CloutContracts Whitepaper v1.0

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Table of contents

About

CloutContracts is a smart contracts layer on top of and complimentary to BitClout, as well as potentially other social media platforms in the future as well. As a smart contracts layer, many creators onboarded to CloutContracts can create high performance DAPPs w/ an emphasis on low gas fees, customization, speed and various social aspects as well. This will eventually allow creators to build large scale networks, tokenization usecases, and bring blockchain adaptability to their fanbases. Unlike traditional rollup networks or DAPP tools, the emphasis is on the creator, adaptability, and expanded functionalities such as modular tools or microservices. CloutContracts aims to have creators feel like they aren't needing to choose between expanded functionality from running their own blockchain or accessibility from running on top of a network. This creates a new class of blockchain developers, in which ease of access is aimed towards both the most basic level to running complex lightweight apps on JavaScript or Solidity.

Keywords: *Smart Contracts, Distributed Computing, Blockchain, Decentralization, Social Media, Social Networks, DAPPs, JavaScript, Computer Science, Computational Sciences, DeFi, Ethereum, Sidechains, Networks, Cryptocurrency, Software Engineering*

Premise

CloutContracts goes well beyond traditional social media monetization strategies and implements key core technological aspects. This is because just like other blockchain networks or rollup layers, people can build DAPPs or smart contracts on top of CloutContracts. What sets it apart is speed, low gas fees, and adaptability as well as being more creator friendly. The idea of CloutContracts as mentioned, is to turn everyday creators and social influencers into blockchain engineers while still being adaptable towards complex developers and blockchain architects as well. A huge key aspect to achieving this, will be its many integrations and the various protocols in place that allow CloutContracts to function.

Introduction

CloutContracts as both a smart contracts layer and tool for creators, provides an opportunity for creators to expand their network. It will be decentralized, open-source and doesn't need reliance on BitClout's ecosystem. This means that if BitClout was to go offline, CloutContracts can still survive on its own, which is a critical aspect to being decentralized. It is also a reason why it is considered both complementary and separate. CloutContracts has the technological capabilities to allow people to build lightweight decentralized applications while at the same time fixing many of the core problems in regards to gas fees or the arguments in regards to consensus algorithms that other networks have faced. This creates an opportunity in which users can essentially launch adaptable DAPPs w/ ease.

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Main Chain

The main chain for CloutContracts will likely integrate some sort of optimistic rollup, and be focused on variations of smart contracts programmed in JavaScript and/or Solidity. This type of rollup will be what allows for speedy transactions and minimal gas fees. It is also optimal to use a commonly known programming language over something entirely new or a custom GPL. In regards to CloutContract's blockchain, once the network is live or things are built on top of it, it will be quite easy to track smart contract and DAPP activity. People can build various extensions to CloutContract's blockchain and outside of DAPPs or smart contracts, they can also expand upon it w/ custom sidechains and sidechain networks.

Sidechains

CloutContracts will be integratable and compatible with sidechains. This means that people can build sidechains or bridges between their network and CloutContracts or even interchangeably build tokens on top of CloutContracts with functions that are specifically integrated in another person's blockchain or network. This will allow for integrations such as merged mining applications, different on-ramp/off-ramp protocols, API integrations, and even companies looking to do something like perhaps issue a certificate digitally on their network over the CloutContracts blockchain, but integrate various cryptographic mechanisms that CloutContracts implements.

Pegs

CloutContracts will likely integrate pegs such as a tied BEP-20 asset and potentially other tools that wrap it, or allow it to have compatibility with other blockchains. This will allow for further expansion around bridging CloutContracts as well as further compatibility with a wide variety of networks. People might even integrate various forms of escrow, statistical and computational usecases, P2P stores, and other projects as a utility. The wider the compatibility and distribution, along w/ the original technology, the less likely it is for it to become too centralized.

› DeFi

Due to the many technological integrations that CloutContracts has, flexibility w/ various DeFi apps and exchanges should be possible. As noted, staking and different types of masternodes or staking pools should be quite feasible. People might even build forms of statarb strategies, write HOA agreements on the blockchain or integrate various forms of crowdsourcing, digital coins, or representations of liquidity such as in-game assets. DAPPs on CloutContracts might even be integrated by some developers over in-app purchases on games and mobile applications. Decentralized exchanges might even be able to run a sidechain and benefit from various aspects of the cryptography of CloutContracts. Really, there are various utilities and usecases.

› DAPP Compatibility

An advantage that CloutContracts brings is the ability for many people to build DAPPs (decentralized applications) on top of CloutContracts. Since we are within the territory of optimistic rollups, major improvements surrounding speed and low gas fees over just the traditional Ethereum network or even other blockchains should be in place. Being able to quickly run full scale decentralized applications without much limits to speed or gas fees, will allow for DAPPs to be rolled out quickly through the smart contracts deployed on CloutContracts. It is also worth noting that many gas-heavy applications such as staking pools, onramps, and applications similar to Uniswap should become more adaptable as a result.

› Faucets

Faucets are another great integration in the fact that creators can make custom faucets to distribute tokens or even run different variations of airdrops for beta-testing. This can help with things such as providing NFTs for tickets or airdropped events, early access to certain freemium DAPPs, or even soft fork integrations for people wanting to do an airdrop for a new project built on top of their DAPP. Faucets can also be integrated with wallets and can be used for various applications wanting free or testnet deployments. It may be even possible to run a subscription-based service or an entire SaaS off of just faucets. This might even be used to integrate various loyalty programs, or for apps wanting to integrate cryptographic messages on top of faucets such as a decentralized opt-in alternative to something like a traditional email-based list subscription service.

› Phase 1.0

There are multiple phases for CloutContracts including a testnet phase and mainnet. The testnet will likely revolve around integrations centered around the Agoric SDK. This is phase 1. Phase 1 as the testnet on Agoric, may be upgradeable to be Agoric compatible during the mainnet phase (depending on the results). The first phase will at least provide an introduction to many of the core functionalities and concepts in regards to CloutContracts. It will also introduce lots of the core features. This is a crucial first step for onboarding many users.

› Agoric SDK Integration

The Agoric SDK is for a new kind of blockchain system known as Agoric that lets you create high-level contracts centered around liquidity using JavaScript. Phase 1 as mentioned, integrates its SDK. This will be for what will be considered more of the beta or non-production phase. As mentioned, this phase is an introductory phase to many of the core features and capabilities of CloutContracts. This will also be a decent start given the compatibility centered around JavaScript. Many of the core features in regards to sidechain capabilities, faucets, and low gas-fees will likely be introduced along w/ the creator-oriented compatibilities.

Phase 2.0

Phase 2 is the introduction of a rollup phase on top of Ethereum. This is the mainnet and expansion phase. This is also a crucial step in regards to likely reaching mainstream adaption given the popularity of Ethereum. As an optimistic rollup, all the known sought-after features should finally be launched. Many developers and even people novice to blockchain technology, can start deploying high level and fast smart contracts and DAPPs w/ ease. Smart contracts, which are elements of the DAPPs, will integrate low gas fees between transactions (as mentioned earlier), and it should truly be like a distributed ledger of high performance DAPPs.

Ethereum Optimistic Rollups

Optimistic rollups on Ethereum allow for low gas fees and expanded DAPP capabilities. As mentioned earlier, this is what is crucial in regards to what is needed for the actual usecases surrounding this paper. As opposed to other rollups, there shall be an emphasis in regards to compatibility, optimization and being creator-oriented. A huge key aspect to the Phase 2.0 release is that sidechains, wrapped cryptos, pegs, bridges, and many other integrations may become even more prominant. This will lead to other usecases or utilities, perhaps even including high liquidity given the many usecases within DeFi applications.

Regarding Liquidity

Given many of the technological integrations and various capabilities, liquidity shouldn't be much of an issue. Infact, this expands upon a new class or variation of utility tokens. As mentioned previously, with the expansion of CloutContracts also being adaptable through a peg or wrapped asset, CloutContracts should be highly liquid along w/ certain projects built on top of it. This means that adaption towards many utility usecases should be an ease in the future, and more incentives regarding development are there. The orientation towards creators suddenly allows everybody to become some sort of blockchain architect.

Different Utility Usecases

Most of the usecases mentioned are centered around the utilization of CloutContracts as a tool. Many people can launch their own high speed DAPPs and networks with ease, and these are part of the large usecases of CloutContracts as a whole. CloutContracts democratizes social media and allows numerous people to launch truly decentralized social networks. People who build smart contracts on top of CloutContracts are in charge of their private keys. The ledger is there, and so is the history for their smart contract or DAPP. Even major consensus changes need to be approved by nodes, and shouldn't effect the functionality of many of the applications already built on CloutContracts. A big aspect to innovation is transparency, and this is what will allow CloutContracts to grow as a platform for people to build upon.

› CloutPool Partnership

CloutPool can help in multiple ways. For starters, the eventual software layer that CloutPool wants to build is centered around infrastructure as code and its own various microservices. CloutContracts can be integrated into many of those systems. CloutPool can also help in the fact that many people building DAPPs on top of CloutContracts may integrate mining capability. Smart Contracts that are built on top of CloutContracts can have mining integrated to it, in ways similar to what 0xBitcoin or EtherStone is doing already on the Ethereum Network. The fact that gas fees are low and CloutContracts should be high speed is also a plus. For popular smart contracts that decide to integrate mining on their own, CloutPool is likely willing to build mining applications for them or implement them to mining pools.

› Datastore for Mining

DAPPs on CloutContracts can run various algorithms provided it is built on top of its network. This can include various PoW (Proof of Work) functions for people who want to make their smart contracts mineable. As mentioned, the ability to have mining functionality within smart contracts mixed with low gas fees and high speeds, will also attract lots of serious DAPP developers. Creators who might necessarily want to integrate mining and mining reward functionality on top of what they are building, might be enticed to join in as well.

› Software Layer Compatibility

As mentioned, CloutContracts wants to also be integrated on various infrastructure as a code services and the software layer CloutPool is trying to built. However, CloutContracts is still its own separate network. This means that if an application launching CloutContracts as a microservice isn't built or integrated as a plugin to CloutPool's software layer, this has no effect on CloutContracts as a network. The fact that CloutContracts applications and protocols can be ran on top of CloutPool's software layer, but doesn't have a reliance or need to, is a plus. It makes it more decentralized while still having a compatibility that allows it to be used more.

› The Future

In the future, there could be lots of possibilities and perhaps further phases. There might even be the potential of CloutContracts migrating from optimistic layer to its own blockchain. The priority though is usage and further decentralization over technically seeking out full independence or technological autonomy. Just the possibility of that happening, may be a bit more reassuring in regards to its status as a platform. As for now, the most important thing is the testnet and mainnet (rollup) phase, and how CloutContracts is utilized in regards to early adoption.

Conclusion

CloutContracts has lots of potential as not just a network, but perhaps an establisher of various protocols. This includes the ability to leverage DAPPs for large scale creator economies, revitalizing smart contracts w/ mining through high speed networks, and making various aspects of decentralization and blockchain adaptable towards large scale infrastructure. Centralized databases and technology seems to be adaptable towards large scale enterprises, and projects like CloutContracts allow for a major paradigm-shift.

Summary

As mentioned, CloutContracts is a smart contracts layer and network. They are utilizing a variety of technological protocols and integrations in order to be adaptable towards creators while turning everybody in blockchain architects. The ability to build a large scale network with ease for novice users, or create something entirely complex for seasoned blockchain developers will allow for the best of both worlds. CloutContracts is also adaptable towards creators and social media influencers towards the various social networks it may integrate, starting with networks like BitClout.

See Also

[1] DeFi
[2] BitClout
[3] CloutPool
[4] Minds.com
[5] Agoric SDK
[6] Optimistic Rollups
[7] Distributed Ledgers
[8] Infrastructure as Code

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