PROJECT ZEPHYR

WHITE PAPER

A Real Blockchain Solution for Remittance Industry Stakeholders - 180+ Pegged Cryptocurrencies, Bank Free, for Everyone.

V 1.0
August, 2017

Powered by Bitspark

Table of Contents

Introduction

This paper is not a technical paper on a protocol but a proposal for a token to represent the value of the Bitspark's remittance network utilising the Bitshares Blockchain.

Industry Background

Payments and sending money is an essential function of civilisation around the world. It is carried out by financial institutions in developed countries but in the developing world the vast majority of people do not have formal banking services and instead rely upon physical Money Transfer Operators (MTOs) or mobile payments to send and receive money. These non-bank financial providers operate via over the counter cash payments often with extensive networks of agents in cities and rural areas where people pay cash and send money or get mobile credit to send money. According to the World Bank the international remittance market is a $582 billion industry growing at 4% annually[1] where the vast majority of these transactions take place via MTOs- physical cash-in and cash-out locations.

Often technology disruption is focused on a new digital platform or app but the problem with this is often the only way to get money into the digital platform is via a bank transfer or credit card. When it comes to remittances, individuals have limited access to both, excluding developing countries from gaining access to new innovations. The majority of the world's population overwhelmingly still deal with cash[2] on a daily basis and the problem to solve is how physical cash can get into a digital system. As MTO's already have recurring customers who send money and rely on them as their cash in, cash out gateway, the best place to start to start is with them.

Although MTOs are ubiquitous, networks they connect to are fragmented. For a local entrepreneur to start their own money transfer operation where they are sending from one country to another, they need a few things:

• Access to currency brokerage and exchange,

• Access to extensive payout networks,

• A software system to make payments and monitor balances,

• A money transfer license.

These requirements are often beyond the financial capacity of the entrepreneur leaving them with no choice than to join an existing money transfer network, outsourcing most of the requirements to a multinational company, the biggest of which is Western Union[3]. This leads to a consolidation in most markets, with only one to three MTO networks in operation and leaving little room for competition in pricing.

---

[1] https://remittanceprices.worldbank.org/en/about-remittance-prices-worldwide
[2] https://www.raconteur.net/technology/the-decline-of-cash
[3] https://csimarket.com/stocks/competitionSEG2.php?code=WU

Project Zephyr Proposal

This paper proposes a token based reward system tied to the growth of Bitspark's remittance network named the Zephyr Project. The Zephyr Token provides an easy mechanism to bootstrap the onboarding of additional MTOs into the Bitspark network by rewarding MTOs and new users with Zephyr Tokens for doing economically beneficial activities like sending a transaction, topping up a user's balance or liquidating MTO's balances. This provides an immediate cash incentive to sign up, which can quickly expand the number of available cash deposit and withdrawal outlets connected to Bitspark. Furthermore, upon every successful transaction, 25% of transaction fees will be used to buyback tokens thereby providing upward pressure on the price creating a positive feedback loop between network expansion and token value.

Funds raised through the Zephyr Token sale will support the development and expansion of Zephyr Token usage in all of Bitspark's existing remittance corridors in addition to the creation of decentralised pegged fiat cryptocurrencies for every national fiat currency in the world, expanding the reach of Bitspark's remittance network globally and creating the world's first freely tradable market for exotic currencies with zero counter-party risk utilising the Bitshares Blockchain.

Bitspark has been a pioneer in the remittance space for three years as one of the first to conduct a cash in cash out remittance payment via Bitcoin in 2014[4]. Over this time, Bitspark has built a solid product offering being used by MTOs globally and has been recognised by governments, financial institutions and media organisations as a leader in the field of Blockchain remittances. With a dedicated and experienced team guiding development since inception, Bitspark's goal is to make an impact on money transfers for them to be cheaper, faster and more accessible globally.

What is Bitspark?

Company Background

Bitspark, a Hong Kong based fintech company provides a secure web and mobile platform for money transfer operators to send and receive payments quicker and cheaper utilising blockchain technology in addition to a suite of compliance and analytics tools tailored for the MTO industry. In November 2014 Bitspark conducted the world's first cash-in cash-out remittance transaction using Bitcoin[5] and has since refined and targeted their services towards money transfer operators.

Bitspark built a web platform to solve issues for MTOs revolving around cheaper remittances, gateway access and automation. Now, one of the major issues facing the remittance industry is that of de-risking whereby established MTOs are losing their bank accounts from banks seeking to disengage from the industry. Due to this, Bitspark is forming Project Zephyr to enable MTOs to operate in any jurisdiction in the world without a bank account - a major boon for industry.

Bitspark's Growth

Bitspark has in recent years expanded to over seven countries in the Asia Pacific and African regions including Hong Kong, Malaysia, Ghana, Nigeria, Philippines, Indonesia, Vietnam and Pakistan and has formed a number of important partnerships and gained recognition at home and internationally. Bitspark has a history of excellent support from many notable organisations. It is an

---

[4] https://cointelegraph.com/news/bitspark-worlds-first-end-to-end-bitcoin-remittance

[5] https://www.techinasia.com/hong-kongs-foreign-maids-bitcoin-send-cash-home-knowing-bitcoin

alumni of the Cyberport Incubation Program in 2014 backed by the Hong Kong government[6], in 2015 was selected for the Accenture Fintech Innovation Lab APAC[7], in 2016 selected for the SixThirty Fintech accelerator USA[8] and in 2017 was selected by the United Nations Development Program for financial inclusion projects in Tajikistan[9]. In the financial space, Bitspark has been recognised by Goldman Sachs[10], Citibank[11], KPMG[12] and Nikkei and has received coverage by noted publications like Forbes, SCMP, RT News, New York Times, The Australian, Coindesk and many more (Appendix 1) .

Bitspark's mission is to provide a better financial system to the world's two billion unbanked through innovative new technologies solving real customers needs. With a functioning product already in use around the world, Bitspark provides one of the fundamental use cases for Blockchain remittances and has created a better and more efficient way for people to access the financial system.

Realities of The Remittance Industry

Existing Limitations for MTOs

Issues limiting growth and competitiveness for MTOs are:

• Lack of options in money transfer software providers

Small to medium sized MTOs need to run software usually provided by agent networks. Every agent network needs to ensure payments take place and balances are credited accordingly. Although this has been the norm, in most countries of the world there is a limited set of platform providers capable of delivering these services to MTOs particularly to countries with exotic currencies. This may be because there is only one software provider with local 'in country' bank accounts for the MTO to top up and receive payments in their local currency, or it may simply be due to network effect where they are the only agent network with adequate distribution, limiting the exposure of independent MTOs to new systems.

• High fees paid to their network provider

MTOs need to pay fees on every transaction to their network provider. These fees will impact the amount they then charge their customers. The fees charged by network providers to their individual MTO agents in all of Bitspark's jurisdictions is often 75-80% of the fee the MTOs charge their customers. That means an MTO shop which is conducting due diligence on customers, customer service, paying rent, paying salaries and managing the business is only making up to 25% or less

---

[6] https://www.cyberport.hk/en/serviceDirectoryDetails/555

[7] https://newsroom.accenture.com/news/seven-financial-technology-startups-selected-for-the-2015-fintech-innovation-lab-asia-pacific.htm

[8] https://sixthirty.co/portfolio/bitspark/

[9] https://www.coindesk.com/bitspark-embarks-blockchain-remittance-trial-un-tajikistan/

[10] P55 Goldman Sachs "the Future of Finance' Report 2015.

[11] P92 'Citibank Digital Disruption Report 2016'

[12] P20 KPMG 'Making Hong Kong a Fintech Center' report 2015

on every transaction fee they charge. This pushes up prices to end users and limits the ability of MTOs to scale and expand their businesses.

• Operational difficulty in installing and maintaining existing software

Often MTOs will need to pay their platform provider maintenance and setup fees in order to get their system up and running. They may also need to install specialist software on their computers- often available only on windows XP and other since discontinued insecure operating systems. These prerequisites are often another cost on top of running their business they need to account for and one which should not need to exist in 2017 with access to cloud services.

• Customer waiting times to send or pick up money at an MTO

It can often take from 5 minutes to 2 hours for a person sending or receiving money to either make their payment or collect their payment. In Hong Kong the average waiting time for one of the popular MTOs can be up to 2 hours for people to send money. For Indonesians remittances it can take up to two days to receive due to banks and post offices as the only cash out providers.

Bitspark Solution

With these issues, Bitspark created a web platform (https://www.bitspark.io). It is a free money transfer platform for individuals and business to send money to connected destinations. Users can send to one of Bitspark's current destinations like Indonesia, Vietnam, Philippines, Pakistan, Nigeria, Ghana, Hong Kong and elsewhere with delivery in cash via a number of delivery mechanisms which senders and receivers are accustomed to like bank transfer, pawn shop, post office or a Bitspark agent.

(Image of Bitspark's Cloud Platform made uniquely for Money Transfer Operators)

The Bitspark platform also facilitates deposits and withdrawals in fiat currencies and bitcoin with users being able to hold a balance in any one of the 20+ currencies supported on the platform. The customers accounts system has an array of privileges depending on the user's verification level starting from 'Basic' accounts which supports cryptocurrency only deposits and progresses to

'Shop' accounts with access to features required by regulated money transfer providers including reporting functions, transactional analytics, customer historical information, KYC data and Sendy top up functionality.
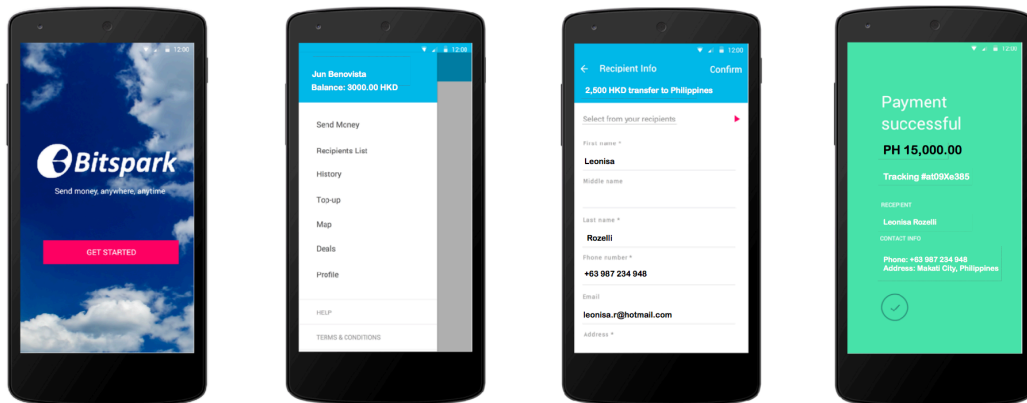
(Image of Bitspark's Mobile App "Sendy".)

Bitspark's second product, Sendy, released in late 2016 is an Android App for individual senders and receivers. It acts as a fully functional mobile wallet that enables users to find a nearby Bitspark MTO, top up with a balance and send money from their phone. Sendy simplifies and speeds up customer transaction times for MTOs reducing an often 40 minute procedure to only 15 seconds. As well as enabling customers to send money from the comfort of their phones, Sendy empowers MTOs to remain relevant by advertising to mobile customers and fulfilling the essential role as the endpoints to get cash into and out of the financial system.

How Bitspark Products Solves Problems for MTOs

- Bitspark is always an option for a MTO as it is available globally and will be launching local fiat pegged cryptocurrency support for every country in the world.

- Bitspark will always be a free option for MTOs in whatever geographical location without the need for local banking.

- Bitspark enables agents to earn 2.5x more money by increasing competition without cutting into margins for MTOs due to the company's pricing model.
    - MTOs can set their own fees which will be split 50/50 with Bitspark keeping appropriate market pricing in their location, enabling fee reduction while gaining profit margins.

- Bitspark is based in the cloud with no operational overheads.
    - Unlike existing infrastructure requirements for money transfer providers including maintenance fees, physical software setup etc, Bitspark has no such encumbrances and is a cloud platform available on any device connected to the internet. Bitspark also provides an API for MTOs to interface with Bitspark directly.

- Customers can transfer funds instantly and pickup within 15 seconds.
    - Utilising Bitspark Sendy, a customer can top up a balance within a few seconds and also pick up and collect money in approximately 15 seconds. This is due to the ability for all customer due diligence information being stored on Bitspark's database from time of account creation so that when customers deposit and withdraw AML/KYC information through paperwork is eliminated.

The Switch to Bitshares

Bitshares is a Blockchain system having been in operation in its current form (bitshares 2.0) for over 3 years and is considered a Blockchain with a proven record and well established ecosystem. Bitspark needs to be able to provide access to exotic currencies, increased speed, lower costs and limit counter-party risk. With the recent announcement early August regarding our switch to the Bitshares Blockchain, Bitspark believes Bitshares fulfils the necessary requirements to make this happen.

Pegged Cryptocurrency Creation

The ability to access the worlds 180+ currencies gets hard past about 30 currencies. If a MTO were to pursue this, they would have to open accounts all over the world in different jurisdictions, connect to disparate and often unreliable payment mechanisms which are all intricately different in every country. This leads to it being virtually impossible to connect to everything as a payment provider and instead these providers are forced to connect to the few agent networks who act as gatekeepers with some semblance of a connection to a payout network. Gatekeepers in these jurisdictions then need to manage their own liquidity and often settle balances between themselves and others in a common currency which is typically USD. This works but it also means there is the additional conversion on their end from the local currency to and from USD which can add a significant cost which is why remittance costs to and from countries in the African continent are some of the highest in the world. In these currencies it is often very difficult to access liquidity and there is usually only one company or bank which has the connection to the local payment mechanism.

Africa is a good example as several countries may share the same currency like CFA, yet a bank in Mali may not be able to send CFA to a bank in Benin even though it is the same currency as they can lack the interbank connections to make it work. So there are also regional difficulties to take into account with payment providers needing accounts in both locations to settle appropriately.

Ultimately, the problem to solve is **access**. Bitshares enables anyone to create a pegged asset and trade it on their decentralised exchange. Not only is the asset itself decentralised with no counter-parties but also when you trade the asset with others there is no counter-party risk at the exchange level too. This is important for a few reasons:

- No counter-parties to create the asset means no risk of bank account closure or bank correspondent account closure - the biggest issue in remittances globally at the moment.

- No counter-party risk when trading means you do not need to keep money at a centralised exchange or broker which can go down, get hacked, become insolvent or run away with money.

- Creating a pegged asset without needing to trust an intermediary who says they have the money backing it and instead the money and value backing it is in a smart contract on the blockchain transparent to everyone.

- You can create a pegged asset for anything, for every currency or commodity opening up possibilities for new companies and markets.

The Bitshares Blockchain can solve the problem of access as there is no need to hedge USD and rely on a single gatekeeper. Once people can settle between one another in their native currency

they can directly trade and access liquidity in various FX pairs that were virtually non-existent previously.

Cheaper and Faster

The Bitshares Blockchain itself is built to scale to 100,000 transactions per second with fees as low as fractions of cents and confirmation times sub 3 seconds. Additionally, the Bitshares Blockchain has been fully functioning for 2+ years and has past its testing stage as a viable Blockchain. It is also tangibly more scalable than other public Blockchains currently in terms of throughput.

While this is not a technical paper regarding proof of work, proof of stake and so on, the fact is that as a remittance provider we need to convey a trustless token of value across the world quickly, in a value pegged to a local fiat and with a predictable fee which is something Bitcoin cannot achieve at this moment. As for other altcoins, many are either too immature (no documentation or robust tools/APIs), function the same as Bitcoin (need access to liquidity in local fiats and gateways), do not solve our problems (settlement ledgers have no big benefit as they are still beholden to liquidity pools and gatekeepers) or just plain don't exist.

Being able to send individual transactions for a low cost quickly can reduce capital outlays as instead of sending a bulk amount of bitcoin to a liquidity provider and drawing down on the balance, payments can be made as and when they come and free up capital for other uses.

Liquidity Will Be Less Of An Issue

In the bitcoin world, a willing participant is needed on the other side of a trade to fill the equivalent fiat value when conducting a cross border transfer. This usually means the need to integrate with one or several liquidity providers or manually manage your payments incoming and outgoing as well as manage your BTC exposure appropriately. At some stage you need people with fiat to offload incoming BTC with which in many countries can be challenging.

The vital connection to local liquidity is through fiat currency. In order to participate as a market maker in various countries you need fiat currency to deposit and exchange with which often means you need to actually be in country to be a market maker as you will need bank accounts denominated in those currencies. However there are not always market makers in every country, for example it is easy to send someone bitcoin in Myanmar but harder to find more people with Kyat (the local currency) to exchange for BTC. In order to do that the only way to get Kyat into the system is through some centralised entity or gateway and if that doesn't exist then you're out of luck.

With decentralised pegged cryptocurrencies issued on Bitshares, anyone can issue the fiat pegged cryptocurrency so long as they have appropriate BTS to lock up in a smart contract as collateral. This is important as it means anyone around the world can participate as a market maker in various global currencies on the fiat side of the trade without the need to have the local fiat currency on hand via a gateway and it can be entirely automated and done digitally.

This means there is one less hurdle for liquidity in new markets and there is also a natural incentive to create more liquidity. If there is a rising demand for a fiat pegged cryptocurrency then it will be trading higher than its real price so you can make money in creating (locking up BTS collateral) and selling it to the market. While not a silver bullet this improves accessibility to liquidity in any geography or fiat currency in the world.

A Real Decentralised Exchange with Zero Counter-Party Risk

As noted, bitcoin remittance companies and OTC traders rely on a number of intermediaries to ensure they have adequate liquidity to enter and exit bitcoin profitably. It doesn't matter how reliable, trustworthy or regulated these intermediaries are, it is still a counter-party risk where trust is needed in the process. If there is any issue with any of your intermediaries it can affect your business severely. For example a money transfer operator can lose their bank account simply because banks foresee risk in remittances, not due to any breaches a money transfer operator has actually done. This is unacceptable as global micropayments grow[13] and a need for a trustless system to exchange value is more in demand. Bitspark believes the Bitshares DEX is one step closer to making that happen.

There have been many attempts at decentralised exchanges and many are in operation today like Bitsquare, Openbazaar and other altcoins like Waves but none are as well suited to remittance companies as the Bitshares DEX. The Bitshares DEX has been in operation for two years with professional trading and charting information in addition to the light client being connected to your wallet directly for voting on Blockchain proposals and fiat gateway support. It is by far the most developed DEX which lists hundreds of assets and unlike alternatives it is fast as all users are trading other IOUs or decentralised tokens there is no need to wait for settlement, it can be done almost instantly via the Bitshares Blockchain.

There is also the clear benefit of not having the risk of the bitcoin exchange running away with your money or collapsing. A decentralised exchange means that users are always in complete control of their funds eliminating counter-party risk like that was all too evident in the case of MtGox. Users of Bitshares may at any time trade with other users from their wallets directly[14] with a full suite of charting tools and a transparent order book. In this respect, Bitshares is unique in having the most fully developed and functional wallet of available cryptocurrencies and it has been operational for over two years.

Bitshares meets the needs of Bitspark to deploy Project Zephyr in a real customer environment and in a secure and timely manner. There are currently other projects under development of note related to price stable cryptocurrencies including MKR, EOS, Waves and others however these projects are either pre-launch, undocumented or do not meet the needed requirements for Project Zephyr.

Project Zephyr - Bitspark's Evolution

Project Zephyr

Bitspark believes in making products truly self-reliant for MTOs and mobile users and will be launching Project Zephyr to solve dilemmas for remittance industry participants. Project Zephyr's

---

[13] http://www.mobyaffiliates.com/blog/in-app-micropayments-grow-17-in-2016-why-developers-should-focus-on-driving-in-app-purchases/

[14] https://github.com/bitshares/bitshares-core/releases

strategy is to roll out 180+ fiat pegged cryptocurrencies to our established a cloud based web platform via the decentralised Bitshares Blockchain. With Bitspark's recent partnership with the UNDP to facilitate remittances in Tajikistan[15], a country with poorly functioning MTO networks and a dependency on remittances accounting for 30% of its GDP[16], it makes perfect for Bitspark's first country to add to Project Zephyr.

Zephyr Token

Zephyr Tokens will be used as a reward mechanism for MTOs and individuals undertaking tasks for Bitspark's remittance network. Actions taken by Bitspark's users including sending and receiving of money, topping up Sendy mobile balances, referrals or liquidating cash reserves at an MTO will earn Zephyr Tokens to incentivise active participation and customer conversion. Bitspark will be reinvesting 25% of service fees from every successful transaction into buybacks of the Zephyr Token on the Bitshares DEX. As more Zephyr Tokens are issued to users to grow the network, the amount of transactions will increase and therefore increase the buying pressure of the token, leading to steady growth in value of the Zephyr Token incentivising more user acquisition and a positive feedback loop.

Zephyr will be a token created by Bitspark with a proportion of outstanding tokens available at launch to the public. The rest will be held in multi-signature wallets by the company and team subject to a two year vesting schedule.

Total Zephyr Token Supply

The token distribution will be divided as per the below:

• 30% Available during the Token Sale 30 day period
• 30% Customer Rewards
• 5% Bitspark Team
• 35% Marketing, Sales team Hiring

100% of the amount of funds raised will be allocated towards the release of the Bitspark / UNDP remittance project in Tajikistan as well as adding new countries to the project which will consist of software development, digital marketing and traditional media channels, local sales team hires and hiring of new customer support representatives in order to grow the network elsewhere.

Bitspark has chosen Bitshares as the blockchain of choice for the Zephyr Token for a few reasons, namely: stability, working product, pegged cryptocurrency creation, transaction scalability and integrated trustless exchange. There are currently no Blockchains in operation which can boast a similar array of incentives. Below is a comparison table to the main competitor in Ethereum:

	Bitshares	Ethereum
Real tested tx/sec	~3300tx/s	~7-15
Blockchain Consensus	DPOS	PoS/PoW

---

[15] http://www.coindesk.com/bitspark-embarks-blockchain-remittance-trial-un-tajikistan/
[16] https://www.s-ge.com/sites/default/files/cserver/publication/free/economic-report-tajikistan-eda-2017-06.pdf

Blocktime	~3 seconds	~15 seconds
Decentralised Exchange	Yes	No
Pegged Cryptocurrency Creation	Yes	Possible
Smart Contracts	Yes	Yes, Programmable
Multi-Sig	Yes	Possible
Stakeholder Voting	Yes	No
Work Paid by Protocol	Yes	No

Source: [17] [18] [19] [20]

Real World Application of Zephyr Tokens

Zephyr Tokens will be awarded to users for undertaking the following actions:

- Sending / Receiving Money: Bitspark will reward a static amount of Zephyr tokens initially for users who send and receive transactions via the Bitspark web platform or Sendy. This amount will be awarded to the sender and perhaps recipient of the transaction.

- Balance Top Up: For every successful balance top up, the user providing the services as a top up agent will be rewarded with an allotment of Zephyr Tokens per top up.

- Referring New Users: Bitspark already has a functional referral system and Bitspark users referring others will receive additional Zephyr for each successful referral.

- Liquidating Shop reserves: Bitspark MTOs or Top Up agents will have an excess of either cash or digital fiat-pegged cryptocurrency. These customers will need to reduce these balances over time and often may be in need of others to exchange cash for digital money or digital money for cash.

Bitspark has a built in free-market mechanism for these MTOs and Top Up Agents to set their preferred commission but in addition to this commission the customer liquidating the MTO or Top Up Agent's balance will also receive an amount of Zephyr. This incentivises a healthy market to develop in targeted countries and enable the full operation of Bitspark agents without banking facilities.

Bitspark reserves the right to adjust these policies from time to time.

---

[17] http://www.altcointoday.com/bitcoin-ethereum-vs-visa-paypal-transactions-per-second/
[18] https://steemit.com/bitshares/@ash/current-bitshares-testnet-stress-test-highlight-3300tx-14000ops
[19] https://www.ethereum.org/
[20] https://bitshares.org/

Buyback

For every transaction, a fee is imposed either by the MTO or by Bitspark. A 25% portion of this fee earned by Bitspark will be used to buy back Zephyr Tokens over time, ensuring likelihood of buy pressure on the Bitshares DEX. As Zephyr Tokens are only rewarded to users for doing an economically useful action for the network e.g. sending money, an increase in the number of Zephyr Tokens issued will also correspond with an increase in buybacks ensuring a liquid market for token holders to trade into and out of Zephyr Tokens as necessary.

Convertibility

On day one of issuance to token sale investors, it will be an actively traded token on the Bitshares DEX. Bitspark will be trading Zephyr exclusively on the Bitshares DEX however other centralized exchanges are welcome to list Zephyr. Bitspark will also be providing convertibility in app and via the https://www.bitspark.io website as well for token holders should they wish to quickly exchange Zephyr without the need to access the Bitshares DEX.

Transparency

All transactions to happen on Bitspark's Zephyr network will be visible on the Bitshares Blockchain and publicly viewable. All balances held on behalf of Bitspark for it's users on the Bitspark Zephyr network will also be publicly viewable on the blockchain ensuring a 100% reserve of customer funds. During the rollout of Zephyr, Bitspark plans to develop a stats.bitspark.io subdomain with relevant dashboards buyers may be interested in viewing for traction and accountability purposes, this will break down by currency, country and a number of other filters.

Un-Banking The Banked

Project Zephyr will work to remove reliance on banks - the biggest hurdle for MTOs that prevents the remittance industry from evolving. With issues like 'de-risking', money transfer operators are struggling to maintain or find new banking partners due to the reoccurring trend of financial institutions removing banking services from MTOs. This comes from concerns about risks in banking clients directly exposed to Anti Money Laundering (AML) and Know Your Customer (KYC) regulations particularly in the involvement of cash, which would ultimately result in a large penalties levied on the bank by regulators if it was found to be facilitating breaches in these guidelines even if unknowingly.

The important thing here is that an MTO does not need to actually have broken any regulation or even be suspected of breaking any regulations to be cut off from banking services. They could be offering safe and compliant services to customers for decades but due to the bank's decision to 'de-risk', they may lose their bank account and no longer be able to operate their business. This is true around the world where every MTO is a licensed money transmitter in their local jurisdiction and must adhere to the relevant guidelines, often the same as the banks, but the impact of de-risking can negatively impact the ability of a business to continue operations and ultimately require them to shut down, something which happens all too often.

Bitspark's value proposition to MTOs is that their business can run on the Bitspark remittance platform without the need for a bank account while still maintaining all of the necessary industry standard compliance processes and added services. This solves the issue of de-risking in the money transfer industry and provides new opportunities to MTOs in any jurisdiction and currency in the world. The below process describes how this is achieved:
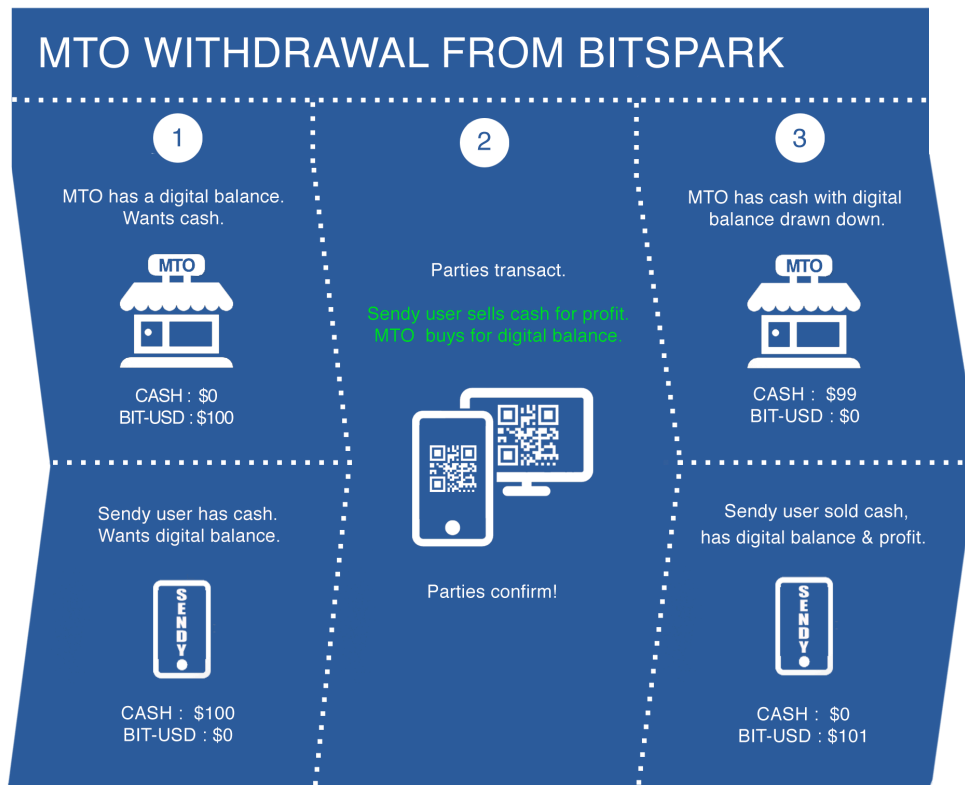
How It Works Without a Bank
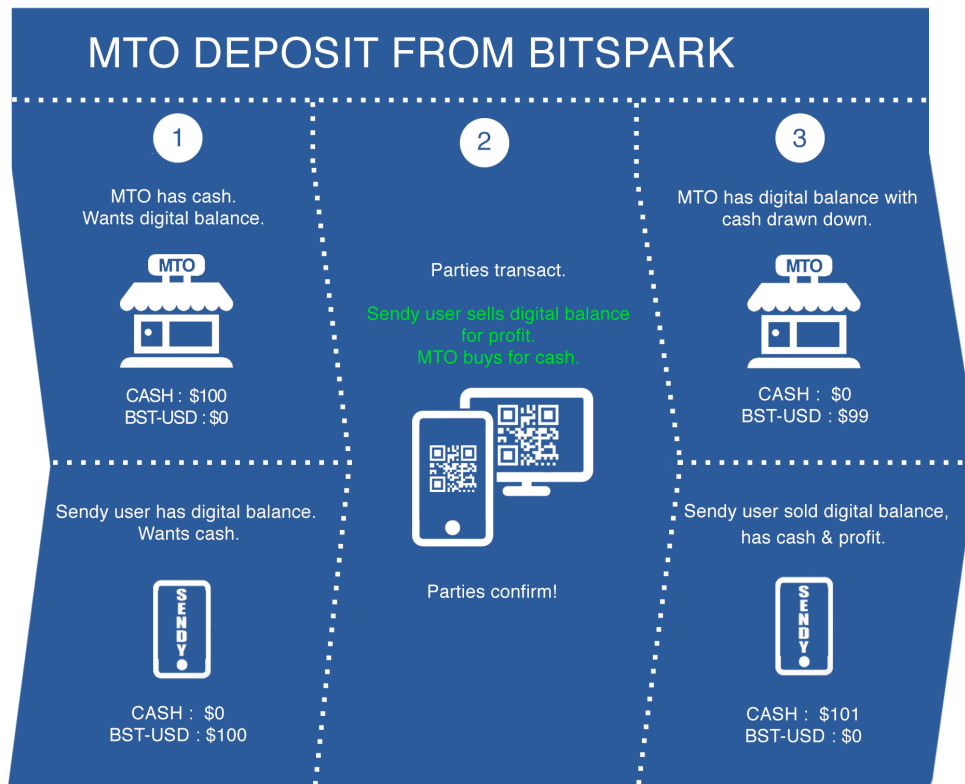
MTO Deposit to Bitspark:
1. An MTO sets up an account at https://www.bitspark.io and provides the relevant compliance documents to be approved as a Bitspark money transfer operator.

2. An MTO has a cash balance at their shop which they use for payouts to recipients or money they have been given by senders, for example $100. They need to deposit this cash into Bitspark's online system.

3. A Sendy user with a digital balance in Sendy visits the shop to withdraw cash or 'sell' their balance to the shop. They have $100 'BitUSD' (a cryptocurrency pegged to USD).

4. A Sendy user elects to sell their balance to the shop, they will sell $100 of digital balance for $100 in cash for profit. The Sendy User scans the MTOs QR code on their Bitspark account screen to confirm the sale.

5. Both parties confirm the transaction and the digital balance is credited to the MTO. The MTO now has $99 BitUSD in Bitspark to send money with and the Sendy user has cash and a small profit.

This method enables the MTO to deposit money into Bitspark without the need for a bank and is a requirement for an MTO who wishes to send money somewhere. It also enables any individual

users of Sendy to make a profit by visiting nearby shops and exchanging a digital balance for cash. Bitspark calls this process 'Liquidating MTO balances'. The fee the shop pays to the Sendy user can be set by the market in a supply and demand situation, when an MTO really needs to deposit money into Bitspark fast they may offer a higher commission to Sendy users, however in a competitive market many Sendy users will be competing to liquidate the MTOs balance keeping fees naturally low.

This free market approach is scalable in any country and incentivises local entrepreneurs to securely and safely assist the growth of MTOs for a profit.

MTO Withdraw From Bitspark:

1. An MTO sets up an account at www.bitspark.io and provides the relevant compliance documents to be approved as a Bitspark money transfer operator.

2. An MTO has a digital balance in Bitspark and they want to convert that to cash to pay their everyday expenses, for example 100 BitUSD.

3. A mobile Sendy user with cash visits the shop to deposit money into Sendy or sell their cash to the Shop. They have $100 in cash.

4. The Sendy user elects to sell their balance and exchanges $99 in cash and is paid 101 BitUSD to their Sendy account. The Sendy user scans the shops QR code and both parties confirm the sale.

5. Both parties have confirmed the transaction and the shop now has $99 in cash and the Sendy user 101 BitUSD having made a slight profit.

This method is most suited for MTOs in recipient countries that receive more money than they send as these MTOs will always be paying out cash and be receiving a digital Bitspark balance in

exchange for successful payouts. Once again Bitspark incentivises a free market to develop around the liquidation of MTO balances which provide a simple profit motive for both the shops and Sendy users with the shop able to maintain complete operation of their business without the risks of maintaining a bank account and individual users able to profit by liquidation of nearby shop balances.

We think there are many methods by which balances can be liquidated but this may be the most practical in many developing countries where cash is still used by the vast majority of the population. This also removes the need to trust a financial institution which in many countries can be difficult to interact with or are insolvent. In contrast, balances in Bitspark or Sendy are backed by a 100% reserve on the Blockchain and anyone can access or withdraw their balances at any time.

The Zephyr Token assists in bootstrapping this network of MTOs as not only is there potential rewards for MTOs and Sendy users but in each of the scenarios described above both participants would be rewarded with Zephyr Tokens for undertaking this economically beneficial transaction for the network. Further enhancing the value proposition for new MTOs and Sendy users to join Bitspark.

Token Sale Pricing

Bitspark will be starting the Zephyr Token sale period on 1st of September, 2017. The token sale will adhere to specific timelines and goals which are defined below with a funding goal of $10Mil USD and a market cap of 2Bn Zephyr Tokes with 30% available to the public via auction prices stated below:
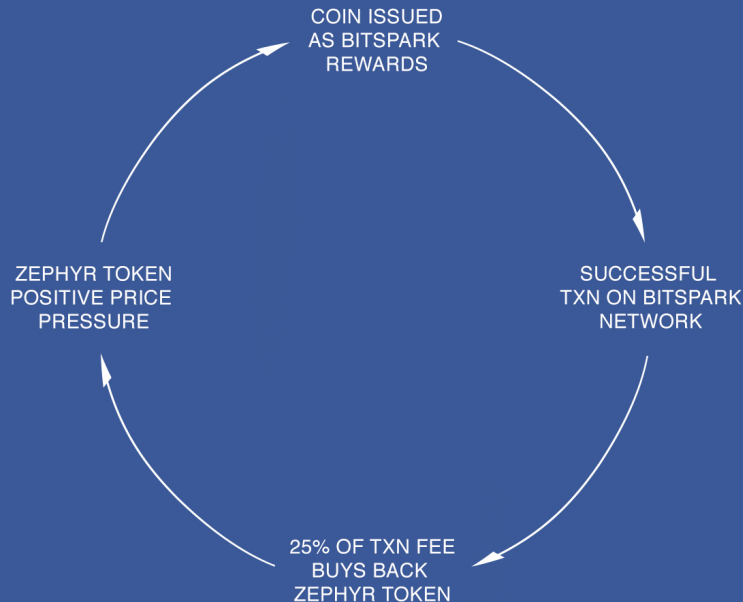
Discount Bonus	Price per Zephyr in US$	Percentage of Crowdsale	Total Zephyr
50%	0.0106157115	10%	60000000
40%	0.0127388538	15%	90000000
30%	0.0148619961	15%	90000000
20%	0.0169851384	20%	120000000
10%	0.0191082807	20%	120000000
0%	0.021231423	20%	120000000

Zephyr Token Monetisation Model

The Zephyr Token is a representation of value in the Bitspark remittance network and will be used to bootstrap the growth of MTOs and individuals signing up to Bitspark's services. The Zephyr Token will therefore play a pivotal role and deliver real value for customers, demonstrate long term sustainability and increased investor value.

ZEPHYR TOKEN LOOP

COIN ISSUED
AS BITSPARK
REWARDS

SUCCESSFUL
TXN ON BITSPARK
NETWORK

25% OF TXN FEE
BUYS BACK
ZEPHYR TOKEN

ZEPHYR TOKEN
POSITIVE PRICE
PRESSURE

The proposal below lays out some of the roles the token will play:

Zephyr Tokens will be rewarded to Bitspark users for undertaking certain economically beneficial actions within the network including: Topping up a user balance, sending a payment, verifying identity and liquidating a Bitspark MTOs balance.

The Zephyr token has a real value openly traded on the Bitshares DEX, this token will be rewarded to users for undertaking actions that are beneficial to the growth of the network- this is the primary method for Zephyr to come into circulation. Only upon completing an economically beneficial action will a user be rewarded Zephyr ensuring that as the network grows, so does the value of the token.

A percentage of every transaction commission fee will be used to buyback tokens from the network on the DEX.

For every transaction, Sendy Topup and Send Money payments, a fee is charged on this that is set either by the top up agent or by Bitspark. Bitspark will define the percentage but at launch it will equal to approximately 25% of the fees collected by Bitspark per transaction for buying back Zephyr Tokens from the DEX.

This ensures as more transactions happen within the network, there is constant upward price pressure on Zephyr Tokens and liquidity which further incentivises more transactions and further upward price pressure. This positive feedback loop helps to underscore long term investor value and gives investors direct exposure to the success of the network. Any growth in either price or network size, results in a corresponding benefit to the other.

As there is a direct link between network growth and Zephyr Token value it makes it more appealing to MTOs in new markets to the point where on boarding new customers it will be possible for money transfer operators to make and reinvest money, rather than spend money.

Often for a money transfer operator to use a new software system there is a financial cost, hours of staff training, maintenance fees in addition to the compliance costs of registering new customers at the time they intend to make a transaction. Project Zephyr offers an incentive for these MTOs to join the Bitspark network and undertake economically beneficial actions and therefore further enhance its value. This offers potential for Bitspark's remittance platform to spread to new countries and currencies more easily and given Bitspark has no requirements for bank accounts, the barrier to entry is very low.

Roadmap

2017 MAY - First Bitspark, UNDP, AltFinLab Mission
2017 MAY - Bitspark, UNDP & AltFinLab Begin Planning Tajik Pilot
2017 AUGUST - Announcement Made Regarding Bitshares Switch
2017 SEPTEMBER 6 - Bitspark Zephyr Token Pre-Sale Launch
2017 OCTOBER 6 - Zephyr Token Sale Begins
2017 NOVEMBER 6 - Zephyr Token Ends. Participants issued Tokens
2017 Q4 - Tajikistan Pilot - Technical Testing & Validation
2017 Q4 - Tajikistan Pilot - Live Launch. Zephyr token integrated into Bitspark
2017 Q4 - Market Expansion in Tajikistan
2018 Q1 - Deployment of Pegged Cryptocurrencies to all Bitspark countries
2018 Q2 - Expansion in Bitspark Destination Countries and Beyond.

END

Appendix 1

Bitspark Recognition

Recognition of Bitspark's innovative services has been widespread from governments to financial institutions and media publications.

2014

https://coinreport.net/bitspark-unveils-worlds-first-end-end-bitcoin-leveraged-remittance-solution/

https://e27.co/bitspark-enables-bitcoin-remittance-between-hong-kong-and-the-philippines-20141120/

https://www.coindesk.com/bitspark-hong-kong-remittance/

https://www.techinasia.com/hong-kongs-foreign-maids-bitcoin-send-cash-home-knowing-bitcoin

RT News: https://www.youtube.com/watch?v=HsiYQ5Mn-_w

https://finance.yahoo.com/news/bitcoin-cryptocurrency-exchange-bitspark-io-041500713.html

---

2015

https://www.coindesk.com/bitspark-rolls-remittance-service-indonesia/

https://www.forbes.com/sites/tomgroenfeldt/2015/08/04/fintech-startups-and-accelerators-are-going-strong-globally/#60945e061352

https://bravenewcoin.com/news/bitcoin-adoption-accelerating-in-the-philippines/

http://www.fintechtop100.com/fintech/category/blockchain-technology/

Goldman Sachs "the Future of Finance' Report 2015

http://www.bworldonline.com/content.php?section=Economy&title=philippine-remittance-industry-embraces-crypto-currency&id=109164

https://ripple.com/insights/accenture-report-apac-fintech-investments-signal-major-opportunity-in-payments/

https://bravenewcoin.com/news/bitspark-glides-through-innotribes-semi-finals/

https://techcrunch.com/2015/01/30/the-bootstrappers-guide-to-bitcoin-remittances/

https://cointelegraph.com/news/bitspark-worlds-first-end-to-end-bitcoin-remittance

https://www.coindesk.com/goldman-sachs-report-says-bitcoin-could-shape-future-of-finance/

https://asia.nikkei.com/Politics-Economy/Economy/Southeast-Asians-get-to-grips-with-bitcoin

https://www.coindesk.com/bitcoin-firm-bitspark-joins-accentures-fintech-accelerator/

http://www.bangkokpost.com/archive/remittance-revolution/674952

https://bravenewcoin.com/news/bitspark-its-the-cheapest-way-to-send-money/

http://www.newsbtc.com/2015/01/21/bitspark-makes-bitcoin-remittances-indonesia-possible/

https://bravenewcoin.com/news/bitspark-clients-require-no-knowledge-of-bitcoin/

https://www.nytimes.com/2015/05/03/magazine/how-bitcoin-is-disrupting-argentinas-economy.html?mcubz=3

KPMG 'Making Hong Kong a Fintech Center' report 2015

http://digitalmoneytimes.com/bitcoin-startup-bitspark-reaches-innotribe-startup-challenge-finals/

https://letstalkpayments.com/5-bitcoin-services-remittance/

http://www.scmp.com/lifestyle/technology/article/1679904/bitcoin-transactions-cut-cost-international-money-transfers

https://cointelegraph.com/news/hong-kong-based-startup-bitspark-announced-end-to-end-cash-remittance-service-to-indonesia

https://newsroom.accenture.com/news/seven-financial-technology-startups-selected-for-the-2015-fintech-innovation-lab-asia-pacific.htm

https://letstalkpayments.com/11-money-transfer-companies-using-blockchain-technology-2/

https://e27.co/six-figure-funding-round-slams-industry-naysayers-bitsparks-ceo-20150410/

https://asia.nikkei.com/Politics-Economy/Policy-Politics/Hong-Kong-betting-on-fintech-for-economic-structural-change

https://www.techinasia.com/talk/3-asian-fintech-startups-rise-hong-kong

---

2016

http://www.econotimes.com/Bitspark-Vitaxel-Group-partner-to-bring-blockchain-benefits-to-remittances-in-Malaysia-220378

https://goldsilverbitcoin.com/bitcoin-transfers-bitspark/

https://ibsintelligence.com/ibs-journal/ibs-news/bitspark-partners-with-vitaxel-for-malaysian-expansion/

Citibank 'Citibank Digital Disruption Report 2016'

http://www.bitcoininsider.org/article/1057/bitcoin-startups-believe-africa-fertile-ground-crypto-solutions

http://www.aroundthecoin.com/podcast/episode-104-interview-with-george-harrap-ceo-of-bitspark/

http://www.investopedia.com/articles/investing/030816/world-will-soon-use-bitcoin-send-money-home.asp

https://letstalkpayments.com/19-bitcoin-remittance-startups-that-wont-let-the-cryptocurrency-die/

http://eqstl.com/sixthirty-announces-fall-2016-cohort-class/

http://thebitcoinnews.com/bitspark-brings-bitcoin-remittance-services-to-malaysia/

https://www.techflier.com/2016/11/15/11-superb-fintech-startups-from-hong-kong-you-need-to-know-about-in-2016/

http://fintechnews.sg/4501/blockchain/bitcoin-remittance-startup-bitspark-expands-southeast-asia-coverage/

https://letstalkpayments.com/got-bitcoin-here-is-where-you-can-exchange-it/

2017

http://www.iflr.com/Article/3670949/Fintech-could-solve-Sharia-contracts-puzzles.html

https://coingeek.com/bitspark-announces-new-blockchain-trial-tajikistan/

http://bitcoin-price.us/2017/02/24/bitspark-enters-20-billion-pakistani-remittance-market/

http://www.techbullion.com/10-popular-fintech-startups-hong-kong/

https://themerkle.com/top-6-bitcoin-and-blockchain-remittance-companies/

https://www.coindesk.com/why-theres-still-hope-for-bitcoin-remittance-companies/

http://altfinlab.org/blog/tajikistan-sending-remittances-from-russia-to-tajikistan

https://www.coindesk.com/bitspark-embarks-blockchain-remittance-trial-un-tajikistan/

https://letstalkpayments.com/hong-kong-fintech-ecosystem-startups-regulators-investors-accelerators/

http://www.altcointoday.com/remittance-startup-bitspark-joins-un-to-test-services-in-tajikistan/

https://www.bloomberg.com/research/stocks/private/snapshot.asp?privcapId=290720939

https://bravenewcoin.com/news/bitspark-vs-hong-kong/

http://bitcoinafrica.io/2017/05/11/africa-new-frontier-for-bitcoin-startups/