ICO ALERT

The ICO Report

A special, in-depth report on TaaS following our discovery that links many TaaS team members to a suspected ponzi scheme.

This report examines the credentials and experience of several TaaS team members, their association with the #bitup High Yield Investment Platform, the trading methodology laid out in the TaaS whitepaper, and the proposed Kepler and Cryptographic Audit systems. We believe our analysis indicates impropriety in each of these categories that makes TaaS a high risk investment with very low probability of generating returns for investors or performing as advertised in general.

Special thanks to Alex Behrens for his work on this report.

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THE TAAS TEAM

While assessing the TaaS project, we determined that the credentials and connections of the Executive Team may have been insufficiently analyzed given the magnitude of the offering and the relative difficulty of implementing a profitable trading system on such a large scale. While some members of the Executive Team have respectable backgrounds in blockchain architecture and software development, we feel that important members of the group have experience primarily in fields unrelated to cryptocurrency, asset management, or algorithmic or managed trading, and those connections that do exist often appear to be deliberately obscured, while other notable experience may be overstated.

Geo-Earth Resources

Both Ruslan Gavrilyuk (TaaS President) and Konstantin Pysarenko (TaaS Vice President) list the company Geo-Earth Resources on their Linkedin pages¹, cofounded by the pair in 2011 and still in operation. Although our research was unable to verify any connection between Mr. Gavrilyuk, Mr. Pysarenko, and Geo-Earth Resources, a website for the company was identified². The About Us page indicates Geo-Earth Resources was "Established by the National Academy of Sciences, the State Committee of Natural Resources and the Ministry of Industrial Policy of Ukraine," and offers precision geological exploration equipment, software, and expertise. If there is in fact any connection between the President and Vice President of TaaS and Geo-Earth Resources, it is not readily available to the public in any capacity beyond its inclusion on their LinkedIn pages. This investigation gives relatively little insight into Mr. Gavrilyuk and Mr. Pysarenko's business acumen, but does raise questions about the verifiable authenticity of their credentials. Associations with additional ventures and other troublesome connections involving Geo-Earth Resources outside the scope of our core research are explored in Appendix A: Geo-Earth Resources, #bitup, and Garrus.

Bitup

3 https://bitup.io/

Our research has identified deep connections between the four founding members of the TaaS project — Ruslan Gavrilyuk, Konstantin Pysarenko, Maksym Muratov, and Dimitri Chupryna — and the #bitup investment platform³. Several aspects of the Bitup platform resemble strongly characteristics and ac-

¹ https://www.linkedin.com/in/ruslan-gavrilyuk/, https://www.linkedin.com/in/konstantin-pysarenko-bla40b51/ 2 http://geo-earth.biz/index.html

tivities of High Yield Investment Platforms, more commonly known Ponzi Schemes. Bitup advertises fixed daily returns that are not dependent on market or investment performance; users are also offered a percentage of the total investment deposited into the fund by new users they refer. These are the typical characteristics of a ponzi scheme⁴.

Konstantin Pysarenko

Konstantin Pysarenko, the Vice President of the TaaS project, lists experience in founding 'several startups around the world in food manufacturing, geological oil and gas surveying, and international aviation sales'. Our research struggled to verify these claims as only previously discussed Geo-Earth Resources and Bitup were listed on Mr. Pysarenko's Linkedin page; deeper inquiry, however, did yield some further information regarding Mr. Pysarenko's previous work experience.

According to both Mr. Pysarenko's profile on the TaaS Executive Team and Linkedin page, Konstaintin graduated from the University of Buckingham in 2011 with a degree in Entrepreneurship. Leveraging this information, our research uncovered two profiles of Mr. Pysarenko that appear to align with his given educational timeline and stated work experience⁵, both written in the first person (indicating Mr. Pysarenko himself prepared the profiles) — one while studying at the University of Buckingham, the other subsequent to the completion of his studies.

Personal Information Born in Kiev, Ukraine but grew up my whole life in Colorado Springs, Colorado. Now I've moved to the UK ... I am studying Business Enterprise, In the University of Buckingham, during this course, we have to obtain a degree along with running a business ... The business that we are starting with my partner is a magazine that will promote young entrepreneurs around the UK with tips, and hints, along with success stories of business which came out of unis...

Business Information being born in the Ukraine having Ukrainian parents I have many high end connections to start many international businesses. Currently I am exporting flour into Cameroon, importing high grade black tea from Kenya, have a printing firm in the Ukraine which does high quality printing and relatively low prices (will be expanding and going online soon). Then I am finishing University of Buckingham, and will start working more intensely with my father who is in the airline industry, he wet leases and sells airplanes to mid range airlines. Finally, I have a tobacco machine, which mixes tobacco with up to 4 sauces, rolls, and packs the cigarettes,

⁴ https://www.sec.gov/investor/alerts/ia_virtualcurrencies.pdf

⁵ https://www.sunzu.com/konstantinpysarenko-488200,

https://www.buckingham.ac.uk/business/bsc/businessenterprise/graduates

machine is 5 years old, but hasn't been used in full operation as the firm was a small firm, hence, the machine is in very good condition. Contact me if anything from here sounds interesting.

Here Mr. Pysarenko indicates that his experience includes publishing, perishable import/export, printing services, cigarette manufacture, and some involvement with aviation sales via his father's business. Food manufacturing, as stated in Konstantin's TaaS bio, appears to consist of flour exports and tea imports to and from Africa; no mention is made of experience in geological oil and gas surveying, and international aviation sales appear to be based on involvement with Mr. Pysarenko's family business. No verifiable indication is given that any of these positions were held at any point in the past or currently in the capacity of a founder, and in the case of aviation sales we believe there is a strong indication that Mr. Pysarenko was explicitly not a founder in any capacity.

I was born in Kiev, Ukraine and then lived in the USA for 14 years, achieving my IB diploma in PSI in Kiev, before I started my BSc Business Enterprise honours degree at the University of Buckingham in 2009. After finishing the fantastic BBE programme at Buckingham, I am now running two business, the first is one of the largest tour operators in Ukraine, called SAM. I am also establishing an entertainment business in Nigeria and as a result I am currently living there ... BBE [also] helped and continues to help me to run my businesses in Ukraine and Nigeria.

Here, after having graduated from the University of Buckingham, Mr. Pysarenko indicates he is 'running' an international tour company known as SAM⁶ and that he is 'establishing' an entertainment business in Nigeria – our research was unable to uncover any additional information regarding the status or existence of an entertainment business with any connection to Mr. Pysarenko. SAM appears to be a large established business involved in tours around the world, conference administration, and transportation services to supplement tour and conference offering. We speculate that this is the 'aviation sales' business owned by Mr. Pysarenko's father referenced earlier, but have no verifiable indication that this is the case. Nevertheless, we find the claim that Mr. Pysarenko is 'running' SAM to be dubious at best. No indication is given as to the status of endeavors involving perishable import/export, printing or publishing services, or cigarette manufacture.

We believe these conflicting statements represent a meaningful disparity between the stated experience and credentials of Mr. Pysarenko on the TaaS website what has been indicated prior to the inception of the TaaS project. We found no verifiable indication of involvement in any capacity in Geo-Earth Resources or any oil and gas surveyor, only tenuous connections to 'food

manufacturing', and evidence of involvement with aviation sales, but not in a founder role. No indication is given on Mr. Pysarenko's Linkedin page for any involvement with perishable import/export, food manufacturing, publishing or printing services, cigarette manufacture, tour and conference facilitation, or aviation sales.

Maksym Muratov

Information regarding Mr. Muratov was relatively scarce⁷. Upon graduating from a Ukranian university with a Film Studies degree, Linkedin indicates Maksym traded (presumably cryptocurrency) independently until July 2015, a subsequent trading role in asset management (indicated to have been performed in Argentina by statements published elsewhere regarding Mr. Muratov) until September 2016, and a position as Lead Trader at Bitup until January 2017. Mr. Muratov lists his involvement with TaaS beginning at the October 2016 time period propagated elsewhere as well as by other TaaS co-founders, indicating that during the period from October 2016 through January 2017, Mr. Muratov worked with or for both #bitup and the TaaS project.

Dimitri Chupryna

Mr. Chupryna graduated from the University of San Francisco in 2016, presumably around springtime when most terms end at US universities; we believe work experience listed prior to this date was in an internship capacity⁸. In July 2016, Mr. Chupryna's LinkedIn indicate he took a role as a Trader in Private Equity Management, though no indication is made as to the official employer. Our research indicates, from statements made about Mr. Chupryna in his role as a cryptocurrency conference speaker⁹, that the most likely employer during this period was the Bitup organization.

Ruslan Gavrilyuk

Mr. Gavrilyuk's bio on the TaaS Executive Team indicates experience 'founding and managing projects in geosciences, mobile money solutions, oil and gas operations, precious metal mining, sports and fashion'. Our research has been unable to verify any of these assertions; Mr. Gavrilyuk's Linkedin page indicates (excluding TaaS) only founding involvement with Geo-Earth Resources and Bitup that are not indicated on either organization's website or anywhere else. We find the total lack of verifiable connections between any of Mr. Gavri-

⁷ https://www.linkedin.com/in/maksym-muratov-6a0925130/

⁸ https://www.linkedin.com/in/dchupryna/

⁹ http://www.theblockchainevent.com/east/speakers.aspx

lyuk's stated experience or credentials to be one the most alarming revelations uncovered from our research.

Andrey Zamovskiy

Our research indicates Mr. Zamovskiy is the only member of the TaaS Executive Team with verifiable experience in either software development or blockchain architecture, as represented by his founding role at NoveltyLab, Ambisafe, and other connections to respectable organizations including Propy Inc. and oDesk¹⁰. Presentations by the TaaS team indicate that Mr. Zamovskiy is involved exclusively with the development of the Cryptographic Audit technology and not trading systems or strategies; we also find it telling that Mr. Zamovskiy, as the only member of the TaaS team with stated connections to large and established software development firms, has elected at time of writing to omit from his Linkedin page any indication of involvement with the TaaS project.

Andriy Dubetsky

Mr. Dubetsky is listed as the 'Managing Director' in his bio on the TaaS website, and his Linkedin page indicates extensive verifiable involvement in international business, automotive sales, and the Ukrainian Stock Exchange¹¹. Our research indicates, however, that Mr. Dubetsky's expertise lies primarily in the PR and marketing sectors of business development, and not in financial accounting, portfolio management, investment, or trading activities that might enable him to facilitate these functions at TaaS¹². Given this profile, we find it misleading that Mr. Dubetsky indicates his involvement with TaaS as advising on matters of strategy, operations, and fund raising through ICO/ITO — if anything, Mr. Dubetsky is likely advising strategy and operations exclusively focused on the TaaS ICO, and not trading operations to be undertaken thereafter.

¹⁰ https://www.linkedin.com/in/nixoid/

¹¹ https://www.linkedin.com/in/andriydubetsky/

¹² http://idcee.org/p/andriy-dubetsky/,

http://en.pcg-conference.com.ua/speakers/view/65/

The #bitup website indicates¹³:

About the Platform

#bitup is a platform of investment opportunities, the main purpose of which is to make available investment in Bitcoin. The main tool of the resources management is a crypto asset management Platform , opened to everyone.

More details > Video >

The Bitup Business Model page states¹⁴:

Main channel for #bitup profit is active participation in exchange trading in specialized sites (crypto-exchanges). The team of professional traders provides discretionary management of the digital asset portfolio (altcoins) ... #bitup's cryptotraders mostly work on the middle—term and long—term investment strategy (buy&hold), which has established itself as the most profitable. There are also fundamentally different ways to obtain profit in this industry: interexchange cryptocurrency arbitrage, margin trading, hedging of futures bitcoin contracts, and other digital financial derivatives (derivative cryptotrading). The main purpose of the #bitup trading activities on cryptocurrency exchanges is the maximum investment efficiency while minimizing risks.

Close interaction and coordinated work of the B.A.G. structural subdivisions allows obtaining optimal results:

- #bitup Research & Development searches for new and optimizes existing tools for working with trading platforms and cryptoplatforms. The area of competence of the #bitup R&D experts includes the work with the stock API, the building of algorithmic systems for accurate analytics and processing robotization of cryptotrading. In that way, traders work with software, which has been specifically designed under their objectives and market characteristics.
- #bitup Analitycs & Statistics deals with the collection and updating technical indicators, statistics, development of trading strategies. As well, this subdivision is responsible for the search and analysis of new

¹³ https://bitup.io/

¹⁴ https://bitup.io/business-model

digital assets to include them in the investment portfolio. In that way, #bitup cryptotraders get unique actual indicators and ratings, on the basis of which the decisions on trading operations are made.

Individuals who have been involved in the cryptocurrency space for any meaningful duration will quickly identify the Bitup platform as one of many HYIP (High Yield Investment Programs) Ponzi Schemes developed to defraud new entrants into unregulated markets. Characteristics of HYIPs include:

Guaranteed Profits in Any Amount

Profits from investments in market trading can never be guaranteed as no platform can account for unforeseen "Black Swan" events or other failures in their investment strategies. Any platform that advertises guarantees profit will eventually become insolvent and not fully return the newest investors paid-in capital. HYIPs will at best need to substantially obscure their financial position to mask any failures of their investment strategy and at worst will report fraudulent financials to keep up the facade, but all use profits from new entrants to pay earlier investors to maintain the unsustainable 'guaranteed rate' in the short term while sliding towards insolvency in the long term.

Annualized Guaranteed Profits Disbursed on a Daily Basis

This payment program allows HYIPs to pay back small minimum amounts each day, well below the total alleged appreciation in value of the underlying invested assets. This allows the programs to obscure a lack of sufficient funds that would otherwise be revealed if annual earnings were paid to investors at greater intervals or in larger amounts. HYIPs will never reveal their total Assets Under Management (AUM), as the total is almost invariably less than the expected level of paid in capital.

Risks of Loss on Investments is Understated or Entirely Absent

The following sections are the only statements of risk identified in our research on the Bitup website:

Prior to taking an investment decision, you should remember that there is considerable exposure to risk, including the state regulation of cryptocurrency, as well as changes in the Blockchain technology and cryptocurrency market volatility that may substantially affect the price and liquidity of Bitcoin. #bitup platform shall not be liable for any loss that may be caused by using crypto-currency.

Here Bitup identifies some risks to the larger cryptocurrency space including risk of regulatory actions performed by national governments, forks of Bitcoin

or other important blockchains, and market volatility, but no risk of loss via investment activities or insolvency.

In the process of any operations, internal and external transactions, the Site only guarantees the execution of operations, the disposal of the production of which the User provided. The Site does not guarantee a certain financial result of the operations by the User.

Here¹⁵ Bitup appears to contradict the rest of their marketing and absolve themselves of any payments to investors at all, but still includes no indication as to risk of loss or potential causes for poor financial performance related to investment methodology. To our reading, this section of the Terms of Service seems in theory to grant Bitup the right, at any time, to simple cease operations and payments to investors, keeping whatever is left of the paid–in capital. This is not the type of statement of risk you will find in a legitimate investment platform.

Referral Commissions for Attracting New Entrants

From the Bitup FAQ:

The site offers to invest Cover signs for interest income of 35% per annum for 365 days. By registering on the platform, the User shall have the right to store an unlimited amount of money and invest a minimum of 0.01 titular characters. By making a deposit, the User agrees that it is accrued daily and is guaranteed to be get interest with a deposit body of the method of deposit (the actual term of the deposit)/365 throughout the whole of the term — 1 year. The rate of return on a deposit is 35% per annum, plus the User gets an additional 10% of the deposit amount of the users, attracted by him/her in accordance with the terms of the referral program (referral user of the first level), 3% of the amount of the deposit of the referral user of the amount of the deposit of the referral user of the third level (user, attracted by the referral user of the third level (user, attracted by the referral user of the second level). All clients' funds shall be introduced without any commission.

Ponzi Schemes employ referral programs to ensure a consistent flow of new capital into the program, used to pay older investors when alleged operations fail to produce sufficient returns. No legitimate investment vehicle will pay a fixed percentage based on contributions from other users, as this increases the already unsustainable burden on the true financial assets of the platform.

Vague or Incomplete Information Regarding Investment Methodology

From the Bitup Terms of Service¹⁶:

¹⁵ https://bitup.io/faq
16 https://bitup.io/terms

In the process of any operations, internal and external transactions, the Site only guarantees the execution of operations, the disposal of the production of which the User provided. The Site does not guarantee a certain financial result of the operations by the User.

Again, this is completely contradictory to the claims made on every other page of the Bitup website, and appear to absolve the platform from any of its financial obligations to customers at all.

From the Bitup FAQ:

" The Platform receives profit through an active trading on cryptocurrency exchanges, #bitup's team of professional traders are managing crypto asset portfolio (altcoins) with posting monthly reports on a web site."

HYIP Ponzi schemes like this are common in the cryptocurrency space all offer promises that cannot be kept in the long run, all use incentive programs designed to cause current users to continue to attract new users, and all eventually collapse under the weight of too many payments that need to be made against too few new investors adding money to the system. The trading strategies employed by Bitup are an enticing marketing tactic and may have the effect of staving off the inevitable for some time, but even this activity is clearly a foil for the pyramid payment scheme inherent in all HYIPs — the vast majority of the money being paid is drawn from the deposits of newer investors, not effective trading or any other investment strategy. Additionally, there is no incentive that any effective trader would have to be involved with a HYIP — why scalp only the profit percentage over the 35% payout threshold when an individual trader could simply earn the 35%+ for themselves? Margin trading accounts employ premiums many orders of magnitude lower than the first 35% of all returns in exchange for comparable capital used to invest.

BITUP FINANCIAL ANALYSIS

In July 2016 Bitup began publishing reports outlining their portfolio allocations, trading activities, and general analysis of the cryptocurrency space. These documents list the coins on Bitup traded on the Poloniex market, and some (not all) give the opening and closing dates of particular trades. Documents also list the total monthly portfolio allocation for each coin traded.

Our researchers analysed the daily volume in BTC for those coins on trades where entry or exit dates are provided and identified those dates on which volume was so low that calculations for the total value of the portfolio allocation for a particular coin could be calculated by generously assuming the full 24 hour daily volume¹⁷ represented only the trade conducted by Bitup. This calculation does not give an accurate estimate of the actual AUM of the Bitup trading portfolio, but it does enable us to understand (assuming the portfolio allocation statistics are correct) the maximum possible value of the portfolio on a given date. Deeper analysis of the Bitup Financial statements can be found in Appendix B: Bitup Financial Analysis.

This analysis indicates that as late October 9th, 2016, Bitup had no more than \$60,000 AUM across their entire trading portfolio. In particular, a trade opened by Bitup traders on Nautiliscoin (NAUT) on October 9th accounted for 20% of the total portfolio allocation for the month of October. Volume on Poloniex for the entire 24 hour period of October 9th was 18.82 BTC, and the Bitcoin closing price was \$614.62. Attributing all trading volume for the 24 hours of October 9th to Bitup (a wildly generous assumption), the total daily volume USD equivalent comes to \$11,567.15. If this value represents 20% of the Bitup trading portfolio, the total value of the portfolio can be calculated at \$57,835.74. Again, this uses a nearly impossible assumption of attributing all of the day's volume to one trade, so the true AUM is very likely substantially less than what has been calculated here.

Implications

If the four founding members of the TaaS platform are as deeply involved with the development and operation of the Bitup platform as our research suggests, at the very least questions are raised about the ability of the Bitup, and therefore TaaS, trading team to manage investments and trading strategies involving 1,000 times the AUM they managed at Bitup, as they will be at TaaS. More broadly, any one team member's involvement with this type of cryptocurrency HYIP Ponzi scheme should be cause for concern. With four co-founders involved, it is difficult to deny at very least the appearance that TaaS is an extension or evolution of the Bitup project, with remarkably higher AUM and the substantial investment management challenges that entails. Risks of slippage on trades (when acquiring large positions rapidly drive up the price of the asset, limiting potential profitability) and a simple lack of liquidity sufficient to exit positions at profitable prices represent just a few of those challenges.

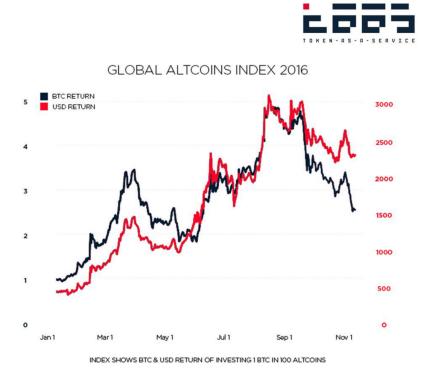
TRADING METHODOLOGY

Our analysis revealed several inconsistencies and very few indications that the author of the TaaS white paper or the TaaS team at large have an understanding of the challenges associated with successfully investing millions of dollars of AUM.

¹⁷ For Poloniex, where the Bitup trades occurred

By definition, price already discounts the relationship between supply and demand. We have begun with a careful selection of appr. 100 tokens to understand price behavior in 2016. To simplify this model, 7 outliers that had 5000%+ rallies are excluded because of a substantial positive skew. Our research suggests that such approach in this market can support a portfolio of up to \$10m. Below is a simulation of 1 BTC (black) invested in equal shares across remaining tokens, and its USD return (red). Page 7

This paragraph is the first in the 'Trading Methodology' section of the white paper that actually discusses any type of trading methodology or approach; up to this point the information has been low level explanations of market capitalization and its relationship to price. Our research was not able to identify the proposed trading strategy being laid out here, the tokens that were analyzed, or what conclusions lead the author to believe they will be able to effectively manage a \$10 million portfolio.



Obviously, a massive bull run in 2016 cannot be neglected but even with recent drop in prices, a passive investor with this strategy in theory would outperform any traditional index by a mile. This year, for instance, Dow Hones Industrial Average Index, another price-following index, is struggling to reach even a 10% benchmark. Yet, there is enough evidence to claim that active management yields a much higher return. Page 8

Our analysis raises significant questions regarding the conclusions drawn in this paragraph, and the value of the accompanying chart. No sources are provided as to how the chart was created, what coins were recorded, how 'profit' and 'loss' were calculated (as there is no indication this chart analyzed trading activities in any way), or what we might expect in an environment unlike 'a massive bull run experienced in 2016'. Our best guess is that this chart records the total appreciation, from the start of 2016 (01/01/2016) to the start of 2017 (01/01/2017), for some unknown index of altcoins. There are a variety of issues with this analysis; there is no indication regarding which altcoins were used to create this index, which makes assessing the market capitalization and daily volumes impossible, there is no consideration given to trading strategy and the risks of slippage or disproportionately large losses on altcoins with substantial portfolio allocations, and it appears to imply that these 300% returns (achieved theoretically, with no analysis of how trading such large amounts will effect these results) can actually be improved through active management. Difficulties inherent in trading large positions the TaaS team will undoubtedly be managing would appear, to our analysis, to indicate the opposite — returns in any amount become exponentially more difficult to achieve through trading activity as AUM grow.

To prove a point, consider the early nature of the market, given the state of liquidity and lack of significant volume. To enter a low-to-mid cap crypto market with a substantial position means patient accumulation. As of today, this phase might support positions in the range of 0.5 - 30 BTC a day, depending on the capitalization of the asset. Going over this threshold is possible but may result in overexposure, because a single market mover in this case is moving the market, and position entry may easily cross 20% variance. When in the market, an investor is advised to be cautions, because of a very little room and time for exit. Our research suggests that in over 50% of markets distribution phase typically ranges from few hours to a couple of weeks. When over, markets consolidate for more than 85% of their cycle duration. - Page 8

While technically correct, our research indicates that no members of trading team have experience managing the 'patient process of accumulation' during a consolidation phase. Bitup has never had AUM large enough to cause variance or slippage risk; all Bitup documentation indicate all positions being opened in a single trade. Additionally, nearly all trades with dates given for both opening and closing positions indicate most trades remained open less than a week, though some as long as 20 days. Nevertheless, to accumulate any meaningful position in the vast majority of altcoins will take weeks or more of daily purchases in anticipation of events that may be difficult or impossible to predict. Selling these large positions profitably will also be difficult, as the shortest distribution phases occur following the sharpest speculative spikes and when exiting a large position can easily crash the price before the investment can be

fully liquidated. The TaaS team, given their trading history at Bitup, have no experience managing any of these factors.

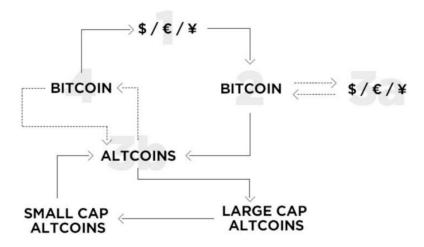
Finally, there is a large technical barrier when it comes to investing in blockchain assets. There are currently more than 600 active cryptocurrencies, and no single wallet supports the entire stack. In fact, there are very few wallets that support even 10. The solution is to keep tokens in their native wallets, but there are too many to maintain, so after a while it becomes hectic and impossible to manage all of them. An average investor does not even care much about this problem because he/she mostly needs tokens for speculative reasons, this never taking them out of exchanges. There is a problem with that because exchanges get hacked quite often, and to avoid that, an involvement of a specialist is a must. Professional money and risk management is absolutely necessary for steady capital gains in this young market.

Page 9

It is not clear from our analysis how the involvement of a specialist ease the challenges of managing potentially hundreds of different software wallets or that the TaaS team has any solution that will enable them to manage the difficulties described here.

Each and every asset relies in historical patterns; understanding them is crucial for predicting future market behavior. Blockchain markets are no exception, flowing through several classes of assets in a very well defined cycle. Below is a story of \$1 invested in blockchain markets, as suggested by our research of historical price & volume patters, with cryptocurrencies categorized by market capitalization.

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Our analysis was unable to determine how, other than in theory, the TaaS team is currently or intends to be able to track the capital flows through various

asset classes in cryptocurrency markets. This type of analysis would indicate the development of cutting edge advancement in blockchain asset tracking and auditing - the evaluation would need to be tracking the capital associated with each respective unit of currency traded on exchanges, through multiple different blockchains, and essentially in real time. We do not believe this to be possible with current technology and API access provided by the various cryptocurrency exchanges, not to mention the intense analysis required of potentially hundreds of small cap altcoin blockhains. For these claims to have any credibility, we would need to see substantially more evidence of how this analysis of capital flows is achieved before we could assert with any confidence that the TaaS trading team or anyone else has this capability.

The introduction of this paragraph is also theoretically and factually incorrect; past performance does not predict future behavior. Investment vehicles must use public information and in some cases technical analysis to develop a strategy; they do not rely exclusively on historical prices, market capitalization, or any other trailing indicator to determine what will happen tomorrow or a month from now and trade accordingly.

There are a couple of intuitive yet very important implications we need to understand from this diagram. Today's infrastructure makes Bitcoin a base currency for investment in the majority (over 95%) of altcoins, essentially tying a so-called Global Cryptocurrency Index (GCI), an instrument tracking all the significant altcoins, to the behavior of BTC/fiat pairs. It is true because, no matter how much devotion and enthusiasm investors might have for blockchain they are still interested in real fiat gains. In our study of capital flow across cryptocurrencies, we have found some basic evidence to support this hypothesis. Below is a GCI broken down into indexes that track various cap groups, contrasted against a BTC/USD pair. Page 9

Again, this section relies on assumptions made if we believe TaaS can truly track the capital flows through various currencies and markets; our analysis had shown no indication that this is actually the case. Other conclusions, including that any flow of capital into altcoins comes directly from an outflow of capital held in Bitcoin, is impossible to verify; the appearance of this price action does not necessarily indicate that the source of capital for the appreciation on the altcoin 'index' (still no breakdown of what altcoins are being analyzed) comes exclusively from funds that would have otherwise been held in Bitcoin, nor that those low cap altcoin appreciations are a result of capital flowing out of large cap altcoins.

INDICES AND BTC (USD), 2016



The pattern is self-conclusive. Consolidation phases of Bitcoin price cycles make investors move capital into and out of altcoins, establishing their cycle duration and sensitivity to change in Bitcoin price. Large cap coins get a capital inflow right after Bitcoin, with smaller cap groups chasing the pack. When turbulent, there is no better hedge in cryptoeconomics than Bitcoin itself. Due to the size of its market cap and reasons discussed above, during unstable times it pays to keep the majority of a portfolio in Bitcoin. As of today, it is naturally the safe haven of cryptocurrencies. On this basis, one of our major components of investment strategy is an allocation of a Reserve Fund with the goal to hedge against negative returns of bear cryptocurrency markets. This technique provides additional liquidity to the token value and acts as a "crisis management fund" in case of any major catastrophic event that might disrupt normal fund functionality, such as Ethereum technical failure, smart contract fault, et cetera. Page 10

One could reach any number of conclusions from the chart provided here. Capital flows first into large cap altcoins, then into Bitcoin when large caps fall and vice versa, small cap altcoins are a leading indicator for a rise or fall in the price of Bitcoin, all altcoin prices rise and fall independent of Bitcoin's price (from September 2016 onward); all of these conclusions can be supported by the information presented in the associated chart, and unless more evidence can be supplied to support one claim or another, we are not able to determine which of these conclusions are accurate and could contribute to a successful trading strategy.

While Bitcoin does often appreciate as altcoins fall, the causality of this relationship is not so strong that we believe it constitutes an investment strategy

that appropriately accounts for the substantial risk to even Bitcoin in the very young cryptocurrency market; risks of significant government regulatory action that effects Bitcoin disproportionately to other altcoins and the rumored 'flippening' (during which Ethereum will replace Bitcoin as the base currency for cryptocurrency exchange at large) represent just a few of the risks inherent in relying on Bitcoin as a 'natural safe haven of cryptocurrency.'

Investing in altcoins means understanding Bitcoin cyclicality and its current and future phases. We are building Kepler, a state-of-the-art intelligence system, to guide our investment decisions through the turbulence of the crypto universe. Page 10

Bitcoin cyclicality plays a part in very broad market analysis and in potential speculative altcoin trades on volatility generated by flights of capital out of Bitcoin and into those altcoins, often as a result of speculative or emotionally driven market activity and not from efficient, fact based price action. This appears to be the only trading strategy actually laid out in the white paper or anywhere else, and essentially consists of swing trading altcoin spikes associated with fluctuations in Bitcoin prices. Analysis of Bitcoin cyclicality, however, tells a trader nothing about which coins are more or less likely to see inflows as a result of Bitcoin volatility, though we might conservatively assess it will be into those coins that have the strongest foundation and not low cap speculative altcoins heavy on theory and light on implementation.

As a final thought, the value of assets necessarily involved in these trades will substantially reduce the profitability of short positions of any meaningful size, as the margin lending market will not support such extensive borrowing without a massive increase in premium rates.

CRYPTOGRAPHIC AUDIT

Our analysis leads us to believe that the Cryptographic Audit technology being developed by TaaS is being leveraged to obfuscate and deflect questions regarding the true nature of the TaaS trading methodology, while also representing a grave risk to the profitability of the fund. Nevertheless, we believe the Cryptographic Audit technology is the only software actually in development by the TaaS team and represents the only value investors can realistically expect to gain from the TaaS project.

The Cryptographic Audit section of the TaaS whitepaper very strongly appears to have been prepared by a different individual than the rest of the document; the formatting is substantially improved, the charts and diagrams are filled with information (in contrast to the glaring lack of information in the 'Trading Methodology' section), the English grammar and vocabulary are

substantially improved, and the use of footnotes is liberal and meaningful. There is only one additional footnote to be found in any section outside Cryptographic Audit:

> traction, swiftly moving to the stage of early adoption. According to coinmarketcap.com, combined market capitalization (excl. Bitcoin) in 2016 grew by 300+%1. We believe there is a

> profits and eliminates exposure to losses. To grow the fund's base grows over time, 25% of profit is reinvested back into the portfolio.

While we are unable to verifiably asses which team member prepared the balance of the document, we believe Mr. Zamovskiy to be the author of the Cryptographic Audit section based on his extensive experience and credentials of (especially in relation to the Tether project). We believe Cryptographic Audit will function effectively as advertised, especially considering many of the proposed functionalities are based off existing technologies; Proof of Reserves rely on existing cryptocurrency exchange Proof of Solvency capabilities and Regular Blockchain Snapshots employs an Ethereum smart contract to record daily snapshots of a database on the blockchain. Proof of Reserves for Fiat Accounts uses straightforward SSL certification, but this functionality raises new questions in our analysis; we were not able to identify any operations of TaaS that require funds to be held in a fiat account, or any documentation that indicates how, when, or why transfers to or from fiat accounts controlled by TaaS would occur.

We believe the proposed Auditable Exchange Accounts development and implementation represent extraordinary risks to the success of the TaaS trading methodology and the project as a whole. A system that reveals to anyone, at any time, the specific trading actions being performed by any investor or fund with a substantially large portfolio is nothing short of an invitation for every enterprising individual investor, other trading outfits, experienced algorithmic trader, or youngster with a Poloniex bot and copious free time to create trading strategies developed exclusively to siphon money from the TaaS fund as effectively as can possibly be devised. The risks of front running predicted positions, pumps and dumps during accumulation, or any number of other actions competing traders can use to negatively impact the TaaS methodology (whatever it turns out to be) are dangerously and shockingly amplified if every detail of every trade is made available in the way being described in the Auditable Exchange Accounts implementation. Leaving aside any other improprieties identified through our research, this oversight alone indicates to our analysis a risk so great to invested capital and the project as a whole that we could never in good conscious recommend purchasing TaaS tokens or becoming involved with the TaaS project in any capacity.

¹ https://coinmarketcap.com/charts/

KEPLER

Kepler is the TaaS team's likely answer to many of the questions raised about trading methodology and profitability with high AUM, as well as the many assumptions regarding capital flows and cryptocurrency trading theories laid out in the white paper.



KEPLER: is an in-house built intelligence system and portfolio analytics platform that provides clues about the state of cryptocurrency markets relative to Bitcoin cycle phase, allowing an investor to take action with minimum risk involved.

Market Research:

Complete catalog of news, reports, opinions, and market data, quantitative audit of likeness of each token's network to survive and flourish.

While we cannot assert that this division of the Kepler program will fail to materialize, we are sceptical of the ability of the TaaS team to perform effective quantitative (or qualitative) audits of any given token's ability to 'survive and flourish'. Operations of this nature undertaken by Bloomberg employ hundreds of highly paid research analysts with years of experience, and evaluations are still not always accurate or instructive. Beyond the monthly report on general news in the cryptocurrency space contained in the Bitup Financial Documentation, we found no evidence to support that any members of the TaaS team have the resources or skills required to catalog all news, reports, opinions, and market data for some or any altcoins, and to synthesize this information into an insightful evaluation.

"Analytics: Several kinds of index groups, technical and fundalemtal indicators, including price and performance, hashrate graphs, volatility measurements, strategy testing, et cetera."

While platforms that provide these services certainly exist, we see no indication that the TaaS team will be able to develop and deliver these systems, based on the remarkable lack of development credentials that would be required of a full team, let alone one person, to implement this service in the given time frame.

Investment Objectives: A well thought out strategy is key for any successful trader. Kepler examines the market to suggest assets that performed within investment goals, given the timeframe and the level of acceptable exposure. Whether you are an aggressive or conservative investor, Kepler helps with formulating a strategy and picking the right class of assets. On top of that, it dynamically examines assets' liquidity to provide insight into different scenarios, ranging from euphoric highs to catastrophic lows.

The functionality proposed here appears from this definition to exclusively use past performance of particular 'asset classes' (presumably groups of altcoins with similar goals and external market forces) to predict their future market performance – we are not aware of any existing platform in the cryptocurrency space or any traditional asset management platform that would allow this system to use exclusively historic data to algorithmically develop a successful trading strategy, even without accounting for the additional challenges inherent in managing a large portfolio in a market with hundreds of assets with extremely low liquidity and uncertain solvency.

Trading / Order Management: Kepler will be fully integrated with all the major cryptocurrency exchanges, making trading seamless and organized, all whilst offering arbitrage opportunities.

Portfolio Management: Monitoring portfolios is a tedious and exhausting job, but it has never been easier with Kepler. It understands your current exposure and explains portfolio risks, giving an early warning about wobbly conditions, We are teaching Kepler to recognize market sentiment and predict it's reaction for \$1 change in Bitcoin price. One of the most spectacular features we have included is a combination of several trend-following techniques to forecast a short-to-mid term trajectory of a portfolio.

We are not aware of any existing or proposed platform in the cryptocurrency space or any traditional asset management vehicle that has the ability predict market sentiment based on movements of fractions of a percent in an underlying asset. We also question the ability to develop arbitrage strategies that are available to a wide population of Kepler users – this seems to misinterpret or grossly overstate the availability of arbitrage opportunities and their profitability in the first place. Portfolio forecasting might be achievable, but our research into the qualifications and experience in portfolio management, forecasting, trading, and analysis of the TaaS team do not make us confident that event this relatively straightforward feature will be delivered without a substantial change in the development process, if one exists at all.

Our analysis find effectively no evidence to suggest that Kepler will be released with the many features promised in the TaaS white paper, including a full suite of research and reporting tools, effective 'asset class' trading strategies based on historic data feeds, market sentiment analysis, or effective implementation of arbitrage activates in Q4 2017 or at any time thereafter. No member of the TaaS team has the deep experience in economics, large scale portfolio management, market research, or algorithmic trading to develop these tools for personal use, let alone in a format that is functional for the average investor.

CONCLUSIONS

While on the surface TaaS appears to have a strong team of experienced entrepreneurs and blockchain advocates, at least the foundation of an effective trading methodology, and technological advancements that will meaningfully change the landscape of both ICO transparency and cryptocurrency based investment vehicles, our analysis reveals almost the polar opposite. Multiple members of the TaaS team have unverifiable experience and connections to mysterious businesses whose operations are either unclear or strongly resemble well known Ponzi Schemes, documented trading methodology makes no provisions for the considerable challenges inherent in managing portfolios with the sizable valuation TaaS has accumulated (over \$5 million at time of publishing) over the course of their ongoing ICO, and Cryptographic Audit technology that is being developed appears to have been used to obfuscate the true nature and goals of the TaaS platform and creates monumental risks to the profitability and solvency of the platform as a whole.

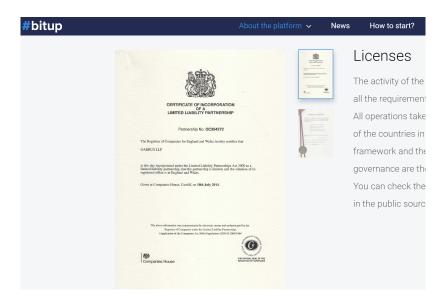
The real problem here is that the TaaS Team appears to be intentionally misleading investors into believing the TaaS tokens they are purchasing will be an effective vehicle for accumulating profit through the trading activities of active fund managers. We believe remarks regarding payment of '50% of profits generated by the fund' and '300% gains on the value of one Bitcoin invested in alternative coin markets in 2016' are deliberately constructed to give this impression, but there's a catch — TaaS offers no guarantee of capital appreciation, solvency, or any return on investment of any kind in any of their literature, presentations, or mission statements. On the rare occasion TaaS team members do describe the true goals of the platform, the application is not profitable investments used to compensate token holders, but 'full transparency' of their ICO and subsequent operations. We do not mean to discount the value of transparency in general, but we do not believe this is a reasonable product to deliver when from the beginning TaaS has been painted as a vehicle primarily for profitable investment in TaaS tokens or, at the very least, a trading fund that will maintain solvency and some semblance of a meaningful ROI in the long term.

Appendices

GEO-EARTH RESOURCES, #BITUP, AND GARRUS

Our research into the Bitup platform identified a number of connections between that service, TaaS, Geo-Earth Resources, and a mysterious company registered in the UK, Garrus LLP.

One of our first findings was the existence of an individual who appears to be the true founder of Bitup, Kir Kelevra. Kir regularly spoke at Bitcoin and blockchain related events, including the Bitup platform as his primary claim to relevance on the blockchain speaker's circuit in Ukraine in particular and at several conferences around the world. One recap of this event in particular provides some transcription (in Russian) of the presentation made by Mr. Kelevra on or about February 11th, 2017¹⁸. In this transcription, Mr. Kelevra references a Garrus LLP, which he states (roughly) "The main activities of investment Bitup platform leads through the company GARRUS LLP, registered in the United Kingdom July 18, 2014. The legality of the activities supported by public data from public registers, documents can be found on the site. Bitcoin office hedge fund Bitup located at: W1T 1DG, London Street. Percy Street, United Kingdom 5." This is consistent with information found on the 'About' page of the Bitup website¹⁹, and documentation therein also references the same Garrus LLP, with the accompanying message "The activity of the platform is transparent and meets all the requirements of the governing parties. All operations take place in accordance with the laws of the countries in which they operate. The legal framework and the principles of good corporate governance are the foundation of #bitup open activity. You can check the platform license number your own, in the public sources to ensure the legality of its work."



While our analysis was able to identify that Garrus is indeed a registered LLP in the UK²⁰, based in Seychelles, we were unable to identify any evidence that Garrus LLP has the staff, technology, or expertise to enable the Bitup platform to function as advertised. Garrus LLP is registered to Mrs. Gina Sandra Esparon, who is registered to over 150 Seychelles based companies and appears to be a local surrogate, and Mrs. Evaline Sophie Joubert²¹, who appears to have a verifiable history in tax and financial accounting in the UK. A Mr. Rus Havrylyuk is identified as an Active Person with Significant Control in the Garrus LLP corporate filings.

Our investigation of Garrus also uncovered a Garrus website²², still 'under construction' slated to have been finished in April 2014. Whois analysis of the Garrus website reveals registration to a Rus Havrylyuk²³, with an address in Lagos, Nigeria — a very sparse Linkedin page was identified for Mr. Havrylyuk, where he appears to confirm his association as a GM (General Manager) at Garrus²⁴.

Lagos, Nigeria is also the location of the business address provided on the Geo-Earth Resources website:

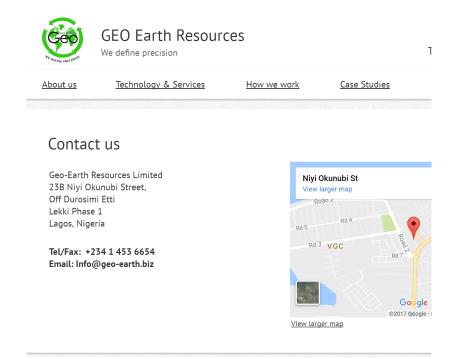
²⁰ https://beta.companieshouse.gov.uk/company/0C394372

²¹ https://www.linkedin.com/in/evaline-joubert-798309b9/

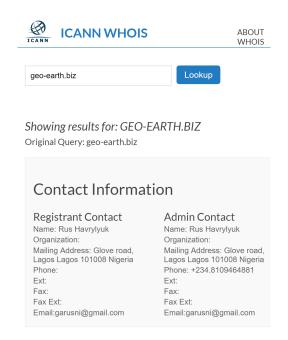
²² http://garrus.biz/

²³ https://whois.icann.org/en/lookup?name=garrus.biz

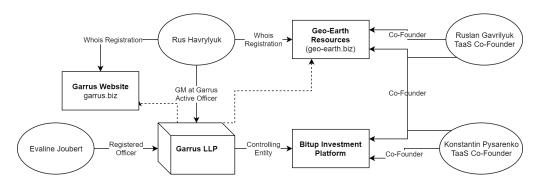
²⁴ https://www.linkedin.com/in/rus-havrylyuk-81859011b/



Following this lead, Whois analysis of reveal a surprising connection — the Geo-Earth Resources domain is also registered to Mr. Rus Havrylyuk²⁵, at the same Nigerian address. All Whois information between the Garrus domain and the Geo-Earth Resources domain are identical, save a phone number that might appear to be intentionally mistyped and obscured.



This analysis raises several questions about the connections between the Bitup, Geo-Earth Resources, Garrus, and how Mr. Pysarenko and Mr. Gavrilyuk of TaaS are associated with these organizations, whether as co-founders, some other official or unofficial capacity, or if there is any association at all. We do believe, however, that these findings indicate very unusual connections that may be indicative of deeper personal or financial relationships between these various organizations that are more effectively obscured from public view.

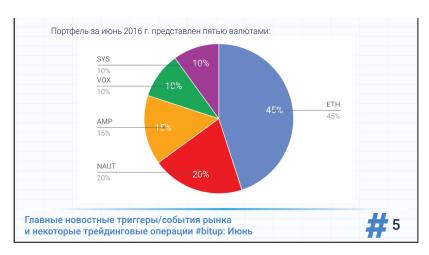


As a final thought, our researchers could not help but notice the very close similarity between the names 'Rus Havrylyuk' and 'Ruslan Gavrilyuk'. While we cannot verify any official connection between these two individuals, the observed other suspicious connections between these various organizations causes us to wonder if Mr. Havrylyuk and Mr. Gavrilyuk are in fact the same person. If this were the case, why has so much apparent effort been expended to obscure this fact? Why go to the trouble of maintaining two similar but distinct identities at all? Finally, who is Evaline Joubert and what is her true connection to any of these organizations?

#BITUP FINANCIAL ANALYSIS

This analysis is intended to uncover patterns in trading activities undertaken by the Bitup team, as well as estimates of maximum AUM or other financial metrics.

June Portfolio Allocation



AMP, like the NAUT, attracted attention by the fact that from the end of May it lowered to its Historical lows, forming a new strong support level of 0.00005957 military-technical cooperation. After testing the level on June 7, traders #bitup decided to enter the deal.

Price of entry: 0.00007554 MTC.

Goal 1: 0.00011418 MTC.

Goal 2: 0.0001468 Military Technical Cooperation.

Output 1: June 27 to 0.00011418 MTC (out of 70% of the transaction).

Output 2: without waiting for the second goal, sold the remaining 30% to 0.00011771 MTC.

Having broken the exit of the deal in two stages, received + 51% and + 55% respectively.

June 7th 2016, Page 9, 24h BTC Volume²⁶: 15.22 June 7th 2016 BTC Price: \$577.86 \$58,633.53

At 15% allocation to AMP, and attributing the entire 24 hour volume of AMP on June 7th, #bitup held just under \$60,000 AUM (Assets Under Management).

The situation with **VOX** *is a vivid example of the fact that it is not enough* to enter a position based on

Only on sympathy for the idea of the project.

The entry into this position was made after the price in the process of the first stage

Distribution felt a false bottom (0.00015479 MTC) on June 6.

On the third day of growth, traders #bitup decided to enter the position on

²⁶ All 24hr volumes recorded from Poloniex

June 8, 2016.

The price of entry: 0.0002052 MTC.

Goal 1: 0.00029 MTC. *Yield:* 0.000131 MTC.

When the price did not pass the test of the level 0.00015479 MTC, decided

to close the position, so that

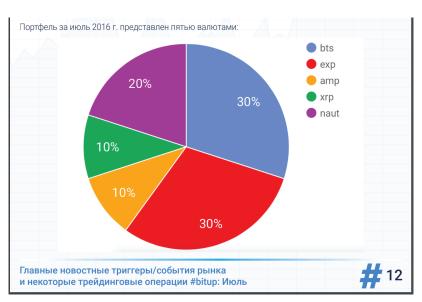
To go into great loss. The losses were 36%.

June 8th 2016, Page 10, 24h BTC Volume: 11.67

June 8th 2016 BTC Price: 583.10

\$68,047.77

July Portfolio Allocations



Traders #bitup chose BitShares for the transaction based on that from June to July 2016.

The currency consolidated at its historical lows. This position made it clear that

Below the price most likely will not go.

In the transaction we entered after the test of the level of 0.00000651 MTC on July 8.

Price of entry: 0.0000066 MTC.

Target: 0.00000868 MTC.

Exit: July 13 for the stated purpose.

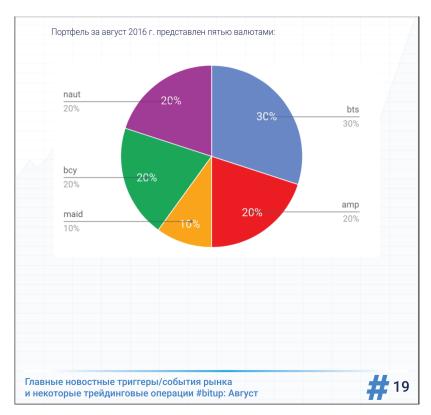
Income: + 32%.

BTS

July 8th 2016, Page 14, 24h BTC Volume: 79

July 8th BTC Value: \$664.75 \$175,050.83

August Portfolio Allocation



After consolidation in large volumes from mid-June to mid-August, traders Expected exit from the prevailing local and global range, where resistance Served the level of 0.00018315 military technical cooperation.

Entry to the transaction took place on August 16.

The price of entry: 0.00019837 MTC.

Output 1: 70% at a price of 0.00029901 MTC.

Output 2: 30% at a price of 0.00050342 MTC.

Income was 51% and 153% respectively.

Of course, it would be possible to not sell 70% so quickly, but it is better to fix profits,

Than to take risks or go to o.

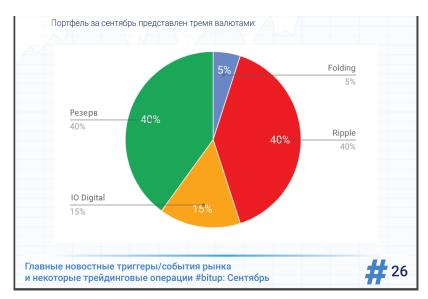
BCY

August 16th 2016, Page 21, 24h BTC Volume: 47.36

August 16th 2016 BTC Price: \$576.25

\$136,456.00

September Portfolio Allocation



A good situation was with IO Digital. After a two-month consolidation from July to

The beginning of September, demand began to prevail in the market, thereby pushing the price to penetration The generated resistance level is 0.00026120 MTC. In the deal, #bitup traders entered

The fourth of September.

The price of entry: 0.00032 MTC. Yield: 0.00055 VTS.

Yield: + 72%.

September 4th 2016, Page 21, 24h BTC Volume: 48.9

September 4th BTC Price: \$608.92

\$198,507.92

October Portfolio Allocation



As by the middle of October the bearish trend was established throughout the market of altcoins,

Breaking through a strong level of 0.01774226 PTS by DASH was a signal to enter the short trade.

The entrance took place on October 18, 2016.

Price of entry: 0.0164176 MTC.

Target: 0.01096495 MTC.

As the price until the end of the month did not reach its potential goal, traders #bitup

Decided to postpone it for the next month.

The liquidation value was +24%.

October 18th 2016, Page 32, 24h BTC Volume: 37.58

October 18th 2016 BTC Price: \$635.51

\$95,529.86

NAUT has one of the largest speculative potentials among the Cryptocurrency. Therefore,

With the beginning of a new trend, this altcoyin was closely watched by analysts.

The entrance took place on 9 October.

Price: 0,00032931 MTC.

Target: 0.00005586 MTC. The exit took place on October 31, before reaching the goal.

The yield was + 143%.

October 9th 2016, Page 35, 24h BTC Volume: 18.82

October 9th 2016, BTC Price: \$614.62

\$57,835.74

This analysis leads us to believe the Bitup platform rarely if ever had greater than \$200k AUM, and strongly indicates AUM were closer to \$60,000 or substantially less.

CRYPTOGRAPHIC AUDIT VERSUS TRADING METHODOLOGY

Our analysis indicates evidence of substantial confusion regarding what is being developed and offered through the TaaS project. Several such examples can be found in an interview with the TaaS Head of Technology and Analytics published by Coin Interview²⁷ on March 27th, 2016²⁸.

```
https://youtu.be/5cSK1d-7Irc?t=27m52s
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This portion of the interview between the Coin Interview host and Mr. Cyupryna shows one instance of references to Cryptographic Audit being used to deflect inquiries into trading methodology.

```
https://youtu.be/5cSK1d-7Irc?t=29m49s
```

Mr. Cyupryna does not believe any information handled by the TaaS platform (including the trading patterns and strategies) is 'sensitive' and might need to be obscured from full public view.

```
https://youtu.be/5cSK1d-7Irc?t=32m13s
```

Were you under the impression that the 'focus of the system' for the TaaS project was to create returns for investors in the token via active management of a cryptocurrency portfolio? The TaaS Team Head of Technology and Analytics does not seem to agree.

```
https://youtu.be/5cSK1d-7Irc?t=36m20s
```

This discussion indicates the confusion caused from the use of Cryptographic Audit to obfuscate the lack of anticipated trading success.

```
https://youtu.be/5cSK1d-7Irc?t=39m18s
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More confusion regarding TaaS investments versus Cryptographic Audit.

This Appendix offers a small sample of what we believe to be widespread confusion regarding the TaaS Project as a result of the systematic impulse of the TaaS Team members to fall back to discussions of Cryptographic Audit when questions arise regarding trading methodology or any investment activity.

²⁷ https://www.youtube.com/channel/UCOu5mkF_NczLQzICINvzr9w

²⁸ https://www.youtube.com/watch?v=5cSK1d-7Irc