Ethereum Basic

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1. Introduction and problems

The recent upgrades in the Ethereum network – St Petersburg and Constantinople – have been wrought with controversy and exposed many deep issues. One thing that has become clear is that true decentralization has no place in Ethereum: most developers failed to have their proposals and opinions considered. Only a few figures ultimately decided the future of the network, leading to the introduction of such controversial measures as block reward reduction. At the same time, the presence of the so-called "difficulty bomb" - even though defused for the next 12 months – functions as a pressure factor that forces miners to accept each new upgrade.

The launch of Constantinople also demonstrated that the key problems – scalability, gas fees, and efficiency – will take a very long time to be solved unless decisive measures are taken. The proposed transfer to Proof-of-Stake mining may take another several years, the network will remain slow, and the volatility of transaction fees will stay high.

Ethereum Basic is a new cryptocurrency that focuses on resolving the most urgent issues of Ethereum and at the same time promoting decentralized governance. The developers behind Ethereum Basic see the following problems as requiring immediate attention:

- Scaling: increasing network capacity using on-chain and off-chain solutions;

- Removing the difficulty bomb to decrease pressure on the miners to accept future upgrades;

- Transfer to PoS that should be complete and comprehensive, not partial as foreseen by the Casper framework;

- Implementing ASIC-resistance;

- Gas fee optimization;

- Making the network more currency-agnostic;

- More incentives for full nodes;

- Introduction of a functional voting mechanism.

As a measure to stimulate the circulation of Ethereum Basic, every Ethereum holder can claim ETBC coins for free at a 1:1 ratio. In order to distribute free coins, a snapshot of the network will be taken on May 16, 2019, at 16:00 GMT to ensure that only those users who hold ETH at the moment of the snapshot receive free coins.

This White Paper provides an introduction to the solutions that will be implemented by the Ethereum Basic team within the first 15 months after the launch of the network. It should be noted that Ethereum Basic is not a hard fork of Ethereum and will not create a forced split in the chain. Rather, Ethereum Basic should be viewed as a new Ethereum-based cryptocurrency that can be used and mined completely independently from Ethereum. The "fork" is better described by Vitalik Buterin's term "spoon". A limited amount of ETBC coins will be pre-mined and awarded to current Ethereum holders as an incentive to participate in the growth and development of the network. Details on the coin distribution and bounty program as provided in the last section of the document.

2. Solutions and implementation

2.1. Solutions for promoting decentralization

2.1.1. Permanent removal of the difficulty bomb

The so-called "difficulty bomb" was introduced as the EIP2 and aims to motivate the transition to the Proof-of-Stake mining mechanism. Under this concept, the difficulty of finding new Ethereum blocks increases exponentially – first very gradually and almost

imperceptibly, then faster and faster until finding a new block becomes almost impossible. At this point, confirmations of new transactions on the Ethereum network would cease – no new blocks would be added to the network, and consequently the system would stop to function. Needless to say, this would also bring any mining income to an end.

The proclaimed rationale behind the difficulty bomb is that without such an "axe" hanging over miners, transiting to PoS could take an indefinite amount of time. However, the work on developing the PoS procedure was going much slower than expected, and the difficulty bomb became a real risk, as average block time was rising steadily.

In the recent Constantinople and St Petersburg forks, the difficulty bomb was delayed for 12 months in the hope that by that time, the network will be ready for the transition to PoS. However, if that does not happen, the danger of the "Ethereum Ice Age" will return.

The developers of Ethereum Basic are convinced that the issue with the difficulty bomb goes much deeper than just the question of motivating the community to accept PoS. In spite of the evident advantages of PoS, the fact of a forceful imposition of the difficulty bomb on the community goes against the underlying principles of Ethereum as a decentralized currency. Indeed, any miner who refuses to accept an Ethereum hard fork at this point will be forced to remain on a chain that will inevitably (and soon) enter the Ice Age. This makes declining an upgrade an unviable option. In essence, the difficulty bomb is a less than a motivational tool and more of a cunning way to make all miners accept each new upgrade. The right to make a free choice is formally retained, but in fact the alternatives are either going with every new update (however controversial) or staying on a chain that is doomed.

This is exactly what happened with the recent Constantinople upgrade: though it included a very controversial reduction in block rewards ("thirdening"), almost everyone accepted it in order to avoid the Ice Age.

The Ethereum Basic team is intent on upholding the principle of true decentralization. For this reason, the difficulty bomb will be completely and permanently disabled in Ethereum Basic. To achieve this, the component that exponentially increases difficulty (epsilon, or int(2**((block.number // 100000) - 2)) will simply be removed. Instead, the difficulty will increase (or decrease) gradually proportionally with the hashrate. This will allow the investment market to find a proper economic equilibrium at each given price of ETH.

2.1.2. Programmatic PoW (ProgPoW)

Restoring block rewards to their pre-Constantinople level will help independent miners remain the in the market, but it will not solve the issue of ASIC domination, since the profitability of ASIC chips will invariably remain higher than that of GPU cards, unless the current PoW mechanism is changed.

GPUs and ASICs solve the same task: finding and adding a correct signature (hash) to every block of data on the blockchain. The algorithm of finding the hash does not change – only its difficulty regularly increases. Thus, the sequence of actions that a miner has to undertake to complete a block is always the same. On a GPU, this sequence is performed by specialized software, while the ASIC solution is hardware based. In simple words, ASIC chips are built to perform only one very specific tasks: find the correct solutions to blocks using the same procedure every time. If the algorithm changes, GPU miners can update their software or switch to mining another coin without changing their graphic card. By contrast, current ASICs instantly depreciate all the way down to zero, because they were designed with the previous algorithm in mind.

ASIC farms are constantly racing against time, having to recoup their investment and earn a profit before their chips lose their value with each algorithm update. The development of a new efficient ASIC costs between 1 and 3 million dollars, with 50% of this amount in salaries and 50% in manufacture costs; the process takes about a year. Understandably, ASIC developers use all the lobbying power they can

to prevent the Ethereum algorithm (Ethash) from being changed frequently – just as they try to delay the transfer to PoS. If ASIC manufacturers have their way, they will progressively decrease centralization, pushing independent miners out, to define how the future PoS system will work – if at all.

The optimal interim solution chosen by Ethereum Basic is the so-called Programmatic Proof-of-Work (ProgPow), based on making the Ethereum algorithm change frequently enough to make ASIC mining much less profitable. In ProgPow, the sequence of actions needed to complete a block is modified by the system itself. GPU miners can update their software as often as needed, even every week, while ASIC farms will have to create a completely new type of chips that can adapt to the changing algorithm. This is not impossible – but it is very costly and will take a long time. The hope is that 1) ASIC providers will not prevail over independent operations in the Ethereum Basic network, though realistically they might still have a 10%-20% advantage in their profit margins; 2) that the transition to full PoS can take place without a strong lobbying influence that might derail it; and 3) that the Ethereum Basic realization will provide a good example to the main Ethereum network and other coins that plan to switch to PoS in the near future.

It should be pointed out that ProgPoW will be not implemented in Ethereum Basic from the beginning; according to the project development schedule, ProgPoW will be introduced 6 months after the launch of the network.

The Ethash algorithm will be modified to make it as suitable as possible for the most widespread GPU cards, including Pascal, Vega and Polaris. In particular, the size of the Keccak instructions called at the beginning and at the end of Ethash will be decreased, resulting in a smaller number of instructions that a GPU card needs to run. This will make the process more efficient. Next, the size of the direct acyclic graph data read set will be expanded, with the cached element of the DAG limited to 16 kb. Then, a certain amount of cash reads and instructions, generated randomly, will be added to the existing ones in

order to saturate the three main types of bandwidths at once: scratchpad, compute, and memory. Any ASIC chip that would be able to run on ProgPoW would be extremely similar to the popular GPU cards already on the market, thus radically reducing the difference in profits.

It is crucial to point out that ProgPoW is not a replacement for PoS – rather, it is an intermediary step to ensure decentralization in the period of transition, which for Ethereum Basic is forecasted to take a year.

2.1.3. Ethereum Basic DEX

Circa 6 months after the launch of the main network, Ethereum Basic will introduce its own decentralized exchange, preliminarily named XDEX. It is a logical step in the direction of creating a full-scale financial network that will be both decentralized and easy to use. As in any decentralized exchange, users' funds will remain in their possession and control at all times. Under no circumstances will XDEX require that users transfer any tokens or coins into an account of the exchange. The DEX will function strictly as an order-matching service in conjunction with the 0x protocol.

The Ethereum Basic community will select new projects to be added to the exchange without charging any listing fee. Members of the Ethereum Basic development team and normal users can propose projects to be listed, while the final decision on each project will be taken by a vote of all full nodes (as described below). Non-ETBC tokens will also be able to list on XDEX, including ERC20 tokens. Projects that will receive priority are those that promote decentralization and offer real value, including novel scaling protocols, sidechain and off-chain payment solutions, data storage systems, validation and user identification platforms, AI and neural network, VR, and other cutting-edge proposals. Projects that will receive the lowest priority are those focused on gambling, betting, gaming, and other topics that do not help the blockchain industry as a whole to move forward.

XDEX users will have two options when placing and filling orders:

1) Execute trades like they would on a traditional DEX – by placing funds in a smart contract and paying transaction fees for placing the order and when it is filled; this will be the default option for the first 6 months of the exchange's operations;

2) Send their order to a 0x relayer for it to be added to their order book (paying the relay fee in ETBC, in the currency of the order, or using any other token) and then broadcast to all the XDEX users, then only pay the transaction fee when the order is filled. This will become the default option once the 0x protocol is implemented and enough relayers are integrated into the network.

2.1.4. Voting mechanism

Real decentralization is supposed to also cover the decision-making process: most crypto enthusiasts believe that each crypto user must have a voice and that all important questions should be decided by voting. Instead, the process of making key decisions in the Ethereum network is actually highly centralized, with even influential developers only being consulted but not being able to cast a vote. The current high level of centralization explains why such controversial upgrades as Constantinople get passed.

Yet, organizing a voting procedure on Ethereum is a very complex task, especially when the vote is supposed to involve a large number of users. First of all, as noted above, most miners on the network cannot write anything on the blockchain directly – they have to request a full node to record data (usually the solution to a block) for them. This means that a simple miner (let alone an average crypto user) cannot vote directly for anything on a network-wide level. This is often overlooked by crypto enthusiasts and "evangelists" who proclaim that all decisions should be based on a vote. General voting does work on EOS, but it does not work on Ethereum, however; only full ETH nodes have a technical possibility to vote at the same time with

signing – or "sealing" blocks. Nevertheless, there is a way to take all miners's votes into account via pool voting.

Each block contains a field (known as extra_data), where additional information can be added. For the voting purposes, each choice should be clearly formulated beforehand – for example, "agree to the proposal" to "disagree" - and it should be decided how each choice should be recorded in the extra_data field. Not long before the voting procedure, each of the Ethereum Basic mining pools will make it known which option or choice it will support in the voting. When the voting begins, each miner will need to point their connection to a pool that supports the option they agree with. This way, all miners who want to vote for option A will gather in one pool and those who vote for B – in another. (Naturally, there can be several pools supporting A or B). During the voting, which will last for at least 10 days, the pool that has more miners connected to it will naturally seal more blocks. Thus, statistically, it will be possible to see which option won. Understandably, full nodes, which can seal blocks themselves, do not need to connect to a pool unless they have to – as long as a full node manages to seal at least one block during the voting session, it can make its opinion known by writing in the extra_data field.

Once the Ethereum Basic network transfers to Proof-of-Stake, voting will become easier. Indeed, a stake (in ETBC coins) by itself gives its owner the right to choose a block creator. For the purposes of a vote, stakeholders will be asked to choose among a limited number of block creators that make their choice publicly known. This is essentially voting for a block creator as a proxy to vote for the option that block creator supports.

Voting will be used in Ethereum Basic to decide on any major network upgrades, increase or reduction of rewards, integration of new protocols, changes to the smart contract system, etc. Since there is no new software that needs to be developed to implement the procedure described above, it will be one of the first to be introduced – circa 4 months after launching the network. After that, all the proposals

described in this White Paper will be subject to a vote before they are implemented.

2.2. Transaction fee reduction

2.2.1. Implementation of the 0x protocol

The key motivation behind the creation of ETBC is to create a truly decentralized and at the same time cost-efficient, easy-to-use financial framework. This also means working towards decentralizing exchange and payments and building a proprietary DEX (see above). It would be difficult to argue that large centralized exchanges, such as Binance and Kraken, have nothing to do with the ideals of decentralization. What's worse, they are not secure, subject to frequent hacker attacks and thefts. And even as trading is shifting towards personal trading terminals, the problem persists: API keys that are necessary to access major exchanges from a terminal expose traders to additional risks, as demonstrated by the recent Binance incident, when malicious API use almost resulted in a massive loss.

Decentralized exchanges, or DEXes, at first seemed like a very good alternative. Indeed, on such exchanges as EtherDelta users remain in control of their money at all times – they never have to entrust their coins to the exchange. Thus, DEXes are much more secure than traditional exchange. However, there is a serious trade-off: slow speed and fees. Indeed, all operations on a DEX are carried out using smart contracts, meaning that the standard transaction processing times apply: one has to wait several minutes to for an order to appear in an orderbook and then wait again while it executes. Each operation requires gas: depositing coins from a wallet into the account, placing an order, filling it, and withdrawing funds. For active traders, fees can accumulate rapidly, almost annihilating any profits from trades.

The solution that will be used by Ethereum Basic on its own DEX and within its wallets is the 0x protocol. Unlike dApps and platforms, 0x is a base-layer solution that is currency-agnostic – it will work perfectly well for Ethereum Basic, just like it would for any other Ethereum fork

or an ERC20 token. 0X is a partly on-chain, partially off-chain solution for trading, exchanging, and transferring tokens and cryptocurrencies that is based on smart contracts. Thanks to a system of so-called relays, it allows to minimize transaction processing times and save on speeds.

Whenever a trader (maker) decides to place an order to buy or sell ETBC using 0x, he or she will send it to a verified relayer instead of placing it directly on the Ethereum Basic DEX (or any other decentralized exchange). Relayers charge their own fees for their services, and these fees have to be included in the order. The consists of two parts: one for writing the order down in the order book and the other for broadcasting the order book to takers (other traders). Once takers receive the updated order book and one of them decides to fill the maker's order, the taker sends a request to execute the deal to the Ethereum Basic DEX, and the trade is concluded.

Technically, even a DEX is not essential when 0x is in place: makers and takers can trade directly wallet-to-wallet, since all takers will have the updated orderbooks. In this case, takers will submit their requests to fill orders back to the relayer, together with a fee.

The 0x protocol was originally designed to work with its own token, ZRX; however, the currency-agnostic nature of the protocol means that relayers are not obliged to use ZRX – and in fact, most of them do not. Any project that implements 0x – including ETBC – can use its own tokens to pay relayers.

The implementation of 0x will allow Ethereum Basic to make another step towards the elimination of gas in the system, reduce transaction fees, improve security, and promote decentralization. Wallet-to-wallet trading is a particularly interesting functionality that the Ethereum Basic team is planning to explore at the end of the first year of the network's work. Ethereum Basic will also incentivize its users to build relayers that accept ETBC coins.

2.2.2. Etherless token transfers

Ethereum Basic will present the same smart contract capabilities as the original Ethereum network, so that new blockchain projects can issue their own tokens and conduct fundraising campaigns. One key issue that Ethereum Basic will solve in the field of ERC20 token launch and distribution is the problem of gas. Since any Ethereum transaction on Ethereum requires gas, and gas has to paid for using ETH, any user who wishes to buy or send tokens needs to have some ETH in their wallet reserved for the purpose. This is a serious inefficiency: for example, a participant in an ICO cannot purchase the maximum amount of tokens with the ETH they have, since some of it needs to be used to pay for the gas – and the exact amount is not known in advance.

On the other hand, tokenized projects that conduct airdrops also require a significant amount of ETH to carry our a distribution. The same goes for pools for mineable tokens: once they are introduced in the Ethereum Basic network and mining pools form, no matter which token is being mined, miners will need to pay gas fees to claim their tokens from the pool organizer. In traditional pools, ETH would be required for the purpose. In all these cases, transactions are dependent on ether -a cryptocurrency that is not otherwise involved in the process. As a parallel, one could imagine the government of Germany, for example, making it a law that any transaction costs must be paid in US dollars, even though payments themselves are in euros. This is a hurdle for the system and an unnecessary evil – indeed, Vitalik Buterin himself acknowledged that Ethereum is currency-agnostic. In Ethereum Basic, the principle of currency-agnosticity will be carried further thanks to the implementation of Lava Network and a system of relayers. These relayers should be distinguished from relay operators in 0x, though the same user can definitely play both roles. Lava relayers will be able to pay transaction fees in ETBC and accept any token issued on the Ethereum Basic network in return as a reward. Each relayer can set their own fee,

generally equal to the gas fees of the transaction and a small overhead.

The benefits of excluding the underlying cryptocurrency (be it ETH or ETBC) from token transactions are evident. Founders of blockchain projects who sell their tokens and backers of those projects will not need to stock up on extra ether to pay the transaction fees; miners of tokens will be able to claim them much quicker; and airdrops will stop being a costly enterprise that they now are.

2.2.3. Fees: introduction of base fee system

High, volatile and unpredictable gas fees have long been one of the key issues of Ethereum. Since there is no set gas fee, users have to guess how much they should bid to get their payment processed. In times of high activity on the network (as it was at the peak of Cryptokittens' popularity, for example) fees can rise dramatically. At other times, miners will in any case prioritize transactions with higher fees, which usually means institutions like exchanges. Average users who try to minimize their costs have to wait up to 20 minutes for their transaction to go through, and in some cases transactions with a very low fee bid is rejected altogether. Since users have no way of knowing how much others are paying, they end up bidding far too much – statistics show that it is common to overpay 5x and more.

Scrapping gas fees altogether is not an option, since it would expose the network to Sybil attacks. This is a type of attack when a malicious agent (known as adversary) creates multiple identities on the network to accumulate influence and resources while masquerading as many different users. For example, an owner of a blockchain project could initiate a fake pump of their coin on exchanges by registering hundreds of accounts that buy that coin and sell it to each other. Transaction fees make many Sybil attacks economically inefficient.

The solution that will be implemented by Ethereum Basic follows a recent proposal by Vitalik Buterin himself – a proposal that might not be included in the next few updates of the Ethereum network because

of the usual delays, lobbying and centralization. The idea centers on a dual system of so-called base fees and tips.

Perhaps the key problem behind gas fee inefficiency in Ethereum is that the algorithm works exactly the same at all times, regardless of the level of activity in the network. One could argue that it is exactly the same in many other areas of life: for instance, public transit tickets cost exactly the same at all hours of the day, including the rush hour; and prices in a supermarket do not change when there is a long queue, because otherwise the public transit system and the supermarket chain would not be able to predict and receive the revenue they need. However, transaction fees can be modified in such a way that miners still receive their reward while users save most of the costs.

The base fee system operates as follows: the algorithm adjusts the size of the base fee according to the activity in the network. However, the base fee is the same for all users at any given point in time: there is no guesswork and bidding. Essentially the present auction system will be eliminated in Ethereum Basic. Instead of making bids, users will decide how much to add to the base fee as a tip for the miner. A short period of instability is to be expected in the beginning, while the network figures out the average market size of the tip, but we expect that it will take two months at most. A situation of perfect economic competition will develop, with many miners making equal moderate profit from confirming transactions, just like it happens with many ideal small firms providing the same service.

The Ethereum Basic wallet will include the feature of automatically setting the tip; at the same time, the wallet interface will display the current network capacity that underlies the base fee value. Users will retain the option of setting the tip size manually, so they will still be able to move their transaction up the queue if they so desire. The development team expects average transaction costs to be reduced by up to 80% as a result of eliminating the current auction model.

2.3. Rewards structure

2.3.1. Miner reward increase back to 3 ETH per block

In late 2017, the miner reward on Ethereum was reduced from 5 ETH to 3 ETH; during the Constantinople fork, it was further decreased to 2 ETH, which was probably the most controversial element of the update. At the same time, the ETH price fell from roughly $300 in October 2017 to $130 in February 2019. Simple arithmetic shows that in the last year and 4 months, an Ethereum miner went from earning $1500 per discovered block to just $260 – an almost sixfold reduction. As electricity prices remain more or less stable, falling rewards mean that profit margins (already very narrow) fall below zero for independent miners. GPU mining has already stopped being profitable in most countries, except those with very low energy prices, such as Argentina.

The arguments often posed by the proponents of reward reduction are as follows:

- it reduces the inflation rate in the Ethereum network, pushing its price upwards and making it more attractive to investors; Constantinople will reduce the annual inflation from 7.7% to 4.9%;

- some mining operations will leave the market, and as the supply of ETH from mining farms on the market decreases (and the demand stays the same), the price will rise, mitigating some of the losses for the remaining miners.

In fact, these arguments do not hold water. First, the actual price increase resulting from the reward reduction is minimal. At the current price of $300 and the inflation rate of 7.7% (as it was before the upgrade), given that the demand remains unchanged, the ETH price after a year will equal $300*(1-0.077)=$277. At the inflation rate of 4.9%, the new price will be $300*(1-0.049)=$285. The difference of $12 is negligible compared to the fluctuations routinely seen on the market.

The second argument (ETH price will rise as miners exit the market and the supply diminishes) is only partially true. Large mining operations that manage to stay profitable now will remain profitable even with a decreased reward, largely because they are located in countries with the lowest energy prices (such as China) and have preferential contracts with energy companies due to their size. They might switch a small part of their capacity to other cryptocurrencies, but considering that most other coins do not offer particularly bright prospects right now, they probably will stay with ETH to be on the safe side. To mitigate the negative effect of the reward reduction, they will turn their attention to creating even more efficient ASIC chips instead.

Those who will indeed be forced to exit the market are the remaining independent miners. In a situation where the two largest pools already control 52% of the hashrate, and the 8 largest control 83%, the idea of centralization is perverted.

Ethereum Basic prioritizes true decentralization, and that means support of independent miners as opposed to creating conditions that favor mining farms and large pools. For this reason, as part of the Ethereum Basic fork, the reward size will be restored to the equivalent of 3 ETH. This can be changed in future upgrades, but only as a result of a community vote.

2.3.2. Reward structure: Financial incentivization of full nodes

Yet another issue that does not receive nearly enough attention is that fact that the Ethereum network presently has much fewer full nodes than it needs. There is a common misconception that anyone who mines Ethereum records data on the blockchain. This is not true: in fact, the vast majority of miners do not have the right to send any information to the blockchain directly. Miners receive instructions, search for a solution to each new block, and once that solution is found, the lucky miner broadcasts it to the network. The entity that actually performs the recording of that solution onto the data block is a full node.

The major difference between full nodes, light nodes and ordinary miners is that a full node must maintain a full and updated copy of the whole blockchain at all times. The current size of the Ethereum blockchain is around 140 gigabyte, and to keep it up-to-date, a full node must be running all the time. Normally owners of full nodes do not store the data on their own local hard drives, using cloud storage (such as Amazon Web Services) instead – and paying for it accordingly. It costs between $20 and $60 a month to operate a full node – yet users are not rewarded in any way for it, except for the normal mining rewards they get for confirming transactions. A strong misalignment results: full nodes perform a key part of the work but are supposed to do it for free, as a service to the crypto community. The situation is aggravated by the fact that running a full node comprises much more than paying for hosting: users actually have to keep track of its operations and invest quite a lot of their time.

It is not surprising, therefore, that there is a shortage of full nodes, especially those with slots for light nodes. Moreover, those that are present on the network are often of subpar quality. The lack of full nodes was demonstrated, for example, at the height of the Cryptokitties craze, when the network was virtually brought to a halt because most players used light nodes to trade their kittens.

The team of ETBC believes that the work done by node operators must be recognized and rewarded. Proper monetary incentives are the best way to get more full nodes on the network – and more full nodes mean more protection against centralization and attacks.

For this reason ETBC will allocate part of the premined coins to a special reward pool for owners of full nodes. These rewards will be paid monthly, similar to PoS rewards, and will be calculated so as to cover the average expenses on hosting or running a node locally. This system will remain in place until Ethereum Basic fully transfers to Proof-of-Stake. Rewards will be activated after an obligatory verification of each new full node. A larger number of full nodes will also make the mechanism of community voting more efficient and representative, allowing for even more decentralization.

3. Project implementation

3.1. Implementation Roadmap

Q4 2018 – Q1 2019 Developing the overall implementation plan of the project, forming the team

Q2 2019 Launch of the official site; issuing and distributing the pre-mined 2 000 000 ETBC coins; start of the bounty program; start of PoW mining; listing ETBC on several exchanges.

May 16, 2019 – Blockchain snapshot.

May 26, 2019 – Launching main network.

Q3 2019 Work on the DEX module, preparing for the introduction of ProgPoW and base fee system; launch of incentives for full nodes; adding more exchanges.

Q4 2019 Launch of the basefee+tip system and expected reduction of gas fees up to 80%, alpha launch of the decentralized exchange XDEX, work on implementing the 0x protocol; first voting sessions among full nodes.

Q1 2020 Launch of 0x and etherless transaction using Lava Network, testing the PoS mechanism; beta release of XDEX with 0x integration; selecting several projects for zero-fee listing on XDEX.

Q3 2020 Switch to the PoS consensus protocol; scaling using Plasma.

3.2. ETBC coin - emission and distribution

Coin ticker: ETBC

Mining protocol: first PoW, then transfer to ProgPoW as an intermediate stage, then full transfer to PoS

Mining: CPU, GPU, ASIC-resistant thanks to ProgPoW

Initial emission: 2 000 000 ETBC

Network snapshot date: May 16, 2019, 16:00 GMT

Network launch date: May 26, 2019, 16:00 GMT

Initial distribution: 95% of the pre-mine will be distributed among current ETH holders in the form of an airdrop and among bounty program participants. Each ETH holder can claim ETBC coins at a 1:1 ratio. It is worth noting that the distribution is planned as an airdrop: users do not need to exchange their ETH for ETBC, new coins are provided for free as an incentive. A snapshot of the Ethereum network will be taken on May 16, 16:00 GMT to verify current ETH holders. To claim free ETBC, one needs to hold ether in their private wallet at the moment of the snapshot. 1 ETBC will be sent to the wallet per each unit of ether that the user holds. Exchange wallets cannot be used to claim free ETBC.

3.3. Bounty program

In order to stimulate the adoption of Ethereum Basic, a bounty program will be launched shortly before the fork. Bounty participants will be able to receive additional coins for performing a range of tasks:

- Promoting Ethereum Basic in the social media: publishing posts on Facebook, tweeting, retweeting and reposting official Ethereum Basic posts, writing updates on Linkedin, and so on.

- Original content: blog posts, YouTube videos, online reviews and articles published on crypto-related forums and portals. All content must be strictly original, with articles and blog posts at least 500 words long and videos at least 5 minutes long. Content has to deal exclusively with Ethereum Basic; re-publishing the same material more than once is not allowed.