BitMinutes

A Smart Token Combining Free Money Transfer, Guaranteed Micro-Loans and Prepaid Airtime

“Better than Bitcoin for Billions of Un-Banked”

BitMinutes, Inc.
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Contents

Executive Summary

Global Problem - Lack of Basic Banking and Access to Credit

According to the World Bank (2016), 2 billion adults worldwide don't have a basic financial account, with 59% citing a lack of enough money as a key reason. Current financial services simply aren't affordable for low income users, especially in the developing world. Other barriers include distance from a financial services provider, lack of proper documentation, and lack of trust in financial services providers. In turn, banks don't offer solutions to these individuals, citing risks around lack of consumer collateral, credit history and low profitability.

Compounding the problem, the most vulnerable individuals are more financially excluded than others - women, the rural poor, remote populations and informal micro-businesses are most affected. In fact, forcibly displaced populations present one of the most pressing financial inclusion challenges as almost 80% of adults in Fragile and Conflict-Affected States are outside the formal financial system.

Clearly, the global banking system is failing 2 billion potential customers.

BitMinutes Solution: "Better than Bitcoin for Billions"

- BitMinutes' vision is to make mobile financial services affordable and ubiquitously available to consumers across the globe. BitMinutes are a mobile digital currency, backed by a commonly used asset (prepaid minutes) enabling consumers, carriers and financial services institutions to increase their access to capital.

- BitMinutes combine prepaid airtime with blockchain technology unleashing a new, innovative crypto-currency for mobile financial services: BitMinutes ("BTM" or "BTMs"). BitMinutes are encrypted tokens powered by P2P Cash's proprietary Smart Token technology. BTMs create secure interoperability between disparate global financial networks, mobile network carriers and emerging blockchains, enabling frictionless exchange of value between those networks.

- As an Ethereum ERC20-compliant token, BTMs allow for a more efficient and decentralized mobile ecosystem across carriers, financial institutions, merchants and end users, both businesses and individuals. The underlying protocol provides capabilities for the holder of a BTM token to create outbound remittances to any compatible

mobile wallet for delivery of monetary value. That BTM token can instantly be converted to prepaid airtime issued globally by telecommunications carriers and utilized by 4 billion mobile phones or convertible to cash in over 70 countries.

- BitMinutes technology harnesses the decentralized power of the Ethereum blockchain by leveraging the digital ledger behind user data for making purchases, transferring money, generating loans and using airtime. By leveraging artificial intelligence, this “Big Data” payments and usage history can be utilized to calculate a proprietary “TAN Credit-Score” algorithm for use in micro-lending.

- BTMs are redeemable for mobile data, money transfer and eventually retail purchases through the Trusted Agent Network (TAN). BTMs enable the provision of financial services by an ecosystem of carriers, financial services institutions and merchant retailers.

- Selling and lending BitMinutes based micro-loans creates a business opportunity for entrepreneurs globally. BitMinutes turn the corner retailer into the corner banker, delivering banking services to the smallest of villages and towns worldwide.

Unlike most new technologies in the ICO space, BitMinutes currently operates a live technology platform generating revenue as the underlying currency to the P2P Cash money transfer platform.

Led by Harvard Business School and Stanford graduates with decades of financial services and technology experience, BitMinutes is quickly establishing itself as the leader in affordable consumer financial services and strategic partner to prepaid wireless carriers and financial institutions globally.

BitMinutes solve the global banking problem of providing financial services to the 2 Billion un-banked and therefore are “**Better than Bitcoin for Billions”.**

BitMinutes Overview

Every day, billions of consumers use a virtual currency they most likely do not realize is a virtual currency: Prepaid Minutes, issued as a special purpose currency by over 300 carriers globally. The issue is that these prepaid minutes can only be used on their respective proprietary networks for either voice and/or data services (a “walled garden”).

Consequently, the underbanked are limited in their access to liquid assets. Physical cash cannot easily be transferred over long distances and prepaid minutes are illiquid, i.e. lacking convertibility back into cash. The consumers stuck in this paradigm want inexpensive financial services, but traditional banks and legacy money transfer companies lack reach and affordability.

Based on international banking standards (ISO), BitMinutes solves these problems on a global basis. BitMinutes unify these proprietary currencies around a common global standard, enabling prepaid minutes transfer to 4 billion mobile accounts, and convertibility to cash as well as the potential for lending.

BitMinutes’ convertibility to cash solves the major hurdles in providing financial services to the underbanked. Consumer benefits include affordable and easy retail access to money transfer, micro-credit, and virtual MasterCard products for e-commerce purchasing.

BitMinutes also solves for structural issues in delivering these consumer services. The carriers desire to offer financial services to their customers, but lack the infrastructure and data analysis tools to make underwriting decisions. For retailers, selling the BitMinutes brand of prepaid minutes greatly simplifies their need to carry multiple prepaid carriers’ products. Plus, by offering new financial services, they now become a next-generation corner banker.

BitMinutes represent a business opportunity to entrepreneurial individuals, retail merchants and telecommunications carriers to offer financial services cost effectively. By reducing money transfer costs, adding liquidity to a major global asset class of prepaid minutes and establishing credit history for the global underbanked, BitMinutes will raise the standard of living in many countries, greatly expanding the middle class to the benefit of all.

Global Consumer Financial Problems

Target Market - 2 Billion Underbanked

Background

The World Bank and Gates Foundation estimate there are over two billion underbanked consumers, a majority with mobile phones. The global money transfer market is $600+ billion with over $50 billion in transfer fee revenues. Prepaid mobile minutes constitute another $600+ billion global market, spread among 300+ phone carriers. As a secure fungible asset, BitMinutes' ability to transfer money and minutes instantly between any two cellphones creates a substantial and growing **$1.2 trillion** market.

Bitcoin captured the world's attention as a means to send cash immediately between two individuals bypassing the expensive, opaque and slow (2-3 days of delay) money transfer options from traditional banks and old world money transfer operators (MTOs). Unfortunately, the anonymous nature of Bitcoin permits illicit transactions, and is deemed illegal in many countries. On the other hand, funded BTM transactions occur in real-time, are written to the Ethereum blockchain, and get embedded with strong Anti-Money Laundering (AML) and Know Your Customer (KYC) attributes; the latter to include biometric capture and analysis.

Since BTMs are based on international bank standards, and simply leverage prepaid minutes that act as a virtual currency, they have unique cash conversion capabilities. Specifically, BTM tokens can be transferred between any two cellphones worldwide at zero cost (barring text message data rates). End users can redeem BTMs as cash to over two billion bank and mobile wallet accounts, and/or as prepaid minutes with over 200 telecom carriers globally.

The following summarizes those issues each group faces in regard to financial services and how BTMs benefits each group.

Problem - Lack of Credit

"For entrepreneurs in developing countries, the idea of securing a loan to start a business is not just difficult, it's next to impossible. This stark reality is faced by entrepreneurs in developing countries every day."

– Morgan Stanley, Micro Finance in Developing Worlds

Without formal banking relationships or bill payment history, the underbanked have little if any access to credit. To build a financial footprint, an electronic monitoring and evaluation system must be in place which is lacking across much of the developing world.

Prepaid minutes are routinely used as “grey market” virtual currency (Airtime is Money) to solve both of the above consumer problems. This indicates a consumer market ready and primed for BitMinutes.

#1) Prepaid minutes are sent peer-to-peer via telecommunications infrastructure to transfer value though not cash. BTMs solve the cash conversion problem.

#2) Consumers informally lend to each other using prepaid minutes as collateral, and repayment for prior exchange of value, basically extending short term low-value credit. BTMs commercialize and legitimize this existing practice, simultaneously increasing lending capabilities for end users.

Solution - New Digital Credit

BTMs convert cash into “Instant Digital Credit” to pay bills, get cash, purchase goods and services online, and for deposit to bank or mobile accounts. When used to fund a prepaid MasterCard, BTMs can be used to purchase goods and services online and anywhere MasterCard is accepted.

Similar to how M-Pesa created a payments standard within Kenya accounting for over 50% of the entire country’s GDP, by leveraging ISO banking standards, BitMinutes has the ability to create a model with global scale providing an digital means to pay bills and make purchases online. With MasterCard, BitMinutes will enable billions of consumers to now purchase goods and services online.

Problem - Lack of Jobs

Globally, there is a small retailer on every street corner selling sundries: Coca-Cola, cigarettes and prepaid phone minutes. These retailers are the carrier’s greatest asset to provide widespread banking services to their customer base. M-Pesa’s success in Kenya was based on the efforts of its 30,000+ retailers and a payment system that was unregulated.

BitMinutes, in conjunction with its marketing partners, including the Trusted Agent Network (TAN), offers a similar opportunity for entrepreneurs and corporates (i.e. telcos and banks) to enable widespread distribution.

Solution - A New Entrepreneurial Opportunity - The Trusted Agent Network (TAN)

Retailers and any entrepreneur can buy, sell and make loans based on BitMinutes. BTMs turn the corner retailer into the corner banker, increasing their revenues with new financial services while providing a valuable service to their local community. Fellow P2P Cash subsidiary, Trusted Agent Network (TAN), is providing the retailer mobile wallet and mobile applications as part of the BTM offer to carriers. TAN is adding BTM compatibility to its mobile wallet and will be offering BTMs to consumers. Please see the TAN section of the Appendix for additional information.

Problem - Expensive Money Transfer

Cash transfers are expensive (ranging from 5-20%), increasingly scrutinized by governments, and very difficult to deliver to the typically underbanked recipient**,** especially in rural areas. With strong cellphone penetration in most countries, cash can now be sent directly to the recipient's cellphone into a mobile wallet (or mWallet), which are becoming ubiquitous in developing countries.

Solution - FREE Money Transfer

BTMs allow consumers to send cash between cellphones instantly. BTMs are powered by the same Smart Token technology used by the P2P Cash platform to provide FREE International Money Transfer. P2P Cash will convert BitMinutes into cash for delivery to over two billion bank and mobile wallet accounts.

Global Mobile Money Industry Problems

Mobile Wallets Overview

There is currently a global "Gold Rush" underway to provide financial services to billions of mobile phone users who have no bank account. There are well over 250 mobile wallet system providers (according to GSMA) who are working with banks and teleco carriers to provide the infrastructure necessary to offer financial services including micro-finance through mobile wallets (mWallets).

One major problem needs to be resolved to reach the point where mWallets actually replace cash in terms of convenience, and therefore enable widespread acceptance by consumers: a global standard.

A global standard enables widespread, consistent retailer practices enabling convenient cash in/cash out, making cash withdrawals/deposits as easy as using an ATM machine in the developed world. BitMinutes solve this issue.

Mobile Wallet Adoption Issue:

Imagine a bank that would allow its depositors to use cash that was only valid at their bank and no other bank. That is exactly what each of these new mWallet platforms is doing. They do not communicate with each other and this is done by design to lock the user into the financial service ecosystem provided by the bank/telecom partnership (again, the “walled garden” approach).

Consequently, sending cash between these systems is problematic at best and impossible in most cases. In order for widespread adoption of mWallets to replace cash, it must be as easy to give monetary value to a retailer or friend using a cellphone as it is with cash. Incompatible wireless networks combined with processing fees strongly discourages mWallet adoption in general.

Consistent Retail Experience: The larger issue of distribution is the true key to success of consumer adoption. The current model requires each proprietary carrier/bank mobile wallet to develop their own retailer network to handle the two functions necessary to implement a national network:

1) Issuing new mWallet accounts
2) Handling the cash in/cash out needs of those mWallet users

This is expensive for mWallet issuers (much like the early days of Visa) and confusing for the consumer since every mWallet adopts their own issuing and cash in/out procedures.

BitMinutes were created as a branded stored value product with the option for airtime convertibility into cash. Based on ISO bank standards and compatible with most major carriers worldwide, BitMinutes seeks to act as the virtual currency for purchasing airtime on any international carrier. Since BitMinutes are acceptable as a form of payment by any carrier’s prepaid minutes system, it provides the interoperability required to send value between currently incompatible carriers that is lacking in the market today. BitMinutes compatibility with every major telecom carrier clearing/settlement system provides this in real time, thus reducing fraud as well.

We believe global Mobile Network Operators (MNOs) will embrace BitMinutes, and many will additionally desire to create proprietary versions of a white label BitMinute. We plan to accommodate this need, turning these entities into large scale wholesale buyers and promoters of the BitMinutes ecosystem. BitMinutes provide a turnkey solution including TAN mobile apps (consumer and agent) as a powerful tool for getting the latest pricing on every flavor of currency within the BitMinutes ecosystem.

Retail Cash In/Out Distribution Problem

As a crypto-currency, BitMinutes by themselves cannot solve the global mobile money infrastructure issue of providing cash in/cash out services to retail customers in hard to reach locations. Fortunately, BitMinutes combined with the Trusted Agent Network (TAN) solves this infrastructure issue by leveraging existing retail chains.

As the distributor of BTMs and in conjunction with the retail agents of our partner MNOs, the Trusted Agent Network (TAN) solves the retail cash in/out problem that Bitcoin entails converting physical cash into Bitcoin and vice versa.

With a business model in place and solution designed, it now simply becomes a matter of implementation for establishing and expanding TAN and TAN branded Agents marketing BitMinutes. BitMinutes has partnered with TAN to rapidly expand via two routes: Social Marketing which was the cornerstone of M-Pesa's success in Kenya, and partnering/co-branding with existing retail networks and MNOs. The latter solving a major problem for the MNOs: establishing their financial services footprint in the developing world. See below for more detail.

Solution - Universal MNO Currency

BitMinutes Create the Prepaid Minute Economy

BitMinutes enables airtime to be shared between subscribers in different telecommunications carriers. Using BTM, subscribers can buy and sell their airtime like any other commodity through the Smart Exchange using the BTM mobile App. Once subscribers buy or receive BitMinutes, they can redeem their BitMinutes for cash or use as airtime. Smart Token architecture permits interoperability between carriers the same way it facilitates cash transfers between SWIFT, MasterCard, Ripple and Ethereum networks.

BitMinutes can be used to top up prepaid cellphones worldwide. Through partnerships with leading air time vendor aggregators, BitMinutes integrates directly into their network ecosystem, providing a seamless air time top up experience. The recipient of the air time top up does not need to have a compatible mobile wallet. The air time is sent directly to their subscriber line and immediately credited to their prepaid account.

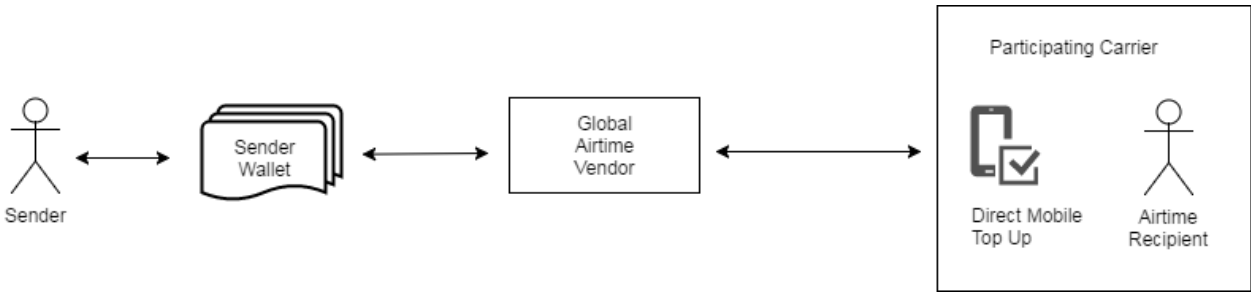


Figure 5: Direct Prepaid Minutes Top-up Flowchart

Universal Currency Solves MNO Problem

Mobile Operator Problem: Losing the Underbanked Battle to the Banks

Although BTMs ultimately benefit the consumer, BTMs also benefit Mobile Network Operators (MNOs) and their entire distribution chain including the network of retailers who sell prepaid minutes.

Many carriers provide prepaid minutes transfer infrastructure and/or mobile wallet services, but consumer uptake has been lacking. They have a consumer's prepaid minutes purchase history, but lack the experience, analytics capabilities, and ability to issue forms of digital cash or credit. Furthermore, banks have erected regulatory hurdles that prevent carriers from leveraging their extensive distribution networks.

Mobile Operator Solution - **Leverage National Retailer Footprint**

Because BitMinutes can be converted to virtually any major prepaid Mobile Network Operator (MNO) minutes, large networks of agents already exist who sell those MNO prepaid minutes. BitMinute convertibility means that every MNO reseller will be able to receive compensation over **their existing electronic clearing networks** for selling and redeeming BitMinutes. This clearing compatibility guarantees the major MNO resellers will be eligible, and with the proper financial incentives, interested in becoming a TAN Agent. For those countries and MNOs without a digital distribution network, the BitMinutes and TAN mobile applications provide that infrastructure.

BitMinutes is in discussions with several major teleco service providers with contracts pending. These contracts allow convertibility of BTMs into prepaid minutes for over 200 carriers. Please see the list below for providers under negotiation. These negotiations permit these prospects to issue BTMs either on a co-branded basis or as their own private label virtual currency to their existing customers and to settle to over 2 billion existing bank accounts globally.

Target Market- Retail Co-Branding

The Company has several wholesale distribution opportunities under development, both domestically and internationally with several MNOs and telecom service aggregators:

Domestic U.S.

- Prepaid MNO: Tracfone - 90,000 locations
- Prepaid Distributor: InComm - 250,000 locations
- Prepaid Distributor: Blackhawk Networks - 200,000 locations

International

- MNOs: Potential White Label Opportunity
- Twillio: International VoiP provider
- Nexmo: International VoiP provider
- Mozido: Over 500 Million subscribers across multiple countries
- Walmart Mexico: 2,400 locations
- Bitso.com: 125,000 locations
- Red Qiubo: 150,000 locations
- MobiKash Kenya: 5,000 locations
- Seamless: Prepaid Minutes Platform servicing Largest MNO in Africa
- Globetopper: Global Prepaid Top-up minutes aggregator
- Du, UAE: 6M subscribers
- SMART, Philippines: 90M Subscribers
- Money on Mobile, India: 350,000 locations
- Aegis Technology, India and Mexico: Money Center Kiosks

Initial Coin Offering

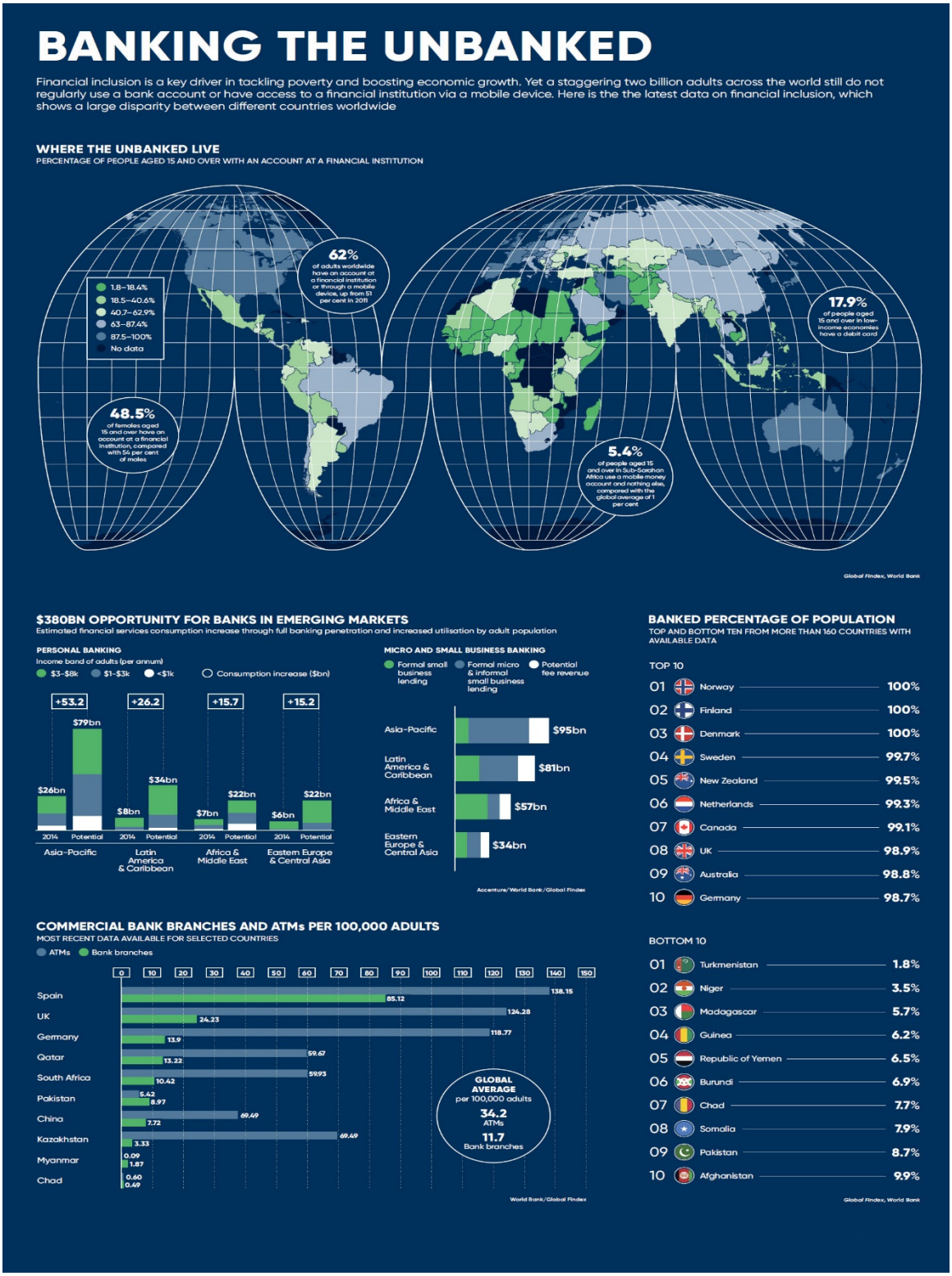
Total Addressable Market Analysis

The BitMinute Token provides liquidity and therefore increased fluidity, velocity of money, and use of value in several large global markets. The estimated size of each of the four (4) markets that BitMinutes addresses and improves are outlined below:

- **Global Consumer Lending Market - $7.4 T**

There is an insatiable demand for credit globally and especially in the developing world. For example, Kiva has generated over $1 billion in loans to millions of people in over 80 countries. The Wall St. Journal noted China recently reached a milestone in matching the US and EU in consumer debt to income ratios of 234%. Applying this metric to the 3 billion under-banked (including 2 Billion “un-banked”) where the median annual income is less

than $100* a month in the “Low-Income” countries, estimates loan demand at $7.4 Trillion. *World Bank.



- **Prepaid Minutes Market - $650B**

The Telecom industry association, GSMA, estimates that over $650 billion is spent yearly on prepaid minutes. The average user uses approximately $10 of prepaid time monthly or $120 annually.

- **Global Money Transfer - $600B**

The World Bank estimates that over $600 billion is transferred person to person globally.

- **Investment Demand for Crypto-Currencies - $130B**

Currently, there is over $130 billion of market value in crypto-currencies. Bitcoin accounts for the largest percentage at approximately $70 Billion.

Please refer to BTM spreadsheet for calculation details and analysis.

BitMinutes Future Value Analysis

Based upon the above Total Addressable Market, BitMinutes' maximum potential value is $2,912 using current market facts and statistics. With native BTM demand based largely on BTM escrowed loans, we estimate BitMinutes will reach a value of $500 by Year 5.

Please refer to BTM spreadsheet for calculation details and analysis.

Use of Proceeds

We estimate the Use of Proceeds from our upcoming ICO to net approximately $21M. Since our largest expenditure is to fund consumers loans to the underbanked, lending capital is the single largest use of funds. Any additional funds raised in the ICO above $21M will be used predominately to increase the amount of lending capital to be made available for consumer loans. Using that target amount, the budget breaks down into the following:

- **Lending Capital - 67%**

In offering $5 loans, there will be tremendous demand for BitMinutes based loans. With $14M in lending capital, we will be able to offer loans as small as $5 to almost 3 million consumers. The average loan amount will higher, but we want to be prepared for the demand by allocating the bulk of the money raised to our lending product. **The Company will retain loan loss reserves between 8-11% of this amount.**

- **Marketing - 19%**

Marketing, the second largest budget item, will be primarily spent on developing consumers awareness of the Free Money Transfer and Guaranteed Loan programs. This

will entail a combination of digital marketing including social media where appropriate, plus retail banners and flyers to support the Trusted Agent Network and co-branded retail partners.

- **Operations - 12%**

Operations includes salaries of the BitMinutes team and cost of setting up operations in foreign countries. The bulk of the BTM development is complete and hosted in the Amazon Cloud, reducing implementation costs. Having in-country partners with contracts in 70 countries reduces the need for setting up foreign offices. BitMinutes does plan to establish headquarters in Switzerland to take advantage of the favorable tax and regulatory environment for crypto-currencies. This office will have the minimum staff required to establish Swiss residency.

- **Treasury/Overhead - 2%**

The Company will retain a small amount of capital in Treasury to accommodate unforeseen issues and to increase lending capital if necessary.

Please refer to BTM spreadsheet for calculation details and analysis.

Token Ownership Allocation

The total amount of BitMinutes authorized for issuance, verifiable on the Ethereum Network, is 10 billion. This represents the maximum amount of BTM that can ever be issued by the Company.

During Pre-ICO and the BTM ICO, a total of 3 billion BTMs will be issued. This includes several categories: Bonuses paid to ICO marketing partners at 4%, BTM management team incentives at 6% held in escrow and released upon hitting performance milestones. These categories represent 30% of the total BTM authorized and are the only BTM available for trading. Once all trading restrictions are lifted by the end of 18 months, BTM market capitalization, valued at the ICO price of $.01, will be $30 million.

The remaining BTM will not be issued, but held in Treasury to accommodate future BitMinutes Smart Loan and Prepaid Minutes demand, estimated at 56% and 14% respectively.

Please refer to BTM spreadsheet for calculation details and analysis.

Company Leadership

Management Team

The most important component of any company is the management and the people advising them. The BitMinutes management team is comprised of global financial services and technology experts including: the former CEO of SWIFT, the world's bank clearing network; the former Counsel for MasterCard and the Office of Comptroller of Currency (OCC); several Harvard Business School and Stanford graduates. The team is dedicated to providing low cost financial services and job creation opportunities to this global under-banked population.

Thomas Meredith - Chairman and Chief Executive Officer

Mr. Meredith has significant internet, financial services and telecommunications experience. He started his computer career with Digital Equipment Corporation when the first 32-bit architecture was introduced. He was one of the original team of Franklin Computers, the first Apple clone manufacturer, and managed 11 Western states including over 800 retailers. Additionally, he was the Federal Systems Director for Lisp Machine, a leading artificial intelligence company.

Mr. Meredith then founded VoxLink and led the company for seven years to become a leading innovator for voicemail and email integration. He founded one of the first online gaming companies, Internet Gaming; responsible for processing the first significant volume of credit cards internationally on the Internet. Additionally, Mr. Meredith has years of experience consulting to the financial services industry, primarily in automation of mortgage and credit/debit card processing.

Mr. Meredith is a graduate of the Harvard Business School specializing in Entrepreneurial Studies and Stanford University where he received an Engineering degree in three years on Academic Scholarship. He has a working knowledge of French and Spanish.

John Tomlinson - Chief Financial Officer

Mr. Tomlinson is a Senior Financial executive with extensive experience in international operations and finance. He also has experience in international marketing and business development, M&A, SEC reporting, and MIS. He has both MBA and CPA certifications.

Prior to joining P2P, Mr. Tomlinson was Chief Financial Officer for several companies, both public and private, including the following: Die Casters International, Florida Hydro, and Delta Technologies and American Industrial Acquisition Corporation, a $1.3+ billion

revenue investment firm. He is a graduate of Georgetown University (BSBA) and Harvard Business School.

Morris Mwanga - Chief Technology Officer

Mr. Mwanga is one of the world's leading and most experienced financial technology entrepreneurs. Prior to pursuing an advanced degree in Computer Science, Mr. Mwanga developed financial exchange and mobile wallet technology in Sub-Saharan Africa. During this period, Mr. Mwanga acquired extensive banking integration expertise complementing his previous experience with mobile communications technology; both key components of mobile wallet technology that is changing mobile financial services delivery globally. He led the entire BitMinutes development effort overseeing both the programming staff and all outsourced integration activities.

In addition to his mobile wallet development management expertise, Mr. Mwanga has over 12 years in direct programming experience. He is a holder of a bachelor's degree in computer engineering and a master's degree in computer science. Mr. Mwanga is also a Certified Information Systems Security Professional (CISSP).

Kern Lewis - Head of Marketing

Mr. Lewis is a veteran marketing professional with 25 years of experience in financial services. Prior to joining P2P, he spent eight years directing marketing programs for World Savings and CMG Mortgage. At World Savings he led efforts that doubled customer retention rates in the face of intense competitive pressures during the refinancing boom. At CMG he directed the introduction of the Home Ownership Accelerator loan product, which created a profitable new niche in the mortgage industry. To support the product launch, he led recruitment efforts that attracted and trained over 10,000 loan agents in a two-year period.

Mr. Lewis began his career with American Express in their merchant services division, tasked with deepening merchant acceptance by attracting new merchants, and developing programs to retain and expand existing merchant relationships. He left AmEx to manage credit card marketing for Great Western Bank before dedicating two years to serve as a business educator and small business advisor in Ukraine and Albania with the United States Peace Corps. Mr. Lewis has an MBA from Harvard Graduate School of Business and a BA in Economics from Stanford University.

Peter Carruthers - Head of Compliance, Banking Operations & FX

Mr. Carruthers' career spans 25 years advising Fortune 500 and institutional clients on FX risk management. He focuses on providing highly effective, innovative FX solutions to long-term clients. Mr. Carruthers practiced FX advisory for 15 years at Citibank, the last six years as Director of Capital Markets. He also worked at Credit Suisse/First Boston, Bank of Nova Scotia and Royal Bank of Scotland.

Mr. Carruthers received his Bachelor of Science in Finance and a minor in Accounting at Manhattan College, and MBA from Fordham University. He has been registered for NFA Series 3, and FINRA series 7 and 63 designations. He is an active member of the Board of Directors and Finance team of an international charitable foundation.

Donald Chapman - Head of Business Development

Mr. Chapman is a financial services technology and payments professional with over 15 years of experience in consulting, IT and business development. Prior to joining P2P he helped establish and launch a real-time global payments network (PayNet) for Fidelity National Information Services (FIS), a Fortune 500 financial technology firm. He also spent eight years in corporate consulting, working with clients like Prudential Financial, Discovery Communications, Wyeth Pharmaceuticals and Ocean Spray Cranberries.

Mr. Chapman graduated from Providence College where he was a Division 1 NCAA lacrosse player and member of the Dean's List. He earned his MBA with an Investments

Concentration from Babson College's F.W. Olin School of Business; ranked #1 in Entrepreneurship by U.S. News and World Report.

Amadeo Radillo – Director, Latin America

Mr. Radillo is an experienced bilingual (English, Spanish and Portuguese) and bicultural senior financial and payments executive with over 25 years in the FinTech and Financial Services industry. Prior to BitMinutes, Mr. Radillo was the Chief Executive Officer of the Financial Services Group at the World Council of Credit Unions (WOCCU Services Group) in Madison WI/Washington DC. While acting as the CEO of WOCCU Services Group, Amadeo developed and maintained the corporate objective to expand World Council mobile financial services footprint for credit unions worldwide through online and digital innovation and product development with focus on payments switches, issuing cards and mobile solutions. Mr. Radillo developed new, and improved existing, customer relationships in Ecuador, Mexico, Peru, Bolivia, Colombia, Costa Rica, Guatemala, Paraguay, Panama and Dominican Republic.

Before joining WOCCU Services Group, Mr. Radillo served as Corporate Finance Manager and Latin America Product General Manager for Vesta Corporation. While at Vesta, Mr. Radillo developed and implemented payment platforms, technical infrastructure, pricing and financial models for the mobile business; providing international finance, best practice operation business guidance in a case by case basis and enriched the banking and commercial relations with in the Latin America financial industry.

Juan Soto - Director, Trusted Agent Network (TAN) & Merchant Relations

Mr. Soto is a senior payment industry veteran; his entire career spent in the point-of-sale, transaction processing and merchant acquiring marketplace. Most recently, Juan founded Tesoro Payment Solutions, a merchant services and consulting practice targeting the Hispanic and underbanked markets in the U.S.

Juan has held senior sales management and business development positions in different industry verticals including stints at Fleetcor (fleet card issuer & processor), Planet Payment (dynamic currency conversion processor), Noblett & Associates (payment technology consultancy), Chase Merchant Services & NaBANCO (credit card merchant acquiring), and IVI Checkmate/Ingenico (POS equipment manufacturer).

Juan holds a Bachelor's Degree in Business Administration from Florida International University in Miami, Florida where he majored in Finance and Marketing. He also holds technical and pre-engineering associate degrees and is fluent in Spanish.

Maxine Alagar - Director, Customer Service and Merchant Support

Maxine brings to P2P thirty-five years of customer service in the telephony industry. Most recently, Maxine was Director of Operations at Global Connection, responsible for the national Call Center including eighty six (86) Customer Service Representatives, network operations, and human resources responsible for hiring, training, and termination of call center personnel. The Call Center supported over 2200 agents in the southeast region who resold home telephone service to over ½ million primarily Hispanic customers. Previously, Maxine spent 35 years at BellSouth with her last job title as Operations Director of Billing and Collections. Maxine works closely with the BitMinutes marketing team to deliver material and training to retail agents and internal service representatives.

Dennis Goodenough- Director, Product & Platforms

Mr. Goodenough has over 30 years experience in Financial Services. He spent 11 years at SWIFT, the financial messaging cooperative, responsible for large account management, business development, partner management, communications and regulatory relations. Dennis spent 5 years at the DTCC, the U.S. market's central securities depository, resolving STP issues, reference data, and the move to T+3 settlement cycle. During an 11-year tenure at American Express, he held positions of increasing responsibility in finance, operations and marketing.

Dennis remains active with a number of U.S.-based industry organizations including ISITC, SIFMA and the Asset Managers Forum. Dennis holds an MBA in finance/marketing New York University's Stern School of Business and a BA from Hobart College.

Advisory Board

Leonard H. Schrank

Leonard Schrank was CEO of SWIFT from 1992 to 2007, the Brussels based industry owned global financial messaging system which supplies secure standardized financial messaging services and interface software to some 8,000 financial institutions in 200 countries. SWIFT is overseen by a senior committee drawn from the G-10 central banks given its critical role in international payments. Following the attacks of September 11, 2001 Mr. Schrank oversaw the relationship with the U.S. Treasury Department and other countries on counter-terrorism issues. Mr. Schrank, an MIT graduate, currently serves on a number of international boards including leading international bank, HSBC.

Brian W. Smith

Mr. Smith has a 42-year involvement in the financial services industry. His roles have included as SVP General Counsel and Corporate Secretary of MasterCard International where he was a member of the Office of the President; as Chief Counsel and Member of the Policy Group of the Office of the Comptroller of the Currency and, as a senior partner in several multinational law firms – most recently Latham & Watkins, LLP - where he headed those firms' financial regulatory practices. He is a member of the Boards of Directors of several companies and of a charitable foundation.

Mr. Smith is a recognized expert in the laws and regulations applying to banks and other financial services firms and in payments systems and products.

Consultants

Jay Postma - Money Transfer Compliance

As founder and President of MSB Compliance, Inc., Jay has extensive experience in providing money transfer compliance advice, most recently with the Federal Reserve Board in Atlanta. He is advising BitMinutes regarding acquiring money transfer licenses in required geographies and FinCEN approval at the Federal level in the U.S.

Ken Slutsky - Human Resources

Ken has over 25 years of experience in Human Resources management. He has conducted a study on behalf of P2P/TAN/BTM and has recommended an outsource vendor (Administaff) for payroll and employee benefits package management. He will assist the implementation, but will not be available full time.

In-Country BitMinutes Support

B.M. Khanna- India

Mr. B.M. Khanna has vast experience in the telecom field serving the Indian Government's Dept. of Telecom (DOT) for over 40 years, holding several key positions.

Mr. Khanna most recent position was as Chairman & Managing Director of Mahanagar Telephone Nigam Ltd., a public telecom company, serving two of the largest cities in India, Delhi and Mumbai. During his tenure as CEO of MTNL, over seven years, MTNL was recognized as amongst the five most efficiently managed Public Sector Undertakings in India. For his outstanding achievements, several awards were conferred upon Mr.

Khanna: *Telecom Man of the Year Award* and *Shiromani Vikas Award* presented by the Rev. Mother Teresa at Kolkata.

Previously, Mr. Khanna was the CEO of Indian Telephone Industries (ITI) at Allahabad and Deputy Director General responsible for the formulation and implementation of the long-term planning for Indian Telecommunications at Telecom Headquarters. He was the senior expert with the ITU at Addis Ababa for the implementation of PANAFTEL SYSTEM for the Africa Region. Prior to that, he was Director Long Distance at Telecom Headquarters. He also was Director, Microwave Projects at Mumbai responsible for installing new systems in the Western Region of India from scratch.

Mr. Khanna consulted to several multinational corporations including: AT&T, NCR, Lucent Technologies, Arraycom, Hughes Network Systems, HCL Infosystems, American Tower Corporation and CH2M Hill. As a senior member of the telecom fraternity in India, Mr. Khanna has been associated with the Confederation of Indian Industries (CII) and Fellow of the Institution of Electronics and Telecom Engineers at the key policy planning level. As a member of the CII's National Telecom Council, he has been intimately involved in several key telecom policy initiatives taken by the CII, as also the regulatory issues affecting the Telecom Industry in India.

Chito Collins - Philippines

Chito has 25 years computer and payment processing industry experience in companies such as IBM, Digital Equipment Corp, Sun, and startup companies including e-commerce expertise specializing in internet payment services from CyberCash, IBM Payments Group and CyberSource. She has extensive experience in business development, strategic partnerships & alliances with key players in the electronic commerce industry. Chito has a proven track record in sales and in establishing a profitable, independent, remote sales and technical regional office for companies large and small. She will spend most her time between the US and Philippines where she attended college with many of the country's current leaders.

Peter Pang- China

Mr. Pang is the founder and Principal Attorney of IPO PANG P.C., a premier international law firm with substantial expertise in the areas of intellectual property, corporate law and international joint ventures.

He was formerly general corporate counsel to several Fortune 500 companies, including Shell Oil Company, Hershey Foods Corporation, Dole Food Company, and Nissan North America. Mr. Pang specialized in protecting Famous American Brands from piracy and counterfeiting, especially in the People's Republic of China. He is also an expert at M&A, having participated in over US$5 billion of such transactions.

As a seasoned businessman and entrepreneur, Mr. Pang was the founder and CEO of Globalontime.com, a logistics startup company with operations in Guanghzou, PRC and was also the former Director of International Shopping Network, Inc., a home shopping company with operations in Beijing, the first foreign company to introduce home shopping to PRC in 1994. Mr. Pang was also formerly President of CMC Technologies International, Inc., an electronics device manufacturer and oversaw the sale of the company to Australian bidders. Mr. Pang is a noted expert on doing business in the People's Republic of China, an expert on the legal and economic effect of China's entry into the World Trade Organization (WTO), and a well-respected businessman having founded, operated and sold a number of businesses ranging from internet companies to manufacturing facilities located in the PRC.

Mr. Pang speaks both Cantonese and Mandarin Chinese. Mr. Pang is a graduate of UC Berkeley in Biochemistry, Santa Clara Law School where he was a member of Law Review, University of Houston with a LLM in International Economic Law, attended the Fuqua School of Business at Duke University and studied law and economics in China and Hong Kong.

Smart Token Technology

Smart Token Technology Powers BitMinutes

BitMinutes are based on proprietary Smart Token technology operated over blockchain networks, i.e. Ethereum. The BTMs issued to senders are customized with the sender's unique identifier (UID) to prevent fraud and money laundering. Unique BTMs are issued and sent to the recipient's mobile wallet in a text message, email, and/or via smartphone app. Once used, the entire transaction details are written to the Ethereum blockchain and those particular BTMs are removed from circulation and returned to Treasury.

Unlike Bitcoin, BTMs provide auditability and government monitoring. BitMinutes, when transferred into cash, meet and/or exceed international payment security and Anti-Money Laundering (AML) standards. Smart Tokens accomplish Know Your Customer (KYC) requirements through a ISO 20022 standardized format of retrieving and storing identity information of financial transaction participants.

Based in ISO standards, BTM have additional data fields to add biometric information and smart contract business logic. This allows BTM usage to be restricted based upon any number of variables, for example: country of redemption, the recipient's carrier and/or their mWallet configuration.

Currently, the Smart Token technology behind BTMs, is in production settling U.S. to Mexico foreign exchange transactions for P2P Cash over the Ripple network. Every transaction settles in real time with an immutable copy of the entire transaction forever embedded on the Ripple network. BitMinutes used in this manner will be removed from circulation, thus reducing the total amount in circulation.

Built originally to comply with traditional settlement networks, BitMinutes are "**The Bridge**" between the traditional settlement world and the new, emerging blockchain world, starting with Ripple (live) and Ethereum (in beta).

P2P Cash developed Smart Token (ST) technology as the core to its payments engine, switching capabilities and identity management. Therefore, Smart Tokens are the underlying technology driving the remittance platform for BTMs and providing interoperability between global settlement networks. Through the use of Smart Tokens, value can be exchanged across public ledgers while keeping the transaction information private between sender and receiver. In addition to interoperability between Ripple and Ethereum, Smart Tokens integrate with existing traditional global settlement networks like SWIFT and MasterCard's HomeSend.

Smart Token technology combines smart contracts, tokenization and blockchain to unify financial services, establishing a common global standard for value exchange, based on global banking standard ISO 20022. By leveraging Smart Token technology, BTMs create mobile banking interoperability for teleco carriers much like Ripple's XRP Tokens created interoperability between banks. For more technical details and flowcharts, please refer to Appendix C

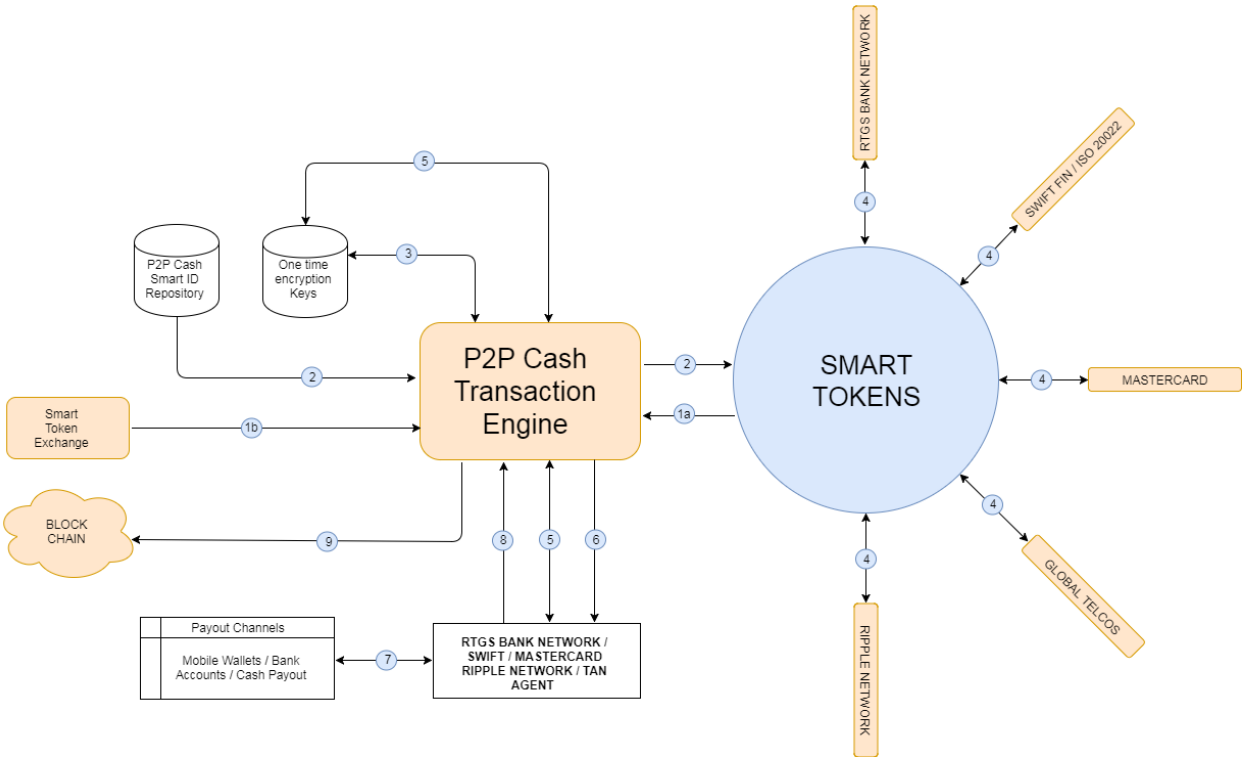


Figure 1- Smart Token Architecture Overview

Operations and Planned Improvements

The following systems have been developed by BitMinutes parent company, P2P Cash. FREE Money Transfer has been operational for over 2 years through a joint venture with the largest bank in Africa by number of demand accounts, Equity Bank. The global P2P Cash ecosystem is available to promote and distribute BitMinutes.

We believe four (4) years of product development with BitMinutes distribution in 70 countries gives BitMinutes a significant competitive advantage over any recently funded ICO competitors, most of which are based on technology still-to-be developed and implemented.

FREE Money Transfer

BitMinutes are currently in use by P2P Cash as the technology underpinning P2P's FREE Money Transfer service to 70 countries and over 2 billion bank and mobile accounts: www.P2PCash.com P2P is negotiating a partnership with a global bank to expand FREE Money Transfer to all 50 states in the US and establish a presence in the Middle East. P2P will aggressively market the BitMinutes brand once the ICO is complete.

Guaranteed Smart Loans

The BitMinutes platform, via P2P Cash, is integrated to the world's leading microfinance platform MIFOS (www.MIFOS.org), developed by Grameen Bank and in use by the majority of microfinance NGOs operating globally. The BitMinutes team is reviewing options of adding artificial intelligence (AI) underwriting technology to our existing MIFOS lending platform or to partner with an AI loan underwriting company.

Guaranteed Smart Loans will initially be made available in Mexico and Kenya where P2P already has substantial distribution poised to distribute BitMinute backed Smart Loans. We plan to expand BitMinutes lending to India and Philippines as the second phase. Leveraging the TAN Agent Network, BitMinutes provide the liquidity and the collateral to make Smart Loans affordable and scalable for underbanked consumers globally.

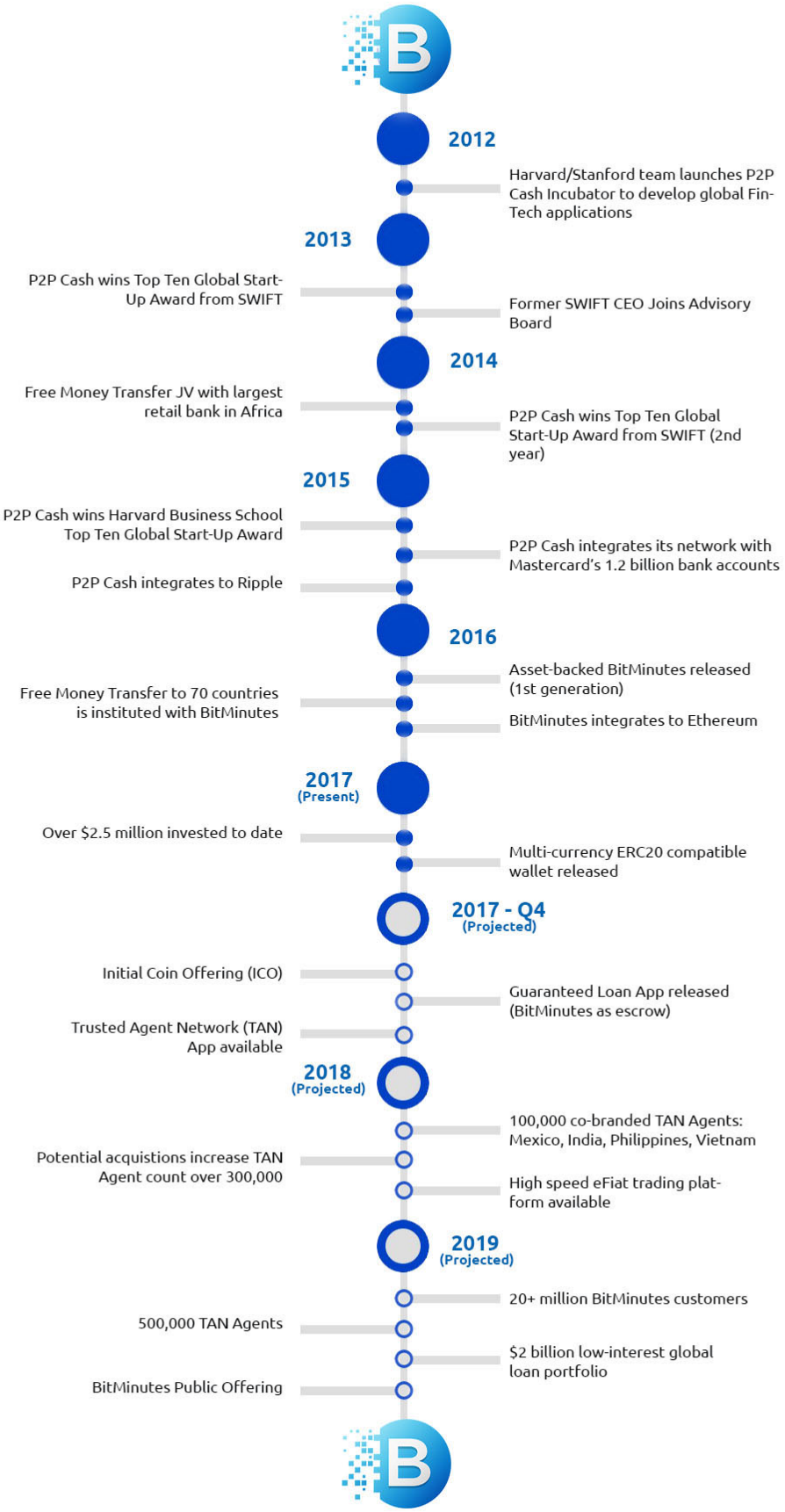
Details regarding Smart Loan operations can be found in Appendix B

Smart Token Exchange Platform

BitMinutes are freely exchangeable for cash deposit today in 10 countries with 70 countries under contract. Cash will be available via the global Trusted Agent Network (TAN) as it rolls out in the same countries. To achieve instant liquidity, BitMinutes can be converted and delivered in real-time via the Smart Token Exchange, a high speed fiat and crypto-currency exchange platform.

BitMinutes CTO, Morris Mwanga, built the largest real-time foreign exchange (FX) platform in Kenya, using a high frequency open source trading platform originally developed at Stanford University. This same open source code is the basis for the Smart Token Exchange Platform to be operated by BitMinutes associated company, Smart Token Chain. Details can be found in Appendix D.

Milestones Roadmap



Competition

Money Transfer: Western Union, MoneyGram, Xoom, Traditional Banks

All banks current traditional money transfer competitors charge higher fees (flat fees and/or ad valorem) in addition to taking a spread on the foreign exchange rate. Even online competitors like Xoom (US) and TransferWise/Azimo (UK/EU) who charge smaller transfer fees than Western Union, still charge flat fees. We believe none of these money transfer competitors will lower their fees to zero in the near future. They all lack our BitMinutes technology advantage, free mobile wallet and free pricing business model.

Lending: Traditional Banks, Micro-Finance NGOs, Grey Market

Commercial credit providers to the underbanked are virtually non-existent due to lack of retail reach in villages. Microfinance NGOs are under-financed, under-staffed and unable to scale their business model due to its labor intensity. It can take 2-3 man-weeks to educate, process and underwrite a $200 micro-finance loan. The grey, unlicensed market of predatory lenders is the most prevalent, offering un-secured loans at rates sometimes exceeding 100%. The grey market model is extremely fragmented, illegal in most jurisdictions and unsustainable at scale.

We anticipate the BitMinutes Guaranteed Loan program will find a ready market, creating consumer credit history and enabling instant credit.

Bitcoin and other Crypto-Currencies

BitMinutes are “Better than Bitcoin” as a virtual currency for several reasons: ***Transaction Speed***, ***Inherent Asset Value*** and ***Anti-Money Laundering (AML)*** attributes embedded in BitMinutes Smart Token architecture. For instance, BitMinutes can convert to either cash or prepaid minutes ***in seconds*** versus the half hour it takes to clear a Bitcoin transaction.

In addition, four (4) years of technology and global distribution development gives BitMinutes a significant competitive advantage over recently ICO funded, but still-to-be developed and implemented competitors.

For a more detailed analysis, please refer to the Appendix A titled: Why BitMinutes are Better than Bitcoin for Billions.

Appendices

Appendix A: Why BitMinutes are Better than Bitcoin

The following details the advantages BitMinutes have over Bitcoin.

Product Attribute	BitMinutes	Bitcoin
Inherent Value - Call Globally	Yes	No
3rd Party mWallet Transfers	Yes	No
Identity Verification Required	Yes	No
Multi-Country Agent Network	Yes	No
Payment to ALL Major Telecom Carriers	Yes	No
Anti-Money Laundering Built in	Yes	No
Secure Bank Transfers	Yes	No
Free International Money Transfer	Yes	No | ~1% Fees

BitMinutes Opportunity- Better than Bitcoin

The Internet has created several multi-billion companies by leveraging the power of direct, secure communication between individuals, thus disintermediating established industries. Skype and PayPal both aggregated large customer bases by offering free services in international calling and payment processing respectively.

Leveraging these very same large scaling Internet attributes, P2P Cash has created a prepaid mobile phone currency called BitMinutes. BitMinutes have three major advantages over Bitcoin: ***Inherent Value, Price Stability*** and ***Anti-Money Laundering (AML)*** attributes.

Bitcoin Disadvantages

As a “Free” form of P2P money transfer, Bitcoin is gaining traction in disintermediating the money transfer industry by allowing monetary value to be exchanged for “free” between individuals.

However, as a currency for the global underbanked, Bitcoin has several major flaws including: Lack of user identity making it the currency of choice for global illicit activities; lack of local liquidity significantly reduces Bitcoin’s ability to act as a money transfer vehicle. For instance, in the world’s largest money transfer market ($25 billion from US to Mexico), there is only one Bitcoin exchange for the entire country, Bitso. Last, but not least, Bitcoin has no inherent value whatsoever.

BitMinute Advantages

Using Smart Token technology, BitMinutes solves all the above Bitcoin issues:

Local Currency Support in Underbanked Countries

Bitcoin lacks convertibility to physical cash especially in underbanked countries. BitMinutes provides convertibility into 200 country currencies via its prepaid minutes conversion capability. Additional online liquidity will be provided by the Smart Token Exchange through its pending relationship with FX Lightning and Coin Lightning.

TAN Agent Network Provides True Cash Liquidity

Converting physical cash into and out of a virtual currency requires a network of trusted Agents. The Trusted Agent Network (TAN) solves that problem at the same time providing a business opportunity to the very same target market that benefits from a virtual currency such as BitMinutes.

BitMinutes: Inherent Value- Call Globally

BitMinutes have **inherent value** for two reasons: 1) BitMinutes can to be used to call any phone globally, and 2) BitMinutes can be sent to any phone globally ***as credit*** to pay for minutes for use in that country. This applies to *any* cellphone in over 200 countries.

BitMinutes Anti-Money Laundering

BitMinutes have a major advantage over Bitcoin in conducting legitimate business. All BitMinute transactions are either centrally and/or blockchain approved and recorded on any designated payment network (Ripple in production, Ethereum in beta), providing an audit trail. Plus, any user of BitMinutes must have a bank account and/or mobile wallet meeting international **Anti-Money Laundering (AML)** standards. The anonymous nature of Bitcoin does not permit this level of auditability and does not meet international AML standards; thus making it an unlikely candidate as a widely used international currency to settle banking transactions.

Potential Patent Protection of BitMinutes

BitMinutes' parent corporation, P2P Cash, has exclusive rights to the Smart Token technology regarding the use of BTM tokens for value. We believe the technology is patentable and will pursue patent protection as part of the use of proceeds from the ICO.

Appendix B: BitMinutes Smart Loan Lending Process

A BitMinutes wallet holder can apply and instantly receive approval on a microloan. BitMinutes smart contracts combined with microloans, or Smart Loans, are small micro-loans backed by BitMinutes as collateral. Based on a wallet holder's remittance and/or prepaid minutes usage history, a sufficient flow of funds history exists to warrant a case for issuance of a Smart Loan. The Smart Loan amount a consumer qualifies for is determined by an artificial intelligence algorithm including social media analysis in addition to the above parameters.

Wallet holders who maintain BitMinutes balances in their wallet can use a portion of these balances as funding for Smart Loans. Trusted Agents (TAN) authorized retailers are the marketing and operational distribution network to issue mobile wallets, issue cash and accept cash repayments. TAN Agents receive a portion of the interest and repayment of principal once the Smart Loan has matured.

Because the credit of these borrowers may be quite low and the risk of default high, microloans command above market interest rates making them enticing for investors. Its anticipated that financial institutions seeking higher yields will purchase aggregated BitMinutes backed Smart Loans via securitization once aggregate loan amounts become large enough.

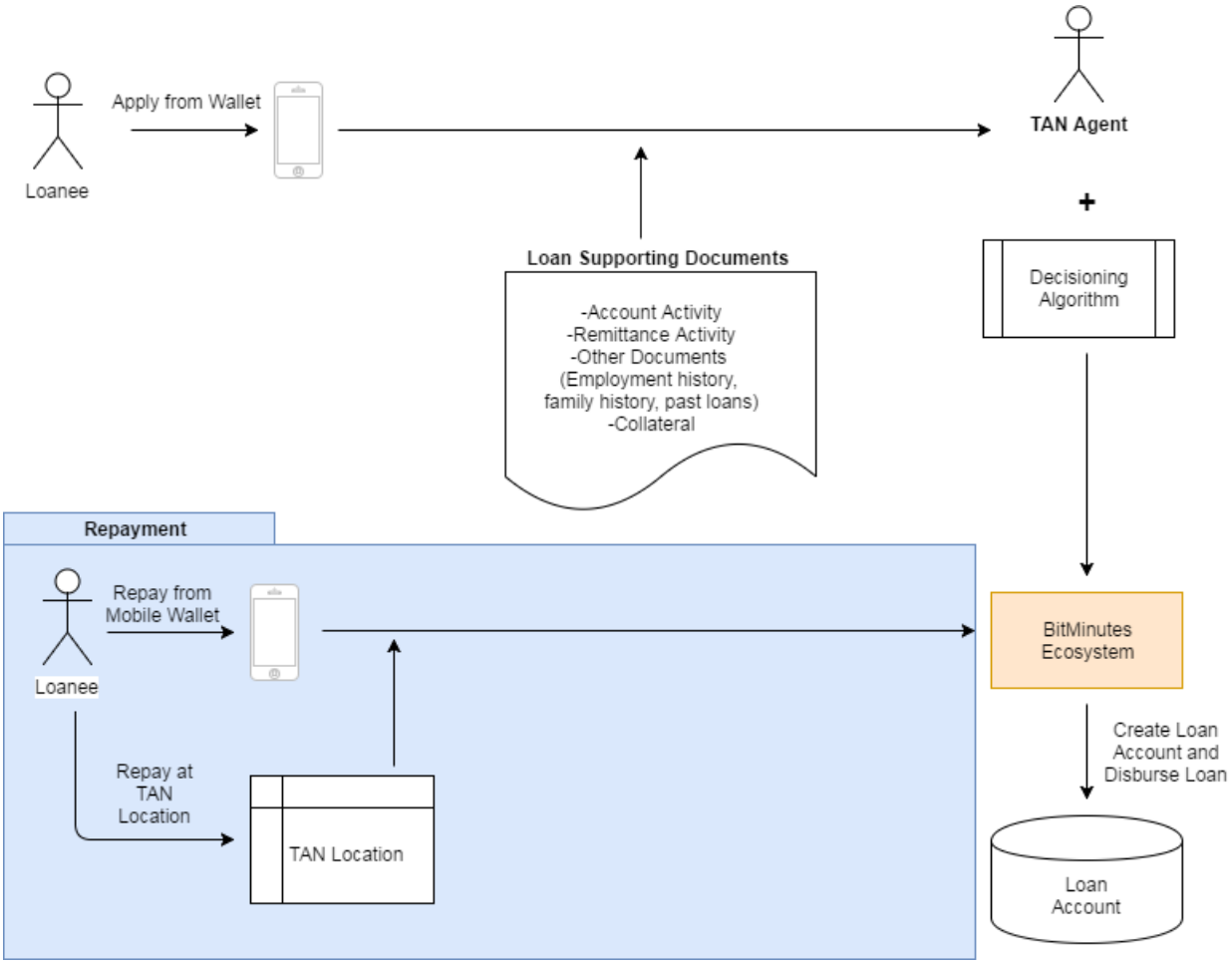


Figure 1: Micro lending workflow

BitMinutes Smart Loan Rates

The repayment of interest for all loans are auto calculated based on the overall performance of the BitMinutes Smart Loan platform. Depending on where the loan is underwritten, adjustments are made for: inflation, risk profile and local factors such as competition from other lenders.

The TAN retailers in the BitMinutes ecosystem borrow cash from BitMinutes Inc. using BitMinutes as collateral. TAN Agents pay approximately 0.5% per week; a non-compounded annualized rate of 26%. They in turn offer Smart Loans directly to the consumer and to other TAN Agents ranging from 0.6% to 1.0% a week; non-compounded annual rates of 31% to 52% respectively. These interest rates will vary from country to country, with the consumer rates largely determined by the TAN Network and regulatory guidelines.

Eligibility for a Smart Loan

Only BitMinutes wallet holders are eligible for Smart Loans. This encourages BitMinutes wallet adoption. Amount qualified for depends on several factors including; repayment history, balances held in BitMinutes, remittance volume and frequency. These factors are combined into a proprietary scoring model and issued as a TAN Score, ranging from 0-10,000, ranking each potential user's credit limit within that range.

TAN Credit Scoring

Lenders use subjective scoring, the use of defined parameters such as experience in the business, net margin of the business, profitability and disposable income to analyze businesses and credit risk. These parameters are defined using industry standards, institutional experience and stated lending policies. A number of qualitative indicators are also used as selection criteria.

P2P uses statistical credit scoring forecasts risk based on quantified characteristics recorded in a database. The relationships between risk and client characteristics are expressed as sets of rules in a mathematical formula that forecasts risk as a probability (Schreiner, June 2002). For example, statistical scoring can determine that a seamstress who is renewing a loan has a 12% likelihood of defaulting, or a male, first-time loan applicant who owns a furniture factory has a 22% likelihood of defaulting. Statistical scoring not only tells if the client is risky or not; it also provides an exact measure of the predicted risk.

Statistical credit scoring was introduced in high income countries in the mid-1970s as a means of increasing access to financial services by medium and low income client segments. Today, scoring is widely used by credit card companies that use credit histories and other borrower characteristics to automatically approve credit lines without personal contact with applicants. Subjective Scoring forecasts risk based on the quantified knowledge and the qualitative knowledge of the characteristics of the client and the loan contract.

A majority of wallet holders in the BitMinutes micro lending platform do not have this kind of data available. However, there exists other readily available data including remittance volumes either sent or received and the frequency thereof, plus the wallet holder's transaction activity. BitMinute associate company, P2P Cash currently uses Socure for identity verification and fraud prevention. BitMinutes will use a similar international social media analysis company to base the TAN credit score system on these parameters. In addition, whenever the statistical and subjective data is available, that data will be used in the credit scoring process.

Smart Loan Underwriting Process

The wallet holder applies for a loan within the BitMinutes Smart Loan mobile App. BitMinutes will use artificial intelligence techniques to analyze the loan request and give it a Smart Loan TAN ranking. The Smart Loan package is immediately underwritten by the Smart Token Exchange with the particular loan details included in an encrypted Smart Token. These details include; the loan principle, repayment period, the repayment history, the derived TAN score of the prospective borrower, the calculated interest rate.

Habitual borrowers who pay their debts on time will establish a better personal TAN Score. Consumers with a higher TAN Score will generate Smart Loans with a higher Smart Loan TAN ranking of the individual loan itself. Higher ranked Smart Loans may be underwritten by BitMinutes and its corporate investment pool.

Loan Repayment - Smart Loan Token

Once a Smart Loan is disbursed with mutually agreed upon terms between the lender and borrower, a repayment schedule is created as a Smart Contract regarding that specific BitMinute loan. The repayments are made with the BitMinutes wallet. Even if the loan is sold in the secondary market, the repayment schedule is unaffected as that particular BitMinute Smart Loan is governed by the underlying Smart Contract on Ethereum.

Lenders are guaranteed repayment of 50% of the principle amount by BitMinutes held in escrow by the TAN Agent. TAN Agent credit lines are determined by their individual TAN Score. Both the consumer and retailer need to repay their loans in BitMinutes. This generates consumer awareness and demand for BitMinutes, keeping the local market liquid in that particular currency.

Smart Loan Token Liquidity

BitMinutes Smart Loans can be re-sold as tokens. Once issued, the Smart Loan Token becomes a tradable token on the Smart Exchange operated by BitMinutes associated company, Smart Token Chain, Inc. This creates liquidity in the ecosystem, resulting in lower interest rates. The selling of loans creates a secondary market that provides further incentives to hold BitMinutes. TAN Agents and carriers have the most incentive to provide this liquidity.

Smart Loan Tokens can be either self-liquidating or accrue additional BTM debt at an agreed upon interest rate at issuance. The terms and conditions will determine the value of the Smart Loan Token and therefore its price on the Exchange.

Bundling Smart Loans into securitized instruments creates additional liquidity from professional Wall Street financing resources.

Smart Exchange

At the Smart Exchange, individual BitMinutes wallet holders can bid on the loan or part of the loan. The loan principle can be funded by an institution, individual or a group of individuals. The BitMinutes micro loan platform underwrites the loan and guarantees 50% of the principle amount to the lenders. It is possible for a potential loan to be funded by multiple BitMinutes wallet holders. This is similar to the Sacco P2P lending program widely used in Kenya.

Loans are delivered to both consumers and retailers as BitMinutes to their BitMinutes wallet. Since both the consumer and retailer are being given credit in BitMinutes, this generates consumer awareness and demand for BitMinutes and keeps the local market liquid in that particular currency.

Appendix C: BitMinutes FinTech Ecosystem

BitMinutes parent company, P2P Cash, developed several technologies and business models as part of a “FinTech Ecosystem” bringing disruptive, low-cost financial services to the developing world. The following companies provide the global infrastructure for BitMinutes, significantly enhancing its potential for global success.

Trusted Agent Network (TAN)

To assist in distribution of BitMinutes, P2P Cash created the Trusted Agent Network (TAN) and associated mobile applications for both consumers and agents. TAN creates a business opportunity for the 2 billion underbanked individuals to become what the World Bank describes as a “Branchless Banking” network of trusted agents. The TAN network provides substantial job creation opportunities and easy access to financial services replicate-able on a global basis, thus ***improving the lives of millions, if not billions worldwide*.**

As an example of the value of disruptive financial services, Kenya’s M-Pesa created over 40,000 NEW jobs in two years out of a population of 40M. That same 1:100 Agent-to-Consumer metric applied to the estimated 50+M US under-banked population (Fortune,

9/16) would generate 500,000 NEW U.S. financial services jobs. Applying the same metric to the two billion underbanked creates potential for 30 million new financial service jobs. The Trusted Agent Network uses the same Social Marketing format proven *so successful in Kenya* to market the job opportunity.

The Trusted Agent Network is in discussions with several retail distribution networks to co-brand BitMinutes and provide distribution and liquidity to facilitate BitMinutes transactions.

P2P Cash Technology

P2P Cash has signed contracts to transfer cash to 70 countries. P2P's consumer marketing efforts focus on the top five global US money transfer markets: China, India, Philippines, Mexico and Vietnam. P2P Cash promotes its "**Send Cash Home Free!**" program via a digital marketing campaign. P2P only accepts funding directly from the consumer with a bank account, eliminating significant costs of brick and mortar operations. P2P generates revenue from the currency exchange rate only as it charges no transaction fee. Net revenue averages ~1% of the amount transferred after distribution costs. Via integration with MasterCard's global distribution network, BTM can be directly deposited into 1.2 B+ mWallets and bank accounts, and in the future, potentially redeemed at 36M MasterCard retailers, a key competitive advantage to achieve global scale.

Free Mobile Wallet

P2P Cash has developed a free mobile wallet to facilitate delivery of cash providing an end to end solution that no other money transfer company can perform.

P2P has incorporated the latest Identity system using a patented smartphone app to capture an identity and perform a Know Your Customer (KYC) background check in over 200 countries: www.Authenticid.co

In addition, P2P's platform is mobile wallet agnostic and is currently compatible with many major telecom mWallets including, but not limited to: M-Pesa (Kenya), Orange Telecom (France/Africa), Bharti Airtel (India/Africa), Globe and Smart (Philippines, SE Asia).

MasterCard Integration

BitMinutes is currently integrated with MasterCard's global distribution network. This permits BitMinutes to be automatically converted to cash and directly deposited into over 1.2 Billion bank accounts and mWallets.

Since credit cards are almost non-existent amongst the under-banked, there exists the opportunity to issue BitMinutes branded MasterCards giving the option to the consumer

to make purchases from any online retailer that accepts card payments. BitMinutes currently is negotiating two options to issue MasterCards virtually.

Additionally, negotiations are underway to cash out at **any MasterCard retailer via VeriFone terminals**, a key competitive advantage to achieve global scale.

Smart Token Chain

The P2P Cash subsidiary, Smart Token Chain, created the Smart Token architecture that BitMinutes use to move seamlessly between various global financial processing networks such as SWIFT, MasterCard and the global Ripple network.

Appendix D: Technology Details

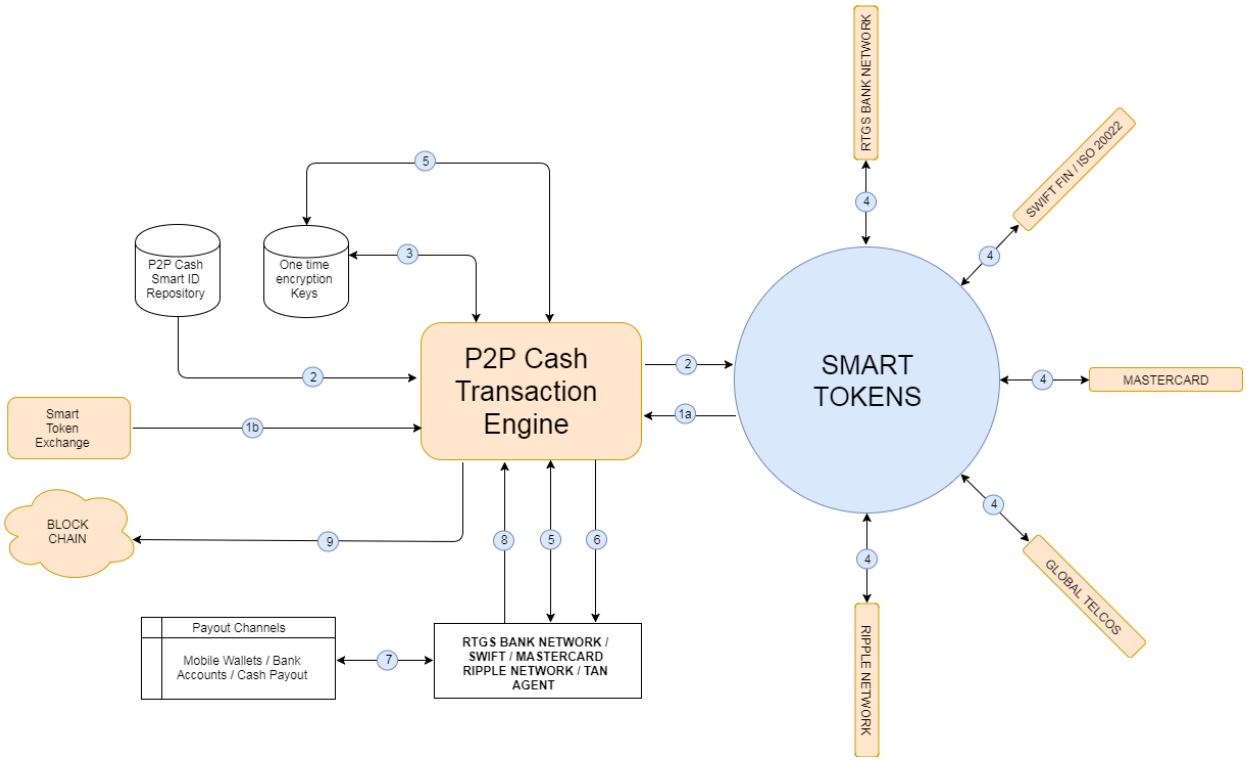


Figure 1- Smart Token Architecture Overview

- Step 1-a: Smart Token holder wants to convert BitMinutes to either currency or prepaid minutes.
- Step 1-b: Smart Token Exchange provides a real-time exchange rate to convert BitMinutes to currency or prepaid minutes.
- Step 2: Smart Token holder accepts BitMinutes conversion rate. Transaction details are encrypted into a Smart Token. The Smart Token creation process ingests native ISO 20022 XML messages, SWIFT FIN instructions, MasterCard

HomeSend API commands and creates a Smart Token compatible with each respective network. The sender and recipient KYC information is retrieved and embedded into the Smart Token as a separate Smart ID token.

- Step 3: The transaction payload and previously generated Smart Token are encrypted and combined with the ID Token, creating a Master Token with a one-time encryption key.
- Step 4: Transaction posted to the payout network.
- Step 5: The payout network retrieves the matching one time decryption key and decrypts the payload.
- Step 6: The payout partner unpacks the payload and delivers the transaction to the receiver. Bank account, mobile wallet, TAN agent cash payout.
- Step 7 and 8: Settlement and acknowledgment of funds delivery.
- Step 9: Settlement and post transaction information is encrypted and the Master Token is updated with this information. The Master Token is written in an immutable manner to any desired blockchain. Currently Ripple and Ethereum are supported.

Smart Token Exchange

The Smart Token Exchange clears and settles BitMinutes conversion from global fiat currencies and carriers participating as issuers of BitMinutes. The Smart Token Exchange will be expanded to aggregate various well traded crypto currencies including, but not limited to BTC, ETH and XRP.

BitMinutes are freely exchangeable for cash in 12 countries ***today*** with a total of 70 countries under contract and available via the global Trusted Agent Network (TAN). To achieve instant liquidity, BitMinutes can be converted and delivered in real-time via the Smart FX Exchange, a high speed fiat and crypto-currency exchange platform.

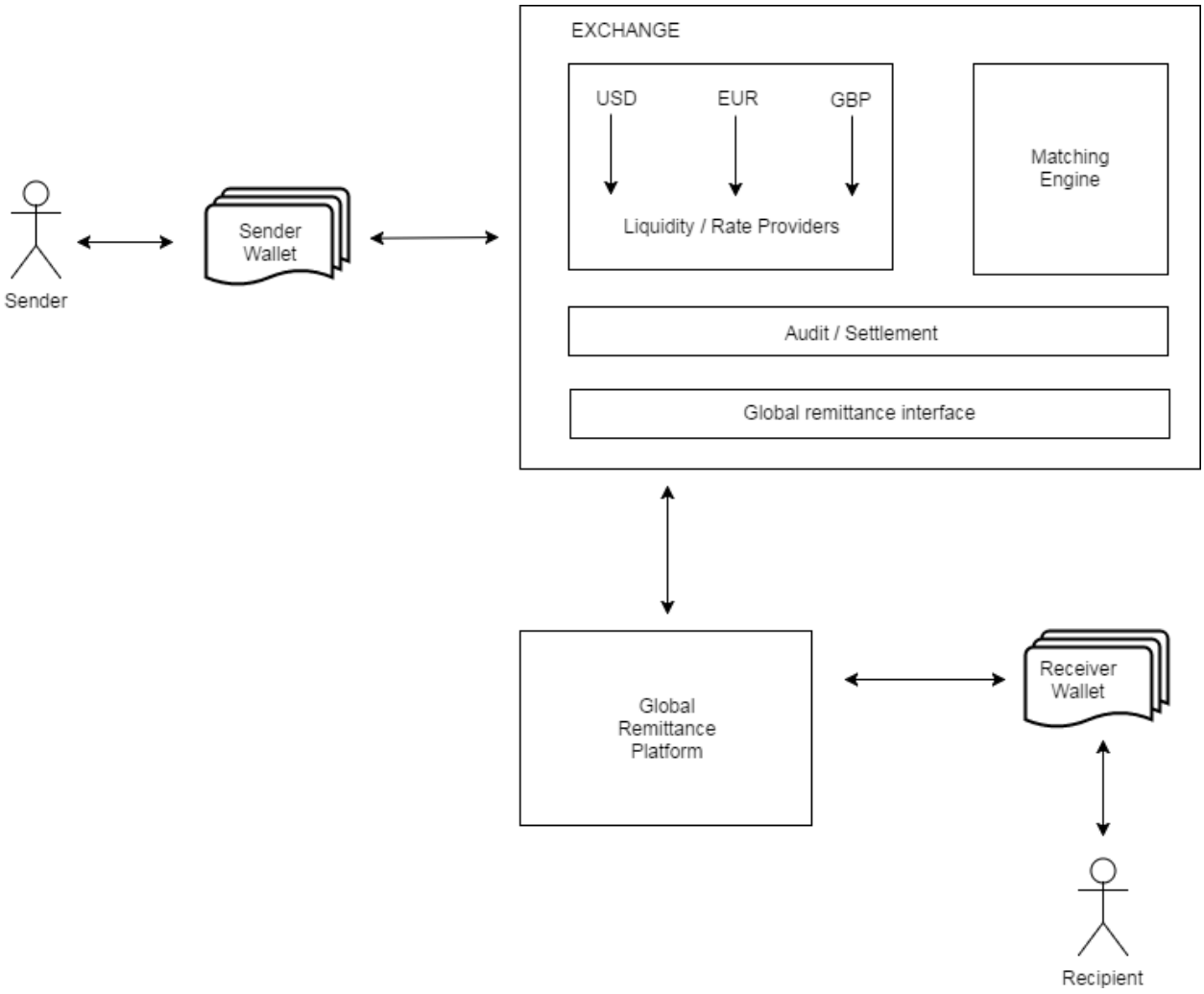


Figure 2: Smart Token Exchange Architecture

Types of Orders Supported by Smart Token Exchange

- Bracket Orders - A Buy order is bracketed by a high-side sell limit order and a low-side sell stop order. A Sell order is bracketed by a high-side buy stop order and a low-side buy limit order. The order quantity for the high- and low-side bracket orders matches the original order quantity. This is used for limiting losses.
- Reserve Orders - The quantity is refilled in some fashion after execution. Normally useful when showing a small size to cloak a larger order. Sometimes called Iceberg order.
- Hidden Orders – These are invisible on Level 2 (clients). Visible on Level 1 (market makers). Market makers can use this to balance books.
- Timed / Complex / Peg Orders – Based on time function, involving many legs or algorithms.

Liquidity Providers

Core liquidity providers on the exchange provide price stability and ensure the availability of the destination remittance currencies. A scenario exists where a requested currency does not have any open bids or offers, these requests are passed onto the matching engine.

Matching Engine

The trade matching engine is the core component of the exchange. It matches bids and offers using time price priority algorithms to complete trades among competing bids and offers. Bids and offers entered first have priority over similar subsequent bids and offers. In the absence of a bid or an offer on a trade, the matching engine uses a reserved rate to fill the order. This ensures trade continuity even in the absence of market makers.

Global Identity Management

Smart Tokens accomplish Know Your Customer (KYC) requirements through a standardized format of retrieving and storing Identity information of financial transaction participants. The standard is ISO 20022 RemittanceAdviceV02 Msg ID remt.001.001.02.

The Smart ID Token KYC architecture and data organization is based on the globaliD white paper *https://www.globalid.net/wp-content/uploads/The-global-iD-Whitepaper.pdf*
globaliD relies on the user's cellphone to act as the physical token to prove identity. Summary of this approach is outlined in this excerpt from the above globaliD White Paper:
"globaliD anticipates every named user having a mobile phone that acts as a physical token for their identity (i.e. something that they have rather than a password that they know). Therefore, one's phone (the combination of one's phone number, SIM card, and specific device) is connected to the globaliD of the individual who has that device. The expectation is the device is present, with an encrypted private key, and is bound to the biometric/pin which ensures that it can be used only with the authorization of its true globaliD holder. Attestations about the holder include confirmation by the carrier as to the identity of user, as well as the personal contact lists of other globaliD holders who have a particular user (and that user's phone number) in their own private address books.
globaliD introduces an important constraint that significantly increases the privacy/security/trust of its ecosystem: any globaliD name can only be associated with one-and-only-one phone (number/SIM card/device) at a time. Thus, one cannot associate their globaliD with multiple devices – meaning that there is always only a single token of one's Global ID active in the ecosystem at any point in time."

Smart Tokens extend the ISO 20022 remt.001.001.02 message format to include additional proprietary identity information in the globaliD format to include seven (7) added data points:

- Name verification
- Date of birth verification
- Address verification
- Social Security Number verification
- Mexican Matricula ID
- Bio-metric verification
- Supplementary data verification – This includes phone number, email address, social media accounts

The name, date of birth, address and social security number includes the US government's Office of Foreign Asset Control (OFAC) checks on individuals and corporations to determine they are not on any restricted lists.

All this data is combined into a unique KYC matrix scoring system. This information also contributes to the Trusted Agent or TAN Score. Sample code below:

```
<?xml version="1.0" encoding="UTF-8"?>
<?P2PCash to Bitso Test Message?>
<Document
        xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
   xmlns="urn:iso:std:iso:20022:tech:xsd:remt.002.001.01">
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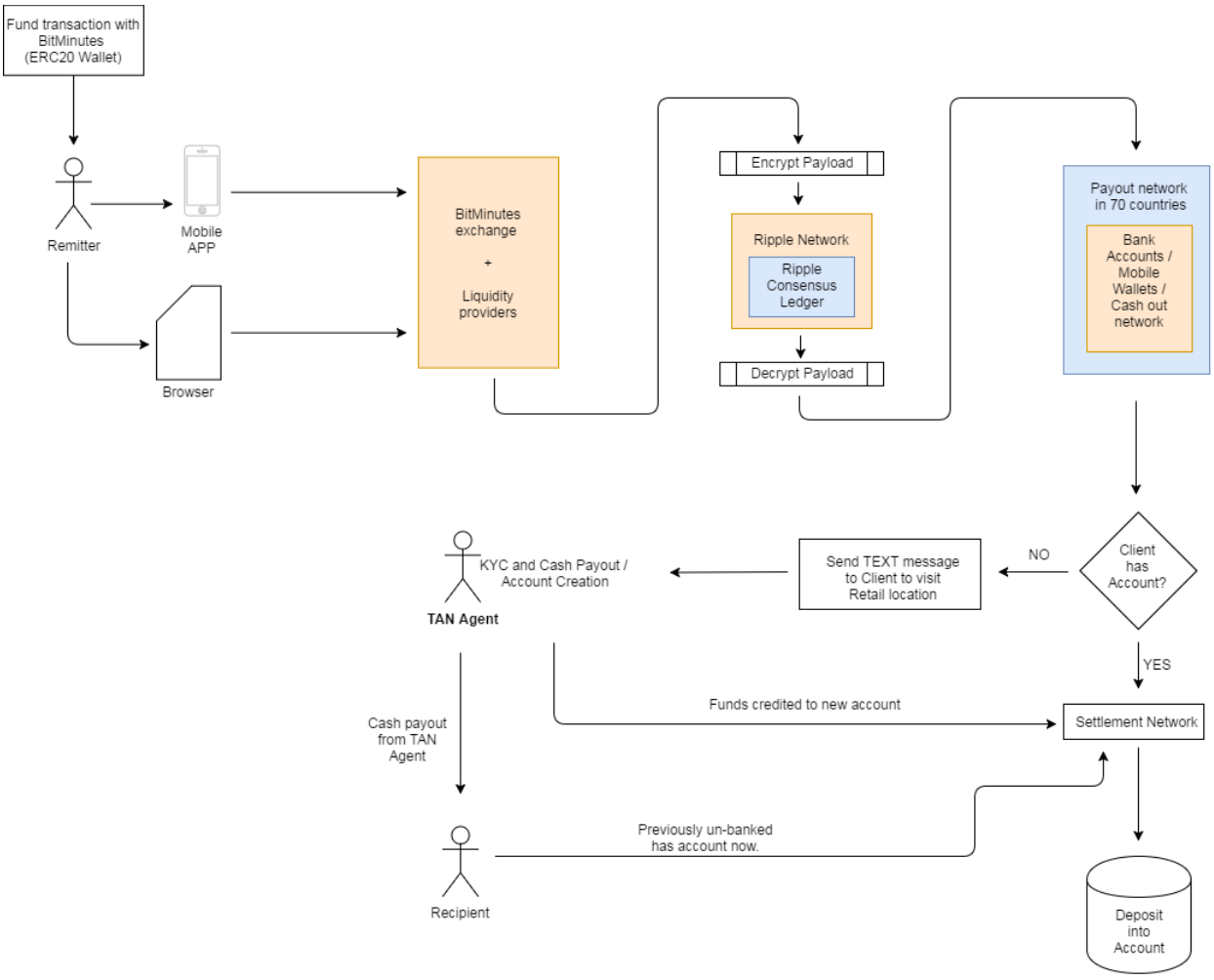

Figure 3: Remittance workflow

Remittance Workflow

Figure 3 summarizes the remittance workflow sending BitMinutes from the ERC20 wallet on the Ethereum blockchain via the Ripple network to enact a real-time transaction on a third party settlement network.

Using a nominal amount of XRP, remittance instructions are encoded in the “Memo” field of outbound messages. The global remittance partners pick up this remittance instruction on the Ripple ledger in real-time and decrypt the message payload from the “Memo” field. For more detailed information regarding an in-production implementation, please refer to publication:
https://www.p2pcash.com/media/STC_Remittances_on_the_ripple_network_v4 Oct_17_2016.pdf

Remittance Encryption

The remittance instructions are encrypted so that only the intended recipient can read them.

- The receiving remittance partner generates two key pairs (p and q)
- N = pq, m = LCM {p−1, q−1} (LCM : Least Common Multiple);
- Sender selects r, where r>1 and r is co-prime with m
- Sender finds the unique s such that rs ≡ 1(*mod* m)
- Sender makes n and r public. Keeps p, q or s private
- Message to send is M
- Encrypted message is Mc, where Mc≡Mr(*mod* n)
- Receiving remittance partner decrypts the payload

Appendix E: Prepaid Minutes as Crypto-Currency

Prepaid top-ups of mobile phones generate over $650 billion annually from over 4.6 billion subscribers, according to a report from GSMA. The remote and/or prepaid top-up industry (sending prepaid minutes internationally and/or selling minutes between individuals) is estimated to be approximately 5% or a $28 billion sub-industry.

In essence, every Mobile Network Operator (MNO) is “issuing” its own virtual currency as prepaid minutes. These minutes are simply a future obligation to provide mobile phone connectivity services at a future date on behalf of the purchaser. This is exactly the same model that every country uses to “issue” its currency, but without the obligation to provide a specific service. That country’s currency has value as a medium of exchange between individuals because it’s issued and approved by the government.

MNO-issued prepaid minutes perform the exact same function as above because of the same guarantee of value. In certain cases, prepaid minutes may be more valuable than an unstable country fiat currency because there is inherent value. Therefore, by definition, prepaid minutes are a form of currency and because they are primarily issued, transferred and used electronically, they are truly the first “Virtual Currencies” to be issued, substantially predating Bitcoin.

Globally, there are over 500 MNOs and another 1,000+ “Virtual” MNOs (MVNO), whose prepaid virtual currencies lack interoperability. However, consumer churn is rampant in the prepaid market as most consumers have already paid for their phone. They will switch SIM cards very quickly if a MNO sells minutes at a discount to the market. This puts severe pricing pressure on all the MNOs and makes it difficult to differentiate their service offerings. It should be noted that this model differs significantly from the US MNO business model where consumers are locked into 2-year contracts that subsidize the purchase of the phone at the beginning of the contract.

Airtime Remittance Model Discussion

Airtime remittance has emerged as a viable business because money transfer costs make it impractical to send very small amounts of money abroad. Money transfer fees are not suited to very small values in prepaid models, especially with 75 percent of the world's mobile subscribers prepaid. These airtime transfers can be as small as 10 cents in value, a transfer that was not possible in traditional channels. The average transfer is $2 to $10 (TransferTo Study), a large sum in emerging countries. Airtime transfers serve as a natural complement to cash remittances, acting as a transfer of value. Staying within the same MNO network costs the MNO practically nothing and is less easily eroded with fees because there's no need to convert the airtime to cash. In some countries, the only infrastructure is the phone company and the post office.

For many consumers, it makes sense to transfer air-time because of the ubiquity of mobile handsets and the developing world's growing dependence on wireless communications. Transferring prepaid airtime in most markets is much less costly than traditional remittances that involve transfer and foreign exchange fees. In airtime transfer there is a small cost to the sender, which translates to a huge value for the recipient. Another feature of airtime transfer businesses is that airtime can be sent to multiple recipients, whereas a traditional remittance is generally larger and sent to only one recipient. In most markets in the world, however, airtime is not cashed out of the phone, in part because of the liquidity management challenges born by the agents of the mobile money transfer provider.

An example is TransferTo who provides an international top-up solution designed to solve the problem of sending a small monetary gift back across a border. As a global airtime remittance hub that connects mobile operators' prepaid systems, TransferTo's model offers individuals less expensive transactions than do traditional remittance providers.

The use case for international airtime top-up is driven by ubiquitous mobile usage and rapidly growing Internet access across the globe.

If you would like to help us change millions of lives for the better, please contact CEO Tom Meredith at Meredith@p2pcash.com with any BitMinutes questions or inquiries.

BitMinutes

A Smart-Token Enabling Free Money Transfer, Guaranteed Micro-Lending and Prepaid Airtime

“Better than Bitcoin for Billions of Un-Banked”