



Goldencoin

# White Paper

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## EXECUTIVE SUMMARY

Goldencoin is a next generation crypto exchange with a foundation of security and performance. Goldencoin enables both the beginners and advanced traders to exchange crypto assets instantly with maximum safety. The platform has been developed with the best practices of UX in both desktop and mobile, which provides practical, experiential, effective, and meaningful ways to trade. Goldencoin also features unmatched 24/7/365 customer support that enables a hassle-free experience for trading communities worldwide.

“Goldencoin” is an online platform for members for selling/buying purposes through its digital currency “Golden Coin” or GDC. From buying a small lighter to a Home or Villa, Goldencoin makes the non-regulated transactions smoother, faster in any part of the planet, by keeping people identities anonymous. And it is not just about the new products, a member can invest with Goldencoin to get tremendous returns. A place to buy. — Get anything on planet at a click of mouse for unmatched prices, quite cheaper as compared to prices on traditional brick-and-mortar or even other online portals. A place to sell. From a conglomerate wanting to sell big machines, to a next door retailer or a housewife looking for buyers for her antique stuff, marketplace offers a common platform to all. A place to experience. Offering a wide range of products and services Goldencoin is emerging as a natural choice for hundreds of thousands of individuals. The millions of products listed everyday with detailed descriptions makes it easier for a buyer to make the right choice.

Goldencoin is as ambitious as the team behind it — a team that includes leaders and senior developers with a wide variety of experience - from working in a \$100 million valued AI cybersecurity start up that deploys solutions to the biggest telecoms in the USA, to top security experts from the biggest Nordic banks, as well as leaders from a global money transfer Fintech. These leaders and developers have teamed up and combined their knowledge and expertise to develop and deploy a platform that can finally deliver a secure, fast, and easy to use crypto exchange platform.

At the time of writing, the Crypto Market Cap hit \$661.2 billion while the daily trading volume of all cryptocurrencies exceeded \$74.3 billion. There are currently more than 2000 cryptocurrencies including almost 900 with capitalizations over \$1 million.

While the numbers are impressive, they overshadow the extensive problems of security, trust, and transparency in current exchanges. Goldencoin exchange aims to disrupt the industry and change that.

### **GOLDENCOIN exchange focuses on 4 main pillars:**

**Security:** In May 2019, Binance lost 7000 BTC due to a hack; prior to this, \$356 million in crypto was stolen only in the Q1 2019. The sums should be added to other \$8 billion reported, and this number does not include unreported thefts that may be occurring daily. GOLDENCOIN will provide a custodian layer of multiple regulated entities running a military grade hardware and banking grade software multi-sig solution with limited transfer capabilities to prevent any attacks and protect traders. With security as a core value of the platform, clients can be confident that their assets are secure.

**Transparency:** As a fully regulated exchange with industry-leading Compliance GOLDENCOIN will screen all altcoins in order to avoid any scam-related activities. As a company, GOLDENCOIN will set a new high standard for transparency driven results and will also empower trustworthy ICOs through their own token sale platform. We will also build internal blockchain-based information storage that will allow GOLDENCOIN to easily provide information to regulators if needed.

**Performance:** GOLDENCOIN will deliver the world's fastest trading algorithms and scalability for the platform and its customers with 24/7/365 live support. At GOLDENCOIN, each symbol's order book can process the maximum capacity of the platform. So if there is a spike in order operations, the GOLDENCOIN platform can handle it with no issues. And even in cases of higher customer activity, the platform will ensure a fair trading strategy.

**Innovation:** In creating a culture of innovation, GOLDENCOIN aims to produce the world's fastest matching engine as well as an AI-driven compliance solution and will feature a blockchain-based immutable storage solution. Traders will also be able to use GOLDENCOIN time machine to trade and experiment with past values of crypto and fiat assets to improve their trading skills with special sandboxed environments. In addition, news flash will automatically provide the most relevant news to keep traders updated.

## **PROBLEMS WITH CRYPTO EXCHANGES**

With the rising awareness of the cryptocurrencies among the general population, crypto trading moved from the dedicated crypto forums and personal messaging to the first iteration of the crypto exchanges back in the early 2000s. Most of the TOP 50 crypto exchanges today already count a few years of the operations and did a great job in raising the general interest in cryptocurrency and providing liquidity options for those looking to purchase some.

However, these exchanges were created by the people of questionable reputation who have no experience in cybersecurity nor the financial products. This opportunistic approach allowed them to bank on the short-term intensive growth of the interest in crypto trading, however, created a long-tail of problems that we're looking to solve.

**Hackers:** From phishing campaigns to sophisticated targeted malware, hackers are constantly evolving their techniques in an attempt to gain financial assets or steal confidential information. This has led to customer data being left vulnerable and exposed, and billions of dollars stolen.

When Bitcoin arrived, the decentralized nature of the currency was praised. While eliminating the middle-man, cryptocurrencies also introduced a big risk to the owner. Suddenly it's not the bank who is responsible for the security of valuable assets – it's the owner. This led to poorly implemented wallet security measures, lost coins, and cryptocurrency exchange hacks.

There is a number of exchanges that went down due to being hacked. Some of them have had funds stolen; others have had customer data compromised. This is the result of trading platforms being under constant attack from various hacker groups. At this moment, there has been reported \$8 billion worth of stolen cryptocurrency, and it can be assumed that this number does not include unreported thefts that may be occurring daily.

Research shows that the main causes of hacking are either poorly implemented security measures or insider threats.

Our experience running security teams in multi-million dollar start-ups and international banks gives us knowledge and best practices to mitigate those risks with confidence. At GOLDENCOIN security is our #1 priority. We will implement the best multi-layered security measures which will constantly be tested through internal and third-party security audits and full-fledged penetration tests.

**Lack of transparency:** The cryptocurrency market is still young, and regulations change constantly. It is a known problem that exchanges manipulate cryptocurrency prices. The main techniques are Wash Trading, Pump and Dump schemes, Dark Pool Trading, Shilling, and Whale Trades. Some of which are organized by exchanges themselves to generate extra volume or manipulate the price for their own benefit.

GOLDENCOIN will implement security measures using machine learning pattern recognition to detect and mitigate such activities. It is our core requirement to build an exchange that is compliant with all the latest KYC and AML regulations in place. Our KYC procedures and money laundering detection engine will prevent any fraudulent operations from happening by utilizing industry leading in-house software and AI solutions. As well, to be fully transparent, the GOLDENCOIN fee model will be publicly available to the client community.

**Bound to Tether dollar (USDT):** Most exchanges are bound to USDT. However, USDT has a shady history and no real transparency. Created in 2015 and initially branded as 'Realcoin,' Tether is a cryptocurrency that is purportedly backed on a one-to-one ratio with USD (for every USDT coin, Tether company keeps one USD in the bank). Tether was created as a 'stable coin,' which value is 'anchored' to a FIAT financial instrument and therefore is not subject to any volatility.

On April 30, the lawyers confirmed that the company behind USD stable coin Tether (USDT) only has enough cash to back three-quarters of its increasing supply<sup>4</sup>. Security researcher Tony Arcieri suspected it much earlier, stating in January "Tether is being used to effectively counterfeit hundreds of millions of dollars of perceived value, which are being immediately reinvested into Bitcoin to keep it from collapsing." In other words, Tether dollars could be created to artificially prop up the price of Bitcoin every time it falls.

To combat this issue, GOLDENCOIN is not going to use USDT; instead, we will pair with actual FIAT currencies and a FIAT gateway.

We are not saying "no" to stable coins in general. We will be listing stable coins which are proven to be transparent and officially audited.

**Performance and uptime:** The crypto industry is fast and volatile, and every second can lead to gains or losses. Losses made worse in situations when technology lets us down and goes offline at the worst moment. For

example, in 2017 Q4 when the price of Bitcoin increased rapidly, it led to a high volume of customers on services such as Coinbase<sup>6</sup> or Kraken<sup>7</sup>. As a direct result, these services faced recurring downtimes, leading to many publications encouraging customers not to engage with these services.

GOLDENCOIN solves this problem with an independent, scalable component architecture, in addition to blue-green deployment strategy which enables seamless deployments of each system component, even the matching engine. This means that product development does not interrupt service operations. For the service uptime, we will deliver 4 nine SLA (99.99%) uptime, giving us a 23.0s maintenance window a month.

**Empowering users:** A truly user-friendly interface and flawless experience for both the beginner and advanced traders do not yet exist. If a beginner wants not only to buy crypto but also trade it, they are forced to move onto another platform. This adds complexity in the process, as the user has to withdraw funds and then transfer it to another exchange; when they want a more advanced trading experience, it becomes both time and money consuming. Another issue is the lack of customer support, where minor issues can even take days to resolve. GOLDENCOIN will solve this.

## **GOLDENCOIN CORE VALUES**

### **SECURITY**

**Safe and secure:** With a background in working for international banks and renowned AI cybersecurity companies, we understand the importance of safety and security. By implementing bank-level security standards, we will do everything possible to ensure that customer's money is safe from any malicious activity.

**Two-factor authentication (2FA):** The first "factor" is the usual password standard for any account, the second — a code retrieved from an external device such as a smartphone or a physical device connected to the user's computer. Two-factor authentication will be mandatory for all our users from day one.

**Secure Cold Storage with Hardware security module (HSM) by Ledger Vault:** GOLDENCOIN became the first Baltic client of Ledger Vault — a multi-authorization cryptocurrency wallet management solution enabling financial



institutions to safe-keep their funds. Secure cold storage ensures that the majority of exchange resources are stored in a safe manner and can be moved only when the multi-signature transaction is authorized. Proper cold storage implementation ensures that no money can be transferred from our reserves without authorization from multiple GOLDENCOIN employees.

**Certifications:** When it comes to securing infrastructure and data - we strive to follow all of the industry best practices, including ISO/IEC 27001:2013 and the Crypto Currency Security Standard (CCSS). Regular audits will be made to ensure that all the needed internal processes and best practices are in place and working properly.

**Security audits:** Constant audits will be performed in order to remedy any potential issues quickly. We will also offer a bug bounty program to independent white-hat hackers. This way, we will be able to find and patch possible security vulnerabilities before the bad guys do.

**Advanced monitoring:** 24/7/365 performance monitoring and maintenance by a highly skilled Developer Operations and Security Operation Centre team, automated self-healing, scaling and failover mechanisms are all means to guarantee that any potential issues are resolved with little or no impact and all security events are investigated and responded to accordingly. In addition, a dedicated AML team from the classical banking sector will detect money laundering and fraudulent activity.

**DDoS protection:** We use a world-leading DDoS protection solution, which provides always-on detection and automatic inline mitigations that minimize application downtime and latency. In utilizing this solution, GOLDENCOIN ensures industry-leading availability and fast response times for users.

**DNSSEC:** Domain Name System Security extensions provide authenticity and integrity of DNS data. It's like HTTPS, but for DNS data. It authenticates DNS requests by verifying the cryptographic signature of data. The key that is used for the signature belongs to the ultimate source of data. It doesn't matter what server you get the data from, as long as the signature is verified - the connection is safe. This way our platform will mitigate DNS Hijacking attacks and ensure that after typing our URL, the client will always be sent to our IP address and no hacker owning a compromised DNS server can intercept the connection or put a fake website in front of the client.

**Web Application Firewall (WAF):** A Web application firewall monitors and blocks any attempts to exfiltrate data or assets from our infrastructure even

before they reach the server. Application firewalls can also authenticate customers directly; for example, they can allow or deny a specific incoming command from a particular user, whereas other firewalls can only control general incoming requests from a specific host. A WAF will enable protection from popular attacks such as SQL injection, application-layer DDoS attacks, cross-site scripting, and many more, making it even harder for hackers to compromise or impact our infrastructure.

**Secure privileged access:** To mitigate insider threats, we will be using a secure privileged access solution. This will ensure that not even our developers or system architects know passwords of privileged accounts. In addition, every action in an account will be recorded and easily traceable. Moreover, the actual passwords of privileged account will be changed and managed by the solution after every use.

**Engaging hacker communities:** Even before going live, we will host capture the flag (CTF) challenges. This will introduce us to ethical hacker communities and allow us to hire the best talent. Later we will introduce responsible disclosure and bug bounty programs to ensure security from outsiders.

## SECURITY FEATURES COMPARISON TABLE

Top 12 crypto exchanges by trade volume in 24 hours. Data from Q3, 2019.

Exchange	Hardware 2FA	Basic password strength check	Leaked password check	Password pattern check	DMARC	DNSSEC	IP Whitelist	Withdrawal address whitelist	Device manager
Goldencoin									
Binance	✓	✓	✗	✗	✓	✗	✓	✓	✓
Coinbase Pro	✓	✓	✗	✗	✓	✗	✓	✓	✓
Bitfinex	✓	✓	✗	✗	✓	✗	✓	✓	✗
Kraken	✓	✓	✗	✗	✓	✓	✓	✓	✓
HitBTC	✗	✓	✗	✗	✓	✓	✗	✓	✓
KuCoin	✗	✓	✗	✗	✓	✗	✓	✗	✓
Huobi	✗	✓	✗	✗	✓	✗	✗	✓	✗
Gate.io	✓	✓	✗	✗	✓	✗	✗	✗	✗
Upbit	✗	✓	✗	✗	✓	✗	✗	✗	✓
OKEx	✗	✓	✗	✗	✓	✗	✓	✗	✓
Bittrex	✗	✓	✗	✗	✓	✗	✓	✓	✗

## PERFORMANCE

**Scalability:** From the ground up, GOLDENCOIN is being built with scalability as one of our top priorities. Our platform is built on cloud infrastructure that provides fast, predictable, stable, and cost-efficient performance with capacity scaling and reaction times as fast as 15 seconds, no matter the scale. This includes scaling by client base's load from specific geolocation to reduce response time as much as possible, which ensures that our customers have the same fast and fluid experience all around the globe.

**High-performance Code:** Our prototypes are running modern and sophisticated languages and technologies such as Golang, Node.js, and JAVA. These languages provide the best performance and fast development pace, which allows for faster adaptation to user requirements and multiple platforms.

**Uptime vs. Downtime:** Any downtime is unacceptable. Whether it is caused by a surge of users, force majeure, or cyber-attacks. For example, an incident similar to Binance's 12-hour downtime on February 8, 2018, with an estimated loss of 1 million USD of revenue during this period or Kraken's 48-hour downtime<sup>10</sup> on January 12 that caused an estimated 2 million USD loss of revenue would be unacceptable.

Our objective is to be a benchmark to others on how fast, reliable, and predictable the trading experience can be no matter what.

**24/7/365 customer support:** Our customer support will assist customers in solving issues fast by introducing AI into the mix, which will automatically answer the most commonly asked questions. More complex issues will be handled by our skilled team. We want the issue to be resolved as soon as the support chat ends. No long email threads, no waiting— just quick solutions to get customers up and trading.

**User experience:** Our goal is to be a simple exchange that any customer could use. To achieve this, we completed a comprehensive competitor analysis, paying special attention to the main pain points and issues that traders experience daily, which then led us to data-driven designs as well as heat-mapping software solutions. Keeping in mind improved accessibility, we created better contrast, clear navigation, and clear headings and copy. To increase the feelings of trust, usability, and security, we designed a product that has inline help for the user at every step. In addition, minimal design

interactions will guide users throughout the trading process, creating a simplified user-focussed experience.

## INNOVATION

**Matching Engine:** By developing it in the modern programming languages. By using CPU level spin-locks, we are utilizing the deepest level of operations possible (Compare And Swap) to ensure atomic operations and high throughput. This will result in 1.5M operations per second, and as it's deterministic the fairness of the financial system is ensured, and we are working on formal proofs to improve it further.

**Blockchain-based immutable storage solution:** Using this storage solution will help establish a sequence of events in time which will allow immutable action history of any trading and wallet activity: deposit, buy, sell, cancellation, wallet top up, or withdrawal. This means at any given time GOLDENCOIN will have an unchangeable by design list of customer actions as well as internal exchange operations to provide to users or regulators on demand.

**Time travel:** By utilizing our exchange's full customer interface, customers will be able to trade in the past in a sandbox environment. Customers will be able to see if a trade was profitable and check what would have happened if a different trade was completed or if it was just left for HODL. The function will be useful for newcomers.

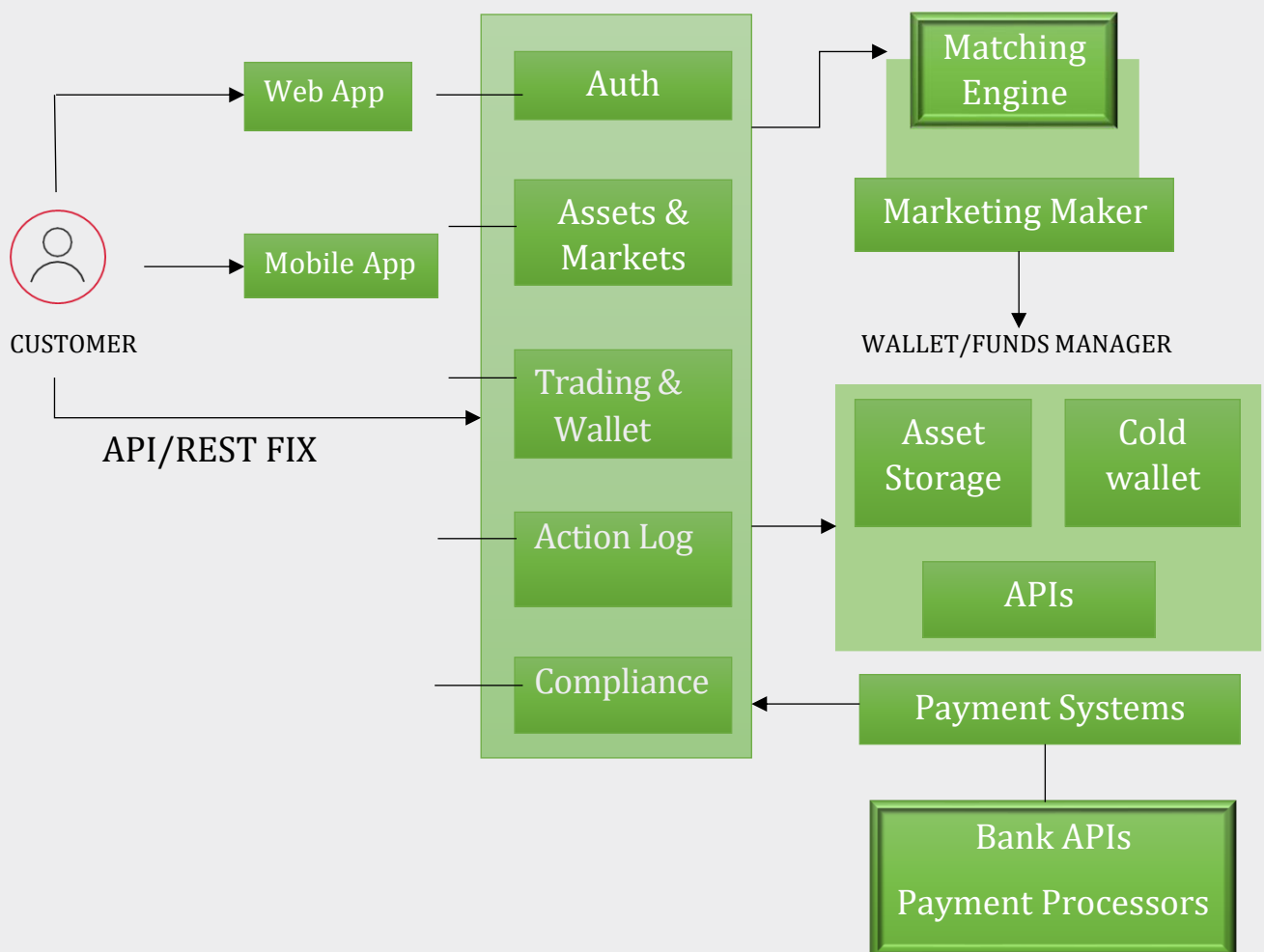
**News flash:** Cryptocurrency news and events strongly affect the price. We want users to be in the midst of these events. Our team will integrate news articles into our trading view. This helps traders to choose the next steps — whether to HODL or sell right away.

## TRANSPARENCY

**Crystal-clear transparency:** Transparency is a big issue for cryptocurrencies - nobody knows who the real owner of the account is. There is currently a large number of exchanges that provide no information on who runs them or even if they work legally as less than 10 % provide legal information. In the future, regulators will be forced to close non-transparent exchanges. GOLDENCOIN is ahead of the curve as we deliver a transparent and legally compliant solution to prevent future legal concerns.

**Altcoins screening:** Stock exchanges like NASDAQ have strict guidelines for adding new companies to protect the investors. GOLDENCOIN will carefully analyse the projects for listing to ensure only the most legitimate ones are allowed on the exchange. We will provide extensive resources, and libraries of information regarding the coins, so customers are fully aware of what they are trading.

## TECHNICAL ARCHITECTURE



Our platform is built on top of “12-factor app” principles, which allows us to deliver a software solution with both agility and resilience. Also, because it’s built using the best development practices, the product is robust, extensible,

flexible, and high-performing. Each component can be scaled individually to sustain increasing loads and mitigate issues without any interruptions to the service or reduction in performance.

The exchange is composed of infrastructure and software layers. Each layer adds features on top of each other and introduces additional security benefits. Different security measures are deployed per layer: network isolation, directional traffic, firewalls, and encrypted traffic (SSL), even within our infrastructure.

Component-based service architecture allows for easily replaceable components as well as maximize isolation of applications (services) for security purposes. As per service, data storages are separate so a breach in one system will not compromise other systems.

## **WHERE ARE WE NOW: EXCHANGE IS LIVE**

**Since December 2019, we at GOLDENCOIN have managed to create:**

- Fully-functional MVP (Crypto to Crypto, Crypto to FIAT web app and platform)
- Cybersecurity focused development and production environments
- Tailored pipeline delivery that enables automated code deployment and quality assurance
- Proper cloud architecture from day 1: reducing CAPEX & OPEX
- Highly skilled, senior core team (7-10 years of relevant experience)
- UI based upon research on current market-leading exchanges UX issues

Try our crypto-to-FIAT exchange now – [\*\*www.unitedexchange.io\*\*](http://www.unitedexchange.io)

Reviewing in detail every pillar we're focused on the list of the achievements and fulfilled tasks is more extensive.

**Web application:** Recently, GOLDENCOIN has launched the exchange that is fully functional, and where users can:

- Securely create personal or business account
- Protect account with 2FA (software and hardware measures)
- View trading assets and markets
- View wallet balances
- Deposit, withdraw and trade EUR and top cryptocurrencies
- Use Limit and Market orders

- Manage profile security settings to maximize security
- Get real-time notifications
- Enjoy customizable layout
- Use advanced trading view

**Cybersecurity:** This is our top priority and a continuous process, so from the beginning, GOLDENCOIN has been secured starting from our office network systems to our development and production environments. Established practices and processes to help to keep things secure.

**Platform security measures:**

- Secure access to development environment restricted to VPN only
- DMARC domain policies enabled to prevent phishing and impersonation
- HSM encrypted cold-storage/custodian solution from Ledger (Ledger Vault)
- Real-time password leak & complexity check on registration
- DNSSEC compliant
- Implemented Web Application Firewall (WAF) on platform environments to detect and prevent OWASP top 10 attacks
- Established a recurring process to periodically audit logs for anomalies
- Vulnerability monitoring for open source dependencies
- Regular security audits
- DDoS protected production environment

**Work environment security measures:**

- Implemented secure internal wireless network using RADIUS (Remote Authentication Dial-In User Service)
- Managed internal work devices with strict policies
- Implemented Data Loss Protection (DLP) for corporate emails
- Enforced internal policies for password strength, remote work, and network security
- Enabled PGP encryption on email communication
- Implemented Intrusion Prevention System (IPS) on corporate network perimeter
- Enforced hardware 2FA (Yubikeys) for all sensitive accounts
- Team member onboarding procedure for cybersecurity awareness
- Enforced use of password manager for secure password keeping and sharing

- Participated in the cybersecurity awareness month

### **Development procedures and practices:**

- Implemented Continuous Integration (CI) and Continuous Delivery (CD) to ensure the quality of development team deliverables
- Daily standups are the essence of the day, where dev team syncs
- Documenting internal and public platform APIs for easier communication
- Using infrastructure-as-a-code to be able to recover easily and fast to protect the value that we build
- Established pair programming and code reviews to avoid bugs and promote quality
- Established weekly progress catch-ups
- Created service boilerplate to make it as easy to create new services
- Built local development environment to provide developers with the local version or the platform

**Infrastructure:** This is the backbone of GOLDENCOIN platform, so we took it seriously and

- Deployed scalable and secure infrastructure (infrastructure-as-a-code)
- Empowered development team to interact closely with infrastructure within the development environment using Kubernetes dashboard and other tools
- Implemented best practices for AWS cloud architecture that guarantees:
  - Avoiding unnecessary costs
  - Reducing CAPEX & OPEX as well as have easy scalable solution at the same time

**Transparency:** At this stage, all necessary documentation has been provided to all relevant parties and authorities in countries GOLDENCOIN is operating and expanding.

**Usability and user experience:** To provide our customers with the best user experience and try to solve problems beforehand we:

- Researched UX of top 10 leading exchanges
- Identified UX bottlenecks and built GOLDENCOIN UI with those issues in mind
- Optimized UX for more complicated platform processes (like KYC procedure, securing account)



**Platform internals (microservices):** GOLDENCOIN architecture has been built with agility and security in mind, so we delivered the following services to satisfy our MVP needs:

- Authentication service - registration, authorization/authentication, accountmanagement
- Trading service - responsible for creating and managing trading orders, communicates with matching engine, and provides feedback to the user. Holds current users' balance and transaction history for every asset
- Matching engine - ensures extremely fast execution of orders in a safe and fair way.
- A collection of self-hosted blockchain nodes with adapters on top of each node that provides a gateway for communication and interaction with blockchains.
- Market service - provides public information for web client about the latest prices, volumes, price changes, and some other ever-changing market information. Holds essential information about each trading asset.
- Market Aggregator service - augments Market Service with calculated values for each market, including trading min/max prices, volumes, etc.
- Communication service - gateway for communicating with users in various different channels ranging from web socket messages in browsers to emails.
- User Action Audit service - tracks and stores all relevant users' actions. Provides information about all actions made by the account for both the user itself and the Support team for any suspicious activity investigation.

**The team:** To deliver the production version, GOLDENCOIN has been rapidly expanding with highly motivated senior professionals while retaining relatively low cash burn.

- Acquired cybersecurity specialists from international banks
- Security and Product development leaders from 100+ million valued AI security startup
- Cloud architects and DevOps from banks and IT companies
- Sr. developers from fintech and money transfer companies
- Advisors from multiple successful fintech, blockchain and crypto projects

**Back-office:** The panel will oversee and perform all duties of the support and analytics platforms. This includes analysing wallet activity (history of deposit/withdraw, the status of suspended withdrawal, blockchain forensics, etc.), trade history and status of current orders, checking AML database, and solving security issues (reset 2FA, IP history failed authentication attempts history, ability to manually initiate password reset, etc.). The panel will ensure that the platform is performing to its potential and address any issues that arise.

Considering the work we have done, we are right on track with the progress. We pragmatically commit changes if we believe that's the best option for the time.

**Licenses:** Given that crypto activity is not regulated in many countries (in the form of licenses or other), our company wanted to meet all legal requirements and obligations from the start. We have provided all necessary documentation including - the rules of procedure, internal control rules that define the AML, and CFT policies of the company when providing these licensed services to FIU.

## **SECURITY TOKEN OFFERING**

**Security First :** Bearing this in mind, we understood that we're capable of creating a secure environment for other spheres of the crypto industry to make it more transparent, regulated, and safe.

After a thorough analysis, we noticed that another large source of funds is fundraising or Initial Coin Offering.

We found out that more than 80% of ICOs conducted in 2017 were identified as scams while the total funding amounted to \$11.9 billion. The volume of ICOs between January and May 2018 reached \$13.7 billion in 2018; however, the number of fraudulent projects only doubled in their amount.

### **ICOs entailed intense speculations on the crypto market:**

- **Front Running:** A company or an individual trades ahead of the investor and then dumps the shares when the price goes up to make a profit
- **Pump and Dump:** A group of investors works in cooperation to buy a lot of tokens to drive the price up. Once the price reaches an agreed-upon point, the pump and dump schemes dump their coins, driving the price back down, hurting the investors duped by the false momentum

- Wash Trading: A group of investors trades back and forth amongst themselves to create the facade of liquidity.
- Flowing the Hype: An influencer or an opinion leader intensively promotes a scam project to delude investors and make them buy its tokens.

On the one hand, ICO is an easy way for a project to collect funds and develop. On the other hand, due to lack of regulations and legal basis, ICO gave birth to the numerous projects which raised funds and escaped.

## FINANCIALS

**Market situation:** Over the past few months (at the time of writing), the total global cryptocurrency trading volume ranged from \$132 billion to \$173 billion per day. These figures are based on public cryptocurrency exchange volume data and may be much higher if off-market trades and non-public exchange volume data was included.

Taking the average number, it can be estimated:  $\$152.5 \text{ billion} * 0.15\% = \$22.9 \text{ million}$  generated globally each day in fees. These are conservative estimates, as exchange fees vary and on most exchanges are higher than 0.15%.

To give a real-world example, Bitfinex<sup>26</sup> cryptocurrency exchange alone had trading fees amounting to an average of at least \$5 million per day at the time of this writing. This is only in fees from the exchange market itself and does not include fees generated from margin lending, the figures for which are not available to the public.

GOLDENCOIN conservative goal is to take 2% of the current market share in 16 months, resulting in daily fees of  $\$37.5 \text{ million} * 2\% = \$750,000$  per day using a four year multiplier, this leads to an overall revenue valuation of  $\$750,000 \text{ per day} * 365 \text{ days} * 4 \text{ years} = \sim \$1.095 \text{ billion}$ . This number is without projected market growth.

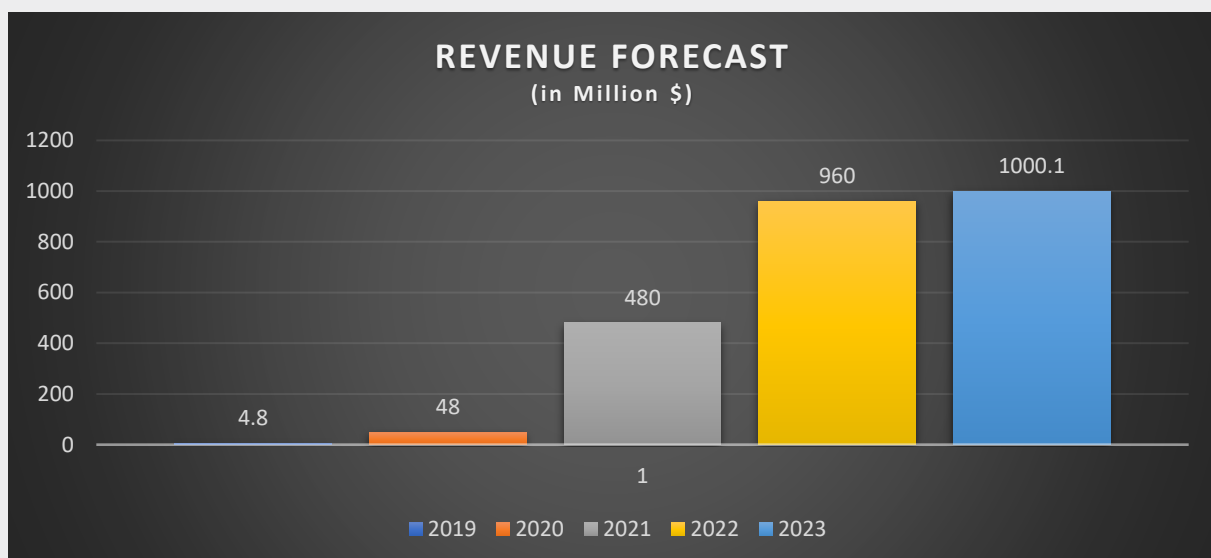
**GOLDENCOIN conservative goal is to take 2% of the current market share in 5 years, resulting in daily fees of \$2 million.**

**Estimated revenue:** In the first 3 months of the demo stage, GOLDENCOIN will not generate any trading volume and revenue. After the platform

development stage is finished, we will start to acquire users, and trading volume first milestone is sporting our company. Due to the optimized processes which allow us to have an optimal team structure without sacrificing any of our plans, we' ll be profitable once we generate \$300,000 in monthly revenue which, according to the current market distribution, is 100th place by trading volume among exchanges listed on CoinMarketCap. We aim to hit 100th place in Q4 2019. The revenue at this stage will be generated from taker and maker fees. We will begin targeting the most active trading regions – Europe and Asia.

In 2020 we will continue Margin Trading and Time Travel. We aim to finish the year as a fully licensed Securities Exchange. We project to start generating profits when reaching 40,000 active monthly traders on the platform.

### Revenue Forecast



## **BLOCKCHAIN BASED SHOPPING PORTAL**

### **SUMMARY**

We are launching our Blockchain based shopping portal and be accessed at [www.arzcart.com](http://www.arzcart.com). GDC (Goldencoin) will be used by ArzCart merchants

(Sellers) to pay for advertising and used by ArzCart users (Buyers) to pay for goods and services.

## DISTORTION

Over 400 million small and medium businesses worldwide offer products and services that could be marketed and delivered online. Despite the spread of e-commerce, less than half of those businesses advertise online and approximately 90% of retail purchases are still made offline. So millions of businesses are left out of the online retail space, missing the chance to enjoy vast additional sales.

E-commerce is dominated by major corporations:

- A. Amazon accounts for 43.5% of total e-commerce sales in the US and together with EBay holds over 50% of the market.
- B. Digital advertising is dominated by Google and Facebook which collectively hold about 60% of the market. Global mobile advertising spend is predicted to reach \$163 billion by 2019.

ArzCart's vision is to correct these major imbalances. It will take control of the e-commerce world away from the giant companies and put it in the hands of the ArzCart community.

## PLATFORM

ArzCart is an advanced BE-commerce platform accessed through a mobile application, based on a complex web of virtual marketplaces, created and governed by users of the platform (Buyers). ArzCart aims to:

- Remove the barriers preventing millions of businesses around the world going online and help them maximize sales. Platform features enable Sellers to create their online presence instantly at zero cost.
- Allow consumers to be the main recipients of online advertising spend. Hundreds of billions of dollars are paid to attract buyers. With ArzCart it's the buyers who receive most of that money.
- Optimize communication between Sellers and Buyers to facilitate increased lead generation, speed up decision making and cut transaction costs and eliminate unneeded fees.

It will grow into a comprehensive global network by individual consumers creating virtual marketplaces by inviting stores and new consumers to join ArzCart. In turn, those consumers are compensated using a part of the amounts spent by their stores and service providers ("Sellers") on

advertising to ArzCart users. Active buyers in ArzCart earn money as partners. The more active they are, the more they can earn.

Every dollar spent on ArzCart advertising will be distributed between the consumer who sees the advertisement, the consumer who introduced the Seller to ArzCart and the platform itself via a Community Engagement Compensative program.

## BLOCKCHAIN

The use of Blockchain technologies, from the start, will provide full transparency and reliability. The decentralized ledger in combination with the user-friendly application/marketplace will create a self-sufficient ecosystem. Once committed ownership can be verified and confirmed for Community Engagement Compensation.

The ArzCart model will be implemented as Stellar Smart Contract. Transactions will be verified using cryptography asymmetric keys. By utilizing Stellar Smart Contract as a compensative model instrument, the compensative system is fully automated. The stores build a closer relationship to customers and greater confidence that advertisements will be seen by more likely buyers.

Within three years ArzCart will be a pure Decentralized Autonomous Corporation (DAC) marketplace. This will be achieved by transferring the platform functionality and income to a decentralized blockchain based system.

## Market & Opportunity

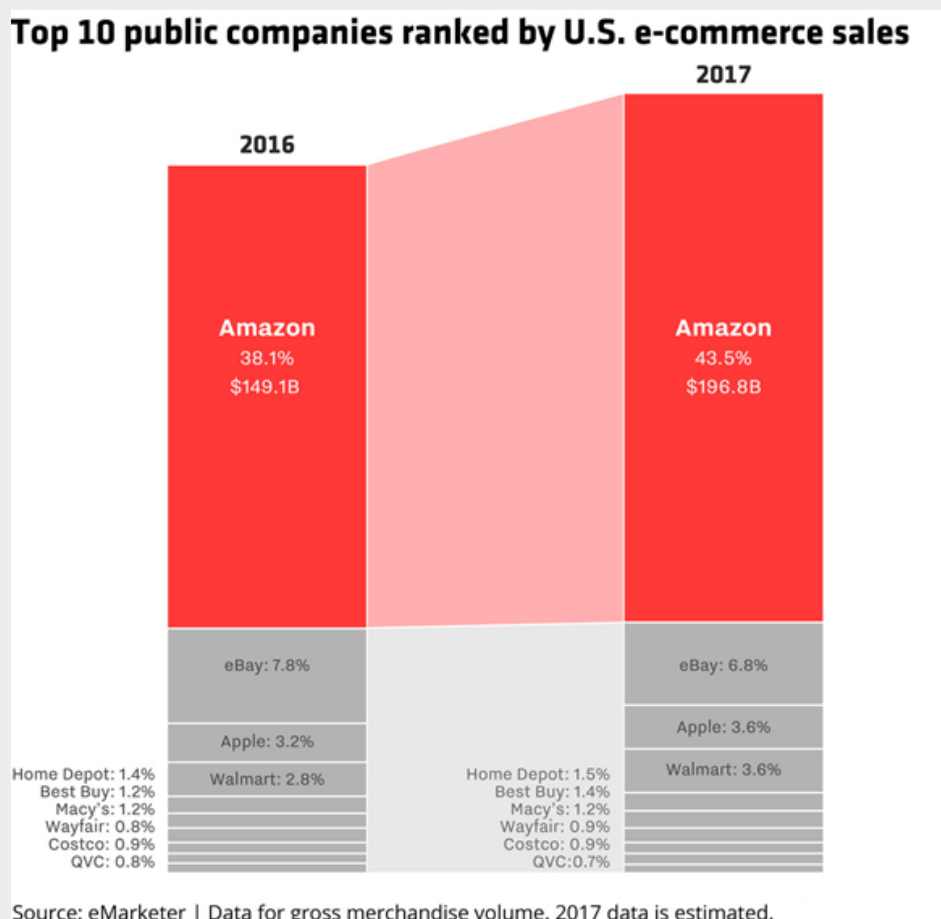
### Introduction

The e-Commerce market today is characterized by:

**a) Slow Market Penetration** - more than 400 million small and medium businesses worldwide offer products and services that could be marketed and delivered online. However, less than half of those businesses even advertise online and approximately 90% of retail purchases are still made offline. This means that millions of businesses are left out of the online retail space. ArzCart aims to take advantage of this opportunity by bringing a major proportion of these businesses into the world of e-commerce.

**b) Monopolies in Advertising** - Facebook and Google control the bulk of digital ad spend. eMarketer<sup>1</sup> expects digital ad spend in the US to grow 15.9% in 2017 to \$83 billion in revenue. Facebook ad revenues jumped 32.1% and Google 14.8%. Overall, Google controls 40.7% and Facebook has 19.7% of the U.S. digital ad market.

**c) Monopolies in Supply** - online markets are dominated by a small group of giants<sup>2</sup>. Amazon holds 44% of the US online sales market, up from 38% in 2016. The sales value is almost \$200 billion. These figures represents gross merchandise volume data, which includes sales made by third parties on Amazon's marketplace. As shown in the graph, Amazon is followed distantly by eBay, Apple and Walmart:



## Challenge

ArzCart aims to correct each of these imbalances by democratizing e-commerce by operating a platform with built-in virality, powerful growth incentives and an easier experience for customers and better customer targeting for merchants.

Bringing such a large number of businesses online, especially into a single marketplace, would normally require thousands of agents who would need to approach the businesses, convince them to join and guide them through the process of creating their online retail space. With ArzCart that process is redundant. This marketplace belongs to Buyers and they create it.

## Creating Virtual Marketplaces

Being paid for seeing ads is not all. In real life, consumers build their own marketplaces by selecting stores that attract them with products and customer service that they find appealing. If those stores deliver on their promise, trust deepens and the consumer returns to them again and again ignoring their competitors. Consumers may be surrounded by thousands of SMEs but only frequent a few dozen.

Similarly, buyers on ArzCart create their own virtual market places by inviting selected SMEs to join the platform. The selection of SME is completely open and is not limited to businesses frequented by the buyers.

The ArzCart platform includes all the tools needed by the buyers to select and invite SMEs and for those SMEs to integrate with the platform.

Any amounts paid by those SMEs for advertising are distributed between the ArzCart platform, the Buyer who views the advertisement and the Buyer who introduced the SME.

The stores build a closer relationship to customers and higher confidence that their advertisements will be seen by likely buyers. Customers receive WBY token rewards that they can use at their favourite stores - or anywhere else.

ArzCart is the first marketplace truly created and owned by buyers.

## Community Engagement Compensation

The ArzCart ideology is based on two main concepts:

a) Sellers must pay to communicate with buyers, with buyers being compensated for their engagement based on the amounts paid by



Sellers. They pay by purchasing advertising which in turn is seen by the Buyers.

b) The Seller is always part of a Virtual Marketplace established by the Buyer who recruited it to ArzCart. As a result, any active buyer in ArzCart is compensated for his/her engagement in the form of GDC. The more active the buyer, the more tokens they can earn. Those GDC tokens can be exchanged for FIAT currency or used to buy goods and services from Sellers on the ArzCart platform.

## Competitive Advantage

The world of e-commerce in general, and online advertising in particular, is very competitive. As described above, it is dominated by giants such as Amazon, Alibaba, Google, Facebook, LinkedIn and a number of other large and aggressive players.

Their services allow advertisers to choose from a range of products, including, ads targeted at well-defined demographics, search-related ads and free or almost free parking for merchants.

However, none of those services provide:

- c) A flexible solution for SMEs
- d) Mutual and real-time connectivity between product searches and relevant nearby merchants
- e) Real time social network, based on areas of interest
- f) Buyers with the means to earn money in the form of GDC on a daily basis through personal marketplaces
- g) Advertising payments distributed to members of the shopping community

ArzCart offers an entirely new way for buyers and sellers to meet and engage.

## Blockchain

### Introduction:

Matching commerce and ecommerce with a decentralized vision is quite an interesting animal. We don't speak here about a shop accepting payment in cryptocurrencies. There are some of them already. We speak here to turn the blockchain use today into an evolutive scientific vision that will help seller to meet buyers. This is ArzCart. And in ArzCart's vision, this is the

ecommerce that could leverage so many properties of the blockchain to completely upend the existing models.

Blockchain makes this possible by providing a reliable, open and programmable accounting system. It is a shared peer-to-peer distributed ledger (distributed database). It is a peer-to-peer transaction management system without an intermediary. The transactions are verified by a network of nodes and recorded in a public distributed ledger called blockchain.

Solutions using blockchain can be built to maintain a continuously growing list of cryptographically secured data records protected against alteration and modification. It sets up trust, accountability and transparency while streamlining business processes.

Blockchain can help reduce expense and unpredictability of working edge devices or connecting servers. Blockchain distributed ledger simplifies the development of cost-effective business systems where anything can be tracked and exchanged, without requiring an essential central control.

Using blockchain removes the characteristic of infinite reproducibility from a digital asset. It confirms that each unit of value was transferred only once, solving the long-standing problem of double spending.

Blockchains have been described as a value-exchange protocol. This blockchain-based exchange of value can be completed more quickly, more safely and more cheaply than with traditional systems. A blockchain can assign title rights because it provides a record that compels offer and acceptance.

The objective in the long term is to achieve Decentralized Autonomous Corporates (DAC) which are open, self-organized collectives coordinated by economic incentives and self-executing code, cooperating around shared goals.

Powered by the network effect, DACs provide an economic model and incentive for the production of open, shareable resources. With the creation of more open resources, the DAC will be able to scale indefinitely while keeping its agility and coherence, and in many cases outcompete existing corporate structures.

DACs have attracted top talents in the blockchain space, holding promise for more efficient and resilient organizations.

## Stellar Network

### **Ethereum ERC20 does not meet our needs and here is why.**

Traditionally, ICO tokens have been issued on the Ethereum network in the form of ERC20 tokens. ERC20 tokens are easy to issue and are infinitely customizable using Ethereum's smart contracting language. However, recent events have highlighted and exacerbated some weaknesses of the network, including slow transaction processing times for the network during ICOs and increasingly expensive gas prices (by fiat standards) for transactions and smart contract execution.

Moreover, many organizations require only basic tokens; they adopt the risk of Ethereum's Turing complete programming language without taking advantage of many of its benefits.

Stellar is the best choice for ICOs that do not require complex smart contracts but require high transaction processing time and cheap transaction fees.

With a ERC20 token, it's a real deal of money and time to put your token on decentralized exchange, while Stellar features a decentralized exchange where any Stellar network token can be instantly traded without relying on a third party exchange to list the token. This means newly issued tokens can be traded on Day 1.

### **Rationale for Stellar**

#### **Built-in decentralized exchange**

There are literally thousands of new tokens being issued this year. Each one will have to find some exchange to list them. Users will have to make accounts at random exchanges to be able to buy certain tokens and, inevitably, many of these tokens won't get listed.

Stellar was designed from the ground up to support efficient trading. Any token created on Stellar can be bought and sold immediately on Stellar's decentralized exchange by means of Stellar's native offer mechanism. An organization does not have to rely on a third party exchange like Bittrex or Poloniex to list or make the market for them. This all means one less unknown since you don't have to trust someone to list your token.

#### **Greater security**

While Stellar is less expressive than Ethereum, the simplicity of its transaction model creates fewer pitfalls and hence can improve the security of applications that do not require the full generality of Turing-complete smart contracts. Simply put, Stellar's model of atomic multi-operation transactions leads to more auditable code, limits uncertainty, and decreases the risk of harm from bad actors who may exploit program vulnerabilities.

### **Significantly cheaper and faster**

As ether (ETH) obtains higher valuations, computation and transactions are becoming increasingly expensive. Stellar does not require any "gas" to execute programs and only requires a negligible transaction fee (.00001 XLM - a fraction of a fraction of a penny) to discourage users with malicious intent from flooding the network with transactions.

The median transaction time on Stellar is 5 seconds, compared to approximately 3.5 minutes on Ethereum.

### **And to the conclusion:**

Stellar with 3-5 sec confirmation time versus 3 minutes in Ethereum. Fee price is cheap as well - cost of 300k transactions is around 1 cent. On Ethereum, gas for same amount of transactions will cost pretty penny - around 8K USD. And with 3000+ transaction per sec (7 on Ethereum) - Stellar is a best chose for us.

## **ArzCart Platform**

### **ArzCart on the Blockchain**

Blockchain is a basic requirement of the ArzCart platform in respect of the following:

**Transparency & Trust** - ability to ensure the correct conduct of transactions which are dependent on compensating, so that all participants are confident that they will receive what is due to them, without the involvement of third parties. For example, details of which Sellers are in which virtual private network are maintained and can be seen at any time.

**Immortality** - system contents and structures are not dependent on some outside management, so the positions of Buyers and their networks remain consistent, independent of outside events.

**Usage of GDC** - allows immediate payment between platform participants, not related to location or any other factor.

**These objectives can only be achieved using Blockchain.**

## Overview

This section describes the ArzCart financial model, covering the commercial activity on the ArzCart platform. It is supposed to give a high-level overview of the general logic and mechanisms without going into technical details.

The description helps to highlight the system elements that can be improved by using blockchain mechanisms to both make the system more transparent and trust worthy.

The main idea of ArzCart is to create a platform that will decentralize the future e-commerce world and make it profitable for all. It is an advanced e-commerce platform accessed through a mobile application, based on a complex web of virtual marketplaces, owned by users of the platform (Buyers). ArzCart aims to:

- Remove the barriers currently preventing millions of businesses around the world going online and help them maximize sales. Platform features enable Sellers to create their online presence instantly at zero cost.
- Allow consumers to be the main recipients of online advertising spend. Hundreds of billions of dollars are paid to attract buyers. With ArzCart the buyers receive most of that money.
- Optimize communication between Sellers and Buyers to facilitate increased lead generation, speed up decision making and cut transaction costs.

It will grow into a comprehensive global network by individual consumers creating virtual marketplaces by inviting stores and new consumers to join ArzCart. In turn, those consumers are compensated via the amounts spent by their stores and service providers (“Sellers”) on advertising to ArzCart users. Active buyers in ArzCart earn GDC as partners. The more active they are, the more Coins they can earn.

Every dollar spent on ArzCart advertising will be shared between the consumer who sees the advertisement, the consumer who introduced the Seller to ArzCart and the platform itself.

With ArzCart sales are generated when Buyers and Sellers are effectively matched.

By paying for advertisements Sellers can approach the buyer, via a range of advertising methods, including communicating with the Buyers directly in real time and promote products to new customers, leading to a buy/no buy decision by the Buyer.

**Consequently, Buyers find the products they want, at the best price, and Sellers can reach potential customers who are known to be interested in their specific products. Customer acquisition and transaction costs are cut.**

## **BETTING PORTAL**

### **Abstract**

BETNEXT is a decentralised, social-betting platform based on Ethereum technology and Smart Contracts.

Betting is a huge business, but the online betting industry is plagued by multiple problems. There is an overall perception of unfairness due to security issues, lack of transparency and social character, skewed odds, high fees and low returns - all factors alienating many potential bettors or driving them to underground betting.

The BETNEXT solution leverages Blockchain technology to ensure the safest and most transparent betting experience. There is no middleman involved: Players create the bets, set the rules, and provide the liquidity for fulfilling pay-outs. Smart Contracts protect funds and automatically distribute winnings based on bet conditions and outcomes. The entire process is fully decentralised, secure, and self-regulating. All this while unique social and gamification elements deliver a whole new level of community engagement.

But BETNEXT is not just about better betting. The platform has versatility and scalability ingrained in its DNA: starting from sport betting, it will expand to include a variety of content and third-party games. It is designed

to support a whole ecosystem, ranging from casual bettors to high rollers, through white-label customers and conventional betting agencies, to third-party developers and affiliates. All fuelled by our digital token: GDC.

Our vision is to develop such ecosystem, cantered around a superior betting solution - and to establish the GDC as a global betting standard. To give you a taste of things to come, we already have a functional at [www.betnext.com](http://www.betnext.com) Join us in this adventure, today!

## **KEY TAKEAWAYS**

- All of us have, at some point in our lives, made a bet with somebody else.
- Betting was originally a social activity, but it has lost its social nature.
- Conventional betting is highly centralized, taking power away from players and placing it in the hands of bookmakers.
- By removing the middleman and leveraging Blockchain technology, a whole new era of safe and transparent betting can be ushered.
- BETNEXT is poised to reinvent online betting as a social activity.
- We aim to develop a broad ecosystem fueled by our GDC digital token.

**Keywords:** trust less betting, Ethereum, smart contracts, decentralised systems, prediction markets, distributed ledger technology, Blockchain, mobile, social engagement, fun, transparency, security, gamification, partnerships, oracles, community, responsibility

## **Introduction**

Through its unique combination of risk, excitement and potential financial gain, betting has been blessed with everlasting appeal. From the times of Roman gladiators to the rise of eSports, players have wagered on the outcome of their favourite events. The global betting and gambling market is worth a massive 3 trillion USD1 (80% of which underground). And as online and mobile channels continue to thrive, the industry is poised to grow even further.

Nevertheless, betting has always been plagued by a dark side. Regular scandals involving malicious bookmakers and fraudulent agencies have seriously undermined the industry's reputation. When bettors lose, they lose everything. And when they win, they may not receive the promised amounts. Furthermore, exorbitant fees and unwarranted complexity discourage potential bettors from playing at all. Somewhere along the lines, betting

went from being a social, engaging activity to becoming an individual, risk-ridden peril.

Even in its fairest implementation, traditional betting remains a highly centralised endeavour, taking power away from the players and placing it in the hands of bookmakers.

We will bring the fun back in betting, building an innovative, decentralised, transparent platform combining modern technology with a superior social experience. By doing so, we can reach segments with untapped market potential, such as casual bettors overwhelmed by the complexity or trust issues of conventional betting solutions.

With all this in mind, we created BETNEXT: a brand new Blockchain-based platform designed to address the shortcomings of traditional betting and bring a host of innovative features. Starting with sports, players and group of friends bet against each other on match results instead of playing against odds designated by bookmakers. Whatever the outcome of the bet, money stays within these groups instead of going into a bookie's pocket.

Blockchain is the perfect technology to support this revolution in betting. Within BETNEXT, transactions are secured by cryptography and governed by Smart Contracts on the Ethereum Blockchain. All financial movements are recorded on the Blockchain and remain transparent and viewable for each participant.

We aim to become the leading social betting platform on the market. But our vision does not stop there. We believe there can be significant demand for a betting token catering to the needs of existing betting and gambling operators. This is why we are creating GDC, a unique coin aimed at becoming a market standard for betting operators worldwide.

As market adoption rather than mere technical superiority will be conducive to fulfilling this vision, we will work from day one to create the ecosystem required for widespread token acceptance. This means BETNEXT will always be an open platform designed for maximum versatility and scalability, fully welcoming third-party applications and service providers.

Sounds ambitious? You bet. But we have the team, the vision, and the passion to make this happen. Read on to find out more.

## **What is BETNEXT, and why?**



Broadband and mobile connectivity literally put betting in the hands of millions. But centralised, conventional betting suffers from serious structural shortcomings (see “Industry Challenges” section). The advent of Blockchain technology ushers in the opportunity to redefine the industry, delivering a solution with all the advantages of conventional betting and none of the drawbacks.

At its core, BETNEXT is a social betting platform, allowing people to bet on events with other players without going through a “middle man” (e.g., a bookie or betting provider). It operates as a fully decentralised, secure solution built on Ethereum-based Smart Contracts. All bets are carried out using GDC, our purposefully designed digital token.

BETNEXT is safe, transparent, provably fair, and simple to use. It’s this easy: you create a bet on one or more events, designating the minimum amount and how winnings will be split. Others join the bet (with their own event predictions). After the events end, Smart Contracts automatically calculate the winnings and award GDC based on the agreed split (e.g., winner takes all).

Think of BETNEXT as watching a football game with your friends and saying “I will bet you £5 Chelsea wins tonight” and your friend from Manchester taking the bet. Whether you win or lose, the money stays between the two of you.

But beyond the basic betting mechanics, BETNEXT will deliver a set of industry-winning features and advantages (see “Core Benefits” section), including:

- Strong support for social and community-building elements
- High simplicity to bring in casual bettors, but with advanced functionality for top gamblers and high rollers.
- Designed from the ground up to deliver viral uptake (minimising player acquisition cost), well beyond the standard friend-get-friend referral programs.
- Support for limitless rewards and massive bet wagers (High Roller Club)
- Powerful gamification elements (aimed at higher player retention and engagement)
- Privacy respect (planned support for self-sovereign ID integration,

- such as Civic)
- Ready for AI-based robotization, to improve user experience and platform profitability
  - Future-proof and ready to include betting and gaming content well beyond sports
  - Designed for rapid ecosystem uptake (e.g., open-source, third-party integration)
  - Built as modular technology components, enabling offering of near-turnkey white-label solutions with low customization cost
  - A custom solution delivering fast processing time at a lower cost and supported by our ERC-233 digital token (GDC) and other cryptocurrencies.

## Market Opportunity

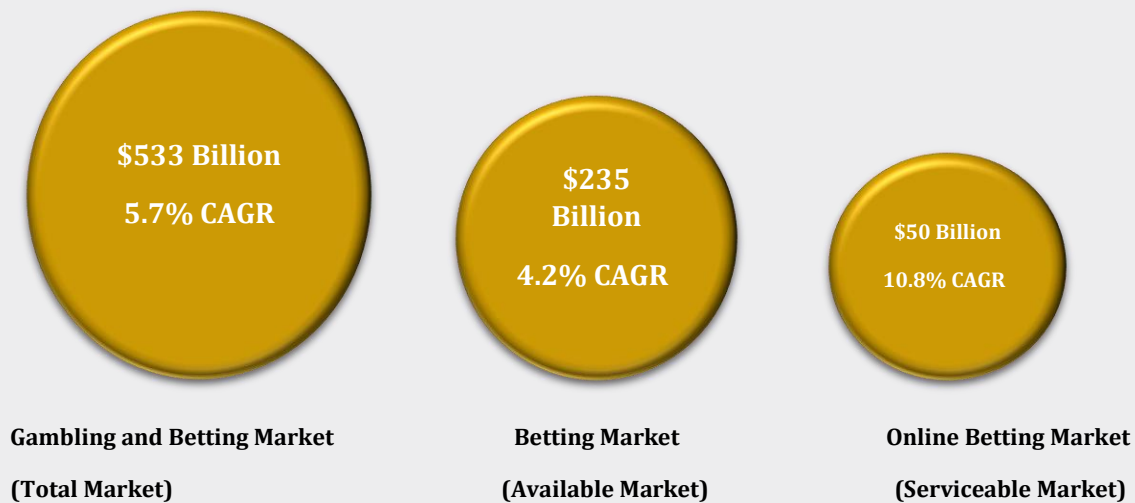
The market potential for a superior social betting platform is absolutely massive. Recent estimates place the global gambling and betting market at a value of up to 3 trillion USD<sup>2</sup> (both regulated and unregulated). Licensed gambling alone exceeds half a trillion USD.

As broadband and smartphone penetration keep rising, the market is inexorably shifting from traditional to online channels. The online betting industry is already worth nearly 50 billion USD, with mobile-based platforms experiencing explosive growth of over 40% per year. Just in the European Union, the average mobile gambling spend per adult went from 1 USD in 2010 to over 15 USD in 2017.

Football (soccer) betting dominates the industry, with an estimated 50%-60% share of total spend. For this reason, BETNEXT will initially focus on football betting, allowing us to scale our business and reach an operating profit as rapidly as possible. However, the platform will shortly after integrate additional sport and non-sport betting content (e.g., horse racing, basketball, cricket, eSports, fantasy, social events, and possibly casino gaming).

Thanks to our focus on simplicity and security, we believe we will appeal to non-gamblers as well: the mass of casual bettors who has not yet dared to place an official bet, intimidated by the complexity and lack of transparency of conventional betting solutions.

## MASSIVE POTENTIAL AND MARKET GROWTH



## Industry Challenges

The online betting industry is afflicted by a number of serious problems. Among other considerations, odds are vastly in favour of the bookmaker, pay-outs are not always honoured, and regular winners are restricted or banned. There is a lack of transparency and security, high fees and low returns, and low social involvement. These factors alienate a significant number of potential bettors from taking part in such systems.

More specifically, these are the key industry challenges BETNEXT is set to solve:

**UNFAIR CONDITIONS:** Over time, the House always wins. Odds are massively in favour of bookmakers. Players who regularly beat such odds are banned. When a bet has no winners, the bookie “takes it all.” And bets where the bookmaker stands to make a large loss are sometimes cancelled. *In BETNEXT all bets have a winner, the money stays with players, and we will always welcome winners.*

**LACK OF TRANSPARENCY:** Betting companies operate under a shade of secrecy, not letting customers know how odds are created or how much money is poured in. Some even manipulate odds after a game starts. *In*

*BETNEXT, players set the odds and all transactions are visible on the Blockchain.*

**BETTING LIMITS AND LOW RETURNS:** Due to payout-matching liability, operators limit players on how much they can bet. Faced with low limits and unattractive odds, bettors often seek higher returns in underground betting. *We place no limits on odds and returns.*

**LACK OF SOCIAL AND GAMING CHARACTER:** Bets have a strong social root, but online betting is truly impersonal. People bet against faceless bookmakers instead of playing with friends and colleagues. It just does not feel like a game anymore. *BETNEXT is a social, community-driven platform including powerful gamification elements.*

**INHERENT COMPLEXITY:** Successful bettors need to master a wealth of information: odds, spreads, handicaps, vigorous, money line...the list is nearly as vast as the betting choices. Complex registration and interfaces compound the problem. This can be overwhelming to casual players. *BETNEXT is designed for maximum simplicity and intuitiveness.*

**SECURITY CONCERNS:** Casual bettors are more interested in security than regular gamblers. The centralised nature of betting providers makes all bettors vulnerable to external and internal attacks, putting players' funds and financial information at risk. *BETNEXT's decentralised setup and Smart Contracts offer unmatched player protection.*

**OUTDATED PAYMENT METHODS AND SLOW PAYOUTS:** No more credit cards, wire transfers, deposits, and other outdated payment systems. No more delays in receiving pay-outs. *The GDC will enable near-instant bet participation and winning distribution.*

**HIGH FEES:** Most betting operators charge fees for everything - even for depositing money. Or hide fees within each transaction (e.g., adding a premium on exchange rates). *Players will only be charged a small fee from their winnings in order to cover the cost of third-party services.*

Read more on the BETNEXT solution and its unique advantages in the next sections.

## **The BETNEXT Solution**

In a nutshell, BETNEXT addresses the most profound challenges of conventional betting by shifting power away from the betting provider and into the hands of the player community. Players create the bets, set the rules, and provide the liquidity for fulfilling pay-outs. The whole process is fully decentralised, transparent, and self-regulating.

Blockchain technology makes it possible to operate the network without a middleman (the main source of structural issues and vulnerabilities in conventional systems). While Smart Contracts not only ensure that betting terms are respected and immune from manipulation, but also protect player funds in an escrow account. Only when a bet ends, will such funds be released to the bet winner(s). All this, automatically and seamlessly.

## **Core Benefits**

We do not plan to be the first and only Blockchain-based betting platform, but we will deliver a set of benefits and features that can truly set us apart from the competition, including uniquely disruptive innovations or local event betting.

These are the key competitive advantages of our solution, and why players would choose BETNEXT over conventional operators or other solutions in the crypto space:

### **SIMPLICITY**

Everything is kept as simple and intuitive as possible: there are no complicated odds or conditions. The interface is designed to be easy to understand also for non-gamblers and casual bettors.

### **EASY ACCOUNT CREATION**

Super-simple registration. Planned support for private, single-click signups with self-sovereign technology.

### **GAMIFICATION ELEMENTS**

Users can compete with friends through leader boards, or form “alliances” for group-based betting and contests. Achievements are rewarded with badges and GDC. Friendly competitions will challenge users to participate often, retaining their interest.

### **SECURITY**

Smart Contracts protect the player's funds and automatically distribute the winnings. No manual intervention means no possible human error or tampering.

### **TRANSPARENCY**

Smart Contracts ensure there is no chance to manipulate bets. Transactions are permanently recorded on the Blockchain and viewable by all involved parties.

### **FUNDS UNDER CONTROL**

In conventional systems, players need to deposit money into the bookmaker's account, and withdraw it when winning. Say goodbye to outdated payment systems and forward deposits. In BETNEXT, people keep control of their funds and can play directly from their crypto wallet.

### **INSTANT PAYOUTS**

No more lengthy delays or waiting for wire transfers to arrive. Smart Contracts instantly distribute winnings, and pay-outs are usually processed within the Ethereum network in less than a minute.

### **UNLIMITED WINNINGS**

There is no limit to the amount of bettors. Catch an unusual result on a popular bet and you may be getting your retirement fund from a few dollars! Large public groups for events such as the World Cup will pool thousands of players, offering rewards that are well beyond standard betting odds.

### **WINNERS WELCOME POLICY**

Successful bettors are often limited or banned by conventional bookmakers. Our business model is built on volumes rather than margins, which means we will always welcome winners!

### **NO HIDDEN FEES**

No withdrawal or transaction fees. No fees hidden into skewed odds. No hidden fees, period. Players only pay a small fee on their winnings in order to cover third-party services (use of Smart Contracts, result data feeds, statistics, etc.).

### **LOCAL EVENTS**

Want to kick off an office pool on your favourite local teams? In addition to covering the most popular minor leagues, we'll accept on-demand inclusions of local sport teams in our betting network.

### **FUTURE-PROOF SOLUTION**

Built for maximum versatility and scalability, BETNEXT will integrate content well beyond sports (e.g., eSports, fantasy, casino). Its open-source, developer-friendly model will vastly speed up the growth of a surrounding ecosystem.

## **A Solution for the Whole Ecosystem**

The development of a broad BETNEXT - centered ecosystem is of crucial importance for fulfilling our vision. The BETNEXT platform is therefore designed to cater to the needs of a wide variety of parties. Below are some examples of common use cases.

### **CASUAL BETTORS**

A safe and engaging experience makes betting accessible to a whole new audience: the non-gamblers intimidated by the complexity and lack of trust of conventional solutions. From office pools on local teams to social competitions, everything is fully secure and intuitive.

### **WHITE-LABEL CUSTOMERS**

Companies and gaming operators will be able to set up their betting platform in no time by licensing rebranded versions of our technology. Our modular technology architecture allows us to offer near-turnkey solutions and complementary services at a low customisation cost.

### **CONVENTIONAL BETTING AGENCIES**

BETNEXT is ideally positioned to solve the key issues of traditional operators. Transitioning to our solution will deliver lower cost (in servers, personnel, fraud or human error), greater security, instant pay-outs, and new revenue streams.

# The Gamification Advantage

*“A soldier will fight long and hard for a bit of coloured ribbon”*

(Napoleon Bonaparte, 1815)

Gamification is the application of game design principles and techniques to non-gaming contexts. Conventional betting operators have generally disregarded this aspect, dismissing such features as achievements and leaderboards as trivial videogame fanfare. And yet, plenty of research and empirical evidence shows that gamification plays an essential role in driving player engagement, satisfaction, and loyalty.

Gaming Application developers, in particular, have long embraced and honed many mechanisms aimed at tapping straight into players’ natural desires for achievement, competition, status, social belonging and recognition, and cooperation. The 2.2 billion mobile players out there are quite used to gamification and social sharing, from the games they play on a daily basis.

But all that online betting operators are offering to this “mobile collective” is a functional, dry and impersonal experience void of entertainment and social engagement.

We believe gamification is an absolutely critical source of competitive advantage in the online betting space. BETNEXT will therefore make extensive use of individually and socially oriented game design techniques to deliver the most engaging and rewarding betting experience in the industry.

In BETNEXT, players will be rewarded with badges and GDC prizes for completing achievements. They will advance in rank as they accomplish tasks and “missions” - in turn boosting their status and account privileges. They will create communities and make friends, sharing achievements and challenging others on time-based competitions and special events. A number of leaderboards will track and display the rank of players and their alliances. While chat functionality will bring together the player community in a way no other betting application has ever done before.

- Gamification will turn betting from a money-driven pastime into a truly social, gratifying experience. And this will have important



repercussions on platform KPIs, resulting in:

- Lower player acquisition cost thanks to greater referral-based organic growth
- Higher retention, driven by increased player loyalty and engagement
- Higher monetization as players compete to advance in rank and complete achievements
- Higher in-app time: there is always something to do (e.g., with “daily missions”)
- Greater satisfaction from the many gaming features, rewards, and personalization options (e.g., avatars and custom skins)

We have extensive knowledge of gamer classification and drivers, and will leverage this know-how to bring truly innovative features in betting. As a simple illustration, here are some examples on how we appeal to each player type:

### **ACHIEVERS**

Achievers love a challenge. They want to win and share their successes with everyone, expecting praise from the Socialisers and envy from the Killers. To appeal to them, we will implement a number of competitive features, including various leaderboards (e.g. country, global, alliance, friends), publicly displayed profile badges, elite progress rank levels, uniquely challenging achievements, and time-based individual and alliance competitions. Victory sharing and feedback channels ( “like” , chat) will also be in place. Winners should always be publically celebrated, which is of vital importance to Achievers.

### **EXPLORERS**

Explorers are often lone wolves. Naturally curious people, they prefer the process of playing rather than the result. They are excited by the opportunity to map uncharted territories, turning every stone and discovering every secret. For Explorers, it is important to create a storyline which takes them through a journey full of twists and turns. Progress-based functionality unlocking, increasing level of information, “quests” to discover new betting possibilities, collectible sets of reward badges, and even Easter eggs. These are all elements that can keep Explorers engaged long-term. Explorers are also attracted by the possibility of curating content for others. Functionality to post feedback and reviews is therefore very important to them.

## **SOCIALISERS**

Socialisers may enjoy the community and sharing aspect of a game more than the game itself. They will seek a group to join, share their opinions, and congratulate others on their successes - the reward being a sense of belonging and collective approval. Features important to Socialisers include chat channels, alliances and interest groups, community awards, and the possibility of posting public recommendations or sharing comments, tips or subjects of interest.

## **KILLERS**

Killers are not a pleasant bunch. Their satisfaction comes from winning at all costs and disrupting the game for everybody else. They will use every cheat and exploit every hack to get ahead of others, often harassing the competition. The job with Killers is about containing them more than anything else, so they don't ruin the game for others. Killers get bored if there is no reaction to their attacks, so scripts checking for inappropriate behaviour and player report mechanisms can be used to identify them and isolate them (e.g. by hiding them from other players' chat and leaderboards). Anti-cheat systems, chat profanity filters, and admin banning solutions are also a must to cope with Killers.

## **ROADMAP**

