

Ezira

A democratic social media and cryptoeconomic network

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Abstract:

Ezira is a distributed and democratic blockchain based social media and cryptoeconomic platform.

It presents an open source network for building communities and businesses by empowering them with cryptocurrencies, user sovereignty, and digital identity. Ezira is a decentralized autonomous organization that incentivizes and directly compensates its contributors, asset holders, and workers at the blockchain level, and provides a wide scope of public services to network participants. It enables the creation of digital businesses operating on a powerful, transparent, and accountable financial system. Ezira offers a next generation platform for banking, payments, business management, and uncensorable communication.

1 Context:

Mainstream established social media websites do a lot of things right.

They enable free access to a global communications network of unprecedented scale. They allow users to connect with friends, and message them individually, or to make posts and broadcast to them all collectively. They give businesses a platform to promote their message to users, and build their brand image. Most importantly, they offer users the ability to receive value in response to content in the form of social validation. *Social networks have successfully atomized and digitized the majority of human social interaction, and have built an information empire on networked relationships.*

Social media giants, particularly Facebook, leave a lot of room for improvement.

They hoard vast quantities of private data, and retain all ownership over it. They utilize an unfathomable array of data to target advertising, through proprietary opaque black box algorithms. Popular content aggregators, particularly reddit, also have many drawbacks. While separated communities offer a sense of identity and culture to groups, they are also prone to being censored by powerful moderators, with little to no recourse from their users. Moderator powers to censor undesirable ideas allow operational actors to promote ulterior agendas, with the compelling appearance of grassroots support. *Censorship only narrows the range of acceptable thought, and concentrates power over information.*

Centralized platforms are vulnerable.

They are susceptible to DDOS attacks, server security breaches, and government backdoors. Their servers are vulnerable to being shut down by governments, and their financial services can be cut off with no recourse. This enables all manner of government coercion to take place, including forced censorship, over compliance with oppressive copyright restrictions in fear of lawsuits, and the provision of the private data of citizens to government agencies without their knowledge or consent. They are ultimately subservient to corporate interests, as they offer to sell their advertising services to businesses, while offering no financial return in exchange for the content that attracts user attention. It is from the energy and effort of billions of users that established social media giants extract value for their shareholders. *Users are not social media customers; they are the product to be sold.*

Fiat currencies are the single most important source of power of government institutions.

By controlling the issuance of money, debt, and credit, they are able to place populations of citizens under perpetual debt service, and involuntary taxation. Fractional reserve banking systems operated throughout most of the developed world require the continual expansion of debt, to repay the interest incurred on existing debt. Currency purchasing power becomes degraded by its continual supply increase, and intergenerational government debt is used to prevent total systemic collapse. Fiat currency is never created; it is borrowed charging interest that does not yet exist. The value of fiat currency is backed not by any real assets, but by the faith and credit of the issuing government. *That is, its ability to coercively tax its citizens.*

Fiat currencies are detrimental to building and securing wealth.

They are vulnerable to government operated asset seizure, account freezing, inflation, interest rate manipulation, and outright declarations of legal tender being worthless, as has been seen in India and Venezuela. They use archaic banking systems with redundant layers of bureaucracy and transactions can take days to be settled. International payments are even worse, requiring massive fees to pay for human operated multi bank transfers. Most importantly, fiat currencies do not allow citizens to control their money. Banks control fiat money, and follow your directions for as long as it serves their interests. They

engage in speculative trading with deposited assets, and their defaults are bailed out on a nepotistic basis with government funds (taxpayer's money) without any regard for citizen approval. Banks only hold a fraction of their balances in reserves. All money is created out of debt from nothing. The amount of money depositors think they have is not supported by the funds the bank actually owns to repay them. *The truth is only ever a bank run away.*

Cryptocurrency offers a revolutionary new basis upon which to build economies.

It allows permissionless transactions of sound money, with rapid settlements, across any borders. Cryptocurrencies can be designed to follow any programmed consensus rules, and once these rules are in place they produce an immutable blockchain record of transaction history that is almost impossible to change or defraud. Blockchain technology allows for so much more than just cryptocurrency. It allows any information to be securely published and stored across a decentralized node network. This allows unprecedented peer to peer structures to emerge, the possibilities of which we are only beginning to glimpse. Blockchain has the potential to disrupt power structures, and allow massive populations of people to have real control over their information without relying on centralized service providers, and gatekeepers. *The days of centralized control over currency issuance, financial services, content hosting, social media, and internet trading are numbered.*

Established cryptocurrencies, such as Bitcoin¹, as revolutionary as they are, are only in their infancy.

Long block times, expensive transaction fees, massive electricity waste from proof of work mining, and the centralization of mining in large mining pools all loom as problems. Most importantly, established cryptocurrencies lack a mechanism for cohesive governance. They simply place all of the control over the software protocols in the hands of small groups of developers, with little to no oversight from the community. They often lack transparency, are slow to react to community sentiment, and are susceptible to conflicts of interest. *Proof of work alone is not decentralization; it is a tyranny by the hash power majority.*

Then came Bitshares² and Steem³.

Bitshares and Steem use a delegated proof of stake algorithm that allows all value holders to vote on who should produce blocks. This ability to vote on how blocks are produced does something very important. It brings decentralized governance to cryptocurrency. It also mitigates mining centralization, and allows these elected block producers to act as compensated leaders of the platform, all while being accountable to user votes on a second by second basis. Bitshares introduced the user issued asset, a crypto token that is created easily by an account, and can be traded on the blockchain as its own distinct asset using the decentralized exchange. The market pegged asset, or smartcoin, enables the network to have secure collateralized stores of value that track outside assets. Steem utilized 3 second block times to produce real time transactions, allowing for fast paced social media interactions to be recorded at the blockchain level. Transactions are rate limited by the amount of value the account holds, allowing for free transactions. *By making transactions fast, free, and lightweight, they can be used for any user interaction, not just financial transfers.*

Steem, like the social media and financial technology that came before it, has some flaws.

Steem offers no asset that represents the equity of the network that is not inflated over time. Steem is created at a constant rate, and the Steem power used to vote has its value degraded by the issuance of new Steem. Steem offers no ability to encrypt posts, or make private posts with restricted visibility. Steem offers no ability to create separated communities, and is homogeneously combined into one. Tags are not distinctly created, have no page customization options, and only a limited amount of them can be used. Steem requires that post data be recorded directly into the blockchain, causing rapid expansion

of the blockchain size. Files must be hosted externally, requiring breakable links for embedded images, and videos. Peer to peer content hosting protocols such as Storj⁴ allow for data to be held by a network of peers, while encrypted and sharded. The most important drawback of Steem is its lack of built in value creation for its cryptocurrencies. There is nothing on Steemit that can be bought with Steem backed dollars or Steem. Content purchasing mechanisms, such as those described by Decent⁵ allow for premium content to be sold between peers. Steem's promotion system leaves much to be desired, and voting power is not a sufficient motivator to draw capital inflows. The average user will not choose to purchase additional units of currency to marginally increase their content voting power. *Memberships, built in marketplace trading, premium content purchases, and post promotion offer much more value.*

Ezira proposes to build on the important advances of Steem, and unleash an array of powerful new features and improvements, while offering more compelling demand avenues for its network cryptocurrencies.

2 What is Ezira?

Ezira will synthesize social media with cryptocurrency based finance.

It will enable public vote sorted community board posts, private group posts, personal identity profiles, follower based post broadcasting feeds, and encrypted private messaging. It will integrate a decentralized exchange, a multi-currency circular economy, blockchain based businesses, premium content publishing, and escrowed marketplace trading to enable a powerful cryptocurrency based financial system. Ezira's flagship interface will be the website Ezira.io, which will allow users to interact with the blockchain network easily. Content creators, network officers, and resource providers are compensated by the network for their contributions. Third party developers will be able to freely create applications that use the public blockchain database structure.

Ezira puts people first.

With a variety of content posting options, you are in control of who can read your posts, and who can follow your identity. Information is freed from the walled gardens of the Old Guard of Social Media giants, by allowing for the permissioned access of any developer to leverage the data on the network. Your profile information is never sold to advertisers; it is controlled by you. Advertisers pay the entire Ezira network to promote their posts, not a privately controlled and owned company. Integrated blockchain level memberships and post promotion provide an unprecedented source of ongoing revenue for the community, and provide an unobtrusive organic way for creators, innovators, and entrepreneurs to expand their user base. Ezira posts are uncensorable, and unstoppable. All posts and valid transactions on the Ezira blockchain cannot be censored, and will always be publically visible at the protocol level. Accounts cannot be banned, suspended, muted, or shadow banned. Ezira does not enforce any content rules, and the network allows users and moderators to decide what to view, post, and allow in boards. Anonymous, Persona, and Profile accounts allow for separated networks of connections and distinct identity control for your posts, votes and views.

Ezira brings the cryptocurrency world to the real world.

By investing in blockchain compensated marketing and advocacy services from the community, Ezira builds a team of public ambassadors to deliver the cryptocurrency message to all people, of all nations and all levels of technical understanding. Ezira bridges the gap between the complexities of decentralized software, and the user experience of mainstream finance and social media. Ezira will use a minimalistic, elegant, and user-friendly approach to marketing, and will dedicate resources to assisting with the onboarding process for new entrants to the cryptocurrency sphere. A vibrant and rich media tutorial base will guide mainstream users to understand how to use Ezira and cryptocurrencies in general. Ezira will use a variety of integrated fiat currency gateway services to enable a frictionless inflow of capital into the ecosystem, and will not require users to be familiar with bitcoin, exchanges, or blockchains to be able to purchase and transact with Ezira cryptocurrencies. Ezira also allows users to earn their own cryptocurrency from content author rewards, product sales and premium content sales. The Supernode, Mining, Witness, Marketing, Development, and Advocate reward pools will all operate running the same easily accessed node software, and will not require any use of daemons or command lines to become an integral part of the Ezira network backbone.

2.1 Communities:

Ezira empowers communities.

Community leaders can create and moderate boards that hold posts. Moderators are able to customize their appearance using CSS control, and remove posts that violate board rules. Posts can be stuck to the top at moderator discretion, accounts can be whitelisted to accept all posts to the board or blacklisted to prevent certain accounts from being able to attach posts to the board in blockchain transactions. Any posts removed from a board are still visible to other boards, and the rest of the Ezira blockchain network. Viewers of posts have the most powerful customization tools available to directly shape the formulas that rank posts, and view the most relevant content to their interests. There are no default subscriptions to any boards for new accounts. Each user chooses their own starting boards to subscribe to, from a list of the most active and popular boards.

Ezira celebrates creators and curators.

Public posts on the network can be voted on to receive author rewards from the blockchain. Author and curator reward payouts are made in 75% liquid assets, offering more flexibility than other blockchain social media platforms. Liquid rewards can be set to automatically purchase any specified assets from the decentralized exchange, including value stable smartcoins, fiat currency gateway assets, and EZIRA equity. Content creators receive author reward payouts over the course of 30 days, allowing a longer timeframe for post discovery than other blockchain social media platforms. Ezira author rewards scale from a combination of votes and views, enabling dynamic and equitable distribution. Voting power on Ezira can be increased without extensive long term liquidity commitments through ownership of EZIRA, and optional long term commitments are rewarded with multipliers on voting power, and reward pool payouts on vested EziraCoin. Reward pool distributions do not dilute equity, they are made in a separate, high demand liquid currency that is distributed at a fixed, constant rate in blocks. Active accounts will receive a small activity reward each day, which scales with account balance. Curators are rewarded according to how early they vote for content, and how much voting power they contribute.

Ezira provides unprecedented compensation for moderation.

Ezira allows community leaders to earn from building a thriving discussion under their watchful administration and curation. Each post that earns author rewards from the Ezira blockchain contributes a small percentage of its reward to the moderators of the boards that it is listed on. This reward compensates moderators for the time and effort that they have invested in their community, and allows large successful communities to have a substantial group budget for projects of their choice. Our moderator voting features ensure that the leaders of a community are accountable to those that they oversee, and that communities have recourse from overzealous post removals, entrenchment of influence, and censorship.

2.2 Cryptocurrencies:

Ezira puts you in full control of your money.

Investment in the Ezira network is represented by the EZIRA cryptoequity, which is paid a dividend that scales in value with the profit of the network. Only 10,000,000 units will ever be issued, and provide voting power to exercise agency over the network. Revenues and expenses are denominated by the EziraCoin currency, which is produced in blocks, and consumed by using blockchain level services. Only 10,000,000 units are minted per year, and are actively consumed by unprecedented avenues of demand through buy and burn mechanisms. The EziraDollar is a smartcoin that is pegged to the US dollar, and

maintains a stable value. It is backed by 200% of its value in EziraCoin collateral. It can be freely transacted to anyone at any time, and represents the medium of exchange of the network. The Ezira Decentralized Exchange allows all of your trades and exchange assets to be held and recorded on-chain, securing them against exchange hacks. Ezira's gateway assets are backed by a full reserve of leading cryptocurrencies, of which at least 90% are held in cold storage, and can be redeemed in full at any time. Third parties are free to create user issued assets and offer their own exchange services, or any other desired crypto asset.

Ezira cryptocurrencies enable high performance, and are distributed fairly.

Using a Delegated proof of stake blockchain, transaction throughput is highly scalable, energy waste is minimized, and block times are only three seconds. Core cryptocurrencies EziraCoin and EziraDollars have no transaction fees, making them highly viable payment methods at the point of sale. A network of Supernodes is integrated into the system, which are rewarded for providing consistent processing, storage, bandwidth, transaction relaying, and hosting resources. Each Supernode holds a balance of EziraCoin, and operates an active full node. The Ezira Founders will only hold 20% of the equity of the platform, and a 10% share of EZIRA equity will be sharedropped on the widest range of blockchain communities ever, including Bitcoin, Ethereum, Ethereum Classic, Steem, Bitshares, Dash, Monero, Litecoin, and Zcash. The beginning of the blockchain will be widely publicly announced, eliminating early ninja mining. There will be no phase of high rate early mining, as the mining rate will be constant.

Ezira is committed to a stable network.

The Ezira network will never, under any circumstances, execute a blockchain hardfork to redistribute funds, blacklist any accounts, or censor any transactions, even in the event of accused theft, or government coercion. Ezira will maintain the fungibility of all cryptocurrency units and will never, under any circumstances, compromise the immutability of the blockchain. Block rewards will remain constant to compensate miners and witnesses, preventing any reliance upon a transaction fee market to gain block inclusion. The Ezira blockchain is flexible, and the size of blocks will be altered as needed, and supported by witnesses. The majority of delegated witnesses must agree to support any protocol level changes to the blockchain functions, parameters, or features. These witnesses are elected by platform voting power holders, ensuring that the adoption of changes is always aligned with the collective will of the users. The network will never issue more than 10,000,000 units of EZIRA. The network will never issue more than 10,000,000 units of EziraCoin per year in block rewards. The Ezira founders will hold their personal equity for at least 5 years from the genesis block, and will lead by example in demonstrating their resolve and confidence in the value of the platform.

2.3 Businesses:

Ezira allows businesses and contributors to thrive and grow.

Multi-sig cryptocurrency wallets are integrated into user accounts, allowing for the seamless creation of blockchain based businesses, with linked cryptoassets. Our advertising and engagement tools provide organizations of any size, from sole entrepreneurs to multinationals, unique opportunities to build and leverage their brand, cost effectively improve sales, and engage with their customers and community. Business operators will be able to permanently and publicly list their products as blockchain objects, which can be drawn upon by third party developers for use, display, and sale on any outside interface. The Ezira network features blockchain level implementation of escrow transactions, allowing customers and vendors to trust one another without centralized oversight, and have a point of recourse with a team of mediators in the event of transaction issues.

Ezira supports its businesses from start to finish.

Ezira offers a full whitepaper-to-business sponsorship program to guide and promote organic startup projects from the ground floor to the stratosphere. Our sponsorship program puts you at the head of the pack, and brings you into the EZIRA Consortium. By sharedropping equity and sharing revenue with the EZIRA community, you gain a strong backing of financial support in the event of hardship. Ezira implements a community consensus approved system to cover the liabilities of any sponsored business that applies for default. Investors are reimbursed to cover the default of an Ezira sponsored business. The Ezira sponsored business program aligns the interests of the network, and those who strive to innovate using its technology. The success of our sponsored businesses is our success, and their challenges are our challenges. Users are able to promote their posts to receive additional visibility for use in advertising their business or its products. Promoted posts can be used to gain a greater following for content, and gain a greater exposure in the Ezira community.

Ezira brings low cost cryptoassets to everyone.

Customized user issued assets are recorded securely on the blockchain, just the same as Ezira network cryptocurrencies. These assets can be used to represent anything you can imagine. Ezira offers integrated support for creating assets to represent equity in a business, assets to represent content subscriptions, and assets to represent event tickets. Any asset can be used as a basis for profit distribution, allowing anyone to pay dividends to asset holders. Assets can be created that track the value of an external object, or represent ownership over another asset for use as a gateway asset on the Ezira decentralized exchange. Ezira earns revenue by selling cryptoassets that grant accounts membership on the blockchain. These optional memberships grant an account additional voting power, a greater relative stake in Ezira's reward payouts, the ability to post premium content, and discounts on fees.

2.4 Sovereignty:

Ezira empowers users.

Ezira's post viewing parameterization allows users to manipulate the ordering of posts by weighting the impact of votes, views, shares, and comments in relation to the time since they were posted, or the time that they were last commented on. The way that Ezira posts are sorted is endlessly customizable, and offers many presets for easy usage. Ezira enables users to build and host applications that interact with the network, which allow even further customization and user interface choice. The featured page provides a regularly updated stream of the highest quality content from our members, and allows our contributors to gain a valuable platform to expand their audience. Feeds provide users with up to the second information from the accounts they follow, and instant access to posts and content releases. Groups allow users to create private and encrypted areas for discussion amongst selected accounts. Events allow the creation and co-ordination of gatherings, and have built in functionality for ticket sales and budgeting. Users are able to share small amounts of voting power with their friends to help boost their influence. Most importantly, all Ezira network revenue value is returned to the users and asset holders. All equity holdings are transparent, executive board powers on Ezira are limited, and protocol decision making is entirely democratic.

Ezira Builds Leaders.

The executive board of the Ezira network is determined by annual elections from all voting power holders. Unlike other blockchain networks that have centralized overseeing foundations or companies, the Ezira executive board will be an elected body, accountable to the community that they serve. Powerful incentive structures are utilized to compensate those who stand out in the community, for their work in development, their marketing endeavors, their advocacy for Ezira and blockchain technology, and their digital witness of the blocks that build the network. Delegate voting will elect panels of supported accounts to the positions of Ezira network officers. Officers are tasked with responsibilities that promote the Ezira network, and receive a consistent reward for their efforts. Contributions from developers, witnesses, advocates and marketers are rewarded proportionately with their support from the community.

Ezira's executive structure is democratically elected.

Holders of EZIRA equity and EziraPower hold voting power that is used to decide who leads the guiding committee of Ezira, called the Ezira executive board. Unlike other cryptocurrencies that have shadowy opaque foundations guiding them or even executing political changes to transactions, Ezira's executives will be chosen by the network users. The roles held by the eight acting members of the Ezira executive board are clearly defined and their powers are limited. Debt taken on by the Ezira network to fund executive board budgeting costs is transparently visible, consistently repaid out of network revenue, and must be approved by network stakeholders. Ezira operates distinct separations of powers between the witnesses that create blocks and approve protocol upgrades, developers that improve the code base, marketers that project Ezira's image to new users, and advocates that further public discourse on cryptocurrencies. The executive board positions provide active compensated leadership of these roles, and overall leadership and vision for the network. All network officers and executives are accountable to voters, and provide transparent updates on their progress.

2.5 Identity:

Ezira gives you control over your identity.

Posts on the Ezira network can be published from profile accounts, persona accounts, or anonymously. Profile accounts allow users to have a fully blockchain enabled digital identity, that can be accessed by chosen connected accounts, and third party developers for authentication with your permission. Profile data is encrypted and is completely owned and controlled by the user. Profile accounts allow the establishment of a strong base of reputation for producing quality content, selling products in the marketplace, and creating successful businesses. All public Ezira activities are compiled into one unified place, from which a compelling personal brand and social influence can be established. When posts and products are seamlessly integrated, successful influencers can turn impressed followers into satisfied customers.

Ezira protects your privacy.

Persona accounts allow you to separate your posts from your main profile account to restrict association with your real identity, and allow pseudonymous transactions. Persona accounts can have as little association with your profile account as desired, allowing a strong separation of identity. Trading between persona accounts allows a high level of anonymity between customers and vendors, with no need to exchange personal information beyond what is necessary. Ezira brings the freedom and discretion of darknet markets to mainstream users, with the addition of optional blockchain level transaction mediation. All trading transactions are encrypted, and EziraStealth may be used for

additional anonymity. EziraStealth enables users to transact anonymously and privately. No balance or transaction information is publically visible for EziraStealth, only its conversion and redemption is visible to the public blockchain.

Ezira enables true data security and anonymity.

Posts can be made completely anonymously with built in network rerouting to conceal your IP address. This prevents your identity from being revealed, or your posts from being associated with each other. All private messaging is just that, private. Messages are end to end encrypted, and are posted to the blockchain, where it cannot be determined who read the message, or when, eliminating metadata analysis. Profile information is shared under a multi-tier permission scheme, and is stored in encrypted decentralized cloud storage. The Ezira executive board and its employees will not collect any data from users, leaving your data secure in the event of a government subpoena, information leak, or hacking event. Only public data as recorded on the blockchain will be available for use by advertisers on the network. Private data is encrypted and cannot be ever be used for advertising targeting.

3 Key value propositions:

- Web URL and flagship user interface: www.ezira.io
- An open source, distributed, and integrated platform for social networking, filesharing, cryptoeconomic enterprise, cryptoasset trading, and startup financing.
- Blockchain software based on the open standard Graphene, developed by Daniel Larimer of Cryptonomex and Steemit.
- 3 second block times, and flexible parameterization of blockchain operational values and price feeds.
- Witness, node, Supernode, and mining applications for the blockchain are implemented in a single user friendly GUI client.
- Equity is denominated in the EZIRA asset, which is offered over a preliminary ICO and a main ICO.
- A circular economic structure is facilitated by EziraCoin, with blockchain level revenue and expense allocations.
- Stable value smartcoins are created by locking in EziraCoin collateral, and are used to represent external currencies for stable value payments.
- Users have multiple ways to gain voting power, including variable length vesting options.
- Posts are awarded content rewards from the blockchain, according to the amount of voting power that upvotes them, and views them.
- Users have the choice of posting using either full identity profile accounts, pseudonym personas, or anonymously.
- Users are able to obtain decentralized community supported verification of their account, to secure their identity and reputation.
- User accounts can form connections to decrypt private profile data, and encrypted posts, using multi-tiered viewing permissions and verification.
- User accounts of close friends can become connected and share small percentages of their voting power with each other.
- The majority of frontend site data is served via IPFS by Supernodes hosting media content; backend data is secured on the Ezira Delegated Proof of Stake and Proof of Work hybrid blockchain.
- User files, images and videos are hosted on the file storage provided by network compensated Supernodes.
- Files are encrypted before hosting, and sharded with strong redundancy across multiple Supernodes.
- Posts and files can be optionally posted as premium content, requiring a payment to decrypt them, enabling peer to peer content sales.
- All EziraDollar and EziraCoin transactions have no transaction fees, and can optionally be encrypted with EziraStealth for privacy.
- All post listings can be sorted by many different sorting options, allowing users to manipulate the parameters of the sorting algorithms that they use to view content by altering specific weightings to suit their preferences.

4 Primary Ezira Blockchain features:

4.1 Ezira cryptocurrencies:

EZIRA:

Code – EZIRA

Symbol – **E**

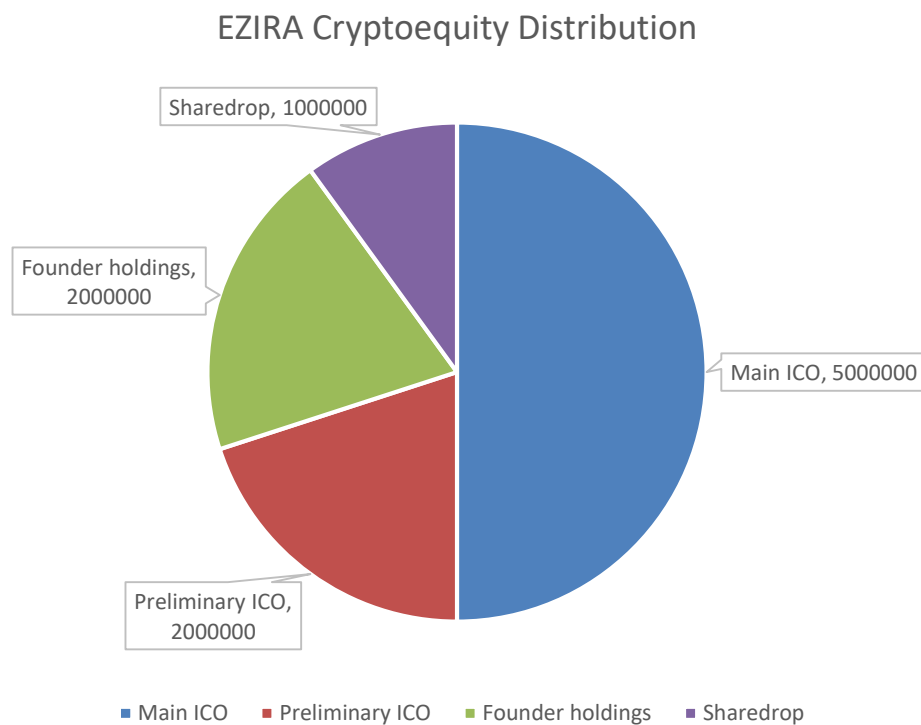
Decimal places – 16

Supply – Fixed

EZIRA is the cryptoequity of the Ezira platform. It represents ownership of the platform, and gives holders voting power to allocate network rewards, and to vote in all network elections.

A transaction fee of 0.25% is charged on transfers, capped at 0.1 EZIRA. These fees are distributed to the network revenue model, and are used to buy and burn EziraCoin and other assets. A fixed supply of 10,000,000 units exist, with the majority distributed to ICO funders. No more than 10,000,000 will ever be created under any circumstances. EZIRA should not be burned, and any revenue that is distributed to EZIRA holders directly should be done with a buy and drop, which purchases EZIRA from the exchange, and proportionately sharedrops it to all holders. EZIRA can be issued as a reward for contributions by setting up an automatic purchase of EZIRA with the EziraCoin that is earned from reward pools.

The initial 10,000,000 units will be distributed as follows:



2,000,000 – Founders personal equity, to be distributed between project contributors and held for a minimum of 5 years.

2,000,000 – Preliminary ICO to be sold on release of roadmap 1 to early contributors and investors, distributed according to investment value with early bonuses.

5,000,000 – Main ICO to be sold on release of roadmap 2 to contributors and investors, distributed according to investment value, with early bonuses.

1,000,000 – Sharedrop to all addresses holding coins at the snapshot:

300,000 – Bitcoin

200,000 – Steem (includes Steem, Steem dollars, and Steem power)

150,000 – Bitshares

100,000 – Ethereum

50,000 – Ethereum Classic

50,000 – Dash

50,000 – Monero

50,000 – Litecoin


50,000 – Zcash

Sharedropped EZIRA is redeemed by importing each address into the user's Ezira wallet. The Ezira wallet allows users to manage all their cryptocurrencies by importing balances from many major cryptocurrencies, and interacting with each blockchain. Each address above dust from the 9 major currencies listed will hold a balance of EZIRA, which can be transferred over to the users EZIRA balance. All of these currencies will be accepted in the Ezira ICO series. All Ezira accounts that contribute funds to the ICO series can nominate their cryptocurrency addresses to receive a 50% bonus allocation in the sharedrop, and automatically redeem their sharedropped balance with their ICO purchased balance.

Sharedrop distributions are created as an input to the address in the genesis block, and can be spent when the correct private key is used to spend the input back to the users EZIRA account. For this reason, users should ensure that they are holding their coins in an address controlled by them, with access to the private key during the sharedrop period. Exchange addresses do not give the user access to the private key, and may not honor the sharedrop distribution. The sharedrop snapshots will take place at a random block over the course of a nominated 2-week period, immediately before the preliminary ICO. Each coin will have different blocks and times chosen as the snapshot record.

EziraCoin:

Code – EZC

Symbol – 

Decimal places – 16

Supply – Linear inflationary

EziraCoin is the liquid blockchain cryptocurrency of the Ezira platform. 10,000,000 units are mined per year, and are issued to the EziraCoin reward pools. It has no transaction fees, and is in high demand due to buy and burn mechanisms funded by network fee revenue. EziraCoin can be vested as EziraPower (EZP), which can be withdrawn into EziraCoin over 10 weeks.


Vested EziraPower can optionally be locked into EziraBonds (EZB), which offer a bonus to their return on investment, but cannot be powered down until maturity. EziraBonds provide a 50% increase to their rate of return and voting power per vesting year remaining, up to 10 years. Vesting time can be added to existing EziraBonds, to keep them at a high multiplier if they are not planned to be withdrawn in the near future.

EziraPower and EziraBonds give voting power in all Ezira network elections, and for the allocation of network rewards. The amount of voting power conferred to EziraPower is determined by the exchange rate between EZIRA and EziraCoin. EziraPower grants an equal amount of voting power per unit cost as EZIRA, but is illiquid.

EZIRA, EziraPower, and EziraBonds offer three different ways to hold voting power. EZIRA offers liquid voting power, at the expense of a transaction fee. EziraPower offers illiquid voting power with no transaction fee and a return on investment. EziraBonds offer long term illiquid voting power, with an increase to their return on investment and relative voting power of 50% per year vested, compared to EziraPower.

EziraDollars:

Code – EZD

Symbol – 

Decimal places – 8

Supply – Demand based variable

The EziraDollar is the default stable smartcoin of the Ezira network. All Ezira sponsored businesses accept EZD for their products, and all premium content accepts EZD for decryption. It is pegged by witness feeds to be redeemable for exactly \$1.00 USD worth of EziraCoin, has no transaction fees.

EziraDollars are created by locking at least 200% of the value of the smartcoin in EZC collateral. They are borrowed against the collateral locked in, and the account creates them from this process. They can then be sold on the EziraDEX, with their outstanding settlement value acting as a debt against the collateral locked in to create them.

At any time, owners of EziraDollars can settle the smartcoins, and receive \$1.00 USD worth of EziraCoin. The least collateralized position is liquidated to claim the EZC collateral at the witness feed settlement value, which tracks the USD. The settlement process uses the average settlement value over 24 hours from witness feeds. If any EziraDollar borrower's position goes below 175% collateralization, it is automatically settled by purchasing the asset back from the exchange and closing the position.

Other fiat smartcoins, such as EZAUD, EZCNY, or EZEUR will be added in accordance with community demand. If the value of the US dollar is no longer suitable for use as a stable market peg, then either EziraCoin, or another smartcoin will become the standard medium of exchange on the Ezira network. EziraDollars can be issued as a reward for contributions by setting up an automatic purchase with EziraCoin earned from reward pools.

EziraStealth:

Code – EZS

Symbol – **₮**

Decimal places – 8

Supply – Demand based variable inflationary

EziraStealth is the private cryptocurrency of the Ezira network, and is equal to the value of 1 EziraCoin. All transactions in EziraStealth are fully encrypted and untraceable on the blockchain, and account balances are not visible unless they are optionally revealed by providing a stealth viewkey. EziraStealth units are created at an address by converting EziraCoin to EziraStealth. EziraStealth can be converted back into EziraCoin at any time. This requires a 0.25% conversion fee which is distributed to the network revenue mechanism and used to buy and burn EziraCoin and other assets. The conversion of EziraStealth back into EziraCoin is visible publicly as a blockchain transaction.

EziraCredit:

Code – EZX

Symbol – **⌘**

Decimal places – 8

Supply – Fiat variable

EziraCredit is a fiat cryptoasset with a standard value of 1 EZD. It is created at the discretion of the Ezira network, and the Ezira board of executives. All creations and distributions of EziraCredit must be confirmed by 51% of Ezira voting power, the Ezira CEO, and CFO. EziraCredit is used to pay executive salaries, and borrow funds from network investors for community or executive use in approved publicly visible reimbursements. Executive salaries are capped by witness parameters. It is used to pay investors of ICOs in default in accordance with Ezira Network sponsorship and approval.

The value of EziraCredit is based on the automatic repurchase of the asset for EziraDollars by the network out of revenue. This asset should not be used as a transactional currency, and should be sold for EziraDollars at a controlled rate and price according to liquidity needs. Investors should purchase this asset if its value falls below 1 USD, as it will be consistently repurchased out of incoming network revenue at a value of up to 1 EZD. The lowest sellers are repurchased first at ask price. If the value of EziraCredit falls below 0.80 USD, creation is frozen. The asset enables the Ezira executive board and the community to effectively borrow funds against future network revenue, without diluting any existing assets. The network pays an interest rate to holders of EziraCredit, which is determined by witnesses. When the value of EziraCredit falls, witnesses should increase interest rates, and when the value increases to a premium, witnesses should decrease interest rates. The interest rate of this asset should be higher than the market interest rate of EziraDollars, due to its higher risk profile, and lack of collateralization.

4.2 Block production algorithm:

Ezira will use a Delegated proof of stake and proof of work hybrid blockchain algorithm, based closely on the mining and witness algorithm of Steem. Elected witnesses and proof of work miners will take turns producing blocks approximately every 3 seconds. There are exactly 10,000,000 blocks mined per year, resulting in an average block time of 3.1536 seconds. Each block issues exactly 1 new EziraCoin, creating a new supply of 10,000,000 EziraCoin per year.

All holders of EZIRA, EZP, and EZB are able to vote for up to 50 witnesses, which they delegate the ability to produce and sign blocks for the blockchain once per round. In blocks, witnesses and miners create distributions to the reward pools, and earn a block reward for themselves. Accounts can optionally nominate a proxy account, and mirror their votes.

55 Witnesses and 5 miners take turns producing a block approximately once every 3 seconds. The top 50 witnesses, collectively called the Ezira Witness Officers, produce a block every round. 5 additional witnesses are chosen randomly from the rest of the witness pool, with higher voted witnesses being more likely to be chosen. 5 Miners are taken from the top of the mining queue, to produce a block. Every round consists of 5 sets of the following: 10 witness officers produce one block each, then a random witness produces a block, then the miner at the top of the queue produces a block. Blocks include all valid transaction received by the node since the last block was created, and are signed by the account of the node that created it.

The mining proof of work algorithm requires that the miner own the private key of the account they are mining with. It combines multiple secure hash algorithms by using the ASIC resistant X11 hashing algorithm. This makes the algorithm more secure in the case that any of its individual algorithms becomes optimized by an ASIC. It is dependent on the private key of the account that new EziraCoin units are mined to, and on the mining account name. These dependencies ensure that valid proof of work transactions cannot be used by other accounts to claim mining blocks, and so that it is difficult to operate a mining pool, or to siphon mining power from a botnet. Pool operators would need to trust that miners do not use the private key of their mining pool account to spend funds, and botnet operators would need to spread their own private key with any mining malware, opening them to theft of their funds. It is dependent on the block id of the previous block, requiring that miners have a low latency with other nodes to receive the block in time to generate the proof of work, and propagate it to other nodes.

Proof of work transactions are distinctly separated from the creation of blocks, and a valid proof of work transaction places a miner in the mining queue to produce a block at its allocated time. The formula for a proof of work is as follows:

```
reference = X11(last_block_id + mining_account_name + nonce)
input = X11(reference)
signature = ECDSA(input, account_private_wallet_key)
signature_hash = X11(signature)
notional_public_key = RecoverPublicKey(signature_hash, signature)
proof_of_work = X11(notional_public_key + input)
```


The notional public key corresponds to the theoretical private key that would have signed the data “signature_hash”, and created a signature of “signature”. Miners rapidly iterate the nonce that is added into the hash of “reference” to find a valid proof of work. A valid proof of work must be lower than the target difficulty, and the value of RecoverPublicKey(input, signature) must equal the public wallet key of the specified mining_account_name. The account private key must not have been changed in the last 60 blocks. The difficulty of the proof of work requirement scales exponentially with the square of the amount of miners currently in the mining queue:

$$Difficulty \propto 2^{\left(\frac{QueueLength^2}{100}\right)}$$

This quadratic exponential difficulty scaling ensures that there is a more consistent number of miners in the queue, as it rapidly becomes easier to mine with a smaller queue, and rapidly becomes difficult to mine with a longer queue. The hash of every 5th miner block is used to determine the ordering of the next round of witnesses to produce blocks.

4.3 Supernodes:

Supernodes are Ezira network servers that are run by members of the community. Supernodes hold a full copy of the Ezira blockchain and strengthen the network by propagating transactions and new blocks from witnesses and miners. The blockchain is used as an immutable ledger to store public posts, content file references, user votes, user views, transactions, marketplace trades, decentralized exchange trades, and network votes.

Supernodes host data and provide computational resources to the network in exchange for compensation. Supernodes receive a share in the Supernode reward pool, and receive a portion of the content rewards for the files that they host. Supernode storage is used to store the media files, and serve them via the decentralized Interplanetary File System (IPFS) and Interplanetary Naming System (IPNS) protocols.

This protocol suite enables files to be accessed without a central file host. Files can be streamed from multiple Supernodes in discrete pieces, in the same manner as the Bittorrent protocol operates. Supernode account users can automatically add files to their repository to be hosted to other nodes as they view and download them. Supernodes are selected to count and verify the anonymous views of posts, and publish transactions each hour detailing the valid view notifiers that they have received from anonymous viewers. These view notifiers contain information that describes the Supernodes that sent them data, and if an account referred them. These are used to calculate referral distributions for posts. Viewers that are using accounts also send this information, but publish the transactions themselves, and sign them to verify their voting power.

All files from posts, messages, audio, video, images, and applications are hosted on Supernode servers, and are referenced by the Ezira blockchain using the IPNS protocol to reference an IPFS file. Data is replicated for redundancy, and is served to users. Data is uploaded in an encrypted state, and can only be accessed by using a decryption key. Public posts provide this decryption key in the blockchain transaction to view the file. Premium posts require a payment to be made for a group of Supernodes to send the decryption key for the encrypted files. Private posts require connection or group viewing keys to decrypt files, depending on the level of restriction. Private post files are only sent to nodes that are included in the visibility list of the file.

Users can restrict the visibility of their posts by encrypting them with connection keys. These posts require a decryption key be transferred between accounts when they become connections. Elevation to friend status transfers another key used to decrypt friend restricted data, and companion status transfers another decryption key. Supernodes manage requests for encrypted files, only sending files to accounts that are included in the visibility list of the post. Files are broken up into several pieces, requiring a complete set to access the entire file. These pieces are separated over multiple Supernodes, preventing any one Supernode from being able to send the file to accounts that are not included on the visibility list.

Supernodes conduct validity tests against each other, as it is in their interest to exclude other Supernodes from receiving Supernode reward units, and increase the share for themselves. Supernodes can test each other at any time to ensure availability, and check for fulfillment of uptime resource provision. Supernodes are tested for security by ensuring that requests to send data without valid permission from a post's visibility list are rejected. Supernodes must run continuously for 24 consecutive hours, and not fail 5 independent Supernode validity tests during this time to enter the Supernode reward pool. When Supernodes test each other, they post the results of their test to the blockchain, to advise that other Supernodes should not test them again for a period of time. If a Supernode fails a validity test, then the test is posted to the blockchain, and is confirmed by many other Supernodes. If a Supernode fails independent tests from at least 5 other Supernodes, then it is ejected from the Supernode reward pool and must run for the next 24 hours consecutively to rejoin.

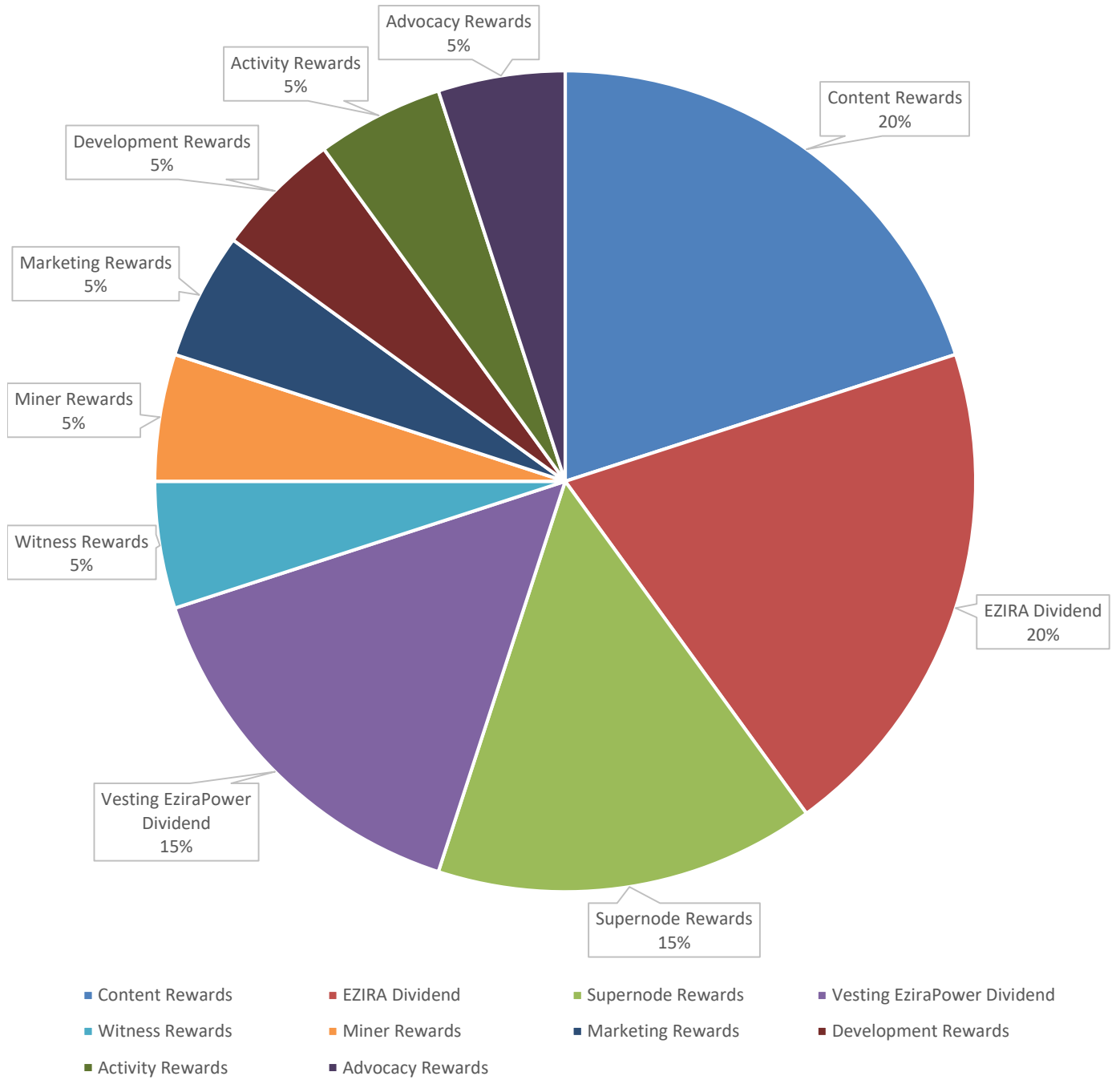
Files can be hosted in the Supernode network without being posted to Ezira or referenced on the blockchain, and encrypted with a key that only the uploading account has access to, the secure key. Off blockchain files are stored by Supernodes that charge EziraCoin for storage. Each Supernode chooses to store and host private files for a specified rate per gigabyte per day. These files do not earn funds from the Supernode reward pool, as they are not referenced on the blockchain. Files are stored with a group of five Supernodes that have a low latency, and a low price. Supernodes can also be selected manually if desired. If any of these five Supernodes disconnects, the files are immediately replicated to a different Supernode. Users pay the Supernodes directly for file storage, causing strong competition between Supernodes to lower storage prices and latency. Files that are stored privately on Supernodes can be easily retrieved and reuploaded with a new encryption key for public posting to the blockchain.

4.4 EziraCoin Reward pools:

10,000,000 EZC is issued by the blockchain per year in the following proportions:

- 20% - Post reward pool (75% EZC, 25% EZP)
- 20% - Ezira dividend pool (100% EZC)
- 15% - EziraPower vesting pool (100% EZP)
- 15% - Supernode reward pool (50% EZC, 50% EZP)
- 5% - Witness reward pool (50% EZC, 50% EZP)
- 5% - Mining reward (50% EZC, 50% EZP)
- 5% - Activity pool (50% EZC, 50% EZP)
- 5% - Development pool (50% EZC, 50% EZP)
- 5% - Marketing pool (50% EZC, 50% EZP)
- 5% - Advocacy Pool (50% EZC, 50% EZP)

Ezra Block Reward Distribution



Content Reward Pool:

All posts are paid a reward distribution according to the votes and views that they accumulate over 30 days. Voting power scales with EZIRA, EziraPower, and EziraBond balance. Payout scales with stake and time weighted votes and views to the power of 1.5. Approximately 5,479 EziraCoin is distributed to all content creators per day, with 75% being liquid, and 25% being vested into EziraPower. Content contributors are paid 20% of the income of the Ezira network.

Ezira Dividend Pool:

All holders of EZIRA cryptoequity receive a dividend of EziraCoin, paid out each week. This dividend provides 20% of the revenue of the Ezira network to the equity investors that hold EZIRA. Approximately 38,356 EziraCoin is distributed in dividends per week to EZIRA holders. This is equal to a dividend of 0.0038356 EziraCoin per EZIRA per week, or 0.2 EziraCoin per EZIRA per year. All EZIRA dividend payments are made in liquid EziraCoin. Users can optionally set up automatic purchase mechanisms to buy any nominated cryptoasset with the received dividend payments, such as reinvesting into EZIRA, or purchasing EziraDollars for spending in the marketplace.

EziraPower vesting Pool:

All holders of EZIRApower, and EziraBonds receive a yield as return on investment. EziraPower takes 10 weeks to convert to EziraCoin in 10 equal weekly payments, and EziraBonds cannot be powered down while they are vested. Both cannot be transferred to other accounts, or used for transactions. EziraBonds receive a greater return on investment, equivalent to an increase of 50% per year that they are vested for. The total vesting reward pool is divided proportionately between EziraPower and EziraBond holders.

For example: The supply of EziraPower is 6,000,000 units, and the supply of EziraBonds is 1,000,000 units vested for 2 years, and 500,000 vested for 4 years. 15% of the new issuance of EziraCoin each year is distributed to EziraPower and EziraBond holders, totaling 1,500,000 EziraCoin. The EziraBonds vested for 2 years receive a boost of 100%, and the EziraBonds vested for 4 years receive a boost of 200%. The effective vested EziraPower supply is therefore 10,000,000. For a one-year period, each unit of EziraPower will earn 0.15 (1,500,000/10,000,000) EziraPower in vesting return, each unit of EziraBonds vested for 2 years will earn 0.3 EziraBonds, and each EziraBonds vested for 4 years will receive 0.45 EziraBonds.

The return on investment of EziraPower will fluctuate with the outstanding supply, and the amount of time that EziraBonds are vested for. When large amounts of EziraPower are vested, returns will reduce encouraging more holders to withdraw, and when low amounts are vested, EziraCoin holders will be incentivized to vest into EziraPower by higher returns.

This distributes 15% of the income of the Ezira network to those that have vested capital in the network, favoring those who vest for longer periods of time, while allowing liquidity over 10 weeks. The effective return on investment rate of EziraPower and EziraBonds is shown in the account wallet. It also distributed additional income to those who receive content rewards, and hold onto their EziraPower over the long term, instead of divesting it.

Supernode Reward Pool:

Accounts can become Supernodes by completing the following requirements:

- Downloading a consensus supported EZIRA node software client
- Running the node actively in Supernode mode, with a full blockchain, and propagating transactions.
- Holding an account balance of at least 5 EZC, 5 EZP, and 5 EZIRA
- Providing at least 5 GB of encrypted storage to the network
- Providing at least 500MB of RAM for data processing to the network
- Maintaining a bandwidth (total data uploaded plus downloaded from nodes) of at least 1 MBits/sec
- Having an active connection to at least 10 other Ezira nodes

Supernodes must remain in the Supernode pool for 24 continuous hours and not fail a validity test to enter the Supernode Reward pool. Supernode rewards are distributed based on signed view transactions from account holders, and on anonymous view transactions created by groups of Supernodes and witnesses. The size of each file is multiplied by the amount of views it received from accounts that nominated the node as a distributor.

Up to 30% of the Supernode reward pool is divided among Supernodes that have distributed files to anonymous users, according to the percentage of views that are anonymous. The remaining balance of the Supernode reward pool is distributed according to file size, multiplied by stake weighted views. The distribution of Supernode rewards are as follows:

$$VotePower = (EZIRA + (EZCPrice * (EZP + VestYears * EZB Balance)) * MembershipBonus$$

An account's voting power is determined as the balance of EZIRA, plus the price ratio adjusted balance of EziraPower, plus the vesting time weighted balance of EziraBonds. The EziraCoin Price is equal to the price of 1 EZC in EZIRA. An account's membership bonus is 1 for a standard account, 1.1 for silver, 1.2 for gold, 1.3 for platinum, and 1.5 for diamond members.

$$WeightedVotePower (WVP) = VotePower * \frac{NumberOfAccounts}{TotalVotingPower}$$

Each account's voting power is divided by the average voting power of all accounts to find the weighted vote power, a multiple of the account's voting power relative to the average of all accounts.

$$AnonPercentage (AP) = Max\left(0.3, \frac{CountedAnonymousViews * FileSize}{TotalViews * FileSize}\right)$$

The fraction of file views that are recorded by Supernodes and witnesses as having come from anonymous sources is determined, and capped at 30%.

$$WeightedFileViews (WV) = \sum (Views * WVP_{User} * FileSize * DataPercentage)$$

Each Supernode calculates the value of their weighted file views, which is determined from user signed view transactions on the blockchain. The account nominates up to 10 Supernodes, and assigns them a

data percentage according to the amount of data they contributed. Their voting power is listed in the view transactions, and the weighted voting power is used to stake weight the view.

$$AnonFileViews (AFV) = \sum (AnonViews * FileSize * DataPercentage)$$

Each Supernode calculates the value of their anonymous file views, which is determined from averaged Witness and Supernode signed anonymous view transactions, which are rewarded according to accuracy.

$$Reward = PoolValue * \left(\frac{(1 - AP) * WFV}{TotalWFV} + \frac{AP * AFV}{TotalAFV} \right)$$

The final Supernode reward payout is calculated every 24 hours, and is determined by the amount of file views, both from stake weighted account holders, and verified anonymous views.

By this algorithm, Supernode operators are incentivized to provide a large amount of storage space, bandwidth, and processing power to enable them to provide as much file data as possible to users, and gain more views on the files that they host. Supernodes are incentivized to host files that are in demand, and are likely to earn a high amount of stake weighted views. Supernodes are incentivized to host files that are hosted by few other Supernodes, as they will be more likely to serve a higher amount of file views if there are less other Supernodes also hosting the same file.

Approximately 4,110 EziraCoin is distributed between all Supernodes per day.

Witness Pool:

Accounts can become witnesses by completing the following requirements:

- Downloading a consensus supported Ezira node software client
- Running the node actively in Witness mode, with a full blockchain, and propagating transactions.
- When the witness is chosen, up to once every 60 block round, the witness produces a block containing the latest transactions of the network.
- Witnesses are chosen in a random order each round, which is determined from the hash of the previous mining block
- Producing a continuous and regularly updated feed of witness parameters
- Witnesses should have optimal uptime, and should not miss blocks
- Witnesses are allocated the voting power of any accounts that support them and do not vote in network elections.
- Witnesses should always vote in every network election
- Witnesses earn 0.054545 EziraCoin per block created from the witness reward pool

Collectively, approximately 1,370 EziraCoin is earned by witnesses per day.

Network elections determine the acceptance of sponsored business default coverage, issuance of EziraCredit against network revenue, and the election of the Ezira executive board. For this reason, all

witnesses should ensure that they always vote in every Ezira network election to best exercise the voting power of their supporters, and earn them a split in the network election reward.

Witness vote failure rate, and block failure rate is displayed to voters on the witness voting menu. All Ezira voting power holders should ensure that they vote for several reliable witnesses every 6 months to best express their views on the decisions of the Ezira network, and earn election reward splits, or optionally choose a reliable proxy to vote for witnesses on their behalf.

Mining Reward:

Accounts can become miners by completing the following requirements:

- Downloading a consensus supported Ezira node software client
- Running the node actively, with a full blockchain to propagate transactions.
- Running the node software in mining mode, causing the node to begin producing proof of work transactions
- The miner joins the mining queue by publishing a valid proof of work transaction, with a difficulty that scales with the amount of miners currently in the queue
- When a miner reaches the top of the queue, they produce the next miner block
- Miners cannot produce additional proofs of work until they produce a block and leave the queue
- The mining reward is created in the mining block as newly minted EziraCoin in the miners account
- Miners earn 0.6 EziraCoin per block mined

Collectively, approximately 1,370 EziraCoin is earned by miners per day.

Activity Pool:

All profile accounts that are active by publicly:

- Viewing at least one post,
- Voting on at least one post, and
- Making at least one qualifying post or one qualifying comment

Earn a share in the activity reward pool. The pool is distributed equally to all activity reward pool shares each day. Members and verified profile accounts gain bonuses to their activity reward pool shares. Qualifying posts and comments must receive at least 10 views, and have a weighted upvote/downvote ratio exceeding 0.5.

Approximately 1,370 EziraCoin is distributed between all active accounts per day.

Development Pool:

Accounts can register for the Development pool by burning 5 EZD worth of EziraCoin to Null. Members are voted to positions in the Development pool, according to the development work done, as seen by the community. The top 50 members of the pool receive reward shares according to the voting

power that supports them each day, and the pool reward funds are distributed according to shares. Approximately 9589 EziraCoin is distributed between all elected development officers each week.

Developers should produce new features, and fix bugs for Ezira and Ezira.io, or produce new applications that run on the Ezira network blockchain. The best developers are voted highly by the community, and receive ongoing rewards for their efforts, and funds to support their projects.

Marketing Pool:

Accounts can register for the marketing pool by burning 5 EZD worth of EziraCoin to Null. Members are voted to positions in the Marketing pool, according to the marketing work done, as seen by the community. The top 50 members of the pool receive reward shares according to the voting power that supports them each day, and the pool reward funds are distributed according to shares. Approximately 9,589 EziraCoin is distributed between all elected marketing officers each week.

Marketers should produce graphical assets, videos, or music to attract new users, investors, and content creators. They should actively engage with the community to help new users familiarize themselves with the website, and produce rich media for promotion in external communities. They should actively promote Ezira in other communities and act as ambassadors to promote new memberships. The best marketers are voted highly by the community, and receive ongoing rewards for their efforts, and funds to support their projects.

Marketers can give new users links that create an account that permanently votes for their own account in the marketing pool. This acts as a referral link, and rewards new member referrals. This permanent marketing vote will additionally scale over time with the accumulated voting power of the users that they introduce to Ezira, rewarding marketers that assist their referred users to positively contribute to the network and gain voting power.

Advocacy Pool:

Accounts can register for the advocacy pool by burning 5 EZD worth of EziraCoin to Null. Members are voted to positions in the Advocacy pool, according to the advocacy work done, as seen by the community. The top 50 members of the pool receive reward shares according to the voting power that supports them each day, and the pool reward funds are distributed according to shares. Approximately 9,589 EziraCoin is distributed between all elected advocacy officers each week.

Advocates should engage with the wider community, and governments to obtain favorable legal recognition and favorable regulatory conditions for the Ezira network. They should work to promote and positively influence public discourse on cryptocurrencies, Blockchain networks, and Decentralized Applications. They should represent Ezira in discourse with other cryptocurrency businesses, and establish positive relationships with other members of the cryptosphere. They should promote the adoption of Ezira network cryptocurrencies with wallet providers, and exchanges.

Advocates should work with entrepreneurs to promote Ezira based businesses to new customers and clients, publicize Ezira business use cases, and help to protect Ezira sponsored businesses from liabilities in legal proceedings.

Advocates should additionally interact with governments to promote positive legislation that assists the cryptocurrency community as a whole. They should publicly speak in favor of these emerging technologies, and should establish Ezira as a pioneer of the cryptocurrency communities' public image. Advocates should be individuals of high public standing, public profile, and of good character. They should ideally have backgrounds in public office, legal firms, political action organizations, research organizations, or finance companies.

All Pools:

All votes for members of the Witness, Development, Marketing, and Advocate pools expire after 6 months. This ensures that consistent visible efforts are rewarded by receiving votes from the community regularly, while inactive pool members' votes expire over time. Witnesses, Developers, Marketers, and Advocates that do not hold a minimum balance of at least 5 EZC, 5 EZP, and 5 EZIRA have their vote support divided by 10, placing a soft requirement to hold this minimum balance, or they will be easily outvoted. The top 20 officers from the Witness, Development, Marketing, and Advocacy pool cannot vote for each other.

Overall, the total supply of EziraCoin is increased by approximately 27,397 units per day, by the creation of 1 unit per block. The supply of EziraCoin contracts whenever it is burned by the Ezira revenue distribution model.

4.5 Revenue distribution model:

All site functions that take a fee are used to buy and burn EziraCoin to transfer revenue to the network. Revenue is used to buy the following other assets under certain conditions:

Priority 1: If the value of EziraDollar is below \$1.00 USD, buy and settle EziraDollars, and burn the EziraCoin obtained

Priority 2: If the value of EziraCredit is below \$1.00 USD, buy and burn EziraCredit

Priority 3: If the value of EZIRA is less than the value of EziraCoin, buy and drop EZIRA to all holders

Priority 4: Standard Operating Order – Buy and burn EziraCoin

These buy and burn mechanisms provide stability and value to network cryptoassets, and provide value to the holders and recipients of EziraCoin, and by extension, the equity holders of EZIRA, which receive an EziraCoin dividend. Revenues are sourced from 3 main sources, Account memberships, Promotions, and the following transaction and trading fees:

- EZIRA cryptoequity transactions: 0.25%, up to 0.1 EZIRA
- User Issued Asset transactions: 0.25%, up to 0.1 EziraCoin in value
- EziraStealth conversions: 0.25%, up to 0.1 EziraStealth
- Premium content purchases: 1%, not capped
- Marketplace escrowed purchases: 1%, not capped
- EziraDEX taker orders: 0.25%, up to 1 EziraCoin in value, maker orders have no fee
- EziraDEX taker lending orders: 5% of interest, not capped, maker orders have no fee

4.6 Network elections:

All EZIRA, EziraPower, and EziraBond holders are able to vote in network elections. All formal Ezira elections are announced with a buy and drop of EZIRA worth 50 EZD. Elections last 7 days, and all EZIRA holders that vote in the election receive a split of another 50 EZD worth of EZIRA upon completion after 7 days. Voting power holders that do not vote have their voting power split equally between their selected witnesses, who vote as a proxy for their supporters.

Binary network elections allow users to select to “Support” or “Oppose” the motion. In order to be successful, must have 51% of voting power in favour of the Support option. Binary elections are used to:

- Approve Ezira sponsored businesses
- Approve sponsored business default reimbursement
- Approve executive issuance of EziraCredit

Weighted transferable vote elections allow users to select multiple options, in order of support from 1 to 10. The winning option is chosen by a process whereby all voting power in support of each option as number 1 is first allocated. The option with the least voting support is eliminated, and the voting power that supported it is reassigned to its number 2 option. The option with the least support is eliminated, and voting power is redistributed until an option has at least 51% of support in favour of it. This option is selected as victorious. Weighted transferable elections are used to:

- Elect executive board members
- Choose the location of the Ezira Festival
- Choose the Ezira member of the year winner

5 Ezira Accounts:

Accounts represent the users of the Ezira network, and are used to interact with the blockchain by signing transactions using the private keys of the account. Accounts are used to make posts to the blockchain, hold cryptoassets, and interact with other user's posts. Accounts can be created on the blockchain by paying an EziraCoin account creation fee, which is vested, and added to the EziraPower balance of the new account. The account creation fee is a witness parameter. The Ezira main account will pay this fee to register new accounts on Ezira.io out of its EZIRA dividend revenue. Accounts created at the beginning of the blockchain for ICO contributors will not require the account creation fee. Accounts hold decryption keys for content that is visible to them. They have many different key pairs that are used for the following functions:

Signing Keys:

- Owner key: The most important key of an account, used to login to the account with full access, and change all other keys. This key is derived from the account password, and should never be shared.
- Wallet key: Used to sign all financial transactions of the account, exchange trades, asset settlements, and user issued asset creation. This can be shared to enable external transactions to be made from this account.
- Posting key: used to sign all posts and comments made to the network, the creation of boards, and uploading of files to Supernodes. This can be shared to enable external posting from the account.
- Interaction key: used to sign post voting, sharing, and viewing transactions. This can be shared to enable external voting from the account.

Encryption Keys:

The public key is used to encrypt data, and private keys are shared with other accounts upon connection for decryption:

- Connection key: used to encrypt private posts visible to all connections and above
- Friend key: used to encrypt private posts visible to all friends and above
- Companion key: used to encrypt private posts visible to all companions
- Secure key: used to encrypt private data that can only be decrypted and accessed by the account, used to decrypt incoming private messages that have been encrypted with the public secure key. Public key is used to encrypt incoming secure data, such as connection keys. The secure private key is never shared.

Groups, events, and other private elements of Ezira use a public key for encryption, and distribute a private key for decryption. Posts to and visibility of these private groups require Supernodes to verify that they are included in the group, or invited to the event by checking the visibility list of the files.

5.1 Profile Accounts:

Profiles accounts are fully featured and customizable representations of the identities of Ezira users. They are used to upload posts and comments, vote for and view posts, hold cryptoassets, create profile

pages, create boards, and upload personal information. All private account information is encrypted on the Supernode network. Users should only make one profile account per person. Profiles can include the following information, which is visible by default to the following levels:

Public:

All posts made on boards are public, and can be seen by anyone.

Profile account information publicly visible by default:

- Full name
- Gender
- Public Bio up to 500 characters
- Public Profile Picture: A single picture
- All public posts to boards, profiles, and pages
- All photos in public gallery
- Profile cover photo
- List of followers, connections, friends, and companions with no differentiation.
- Public wallet transactions (exchange transfers, author rewards, curation rewards, cryptoasset trades on EziraDEX)
- Balance of Ezira network public cryptoassets (does not include EziraStealth balance, which is private)

Followers:

Profiles can be followed without permission and all Followers are visible to the account owner.

Information visible to followers by default:

- All follower and public posts to boards, profiles, and pages visible, and are listed in feed
- All photos in follower and public gallery
- List of Followers, Connections, Friends, Companions, with differentiation between Followers and Connections+

Connections:

Profiles can become Connections with a Connection request, which is confirmed by the account owner. Accounts can have an unlimited amount of Connections.

Information visible to connections by default:

- Connections profile gallery: up to 3 profile pictures
- Connections Cover photo gallery: up to 3 cover photos
- Connections Profile Video: up to 10 seconds long
- Connections Bio: up to 1000 characters
- Relationship Status and preferences
- Interests and Hobbies

- Date of birth
- Account links for other websites
- Email address
- Specified followed persona pages and subscribed boards for movies, music, books, websites, places, hobbies, interests, and games
- Public and mutual event attendance history
- All connection, follower and public posts to boards, profiles, and pages visible, and are listed in feed
- All photos in connection, follower and public gallery
- Ability to send private messages
- Ability to send family requests
- List of followers, connections, friends, companions, with differentiation between followers, connections, and friends+

Friends:

Profiles can become Friends after being Connections for 2 weeks, and requires a locked transaction of \$1.00 EZD to send the request. If the request is confirmed, the \$1.00 is returned, if it is not accepted within 7 days, the \$1.00 EZD is burned. Friends revert to Connections after two years, after which the Connection must be reconfirmed by both account owners. The link can be reconfirmed at any time to restart the two-year time period. Accounts can have up to 500 Friends.

Information visible to friends by default:

- Friends profile gallery: up to 10 profile pictures
- Friends cover photo gallery: up to 10 cover photos
- Friends profile video: up to 30 seconds long
- Education history
- Job history
- Address history
- Phone number
- Relationship history
- Political alignment
- All followed boards and persona accounts
- List of followers, connections, friends, and companions, with full differentiation
- Saved post list
- All friend, connection, follower and public posts to boards, profiles, and pages visible, and are listed in feed
- All photos in friend, connection, follower and public gallery
- Ability to share 2% of voting power with each other

Companions:

Profiles can become companions after being friends for 2 weeks. Requires a deposit of \$5.00 to send the request, and requires a deposit of \$5.00 EZD to accept the request. If the request is confirmed, both profiles must scan oscillating (changes every 60 seconds) confirmation codes visible from the other

person's profile within 1 day. If successful, the \$5.00 is returned to each profile, otherwise the \$10.00 EZD is burned. In practice, this should only be done when physically in close proximity. Companions revert to Friends after two years, after which, the link must be recompleted. The link can be reconfirmed at any time to restart the 2-year time period. Accounts can have up to 100 companions.

Information visible to companions by default:

- Companions profile gallery: unlimited pictures
- Companions cover gallery: unlimited cover photos
- Companions profile Video: up to 180 seconds long
- All profile information
- Notification when nearby
- Current location (when enabled and on mobile device)
- Ability to create joint wallets, which can spend money with multisig permission functionality among mutual Companions (joint funds are sent back to their depositor if the accounts expire their Companionship)
- Automatically upvote all posts made by companions
- All companion, friend, connection, follower and public posts to boards, profiles, and pages visible, and are listed in Feed
- All photos in companion, friend, connection, follower and public gallery
- Ability to share 10% of voting power with each other

All posts are added to Profile Feed with variable visibility. Visibility is controlled by encrypting content on the blockchain, accessed by decrypting with various keys, to control information visibility. All transactions, details, and profile posts can be encrypted with the following settings. Posts to boards and profiles must be public in order to receive content rewards from the blockchain.

Private: No one but the owner can view the content

Companions: All Companions can view.

Friends: All Companions and Friends can view.

Connections: All Companions, Friends, and Connections can view.

Followers: All Companions, Friends, Connections, and Followers can view.

5.2 Verified Accounts:

Verified accounts are profile accounts that are considered to be accurate representations of a unique human person, that have profile information that is true, and have provided sufficient evidence of genuine personhood, and sufficient activity on Ezira. Verified accounts must be unique, and once a person has one verified profile account, any other profile accounts should be discontinued. Accounts that wish to hold high positions of public esteem, status, and influence should verify their accounts to prove their identity. This process is optional, and is not required for the fully featured use of profile accounts. In order for a profile account to become verified, it must pass the verification process.

Minimum requirements to become verified (known as a "minimum qualifying account"):

- Account must be at least 1-month old
- Account must have earned at least 10 EZD worth of author rewards

- Account must have at least 10 EZD worth of EziraPower

Account must have at least 5 connections with accounts that are also at least 1 month old, have earned at least 10 EZD worth of author rewards, and have at least 10 EZD worth of EziraPower.

100 points from the following categories (only one allocation per category):

Account age – Account is at least:

3 months old: 10 points

6 months old: 20 points

12 months old: 30 points

Account author rewards – Account has earned author rewards worth at least:

25 EZD: 10 points

50 EZD: 20 points

100 EZD: 30 points

Account Vesting balance – Account has an EziraPower balance worth at least:

25 EZD: 10 points

50 EZD: 20 points

100 EZD: 30 points

Connections – Account has connections with accounts that are at least 1 month old, have earned at least 10 EZD worth of author rewards, and have at least 10 EZD worth of EziraPower:

10 connections: 10 points

20 connections: 20 points

40 connections: 30 points

Marketplace – Account has a total marketplace purchase and sales volume with non-connected minimum qualifying profile accounts, with mediator approval that the transaction is legitimately between two different people of at least:

50 EZD: 10 points

100 EZD: 20 points

200 EZD: 30 points

Total asset value – Account has a combined total asset value of at least:

50 EZD: 10 points

100 EZD: 20 points

200 EZD: 30 points

Activity – Account has been active and received activity reward at least:

25 times: 10 points

50 times: 20 points

100 times: 30 points

Followers – Account is followed by accounts that are at least 1 month old, have earned at least 10 EZD worth of author rewards, and have at least 10 EZD worth of EziraPower:

50 followers: 10 points

100 followers: 20 points

200 followers: 30 points

Once an account has surpassed the minimum requirements, and has at least 100 points of verification it can make a verification post on the blockchain. This verification post, should contain as much evidence as possible to verify that the account is legitimate. Users are able to upload images of themselves holding paper with the user's account name, full name, and the date and time written on it. Users can upload videos of themselves reading the time, and speaking their account name and full name. There are no fixed requirements for evidence of identity, and can optionally include government issued identification such as birth certificates, driving licenses, or passports. It is up to users how they choose to verify their identity. Users should be creative in order to attract attention, while projecting legitimacy and professionalism to earn votes.

A user's verification post can then be approved by other Ezira users. The community votes on whether the verification post provides "Sufficient evidence that this personal account represents a real unique human person, with public profile information that is accurate, that no other verified accounts exist in this person's name, that this person is of good character, and that this person is in good standing within the Ezira community". Verification posts must be posted to the verification board.

To be accepted, verification posts must:

- Be supported by a net voting power equal to a minimum of 30 average users, and
- Have received supporting votes from at least 30 independent minimum qualifying accounts, and
- Be supported by at least 3 elected Ezira network officers or other verified accounts

Applications have 7 days to be accepted, before they are declined. Accounts must wait at least 7 days before resubmitting another verification application. Verification posts pay out all author rewards earned to voters if successful, with curation time weighting towards early voters. If unsuccessful, the post declines all rewards, and pays out nothing. Accounts can vote for up to 5 verification posts per day, which do not consume voting charges. It is therefore optimal for all users to vote for 5 of the most genuine undervalued verification posts per day, to receive the largest curation share. Ezira network officers can vote for an unlimited amount of verification posts. Successfully verified accounts receive the following benefits:

- 1 month of complimentary Ezira blockchain membership, activated instantly on the account for the level equal to the account's current membership level, or gold if the account is silver or a non-member.
- The ability to become a mediator in the Ezira marketplace.
- A permanent 20% increase to voting power weight per unit EZIRA, EziraPower and EziraBonds, which stacks additively with membership bonuses.
- A permanent 50% increase to activity reward shares, which stacks additively with membership bonuses.
- A permanent 20% increase to stake weight in the EZIRA dividend pool, EziraPower vesting pool, and Supernode reward pool, which stacks additively with membership bonuses.
- 20 EZD worth of complimentary post promotion for your profile account for 2 weeks (optional, can be declined)

- 20 EZD worth of complimentary post promotion on all new posts for 2 weeks (optional, can be declined)
- A “Verified Profile Account” badge next to the account name throughout the Ezira network, which could act as a significant indicator of trust in the marketplace, boards, network officer voting, and Ezira executive elections.

It is up to users to decide the extent of any additional trust to place in verified accounts, and how the highly the community values the distinction. This verification is publicly accessible and provable on the Ezira blockchain, and could be extended to third party applications. Ezira profile verification is by design significantly difficult and expensive to falsify, cannot be forged, cannot be physically lost or stolen, and does not require any interaction with a state entity to corroborate. The verification post is permanently publicly accessible, and can be used to visually identify a person for proof of identity. This kind of identity verification could have value outside of the Ezira network, and creates a strong one-to-one functionality between a physical person and a digitally secure account.

5.3 Persona Accounts:

Personas are accounts made to represent entities that are not publicly identifiable individual unique persons. Persona accounts do not require an information link to the account owner. Personas have the same posting and profile features as profile accounts, and can have followers, connections, friends, and companions. They can be used to post without friends seeing posts, or to create a posting identity separate from your own for use on boards, or private transactions. Persona accounts can be used to make pages for inanimate objects, and concepts and can be followed. Followed persona accounts from specific categories are listed on profile pages under their respective category. Persona accounts can select from the following categories to describe their profile page:

- Person (Real pseudonymous)
- Person (Fictional)
- Organization
- Public Figure
- Historical Figure
- Political entity
- Interest
- Hobby
- Music
- Movie
- TV Show
- Book
- Website
- Location
- Concept
- Other

Businesses should not use persona accounts to represent themselves on Ezira, and should instead use a business account, for additional functionality, such as built in cryptoequity issuance, multi account management, and marketplace product listing.

5.4 Business Accounts:

Entrepreneurs and business owners can create a business account to register their business on the blockchain. Business accounts are able to conduct all their transactions and accounting using Ezira, including sending invoices to customers, creating signed transactions of sale on the blockchain to act as an immutable receipt, paying employees on fixed schedules, and raising capital by creating business equity cryptoassets. A business would limit their dependence on government based registry systems and established financial systems, and have a very low barrier to market entry.

Business accounts receive integrated access to low cost data storage, a business accounting platform, integrated marketing tools to promote their posts and products, and a customized business profile to streamline product purchasing and the coordination of customer service. Businesses can create constitutions, and secure them into the blockchain.

Business cryptoequities are used to represent ownership of an Ezira business, and all accounts that own cryptoassets in a business can vote in all business elections. Cryptoequities are traded on the EziraDEX, and by default issue a dividend of 5% of the revenue of the business account's product sales to holders every week. The dividend rate of 5% is variable, but 5% is considered standard. Business accounts can choose to disable automatic revenue dividend distributions, and manually create dividend distributions. This allows owners determine how much profit they made, and how much to distribute in dividends each week. Once the cryptoequity is created, the revenue distribution rate cannot be changed.

Accounts that are elected to hold business leadership positions are able to access the business account, and conduct executive functions. Cryptoequities are backed by the assets in the wallet accounts of their businesses, which are publicly transparent. Additional assets owned by the business can be recorded on the blockchain, and all accounting records can be uploaded to the Supernode network, and secured on the blockchain.

Shareholders in Ezira businesses receive quarterly reports on the accounting activities of their investments. Businesses can also source capital by borrowing money from investors using Cryptocredits, which are recorded on the blockchain as debts, and are paid back automatically from the business account's wallet funds over time, and from sales. Companies that default can be placed into administration by the popular vote of their shareholders, and all the business assets are distributed to shareholders equally.

5.5 Account membership:

Account Membership can be purchased from the network by buying membership denominating cryptoassets from the Ezira Decentralized Exchange. A smart contract generates a certain amount of each cryptoasset every month, and sells it on the exchange for EZC to buyers at a minimum price. This price fluctuates with the value of EziraCoin, increasing when the price is low, and decreasing when the price is high, so that they price is constant in the value of EziraDollars. The assets can then be activated on an account, denominating membership for that account. The membership asset balances of all member accounts decrease by 1 per month by automatically burning 1 unit to reactivate membership. All EZC received for the sale of membership assets used to burn assets, usually EziraCoin, using the revenue distribution model. All membership benefits are inherited to higher membership levels. Percentage bonuses do not stack with higher membership levels.

Diamond:

Monthly Supply: 1,000. Minimum Price: 100 EZD in EziraCoin. (Actual market price is likely much higher)

Benefits:

- Voting power weight per unit EZIRA, EZP, and EZB is boosted by 50%
- Unit stake weight in the EZIRA dividend pool, EziraPower vesting pool, and Supernode reward pool is boosted by 50%
- Platinum membership icon next to name, along with consecutive months of membership
- Activity pool reward share boosted by 100%
- 50% discount to the cost of storage in the Supernode network, transaction fees, trading fees
- 50% boost to all promotion expenditure values
- Post reward pool received voting weight boosted by 20%, increasing author and curator rewards
- Received vote weight in the Witness, Marketing, Advocate and Development reward pools boosted by 20%
- All posts are automatically promoted, with a bonus value of 20 EZD each (optional, can be disabled on posts)
- Complimentary entry to all Ezira Festival Events when membership is consecutive for 12 months' prior. Includes the Ezira Ball.

Platinum:

Monthly Supply: 10,000. Minimum Price: 50 EZD in EziraCoin. (Actual market price is likely higher)

Benefits:

- Voting power weight per unit EZIRA, EZP, and EZB is boosted by 30%
- Unit stake weight in the EZIRA dividend pool, EziraPower vesting pool, and Supernode reward pool is boosted by 30%
- Gold membership icon next to name, along with consecutive months of membership
- Activity pool reward share boosted by 75%
- 30% discount to the cost of storage in the Supernode network, transaction fees, trading fees
- 30% boost to all promotion expenditure values
- Post reward pool received voting weight boosted by 10%, increasing author and curator rewards
- Received vote weight in the Witness, Marketing, Advocate and Development reward pools boosted by 10%
- 50% off tickets to all Ezira Festival Events when membership is consecutive for 12 months' prior. Does not include the Ezira Ball. (Tickets are separate, and cannot be arbitrated with regular ticket purchases)

Gold:

Monthly Supply: 1,000,000. Minimum Price: 20 EZD in EziraCoin.

Benefits:

- Voting power weight per unit EZIRA, EZP, and EZB is boosted by 20%
- Unit stake weight in the EZIRA dividend pool, EziraPower vesting pool, and Supernode reward pool is boosted by 20%
- Gold membership icon next to name, along with consecutive months of membership

- Activity pool reward share boosted by 50%
- 10% discount to the cost of storage in the Supernode network, transaction fees, trading fees
- 10% boost to all promotion expenditure values
- Limit of Friends and Companions doubled to 1000 and 200
- All Posts eligible for featured posts page
- Ability to view and download the premium content of Ezira Premium Partners for free
- 25% off tickets to all Ezira Festival Events when membership is consecutive for 12 months' prior. Does not include the Ezira Ball. (Tickets are separate, and cannot be arbitrated with regular ticket purchases)

Silver:

Monthly Supply: 100,000,000. Minimum Price: 10 EZD in EziraCoin.

Benefits:

- Voting power weight per unit EZIRA, EZP, and EZB is boosted by 10%
- Unit stake weight in the EZIRA dividend pool, EZIRApower vesting pool, and Supernode reward pool is boosted by 10%
- Silver membership icon next to name, along with consecutive months of membership
- Ability to create premium content that requires payment to decrypt
- Ability to view and download the premium content of Ezira Premium Partners at a 50% discount
- Ability to create referral links for new members
- Ability to join the Developer, Advocate and Marketing pools
- Activity pool reward share boosted by 25%
- Ability to store unlimited files on the Supernode network by paying directly with EZC
- Ability to access new features in development version of site before release
- Ability to create User issued cryptoassets, which can be programmed with defined revenue streams, such as stores
- Ability to disable promoted post placement

5.6 Anonymous Users:

Posts can be made to Ezira anonymously, without any connection to an identity, or account. Anonymous accounts cannot be used to hold any cryptocurrency, or receive any rewards. All posts made anonymously must include a proof of work proportional to their data size to be included in a block, in order to rate-limit them. Users can only post anonymously around once per 30 seconds. The proof of work requirement to make anonymous posts increases exponentially with the amount of anonymous posts in the last hour, causing any anonymous network spam posts to become computationally expensive very quickly.

No IP information is collected or stored for more than 24 hours, and is held by a small group of Supernodes for counting views to posts. Posts made by anonymous accounts are ranked just like normal posts, but do not receive author rewards. Tags and boards are the main ways that anonymous posting is seen, as anonymous posts are not visible on a profile, and cannot be connected to a person, unless the poster choose to identify themselves. This would require verification from their main account to be credible.

6 The Ezira Decentralized Exchange (EziraDEX):

All Ezira cryptocurrencies can be traded on the blockchain using the Ezira Decentralized Exchange, or EziraDEX. The Decentralized Exchange has a 0.25% taker-side trading fee charged as network revenue, and is used to buy and burn EziraCoin and other assets. No fees are charged for maker orders. This is to incentivize traders to provide liquidity to the exchange, and create limit orders to aid price discovery. Trade orders are broadcast to the network, and settled on the blockchain, ensuring that all assets used are held on chain, under the control of the account owner. All assets are listed in a table, sorted by trading volume in the last 24 hours. The Ezira trollbox is accessible from all trading interfaces.

User would have a variety of trading options, including:

- Exchange Market Orders – Trades are matched against the current best offer on the order book. Consumes limit orders, and charges taker fee.
- Exchange Limit Orders – Trades are placed on the orderbook at a fixed price. Fills market orders, and incurs no fees.
- Margin Market Orders – User automatically borrows funds against their margin collateral at the lowest peer to peer interest rate, then purchases another asset at the best market price. Consumes lending limit orders and exchange limit orders, and charges taker fees on trade and interest.
- Margin Limit Orders – User borrows funds at a specified interest rate, then purchases another asset at a fixed price on the orderbook. Fills exchange market orders and lending market orders, and incurs no fees.
- Lending Limit Orders – Offers to lend an asset at a fixed interest rate on the lending orderbook of the asset. Interest rates are listed on a daily rate basis, and compounded hourly. Fills margin market orders, and incurs no fees.
- Lending Market Orders – Offers to lend an asset at the best market price interest rate. Consumes margin limit orders, and incurs taker fee on interest.
- Auction Orders – Trades are listed with a maximum price for buy orders, and a minimum price for sell orders, and are held on the auction order book until the end of each day. Once per day, all auction trades are executed at a single auction price, calculated to ensure the maximum possible volume of trades are completed.
- Arbitrage Orders – Places two limit orders to either buy for slightly above the current bid price, and then automatically sell the same asset for just below the current ask price as it is bought, or short sell an asset for slightly below the ask price, then rebuy it slightly above the bid price as it is short sold. Trades will not execute when the spread is less than a specified percentage. Prices adjust to reflect the current orderbook once every 5 minutes.

Highly customizable graphs with various price charting features are displayed to users, with candle or line graph options, moving averages, drawing tools. All assets are exchangeable for any other directly, however volume would likely be focused around the Ezira cryptocurrencies and Bitcoin currency pairs. Other exchanges would be free to access the public orderbook of the EziraDEX and replicate orders to their own exchanges and automatically execute them on the Ezira blockchain for added volume and liquidity. This would allow the EziraDEX to act as a global settlement blockchain for any cryptocurrency exchange. All EziraDEX transactions utilize blockchain operations that are open source, enabling automated trading software to be created by third parties to earn arbitrage profits and provide liquidity.

Automated software could be used to:

- Maintain an asset portfolio by selling assets that rise above a designated portfolio percentage, and then buying assets that have fallen below their designated percentage.
- Find assets with the largest orderbook spread and volume, and execute arbitrage orders.
- Find assets with the highest market interest rates, buy those assets, lend them on a recurring basis, and then sell them for other assets when their interest rate falls.
- Find exchange pairs that are undervalued, and execute multi leg arbitrage trading sequences.
- Create mirror orders for third party exchanges, and execute cross exchange arbitrage.

6.1 User Issued Assets:

User issued assets can be created for free by members. They can represent any desired external assets, such as currencies, shares, equities, derivatives, debt, credit, bonds, tickets, memberships, voting rights, or anything that can be conceptualized and quantified. They can be traded on the blockchain between accounts using exchange orders, or transacted between accounts directly for payments. User Issued assets require a 0.25% trading and transaction fee charged by the Ezira network. Assets can include an optional creator transaction and trading fee paid to the creator of the asset. Asset creators that desire their assets to be free for users to transact and trade can optionally commit to pay all future Ezira network transaction and trading fees incurred on behalf of the holders of their asset. User issued assets can be created with functionality to distribute dividends to holders or buy and burn assets using the proceeds of defined income sources. Two specific types of advanced user issued assets on Ezira are cryptoequities, and cryptocredits.

Cryptoequities are user issued assets that are created in a limited quantity to represent ownership of an Ezira business. They are backed by voting rights in the decisions of the business, a claim on business assets, and a regular dividend paid by the business automatically out of its revenue. This provides a secure and transparent way for businesses to sell equity to raise capital, and distribute profit dividends to equity holders. They are typically named as a shortened version of the business name. EZIRA is considered the Cryptoequity of the Ezira network.

Cryptocredits are assets created to take loans from investors, and raise capital for a business. They are worth a fixed amount of funds, usually 1 EziraDollar, and are created by the business against their future revenue. A percentage of their future revenue is used to buy and burn cryptocredits up to a price equal to their face value. To keep their price stable at face value, they also pay an interest rate to holders that is determined by a specified account. Cryptocredit creators can optionally prevent their assets from being bought and burned until a specified time in the future. This provides a secure and transparent way for businesses to raise credit, and repay it on an ongoing basis. If the business seeks to buy them back and repay their loan early reduce the interest rate to 0, and buy and burn the cryptocredits directly. They are typically named as the name of the equity, followed by the suffix (Credit). EziraCredit is considered the cryptocredit of the Ezira network.

Standard assets have symbols of at least 5 characters, and can be created for free by silver members. Any Unicode standard characters can be used in asset names. Assets with symbols of 3 or 4 characters cost EziraCoin to create, and are determined by witness parameters. Asset names corresponding to existing currencies, cryptocurrencies, companies, websites, will be reserved by the Ezira main account,

and transferred upon the approval of the Ezira executive board, who should verify that the account holder is a genuine representative of the corresponding organization.

6.2 Gateway Assets:

Ezira backed gateway assets are issued to accounts in exchange for deposits of other cryptocurrencies for trading on the EziraDEX. These Ezira backed gateway assets are named with the prefix (EZIRA.), such as EZIRA.USD, EZIRA.BTC, EZIRA.AUD, or EZIRA.ETH. The Ezira executive board holds a reserve of other cryptocurrencies and fiat currencies that are used to back Ezira's Gateway exchange assets. The balance of these currencies is publicly available, and independently audited a minimum of once every three months. These reserves allow for high liquidity when entering and leaving the Ezira economy via the Decentralized Exchange. Developers can produce third party gateway assets and administrate issuance and redemption where demand exists. Gateway assets should be named with the prefix of their backing entity.

6.3 Market Pegged Assets (Smartcoins):

Smartcoins that are backed by EziraCoin collateral, and are valued according to witness feed valuations are named with the prefix (EZ), such as EZD = USD, EZBTC = BTC, EZAUD = AUD or EZETH = ETH. The EziraDollar is the default medium of exchange on Ezira, and is pegged to a settlement price in EziraCoin. Network witness officers provide feeds of the settlement prices of these assets in EziraCoin, which track the price of their external asset counterparts. Smartcoins can be created to represent any desired external asset, and can be pegged to a settlement price defined by any nominated account, or witness. They can also be pegged to functions of the price of other assets to create index assets, or derivatives.

6.4 Peer to peer lending:

Traders can use peer to peer lending to borrow funds and execute leveraged margin trades, or open short positions. Funds are lent at interest from asset holders wishing to save and earn interest. Any asset can be lent to margin traders, with offers to lend and borrow for specified time limits made on the blockchain. Margin traders must have a collateral margin ratio of 30%, and are force liquidated if their position's margin drops below the maintenance ratio of 15%.

Margin traders consume lending limit orders at the lowest interest rate first, and re-borrow at the lowest interest rate when the loan time has expired. Margin limit orders set a specified interest rate and price, which can be filled by market lenders and traders. Limit lenders place lending orders at a specified interest rate, which is consumed by market margin traders. This can optionally be set to automatically update every hour if it does not fill. Asset holders that use the savings account functionality in the wallet lend their funds automatically to margin traders with limit lending orders updated hourly.

Through this mechanism, savers on the Ezira network are able to earn a market interest rate on any asset, without devaluing the equity of the network, or implementing any centralized control of interest rates. In the unlikely event that a margin traders short position cannot be force liquidated rapidly enough to prevent a negative margin position, the lender will be covered for default losses by the Ezira executive board, at the discretion of the Chief Financial Officer, by reimbursing lost funds using EziraCredit.

6.5 Option Assets:

Asset holders can create option assets, by locking in balances of funds for a fixed period of time. Those assets are able to be exchanged for a fixed price in another nominated asset for any holders of the options. These assets expire past a specified date. Ezira enables options to be dated for expiry on the first of each month. All options created are covered by locking in the asset on the blockchain, preventing any instances where a debt is owed. Call and put option assets can be created for any asset pair, and any expiry date by users. Ezira lists standard call and put option assets denominated in EziraDollars and EziraCoin in the option chain sheet for every cryptoasset, to enable the consolidation of volume for option asset strike prices, and expiry dates. As such, most of the volume for option asset exchange would be focused around these EziraDollar and EziraCoin asset pairs. Options trading incurs the standard 0.25% fee on the taker side of the trade.

6.6 Wallet:

Users can access their balances of cryptoassets, and make transfers. Transaction history, EziraCoin reward history, and membership assets can be inspected. Users can interact between their balances, settle EziraDollars for EziraCoin, vest EziraCoin into EziraPower, divest EziraPower into EziraCoin, vest EziraPower into EziraBonds, or transfer any liquid balances to their respective savings accounts. A 3-day delay is applied to savings account withdrawals. EziraCoin can be converted into EziraStealth, and vice versa. Links to the EziraDEX pages of all EziraDollar trading pairs are featured next to all cryptoassets. All assets that are issuing dividends display the next dividend date, the value of the last dividend, and the total dividends paid in the last year, per unit cryptoasset.

Each account has a Hierarchically Deterministic wallet passphrase associated with it, giving every account a usable address and fully featured light wallet for many major cryptocurrencies. This passphrase can be used to restore the account. This interface enables transfers between the account's wallet, and their EziraDEX account by purchasing gateway assets. These assets would be able to be redeemed by transferring to the user's wallet, or an external address at any time.

All Ezira blockchain assets that are held in the wallet can be placed into savings accounts. This automatically places the savings balance up for lending on the EziraDEX, with a default limit order interest rate of 0.0262% per day, or 10% per year. The minimum interest rate can be changed in the user's settings. Funds placed into the user's savings account require a 3-day delay to transfer out, and can be cancelled during this time. Lending re-orders are cancelled when the user requests to withdraw their funds. This allows users to earn interest on their funds, keep their funds secure against account hacking, and provides capital to margin traders. The current market interest rate that the funds are earning is displayed to the user while it is in savings, as well as the interest earned in the past 12 months. To gain a better interest rate, users can manually place a limit order to lend their funds at a specific price on the EziraDEX, and re-lend them as these orders expire. Users can setup automatic periodic transfers from their active wallets to their savings accounts. Third party developers would be free to produce code to incorporate their own cryptocurrencies into the Ezira wallet, and request the creation of an Ezira backed gateway asset for use on the decentralized exchange.

7 Posts:

Posts are the main units of content on Ezira. Public posts can be listed in up to 5 boards (plus the >All board), and use an unlimited number of tags. Public posts include the >All board by default, but this can be removed. They are also listed on the user's profile, and in feeds that include the post creator. Private posts have limited visibility, are made to user's profile pages, and can use an unlimited number of tags. Private posts are typically viewed in feeds.

7.1 Post types:

- Blog posts – Contains a full page of markdown enabled text content, with embedded images, videos, and audio files. Blog posts can be opened as a large window over the board, or in a new tab as a full scrolling window with comments, and recommended posts alongside it.
- Link posts – Contains a link to a webpage, and a description of up to 1000 characters. Link is opened in a new tab. Can be double clicked to open the link post in a new tab to view the description, comments, and recommended posts.
- Text posts – Contains up to 300 characters of text. All text is displayed in line with board posts as a text bubble. Any embedded images, videos, audio files, or links are previewed below them. Can be opened in a new tab to view comments, and recommended posts.
- Image posts – Contains a single image and a description of up to 1000 characters. Image posts can be opened in line with board posts by expanding them with a button. Can be opened in a new tab as a large full size image with the description, comments, and recommended posts.
- Video posts – Contains a single video and a description of up to 1000 characters. Video posts can be opened in line with board posts by expanding them with a button. Can be opened in a new tab as a large full size video player with the description, comments, and recommended posts.
- Audio posts – Contains an audio file and a description of up to 1000 characters. Audio posts can be opened in line with board posts by expanding it with a button. Can be opened in a new tab as a long audio file player with the description, comments, and recommended posts.
- Playlist posts – Contains a group of audio files, and a description of up to 1000 characters. Playlist posts can be opened in line with boards posts by expanding them with a button. Can be opened in a new tab as an audio player with the description, comments, recommended posts, and a list containing all audio files in order. Can be shuffled, or played in order.
- Gallery posts – Contains a group of images or videos, and a description of up to 1000 words. Gallery posts can be opened in line with board posts by expanding them with a button, and navigating between the images and videos with arrow buttons. Can be opened in a new tab as a list of all images and videos in order, with the description, comments, and recommended posts.
- Download posts – Contains a file, or group of files and a description of up to 1000 characters. Download posts are opened, beginning a peer to peer download of the file from Supernodes, and saving it to the user's nominated downloads folder. Can be opened in a new tab to view description, comments, and recommended posts. Files can include music, movies, games, applications, or documents. Instead of counting stake weighted views, download posts count stake weighted downloads.
- Vote posts – Contains at least 2 voting options, and a description of up to 1000 characters. Vote posts can be voted for in line with board posts. Can be opened in a new tab to view description, comments, and recommended posts.

- Livestream posts – Contains a currently active livestream of video or audio, and a description of up to 1000 words. Livestream posts can be opened in line with board posts and viewed as a normal video or audio post.

Livestream posts:

Live video streaming, and radio shows can be broadcasted. Currently broadcasting profiles and personas are listed as active channels. Accounts that are hosting livestreams are shown in feeds, and on the profiles of the broadcasting account. They can be searched for, posted to boards while active and voted on as normal posts, which convert into video posts when the channel has finished broadcasting.

Radio channel: Only audio, converts into audio post upon completion.

Video channel: Video and sound, converts into video post upon completion.

Active livestreams can be sorted in the channels section by the following options, in addition to the regular parameterized sorting options when viewed on boards or feeds:

- Highest current viewers
- Highest account followers
- Highest net weighted voting power
- Highest total unique viewers

7.2 User Interaction Transactions:

Upvotes and views are recorded by signed transactions from the accounts that interact with content. These result in the network being able to rank and reward posts for subjective quality, as perceived by the users. These transactions can be automated by third party developers to upvote or view posts using account keys. For this reason, user interaction transactions are always valued with stake weighting according to the account's balance of EZIRA, EziraPower, and vesting EziraBonds. This mitigates the impact of Sybil attacks, and the usage of large numbers of automated accounts to vote for posts and siphon author rewards, curation rewards, viewing rewards, and ranking exposure from genuine users. They are also rate limited as an account can only publish one vote or view transaction per block.

Voting power is added to each post by upvoting it with a user determined weight. The users voting power is divided into 1000 charges, which are applied to upvotes to weight them. The default charge weight is 10, the maximum is 100, and the minimum is 1. Users therefore should use more charges on higher quality posts, and less on lower quality posts to maximize curation rewards. Charges are replenished at a rate of 1 per 14.4 minutes, fully recharging over 24 hours. Accounts cannot upvote when they have no charges left, and cannot use more than 20% of remaining charges on one upvote, and can only use one charge at a time under 5 charges. Upvotes therefore should not be needlessly wasted, and users should upvote high quality content to the best of their judgement.

Votes from accounts that have not published a view transaction for the post are limited to a maximum of 10 charges, and their voting weight is reduced by 50%. This mitigates the ranking influence and reduces the curation rewards of automated voting, and encourages viewing content before voting on it. This acts to distribute more curation rewards, and voting power into the hands of genuine active users.

View transactions are published automatically by default when post data is downloaded, and contain information detailing which account viewed the post, its voting power, a referring account name if the view was the result of a referral, and up to 10 Supernodes that provided the most data for the post, with the amount of data that they sent.

When browsing anonymously, views are compiled by each post's nominated view counting Supernodes and Witnesses. Each user nominates 5 Supernodes to count the amount of anonymous view requests on their posts. Each individual post is also assigned 5 random Supernodes to do the same. Each time a user anonymously views a post, they notify these Supernodes, which record the amount of views, excluding views from the same IP address within 1 hour. They also record information regarding the nominated Supernodes and referrers of the anonymous viewers. The Supernodes count these views independently, and sign and publish their recorded amounts for all their posts every hour. The 50% of Supernodes that are closest to the average declared amount of views over all Supernode and referrer nominations receive rewards from the Supernode reward pool. Supernodes cannot receive file hosting rewards for files that they are counting views for.

Account owners should be aware that their viewing history, and voting history is encoded onto a permanent, immutable public ledger. This is necessary to ensure the fair and transparent calculation of view counts for content, and the stake weight of post viewers for sorting purposes. Content that is viewed by many other accounts is ranked and rewarded more highly. Therefore, author rewards must be transparently and verifiably calculated on the blockchain, by having viewers provide proof of their voting power and their possession of the post data to prevent fraudulent view transactions from siphoning author rewards, or automatically viewing content on many accounts to increase its rank.

No Ezira.io website features will ever be implemented to publically view an account's viewing or voting history to protect user privacy, and the Ezira blockchain explorer will not display an account's viewing and voting transactions. Ezira.io will only show these transactions on the website when that user is logged in. However, it would be possible for third party developers to produce applications that will do this and show an account's entire history without logging in to that account. Ezira strongly discourages this, but acknowledges that it will not be possible to stop this from occurring. Ezira will not support developers that produce applications enabling users to search the blockchain to retrieve a list of all a user's view transactions, or vote transactions. View transactions must be publically visible to verify the authenticity of viewing accounts, and prove the integrity of the author reward system. To this end, posts will display their publically verified viewing accounts to prove the accuracy of the view count, viewer voting weight, and will allow content creators to know who has viewed their posts.

It is therefore strongly advised that users setup personalized options to prevent publishing view transactions for content that they do not wish to be publically and permanently associated with, or turn off view transactions entirely. It is up to users to decide whether or not they wish to publish viewing transaction, but will forgo regular activity and viewer rewards if they choose to disable them. Accounts can setup optional features to disable view transactions for specific types of content, to view specific types of content with certain different accounts, or disable the publishing of view transactions entirely.

Users can always view content privately using the anonymous mode, which never posts view transactions, cannot vote, and automatically routes its traffic through the Supernode network with all other anonymous users to prevent IP tracing.

7.3 Post voting mechanisms and formulae:

Board and feed posts are sorted by a parameterized formula, that allows users to combine many different metrics to rank posts. The following content sorting parameters are set to an integer value between 0 and 100:

- Latency – varies the weighting of post age to post scoring from all sources
- EqualizationFactor (EF) – varies the distribution of Weighted vote power to be equal, or fully stake based
- VoteRank (VR) – varies the weight of post score by voting score
- ViewRank (ViewR) – varies the weight of the post score by the amount of weighted views
- ShareRank (SR)– varies the post score by the amount of weighted shares
- CommentRank (CR) – varies the post score by a combination of commenting metrics (number, length, unique commenters)
- ActiveTime (AT) – varies the time used for latency between the post time (0) and the time of last comment (100)
- RandomFactor (RF)– Adds a random number to the post score of variable size to shuffle posts

Once the values of the sorting parameter have been determined, the posts are sorted by the following formulas:

$$VotePower = EZIRA + (EZCPrice * (EZP + VestYears * EZB Balance) * MembershipBonus$$

An account's voting power is determined by its balance of EZIRA, plus the price ratio adjusted balance of its balance of EziraPower, plus its vesting time weighted balance of EziraBonds. The EziraCoin Price is equal to the witness feed settlement price of 1 EZC in EZIRA.

$$WeightedVotePower(WVP) = VotePower * \frac{NumberOfAccounts}{TotalVotePower} * \left(1 - \frac{EF}{100}\right) + \left(\frac{EF}{100}\right)$$

The weighted voting power takes the voting power of all accounts, and normalizes them around 1, where 1 is the average voting power. When viewing posts, this is adjusted by the equalization parameter to make account votes more or less equal when sorting. The minimum value that a vote can count for is equal to the Equalization factor, multiplied by the average voting power.

$$NetWeightedVotePower (NWVP) = \sum (WVP_{Up} * \frac{Charge}{10}) - \sum (WVP_{Down} * \frac{Charge}{10})$$

A post's net weighted vote power takes the sum of all curators upvoting weighted vote power multiplied by the amount of charge that each vote was given, divided by 10, the default charge, and subtracts the sum of the Downvoting weighted vote power, multiplied by their charge usage, divided by 10, the default charge.

$$\text{SignedNetWeightedVotePower}(SNWVP) = \text{Log}_2(|NWVP| + 1) * \text{Sign}(NWVP)$$

A post's signed net weighted voting power takes the magnitude of net weighted voting power, and returns its correctly signed logarithm to a base of 2, with 1 added to the magnitude to resolve the Log(0) case.

$$\text{WeightedViews}(WV) = \text{Log}_2 \left(\left(\frac{\text{TotalVotes} * \text{TotalCharge}}{\text{TotalViews} * 10} * \sum (WVP_{\text{ViewingUser}}) \right) + 1 \right)$$

A post's weighted views finds the logarithm, with a base of 2, of the total sum of all views, each multiplied by the individual weighted voting power of its viewer, and normalized by the ratio of votes to views on the site in total to obtain a similar magnitude for weighting against votes, and relativize their values. 1 is added to resolve the log(0) case.

$$\text{WeightedShares}(WS) = \text{Log}_2 \left(\left(\frac{\text{TotalVotes} * \text{TotalCharge}}{\text{TotalShares} * 10} * \sum (WVP_{\text{SharingUser}}) \right) + 1 \right)$$

A post's weighted shares finds the logarithm, with a base of 2, of the total sum of all shares, each multiplied by the individual weighted voting power of its sharer, and normalized by the ratio of votes to shares on the site in total to obtain a similar magnitude for weighting against votes, and relativize their values. 1 is added to resolve the log(0) case.

$$\text{WeightedComments}(WC) = \left(\frac{\text{TotalVotes} * \text{TotalCharge}}{\text{TotalComments} * 10} \right) * \sum (\text{Comments} * WVP_{\text{User}})$$

A post's weighted comments finds the total sum of all comments made on a post, each multiplied by the individual weighted voting power of its commenter, and normalized by the ratio of votes to comments on the site in total to obtain a similar magnitude for weighting against votes, and relativize their values.

$$\begin{aligned} \text{WeightedUniqueCommenters}(WUC) \\ = \left(\frac{\text{TotalVotes} * \text{TotalCharge}}{\text{TotalUniqueCommenters} * 10} \right) * \sum (WVP_{\text{UniqueCommentingUser}}) \end{aligned}$$

A post's weighted unique commenters determines the amount of unique accounts that commented on the post, each multiplied by the individual weighted voting power of its commenter, and normalized by the ratio of votes to unique commenters on the site in total to obtain a similar magnitude for weighting against votes, and relativize their values.

$$WeightedCommentCharacters(WCC) = \left(\frac{TotalVotes * TotalCharge}{TotalCC * 10} \right) * \sum (CC * WVP_{user})$$

A post's weighted comment characters finds the total amount of characters of the comments on the post, each multiplied by the individual weighted voting power of its commenter, and normalized by the ratio of votes to comment characters on the site in total to obtain a similar magnitude for weighting against votes, and relativize their values.

$$DistributedWeightedCommentScore = \text{Log}_2\left(\frac{WC + WUC + WCC}{3} + 1\right)$$

A posts distributed weighted comment score combines all three comment valuation formulas, and finds the logarithm to a base of 2, with 1 added to resolve the log(0) case.

$$PostScore = 0.01 * (VR * SNWVP + ViewR * WV + SR * WS + CR * DWCS + RF * Rand)$$

Postscore calculates the total of all the post element scoring logarithms, each multiplied by the user inputted Ranking factors for votes, views, shares, comments, and adds a random number, Rand, multiplied by the post's random factor for use in shuffling posts on each reload, while maintaining a bias to sort higher ranked posts above others.

$$ActivityWeightedTime = PostTime * \left(1 - \frac{ActiveTime}{100}\right) + LastCommentTime * \left(\frac{ActiveTime}{100}\right)$$

Activity weighted time determines the number of seconds since the genesis block, weighted against the number of seconds since the genesis block when the last comment on a post was made. This can be used to parametrize sorting options that increase the ranking of newly commented posts, or sorting posts by weighting when they were last commented on, rather than when they were posted.

$$TotalPostScore = PostScore * \left(\frac{Latency}{100}\right) + \left(\frac{ActivityWeightedTime}{3600}\right) * \left(1 - \frac{Latency}{100}\right)$$

The Total post score is the postscore determined by the metrics of the post's quality, weighted against the newness of the post. Newer posts will have higher value of time added to them, which is normalized to 1 hour per 1 unit of post score. A higher latency parameter will result in older, higher voted posts being rated above newer posts, while a lower latency will rank newer posts above older posts with more votes. A lower latency will make the ranking of the posts on a page change more rapidly as newer posts are made. A higher latency will cause post rankings to remain more constant, and require larger

amounts of votes and other metrics to rank highly. Posts on all boards are sorted from highest to lowest values for this final formula, which incorporates all user weighting parameters, and times.

Sorting parameter presets:

The Web UI has many preset configurations to set the parameters of the sorting algorithm:

Name	Latency	Equalization	Vote Rank	View Rank	Share Rank	Comment Rank	Active Time	Random Factor
Hot(Default)	50	10	100	10	10	10	10	0
Hot(Rapid)	25	10	100	10	10	10	10	0
Hot(Apex)	75	10	100	10	10	10	10	0
Discussion(Default)	50	10	10	10	10	100	10	0
Discussion(Rapid)	25	10	10	10	10	100	10	0
Discussion(Apex)	75	10	10	10	10	100	10	0
Views(Default)	50	10	10	100	10	10	10	0
Views(Rapid)	25	10	10	100	10	10	10	0
Views(Apex)	75	10	10	100	10	10	10	0
Shares(Default)	50	10	10	10	100	10	10	0
Shares(Rapid)	25	10	10	10	100	10	10	0
Shares(Apex)	75	10	10	10	100	10	10	0
New	0	0	0	0	0	0	0	0
Active	0	0	0	0	0	0	100	0
Random(Pure)	100	0	0	0	0	0	0	100
Random(Recent)	50	0	0	0	0	0	0	100
Random(New)	0	0	0	0	0	0	0	0
Random(Hot)	50	10	100	0	0	0	0	100
Random(Discussion)	50	10	0	0	0	100	0	100
Random(Views)	50	10	0	100	0	0	0	100
Random(Shares)	50	10	0	0	100	0	0	100
Top(Pure Votes)	100	100	100	0	0	0	0	0
Top(Pure Views)	100	100	0	100	0	0	0	0
Top(Pure Shares)	100	100	0	0	100	0	0	0
Top(Pure Comments)	100	100	0	0	0	100	0	0
Viral	75	50	25	100	100	25	25	0
Elite	90	0	100	100	100	100	10	0
Rising	10	30	100	100	100	100	0	0
Popular	50	50	50	100	100	50	0	0
Quality	75	0	100	25	0	0	0	0
Discourse	50	50	0	25	0	100	50	0
Shuffled (Low)	50	10	100	100	100	100	10	50
Shuffled (Moderate)	50	10	50	50	50	50	10	50
Shuffled (High)	50	10	50	50	50	50	10	100
Featured*	100	0	100	100	50	50	0	0

Posts can also be limited by many options for further customization, including:

- Posts made within or before a certain period of time: In the last hour, last 24 hours, last week, last month, last year
- Posts made by authors with a minimum percentile rank of lifetime content rewards: Top 50%, 25%, 10%, 5%, 1%
- Posts made by accounts with a minimum percentile rank of followers: Top 50%, 25%, 10%, 5%, 1%
- Posts made to boards with a minimum percentile of subscribers: Top 50%, 25%, 10%, 5%, 1%
- Posts that have been upvoted by a minimum amount or percentage of the account's connections: 1, 2, 3, 5, 10, 1%, 2%, 3%, 5%, 10%
- Posts made by accounts that are: verified accounts, profile accounts, persona accounts, member accounts, officer accounts

*The Featured preset is used to determine the posts that are added to the Featured page.

7.4 Premium content:

Posts can optionally be made into premium content. These posts require the viewer to pay the uploaded to purchase them, using EziraDollars or EziraCoin. Users are able to easily purchase content with only 2 clicks, creating a frictionless way to monetize high production value media. Premium content can be uploaded by Silver member accounts and higher. Premium content sales can be used for large production teams to turn revenue for music, movies, TV shows, games, programs, or any other media. After it is bought by the viewer, it is unlocked to their account by being decrypted from the content hosts in the Supernode network, and can be viewed, or downloaded as desired.

Fiat money can be used to purchase EZD, which are then relayed to the content producer at point of sale using payment gateways. Premium content is sorted using the same formulas as board posts, but would replace stake weighted views with net purchase revenue. Premium content can be voted on for author rewards just the same as free content, so premium authors will need to balance the price of their content to ensure that a large enough segment of users are able to afford to purchase it, and vote on it. Initial parts of the content can be released publically, so that there is a leading element to describe and give a sample to prospective purchasers.

The EZIRA network includes a 1% fee on the revenue from purchasing Premium content. 80% of the fee is network revenue used to buy and burn EZC and other assets. 20% of the fee is distributed between the Supernodes that distribute the file content, and decryption keys.

Premium content producers are able to earn additional revenue from account membership purchases. High end accounts can offer their own subscription assets, which can be bought to grant free access to all premium content released in the past, and for the next year. These are burned to null to activate membership, and automatically unlock premium content for free to all accounts that activate them. Premium creators can offer store discounts to their account membership holders.

Accounts can link their premium content revenue to a cryptoasset, and have a percentage of revenue earned from premium content used to issue dividends to their user issued asset. This can be used to

finance high production value content, and reward backers. User issued asset dividends are paid weekly by default.

Premium creators can optionally choose to make their account into an Ezira Premium Partner by enabling all Ezira blockchain Gold members to access your content for free, and silver members at a 50% discount. Premium partners receive a split of the revenue earned from Ezira membership sales according to the stake weighted upvotes and views of Ezira members, and the total sales volume to non-members and silver members. This revenue split percentage is a witness parameter, and starts at 20%.

7.5 Promoted objects:

Objects can be added to the promotion queue by paying EziraCoin or EziraDollars for promotion boosts. Funds paid for promotion are paid to the network revenue distribution mechanism and are used to buy and burn EziraCoin or other assets. They are also used to compensate any external view referrers.

At the top of every Ezira.io board, feed, tag, and search result page, the first post is selected from the promotion queue. When recommended posts are displayed beside a post in a tab, the first recommended post is selected from the promotion queue. The chance of a post being selected is weighted by the total amount of EZC spent by the post, divided by the total amount spent by all promoted objects in the queue.

Users can promote the following blockchain objects:

- Standard posts, with all regular buttons and features.
- Premium posts, with their price, and a purchase button.
- Boards with their name and graphic, and a subscribe button.
- Accounts, with their name and public profile picture, and a follow button.
- Store pages, with their name and graphic, follow button, and a featured product purchase button.
- Products, with their name and graphic, add to wish list button, and a purchase button.
- Cryptoassets, with their name and graphic, price history, and an EziraDEX exchange button.

Promotion can be targeted to specific boards, tags, or search terms, which increases the likelihood of the post being promoted in those site areas. Each target added to a promoted post incurs a 2% fee that is added to the promotion cost. Up to 50 targets can be added. The effective promotion value of an object is increased by a factor of 100 whenever the user is:

- Browsing a specified board or tag
- Browsing a post made by a specified account
- Browsing the profile of a specified account
- Searching for a specified term
- Following a specified account
- Subscribed to a specified board
- Holding a balance of a specified public cryptoasset (not including Ezira network currencies)

Promotion targeting ensures that the posts shown to users will be highly likely to be relevant to the board they are browsing or the content that they are currently engaging with. The total current value of

the Ezira promotion pool is displayed when making a promoted post to guide the amount spent on promotion. EziraCoin promotion value holds constant for 14 days before it is reset. Post promotion expenses can be set to automatically renew after 14 days. Promoted posts are clearly labeled with their promotion expense balance visible on hover, and are otherwise formatted identically to regular posts. They are not invasive, distracting, and do not feature any moving elements.

Promoted posts can be upvoted or downvoted just like regular posts. Upvoted promoted posts earn author rewards the same way normal posts do, and can be set to distribute their earned author rewards to increase their promotion value. The default rate of author reward re-promotion is 50%, and can be set from 0% to 100%.

Engaging, popular, and entertaining promoted content has the possibility to earn more author rewards than the cost spent to promote it, and gains free additional exposure from the author rewards that it earns. Downvoting a post will cause that promoted post to not be shown to that user again, the post is hidden, and a new promoted post will be selected on the next page refresh. Promoted posts are treated as regular posts for all intents and purposes when determining page sorting, and can be discovered and upvoted organically, as well as being positioned at the top of pages.

Ezira promotion partners:

Promoted posts are able to gain external exposure through the offsite advertisement of Ezira Promotion Partners. External website operators are able to place Ezira promotion boxes into the page structures of their websites, which display image links to promoted posts from the Ezira blockchain. The selection of posts for this rotating box uses the same cost based weighting as the Ezira.io website. When website viewers click through, they are sent to the promoted post, with a view referral.

If the user has an account, they will sign and broadcast a view transaction for the post, which will include the referring account, and the Supernodes that sent data.

If the user does not have an account, and makes one upon reaching the promoted post, the referrer receives a permanent marketing reward pool vote with the user's future voting power. The user's newly made account will then publish a view transaction that includes the referring account and Supernodes.

If the viewer does not have an account and does not make an account to view the post, then the viewer is able to view the post anonymously. Both the promoted post creator and the promotion partner nominate 5 Supernodes each to count the amount of unique requests for the content, in order to count anonymous views. Every time a user clicks through an Ezira promotion box, they notify all nominated Supernodes that they have requested the content. This count is conducted off-chain, and at the end of each day, all 10 Supernodes compare the amount of recorded anonymous view requests.

The 10 view counting nodes then average the amount of recorded views between themselves, and all sign a transaction stating the average amount of views that an advertiser referred to the post. All logs of view requests are then deleted, and no IP address data is retained for more than 24 hours. Supernodes and Witnesses that are able to accurately and truthfully count anonymous views are selected to act as view counters more often, and they will be rewarded more frequently for being close the average. Transactions are signed and published by these recording Supernodes and Witnesses, and are used to calculate the amount of referred views.

The promotion cost of a post is split according to the following:

70% - Ezira network revenue

10% - Divided between all promotion partners according to the amount of anonymous referred views

10% - Divided between all promotion partners according to stake weighted account signed referred views.

7.5% - Divided between all Supernodes that host the file, according to signed stake weighted views.

2.5% - Divided between the Supernodes and Witnesses that are selected to count anonymous views, according to view count. The 50% of witnesses of Supernodes that are closest to the average are rewarded.

Ezira Promotion Partners are able to customize their promotion boxes to prioritize posts that have relevant promotion targets, which gives posts containing those targets a promotion value multiplier of 100 for being selected to be shown. Through experimentation, promoters can choose which targets gain the best view referral rates for their website, and promoted post creators can choose the promotion targets that gain the most positive exposure.

7.6 Content rewards:

All posts are eligible to receive a distribution from the content reward pool. 20% of all EziraCoin created is awarded to content creators and the accounts that interact with content to provide information to the blockchain. By default, 75% of the payout is earned by the author over 30 days, with the remaining 25% being split between curators, viewers, view referrers, and Supernode hosts. The amount of EziraCoin that is received as content rewards by posts is added to each accounts "Lifetime content rewards" value. Profiles display the lifetime content rewards that the account has earned, as a measure of overall contribution and reputation.

In addition to receiving content rewards from the blockchain reward pool, content creators can also receive optional tips from viewers. Common tip denominations (1, 2, 5, 10, 20 EZD) can be sent in EZD directly to the creator's account in two clicks. Viewers that tip the post creators are featured below the post, in order of the amount donated. A gold "Super Upvote" button can be pressed to simultaneously upvote the post with 100 charges, share it on the account's profile to all followers, and tip the content creator 10 EZD. Especially impressed viewers can optionally press a button to donate membership to the posting account, which purchases a membership asset from the EziraDEX at market price, and immediately activates it on the account.

Curators are rewarded for voting on posts by receiving a curation reward payout according to the amount of voting power they have contributed to the post, and how early they voted for the post. Viewers are rewarded for publishing view transactions that include their voting power for stake weighted view calculations, which Supernodes contributed data for loading the content files of the post, and whether or not they were referred by a referral link to view the post. Supernodes are rewarded for providing the resources to store and serve the post file content via a peer to peer transfer. Moderators are rewarded for their effort in removing posts that violate rules, and for building a high quality community. This also ensures that moderators are compensated for their time and effort, that there is competition between moderators to earn the support of their communities, and that there is always demand to replace moderators that act against their community's interests.

Author rewards:

Accounts that create posts receive rewards from the content reward pool, according to the amount of voting power that has upvoted their post, and the amount of voting power of the users that have viewed the post.

$$VotePower = (EZIRA + (EZCPrice * (EZP + VestYears * EZB Balance))) * MembershipBonus$$

An account's voting power is determined as the balance of EZIRA, plus the price ratio adjusted balance of EziraPower, plus the vesting time weighted balance of EziraBonds. The EziraCoin Price is equal to the price of 1 EZC in EZIRA. An account's membership bonus is 1 for a standard account, 1.1 for silver, 1.2 for gold, 1.3 for platinum, and 1.5 for diamond members.

$$WeightedVotePower (WVP) = VotePower * \frac{NumberOfAccounts}{TotalVotingPower}$$

Each account's voting power is divided by the average voting power of all accounts to find the weighted vote power, a multiple of the account's voting power relative to the average of all accounts.

$$VoteRewardShares (VRS) = Max(0, NewWVP + 0.25 * WVP)^{1.5}$$

All Posts have a current value of vote reward shares in the magnitude of their new voting power added within the last 24 hours, plus a quarter of their total overall voting power, to the power of 1.5. This is floored at 0 to resolve the case of negative net voting power.

$$ViewRewardShares(ViewRS) = \left(\left(\frac{TotalVotes * TotalCharge}{TotalViews * 10} \right) * \left(\sum (NewWVP_{user}) + 0.25 * \sum (WVP_{user}) \right) \right)^{1.5}$$

All Posts have a current value of view reward shares, determined by the sum of all their new views (within the last 24 hours) multiplied by each viewers individual voting power, added to a quarter of the sum of their total views, multiplied by each viewers individual voting power, all to the power of 1.5. This is multiplied by the ratio of votes to views, to relativize the values of views and votes.

$$TimeWeightedRewardShares (TWRS) = (VRS + 0.5 * ViewRS) * Max \left(0, \left(1 - \frac{DaysSincePosted}{30} \right) \right)$$

All posts have a current value of time weighted reward shares, which adds the value of voting reward shares with half of the value of view reward shares. This is multiplied by a linearly decreasing factor over 30 days, from 1, to 0.

$$PostRewardPayout = \sum_{n=0}^{24} \left(\frac{TWRS}{Total(TWRS)_n} * PostRewardPerHour \right)$$

Every hour, a post's time weighted reward shares value is recalculated, divided by the total number of time weighted reward shares for all posts in that hour, and multiplied by the amount of EziraCoin that has been mined into the author reward pool by witnesses during that hour. This payout each hour is added to posts as its pending payout value. Rewards are paid out every 24 hours, after which the time weighting value, Days Since Posted, increments up by a day.

This formula suite has the overall effect of combining relativized values of votes and views to determine post payouts, and decreases the payout share of a post over time. Posts receive daily rewards over 30 days, and older content earns less relative to newer content. Post payouts scale non-linearly with the amount of votes and views that they get, making artificial voter collusion difficult, and organic large scale voter consensus valuable.

The amount of views is included in author reward valuation to promote genuine user engagement and votes, instead of encouraging automatic voting without viewing the content. Like voting, views are also weighted by stake weight, preventing Sybil attackers from spam viewing posts. Each account can only contribute 1 view per post per hour to stake weighted views.

Curation rewards:

In order to create a dynamic system to incentivize users to actively vote for high quality content and rank it for other to see, curators are rewarded with a percentage of the author rewards of each post. Content authors are able to adjust the percentage of curation rewards that they pay out. This will enable higher end content producers to pay less to curators, who will still vote for them due to high expectations of curation rewards. Newer creators can increase the curation reward payout rate to incentivize curators to choose to upvote their less established posts over more established creators. This results in a competitive market where curators need to evaluate where their upvote charges are best spent, and removes large easy curation rewards from automatically upvoting posts from popular content producers. This enables successful content creators to earn more author rewards on their posts, when they can successfully command a premium from curators.

The curation reward payout of a post is displayed when selecting the amount of charges to use for an upvote. The maximum curation reward rate is 50%, and the minimum is 7.5%. Posts that are able to reach the top of the All board while paying out a 7.5% curation reward would be rare from only high quality popular authors, and posts from new users would frequently use a rate of 50% to gain exposure. The default rate would be 15%.

$$VotePower = (EZIRA + (EZCPrice * (EZP + VestYears * EZB Balance))) * MembershipBonus$$

An account's voting power is determined as the balance of EZIRA, plus the price ratio adjusted balance of EziraPower, plus the vesting time weighted balance of EziraBonds. The EziraCoin Price is equal to the price of 1 EZC in EZIRA. An account's membership bonus is 1 for a standard account, 1.1 for silver, 1.2 for gold, 1.3 for platinum, and 1.5 for diamond members.

$$WeightedVotePower (WVP) = VotePower * \frac{NumberOfAccounts}{TotalVotingPower}$$

Each account's voting power is divided by the average voting power of all accounts to find the weighted vote power, a multiple of the account's voting power relative to the average of all accounts.

$$CurationVoteShares (CVS) = 0.97^{PriorUpvotes} * WeightedVotePower * \frac{Charge}{10}$$

Curation vote shares are calculated when upvotes are added, by multiplying the weighted vote power added by a factor that decays by 3% for each subsequent upvoter.

$$CurationReward (CVR) = \sum_{n=0}^{24} \left(\frac{CVS}{Total(CVS)_n} * CurationRewardPerHour \right)$$

Each hour, curation rewards are calculated by determining the curation vote shares of that account when it upvoted, and dividing this by the total curation vote shares of all upvoting accounts. Each hour, as the post earns content rewards from the reward pool, a percentage is designated as curation rewards. The ratio of an upvoter's curation vote shares to the total curation vote shares is multiplied by the newly added curation reward. These values are added over 24 hours, and paid out each day.

Once a vote is made, the shares remain constant over the 30-day author reward period, meaning any later upvoter shares are reduced in value relative to early upvoter shares by the 3% decay per subsequent voter. The curation reward is distributed to all upvoters, relative to the percentage of all shares that they have in each hourly payment calculation.

Hosting rewards:

All Supernodes earn a Hosting reward based on the amount of view transactions that nominate them as a file data host. Every time an account holder or anonymous user views a post, they nominate up to 10 Supernodes that contributed data, and list the percentage of data that they contributed. This data is used to calculate Supernode rewards from the blockchain, and a default rate of 4% of author rewards are distributed to Supernodes based on the weighted file views of posts. The maximum hosting reward rate is 20%, and the minimum is 2%.

20% of this hosting reward is distributed between the 10 Supernodes that are selected to count the anonymous views for the post. The most accurate 50% of the Supernodes receive an equal share of the reward distribution for counting views.

Viewer rewards:

In order to accurately count the number of views of a post across multiple potential application interfaces at the blockchain level, accounts are rewarded for publishing view transactions, containing a proof that they have viewed the content in the form of a hash of the post content with their account name. When a post is opened, and all post data is downloaded from the Supernode network, a view transaction is created, and published automatically. A specified percentage of author rewards is distributed according to stake weight to all accounts that have viewed it in the last hour. Each account can only view each post once per hour for it to count towards the post's views. The maximum viewer reward rate is 15%, and the minimum is 1.5%. The default rate would be 3%.

Moderator Rewards:

Moderators are rewarded by receiving a percentage of the content reward payout from all the posts in boards that they moderate. This will cause competition over which boards to choose, and will reward the best moderators. It will also provide a disincentive for excessive removal of posts, as they will lose the moderation reward. They must find the right rules to maximize engagement with posts and viewing of their board, while not being excessively overbearing and losing moderation rewards. This compensates moderators for work that is expected to be done for free by many other forums, and provides resistance against outside financial interests paying for any manipulation of content.

Moderator rewards are distributed equally between all boards that a post is listed in. Each board's split of the moderator reward is then split between the moderators of the board, in proportions equal to the amount of voting power that they have received from the community in support of their moderation.

Content reward breakdown: (minimum/default/maximum):

In summary, the reward payouts from the Ezira blockchain for content rewards are split between the following divisions:

- Author rewards: (0/75/90%) All paid to the author of the post.
- Curation rewards: (5/15/50%) All paid to the curators of a post, according to their stake weight and the amount of voting charges used.
- Hosting rewards: (2/4/20%) 80% is paid to the Supernode file hosts according to the recorded account holding viewer data nominations, and the anonymous viewer data nominations. 20% is paid to the Supernodes selected to count views, according to their accuracy with the average of the other Supernodes.
- Viewer rewards: (1.5/3/15%) All paid to declared account holding viewers according to their stake weight
- Moderator Rewards: (1.5/3/15%) All paid to the moderators of the board(s) that the post was listed in, according to each moderator's voting support from the board subscribers.

Content creators can choose to receive their author rewards in the following proportions, in which the liquid EziraCoin is automatically used to purchase other assets directly at market price:

- Default: (75% EziraCoin, 25% EziraPower) EziraCoin is received as normal.
- Vested: (100% EziraPower) EziraCoin is immediately powered up when received.
- Stable: (75% EziraDollars, 25% EziraPower) EziraCoin is immediately used to purchase EziraDollars with a market order.
- Equity: (75% EZIRA, 25% EziraPower) EziraCoin is immediately used to purchase EZIRA equity with a market order.
- Split: (25% EziraDollars, 25% EziraCoin, 25% EZIRA, 25% EziraPower) EziraCoin is immediately used to purchase a third of its value in EZIRA, and a third of its value in EziraDollars
- Declined: No payout is made for the post, leaving its potential author rewards in the content reward pool for other posts to earn. This option should be used for all official communications by Ezira officers and executive board members. This option may also be used to make clear that the post is not intended for monetary reward, which may indicate credibility and sincerity to readers.

8 Ezira Content viewing:

8.1 Boards:

Accounts can create public boards, which any other accounts can post to, and can be made for specific topics, groups of users, or communities. They are made with any custom name, up to a limit of 50 characters, with no spaces. Board names should use capital case for clarity, but this is not required. Posting rules can be customized by moderators. User accounts can subscribe to boards, and all content posted to the board is added to their subscribed board feed.

When a new board is published, its creator becomes a moderator of the board, and can invite others to become moderators. Moderators can change the settings of the board, such as what should be posted, the background, and the layout. They are tasked with removing content that breaches their rules, and are able to move a post to the deleted section of their board, which is not visible from the main page of the board, but can still be accessed as normal if desired by users. Posts can also be moved to different boards if they do not belong in the board they were posted in. Posts cannot be permanently deleted from the site, as they are stored on the blockchain. This reduces the ability for moderators to conduct censorship.

Each subscriber can vote for up to 10 moderators that they support. Moderators are ranked according to time adjusted vote weight (voting weight multiplied by the number of years of subscription to the board) from the board's subscribers, and have hierarchical authority over which posts are removed from the board, or permitted, and what the board's settings and rules are.

Initial Boards:

A selection of boards will be created by the Ezira main account at the beginning of the Ezira blockchain, to act as a starting point for the Ezira community to self-organize. Moderators for these boards will be added according to requests from early community members. The Ezira initial boards will include selections from the following categories:

General boards:

- General (any free content, SFW, moderated)
- RandomGeneral (any free content, no rules, un-moderated)
- Premium (any premium content, SFW, moderated)
- RandomPremium (any premium content, no rules, un-moderated)

Content type specific boards:

- Pictures (only image and album posts)
- Videos (only video and album posts)
- Music (only audio posts, playlists, or music videos)
- News (only blog posts reporting news events or links to news articles)
- Interviews (only posts inviting user questions in the comments, and answering them)
- Articles (only blog posts)

- Links (only link posts)
- Text (only text posts)
- Gifs (only image posts of moving images)
- Applications (only links to applications hosted on the Ezira network)
- Downloads (only download posts)
- Verification (only blog posts for verification voting)
- Trollbox (used for trollbox text posts, screenshots, and trollbox moderation)

NSFW boards:

- NSFW (any free nsfw content, moderated to enforce tagging rules)
- RandomNSFW (any free nsfw content, un-moderated)
- NSFWPremium (any premium nsfw content, moderated to enforce tagging rules)
- RandomNSFWPremium (any premium nsfw content, un-moderated)

Outreach boards:

- EziraIdeas (posts with ideas for how Ezira could be improved through future development)
- WorkHub (posts of users looking to hire employees for EziraDollar compensated positions, and users seeking employment for EziraDollars)
- Freelancing (posts for users looking to hire workers for single defined tasks and short term projects based on specified deliverables for EziraDollars, and workers to apply for these offers)
- NewFriends (users that are new to Ezira, for conversations with other new users)
- Networking (posts discussing opportunities to build business relationships, establish new Ezira businesses, or other Ezira community projects)
- NewBoards (posts promoting and discussing newly created boards)
- MetaEzira (posts about Ezira culture trends, and notable posts)
- IntroduceYourself (posts made to for new users to introduce and describe themselves)
- EziraTutorials (posts containing tutorial content for teaching new users about Ezira)
- EziraSupport (posts for users to ask questions about Ezira, and receive assistance from network officers or the community)
- Help (posts asking for help in general, with any questions or problems, and receive answers or assistance from the community)

Marketplace boards:

(Posts should be related to Ezira marketplace transactions within moderator discretion)

- Purchases (posts about recent Ezira marketplace purchases)
- Sales (posts about recent Ezira marketplace sales)
- Mediators (posts for mediators to promote themselves for transaction selection, discuss dispute resolutions, and execute dispute resolution posts)
- ProductReviews (posts about recent marketplace transactions, giving reviews of products, and the accounts that sold them)
- TransactionSupport (posts about issues resulting from marketplace transactions, and seeking assistance from the community and mediators to resolve these issues)
- IWillBuy (posts declaring that they want to buy a product for EziraDollars)

- IWillSell (posts declaring that they want to sell a product for EziraDollars)
- NewBusinesses (posts for new Ezira businesses to promote themselves and introduce their products)
- NewProducts (posts for Ezira businesses to promote their newly added products)

Topic specific boards:

(Posts must be related to their topic within moderator discretion)

Science, Technology, Politics, Books, Movies, TVShows, Games, Memes, RageComics, Informative, Funny, Awesome, Intriguing, Compelling, Original, Relationships, Dating, History, TheFuture, Today, Innovation, Debating, Computers, Physics, Chemistry, Biology, Mathematics, Engineering, Medicine, Genetics, Business, Finance, Pets, Cats, Dogs, Art, Jokes, Research, Sport, Social, Revolutionary, StartUps

Cryptocurrency community boards:

(Posts must be related to their cryptocurrency or topic within moderator discretion)

EZIRA, EziraCoin, EziraDollar, EziraStealth, EziraCredit, EziraPower, EziraBonds, EziraDEX, ExchangeTrading, EziraNetwork, Blockchain, DApps, CryptoCurrency, Bitcoin, Ethereum, EthereumClassic, Steem, Dash, ZCash, Monero, BitShares

Ezira officer boards:

(Posts should be related to their Ezira community members within moderator discretion, and should be used for official posts by said community members for announcements and transparency reports)

Witnesses, Developers, Marketers, Mining, Supernodes, Moderators, Advocates, Executives

8.2 Featured page:

High quality content posted by platinum and diamond members can be selected to be added to the featured page, which is the default front page of the Ezira.io website. All posts made by platinum and diamond members within a 24-hour period are included in the featured calculation. Every hour, the highest rated post by the featured ranking parameter preset is added to the top of the featured page. Posts leave the featured queue after 24 hours. The featured page retains a permanent link to all the past featured posts. The same account cannot be chosen to have a post added to the featured page twice in a row. Every 24 hours, a board is chosen to be listed as the featured board. The featured board is calculated according to its New subscriber's weighted vote power since last featured. The weighted vote power of each subscriber is added to a boards feature value. When a board is featured, its feature value is reset to zero. As new subscribers join, the value increases. The highest value board by this metric each day is listed as featured.

8.3 Feeds:

Account Feeds show all content from selected accounts sorted by the same formula as Boards, with New as the default option. Users can switch to any other sorting option to display posts. Network feed show particular selections of content from specific people or communities. Feeds are the primary way that users view private posts, that have visibility restricted to specified groups of people, such as connections

or friends. Users can view posts from subscribed boards or followed accounts, sorted however they choose.

Account feeds:

- Followed accounts (All) (Default feed)
- Followed accounts (Profile accounts)
- Followed accounts (Persona accounts)
- Subscribed boards
- Followed tags
- Companions
- Friends
- Connections
- Groups
- Events

Network feeds:

- Influencers: The most recent post from the accounts with the most followers, in order
- Prominence: The most recent post from the accounts with the highest lifetime content rewards, in order
- Communities: The top ranked post by Hot(Default) in the boards with the most subscribers, in order
- Executives: The most recent post from the 8 accounts of the Ezira executive board, in order
- Witnesses: The most recent post from the highest voted witnesses, in order
- Developers: The most recent post from the highest voted developers, in order
- Marketers: The most recent post from the highest voted marketers, in order
- Advocates: The most recent post from the highest voted advocates, in order
- Supernodes: The most recent post from the highest Supernode reward recipients, in order
- Stakeholders: The most recent post from the profiles with the highest total account balance, in order
- Ezira Consortium: The most recent post from the highest market capitalization Ezira sponsored businesses, in order
- Miners: The most recent post from the accounts that have mined blocks most recently, in block order

8.4 Groups:

Users can create groups for accounts, which act as private boards for specific groups of people. Group moderators can setup options to determine which accounts can view the group, and which accounts can make posts to the group. Moderators can require that accounts must request access to a publically visible group, or can only be invited to a closed group. Moderators control who is able to confirm requests, and send invites. Group members, and their posts can be removed by moderators, and placed in a deleted section, in the same way as boards. Group content is encrypted and stored on Supernodes and the blockchain. It can only be decrypted with the group decryption key given to group members.

Groups can optionally create membership assets, which are expended to pay for membership costs. Assets are sold by the group creator for any desired price on the EziraDEX, and can be bought directly from the group page. This acts as a way to finance the groups collaborative expenses. Group members are removed after a predetermined time has elapsed since their membership expired. Group membership lists can be easily used to populate event invitation lists, and can be used as a prerequisite to owning any specified cryptoasset.

8.5 Content management mechanisms:

Ezira user accounts cannot be banned, and the Ezira executive board cannot enforce any content rules on the publically accessible blockchain, or encrypted Supernode storage. Posts cannot be removed from the blockchain once published, by design. It would be unfeasible also to remove content from the Supernode network once uploaded, as it is held on an international network of hard drives, over which neither Ezira, or its executive board, have any control. This too, is by design.

Content should not be uploaded to Ezira if the user does not want it to remain permanently, publicly, and immutably accessible. Files on the Supernode network can be updated by changing the file referenced using IPNS, but the original file is still available.

User controlled content filtering:

In order to customize their viewing experience, users are able to use settings to either filter, hide the thumbnail, or grey out posts that list any specified tags, are posted to specific boards, are posted by specific users, or have a title containing specific keywords. For posts that are not made with tags that describe their content honestly, tags can be added by viewers. In order to limit the proliferation of malicious content, users are able to add reporting tags to posts that they believe fit into certain categories.

Users who post content that others find to be offensive, distasteful, threatening, or abusive can have their posts tagged with categories that will cause them to be filtered by other users. Posts are marked with a tag when the tag is supported by a net voting power greater than that of 5 average accounts, from at least 5 different accounts, with at least 1 account being a moderator of the board that the post is in. Posts made to profiles do not require the posting account to support the marked tag.

Incorrectly applied tags can be opposed with voting power, and can bring the tag's net voting power to below the marking threshold of 10 average users. This will cause the marked tag to be removed. Default tags are set automatically on all boards, groups, and posts. They can be manually adjusted, or deactivated according to user preferences.

All non-default filtering requires the user to opt in, giving users the exclusive power to decide what they do and don't want to see. Most default filtering can be deactivated, or changed to use other methods. There are 4 hardline tags that are used for content that is considered to be illegal in most countries, and these filters cannot be altered using the Ezira.io interface. Other third party interfaces to the blockchain may act to work around these filters. Ezira developers will not support any applications that offer functionalities to disable these filters.

Default network tag settings are applied by default to all Ezira boards. It is up to the community to decide which other tags they create and enforce. They include:

- #nsfw – Content that is considered to be of an erotic or explicit nature, thumbnails are hidden by default.
- #spam - Content that is low quality, and clearly aimed to waste time and network resources, posts are greyed out by default.
- #false - Content that is objectively factually incorrect and intended to mislead users, posts are greyed out by default.
- #shill - Content that is misleading, and overly supportive of a particular agenda to the extent of suspecting that it was made by a compensated political or corporate agent, posts are greyed out by default.

Hardline content tags that cause automatic filtering on the Ezira.io website, and all Ezira supported applications. Third party developers should always include default hardcoded filtering of these tags, without the ability to disable them. They are:

- #nsfwnonconsent - Nsfw content featuring participants that clearly have not consented to the media being publicly posted, posts are filtered by default. Filter cannot be disabled on Ezira.io interface.
- #nsfwillegal - Nsfw content that violates international age of consent laws, posts are filtered by default. Filter cannot be disabled on Ezira.io interface.
- #terrorism - Content that supports or promotes acts of violence by militant organizations, posts are filtered by default. Filter cannot be disabled on Ezira.io interface.
- #doxxing - Content containing the non-consensual release of private personal information, filtered from boards by default. Filter cannot be disabled on Ezira.io interface.

Users that post content that is filtered with these tags will find it very difficult to have the marking tags removed, as they cannot be seen to be voted against. If a user believes that their post has been marked incorrectly with these tags, the post should be reconsidered, or re uploaded. Users that have high amounts of posts that become filtered with hardline tags will quickly find themselves permanently delisted from most boards.

Moderator controlled content filtering:

Moderators can delist a post from a board when two moderators concur that a post should be delisted for violating the board's rules, and either placed in the deleted section of the board, or moved to a different board. Two higher ranked moderators are required in order to restore the post from the deleted section. Board moderators can automatically delist posts from their board that become marked with specified tags. Users can be temporarily or permanently delisted from a board with the approval of at least 3 moderators, and can be overruled by the approval of 3 higher ranked moderators.

Moderators have sole discretion in the matter of which posts are and are not allowed on their boards. If the members of a board do not agree with the actions of specific moderators, they are able to vote for different moderators to have a greater rank and advocate for change in the board's post acceptance and delisting policies.

Network link indicators:

Specific usage of punctuation creates an automatic link to a particular page while using Ezira.io:

- Board names are linked using the > character (>All, >General, >Pictures)
- Posts and comments can be referred to with >> before their ID (>>7777777, >>1234567, >>1010101)
- Tags use the # character (#Hype, #Ezira, #PicOfTheDay)
- Username account page links use the @ character (@Haz, @Anna, @Ezira)
- Cryptoasset exchange links use the \$ character (\$BTC, \$EZC, \$EZD)
- Product purchase page links use the & character (&TeeShirt4, &EziraMug2, &Shoes7)

Lists:

Users can make lists of content that can be browsed through, named, and searched for, such as posts, accounts, boards, stores, or assets. Users can save any content to their profiles saved list, for later viewing. Lists can be published as a post, allowing others to see them, and vote on them. Video posts and audio posts automatically play when they are accessed, and move to the next item in the list upon completion.

8.6 Events:

Users can create event pages, which record the invitations and event details on the blockchain. All event details are encrypted unless the account has been invited. Posts to event pages can only be made or viewed by invitees. Invitees then select whether they are attending, or not, from the following options:

- Attending (Definite)
- Attending (Likely)
- Not Attending (Likely)
- Not Attending (Definite)

Invitees can choose to remove themselves from the event page if their invitation is unsuitable, or they do not wish to be listed on the event. Invitees that do not respond to an invitation are automatically delisted after the event. Users are regularly reminded of events that they have not responded to.

Event operators can optionally require a declared RSVP for attendance. This requires guests to lock in 1 EZD to confirm that they are attending. When they arrive at the event, they can confirm their attendance by any of the following:

- Scanning a code that should be publically displayed at the event,
- Bringing the invitee's phone into contact with the event operator's phone,
- Bringing the invitee's phone into contact with another already verified guest
- Entering an operator specified event area as confirmed by GPS, or
- Having the event operator confirm attendance and release the deposit manually.

This will return the guest's 1 EZD deposit, and reward them with a split of the deposits that are not reclaimed by missing guests. The maximum reward split is 3 EZD, any leftovers after all attendees have

been paid is returned to depositors. This is not intended to be a profitable mechanism, and predominantly acts as a deterrent for false attendance claims.

Event operators can optionally make the event open budget, whereby the event creator and authorized guests are able to spend funds from deposits made by attendants to fund the event. Costs are then split proportionately between attendee's deposits, and excess deposits are refunded. Event creators are able to specify a minimum deposit amount per guest to cover expenses as they occur. All expenses are publically visible to all attendants, and costs can be selectively divided between different participants, directed to one account, or split between all attendants.

Silver blockchain member event operators can create ticket assets for their public event, allowing any account with a ticket entry. Tickets are sold on the EziraDEX, and can be purchased directly from the events page. Tickets can be easily tracked for ownership, and auctioned to high bidders if limited tickets are issued. Entry staff confirm the possession of a ticket by authenticating the user's account on phone contact, instead of having to use a physical ticket, or scan a code. The Event operator confirms that the account holds a unit of the cryptoticket, and requests a transfer, which the user approves for entry. This publishes a blockchain transaction whereby the ticket asset is expended at the conclusion of the event. The cryptoticket system prevents issues arising from lost, stolen, damaged and counterfeit physical tickets. They can be created for free, and are traded securely, with very low fees paid to the Ezira network when the user issued asset tickets are traded.

8.7 Recommended posts:

When a user opens a post in a full tab, they view the posts main page. On each main page, the boards, tags, and author account from the content being viewed are used to find relevant posts to see next that are recently released, and highly voted. These recommended posts only select content that the user has not yet viewed, and are displayed by default beside the current post. The recommended post display beside posts can be toggled off if desired. This delivers high quality relevant content to the user, and helps them to find new interesting posts, and guides them to new boards and tags that they do not yet know about.

Users can optionally access the recommended post generator, by clicking a link from each recommended post bar. This utilizes an unlimited amount of input boards, tags, and accounts to generate recommendations of 15 recent highly voted posts, that are relevant to the inputs. Users can quickly add all boards that they subscribe to, all accounts that they follow, and all tags that they follow to generate recommended posts easily.

8.8 Applications:

Users and developers create and upload applications that are hosted on the Ezira Supernode network. These are used in the browser. All applications are able to offer connectivity and collaboration between users via the Supernode network. They can natively access all public information on the Ezira blockchain, and can access user data with an API to decrypt profile information, with the permission of the account owner. They can natively create and transact blockchain assets, create and interact with smart contracts, and charge subscription fees to the user's wallet balance. Applications could include the following:

- Games that can interact with blockchain objects and data
- Alternative front end interfaces for viewing Ezira posts and the blockchain
- Text document editor with full built in Ezira posting functionality
- Spreadsheet editor with full built in Ezira posting functionality
- Image editor with full built in Ezira posting functionality
- Sound editor with full built in Ezira posting functionality
- Presentation editor with full built in Ezira posting functionality
- Templated image generator (for making memes) with full built in Ezira posting functionality

8.9 Search:

Users can search the entire blockchain and public file database of the Supernode network for content with Ezira’s search feature. Sorted by popularity, as determined by relevant upvotes, and views. By default, search terms are run through all search types, and the most relevant results are displayed first.

Search types:

- Post search – searches for content in the public posts of the Ezira blockchain
- Image search – searches for images on the Supernode network
- Video Search – searches for videos on the Supernode network
- Audio Search - searches for audio tracks on the Supernode network
- Product Search - searches for products for sale on the blockchain
- Reverse image search – an image is searched for, and any similar images can be found, or the source and information about the image can be found if it has been uploaded to the Supernode network
- Reverse audio search – audio is searched for, and any similar audio tracks can be found, or the source and information about the audio can be found if it has been uploaded to the Supernode network
- Reverse video search – videos are searched for, and any similar videos can be found, or the source and information about the video can be found if it has been uploaded to the Supernode network
- File search – searches for files that can be downloaded on the Supernode network

9 Ezira Marketplace:

Goods and services can be bought and sold for EZD or EZC in the Marketplace section. Profile accounts and Business accounts are able to create a customizable store page, which lists all the products and services that they have for sale. Buyers and sellers can have fixed price sales, or auctions. These product listings are recorded on the blockchain, and can be publically linked to by anyone, and used by external applications using the Ezira API. Product sales are also recorded in the blockchain, and signed by the buyer, seller, and the mediators chosen by the accounts or randomly assigned from the mediator pool.

Marketplace customers and vendors can either choose to use single mediator that they both agree on, or a multi-party mediation team for additional security when they cannot agree on a mediator. The multi-party mediation team consists of seven mediators, one chosen by the buyer, one chosen by the seller, and five chosen at random.

Delivery of goods and services is moderated by an escrow system. An address is created that requires multi signature verification to spent funds. The buyer sends funds into the escrow account to initiate the purchase. After confirming the buyer's payment, the seller ships the goods, or provides the service. The seller then notifies mediators that they have shipped the product or provided the service, with evidence. Mediators then create a transaction spending the escrowed funds to their account, and pay network and mediator fees. The buyer then confirms that the product has been delivered or the service completed to the mediators. Once the buyer and seller are satisfied, they both sign one of the mediator's transactions to spend the funds.

When published by a mediator, the transaction is completed, and the payment is released to the seller. Depending on which mediators created and signed the transaction to transfer funds, the buyer and seller sign an additional transaction to pay specific or all mediators their portion of fees. Bonds posted by the buyer, seller and mediators are all refunded.

Buyers, sellers, and mediators are reviewed by customers in every interaction and have an approval rating out of 100%. A fee of 2% of the price of the sale is charged as a fee from the seller. 1% is awarded to the mediators that verify the transaction as valid, confirm delivery of the product being sold, and broadcast it. The other 1% is allocated to the revenue distribution model of the Ezira network, which is used to buy and burn EziraCoin and other cryptoassets.

All merchants with products and services recorded on the Ezira blockchain can use an API to create simple to use payment buttons on their own applications. These enable customers to directly purchase a product using their EziraDollar balance by signing a transaction with their Ezira account. This creates a payment request operation on the blockchain, which the account holder then confirms by signing it. This will be compatible with existing NFC contactless payment terminals.

Businesses that sell ongoing services can setup regular transactions with customers to pay a fixed amount periodically, by referencing a valid payment authorization transaction from the payer, which allow an amount to be spent from an address to another defined address once per a predetermined amount of blocks. If the amount is greater than the authorized limit, or a payment has used the authorization more frequently than allowed, the transaction is invalid and will not be propagated by the nodes. This allows buyers to opt in to a pull transaction mechanism for recurring expenses without having to directly authorize each one. Delivery of goods can be purchased from integrated delivery

businesses, multiple payment options can be accepted using integrated currency exchanging services, which purchase EziraDollars with the currency used, and then relay the payment to the seller.

9.1 Dispute resolution system:

All marketplace trading transactions use multi-signature addresses, that must be signed by a threshold of accounts with the following weights assigned to different parties:

Multi-party mediation team (default):

Buyer: 5

Seller: 5

Mediator Buyer choice: 2

Mediator Seller choice: 2

Mediator random: 1

Mediator random: 1

Mediator random: 1

Mediator random: 1

Mediator random: 1

Single mediator transaction (optional when viable):

Buyer: 5

Seller: 5

Mutually agreed mediator: 1

For standard marketplace trades, the transaction must be signed by all parties and mediators. The transaction sends the payment to the seller, returns all bonds to their owners, and pays fees accordingly. Every transaction, before initiating, sets an amount of time that the transaction has to be settled, by default this is seven days, and should be set to slightly longer than the maximum amount of time that delivery or task completion should take. If in this time the seller has failed to provide the product, or the buyer has refused to clear funds for a received product, claiming that it has not been received the transaction enters a contested state. After the expiry of the standard time period, the amount of weight required to sign the transaction spend is reduced by 1 per day, from 19 down to a low of 11. Single mediator transactions require 11 initially, lowering down to 6 when disputed.

In multi-party mediation, a minimum weight of 11 is required to sign a disputed transaction over to an account. This requires either the buyer, the seller, and a majority of the mediators in a disputed transaction. Transactions are overseen by 7 mediators, one is chosen by the buyer, and one is chosen by the seller. The chosen mediators have double the voting power in dispute resolutions, and generally promote the interests of the account that chose them in the mediation process. Chosen mediators also receive double the share in the mediator fees paid by the transaction. It is in the interest of mediators to provide good customer service, and earn a high reputation for fairness in dispute resolution, in order to be chosen by a large base of customers.

The buyer, the seller, and each of the mediators post a security bond of 10% of the transaction value to create the multi-signature address. If the transaction process occurs normally and is signed by both the buyer and the seller, this bond is refunded. If one does not sign, and a dispute occurs, the security bonds of the party at fault, and their supporting mediators is split between the winners of the dispute, and the

mediators in support of the winner. All the mediators that vote on the side that is successful divide the fees amongst themselves, whereas accounts that vote against the consensus and risk losing their transaction bond and mediation fees. This drives mediators to reach a consensus on the truth of what happened, and to avoid colluding with other mediators to defraud customers. All mediators do not want to be involved in disputed transactions, due to the time and effort required to resolve them, and the negative public image.

Fraudulent traders and mediators will lose their security bond, are likely to be rated negatively by the other accounts involved, and are recorded on the blockchain as having been the guilty party to a disputed transaction conflict. This may cause customers and mediators to distrust them in the future, and result in a loss of future sales and an inability to find a representing mediator due to the potential for fraud. Verified accounts are especially motivated to act honestly, due to the difficulty taken to obtain verification. Mediators always have more to lose from fraud than they have to gain, due to the potential loss of income and security bond when brought to a mediator trial.

9.2 Mediators:

Accounts can become mediators by obtaining profile account verification, and posting a transaction adding their account to the mediator pool. This transaction includes a collateral deposit, called the mediator security bond, of at least 10 EziraCoin. Larger mediator bonds allow selection in higher value transactions and are advisable. Mediator security bonds are withdrawn with a 7-day delay after leaving the mediation pool.

This collateral deposit is used to fund transaction bonds to create each multi signature address. Mediators can only be selected for transactions that they have a sufficient mediator security bond to cover 150% of the transaction value. Mediators should sign transactions that return the bonds back to each party, and split mediator fees accurately. If specific parties refuse to sign due to transaction issues, a lower threshold is required each day, allowing the majority to sign the transaction and distribute fees and the security bonds of the non-signing parties. If seller fraud occurs, the buyer and mediators can refuse to sign, instead creating a transaction to spend the funds back to the buyer and return the bonds of parties who side with the buyer. If fraudulent mediators choose to side with the seller, they will lose fees and their transaction bonds.

It is considered the de-facto responsibility of the two appointed mediators to craft proposed transactions to resolve the dispute, and for all other parties to agree by signing the transactions, or stating opposition to them. The first party to obtain a majority wins the dispute. When a transaction becomes disputed, all transaction communication logs are publicly posted to the mediator's board for community oversight of the practices of the buyer, seller, and mediators. Any wrongdoing, threats, game theory collusion to split bonds among fraudulent mediators, or other evidence of malpractice by any party is on public display if a transaction becomes disputed. Mediators cannot be selected randomly that are connections with any other mediator, and active mediators cannot send new connection requests while in a transaction. Mediators that are involved in a disputed transaction cannot be randomly selected for another transaction for 3 days while the public reviews the communication logs.

In all cases, it is in the interest of mediators to be truthful and legitimate. It is more profitable to have a strong record as a good mediator and become chosen more often than it is to extract short term gains

through fraud. Overall, it is in the interest of mediators to ensure the reliability and integrity of Ezira’s escrow system, to increase sales volume, and therefore their fee income.

Mediator trials:

If mediators sign fraudulent transactions, they are on the record, on their verified account, as having committed fraud. If a mediator is discovered to have committed fraud, they can be reported to the network in the mediator board. If a voting power equal to 30 average accounts, from at least 30 individual accounts supports the report, the mediator report is approved. Mediator report posts must contain evidence of fraud. Approved mediator reports create a vote post, called a mediator trial, whereby all mediators can place a vote to apply a penalty to the account using a weighted transferable vote. Mediator trials are supported by 25% of the security bonds of the accusing mediators account. This report bond is lost if the verdict is not guilty. Mediator trials have voting weight based on the value of the mediation security bond of the voting accounts. After seven days, the most supported option is enforced by the blockchain. It is up to mediators to determine the policies by which they choose to vote, and which penalties they choose to support:

- Not Guilty – Report is discarded and mediator is free to continue, accusing mediator loses report bond.
- Minor Fraud – 30-day suspension from mediation queue and 25% security bond loss.
- Moderate Fraud – 90-day suspension from mediation queue and 50% security bond loss.
- Severe Fraud - Permanent removal from mediation queue and 100% security bond loss.

All lost security bonds from mediator trials are awarded to the security bond of the winning party. They can also be used to provide refunds to the defrauded customers and mediators, at the accusing mediator’s discretion. Especially high quality mediators could make public refund guarantees, and refund customers immediately in the event of fraud. They would then pursue compensation in a mediator trial. The record of the refund payment would be viewed favorably by the mediator community in mediator trials, to prove that the customer is their priority, and that the mediator is legitimate.

9.3 Ezira sponsored businesses – The Ezira consortium:

Business accounts can become officially sponsored by Ezira to join the Ezira consortium, and receive the following benefits:

- All cryptoequity holders are able to obtain reimbursement at ICO price in the event of default
- The ability to issue Ezira backed cryptoequity to raise funds from investors in a series of ICOs
- The ability to issue Ezira backed cryptocredits to borrow funds from investors after completion
- Direct line of contact with the Ezira development team for the duration of the program and after completion
- Complimentary lifetime Platinum membership for the business account upon program completion
- Full legal incorporation on the blockchain as an “Ezira Endorsed business” on initiation, and as an “Ezira Consortium Member” after program completion.
- Full support of the Ezira legal team in any cases of liability after program completion

- A prominent badge next to the business name everywhere it appears on the site and in all EZIRA marketing material as an “Ezira Endorsed Business” during program completion, and an “Ezira Consortium Member” after completion
- The ability to advertise in the daily activity reward pool distribution transaction message
- Invitations to Ezira network meetings and presentations during the Ezira Festival

Ezira sponsorship default mechanism:

In any instance where an Ezira Endorsed business declares a default, it has the opportunity to be backed up by the Ezira network to make its investors whole. All EZIRA holders can vote to reimburse the default of an Ezira endorsed business. Upon consensus by the network, the entity in default will be supported by the liquidation of all outstanding cryptoequities at ICO price and cryptocredits at face value for an equivalent amount of EziraCredits. Each EziraCredit is worth 1 EziraDollar in revenue from the Ezira network. They are repaid through being rebought by the Ezira revenue distribution system when their market value falls below 1 EZD, until no more remain on exchanges being sold at or under 1 EziraDollar each. They maintain value by earning interest at a rate determined by the Witness Officers. This effectively pays back any defaulted investors out of the revenue of the Ezira network.

This allows any potential catastrophic defaults to be repaid out to investors without needing any intervention in the immutability of the blockchain with redistribution hardforks. This also acts to collectivize the cost of entrepreneurial risk, without needing a government to intervene to legally protect defaulters from investors. This protection for businesses and investors allows for a degree of confidence and assurance to promote growth, and stability. The decision to bailout a sponsored business is executed by a vote of the network when the business has made a sufficiently extensive effort to repay debts, but are visibly and provably unable to, due to events outside the control of the business and not the result of negligence or incompetence.

9.4 New Business Sponsorship Process:

1 – Release a detailed white paper outlining the aims of your business, products, services, the identities and background experience of the founders, the technological innovations theorized, the strengths of the business idea, potential weaknesses, existing competition, and the niches or edges that this business uniquely possesses. Release a roadmap of development progress goals spanning for 1 year, including a minimum viable product release date. Release an initial proof of concept to demonstrate what your business is able to innovate at the present point in time. Complete due diligence process, disclosing all potential profits, losses, and prospects of the business plan, any risks involved, and what your business has to offer to the Ezira community.

It is highly recommended that the business owners contact the Ezira executive board and witness officers, introduce them to the business model proposal, and obtain their approval due to the high amount of voting power and community influence that they hold. This is not required, and no action from the Executive board is necessary to create an Ezira sponsored business. The support of the Ezira executive board however would be valuable for the proposal.

2 – Appoint an initial board of directors, including at least 3 people (must include CEO), delegated the following titles:

Chief Executive Officer, Chief Technology Officer, Chief Financial Officer, Chief Marketing Officer, Chief Operating Officer, Chief Design Officer

3 – Announce the business and ICO to the EZIRA cryptoequity holding community for approval:

The ICO date and intention to run as a sponsored Ezira business should be announced 4 weeks prior to the planned ICO start date

The announcement should take the form of a 100EZD buy and drop of EZIRA to all EZIRA holders. The memo should contain a link to the ICO announcement post. All EZIRA holders are advised to vote on the approval of the sponsorship. The post must contain at least:

- A business account profile
- A Cryptoequity name proposal
- A whitepaper
- Proof of concept material
- A 1-year roadmap
- Links to the profiles of all founders and members of the board of directors
- A minimum target investment value that the ICO must exceed to viably fund development
- Due diligence research on the prospects of the business, and the potential for profits and losses

Prospective sponsored business owners should be prepared to answer any questions in the form of comments to their ICO announcement post over the course of 4 weeks.

4 – Receive approval from the Ezira community:

All Ezira voting power holders then vote on whether to accept sponsorship of this business, 51% of Ezira network voting power must vote in support of sponsorship before the start of the ICO to confirm sponsorship. Any Ezira voting power holder that does not vote has the weight of their voting power added to the votes of their supported witnesses who vote on their behalf.

5 – Conduct a preliminary ICO:

Sponsored cryptoassets are created by the EZIRA main account, and an ICO is conducted with a progressive price bonus schedule for early investors. The sponsored cryptoassets are distributed in the following divisions:

- 25% of the business cryptoequity is distributed to preliminary ICO backers according to investment, with early investment bonuses
- 20% is distributed to the business account to be held by the business owners for individual ownership.
- 50% is held by the EZIRA main account to be used for the main ICO
- 5% of the businesses cryptoequity is sharedropped to all EZIRA holders

The cryptoequity pays out 2.5% of all future business revenue to the Ezira network revenue mechanism, used to buy and burn EZC and other assets.

The cryptoequity pays out a minimum dividend of 5% of all future business revenue to investors.

The total amount of cryptoequity units created should be between 1 million and 100 million, with no more being issued.

If the minimum ICO target investment is not reached, all backers should be refunded and the business dissolved.

The preliminary ICO should last for between 4 and 8 weeks.

75% of the proceeds of the preliminary ICO are held in escrow by the EZIRA main account, and the other 25% are released to the business account on completion of the preliminary ICO. The Founding members should be vested with a personal portion of the cryptoequity from the business account. Personal cryptoequity should not be sold until the Sponsorship program is complete.

6 – Complete all specified development goals, including the production of a minimum viable product, from the roadmap:

ICO funds are released from the escrow regularly over the first year, as long as the roadmap objectives are being completed. If a majority of EZIRA holders and outstanding ICO cryptoequity holders vote in favor, escrow distributions can be suspended for the failure to complete roadmap objectives without satisfactory justification.

7 – Release new a roadmap of development for the next 1 year, including a fully viable product release date.

8 – Conduct a Full ICO:

The remaining 50% of the cryptoequity is sold in a full ICO, with a progressive price bonus for early investors, and bonuses for accounts that currently hold a minimum balance of the cryptoasset.

50% of the proceeds of the ICO are released after the completion of the full ICO, and the remaining 50% held in trusted escrow and released in accordance with the completion of the objectives of the roadmap.

9 – Complete the second year of the development roadmap, including the development of a fully viable product, to receive all ICO funding.

10 – Conduct a full democratic election of the board of directors to either maintain or change the incumbent members, and the company is now fully floated on the open market. Initial board members may now sell their personal cryptoequity on the open market. The Ezira sponsorship program has now been completed, and the business is now backed by the full support of the Ezira network in the event of a default, and the business account now receives a complimentary Diamond membership asset each month. (Sponsored business Diamond memberships do not count towards the 1000 limit sold to the public).

9.5 Existing business sponsorship process:

Established businesses can join the Ezira Consortium by completing the same process, except instead of developing their products and services, they simply sell them from the beginning. After the same 2-year time frame, and after their preliminary and full ICOs, they are able to join the Ezira Consortium as full members. Businesses with existing equity structures can import their shares into Ezira by creating gateway assets for users to purchase shares, and redeem them from issuing equities exchanges.

10 Other Features:

10.1 Chat:

Users can send instant messages to connected accounts using the chat feature. They can optionally activate sound for voice conversations, or webcam. Additional people can be added to form group conversations. Messages are encrypted from end to end, and stored on the Supernode network. No intermediaries are able to decrypt the messages, and they are useless if intercepted. They can only be read by the accounts that they are sent to, which are able to decrypt them.

10.2 Troll box:

The Troll Box is a large, live loading scroll feed of text posts, and can include links to any other post on the site. It hosts massive group conversations to coordinate site discourse, find new friends, have conversations, and act as a melting pot of ideas. It would be used as a way to promote posts. Spam would be managed by limiting posts to 1 per 10 seconds, with a maximum of 300 characters. Users reply by quoting the name of the person they are replying to. Users are advised not to use their personal accounts for posting in the trollbox, and should use persona accounts instead.

The trollbox includes a button for taking screenshots that include a timestamp, and the hash of the latest block, which can be posted to Ezira instantly to share discussions. Troll box screen captures would be shared to a dedicated board, and the moderators of the trollbox board would also serve as moderators of the Troll box. Moderator powers would include the ability to suspend an account from posting to the troll box for up to 7 days.

Posts in the trollbox can be upvoted, and downvoted, and receive content rewards just as regular posts do. They are formatted as text posts on the blockchain, and are automatically posted to the Trollbox board, but are not displayed in the board interface. A small window of the trollbox can be displayed and accessed by users from all pages of Ezira, or removed as a separate window. Each trollbox user has the value of their lifetime content rewards, verification badge, and membership badges shown next to their name.

Each board would have their own separate trollbox channel, by formatting their posts as text posts in the board of their choosing with the tag #trollbox. These posts are then displayed separately by switching to the board's channel in any Ezira trollbox interface. Any text post in a board that is tagged with #trollbox is included in that board's troll box. The >Trollbox board is considered the main troll box of the Ezira network, and is used by default.

10.3 Analysis center:

Features that display useful information about the Ezira network:

- Blockchain explorer
- Site traffic figures
- Post traffic figures
- Trending tags

- Prevailing content trends
- Most popular interests
- Amount of people online
- Accounts made
- Company financial data
- Trade economy data

10.4 Network visualizer:

Shows various types of network data as circles that are smaller and larger, and closer together. This can be used to see:

- Boards sized by subscriber count, and distributed according to mutual subscribers
- Profiles sized by the amount of connections that they have, and distributed according to mutual connections
- Profiles sized by the amount of followers they have, and distributed according to mutual followers
- Profiles sized by their balance of EZIRA, and distributed according to transaction volume
- Profiles sized by their balance of EziraCoin, and distributed according to transaction volume
- Profiles sized by their balance of EziraDollars, and distributed according to transaction volume
- Business profiles sized by their cryptoequity market capitalization, and distributed according to mutual customers
- Posts sized by current Hot(default) rating, and distributed according to mutual voters
- Posts sized by current Views(default) rating, and distributed by mutual viewers
- Posts sized by current Discussion(default) rating, and distributed by mutual commenters
- Posts sized by current Shares(default) rating, and distributed by mutual sharers

10.5 Settings:

Control account settings, such as:

- Account password changing and recovery
- Advertising display options (Silver members have the option to disable promoted posts)
- Security measures (such as IP locking, multi factor authentication, nominated recovery account)
- Page display options
- Creating new persona accounts
- Privacy settings

10.6 About:

Shows information about the website, how to use it, features, legal information, contact information for the website. Shows the user answers to frequently asked questions, and the “What is Ezira?” explanation. Contains a variety of video tutorials on how Ezira works, how to use Ezira.io, and the most recent version of the Ezira whitepaper.

11 Ezira executive structure:

11.1 Ezira Officers:

The top 50 voted accounts of the Witness, Marketing, Development, and Advocate pools, and the 8 members of the executive board make up a 208 person elected body, collectively called the Ezira Officers. Votes can be instantly and freely changed at any time, enabling user accountability on a minute by minute basis. The Ezira officers are the public face of Ezira, and should ideally uphold the following suggested transparency commitments and codes of conduct:

- Regular Reports on their activities in their role. (At least monthly, ideally weekly)
- Semi-regular public Interview threads, in which they answer any user questions about themselves and their officer activities. (At least annually, ideally monthly)
- Semi-regular Videos outlining their main contributions, activities, and projects. (At least annually, ideally monthly)
- Attendance at the Ezira Festival's Annual General Meeting
- All official posts should decline author reward payouts
- Officers should remain in good standing with their local communities, and should not bring the Ezira network into disrepute.
- Officers should not abuse their power for personal profit, succumb to corruption, or commit acts against the best interests of the Ezira network.
- Officers should not work for companies that pose a conflict of interest with their position with Ezira.

Voters should consider a failure to uphold these points to be grounds for reevaluating their voting choices, devoting officers, and voting for new officers to replace them. Any executive board members that fail to uphold these commitments should be dismissed for reelection by the Chief Executive Officer.

11.2 Ezira Executive Board:

The Ezira executive board is elected by the holders of Ezira voting power, according to stake weight. All positions are elected by a network wide series of weighted transferable vote instances for each position. Applicants for each of the executive positions must be announced at the Ezira Festival's Annual General Meeting. Any voting power holder that does not vote has their voting weight added to the votes of their supported witnesses who vote on their behalf. The executive elections take place over the Ezira festival. Voting opens at the completion of the Annual General Meeting, and closes at the commencement of the Ball.

Executive board roles are full time positions, and are compensated with a salary from the Ezira network, paid in EziraCredit. All Ezira executive board positions are represented by the ownership of a cryptoasset, which gives that account executive voting permissions on the blockchain, and pays out a designated salary to their account. All elected Ezira executives are awarded complimentary diamond blockchain membership while they hold their position. Executive salaries are determined by witness parameters. All witness feeds are averaged to calculate the salary.

The total value of executive board salaries is capped to a specified value worth of EziraCoin (starting at 200,000 EZC), and this cap requires a network vote with 51% voting power support to alter. If the value of EziraCredit or EziraDollar falls below \$0.9 USD, all members of the executive board are ineligible for reelection. If the value of EziraCredit falls below \$0.8, creation of EziraCredit is frozen by the network, and executive salaries are suspended. Executives are paid in EziraCredits to ensure that they do not issue excessive amounts of debt against the Ezira network revenue, as any devaluation in EziraCredit will reduce the value of their own salaries.

Chief Executive Officer:

- The public face of the Ezira network. Holds overall responsibility for the success of Ezira.
- Approves all creations and expenditures of EziraCredit.
- Can dismiss and call for the reelection of any of the other executive officers.
- Provides general direction to the network, and oversees the workflow of all other executives to co-ordinate their activities.
- Highest ranking member of the Ezira network.
- Account has the ability to post network wide messages that appear as banners across all Ezira node software, Ezira.io, and all Ezira network applications, in the event of a critical emergency requiring immediate action from all nodes.

Chief Operating Officer:

- Works at the discretion of the CEO to ensure the consistent operation of all executive functions, manages communications between other board members, and formal executive records to the blockchain.
- Fronts media interviews and speaks on behalf of the CEO in day to day matters.
- Second highest ranking member of the Ezira network, and heir apparent to the CEO.
- Role is flexible, and expands to cover any necessary operational tasks required by the CEO

Chief Technology Officer:

- Works with the development team to ensure 100% uptime of all Ezira.io computational infrastructure, and full operational order of the Ezira blockchain.
- Hires software engineers to provide a workforce to keep Ezira.io and all related infrastructure operational.
- Provides operational threat analyses, determines possible new attack vectors against the network, and works to prevent them.
- Reviews all new node official software versions for software flaws, repairs programming bugs, and certifies that a new software version is free from faults before release to nodes.

Chief Financial Officer:

- Oversees the creation and distribution of EziraCredit to pay for executive infrastructure and expenses, such as Ezira Headquarters, business transport, developer salaries, and executive salaries with the approval of the CEO.
- Facilitates any necessary interaction between Ezira and the fiat financial system.

- Oversees the foreign exchange public reserves of the network to allow liquidity and exchange between Ezira network currencies external cryptocurrencies, and fiat currencies.
- Responsible for creating EziraCredit to fund the Ezira executive Board's expenses, cover sponsored business defaults, and reimburse peer to peer lending losses.
- Overall responsibility for the stability and liquidity of the Ezira financial system, and the consistent growth in value of the EZIRA cryptoequity.

Chief Design Officer:

- Works to manage and improve the general design of all Ezira products, interfaces, and blockchain systems.
- Produces concept art for improvement proposals, and standardized graphical assets for use by the Ezira Marketing officers.
- Overall responsibility for the Ezira brand image.

Chief Marketing Officer:

- Works with the Chief Design officer, Marketing officers, and Advocacy officers to gain brand exposure, create positive brand impressions, and acquire new site users, and subscribing network members.
- Co-ordinates the efforts of the blockchain Marketing Officers to promote high end content producers, and the Ezira user experience to a global audience.
- Promotes the sale of blockchain memberships, and expenditure with the promoted post system.
- Ensures the high performance of the Ezira promoted post system, and its ability to earn positive exposure.

Chief Advocacy Officer:

- Works with the blockchain advocacy officers to establish and maintain positive relationships between Ezira and other companies, cryptocurrency communities, and governments.
- Speaks on behalf of the blockchain community to build positive legislation and favorable economic and legal conditions to enable the growth of cryptocurrency in general, and Ezira specifically.
- Co-ordinates the efforts of the blockchain Advocacy Officers to promote cryptocurrency, decentralized applications, and the Ezira network to global legislators, and established businesses.

Chief Development Officer:

- Works with developers to produce code improvements and maintenance for the Ezira blockchain, and Ezira.io.
- Works with the Chief technology officer to prevent software issues and bugs.
- Co-ordinates the blockchain development officers to produce high quality code for use by the Ezira network node infrastructure.
- In charge of Ezira code repositories, and administrates pull requests, software version control, and software testing. Node version updates must pass inspection by the Chief technology officer before launch.

12 Ezira events:

12.1 The Ezira Festival:

An annual week-long festival to gather together the officers, executives, and community together to conduct official business, promote Ezira, and engage with the community. Features presentations from Ezira executive officers, network officers, and from prominent members of the community. Multiple competitions are run during the event, and have prize pools that are crowdfunded from 20% of ticket sales revenue. The festival brings together Ezira businesses to sell their products to the community, and attracts new businesses to join. Various stalls sell all kinds of products using EziraDollars or EziraCoin, making the entire event fully cashless. The Ezira Festival is created as a public event from the Ezira main account.

Crowdfunded prizemoney is distributed to the following prizes:

Member of the Year – 30%

Hackathon – 20%

Open Market – 15%

Spectacular – 15%

Image of the Year – 5%

Film of the Year – 5%

Piece of the Year – 5%

Song of the Year – 5%

Tickets:

Tickets are sold as blockchain assets, and are redeemed on arrival by paying 1 day-ticket unit per day of entry, or paying 1 full-week-ticket on day 1. Entry to the Ezira Worldwide Party requires an additional ticket, and entry to the Ezira Ball requires an additional limited supply ticket. All 12-month consecutive Diamond blockchain members receive complimentary entry to all events. All ticket revenue is used to buy and burn EziraCoin and other assets. Large amounts of EziraCredit are typically created by the executive board to raise funds for the upfront costs of the Ezira Festival, and are rebought out of ticket revenue. Tickets to the Ezira Ball are exclusively limited, and are sold to the highest bidders in batches each day leading up to the festival. Entrants to the Ezira Ball must be at least Gold members. All other tickets are sold at a fixed price on the EziraDEX, with an interface in each user's wallet to purchase tickets directly.

Event Schedule:

Day 1: Annual General Meeting – A Formal Meeting between all 208 elected blockchain officers. In attendance are all members of the Ezira executive board, the top 50 witnesses, developers, advocates, and marketers, all members of the board of directors of Ezira Consortium companies, and any interested Ezira blockchain members. The meeting includes discussions of matters of witness server operations, adoption of blockchain versions by witnesses, blockchain protocol politics, marketing proposals and operations, development proposals, debates, advocacy proposals and endeavors, and general matters of Ezira network business. All candidates for election to the executive board deliver speeches detailing their proposals, qualifications, and policy opinions. Any statements of endorsement for the executive

election are delivered following each candidate. The incumbent CEO opens and closes the meeting with a speech. The meeting is recorded and livestreamed to Ezira, all minutes are posted publically on Ezira.

Night 1: Formal welcome and opening of the festival from Ezira executives. Presentations from witness officers.

Day 2-3: Ezira Hackathon – Formal competition where teams of participants have 36 hours (9am-9pm next day) to produce the most powerful and innovative new application, new business proposal, new Ezira blockchain software improvement proposal, or Ezira.io web software improvement proposal. Lead by the development officers, who vote on the winners in each of the four categories, unless they are competing, and do not receive a vote. The winners are awarded a base prize in EZD provided by Ezira, and additional prizemoney is crowdfunded.

Night 2: Presentations from the Hackathon teams. Presentations from Ezira application developers.

Night 3: Presentations from the development Officers. Awarding the winners of the Hackathon.

Day 4: Ezira Open Market – All Ezira businesses promote their products in a massive open market, and sell products for EZD to festival goers. Members of the Ezira community buy and sell anything that they wish to other members of the community. The business that earns the highest sales revenue on the blockchain over 24 hours is awarded a base prize in EZD provided by Ezira, and additional prizemoney is crowdfunded.

Night 4: Presentations from the advocate officers. Presentations from the directors of Ezira Consortium businesses, and sponsored businesses. Awarding the winner of the Ezira Open Market competition.

Day 5: Ezira Spectacular – Live acts or shows from any Ezira blockchain member, for music shows, talents, theatre performances, or any other content. The acts are livestreamed, and viewers vote on which act is the best. The winning act is awarded a base prize in EZD provided by Ezira, and additional prizemoney is crowdfunded.

Night 5: Presentations from the marketing officers. Awarding the winner of the Ezira Spectacular.

Day 6: Outdoors – Ezira Family Extravaganza – Informal event providing BBQs, food trucks, beer and wine tasting, games, carnival attractions, roaming performers, ambient music performances, garden board games, and rides. Casual day for meeting new people, and relaxing before the ball and party. Indoors – Ezira Film, Photography, and Art gallery – High production photos that have been posted to Ezira in the last year. Film screenings that have been posted to Ezira in the last year. Art pieces, or literature pieces that have been posted to Ezira in the last year. Song performances are played that have been posted to Ezira in the last year. Attendants vote for which are the best in each category, and the creators win the Ezira Image, Film, Piece, and Song of the Year Awards. The entrants into the competition are the 20 highest stake weight voted posts that register for entry into the competition. The winning creators are awarded a base prize in EZD provided by Ezira, and additional prizemoney is crowdfunded.

Night 6: Ezira Ball – Formal 3 course dinner event. Presentations from Ezira executives. Presentations from the chief network officers. Presentations from the 3 blockchain members with the highest followers, highest total stake weighted views, and highest total stake weighted upvotes. Presentations

from any distinguished guests in public office, or of high standing in external businesses. Voting for the Ezira executive election closes. Voting for the Ezira member of the year award closes. Awarding of the Winner of Ezira member of the year, as voted by all blockchain members. The winner is awarded a base prize in EZD provided by Ezira, and a large trophy. Additional prizemoney is crowdfunded. Final keynote address from the newly elected CEO of Ezira.

Day 7 – Night 7: Ezira Worldwide Party – High production music acts from leading DJs, and musicians. Stage is livestreamed around the world. Concludes with a laser show, fireworks, and the headline DJ set.

Ezira Member of the Year:

The Ezira member of the year must be at least a silver member for at least 12 consecutive months, be recognized for an outstanding contribution to the Ezira network, be of good character, and be a valuable member of the community. Members of the executive board are ineligible for this award. Nominations are made at the Ezira annual general meeting, and no member can nominate themselves. All nominations must be supported by at least 2 Ezira network officers, and 1 Ezira executive. If more than 10 nominations are made, attendants of the meeting vote amongst themselves to produce a shortlist of 10 nominees with the greatest support. All nominees are granted complimentary entry to the Ezira Ball. The nominees are then voted upon by Ezira voting power holders, using a single transferable voting mechanism. Nominated accounts are not able to vote.

13 Due diligence:

13.1 Notable risks to Ezira users:

There are several risk cases that have the potential to cause damage to the Ezira network and its users. Some of the most prominent are highlighted and mitigated as follows:

Blockchain attacks via witness collusion:

It is possible to consider a scenario in which a majority of the elected witnesses of the Ezira blockchain secretly collude and attempt to conduct 51% attacks against the network, including transaction censorship, double spending or transaction alterations. The likelihood of a fraudulent event occurring of this nature is significantly lower than on a proof of work based block production system, due to the following factors:

Malicious witnesses can immediately be voted out of the witness pool, whereas on proof of work, they cannot. Proof of work mining centralization only requires a small group of mining pools to be complicit with fraud, whereas by design the witness pool comprises of 55 different witnesses per round, with 5 being randomly selected. To conduct a 51% attack against Ezira, the malicious cabal would require the majority of the witness officers, and the majority of the non-officer witness nodes to be complicit to have a significant chance to execute a blockchain attack. Given that any one of them can be voted out of block production at any time, losing their income stream, it is not in the interest of any witnesses to engage in fraud, due to their innate accountability to the voting power holding members of Ezira. Any private conspiracy to commit fraud could be published, eroding voting support for that witness. It is in the interests of Ezira witnesses to expose any attempts to commit blockchain attacks, as this will gain them voting support. As the block production algorithm is not computationally expensive, there is a much lower barrier to entry for new honest witnesses to replace malicious witnesses through popular support.

Any attempts to execute fraudulent block production practices would be opposed by the voting power holders of Ezira, as these practices would undoubtedly erode confidence in the Ezira network and is entirely against the interests of the voting public. Such witnesses can and should be immediately deviated from block production. This includes all acts of transaction censorship, coercing direct fees from transaction creators to pay witnesses, any acts that violate the immutability of the blockchain, redistribute funds, compromise the fungibility of Ezira cryptocurrencies, account banning, accepting double spending transactions, or accepting invalid transaction that are not signed by their creators.

Excessive debt issuance via EziraCredit:

The EziraCredit mechanism is designed to enable the executive board top responsibly issue debt against the revenue of the Ezira network. All EziraCredit creations must be publicly justified, and approved by 51% of the Ezira network voting power. This ensures the consent of the network, and strong oversight of all EziraCredit issuance.

Ezira executive are paid using EziraCredit, which ensure that any devaluation they cause only undermines their own salaries. If the value of EziraCredit falls below \$0.9 USD, all executive board members are ineligible for reelection. As a final failsafe against abuse, EziraCredit issuance is frozen if its

value falls below \$0.8 USD to prevent excessive debt load. Through these measures, the issuance of EziraCredit is difficult to abuse by malicious executives.

Ezira's debt supply must be carefully balanced to ensure that public has full confidence in the ability for the network to repay its debts out of revenue, and that it pays an adequate rate of interest to ensure a supply of willing creditors. EziraCredit is a debt instrument of the Ezira network, and is effectively a fiat currency. As such, it should not be held by users that are not confident in the credit of the Ezira network, or used as a medium of exchange. Unlike government based fiat currencies, EziraCredit is not supported by coercive taxation, but by voluntary purchases of membership, post promotion, and small fees for network services.

51% attack on the ownership of Ezira voting power:

A 51% attack executed on the Ezira network would consist of purchasing from the market an amount of EZIRA and EziraPower such that the account holds a majority share of the voting power of the platform, and is able to decide the outcome of network elections. This attack would enable the account holder the ability to elect the executive board, approve Ezira sponsored businesses, and approve any issuance of EziraCredit.

This attack would be incredibly expensive, and would require that 51% of the network voluntarily sell their EZIRA and EziraCoin to a single user. Such a scenario is equivalent to a hostile takeover of a publicly traded company, and cannot be feasibly or fairly stopped on a decentralized network. It is up to users to remain vigilant and ensure that a single person does not come to control a supermajority stake in Ezira by holding on to the equity that they own, and not selling it when a large stake is held by a single account or person.

Critical software bugs:

Ezira, like all websites and applications, is vulnerable to critical software bugs. The Ezira Chief Technology officer is tasked with overall responsibility for ensuring that production code is examined for quality testing, and the Chief Development Officer is responsible for releasing code to witnesses for adoption, and should conduct independent quality testing on all code releases. If a critical bug is found in Ezira's software, all witnesses are advised to revert back to the last stable version of the Ezira protocol. A majority of witnesses must also accept newly developed software for a new protocol version to be adopted, and should not upgrade if bugs are present in the codebase. Network voters should support witnesses and developers that conduct further quality testing of any changes to the Ezira protocol to ensure that code is bug free. There are many people that any software bugs would have to elude in order for them to cause significant damage to the Ezira network, and all network officers and executives should remain vigilant to prevent this scenario.

Breach of Supernode storage encryption algorithms or private keys:

In the event that the encryption algorithms used to secure files stored in the Supernode network are breached, then it may become computationally feasible to decrypt stored files without possessing the required private keys. This scenario is highly unlikely, and any breach of the major cryptographic algorithms that Ezira will use, such as RSA, will cause major problems for the security of the entire internet. Ezira's data is stored in a sharded state across a decentralized network of Supernodes, making

it impossible for any one of them to read complete files, even if their encryption is broken. This additionally prevents data from being extracted wholesale from a server pertaining to large amount of user information. No Supernode will hold complete copies of any file, and Supernodes will not distribute private encrypted files to nodes that are not included on the file's visibility list, as determined by the user.

Other potential attacks include unauthorized transmittance of connection private keys between accounts that are not approved by the user. Such a breach would require that a connection manually extract an account's connection private key from their data storage. This would not be possible from any Ezira executive board supported applications or Ezira.io, but could be made possible by third party applications. For this reason, users should not under any circumstances connect to an account that they do not trust with their connection private key. Ezira offers 3 separate levels of visibility restriction for increasing amounts of privacy and key isolation. More trusted accounts are connected to with more exclusive private keys, such as friend keys, and companion keys. These should be used for sensitive information, and can shared with highly trusted accounts, owned by people that are physically known to the user for extended periods of time. These keys expire after 2 years, and must be reset periodically. Sharing these keys requires that the requesting account deposit small amounts as an acceptance bond. If you cannot trust the account to accept your request under penalty of fund loss, then you certainly cannot trust them with your private connections keys. These deposits also make it expensive for spammers to acquire large amounts of connection private keys as, unlike other social networks, each request is not costless if it is declined.

Data posted with restricted visibility, in addition to being encrypted, has a visibility list, which regulates which accounts and nodes that Supernodes are permitted to send the encrypted files to. Supernodes are regularly tested with false requests for files out of permission scope, and are penalized for sending private files. Even if a private connection key is breached, Supernodes will not transmit private files to users not included on this visibility list, leaving attackers with no files to decrypt.

Users should remember at all times that any sensitive information shared with any connections can always be screen captured and sent to third parties, regardless of any key sharing, encryption algorithm breach or Supernode permission scope breach. Users should only connect with other accounts that they trust to respect their privacy. If any account suspects unauthorized transmission of its private connection keys, they can be changed at any time, and resent to trusted connections.

Breach of digital signature algorithms used to sign transactions:

Ezira will use the Elliptic Curve Digital Signature algorithm to sign transactions, verifying that the transaction was produced, and authorized by the account that claims to be its creator. In the unlikely event that this algorithm is breached, and it becomes computationally feasible to produce valid signatures without possessing the private signing key of the accounts used in the transaction, then it would become possible to extract funds from other accounts without authorization, make unauthorized posts from an account, and access all account functionality without authorization from the account owner. This scenario would pose an existential threat to Ezira, as well as all cryptocurrencies, and secure information transmission protocols. It is vitally necessary that this event does not occur, and that the Ezira developers remain vigilant to rapidly change all Ezira codebases to use a secure cryptographic signature algorithm. In the highly unlikely event that this occurs, it would behoove the entire Ezira community to assist in the process of upgrading the Ezira protocol, and for all nodes to immediately

backup the Ezira blockchain, cease processing all transactions, and cease all network functionality until the issue is resolved and the network is secure.

Breach of secure hash algorithms used to create proof of work:

The X11 hashing algorithm combines 11 independent secure hashing algorithms to create proofs of work for block miners. If any of these algorithms is compromised or optimized by an ASIC, then the other 10 would ensure that the difficulty remains relatively stable. If all 11 are simultaneously compromised, then it would become computationally trivial to calculate proofs of work, and the mining queue length would rapidly increase, and the difficulty would rapidly increase. It would no actual work be completed to mine Ezira blocks. This could be used to produce blocks that censor transactions once every 12 blocks, the blocks that are produced by miners. All other blocks are produced by witnesses, which must include all transactions for fear of losing voting support. The mining algorithm should be altered by the Ezira developers as soon as possible, but this scenario would be unlikely to cause any significant damage to the network.

Censorship of Ezira websites or apps:

It is possible that Internet service providers could be ordered by national governments to block user access to Ezira affiliated websites, and app store gatekeepers could revoke access to mobile apps. This course of action would be ultimately futile and could be easily mitigated in a number of ways:

- By using an open source Ezira desktop application for accessing network features
- By using an Ezira mobile application on an open source operating system with no app store gatekeeping
- By mirroring the Ezira.io website at different domains
- By using a virtual private network connection to access Ezira.io

Since all website and user data is stored on Supernodes and is encrypted and decentralized, it would be practically impossible to bring down the Ezira network. All nodes would have to be shut down simultaneously for the network to incur data loss, or be deactivated. This feat would require widespread violation of human rights by an international totalitarian regime. The Ezira advocacy officers are tasked with ensuring positive relations between governments and the Ezira network, and should vehemently and vocally oppose any acts of censorship against Ezira network applications or websites.

Executive board members become compromised:

Due to some aspects of Ezira requiring some centralized oversight, elected representatives are the best method for determining the best suited people for these positions. The elected members of the Ezira executive board hold the power to approve issuance of EziraCredit, release official updates to node software, administrate code repositories, manage fiat currency reserves, and speak on behalf of the Ezira network. Only verified accounts can become members of the Ezira executive board, ensuring that the public identity and reputation of the executives is known to the community. It is up to the Ezira voting community to research the candidates that they elect to the positions of the executive board.

It is possible that the Ezira users could elect an executive officer that is unsuitable for their position, due to incompetence, or ulterior malicious intent. If this occurs, the Chief executive officer of the Ezira network should publish an impeachment vote to the users to either elect a new officer, or retain the

current officer. The option chosen by 51% of voters is carried out, and the position becomes open for reelection of a new executive officer if chosen. If the Chief executive officer is found to be unsuitable for their position, a vote for impeachment can be created by the consensus of at least 10 elected witness officers and at least two members of the Executive board. In any case where a chief executive officer is impeached, a new chief executive officer is then elected. All witnesses and executives that voted to initiate the impeachment election are ineligible for the position.

Embezzlement of Ezira gateway asset reserves would be difficult, due to oversight from the rest of the executive board, and independent auditors. Ezira backed gateway assets must hold a 100% reserve backing at all times. All reserve cryptocurrencies will be kept securely in multi signature cold storage addresses, and all fiat currencies will be kept in bank accounts with full disclosure of balances and transfers, requiring the signing off of at least 3 executive board members for transactions. Any embezzlement of funds will severely damage the public image of Ezira, and as such, users should consider favoring the election of candidates that hold large balances of EziraPower and EziraBonds. Such executives would have more to lose by stealing from Ezira than they would have to gain. Voters should take into account the vested interests of its executives when they decide who to vote for, as all holdings in Ezira are publically visible.

Overall power to determine the leadership of the Ezira network lies with all voting power holding users. It is up to the community to hold its leaders to account. The powers that the executive board members hold are limited, and executive board members can be replaced if they become compromised.

Contentious hardfork resulting in network split:

The Ezira protocol will be updated according to the will of the witnesses. Once a majority of witness officers have supported a change to the protocol by upgrading their witness node, all other witnesses have 14 days to upgrade their witness node software before the protocol change is enforced, and connections from outdated nodes will be rejected. All transactions include the header of a recent block, preventing them from being included in chains that do not include that block. Ezira.io will always publish transactions on the blockchain pertaining to the protocol version supported by the majority of witnesses. In order for a hardfork to cause a separation of the network, there would have to be a substantial dedicated group of witnesses specifically opposing a proposed upgrade, or specifically supporting a proposed upgrade against the majority of the witness officers. The forked blockchain will not be able to be utilized effectively, as the Ezira executive board will not interact with non-consensus chains, making it difficult for the forked community to conduct network elections, or redeem its gateway assets for the reserves held by the Ezira executive board.

Any serious forked minority chain of Ezira would face the task of finding a new group of witnesses, miners, and blockchain officers. They would need to elect a new executive board, and create and redeem their own gateway assets. They would need a sustainable community to consistently create content, vote on it, and view it specifically on the minority chain, using a new interface. They would need to attract merchants, customers, exchanges, and businesses to accept their version of Ezira cryptocurrencies. They would need to assemble a new development team to make code improvements, and essentially rebuild all of the human resources of Ezira from scratch.

A theoretical Ezira Classic protocol that has no executive board, or compensation for elected blockchain officers will need to organically find and compensate community members for performing these functions, while the Ezira blockchain will pay highly for these vital services, and attract talented officers.

They will also find difficulty competing against the marketing of Ezira to attract new users, the advocacy of Ezira to earn the support and recognition of businesses and governments, and the development of Ezira to add new features and maintain network security. It is in the interests of the entire Ezira community to offer blockchain level compensation for these roles, to promote the network. Changes to the payment of EziraCoin dividends will result in a lower return on investment for EZIRA stakeholders, and reduce capital inflows substantially. Removal of fees charged on trading and purchases, membership benefits, or post promotion will reduce the amount of network revenue that provides value to EziraCoin.

A community supported viable minority hardfork is unlikely to occur, as the Ezira network will never compromise the immutability of the blockchain, the fungibility of Ezira network cryptocurrencies, or engage in transaction censorship. Any critical events that cause large losses of funds by the community, whether the result of a protocol bug or not, will be reimbursed on a case by case basis according to community approval using the EziraCredit system, not by using a redistribution hardfork, as other cryptocurrencies have done. Blockchain revenues are not diverted to any predetermined developer addresses, and all blockchain level compensations are determined with accountability using stake weighted voting. Unlike other cryptocurrencies, there are no foundation taxes on Ezira. In general, if a feature can be removed from a blockchain protocol without causing any problems to users, then that feature was not providing sufficient value. If any person compensated by a blockchain protocol can be cut off without causing any problems to users, then that person was not providing sufficient value.

It behooves all Ezira users to support the majority chain, and grow together as one united network with all its features intact. Proposals to change the Ezira protocol should be made on the main chain, and proponents should respect the will of the witnesses if their change proposals are not supported. If the majority of network users support a protocol change, then the change can be made with the consensus of witnesses. Minority hardforks damage the public image of Ezira, reflect poorly on our ability to achieve consensus, diminish the value of our cryptocurrencies, and should not be initiated.

13.2 Notable benefits to Ezira users:

Instantaneous free borderless immutable transactions:

Transactions using EziraCoin and EziraDollars are free, allowing users to send money to anyone, anywhere. This service outcompetes mainstream cryptocurrencies, international wire transfers, and remittance providers. Transactions only requires an Ezira account, which can be created for free without permission or restriction. This is a valuable use case to all businesses, and customers, especially individuals without access to banking services.

Low cost secure user issued cryptoassets:

Ezira's user issued assets allow members to pay a small monthly subscription to create up to 5 standard cryptoassets each month for free. These assets can be securely traded between all Ezira accounts, allowing widely available equities, and credit instruments for businesses. This service outcompetes existing securities exchanges, by allowing rapid, cheap, and permissionless issuance of equity instruments, with the ability to be traded on the decentralized exchange with very low trading fees. This is a valuable use case for all businesses seeking to raise capital, and create an ownership structure without the regulatory barriers and costs of an Initial Public Offering at a securities exchange.

Low cost open business sales platform, with accounting and management systems:

Ezira business account offer a suite of feature for managing accounting, including generating and posting accounting records to the blockchain, having a blockchain record of all transactions, receiving sales income, paying employee wages automatically, paying dividends to cryptoequity holders automatically, and receiving periodic withdrawal permissions from customers for ongoing payments. Ezira business accounts cannot be seized, or frozen. All accounting records are securely encrypted, and immutably recorded. This prevents record tampering, and allows businesses to easily publicly disclose their financial activities. Business registration enables a fully functioning multi signature account for fund control, without the costs or regulatory barriers of government business incorporation. This is a valuable use case for new businesses seeking a rapid and cost effective business management platform, without engaging with the fiat economy, and for established businesses looking to gain a foothold in the emerging cryptocurrency economy and access new customer and investment bases.

Accountability of block production and project leadership:

The Ezira blockchain is produced mainly by elected witnesses, and directly compensates witnesses, developers, marketers, and advocates based on network support. The Ezira voting power holders elect the board of executives that work as the steering committee of the network. No other blockchain has such a high degree of decentralization, and resistance against 51% attacks, double spending attacks, and management incompetence. This is a valuable aspect of Ezira that benefits all network participants, and provides ongoing stability and growth to the network. It encourages the inflow of talented blockchain officers, rightfully compensates them for their work, and holds them accountable to the users.

Permissionless, censorship-resistant and monetized content publishing:

Posts made to Ezira consist of encrypted files, hosted on Supernodes, linked to by the Ezira blockchain. Unlike other social media sites which use third party file hosts for images and videos in particular, Ezira's content is securely stored in a distributed state, such that it cannot be read by the Supernodes holding the data, and no Supernode holds a complete file. Shards of the file are downloaded independently from many different Supernodes simultaneously. Content cannot be removed from servers, as it cannot be isolated for deletion, and each fragment is replicated with high redundancy. Ezira's links cannot break, and its videos cannot be taken down. Ezira posts cannot be demonetized, and always receive all the rewards allocated to them by user votes. This is a valuable use case for all content producers, especially free speech advocates, and creators with unpopular opinions that are prone to censorship and demonetization on other platforms. Freedom of speech is enforced at the protocol level.

Distributed, encrypted, and low cost file hosting:

Files can be stored on the Supernode network for private use by their uploading account, and paid for using EziraCoin. There are no barriers to entry for Supernode file hosts to provide storage and resources to the network. Competition between Supernodes will drive down storage costs, and users will only pay for the storage that they actually use, while they use it. Files are not stored with a centralized file host that can be hacked, and files leaked. They are encrypted, and sharded across the network with strong redundancy. Files posted to the Ezira blockchain are free to host, as Supernode receive rewards for

servicing public files. This is a valuable use case for all cloud storage users, as Supernodes are likely to provide more competitive prices, offer greater file transfer speeds, and better data security.

Encrypted, permissioned and non-invasive social media:

Ezira's connection encryption keys allow encrypted posts to be accessible to selected groups of accounts that the user trusts. This ensures that only accounts that possess the private key for the level of restriction can access the post. Private posts are not decryptable by Supernode operators, and they do not hold complete files, only shards. This ensures that sensitive information cannot be intercepted, collected, or compromised. Centralized platforms make all data available to the operating servers, where it can be leaked, hacked, accessed via backdoors, altered without permission, and used to fuel advertising targeting models. Ezira's promoted posts only utilize public information about what the user is currently viewing, and public account information to determine promotion targeting.

Integrated decentralized exchange:

Ezira asset holders will be able to securely and inexpensively trade their assets using the decentralized exchange, with all operations recorded on the blockchain. This reduces the need for external centralized exchanges to process trading volume. Users will be able to deposit any existing fiat or cryptocurrency of their choice to fund their Ezira account, without having to depend on other middlemen. Users can be confident that funds on the decentralized exchange are controlled only by them, and all gateway assets have publicly available full reserves, that are regularly audited and held in cold storage.

Strong cryptocurrency demand avenues via blockchain services:

The Ezira network cryptocurrencies provide an intrinsic value to users through services provided by promoted posts, and blockchain membership. These services drive demand for EziraCoin, and provide value beyond speculative prospects. In addition to being a fully viable medium of exchange, providing voting power on Ezira, and earning a return on investment from the blockchain, EziraCoin has powerful use cases requiring regular purchases and capital inflows for recurring network services. This provides profit inflows and liquidity to holders of all Ezira network cryptocurrencies.

Integrated, escrowed, and mediated marketplace for product sales:

Ezira's marketplace provides a full suite of services to merchants and customers to ensure a strong standard of transaction security. Merchants can also leverage the public blockchain to feature their product listings easily on external applications, and allow users to purchase products from their store on any platform with seamless integration. The Ezira marketplace can act as a permissionless backend payment processing backend with lower fees than fiat payment processors. This is a valuable use case for all online businesses that currently pay significant fees to payment processors, and have to list product inventories across multiple sites independently. Products cannot be delisted, and accounts cannot be frozen. The Ezira marketplace can accept any cryptocurrency with no registration necessary, by receiving deposits from customers and automatically trading them for EziraCoin or EziraDollars to pay for products.

14 Conclusion:

Ezira presents a comprehensive platform for a cryptocurrency based economy. Ezira provides strong advancements over Bitcoin as a currency, over Bitshares as a decentralized exchange, and over Steem as a social media platform. It beats Bitcoin by providing free transactions, and democratic governance over network direction. It beats Bitshares as a decentralized exchange by providing free user issued assets to monthly subscribers, and peer to peer lending for margin trading. It beats Steem as a social network by compensating views as well as votes which is critical to correctly valuing posts, by offering variable time options for vesting EziraPower, and by enabling the creation of distinct moderated communities. Ezira takes unprecedented measures to reward community developers, marketers, advocates, and community moderators for their efforts. Ezira's guiding executive board is fully elected by voting power holders. Ezira compensates its data hosting nodes, and allows all network data storage to be encrypted and distributed. By combining all necessary elements of a digital economy, such as governance, media distribution, data hosting, trading, and community formation into a single platform, Ezira offers significant benefits to its users, and a compelling case for mainstream viability.

15 References:

Ezira, like most open source software projects, stands on the shoulders of giants. The author would like to acknowledge all the following prior works that have directly inspired Ezira's feature set. These should be read and understood to gain a thorough insight into the context and background of this whitepaper.

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