

# Pasifika Token (PASI) Whitepaper

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## Abstract

Pasifika Token (PASI) is a blockchain-based ERC-20 token designed to emancipate remittances for Pacific Islander communities and our global diaspora communities. By leveraging the Pasifika Data Chain i.e. our purpose built Proof-of-Authority (PoA) blockchain and a mirrored deployment on Arbitrum One, PASI reduces remittance costs from the traditional 5-15% to just 0.5%, while enabling near instant transfers across borders and global DEX accessibility.

This whitepaper presents the technical architecture, tokenomics, governance model, and security framework of the Pasifika Token ecosystem, which has successfully completed a comprehensive security audit with all critical findings addressed.

## 1. Introduction

### 1.1 Vision

To create a financially inclusive ecosystem that empowers Pacific Islander communities worldwide by providing low cost, fast, and secure cross border value transfer while preserving community governance and cultural values.

### 1.2 Mission

Pasifika Token aims to:

- **Reduce remittance costs** by 90%+ compared to traditional services
- **Enable financial inclusion** for unbanked Pacific Islanders
- **Empower community governance** through validator organizations
- **Bridge the diaspora** across the US, New Zealand, Australia, and Pacific Islands

### 1.3 Background

Pacific Islanders represent one of the most remittance dependent populations globally. Countries like Tonga, Samoa, and Fiji rely on remittances for 20-40% of their GDP. Yet, these communities face some of the highest remittance fees in the world, with traditional services charging 5-15% per transfer.

## 2. Problem Statement

### 2.1 The Remittance Crisis

Challenge	Impact
<b>High Fees</b>	5-15% lost to Western Union, MoneyGram, bank wires
<b>Slow Transfers</b>	1-7 days for funds to arrive
<b>Limited Access</b>	Rural Pacific islands lack banking infrastructure
<b>Currency Conversion</b>	Hidden fees in exchange rates
<b>Banking Requirements</b>	Many Pacific Islanders lack bank accounts

### 2.2 Economic Impact

For a family sending \$500 monthly:

- **Traditional services:** 300-900/year lost\*\*
- **With Pasifika Token:** 30/year\*\*
- **Annual savings: \$270-870 per family**

At scale, this represents millions of dollars retained within Pacific communities rather than extracted by intermediaries.

### 2.3 Affected Communities

- **1.5+ million** Pacific Islanders in the US, NZ, and Australia
- **Families in Tonga, Samoa, Fiji, and other Pacific nations** dependent on remittances
- **Small businesses** serving Pacific communities
- **Community organizations** facilitating mutual aid

## 3. Solution Overview

### 3.1 Pasifika Token (PASI)

PASI is an ERC-20 compliant token deployed on the Pasifika Data Chain and mirrored on Arbitrum One, purpose-built for:

Feature	Benefit
<b>0.5% Transaction Fee</b>	90%+ savings vs traditional remittances
<b>&lt; 5 Minute Transfers</b>	Near instant settlement on both chains
<b>Mobile First Design</b>	No bank account required
<b>Community Governance</b>	Validators are trusted Pacific organizations
<b>Corridor Tracking</b>	Transparent remittance analytics
<b>Public Liquidity</b>	PASI/USDC Uniswap v2 pool on Arbitrum enables open-market price discovery

### 3.2 Pasifika Data Chain

A Proof-of-Authority (PoA) blockchain optimized for Pacific community use:

- **Chain ID:** 999888
- **Consensus:** Clique PoA
- **Block Time:** ~5 seconds

- **Gas Fees:** Zero (subsidized by validators)
- **RPC Endpoint:** <https://rpc.pasifika.xyz>

### 3.3 Arbitrum One Deployment

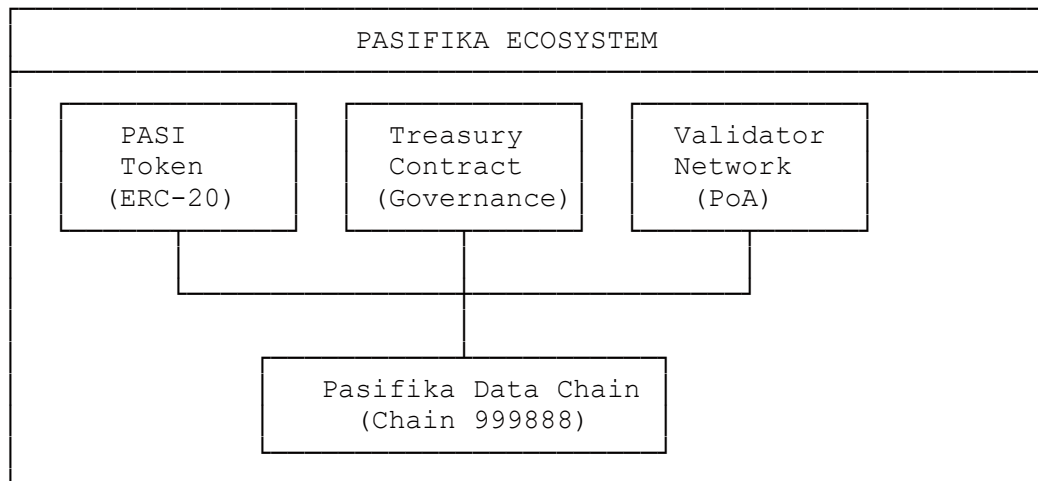
To provide public DEX liquidity, institutional integrations, and transparent price discovery, PASI is also deployed on Arbitrum One:

- **Chain ID:** 42161
- **Token Address:** 0xf5dd879f1d6249D651E326777585449E45A5E418
- **Treasury Address:** 0xd9588c83a4C42c4630694765f11A1fB012a60aCc
- **Verification:** Both contracts verified via Sourcify
- **DEX Liquidity:** PASI/USDC Uniswap v2 pool live with inaugural liquidity at \$0.05/PASI (20 PASI = 1 USDC)

### 3.4 Public Deployment Status (January 2026)

Component	Status
PasifikaToken.sol	✅ Deployed on Pasifika Data Chain + Arbitrum One
PasifikaTreasury.sol	✅ Active on Arbitrum and linked to token
Sourcify Verification	✅ Token & Treasury verified
Arbiscan Metadata	🔄 Logo + description submission in progress
Liquidity	✅ PASI/USDC Uniswap v2 (Arbitrum)
Community Chain	✅ Zero-gas transfers via Pasifika Data Chain validators

### 3.3 Core Components



## 4. Technical Architecture

### 4.1 Smart Contracts

*PasifikaToken.sol*

The core ERC-20 token contract with remittance specific features and dual-network support:

```
// Key Functions
function sendRemittance(address to, uint256 amount, string calldata
corridor) external;
function batchTransfer(address[] calldata recipients, uint256[] calldata
amounts) external;
function calculateFee(uint256 amount) public view returns (uint256);
```

#### Features:

- Standard ERC-20 transfers and approvals
- Remittance corridor tracking (e.g., "US-TONGA", "NZ-SAMOA")
- Batch transfers for community distributions (up to 100 recipients)
- Configurable fee mechanism (default 0.5%, max 5%)
- Pausable for emergency response
- Burnable for supply management

*PasifikaTreasury.sol*

Governance contract for fee distribution:

```
// Key Functions
function proposeDistribution(address recipient, uint256 amount, string
calldata description) external;
function vote(uint256 proposalId, bool support) external;
function executeDistribution(uint256 proposalId) external;
```

#### Features:

- Collects fees from remittances
- Validator voting on distributions
- Quorum based governance (51% default)
- 3-day voting period
- Reentrancy protection

## 4.2 Cross-Chain Architecture

PASI uses a dual-deployment model:

1. **Pasifika Data Chain** - Primary environment for validator-governed remittances, zero-gas transfers, and corridor analytics.
2. **Arbitrum One** - Public network for liquidity, integrations, and on/off ramps. Treasury linkage mirrors on-chain fee collection, and the same admin wallet governs both deployments.

A future bridge module is planned to allow seamless migration of liquidity/minted supply between chains while respecting the MAX\_SUPPLY constraint.

## 4.3 Role Based Access Control

Role	Permissions	Holders
DEFAULT_ADMIN_ROLE	Full administrative control	Multi-sig wallet
MINTER_ROLE	Mint tokens up to max supply	Authorized validators
PAUSER_ROLE	Emergency pause/unpause	Security committee

Role	Permissions	Holders
VALIDATOR_ROLE	Vote on treasury distributions	Community organizations

#### 4.3 Security Features

- **ReentrancyGuard:** Protects treasury distributions
- **Custom Errors:** Gas efficient error handling
- **Execution Time Checks:** Balance verification at distribution execution
- **Validator Count Snapshots:** Prevents quorum manipulation
- **Pausable:** Emergency stop functionality

### 5. Tokenomics

#### 5.1 Token Specifications

Property	Value
<b>Name</b>	Pasifika Token
<b>Symbol</b>	PASI
<b>Decimals</b>	18
<b>Max Supply</b>	1,000,000,000 (1 billion)
<b>Initial Supply</b>	100,000,000 (100 million)
<b>Standard</b>	ERC-20

#### 5.2 Token Distribution & Deployment Addresses

INITIAL DISTRIBUTION (100M)		
Community Reserve	40%	40,000,000
Liquidity Pool	25%	25,000,000
Development Fund	15%	15,000,000
Validator Incentives	10%	10,000,000
Team & Advisors	10%	10,000,000

#### 5.3 Fee Structure

Transaction Type	Fee	Recipient
Standard Transfer	0%	N/A
Remittance	0.5%	Treasury
Maximum Fee Cap	5%	Treasury

#### 5.4 Treasury Allocation

Fees collected in the Treasury are distributed via validator governance:

- **Validator Operations:** Infrastructure and maintenance
- **Community Development:** Grants and education
- **Emergency Reserve:** Security and stability fund
- **Ecosystem Growth:** Merchant onboarding, partnerships

#### 5.5 Supply Mechanics & Public Liquidity

- **Minting:** Controlled by MINTER\_ROLE, capped at MAX\_SUPPLY

- **Burning:** Any holder can burn their tokens
- **No Inflation:** Fixed maximum supply of 1 billion tokens
- **Liquidity Launch:** First PASI/USDC pool seeded on Uniswap v2 (Arbitrum) to support remittance corridors
- **Price Discovery:** Initial reference price set to 20 PASI = 1 USDC (\$0.05), adjustable as market matures

## 6. Governance

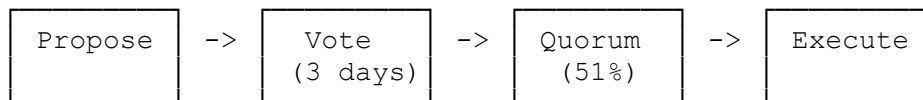
### 6.1 Governance Model

Pasifika Token employs a **Validator Based Governance** model where trusted community organizations serve as validators with voting rights.

### 6.2 Validator Selection Criteria

Criterion	Requirement
<b>Community Standing</b>	Established Pacific community organization
<b>Geographic Diversity</b>	Representation across Pacific regions
<b>Technical Capacity</b>	Ability to run validator infrastructure
<b>Transparency</b>	Public accountability and reporting
<b>Commitment</b>	Long term dedication to community benefit

### 6.3 Proposal Process



1. **Proposal:** Any validator can propose treasury distributions
2. **Voting:** 3-day voting period for validators
3. **Quorum:** 51% of validators must participate
4. **Execution:** Anyone can execute approved proposals after voting ends



### 6.4 Governance Parameters



Parameter	Default	Range
Voting Period	3 days	1-30 days
Quorum Percent	51%	1-100%
Fee Basis Points	50 (0.5%)	0-500 (0-5%)

## 7. Security

### 7.1 Audit Status

 **Security Audit Completed:** January 13, 2026

Severity	Found	Fixed
Critical	0	-
High	2	 2
Medium	3	 2

Severity	Found	Fixed
Low	4	 4
Informational	5	 4

**Audit Report:** Available in project repository

## 7.2 Key Security Measures

Finding	Mitigation
<b>[H-01] Treasury Race Condition</b>	Balance check at execution time
<b>[H-02] Reentrancy Risk</b>	OpenZeppelin ReentrancyGuard
<b>[M-02] Quorum Manipulation</b>	Validator count stored at proposal creation
<b>[L-01] Zero Address Check</b>	Constructor validation
<b>[I-05] Gas Optimization</b>	Custom errors replace require strings

## 7.3 Security Infrastructure

- **Smart Contract Audits:** Third party security review
- **Multi Signature Wallets:** Admin functions require multiple signatures
- **Pausable Contracts:** Emergency stop capability
- **Upgradability:** Transparent upgrade process for critical fixes
- **Bug Bounty:** Planned program for responsible disclosure

## 7.4 Test Coverage

- **38 Unit Tests:** Comprehensive test suite
- **Fuzz Testing:** Property based testing for edge cases
- **Integration Tests:** End-to-end scenario testing

## 8. Use Cases

### 8.1 Primary: Cross Border Remittances

**Scenario:** Maria in California sends money to her family in Tonga

Step	Traditional	Pasifika Token
1	Visit Western Union	Open mobile wallet
2	Pay \$100 + \$10 fee	Send \$100 (0.5% fee) via Pasifika Data Chain
3	Wait 2-3 days	Instant settlement; optional swap on Arbitrum for USDC
4	Family receives ~\$85	Family receives ~\$99.50
<b>Total Cost</b>	<b>\$15+ (15%)</b>	<b>\$0.50 (0.5%)</b>

### 8.2 Supported Corridors

*Pacific Region*

Corridor	Route
US-TONGA	United States → Tonga
US-SAMOA	United States → Samoa
NZ-TONGA	New Zealand → Tonga

Corridor	Route
NZ-SAMOA	New Zealand → Samoa
AU-FIJI	Australia → Fiji

*Global Corridors*

Region	Examples
Europe	EU-TONGA, UK-FIJI
Asia	JP-TONGA, SG-SAMOA
Middle East	AE-TONGA, QA-SAMOA
Africa	ZA-TONGA, KE-SAMOA

### 8.3 Secondary Use Cases

- **Community Commerce:** Pacific owned businesses accept PASI
- **Mutual Aid:** Community lending circles and emergency funds
- **Batch Distributions:** Community organizations distribute funds efficiently
- **Event Payments:** Cultural events, church donations, community fees

## 9. Roadmap

### Phase 1: Foundation (Completed)

- ☒ Smart contract development
- ☒ Security audit and remediation
- ☒ Pasifika Data Chain deployment
- ☒ Arbitrum One deployment + Uniswap liquidity
- ☒ Core documentation

### Phase 2: Pilot (Q1-Q2 2026)

- ☐ Mobile wallet MVP launch
- ☐ Onboard 3-5 validator organizations
- ☐ 100-500 beta users in US-Tonga corridor
- ☐ Establish first cash on/off ramps
- ☐ Finalize Arbiscan metadata + explorer integrations

### Phase 3: Expansion (Q3-Q4 2026)

- ☐ Scale to 5,000+ active users
- ☐ Multi-corridor support (NZ, AU)
- ☐ Merchant onboarding program
- ☐ Advanced governance features
- ☐ Automated bridge between Pasifika Data Chain and Arbitrum

### Phase 4: Ecosystem (2027+)

- ☐ 50,000+ active users
- ☐ Full Pacific region coverage
- ☐ DeFi integrations (lending, savings)
- ☐ Cross-chain bridges + L2 remittance rails



## 10. Team & Community

### 10.1 Core Team

**Edwin Liava'a** – Founder & Lead Developer

- Pacific Islander advocate
- Blockchain security researcher
- Contact: edwin@pasifika.xyz

### 10.2 Advisory Board

- Pacific community leaders
- Blockchain technology advisors
- Financial inclusion experts
- Legal and compliance counsel

### 10.3 Validator Organizations

Initial validators will be selected from:

- Pacific community centers
- Cultural organizations
- Pacific churches and faith communities
- Educational institutions
- Pacific business associations

### 10.4 Community Engagement

- **Website:** <https://pasifika.xyz>
- **GitHub:** Open source development
- **Community Forums:** Governance discussions
- **Educational Programs:** Blockchain literacy for Pacific communities

## 11. Legal Considerations

### 11.1 Regulatory Approach

Pasifika Token is committed to regulatory compliance across all operating jurisdictions:

Jurisdiction	Considerations
<b>United States</b>	FinCEN guidance, state MSB licenses
<b>New Zealand</b>	FMA oversight, AML requirements
<b>Australia</b>	AUSTRAC registration, AML/CTF
<b>Pacific Islands</b>	Local central bank coordination

### 11.2 Compliance Framework

- **KYC/AML:** Risk appropriate identity verification
- **Transaction Monitoring:** Suspicious activity detection
- **Reporting:** Regulatory reporting requirements
- **Record Keeping:** Transparent transaction history

### 11.3 Token Classification

PASI is designed as a **utility token** for remittance services, not as a security or investment vehicle. Legal counsel has been engaged to ensure compliance with applicable regulations.

## 12. Conclusion

Pasifika Token represents a transformative opportunity to leverage blockchain technology for tangible community benefit. By focusing on the specific needs of Pacific Islander communities, PASI addresses a real problem with measurable impact:

### Key Strengths

- **90%+ cost reduction** in remittance fees
- **Community governed** by trusted Pacific organizations
- **Security audited** with all critical issues addressed
- **Purpose built blockchain** optimized for community use
- **Culturally aligned** with Pacific values of community and mutual support

### The Path Forward

Success requires balancing technological capability with community needs, legal requirements with innovation, and ambition with pragmatic execution. We start small, prove value, build trust, then scale.

Together, we can transform how Pacific communities move value across borders—keeping more money within our communities and strengthening connections across the Pacific diaspora.

### Contact:

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**GitHub:** <https://github.com/Pasifika-Web3-Tech-Hub/pasifika-token>