Minecoin - "Minecraft" worlds as DAOs, with real-value blocks

by Daniell Mesquita

Abstract

Something in common for Aragon, Enjin, Decentraland and Minetest.

If we follow the vision of Enjin, all game assets should have real ownership, and value; If we follow the vision of Decentraland, all virtual properties should have registered ownership and real value; If we follow the vision of Aragon, virtual organizations are viably and securely democratic; If we follow the vision of Minetest, Minecraft should be totally free and open-source.

Why not bring all those amazing visions into the same project? This is the purpose of this proposal: all Minetest blocks (and mobs/items) with value and being assets on Enjin, and worlds being Decentraland's properties and Aragon's DAOs (not exactly like an usual Aragon DAO).

It will not need partnership with Enjin/Decentraland but only the use of their platforms. About Minetest and Aragon's funded team, they probably will need some cooperation on making a real-value Minetest; unless an Minetest plugin could achieve all of that described on this proposal.

One of the utilities regarding Aragon's DAOs on Minetest, is that they can have their own "physical" installations for conferences, while keeping its virtual form.

If you told about Bitcoin and that it haves mining, a Minecraft user should imagine he using a pickaxe for mining gold ores and creating Bitcoin after forging gold; If you told about CryptoKitties for a Minecraft user, he could ask if that is a plugin for bringing cute cat mobs for Minecraft; but if instead of mining with hardware, he could really mine with its pickaxe? and instead of selling Bitcoin, he could sell his ores, blocks, seeds, animals and other items?

I believe on the open, entertaining, educative and free power of Minetest.

Note: I don't have skills to make it working, but to propose it; then you're free to begin implementing it on a pull request and receive your grants.

Full details / technical specifications

- Minecoin, as main in-game coin to store value as fungible coins
- Use IPFS for serving Minetest servers instead of centralized servers
- Use an identity provider for decentralized unique usernames, using Civic
- API where Minetest's plugins can use blockchain for their blocks/mobs/animals

- Smart contract(s) for the ERC1155-compatible token(s).
- Public network statistics (where users can see if other users are cheating)

- Hardware worker uses PoW to generate Minetest blocks to compose a "Minecraft" world
- PoW difficulty is adjusted by blocks/animals/mobs value, in a manner that hardware worker haves electrical costs covered (based on the fact that he earns 1/3 from mined blocks)
- Every kind of block and animal/mob is an individual token with its own value
- Hardware worker can set the form and size of the world by using a seed, which can require less or more work on PoW; there will be a minimum size for worlds to support a maximum of 12.000 users, and they can support more users than that if they are bigger than the minimum size
- The minimum user amount for an world is 5% of its maximum (for example, 600 users is the 5% minimum of 12.000 maximum, and an world is only valid if it receives its minimum members - they doesn't needs to be online, but just join the network as brand new and verified users)
- Minimum amount of kind of block to be generated by hardware worker, to generate an valid world with enough resources
- Hardware workers can't mine their own generated blocks and mobs/animals
- Hardware workers can't be member of their own generated world
- When generating a world, it will be both an DAO and an Decentraland's land/property, and its ownership will be given for brand new users that doesn't haves a world yet
- User can only earn an world if verified through Civic
- Users joins this world, earns some Minecoins (on a chest with his name and basic items/food) and starts mining
- An world divides onto chunks to be seeded by users (uses IPFS)
- Hardware worker earns one block for every two blocks mined (the third mined block of the same type, is for the hardware worker) and these blocks will be transferred to his Ethereum wallet and can appear on his inventory on Minetest
- Hardware worker earns one living mob/animal for every two (generic) animals of the same specie that are killed/caught
- Putting blocks towards an animal/mob catches it for your Ethereum address (like mining)
- When an world haves the last two kind of block or mob/animal, the hardware worker earns one of them (when block is mined or mob/animal is killed/caught)
- When mining with the wrong tool, user can't cheat to say it is the right, because the network registers what was the tool used and if it is on user's ETH address
- Members of an world or house haves voting weight according to their contributions; for example, he/she builds some roads and asks if members likes it
- If mining/constructing too quickly, user receives a captcha before doing it again
- If user is using bot, the whole blockchain bans he/she for some days, and it is increased if user repeats that; the blockchain is an DAO and only contributors are members; user can report another user, and the blockchain DAO votes about that

- User can buy or sell blocks/animals/mobs with Minecoins
- User can exchange blocks/animals/mobs for Minecoins (it is not like selling - when exchanging, the blocks are burnt and animals/mobs killed - the animals/mobs with DNA can't be exchanged)
- Unlike generic mobs/animals, there will be unique mobs/animals with their own DNA characteristics, that will be minted by blockchain on worlds every 6 months
- Monster mobs can be caught and used on PvP battles
- Blocks and generic mobs/animals are fungible collectibles, while mobs/animals with DNA are non-fungible; those can be transferred, sold or bought
- With some ETH gas, user's mobs/animals can mint new ones with their DNA (or no DNA if they are generic)
- Wild mobs/animals can mint children without fees
- Users can visit other worlds (even when banned, he can see how users are building/mining, to keep the network secure), but can't build/mine if isn't member
- When visiting other world, user can be proposed as member, and voted; if approved by both sides (voters and the user), he isn't anymore member of the previous world
- Even not being anymore an member, user keeps its vote weight value, but when banned this weight is reduced
- Worlds haves portals on each side, that links to other worlds (forming a map on network)
- World's portals are connected by similar sides (seas to seas, lands to lands)
- Seeds to generate ocean worlds; those special worlds needs to be 15x bigger than the minimum size, and have islands that together haves the same minimum size of an world (islands needs to have the biggest possible distance between them)
- When joining, members of ocean worlds earns lots of Minecoins because of their difficulties; they spawn on their own island
- There is a 95% chance of an ocean world side being connected to another ocean world
- Rockets, with which users can visit other worlds by their shareable link
- Three kinds of DAOs: Aragon's originals (came from Aragon and bought a territory on an world), an Minetest world (where users can be member of just one world), and an user's house
- "DAOs inside DAOs": an DAO can buy a part of territory on an world
- User can buy part of territory to construct an house; its unlimited and each house became an DAO
- Both Aragon's original DAOs and users can buy territories even if they aren't member of an world
- Buying territories depends on world member's votes, and the Minecoin amount is divide between the members that did positive vote
- World members can't set the value of territories, because it is metered from blocks (land horizontal blocks and all blocks that are bellow - because they will be mineable)
- On houses (as this is a different kind of DAO), any action depends on voting
- Members of an house can vote to ban another member; the construction value divides between them and the banned user takes it on blocks and can't visit this territory again

- Even the most weighted voters of an world doesn't haves permissions over Aragon's and houses's DAOs (sold territories)

- Members of sold territories can sell them for any value

- World members can vote to ban another member; when banned, he can be member of other worlds when visiting them, in the case it is proposed

- Inactive members are banned after one month (not from blockchain), so the votes on an world doesn't anymore relies on offline users

I suggest the granted team to use part of the grants to begin an ICO (with airdrop and bounty if needed), for having more resources for completing this complex but amazing task. This ICO would be very innovative (as the first interactive ICO), if gives option to buy Minetest blocks and animals/mobs to add to basket.

Grant size

Funding: Up to $150k in ETH, split into chunks paid out over achieved deliverables.

Success reward: Up to $100k in ANT, given out when all deliverables are ready.

Application requirements

- Proof of concept of the smart contracts for the ERC1155-compatible token. Alternatively, a whitepaper researching the implementation of the whole protocol

- Details of the team members, alongside with their willingness in terms of implication

- Estimated average burn rate for completing the deliverables

- Legal structure to be adopted, if any

Development timeline

To be discussed or to be proposed by the team requesting funds.

Reference: https://web.archive.org/web/20190212201240/https://github.com/aragon/nest/issues/125

Proposed by Daniell Wilson José Mesquita on Aragon Nest Program.