

Smart Token Chain

Intelligent Payments Technology

A New Global Payments Standard

A History of Standards Adoption

Over a century ago, moving goods by rail was problematic as competing railroad networks used different gauge or sized rails. Railroad roundhouses were invented to exchange payloads from one railroad network to another. Over time, intermodal containers, based upon International Standards Organization (ISO) specifications, standardized payload transfers modernizing global commerce.

Global shippers that didn't adopt these new, more efficient payload interoperability standards could no longer compete.



Modern Financial Services Need Standards

Today, money movement has the same exact century-old problem: transporting monetary “payloads” across multiple incompatible “rails” of financial networks. VISA cards cannot be processed on MasterCard rails. Global financial institutions have issues moving funds internally due to the disparate systems that become part of the bank's overall infrastructure after more than a decade of M&A. And, inter-bank transfers are even more complicated, especially international transfers involving foreign exchange (FX). Regulatory constraints further complicate global money movement between these already incompatible rails.

The US Dollar (USD) has emerged as the standard currency for global settlement, reducing FX risk in global trade. This is why most international contracts are priced in USD. However, the regulatory and administrative paperwork required to settle a foreign exchange (FX) trade still takes two days or more; compressing margins and adding settlement risk.

Bitcoin's blockchain technology has demonstrated the ability to pass value peer-to-peer (P2P) without any government regulation or centralized issuance or oversight. Though now designated as an asset class by the US, many governments outlaw Bitcoin, making it a problematic global solution. Therefore, blockchain technology is now being implemented privately as distributed clearing/settlement systems for select financial institutions as closed loop or private networks. Custom Private Blockchain Networks (PBNs) are creating even more fragmentation of the global settlement process, as these private networks are accessible only by the “members” of that particular private network.

PBNs benefit members with faster clearing between members, but add another layer of complexity to settle with anyone outside that group. If there is a FX transaction involved, international Anti-Money

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Laundering (AML) regulations and existing settling mechanisms compound the process, taking two days up to a week. Consequently, there are no instant clearing and settlement standards for these international payments.

However, there is a better way...

Smart Token Chain Technology

P2P Cash's Smart Token Chain (STC) technology creates interoperability between disparate networks (whether traditional global clearing systems or Private Blockchain Networks), lowering settlement costs and reducing clearing times and settlement risks.

- STCs are manufactured instantaneously on a “when needed” basis, populated with pertinent trade information and delivered across electronic trading/settlement platforms for certification with counterparts, exchanges, regulatory entities, and Private Blockchain Networks themselves.
- STCs integrate proprietary blockchain networks with the traditional clearing and settlement networks. This allows entities outside the PBN to trade with members of the PBN without a direct reciprocal integration effort required by the respective party.
- P2P Cash provides all the integration to the Private Blockchain Networks as well as to the global clearing networks. This provides a turn-key solution to trading partners and those that wish to trade on the STC Exchange without any investment in technology development on their part.
- STC information is encrypted within the Smart Token(s) with an auditable ledger to all parties in the trade. The trade is stored indefinitely for future regulatory access and tracking purposes.

STC Benefit Summary

Private Blockchain Networks (PBN) are creating even more fragmentation in an already very complicated multi-standards transaction-processing environment. Smart Token Chains (STCs) were invented and designed to move money between dissimilar networks from day one.

As P2P Cash integrates to more countries and PBNs, the STC becomes a de facto “standard”, but not a traditional standard that a financial network must make an effort to adopt. STC is an uber-integration technology designed to unite every proprietary network in which it participates. P2P Cash performs all the integration effort, not the financial networks.

STC is a standard that the banks, financial institutions and their customers will use simply because STC technology integrates “smart” payment of transaction invoices, delivers superior clearing speed, and lowers costs more than any competing means to send value point-to-point on a global scale.

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Appendix

Current STC Application - Free Money Transfer

P2P Cash currently uses low cost STC technology to offer Free Money Transfer directly to U.S.-based consumers. P2P Cash chose this initial use case due to a lack of efficiency in the global money transfer industry. Money transfer and financial services in general are ripe for disruption, driven by the confluence of blockchain, tokenization and mobile technologies.

STC technology is currently implemented in 4 of the Top 5 remittance destinations from the US. The technology integrates several real-time national settlement systems via Virtual Private Networks (VPNs). Over 1.2 billion bank and mobile accounts in 64 countries can receive Free Money Transfer as P2P integrates additional countries.

Similar to the direct consumer remittance offerings via P2P Cash's branded website and mobile applications, the company offers online portals, mobile applications and white label platforms to partners globally:

- Equity Bank – The largest bank in Africa by number of accounts.
- World Council of Credit Unions (WOCCU) – Organization that represents credit unions with over 200 million members worldwide.
- Vonage – Global leader in telecommunications.

P2P Cash's platform provides turnkey delivery of new P2P architecture to mobile financial services including lending and insurance, both direct to consumer and through our partnerships.

STC Capabilities and Development Roadmap

P2P Cash's STC technology currently demonstrates competitive advantages in the money transfer market. STCs have expansive potential to revolutionize the broader financial services industry by enabling faster, lower cost transactions across many use cases.

Current Technology

- Unique transaction ID creation for tracking and auditability
- World class security and identity processing using cutting edge identity verification and authentication technology
- Real-time "Good Funds" model
 - Funds acquisition
 - Card processing enables real-time processing with service guarantees
 - ACH batch processing
 - Processing
 - Remittance instructions attached to payload (basis of STC)
 - Sending of payload to delivery endpoints via multiple transport protocols: SWIFT, VPN and XML

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- Funds delivery
 - Immediate delivery via direct access to Real Time Gross Settlement (RTGS) systems globally
 - Immediate clearing and settlement via funded Nostro accounts
- SWIFT implementation of STCs
 - Real-time delivery of funds via SWIFT's ISO 20022 compatible format
 - Live use of PKI encrypted STC

Roadmap Technology

- Unique single use STC format
 - Standardized format including Global ID Verification (GIV) across all existing partnerships for each and every transaction
 - Device fingerprinting and security
 - Verification, tracking and auditing of transactions across disparate proprietary networks
 - Compatible with emerging global Private Blockchain Networks (PBNs)
- Real-Time “Good Funds” clearing model
 - eRMB/eUSD Token Model: Instant transfer of value/funds
 - Direct integration to Chinese International Payments System (CIPS)
- Smart Contract
 - Trade information exchange embedded in STC
 - e-Invoicing capabilities
 - Trigger events within the STC
- STC Exchange
 - Instant exchange and clearing of eRMB/eUSD and global Smart Contract Trades
 - The STC Exchange is Open Source and currently operational. Can be integrated with STC technology within 45-60 days.

Use Cases

- Banks and Corporates: Institutional money movement with direct e-invoicing integration.
- FX Trading: STCs create “electronic” immediate settlement versions of global currencies; eRMB, eUSD, et al.
- Other Financial Assets: Bonds, Repos, Mortgage Backed Securities, etc.
- STC Exchange: Facilitates real-time global clearing and settlement for all the above.