

# AptosPay White Paper

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## 1. What is AptosPay?

Project Website: <https://www.aptopay.org/>

AptosPay is not a specific entity; it is a broad term referring to any innovative payment solution built on the advanced Aptos blockchain technology. Examples include Aptos wallets, third-party website payment gateways based on Aptos, Shopify or WooCommerce plugins for international trade payments, and even in-app recharge tools—all of which can be called AptosPay.

## 2. Current Status of Import-Export Trade and Cross-Border Payments

In 2024, global trade reached \$33 trillion, representing a 3.7% increase from 2023. China's total import-export value was approximately \$6.2 trillion, while the U.S. annual import totaled around \$7.3 trillion. However, as globalization accelerates, traditional cross-border payment methods (e.g., bank transfers, credit card payments) have significant drawbacks in terms of efficiency, cost, and convenience.

Major Drawbacks of Traditional Cross-Border Payments:

- - High Fees: Bank charges, intermediary handling fees, and currency exchange fees can be substantial.
- - Slow Transactions: Transfers often take several days due to intermediary processes.
- - Complex Operations: Varying regulations across countries make operations cumbersome.
- - Payment Risks: Multiple links increase the risk of failure or loss.
- - Low Transparency: Poor tracking of transaction status.
- - Exchange Rate Volatility: Currency volatility affects payment predictability.
- - Information Security Risks: Sensitive personal data may be exposed during inter-institutional transfers.
- - Geopolitical Risks: Sanctions and international tension may restrict payments.

## 3. Advantages of AptosPay in Cross-Border Payments

Aptos offers unparalleled advantages in cross-border payments due to its technical features and design principles:

- - High Throughput & Low Latency: Aptos can handle up to 160,000 TPS, scalable to 1,000,000 TPS, with average finality under 1 second.
- - Low Transaction Costs: Thanks to its parallel execution engine (Block-STM) and multi-version concurrency control, costs are negligible, ideal for frequent micropayments.

- - Enhanced Security: Built using the Move language, Aptos smart contracts offer superior protection against vulnerabilities.
- - Improved Consensus Mechanism: AptosBFT (based on HotStuff) ensures safe, sub-second finality.
- - Flexible Upgrades: Aptos' s design allows for continuous evolution in line with emerging needs.
- - Decentralization Balance: Aptos aims to harmonize decentralization, security, and speed—key to building trust and mass adoption.
- - Compliance-Friendly: Aptos' s Diem (Libra) roots make it easier to adapt to regulatory demands globally.

#### 4. Analysis of Blockchain Payment Landscape

Bitcoin introduced peer-to-peer electronic cash, reducing costs and time compared to traditional systems. However, Bitcoin's TPS is only 7, Ethereum's ~15, far below Visa's 24,000 TPS. High congestion leads to delays and skyrocketing fees (e.g., Ethereum gas fees reaching tens of dollars in 2021).

Existing blockchain payment solutions like Solana Pay, Binance Pay, BitPay, and Alchemy Pay face limitations such as downtime and compliance issues. To truly serve the real economy, blockchain payments must match the speed and smoothness of platforms like Alipay. Currently, only Aptos meets these criteria, underscoring our urgency to launch AptosPay.

#### 5. Disruptive Positioning of AptosPay: Redefining Cross-Border Payment Standards

Metric	Aptos Pay	Solana Pay	Visa	BTC/Ethereum
Peak TPS	160,000+	65,000 (theoretical)	24,000	<20
Transaction Cost	\$0.0001	\$0.01	1.5%-15%	\$1-\$50+
Final Confirmation Time	<1 second	3-5 seconds	1-3 days	10 minutes-hours
High Concurrency	Supported	Not supported	Limited support	Not supported

Conclusion: AptosPay is the world's first blockchain payment solution that achieves financial-grade performance + zero fees + enterprise-friendly interfaces.

## 6. Opportunities in the New Era

Stablecoin legislation is progressing globally, particularly in the U.S. and Hong Kong. Aptos has been invited to participate in Hong Kong's stablecoin regulatory sandbox testing, being the only blockchain selected. Additionally, Aptos has invested in several Hong Kong-based stablecoins under development. As a bridge between East and West, Hong Kong offers unique advantages, with legislators welcoming mainland Chinese companies to settle trades there.

### Case Study 1: Yiwu International Trade Center

Yiwu handles over \$60 billion in exports annually, with Southeast Asia accounting for 30%. Traditional cross-border payments involve high fees (3%-7%) and slow settlement (3-5 days). With AptosPay:

- Businesses integrate cross-border payments via Shopify/WooCommerce plugins.
- Overseas buyers pay using stablecoins on Aptos, enabling instant settlements into merchants' Aptos wallets.

### Case Study 2: Supply Chain Optimization

Yiwu enterprises seamlessly convert USDC received via Aptos into USDT to pay raw material suppliers in Southeast Asia, saving 70% in time and 80% in fees.

### Case Study 3: Logistics Financing

Traditional letters of credit impose long cycles (~30 days). Using Aptos smart contracts tied to logistics documents, payments are automated upon goods clearance, reducing bad debt risks and shortening settlement times to <1 hour.

## 7. Ultimate Vision of AptosPay: The Payment Layer of Global Value

### Internet

AptosPay aims to become the foundational payment protocol connecting digital assets, goods, and services. Its vision includes:

- - Eliminating barriers between traditional finance and Web3 economies.
- - Enabling frictionless value exchange for "any asset, any scenario, any entity."
- - Serving unbanked populations (~3 billion people worldwide).
- - Providing interoperability across blockchains via X-Chain protocols.
- - Supporting high-frequency real-time payments with standardized APIs/SDKs.

## 8. Ultimate Goal of AptosPay

The ultimate goal of AptosPay is to become the TCP/IP protocol for global value flow—a universal standard for all forms of assets, economic entities, and collaborative relationships. By breaking down physical boundaries and trust barriers, AptosPay will enable seamless

experiences regardless of location, whether in New York, Hong Kong, or remote African villages.

When sending money becomes cheaper than texting, trade financing faster than online shopping, and financial inclusion a reality, this future will be defined by AptosPay.

## **9. AptosPay Alliance**

To accelerate this vision, we propose establishing the AptosPay Alliance (APA)—a global collaboration organization leveraging Aptos blockchain technology, compliant stablecoins, and serving the real economy. We invite financial institutions, tech firms, regulators, and industries to join us in building an open, compliant, and efficient next-generation payment infrastructure.

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