![MineBee]

Whitepaper

Draft 1.4
May 16 / 2019

Table of Contents

Executive Summary

Data is the fuel that drives the cryptocurrency economy. In an industry formed around virtual currencies that are created and traded in digital form, participants are dependant upon accurate, real-time data from an array of sources. The binary and hexadecimal data that constitutes wallet addresses, private keys and blockchain headers, as well as that pertaining to network hashrate, coin velocity, UTXOs and a host of other metrics, is ripe for analysis.

The data derived from public blockchains is immensely valuable to entities that operate in multiple industry verticals. Valuable insights can be extrapolated from processed data and used to determine trading decisions, fee estimation, investment strategies, and to gauge everything from market cycles to the behavior of major ecosystem players such as cryptocurrency exchanges and so-called "whales".

As the quality and scope of crypto-analytical tools has increased, so has the role played by data as a driver of key business strategies. Not every area of the cryptoconomy has been served by the growth in analytical services, with one sector in particular starved of high-quality data-driven insights – the mining industry.

The tools available to cryptocurrency miners are largely unrefined, supplying little more than generic information regarding network hashrate, coin profitability, and hardware performance. The most valuable data of all – the sort that has the potential to eke out greater efficiencies and to ease loss-making mining operations into profit – lies deeper below the surface. Extracting this data and drawing actionable outcomes from it is a complex but lucrative task that has proven beyond the reach of mining service providers.

MineBee intends to change that. Through the use of big data, accrued with the aid of its mining rig management partners, MineBee will deliver valuable insights that will be licensed as technology support. From overclocking to temperature regulation and from coin selection to hardware optimization, MineBee will help to refine every last facet of the cryptocurrency mining business. The result will be less downtime, fewer performance-related hazards, greater hashrate, and ultimately greater profits.

MineBee

Miners who access MineBee's vast trove of data, delivered via its industry partners, will hold a significant competitive edge. Miners are reliant on multiple data points to maximize profits while ensuring their equipment remains within safe operating parameters.
Modest refinements can be the difference between profit and loss. As a result, access to accurate data in real-time is not just desirable – it is essential.

MineBee Solution will instantly be able to tap into a large community of miners through its links to key business partners. In this way, MineBee will overcome the inherent challenges of building its own community and ecosystem from scratch. Through focusing on B2B licensing, MineBee will quickly begin generating revenue without attempting community acquisition, one of the main causes of failed ICOs.

In addition to providing an advanced data analysis service, MineBee is developing a market to facilitate the buying and selling of new and second-hand mining equipment. MineBee Open Market will enable new entrants to begin mining by removing the cost barriers which currently exist and allow established miners to offset the costs of upgrading through the sale of old equipment. With new equipment from leading manufacturers also showcased, the marketplace will provide vendors with greater exposure and increased sales.

From inception, the market will be supported by MineBee Contract, a secure, fast and cost-effective smart contract that will facilitate cryptocurrency payments. The contract will offer payment in MineBee's native MB token as well as Bitcoin and Ethereum. Functionality will include the monitoring and automatic validation of wallet addresses and user accounts, transaction amounts, the number of transactions being processed, transaction throughput and transaction status. Once escrow functionality has been rolled out, MineBee Contract will form a standalone system capable of facilitating trustless transactions for a range of purposes, both within MineBee Open Market and for third parties that have integrated the MineBee Contract payment module. MineBee will be available as an open API for payment integration in a range of industries, including those that operate outside of the cryptocurrency space.

The MB token will entitle holders to a range of benefits including a discount on premium MineBee services. This includes tools for fully optimizing mining equipment and coin selection to maximize revenue, allowing miners to derive greater efficiencies and keep their machines running profitability, even when others have been forced to power down. By improving the overall efficiency and profitability of cryptocurrency mining, MineBee will increase the industry's appeal, causing greater demand for hardware as more miners enter the ecosystem. This, in turn, will improve network security and the stability of the Proof of Work (PoW) coins being mined.

The scope, accuracy and real-time relevancy of its data will position MineBee as the industry's premier provider of mining analytics. Proof of MineBee's efficacy will be evident in the enhanced performance levels witnessed by miners who connect to its service stack to transmit their operational data and receiving actionable information in return. Together with its partners, MineBee will attract and nurture a large community whose input will be instrumental in ensuring the project's success from day one. MineBee's turnkey solution will supply value to a growing global network of cryptocurrency miners and other ecosystem participants.

Market Overview

Cryptocurrency mining is the backbone of Proof of Work coins. Miners compete to add blocks to a public ledger, with the first miner to find the correct hash function within a desired range entitled to the block reward plus any fees attached to the transactions contained within it. This process of work and reward incentivizes miners to produce the cryptographic proofs that secure the network and ensure its continued stability, which in turn supplies users with the confidence to adopt and invest in these protocols. Since miners are financially motivated to validate transactions, and their remuneration is directly proportional to the hashrate they contribute to the network, they welcome any and every means by which their operation can be refined.

Miners can make significant profits depending on market conditions, hashrate, network difficulty, and other factors, but their fortunes can swing wildly. In early 2017, for example, thousands of solo miners purchased GPUs and began mining Ethereum, which was rising rapidly in value at the time. Many Ethereum miners realized significant profits before increased competition raised the network hashrate and eroded economic incentives for small-scale operators.

While 2017 saw record growth throughout the cryptocurrency industry, this was followed by an extremely testing 2018 that left miners struggling. Since late 2017, the value of bitcoin has dropped by 75% while ethereum has fallen by around 90%, making it increasingly challenging to derive a profit from cryptocurrency mining. Most altcoins have suffered even more dramatic losses during this timeframe, in some cases shedding over 90% from their peak value. With crypto assets trading at significantly reduced prices, many miners have found their business model to be no longer viable.

In November 2018, a number of major Chinese cryptocurrency miners were found to be dumping their equipment as the economic climate made it no longer cost-effective to continue. By this point, the solo miners who first supported the growth of the major blockchains had already bowed out since they could no longer afford to keep their equipment running. As Diar observed in October 2018, "mining has, at least for now, and most likely in the future, moved into the court of bigger players with deep pockets.

It is not just smaller and independent miners who have been forced to cease operations in this tougher prevailing climate, with large-scale mining businesses also stretched. GMO Internet, for example, who allocated around 10% of the firm's capital and resources to a coin mining venture in June of 2018, reported losses of $320 million in Q4 of 2018 and officially ceased all mining. In November 2018, the North American mining company Giga Watt went bankrupt, leaving creditors out of pocket to the tune of millions of dollars. Despite the recent market downturn, however, the industry continues to innovate and to attract new entrants.

Market size

The hashrate of a cryptocurrency network provides a broad indicator of the number of miners connected to it. For example, the steady rise in hashpower on the BTC network from January to October 2018 indicates that despite declining coin values, the number of miners joining the network was steadily increasing (see figure 1). This was followed by a significant drop in hashpower from November to December, indicating that miners began ceasing operations in high numbers. Despite Bitcoin's hashrate having partially recovered since late December, it remains approximately 30% below its peak of 60 EH/s set in mid-2018.

Hashrate

The estimated number of tera hashes per second (trillions of hashes per second) the Bitcoin network is performing.
source : blockchain.com
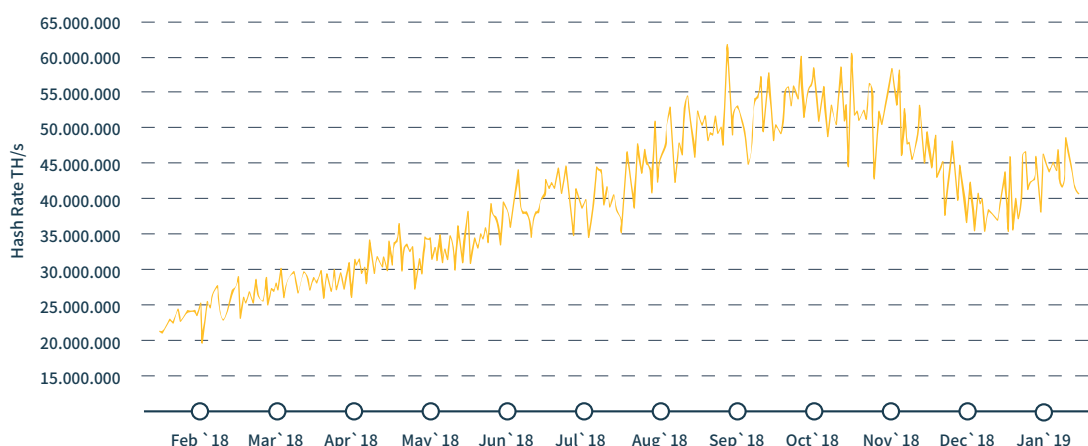
Bitcoin network hashrate growth 2018-2019

MineBee

Over the same period, Ethereum showed a similar pattern of growth, retreat, and growth, mirroring the hashrate of Bitcoin.

Ethereum Network Hashrate Growth Chart

source : Etherscan.io
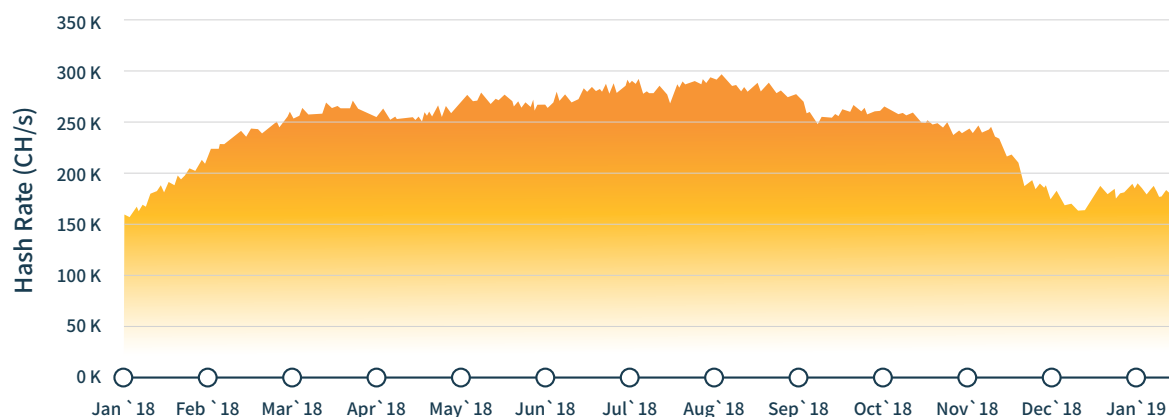
Ethereum network hashrate growth 2018-2019

Crypto mining stats - per year

114 countries

~$2 bin — GPU cards producers` profit
~$2 bin — big ASIC miners manufacturers` profit

~100,000 miners

0.13% of all the electricity consumed

$4.1 bin — miners revenue

9,965 nodes

2.1 Financial Challenges

The financial viability of cryptocurrency mining is dependant upon keeping operating costs at a minimum while maximizing output. Miners face a constant battle to drive down production costs, amid increased competition posed by new miners and new mining equipment joining the network. Electricity costs, power consumption, cooling, hashrate, and overclocking settings – as well as market prices – affect the profits that miners are able to realize through selling the cryptocurrencies they earn as block rewards and transaction fees.
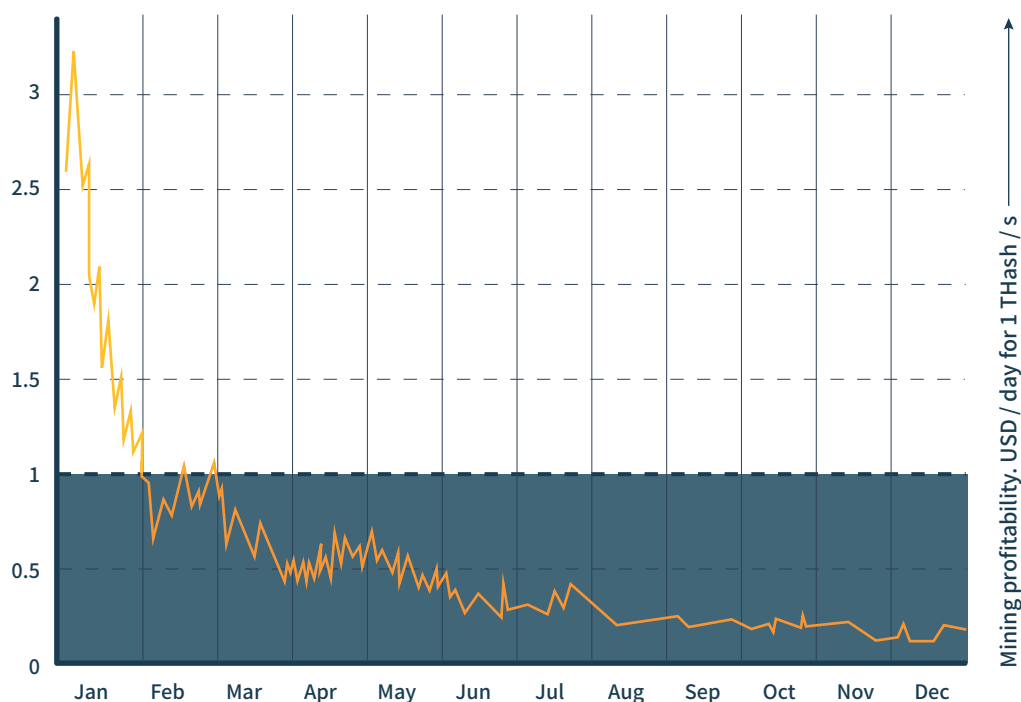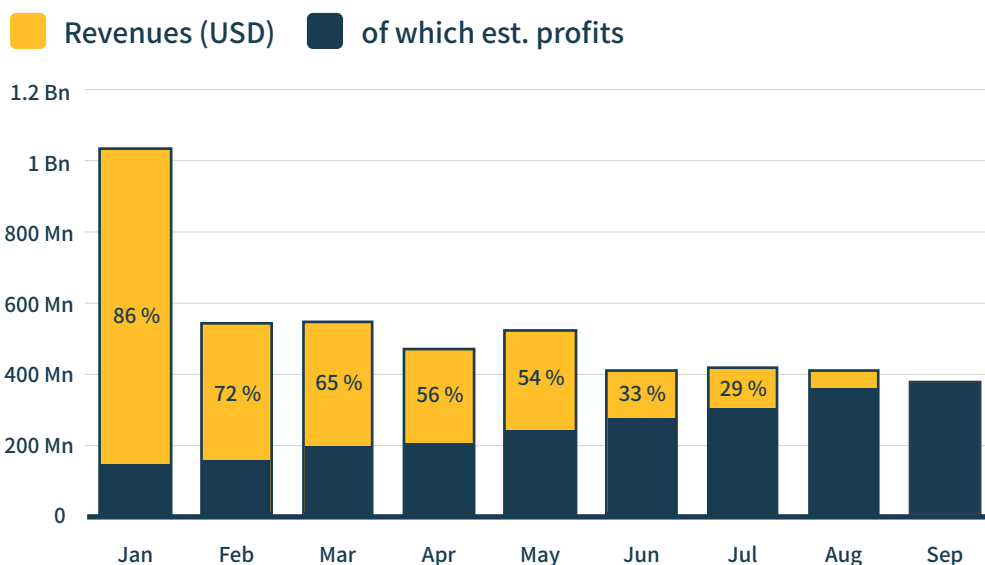

Figure 2: 2018's decline in mining profitability

In both bear and bull markets, miners are driven to seek cost savings and performance enhancements. Miners have no control over coin prices, but they can still maximize profits by setting optimal hashing and overclocking values, choosing the most profitable coins to mine, and reducing overheads by sourcing cheap electricity.

The average electricity cost of mining most PoW coins still exceeds their market value by a significant margin. As of January 14, 2019, Cryptocompare indicates an 81% daily loss on mining Bitcoin and a 44% daily loss on mining Ether.

Miners intent on profiting from their profession must constantly monitor and adjust their equipment to maximize revenue and remain competitive. Every miner has a break-even point, a threshold below which it is no longer economically viable to maintain operations. When the cost of mining coins falls below the profit to be derived from selling them, miners are faced with the prospect of having to disband and sell their equipment at a loss, or wait for more favorable market conditions to return, while still paying rent and other fixed costs.

2018 : Miners Paying <u>Retail Electricity Prices</u> Now Unprofitable...

■ Revenues (USD)   ■ of which est. profits

1.2 Bn	
1 Bn	
800 Mn	
600 Mn	
400 Mn	
200 Mn	
0	

Jan 86 % Feb 72 % Mar 65 % Apr 56 % May 54 % Jun 33 % Jul 29 % Aug Sep

Notes : Profit Estimates Using Sg Miners & $0.1/kWh. No Pool Fees or Hardware costs. **The chart illustrates profits if all miners paid retail electricity prices.**

Mining at retail electricity prices became unprofitable in 2018

Deferring or preferably avoiding reaching the break-even point will allow miners to maintain "skin in the game" and to continue production until fairer market conditions return. For miners who have dropped out altogether by that point and divested themselves of their equipment, resuming operations will not be feasible. Mining is essentially about survival, therefore, with the victors claiming the bulk of the hashrate and the spoils.

Cryptocurrency mining is an adversarial environment by design, with miners not only competing with one another to find blocks but also subjected to difficulty adjustments and reduced block rewards that have been programmed into the protocol. This forces miners into an arms race in which equipment must be regularly optimized in a bid to offset increased difficulty, or replaced by newer, more powerful hardware. From a financial perspective, boosting the output of existing equipment is preferable to upgrading it, which is why miners push their rigs to the limit.

2.2 Informational Challenges

There are numerous ways in which miners can reduce their expenditure and operating costs while increasing output, but this quest is hampered by an absence of accurate information. To make informed choices, miners require up-to-date information, both at the point of sale and in the day-to-day running of their operations.

2.2.1 Mining Data

Miners cannot simply plug in their machines and start profiting from mining PoW coins. Optimal hash and overclock values are required to mine efficiently and profitably. The only way to identify the optimal values for any coin is to pool and analyze data from many mining machines. Modern big data techniques can produce insights regarding the most efficient mining values for the benefit of all participants.

Although such insights have the potential to optimize mining operations, big data analytics methods are reliant on having access to vast data pools. Very little live mining data is made

publically accessible since few solo miners have any reason to collect and publish data on their own operations. The data of large numbers of miners is available to mining monitoring and management services, but these entities currently have no incentive to share this data.

In order to implement performance enhancements, mining and monitoring services must be incentivized to collect and share anonymized user data, and users of these services must be incentivized to share their data.

2.2.2 Marketplace Data

At present, the manufacture of mining rigs is highly centralized with a handful of businesses dominating the sector. The result is a market which is uncompetitive, with detrimental knock-on effects, particularly in terms of price. Consumers are faced with a limited number of options when deciding which equipment to purchase, and manufacturers remain free to maintain high hardware prices. This problem is further exacerbated at the point of sale where the market has no price comparison site, nor is there a place to easily purchase second-hand hardware.

For established miners who wish to sell their used equipment, there is no widely-adopted platform on which they can advertise the inventory. Most existing e-commerce marketplaces levy high fees to list items for sale, to set a safety reserve and to add special qualifications to a sale. Further, they typically charge a minimum of 10% on the total value of the sale in fees. These charges can render the sale of second-hand mining equipment financially non-viable, leading to perfectly functional mining hardware languishing in storage, or simply being scrapped altogether.

2.3 Safety Challenges

To date, no comprehensive study has been conducted on the dangers of leaving mining equipment unattended. However, a number of reported incidents of fires caused by mining hardware demonstrate the hazards posed. In 2014, a fire at a bitcoin mining facility in Thailand

caused significant damage, with 2,000 mining rigs destroyed in the blaze. In February 2018, a fire engulfed the upper floor of a Russian apartment complex, destroying eight flats in the process.

In addition to the anecdotal evidence that attests to the dangers of leaving highly powered rigs unattended, there is the threat of mining rigs shutting down due to overheating, or complete burnout. From a financial perspective, the threat this presents to miners is almost as severe, given that their income is reliant on equipment performing optimally and running 24/7.

Miners must counter the need to operate equipment within safe parameters with the need to overclock their machines and push them beyond their recommended limits in order to maximize revenue. Excess overclocking, exacerbated by the heat build-up from having dozens of GPUs or ASICs connected in parallel, can prove just as costly as underclocking. Coaxing greater output from cryptocurrency miners without jeopardizing hardware or premises is a delicate balancing act.

With lives to lead and other tasks to attend to, miners are forced to make tough choices. They can either:

1.   Leave mining equipment to operate unattended at the risk of technical breakdown or potential fire risk.

2.   Power down equipment when unattended, resulting in a loss of revenue.

3.   Physically attend to machinery around the clock at great personal cost in terms of time, or as a financial burden in the form of hired labor.

Since each of these options is sub-optimal, there is a clear case for a solution which allows miners to safely maximize their mining performance and uptime while minimizing risks.
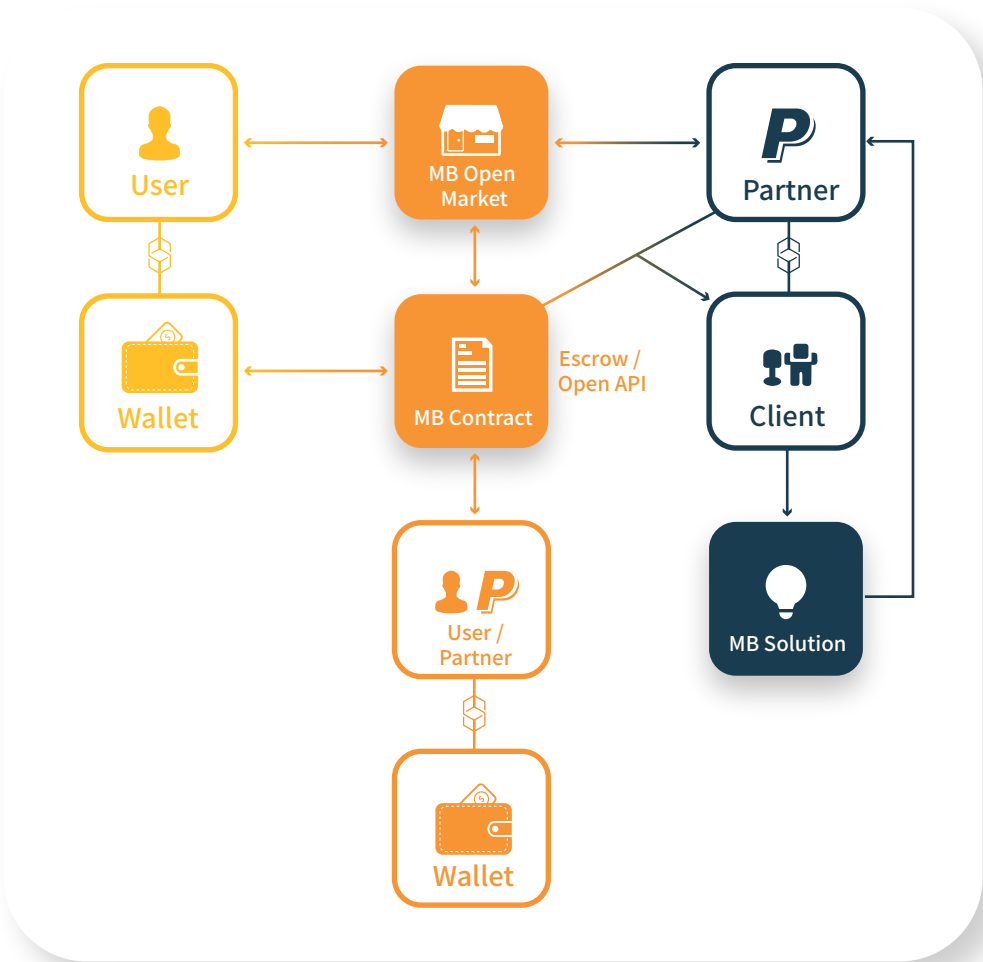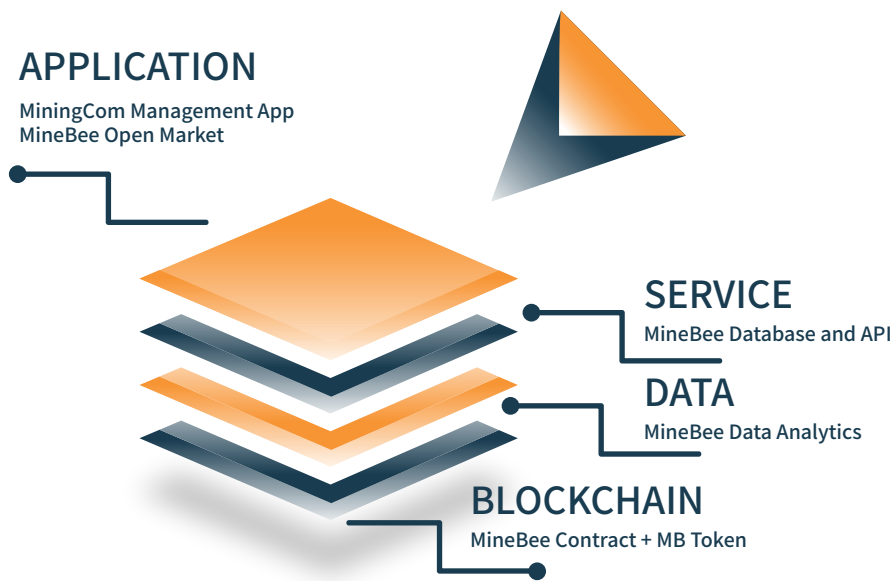
MineBee Service Stack

3.1 Overview

MineBee is developing a turnkey solution that will address the mining industry's multi-faceted problems and supply participants with real-time network analysis. The MineBee service stack will collect and analyze data through all stages of the mining cycle and leverage it to drive efficiencies across the board. The MineBee stack comprises the following components:

● **MineBee Solution:** A data management and analysis tool that processes the data of all miners connected to its mining rig management partners and uses it to develop actionable insights. These findings are then shared with the same entities for performance enhancement purposes.

● **MineBee Contract:** A smart contract-controlled payment module that facilitates a peer-to-peer purchase of equipment as well as payment for MineBee partners' premium services with escrow functionality. Payment can be made using the native MB token and ETH, with BTC to be added later. The MineBee Contract will also be made available to other industries as an Open API.

● **MineBee Open Market:** A marketplace for pricing, buying and selling second-hand mining equipment and for providing price comparisons of new equipment. Open Market will be licensed exclusively to MiningCom for its broad user base to access.

● **MineBee Token:** An ERC20 token and the primary currency within the MineBee ecosystem. The MineBee Token (MB) can be used to purchase MineBee services at a discounted rate and for trading and escrow on MineBee Open Market.

● **MiningCom App:** A mobile and desktop application, developed in conjunction with MiningCom, for remotely monitoring and controlling mining equipment.

MineBee's all-in-one solution is designed for mining companies and agencies, solo miners and mining pools. It is also suited to mining consultants, equipment manufacturers, and third-party crypto market data services.

MineBee

APPLICATION

MiningCom Management App
MineBee Open Market

SERVICE

MineBee Database and API

DATA

MineBee Data Analytics

BLOCKCHAIN

MineBee Contract + MB Token

User

MB Open Market

Partner

Wallet

MB Contract

Escrow /
Open API

Client

User /
Partner

MB Solution

Wallet

3.1.1 MineBee Solution

Big data is defined as "extremely large data sets that may be analyzed computationally to reveal patterns, trends, and associations." Through such big data analyses, MineBee Solution will yield value-generating insights. As Peter Sondergaard, Senior Vice President of Gartner puts it, "Information is the oil of the 21st century, and analytics is the combustion engine." In its raw extracted state, mining data is of limited value, but once it has been subjected to MineBee's deep pattern analysis, it gains a range of monetizable applications which can then be licensed to business partners.

MineBee obtains data streams from its mining monitoring and management partners, who in turn collect it from the miners who connect to their system. MineBee Solution integrates with mining management systems through an API to collect data on mining operations of all sizes. MineBee's "combustion engine" processes this data to extract revenue-generating insights regarding overclocking, cooling, and optimal hashing and coin selection. Mining companies that license MineBee Solution will be granted access to this trove of processed data in real-time.

MineBee Solution will draw its data points from a wide range of inputs including:

- Hashrate per GPU
- Total GPU hashrate per rig
- GPU temperatures
- Full miner log archives
- Error log archives
- Reboot rate

MineBee Solution will also provide detailed hashing information for all popular PoW coins including information pertaining to:

- Average and maximum hashrate for each coin
- Maximum theoretical overclock according to VGA series, OS, and coin type
- Overclock information regarding memory (Mhz), fan speed, voltage, memory voltage etc

Finally, MineBee Solution will contribute to the development of mining pool ID monitoring. This provision enables mining management companies to determine whether miners are changing to different pool IDs. Observation of this trend can give miners an indication of where profits are being made and facilitate automated switching to maximize revenue.

| 1A | 1B | 1C | 1D | 1E |
| Mining Capacity | Overclock Value | GPU Temperature | Error Occurrence | Revenue per coin |

DATA

Clients

MB Solution

PROCESSED DATA

| 2E | 2D | 2C | 2B | 2A |
| Maximum Rate of Return | Display each hash amount | Stable mining | Select coin to mine | Analysis of overall market flow |
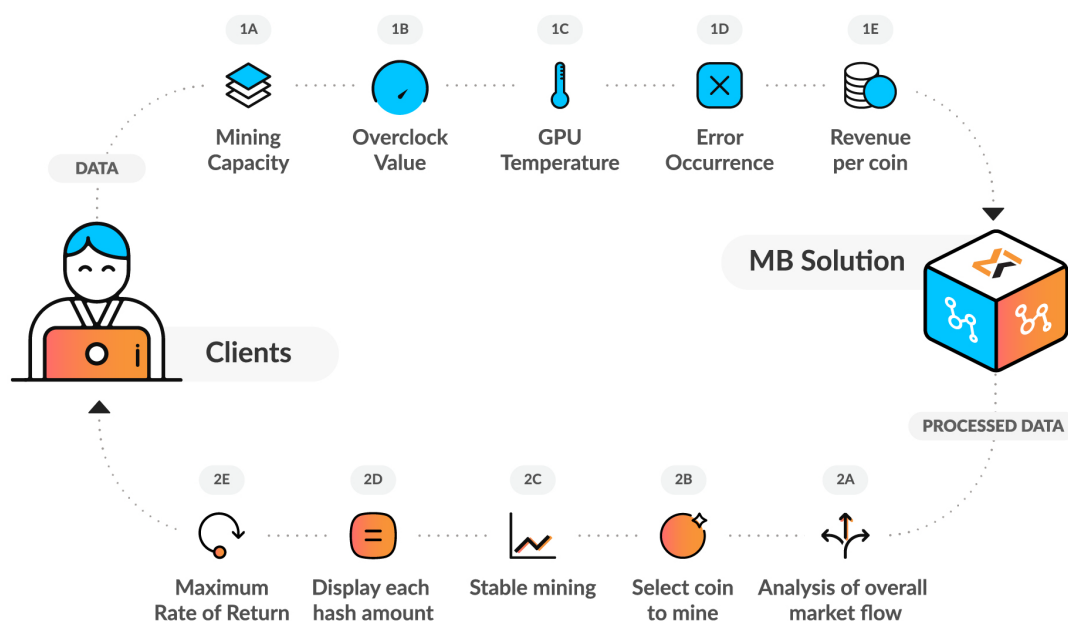
As overclocking and operational settings are improved, so is the likelihood if the miner successfully solving a block hash and claiming the reward. The same information can also reduce the risks associated with mining by identifying the maximal safe overclocking values for different types of rigs.

Overclocking a mining rig beyond the levels recommended by the manufacturer could result in systems outage, overheating, power overload damage, or may simply degrade the hardware prematurely. MineBee Solution can identify these risks and suggest optimal overclocking settings that are precisely configured for the system in question.

MineBee Solution creates value for a range of industry participants by increasing the efficiency, safety, and profitability of mining operations. It achieves this by:

- Providing real-time data processing tools that produce key insights on hashing data of both coins and hardware, overclocking data, the profitability of mining certain coins, and so on. Such insights may significantly improve the overall efficiency and value of the mining industry.

- Providing sophisticated performance analysis tools to partners who, in turn, provide users with reliable remote monitoring and management services which negate the need for constant physical monitoring. This will drastically reduce labor costs.

- Rendering mining profitable by bringing new miners into the space and allowing established miners to upgrade and expand their operations.

MineBee Solution provides incentives for new miners to get started and allows all miners to improve the efficiency of their operations. It facilitates the entrance of new miners into the industry by offering information, via third-party mining management services, that gives prospective miners confidence their operations will be maximally efficient and profitable from the outset.

Network effects

The more miners who connect to the MineBee ecosystem, the greater the dataset that can be utilized, and the more valuable these performance-enhancing insights become. This creates a positive feedback loop. The network effects of miners joining the MineBee network via MineBee partners and submitting their mining performance data for analysis will drive even greater efficiencies.

When used in conjunction with the MiningCom app, MineBee Solution provides mining companies with unparalleled client management capabilities through its innovative sub ID management solution. This enables users to update multiple mining rigs simultaneously and to adjust hashrate, coin selection, and hashing algorithm.

MineBee Solution supports most major operating systems, including Windows and Linux and all current and future GPU and ASIC rigs will be compatible.

Proof of Stake

In the future, MineBee will look to expand its data analysis solution to the Proof of Stake market. MineBee Solution POS will build upon the considerable experience MineBee has garnered from generating insights for PoW operations, and apply that knowledge to new data models.

MineBee Solution POS will deliver information pertaining to:

- Minimum coin staking requirements for masternode establishment

- Correct technical configuration for setting up a masternode

- Information pertaining to hosting a server

- Setting wallet addresses for individual computers

- Return on investment per coin

Establishing a masternode can be a complex task which acts as a deterrent to entry-level participants. With MineBee Solution POS, comparing fees and dividend distributions before proceeding with masternode setup will become possible for a new wave of proof of stake participants.

3.1.2 MineBee Contract
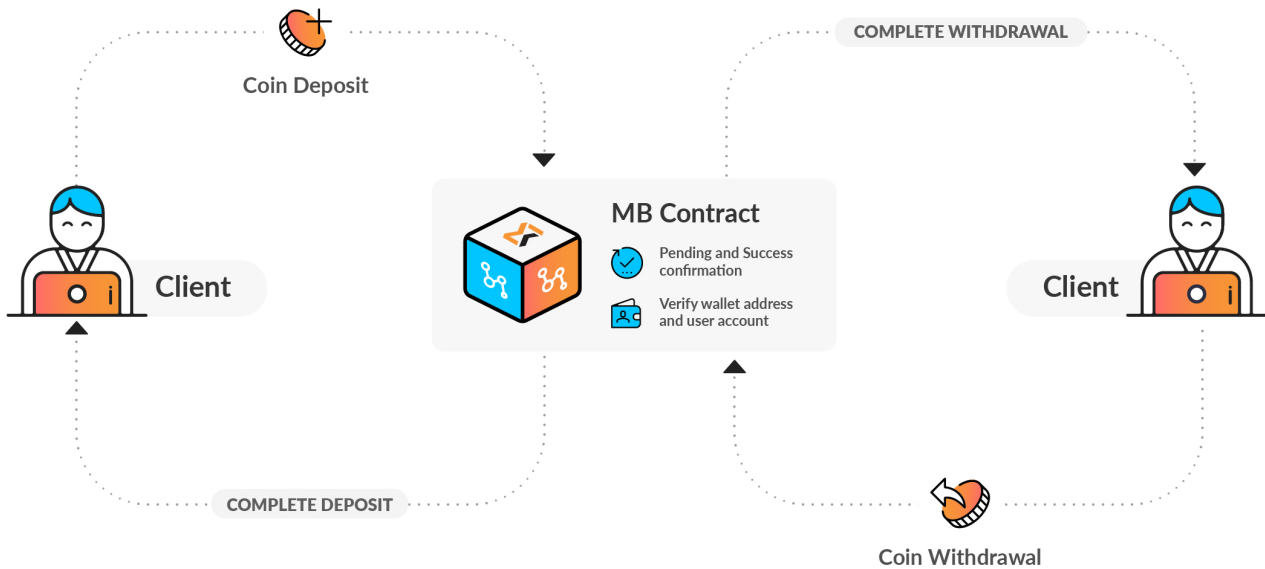
MineBee Contract is a secure, fast, and cost-effective smart contract-enabled payment module. The default payment method with MineBee Contract will be the MB token, which will offer users a discount on premium services, but the contract will also be capable of connecting to the Ethereum and Bitcoin blockchains for processing payments in ETH and BTC. MineBee Contract monitors and automatically validates wallet addresses and user accounts, transaction amounts, the number of transactions being processed, transaction throughput, transaction status, and other metrics while providing the transacting parties with real-time status reports and updates.

During the initial stage of deployment, users will be able to perform transactions using MineBee's native MB token as well as ETH and later BTC. The second generation version of MineBee Contract will feature an escrow function to facilitate entirely trustless transactions on MineBee Open Market and elsewhere. MineBee Contract will also be available as an open API, making it suited for deployment as a versatile payment module. This will allow MineBee

Contract to operate in a similar fashion to online payment gateway services such as PayPal or Stripe. Businesses that wish to process cryptocurrency payments, including mining services, P2P platforms, and decentralized marketplaces can easily integrate MineBee Contract and utilize its smart contract to query and interact with the Ethereum and Bitcoin blockchains.
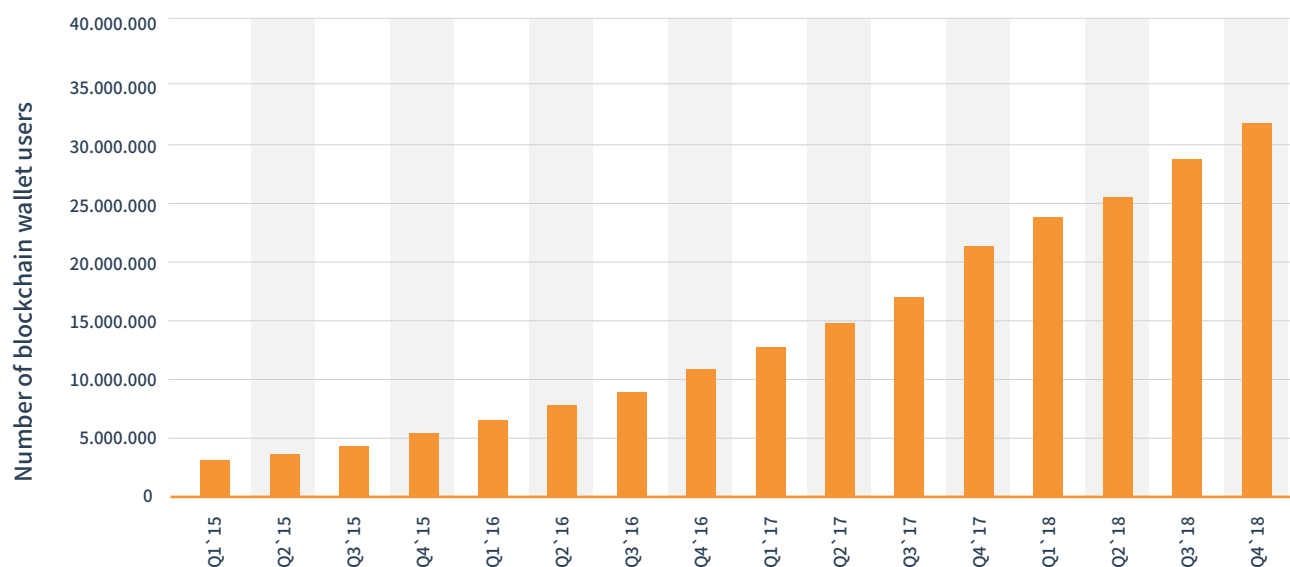
Growth in blockchain wallet users

The growth of blockchain wallet users illustrates the huge potential of a versatile payment module such as MineBee Contract. There is compelling evidence to suggest there is strong interest in cryptocurrency deployment at point of sale, provided the technical challenges can be overcome. A survey of 100 retailers with annual revenue of over $100,000 found that 60% would be amenable to accepting cryptocurrency, while another survey found that 75% of consumers would be open to using cryptocurrency in point of sale transactions.

Retailers outside of the blockchain sector who wish to tap into the growing number of cryptocurrency users will be drawn to MineBee Contract as a way of enabling crypto payments for their business. MineBee Contract will position itself as a payment solution with low fees, strong security, and transparency. The superior developer support documentation, UX, and

ease of installation compared to alternative payment modules will make MineBee Contract a firm favorite with merchants and platform providers that choose to integrate it.
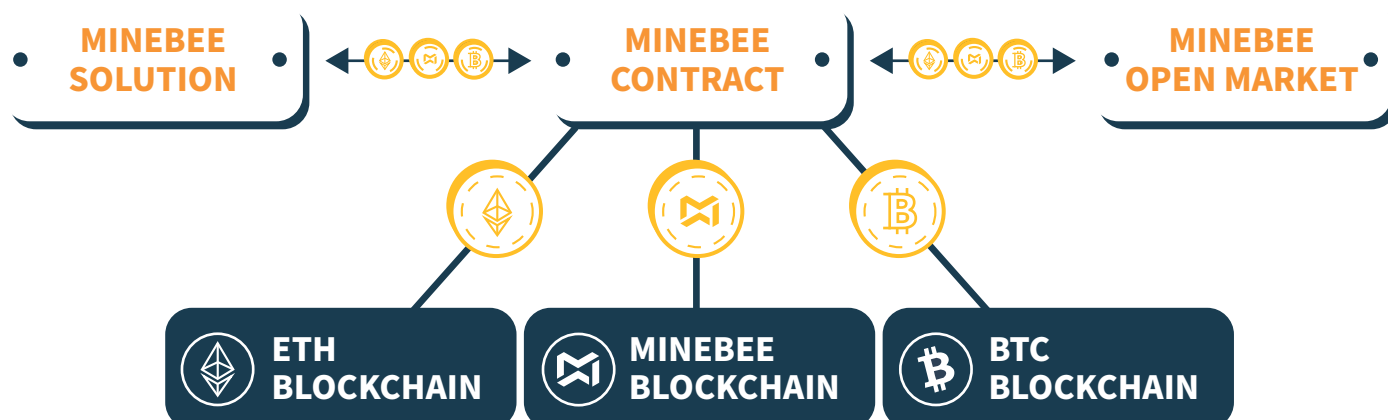
3.1.3 MineBee Open Market

MineBee Open Market is designed to fulfill the needs of cryptocurrency miners everywhere. As a globally accessible open market, it allows users to trade a range of hardware for the purpose of establishing, growing or diversifying their mining operations. Over time, MineBee Open Market will become a nexus for anyone who wishes to buy or sell a variety of mining-related hardware.

MineBee's licensed equipment marketplace will provide cost-effective solutions in the sale, purchase, and pricing of hardware. MineBee Open Market allows new players to enter the mining ecosystem, established miners to upgrade their existing operations, and hardware manufacturers to gain exposure for their products.

The open market will immediately facilitate more informed purchasing decisions, which can be completed in a shorter time. Prospective buyers can browse a range of new and used hardware from multiple vendors, swiftly comparing specifications, offers, and prices. Using a

range of criteria to filter their searches by manufacturer, model, price, hashrate, and seller location, buyers will quickly identify the correct equipment and best deal for them.

Additional features on MineBee Open Market will include a search function for global electricity costs, with filters enabling users to search by country, region, or state.

For those making their first foray into cryptocurrency mining, complete GPU starter kits will be among the packages available. These will include all of the hardware required to establish a GPU mining rig such as graphics cards, motherboard and power supply. Whether buying new equipment or used, comparisons between similar devices will become simpler, helping to drive healthy competition in the sector.

Once established, the secondhand market will also deliver net benefits for cryptocurrency mining as a whole, lowering the barriers to entry for new miners. Since high-end equipment is regularly priced in the thousands of dollars, a cheaper alternative can help to onboard participants who can progressively trade up as they begin to make a profit. Established miners also benefit, offsetting some of the cost of their own purchases by selling their used hardware. This mutually beneficial ecosystem will make upgrading a more cost-effective process and create "liquidity" for used mining rigs.

As miners trade up and look to improve the profitability of their mining activities, it is expected this will fuel an increased demand for advanced, high-performance hardware. Detailed data analysis from MineBee Solution will encourage established miners to upgrade when the evidence shows a compelling economic benefit to doing so.

Manufacturers who advertise on MineBee Open Market will enjoy significant exposure to potential buyers. The marketplace will see high traffic due to its ease of use, convenience, and competitive prices.

The open market will also allow manufacturers to closely liaise with their customers and solicit feedback on how their products could be improved, for the benefit of all parties. For manufacturers, vendors and users alike, MineBee Open Market will facilitate frictionless trading with low fees and transactions quickly settled with MineBee contract.

MineBee Open Market will be licensed exclusively to MiningCom, who will operate the service for the benefit of its substantial user base of miners and other industry participants.

Making a purchase on MineBee Open Market

Exploring MineBee Open Market:

●   Browse and search with key-terms, by location and price point.

●   If necessary, further refine searches with search filters.

●   Identify a suitable product and click on the "purchase" link.

Making a purchase:

●   Follow the prompt and deposit the appropriate amount into the MineBee Contract. The MineBee Contract then performs a transaction check to verify the details of the wallet addresses and user accounts are correct. The user then receives a notification of success or failure.

●   Where the transaction fails, advice will be given to resolve the matter.

●   Where the transaction succeeds, the seller will be prompted to dispatch the purchased item.

Receipt and review:

●   After the item is delivered, confirm the receipt so the seller can retrieve the coins held in the smart contract.

●   If desired, leave a review of the condition of the product and the interaction with the seller.

Product Registration 1

Coin Deposit 3   **Product Purchase Requisition** 2

Seller

MB Contract
- Pending and Success confirmation
- Verify wallet address and user account
- Coin securement in hot wallet

Buyer

Complete payment to seller in coins 6

Dispatch Product 4

Confirmation of arrival 5
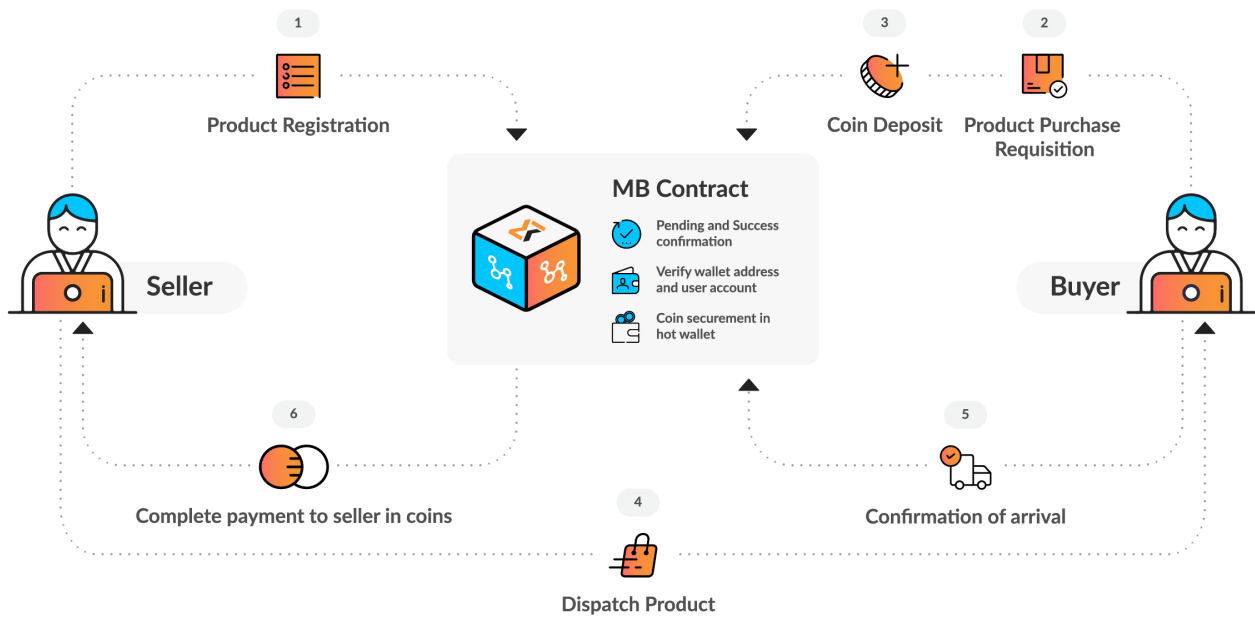
Making a sale on MineBee Open Market

Listing a product for sale:

- Register the product for sale in MineBee Open Market.

- Write a detailed and accurate description of the condition, specifications, and age of the product.

Making the sale:

- Receive a purchase request and accept the buyer's offer.

- Once accepted, wait for confirmation of a deposit of funds into MineBee Contract.

Despatching the product:

- Ensure the item is properly packaged and protected.

- Dispatch the item to the buyer's address.

- Await receipt of goods from the buyer.

- Receive payment from MineBee contract into a specified wallet.

3.1.4 MiningCom App

MineBee is working in partnership with MiningCom on the production and development of a multifunctional and intuitive management app. This will allow users to remotely monitor and control their mining operations remotely 24/7. The desktop version of the application, which will be available for Windows, Linux, and macOS, will provide a single point of access to the MiningCom platform as powered by MineBee solution.

App users will have access to pertinent mining-related data, as well as being able to monitor the performance of their hardware in real time. The app's remote management and configuration system will allow users to control hardware temperatures, initiate machine reboots, trigger file backups, and updates, and carry out a range of other operations that will keep equipment optimized and operating within safe parameters.

The MiningCom app will also employ real-time messaging alerts to warn users of any critical issues the moment they arise. This will allow swift action to be taken to remedy the matter. Warnings can be triggered by such events such as hash rate decreasing, GPU temperature rising or mining rig stoppages. With the aid of insights provided by MineBee Solution, miners can customize settings with confidence, prioritize events that require their immediate attention and calibrate software accordingly.

In the case that a mining device stops, the user can quickly and easily reboot the rig. Alternatively, with the aid of an in-app diagnostic, it will be possible to troubleshoot the cause of failure before determining the best course of action. The user can then decide whether to reset the miner or to leave equipment powered down, pending inspection.

The MiningCom app will feature a range of free and premium services. Free services include:

●   Hashing information for a range of cryptocurrencies.

●   Market information including crypto asset prices and trading volume.

●   Marketplace information including equipment prices and spec such as hashrate, power, energy consumption, regional availability.

- Mining information on hashing algorithms, network hashrates and difficulty levels for all major PoW coins.

Premium users will have access to:

- Techniques and advanced setting for increased rates of return.
- Optimum overclocking values power by MineBee Solution.
- Enhanced data analytics for PoW coins, networks and equipment.

The MiningCom app will allow users to optimize their mining operations, avert problems before they occur and reduce costly downtime.

Business Model

MineBee has established a number of mutually beneficial relationships with high-profile partners in the mining rig monitoring and management industry. These partners will provide MineBee with raw data collected from their extensive user base. MineBee will analyze this data to improve the efficiency and safety of mining operations and license this information in order to generate revenues for the company. Insights provided by MineBee Solution will offer the users of MineBee partners a significant competitive advantage.

A high percentage of blockchain-based projects fail due to low user uptake. According to research by ICOrating.com, in Q3 of 2018 "64% of all ICOs failed to complete their crowdfunding." This can occur for a number of reasons. The project may have an insufficient addressable market, poor customer acquisition costs, or a subpar marketing strategy. With such a high rate of failure, it is understandable that many teams expend huge amounts of energy and resources building a platform and marketing in the hope of attracting users and establishing a community to support their projects.

As a consequence, teams often become focused on user acquisition at the expense of fundamental logistical implementation. Even those projects that successfully meet their hardcap often fail further down the line. A 2018 Boston College study estimated that 55.8% of all cryptocurrency related startups fail within 120 days of completion of their ICO.

To circumvent these issues, MineBee will license its software suite to established partners in the mining industry. In doing so, MineBee will gain immediate access to a wide user base and will enjoy strong support from launch. MineBee will onboard a substantial number of users thanks to its partnership with MiningCom, a leading provider of rig management software. The agreement will give MineBee access to an established community of users in exchange for licensing its technology.

MineBee will also enjoy two other sources of revenue in the form of MineBee Contract and MineBee Open Market. As a specialist market for new and used mining equipment, MineBee Open Market will become an essential destination for anyone who wishes to trade in mining equipment.
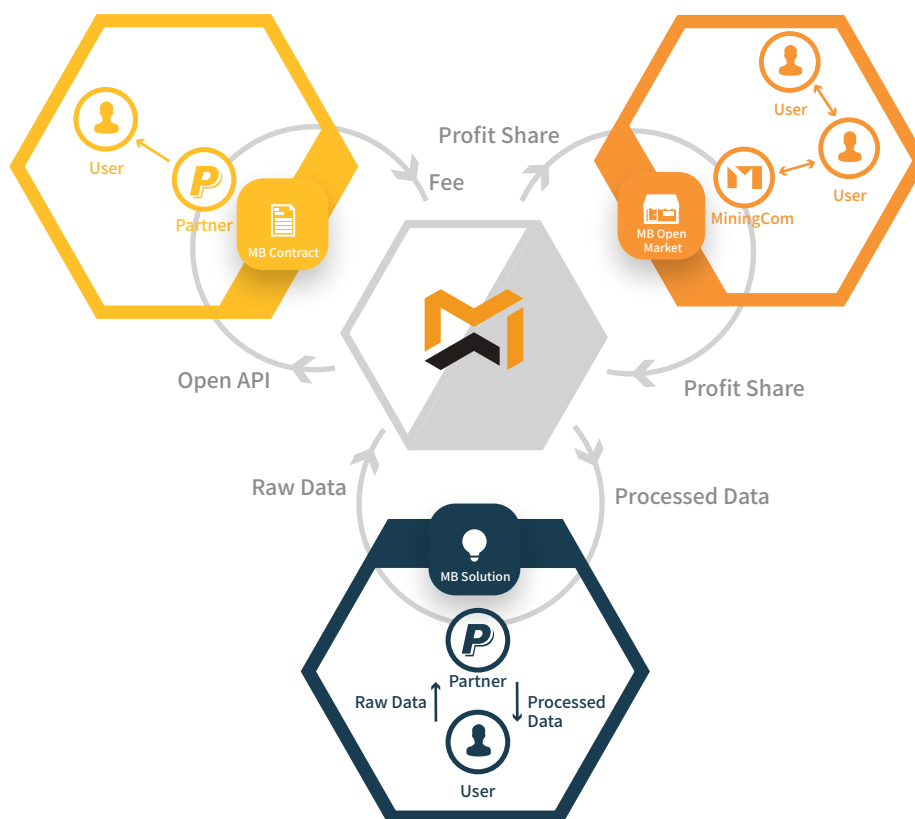
4.1 Expansion Strategy

MineBee's research team has constructed a strategic marketing program that is backed by market-specific analyses that will progressively expand MineBee's operations on a region-by-region basis. The MineBee team will actively work to develop the project through dual marketing strategies that will run in parallel.

Commercial marketing campaign

In the first quarter of 2019, MineBee will initiate its commercial marketing campaign in Asia. Its purpose will be to raise general awareness of the MineBee platform and its capabilities, to

improve overall utility, to increase data collection capacities, and to extend the MineBee network. MineBee will extend its commercial marketing campaign globally in the fourth quarter of 2019.

Partnership expansion campaign

In the second and third quarters of 2019, MineBee will initiate a partnership expansion campaign in Asia. The primary focus of this initiative will be to raise corporate awareness of MineBee in the Asian mining industry, to attract new business partners, to forge further mutually beneficial relationships with mining monitoring and management companies, and to establish MineBee as the market leader for cryptocurrency mining analytics. The MineBee team will initiate a global partnership expansion campaign upon the fulfillment of its Asian strategic goals. This will likely occur sometime in the third quarter of 2019.

4.2 Competitor Analysis

MineBee's in-depth analysis of mining metrics will furnish cryptocurrency miners with an array of performance-enhancing recommendations. Through intelligent analysis of big data, MineBee will supply evidence-based optimizations that facilitate improvements above and beyond anything supplied by existing mining management services. As a multi-faceted project that straddles multiple sectors of the mining industry, MineBee's competitors are equally diverse, ranging from traditional marketplaces to mining management software developers.

Awesome Miner

Awesome Miner is a well-established provider of rig management software that shares some functions with the MiningCom app. In particular, Awesome Miner is used to monitor the progress, temperature and current status of mining rigs, and can also be used to control them. Awesome Miner uses real-time data to determine which coin or mining pool may offer the best profitability, but this information is supplied by third-party sources rather than being derived directly.

eBay

Cryptocurrency miners are frequently bought and sold on eBay. However, as a non-specialist market, is challenging to filter searches appropriately when dealing with highly technical products such as mining rigs on eBay. Meanwhile, sellers are confronted by a basic selling fee of at least 10% from the list value. This figure can rise with additional charges for reserve pricing, and other auction types. eBay does not accept cryptocurrency, obliging miners to liquidate their coins and convert into fiat before they can make a purchase.

GetMinera

GetMinera is a web-based front-end for mining operations, functioning as a mining controller and data analysis tool. With system monitoring, notifications and controls, GetMinera has certain similarities to the MiningCom app. GetMinera also offers guided system settings for its users, assisting them in optimizing their operations. GetMinera is limited in scope, however, existing as a bitcoin-only mining solution on Linux OS.

easyMINE

easyMine is a self-contained software platform that offers detailed real-time performance monitoring and multiple mining engines. From one dashboard, multiple rigs can be analyzed and monitored, including GPUs and ASICs. EasyMine is the only competitor to have its own native token, but does not provide MineBee Solution-style data analysis.

CryptoGlance

CryptoGlance is an open-source coin mining operations monitoring and management webapp. CryptoGlance provides users with detailed monitoring statistics and allows them to remotely manage core functions, switch mining pools, reset components, track pool information, and check wallet balances. Although CryptoGlance does feature remote monitoring functionality, it lacks advanced big data driven analytics and, as such, lacks the value and efficiency-generating insights provided by MineBee Solution.

While there are various platforms whose services overlap with MineBee, no other company provides an all-in-one solution that enables miners to operate entirely within the cryptocurrency ecosystem. The feature-rich and user-friendly components that make up the MineBee service stack are suitable for beginners as well as more experienced miners and do not require advanced knowledge to master.

Monitoring	MineBee w/ MiningCom	Awesome Miner	GetMinera	Easy MINE	CryptoGlance
GPU hashrate	⊗	⊗	⊗	⊗	⊗
GPU temperature	⊗	⊗	⊗	⊗	⊗
Total hashrate	⊗	⊗	⊗	⊗	⊗
Machine reboots	⊗	⊗	⊗	⊗	⊗
Mining pool ID monitoring	⊗	⊗	⊗	⊗	⊗

Notifications	MineBee w/ MiningCom	Awesome Miner	GetMinera	Easy MINE	CryptoGlance
Hashrate decrease	⊗	⊗	⊗	⊗	⊗
Miner stoppage	⊗	⊗	⊗	⊗	⊗
Miner errors	⊗	⊗	⊗	⊗	⊗
Miner reboot times	⊗				
GPU temperature rise	⊗	⊗	⊗	⊗	⊗

Operations	MineBee w/ MiningCom	Awesome Miner	GetMinera	Easy MINE	CryptoGlance
Miner reboot	⊗	⊗	⊗	⊗	⊗
Change overclock value	⊗	⊗	⊗	⊗	⊗
Control multiple rigs at once	⊗	⊗	⊗	⊗	⊗

Advanced Big Data Optimization	MineBee w/ MiningCom	Awesome Miner	GetMinera	Easy MINE	CryptoGlance
Sharing data and data analysis	⊗		⊗		
Overclock value based on big data	⊗				
Stolen hash rate prevention	⊗				
Peer-to-peer hardware marketplace	⊗				
Smart contract payments	⊗				
In-built payment wallet	⊗				

Payment module comparison

	Traditional payment gateway	Standard crypto payment gateway	MB Contract
Crypto-crypto payments	⊗	✓	✓
Payment settlement time	Slow in certain cases	Fast	Fast
Dual blockchain compatibility	N/A	Not generally	✓
API for merchant integration	✓	✓	✓
Open source	⊗	✓	✓
Decentralized	⊗	✓	✓
User-friendly developer documentation	⊗	⊗	✓
Ease of merchant integration	Complex	Complex	Easy
Fee structure	High	Low	Low

4.3 Revenue

MineBee will tap into a number of revenue streams that will support the profitability of the business.

● MineBee will license MineBee Solution to its partners who will pass this information on to miners. MineBee and its partners will share the revenue collected from the miners.

● MineBee Contract will be supplied as an open API, allowing it to be used for any industry. Users of the MineBee Contract payment module will be charged a fee for the use of this service.

● MineBee Open Market will be exclusively licensed to MineBee's business partner MiningCom using MineBee Contract as a payment module. MineBee will receive revenue from users of MineBee Contract, in the form of transaction fees, while profit generated by MineBee Open Market will be split between MineBee and MiningCom.

MB Contract

MB Open Market

Service Fee

Shared Profit

Premium Service Fee
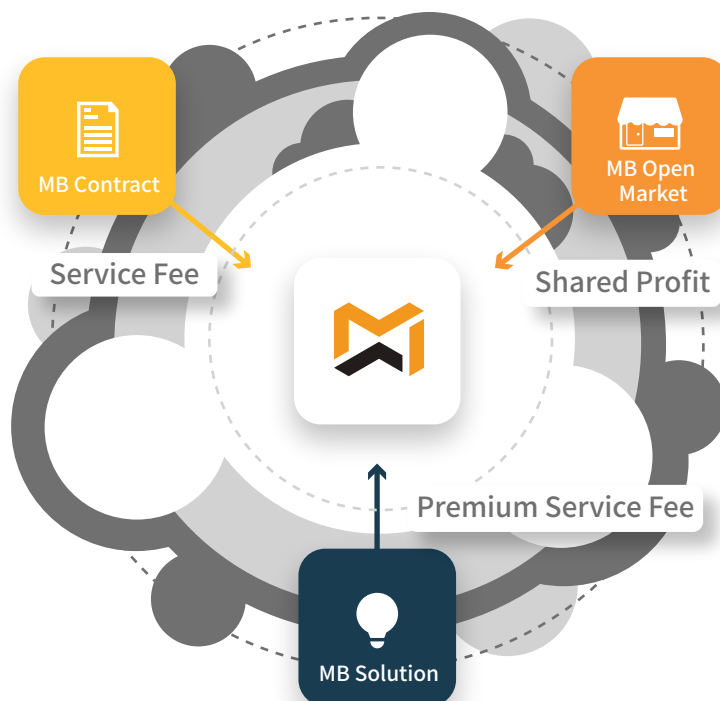
MB Solution

Token Model

The MB token is a dual discount and medium of exchange token used for purchasing services from MineBee Solution. It also enables payments for P2P and B2C trades on MineBee Open Market. A total of 5 billion ERC20 tokens will be minted in MineBee's token generation event (TGE).

When used as a payment token for MineBee Partners' services, the MB token offers users a discount on additional fees. With the option to purchase MineBee partners' premium services at reduced rates, users will have a strong incentive to acquire and use the MB token.

The strong network effects that will be exerted as the MineBee ecosystem grows will increase demand for the MB token. This will be heightened by the increased mining efficiencies demonstrated by MineBee Solution. The proven savings that MineBee's insights can yield will incentivize miners to purchase premium MineBee Solution services through MineBee's partners.

While miners are at liberty to make purchases within the MineBee ecosystem using alternative cryptocurrencies in the form of BTC and ETH, the significant discount bestowed by the MB token will ensure it is the dominant cryptocurrency, particularly for MineBee Solution.

The mechanics of supply and demand mean that interest in the MB token can be expected to rise, aided by the fact that there will be no additional tokens minted in future. MB's fixed supply, coupled with a steady influx of new users, will serve to accelerate interest in the token as the sole mechanism for acquiring discounted access to MineBee Solution. This will also help to reduce the token velocity problem which occurs in systems where participants have no incentive to hold the token.

Since the MB token will provide discounted access to MineBee services, via its partners, in perpetuity, holders will have strong economic incentives to retain and use the token for its intended purpose. Given these factors, sustained transaction volume can be anticipated, while the discount granted by MB will further mitigate velocity by giving the token intrinsic value in the form of cash flows.

Once acquired by the community, tokens may be traded, exchanged, locked up or burned over time. As MB enters general circulation, the token will become available via exchanges, or as payment for products and services.

5.1 Sale Structure

MineBee held a private sale in the last quarter of 2018. A total of 1.62 billion tokens were sold to accredited investors, venture capital firms, and MineBee's partners.

5.2 Token Distribution

Total token supply: 5,000,000,000
Token private sale: 1,620,000,000

Private sale terms:

- 30% (486,000,000) no lock-up
- 30% (486,000,000), 3-month lock-up
- 40% (648,000,000), 6-month lock-up

Remaining token allocation

Burn reserve: 1,500,000,000 (Indefinite lock-up - in the event that anticipated demand is not met within one year of the ICO, two thirds of these tokens [1,000,000,000] will be burned)
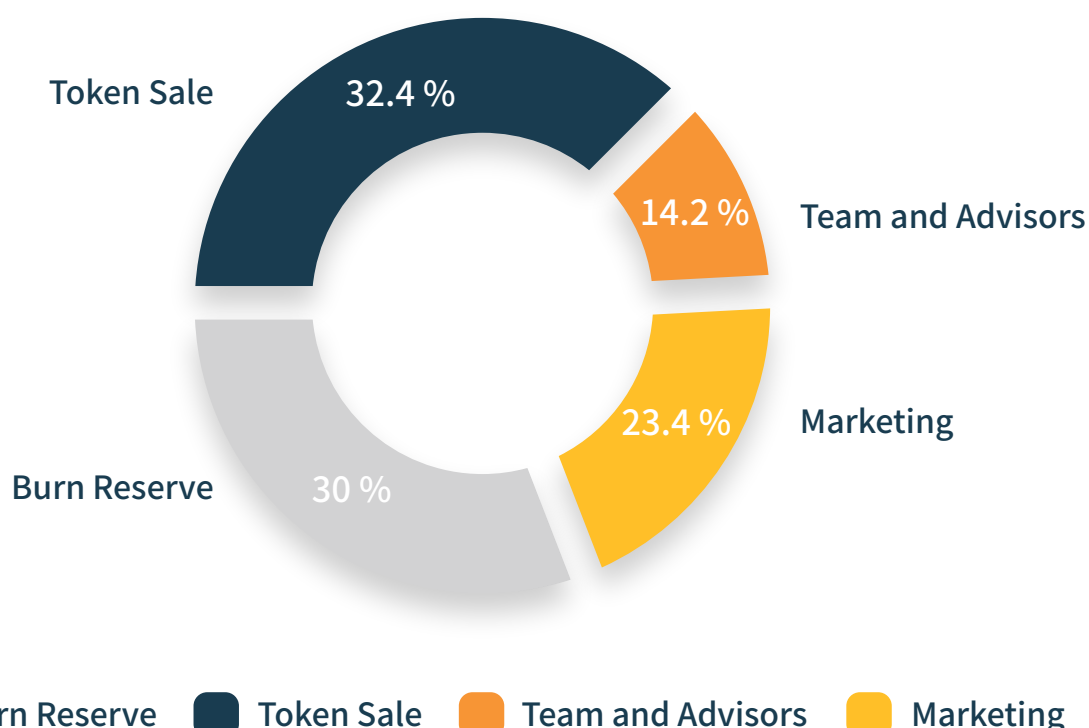
Company: 500,000,000 (1-year lock-up)

Team: 130,000,000 (1-year lock-up)

Advisors: 80,000,000 (6-month lock-up)

Marketing: 1,170,000,000 (tokens will be disbursed on an ad hoc basis, with a slow release curve that will not affect market prices)

Token Distribution

- Burn Reserve
- Token Sale
- Team and Advisors
- Marketing

- Token private sale price confidential.
- Soft cap $1.5 million, Hard cap $15 million.
- Payments for MB tokens will be accepted in both BTC and ETH.

5.3 Use of Funds

The MineBee team has solid plans in place to execute its vision in any financial scenario. Funds will be well allocated to achieving the project's goals regardless of the token sale outcome, with a focus on enhancing the MineBee network. Funds will be utilized to continuously develop MineBee technology and to provide better connectivity and user experience. The capital raised will also allow MineBee to expand and commercialize its operations globally.

Use of Fund

MineBee Service Marketing — 35 %

MineBee Technology Development — 20 %

Contingency (reserve) — 10 %

Legal: 5%

Business Development (partners & infrastructure) — 30 %

Legend:
- Business Development (partners & infrastructure)
- MineBee Service Marketing
- MineBee Technology Development
- Contingency (reserve)
- Legal
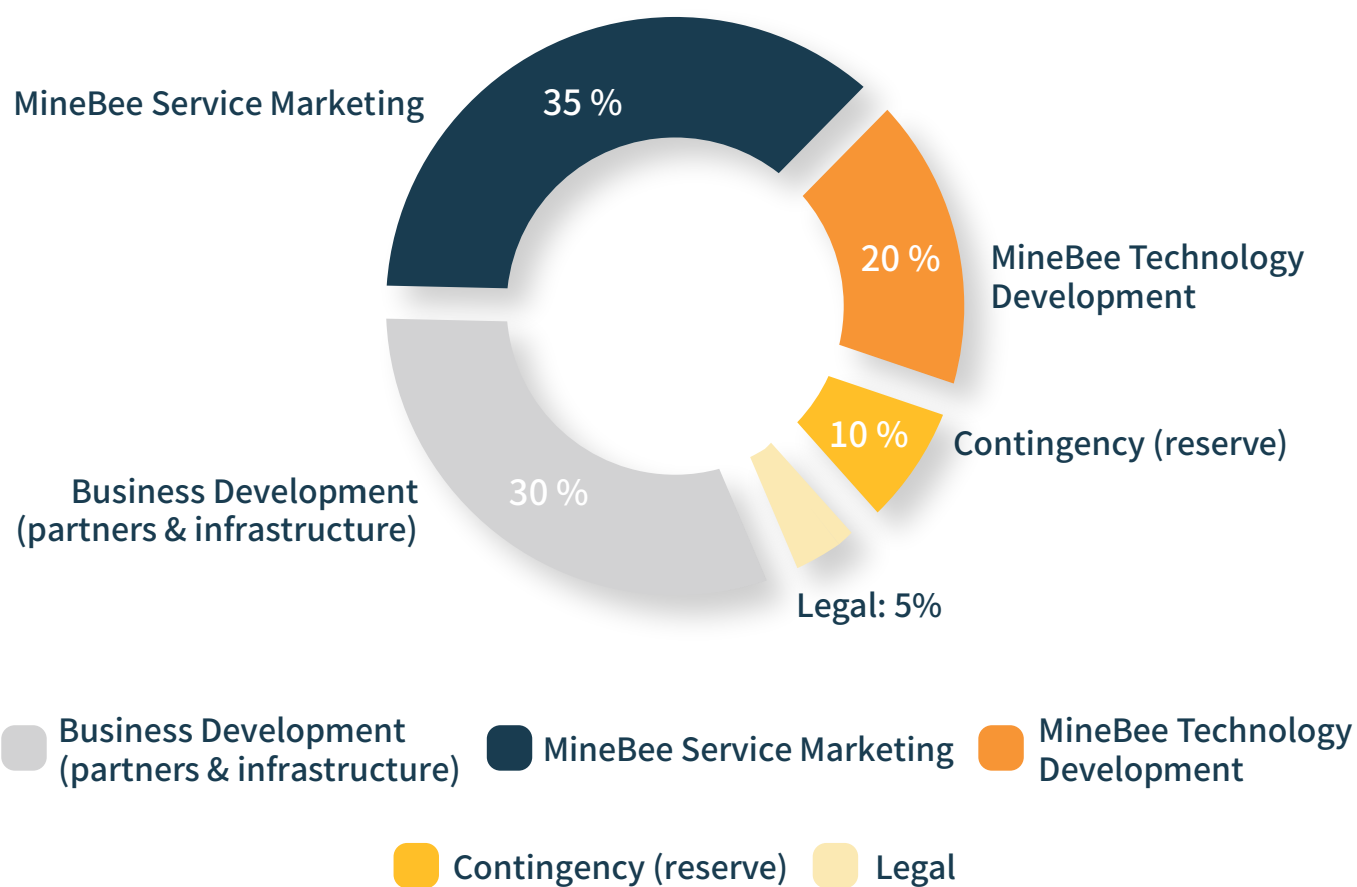
Funds will be used as follows:

- MineBee Service Marketing: 35%

- Business Development (partners & infrastructure): 30%

- MineBee Technology Development: 20%

- Contingency (reserve): 10%

- Legal: 5%

Timeline

6.1 Current Status

Over the course of the past year, the MineBee team has nurtured a single goal: to build a service capable of making coin mining more profitable, and cultivated that idea into a sophisticated, multi-faceted and functional product.

To further those efforts, MineBee has established a mutually beneficial partnership with MiningCom, a leading mining rig monitoring, and management solution. Through this partnership, MineBee will be granted access to monitoring data from MiningCom's users.

Through MiningCom, MineBee will also have access to one of the largest and most successful mining companies in South Korea. MiningCom's partner will also contribute mining and monitoring user data to be processed by MineBee Solution.

6.2 Roadmap

The MineBee team has created an extensive roadmap that lays out key developmental milestones for the next two years.

2017 Q4

● Experienced members meet and form MineBee.

● Team successfully conceptualizes the MineBee project.

2018 Q1-Q2

● MineBee establish MINEONE LTD in Malta to initiate MineBee project.

● MineBee project launches.

● Establishment of MineBee-MiningCom partnership.

2018 Q3

- The MineBee service stack is fully developed.
- MineBee Solution private beta version implemented.
- Initiation of mining data supply from MiningCom.
- First insights returned to selected partners.

2018 Q4

- MB token private sale successfully completed.

2019 Q1

- Operations with MiningCom commence.
- MineBee service stack becomes publicly available through MiningCom.
- Suppliers to populate MineBee Open Market.
- MineBee begins commercial marketing campaign in Asia.

2019 Q2 - 2019 Q3

- MB token will be listed on exchanges.
- Release MineBee contract version two with escrow service.
- MineBee begins partnership expansion campaign in Asia.
- MineBee begins global partnership expansion campaign.

2019 Q4

- MineBee begins commercial marketing campaign globally.

2020

- MineBee strives to become the global leader in cryptocurrency mining industry.

MineBee

ROAD MAP

2018 Q1 -Q2
- MineBee establish MINEONE LTD in Malta to initiate MineBee project.
- MineBee project launches.
- Establishment of MineBee-MiningCom partnership.

2018 Q3
- The MineBee service stack is fully developed.
- MineBee Solution private beta version implemented.
- Initiation of mining data supply from MiningCom.
- First insights returned to selected clients.

2018 Q4
- MB token private sale successfully completed.

2017

2018

2019

2020 Q1 -Q4
- MineBee strives to become the global leader in cryptocurrency mining industry.

2020

2017 Q4
- Experienced members meet and form MineBee.
- Team successfully conceptualizes the MineBee project.

2019 Q1
- Operations with MiningCom commence.
- MineBee service stack becomes publicly available through MiningCom.
- Suppliers to populate MineBee Open Market.
- MineBee begins commercial marketing campaign in Asia.

2019 Q2 -Q3
- MB token will be listed on exchanges.
- Release MineBee contract version two with escrow service.
- MineBee begins partnership expansion campaign in Asia.
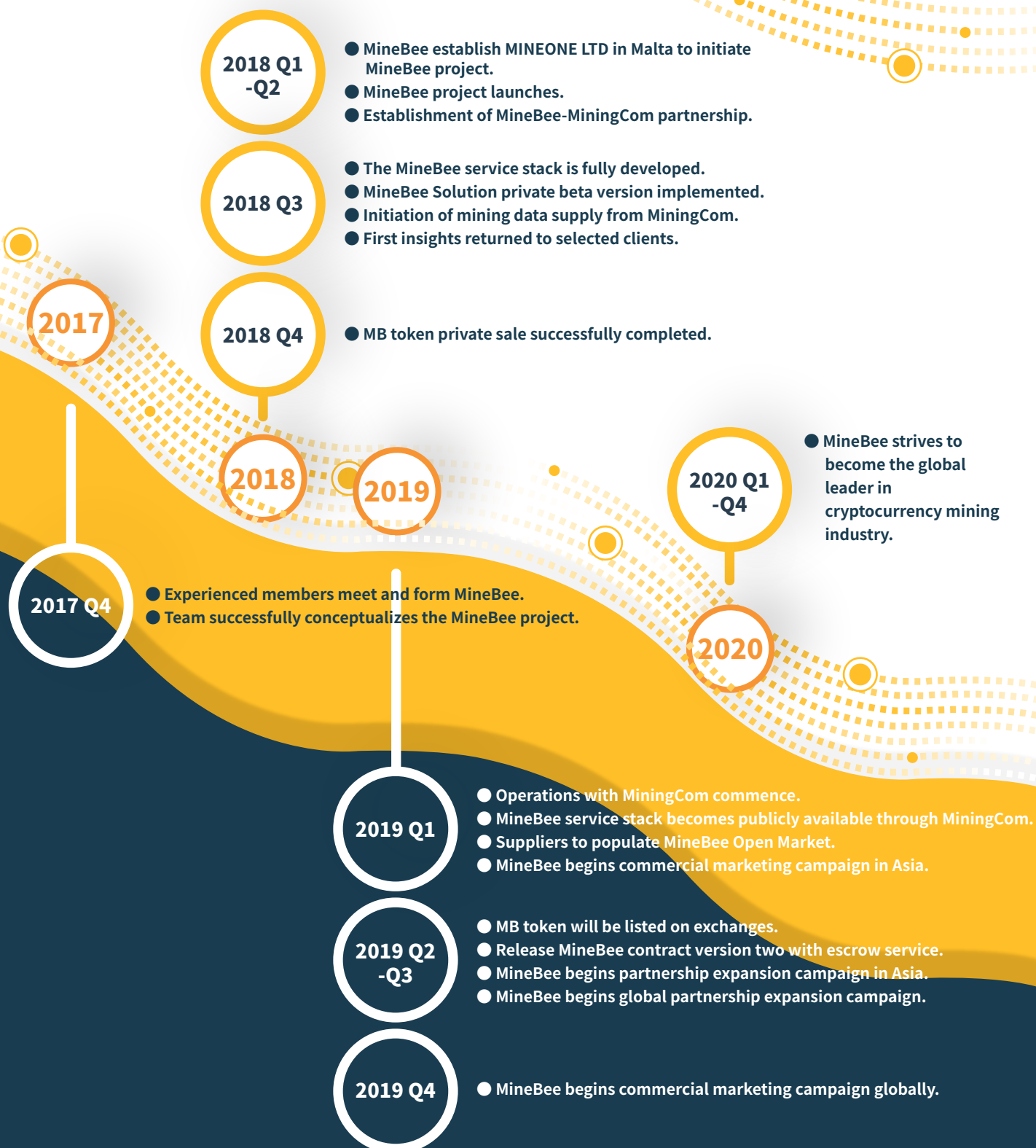- MineBee begins global partnership expansion campaign.

2019 Q4
- MineBee begins commercial marketing campaign globally.

Team & Partners

7.1 The MineBee Team

Ik-kwon Bae   Chief Executive Officer

- CEO of MineBee
- Partner of Blockchain Governance Consensus & Committee (BGCC)
- Partner of Anse Accounting Co.
- Member of Taxpayer Protection Committee of Seongdong Tax Offices
- CPA at KPMG
- M.B.A. Candidate in Seoul National University
- B.S. in Economics, Seoul National University

Isaac Choi   Business Development Manager

- Senior Consulting Analyst at Accenture
- Strong experience in development of business and operations
- B.S. in Security and Risk Analysis, Penn State Uni

Ha Chun   Business Development Manager

- Data Analyst at CMI Media
- 8+ years of experience in Data Analytics and Operations
- B.S. in Media Arts and Animation, The Art Institute of York – Pennsylvania

Najin Kim   Business Development Manager

- Special Consultant at Berkeley Research Group LLC
- Project Leader in various fields of projects
- Venture Capital Analyst at Imperial Investment International
- B.A. in Sustainable Development/Architecture (Dual Degree), Columbia Uni. in the City of NY

Kristine Kim   Marketing Manager

- Strategy Specialist at Samsung Electronics, CA
- Strong experience in market research, visual communication, and strategic operations
- Researcher - Brand PR/Advertising/Movie at UC Berkeley
- B.A. in Media Studies/PR/Pre-Law, UC Berkeley

Ji Ho Park **Marketing Manager**

- Worked in Embassy of the Rep. of Korea in Italy
- Global Market Researcher in Italy
- Strong language background of Korean/English/Italian/Spanish
- B.S./M.S. in Social Science, Pontifical Gregorian Uni.
- Ph.D. in Social Communication, Pontifical Uni. of St. Thomas Aquinas

Taehun Kim **Research & Development Manager**

- Software Engineer at Assurance
- Specialist in the United States Army Reserve
- Co-Founder of Culling Enterprise (Mining Pool)
- Software Engineer at NBC Sports Engine
- B.S. in Computer Science, University of Minnesota-Twin Cities

Young Paik **Research & Development Manager**

- Research Associate at SEEGENE Inc.
- Researcher at UCLA
- M.S. in Bioengineering and Biomedical Engineering, UCLA
- B.S. in Bioengineering and Biomedical Engineering, UCSD

John Kim **Supply Chain Coordinator**

- Material Associate at LG Electronics in the U.S
- Logistics Coordinator at Annie International Inc.
- Strong background in Inventory Management and Logistics
- B.B.A. in Logistics, Materials, Supply Chain Management, Penn State Uni.

7.2 The Advisory Board

Christopher Haag

- Founder & CEO at C-Block
- COO at Genesis Technology
- Data Center Operator of Genesis Mining
- 16+ years of experience in IT Technology
- B.S. in I.T./Computer Science/Business Administration and Management, Colorado State Uni.

Harshana Jayaweera

- Director at ADSS Investment Banking
- Vice President of International Wealth Management Division at Credit Suisse
- Country Manager at UAE, Bank ABC
- Senior Credit Analyst at Emirates NBD
- Relationship Executive at Nations Trust Bank PLC
- Junior Executive at Sampath Bank
- Executive Program at Stanford University and National University of Singapore
- M.B.A. from University of Leicester, Finance

Mohammed Wassim Khayata

- Managing Director at CAPM Investment
- Board Member of Insurance House (PJSC) and Islamic Finance House (Pvt.JSC)
- Board Member of Paramount Computer Systems
- Head of Retail Banking at Abu Dhabi Islamic Bank
- Head of Operations at First Gulf Bank
- Executive Program at Harvard Business School
- M.B.A. from the University of Hull, Banking and Finance
- B.Com., Economics at Damascus University

Mitsutaka Hamada

- Principal of Opt Ventures,Inc
- Owner of PlayMined,Inc
- B.A. in Business Administration and Management, Pepperdine University

Jon Head

- Central Europe Sales Director at Ripple
- European Payment Sales Manager at Integrated Research
- Senior Account Manager at Larsen & Toubro Infotech
- Senior Business Consultant at Pegasystem
- 20+ years of global experience in Financial Services sales professional
- B.A. in Philosophy, The University of Sheffield
- B.A. in Math, University of York

Joe Nuzzolo

- Principal at Essex Advisory Group, LLC
- Managing Director at KPMG Corporate Finance, LLC
- Managing Director at PwC
- Director at Merrill Lynch & Co.
- Senior Associate at J.P. Morgan Chase & Co.
- M.B.A. in Financial Management, Massachusetts Institution of Technology
- M.S. in Chemical Engineering, University of California, Los Angeles
- B.S. in Chemical Engineering, Tufts University

Phillip Liu

- COO at Bitmain
- President/Managing Director at MegaFund
- CEO at Rock China Investment
- M.A. in Economics, University of Pennsylvania
- B.S. in Chemical Engineering, Tsinghua University

Marcelo Spina

- Global Head of Partnerships at ForexTime
- Senior Director at Saxo Markets
- Senior Vice President/Head of Partnerships at Gain Capital
- Vice President of Sales at FXCM
- Associate at Morgan Stanley
- B.A. in Economics, University of Chicago

Daniel Rufini

- Marketing Director at Crypto Capital
- CMO at Coinchase
- Corporate Communication Director at BitForex
- Marketing & Communications Specialist at Merryll Lynch Realty
- 9+ years of experience in Foreign Exchange
- M.A. in International Business/Trade/Commerce, University of Liverpool

7.3 Partnerships

7.3.1 MiningCom

MiningCom is a globally recognized mining rig management company based in Seoul, South Korea. The company operates a management tool that enables users to remotely control their mining rigs. MineBee will work in partnership with MiningCom to further refine and develop this functionality and to deliver increasingly powerful insights to MiningCom users.

MineBee's in-depth analysis of mining metrics as licensed to MiningCom will offer optimizations beyond anything supplied by existing mining management services. This will hand the MineBee-MiningCom partnership a competitive edge. MiningCom's easy-to-use graphical user interface will allow users to monitor a range of parameters including:

- Hashrate and temperature of GPUs.

- Total hashrate of entire operations.

- Miner full log archives and miner error log archives (these archives will be stored on MiningCom servers).

- Records of mining machine reboots.

MiningCom users will receive real-time notifications of any significant changes in the performance of their mining equipment such as:

- Decrease in hashrate.

- Miner stoppage.

- Hardware failure error.

- GPU temperature rise.

MiningCom's remote management functionality allows miners to ensure that their equipment is always operational, safe, and maximally efficient. Users can respond to changes in mining parameters by altering specific settings via their desktop or smartphone including:

- Rebooting rigs.
- Changing overclock values.
- Adjusting settings on multiple rigs simultaneously.

Users can also authorize MiningCom to implement changes automatically to actively improve efficiency.

MiningCom users also have access to:

- Mining pool ID monitoring.
- Insights into the composition of selected mining rigs.
- Optimizational data provided via MineBee solution.
- Access to MineBee Open Market.
- Fast and secure transactions via MineBee Contract.

7.3.2 Other Partners

Through MiningCom, MineBee will have access to one of the largest mining companies in South Korea. This association will provide MineBee with the mining data of its considerable user base. With the use of this sizeable initial data set, MineBee will be capable of offering actionable insights from the outset. In the future, MineBee will continue working to identify and develop new partnerships for the benefit of the company and for the users of MineBee products.

MineBee

Glossary of Terms and Abbreviations

- Hashing: using a mathematical function to derive a fixed length numeric or alphanumeric string from a piece of data of any length.

- Hashrate: a hashrate is the speed at which a computer can solve a hashing problem. The probability of a miner successfully mining a block before anyone else is partially determined by the hashrate of their mining operations.

- Overclocking: overclocking is the process of increasing the working speed of a computer or component beyond its original clock frequency specifications. This is typically achieved by modifying system parameters or operating voltages. Overclocking is typically performed by coin miners to improve the hashrate of their mining operations.

- API: application programming interface.

- Open API: publicly available application programming interface for third-parties to integrate the MineBee Contract payment module.

- ASIC: application-specific integrated circuit. A microchip designed specifically for cryptocurrency mining.

- GPU: graphics processing unit.

- GUI: graphical user interface.

- MOU: memorandum of understanding.

- VGA: video graphics array.

Closing Statement

The mining industry lacks a universal analytics and monitoring system. While other industries have thrived on the insights that big data can supply, crypto miners have been deprived. Inaccurate or insufficient data has prevented miners from optimizing their operations to squeeze out greater efficiencies and from acquiring equipment at the best possible price.

MineBee's complete solution will give cryptocurrency miners the tools they need to safely increase hashrate and maximize uptime. As a result, GPU and ASIC miners will keep working for longer, because their operations will be profitable for longer. During testing market conditions, MineBee will be the difference between profit and loss, while in favorable conditions, MineBee's technology will significantly boost revenue. Smarter analysis begets smarter mining.

As the number of miners sharing their performance data with MiningCom grows, the dataset under analysis will increase commensurately. This will grant MineBee the ability to derive improved insights on performance optimization and to facilitate new breakthroughs in mining efficiency.

The MB token will grant discounted access to MineBee's premium services, which will enable miners to further increase their output. These optimizations will provide a clear cutting edge from the moment they're implemented. The MB token will also serve as the primary unit of account on MineBee Open Market, enabling new and used equipment to be purchased quickly and at competitive prices. The marketplace will provide a convenient entry and exit strategy for miners to realize profits and then sell their equipment to the next wave of crypto miners.

MineBee Open Market will also be supported by MineBee Contract, whose open API will provide a payment solution suitable for all industries and businesses, including those currently outside of the cryptocurrency space. This will further increase MineBee's exposure while yielding benefits for the broader cryptocurrency ecosystem.

Good data doesn't lie and MineBee's analytical approach to cryptocurrency mining will provide the formula for success. Every new miner, mining pool, and mining management service that connects to the MineBee ecosystem will further validate its data-driven model.

MineBee

Proof of Work cryptocurrencies are widely regarded as the most secure means of validating and decentralizing blockchains. The work that miners expend on confirming new transactions and validating new blocks makes the cryptocurrency ecosystem stronger and more valuable for everyone. MineBee and its partners are laying the framework for a data-driven solution in which every participant prospers.

Bibliography and Further Reading

MineBee

https://www.awesomeminer.com/home

https://www.blockchain.com/en/charts/hash-rate

https://cardstack.com/assets/media/cardstack-white-paper-v1.0.4.pdf

https://cdn.crowdfundinsider.com/wp-content/uploads/2018/07/SSRN-id3182169.pdf

https://cointelegraph.com/news/how-crypto-market-fall-influences-mining-hardware-sales-and-producers-revenues

https://cointelegraph.com/news/overview-of-the-crypto-mining-industry-in-2018-will-the-struggles-extend-to-2019

https://cointelegraph.com/news/proof-of-burn-bitcoin-mining-company-in-thailand-destroyed-by-fire

https://www.cryptocompare.com/mining/calculator/btc?HashingPower=4730&HashingUnit=GH%2Fs&PowerConsumption=1293&CostPerkWh=0.12&MiningPoolFee=1

https://www.cryptocompare.com/mining/calculator/eth?HashingPower=20&HashingUnit=MH%2Fs&PowerConsumption=140&CostPerkWh=0.12&MiningPoolFee=1

http://cryptoglance.info

https://diar.co/volume-2-issue-40/

https://miningcom.net

https://easymine.io

https://www.ebay.co.uk

https://etherscan.io/chart/hashrate

https://www.express.co.uk/news/world/916617/bitcoin-mining-fire-russia-Artem-Vladivostok

https://www.gartner.com/newsroom/id/1824919

https://getminera.com

https://icorating.com/pdf/74/1/8TuF3swJWq8J82o4CnGI6dyEn3GQYhw9qdKTAE7U.pdf

https://www.igi-global.com/dictionary/data-knowledge-and-intelligence/39008

https://news.bitcoin.com/mining-closures-reveal-recurring-bitcoin-bear-market-trend/

https://www.scmp.com/tech/start-ups/article/2174388/bitcoin-prices-fall-mining-cryptocurrencies-no-longer-profitable-many

https://steemit.com/cryptocurrency/@endpoint/crypto-whales-and-how-they-manipulate-the-price

Disclaimer - Legal and Risks

MineBee

11.1

Please read this disclaimer notice carefully. Kindly note that the disclaimer set out below may be altered or updated, at any time in whole or in part at the sole discretion of the Company. Disclaimer should be read it in full each time you visit the site. All information is provided without any warranties/guarantees of any kind and the Company and its advisors make no representations and disclaim all express and implied warranties/guarantees and conditions of any kind, including, without limitation, representations, warranties or conditions regarding accuracy, timeliness, completeness, non-infringement, suitability of the Tokens for any prospective contributor, and the Company and its employees, officers or professional advisors assume no responsibility to you or any third party for the consequence of errors or omissions.

11.2

The Rulebook of the VFA Act or any other applicable regulations. Chapter 2 of the Rulebook of the VFA Act or under any other applicable law and regulations. This White Paper is just a draft and investors should-reassess the final White Paper at some time. Release of the final White Paper will not be notified and it is up to the investors to manually check each time an individual visit Company website. This White Paper has not been reviewed or reviewed by any regulator. No regulatory authority has examined or approved of any of the information set out in this White Paper. No such action has been or will be taken under the laws, regulatory requirements or rules of any jurisdiction. The publication, distribution or dissemination of this White Paper does not imply that the applicable laws, regulatory requirements or rules have been complied with.

11.3

Cautionary note on Forward Looking Statements, this White Paper may contain certain forward-looking statements including, but not limited to, statements as to future operating results and plans that involve risks and uncertainties. We use words such as ""aim", "anticipate", "believe", "consider", "continue", "could", "estimate", "expect", "intend", "may", "plan", "potential", "predict", "project", "purpose", "seek", "shall", "should", "will", "would", the negative of these terms and similar expressions to identify forward looking statements. Such forward-looking

statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the MB token and/or the MineBee technology to differ materially from any future results, performance or achievements expressed or implied by those projected in the forward-looking statements for any reason.

11.4

Exclusion of liability to the maximum extent permitted by the applicable laws, regulations and rules, MB token shall not be liable for any indirect, special, incidental, consequential or other losses of any kind, in tort, contract or otherwise (including but not limited to loss of revenue, income or profits, and loss of use or data), arising out of or in connection with any acceptance of or reliance on this White Paper or any part thereof by you. No legal, regulatory, tax advice No information in this White Paper should be considered as business, legal, financial or tax advice regarding the MB token, the MineBee technology, MineBee service, and the sale of MB tokens. You should consult your own legal, financial, tax or other professional adviser regarding MB token and 94 their respective businesses and operations, the MB tokens, and the sale of the Token. You should be aware that you may be required to bear the financial risk of any purchase of MB tokens for an indefinite period of time. The tax characterization of the MB tokens is uncertain, and each investor must seek its own tax advice in connection with the acquisition of the MB tokens. The acquisition of MB tokens pursuant to the Token Sale, Exchange or P2P may result in adverse tax consequences to investors, including withholding taxes, income taxes and tax reporting requirements. Each person acquiring MB tokens should consult with and must rely upon the advice of its own professional tax advisors with respect to the tax treatment of an acquisition of the MB tokens. You should consult with your own advisor regarding your legal, regulator, and tax position.

11.5

Prohibition of distribution and dissemination in restricted jurisdictions. The distribution or dissemination of this White Paper or any part thereof may be prohibited or restricted by the laws, regulatory requirements and rules of any jurisdiction. In the case where any restriction applies, you are to inform yourself about, and to observe, any restrictions which are applicable

to your possession of this White Paper such part thereof (as the case may be) at your own expense and without liability to MineBee. Persons to whom a copy of this White Paper has been distributed or disseminated, provided access to or who otherwise have the White Paper in their possession shall not circulate it to any other persons, reproduce or otherwise distribute this White Paper or any information contained herein for any purpose whatsoever not permit or cause the same to occur. The regulatory regime governing the blockchain technologies, cryptocurrencies, tokens and token offerings such as MineBee technology and the MB tokens is uncertain, and new regulations or policies may materially adversely affect the development of the MineBee technology and the utility of the MB tokens. Regulation of tokens (including the MB tokens) and token offerings such as this, cryptocurrencies, blockchain technologies, and cryptocurrency exchanges currently is undeveloped and likely to rapidly evolve, varies significantly among international, federal, state and local jurisdictions and is subject to significant uncertainty. Various legislative and executive bodies in the United States and in other countries may in the future, adopt laws, regulations, guidance, or other actions, which may severely impact the development and growth of the MineBee technology and the adoption and utility of the MB tokens. Failure by MineBee or certain users of the MineBee technology to comply with any laws, rules and regulations, some of which may not exist yet or are subject to interpretation and may be subject to change, could result in a variety of adverse consequences, including civil penalties and fines.

11.6

Blockchain networks also face an uncertain regulatory landscape in many non-U.S. jurisdictions such as the European Union, China and Russia. Various non-U.S. jurisdictions may, in the near future, adopt laws, regulations or directives that affect the MineBee technology. Such laws, regulations or directives may conflict with those of the U.S. or may directly and negatively impact the MineBee business. The effect of any future regulatory change is impossible to predict, but such change could be substantial and materially adverse to the development and growth of the MineBee technology and the adoption and utility of the MB tokens. New or changing laws and regulations or interpretations of existing laws and

regulations, in the U.S. and other jurisdictions, may materially and adversely impact the value of the ETH and BTC virtual currency or Fiat used to acquire MB tokens and otherwise materially and adversely affect the structure or MB tokens and the rights of the holders of MB tokens. Issuance of MB tokens May Constitute the Issuance of a "Security" Under U.S. Federal Securities Laws 95 The MB token is a utility token that has a specific consumptive use – i.e., it allows participants in the MineBee service to receive and pay value for data sharing by individuals and entities, and make data available, on a distributed or non-distributed network with significant advantages over current data sharing solutions. Due to the nature of the MB tokens and the manner, in which they are being offered, we do not think they should be considered "securities", as that term is defined in the Securities Act of 1933, as amended (the "Securities Act"). MB tokens might only be distributed to "accredited investors" as defined in US securities laws and to not more than 150 non-qualified investors under the EU Prospectus Regulation.