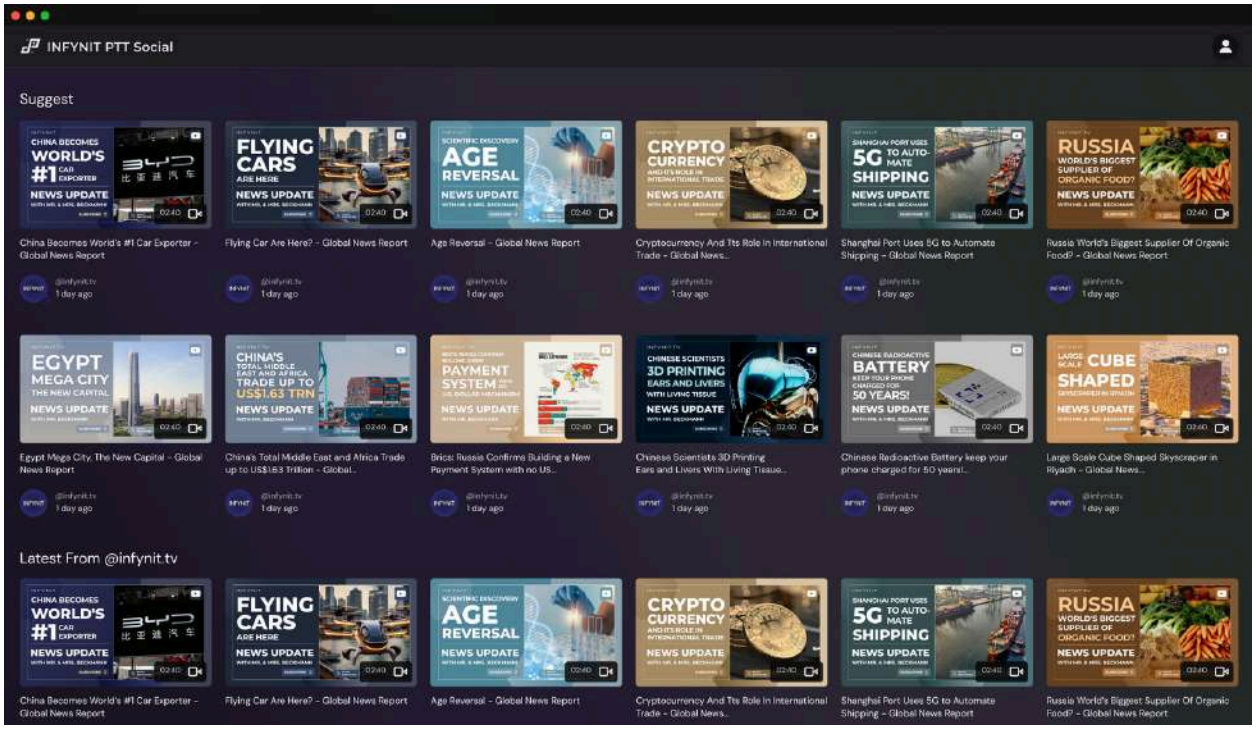

## Overview - Table of Contents



## Acknowledgement

White paper created by D-POW and peer-reviewed and updated by Dr. Jenny Li.

## 1- Utility for Second-Layer Applications




Beyond its role as a store of value, the ZDKL coin and the Peace Through Trade blockchain (ZDKL-PTT) are integral to the functionality of second-layer applications, such as the Infynit Social PTT network and marketplace. They enable blockchain transactions within the social network and marketplace, provide access to utility services, and facilitate interactions across these platforms, thereby enhancing the overall user experience and utility.

The ZDKL-PTT utility coin serves as the primary transactional and operational asset within the PTT PoW blockchain ecosystem. Designed for practical use rather than speculation, ZDKL-PTT reflects the decentralized principles of Bitcoin (BTC) and Dogecoin (DOGE), functioning as a blockchain-native coin that secures and powers interactions within the PTT ecosystem.

ZDKL-PTT supports essential functionalities across various applications, including blockchain transactions, B2B commerce, and user engagement on the Infynit Social platform. In this context, the coin acts not only as the exclusive medium for transaction fees but also enhances user interaction within decentralized applications (dApps) and second-layer platforms. This white paper outlines the core components of the ZDKL-PTT coin and the second-layer initiative.

## 2- Integration with the Infynit Social Platform and Community Marketplace

The ZDKL-PTT coin plays a vital role in the Infynit Social PTT network, a second-layer application designed to enrich social interactions and facilitate digital commerce. As the utility coin within this ecosystem, ZDKL-PTT powers all transactions, enabling users to engage seamlessly in decentralized social exchanges, access utility services, and conduct business-to-business (B2B) transactions.

This integration significantly extends the functionality of the PTT blockchain, evolving it beyond simple peer-to-peer transactions to support a wide range of decentralized services. For example, users can choose to use and exchange ZDKL-PTT to purchase digital goods, subscribe to premium content, or participate in community-driven initiatives, fostering a vibrant marketplace environment.

Moreover, the Infynit Social platform serves as a model for other second-layer systems seeking to implement similar integrations. It demonstrates how a comprehensive community marketplace can be effectively embedded within a blockchain ecosystem, offering insights and best practices for developers and organizations aiming to create their own integrated solutions. By providing a functional and user-friendly marketplace, Infynit Social illustrates how second-layer systems can drive engagement, enhance user experience, and stimulate economic activity across the broader blockchain network.

### User Approximate Social and Marketplace Latency

| Step | Latency (Typical) |
|---|---|
| User → Server | ~100 ms |
| Server inbound + blockchain check | ~2 ms + ~40 ms |
| SSD read | ~0.15 ms |

| | |
|---|---|
| AI/load balancing | ~1 ms |
| Server → User | ~100 ms |
| Total (content stream start): | ~ 243 ms (~0.25 sec) |

## Comparison of current centralized media vs. ZDKL-PTT second layer decentralized media and marketplace

| | **Centralized Media** | **ZDKL-PTT** |
|---|---|---|
| **Feature** | **Centralized Media and Social** | **ZDKL-PTT Core 40-Server Setup + IPFS Decentralized Storage** |
| Content Delivery | Centralized Data Centers (CDN - AWS, Akamai, custom) | Distributed IPFS Cluster across 40 high-performance servers |
| Storage Capacity | Multi-Petabyte (but centralized) | ~ Initial core of 140 TB usable SSD storage that can be scaled(with triple replication, decentralized for massive backups) |
| Upload Control | Only The Centralized Media and Social can upload | Anyone (with permissions) can upload to your platform, which will be empowered by connecting with like-minded users |
| Ownership | The Centralized Media and Social owns all data and infrastructure | ZDKL- PTT community maintain the servers, storage, and blockchain |
| Blockchain Integration | No blockchain | Native Proof-of-Work blockchain for transactions (file claims, payments, etc.) |
| File Integrity | Centralized management (trust The Centralized Media and Social) | Cryptographic integrity (IPFS hash + blockchain pointer) |

| | | |
|---|---|---|
| Redundancy | Full cloud backup, but internal | Full public-private replication across 3+ nodes |
| Access Control | Centralized (account login) | Decentralized (gateway control + blockchain identity possible) |
| Scalability | Global (huge budget) | Regional/Global — add more IPFS nodes and mirror servers |
| Cost Efficiency | Expensive ($Billions+/year ops) | Cost effective |
| Content Freedom | Centralized Media and Social (licensing) | You can allow open content and a online store in the Marketplace, with AI non-bias moderation to remove illegal content |
| Payment System | Credit card, subscription | Blockchain-native (crypto payments, NFT ownership of files if you want) |
| Decentralized Storage | No | Yes (true decentralized file hosting + blockchain anchoring) |
| Streaming Capability | Optimized video pipelines | Both ZDKL-PTT Second layer core streaming server and data system. Content copied and stored with IPFS for video streaming (progressive downloads, IPFS video loaders) |

| **Aspect** | **Centralized Media and Social** | **ZDKL-PTT Core 40-Server Setup** |
|---|---|---|
| Who controls uploads | Centralized Media and Social | The ZDKL-PTT Community/users |
| Who owns infrastructure | Centralized Media and Social | The ZDKL-PTT Community |

| | | |
|---|---|---|
| Blockchain capabilities | None | Full (native) |
| File distribution | Centralized | Decentralized |
| Expandable storage | Expensive scaling | Easy (just add more servers) |
| Resilience | Strong (multi-data center) | Strong if 3+ replication and decentralized backup |
| Streaming | Industrial-level | Very good, scalable |

It is important to clarify that the ZDKL-PTT coin is neither classified as nor designed to be a security, akin to Bitcoin (BTC). According to the Howey Test, which determines whether an asset qualifies as a security, ZDKL-PTT is strictly a functional utility Coin and does not meet the criteria for being a security. The Coin is not marketed or sold in a manner that suggests potential profit or investment returns from the efforts of others; it is not intended for investment purposes. Instead, ZDKL-PTT is designed to provide practical utility within the PTT PoW blockchain system. It operates in a decentralized manner, and its value is determined by the public market based on its utility rather than being influenced by any individual group.

## 3- Peace Through Trade (PTT) Social and Marketplace Platform Initial Core Hardware Setup

### Overview

The Peace Through Trade (PTT) Social and Marketplace is a decentralized Web3 environment built atop the ZDKL-PTT blockchain. Designed as an extensible platform layer, it provides a secure and programmable foundation for applications, services, and communities. By enabling verified identities, decentralized commerce, and peer-to-peer transactions through ZDKL-PTT wallets, the platform empowers developers, small businesses, and creators to build scalable, trustless, and user-driven Web3 experiences.

## Key Features

- Merchant and Influencer Profiles: Each small business and influencer can create an authenticated Web3 profile with embedded storefronts
- Product Listings: Direct listing of physical goods, digital content, and services with ZDKL-PTT-based smart payments
- Peer-to-Peer Payments: Instant wallet-to-wallet transactions without middlemen or additional fees
- Decentralized Reviews and Ratings: Community-driven feedback mechanisms using verifiable DID identities
- Content and Marketing Integration: Merchants can post videos, product showcases, and blogs on their profiles to boost visibility
- Storage: Encrypted blob storage and decentralized hosting for media and product files
- Performance:
    - Concurrent Merchants: 300K+ (scalable to 1M+)
    - Concurrent Shoppers: 500K+ (scalable to 1M+)
    - Daily Transactions: 1M+ scalable with load balancing clusters

## Conclusion

The ZDKL-PTT blockchain, in combination with the Peace Through Trade Social and Marketplace platform, presents a revolutionary system for the decentralized future of commerce. By empowering small businesses and emerging influencers with cutting-edge Web3 tools, integrated AI support, and true peer-to-peer wallets, ZDKL-PTT is positioned to redefine digital trade in a secure, scalable, and community-driven manner.

## 4- AI Integration and User Empowerment

AI integration is being designed to transform the Infynit Social Platform by providing intelligent, personalized onboarding that will guide new users through account setup, KYC (Know Your Customer) verification, and wallet creation with ease.

Planned AI-powered recommendation engines will suggest relevant communities, products, and services based on user behavior and interests, making it easier to find meaningful connections with suppliers, buyers, and like-minded peers. In the marketplace, AI matchmaking is being developed to optimize B2B and peer-to-peer interactions by aligning offers and demands in real time, enhancing both the speed and efficiency of transactions.

To safeguard the ecosystem, advanced AI systems are being designed to monitor for fake accounts, suspicious behavior, and fraudulent transactions, ensuring trust and reducing risk across the network.

Additionally, AI-driven sentiment analysis and content moderation are planned to uphold a healthy community environment by flagging harmful content and fostering constructive dialogue.

Altogether, these AI features aim to create a secure, dynamic, and user-centric platform that will scale effortlessly as the Infynit ecosystem grows.

## 5- Empowering Legal Content and Maintaining A Geopolitical Neutral Standard

### AI-Based Second-Layer Moderation for Legal Content Compliance

To ensure a safe, legally compliant, and scalable decentralized ecosystem, the ZDKL-PTT Blockchain is developing an AI-powered second-layer moderation system that empowers users to share content while filtering illegal material out of the system. This system is being designed to operate in real time to detect, classify, and manage content shared across decentralized social platforms and marketplaces. Using natural language processing (NLP), computer vision, and jurisdiction-aware classifiers, the AI system distinguishes between legal and illegal content based on each country's regulatory

framework. Once deployed, this intelligent layer can identify and remove illegal content through filters based on programmable regional policies. Meanwhile, legal content is empowered, approved, and distributed at high speed to provide a seamless user experience. The moderation process will be continuously updated using reinforcement learning informed by global content governance standards and localized datasets, allowing it to adapt to evolving legal definitions. This preserves freedom of expression while upholding the law and ensuring public safety on a decentralized internet.

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