

# **CRYPTONOVAE**

Technical White Paper v0.5  
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# 1. Abstract

With the exponential growth of cryptocurrency markets and an increase in influx of traditional traders and institutional investors, the trading standards applying to cryptomarkets still lack behind the industry standards of the traditional markets.

With sophisticated softwares established in the traditional markets, crypto exchange trading moves within an insufficient and non-user centric range, still lacking the vast offer of charting and analysis tools entrenched in traditional market trading.

Built as a software solution with modular features, Cryptonovae is designed to tackle the need for crypto and traditional retail traders on the digital asset markets . But most notably it is the solution to finally trade efficiently.

Through the software layer Cryptonovae offers, the gap between traditional markets and crypto markets is being bridged, which qualifies Cryptonovae to become the primary gateway to crypto markets trading, providing access to both centralised and decentralised exchanges. We believe an equally sophisticated trading tool, comparable to the established ones in traditional markets, is an ultimate game changer for a final embracement of cryptocurrency markets through traditional markets.

## 2. Product

To better describe what Cryptonovae is, it is important to emphasize on the current experience trading on traditional cryptocurrency exchanges.

UIXs on most platforms only distinguish themselves through their branding but not through technological advancement: charting, order books, and the arrangement of the interface are mostly the same everywhere, It certainly allows for the basic trading experience but leaves sophisticated traders with the difficulties of applying advanced trading strategies to a system that is not built to accommodate them easily. Additionally most lack automated trading integration possibilities and few exchanges offer take-profits and stop-losses by default, as well as limited options regarding charting features, such as multi screens.

### a. Overview

Cryptonovae is a High-Industry Standard Trading-Platform, which aims to:

- provide the best market access conditions with its low-latency architecture. Deploy your customized display and trades without any delay – because speed matters.
- meet the needs of any trader, from the very beginner to the most seasoned veteran. Define and customize as many strategies as necessary for your particular trading methods.
- become a trusted and secured platform for retail and institutional traders. User's exchange API keys are not sent to any server but stored on the user's computer.

### b. Product Details

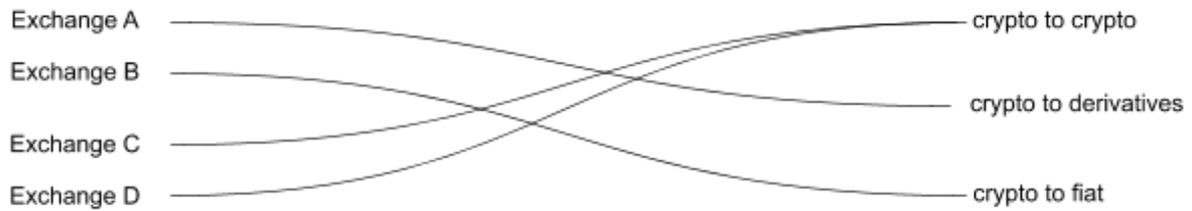
Cryptonovae brings the maturity of legacy-markets trading to crypto markets with ease by maintaining the user experience.

It allows users to enter the crypto markets in a user friendly but yet advanced approach, addressing an important point for the future of an emerging industry.

With never seen before features on the cryptocurrency trading market, Cryptonovae provides in a most advanced manner the comfort of an

enhanced trading experience while conveniently engaging with numerous market providers simultaneously.

In a complex world of differentiating exchanges, Binance, Bitmex, Kraken and the others keep expanding their products and features but are still being recognized for their main initial specializations.



With more than 100 exchanges in the field, we add the main 25 exchanges in terms of volume in order to allow a 200M users market to use one, and one only tool for all their trading needs.



### c. Go-to-market approach

Cryptonovae's development is in an advanced stage. The Binance & Kraken Prototype is delivered and constitutes our alpha version already tested by a small group of selected traders and asset managers. The Beta version, including Binance and Kraken connectors, is being polished and will be tested by the Seeds' sale participants just a few weeks after the token sale is completed. The go-to-market version, including Binance - Bitfinex - Kraken - Bitmex will be released approximately 16 weeks after the token sale is completed.

From the time of public release, we aim to cover 25 exchanges as soon as possible. The coverage strategy includes :

- Top exchanges by volume
- Top exchanges by specialization

- Top exchanges by regional area

Exchanges willing to significantly upgrade their trading offer and experience are also part of our users acquisition strategy as we have set up exclusive deal structures to attract them.

#### d. Platform features

The solution is delivered with a full set of native features designed to enhance and optimize the trader's experience.

**Charts monitoring:** users can open as many charts as they want, for any exchange connected to the user's account.

**Native Trade-Management function:** an advanced tool to set multiple take-profits and stop-losses logic.

**Indicator & Strategy coding from the platform:** users can develop and integrate their own indicators and trading bots.

**Balance monitoring:** instant access to all your balances on all your connected exchanges.

**Automated trading integration:** the platform comes with the ability to run and execute algorithmic trading.

**Multi-screens function:** users can detach and organize their charts and all the other windowed functions on different screens

**Customizable Timeframes starting from tick:** the platform comes with a set of predefined time frames but the users can choose to display their charts in any time frame they want.

**Multi-time frames display:** users can conveniently set many charts on a single screen to create a comparison setup based on different time frames for the same trading pair.

**Native Take-profit (TP) and Stop-loss (SL) function for all exchanges:** the platform renders an homogeneous experience cross exchanges through an easy one-click SL's and TP's function, which are also drag & droppable directly on the charts.

**Trade analysis:** the platform comes with a complete analysis tool, users can define a period and access his profitability and loss statistics.

Cryptonovae brings an homogeneous trading experience no matter what exchange you are connected to.

## e. Roadmap of Evolution

On top of acquiring new users, Cryptonovae will secure its unfair advantage using R&D to increase the company's defensibility. In this regard, the plan relies on two different timelines:

### Short-term

- Addition of regional exchanges with enormously high growth expectancy such as South Korea
- Improving chart browsing navigation up to the best industry standards
- Mobile app development: it is not only about accessing the service from a smartphone, but to actually reinvent mobile trading as a small display app cannot deliver the full software experience; multicharts, full bot implementation, and more.
- Opening up the potential by unlocking advanced features, new order types, etc.

### Mid-term

- Liquidity gateway
- Deposits and withdrawals directly from the platform
- Cold storage integration

The main difference between those two points is, short-term focuses on improving the product and growing our market shares, while mid-term focuses on heavy infrastructure improvements, some of them involving possible financial regulation.

## f. Technical Architecture

The Cryptonovae software is a multithreaded trading platform, giving users the ability to connect to any crypto exchange network that provides an user API. Thanks to Cryptonovae, users will be able to trade on all their desired exchanges with one single tool. It serves as a unifying platform,

giving users a simple way to trade on a multitude of exchanges without having to worry about the specificities of said exchanges. With its unified trading system, users will benefit from the ease of trading on Cryptonovae, while still having access to more advanced trading operations.

## Technology Stack

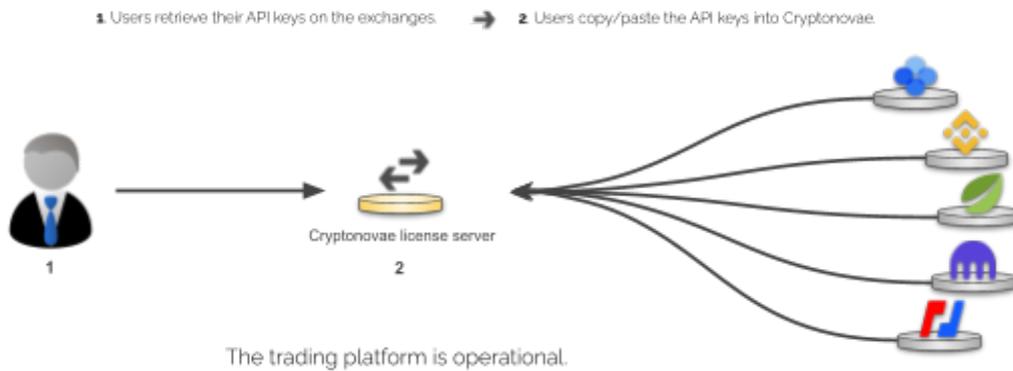
Cryptonovae is currently developed using the .Net Framework (C#), and as such currently only runs on Windows. Given that most of the financial actors have historically provided .Net APIs, the .Net Framework was chosen as the best way to unify the access to multiple exchanges. Most of the crypto exchanges APIs are RESTful APIs, and as such can be easily integrated in a .Net Framework environment. Upon release, Cryptonovae will be migrated to the .Net Core framework and will then be also available on Mac and Linux.

### The Cryptonovae software is composed of 3 main components

The UI  
The Core  
The Connectors

The UI component is what is used to render all of the necessary information to the user. The UI is implemented using the WPF system. The UI is entirely modular: Users can choose which information they want to display, and can choose the way it is displayed. This is rendered possible thanks to the docking features provided by the WPF system. Users can choose to display a number of different information related to their account, their current trades, their past trades etc. In addition to this information, users also have different tools available to access the market data: the trading pad, the order book, and the charts. The charting possibilities are highly flexible: users can customise the way charts are displayed, can open any number of charts they want, and have access to a multitude of different candle types.

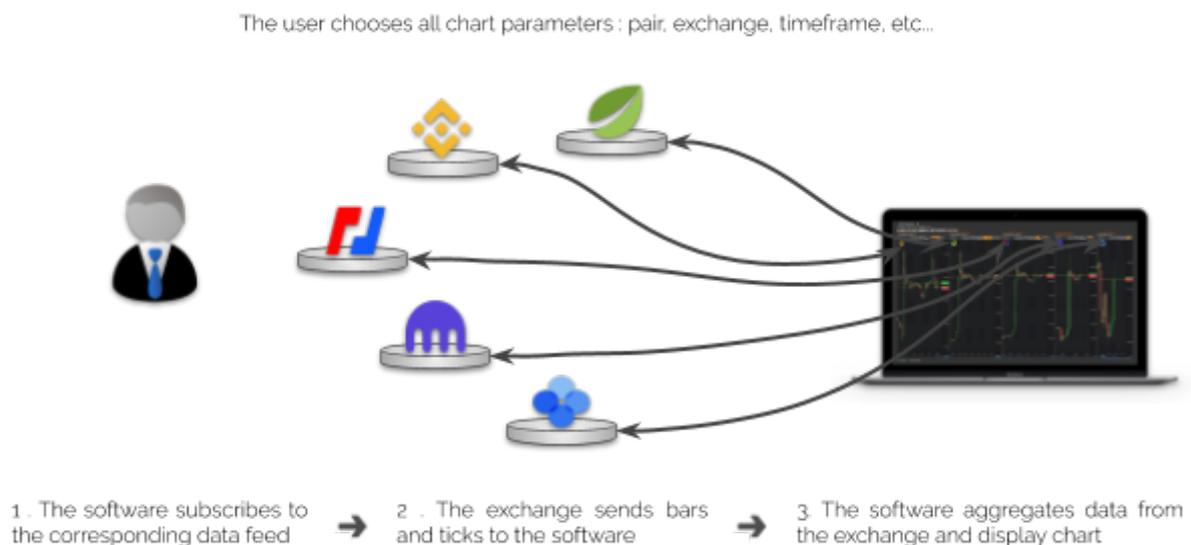
## Software Licensing



On the back-end side of the platform, the first main component of Cryptonovae is the core of the platform. The core serves as the unifying environment for all the exchanges users decide to connect to, and is the one providing the UI with the resulting data. This part is entirely developed using the .Net Framework.

Within the core of the platform, we can distinguish two different sub-components. One sub-component is related to the handling of the market data from the connectors (ticks and bars from the exchanges), and the other is related to the handling of the trading data from the connectors (positions, orders status, etc.).

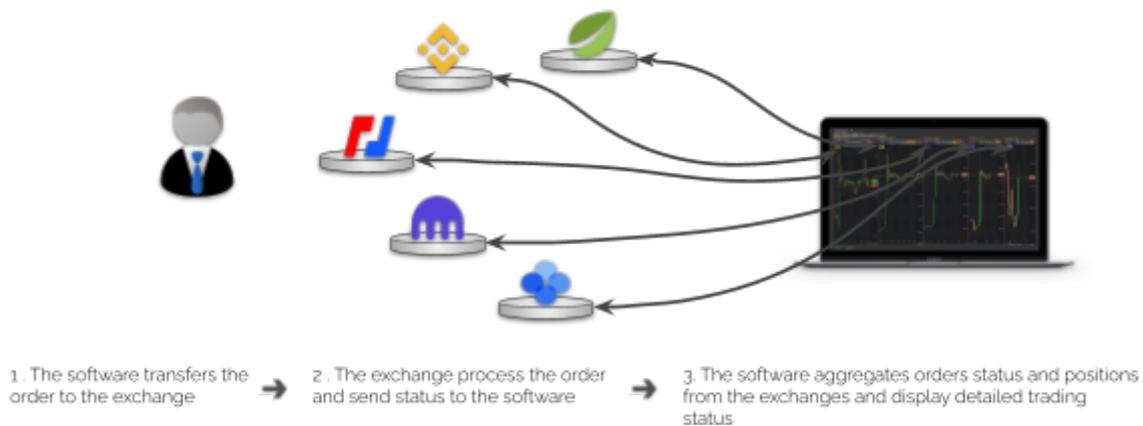
## Exchanges Chart Flow



To ensure that the trading data within Cryptonovae is consistent on subsequent launches of the platform, all trading data is saved locally using an SQLite database. This is what gives users the ability to access both current and previous completed trades.

The core component is the component handling the unification of the features of the different exchanges. The core trading components handle multiple trading operations independently of the specificities of every exchange, giving users the ability to place market, limit and stop orders, as well as placing take profits and stop losses orders on all their desired exchanges. Also users have access to market data in a unified way: the access to the same format of data for all of their desired exchanges.

### Order Routing Flow



Other important components are on the back-end side of the platform, namely the connectors. These are the components serving as a gateway between the core of the platform and the exchanges. Most of the crypto-exchanges offer similar user APIs, as RESTful API. However, depending on the crypto-exchanges, the features offered can still vary. The goal of the Cryptonovae connector is to compensate for these differences in features, so that the core of the platform can interact with every exchange the same way. To do that, the Cryptonovae connectors are built on a common interface that every connector has to implement. That way, the core of the platform can interact with every connector using the same interface. Within the connectors, the differences that can be found

between the exchanges are handled internally. Since most of the crypto-exchanges offer a similar RESTful API, we currently use a common library to develop our connectors. This gives us a common handling of the different APIs, while still having to internally handle the differences in features of these APIs.

Cryptonovae will run on Windows, Mac and Linux and the development of a comprehensive and powerful mobile trading application. will start in phase two. For the beta version, Cryptonovae has been developed with C-Sharp as a software.

## **g. Marketplace**

Cryptonovae's software comes with the ability to integrate custom developments directly into the platform. Traders who are also coders can create their own indicators and/or automated strategies.

In order to address the needs of non-coder traders, we develop <https://cryptonovae.io>, a marketplace where traders can list a task and receive quotes from developers. The developer will complete the task and the buyer will have a 48 hours period to validate the execution of the task.

Cryptonovae.io offers a reward based ranking system, allowing mutual ratings between buyers and sellers that result in rewards through the community marketplace fund as an incentive for product quality.

The revenue model of the marketplace is fee-based. On each transaction between buyers and sellers a percentage fee will be charged.

## 3. YAE TOKEN

### a. YAE Token – Cornerstone of the Cryptonovae Ecosystem

Cryptonovae token (\$YAE) is an ERC-20 compatible utility token powered by an audited Ethereum smart contract, based on best practices and proven industry standards. It has been created with Cryptonovae's and the crypto trading community's heart in mind and will be the backbone of Cryptonovae's ecosystem.

YAE allows the user to interact with the ecosystem – consisting of the software and the marketplace – through its core function as a means of payment. Furthermore, YAE has multiple other applications to be detailed in this section of the White Paper.

### b. How You Can Use YAE

#### Software Subscriptions

Users of the trading platform can choose between various payment methods. When paying for a subscription with the YAE token, the user receives a discount on the chosen plan.

The amount paid in our native token will then be locked for the duration of the subscription in a vault. The locking of the tokens therefore will automatically decrease the supply and increase the scarcity as such.

#### Marketplace Payments

##### Cryptonovae Products

Cryptonovae will make available, through its marketplace, various quality-of-life add-ons such as indicators and customization etc. When these add-ons are purchased with \$YAE, a discount applies.

##### Bundle Subscriptions

Cryptonovae's own products on the marketplace will be available as subscription-based bundles. The subscription fee, if paid with \$YAE, is subject to a discount and the tokens paid will be locked for the duration of the subscription.

## **Automated Trading Systems**

On Cryptonovae's marketplace, custom and off-the-shelf automated trading systems can be ordered and purchased directly from sellers.

Transactions paid for with the YAE token will be commission-free for both the buyer and the seller.

## **Referral Bonus**

Cryptonovae offers a referral bonus through an affiliate program, rewarding each referrer with a commission in \$YAE, and each referee with subscription discounts.

## **Contests**

Cryptonovae will regularly engage the community through various contests, encouraging users to regularly use the platform and to boost the community cohesion. Prizes will be paid out in YAE tokens.

## **Token Repurchase**

Cryptonovae will reinvest one third of its free-offer revenue flow to buy back \$YAE tokens on the market. Tokens will then be used in various ways to dynamise and energize the ecosystem and the community. The tokens will be distributed as a reward for staking \$YAE and for trading with an affiliated account. A designated amount will additionally be burned to maintain scarcity and thusly, the investment value of every holder.

## **Staking**

Holders of \$YAE will be able to stake their tokens. Depending on the amount of tokens staked, stakers will receive rankings (Silver, Gold or Platinum) and obtain relevant benefits, such as free subscription, free indicators, as well as a boost under the Loyalty Program.

On top of these advantages, stakers will get their share of the weekly \$YAE distribution: one third of the repurchased tokens will be given to stakers on top of the tokens from the Staking Pool, distributed asymptotically during the first 4 years.

## **Loyalty Program**

Cryptonovae will reward its affiliated traders with a weekly \$YAE distribution. One third of the repurchased tokens will be given to the platform's affiliated users, depending on their trading volume and staking level.

The Loyalty Program will be progressively boosted with the distribution of \$YAE from the Affiliated Reward Pool that will be distributed during the first 3 years).

## **Burning**

To always have the best interest of Cryptonovae users, supporters and believers at heart, and to always try to bring more value to \$YAE, one third of the repurchased tokens will be burned. Making the token supply more scarce will benefit all token holders.

# DISCLAIMER

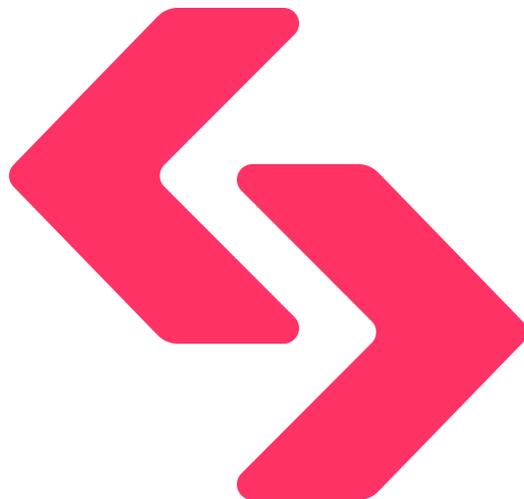
The paper assumes the readers have the basic understanding of how cryptocurrencies work and what blockchains are. It also assumes the reader is familiar with the basic functioning of capital markets and specifically the methods of fundraising and organized trading.

The information in this White Paper is for informal purposes only and is subject to change. None of the information in it is in any way legally binding or enforceable until it has been approved by Cryptonovae's board of directors, board of advisors and legal team. Please refrain from any copying or referring to this document without including this disclaimer. Please include this disclaimer under any circumstances when copying it or referring to it.

Investing in YAE tokens involves the risk of partial or total loss of the investment. There can be no assurance as to the liquidity of the tokens acquired during the offer, the existence of a secondary market for such tokens, the value of the tokens acquired during the offer and the equivalent value of these tokens in foreign currency. The YAE tokens do not constitute financial instruments within the meaning of European regulations (MIFID) and do not confer any other rights than those described in our pitch deck and technical white paper. In addition, the regulatory framework applicable to the offer and to the tokens and the tax regime applicable to the holding of the tokens are not currently defined in certain jurisdictions.

## CONTACT

[www.cryptonovae.com](http://www.cryptonovae.com)



CRYPTONOVAE SAS  
1 bis, Allée du Parc de Mesemena  
44500 La Baule - France