



# Epay USD

A compliant, stable value currency

Epay Global Limited

V1.0



EUSD, a compliant, stable value currency

## Abstract

Epay USD referred to as EUSD is an encryption certificate with the following characteristics:



Issued by the global payment company Epay Global Limited



The rate of 1:1 strict anchor with the US dollar



Built on the Ethereum network to follow the ERC20 token standard

EUSD is a stable value coin that combines the credibility and value stability of the dollar. EUSD has the technical advantage of encrypting digital currency and is supervised by regulatory authorities. As a token that complies with the ERC20 standard, EUSD can be transferred on the Ethereum network. EUSD is created on the Epay platform and redeemed or "destroyed" when deposited on the Epay platform.

### **Epay preserves EUSD's value in multiple ways:**

- Epay will hire domestic and international third-party audit firms to regularly publish third-party reports to guarantee the transparency and legitimacy of EUSD, ensuring that investors can fully understand the EUSD issuing and fund management.
- Epay has launched global application scenarios to support the circulation of EUSD.
- Epay has received Hong Kong's financial service license, and their license applications for multiple financial areas are all under review. Currently, Epay is under strict financial supervision. Therefore, Epay has strong legal and regulatory capacity for issuing and supervising EUSD.



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## 1. Introduction

Although the cryptocurrency has triggered the interest and attention of many investors in recent years, more investors are eager to try, but because of their own violent price fluctuations, they hinder their own circulation as a trading medium and value scale. The potential solution is to create a stable value currency (often called a stable currency). In this scenario, the issuer allocates a certain amount of encrypted digital currency to the customer in exchange for a corresponding amount of French dollar, the exchange rate is fixed at 1:1. Because the US dollar is the most ideal trading medium in the world, and it is the most accepted currency in the world, because it is the ideal anchor for stable coins.

There are some stable currency schemes that are anchored with French currency was raised, but they either lack supervision, are not open, transparent, or lack test validation, or have no application scenarios. Because people are skeptical about their solvency and are concerned about their systemic risks.

We need a reliable and stable currency. The Epay dollar we propose in this article combines the credibility of the dollar with the price stability and the technical advantages of the encrypted digital currency.

## 2. Trust

How to establish a viable stable currency is a question of trust and a computer science issue. The Bitcoin system relies on cryptographic proof rather than relying on trust, while the stable currency anchored with the legal currency relies on centralized certification, and therefore requires both cryptographic proof and trust.

In systems that rely on (or partially rely on) trust, the ideal outcome is that they need to be supervised. Regarding the discussion of stable currency, we believe that the issuer must obtain a license and accept supervision. Therefore, transparency and inspection verification become a necessary condition for the system, ensuring its integrity and mobilizing market confidence. Epay has the necessary license to legally issue EUSD.



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### 3.Solvency proof

An ideal situation for stabilizing coins is the integration between the issued certificates and the dollars used to exchange them. The number of issued and circulated certificates can be queried on the blockchain. The more the US dollar corresponding to the stable currency is used to prove the solvency, the Epay Board Audit Committee hires an independent CPA firm to periodically review and certify according to the certification standards established by the Institute of Certified Public Accountants and prove the dollar balance.

### 4.Create, Redeem, Transfer

A simple and elegant creation and redemption mechanism is necessary to increase the usability of the system to encourage more people to use it. We do this by allowing Epay customers to create and redeem EUSD on the Epay platform. EUSD is created when withdrawing from Epay platform. Customers of Epay exchange USD to EUSD at a 1:1 exchange rate. And then withdraw EUSD from Epay accounts to any ETH address they specify. the USD amount will be deducted from their Epay account when customers withdraw EUSD.



EUSD will be redeemed or destroyed when depositing to Epay. It allows customers to deposit EUSD to their Epay account and exchange to USD at a 1:1 exchange rate, with only limited fees. The amount of EUSD will be credited to the dollar balance of Epay account at the time of deposit. EUSD can be transferred on the Ethereum network.



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## 5.Contract specification

The EUSD specification requires that the network must have the ability to decentralize application development (including smart contracts) that can store and transfer value based on certain conditions set by the developer.

The Ethereum network meets the standard and has the technical standard of the certificate called ERC20 standard, which has been widely adopted worldwide. As a result, there are already a large number of software and services that are compatible with the ERC20 token standard and provide access and services to end users. Therefore, we established ERC20 standard EUSD on Ethereum so that EUSD can be transmitted and stored in any Ethereum address and can be checked at any time in all Ethereum blockchain.

## 6.Contract division

As the issuer of EUSD, Epay requires the design and implementation of technology to ensure that we have the ability to upgrade EUSD so that we can:

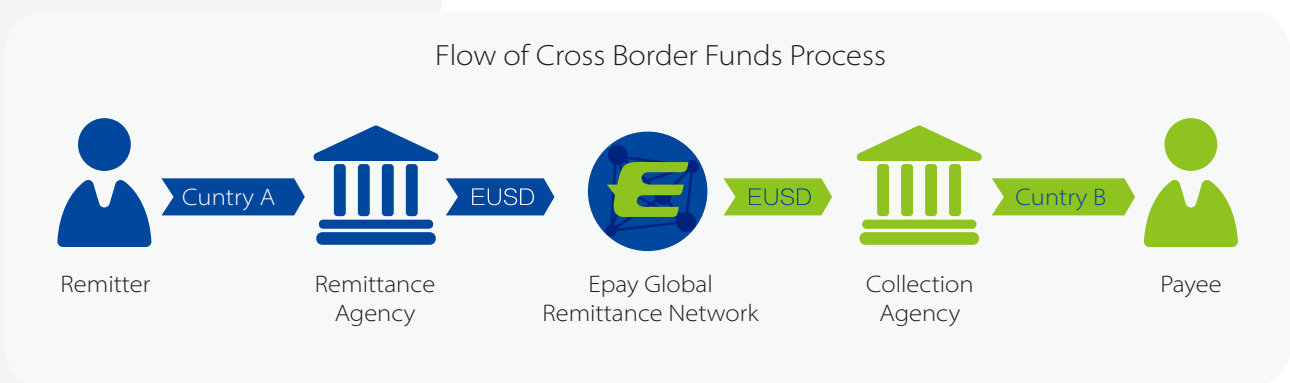
1. Solve security vulnerabilities
2. Expand new features
3. Improve the system and optimize operational efficiency
4. Suspend, block or revoke a transfer in response to a security incident (ie a catastrophic event) or in accordance with the obligations and requirements of other courts and government agencies.



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## 7.Application

Application 1 Trust and transparent transmission mechanism based on blockchain.



Epay Global Remittance Network Participant

1. EUSD is a cryptocurrency issued by Epay using the blockchain technology in the self-built blockchain and 1 to 1 ratio with the US dollar in terms of value.
2. Remitters and payees including overseas students, overseas workers, overseas travelers, etc.
3. Remittance and collection agencies include banks, remittance companies, internet financial platforms and other global financial institutions.

**Why do remittance agencies and users actively participate in the construction of a benign ecosystem of global remittance networks?**

For the user:

The remittance fee is only 10 to 20 US dollars, which can be negligible compared with the original fee of 7% to 10%. And it is faster and more convenient.

For collection and remittance agencies:

Enhance their business volume, bring a large number of orders. Centralized, distributed ledger, open and transparent, non-tamperable features can ensure the authenticity and reliability of the transaction. And ensure that EUSD is open and unforgeable, but also queried.



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Solve the following problems

- *Cross-border e-commerce receipts*
- *Remittance of Overseas Students*
- *Remittance of Overseas Migrant Workers*
- *Exchange of Foreign Exchanges for Overseas Travellers*

Application Scenarios (II)

Digital Asset Trading Platform Trading Digital Currency

Pain Point of Traditional Digital Asset Trading Platform

- *Partnership with banking platforms but no API.*
- *Liaise with these banks to coordinate compliance, security and build trust*
- *Budget Cost of Small Transfer*
- *3-7 days International Telegraphic Remittance Settlement*
- *High Exchange Rate*

With EUSD, exchanges can benefit from the above pain points, such as

- *Accept digital money as a deposit/withdrawal/storage method instead of using traditional banks or payment providers*
- *Allow users to recharge and withdraw to exchanges more freely, quickly and cheaply*
- *For EUSD, the risk of outsourcing statutory currency regulation is just managing passwords.*
- *Easily add other legal currencies to the platform as transaction pairs*
- *Protecting customer assets purely through accepted encryption procedures*
- *Multi-signature security, hot and cold wallet, hierarchical deterministic wallet, etc.*
- *In a purely encrypted environment, auditing is easier and safer*
- *Anything that can be exchanged with Bitcoin can be done with EUSD.*





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## 8.Token issuance

Issuance of additional passes is a high-risk behavior , The number of EUSD issued and circulated must not exceed the bottom dollar balance. We offer a solution, Offline Approval Mechanisms Providing Safety, At the same time, flexible online approval mechanism is provided.

## 9.Contract security

The EUSD system implements the following security functions:

- 1) Offline key: Keys authorized for high-risk operations are stored offline in Epay's proprietary cold storage system.
- 2) Key generation: Key generation, storage and management on hardware security module (HSM). We only use HSM., Every one is a "signer". It has reached FIPS PUB 140-2 Level 3 or higher.
- 3) Dual Control (Multiple Signatures): High-risk behavior requires the approval of at least two signers (i.e. digital signatures). We use M's N signature design, Where  $M = 2$ . This provides security and fault tolerance.
- 4) Time locking: Even after approval, High-risk behavior can also be locked in for a period of time before execution. This provides a grace period to detect, detect and stop potential security incidents.
- 5) Revoke: Undo pending operations, Allow errors or malicious actions to be invalidated before execution.



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## 10. Conclusion

We have come up with a solution to stabilize the currency. Building trust through cryptographic certification and supervision. Our technical design has been implemented on the ETF network. Offline Approval Mechanism for High Risk Operations, And hybrid online-offline approval mechanism for issuance of passes, Provide the required level of security and flexibility. We ensure compliance and security through audits by licensed financial institutions and auditors, and form a trust network. Together, these implementations form EUSD, This is a legally compliant stable currency. And it has inherent application scenarios to solve practical problems.