

EZIL.ME MINING POOL User's Guide

As provided by the GTO and in accordance with these GTO provisions:

"Mining" means a process based on probabilistic computing, in which the Miners shall perform mathematical operations to verify and add the transactions in a form of so-called blocks to the public ledger (blockchain) of the respective cryptocurrency, for which they are rewarded with a certain amount of prospective cryptocurrency and certain amount of transaction fees, calculated in accordance with the payout scheme.

To use the pool the Miner shall register the new user's account on the Website: <https://ezil.me>

By accessing and using the Pools, by the registration of a new user's account as well as by any subsequent provision of mining as defined in the GTO, the Miner shall confirm that he/she accept and agree to be bound by the GTO.

1. Equipment, Software and Hardware Requirements and Infrastructure Compatibility

1. Users ("Miners") shall ensure due infrastructure compatibility of its respective equipment, including computer hardware and software, energy supply and level of the energy sources' capacity to use the Pools.
2. The Pool Operator clearly and expressly advises the Miners against the use of CPU or smartphone-based mining software and equipment.
3. Before accessing the using the Pools the Users are recommended to check whether the respective mining device, hardware and/or equipment is compatible with the pool requirements as provided by the Pools' Operator, as follows:
 - The Pools' Operator support only GPU based mining system with the capacity no less than 3GB memory (\geq 3GB memory).
4. The Miners are recommended to use specific software that is compatible with the pool, including but not limited to a minimum network connection speed to the pool server, and that may need to be verified against the internet speed available to the Miner.

2. Task Allocation Mechanism

1. The Mining Pools shall use various methodologies to assign work to the Miner.

Before accessing the Pool, the Miner is recommended to pay attention to uniformity in hash tasks that get assigned by the Pool server irrespectively of the mining power of a particular Miner's device.

2. The operations of the Mining Pool are based on blockchain technology. A blockchain provides a wide spectrum of functionality for the Miners. By the way of establishment of each cryptocurrency and payment infrastructures, blockchain can be used, also for digital signing of the documents and/or for creation of the verifiable records of business transactions.

3. Each block contains a record of the recent transactions performed by the Miner (s), and a reference to the previous block.

4. The Block further contains a resolution of the specific mathematical task which is unique for each block. The new blocks cannot be submitted and accepted by blockchain network to the network without the correct answer – i.e., „validating process “.

5. The mathematical task in each block is complex and difficult-to-solve. Upon finding a valid solution, all subsequent blocks and the blockchain as a whole will confirm that the solution is correct and, thus, validate the transactions inside the solved block.

6. The difficulty level of the mathematical task is automatically adjusted by the blockchain to reach the targets. The goal of each task is to solve an average of 1 block per 15 seconds.

7. The details are specified in the respective consensus rules of a particular cryptocurrency as follows:

- Ethereum and Ethereum Classic: <https://ethereum.org/en/developers/docs/consensus-mechanisms/pow/>

- Zilliqa:

<https://blog.zilliqa.com/the-zilliqa-design-story-piece-by-piece-part-2-consensus-protocol-e38f6bf566e3>

8. The blockchain network shall come to a consensus and will increase or decrease the difficulty of generating blocks automatically.
9. As each block contains a reference to the preceding block, the consolidation of all existing blocks will form a chain.
10. In case the chain has certain temporary splits, the peer-to-peer network is construed to resolve such splits within a short period of time, so that only one branch of the chain would survive.
11. Thus, the Miner may accept the "longest" chain of blocks as valid and validate the transaction.
12. Cryptocurrency nodes use the block chain to distinguish legitimate transactions from attempts to re-spend coins that have already been spent elsewhere.
13. The Miners shall be aware that the mining process is intentionally organized in a way to be resource-intensive, so that the number of blocks to be found each day/each period of time by the Miners will remain steady. Individual blocks must contain a proof of work to be considered valid.
14. Such proof of work is being verified by other nodes each time they receive a block. **Ethereum**, **Ethereum Classic** and **Zilliqa** use the "**ethash**" proof-of-work function. The primary purpose of mining is to allow nodes to reach a secure, tamper-resistant consensus as specified above in clause 2.7.

Pool Transparency by Operator

- 2.1. The Pools Operator may implement various measures to perform its respective obligations in fair way to ensure transparency and trustworthiness among the mining Pools' Users.
- 2.2. The Pools Operator may offer a real-time dashboard view for the Miners to ensure data transparency and the Miners are recommended to look for such data transparency at the moment of joining the Pools.

3. Payout Threshold and Frequency

The GTO provides for the payout threshold and frequency as follows:

4.1. Payout takes place at 6:00 UTC after the minimum payout amount has been reached.

4.2. For **Ethereum + Zilliqa** mining pool the payout threshold shall be customizable as follows:

- "Ethereum":
 - minimum 0,05 "Ether"
 - maximum 10 "Ether"
- "Zilliqa":
 - minimum 30 "ZIL"
 - maximum 10000 "ZIL"

3. The PO reserves the right to pay out any unpaid balances for accounts that have not reached the payout threshold.

4. For **Ethereum Classic + Zilliqa** mining pool that will use the PPLNS, the payout threshold shall be customizable as follows:

- "Ethereum Classic":
 - minimum 0,1 "ETC"
 - maximum 400 "ETC"

- “Ziliqa”:
 - minimum 30 “ZIL”
 - maximum 10000 “ZIL”

5. In case the Miners have low-end hardware devices, they should avoid pools that have higher thresholds for making payments. Their lower computational output will be less, leading to lower earnings, and, therefore, the Miners may need to wait longer to hit the threshold to get paid. The same applies to the payment frequency of the mining Pool.

5. The Pools Security

5.1. The Miners are recommended to assess and ensure due level of its connection, equipment, hardware and software security before joining the Pools. The Pools Operator is not responsible for any hackers’ attacks, including but not limited to DDoS. The Miners should take any appropriate measures to prevent hackers’ attacks and, if hit by hackers, to mitigate the consequences.

6. The Pools Fee Structure

- 6.1. The Miners are recommended to pay attention to the fee structure as provided by the GTO as well as to the mathematical formula of the payout, which may include various charges.
- 6.2. Each cryptocurrency defines a unique mining reward scheme which is defined. The Miners shall pay attention that the Pools Operator reserves the right to apply individual incentives (including but not limited to the promocodes, cash-back etc.) for marketing and promotion purposes at its own discretion.
- 6.3. The **Ethereum + Zilliqa** mining pool will use the following payout schemes:

- Pay Per Share Plus ("PPS+") for Ethereum part and
- PPLNS for Zilliqa.

6.4. **PPS+** reward system shall be determined as a 2-part system, where pool accrual an automatically calculated amount of Ethereum for each valid submitted shares for Ethereum blockchain job for each 30 minutes based on the block reward without transaction fees and network difficulty for these 30 minutes to Miner account, and

6.5. It also pays transaction fees for each mined block by the pool using is round based reward system which called Pay Per Last N Shares ("PPLNS").

6.6. **PPLNS is** a reward system whereby one round has an arbitrary number (N) of minutes. When a block has been found by the pool, the transactions fees are rewarded in the block is distributed according to the number and difficulty of the shares submitted during the 30 minutes.

6.7. The pool fee to be disbursed by the Pools Operator shall be equal to the amount of 1% calculated from the total amount of the mining rewards as defined by the cryptocurrency consensus protocol.

6.8. Due to the high probability of the mining process, which depends on the external factors outside of the Pools Operator control (i.e., Miners' level of equipment, energy supply level etc.) the specified pool fee may be calculated at the different rate, but not exceeding 2.5% from the total amount of the mining rewards.

7. The Pools' Decentralization Support

- 7.1. The Miners should take into consideration that the underlying blockchain concept recommends that the network is better maintained in a truly decentralized manner if a large number of smaller pools are used for mining rather than a smaller number of large pools.
- 7.2. The Miners should further pay attention to the important consideration in maintaining a healthy state of the overall blockchain network and to avoid any risky concentration of hashing power.
- 7.3. The Miners should be aware that the results of the mining process are highly dependable on both luck and computational efforts and requires contribution of the Miners' time and patience.

8. ZILLIQA

- 8.1. Zilliqa blockchain is different. Zilliqa ("ZIL") is a decentralized and open-source cryptocurrency with increased throughput, which is dividing the mining network into smaller consensus groups („Shards”) as follows:

<https://blog.zilliqa.com/https-blog-zilliqa-com-the-zilliqa-design-story-piece-by-piece-part1-d9cb32ea1e65>

- 8.2. Zilliqa's blockchain structure is based on “sharding” — by way of dividing the mining network into smaller Shards, each of Shards is capable of parallel processing of the transactions.
- 8.3. If the mining network of ZILLIQA includes (X) miners, ZILLIQA automatically creates (Y) number of sub-networks each of size equal to the ratio (X: Y) miners, in a decentralized manner without a trusted coordinator.
 - For example: Zilliqa network includes 8000 miners. Zilliqa automatically creates 10 sub-networks each of size of 800 miners.
 - In case one sub-network can agree on a set of 100 transactions during the round, then 10 sub-networks can agree upon the total number of 1000 transactions in aggregated way.

8.4. ZILLIQA consists of two main entities: “Z Users” and “Z Miners”.

A “Z User” is an external entity who uses ZILLIQA’s infrastructure to transfer funds or run smart contracts. “Z Miners” are the nodes in the network who run ZILLIQA’s consensus protocol and get rewarded for their service, determined as follows:

- <https://blog.zilliqa.com/https-blog-zilliqa-com-the-zilliqa-design-story-piece-by-piece-part1-d9cb32ea1e65>
- <https://blog.zilliqa.com/the-zilliqa-design-story-piece-by-piece-part-2-consensus-protocol-e38f6bf566e3>