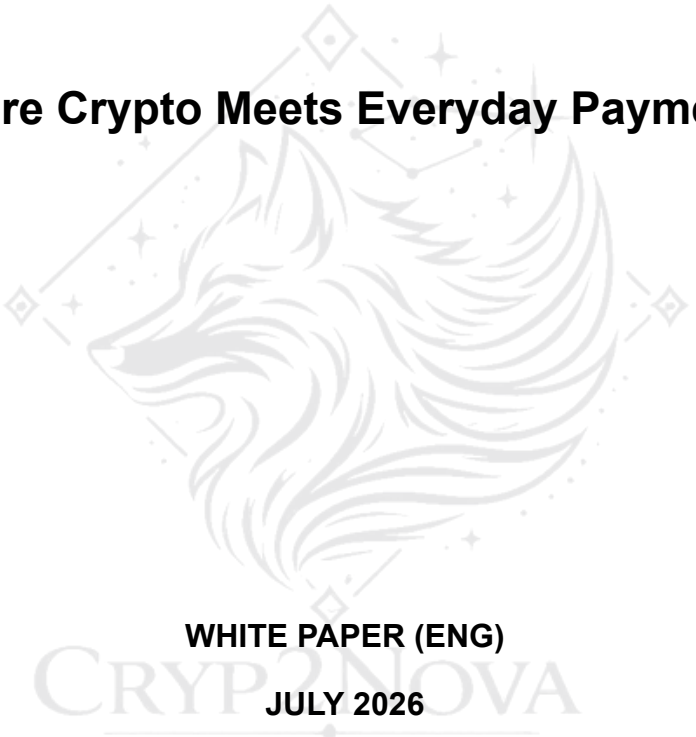
# PayProtocol

## Where Crypto Meets Everyday Payments



**WHITE PAPER (ENG)**

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# I. Introduction

The digital asset market has steadily grown over the past several years, and the possibility of utilizing digital assets in the real economy is gradually becoming a reality. According to Crypto.com's report, the global cryptocurrency user base reached 860 million in 2025, representing approximately a 2.5-fold increase compared to 2022. However, despite global on-chain payment transaction volume reaching approximately $1.1 trillion in 2024, transactions for retail payment purposes remain below 5%. This demonstrates that digital assets are still primarily utilized for investment and trading purposes. The slow adoption of digital asset payments is not due to technical limitations, but rather a lack of adoption factors necessary for both users and merchants.

Current payment infrastructure faces structural limitations including fragmented user experiences due to disconnection between chains and protocols, high technical barriers and merchant adoption burdens, complexity in wallet management and gas fee processing, inefficiencies between payment and settlement, and lack of integration with existing financial infrastructure.

While various attempts are being made in the global market, most have not escaped from closed structures centered on specific chains or operators, and their limitations as universal payment infrastructure are clear in terms of interoperability, scalability, and user experience.

PayProtocol has been steadily working since 2019 to overcome these limitations and apply digital asset payments to real life. Its flagship service, Paycoin, is used by over 3 million users at over 150,000 merchants, establishing itself as a successful case of connecting digital assets to real-life payments. Additionally, by introducing a crypto Mastercard payment service, PayProtocol has expanded its service scope to enable digital asset payments anywhere in the world.

Based on this practical experience and technical accumulation, PayProtocol is building next-generation digital asset payment infrastructure. Through an integrated financial structure encompassing both on-chain and off-chain, multi-chain support, gasless UX, as well as flexible payment and settlement methods for various digital assets, users can enjoy an intuitive and convenient payment experience without being aware of complex technical processes. Through this, digital assets will position themselves beyond mere stores of value to become payment methods used in daily life.

In particular, PayProtocol goes beyond a mere payment system and redefines the act of payment through Pay-to-Finance (P2F). P2F presents a new paradigm that creates sustainable value for all payment participants. By adopting a multichain architecture, PayProtocol does not depend on a single network but secures liquidity across diverse blockchains and can reflect the characteristics and advantages of each chain within its payment ecosystem. This allows users and merchants to participate in payments flexibly, without being confined to a specific chain or token, and payments are expected to deliver tangible benefits to all participants.

At the center of this ecosystem is the native token PCI. PCI functions as a core medium for payment and settlement, liquidity provision, reward mechanisms, and supports the flexibility and scalability of the entire PayProtocol ecosystem based on interoperability in a multi-chain environment.

This whitepaper presents from technical, structural, and economic perspectives how PayProtocol drives the practical adoption of digital asset payments and builds new payment infrastructure suitable for the Web3 era.

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# II. Main Body

## 1. Role of PayProtocol Mainnet

The PayProtocol mainnet is currently built on Hyperledger Fabric(hereinafter HLF) and uses a CFT (Crash Fault Tolerant)-based ordering service as its consensus mechanism. This structure guarantees high-speed transaction processing between trusted participants and is particularly optimized for high-frequency transaction environments such as payments and refunds.

HLF has the following main specifications:

- Consensus Structure: 3-stage process of Endorse → Ordering → Commit
- Performance Metrics: Approximately 2,100 TPS, 1-second block time, immediate Finality
- Features: MVCC conflict and duplication elimination, stable high-frequency transaction processing

Thanks to these characteristics, PayProtocol has been able to free itself from the fundamental limitations of public blockchains. It eliminates the risk of double spending, overcomes processing delays due to low TPS, and can also avoid the expensive fee problem commonly found in public chains such as Ethereum. Through this, the PayProtocol mainnet has established itself as infrastructure that guarantees stability and reliability in environments requiring frequent and immediate processing, including payments and refunds.

However, as the Web3 environment matures, the conditions required for payment infrastructure are also changing. Relying only on a single chain approach has limitations in meeting global-level payment demands and diverse user needs. Properly utilizing the abundant liquidity of public chains, cross-chain interoperability, and functions specialized for specific chains is emerging as an increasingly important factor.

Accordingly, PayProtocol plans to strengthen scalability and versatility while maintaining the stability and reliability provided by the current HLF-based structure. Through this, PayProtocol aims to evolve into an open payment network that is not dependent on a specific network, and in the long term, establishes a global digital asset payment infrastructure suitable for the Web3 era.

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## 2. What is PayChain

As described earlier, the PayProtocol mainnet is based on Hyperledger and provides stability and finality optimized for high-frequency payments and refunds. It has accumulated proven performance in actual commerce, merchant settlements, and B2B payments. However, in order to have the compatibility that EVM-based networks possess, it has come to a point where an alternative is needed for the open liquidity and transparency of public chains demanded by the market.

PayChain is a dedicated chain for payment and stablecoin designed to comprehensively expand the payment and settlement infrastructure of the PayProtocol platform in response to these demands. It is designed to connect directly with global payment networks by introducing an EVM-based open structure and multi-chain Interoperability while maintaining the high stability and regulatory friendliness that the existing PayProtocol mainnet has provided.

Only participants who meet strict technical and legal standards can be approved as PayChain's validators and participate in the consensus process. This is to minimize risks from indiscriminate node participation and secure institutional-level stability required as payment infrastructure by guaranteeing

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transaction finality and network reliability. This structure operates not simply as a device for access control, but as a trust framework for mutual settlement between trusted institutions and data anchoring, and is designed to enable all participants within the PayProtocol ecosystem to cooperate in an environment that complies with financial and legal standards.

PayChain is not a single payment chain but functions as a settlement hub that complies with regulatory environments, connecting various public chains and stablecoin networks through which cross-chain asset movement and settlement take place. At the core of PayProtocol mainnet and PayChain is PCI, connecting the two networks in addition to its existing role as a payment utility coin. Under PayChain, PCI will expand its role within the EVM ecosystem.

PayChain is a dedicated high-speed rail that retains only essential payment and stablecoin functions. By lightening the core, it minimizes delays and variable costs, and achieves lower fees and higher predictability. PayChain provides payment-essential modules at the protocol level, including features such as gas abstraction, compliance hooks, and swap guards. In the following sections, we will dive into PayChain's core architecture, interoperability, compliance framework and security architecture.

## 2.1 PayChain Core Architecture & Governance

PayChain is designed based on a lightweight purpose-built core that excludes unnecessary general-purpose functions. It retains only regulatory compliance/security/payment essential paths, and provides stable and scalable payment infrastructure by combining data integrity, performance, and on-chain governance. At protocol level, PayChain provides core modules such as paymaster for gas abstraction, oracle registry, compliance hooks, and swap guards, while maintaining full EVM compatibility for ecosystem expansion.

- Gas Abstraction: PayChain is designed to enable users to execute all transactions by holding only assets such as PCI, USDC, USDT, and KRW stablecoins. In the multi-chain environment supported by PayChain, users do not need to hold separate native tokens such as ETH, as account abstraction-based paymaster guarantees transaction execution and automates gas fee payment.

- Oracle & Data Integrity: The oracle aggregates multiple sources based on median values and removes outliers. Updates are protected by MPC threshold signatures and are periodically refreshed according to Deviation and Heartbeat rules. User contracts verify essential parameters such as maxAge, maxDeviation, and minSigners to block data manipulation and delay risks.

- Performance & Finality: Immediate confirmation(Soft Finality) upon inclusion in the sequencer, and legal and financial confirmation(Hard Finality) is guaranteed through L1 or periodic checkpoints. Target TPS, latency, sequencer rotation, congestion control, and data availability strategies are all managed as public metrics to secure both performance and reliability.

- Governance & Upgradability: Core parameters such as gas, incentives, and burns are determined by on-chain voting. Gauge voting increases the efficiency of reward distribution, and participation is expanded through delegation. All parameter changes and upgrades go through advance notice and timelock procedures, and in emergency situations, system safety is guaranteed through function-level granular suspension.

## 2.2 PayChain Interoperability

PayChain is not limited to its own payment and settlement infrastructure, but secures interoperability through anchoring and messaging with various public blockchains and stablecoin networks. Through this, PayChain functions as a settlement hub in a multi-chain environment, going beyond a single settlement layer.

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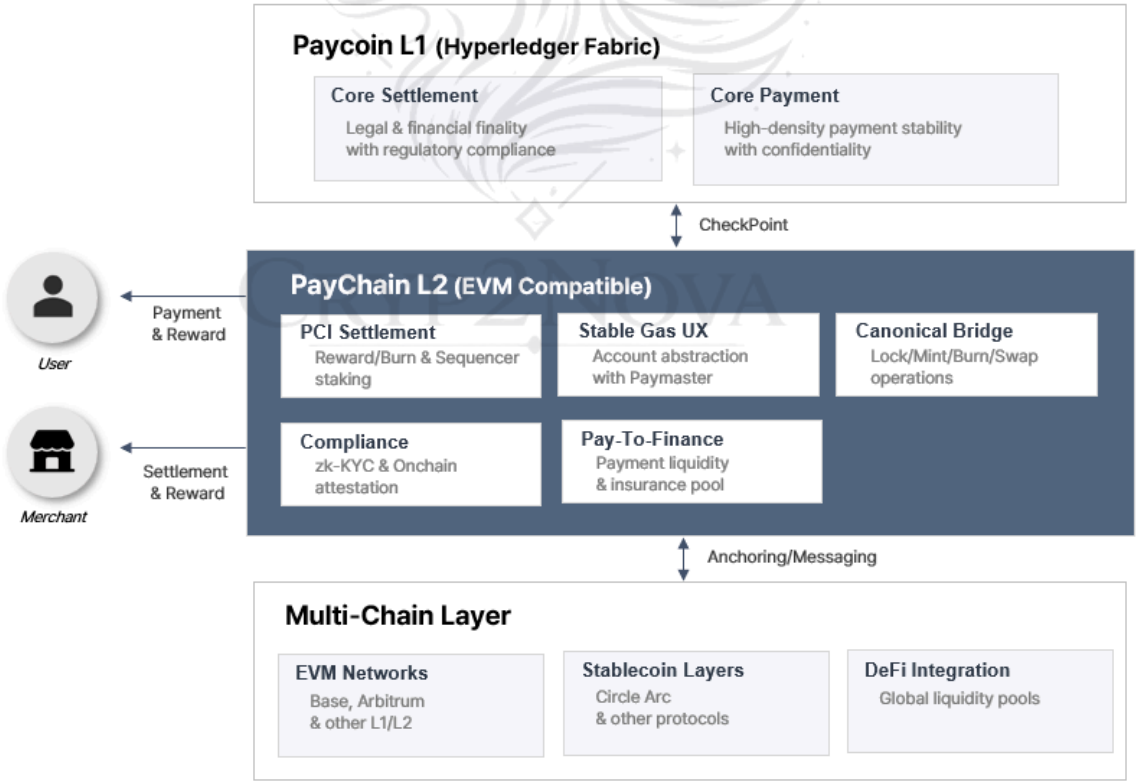
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- Integration with EVM Layers: PayChain connects with major EVM networks such as Base, Arbitrum, and zkSync through a standardized cross-chain messaging interface. The canonical bridge manages the lock/mint and burn/unlock processes of assets, and all state changes are aggregated based on merkle root to maintain consistency between PayChain and external chains. Through this structure, payment and settlement details occurring on PayChain can be referenced on external chains, and conversely, stablecoin movements or liquidity changes occurring on external chains are also reflected in real-time on the PayChain settlement layer.

- Integration with Stablecoin Layer: PayChain is also directly connected to stablecoin networks such as Circle Arc and Fiat24. The oracle aggregator collects issuance, burn, and lockup status from each chain and guarantees integrity through cross-chain messaging relay. This prevents the risk of double minting in a multi-chain environment, and PayChain aggregates and manages all issuance volumes and settlement records. As a result, various fiat currency-based stablecoins such as pKRW, pUSD, and pEUR are synchronized around PayChain, and the summarized settlement status is committed to HLF L1 to secure accounting and regulatory reliability.

- Security and Regulatory Compliance: The external network integration process operates based on PCI bonding and slashing structure. Bridge operators must deposit a certain amount of PCI as collateral, and the collateral is slashed to protect users in case of incorrect message delivery or unauthorized issuance verification failure. Additionally, by combining with zk-proof-based attribute certification, regulatory compliance requirements(e.g., KYC/AML) can be automatically verified in bridges and token hooks.

Through this structure, PayChain achieves stable settlement, transparent records, and regulatory friendliness while flexibly connecting with external public chains and stablecoin networks. PayChain aims to position itself as a central hub in the global multi-chain payment and settlement environment, rather than simply an independent payment chain.




**<Figure 1. HLF-PayChain-Multichain Diagram>**

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## 2.3 Compliance Framework

PayChain places regulatory compliance and transparency as core values, aiming to narrow the gap between the open blockchain ecosystem and the institutional financial system.

When a user completes KYC through a partner authorized by regulatory authorities in each country, the authentication status of that wallet is recorded on-chain in a privacy-preserving manner. At this time, sensitive personal information in its original form is not stored on the chain, but is processed through tokenization, hashing(and optional zero-knowledge proofs), so that personally identifiable information is not exposed.

This on-chain authentication status(attestation) is referenced with each transaction, allowing transaction parties to verify whether the counterparty wallet has been verified without disclosing personal information. When necessary, smart contracts automatically apply payment and settlement policies according to the authentication level, simultaneously guaranteeing safe transactions and policy compliance in actual use environments.

Furthermore, all significant events occurring on PayChain are standardized and recorded as on-chain audit logs, and data provision for supervisory and regulatory agencies is supported through standard RPCs(JSON-RPC, etc.) at the node level. Authorized entities can use these RPCs to query point-in-time snapshots and audit logs with period, filter, and aggregation applied, and each result is provided with metadata necessary for integrity verification such as block hash, merkle root, and signature verification indicators. This method facilitates integration with off-chain reporting systems and RegTech tools, and secures reliability and reproducibility in the report generation, aggregation, and submission process. As a result, PayChain implements a compliance framework that provides a balanced offering of regulatory transparency and practical convenience while maintaining the advantages of decentralization.

## 2.4 Security Architecture

PayChain's security design aims for payment and stablecoin-specific guarantees that are more stringent than general-purpose chains. The core is to consistently guarantee the accuracy of issuance and burning, and the integrity of settlement and bridges at the chain level.

Sensitive permissions are managed through role separation and hardware-based multi-signature. Permissions such as MINTER, BURNER, and PAUSER are mutually isolated, and all high-risk changes are executed through on-chain timelock and dual approval.

Stablecoin-specific safeguards are built into the chain. Issuance is only permitted when the freshness and signature quorum of Proof-of-Reserves commits are satisfied, and when sudden price changes or data anomalies are detected, a "depeg defense" mode is automatically activated, including temporary minting suspension and mass transfer restrictions.

In the PayChain environment, immediate confirmation(Soft Finality) is provided to users, while legal and financial finality is secured through periodic PayProtocol mainnet checkpoints. Enterprise-grade reliability is guaranteed through the permissioned network's consensus mechanism and strict node governance, providing the level of security required for payments and stablecoins.

## 2.5 How PayChain Enhances PayProtocol

The introduction of PayChain serves as a key catalyst for evolving the PayProtocol platform from a simple payment network into next-generation payment infrastructure equipped with both institutional-level stability and finality, as well as global scalability and liquidity.

As previously described, the PayProtocol platform operates on a combined structure of an HLF-based mainnet (Paycoin L1) and an EVM-compatible layer (PayChain L2).

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- L1 is the core settlement layer that guarantees stability and regulatory friendliness, responsible for legal and financial finality.

- L2 is an expansion layer that directly connects with global liquidity, stablecoin networks, and multi-chain environments, providing an open and intuitive payment experience through stable gas UX, P2F, and cross-chain anchoring.

Through this combination, PayProtocol realizes the following values:

- For users, gasless UX and global payment methods;

- For merchants, low-cost settlement and liquidity incentives;

- For issuers and institutions, transparent accounting and regulatory friendliness;

- For the entire ecosystem, a virtuous cycle of token economics through continuous PCI burning and demand expansion.

The two layers are interconnected through anchoring and messaging structures, and this combined structure evolves PayProtocol into a complete infrastructure that integrates settlement, burning, rewards, and governance around PCI, and encompasses stablecoin issuance, settlement, auditing, and regulatory compliance.

Additionally, the role of the current HLF-based mainnet (Paycoin L1) is planned to be sequentially transferred and integrated into the PayChain structure with the introduction of PayChain. In the initial stage, L1 maintains its role as the ledger for legal finality and internal settlement records, while PayChain handles global scalability, anchoring, and stablecoin payment networks. Subsequently, L1's functions (transaction verification, settlement records, audit tracking, etc.) are gradually transferred to PayChain's settlement Layer and anchoring framework, and ultimately all payment, settlement, and remittance processes operate in a unified structure on PayChain.

This transition is not simply a technical replacement, but a process in which the private chain (HLF) for stability and reliability and the permissioned chain (PayChain) centered on public access and liquidity merge into one trusted infrastructure. PayProtocol will simultaneously secure regulatory friendliness and global interoperability, and evolve into a complete payment network architecture where all payment, settlement, burning, reward, and governance functions operate integrally on a single PayChain infrastructure.

The following chapter covers the payment models that PayProtocol currently operates and how they expand after PayChain integration.

## 3. Payment Models Supported by PayProtocol Platform

Currently, PayProtocol operates three payment models to verify the feasibility of digital asset payments.

- Wallet-to-Wallet Payment: A fully decentralized payment method through direct transfer between blockchain wallets

- Crypto Card Payment: Offline payment support utilizing physical card infrastructure

- Exchange-Linked Payment: Securing both regulatory friendliness and convenience by enabling real-time payments even when users' assets are kept on exchanges

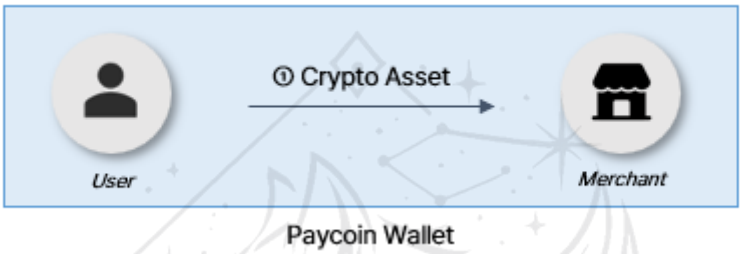
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Through these various operating experiences, PayProtocol has demonstrated that digital asset payments can practically operate even in different user environments and regulatory conditions.

Furthermore, with the introduction of PayChain as a catalyst, PayProtocol aims to build a more universal and sustainable Web3 payment model through the combination of Pay-to-Finance (P2F) and stablecoin platforms. P2F is a Web3-based payment structure newly designed by PayProtocol that integrates payment, settlement, liquidity, and incentives, providing scalability that goes beyond the limitations of existing payment infrastructure.

Going forward, PayProtocol will continue experiments and innovations to explore better payment experiences and structures based on accumulated technical capabilities and ecosystem operation experience.

### 3.1 Wallet to Wallet Payment Model




**<Figure 2. Wallet to Wallet Payment Model Example>**

Wallet-to-Wallet payment implements decentralized payment based on blockchain networks by directly transferring digital assets held by users to the wallet of the seller or payment gateway (PG). In this model, when a payment request occurs, transaction conditions are automatically executed through smart contracts, and the entire process from asset movement to fee processing and settlement is completed in real-time on-chain without intermediaries.

The payment process is designed based on PayProtocol's gas abstraction structure, allowing users to execute payments on all chains with only PCI without holding separate native tokens. Gas fees are automatically calculated and paid within internal contracts, which is a core mechanism that removes the complexity of multi-chain structures from the user experience.

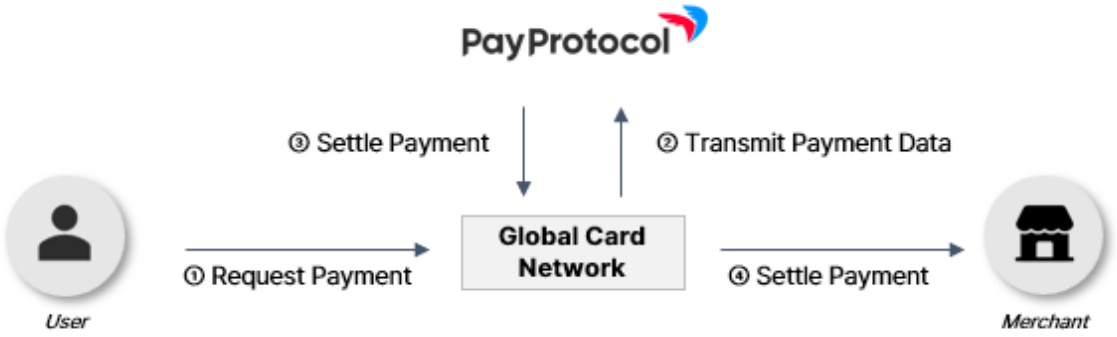
Settlement methods are provided variously according to the seller's choice. Assets can be received directly, or batch settlement can be received after automatic collection through a PG wallet. Settlement currency is also flexibly configured, allowing receipt in PCI or permitted stablecoins, and conversion to fiat currency is also supported through API integration.

Wallet-to-Wallet payment is designed to be applicable to various payment channels, with diverse UI/UX options such as QR code and barcode scanning, NFC, and POS integration-based payments provided, and it easily integrates with existing seller systems through PayProtocol's SDK and API.

This payment model is particularly applicable in various real-use environments such as micro-payments using digital assets, community-based transactions, cross-border transactions, and local service payments. The structure with low fee burden and real-time settlement capability is superior in cost efficiency and transparency compared to existing traditional payment infrastructure, and will function as a core payment method within PayProtocol's multi-chain ecosystem in the future.

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### 3.2 Crypto Card Payment Model



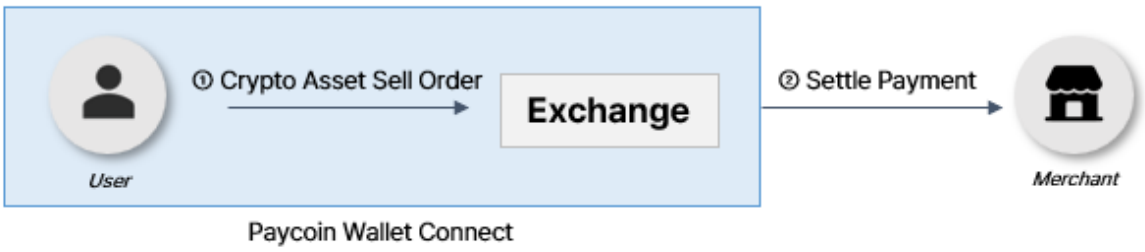

**<Figure 3. Crypto Card Payment Example>**

The crypto card payment model is in the form of a digital asset-based prepaid or debit card, designed to enable users to make payments at online and offline merchants using physical cards or mobile digital cards. During payment, users' held assets(e.g., PCI, BTC, ETH, etc.) are automatically converted according to real-time exchange rates, and merchants are settled in the fiat currency of the respective country. This naturally connects digital asset payments to real life by providing a user experience similar to existing credit cards and debit cards.

This model operates based on global card networks(such as Mastercard), making it usable in most payment environments worldwide, and can be integrated without changes to existing POS systems and infrastructure, providing high scalability and accessibility.

PayProtocol's crypto card ecosystem is structured around PCI(Paycoin), and even when various digital assets are loaded onto the card, all internal payment and settlement paths are processed based on PCI. In particular, the conversion standard at the time of payment is linked to the market value of external stablecoins such as USDC, allowing users to perform payments based on predictable fixed values without being affected by real-time price fluctuations. This structure mitigates the price volatility problem inevitably accompanying digital asset payments while contributing to expanding PCI's payment utility and real-use proportion within the ecosystem.

### 3.3 Exchange-Linked Payment Model




**<Figure 4. Exchange-Linked Payment Model Example>**

The exchange-linked payment model is a structure that performs real-time payments using digital assets held by users on centralized exchanges. Users can directly request payments through payment-dedicated wallets linked to exchanges without separate asset movement, and at that point, the exchange sells the assets (e.g., PCI) at market price and proceeds with settlement to merchants in local fiat currency or digital assets. All processes including real-time price reflection, asset holding

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confirmation, and payment approval are automated through exchange APIs and processed quickly and stably.

This model is effective in meeting regulatory requirements of each country, such as AML and user identification requirements, as it presupposes exchange accounts based on real-name verification (KYC). In particular, in the market trend where digital asset payments are gradually being integrated within the institutional framework, this structure is regulatory-friendly in the short term and can serve as a bridge for the expansion of actual use.

Since some countries have restrictions on wallet-to-wallet payments or have regulations requiring fiat currency settlement as a physical payment method, this model is suitable for use as a complementary and auxiliary means rather than the ultimate primary payment method. Based on these structural characteristics, PayProtocol will flexibly respond to regulatory environments and institutional conditions of each country and expand global market entry in a stable and sustainable manner.

Meanwhile, in countries where enterprise wallets (corporate wallets) are permitted under regulations, the exchange-linked payment structure can be expanded more flexibly. User assets are safely transferred from exchange-linked wallets to corporate wallets, after which the wallet can perform various functions such as intermediary settlement, advance payment acceptance, deferred settlement, and stablecoin-based settlement.

Intermediate acceptance through corporate wallets provides strategic advantages in terms of securing payment flexibility and regulatory responsiveness. The exchange-linked payment model therefore has importance as an entry path for future ecosystem expansion, along with immediate effectiveness.

## 3.4 Pay-to-Finance(P2F)

### 1) P2F Overview

Pay-to-Finance(P2F) is a Web3-based payment model newly designed by PayProtocol. While maintaining the framework of the PayProtocol payment system, it expands the meaning of payment by integrating blockchain and DeFi into payment activities. The existing merchant network and user experience are utilized as is, while Web3's unique asset management and reward structure are added.

P2F is designed to provide asset-management opportunities utilizing liquidity pools, at the user's discretion, during the payment and settlement process. If the user so wishes, assets may be temporarily deposited into a liquidity pool during payment and, at the user's discretion, may be deployed through various DeFi strategies until the point of settlement. At settlement, the principal and any operating results may be distributed among the user, the merchant, and the protocol; however, the distribution of returns is not fixed and may vary depending on the circumstances and conditions at the time of deposit and withdrawal. P2F provides users with the opportunity to generate returns by operating their own assets through their own efforts, by leaving to the user's choice whether to deploy assets at all, as well as the method and target of such deployment.

P2F is a feature intended to enhance the efficiency, liquidity management, and user benefits of PayProtocol's payment and settlement services. Merely holding or staking PCI does not give rise to any right to claim P2F-related returns, interest, APY, dividends, or any fixed economic benefit, and the related benefits may be limited depending on the specific terms of use of the payment and settlement services.

This model has three main characteristics.

- Where returns arise from P2F, a portion is returned to merchants as fee savings and to users as benefits, thereby strengthening payment incentives.

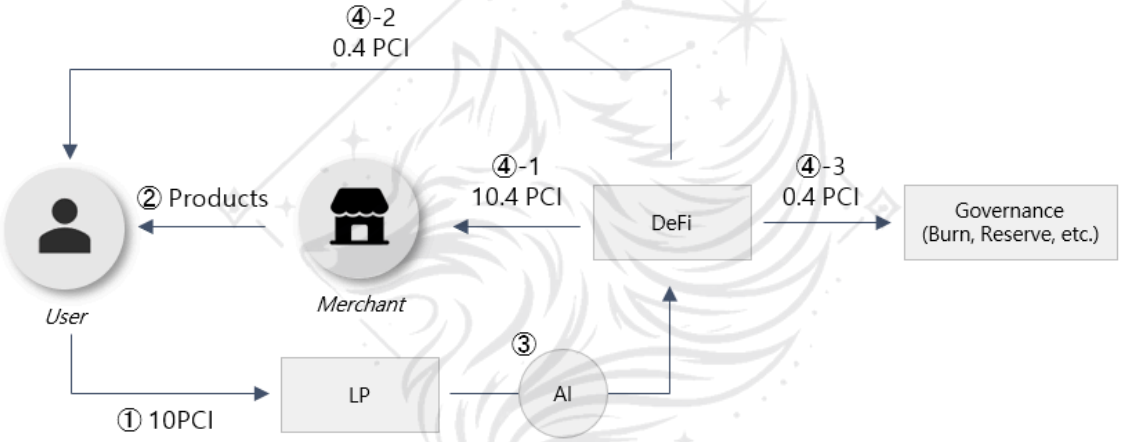
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- The operation and distribution process is transparently managed through on-chain governance, increasing ecosystem trust.

- PCI functions as a core asset for liquidity supply, fee payment, and governance participation. And with periodic PCI purchase and burning, it strengthens the token's intrinsic value.

P2F can be linked with the existing PayProtocol payment infrastructure, allowing all three previously mentioned payment models to apply P2F. Merchants can adopt P2F without separate complex procedures, and users can have the opportunity to share Web3 reward while maintaining the same payment experience as before. It also supports various payment assets including stablecoins to maximize participant autonomy. Merchants who want to reduce volatility risk and secure settlement stability can choose stablecoin settlement, and merchants who want to take risks and expose themselves to additional profitability can choose their desired digital assets for settlement.

Ultimately, P2F is designed as a structure that combines PayProtocol's existing payment services with the Web3 ecosystem, improving the efficiency of the payment process and, at the participant's discretion, linking to DeFi so that participants may themselves enjoy asset-management opportunities. Through this, PayProtocol delivers an enhanced payment experience to all participants and completes a sustainable payment infrastructure suited to the Web3 era.




**<Figure 5. P2F Distribution Example>**

**2) Design Goals**

P2F is designed to improve the efficiency and user benefits of the payment and settlement process on top of a decentralized finance ecosystem, and to expand PCI's payment/settlement and network-utility functions. The protocol has two objectives.

1. Implements a structure that provides an environment in which various payment assets can be deployed through liquidity pools at the user's discretion, thereby improving the capital efficiency of the payment process and offering asset-management opportunities. However, the generation of returns is not guaranteed.

2. Expands demand for PCI, the governance and the utility token, and maintains liquidity stably.

To achieve this, P2F applies the following mechanisms.

- Providing PCI Payment Incentives: Depending on payment conditions, payment rewards or fee benefits may be offered, promoting the use of PCI.

- Staking and Liquidity Supply Incentives: If PCI holders choose to stake, they receive staking rewards and contribute to policy decisions through governance participation.

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- PCI buyback for a virtuous ecosystem cycle: By burning PCI according to defined rules, the circulating supply is managed and the sustainability of the token-circulation ecosystem is maintained.

This structure grafts the decentralization and profitability of DeFi onto the real-world use case of payment, continuously creating intrinsic demand within the PCI ecosystem. Payment participants can, if they wish, obtain returns and incentives from operating their own assets without complex strategies, and P2F provides convenience and stability throughout the entire payment and settlement process.

P2F organically integrates payment, investment, and reward distribution to present a new payment paradigm suitable for the Web3 era.

**3) Differences from DeFi Protocols**

Despite general accessibility to DeFi protocols having significantly improved compared to the past, the majority of general users still access virtual assets only to the extent of buying and selling them through exchanges. It is true that understanding all the characteristics and risks of various DeFi protocols and using DeFi services involves a certain level of difficulty.

In this reality, the most direct way for buyers and sellers to maximize their profits is to deposit their assets into DeFi protocols themselves to obtain profits. However, this entails difficulties in resolving separate learning activities for DeFi investment or corresponding entry barriers.

P2F pursues a fundamentally different direction from these approaches. This protocol aims to provide opportunities that generate returns based on the liquidity arising among transaction participants, by providing an opportunity to organically connect the consumption activity of payment with the investment activity of DeFi at the user's discretion.

In other words, P2F is not a solution that induces users to operate DeFi directly; rather, it provides a "payment-efficiency framework" that supports users in operating, by their own choice, the liquidity arising in the payment process through external DeFi protocols.

This structure is designed to enable payers and sellers, under participants' discretion, to obtain DeFi profits without complex operations, and provides options to select payment and settlement assets that are favorable to each party. Through this, P2F aims for innovative infrastructure that pursues both user convenience and financial efficiency, beyond a simple payment system.

Therefore, this system is not in direct competition with DeFi protocols, but rather can be defined as a new payment protocol that enables linking payment acts with network incentives and settlement efficiency through DeFi liquidity.

**4) P2F Basic Conceptual Structure**

We define each act of payment for implementing P2F as follows.

- Payment: The act of a user purchasing goods (including, where the user so chooses, the act of supplying assets to a liquidity pool).

- Settlement: The act of sellers withdrawing those assets from the liquidity pool

- Liquidity Pool: A smart contract-based liquidity pool that deposits and operates assets between payment and settlement, generating profits by operating deposited assets in external DeFi protocols

**5) Key Participants**

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- Payer: A user who has paid with assets; if desired, the user may deploy assets through DeFi and may receive rewards under certain conditions (however, rewards are not guaranteed).

- Payee: The final beneficiary of the payment, who withdraws assets through settlement, and the settlement method and fees may vary depending on when they request withdrawal.

- Operator/Protocol: Governance that manages the operation and distribution policies of liquidity pools

**6) Step-by-Step Behavioral Definition of Payment Process**

1. At the time of payment, assets may be deposited into a liquidity pool at the user's discretion, and the seller may "request" settlement at a time of their choosing.

2. The size of rewards varies depending on the settlement timing, the dwell time of the assets, the type of settlement asset, and the liquidity level of the pool; however, rewards are not paid on a fixed basis and may vary depending on multiple conditions.

3. The seller can choose the settlement timing according to their own fund plan, thereby adjusting the balance between fund demand and profitability.

**7) Operation of P2F Liquidity Pools**

P2F does not operate its own DeFi protocol; instead, it provides users with the opportunity to operate their assets themselves through multiple external DeFi protocols approved by governance. This reduces the contract risk associated with operating a single protocol and achieves risk diversification through the use of diverse protocols.

Additionally, P2F introduces an AI-based operating algorithm that analyzes real-time data (deposit reward rates, volatility, risk indices, TVL, etc.) and proposes liquidity-allocation criteria that account for stability, liquidity, and cost efficiency. The Payer may select one of the operating options proposed by the AI or, if needed, directly designate their preferred DeFi protocol.

This design supports Payers in reviewing payment conditions and expected benefits more flexibly and in choosing their payment method, rather than relying solely on the seller's options. As a result, P2F provides a liquidity-pool operating model that minimizes risk while maximizing operating efficiency.

**8) Settlement Liquidity Management**

Taking into account an environment in which Payers and sellers may choose different payment assets and settlement assets, P2F provides operational functions to stably maintain the liquidity required during the payment and settlement process.

Where the payment asset and the settlement asset do not match, or where settlement demand for a particular asset is temporarily concentrated, settlement delays or liquidity shortages may occur. Settlement liquidity management is an operational adjustment function intended to prevent settlement failures and mitigate liquidity-shortage risk in such situations.

The main scenarios in which settlement liquidity management is needed are as follows:

- Where the payment asset and the settlement asset differ
    - Example: The Payer pays in a particular digital asset, while the seller requests settlement in a different digital asset or in a stablecoin.

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    - Response: Securing the liquidity required for settlement through pre-approved asset-conversion paths.

- Where settlement demand for a particular asset becomes concentrated over time
    - Example: Requests for a particular settlement asset temporarily increase.
    - Response: Reinforcing the required liquidity in accordance with pre-defined criteria.

Key criteria—such as the assets subject to settlement liquidity management, thresholds, path priorities, and required liquidity ratios—may be set in accordance with pre-defined policies and governance procedures. Related processing records may be verified transparently through on-chain records to the extent possible.

This function is limited to the management of liquidity placement for payment and settlement stability, and is not intended for the generation of investment returns, asset management, guarantee of yield, or the distribution of returns to PCI holders.

**9) Settlement Risk Reserve (Reserve Pool)**

P2F may maintain a settlement risk reserve to mitigate the limited operational risks that may arise temporarily during the payment and settlement process. The settlement risk reserve is managed separately from the liquidity pools and is an internal risk-management mechanism intended to mitigate temporary settlement shortfalls, settlement delays, and exceptional situations in system operation that may arise in the payment and settlement flow.

The reserve is limited to the following roles:

- Mitigating temporary settlement shortfalls that may arise during the settlement process
- Reinforcing payment and settlement stability
- Providing a limited buffering function for exceptional situations in protocol operation

The reserve is not a structure that compensates for all losses. It does not comprehensively cover external or system-wide risks such as protocol hacks, stablecoin de-pegging, or smart-contract defects, nor does it promise or guarantee any particular returns or loss compensation. Furthermore, it does not grant any participant, including PCI holders, any right to claim against the reserve, any insurance claim, or any loss-compensation claim.

The formation, accumulation, conditions of use, and limits of the reserve may be determined in accordance with pre-defined policies and procedures, and whether and to what extent the reserve is used may be limited depending on the service policy, risk situation, and relevant conditions at the applicable time. All accumulation and usage records are recorded and managed transparently to the extent possible.

The settlement risk reserve is an internal risk-management mechanism for payment and settlement stability, and is not intended for the generation of investment returns, asset management, guarantee of yield, or the distribution of returns to PCI holders.

**10) Payment Supported Assets Whitelist**

P2F allows major digital assets with sufficient liquidity to be utilized for payment and settlement without separate approval. However, since assets with low liquidity or high price volatility can cause swap shortages and pool losses, inclusion of such assets in the whitelist is determined through governance voting.

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Factors considered when selecting the Whitelist are as follows.

- Asset liquidity and trading volume
- Seller settlement demand and availability
- Impact on system stability
- Asset volatility and risk profile
- Regulatory compliance status
- Market infrastructure support status

PCI is P2F's payment utility token and is always available for payment regardless of whitelist status. This structure flexibly supports various digital assets while maintaining liquidity and stability, increasing the overall credibility of the payment environment.

**11) Service Benefits and Incentive Distribution**

Returns generated from the liquidity supplied through payment are shared among the Payer, the seller, and governance. The ratio is determined by governance; however, whether returns arise and their magnitude vary depending on market conditions and the operating performance of DeFi protocols, and the payment of returns—including any minimum return ratio—is not guaranteed. The return-distribution ratio is adjusted through governance, and participants may receive outcomes in accordance with their own operating performance.

**12) P2F Payment Fees**

P2F charges sellers fees based on service costs incurred during payment and settlement processes(e.g., asset conversion, settlement trigger, withdrawal, etc.). These fees are intended to cover operational costs of payment processing and are managed according to separate policies.

Additionally, preferential fee rates are applied to sellers who choose to settle in PCI. This is an incentive structure to promote PCI use in the P2F ecosystem and increase seller acceptance of PCI.

Through this design, P2F provides users a fair and predictable incentive model.

## 4. PCI Demand Generation and Value Proposition

PCI performs various roles such as payment, settlement, rewards, and fee incentives, and this multi-layered utilization acts as a key factor in creating continuous demand and strengthening intrinsic value. Through the introduction of PayChain, PCI has expanded beyond a simple payment token to become a core utility asset for PayProtocol network operations. It is closely connected with PayChain's structural mechanisms while handling chain-native functions such as gas settlement, sequencer staking, bridge collateral, and merchant incentives. Therefore, PCI's demand and value are directly linked to the operating principles of the entire chain architecture beyond individual functional dimensions, and are continuously strengthened with platform growth.

The PayProtocol platform systematically increases PCI's demand and value through the following paths based on this foundation.

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### 4.1 Payment Incentive-Based Demand

PCI is a utility token used directly for payments. In addition, within P2F, when a merchant elects to settle in PCI, preferential fees apply. This promotes the use of PCI at the payment stage and naturally strengthens PCI's utility.

### 4.2 Demand Acquisition Through Staking Incentives

PCI is a means of participating in governance and an asset through which rewards can be earned via staking. PayChain's sequencer must stake PCI and is subject to slashing in the event of misconduct. By staking PCI, users participate in protocol policy decisions and may receive technical rewards for contributing to network security; accordingly, both Payers and sellers have a clear incentive to participate in governance.

### 4.3 PCI Purchase and Burning Mechanism by Governance

Governance periodically manages PCI's circulating supply in the course of protocol operation. Burning PCI reduces its circulating supply and reinforces its scarcity.

In particular, under PayChain's stable gas structure, gas fees paid in stablecoins are internally converted into and accumulated as PCI, so network usage and the amount of PCI burned are directly linked; an increase in payment transaction volume may affect PCI's usability and its degree of utilization within the network.

### 4.4 Native Utility Expansion

The introduction of PayChain established PCI as a chain-native utility asset.

- Gas Settlement Asset: All stable gas payments result in PCI recirculation
- Sequencer Staking: Essential requirement for block production and settlement guarantee
- Bridge Collateral: Bonding asset for cross-chain anchoring security
- Merchant Incentives: Preferential fees and rebates provided when choosing PCI settlement

Through this structure, PCI positions itself as a core pillar supporting PayChain's operations, security, and overall token economy, beyond a simple payment token.

## 5. Governance and Role of PCI

The Paycoin platform operates governance composed of users who stake PCI to provide a transparent environment where ecosystem participants can actively contribute and participate in decision-making. This structure maximizes PCI's utility to increase token value in the long term while supporting the stability of Paycoin platform operations.

The governance model is designed to calculate voting power by comprehensively considering not only simple holdings but also payment activation contribution and staking period. Through this, participants who actively contribute to the ecosystem have greater decision-making authority, and transparency and efficiency of operations and policy decisions are strengthened together.

$$\text{Voting Power} = \min( S^{\alpha} * T^{\beta} * (1 + \delta * \log(1 + H)), VP_{max} )$$

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| Symbol | Meaning |
|---|---|
| S | Staked PCI quantity |
| T | Staking period (in days) |
| H | Number of payments and settlements through PCI (activity-based participation) |
| α | Exponential coefficient determining the importance of staking quantity |
| β | Exponential coefficient determining the importance of staking period |
| δ | Participation correction coefficient (magnitude of impact of payment/settlement participation on voting) |
| VP□ax | Upper limit based on total number of staking users (to prevent voting right concentration) |

**<Table 1. Governance VOTING POWER>**

When the above voting power calculation formula is applied, basic rewards are provided according to staking size and period, and additional weight is granted to users who actively participate in payment activities. Through this, while preventing voting authority from being excessively concentrated in specific users, participants who substantially contribute to the ecosystem can exercise greater influence in governance.

Paycoin governance manages overall platform operations beyond being a simple decision-making body. Main roles are as follows.

- Determining whether to register payment-supported assets on the whitelist
- Setting reserve pool coverage scope and conditions
- Adjusting which DeFi protocols to adopt among P2F protocols and portfolio weights
- Changing settlement fee rates
- Determining PCI burn and governance reserve distribution ratios

These governance activities are transparently operated through a separate dashboard and support participants to directly participate in the policy decision-making process.

## 6. Stablecoin Platform

The PayProtocol platform builds an integrated stablecoin platform on a combined structure of an HLF-based mainnet (PayProtocol mainnet) and an EVM-compatible Layer (PayChain).

The PayProtocol mainnet is a permissioned network that guarantees legal and financial stability and accounting transparency, recording the summary status of all stablecoin activities, while PayChain is an EVM-based network that directly connects with various public chains and stablecoin issuance infrastructure to process issuance, burning, and settlement in real-time.

Through this dual structure, PayProtocol functions as a global stablecoin unified ledger, where issuance, burning, lockup, and settlement data are consistently and transparently managed. Issuers can issue stablecoins on each chain based on collateral assets, and the total issuance across all chains is centrally managed on the PayProtocol platform.

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### 6.1 Core Technical Elements

- Cross-chain Messaging & Anchoring System: Safely and in real-time transmits mint, burn, and lock events between chains, preventing double issuance and state inconsistencies.

- Multi-chain Oracle: Secures consistency by aggregating stablecoin value and issuance status of each chain, and automates issuance conditions and risk alerts.

- Gas Sponsorship: Based on gas abstraction, designated sponsors (e.g., issuers, foundations, etc.) can pay users' transaction fees on their behalf, allowing users to execute transactions immediately without native tokens or PCI in their wallets.

- Compliance Framework: On-chain KYC authentication status (attestation) can verify whether counterparty wallets are verified without disclosing personal information.

Stablecoins issued on these core technical elements can be naturally utilized throughout the PayProtocol ecosystem. Cross-chain messaging & anchoring systems and multi-chain oracles can safely synchronize the issuance, burning, and settlement processes, ensuring users receive a low-volatility and predictable payment environment. At the same time, through the gas sponsorship structure, transactions can be executed immediately without separate native tokens in wallets, and the compliance framework can verify wallet KYC status without exposing personal information, allowing merchants and institutions to receive more stable and reliable settlement.

The introduction of PayChain opens the possibility for issuers, trust companies, and financial institutions to directly participate as PayChain nodes.

- Issuers can perform issuance and burning on their own while simultaneously participating as PayChain nodes to contribute to the messaging and oracle verification process.

- Trust companies strengthen accounting reliability and regulatory compliance by participating in the PayChain consensus process in addition to reserve verification and reporting.

- Financial institutions and regulation-friendly partners can participate in PayChain governance to ensure policy stability.

This structure implements a hybrid structure where institutional organizations directly participate as network operating entities, rather than remaining at the level of simple smart contract execution for stablecoin issuance and settlement processes. As a result, PayProtocol positions itself as a next-generation stablecoin platform that simultaneously secures both technological reliability and institutional trust.

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## 7. Paycoin(PCI) Issuance and Distribution Plan

| Category | Details |
|---|---|
| Name | Paycoin |
| Ticker | PCI |
| Type | Native Token(HLF) |
| Total Supply | 1,900,000,000 PCI<br>*Total of 3,941,000,000 PCI initially issued with mainnet launch<br>**As of February 27, 2023, a total of 2,041,000,000 PCI burned |
| PCI does not represent ownership or rights in PayProtocol and its products. | |

**<Table 2. PCI Basic Information>**

### 7.1 Issuance and Distribution Policy

PayProtocol defines PCI(Paycoin) as the core digital asset of the ecosystem and proceeds with phased distribution in a pre-planned manner according to strategic purposes such as payment rewards, merchant incentives, and global partnerships. Distribution volume is deployed based on purpose-defined uses and quantities, and executed considering market stability.

| Category | Post-Burn Allocation | Lockup | | UnLock | | |
|---|---|---|---|---|---|---|
| | | PCI | Years | PCI | Years | Start Date |
| Huobi Prime | 13,793,500 | - | - | - | - | - |
| Reserve | 209,410,406 | - | - | - | - | - |
| Ecosystem Incentive | 461,572,544 | - | - | - | - | - |
| Marketing | 257,640,000 | - | - | - | - | - |
| Cross Border | 500,000,000 | 100,000,000 | 5 | 300,000,000 | 3 | 2022. 11 |
| Team | 95,000,000 | - | - | - | - | - |
| Advisor | 197,050,000 | - | - | - | - | - |
| Paycoin Operation | 165,533,550 | - | - | - | - | - |
| Total | 1,900,000,000 | - | - | - | - | - |

**<Table 3. Current Paycoin(PCI) Distribution>**

### 7.2 Network Operator Technical Incentives Allocation Mechanism

PayProtocol operates an incentive-distribution structure designed so that transaction activity within the network cycles back into the sustainability of the ecosystem and the value of its assets. A portion of the incentives arising from network contribution is burned by the smart contract according to the ratio set by governance, while another portion is distributed to network contributors. The distribution ratio may be adjusted by governance, and separate incentive or reward policies may apply to specific

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functions. This flexible structure accommodates diverse business environments and contributes to securing both the scarcity of PCI and the scalability of the ecosystem over the long term.

| Category | Burn Ratio | Operator Incentive Ratio | Remarks |
|---|---|---|---|
| Network Operator Technical Incentives | Decided by the governance | Decided by the governance | Smart contract automatic |

**<Table 4. Burn Rules by Item>**

### 7.3 Total Burn Amount Calculation Formula

$$B = \sum_{t} \left( \beta_t \sum_{i=1}^{N_t} \frac{\phi_i}{C_t} \right)$$

| Symbol | Description |
|---|---|
| **B** | Cumulative amount of PCI burned |
| **βt** | Burn Ratio (determined by governance; epoch t) |
| **Nt** | Number of blockchain transactions in epoch t |
| **ϕi** | Gas fee of transaction i |
| **ct** | PCI conversion rate |

**<Table 5. Total Burn Amount Calculation Rules>**

### 7.4 Effects of the Burn Mechanism

- Burning accelerates token supply reduction along with transaction activation, strengthening PCI's scarcity and intrinsic value.
- PCI purchase and additional burning through governance more effectively limits circulation and solidifies the connection between P2F activation and PCI utility.
- Foundation recirculation portions are utilized for reinvestment within the ecosystem such as infrastructure expansion, marketing, and incentive pool operations, establishing a sustainable growth foundation.
- Through this structure, PayProtocol simultaneously realizes a transaction-based deflationary model and ecosystem growth incentives.

## 8. Lock-up and Distribution Plan

Paycoin's lockup volume is converted to wPCI(wrapped PCI) tokens on the Arbitrum network and locked up for transparent management and user trust enhancement. During the lockup period, the corresponding volume is managed through smart contracts that anyone can query, and at the unlock time, wPCI is planned to be converted back to PCI and distributed. Smart contract addresses and related information are posted on the PayProtocol official homepage and can be verified through the link below.

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Token Lock-up Status Dashboard - https://payprotocol.io/lockup

PayProtocol expects the following improvement effects by locking up PCI on the Arbitrum chain, and intends to execute a 2-year distribution plan as follows starting from December 1, 2025.

- Implementation of lockup-based monthly distribution policy: Automates the monthly release structure for team, early investors, and business volumes based on smart contracts, enhancing market predictability
- Transparent application of smart contracts: Token distribution details are recorded on-chain and verifiable by anyone

### 8.1 Existing Structure (As-Is)

In the As-Is structure, Marketing and Cross Border existed as separate items.

- Marketing was used for promotions, user rewards, affiliate marketing, etc.
- Cross Border was used for payment network expansion, and part of the unlocked volume was executed.

| Category | Post-Burn Allocation | Lockup | | UnLock | | | PCI Held as of 2025.10.20 |
|---|---|---|---|---|---|---|---|
| | | PCI | Years | PCI | Years | Start Date | |
| Huobi Prime | 13,793,500 | - | - | - | - | - | 0 |
| Reserve | 209,410,406 | - | - | - | - | - | 35,059,043 |
| Ecosystem Incentive | 461,572,544 | - | - | - | - | - | 118,238,249 |
| Marketing | 257,640,000 | - | - | - | - | - | 170,830,861 |
| Cross Border | 500,000,000 | 500,000,000 | 5 | 300,000,000 | 3 | 2022. 11 | 482,722,658 |
| Team | 95,000,000 | - | - | - | - | - | 37,864,432 |
| Advisor | 197,050,000 | - | - | - | - | - | 0 |
| Paycoin Operation | 165,533,550 | - | - | - | - | - | 0 |
| Total | 1,900,000,000 | - | - | - | - | - | 844,715,243 |

**<Table 6. Existing Lockup Structure>**

### 8.2 Improved Structure (To-Be)

In the To-Be structure, unclear existing allocations are being reorganized in order to have a clear usage purposes.

- Marketing (553M PCI): Marketing allocation will be significantly increased through combining part of the cross-border allocation. This budget will be transparently used for overall global marketing activities with 300,000 PCI linear monthly distribution over 24 months.

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- Liquidity Provision (100M PCI): The remaining allocation from cross-border will be allocated for liquidity supply in order to provide a stable trading environment. 5 million PCI are unlocked in the first month, followed by linear unlocking of 200,000 PCI monthly.

- Other items (Reserve, Ecosystem Incentive, Team) will remain the same and will have a 24-month lockup structure applied, unlocking according to a predictable schedule.

| Category | PCI Held (2025.10.20) | Lock-up | | Unlock | | Start Date |
|---|---|---|---|---|---|---|
| | | PCI | Months | PCI | Months | |
| Reserve | 35,059,043 | 35,059,043 | 24 | 100,000 | 24 | 25.12.1 |
| Ecosystem Incentive | 118,238,249 | 118,238,249 | 24 | 200,000 | 24 | 25.12.1 |
| Marketing | 553,553,519 | 553,553,519 | 24 | 300,000 | 24 | 25.12.1 |
| Liquidity Provision | 100,000,000 | 100,000,000 | 24 | 200,000 | 24 | 25.12.1 |
| Team | 37,864,432 | 37,864,432 | 24 | 200,000 | 24 | 25.12.1 |
| Total | 844,715,243 | 844,715,243 | 24 | 1,000,000 | 24 | |

**<Table 7. Improved Lockup Structure>**

Of the total 844.71 million PCI held by the foundation, the 28.8 million to be unlocked over 2 years corresponds to approximately 3.4% of the total, with approximately 96.6% remaining with the foundation after 24 months. For the remaining volume in December 2027, a new lockup plan will be redistributed through governance decisions.

This structure strengthens transparency, predictability, and strategic utilization, and establishes the foundation for token economy operations linked with P2F. The future 2-year PCI distribution plan is as follows.

| Category | 2025 | 2026 | 2027 | Remarks |
|---|---|---|---|---|
| | Dec | Jan ~ Dec | Jan ~ Nov | |
| Reserve | 100,000 | 1,200,000 | 1,100,000 | 100,000 PCI unlocked monthly |
| Ecosystem Incentive | 200,000 | 2,400,000 | 2,200,000 | 200,000 PCI unlocked monthly |
| Marketing | 300,000 | 3,600,000 | 3,300,000 | 300,000 PCI unlocked monthly |
| Liquidity Provision | 5,000,000 | 2,400,000 | 2,200,000 | 5,000,000 PCI unlocked on Dec 2025, 200,000 PCI unlocked monthly |
| Team | 200,000 | 2,400,000 | 2,200,000 | 200,000 PCI unlocked monthly |
| **Planned Distribution Volume** | **5,800,000** | **12,000,000** | **11,000,000** | |
| Circulating supply | 1,061,084,757 | 1,073,084,757 | 1,084,084,757 | |

**<Table 8. 2-Year PCI Distribution Plan>**

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### 8.3 Wallet Purpose and Definition

1. Reserve: Reserve funds to respond to unexpected situations or market risks during project operations, utilized limitedly according to smart contract or governance structure. This functions as a risk hedge pool to secure the stability and flexibility of the token economy.

2. Ecosystem Incentive: Funds for technology partners, developer ecosystems, community contributors, and user rewards.

3. Marketing: Used as funds for promotional activities such as enhancing brand awareness, expanding user inflow, and attracting strategic partnerships. Utilized through various marketing channels such as campaigns, airdrops, conference participation, and content creation.

4. Liquidity Provision: Used for purposes such as securing token liquidity on both CEX and DEX. It supports expanding partnerships with exchanges and activating market trading.

5. Team: Utilized for providing long-term incentives and performance-based rewards to project contributors. It is reset based on the unlocked remaining amount after the initial 24-month lockup period and distributed according to the team's project contribution.

### 8.4 Lock-up Results

Following the lockup plan above, all lockup operations were completed on Arbitrum on October 22, 2025. Some network fees were incurred during the transition from HLF to the Arbitrum network. The actual lockup amount, excluding wallet fees, is as follows:

| Category | Planned Lock-up Amount (PCI) | Actual Lock-up Amount (PCI) |
|---|---|---|
| Reserve | 35,059,043 | 35,058,743 |
| Ecosystem Incentive | 118,238,249 | 118,238,149 |
| Marketing | 553,553,519 | 553,552,759 |
| Liquidity Provision | 100,000,000 | 100,000,000 |
| Team | 37,864,432 | 37,864,332 |
| Total | 844,715,243 | 844,713,983 |

**<Table 9. Lock-up Result>**

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## III. Conclusion

PayProtocol aims to solve the fundamental challenges facing digital asset payments—the gap between adoption and experience—through PayChain-centered integrated infrastructure. PayChain inherits the stability and finality of the HLF-based mainnet while combining multi-chain connectivity, gasless UX, and permissioned consensus structure to provide a payment environment that users, merchants, and institutions can all trust. Users can participate in payments without recognizing the complexity of chains or gas fees, and merchants can secure predictable cash flow and global scalability through various settlement options such as stablecoins, PCI, and fiat currency.

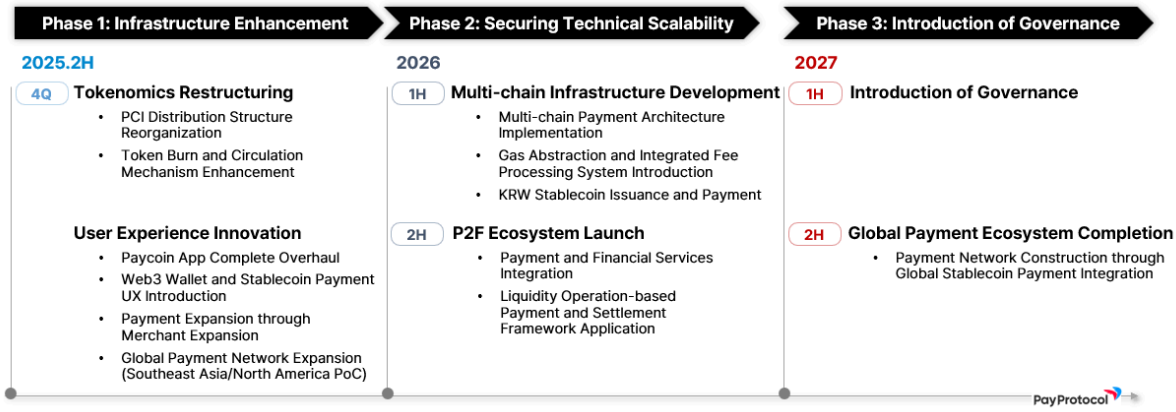
In terms of token economics, PCI's scarcity and utility are strengthened through transaction-based burning, governance purchase and burning mechanisms, and predictable lockup and distribution structures. Particularly after PayChain integration, this economic circulation will be revealed more transparently on-chain.

PayProtocol will continue efforts to implement a sustainable payment and liquidity platform that integrates digital asset payment infrastructure and financial operations into one, and will leap forward as a global digital asset payment standard leading the Web3 era.

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# IV. Roadmap




**<Figure 6. PayProtocol Future 2-Year Roadmap>**

### 1) Phase 1: Infrastructure Enhancement (Q4 2025)

**Q4 2025** - Tokenomics Restructuring, User Experience Innovation

- Creating a healthy ecosystem through PCI distribution structure reorganization
- Building a sustainable value creation system through token burn and circulation mechanism enhancement
- Providing an intuitive and convenient interface through complete Paycoin App overhaul
- Implementing smooth digital asset payment environment through Web3 wallet and stablecoin payment UX introduction
- Expanding real-life payments through merchant expansion
- Global payment network expansion (Southeast Asia/North America PoC)

### 2) Phase 2: Securing Technical Scalability (2026)

**H1 2026** - Multi-chain Infrastructure Development

- Verifying key functions such as payment and settlement processing performance, gas abstraction, and compliance hooks with selected partners and validators.
- Conducting network stability and finality testing in real transaction environments.
- Securing technical and operational metrics for official PayChain launch.
- Supporting various blockchain networks through multi-chain payment architecture implementation.
- Maximizing user convenience through Gas Abstraction and integrated fee processing system introduction.
- KRW stablecoin payment.

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**H2 2026** - P2F Ecosystem Launch

- P2F Launch
- Implementing efficient fund management system through liquidity operation-based payment and settlement framework application

**3) Phase 3: Introduction of Governance(2027)**

**H1 2027** - Governance Introduction

**H2 2027** - Global Payment Ecosystem Completion

- Building payment network through global stablecoin payment integration




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# V. DISCLAIMER

A. This white paper is intended to describe the services of PayProtocol and can be reviewed and revised due to the project's schedule, progress, and other factors.
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N. PayProtocol is not responsible for the buyer's risk caused by loss or leakage of their private key.
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