

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
High Fees	5-15% lost to Western Union, MoneyGram, bank wires
Slow Transfers	1-7 days for funds to arrive
Limited Access	Rural Pacific islands lack banking infrastructure
Currency Conversion	Hidden fees in exchange rates
Banking Requirements	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
0.5% Transaction Fee	90%+ savings vs traditional remittances
< 5 Minute Transfers	Near instant settlement on both chains
Mobile First Design	No bank account required
Community Governance	Validators are trusted Pacific organizations
Corridor Tracking	Transparent remittance analytics
Public Liquidity	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

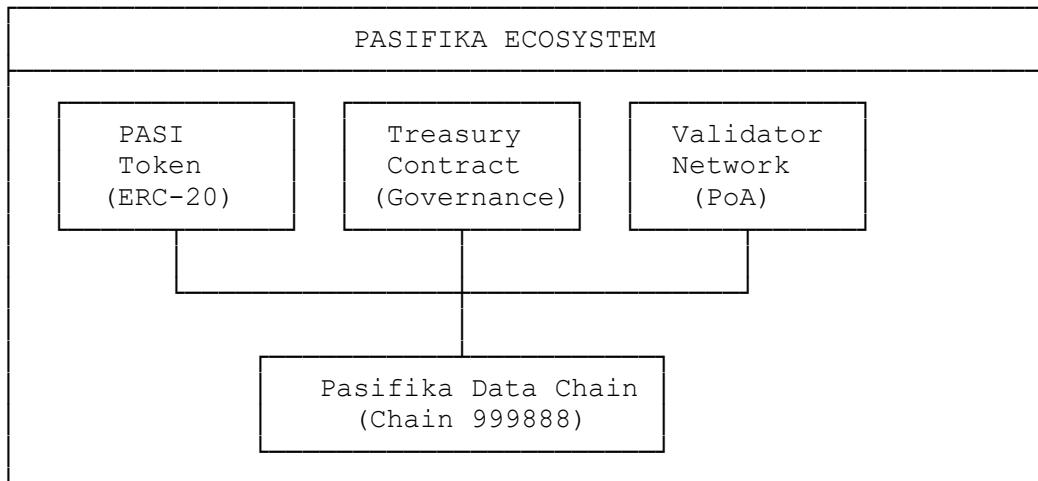
To provide public DEX liquidity, institutional integrations, and transparent price discovery, PASI is also deployed on Arbitrum One:

- **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	<input checked="" type="checkbox"/> Deployed on Pasifika Data Chain + Arbitrum One
PasifikaTreasury.sol	<input checked="" type="checkbox"/> Active on Arbitrum and linked to token
Sourcify Verification	<input checked="" type="checkbox"/> Token & Treasury verified
Arbiscan Metadata	<input type="checkbox"/> Logo + description submission in progress
Liquidity	<input checked="" type="checkbox"/> PASI/USDC Uniswap v2 (Arbitrum)
Community Chain	<input checked="" type="checkbox"/> 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
Name	Pasifika Token
Symbol	PASI
Decimals	18
Max Supply	1,000,000,000 (1 billion)
Initial Supply	100,000,000 (100 million)
Standard	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
Community Standing	Established Pacific community organization
Geographic Diversity	Representation across Pacific regions
Technical Capacity	Ability to run validator infrastructure
Transparency	Public accountability and reporting
Commitment	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	<input checked="" type="checkbox"/> 2
Medium	3	<input checked="" type="checkbox"/> 2

Severity	Found	Fixed
Low	4	<input checked="" type="checkbox"/> 4
Informational	5	<input checked="" type="checkbox"/> 4

Audit Report: Available in project repository

7.2 Key Security Measures

Finding	Mitigation
[H-01] Treasury Race Condition	Balance check at execution time
[H-02] Reentrancy Risk	OpenZeppelin ReentrancyGuard
[M-02] Quorum Manipulation	Validator count stored at proposal creation
[L-01] Zero Address Check	Constructor validation
[I-05] Gas Optimization	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
Total Cost	\$15+ (15%)	\$0.50 (0.5%)

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
United States	FinCEN guidance, state MSB licenses
New Zealand	FMA oversight, AML requirements
Australia	AUSTRAC registration, AML/CTF
Pacific Islands	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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Email: edwin@pasifika.xyz

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