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WHAT IS THE CURRENT LANDSCAPE FOR TRADING CRYPTO ASSETS?

Crypto assets are here to stay. According to Apple co-founder Steve Wozniak, Bitcoin and blockchain will be the next major IT revolution, and will achieve full potential in a decade. According to Paypal co-founder Peter Thiel, Bitcoin is the next Digital Gold. Since Bitcoin's release in 2009, 1,622 altcoin variants have been issued. 2018 has already broken all records with 345 Initial Coin Offerings, and over US$ 7.7 billion of capital raised.
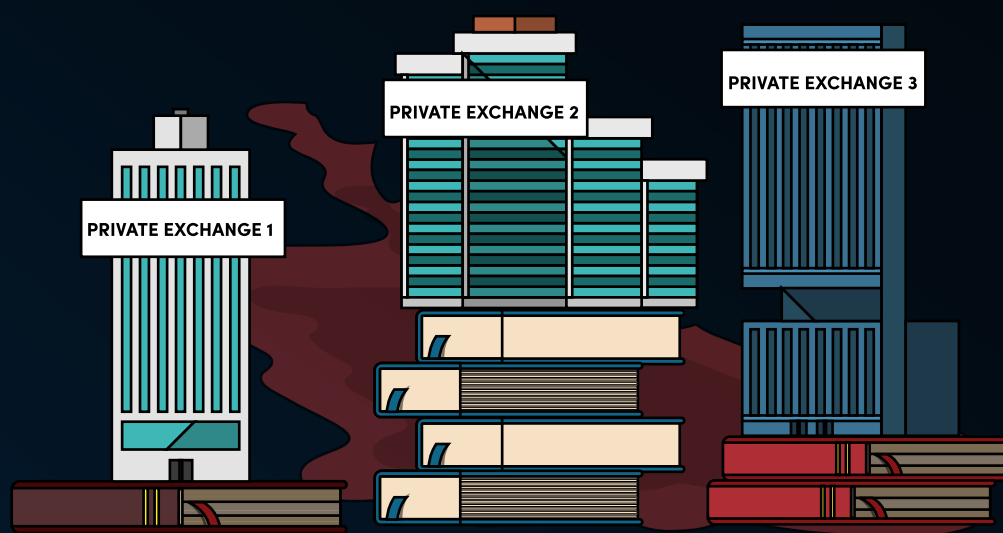
DEVX the next revolution

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Growth in the number of crypto assets has also driven an increase in crypto asset trading, in order to satisfy the requirements of the increasingly numerous universe of holders, investors, arbitrageurs, market makers, speculators and hedgers. There are presently more than 500 crypto asset exchanges to bring together buyers and sellers, where crypto assets are traded for either different digital currencies, or for other assets such as conventional fiat money. These exchanges operate mostly outside Western countries, and range from fully-online platforms to bricks-and-mortar businesses. Currently, almost two thirds of all daily global crypto asset trading volume results from activity on just ten of these exchanges.
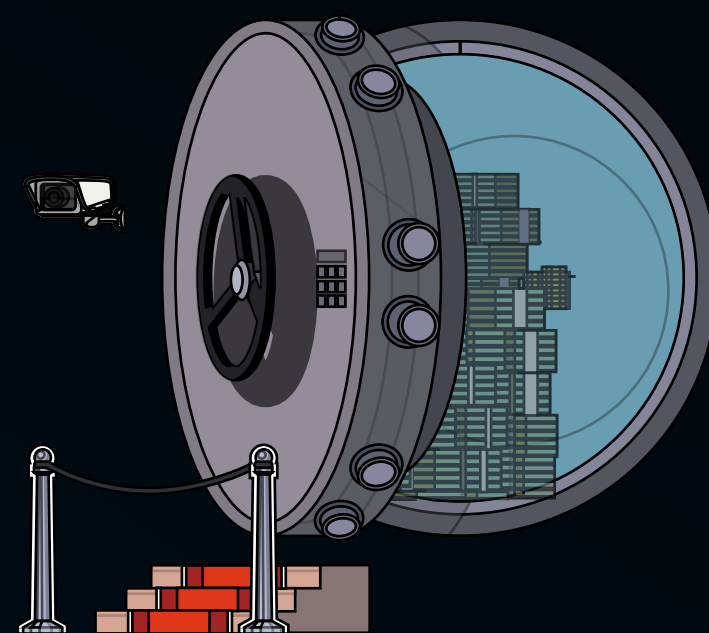
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CENTRALIZED EXCHANGES

Most crypto asset exchanges are "centralized", operating similarly to the majority of exchanges in more traditional financial sectors. This centralization arises mainly from the following characteristics:

The exchanges are businesses that are privately-owned and registered in a specific jurisdiction; and
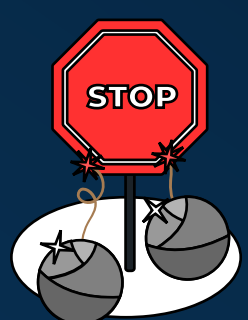

The exchanges hold customers' trading funds centrally on behalf of the customers, in wallets or accounts controlled by the exchange.

Part of the strong appeal of crypto assets is that they are beyond the reach of governments and regulators, but this ideal is compromised if these crypto assets must be traded on a centralized exchange. As the business running the centralized exchange must register in a specific jurisdiction, **centralized exchanges are exposed to the risks of:**

Unstable regulatory environments (these are having to adapt fluidly and continuously to changes or innovations in crypto assets/crypto assets trading).

Interference/censorship from local authorities responsible for overseeing crypto assets or crypto asset related activity.

Laws or regulations covering crypto assets (for example, those covering a) the operation of crypto asset exchanges, or b) the use of crypto assets as legal tender, or affecting c) the offer and sale of crypto assets, or d) the taxation of crypto asset transactions) have seen many changes. This has created uncertainty for the businesses running centralized exchanges, and for their investors, and has hindered development of the sector.

Holding customer funds and positions centrally (or holding information about customers centrally) is another major weakness of centralized exchanges. Centralized exchanges take receipt of customers' funds, and issue an IOU from the exchange in return, and it is this IOU that is then traded. When a user wants to withdraw their funds, the net IOU is converted back into the crypto asset it represents, and this crypto asset is sent to the user. The centralized exchange business achieves this by using a centralized wallet which holds the private keys that control aggregated funds and positions across all customers. This centralized wallet provides hackers with a single point of attack, and increases the ease with which customer funds can be stolen. The hackings of Mt Gox in February 2014 and, more recently, of CoinCheck in January 2018 and Bithumb in June 2018, are three high profile examples from approximately forty heists of crypto asset exchanges since 2011 that exploited this weakness of centralized exchanges.

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Centralized exchanges have also been hurt by the fact that the reputations of many have been tarnished by revelations of unethical practices intended to mislead the traders using their services. For instance, there have been several cases of exchanges executing wash trades to inflate trading volumes to give the appearance of high liquidity (one exchange was believed to be fabricating up to 93% of published trade volumes). Other exchanges have been accused of embezzlement. Some centralized exchanges have incurred the wrath of traders by appearing to impose higher than announced costs or punitively high withdrawal fees.

Centralized exchange businesses are also vulnerable to a "run" on the exchange if many customers decided to withdraw their funds at the same time and if the total amount to be withdrawn exceeded the amount kept as a reserve by the exchange.

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DECENTRALIZED EXCHANGES

Decentralized exchanges have arisen partly in reaction to the above concerns around centralized exchanges. They facilitate peer to peer crypto asset trading on a distributed ledger, where such trading is not coordinated by a single entity.

Decentralized exchanges are more in harmony with the decentralized values espoused by the blockchain community:

They do not hold customers' funds or positions, or market information (e.g. order books), and serve only as a matching and routing layer for trade orders.

As they run on a distributed ledger, they can neither be interfered with nor censored. Government taxation or fund confiscation is nearly impossible. Also, there is no need for traders to disclose their personal details or identity.

In decentralized exchanges, trades occur directly between users, and are settled directly on the corresponding blockchains. Decentralized exchanges allow trust-less authentication and authorization of crypto asset exchange transactions. There are no lengthy KYC or AML checks (which might otherwise take days, or even months). Decentralized exchanges are distributed, and so they are not at risk of server downtime.

Decentralized exchanges shift control of funds and trades back to the user. They eliminate the single point of failure. A hacker must compromise "more than half" of the network to be able to commandeer the system. Also, decentralized exchanges can offer seamless integration with secure hardware wallets, ensuring a safer transaction space. Users can send crypto asset tokens directly from their hardware wallets to the smart contracts of many decentralized exchanges, without the need to manually enter private keys, which might otherwise put users at risk of malicious phishing and keylogging attacks.
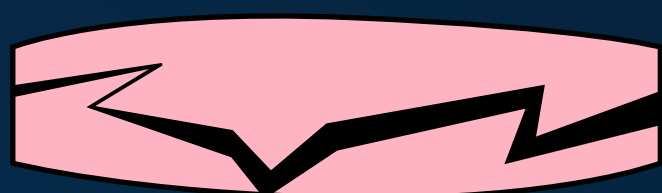
The field of crypto asset trading has benefited from the many innovations introduced by decentralized exchanges, but decentralized exchanges also have their own shortcomings:

So far, decentralized exchanges have been non-intuitive and difficult to use. They lack a simple, familiar user interface, and the user experience tends to be of lower quality than for centralized exchanges, compounded by poor to non-existent customer support.
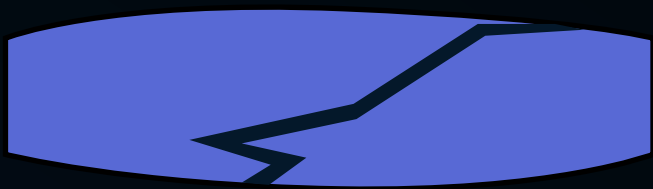
So far, they support only limited functionality and services compared to centralized exchanges. For example, there are no stop loss or limit order types, and no margin trading or lending.
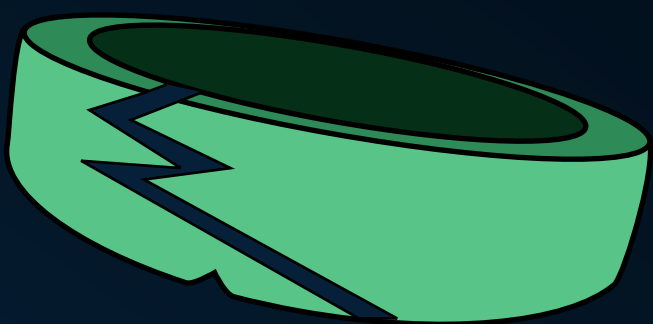
Only low frequency trading is possible, as settlement relies on transactions being written into a block and confirmed. As orders are represented by transactions on each native blockchain, transaction and gas costs also make it expensive to submit, modify or cancel orders.

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So far, decentralized exchanges only offer trading between a limited number of supported crypto asset pairs, while trading between crypto assets and fiat currencies is not supported at all. Fiat currencies must be converted into crypto assets at a centralized exchange.

Trading on decentralized exchanges is open to manipulation, as all transactions are public until they are mined. For example, front running is possible; users can observe market-moving orders and then submit their own orders with a higher gas price than the transaction they are seeing, and in doing so, ensure their own transactionis executed first.

To date, decentralized exchanges have seen only low transaction volume, low liquidity, and exhibit the same concerns regarding scalability as do their underlying blockchains.

HYBRID EXCHANGES

Hybrid exchanges have been developed to address the drawbacks of both centralized and decentralized exchanges. In a hybrid exchange, value exchange and settlement of trades take place on the blockchains of the traded pair of crypto assets, but all non-settlement activities are handled off-chain. This allows the hybrid exchange to offer the performance, costs, and features that most professional traders require (such as best-price guarantees and price/time priority, for example).

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	Centralized	Decentralized	DEVX (Hybrid)
Avoids exchange's unilateral control over customer funds/positions	🔴	🟢	🟢
Avoids registration in any legal jurisdiction	🔴	🟢	🟢
Trader may remain anonymous	🔴	🟢	🟢
No withdrawal fee	🔴	🟢	🟢
No risk of downtime	🔴	🟢	🟢
Intuitive user interface	🟢	🔴	🟢
Offers advanced trading functionality	🟢	🔴	🟢
Supports high trading speed/frequency	🟢	🔴	🟢
Able to offer trading between a large number of crypto asset pairs	🟢	🔴	🟢
Trades cannot be manipulated by other traders (e.g. front-running)	🟢	🔴	🟢
Trades cannot be manipulated by the exchange (order book, order priority, etc)	🔴	🟢	🟢
Offers high liquidity	🟢	🔴	🟢
Can be integrated with user's hardware wallet	🔴	🟢	🟢

DEVX PLATFORM

DEVX will be a hybrid exchange leveraging Smartcoins on the Bitshares (BTS) blockchain, in order to get to market as soon as possible.

DEVX will be launched as a new crypto assets trading platform drawing the best elements from both centralized and decentralized exchanges.

The speed, responsiveness, efficiency and user experience of a centralized exchange.

The transparency, security, integrity, accountability and user control of a decentralized exchange.

PLATFORM OVERVIEW

DEVX will be built as a wrapper around the Bitshares (BTS) blockchain, and will be able to achieve the sub-second latency offered by centralized exchanges.
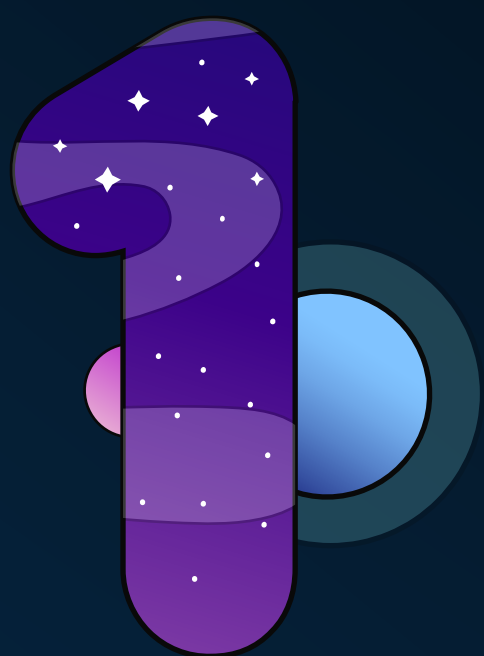
All completed trades will be buffered and later pushed to the BTS blockchain in batches to guarantee transparency and integrity with each trade.

All user funds sent to DEVX will be collateralized using Bitshares (the native token to BTS blockchain). In the case of fraud or theft-of-funds, the user can simply redeem the Bitshares collateral received for deposit.

Unlike traditional centralized exchanges which maintain centralized control over trader funds, DEVX will lock only the funds used for the trade, in a special multisignature wallet on the BTS blockchain. Control over this wallet will be shared between DEVX and the trader to prevent withdrawal of funds from active trades. DEVX itself will be unable be able to move funds from this wallet without trader approval. In addition, and similar to the case of traditional centralized exchanges, DEVX will be able to perform extra optimization, such as picking the best time and best order to transact trades to the blockchain, and caching. To each trader, the experience will resemble trading cryptocurrencies on a centralized exchange, while providing the trader with a more transparent process, and with greater control over movement of funds.

DEVX is planning to support multiple crypto assets. The requirements for a crypto asset to be included on DEVX are:

that DEVX supports receiving amounts in that crypto asset to an address created under the multisig account in the BTS blockchain, and
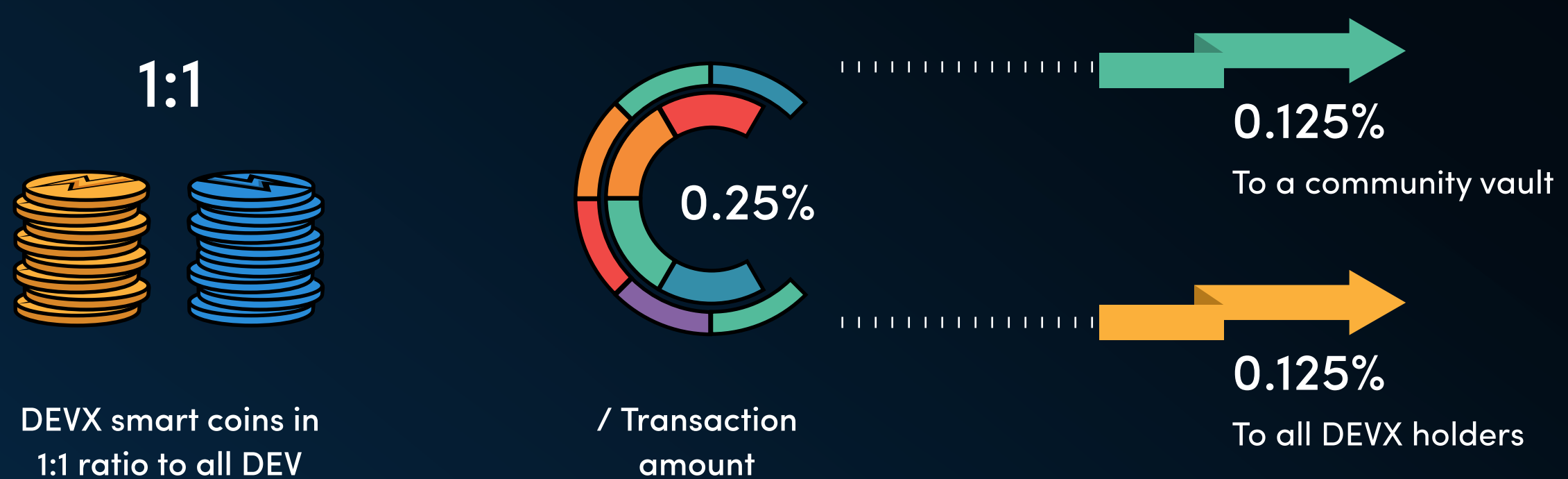
A UIA/MPA SmartCoin already exists on the BTS blockchain for that crypto asset.

DEVX will ensure these conditions are met for each crypto asset to be traded on DEVX.

DEVX SMART COINS

DEVX will be a smart coin issued on the bitshares platform with a 1:1 Collateral with real deviant coins. DEVX coins will be used as the currency for paying a small transaction fee on each trade settled on DEVX. DEVX plans to charge 0.25% of the transaction amount, which will be converted immediately to equivalent DEVX coins. 0.125% (50% of total fees) will be moved to a community vault for the maintenance of the network, and the other 0.125% (50% of total fees) will be paid as dividend to all DEVX holders.

1:1

0.25%

0.125%
To a community vault

0.125%
To all DEVX holders

DEVX smart coins in 1:1 ratio to all DEV

/ Transaction amount

DEVX coins will be the means of exchange for the DEVX platform. For premium accounts, where a trader holds 1000 DEVX as collateral, a trader will be able to exchange DEVX tokens in return for many benefits, including being able to use the DEVX platform without any transaction fees, or to buy a specialized hardware wallet for additional security when using the DEVX platform.

DEVX OFF-CHAIN ENGINE

The DEVX transient protocol (DEVTP)

Blockchains are generally slower than traditional databases, which results in relatively slow confirmation times and higher fees for blockchain users. While BTS is among the fastest blockchains, and is following an impressive trajectory in terms of ongoing improvements and enhancements, it is still too slow and costly to meet the demands and expectations of active traders.

For similar reasons, most recent crypto asset exchange projects have adopted hybrid, off-chain solutions rather than remaining "pure decentralized" and 100% on-chain. Such hybrid approaches should allow the resulting solution to process the more intensive market-related and trading-related tasks using modern, time tested approaches off-chain, but also conduct final settlement on-chain. This helps decrease trading costs while still providing a trustless setup for many of the most important elements.
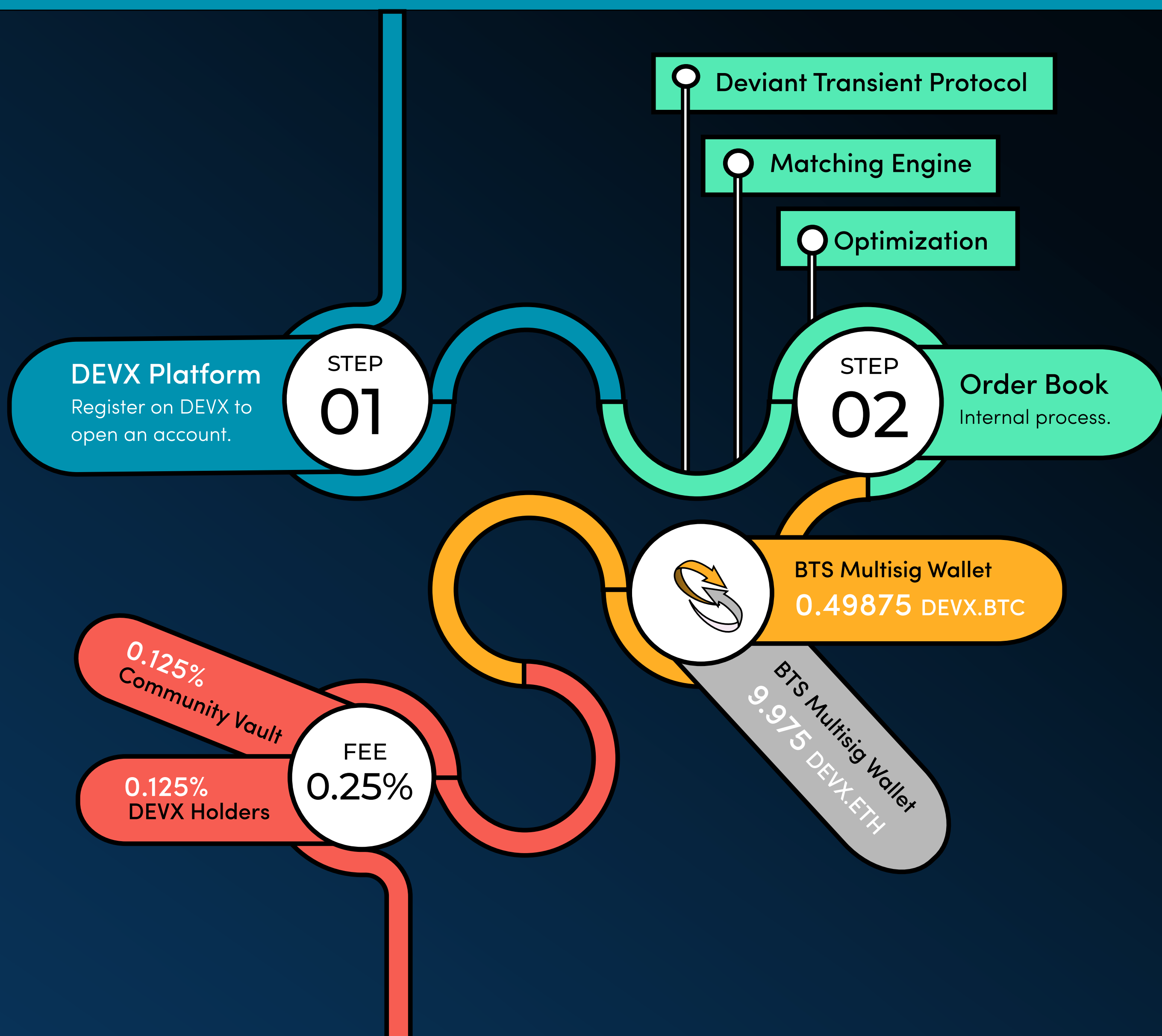
DEVX uses this approach with respect to the BTS blockchain. The DEVX off-chain engine handles order book creation and order matching outside the BTS blockchain, since the alternative would make trading too costly and slow. DEVX applies several optimizations, including: transaction batching, secure database engines, buffering, CDN, First /Second Level Cache, off-chain fee processing, and others. The development team behind the DEVX project will also test and integrate the DEVX platform with native blockchain scaling solutions e.g. Segwit, Lightning Network, State Channels etc.

The DEVX Transient Protocol ("DEVTP") enables the platform to stay nimble while fast-paced technological improvements are made to ensure scalability of the network. DEVTP will allow transition of the entire exchange stack to a newer blockchain with better capabilities as and when this becomes available. This will also ensure that the technologies upon which the DEVX UI/UX layer is built will be compatible with any future public blockchain, and specifically with the original Deviant Network (DEV) when such capabilities are available. DEVTP will be an open protocol that can be utilized by anyone to work with other open blockchains.

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As an example of the trading work-flow, in the case of a trader wishing to sell 1 BTC for an amount of ETH, it would be executed as follows:

The trader registers on DEVX to open an account

The trader sends 1 BTC to a native Bitcoin address provided by DEVX
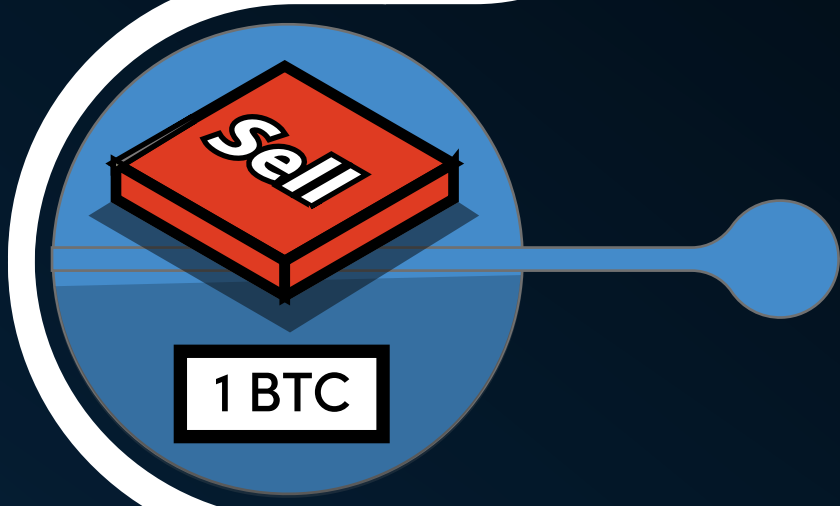
Once DEVX has confirmed 1 BTC has been received by the BTC address specified by DEVX, DEVX creates 2 Bitshares wallets:

Bitshare wallet for inactive funds. This wallet is optional, under the trader's full control, and is for storing funds that are not reserved for an active trade. Any funds to be traded must be moved first to a multisignature wallet for active funds.
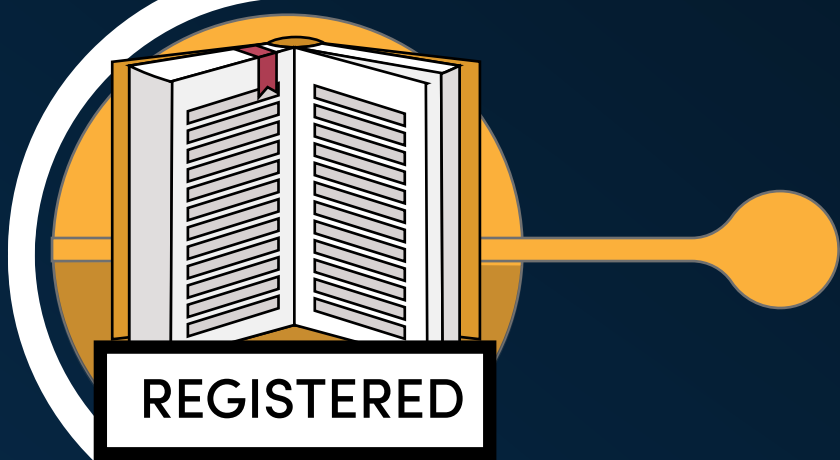
Multisignature wallet for active funds. This is the wallet used for trading. The trader and DEVX signatures have the same weight, so that neither can withdraw funds from the wallet without the other's approval. This prevents mid-trade withdrawal of funds by either the trader or DEVX.

DEVX will deposit an amount of 1 DEVX.BTC to the trader multisig wallet on the BTS blockchain. As far as the trader is concerned, it may just appear they have been issued with a position in "BTC", although this will actually be a position in DEVX.BTC on the BTS blockchain.

The trader indicates his intention to sell 1 "BTC" for a specific amount of "ETH" by placing a sell limit order in DEVX's DEVX.BTC/DEVX.ETH order book. This order book is maintained by DEVX independently, off the BTS blockchain, in order to do off-chain order matching.

Assumes the trader's order becomes the best offer in the DEVX.BTC/DEVX.ETH order book at the time the order starts working.

Another trader registered on DEVX – who already sent an amount of ETH to an address specified by DEVX, and has also been issued with a DEVX.ETH token under the same account - decides to lift the offer. She places a market order on DEVX for say 0.5 "BTC" (i.e. for half the 1 DEVX.BTC quantity offered).

The conditions for a trade have been met:

BTC seller has agreed to sell up to 1 "BTC" for an amount of "ETH", and 1 BTC is held in a native BTC address collateralizing the DEVX.BTC SmartCoin.

ETH seller has agreed to sell some amount of "ETH" equivalent to 0.5 "BTC" at the exchange rate offered by the BTC seller (say 0.05 BTC/ETH), and at least that amount of ETH is held in a native ETH address collateralizing the DEVX.ETH smart coin.

Both traders are incentivized to proceed to settle the agreed trade: settling their side of an agreed trade is the only means that DEVX will allow a trader to recover any funds from the multisig wallets from which the traders have entered the trade. Settling the agreed trade proceeds as follows:

In turn, DEVX provides the second signature required from the platform to transact between the multisig BTS wallet addresses.

Both traders provide the signatures required to execute a transaction between their multisig wallets used for the trade.

DEVX deducts 0.25% fee from both parties. The fee will be stored in DEVX.DEV smartcoin which is tied to DEV cryptocurrency. 0.125% (50% of total fees) percent will be moved to the community vault for the maintenance of the network including fees for Bitshares transactions and the other 0.125% (50% of total fees) will be paid as dividend to all DEVX holders.

For the BTC seller, at the end of the settlement process, he holds;

A balance of 9.975 DEVX.ETH (10 DEVX.ETH minus 0.025 fee) in total of DEVX.ETH in a BTS multisig account, and

A position in DEVX.BTC in the same BTS multisig wallet relating to the 0.5 "BTC" that was not traded.

For the ETH seller, at the end of the settlement process, she holds;

a balance of 0.49875 DEVX.BTC (0.5 DEVX.BTC minus 0.00125 fee) in a BTS multisig wallet, and

a balance of 0 DEVX.ETH in the same BTS multisig wallet relating to any ETH that was not traded.

Once DEVX determines that a trade has been settled as required, DEVX will allow any trade participant to withdraw any settled crypto assets.

Both traders can now withdraw their funds.
Withdrawal process consist of:

Specifying withdrawal address and amount to be withdrawn by a trader

DEVX sending funds to the address

Burning DEVX smart coins which were used as collateralization

WHAT IS THE STATUS OF DEVELOPMENT

/ roadmap for these innovations?

Research and Development related to the hardware wallet built originally on the DEV network that will now sit on top of the DEVX platform and will convert DEVX/BTS accounts to 3-Factor authenticated accounts (i.e. private keys from DEVX, User and the hardware wallet will be required to complete all transactions for users who have enabled 3-Factor authentication). Once in production, the hardware wallet will have a target price of 100 DEV coins per device, subject to market conditions at the time.

WE ARE HERE

DEVX CORE TEAM

DEVX has been developed by the providers of the DEVIANT Coin.

The Deviant Coin is a well decentralized network of Masternodes without superfluous control and without intermediaries/gatekeepers. DEVIANT Coin has more than 90% pure PoS Block reward phase, ensures lightning fast and secured transactions, and offers multi-wallets, encrypted messaging, stealth addresses for complete anonymity, a low number of confirmations, low fees and limited total coin supply for faster increase of value.

Since the Masternodes are constantly connected to the network and perform certain tasks, this allows the coin to achieve faster and more private transactions.

The DEVX development team are:

StreetJammer
Chief of Product Design

NightCrawler
Public Relations

CrispDark
Marketing

Akerboya
Chief Visionary