Lux Payband

Whitepaper 1.0

Table of Contents

Moving Money Like Email

lx Lux
Payband

"The future of blockchain technology is directly related and dependent on mass adoption."

Introduction

Blockchain technology has brought a host of new technologies. One of the more prominent is cryptocurrencies, which are digital assets designed to work as a medium of exchange for goods and services. The advent of blockchain technology has witnessed the proliferation of numerous tokens and coins. However, many coins have yet to establish any true utility. [1] [2] [3] For cryptocurrencies to be accepted universally they must show true utility. A recent Bloomberg article analyzed 226 ICO's and token sales, only 20 of the corresponding tokens were used in running their networks, demonstrating some utility of some sort – however that's less than 10% utility.[4]

We believe cryptocurrencies will become a global medium of exchange for goods and services. Thus, to further mass adoption we created Stellar Payband, one of the world's first contactless cryptocurrency wristbands and POS management systems designed to exchange cryptocurrencies for real world goods and services. We initially set out to add only Stellar Lumens to the band. However, after successfully adding Stellar Lumens the program expanded. We then created the algorithm to add all Stellar blockchain tokens to the band. Thus, we expanded our project goal to now include other blockchains. Similarly, as lumens shine and expand creating a Lux shining the way, we expanded renaming the project Lux Payband. Lux Payband was created to solve problems within our festival and events ecosystem as cash became a liability. We also experienced extended wait times which hampered sales and the customer experience.

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[1] Williams, Sean. (2018, June 8th). *The 1 Thing Virtually All Cryptocurrencies Lack*. Retrieved from https://www.fool.com/investing/2018/06/08/the-1-thing-virtually-all-cryptocurrencies-lack.aspx
[2] Usechain. (2018, May 22nd). *Is there a current feasible utility for cryptocurrency?* Retrieved from [2] https://medium.com/usechain/is-there-a-current-feasible-utility-for-cryptocurrency-bfbbec99608c
[3] Wilkinson, Shawn. (2017, December 23rd). *Utility: The Defining Word for Tokens in 2018*. Retrieved from https://www.coindesk.com/defining-word-tokens-2018
[4] Kharif, O. (2017, October 23rd). *Only One in 10 Tokens Is in Us Following Initial Coin Offerings*. Retrieved from https://www.bloomberg.com/news/articles/2017-10-23/only-one-in-10-tokens-is-in-use-following-initial-coin-offerings

As we host and curate multiple large-scale festivals throughout America. In 2018, our events ecosystem saw 3.5 million guests.[5][6][7][8][9] In 2017, we set out to create an innovative cryptocurrency wristband payment and POS management system to eliminate cash use and improve customer experiences. So, we researched to find and build on the fastest and lowest cost blockchain for the transmission of tokens. We settled on the Stellar blockchain to build and innovate. As the Stellar blockchain enabled four second transmission times at a fee of $.0001 to transmit lumens.

Also, we realized the contactless payment industry is forecast to increase significantly in value over the next few years. According to a recent report published by Allied Market Research, the global contactless payments market was valued at $6,734 million in 2016, and is projected to reach at $25,565 million by 2023, growing at a CAGR of 21.2% from 2017 to 2023.[10] We also chose contactless NFC wristbands over mobile phones for contactless payments because cellphones batteries die, and wristbands do not. Eventually we will move to include all NFC compatible devices, cards and trinkets to pair with Lux Payband.

So, what initially was created to solve cash lose and decrease customer wait times at our festivals and events has expanded to solving multiple problems. Lux Payband provides utility for blockchain platforms, customer loyalty programs, merchants, logistics and the hospitality & tourism industries.

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[5] Eadens, A. (2018, June 22nd). *Get Ready, Chicago Foodies. Chicago Food Truck Festival will host new unique flavors on wheels*. Retrieved from https://www.chicagotribune.com/entertainment/ct-ent-food-truck-fest-0621-story.html
[6] Pete, J. (2017, April 5th). *Michigan City Food Truck Festival to roll into town*. Retrieved from https://www.nwitimes.com/business/local/michigan-city-food-truck-festival-to-roll-into-town/article_9e259922-fa29-5f0d-b5bc-092310a75907.html
[7] Raines, J. (2018, June 2nd). *Mix it up: Everything you need to know about the Chicago Margarita Festival*. Retrieved from https://wgnradio.com/2018/06/02/mix-it-up-everything-you-need-to-know-about-the-chicago-margarita-festival/
[8] Northwestern University. (2018, September 8th). *Wildcat Alley*. Retrieved from https://nusports.com/sports/2015/8/31/FB_wildcatalley.aspx
[9] Claflin, L. (2018, June 2nd). *Report: Permitting the Food Truck Fiesta*. Retrieved from https://efficientgov.com/blog/2018/03/28/report-permitting-the-food-truck-fiesta/
[10] Allied Market Research. (2017, July). *Contactless Payments Market Expected to Reach $25,565 Million, Globally, by 2023.* Retrieved from https://www.alliedmarketresearch.com/press-release/contactless-payments-market.html

Problem Solved

Cryptocurrencies gained global attention in 2017. During this time thousands of coins and tokens were developed possessing little to no utility.[11] Merely creating speculative high-risk bubbles. For cryptocurrencies to be adopted and used by the masses they must solve problems through utility. Lux Payband not only solves real world problems within its own ecosystem but also solves problems for the entire Stellar Blockchain. As Lux Payband can be currently used by all Stellar tokens enabling project to exchange their tokens for goods and services. The project is also expanding to include multiple blockchains.

Festival and Events Utility

Lux Payband's contactless payment and POS management system reduces cash liability, decreases customer wait times and increases revenue for event organizers. Studies have shown, fans purchased 20% more when utilizing cashless RFID payments.[12] Also seeing a 51% decrease in cash on-site with a 100% adoption rate for those who register.[13] Festival goers are drawn to RFID Technology for reducing lines and wait times at festivals which can be overwhelming for consumers seeking to purchase a bottle of water on a hot day.[14] Also, unlike traditional RFID cashless systems at festivals, Lux Payband is a blockchain based cashless payment system connected to the user's wallet. This enables users to top up and use their wristbands without incurring fees and enables Lux Payband to be used multiple times at all participating festivals world wide. As well as, providing universal usage with merchants who except cryptocurrencies loaded on Lux Payband.

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[11] Williams, Sean. (2018, June 8th). *The 1 Thing Virtually All Cryptocurrencies Lack*. Retrieved from https://www.fool.com/investing/2018/06/08/the-1-thing-virtually-all-cryptocurrencies-lack.aspx

[12] Olenski, S. (2018, July 5th). *Enhancing the Event – Goer Customer Experience*. Retrieved from https://www.forbes.com/sites/steveolenski/2018/07/05/enhancing-the-event-goer-customer-experience/#1864c0511322

[13] IBID

[14] Goulden, D. (2018, September 5th). *Why cashless festivals are on the rise*. https://www.payzone.co.uk/blog/business-growth/why-cashless-festivals-are-on-the-rise/

Festival and Events Utility (Contd.)

Lux Payband was successfully tested during a trial run at the Chicago Food Truck Festival allowing guests to exchange Stellar Lumens for beverages. [15] [16] [17] Chicago Food Truck Festival is one of the largest gathering of food trucks and foodies in America pulling together over 60,000 foodies for the annual event in the South Loop.[18] During this event select guests received a Lux Payband. The POS software facilitated the transfer of lumens for goods and services during the event. In 2019, Lux Payband will be launched for use at multiple festivals and events throughout America. We are currently partnered and/or affiliated with the following festivals, events and rotations:

1. Chicago Food Truck Festival, 100k foodies each year
2. Chicago Margarita Festival, over 3k connoisseurs
3. Michigan City Food Truck Festival, over 5k foodies each year
4. Chicago Cubs Food Truck Rotation, over 3,321,000 guests each year
5. Northwestern Wildcat Football Food Truck Rotation
6. Tomato Blast, America's version of La Tomatina

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[15] Eadens, A. (2018, June 22nd). *Get Ready, Chicago Foodies. Chicago Food Truck Festival will host new unique flavors on wheels*. Retrieved from https://www.chicagotribune.com/entertainment/ct-ent-food-truck-fest-0621-story.html
[16] Harris, C. (2018, September 29th). *Stellar Payband Trial Run a Success in Chicago.* Retrieved from https://tokenmantra.com/stellar-payband-trial-run-a-success-in-chicago/
[17] IBID
[18] Wikipedia. (2019, January 28th). *Chicago Festivals*. Retrieved from https://en.wikipedia.org/wiki/Chicago#Festivals

Stellar Blockchain: Lumens and tokens lack of Utility

Nearly all cryptocurrencies created lack purpose.[19] Most have been created without genuine purpose or utility.[20] In order for mass adoption to occur, people must be able to buy and sell things in the real world with cryptocurrencies. This is a problem that hinders the industry and Lux Payband helps further adoption by enabling all Stellar blockchain tokens to be added to Lux Payband. Thus, Lux Payband serves as a tool enabling all tokens developed on the Stellar blockchain to be used as a medium of exchange for goods and services. Furthermore, Lux Payband is now working to add multiple blockchains to the band furthering utility.

Merchant Services Utility

Lux Payband has utility for merchants by reducing transaction fees, creating faster payments, reducing charge back fraud and improving customer access. Lux Payband transactions happen almost immediately, unlike credit card payments that may take days to clear. Unlike credit card transactions, where banks serve as intermediaries and charge a fee, cryptocurrencies are decentralized, which means that transactions have no third-party involvement.[21]

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[19] Seth, S. (2018, September 9th). *More than Half of the Top 100 Cryptos have no utility:* Report. Retrieved from https://www.investopedia.com/news/more-half-top-100-cryptos-have-no-utility-report/
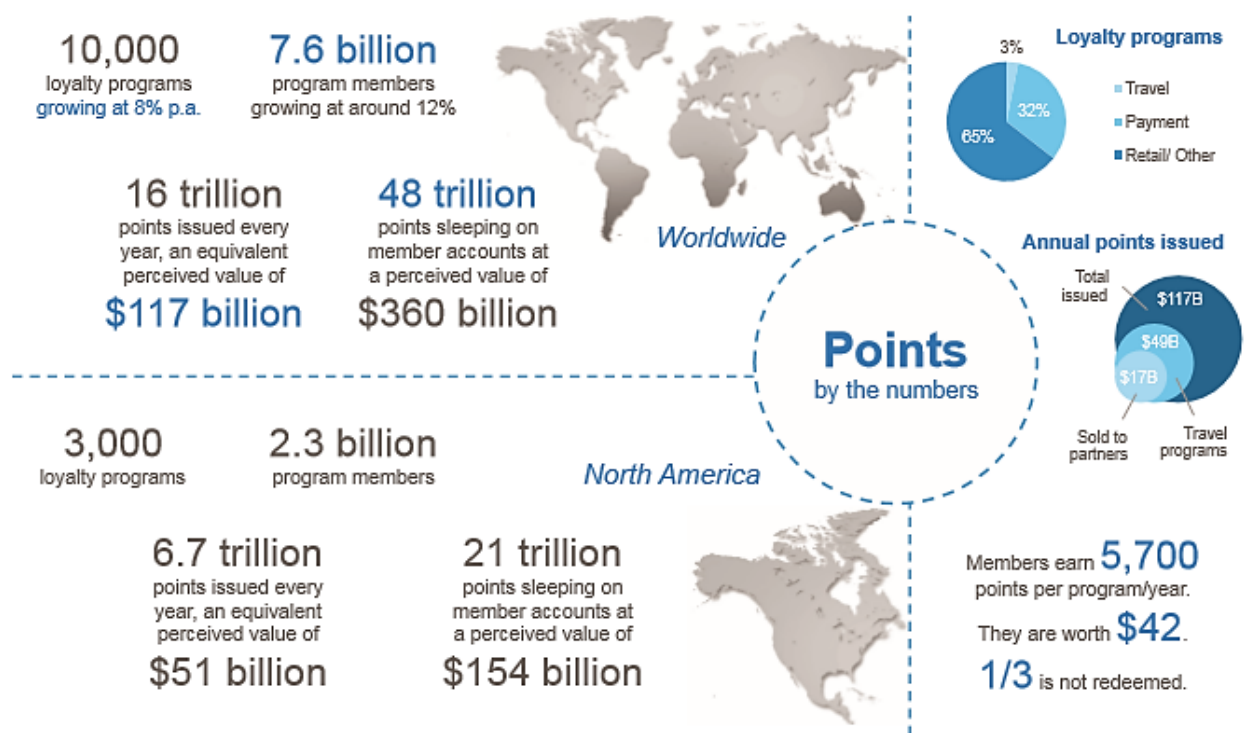[20] Adkisson, J. (2018, November 11th). *The Cryptocurrency Paradox and Why Crypto is Failing.* Retrieved from https://www.forbes.com/sites/jayadkisson/2018/11/28/the-cryptocurrency-paradox-and-why-crypto-is-failing/#2d88a58a7c9d
[21] Argiz, T. (2018, September 18th). *What cryptocurrency could mean for your business*. Retrieved from https://www.bizjournals.com/bizjournals/how-to/technology/2018/09/what-cryptocurrency-could-mean-for-your-business.html.

Customer Loyalty Utility

Currently the loyalty rewards programs is a massive US$360+ billion industry that is characterized by a myriad of different programs each with its own systems for earning, redeeming and exchanging their unique points. While the average American participates in 29 different loyalty programs, approximately half of these accounts are inactive and 30 percent of consumers never even redeem a single point according to the 2017 Colloquy Loyalty Census.[22] These facts highlight just how ripe the industry is for change.

Sources: Colloquy, The Economist, Loylogic desk research

Lux Payband helps the customer loyalty industry by placing the program on the blockchain for transparency and ease while providing a contactless wristband and or card for use. For our events ecosystem all sponsors automatically are enrolled in the program. Guests are retro fitted with a contactless wristband loaded with a custom token created especially for the sponsor which may be used at numerous events.

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[22] Wiseman, A. (2018, July 15). *Why Customer Loyalty Programs are Ripe for Blockchain Disruption*. Retrieved from https://medium.com/sendy-rewards/why-customer-loyalty-programs-are-ripe-for-blockchain-disruption-ae4befe8d450

Hospitality Utility

Lux Payband has utility in the hospitality and resort industry by helping to improve guest experiences. US-based Disney resorts have been using RFID technology for hotel room access for the last few years, but they just recently announced that in 2018 they will be swapping hotel key cards for Magic Band wristbands. Powered by an RFID chip, the wristband will now be able to open the hotel room doors.[23] RFID keycards can also be set up to allow guests to make purchases within the hotel or resort, making buying food or drinks easier than ever before.[24] Guest can easy use Lux Payband for all cashless purchases. The band may even be used for future visits.

Logistics Management Utility

Lux Payband provides utility in the logistics industry as the RFID tag market is driven by factors like increasing the need for prevention of theft, growing need for tracking shipment in the real-time scenario.[25] Lux Payband may be used in real time to track shipments. As Lux Payband transactions are on the blockchain and utilize contactless wristbands and tags that may be paired with our scanners for tracking and transparency.

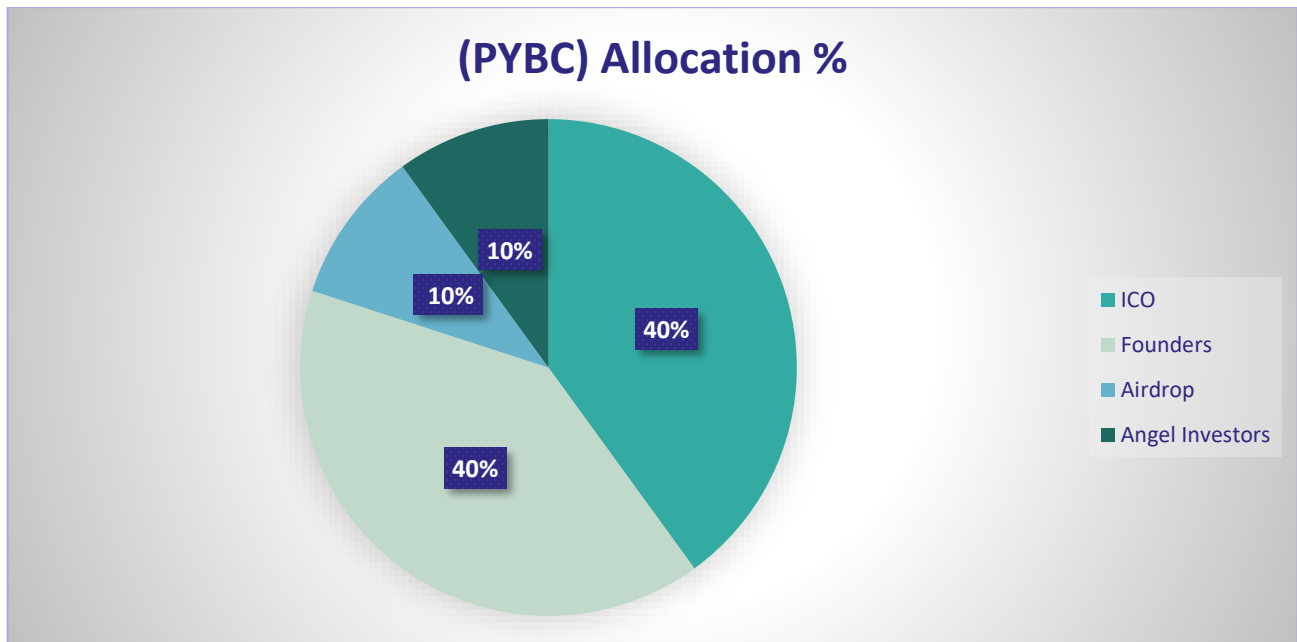[23] Oomph. (2018, August 22nd). *Why RFID Hotel Key Cards Make for Happier Hotel Guests*. Retrieved from https://blog.madebyoomph.com/rfid-hotel-key-cards
[24] IBID
[25] Press Release. (2019). *RFID Tag Market Is Expected to Witness Enhanced Demand from Transport, Logistics & Aerospace Industries Till 2022*. Retrieved from http://www.digitaljournal.com/pr/4112700

Payband Coin (PYBC)

We will issue our token coin called Payband Coin (PYBC) developed on the Stellar blockchain. A total of 1.5B will be created and never increased. Payband Coin will fuel the ecosystem created from usage, services and fees collected.

(PYBC) Allocation %

- ICO — 40%
- Founders — 40%
- Airdrop — 10%
- Angel Investors — 10%

Funds Usage

- 40% will be set aside for founders to be used for marketing and project expansion.
- 40% of the funds will be offered for sale.
- 10% will be for our angel investor program.
- 10% will be for our match airdrop program

Revenue Model
- Transmission fees
- Wristband fees
- Festival fees
- Listing fees
- Hospitality, Tourism & Logistics Setup fee

All hardware, software, listing fees, festival fees will receive up to 50% discount when making purchases using Payband Coin (PYBC).

Products

Lux Payband is a contactless NFC wristband and POS management system. The POS management system consists of a scanner running our proprietary software. We will also create other NFC devices to be used by the Lux Payband payment system.

Roadmap

The roadmap for Lux Payband began in 2017. Starting as Stellar Payband, we created the algorithm to transfer Stellar Lumens via an NFC wristband in March 2018, and a patent was filed early in development. We will now deploy and beta test the software and hardware in numerous large-scale festivals, events and merchant retail establishments. The software and hardware will be made available to the public in 2019. Our goal is international expansion throughout the Americas, the Asia Pacific, Europe, The Middle East & Africa working to implement the technology paired with the innovative wireless technology allowing consumers to make POS payments literally with the flick of a wrist. We estimate some of our goals will occur on schedule while others are harder to estimate. Thus, we will continually update our road map.

Team

We have a capable team with a proven track record of innovation and development in the near field communication space as well as large scale project event creation and production experience.

Alex Blackshire, Founder

Alex is creator of Chicago Food Truck Festival, one of America's largest food truck festivals, featuring over 60,000 foodies each summer. Alex is also the creator and curator of for the Chicago Cubs Food Truck Rotation featuring Chicago's top trucks. He is also the creator of the Michigan City Food Truck Festival and five other major festivals throughout the Midwest. Alex is also a former Rhodes Scholar Candidate at Howard University and studied law at Chicago Kent Law School.

Rahul Sinu, Developer

Rahul is a Software an Electrical Engineer with a specialization in Instrumentation and telecommunications. Adept at Visual Intelligence for bio-science, blood cell classifier, applications to microscopy ADS-B (Aircraft receiver) designs, avionics Instruments and antenna design. Also skilled in aircraft communications addressing and reporting system with software defined radio. Rahul also possess experience in VoIP Communication hardware for airports based on ED137c Eurocae Standards. And He has knowledge of gas station monitors machine learning, Deep Learning, Artificial Intelligence BLE, WIFI, STM32, Assembly, C/C++, Python, AVR, Arduino, FPGA, FreeRTOS, CMSIS, Linux NRF51422, C#, C++, Python, Java, Databases and Web-Technologies.

Parth Sarvan, Developer

Parth is currently pursuing his master's degree in Computer Science at Illinois Institute of Technology. Parth brings to the project front end and back end programming knowledge programming in C, C++, JAVA, PHP, SQL, HTML and XML with knowledge in Node.js, jQuery, AJAX, JavaScript. He also has experience in other Applications including Android Studio, Cisco Packet Tracer, NetBeans, Microsoft Visual Studio, Eclipse and databases: MySQL, MongoDB.

Ankita Lodha, Developer

Ankita is currently pursuing her master's degree Information Technology & Management. Ankita is a student learner on the project.

Advisors

William Favre Slater III, Advisor

William is a friend of the project and provides guidance and a wealth of knowledge & experience to the Project. In addition to speaking 28 programming languages, he is an experienced Senior IT Project Manager. Mr. Slater has worked in some of the world's most demanding IT environments; among these are JLL, British Petroleum, the Veterans Administration, Microsoft, Techni source, and the United States Air Force. Specialties: Project Management, Program Management, Data Center Management, IT Security, IT Infrastructure Management, Database Administration, Network Management, System Administration, Programming, System Development, Business Analysis, Systems Analysis, Services Engineering, Technical Presentations & Technical Writing.

Dave Schmidt, JD, Advisor

Dave is a friend of the project and assists with contract and compliance knowledge to the project. Dave earned his Juris Doctorates from Chicago Kent Law School and works as Environmental Compliance Specialist.

Advisors (contd.)

Rufus Ty White, PhD., Advisor

Rufus earned his Doctorates in Chemistry with a specialization in Atmospheric Sciences and has founded numerous startups. He currently does contract work for the US Government and holds a high-level security clearance and has managed large scale teams. Rufus also has certifications in C/C++. He brings to the project a wealth of knowledge and experience consulting startups and best practices.

In the Media

1. Harris, C. (2018, September 29th). *Stellar Payband Trial Run a Success in Chicago.* Retrieved from https://tokenmantra.com/stellar-payband-trial-run-a-success-in-chicago/

2. Daily Hodl Staff. (2018, September 28th). *Stellar (XLM) Payment Platform Eyes Mass Adoption of Crypto Through Live Events After Successful Trial.* Retrieved from https://dailyhodl.com/2018/09/28/stellar-xlm-payment-platform-eyes-mass-adoption-of-crypto-through-live-events-after-successful-trial/

3. Bitcoin Exchange Guide News Team (2018, October 2nd). *Stellar (XLM) Aims at Mass Adoption with Successful Stellar Payband Payment Processing Wristbands Trial.* Retrieved from https://bitcoinexchangeguide.com/stellar-xlm-aims-at-mass-adoption-with-successful-stellar-payband-payment-processing-wristbands-trial/

4. Tomzack, A. (2018, December 12th). *Stellar Lumens (XLM) Price Strong 7 days: Promising Milestone Awaits.* Retrieved from https://ethereumworldnews.com/stellar-lumens-xlm-price-strong-7-days-promising-milestone-awaits/

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9. Riddhu. (2018, September 28th). *Stellar lumens (XLM) News – Can Stellar lumens (XLM) become popular as a payments medium through live events?* Retrieved at https://cryptolithy.com/tag/stellar-payband/