers a standalone solution without the need to purchase additional hardware. We hedge the risks, increase transaction speed, and streamline payments in multiple cryptocurrencies.

Customers can scan a QR code using our wallet or any crypto-compatible wallet to pay in more than 15 cryptocurrencies currently supported by Elite Cash.

For merchants, the free enrolment can be done via their POS (with software update) or installing the Merchant App provided by Elite Cash.

The in-house developed proprietary system is now migrated to ETL. It includes "Elite Cash Core" in the form of an ELC smart contract and services responsible for keeping merchant accounts and balances, merchant interfaces (Merchant Web Panel, Merchant App, POS integrations and e-commerce plugins) and consumer apps (non-custodial cryptocurrency wallets).

The technological platform focuses on security, scalability, performance and the lowest possible cost. Ideologically, Elite Cash focuses on bridging the decentralized financial world with retail, ensuring our non-competitive position with transactional cryptocurrencies. It offers an open ecosystem for everyone to benefit from – Relays, Gateways, Regional Leaders, Customers, and Merchants.

A nascent decentralized payment system can only succeed with local support – this is what Elite Cash regional leaders offer. Companies or individuals who oversee the local gateways and merchant enrolments and earn money for doing so.

Our in-house team brings together crypto-evangelists, math experts and security specialists. We have led the software development businesses for over ten years, and our company is now stronger than ever with 50+ enthusiasts.

Problem Statement

Centralized payment systems are akin to silos of financial data dependent on the banking system and industry ready for a transformation.

Roughly two billion people are unbanked [\[1\]](#) and have little or no access to personal financial services. The most critical part of the "be your own bank" concept is the ability to pay with crypto at any local shop or online. That's where most crypto offerings fall short, and "crypto enabled" payments cards that rely on central processors are not the answer.

What does it take to move from pure speculation using digital assets to real traction and transactional cryptocurrencies taking their niche of digital cash? While the infamous "mainstream adoption" could be far away, we at Elite Cash believe that there are concrete steps to grow the adoption and create real cases of transactional usage.

The current learning curve and legal complications might not be worth the time to start accepting crypto from the merchant standpoint. There are technological challenges, administration of payments, and a vast pool of new coins to manage. Elite Cash takes all of that off their shoulders, bring new customers and even further marketing and data analysis opportunities.

Customers using fiat within their banking system have to go through costly cross-border payments, strict KYC limitations, and virtually no privacy controls. Paying at local stores with crypto and being your own bank with a cryptocurrency wallet solves that too.

Market Overview

Digital Payments Industry

The balance of force in the payments industry continues to shift towards digitization. Thus, the total transaction value in the digital payments segment was valued at \$3,265,209 million in 2019. If their growth dynamics remain the same, the entire transaction value is expected to show an annual growth rate of 13.5%, resulting in a total amount of \$5,411,354 million by 2022 [\[2\]](#).

At the same time, today, the situation in the digital payments segment is quite ambiguous. Visa and Mastercard still significantly dominate the payment landscape. In the US, for example, these companies account for almost half of online payments [\[3\]](#).

However, the hegemony of major players is gradually wearing off. Global market customers use an array of local payment methods, such as Alipay, Tenpay and UnionPay in China, Boletos and domestic credit cards in Brazil, SEPA Direct Debit, SOFORT, and Giropay in Germany[\[4\]](#).

With the increasing strength of new market players, platforms, & technologies, payment methods are also emerging in the digital payment space.

Respectively, there is an expectation for Omnicommerce – the ability to pay using the same method regardless of whether you're buying goods in-store, online or via a mobile device. This shift precipitates a need for retailers to adapt to fast, simple and secure mobile payments [\[5\]](#).

Mobile Payments Industry

According to statistics, the total transaction value in the mobile POS payments segment amounts to \$391,435 million in 2018, with experts predicting further growth of up to \$1,328,244 million with 977.2 million members by 2022 [\[6\]](#).

On the other hand, 451 research's VoCUL Leading Indicator survey [\[7\]](#) shows that the percentage of consumers planning to use mobile wallets has remained stagnant since Apple launched ApplePay, growing from 24% in December 2014 to just 26% in September 2017. While contactless POS penetration rates are increasing in the US, the value proposition for digital wallets remains undeniably nascent.

In order to change it, the next wave of consumers, who are perfectly comfortable with cash, cards, and smartphones, which work well and are accepted ubiquitously, needs to be attracted [\[8\]](#).

The next-gen customers are already roaming among us. In Britain alone, 22 million people are already managing their current bank account from their phone screens. Industry analyst, CACI, has predicted that 35 million people (72% of the UK's adult population) will use banking services via a mobile app by 2023 [\[9\]](#).

Cryptocurrency Industry

What exactly is happening with the cryptocurrency industry in this matter? Let's start with the good news: according to Coinmetrics [\[10\]](#), Bitcoin transaction's dollar value has outperformed that of payment processors such as PayPal and Discover by a wide margin. Moreover, transaction fees of the oldest crypto are 6,000 times cheaper than traditional fiat transfer – at least according to Bank of America (BoA)'s own rates (\$45 per transaction, compared to an average transaction fee of \$0.46 for Bitcoin) [\[11\]](#).

Around 7% of users from the largest cryptocurrency markets own crypto, and another 4% plans to buy soon (according to the survey [\[12\]](#)). By 2018, around 25,714,000

people will hold one or more crypto wallets. That number is almost eight times higher than it was in 2015 [\[13\]](#).

However, there are significant barriers for the whole crypto industry development. One of the main issues is a liquidity problem laying concealed by the media hype. The apparent fact is that without driving a sufficient influx of the real-life transactions into the field, the future of crypto is in real trouble.

Look for yourself: only 7.8% of \$3.7 billion raised by various initial coin offerings in 2017 were actually related to payments [\[14\]](#). While teams from all over the world are working to resolve this issue, the total amount of transactions these projects generate is still critically lagging. That is especially true in regions like Africa, Latin America, South-East Asia, and Central & Eastern Europe.

What is the solution to this problem? We believe it lies in generating a sufficient amount of real-life transactions and traction with the real economy. How? Well, this whitepaper explains this very problem.

Solution & Vision

Core Principles

Our core principles reflect values we want to introduce to the world of cryptocurrency payments and technology in general:

- **Security.** We will use all the power of blockchain technology to secure each transaction in our system.
- **Openness.** We want our system to be transparent to all our clients and open to new participants to add more value to our ecosystem. It means trust [\[15\]](#), fairness, and high scalability.
- **Privacy.** While keeping the system open, we care about user privacy. All private data not essential for transaction properties will be kept safe. Customers will be able to delete their personal data upon request according to the latest data privacy laws.

- **Convenience.** We intend to provide a solution with minimal barriers for Merchant adoption, so they do not need to reinvent their businesses just for a new payment option. We aim to create seamless processes of Customer-to-Merchant payments that are easily understandable, secure and fast.
- **Greater good.** As with all other economies, cryptocurrency is about a shared community [16], and we want to give back to it. It's required to provide all participants of our network with unparalleled benefits to motivate them to spread the word, which, in turn, will lead to mass adoption and more excellent traction.

Customer Flow

If using crypto was easy, then everybody would use it. At the moment, that's simply not the case because there are too many steps involved to make a single transaction. However, the market grows fast, and the future of payments is knocking on an average person's door.

The goal of Elite Cash is to make payments easy and simple to use by a person who has no technical or blockchain expertise. That implies that a client only knows that Bitcoin is the same thing as cash, except digital.

Imagine Chang-Li, a 22 years old sales manager in the USA, surfs through the web and finds an excellent IT conference [17]. He enjoys spending time checking different projects, but the one that really captivates his attention is Elite Cash. The guys explain that whole cryptocurrency thing in a human form and give him \$10,000 worth of ELC as a giveaway to start exploring and playing with it. He downloads a wallet on the spot and receives his first digital transaction. From now on, he's a customer.

As a curious person, he decides to find a bar and drink by paying this new form of payment. He opens up his Elite Cash wallet and can see a few places on the map. He goes to the one he wasn't familiar with, orders some brewskis, and asks the waitress to pay with ELC.

The waitress steers him on over to the mQR that is standing on the table. Chang-Li simply scans it, enters the amount in the US value, chooses ELC and clicks "pay." After confirming payment with his fingerprint, the waitress can see a push notification on her phone. He looks at the wallet to check his balance and realizes that he also received some tokens as a bonus for paying in crypto—what an excellent app!

He thanks the waitress, takes a selfie of his happy face and shares it on social media [\[18\]](#). He receives many comments and now has to explain how this whole cryptocurrency thing works to his friends. He becomes popular.

Merchant Flow

David, a 32 years old restaurant owner from Margarita Island (Venezuela), has hundreds of tourists coming to his place every day. He is doing okay, but the inflation rate seems to ruin his business [\[19\]](#). The cash is worthless hour by hour, and credit card companies charge very high fees.

One day he decides to conduct extensive research on an alternative form of payment that can save and improve his condition. That's when he stumbles upon Bitcoin. It is relatively new and volatile, but the risk is worth it.

Apparently, he could open up a wallet and receive transactions directly. Still, it's way too hard to keep track of all of the non-cash-related payments in his Point-of-Sale system, which is why he finds an Elite Cash plugin that supports multiple coins and is compatible with his machine. He contacts the support team and gets the whole system set up within a day. He puts cryptocurrency stickers on his front door and shares this fantastic news across his social media to attract customers.

With the help of a local team, he also decides to host an event and explain to locals the benefits of using and accepting crypto. The event becomes a massive success, and now David has even more customers.

Every day he now serves about 10-30 tourists from different countries who pay in their favorite crypto. By this point, waiters can print out custom receipts with QR codes for each crypto and give them to clients in a respectful and presentable form.

David and all the waiters can track the transactions on their phones and POS system and receive SMS or push notifications if required. Due to this extra payment option, David saves money and attracts clients from all over the globe.

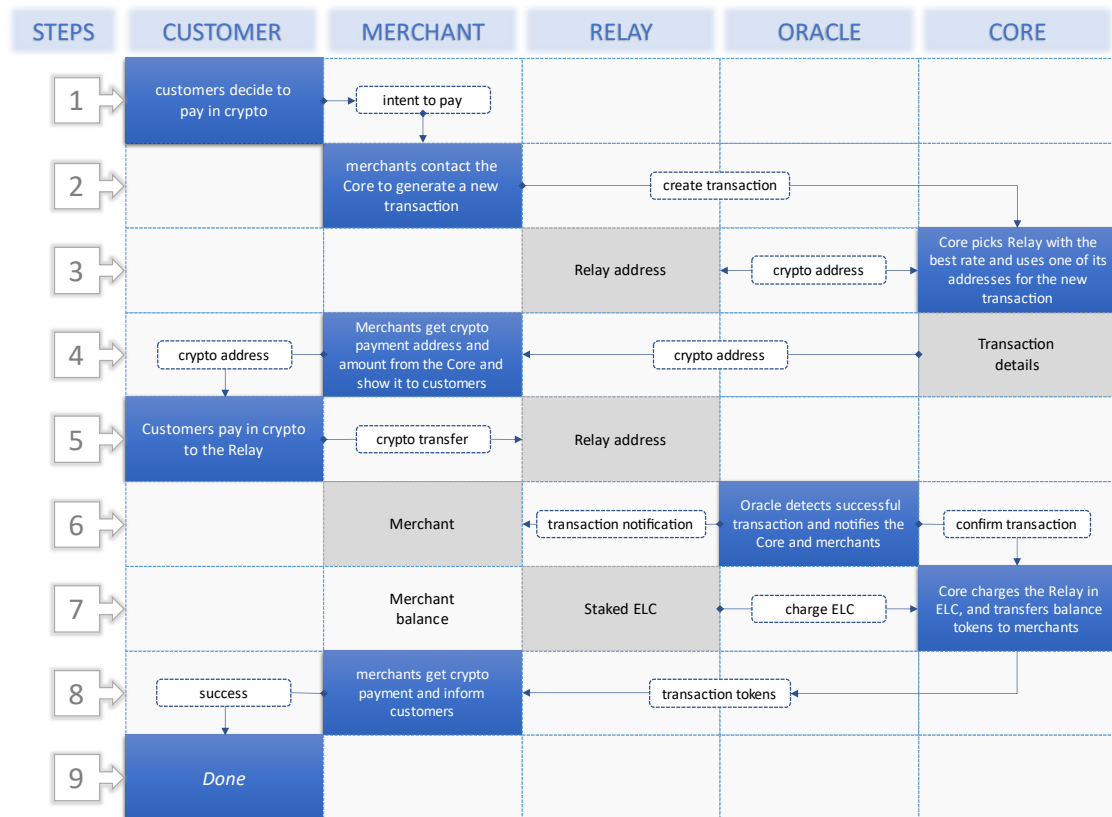
Architecture Overview

Introduction

Elite Cash system consists of the following components:

- **Elite Cash Core:** It's the heart of the system, responsible for keeping merchant accounts and balances, keeping track of exchange rates and most importantly – managing transaction lifetime flow.
- **Core Services:** These additional entities provide the interface to Elite Cash Core for various blockchains and external services. Among others, they include Relays (receive customer payments), Oracles (confirm payments) and Gateways (handle merchant settlements).
- **Merchant Interfaces:** various ways for merchants to interact with Elite Cash Core. These include Merchant Web Panel and Mobile apps, POS integrations and other interfaces.
- **EtherLite Cash Wallet:** while customers can use any app to pay the merchants, a wallet app is designed to make crypto payments via the Elite Cash system quicker and easier.

Payment Flow



1. The payment flow starts with the customer informing the merchant of paying via Elite Cash using the supported cryptocurrencies.
2. The merchant contacts Elite Cash Core via the Merchant Interface to create a new transaction for a particular amount in fiat to be paid in specific crypto.
3. Core picks one of the Relays with the best exchange rate. It uses this rate to calculate the amount in cryptocurrency for the customer to pay, takes available Relay crypto address and creates a transaction with all these details.
4. The merchant takes the transaction details and provides the crypto address and amount in a QR code to pay the customer.
5. The customer transfers crypto to the Relay.
6. Then the transaction gets picked up by the Oracle, which calls the Core to confirm the payment. Also, it notifies the merchant (via SMS or push notification) with a payment confirmation.
7. Core marks the transaction as confirmed and charges Relay from the ELC balance it staked earlier. Also, it transfers a corresponding number of fiat-pegged tokens to the merchant account.

8. Notification about successful payment reaches the merchant, who can now finalize interaction with the customer.
9. Finally, the customer is pleased and satisfied.

Done!

Now let's discuss all these components in detail.

Elite Cash Core

As mentioned before, Elite Cash Core is the central part of the system. It needs to be secure and transparent to all participants. The best way to guarantee this is to implement it as a smart contract on the ELC blockchain [\[20\]](#). Let's explore the pros of such a solution:

- **Transparency:** The smart contract code of Elite Cash Core will be open for review by third parties. Also, all data stored by the smart contract can be accessed and reviewed [\[21\]](#).
- **Pseudonymity:** all participants in the transaction are operating under aliases so that no personal information will be revealed to the public. Of course, we are required to do some degree of KYC (depending on merchant jurisdiction). However, this information will stay off the Core.
- **Security:** The blockchain secures the whole payment space. All actions are signed and confirmed transactions are almost impossible to alter. That is further supported by the fact that Elite Cash Core will run on the main ETL chain so that the whole ETL ecosystem will guarantee security.
- **Scalability:** because Elite Cash Core will run on the main ETL blockchain, it will theoretically have access to all the computational and storage resources of the ETL blockchain.
- **No final costs:** because of the way ETL manages resources [\[22\]](#), participants in the system do not pay for transactions but stake funds to use storage, computational and network resources as needed. If a merchant stops using Elite Cash, all resources staked to process transactions can be refunded.
- **Performance:** another ETL advantage is its speed. It already manages thousands [\[23\]](#) and potentially millions of transactions per second.

There are some cons of using smart contracts like Elite Cash Core (such as varying resources cost or inability to contact external services from the smart contract), but the pros vastly outnumber them.

Core Services

Core Services help Elite Cash Core to communicate with the outside world. Designed to be small and primarily self-contained, they allow for greater scalability of our system.

Three primary services are working with Elite Cash Core:

- **Relays:** accept Customer payment in crypto on behalf of Elite Cash Core.
- **Oracles:** keep track of Relay payment addresses and notify the Core when payment is received.
- **Gateways:** responsible for processing merchant settlements from EtherLite Cash Core in fiat or crypto.

Other minor services are working with the Core (like exchange rate monitoring services, system admin trackers and notifiers, and more). However, these 3 are the most important ones. Please read further to understand them in detail.

Relays

While working with the Core, Relays are entirely independent of the system and can be outsourced to anyone willing to accept a given cryptocurrency. They could be exchanges or cryptocurrency core teams – all they need is to stake funds, choose an exchange rate and provide a list of addresses to accept crypto from the Customers. The Core and Oracles do the rest, such as monitoring payments and charging Relays from the funds staked.

Relay interface with the Core will be open and fully documented and will provide an open-source reference Relay implementation for anyone to use.

Oracles

With the 3rd party Relays accept payments, an entity should keep track of them and the entire transaction confirmation process. It is a job for Oracles [\[24\]](#). Here is what they do:

- Validate addresses provided by Relays.
- Monitor customer payments and notify Core to confirm transactions when payments are received.
- Notify merchants about received payments.
- Unlike Relays, Oracles will be operated by our team, at least in the first iteration of the Elite Cash System.

Gateways

After Relays receive crypto from customers (and Oracles confirm this process), the Core adds the appropriate funds to the merchant's address. These funds are represented by tokens pegged to a particular currency (like USD-tokens, BTC-tokens, and more) issued by Elite Cash Core. To turn these tokens into actual money, we'll need Gateways.

There will be two types of Gateways – Crypto Gateways and Fiat Gateways [\[25\]](#). Crypto Gateways will be global and will not have any additional fees. However, since fiat settlement conditions vary from country to country, Fiat Gateways will be localized and might charge additional fees. When approving settlements, merchants can select a particular Fiat Gateway which works best for them.

Merchant Interfaces

Here are some of the ways a merchant can work with Elite Cash Core:

- **Customer Web Interface:** requires the least possible effort from the merchant. Each registered merchant gets a direct URL that can be shared with the customer. The customer, in turn, opens this URL, enters an amount, selects which cryptocurrency to pay in, and gets presented with the crypto address for the transfer.

- **Merchant Web Panel:** basically, it is the same process as mentioned above but requires the merchant to issue an invoice to the customers and only show them the resulting crypto payment address [\[26\]](#).
- **Merchant Mobile App:** much like Merchant Web Panel, but uses a native iOS/Android [\[27\]\[28\]](#) application which would be preferable and easier to use.
- **POS Integration:** If the merchant already uses a POS system [\[29\]](#), we work directly with different POS providers and incentivize them to add Elite Cash payment support to their systems with technical assistance from our specialists.
- **Other custom integration:** Elite Cash Core's direct interface will be thoroughly documented. The 3rd party providers can write their own integrations with our input.

All these interfaces are set up to make the merchant's work with Elite Cash easier. However, we did not forget about the customers, see what we offer them in the next chapter.

Customer Wallet

By design, our customers can pay with any cryptocurrency wallet [\[30\]](#) [\[31\]](#). Each transaction has its own payment address that is just a regular address in a particular blockchain and payment confirmation that comes when the transaction is added to the blockchain (or receives several confirmations, depending on the amount).

We have developed our own wallet to ensure the speed and convenience of payments. Here's what the users already have when using Elite Cash mobile wallet:

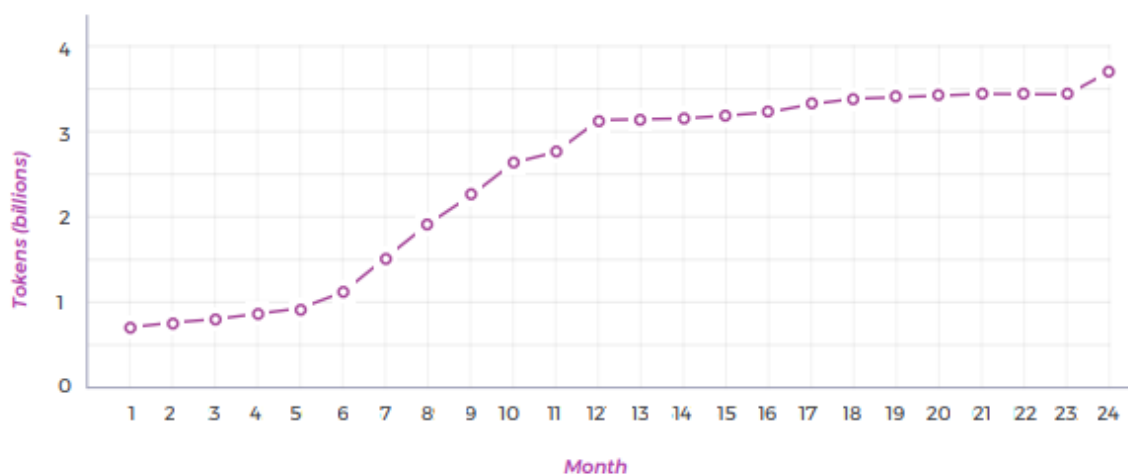
- Native iOS and Android applications.
- Deterministic wallet with a single seed phrase to backup all the private keys in all the cryptocurrencies.
- Monitoring balances on many addresses in the same wallet, showing fiat equivalent with current exchange rates.
- Support of ELC [\[32\]](#) and Ethereum tokens.
- Faster transaction confirmation when using our wallet for payment.

Here are some features **coming up in v2.0** (currently in development):

- Merchant Catalog to help customers find the nearest merchant that accepts Elite Cash
- Extra incentives for using the system, like special offers from merchants, premium currency airdrops, and many more
- Extra features are not directly connected with Elite Cash. Registered users can keep a synced address book, pay other users by their username without revealing their address, single-click ELC account creation, and more.
- A built-in exchange for numerous cryptocurrencies

Based on lockup periods for different stakeholders and incentive models for both merchants and customers, we can precisely know the total number of tokens available on the market each month, thereby helping to prevent ELC token price manipulation.

Available Market Supply During the Distribution Period



Liquidity Reserve

Liquidity Reserve is a pool of tokens used as incentives for transactional usage within the Elite Cash network.

Elite Cash intentionally distributes fewer ELC tokens to ecosystem members to create less selling pressure on ELC tokens, which means demand is projected to be always greater than the current supply.

As the initial ELC Liquidity Reserve is exhausted, Elite Cash Core will start buying ELC tokens from the open market for ELC accumulated from the transaction exchange rate margin.

Ongoing purchase of ELC tokens from the exchange will help establish an environment where ELC token value correlates with the purchasing power and habits of cryptocurrency customers and the number of merchants who convert cryptocurrency into local fiat currency. In other words, the ELC token shows an approximate dynamic of growth or decline of the market involvement.