USBP Cash – Technical, Legal, and Functional Specification

Version: 1.1
Prepared by: Development Team
Date: June 2, 2025

🔹 Executive Summary

USBP Cash (USBP) is an advanced ERC20-based digital currency purpose-built for transactional utility, regulatory transparency, and long-term sustainability. It integrates programmable monetary policy, immutable legal declarations, and robust security features. Designed with compliance in mind, USBP addresses the core challenges of digital asset governance, collateral transparency, and global interoperability.

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1. 📄 Contract Overview

- **Token Name:** USBP Cash
- **Symbol:** USBP
- **Decimals:** 18
- **Initial Total Supply:** 12,000,000,000 USBP (fixed at deployment)
- **Smart Contract Language:** Solidity 0.8.26
- **OpenZeppelin Contracts Used:**
  - ERC20, ERC20Permit, AccessControl, Pausable, ReentrancyGuard
- **Primary Purpose:** Peer-to-peer digital payments
- **Regulatory Status:** Explicitly not a security (via on-chain immutable legal declarations)

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2. ⚖️ Legal Disclaimers (Immutable On-Chain Documentation)

USBP Cash includes immutable on-chain legal statements encoded in the contract. These declarations are **permanently stored**, forming an auditable legal and ethical framework embedded in the token itself.

2.1 Purpose & Economic Framework

USBP Cash is defined as a **peer-to-peer digital currency**:

- Non-minable and supply-fixed
- Uses the **U.S. Dollar as a daily reference**
- Designed under the **United Society Blockchain PAY initiative**
- Classified uniquely as an **Inclusive Coin**, prioritizing global financial participation and ethical currency design

2.2 Non-Security Declaration

The contract includes a **legal disclaimer** stating USBP:

- Is purely **transactional**
- Does **not** promise or imply **profit sharing or appreciation**
- Fails the **Howey Test** criteria for classification as a security
- Is **not an investment vehicle**

2.3 Transparent Dollar Reference Model

- USBP is **not backed by collateralized assets**
- Its valuation is **exclusively pegged to the U.S. Dollar**
- The model avoids the complexity and opacity of algorithmic or reserve-based stablecoins

2.4 U.S. Citizen Bonus Incentive

To balance the effects of USD as a reference currency:

- U.S. citizens receive **2x USBP allocation** upon purchase
- This is a transparent, on-chain economic policy for jurisdictional fairness

2.5 Exclusive Dollar Reference Classification

- USBP defines a new class: **Exclusive Dollar Reference Token**
- It clearly separates itself from traditional stablecoins or synthetic assets
- Designed for **transparency, accountability, and ethical valuation**

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3. 🔧 Smart Contract Architecture

3.1 Inherited OpenZeppelin Modules

- **ERC20** – Standard token interface
- **ERC20Permit (EIP-2612)** – Gasless approvals via signatures
- **AccessControl** – Role-based privilege system
- **Pausable** – Emergency transfer lockdown
- **ReentrancyGuard** – Protection against nested call attacks

3.2 Key State Variables

Parameter	Description
Initial Supply	12 billion USBP minted at deployment
Fee Receiver Wallet	Destination for collected transfer fees
Default Fee Rate	1% (adjustable by admin, capped at 10%)
Max Transfer Limit	1 million USBP per transaction (adjustable)
Blacklist	Prevents malicious or restricted addresses from sending/receiving
Legal Strings	Immutable declarations: purpose, USD peg, legal status, bonus policy

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4. 🔬 Functional Overview

4.1 Transfer Logic & Fee Application

- A **1% fee** is applied on every transfer() and transferFrom() call
- Exemptions: transfers involving minting, burning, or the team wallet
- Fee = amount * teamRate / 10000, sent directly to the team wallet
- Transfers revert if:
    - The sender or recipient is blacklisted
    - Transfer exceeds maxTransferAmount
    - Contract is paused

4.2 Time-Based Minting Mechanism

Updated Schedule:

Phase	Year(s)	Minting Policy
Phase 1	**2027**	One-time authorized minting
Phase 2	**2030–2085**	Controlled minting every 5 years
Phase 3	**Post-2085**	Minting permanently disabled

- Minting is **only allowed for addresses with ADMIN_ROLE**
- Calls to mint() check the current block timestamp and calculate eligible mint years
- Enforced via getTimeAdjustedMaxSupply() which uses block-based year calculations

4.3 Governance & Controls

Feature	Description
Role Management	Grant or revoke admin privileges
Blacklist Management	Add or remove addresses from transfer blacklist
Fee Adjustment	Change team wallet or fee rate (max 10%)
Emergency Pause	Temporarily disables all transfers and approvals
Audit Events	Minting, blacklisting, and admin changes emit traceable on-chain events

4.4 Gasless Approvals – EIP-2612

- Supports off-chain signature approvals
- Eliminates need for users to spend ETH for approve()
- Uses **block numbers for deadline control** (not timestamps)
- Includes **nonces** to prevent replay attacks

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5. 🛡️ Security Architecture

Component	Purpose
ReentrancyGuard	Prevents recursive call exploits (e.g., flash loan attacks)

Component	Purpose
Pausable	Allows admin to freeze activity during emergencies
AccessControl	Restricts minting, fee config, and sensitive changes
Max Transfer Limits	Helps reduce market manipulation and bot-based exploits
Permit Expiry	Uses block-based permit expiration for time-safety

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6. 🔁 Business Logic Flow

6.1 Transfer Flow Summary

- Fee logic enforced
- Blacklist and max transfer checks applied
- If all checks pass, net tokens transferred, fee routed to wallet

6.2 Minting Flow Summary

- Minting available only in valid years (2027, 2030, 2035, etc.)
- Only ADMIN_ROLE may initiate
- Uses historical block timestamps to determine eligibility
- Emits MintExecuted with timestamp and year

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7. ✅ Key Takeaways for Stakeholders

- **Immutable Legal Layer**: On-chain legal declarations for regulatory clarity
- **Transparent Monetary Policy**: Predictable supply increase windows (5-year intervals)
- **Sustainable Fee Model**: 1% default, adjustable, capped at 10%
- **Stable Value Basis**: Dollar-referenced, without opaque or speculative backing
- **Strong Governance**: Role-based access, blacklisting, and emergency controls
- **Gas Optimization**: Meta-transactions supported via EIP-2612 permits

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8. 🚀 Next Steps

Task	Responsibility	Timeline
Contract Deployment (Mainnet)	DevOps Team	Q2 2025
Etherscan Verification	Solidity Engineers	Immediately
Legal & Regulatory Briefing	Legal Counsel	Pre-launch
Public Disclosure of Minting Plan	Comms Team	Pre-2027
Treasury Operations Policy	Governance Lead	Post-launch

📬 Contact & Project Links

- 🌐 Website: www.usbp.cash
- 📧 Email: hi@usbp.cash
- 📁 GitHub Repository: Coming Soon