



White paper DCORP Derivatives Exchange

July 8th 2018, Version 3.42

INTRODUCTION

Derivatives allow investors and speculators to participate in the turbulent cryptocurrency markets with the financial tools they know and trust. The ability to enter into trustless derivative contracts enables protection (hedging) against or exposure to (speculation with) substantial price fluctuations.

Derivatives are a common phenomenon and according to [The Economist](#) the total derivatives market amounted to approximately \$700 trillion (€500 trillion) in 2011, and the size of the market traded on exchanges totaled an additional \$83 trillion (€59.29 trillion).

DCORP strongly believes that the introduction of cryptocurrency related derivatives is an important step maturing the turbulent cryptocurrency markets and will enable investors to spread risks.

REGULATION OF CRYPTOCURRENCY DERIVATIVES

The European Securities and Markets Authority (ESMA) and the American SEC have toughened their stance however, on cryptocurrency derivative contracts. ESMA -for example- has stated the following:

"Due to the specific characteristics of cryptocurrencies as an asset class the market for financial instruments providing exposure to cryptocurrencies, such as CFDs, will be closely monitored, and ESMA will assess whether stricter measures are required."

STEPS DCORP

In the DCORP White paper used at the crowdsale there was a strong focus on the development of a derivative exchange for cryptocurrency related products. Given the current uncertainty that surrounds these financial instruments, DCORP has decided to postpone the development and launch of the cryptocurrency derivatives exchange. DCORP anticipates more favorable regulatory and market conditions in the near future. In that case DCORP will reassess the situation, with the ultimate goal of realizing the derivatives exchange.

DERIVATIVES EXCHANGE

This White paper provides an overview of the cryptocurrency derivatives exchange envisioned by DCORP.

BLOCKCHAIN TECHNOLOGY

The Ethereum blockchain technology is very well suited to enable derivatives. Derivatives may exist on the Ethereum in the form of a series of smart contracts and allow participants to anonymously enter into a trustless option or future contract. A new derivative contract can be deployed quickly by the buying or supplying party.

Participants can safely send funds to a derivative contract because the contract is trusted as much as the Ethereum network is trusted.

Derivative contracts are trustless and execute according to the immutable rules programmed into them. This means that the seller and buyer(s) do not need to know or trust each other and that there is no need for market makers, banks or other third parties.

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ABOUT DCORP

DCORP is a decentralized corporation with the mission to democratize venture capitalism by making it accessible to everyone over the Ethereum blockchain. DCORP is autonomous, decentralized and democratic.

This white paper is part of a series that can be found at https://www.dcorp.it/Resources_and_Documents

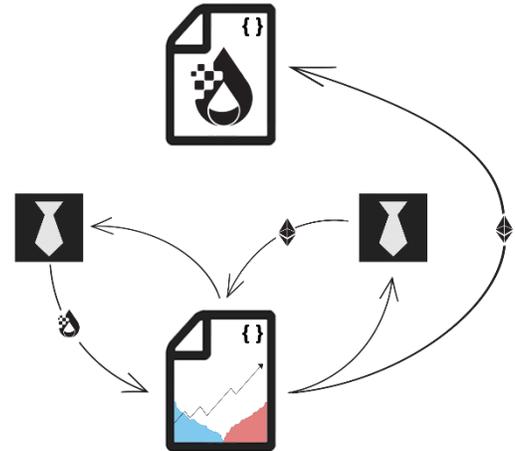
DERIVATIVES EXCHANGE

The derivatives exchange exists on the Ethereum blockchain in the form of a series of smart contracts and allows participants to anonymously enter into a trustless option or future contract.

Participants use the user-friendly interface, hosted on dcorp.it to interact with the exchange. A new derivative contract can be deployed quickly by the buying or supplying party.

The exchange is decentralized, operates autonomously and its source is public so that anyone can review it at any time. Participants can safely send funds to a derivative contract because the contract is trusted as much as the Ethereum network is trusted.

Derivative contracts are trustless and execute according to the immutable rules programmed into them. This means that the seller and buyer(s) do not need to know or trust each other and that there is no need for market makers, banks or other third parties.



REQUEST DEPLOYMENT

A derivative contract (including premium), deployed by the asking party, represents a request that can be funded by any participant anonymously and safely. Once funded, the premium (minus a fee for DCORP) is released to the supplying party. The asking party gains the execution right and the right to trade the derivative if and when appropriate (see also section *Trading*).

Before the contract is funded, the asking party has the option to cancel the request and recover the premium (reduced by the fee for the exchange).

REQUEST DEPLOYMENT CROWD

The situation as described above outlines the situation in which the needs of the asking party are met by a single participant (supplying party). To match the needs of the asking party better, the requestor can choose to allow multiple participants to (crowd) fund the derivative contract. Each funding participant then receives a share of the premium, proportionate to the amount of the request that was funded by the participant.

Depending on the type of derivative, the asking party can or cannot cancel the contract after the request has been partially funded. For requests that cannot be canceled, such as a futures request, the asking party can only cancel the unfunded part of the derivative and recover the part of the premium proportional to the canceled part of the derivative (reduced by the fee for the exchange).

OFFER DEPLOYMENT

A funded derivative contract (excluding premium), deployed by the supplying party, represents an offer. Someone (buying party) who transfers an amount equal to the asked premium into the derivative gains the execution right and the right to trade the derivative if and when appropriate (see also section Trading).

Before the derivative contract execution rights are bought, the supplying party has the option to cancel the request and recover the deposited funds (reduced by the fee for the exchange).

OFFER DEPLOYMENT CROWD

The situation as described above outlines the situation in which the offer of the supplying party must be bought by a single participant (buying party). To match the needs of the asking party better, the offeror can choose to allow multiple participants (crowd) to participate in the derivative contract. Each buying participant then pays a share of the premium, proportionate to the amount of the offer for which the participant gains execution rights.

The supplying party can or cannot cancel the contract after the offer has been partially sold. The supplying party can only cancel the unsold part of the derivative and recover the part of the funds proportionate to the unsold part of the premium.

TRADING

Depending on the type of contract, existing derivative contracts can be freely traded. An appropriate derivative may be offered for sale by its beneficiary. The beneficiary enters a price and updates the contract via the user-friendly interface. As soon as a buyer transfers an amount equal to the price into the contract, the execution rights will be transferred to the buyer.

UNITS OF ACCOUNT (ERC-20)

Initially, the exchange supports ETH and selected [ERC20](#) tokens available on the Ethereum blockchain (including DRP). ERC-20 compatible tokens can be added to or removed from the exchange by DCORP.

Premiums and transaction fees are payable in ETH. In the case where the token, of which the derivative derives its value, is not ETH, the buyer needs to make at least two transactions in order to buy the derivative. In such a case the buyer must pay the premium and then transfer the appropriate token within n time. The derivative will be deferred until the time of the first payment plus n time. If the buyer fails to transfer the appropriate token within n time, the premium will be returned to the buyer and the buyer forfeits the transaction fee.

At a later stage, DCORP will release the ERC-20 compatible Ethereum Bitcoin (EBitcoin) and Ethereum Euro (Euro) tokens to further facilitate trustless buyers commitment.

MULTI-TOKEN DERIVATIVES

Optionally, a derivative offer can accept multiple tokens in order to lower risk by spreading.

An example of a multi-token derivative is the offer of an option contract to buy n ETH for either i [GNT](#) or j [REP](#). The buying party must at least transfer either i GNT or j REP into the derivative contract to gain the right of execution, within the appropriate time frame. On execution, the buyer can choose to execute the option with either i GNT or j REP. Any unused tokens will be transferred back to the owner.

OPTIONS

Option contracts come in two types: call and put. Option contracts can be used to hedge one party's risk and provide the other party with a possible financial gain through speculation.

A call option contract gives the owner(s) the option to buy the underlying asset within a predetermined time frame for a predetermined price.

A put option contract gives the owner the option to sell the underlying asset within a predetermined time frame for a predetermined price.

Due to the trustless nature of the contract, the underlying asset or funds and the premium (including any transaction fees) must be deposited into the contract in order to make the contract binding.

FUTURES

With a futures contract, the buyer(s) commit(s) to buying the underlying asset on a predetermined date for a predetermined price and the selling party commits to selling the underlying asset on the agreed date for the agreed price. The initiator (buyer or seller) can choose to pay the premium or ask for a premium.

Due to the trustless nature of the contract, the initiating party deposits between 10% and 100% of the underlying asset or price, appropriate to the contract. The deposited percentage is matched by the other party(s) to make the contract binding. Before expiry of the predetermined date on which the transfer of assets takes place, participants should have deposited 100% of the asset or price into the contract.

If only one of the parties has deposited 100%, the other party loses the deposit and any premium to the party who deposited 100%.

If neither party has deposited 100%, the lowest deposited percentage is considered as the full deposit and the contract executes with the new percentage instead. In the case where one party has deposited a higher percentage than the percentage with which the contract is executed, the redundant asset or funds are returned to the original owner.

FUTURES WITH ASCENDING STAKES

In the semi-anonymous Ethereum environment, a promise not backed by value has little worth due to the inability to enforce an agreement.

When entering into a futures contract that requires a 10% deposit at the date of entry, it is currently impossible to ensure that all participants will deposit the remaining 90% on the predetermined future date. This results in effectively limiting the gains or losses in respect of the value of the deposited 10% of the defaulting party.

Requiring both parties to deposit 100% at the date of entry also creates an undesirable situation where the leverage of speculating parties is reduced to the actual value owned.

An additional undesired effect of both situations described above is that the futures contract always runs until the predetermined end date, even though one of the parties might have decided in an early stage not to comply with its obligation to deposit the remaining 90%.

To solve these problems, futures contracts can require that the stakes increase as the deadline approaches. Continuing with the example described above, the duration of the contract is divided into terms. Before the end of each term, parties must have increased their deposits to the appropriate percentage.

In the case where one of the parties defaults on increasing its deposit, the contract is executed and the defaulting party's deposit is forfeited to the other party before the predetermined end date. This results in a relationship between contract duration and the maximum gains or losses while minimizing the impact on leverage positions.

To simplify, consider the following linear example:

s = current stake
i = initial deposit
t = terms
n = current term

$$s = i + ((100 - i) / t) * n$$

Variations to the linear example can be added to the contract and can be selected by the initiating party when deploying a futures contract.

ROADMAP DCORP

The following roadmap is the most accurate we can provide at the moment.

Roadmap



*We'll do everything we can to get this done, but we are bound by the legal and regulatory landscape.

TEAM

Meet the team! Click on the name of a team member to connect. We are happy to answer questions (in English or Dutch) and help is welcome too!

FRANK BONNET

FOUNDER

Founder and lead developer at DCORP. [Frank Bonnet](#) has nine years of experience designing, building and maintaining countless enterprise .NET applications. Co-founder, developer and owner of 'DS Verzekeringen', an insurance company in the Netherlands and many other web-based projects.

Ether enthusiast, investor in both mining and trading. Experience with developing contracts in Solidity using Truffle and Mocha. Has a business view and a developer's mind.

HANSCO LEEK

MEMBER SUPERVISORY BOARD

Stockbroker, entrepreneur, investor and co-owner / founder at Autodealers.nl B.V (a successful Automotive IT company) among others. Early Bitcoin adopter and investor, currently investing in Ether among others.

At the age of 17, [Hansco Leek](#) started trading stocks and soon found himself successfully speculating by trading options and futures on the trading floor in Amsterdam. Realizing the potential of the upcoming internet business, he invested the money he gained through speculating in internet startups.

After 23 years of experience, Hansco Leek believes in DCORP. By bringing management and trading expertise, he makes the team stronger and his early investment helps to realize the project.

CORBEN LEEK

MEMBER SUPERVISORY BOARD

Software engineer and network architect with 17 years of experience in .NET, Windows, Linux and VMware. [Corben Leek](#) has developed enterprise applications for the financial giants ASR and Kroymans and among others.

Long time entrepreneur and co-founder / owner at Autodealers.nl B.V., blue7.nl B.V., autowereld.nl, Slimverzekeren.nl, DealerServices.eu B.V. among others.

Corben Leek's extensive experience with developing financial enterprise applications in combination with being an early cryptocurrency adopter make him a valuable asset to the team.

MARC VAN BROEKHOVEN

MEMBER SUPERVISORY BOARD

Energetic and versatile business technologist with broad > 20yrs experience in Communications and IT industries. Change Agent. Delivered countless innovative projects and services across Business (Sales, CRM, Billing and Collections) and Technology (Upgrades, Integrations, re-Platforming) with companies like IBM, Huawei, Vodafone, KPN, T-Mobile and Mendix. Proficiency engaging with customers and working with management teams across cultures. Marc is a strong believer and adopter of Ethereum as a disruptive technology facilitating differentiating business and operating models in an increasingly flat and interconnected world.

[Marc's](#) strengths and satisfaction are helping customers successfully adopt these disruptive technologies to (re)gain agility and competitive edge.

SANGHO GROLLEMAN

MEMBER SUPERVISORY BOARD

[Sangho](#) has over 18 years experience in large corporates, nonprofits, startups and his own ventures. After graduating at Utrecht University (masters degree in Geography & International Economics) he started his career as management trainee for IBM Global Services, followed his ideals at Oxfam Novib and rediscovered his South Korean roots at LG Electronics before starting his own venture as digital analytics consultant. His latest venture is a startup in food commerce.

Sangho reinforces the team with his expertise in digital performance, goal setting mentality and his ability to get things done.

MAARTEN JANSEN

MEMBER SUPERVISORY BOARD

[Maarten](#) attended law school at the university of Leiden where he obtained his master's degree in Dutch law in 2000. Maarten has seventeen years' experience as a lawyer. His practice focuses on corporate, financial and bankruptcy law, incorporations, restructurings, securities, asset and share transactions, business purchases and sales and a wide variety of contract drafting. Maarten is also regularly appointed by the court as a trustee in bankruptcies.

WILLIAM RICE

MEMBER SUPERVISORY BOARD

[William Rice](#) is a seasoned executive in the Technology industry offering over 20 years of experience in Digital Technology, Telecommunications and Media in both multinational corporate environments as well as with start-ups. He is a creative and content-focused leader with the capabilities to inspire and to drive innovative concepts towards value.

In recent years, William has focused on developing, marketing and selling solutions in areas like:

- Digital Media
- Media cloud services (e.g. transport, transcoding, workflow, storage)
- Broadcasting, OTT TV and Online Video
- Social business solutions (e.g. social network analysis, social media analytics)
- Big Data, Analytics & Customer Insights
- Blockchain for business applications
- AI & Automation.

William holds a Master's Degree in Psychology. From this background he continually observes how consumer behavior is changing, and determines the upcoming challenges and opportunities for technology industry.

RUUD DE KLEIJN

MEMBER SUPERVISORY BOARD

[Ruud de Kleijn](#) studied physics (for a short while) and ultimately completed business law cum laude. His first position was as a management consultant, working for several companies and government institutions. After a few years he switched to his other passion: the law. These days he specializes in financial law (securities and derivatives) and intellectual property law. Because of his combination of a technical background and experience in management of companies, Ruud is often asked to counsel start-ups and scale-ups with innovative ideas.

ARLIW NEATPROM

Web designer and software engineer with experience in visual computing and [Matlab](#). Responsible for the front-end development of the UI's.

Studied computer science at Khon Kaen University until she graduated in 2016. [Arliw Neatprom](#)'s creativity, experience with web design and determination are an inspiration for the rest of the team.

Jorn Holtus

[Jorn Holtus](#) has been programming since he was 8 years old - when computers booted to BASIC, not an OS. He has experienced the technology evolution from stand-alone computers, to the BBS era, and into the modern high-speed internet era.

Jorn has worked as a consultant for a medium-sized consulting firm in the Netherlands using a wide range of Microsoft technologies in both finance and healthcare, while possessing well-rounded experience on the Microsoft stack. He holds an active interest in crypto-currencies and follows the community extensively. Jorn sees the great value in blockchain technology and is excited to be part of an organization that utilizes its extensive potential.

Rogier van Poppel

[Rogier van Poppel](#) was merely 10 years old when his father taught him how to code in Q-basic. He acquired a fascination for code and the creation of things which led him to then become proficient in HTML and launch his own website at the age of 12. Shortly thereafter, CSS and Javascript were added to Rogier's resume. He would often lend his skills to assist others in building websites from the ground up.

While studying chemical engineering at Avans University, Rogier set up his first profitable affiliate site and gained extensive experience in PHP and front-end development. After a short career in IT sales, he decided to focus on E-Commerce, development and enterprise level IT sales within his own company: IT Saver BV.

In 2017, he sold his shares and became a freelance web developer, which has led him to become DCORP's primary front-end developer.

Yasin Mahmutogullari

[Yasin Mahmutogullari](#) joined the DCORP team bringing seven years of IT experience.

Originally he started as a volunteer, he was noticed for his ability to assist community members quickly and efficiently. His talents have continued to shine through his ability to assist other members of the DCORP team.

His perseverance, attitude and innovative mindset continues to help shape the DCORP sphere into a model of awareness and professionalism.

Erik Lyppens

[Erik](#) has over 20 years of experience with Digital Marketing & Digital Business Development launching new digital products and services for large corporates and smaller organizations. As a product owner he was responsible for realizing customer friendly functionality & services and the implementation of all supporting processes. With a background in Econometrics (Operation Research) he has a strong focus on using data to continuously measure & improve.

Erik will focus on the implementation of all regulatory content & processes including Privacy & GDPR and the implementation of the new exchange & all supporting processes.