



WHITE PAPER

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INTRODUCTION

Technological advances, which we nowadays consider to be a routine and integral part of our lives, faced a multitude of obstacles in the past. Automobiles, electricity and the internet. These were all concepts that were familiar to no-one, and many refused to believe the ideas when introduced to them. But their authors were not put off, and they worked on their thoughts and ideas, often for the whole of their lives.

*History teaches us that the greatest victories
are usually preceded by the surmounting of obstacles.
Victors refuse to be disheartened by obstacles.*

Bertie Charles Forbes

We are all lucky that there were people in the past who supported these ideas and projects. They helped simplify our lives significantly, and humanity is still pressing forward.

We believe that cryptocurrencies and blockchain technology are another advance and bring benefits that will help us in various important areas of life.



VISION

At the birth of the Internet and during the first years of its existence, despite the evident breakthrough nature of this technology, its development was driven forward only by a handful of visionaries. At Dollero Technology, **we believe in blockchain technology as we see it a fundamental shift** in the era of digital technologies we are slowly entering into. For this reason, we want to participate in the further development of this ground-breaking technology. Our vision is to **create a complex ecosystem** including, in particular, our own cryptocurrency exchange Dollero Exchange. We will ensure liquidity, exponential expansion of the platform and **wide usability of Dollero cryptocurrency** thanks to its implementation not only in the digital world but also in everyday life.

The main problems of the current crypto world are in particular an inadequate level of security, the usability of blockchain technology and individual cryptocurrencies, and the complexity of these technologies for the general public.

In the first phase of the project, we are focused on solving current problems and we will help spread the technology among the general public. A **high level of security** will mean that members of the public will not have to worry about their funds and will be able to use them securely as they do on the financial and banking market. Therefore, we are developing the necessary security of our platforms in **collaboration with an international leader in cybersecurity**. A further level of protection that we will provide to our clients is the **insuring of cryptocurrencies on Dollero Exchange** in cooperation with an international finance and insurance partner.

Another problem that we are concentrated on during the first phase is the **liquidity of cryptocurrencies and their usability in real life** since we do not consider the possibility of paying with cryptocurrencies in certain selected areas to be systematic. The transition to a payment system based on cryptocurrencies will not be straightforward, and it must therefore be carried out gradually in a few steps. The decision to use **payment card technology that already exists**, and to which we will connect our cryptocurrency Dollero is the ideal solution. Thanks to this step, it will be possible to **pay with Dollero wherever** classic payment cards are accepted.

Cryptocurrencies and blockchain technologies are currently used by only a fraction of the population. This is due to the complexity of the technology and the complicated nature of issues surrounding cryptocurrencies and trading with them. As new technologies require an **emphasis on education**, we have decided to launch the **Dollero Academy**, where we are motivating members with cryptocurrency Dollero to educate themselves. In order for the platforms to benefit the most users possible, they will all be simple to use, so that they are accessible to everyone while also providing the tools demanded by the most exacting professionals.



TOKEN DOLLERO

Token Dollero is issued on the Ethereum blockchain and is built on the **ERC-827 protocol**. Its compatibility with the most widely used ERC-20 protocol makes it possible to co-operate with many projects. The extended functionality of this protocol will find its use in the later stages of the project.



BASIC INFORMATION

Name: Dollero

Ticker: DLLR

Blockchain: Ethereum

Standard: ERC-827

Emission: 40,000,000 pcs

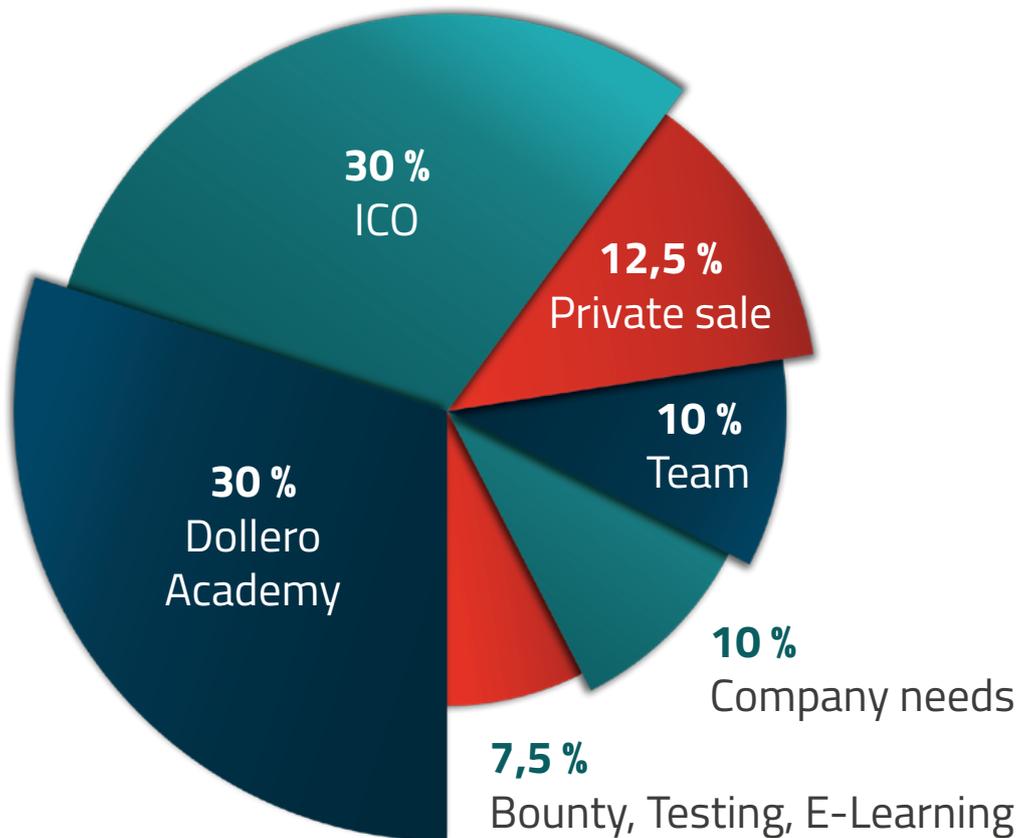
ICO price: EUR 1.00

Issue date: 1.11.2018

Dollero is a **utility token for the Dollero Exchange**, where its **staking** will provide platform users with various benefits - additional functionality and fee discounts. The second important attribute of the Dollero token is its function and use in Dollero Holder.



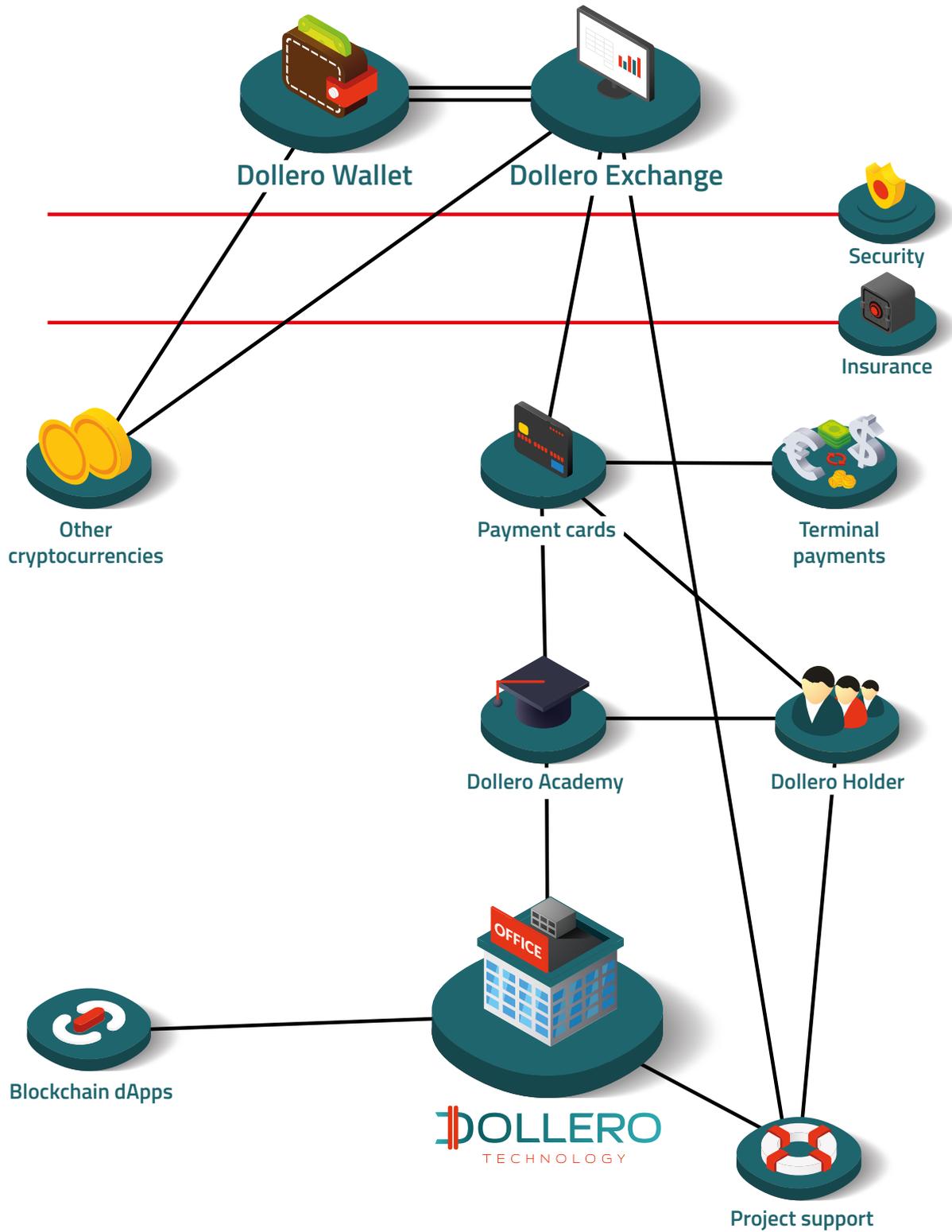
DOLLERO DISTRIBUTION



- 30 %** Dollero Academy
- 30 %** ICO - unsold tokens will be burned
- 12,5 %** Private sale (lock 12/18/24 months)
- 10 %** Team and Advisors
- 10 %** Company needs (lock)
- 7,5 %** Bounty campaign - rewards for promotion
Testing - rewards for testers of technologies
E-learning - rewards for education



ECOSYSTEM



MARKET CHALLENGES & OUR SOLUTIONS

ISSUES OF CRYPTO EXCHANGES

SECURITY

Exchanges are currently **space where most thefts and hacking attacks take place**. Their protection and security, therefore, do not cover current market requirements. Traders are afraid that their funds will be stolen. They accept this risk only very reluctantly or spend a large amount of funds on repeated deposits and withdrawals every day as they are afraid to leave their funds on insufficiently secured exchanges.

LIQUIDITY

Several crypto exchanges have a problem with liquidity, where the immediate purchase or sale of tradable cryptocurrencies is not possible due to the **absence of a counterparty**. The possibility of immediately buying or selling cryptocurrencies is one of the main advantages of the exchange.

SOFTWARE & TOOLS

Crypto exchanges do not place sufficient emphasis on software, tools, and services they offer to their clients. Most **exchanges offer only basic, almost "playground-like" UI and only basic functionality** suitable for beginners. Traders do not have tools that can be found in different markets such as futures markets.

OUR SOLUTIONS

SECURITY

The **unique level of crypto exchange security** developed in cooperation with an international cybersecurity leader, combined with **insurance covering all funds** will ensure that traders no longer have to worry about their funds. By avoiding the need for repeated withdrawals and deposits, they save a lot of money.

LIQUIDITY

Dollero Exchange enables trading of 21 cryptocurrencies. This number will be gradually increasing as the exchange grows. The connection with FIAT currencies will be added to provide maximum user comfort. **Cooperation with financial partners will guarantee a high level of liquidity**, whether for individual tradable pairs of cryptocurrencies or in providing a sufficient volume of funds for trading on margin, thus creating a comprehensive solution.

SOFTWARE & TOOLS

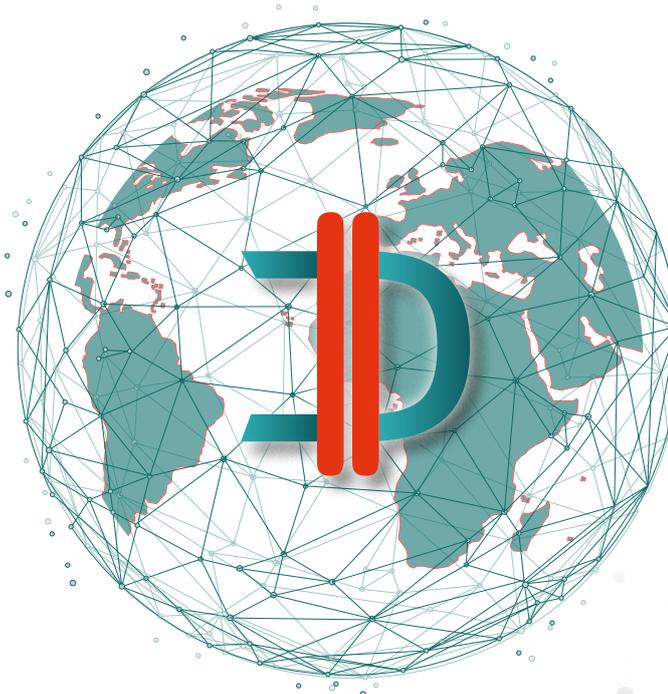
We will introduce a completely new **trading platform with many functions that will suit as beginners as professional traders**. Traders will have free access to the **institutional level software**. Besides the platform, there will be a whole range of analytical tools, all based on scientific papers and trading books.



DOLLERO EXCHANGE

MAIN ADVANTAGES

- ⊕ LOW-LATENCY MATCHING ENGINE NEEDS ONLY MICROSECONDS TO EXECUTE THE ORDER
- ⊕ ORDER SERVER CAPABLE TO PROCESS SEVERAL MILLIONS OF ORDERS PER SECOND
- ⊕ MULTIPLE LIQUIDITY SOURCES
- ⊕ 100 % OF CLIENTS FUNDS ALWAYS HELD IN COLD STORAGE
- ⊕ CRIME INSURANCE PROGRAM FOR CRYPTOCURRENCIES FOR UP TO \$150 MILLION APPLICABLE TO THIRD-PARTY THEFT AND INSIDER EMPLOYEE THEFT
- ⊕ THE INITIAL OFFER OF 82 CRYPTOCURRENCY TRADABLE PAIRS
- ⊕ SCALABLE AND FAIL-SAFE



DOLLERO EXCHANGE

Dollero Exchange is the main product of Dollero Technology development. In addition to the **high level of security**, it will feature a **well-designed and intuitive environment** in which everybody can easily navigate and use **powerful tools for experienced traders**. The main competitive advantage is the **insurance covering all funds** deposited on the Dollero Exchange. This way, clients will not have to worry about losing their funds. We will also provide fast customer service as a significant step towards client's satisfaction, which will be helpful to solve any problems.

TRADITIONAL EXCHANGES

Push trades through the order matching engine and do not hold client deposits or perform the role of broker / dealer.

CRYPTOCURRENCY EXCHANGES

Perform several of these functions at once, for example, they pose as an exchange, deposit manager and clearing centre.

DOLLERO EXCHANGE

Combines the tasks of different types of exchanges within the available options resulting from a given type of exchange with regard to the maximum possible liquidity, volume, transaction speed and security.

EXCHANGE OFFER

Dollero Exchange will offer **trading of 21 cryptocurrencies**, which will be selected according to the highest average daily volume. To create crypto pairs, we will use 5 basic cryptocurrencies - Bitcoin, Ethereum, Litecoin, Ripple, BitcoinCash and create their combinations with the remaining 15 cryptocurrencies and Dollero. This will create **80 available instruments to be traded**.

The offer will also include the **Dollero cryptocurrency forming the following pairs: DLLR / BTC and DLLR / ETH**.



DOLLERO EXCHANGE

EXCHANGE CENTRAL WALLET SOLUTION

Dollero Exchange will use a **central wallet in the form of a hot wallet and a cold wallet**. While the wallet will be centralized, the funds will be safe, just as they would be in the real-life wallets. To prevent theft of funds by hacking attacks, **all funds are stored in a cold wallet**.

We decided to cooperate with industry **leader in crypto asset security - Ledger Vault**. Ledger is a global leader in security and infrastructure solutions for cryptocurrencies and blockchain applications, for its institutional-grade custody solution and bank grade vault. Ledger Vault is a multi-authorization cryptocurrency wallet management solution enabling financial institutions to build digital assets operations at speed and scale. By utilizing Ledger Vault, Dollero Technology securely and efficiently manages its own funds as well as clients digital assets.

With **100 % of client funds always held in cold storage**, Ledger Vault allows to operate the business at scale while maintaining the highest standards of security.



INSURANCE

Dollero Exchange will greatly benefit from its partnership with Ledger. One of its further advantages is the insurance of the clients funds. Ledger has procured a crime insurance policy developed with broker and risk advisory **firm Marsh and insurance company Arch Insurance Limited**.

Ledger Vault platform now provides its users a customized **crime insurance program for cryptocurrencies for up to \$150 million**. The program applies to third-party theft of the master seed and private keys, secure transmissions of the master seed fragments, and insider Ledger employee theft caused by collusion.



DOLLERO EXCHANGE

LIQUIDITY

Ensuring sufficient liquidity is key to executing a trading order at higher volumes. Dollero Exchange provides **liquidity from multiple sources.**

LIQUIDITY FROM THE INTERNAL PORTFOLIO OF ASSETS:

1. Funds obtained from ICO
2. Private investors
3. Co-operation with market makers

LIQUIDITY SECURED BY EXTERNAL LIQUIDITY PROVIDERS:

4. Professional liquidity providers
5. Liquidity secured by other exchanges

With a centralized architecture, the client opens an account and sends funds to the account. These funds can be found in one collection account - the wallet of the exchange. **There is no real currency exchange between users going on**, only a transfer of ownership in the database - if User A sells 1 BTC to User B, instead of moving coins, only the account balance of both users is updated in the database. The real coins are still in the exchange wallet.

Sufficient capital to generate liquidity, from which it is possible to execute trading orders entered by individual users, is a necessity for the exchange. The available capital will be used to purchase a **base cryptocurrency package that will serve as the basis for trading**. To calculate the ratio of the distribution of capital into individual cryptocurrencies, we add up the total daily volume of 20 cryptocurrencies and determine the percentage of the volume made up by the individual cryptocurrencies. The same percentage is then allocated to the purchase of individual cryptocurrencies that will constitute the exchange portfolio. **The basic package will be dynamic**, and as capital increases, part of the money will be automatically allocated to each cryptocurrency. The allocation **will take into account the supply and demand at Dollero Exchange and traded volumes.**

Creating sufficiently large pool liquidity consisting of a portfolio of individual cryptocurrency assets will **cover the major portion of the required volume**. The exchange envisages several sources of liquidity. If the exchange will not be able to match a trading order with a sufficient amount of assets internally, it will pass the trading order to external counterparties, for example to another exchange. In addition to the total available liquidity, which is its assets, **Dollero Exchange will aggregate the volume of the 5 largest exchanges**. This procedure will ensure liquidity even in times of high market volatility.



DOLLERO EXCHANGE

SECURITY

Security is one of the top priorities for Dollero Exchange. As security is based on a centralized solution, it is crucial to have as though protection against attacks as possible.

In addition to secure source code and server security, several high-end systems such as **IBM qRadar** and **Nessus by Tenable** will be running on the servers to detect and prevent various forms of attacks.

Security measures will also include **ESET security systems**, which will also take part in the security consultancy team. ESET will also be involved in the design and implementation of the Dollero Exchange security.

Dollero Exchange will be subjected to penetration tests, security audits and will receive a security certificate from Citadelo, a partner company that specializes in cybersecurity and ethical hacking. We will also meet **ISO / IEC 27001** information security management system standards and we plan to cooperate with **Ernst & Young and PricewaterhouseCoopers** to conduct security audits.

As we take security very seriously, we **will be monitoring against threats 24/7. This will be handled by an onsite security team constantly evaluating potential attacks.** 24/7 presence by security specialists will ensure that in the event of an incoming attack such is caught and prevented promptly. Short response time and our system design will not let the hackers succeed.

USER SECURITY

We implemented several methods to ensure enhanced user security:

- even if our source codes have the highest AAA ranking, we constantly check our source codes to ensure our application doesn't have a malfunction and open door to intruder
- user needs to create strong password
- actions need to be further confirmed
- 2/3 - Factor Authentication

DOMAIN & REGISTRAR SECURITY

Like the rest of our system, we also took measures to protect our domain:

The Registry lock - a special flag in the registry (not our registrar) that prevents anyone from making changes to our domain without out-of-band communication with the registry

Role accounts - protect individuals in our company from being targeted by attackers

DNSSEC - eliminates the threat of DNS cache poisoning by authenticating all DNS queries with cryptographic signatures



DOLLERO EXCHANGE

WEB SECURITY

We have advanced threat detection and security analysis tools that can foresee many types of attacks. Besides detection, we are natively protected against different attacks. We are going to list a few basic ones:

- **HSTS HEADER PRESENCE** - the HTTP Strict-Transport-Security response header (often abbreviated as HSTS) lets a website tell browsers that it should only be accessed using HTTPS, instead of using HTTP
- **CLICKJACKING ATTACK PROTECTION** - a malicious technique of tricking a web user into clicking on something different from what the user perceives they are clicking on
- **DRIVE-BY DOWNLOAD ATTACK PROTECTION** - unintended download of computer software from the Internet
- **MAN-IN-THE-MIDDLE (MITM) ATTACK PROTECTION** - attack where the attacker secretly relays and possibly alters the communication between two parties who believe they are directly communicating with each other
- **POODLE ATTACK PROTECTION** - an exploit that takes advantage of the way some browsers deal with encryption
- **HEARTBLEED ATTACK PROTECTION** - leads to a leak of memory contents from the server to the client and from the client to the server
- **ROBOT VULNERABILITY PROTECTION** - a vulnerability that allows RSA decryption and signing operations with the private key of a TLS server to be performed
- **TLSv1.3** presence
- **HIPAA, PCI-DSS, NIST** guidance compliance

DOS PROTECTION

A cyber-attack in which the perpetrator seeks to make a machine or network resource unavailable to its intended users by temporarily or indefinitely disrupting services of a host connected to the Internet.

EXCHANGE PLACEMENT

Dollero Exchange will use Microsoft's cloud solution - **Azure Cloud** and also **Amazon's Web Services - AWS**. This will ensure the stability and reliability of the entire platform, as well as its scalability and management. This will provide an additional degree of protection provided by Microsoft and Amazon itself.

Dollero Exchange consists of many parts using different server solutions in different parts of the world to eliminate latency in the solution itself (e.g., a connection to Binance located in Tokyo) as well as in technical matters, such as the need for replicating databases across data centers.



DOLLERO EXCHANGE

KYC & AML POLICIES

The Internet offers many advantages but is also a medium that creates significant risks. There is a global effort to **prevent risks arising from the anonymity of the Internet** and the absence of non-physical contact. Like most providers, we also don't require physical contact to establish an account in Dollero Exchange. By not meeting face to face with clients this opens a whole range of possibilities of potential scams and fraudulent schemes. Such schemes may be designed for various purposes. To mention some examples we would mention hackers buying photoshopped pictures of passports and IDs to open the account to exploit the system from inside or terrorists trying to launder the money to fund illegal activities.

As it's important for us not to get hacked, we are strongly against any illegal activities which we certainly do not want to take part in. Dollero Exchange **follows all KYC & AML policies also to maintain good status with its regulator**. We also decided it will integrate the most prestigious KYC & AML system from a well-established third-party provider. This provider maintains a global database of users collected from various sources and creates a blacklist. Besides the internal "persona non grata" list, the system automatically checks in several global databases to make sure the customer is "clean".

AML COMPLIANCE PROGRAM

One obligation that crypto exchanges face is to have an **Anti-Money Laundering (AML) compliance program like banks and financial institutions**. The key to an AML compliance program in FATF and EU standards is the "risk-based approach".

Crypto exchanges have to perform customer account opening processes under AML and KYC requirements, according to European Union regulations and Financial Action Task Force recommendations.

KYC REQUIREMENTS

The purpose of Know Your Customer procedures is for the business to recognize the person who will become the customer.

We make sure the collected data is accurate and correct and our database fits documents submitted by the client.

IMPLEMENTATION OF CDD PROCEDURES

Customer Due Diligence procedures are the process by which businesses control their customers and collaborators. Crypto exchanges are required to perform a risk assessment by implementing CDD procedures.

We determine the risk level by checking whether the client is:

- in the list of sanctions, wanted or banned countries
- connected with any terrorist organization
- a politically exposed person
- news in the adverse-negative media data



DOLLERO EXCHANGE

TRANSACTION MONITORING

It is mandatory to control customer transactions by following AML regulations. We integrated advanced transaction monitoring tools that automatically monitor customer behavior enable crypto exchanges to detect suspicious transactions.

AML SCREENING

By utilizing KYC & AML screening solution, we can monitor if our clients are on some sanction list, wanted or banned by some country, connected with some terrorist organization, whether they are PEP or see if they have some negative records.

By screening the clients against the current list we can do so in real-time and not only when we open the customer's account. As we know life circumstances may change and if we don't implement some real-time system, in case something changes on the customer's side - we wouldn't know and this could lead to missing important information. This solution, therefore, allows us to quickly expose person and implement adequate measures for such customers.

If the system detects some anomaly, it evaluates risk and if it crosses some threshold, we take action, sometimes resulting in terminating our relationship with the client.



DOLLERO EXCHANGE

LICENCE & REGULATION

CURRENT MOOD

Crypto is highly known for starting as an anonymous and unregulated sector. This is one of the reasons for the negative view of the sector. Anything that is finance-related and not regulated creates a suitable environment for fraud and various illegal activities and raises red flags and suspicion. To regulate the cryptocurrency business is kind of against its principles, but under current global trends, we are inclining to a scenario where cryptocurrencies and exchanges will be regulated just as any other financial instruments and institutions providing financial services.

REGULATORY CHALLENGES

Dollero Technology is fully supporting further regulation of the crypto industry. The Dollero Exchange must acquire an official license allowing us to provide services in compliance with current legislation trends. This however brings several problems.

1. Not every country has implemented legislation to regulate cryptocurrencies and directly integrate them into their legal system. Therefore in some countries, there is no legal framework to approach this segment which means in such countries it's not only not regulated, but so far even not possible to regulate.
2. If a specific country integrated crypto-related legislation, it is very different in every country that has it implemented. It is necessary to find a suitable country that would meet our needs.
3. European Union is preparing new legislation that could be adopted as early as autumn 2020. The legislation will seek to give legal clarity to activities related to crypto trading. Schneider-Le Saout stated that cryptocurrencies must be classified as financial instruments. This would allow this asset class to be included in the European Union's legal instruments regulating the markets.

DOLLERO EXCHANGE STANDPOINT

Dollero Exchange is aiming to acquire a **license from Estonia**. Estonia is part of the EU and has a very innovative environment supporting technologies and new advances. It prepared a great **regulatory framework supporting cryptocurrencies allowing fully-regulated operation of crypto exchange**.

As we are still working on the development of Dollero Exchange and the situation is constantly changing, we are opened to other options. If the EU comes forward with a suitable legislation framework and classifies cryptocurrency as a financial instrument, current licensing standards might change and we will need to acquire a different type of license. We are patiently waiting for developments and we will proceed with the most suitable and most up-to-date license according to the newest legislative changes.



DOLLERO EXCHANGE

CUSTOMER SERVICE AND SUPPORT

One of the advantages of the centralized exchange is customer service and technical support, which is available to the user 24/7. Customer service and tech support make up a great share of the final customer experience. We decided to employ highly trained teams working around the clock to work with clients.

CUSTOMER SERVICE

Nobody wants to wait for an account opening or any back-office operation. A trained team of specialists will promptly respond to any account, transfer, and transaction issues.

The client can contact us via email, phone, live web chat, or ticketing system. Live web chat and ticketing systems are handled by operators in real-time and the client can resolve the issue without long waiting times on the phone.

TECHNICAL SUPPORT

We take technical problems with our technologies very seriously. In case of failure or need of any technical assistance with our software or technologies users are free to contact tech support.

Technical support will be in English and will help users with technical problems over the phone or via remote shared desktop. In the future, support will be provided in other world languages.

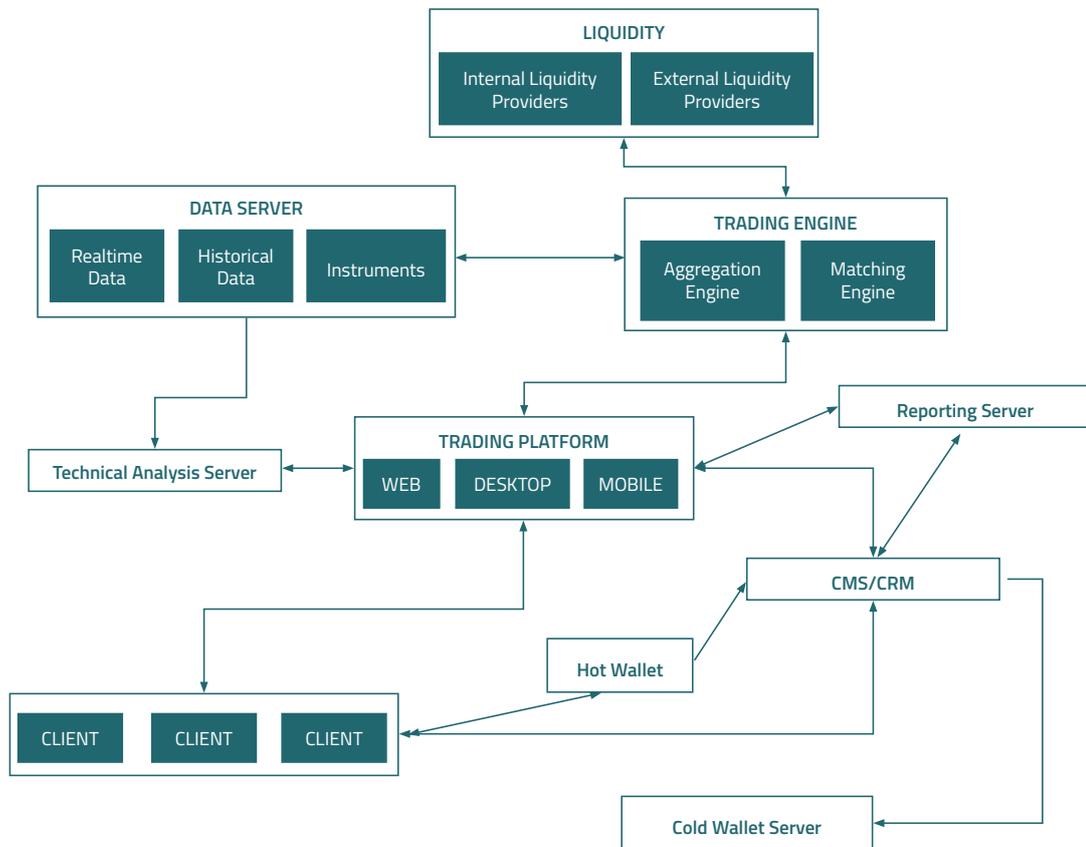
PHONE TRADE SUPPORT

We know that clients might not always have internet access or have problems with an internet connection and don't have the possibility to send new or modify the existing order or position. In such a case with traditional exchanges, users don't have many choices, but to wait until the connection is restored.

On the Dollero Exchange we operate a trading desk that can be reached by phone and by thorough identification and authorization, the trader can execute orders via voice command given to our trading desk operator who will manually execute the order on behalf of the client.



DOLLERO EXCHANGE ARCHITECTURE



HIGH PERFORMANCE

One of the biggest objectives during development was to achieve the highest possible performance of all parts of the Dollero Exchange. We succeeded to build very **fast infrastructure achieving great results**. The order server is capable to process **several million orders per second**. A low-latency matching engine needs **only microseconds to execute the order**.

SCALABILITY

Growth and increasing users base can be fatal for poorly designed systems. **Dollero Exchange system is modular and it's architecture allows to scale any part** to easily cope with increased system load. System will perform well with thousand users, but is also designed to handle millions of users and withstand critical situations.

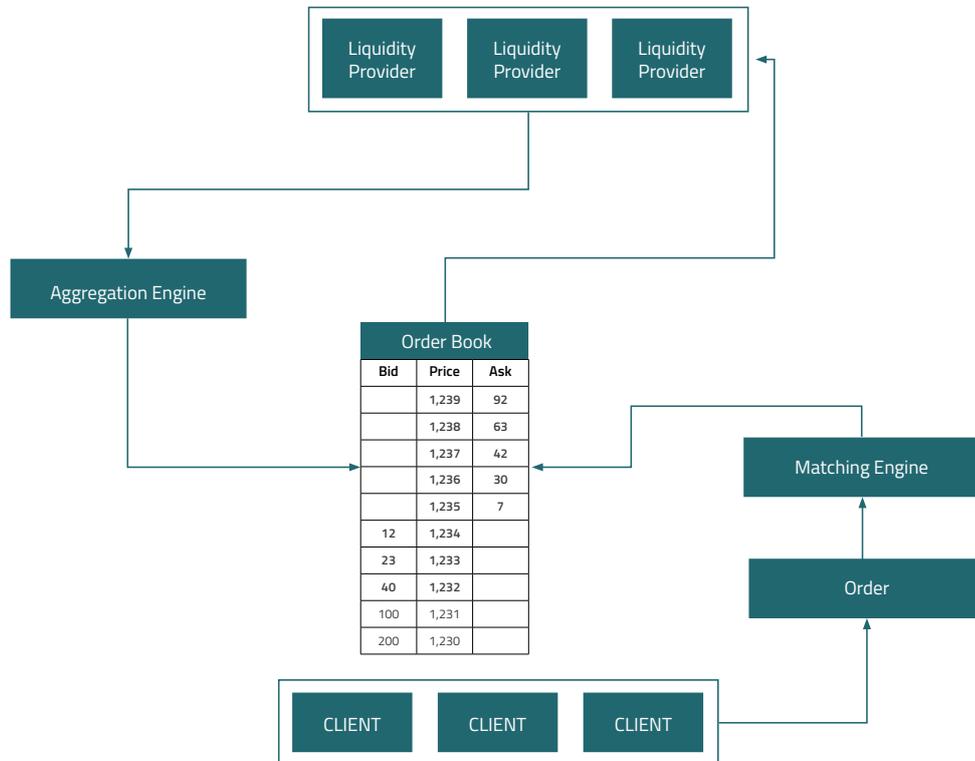
DISASTER READINESS

In the unlikely event of a disaster or some unpredictable event, Dollero Exchange has implemented safeguards to protect its operation. It is using all modern technologies to continue running unharmed in case something happens or install server updates without service interruptions.



DOLLERO EXCHANGE ARCHITECTURE

TRADING ENGINE



ORDER MATCHING ENGINE

Dollero Exchange will provide several types of trading orders with a different time in force types:

STANDARD ORDER TYPES

- Market Buy
- Market Sell
- Buy Stop
- Sell Stop
- Buy Limit
- Sell Limit

COMPLEX ORDER TYPES

- All or None
- Stop Trailing / Stop Loss
- Fill or Kill
- Stop Limit
- Limit if Touched
- Iceber
- Market if Touched
- OCO/OSO
- Market to Limit
- Conditional & Algo Orders

TIME IN FORCE (TIF)

- Good After Time/Date
- Good till Date/Time
- Good till Cancelled
- Day



DOLLERO EXCHANGE ARCHITECTURE

MATCHING ENGINE

Matching orders between users use algorithms that determine how orders are matched, in which order and volume they are executed, and to what counterparty they are passed on.

Trade orders for purchase and sale consist of an order book where users see the total available liquidity. After entering the order, it is placed in the order book in which the matching engine tries to pair 2 orders so that they are executed immediately and in their total volume.

The matching engine tries to find the best price for the given trading order and execute it in full. If there is an insufficient volume on the market, the order will be executed only partially, and the rest will remain as the order in the order book waiting for its execution. If the order cannot be executed at the requested price, it becomes part of the order book.

OME solves various problems, for example when it has 2 or more buy or sell orders at the same price. The matching engine applies an algorithm to see how the exchange will behave and how the orders will be executed. One of the best-known approaches is **First in First Out (FIFO)**. Priority will be given to the order that was entered earlier and is given the best price. Another model is the **Pure Pro-Rata** approach which divides incoming orders among counterparties in proportion to size. Other popular allocation strategies are e.g. time-sensitive or volume-sensitive allocation.

MARKET MAKING ALGORITHMS

The exchange will use sophisticated algorithms to create market and liquidity - models such as the **Constant Product Market Maker model or Relay Token**.

Besides standard methods, we are developing proprietary sophisticated algorithms to gain an edge in market microstructure and turn the scales to our advantage and profit.

AGGREGATION ENGINE

The Aggregation Engine allows the exchange to obtain liquidity from a variety of external sources by connecting to external liquidity providers, such as various professional institutions (e.g. stock exchanges). After connecting to an external exchange via API, access to the liquidity of another exchange is obtained - its complete order book.

If Dollero Exchange is unable to provide sufficient volume, it can provide the necessary liquidity by drawing it from other exchanges. The aggregation engine fulfils the aggregation function by combining the volumes of interconnected exchanges and completes the exchange internal liquidity with the volume from other exchanges.

If the matching engine is unable to match a trading order within Dollero Exchange, it will forward the trading order to a stock exchange that has sufficient volume to execute the order and execute the requested trade.

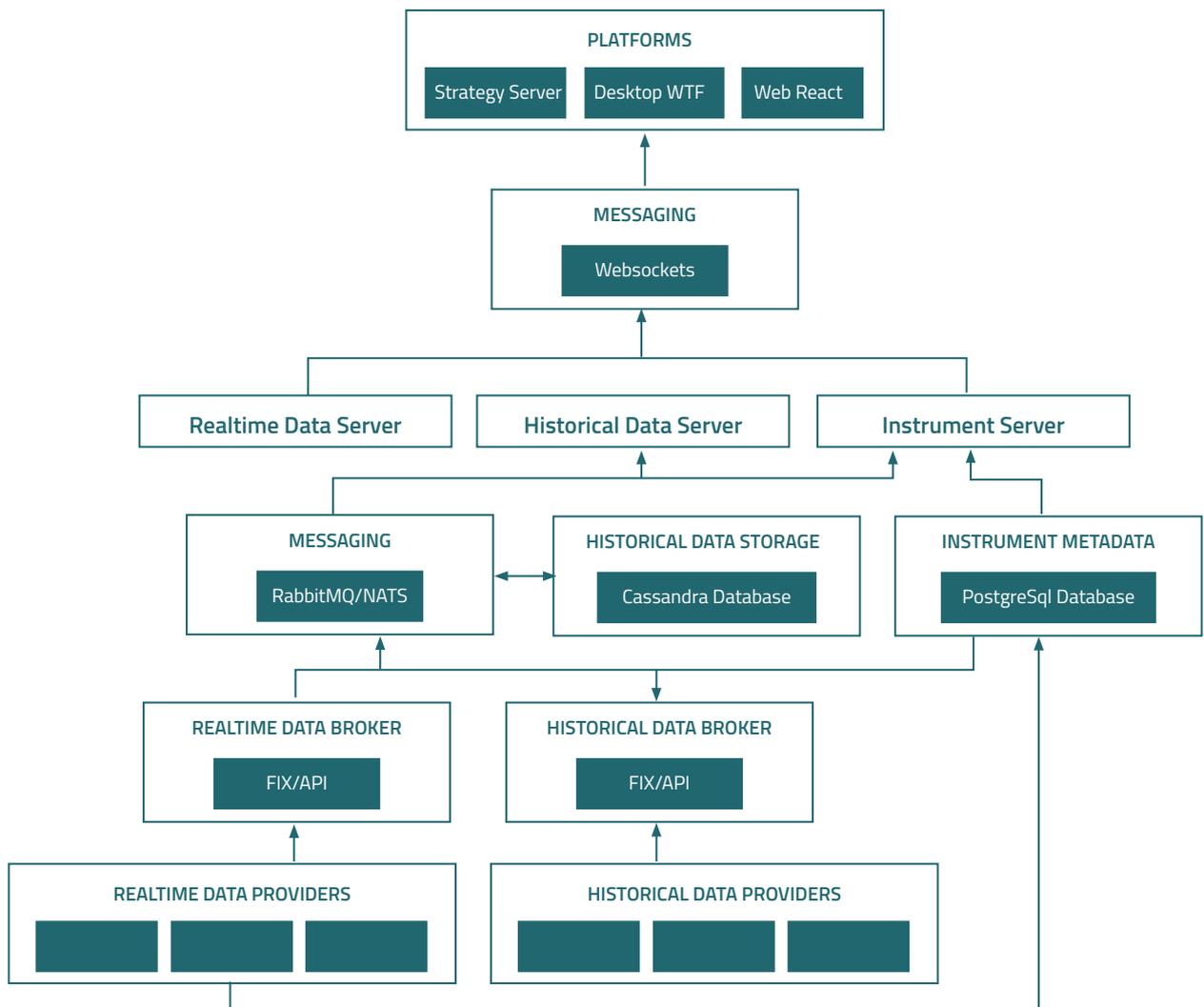


DOLLERO EXCHANGE ARCHITECTURE

SERVERS

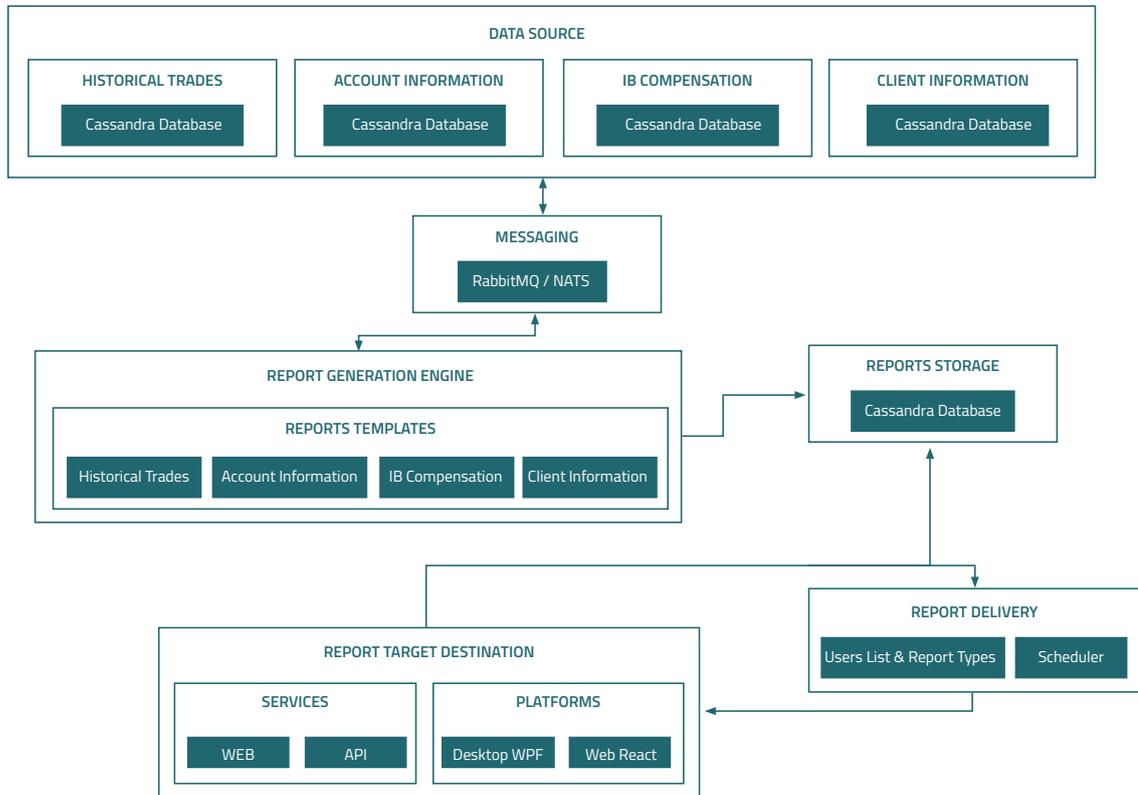
The whole solution will run on several servers in Microsoft Azure Cloud.

- Trading Server
- Wallet Server
- CMS a CRM Server
- Data Server

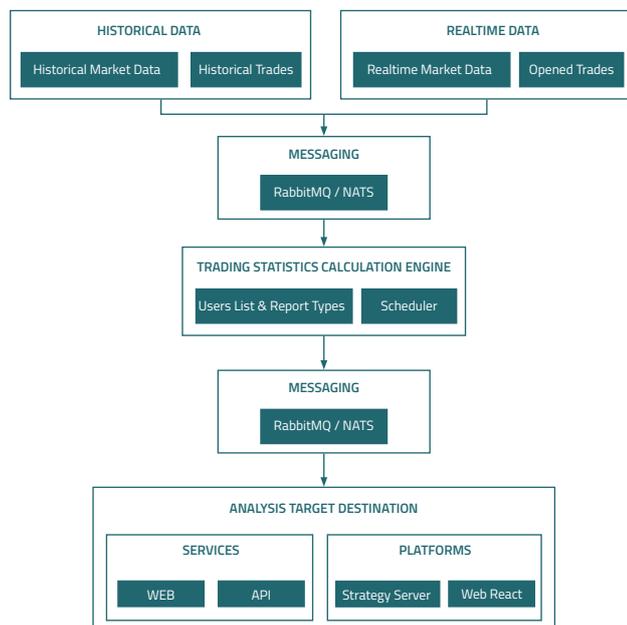


DOLLERO EXCHANGE ARCHITECTURE

REPORTING SERVER



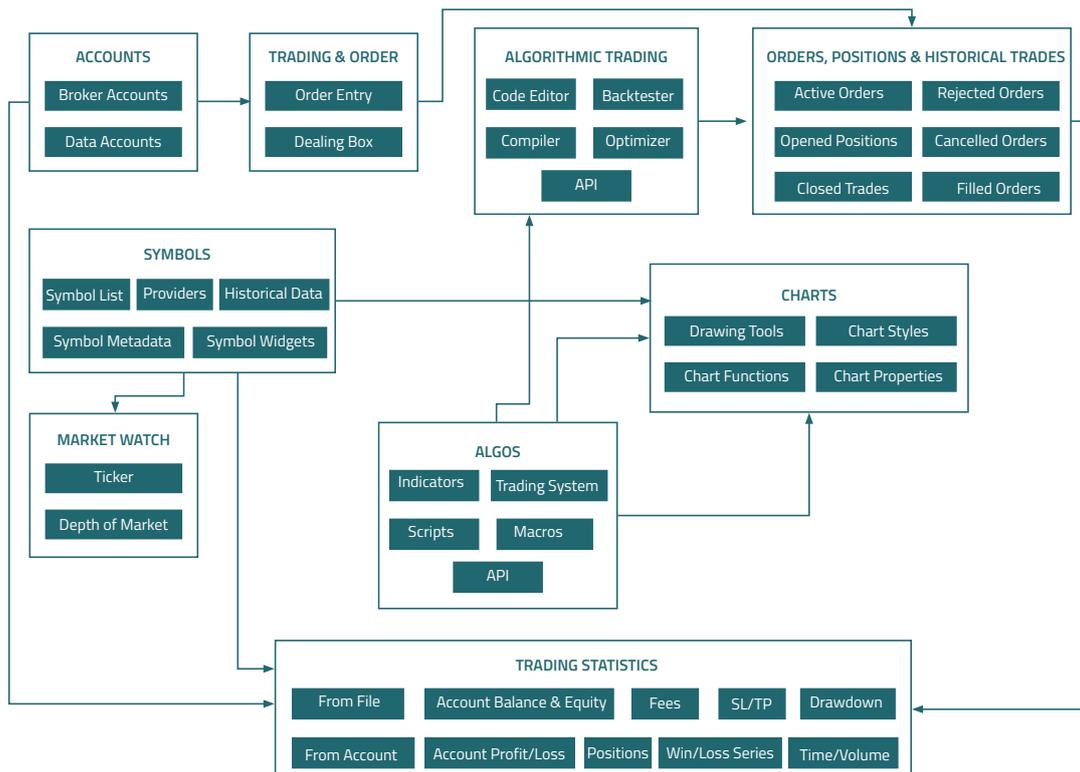
TECHNICAL ANALYSIS SERVER



DOLLERO EXCHANGE TRADING PLATFORM

PLATFORM

Dollero Exchange will be provided with a platform from **Fin Systems Ltd.** The platform will be available on desktop, web, and mobile versions. Through the trading platform, users get access to market and trading. The platform provides many features and is designed for both beginners and professional traders.



FIN STUDIO

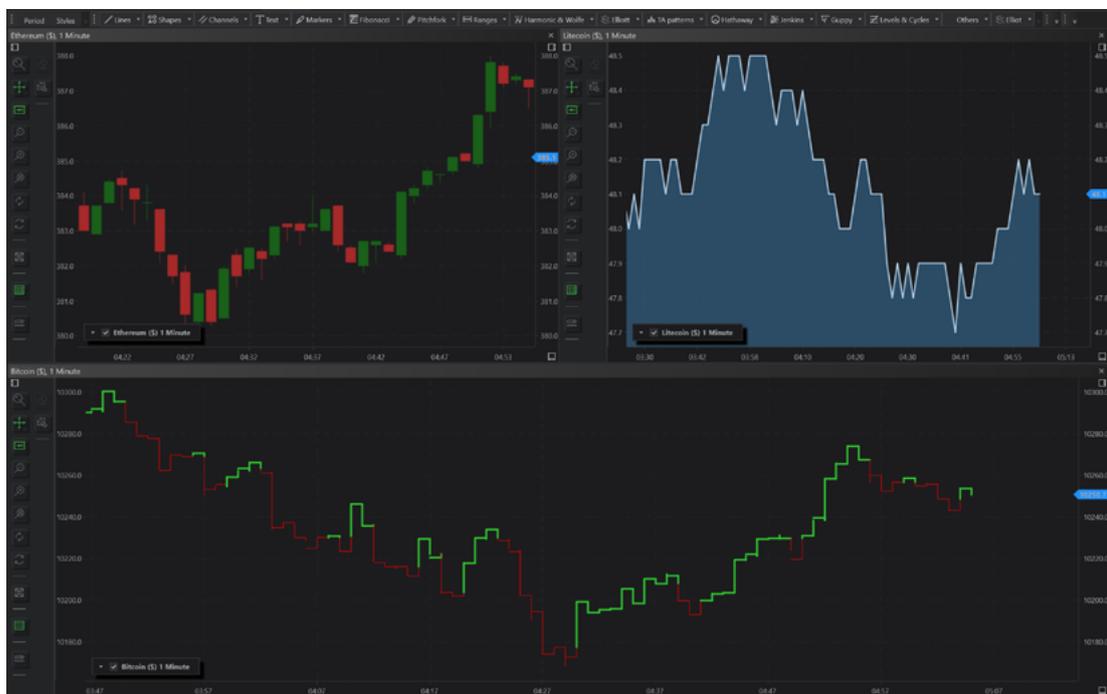
New trading platform that provides a **wide range of useful features to all financial market participants**. It was built by traders and market professionals to serve traders as a **unique tool to trade, manage accounts, test, optimize, analyze, report**, and much more. We closely observed each aspect of the trading process and as a result, we are presenting an application that moves current trading software standards to a new level.



DOLLERO EXCHANGE TRADING PLATFORM

CHARTS

Charts are one of the main components of the trading platform and are used for price monitoring and analysis. The platform supports several types of graphics such as candlestick, bars, high / low, Renko, point and figure, range, mountain, line, Kagi, and volume charts. The platform incorporates about 150 technical indicators and more than 60 tools for drawing and advanced technical analysis. Desktop charts can load several million datapoints without significant performance loss. Web charts are programmed "in house", we do not use charts by TradingView or similar chart plugins.



TRADING

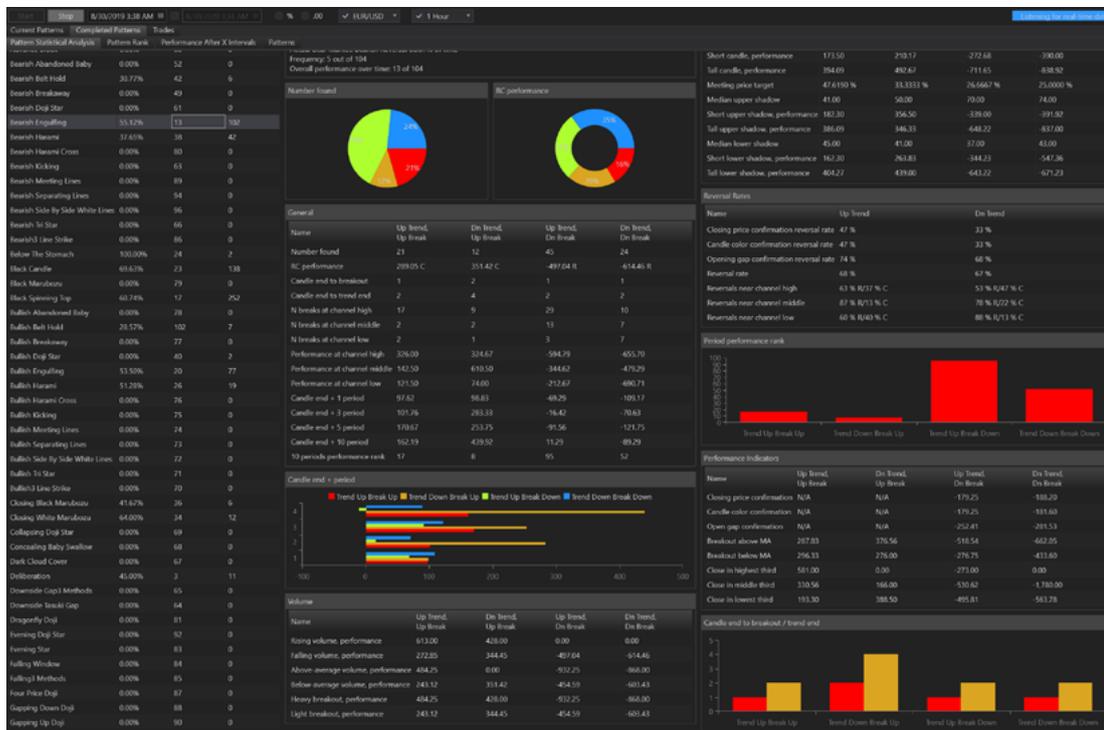
Trading is done through the order book from the Depth of Market window which provides users with an overview of the available liquidity at different price levels and allows them to enter trading orders. Trading is also possible through Market Watch, Dealing Panel, or directly from charts and figures. The platform supports many types of classic but also advanced trading orders and also has many features to simplify and speed up operations such as Delete & Close all, Scaling in & out, Bracket orders. For each trading order, a compound order can be programmed in which it is possible to program the behavior of the order and the individual steps that are to be performed after a certain condition is met. In addition to entry and exit conditions, the user can choose from various methods of money management - the way the size of the trade is determined. There are several different methods available such as Fractional, Fixed Fractional, Optimal F, Kelly ratio, Percent of Equity, etc.



DOLLERO EXCHANGE TRADING PLATFORM

SCANNERS

The application also contains several types of scanners - technical indicator analysis scanner, chart pattern scanner, and candlestick scanner. The technical indicator analysis scanner allows configuration of the technical indicators and conditions to generate signals or alerts and, if the conditions are met, it sends a signal to the appropriate instrument. Similarly, chart pattern and candle scanners analyze different time intervals on specified instruments and, when a valid pattern is formed, issue buy or sell signal, including stop loss and take profit levels. Scanners include pattern history, detailed pattern information, analyses, and detailed pattern statistics. Scanners contain about 60 technical analysis patterns and about 120 candlestick patterns.



MANUAL STRATEGIES BUILDER

The user can build his business strategy by combining different components and variables and setting individual parameters. The platform automatically generates the source code of the business strategy which can be backtested or set to run.



DOLLERO EXCHANGE TRADING PLATFORM

OWN PROGRAMMING LANGUAGE

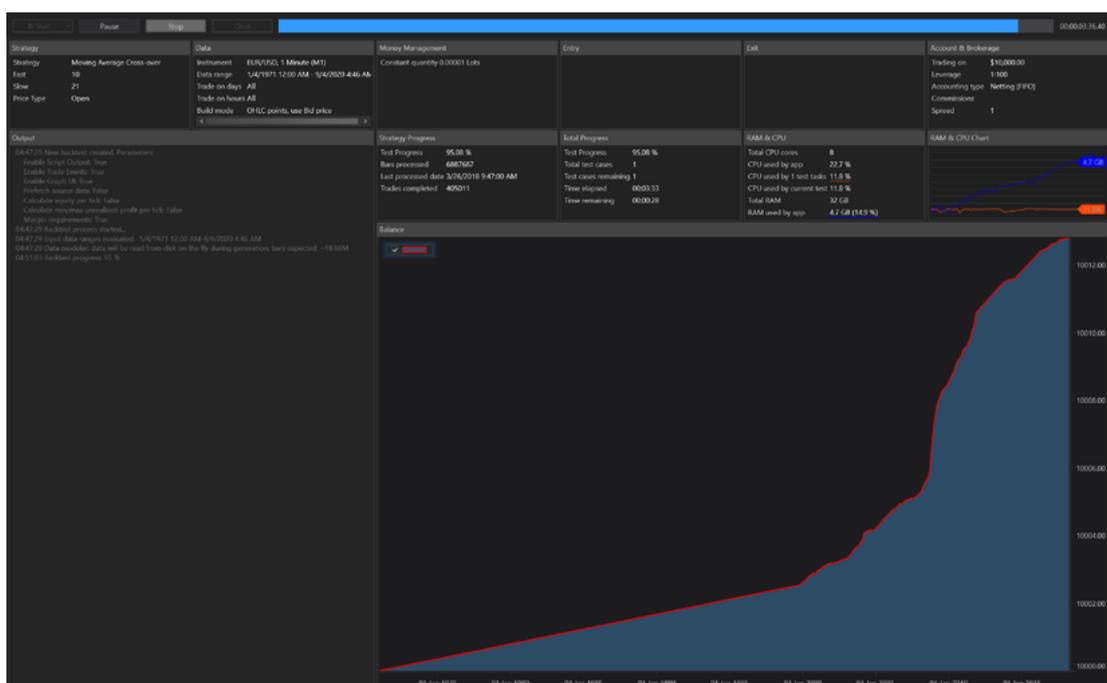
The platform uses its own programming language based on C#. With FinScript, users are able to program their own technical analysis tools such as indicators, drawing tools, automatic business strategies. FinScript can be used to extend the functionality of the platform itself where the user can program their own platform functionality.

AUTOMATED TRADING

The platform fully supports the trading of automated strategies. The user can automate their trading strategies and trade automatically without having to sit at the computer and manually place orders. Strategies can be launched directly from the charts and figures or from a separate section. The platform also supports trading strategies directly on the server, which means that users can edit their strategy in the desktop or web version and then run it on the desktop platform or the web where it will work automatically.

BACKTESTING OF AUTOMATED STRATEGIES AND INDICATORS

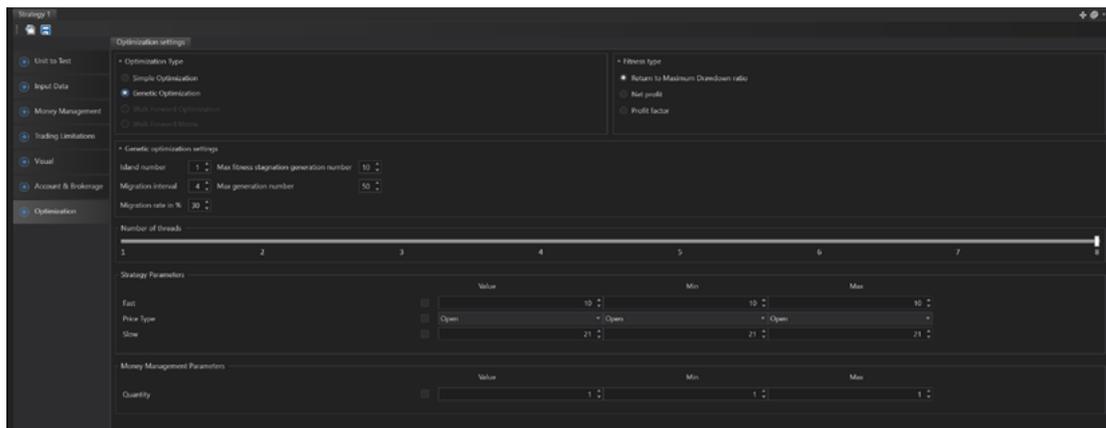
The user can test their automated strategies or indicators using historical data. Before launching its strategy in the real market, users are able to find out how the strategy would perform or the amount of maximum loss achieved. Backtest can be performed for several tools and intervals simultaneously. From individual strategies, it is possible to create and backtest the portfolio. The result of the backtest is a detailed report that analyzes various aspects of business strategy - for example, risk, return, instrument, and period analysis. The resulting report can be exported to various formats such as CSV, pdf, or HTML.



DOLLERO EXCHANGE TRADING PLATFORM

OPTIMIZATION OF AUTOMATED STRATEGIES AND INDICATORS

The platform uses genetic algorithms to streamline the optimization of strategy parameters and indicators. The optimization sets the strategy or indicator to values at which the given strategy or indicator would reach e.g. maximum profit or minimum possible loss for a certain period.

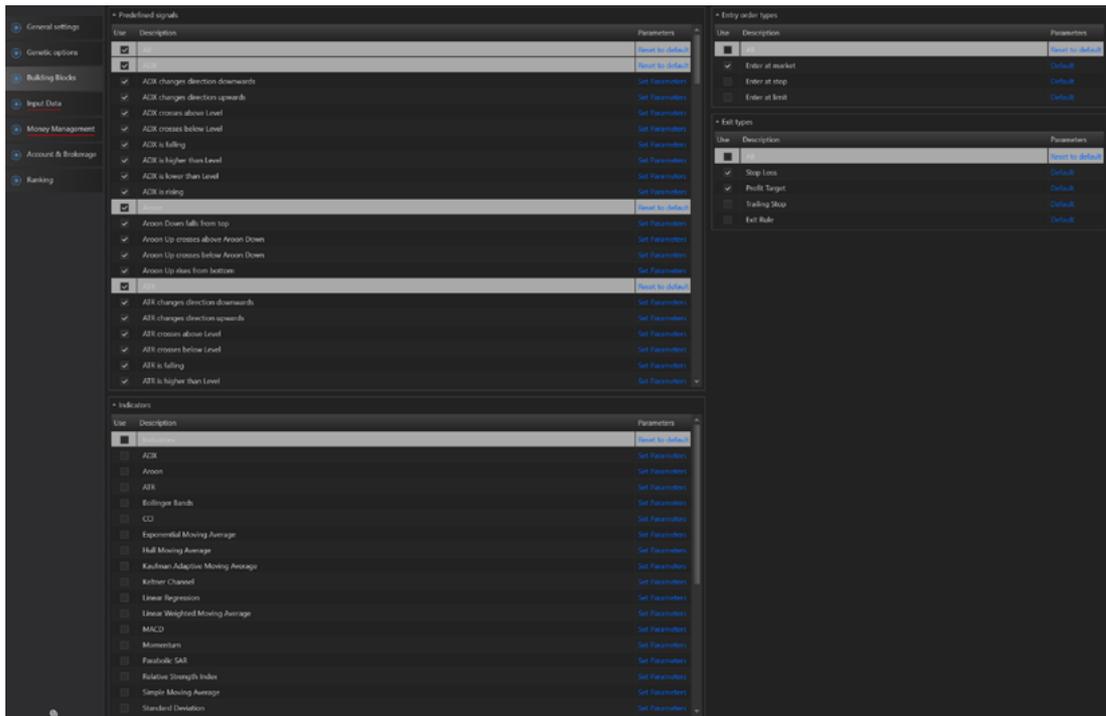


AI AND AUTOMATED GENERATION OF TRADING STRATEGIES

The platform includes several libraries that support machine learning and various methods of artificial intelligence. These include genetic algorithms, neural networks, fuzzy logic. These methods have a wide range of applications, each is used for different purposes. We use genetic algorithms to generate business strategies. Based on the specified variables, the platform will start to evolve the strategies itself, and the strongest ones that will survive, e.g. those that generate the highest profits, are passed on to the next generation for further improvement and development. Using this method, the application generates many strategies that may be used to create their own portfolio and analyze it, and if it meets the parameters, include it in the actual trading. The trader thus gains a tool that helps him to generate a business strategy that he would probably not arrive at by himself, and at the same time a tool that will help him in trading. Another method is neural networks which will be used by the system to analyze data and generate business signals and price predictions for certain cryptocurrencies.



DOLLERO EXCHANGE TRADING PLATFORM



TOOLS FOR ASSET MANAGERS

In addition to traditional investors, institutional investors and money managers are also welcome. Money managers have several options for managing client accounts, ways to aggregate client accounts, and allocating volumes to individual accounts. Available are classic PAMM, LAMM accounts, as well as copying client sub-accounts directly to the networks on which a business server runs.



CMS SYSTEM

CONTENT MANAGEMENT - in-house developed CMS system to manage all website content

USER ROLES - possibility to create different roles with different access rights to specific content

PAGES - management of all site pages - page creation, editing is done easy with predefined templates

FORMS - build custom forms with advanced functionality such as conditional fields, multi-page forms, and form actions

MEDIA - all media - pictures, audio, and video is handled conveniently from one place

PAGE BUILDER - front-end website builder and management

CUSTOM PLUGINS - easily extended functionality via custom programmed plugins and modules

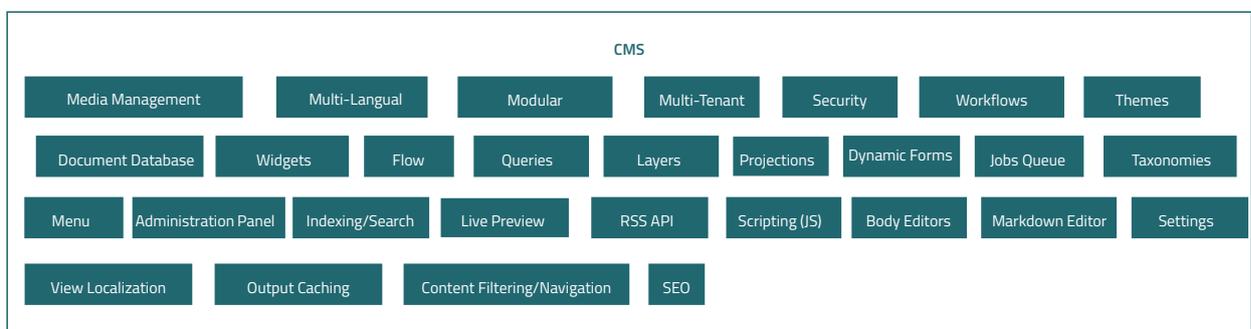
SEO SUPPORT - full support for SEO support and search engines

ADMIN PANEL - administrator access

The core of the web system consists of a Content Management System, which enables efficient management of individual parts of the web application and allows complete control over the content.

CMS uses individual modules to add any content or application. The page template allows for setting modules to be displayed and to whom they are to be displayed. CMS allows administration and determination of the scope of permissions for individual groups of users e.g. visitors, registered users, administrators. If an unregistered user arrives on the page, he sees only certain content.

Access to the web trading platform, trading history, and order entry options opens up only after registering and opening a trading account. CMS allows easy front-end management and provides back-office access from where the administrator can manage content, users, etc.



CRM SYSTEM

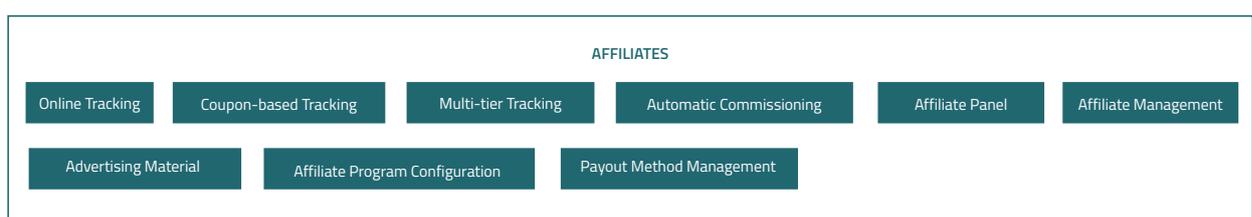
- COMPANY MANAGEMENT** - define company structure, it's main and superior departments and supervisors
- EMPLOYEE MANAGEMENT** - adding job positions, assigning employees to the department, tracking working hours
- USER AND CLIENT MANAGEMENT** - manage all information about users and clients
- WORKFLOWS** - automating tasks in the system so they are performed automatically (f.e. automatic emails, form actions automation, process behavior customization)
- E-MAIL** - setup company e-mail and start sending and receiving e-mails. Full support of e-mail templating and automated e-mails
- LEADS** - managing the full cycle of the lead from the first record in the system until it becomes a client
- ACCOUNTS** - supports generating of new demo accounts and approving account applications to create a live account
- REPORTS** - generating various system reports or reports for clients or based on company internal data
- PARTNERS** - full integration of introducing brokers and affiliates, unlimited tree type levels, automatic vertical fee distribution to the whole group
- SERVICE PROVIDERS** - recognizes other user types such as signal providers or money managers
- FEE GROUPS** - create specific, custom groups of fees for individual or group of instruments and also different target client or partner groups
- DOCUMENTS MANAGEMENT** - complete solution to manage clients documents such as ID's, proof of address

The Customer Relationship Management System contains all the tools needed to manage clients throughout the entire cycle from the moment they register.

The CRM system enables the automation of processes, setting conditions, and specific events that are triggered when certain conditions are met. After registration, a database entry as well as a client profile are created. The client will receive an automatic e-mail. If the client decides to open an account and send funds to the account, the system creates the record of doing so and sends information to the customer support's e-mail to contact the client.

The client's profile shows the entire history of the client, from the opening of the account, communication between employees and the client, marketing calls and e-mails, received documents, etc. sorted chronologically by date and time, much like pages on social networks. If any employee loads information on the client, they are all immediately available.

Part of the CRM system is also the affiliate system. Registered intermediaries have the opportunity to receive a reward for clients who open an account. The intermediary can have its intermediaries, the system supports a hierarchical structure.



APPLIED TECHNOLOGIES

Many different technologies and programming languages are used throughout the project. Web frontend and UI using React, JavaScript, HTML5, backend is designed in .NET Core. Similarly, CMS and CRM systems are in .NET Core. Individual parts of the business server are in C ++ and C #. The servers will run on a Linux cluster. Microservices, Kubernetes, Kafka, and RabbitMQ messaging system will be deployed, too.



DOLLERO ACADEMY

Dollero Academy is designed **for absolute beginners** in cryptocurrencies and blockchain technology, as well as **experienced crypto-traders**. Its main part is the academy which through its program gradually **explains the functioning of blockchain technologies, trading with cryptocurrencies as well as the overall issue of personal finance**. For more experienced traders and professionals, we will bring **expert analyzes** and recommendations for the long-term and short-term purchase of cryptocurrencies.

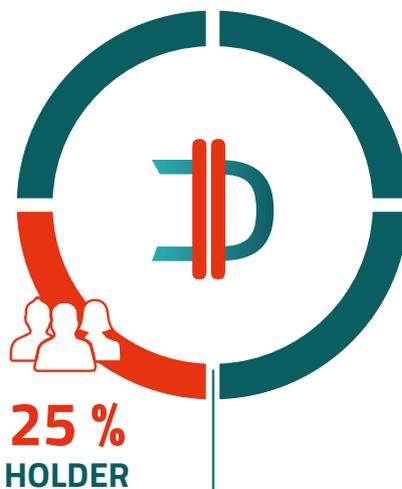


Join our Dollero Academy for free right now!



DOLLERO HOLDER

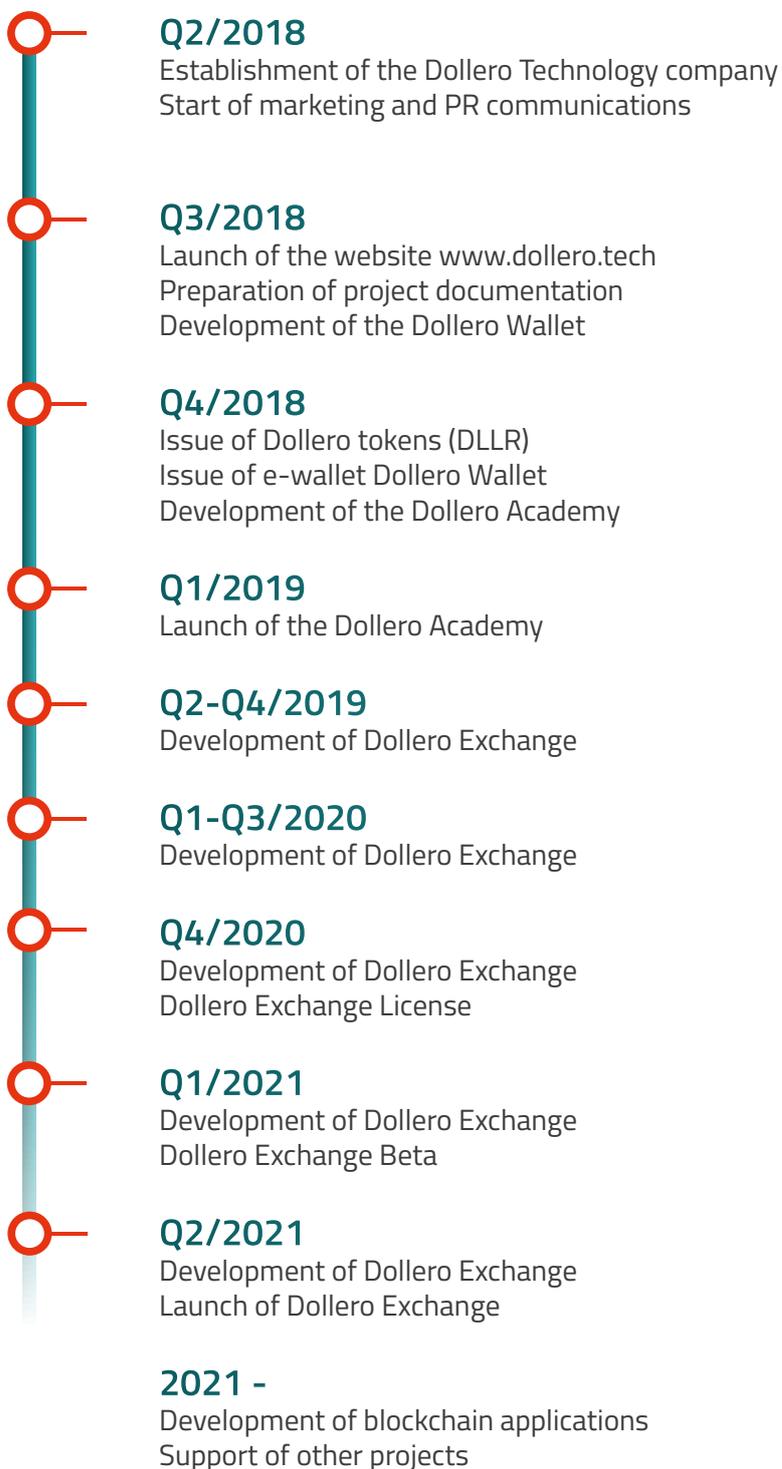
We appreciate everyone who has decided to take part in the Dollero Technology project through private purchase, ICO, or through the Dollero Academy. **Therefore, in the Holder phase, we will distribute a total of 25% of the company's total profit as stated in the annual report.** The main source of this profit is the Dollero Exchange and blockchain applications that will be added later. The amount of Dollero held determines one's position within the membership hierarchy during the Holder phase.



| SILVER | GOLD | PLATINUM |
|--|--|---|
| 1 500 - 14 999 DLLR | 15 000 - 99 999 DLLR | 100 000 DLLR + |
| voting right in polls | voting right in polls | voting right in polls |
| 4% share of profits paid annually in equal shares to all members at the given level | 8% share of profits paid annually in equal shares to all members at the given level | 13% share of profits paid annually in proportion to the number of held Dollero |



ROADMAP



TEAM



VLADIMÍR RUŠČÁK

Co-owner & Chief Technology Officer

Vladimír first came into contact with the financial world during his studies of the economy in New York in 1997. He also worked for a company doing PR for financial institutions regularly appearing on CNBC, in the Wall Street Journal, and similar media. This experience influenced his further career path. For several years, he was providing consultancy services for traders and worked as Introducing Broker for as many as 20 brokers. In 2012 he joined ATC Brokers in London, where he performed several FCA controlled functions such as director function, compliance, and CASS functions. Vladimír has extensive knowledge of financial markets, compliance, and technology in international environments. He is currently working on a proprietary fintech project that is soon to be released. He also decided to join the Dollero team as he sees the enormous potential of the cryptocurrencies in today's digital world. In Dollero, as a CTO, he is leading the development of exchange and the design of system architecture, oversees the development of its components and their integration.



SLAVOMÍR KAŇUK

Co-founder & Chief Marketing Officer

After studying at the Faculty of Business Management at the University of Economics, he dealt primarily with marketing, with a focus on social media marketing, and was responsible for advertising campaigns for clients. He has also been involved in various projects and the organization of events. He came into contact with cryptocurrencies and blockchain technologies at the previous company, where he and the team decided to start their own company and further develop these ideas. At Dollero Technology he is responsible for creating the basic ideas and ecosystem, in addition to the company's marketing and PR communication.



JÁN REPA

Co-founder & Chief Sales Officer

After graduating from the Faculty of Business, where he studied Foreign Trade, he worked primarily in the banking sector. In Tatra bank, he was employed in several sections, from foreign payments, through the back office, to the Treasury Dealing Department. In the private sector, he has been involved in building up a company in the petrochemical industry. Later, was a co-founder and CEO of a manufacturing company, where he built up a complete retail trading system. He also has extensive experience with trading on the capital and financial markets. We put this experience to good use in Dollero Technology, where he is responsible for creating business strategies, business platform architectures, building an international business team, and presenting the project at international forums.



TEAM



PATRIK BENČIČ

Co-founder & Chief Operations Officer

As the operational director responsible for the technical operations of the company, its day-to-day operations, and communications with the accounting department, he is making use of his experience from his previous employment in the financial sphere in banking. Governments and regulators are currently actively involved in preparing amendments to legislation relating to cryptocurrencies, and therefore his roles in this position include monitoring the development of legislative processes and new regulations in order to ensure the smooth running of the company. Other roles of the COO of Dollero Technology are to plan, conduct, organize, make decisions and check people, processes, and information in its day-to-day operations.



PETER ŠRANK

Software Architect

Peter builds on his more than 16 years of experience and skills, acquired mainly in the UK, whereas a software engineer focused mainly on web applications, micro-services, and data processing. In London, he worked for leading companies such as Shell, Mark & Spencer, Clarksons Platou, and Deloitte. Peter also has many years of experience in financial markets and machine learning. At Dollero Technology, he takes care of system architecture - especially the Dollero Exchange.



MICHAL REPA

Chief Information Officer

After completing his studies at the Faculty of Mathematics and Physics of Comenius University, Bratislava, in the area of the theory of information and computer systems, he started working as a programmer. He participated in the analysis, design, and implementation of healthcare projects. Later, he began working with Sysmex-Molis, a Belgian company, where he specialized in the development and application of laboratory medicine solutions in Europe, America, and Japan. He left the position of a programmer as a team leader. He then co-founded the Slovak IT branch of the German company Synlab, where he held the position of CEO, CIO. At Dollero Technology, he takes care of the most important aspect of the project – the IT. He designs architectures for individual systems and manages platform development and the whole development team.



TEAM



JAKUB KRALOVANSKÝ

E-learning Supervisor & Senior Analyst

After successfully graduating from the University of Economics in the field of International Trade, he continued his education and obtained a certificate of professional examination in the Capital Market field. For a long time, he has worked in international companies like Deutsche Leasing and Phoenix as a portfolio manager. His more than 4 years of experience with cryptocurrencies and blockchain technology is currently being used as the main trader and portfolio manager. He is also the author of his own educational project Trader 2.0. At Dollero Technology, he is part of a team that manages the content of Dollero Academy and is also in charge of creating cryptocurrency analysis. His rich trading experience also bears interest in designing technical solutions for the Dollero Exchange.



VANDA ZAJACOVÁ

Product Manager of Dollero Exchange

After graduating from the Department of Finance, Banking, and Investment of the Faculty of Economics, she was employed by XTB from its establishment in Slovakia. During her 10 years' employment by this company, which became Broker of the Year in 2017, she occupied several positions and acquired a wide range of knowledge and practical experience. As a business manager, and later head of the sales department, she was in charge of communicating with clients, selling products and services, and preparing training events for clients. Subsequently, she became a deputy director and thus covering the overall operation of the branch. She has developed her experience in other areas, such as legislation and communicating with supervisory authorities, and has also served as the person responsible for overseeing the processing of personal data. Based on the experience she has gained, she is responsible at Dollero Technology for the organizational, legislative, and technical parameters of the development and operation of Dollero Exchange.



PETER VAŇO

Web Application Developer

During his studies at the Faculty of Electrical Engineering and Computer Science at the Technical University, he devoted himself to developing web applications and worked for well-known IT companies such as PosAm. He works in Php frameworks - Laravel, Yii 2, Javascript - Angular 5, and CMS systems PrestaShop, WordPress, and Magento. He also founded his own company where he and his team are dedicated to the full-stack development of web applications and the development of online games in the Haxe system. Dollero Technology provides web development of the main sites as well as the complete development of the Dollero Academy platform.



TEAM



MATÚŠ KOPALKO

E-learning Developer

While studying international trade at the University of Economics, he worked as a language lecturer in various companies. Around 130 students benefited from 1 on 1 lessons tailored to their individual needs and later he led a team of language lecturers. Exchange semester at the faculty of management in Finland higher education system and an MBA exchange semester in China inspired as well as enabled him to understand and experience how complex multicultural higher education environment works. He is the leader of Pod Podnikat Academy where he accumulates know-how, develops, and tests tailored online education solutions. Co-founded online learning platform called Language Habit, where end solution for learning foreign languages is being developed. He is an author of an e-book Online Self-taught. At Dollero Technology, he is fully responsible for student's learning experience in Dollero Academy.



MICHAEL RICE

Senior Lecturer & Speaker

Graduated from the School of Architecture at University College Dublin, and became a member of the Royal Institute of Architects of Ireland. For the last thirty years, he has worked and developed his skill, expertise, and vision in the realm of BioArchitecture and Holistic Design (www.zem.design). He has designed and seen built over 400 buildings in many countries over the world. In recent years he has become interested in various new forms of value generation and media of exchange, most notably cryptocurrencies and the potentials of blockchain technology. He is the face of Dollero Academy and you will also meet him at various conferences.

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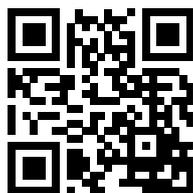
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